



**DeKalb County
Department of Purchasing and Contracting**

Maloof Administration Building, 1300 Commerce Drive, 2nd Floor, Decatur, Georgia 30030

February 11, 2019

INVITATION TO BID (ITB) NO. 19-101072

FOR

**ROAD WIDENING, SIDEWALKS, BIKE LANES
(ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD) –
PI# 0008121 / 0012789**

DeKALB COUNTY, GEORGIA

Procurement Agent:	Jennifer Schofield
Phone:	404.687.4042
Email:	jjchofield@dekalbcountyga.gov
Pre-Bid Conference: (NON-MANDATORY)	February 26, 2019, 3:00 PM, Maloof Administration Building, 1300 Commerce Drive, 2 nd Floor, Decatur GA 30030
Deadline for Submission of Questions:	5:00 P.M. ET, March 4, 2019
Bid Opening:	<u>3:00 P.M. ET, March 18, 2019</u>
Price Schedule Opening:	3 – 5 Business days after Bid Opening

THE RESPONSIBILITY FOR SUBMITTING A RESPONSE TO THIS BID TO THE DEPARTMENT OF PURCHASING AND CONTRACTING OF DEKALB COUNTY GOVERNMENT ON OR BEFORE THE STATED DATE AND TIME WILL BE SOLELY AND STRICTLY THE RESPONSIBILITY OF THE BIDDER.

Finalized: 1/31/2019

ACKNOWLEDGEMENT OF BIDDER

I _____ have had the opportunity to review and have reviewed this Bid Document Package dated _____, 20__ in its entirety and I agree that it is accurate and complete. I _____ am duly and properly in office and I am fully authorized and empowered to execute this Acknowledgement for and on behalf of the Contractor.

By: _____(SEAL)
Signature

Name (Typed or Printed)

Title

Name of Business

Federal Tax I.D. Number

ATTEST:

Signature

Name (Typed or Printed)

Title

ADVERTISEMENT FOR BIDS

DEKALB COUNTY, GEORGIA

INVITATION NUMBER 19-101072

Sealed Bids will be received by DeKalb County, Georgia, in the Department of Purchasing and Contracting, The Maloof Center, 2nd Floor, 1300 Commerce Drive, Decatur, Georgia 30030, until **3:00 p.m. on March 18, 2019**, at which time and place they will be publicly opened and read aloud, for furnishing all labor, materials, equipment, and all things necessary pursuant to Drawings, Specifications, conditions, etc., for **ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD)** (“the Project”). Bid Price Form shall be opened and read aloud 3 to 5 business days after Bid Opening.

Projects PI# 0008121 and PI# 0012789 CR 7938/Rockbridge Road from Allgood Road to Rowland Road in Pine Lake, GA is approximately 0.3 miles long. The work consists of widening the road on the south side to add a two way center turn lane and on-road bike lanes. A 6-foot wide sidewalk and new curb and gutter are being added on the south side of the road. All work is to be completed within 540 calendar days.

GEORGIA DEPARTMENT OF TRANSPORTATION (GDOT) INFORMATION

Georgia Department of Transportation Standard Specifications, 2013 Edition, and applicable GDOT Supplemental Specifications Book, 2016 Edition and Special Provisions apply to this project. The applicable GDOT special provisions and any additional specifications for those items not included in the GDOT Specifications are to be included in the bid document. The Disadvantage Business Enterprise (DBE) goal for **PI# 0008121** is fourteen (14%) and the DBE goal for **PI# 0012789** is fourteen percent (14%) The Bidder qualifications are as follows:

- All Bidders submitting bids in excess of \$2,000,000.00 shall be pre-qualified with the Georgia Department of Transportation (GDOT).
- All Bidders submitting bids \$2,000,000.00 or less shall be registered subcontractors or pre-qualified with the (GDOT).
- Subcontractors shall be pre-qualified or registered with the GDOT.

- The contractor shall use suppliers on the appropriate GDOT Qualified Products List
- All testing is to meet the requirements outlined in the GDOT Sampling, Testing, and Inspection Guide
- Performance and payment bonds as described in GDOT Specification 103.05 will be required.

The applicable GDOT specifications govern over any conflicting requirements that may be found in the Agreement, Supplemental General Provisions, and General Conditions

A bid bond of not less than 10% is required for this project. Each bid **must** be accompanied by a Bid Guarantee in an amount of not less than ten percent (10%) of the amount of the Bid.

DAVIS BACON WAGES ACT

The applicable wage rate determination posted on the Davis Bacon web site of the U.S. Department of Labor, <http://www.wdol.gov/dba.aspx> applies to this project. GDOT has determined the minimum wage of \$10.60 applies to this project.

SUBMIT ONE ORIGINAL BID PACKAGE (INCLUSIVE OF THE ENTIRE INVITATION TO BID DOCUMENT AND REQUIRED DOCUMENTS WITH THE EXCEPTION OF THE BID PRICE AND BID BOND (PAGES 22-30) STAMPED “ORIGINAL” AND TWO SEALED IDENTICAL COPIES STAMPED “COPY” OF THE BID PACKAGE TO THE ADDRESS LISTED ABOVE.

DeKalb County in accordance with Title VI of the Civil Rights Act of 1964 and 78 Stat. 252, 42 USC 2000d-42 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, part 21, Nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award.

Contract Documents, Drawings, and Specifications for this Work are on file and open for inspection at the Department of Purchasing and Contracting, The Maloof Center, 2nd Floor, 1300 Commerce Drive, Decatur, Georgia 30030. A complete set of documents may be obtained from the County's website at the following link: http://www.dekalbcountyga.gov/purchasing/pc_formal_solicitation_current_bids.html.

PRE-BID CONFERENCE

A pre-bid conference will be held at 3:00 PM. on February 26, 2019 at Maloof Administration Building, 1300 Commerce Drive, Decatur GA 30030, Purchasing and Contracting, 2nd Floor, Main Conference room. Bidders are strongly **encouraged** to attend and participate in the pre-bid conference and site visit. For information regarding the pre-bid conference, please contact Jennifer Schofield, Procurement Agent at 404.687.4042 or jjshofield@dekalbcountyga.gov.

QUESTIONS

All questions concerning the Project and requests for interpretation of the solicitation may be asked and answered at the pre-bid conference; however, oral answers are not authoritative. Questions must be submitted to the Department of Purchasing and Contracting in writing via email to jjshofield@dekalbcountyga.gov. Questions and requests for information or clarification concerning the specifications in this ITB must be submitted to the above listed contact person via email no later than close of business (**5:00 PM EST**) on **March 4, 2019**. Questions and requests for interpretation received after the above stated time or sent to anyone other than the listed contact person will not receive a response or be the subject of addenda.

LOCAL SMALL BUSINESS ENTERPRISE (LSBE)

All potential bidders are hereby advised that the County's LOCAL SMALL BUSINESS ENTERPRISE (LSBE) requirements are suspended for this project. In order for a bid to be considered, it is mandatory that the State of Georgia **DBE Goals/Requirements** be completed and submitted with the bidder's bid.

FIRST SOURCE JOBS ORDINANCE – NOTICE TO POTENTIAL BIDDERS

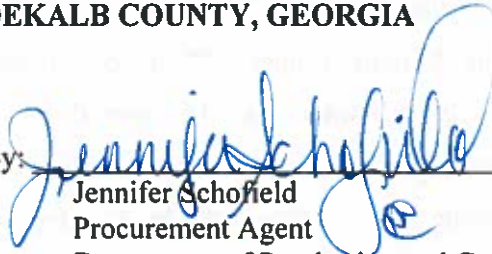
All potential bidders are hereby advised that the County's FIRST SOURCE JOBS ORDINANCE requirements are suspended for this project. All efforts in these areas by potential bidders will be considered.

No Bid may be revoked or withdrawn until one hundred twenty (120) days after the time set for opening the Bids.

THE COUNTY RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS, TO WAIVE INFORMALITIES IN BIDDING, AND TO READVERTISE.

This 11th day of February 2019.

DEKALB COUNTY, GEORGIA

By: 
Jennifer Schofield
Procurement Agent
Department of Purchasing and Contracting

INSTRUCTIONS TO BIDDERS

GENERAL

Sealed Bids will be received by DeKalb County, Georgia, in the Department of Purchasing and Contracting, The Maloof Center, 2nd Floor, 1300 Commerce Drive, Decatur, Georgia 30030, until 3:00 p.m. on March 18, 2019, for ITB No. 19-101072 according to the Drawings and Specifications entitled **ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD)** on file in the Public Works Transportation Office, 1960 West Exchange Place, Tucker, GA and the Department of Purchasing and Contracting, The Maloof Center, 2nd Floor, 1300 Commerce Drive, Decatur, Georgia 30030. Bid Price Forms shall be opened and read aloud 3 to 5 business days after Bid Opening Date. Sealed Bids shall be submitted on the form furnished by the County and shall be submitted in **triplicate**, designated as original or copy. **SUBMIT ONE ORIGINAL BID PACKAGE (INCLUSIVE OF THE ENTIRE INVITATION TO BID DOCUMENT AND REQUIRED DOCUMENTS WITH THE EXCEPTION OF THE BID PRICE AND BID BOND PAGES 22-30) STAMPED “ORIGINAL” AND TWO SEALED IDENTICAL COPIES STAMPED “COPY” OF THE BID PACKAGE TO THE ADDRESS LISTED ABOVE.**

Complete Specifications, Drawings and Bid forms may be obtained from the http://www.dekalbcountyga.gov/purchasing/pc_formal_solicitation_current_bids.html.

Bids will be considered only from experienced and well-equipped contractors. Prior to beginning construction, the successful Bidder will file with the County, a Performance Bond equals to 100% of the Contract Price and a Payment Bond equals to 110% of the Contract Price, with the terms and surety to be approved by the County; and furnish satisfactory proof of carriage of the insurance required

SUBMITTING BIDS

Bids are to be submitted on the proper unaltered forms, and shall be addressed to the DeKalb County Department of Purchasing and Contracting, The Maloof Center, 2nd Floor, 1300 Commerce Drive, Decatur, Georgia 30030, sealed, dated and enclosed in an

envelope or package appropriately marked on the outside with the name of the Bidder, the date and hour of opening, and the Invitation to Bid Number and Project Name.

FAILURE TO SUBMIT THE BID PRICE FORM AND BID BOND PAGES 22-30 IN A SEPARATE SEALED ENVELOPE SHALL DEEM THE BID NON-RESPONSIVE. INCLUDING THE PRICE SCHEDULE IN ANY AREA OUTSIDE OF ITS SEPARATE, SEALED ENVELOPE WILL RESULT IN BIDDER'S BID BEING DEEMED NON-RESPONSIVE.

It is the responsibility of each Bidder to ensure that its submission is received by 3:00 p.m. on the bid due date. The time/date stamp clock located in the Department of Purchasing & Contracting shall serve as the official authority to determine lateness of any bid. The bid opening time shall be strictly observed. Be aware that visitors to our offices will go through a security screening process upon entering the building. Bidders should plan enough time to ensure that they will be able to deliver their submission prior to our deadline. Late submissions, for whatever reason, will not be evaluated. Bidders should plan their deliveries accordingly. Telephone or fax bids will not be accepted.

PRICE SCHEDULE OPENING

Price Schedule openings shall be conducted in the Department of Purchasing and Contracting three (3) to five (5) days after the bid opening. Only the Price Schedules of responsive bidders shall be opened. The County reserves the right to decide which bid(s) will be deemed responsive and said determination shall be made in accordance with the requirements stated in this solicitation.

BUSINESS LICENSE

Bidders shall submit a copy of its current, valid business license with its Bid. If the Bidder is a Georgia corporation, Bidder shall submit a valid county or city business license. If Bidder is a joint venture, Bidder shall submit valid business licenses for each member of the joint venture. If the Bidder is not a Georgia corporation, Bidder shall submit a certificate of authority to transact business in the state of Georgia and a

copy of its current, valid business license issued by its home jurisdiction. If Bidder holds a professional license, then Bidder shall submit a copy of the valid professional license. Failure to provide the business license, certificate of authority, or professional license required by this section, may result in the proposed Bid being deemed non-responsive.

UTILITY SYSTEMS CONTRACTOR'S LICENSE

As required by O.C.G.A. § 43-14-8, *et seq.*, a Bidder responding to this Invitation to Bid must provide a copy of its or its subcontractor's Georgia Utility Systems Contractor's License, Utility Manager's Certificate, and Utility Foreman's Certificate with its Bid. All licenses and certificates must be issued in the name of the person or entity that will perform the utility work. If a subcontractor's Georgia Utility Systems Contractor's License is submitted with the Bid, the subcontractor must be listed as such on appropriate Bidder's Lump Sum Price Form Bidder's Unit Price Form. All licenses and certificates must be current, valid, and issued in compliance with applicable law. Failure to provide this license and necessary certificates in this format will result in the proposed Bid being deemed non-responsive.

GENERAL CONTRACTOR'S LICENSE NUMBER

As required by O.C.G.A. § 43-41-6, *et seq.*, a Bidder responding to this Invitation to Bid must provide a copy of its Georgia General Contractor's License with its Bid. The Georgia General Contractor's License must be issued in the name of the Bidder or in the name of its qualifying agent. If a proposed Bidder is relying upon a qualifying agent's Georgia General Contractor's License, then the name of the proposed Bidder must be set forth on the license as an affiliated business organization/dependent licensee. All licenses must be current, valid, and issued in compliance with applicable law. Failure to provide this license with the Bid will result in the proposed Bid being deemed non-responsive.

QUESTIONS, ADDENDA AND INTERPRETATION

All questions concerning the Project and requests for interpretation of the solicitation may be asked and answered at the pre-bid conference; however, oral answers are not authoritative. Questions must be submitted to the Department of Purchasing and

Contracting in writing via email to jjshofield@dekalbcountyga.gov. Questions and requests for information or clarification concerning the specifications in this ITB must be submitted to the above listed contact person via email no later than the date and time listed in the bid. Questions and requests for interpretation received after the above stated time or sent to anyone other than the listed contact person will not receive a response or be the subject of addenda. For questions and requests for interpretation after the pre-bid conference, each response shall be given in written addendum, separately numbered and dated, and published on the County website in sufficient time for interested parties to review. The County shall be the sole determiner of sufficiency of time. **No responses to requests, answers to specification questions, or additional information shall be supplied after “March 4, 2019”**

ACKNOWLEDGMENT OF ADDENDA

Addenda may be issued in response to changes in the Invitation to Bid. Addenda must be acknowledged by signing and returning the Addendum Acknowledgement with the Bid. Acknowledgments must be received by the County before the Bid opening time and date. Failure to properly acknowledge any addendum may result in the proposed Bid being deemed non-responsive. Bidder may call Jennifer Schofield at 404.687.4042 or send an email to jjshofield@dekalbcountyga.gov to verify the number of addenda prior to submission. All addenda issued for this Project may be found on DeKalb County’s website, <http://www.dekalbcountyga.gov/purchasing/index.htm>.

AUTHORITY TO SIGN

If a Bid is submitted by an individual, his/her name and mailing address must be shown. If submitted by a corporation, partnership, or joint venture, the name and physical mailing address of each member of the corporation, partnership, or joint venture must be shown. If submitted by a corporation, the Certificate of Corporate Bidder in the form attached to the Bid Document Package must be executed and submitted with the Bid. If submitted by a joint venture, the Certificate of Authority – Joint Venture in the form attached to the Bid Document Package must be executed and submitted with the Bid. A post office box is not acceptable as a physical mailing address. The legal and proper

name of the proprietorship, corporation, or partnership submitting the Bid shall be printed or typed in the space provided on the Certificate of Corporate Bidder.

BID GUARANTEE TO ACCOMPANY BID

Each Bid must be accompanied by a Bid Guarantee in an amount of not less than ten percent (10%) of the amount of the Bid **and submitted with the Bid Price Form.** The Bid Guarantee may be in the form of an official bank check payable to DeKalb County, or a Bid Bond in the form provided in the Bid Document Package. The Bid Bond shall be issued by a surety company licensed to write bonds in the State of Georgia, listed in the most current U.S. Treasury Circular No. 570, and have a current A.M. Best rating of "A" (Excellent) with a Financial Size Category of XII or better.

VALID INSURANCE, BONDS, LICENSES, PERMITS, AND CERTIFICATES

Bidder shall ensure that any bond, bid bond, payment bond, performance bond, insurance, license, permit or certificate submitted in response to this Invitation to Bid or as part of the Contract for this Project shall be current and valid when submitted, and shall remain valid, current and maintained in good standing for the Contract Term.

RIGHTS RESERVED

The County reserves the right to reject any or all Bids, to waive informalities, and to re-advertise. The County reserves the right to decide which Bid will be deemed lowest, responsive and responsible. For consideration as a responsible Bidder, the proposed Bidder shall, among other qualifications, demonstrate in its Bid that it has been the general contractor engaged in construction and successful completion of facilities of similar character and magnitude for at least **three (3) years**, and shall demonstrate the financial ability to perform the required Work. A list of work of similar character successfully completed within the last **three (3) years** may be required as set forth in the Invitation to Bid giving the location and size of each project. Bidder shall complete the Reference and Release Form attached to the Bidder Document Package. In addition, the Bidder shall submit upon request by the County, a list of equipment available for use on this Work with its Bid. Any additions,

conditions, limitations, or provisions attached to the Bid shall render it informal, and will be cause for rejection as non-responsive. No Bid may be revoked or withdrawn until one hundred twenty (120 days after the time set for opening the Bids.

AWARD OF CONTRACT

The Contract, if awarded, will be awarded to the lowest, responsive and responsible Bidder whose responsive Bid whose proposal shall have met all the prescribe requirements. The County is entitled to make the determination in its sole discretion. The Contract between the County and the Contractor shall be executed in the form attached to the Bid Document Package on pages **45-108** and shall form a binding contract between the contracting parties. A Performance Bond equal to 100% of the Contract Price and a Payment Bond equal to 110% of the Contract Price, must be provided by the successful Bidder, issued in proper form by a surety company licensed to write bonds in the State of Georgia, listed in the most current U.S. Treasury Circular No. 570, and which has a current A.M. Best rating of "A" (Excellent with a Financial Size Category of XII or better. Bonds given shall meet the requirements of the law of the State of Georgia including, but not limited to, O.C.G.A. §13-10-1 and §36-91-21 *et seq.*

MANDATORY PRE-CONSTRUCTION CONFERENCE

Upon the award of the contract, all individuals who are directly involved with this project shall attend the Mandatory Pre-Construction Conference. At a minimum, the project sponsor, Contractor, selected DBE firms, GDOT Area Engineer, and the GDOT Project Manager should attend. Location and time is to be determined.

FAILURE TO EXECUTE CONTRACT

The County shall have one hundred and twenty (120 days after the time set for openings of Bids to notify a Bidder of the County's acceptance of the Bid and its intent to award the Contract to such Bidder. If the County so notifies a Bidder and the Bidder fails to enter into the Contract in the form attached to the Bid Document Package on pages **45-108** within ten (10 days of receiving such notice, or fails within that time to provide the required Payment and Performance Bonds and proof of required insurance, the amount of the Bid Bond or other Bid Guarantee shall be paid over to the County as liquidated

damages. The acceptance of the payment of the Bid Bond shall not operate to bar any claim the County might otherwise have against the Bidder, and the County shall be authorized to pursue any claim against the Bidder for failure to consummate the Contract as may be authorized by law.

TIME AND LIQUIDATED DAMAGES

Construction must begin within fourteen (14) days from the date the Contractor acknowledges receipt of the Notice to Proceed, by signing and inserting the acknowledgement date on the Notice to Proceed. Contractor shall fully complete the Work within **540** days from and including the acknowledgement date. For failure to complete the Work within this period, the Contractor shall pay the County liquidated damages in accordance with Georgia Department of Transportation Standard Specification, Section 108 for each day in excess of the Contract Time unless an extension of the Contract Time has been obtained by Change Order, as defined in the Contract, prior to the expiration of the Contract Term as defined in the Contract.

LOCATIONS AND SITE

The site of the proposed Work is at the stated location(s) within DeKalb County, Georgia. By submitting a Bid, the Bidder accepts the site in its present condition and agrees, if awarded the Contract, to carry out all Work in accordance with the requirements of the Contract, the Specifications and as shown on the Drawings. The Bidder shall, before submitting a Bid, visit the site and acquaint itself with the actual conditions and the location of any or all obstructions that may exist on the site. The documents comprising the Contract contain the provisions required for the completion of the Work to be performed pursuant to this Contract. Information obtained from an officer, agent, or employee of the County, or any other person shall not affect the risks or obligations assumed by the Contractor or relieve it from fulfilling any of the conditions of the Contract. Each Bidder, prior to submitting his Bid, is responsible for inspecting the site and for reading and being thoroughly familiar with all of the documents comprising the Contract and Bid Document Package. The failure or omission of any Bidder to so familiarize himself shall in no way relieve any Bidder from any obligation in respect to his Bid. The Contractor shall inspect all easements and rights-of-way to insure that the

County has obtained all land and rights-of-way necessary for completion of the Work to be performed pursuant to the Contract. The Contractor shall comply with all stipulations contained in easements acquired by the County. If applicable to the Work, all easements and rights-of-way documents are available for inspection in the office of Transportation, 1950 W. Exchange Place, 4th Floor, Tucker, GA 30084. The Contractor shall not be entitled to damages and agrees not to make any claim against the County, its officials or employees for the failure to obtain necessary interests in land for this Project. The Contractor shall accurately locate above-ground and below-ground utilities and structures which may be affected by the Work using whatever means may be appropriate.

DBE PARTICIPATION

The Disadvantage Business Enterprise (DBE goal for **PI# 0008121** is fourteen percent (14% and the DBE goal for **PI# 0012789** is fourteen (14%. In order for a bid to be considered, it is mandatory that the provided **DBE Goals forms** be completed and submitted with the bidder's bid. Only firms certified by the Georgia Department of Transportation are eligible to be used to meet this DBE requirement. A complete list of certified DBE subcontractors is available on the Georgia Department of Transportation's website.

FEDERAL AID CERTIFICATION

This project includes federal funding. In order for a bid to be considered, it is mandatory that the provided **Federal Aid Certification** form Attachment included in **Exhibit 4** be completed and submitted with the bidder's bid. Failure to complete the required form or submission of a false certification shall render the bi non-responsive.

FEDERAL WORK AUTHORIZATION PROGRAM PARTICIPATION

All qualifying Contractors and Subcontractors performing work with DeKalb County, Georgia must register and participate in the federal work authorization program to verify the work eligibility information of new employees. In order for a Bid to be considered, it is mandatory that the Bidder's Affidavit of Compliance with O.C.G.A. §13-10-91 included as page **40** be completed and submitted with the Bid.

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

In order for a Bid to be considered, it is mandatory that the provided Georgia Security and Immigration Compliance Act Affidavit included in **Exhibit 4** be completed and submitted with the bidder’s bid. Failure to complete the required form shall render the bid non-responsive.

STATEMENT OF “NO BID”

If you are NOT submitting a bid in response to this ITB, please complete the Statement of “NO BID” form on page 43 and return via e-mail to, jjschofield@dekalbcountyga.gov. Your response to the Statement of “NO BID” is very important to the Department of Purchasing & Contracting when creating future ITBs.

INSURANCE

Prior to commencing work, Contractor shall, at its sole expense, procure and maintain insurance of the types and in the amounts described below from insurer(s) authorized to transact business in the state where the work or operations will be performed by Contractor.

The Contractor shall, without expense to the County, provide certificates of insurance, and copies of signed insurance policies including declarations pages from companies that are authorized to engage in the insurance business in the state of Georgia and are otherwise acceptable to the County Finance Director or his/her designee, attached hereto as Attachment H. Such insurance shall be placed with admitted insurers that maintain an A.M. Best's rating of not less than A (Excellent) with a Financial Size Category of VII or better with coverage forms acceptable to Contractor. The insurance described below shall be maintained uninterrupted for the duration of the project, including any warranty periods, and shall protect Contractor, and others as required by contract, for liabilities in connection with work performed by or on behalf of Contractor, its agents, representatives, employees or Contractors.

(1) *Workers Compensation Insurance.* Statutory workers compensation insurance is to be provided in compliance with the requirements of Georgia law with limits not less than the following:

Employer’s liability insurance by accident, each accident	\$1,000,000
Employer’s liability insurance by disease, policy limit	\$1,000,000
Employer’s liability insurance by disease, each employee	\$1,000,000

Commercial General Liability Insurance. Commercial general liability insurance is to be provided with limits not less than the following:

\$1,000,000 per occurrence for bodily injury and property damage liability
 \$1,000,000 personal and advertising injury liability
 \$2,000,000 general aggregate
 \$2,000,000 products-completed operations aggregate
 \$ 100,000 damage to rented premises (each occurrence)
 \$ 5,000 medical expense (any one person)

(3) *Umbrella or Excess Insurance.* Umbrella or excess insurance is to be provided with General Liability, Auto Liability and Employers Liability scheduled as underlying policies with limits not less than the following:

\$5,000,000 per occurrence
 \$5,000,000 aggregate

(4) *Comprehensive Automobile Liability Insurance.* Comprehensive automobile liability insurance with form coverage is to be provided for all owned, non-owned and hired vehicles with combined single limit of \$1,000,000. Automobile liability insurance shall be written on ISO Business Auto Coverage Form CA 0001 (1990 edition or later), or a substitute form providing equivalent coverage, and shall cover liability for bodily injury and property damage arising from the use or operation of any automobile, including those owned, hired or otherwise operated or used by or on behalf of Contractor. The policy must include Broadened Pollution Liability Endorsement CA9948 12 93.

(5) *Builder's Risk Insurance Coverage (If Applicable).* DeKalb County shall procure and maintain Builders Risk Insurance on the entire work which provides "All-risk" form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism, malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than caused by flood), and such other perils or causes of loss as may be specifically required by Supplementary Conditions) until Final Completion and Acceptance of the Project. Such policy of insurance shall contain at least the following sub-limits of insurance and deductibles:

Sub-limits:	
Property in Transit	\$1,000,000
Property in Offsite Storage	\$1,000,000
Plans & Blueprints	\$25,000
Debris Removal	25% of Insured Physical Loss
Delay in Completion / Soft Cost	TBD
Ordinance of Law (Increased Cost of Construction)	\$1,000,000
Flood and Earthquake	TBD – Full Contract Value
Deductibles:	
Flood and Earthquake	\$25,000

Water Damage other than Flood	\$100,000
All other Perils	\$10,000

The County, its elected officials, officers, employees and agents, hereinafter referred to in this article and in the article entitled “Certificates of Insurance” as “the County and its officers” are to be named as additional insured on all policies of insurance except worker’s compensation insurance with no cross suits exclusion. The County and its officers shall be included as additional insureds under commercial general liability and commercial umbrella insurance, for liabilities arising out of both the ongoing and completed operations of Contractor. Such additional insured coverage shall be endorsed to Contractor’s policy by attachment of ISO Additional Insured Endorsement forms CG 20 10 10 01 (ongoing operations) and CG 20 37 10 01 (products-completed operations), or form(s) providing equivalent coverage.

All coverages required of the Contractor will be primary over any insurance or self-insurance program carried by the County.

If the Contractor is a joint venture involving two (2) or more entities, then each independent entity will satisfy the limits and coverages specified here or the joint venture will be a named insured under each respective policy specified.

In addition to procuring and maintaining commercial general liability insurance, automobile liability and commercial umbrella insurance, for the Contract Term, Contractor shall continue to procure and maintain the products-completed operations liability insurance coverage and commercial umbrella insurance after the Work is substantially complete for the entire Contract Term or for the applicable five-year statutory limitation, whichever is greater. For such period of time, all terms and conditions of such coverage shall remain unchanged, including the limits specified herein and the requirement to provide the County with coverage as an additional insured.

Contractor agrees to waive all rights of subrogation and other rights of recovery against the County and its officers and shall cause each Subcontractor to waive all rights of subrogation for all coverage.

Failure of the County to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the County to identify a deficiency from evidence provided will not be construed as a waiver of the Contractor’s obligation to maintain such coverage.

Contractor understands and agrees that the purchase of insurance in no way limits the liability of the Contractor.

CERTIFICATES OF INSURANCE

- A. Certificates shall state that the policy or policies shall not expire, be cancelled or altered without at least sixty (60) days prior written notice to the County. Policies and Certificates of Insurance listing the County and its officers as additional

insureds (except for workers' compensation insurance) shall conform to all terms and conditions (including coverage of the indemnification and hold harmless agreement) contained in this Contract.

- B. The Contractor agrees to name the County and its officers as additional insured on the commercial general liability insurance, using the ISO Additional Insured Endorsement forms CG20101001 (ongoing operations) and CG20371001 (products-completed operations) forms, or form(s) providing equivalent coverage.
- C. Certificates of Insurance must contain the policy number, policy limits, and policy expiration date of all policies issued in accordance with this Contract; the location and operations to which the insurance applies. Certificates must be provided annually for the duration of the project. If applicable, a specific statement must be included that blasting coverage is included to the extent such risk is present; that Contractor's protective coverage applies to any Subcontractor's operations; and Contractor's contractual liability insurance coverage applies to any Subcontractor.
- D. This insurance for the County as the additional insured shall be as broad as the coverage provided for the named-insured Contractor. It shall apply as primary insurance before any other insurance or self-insurance, including any deductible, non-contributory, and waiver of subrogation provided to the County as the additional insured.
- E. The Contractor shall be wholly responsible for securing certificates of insurance coverage as set forth above from all Subcontractors who are engaged in the Work.
- F. If the County shall so request, the Contractor will furnish the County for its inspection and approval such policies of insurance with all endorsements, or confirmed specimens thereof certified by the insurance company to be true and correct copies.
- G. Contractor shall be responsible and have the financial wherewithal to cover any deductibles or retentions included on the certificate of insurance.
- H. Such certificates should be sent to the County and must identify the "Certificate Holder" as follows:

DeKalb County, Georgia
Director of Purchasing & Contracting
The Maloof Center
1300 Commerce Drive, 2nd Floor
Decatur, Georgia 30030

- I. Copies of Required Insurance policies with Declarations Page(s) shall be attached hereto as Attachment H.

GEORGIA OPEN RECORDS ACT

Without regard to any designation made by the person or entity making a submission, DeKalb County considers all information submitted in response to this invitation or request to be a public record that will be disclosed upon request pursuant to the Georgia Open Records Act, O.C.G.A. §50-18-70 et seq., without consulting or contacting the person or entity making the submission, unless a court order is presented with the submission. You may wish to consult an attorney or obtain legal advice prior to making a submission.

ETHICS RULES

Bidders are subject to the Ethics provision within the DeKalb County Purchasing Policy; the Organizational Act, Section 22A, the Code of DeKalb County; and the rules of Executive Order 2014-4. Any violations will be addressed, pursuant to these policies and rules.

To the extent that the Organizational Act, Section 22A, the Code of DeKalb County, and the rules of Executive Order 2014-4 allow a gift, meal, travel expense, ticket, or anything else of value to be purchased for a CEO employee by a contractor doing business with the County, the contractor must provide written disclosure, quarterly, of the exact nature and value of the purchase to the Chief Integrity Officer, if created, or the Finance Director or his/her designee. Every contractor conducting business with the County will receive a copy of these ethical rules at the time of execution of the contract.

DEKALB COUNTY, GEORGIA'S TITLE VI POLICY STATEMENT

DeKalb County, Georgia is committed to compliance with Title VI of the Civil Rights Act of 1964 and all related regulations and directives. DeKalb County assures that no person shall on the grounds of race, color, sex, or national origin, as provided by Title VI of the Civil Rights Act of 1964, the Federal-Aid Highway Transportation Act of 1973, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. DeKalb County further assures that no person shall on the grounds of age, low income, disability, sexual orientation or gender identity be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity.

DeKalb County assures every effort will be made to ensure nondiscrimination in all of its programs and activities, whether those programs and activities are federally funded or not. In addition, DeKalb County will take reasonable steps to provide meaningful access to services for persons with Limited English Proficiency (LEP).

STANDARD COUNTY CONTRACT

The attached sample contract is the County's standard contract document, which specifically outlines the contractual responsibilities. All bidders should thoroughly review the document prior to submitting a bid. Any proposed revisions to the terms or language of this document must be submitted in writing with the bidder's bid. Since proposed revisions may result in a bid being rejected if the revisions are unacceptable to the County, bidders should review any proposed revisions with an officer of the firm having authority to execute the contract. No alterations can be made in the contract after award by the Board of Commissioners.

BIDDER'S UNIT PRICE FORM

*****BID PRICE FORM (Pages 22-30) MUST BE SUBMITTED IN A SEPARATE SEALED ENVELOPE OR BIDDER WILL BE DEEMED NON-RESPONSIVE AND WILL NOT BE CONSIDERED FOR AWARD*****

TO: The Governing Authority of DeKalb County, Georgia

The undersigned, as Bidder, declares that he has carefully examined **ITB No. 19-101072, ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD – PI# 0008121 / 0012789)**, an annexed proposed form of Contract, the Specifications therein contained, and the Drawings therein referred to, and that he proposes and agrees that if his Bid is accepted, to provide the necessary machinery, tools, apparatus, and other means of construction, and will furnish all materials and labor specified in the Contract, or called for by the Drawings, or necessary to complete the Work in the manner therein specified within the time specified, as therein set forth for the unit prices on the form following this page. If the Bidder's Unit Price exceeds one page in length it should be completed in an excel format, typewritten, printed out and attached hereto. Handwritten Unit Prices exceeding one page in length may not be accepted and may result in the proposed Bid being deemed non-responsive.

BID FOR CONSTRUCTION		INVITATION TO BID NO. 19-101072			
Rockbridge Road from Allgood to Rowland (PI0008121)					
ITEM NO.	DESCRIPTION	APPROX QTY	UNITS	UNIT PRICE	AMOUNT
ROADWAY ITEMS					
150-1000	TRAFFIC CONTROL - 0008121	LS	1		
210-0100	GRADING COMPLETE - 0008121	LS	1		
310-1101	GR AGGR BASE CRS,INCL MATL	TN	1930		
402-1812	RECYCLED AC LEVELING, INCL BITUM MATL & H. LIME	TN	199		
402-3121	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL	TN	920		
402-3130	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2, BITUM MATL & H LIME	TN	763		
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL	TN	307		
413-0750	TACK COAT	GL	741		
432-5010	MILL ASPH CONC PVMT, VARB DEPTH	SY	6440		
441-0748	CONCRETE MEDIAN, 6 IN	SY	94		
446-1100	PAVEMENT REF FABRIC STRIPS, TP2, 18 IN WIDTH	LF	699		
500-9999	CLASS B CONC, BASE OR PVM'T WIDENING	CY	1		
611-8050	ADJUST MANHOLE TO GRADE	EA	8		
634-1200	RIGHT OF WAY MARKERS	EA	3		
610-9001	REM SIGN	EA	2		
611-5551	RESET SIGN	EA	1		
636-1033	HIGHWAY SIGNS, TP 1 MATL-REFL SHEETING, TP 9	SF	100		
636-1036	HIGHWAY SIGNS, TP 1 MATL-REFL SHEETING, TP 11	SF	4		
636-2070	GALV STEEL POSTS, TP 7	LF	174		
636-2080	GALV STEEL POSTS, TP 8	LF	27		

636-2090	GAL STEEL POSTS, TP 9	LF	16		
653-0110	THERMOPLASTIC PVMT MARKING, ARROW, TP 1	EA	3		
653-0120	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	EA	13		
653-0320	THERMOPLASTIC PVMT MARKING, SYMBOL, TP 4	EA	3		
653-1501	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN. WHITE	LF	3368		
653-1502	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN. YELLOW	LF	2596		
653-1704	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN. WHITE	LF	159		
653-1804	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN. WHITE	LF	1394		
653-3501	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN. WHITE	GLF	406		
653-3502	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN. YELLOW	GLF	1565		
653-6004	THERMOPLASTIC TRAF STRIPING, WHITE	SY	83		
653-6006	THERMOPLASTIC TRAF STRIPING, YELLOW	SY	186		
654-1001	RAISED PVMT MARKERS TP 1	EA	106		
654-1003	RAISED PVMT MARKERS TP 3	EA	28		
639-2002	STEEL WIRE STRAND CABLE, 3/8	LF	15		
639-4004	STRAIN POLE, TP IV	EA	1		
647-1000	TRAFFIC SIGNAL INSTALLATION NO - 1	LS	1		
999-9000	WORK ALLOWANCE	LS	1	\$ 100,000.00	\$ 100,000.00
CONSTRUCTION TOTAL					\$ -

BID FOR CONSTRUCTION		INVITATION TO BID NO. 19-101072			
Rockbridge Road from Allgood to Rowland (PI 0012789)					
ITEM NO.	DESCRIPTION	APPROX QTY	UNITS	UNIT PRICE	AMOUNT
ROADWAY ITEMS					
210-0100	GRADING COMPLETE -0012789	LS	1		
310-1101	GR AGGR BASE CRS,INCL MATL	TN	1440		
318-3000	AGGREGATE SURFACE BASE	TN	90		
402-3121	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	256		
402-3130	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2, BITUM MATL & H LIME	TN	136		
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	168		
413-0750	TACK COAT	GL	163		
432-5010	MILL ASPH CONC PVMT, VARB DEPTH	SY	104		
441-0104	CONCRETE SIDEWALK, 4 IN	SY	719		
441-0108	CONCRETE SIDEWALK, 8 IN	SY	130		
441-0748	CONCRETE MEDIAN, 6 IN	SY	17		
441-4030	CONCRETE VALLEY GUTTER, 8 IN	SY	382		
441-5002	CONCRETE HEADER CURB, 6, TP 2	LF	198		
441-6222	CONCRETE CURB & GUTTER/ 8X 20 TP 2	LF	1711		
441-9000	PRECAST BUMPER BLOCK	EA	2		
446-1100	PAVEMENT REF FABRIC STRIPS, TP2, 18 IN WIDTH	LF	141		
500-9999	CLASS B CONC, BASE OR PVM'T WIDENING	CY	8		
515-2020	GALV STEEL PIPE HANDRAIL, 2, ROUD	LF	320		
550-1180	STORM DRAIN PIPE 18, H 1-10	LF	1174		
550-1240	STORM DRAIN PIPE 24, H 1-11	LF	229		
607-1000	MORTAR RUBBLE MASONRY	CY	53		
611-8050	ADJUST MANHOLE TO GRADE	EA	3		
621-6210	CONCRETE SIDE BARRIER, TP 6-S	LF	11		
621-6211	CONCRETE SIDE BARRIER, TP 6-SA	LF	78		
621-6212	CONCRETE SIDE BARRIER, TP 6-SB	LF	87		
634-1200	RIGHT OF WAY MARKERS	EA	11		
668-1100	CATCH BASIN, GP 1	EA	9		
668-2100	DROP INLET, GP 1	EA	8		
668-2110	DROP INLET, GP 21, ADDL DEPTH	LF	6		
668-4300	STORM SEWER MANHOLE, TP 1	EA	2		
163-0232	TEMPORARY GRASSING	AC	4		
163-0240	MULCH	TN	45		

BID FOR CONSTRUCTION		INVITATION TO BID NO. 19-101072			
Rockbridge Road from Allgood to Rowland (PI 0012789)					
ITEM NO.	DESCRIPTION	APPROX QTY	UNITS	UNIT PRICE	AMOUNT
163-0300	CONSTRUCTION EXIT	EA	2		
163-0529	CONSTRUCT/REMOVE TEMP SEDIMENT BARIERR OR BAILED STRAW CHECK DM	LF	20		
163-0550	CONSTRUCT & REMOVE INLET SEDIMENT TRAP	EA	19		
165-0030	MAINT OF TEMPORARY SILE FENCE, TP C	LF	155		
165-0071	MAINT OF SEDIMENT BARRIER - BAILED STRAW	LF	20		
165-0101	MAINTENANCE OF CONSTRUCTION EXITS	EA	2		
165-0105	MAINT OF INLET SEDIMENT TRAP	EA	19		
167-1000	WATER QUALITY MONITORING AND SAMPLING	EA	1		
167-1500	WATER QUALITY INSPECTIONS	MO	24		
171-0030	TEMPORARY SILT FENCE, TYPE C	LF	309		
700-6910	PERMANENT GRASSING	AC	2		
700-7000	AGRICULTURAL LIME	TN	13		
700-8000	FERTILIZER MIXED GRADE	TN	2		
700-8100	FERTILIZER NITROGEN CONTENT	LB	115		
700-9300	SOD	SY	1450		
610-9001	REMOVE SIGN	EA	1		
611-5551	RESET SIGN	EA	1		
636-1033	HWY SIGNS, TP1MAT, REFELECTIVE SHEETING TP 9	SF	116		
636-1036	HWY SIGNS, TP1MAT, REFELECTIVE SHEETING TP 11	SF	25		
636-2070	GALV STEEL POSTS, TP 7	LF	284		
636-2080	GALV STEEL POSTS, TP 8	LF	15		
636-2090	GALV STEEL POSTS, TP 9	LF	16		
653-0110	THERMO PAVEMENT MARK, ARROW, TP 1	EA	7		
653-0120	THERMO PAVEMENT MARK, ARROW, TP 2	EA	3		
653-0320	THERMO PVMT MKG, SYM, TP 4	EA	5		
653-1501	THERMO SOLID TRAFFIC STRIPE 5 IN, WHITE	LF	2542		
653-1502	THERMO SOLID TRAFFIC STRIPE 5 IN, YELLOW	LF	113		
653-1704	THERMO SOLID TRAFFIC STRIPE 24 IN, WHITE	LF	70		
653-1804	THERMO SOLID TRAFFIC STRIPE 8 IN, WHITE	LF	2320		
653-3501	THERMO SKIP TRAFFIC STRIPE, 5IN, WHITE	GLF	875		
653-6004	THERMO TRAFFIC STRIPING, WHITE	SY	14		
653-6006	THERMO TRAFFIC STRIPING, YELLOW	SY	6		
654-1001	RAISED PAVEMENT MARKERS TP 1	EA	6		
CONSTRUCTION TOTAL					

BID FOR CONSTRUCTION		INVITATION TO BID NO. 1; -103294			
Rockbridge Road from Allgood to Rowland (PI0008121) - WATER & SEWER ITEMS					
ITEM NO.	DESCRIPTION	APPROX QTY	UNITS	UNIT PRICE	AMOUNT
	WATER & SEWER ITEMS				
150-1000	TRAFFIC CONTROL - WATERLINE	LS	1		
670-1020	WATER MAIN, 2 IN	LF	60		
670-1060	WATER MAIN, 6 IN	LF	405		
670-1080	WATER MAIN, 8 IN	LF	2191		
670-1120	WATER MAIN, 12 IN	LF	25		
670-1160	WATER MAIN, 16 IN	LF	90		
670-1240	WATER MAIN, 24 IN	LF	1693		
670-2060	GATE VALVE, 6 IN	EA	10		
670-2080	GATE VALVE, 8 IN	EA	12		
670-2120	GATE VALVE, 12 IN	EA	1		
670-2160	GATE VALVE, 16 IN, IN VAULT	EA	2		
670-2240	GATE VALVE, 24 IN, IN VAULT	EA	2		
670-2003	AIR RELEASE VALVE ASSEMBLY, 8 IN	EA	2		
670-2003	AIR RELEASE VALVE ASSEMBLY, 12 IN	EA	2		
670-7215	INSERTION VALVE, 6 IN	EA	3		
670-7220	INSERTION VALVE, 8 IN	EA	2		
670-7230	INSERTION VALVE, 12 IN	EA	1		
670-7230	INSERTION VALVE, 16 IN	EA	2		
670-4000	FIRE HYDRANT	EA	9		
670-9920	REMOVE EXIST FIRE HYDRANT	EA	6		
670-5010	WATER SERVICE LINE, 1 IN	LF	550		
670-5020	WATER SERVICE LINE, 2 IN	LF	125		
670-9730	RELOCATE X WATER METER, INCL BOX	EA	1		
670-5800	WATER METER -	LF	15		
670-1650	BACKFLOW PREVENTER ASSEMBLY	EA	4		
670-2700	ABANDONMENT OF WATER VALVES	EA	8		
600-0001	FLOWABILL FILL	CY	69		
CONSTRUCTION TOTAL					\$ -

TOTAL BID – PI 008121:

(State in words on the line above)

\$ _____
(In figures)

TOTAL BID – PI 0012789:

(State in words on the line above)

\$ _____
(In figures)

TOTAL BID – Water & Sewer:

(State in words on the line above)

\$ _____
(In figures)

GRAND TOTAL BID:

(State in words on the line above)

\$ _____
(In figures)

These quantities are approximate and may be increased or decreased as to any and all units as necessary to complete the construction of said Project without entitling the Contractor to any claim for extra compensation because of any injury, damage or delay he may sustain on account of such increase or decrease. The Contractor shall be entitled to compensation on the foregoing unit prices only on the quantities of materials actually furnished and work actually done as determined and approved in writing by the County through an inspection of the work completed. In no event shall the County be liable for payment in excess of the total Bid amount of \$ (Insert same "TOTAL BID" figure as listed on the foregoing page) without proper prior written authorization via Change Order from the County. The Total Bid includes and encompasses the cost of all labor, materials, equipment, tools, supervision, scheduling, safety program, coordination, engineering, testing, surveys, layout, cleanup, and other things and services required to complete the entire Project in strict conformity with the Drawings, Specifications, the Contract, and all addenda and authorized written clarifications issued prior to the Bid date. Without limitation, the Total Bid also includes all applicable sales and use taxes, fees, temporary lighting, security for the site, heating and cooling, temporary utilities, freight costs, handling costs, permit costs, field and main office costs, bond premiums, insurance premiums, direct and indirect administrative costs, overhead, and profit.

Bidder has examined the site of the proposed Work and all documents comprising the Contract, and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the Contract.

No Bid may be revoked or withdrawn until one hundred twenty (120) days after the time set for opening the Bids.

Attached hereto is Bid Bond made by _____, a surety company listed in the most recent US Treasury Circular No. 570 and licensed to write surety bonds in the State of Georgia,

payable to DeKalb County, Georgia (or an official bank check), in the amount of ten percent (10%) of the above Bid, to-wit: \$_____.

If this Bid shall be accepted by DeKalb County and the undersigned shall fail to execute a satisfactory contract in the form of said proposed Contract, give satisfactory Performance and Payment Bonds, or furnish satisfactory proof of the insurance required, as stated in the Instructions to Bidders within ten (10) days from the Notice of Award of the Contract, then the County may at its option, determine that the undersigned abandoned the Contract and thereupon this Bid shall be null and void, and the sum stipulated in the attached Bid Bond (or an official bank check) shall be forfeited to the County as liquidated damages.

Bidder declares his intent to subcontract the portion of the Work as below stated. Bidder understands and agrees that the use of any Subcontractor not listed below shall be strictly prohibited without prior written approval from the County. *(List names of all subcontractors and the work to be provided by the subcontractor on the lines provided below.)*

Bidder further declares that the full names and residence addresses of all persons and parties interested in the foregoing Bid as principals are as follows:

Bidder declares further that it is / is not a DeKalb County Firm.

Signed, sealed, and dated this _____ day of _____, 20____.

By: _____ (SEAL)
Signature

Print Name of Signer

Title of Signer

Name of Business Entity Submitting Bid

Bidder's Street Address

Bidder's City, State and Zip Code

Bidder's Phone Number

Bidder's Fax Number

Bidder's E-Mail Address

ATTACHMENT A

BID BOND FORM

KNOW ALL MEN BY THESE PRESENTS, that we, _____

_____ (hereinafter called the Principal) and _____

_____ (hereinafter called the Surety), a corporation chartered and existing under the laws of the State of _____ with its principal offices in the City of _____ and listed in the Federal Register and licensed to write surety bonds in the State of Georgia, are held and firmly bound unto DeKalb County, Georgia, in the full and just sum of 10% of the Principal's Bid good and lawful money of the United States of America, to be paid upon demand of DeKalb County, Georgia, to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted to DeKalb County, Georgia, a Bid for *(insert name of the Project)* _____

WHEREAS, the Principal desires to file this Bond in accordance with law to accompany this Bid.

NOW, THEREFORE, the conditions of this obligation are such that if the Bid be accepted within sixty (60) days of the Bid opening, the Principal shall execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth therein, and in the form and manner required by DeKalb County, Georgia, and within ten (10) days from the date of Notice of Award of the Contract, execute a sufficient and satisfactory Performance Bond equal to 100% of the Bid Price and Payment Bond equal to 110% of the Bid Price made payable to DeKalb County, Georgia, in form and with security satisfactory to DeKalb County and furnish satisfactory proof of the insurance required, then this obligation to be void; 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

aforesaid DeKalb County, 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.

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20____.

PRINCIPAL

By: _____ (SEAL)
Signature of Principal

Print Name and Title of Authorized Signer

Print Name of Principal Business

ATTEST:

Corporate Secretary

SURETY

By: _____ (SEAL)
Signature of Surety (by Power of Attorney)

Print Name and Title of Authorized Signer

Print Name of Surety Business

WITNESS:

ATTACHMENT B

CONTRACTOR REFERENCE AND RELEASE FORM

List below at least three (3) references, including company name, contact name, address, email address, telephone numbers and contract period who can verify your experience and ability to perform the type(s) of product(s)/ service(s) listed in the solicitation.

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

REFERENCE CHECK RELEASE STATEMENT

You are authorized to contact the references provided above for purposes of this ITB.

Signed _____ Title _____
(Authorized Signature of Bidder)

Company Name _____ Date _____

ATTACHMENT C

SUBCONTRACTOR REFERENCE AND RELEASE FORM

List below at least three (3) references, including company name, contact name, address, email address, telephone numbers and contract period who can verify your experience and ability to perform the type(s) of product(s)/ service(s) listed in the solicitation.

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

Company Name	Contract Period		
Contact Person Name and Title	Telephone Number (include area code)		
Complete Primary Address	City	State	Zip Code
Email Address	Fax Number (include area code)		
Project Name and Description			

REFERENCE CHECK RELEASE STATEMENT

You are authorized to contact the references provided above for purposes of this ITB.

Signed _____ Title _____
(Authorized Signature of Bidder)

Company Name _____ Date _____

ATTACHMENT D
CONTRACTOR & SUBCONTRACTOR EVIDENCE OF COMPLIANCE:

- (1) County contracts for the physical performance of services within the state of Georgia shall include the following provisions:¹
 - a. the contractor has registered with and is authorized to use the federal work authorization program to verify information on all newly hired employees or subcontractors;
 - b. by affidavit, the contractor must attest to the contractor's name, address, user identification number, date of authorization, and verification of the continual participation throughout the contract period, and
 - c. the affidavit shall become a part of the covered contract and must be attached.
- (2) No contractor or subcontractor who enters into a contract with the County shall enter into such a contract or subcontract in connection with the physical performance of services within Georgia unless the contractor or subcontractor registers and participates in the federal work authorization program to verify information of all newly hired employees. Any employee, contractor, or subcontractor of such contractor or subcontractor shall also be required to satisfy the requirements of O.C.G.A. § 13-10-91, as amended.
- (3) Upon contracting with a new subcontractor, a contractor or subcontractor shall, as a condition of any contract or subcontract entered into pursuant to O.C.G.A. § 13-10-91, as amended, agree to provide the County with notice of the identity of any and all subsequent subcontractors hired or contracted by the contractor or subcontractor. Such notice shall be provided within five (5) business days of entering into a contract or agreement for hire with any subcontractor. Such notice shall include an affidavit from each subsequent contractor attesting to the subcontractor's name, address, user identification number, and date of authorization to use the federal work authorization program.
- (4) An affidavit shall be considered an open public record; provided, however, that any information protected from public disclosure by federal law or by Article 4 of Chapter 28 of Title 50 shall be redacted. Affidavits shall be maintained by the County for five years from the date of receipt.
- (5) To verify compliance, the contractor agrees to participate in random audits conducted by the Commissioner of the Georgia Department of Labor. The results of the audits shall be published on the www.open.georgia.gov website, and on the Department of Labor's website no later than December 31 of each year.
- (6) Any person who knowingly and willfully makes a false, fictitious, or fraudulent statement in an affidavit submitted pursuant to O.C.G.A. § 13-10-91 shall be guilty of a violation of Code § 16-10-20 and, upon conviction, shall be punished as provided in such section. Contractors and subcontractors convicted for false statements based on a violation of such section shall be prohibited from bidding on or entering into any public contract for twelve (12) months following such conviction.

¹ O.C.G.A. § 13-10-91, as amended

ATTACHMENT E

CONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned verifies its compliance with O.C.G.A. § 13-10-91, as amended, stating affirmatively that the individual, firm or corporation which is contracting with DEKALB COUNTY, GA, a political subdivision of the State of Georgia, 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, as amended]. The affiant agrees to continue to use the federal work authorization program throughout the contract period.

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 with the COUNTY, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A. § 13-10-91, as amended, on the Subcontractor Affidavit form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the COUNTY, within five (5) days from when the subcontractor(s) is retained to perform such service.

BY: Authorized Officer or Agent
(Bidder's Name)

Federal Work Authorization
Enrollment Date

Title of Authorized Officer or Agent of Bidder

Identification Number

Printed Name of Authorized Officer or Agent

Address (* do not include a post office box)

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

_____ DAY OF _____, 20__

Notary Public

My Commission Expires: _____

ATTACHMENT F

SUBCONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned verifies its compliance with O.C.G.A. § 13-10-91, as amended, stating affirmatively that the individual, firm, or corporation which is engaged in the physical performance of services under a contract with _____ name of contractor) on behalf of DEKALB COUNTY, GA, a political subdivision of the State of Georgia, 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, as amended]. The affiant agrees to continue to use the federal work authorization program throughout the contract period.]

BY: Authorized Officer or Agent
(Bidder's Name)

Federal Work Authorization
Enrollment Date

Title of Authorized Officer or Agent of Bidder

Identification Number

Printed Name of Authorized Officer or Agent

Address (* do not include a post office box)

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

_____ DAY OF _____, 20__

Notary Public
My Commission Expires: _____

ATTACHMENT G

CERTIFICATE OF CORPORATE BIDDER

I, _____ (*insert name of the Corporate Secretary*), certify that I am Secretary of the corporation named as Bidder herein, same being organized and incorporated to do business under the laws of the State of _____; that _____ (*insert name of individual signing the Bid*) who executed this Bid on behalf of the Bidder was, then and there, _____ (*insert title of individuals signing the Bid*) and that said Bid was duly signed by said officer for and on behalf of said corporation, pursuant to the authority of its governing body and within the scope of its corporate powers.

I further certify that the names and addresses of the owners of all outstanding stock of said corporation as of this date are as follows:

This _____ day of _____, 20____.

By: _____ (Corporate Seal)
Secretary

ATTACHMENT H

CERTIFICATE OF AUTHORITY – JOINT VENTURE

(Separate Certificate to be submitted by each joint venture partner)

I, _____, ⁽¹⁾ certify that:

1. I am the _____ ⁽²⁾ of _____, ⁽³⁾ (hereinafter “Venturer”);

Venturer is a partner and participant in the joint venture having submitted the Invitation to Bid or Request for Proposal No. 19-101072 for ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD) – PI# 0008121 / 0012789 ;

2. Venturer is organized and incorporated to do business under the laws of the State of _____ ; and
3. Said Invitation to Bid or Request for Proposal No. 19-101072 was duly signed by said officer for and on behalf of said Venturer and the Contractor pursuant to the authority of the governing body of each and within the scope of its corporate powers.

I further certify that the names and addresses of the owners of all the outstanding stock or ownership interest in Venturer as of this date are as follows:

This _____ day of _____, 20____.

By: _____
Signature of Person Executing Certification

INSTRUCTIONS FOR COMPLETION OF THIS CERTIFICATE:

1. Name of secretary (if Venturer is a corporation), or Manager or CEO (if Venturer is a LLP) of Venturer.
2. Title of person executing Certification.
3. Name of joint venture partner.

COPY THIS FORM AND SUBMIT SEPARATE CERTIFICATES FOR EACH JOINT VENTURE PARTNER WITH THE BID OR PROPOSAL.

ATTACHMENT I

BIDDER'S AFFIDAVIT OF COMPLIANCE WITH O.C.G.A. §13-10-91

By executing this affidavit, the undersigned verifies its compliance with O.C.G.A. § 13-10-91, as amended, stating affirmatively that the Bidder submitting a Bid to DEKALB COUNTY, GA, a political subdivision of the State of Georgia, has registered with and is participating in a federal work authorization program, commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91, as amended. The undersigned further verifies that it will continue to use the federal work authorization program for the Contract Term, and it will only contract with Subcontractors who have registered for the federal work authorization program. The undersigned hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

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

Executed on _____, ____, 20__ in _____ (city), _____ (state).

By: _____
Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

Subscribed and Sworn before me on this the
____ day of _____, 20__.

NOTARY PUBLIC
My Commission Expires:

ATTACHMENT J

**CONTRACTOR AFFIDAVIT AND
OATH OF SUCCESSFUL BIDDER**

Personally appeared before me, the undersigned officer, duly authorized to administer oaths, _____, (insert name), who, after being duly sworn, deposes as follows:

I, _____, (insert name), am a competent adult, and I have personal knowledge of the facts set forth in this Affidavit and Oath which I make for any lawful use or purpose.

I, _____ (insert name) swear or affirm that I have not prevented or attempted to prevent competition in bidding or submitting a proposal for this Project by any means whatsoever. I swear or affirm that I have not prevented or endeavored to prevent anyone from making a Bid for this Project by any means whatsoever, I swear I have not caused or induced any other person to withdraw a Bid for this Project. I swear or affirm that I have not violated O.C.G.A. §36-91-21(d) in any way, directly or indirectly.

I hereby declare under penalty of perjury that the foregoing is true and correct. Executed on _____, 20__ in _____ (city), _____ (state).

By: _____
Signature

Print Name of Affiant

Print Title of Affiant

Subscribed and Sworn before me on this the _____ day of _____, 20_____.

NOTARY PUBLIC
My Commission Expires:

ATTACHMENT K

SUB-CONTRACTOR INFORMATION FORM

The Bidder shall identify all proposed subcontractors who will be performing work under the proposed Contract. The Bidder certifies that the following individuals, firms or businesses will be hired or awarded subcontracts for the indicated portions of the Work in the event that the Bidder is awarded the Contract.

Please list all proposed Subcontractors below:

1. TYPE OF WORK: _____

Name
_____, _____, _____, _____
Street Address City State Zip

2. TYPE OF WORK: _____

Name
_____, _____, _____, _____
Street Address City State Zip

3. TYPE OF WORK: _____

Name
_____, _____, _____, _____
Street Address City State Zip

4. TYPE OF WORK: _____

Name
_____, _____, _____, _____
Street Address City State Zip

(Make copies as necessary.)

ATTACHMENT L

STATEMENT OF "NO BID"

If your company will not be submitting a bid in response to this Invitation to Bid, please complete this Statement of "NO BID" Sheet and return, prior to the Bid Due Date established within, to:

The DeKalb County Government
Department of Purchasing and Contracting
1300 Commerce Drive
Decatur, GA 30030

This information will help County in the preparation of future Bids.

ITB No.: 19-101072 Title: ROAD WIDENING, SIDEWALKS, BIKE LANES
(ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD – PI# 0008121 / 0012789

Company
Name: _____

Contact: _____

Address: _____

Telephone: _____ Facsimile: _____

<input checked="" type="checkbox"/>	Reasons for "NO BID":
<input type="checkbox"/>	Unable to comply with product or service specifications.
<input type="checkbox"/>	Unable to comply with scope of work.
<input type="checkbox"/>	Unable to quote on all items in the group
<input type="checkbox"/>	Insufficient time to respond to the Invitation to Bid.
<input type="checkbox"/>	Unable to hold prices firm through the term of the contract period.
<input type="checkbox"/>	Our schedule would not permit us to perform.
<input type="checkbox"/>	Unable to meet delivery requirements.
<input type="checkbox"/>	Unable to meet bond requirements.
<input type="checkbox"/>	Unable to meet insurance requirements.
<input type="checkbox"/>	Other (Specify below)

Comments:

Signature: _____ **Date:** _____

REQUIRED DOCUMENTS CHECKLIST

Bidder shall complete and submit the following documents with their bid:

Bid Page No.	Title	Check This Box If Included With Bid
3	Bid Acknowledgement Form*	
9	Business License*	
10	Utility Systems Contractor's License*	
10	General Contractor's License*	
22-30	Bidder's Unit Price Form (separate sealed envelope)	
31-32	Bid Bond Form	
33	Contractor Reference and Release Form*	
34	Subcontractor Reference and Release Form, if applicable**	
36	Contractor Affidavit*	
37	Subcontractor Affidavit**	
40	Bidder's Affidavit of Compliance with O.C.G.A § 13-10-91*	
41	Contractor Affidavit and Oath of Successful Bidder*	
42	Subcontractor Information Form**	
44	Required Documents Checklist	
341-342	DBE Goals (PI#0012789/0008121)*	
350-352	Federal Aid Certification - Non-Collusion Certification*	
353	Georgia Security and Immigration Compliance Act Affidavit*	

***If these mandatory forms are not completed and submitted with the bid, the bidder will be deemed non-responsive.**

****These forms are applicable if a subcontractor will be utilized to fulfill the requirements of this contract. If these forms are applicable, they must be completed and submitted with the bid. Failure to submit these forms, if applicable, will result in the bidder's bid being deemed non-responsive.**

I, the undersigned, acknowledge that I have included the requested documents as listed above.

Firm Name

Printed Name

Signature

“EXHIBIT 1” (SAMPLE CONTRACT)

**CONTRACT
FOR
CONSTRUCTION**

**BETWEEN
DEKALB COUNTY, GEORGIA
AND**

INVITATION NO. 19-101072

**PROJECT NAME: ROAD WIDENING, SIDEWALKS, BIKE LANES
(ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD –
PI# 0008121 / 0012789**

**DEKALB COUNTY, GEORGIA
1300 Commerce Drive, 2nd Floor
Decatur, Georgia 30030**

*Jennifer Schofield, Procurement Agent, Phone: (404) 687.4042
E-mail: jjchofield@dekalbcountyga.gov*

STATE OF GEORGIA

COUNTY OF DEKALB

CONTRACT FOR CONSTRUCTION

THIS CONTRACT, made as of this ____ day of _____, 20__¹, (hereinafter called the “execution date”) by and between, **DEKALB COUNTY**, a political subdivision of the State of Georgia (hereinafter called the “County”) and _____, a _____ organized pursuant to the laws of the State of _____ (hereinafter called the “Contractor”).

I. SCOPE OF WORK

A. The term “Work” means the construction, labor, materials, equipment, tools, machinery, testing, temporary services and utilities, supervision, administration, coordination, planning, insurance, bonds, transportation, security, and all other services and things necessary to provide the County with the facilities, improvements, features, and functions in strict conformity with the General Requirements attached hereto as Attachment A, and as described in the Specifications and the Drawings included in the Bid Document Package. The Contractor agrees to complete the Work in a good, firm, substantial and workmanlike manner in strict conformity with this Contract.

(1) The Work relates to the following Project:

**ROAD WIDENING, SIDEWALKS, BIKE LANES
(ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD –
PI# 0008121 / 0012789**

Projects PI# 0008121 and PI# 0012789 CR 7938/Rockbridge Road from Allgood Road to Rowland Road in Pine Lake, GA is approximately 0.3 miles long. The work consists of widening the road on the south side to add a two way center turn lane and on-road bike lanes. A 6-foot sidewalk wide sidewalk and new curb and gutter are being added on the south side of the road.

(2) Work not included in this Contract: N/A

B. Unless otherwise stipulated, the Contractor shall furnish all of the Work in accordance with the Contract and all incidental work necessary to complete the Project in an acceptable manner, ready for use, occupancy, or operation by the County. The Contractor shall be responsible for the entire Work and every part thereof.

II. TIME, TERM AND LIQUIDATED DAMAGES

¹ The Execution Date is the date the Contract is sent from Purchasing and Contracting to the CEO for execution. Ensure that all other parties have signed the Contract.

- A. **Contract Time.** The Contractor shall commence the Work under this Contract within fourteen (14) days from the date on the Notice to Proceed. Contractor shall fully complete the Work within 540 days from and including the date on the Notice to Proceed. If the Change Order only seeks to extend the Contract Time, it may be approved and executed by the DeKalb County Chief Executive Officer or his/her designee and the Contractor in accordance with the terms of this Contract.
- B. **Contract Term.** This contract shall terminate without further obligation on the part of the County, with no further renewals, on this day____, of _____, 20____, unless extended by Change Order adopted and approved by the DeKalb County Governing Authority and the Contractor in accordance with the terms of this Contract.
- C. **Liquidated Damages.** The Contractor acknowledges that time is of the essence with respect to the Work governed by this Contract. Contractor acknowledges and recognizes that if it fails to achieve Substantial Completion of any portion of the Work within the Contract Time as may be extended in accordance with the terms of this Contract, the County will sustain substantial losses as a result of such failure. The Contractor further acknowledges that the County will suffer damages that are difficult if not impossible to accurately estimate. Contractor shall pay the County liquidated damages in accordance with Georgia Department of Transportation Standard Specifications, Section 108 for each calendar day in excess of the Contract Time unless an extension of the Contract Time has been obtained by Change Order, as defined in the Contract, prior to the expiration of the Contract Term as defined in the Contract.

III. PAYMENT

- A. **Contract Price.** As full payment for the faithful performance of this Contract, the County shall pay the Contractor, the Contract Price, which is an amount not to exceed \$_____, unless changed by written Change Order in accordance with the terms of this Contract. The term "Change Order" includes the term "amendment" and shall mean a written order authorizing a change in the Work, and an adjustment in Contract Price to Contractor or the Contract Term, as adopted and approved by the Contractor and the DeKalb County Governing Authority, or the Chief Executive Officer, if exempted from Governing Authority adoption and approval in accordance with the express terms of this Contract. The Chief Executive Officer or his/her designee shall have the authority to approve and execute a Change Order lowering the Contract Price or increasing the Contract Price up to twenty percent (20%) of the original Contract Price, provided that the total amount of the increase authorized by such Change Order is less than \$100,000.00. If the original Contract or Purchase Order Price does not exceed \$100,000.00, but the Change Order will make the total Contract Price exceed \$100,000.00, then the Change Order will require approval by official action of the Governing Authority. Any other increase of the Contract Price shall be by Change Order adopted and approved by the DeKalb County Governing Authority and the Contractor in accordance with the terms of this Contract. Amounts paid to the Contractor shall comply with and not exceed Attachment A, the Contractor's Cost Proposal, consisting of

_____ page(s) attached hereto and incorporated herein by reference. Payment is to be made no later than thirty (30) days after submittal of undisputed invoice.

B. Payment Requests and Invoices. Payment Requests and invoice(s) must be submitted as follows:

- (1) Original(s) must be submitted to:

DeKalb County
Department of Public Works – Transportation Division
1950 West Exchange Place, 4th Floor
Tucker, GA 30084
Attn: Engineering Supervisor

- (2) A copy must be submitted with completed Prime Contractor Disadvantage Business Enterprise (“DBE”) Utilization Report and DBE Subcontractor Report to:

DeKalb County
Department of Purchasing & Contracting
1300 Commerce Drive, 2nd Floor
Decatur, Georgia 30030

C. Title. All equipment, materials, and Work covered by partial payments shall, upon payment thereof, become the sole property of the County, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of equipment, materials, and Work upon which payments have been made, or the restoration of any damaged Work.

D. Final Payment. Within sixty (60) days after the Work is fully completed and accepted by the County, the balance due hereunder shall be paid; provided, however, that final payment shall not be made until said Contractor shall have completed all Work necessary and reasonably incidental to the Contract, including final cleanup and restoration. Acceptance of the Work and the making of final payment shall not constitute a waiver of any claims by the County. All claims by the Contractor for breach of contract, violation of state or federal law, or compensation and extensions of time shall be submitted in writing to the Chief Executive Officer within sixty (60) days after completion and acceptance of the Work as herein provided, or all such claims shall be forever barred.

IV. NOTICE

Any notice or consent required to be given by or on behalf of any party hereto to any other party hereto shall be in writing and shall be sent to the County’s Chief Executive Officer and the Executive Assistant or to the Contractor or his authorized representative on the work site by (a) registered or certified United States mail, return receipt requested, postage prepaid, (b) personal delivery, or (c) overnight courier service. All notices sent to

the addresses listed below shall be binding unless said address is changed in writing no less than fourteen days before such notice is sent. Future changes in address shall be effective upon written notice being given by the Contractor to the County's Executive Assistant or by the County to the Contractor's authorized representative via certified first class U.S. mail, return receipt requested. Such notices will be addressed as follows:

If to the County:

Chief Executive Officer
The Maloof Center
1300 Commerce Drive, 6th Floor
Decatur, Georgia 30030

and

Executive Assistant
The Maloof Center
1300 Commerce Drive, 6th Floor
Decatur, Georgia 30030

With a copy to: Director of the Department of Purchasing and Contracting
The Maloof Center
1300 Commerce Drive, 2nd Floor
Decatur, Georgia 30030

With a copy to: DeKalb County
Department of Public Works – Transportation Division
1950 West Exchange Place, 4th Floor
Tucker, GA 30084
Attn: Engineering Supervisor

If to the Contractor:

With a copy to: *(Insert Contractor name and address)*

V. FEDERAL WORK AUTHORIZATION

- A. Pursuant to O.C.G.A. §13-10-91, the County cannot enter into a contract for the physical performance of services unless the Contractor, its Subcontractor(s) and sub-subcontractor(s), as that term is defined by state law, register and participate in the Federal Work Authorization Program to verify specific information on all new employees.

- B. Contractor certifies that it has complied and will continue to comply throughout the Contract Term with O.C.G.A. §13-10-91 and any related and applicable Georgia Department of Labor Rule.
- C. Contractor agrees to sign an affidavit evidencing its compliance with O.C.G.A. §13-10-91. The signed affidavit is attached to this Contract as Attachment B.
- D. Contractor agrees that in the event it employs or contracts with any Subcontractor(s) in connection with this Contract, Contractor will secure from each Subcontractor an affidavit that certifies the Subcontractor's current and continuing compliance with O.C.G.A. §13-10-91 throughout the Contract Term. Any signed Subcontractor affidavit(s) obtained in connection with this Contract shall be attached hereto as Attachment C.
- E. Each Subcontractor agrees that in the event it employs or contracts with any sub-subcontractor(s), each Subcontractor will secure from each sub-subcontractor an affidavit that certifies the sub-subcontractor's current and continuing compliance with O.C.G.A. §13-10-91 throughout the Contract Term. Any signed sub-subcontractor affidavit(s) obtained in connection with this Contract shall be attached hereto as Attachment D.

VI. CORPORATE AUTHORITY

Contractor agrees to execute the Certificate of Corporate Authority, attached hereto as Attachment E. The officials of the Contractor executing this Contract are duly and properly in office and are fully authorized and empowered to execute the same for and on behalf of the Contractor. Contractor warrants that it has all requisite power and authority to enter into and perform its obligations under this Contract, and that the execution and delivery by the Contractor of this Contract and the compliance by the Contractor with all of the provisions of this Contract (i) is within the purposes, powers, and authority of the Contractor; (ii) has been done in full compliance with applicable law and has been approved by the governing body of the Contractor and is legal and will not conflict with or constitute on the part of the Contractor a violation of or a breach of or a default under any indenture, mortgage, security deed, pledge, note, lease, loan, or installment sale agreement, contract, or other agreement or instrument to which the Contractor is a party or by which the Contractor is otherwise subject or bound, or any license, judgment, decree, law, statute, order, writ, injunction, demand, rule, or regulation of any court or governmental agency or body having jurisdiction over the Contractor; and (iii) has been duly authorized by all necessary action on the part of the Contractor. This Contract is the valid, legal, binding and enforceable obligation of the Contractor.

VII. PERFORMANCE AND PAYMENT BONDS

- A. Within ten (10) days from the date of Notice of Award of this Contract, the Contractor, as principal, shall give a Contract performance bond equals to \$ 100% of the Contract Price, attached hereto as Attachment F and a payment bond, attached hereto as Attachment G, equals to \$ 110% of the Contract Price, for the use of all persons doing work or furnishing skills, tools, machinery, or materials under or for the purpose of this Contract, in accordance with the applicable provisions of Georgia state law, including but not limited to, O.C.G.A. §13-10-1 and §36-91-21 *et seq.* The bonds shall be underwritten by a surety company licensed to write bonds in the State of Georgia, listed in the most current U.S. Treasury Circular No. 570, and which have a current A.M. Best rating of "A" (Excellent) with a Financial Size Category of XII or better. The life of these bonds shall extend throughout the Contract Term including a sixty (60) day maintenance period (where applicable) and a twelve-month guarantee period after the completion of Work performed under this Contract. The bonds shall issue on the forms provided by the County as part of this Contract.
- B. It is further agreed between the parties hereto that if at any time after the execution of this Contract and the surety bonds, the County shall deem the surety or sureties upon such bonds to be unsatisfactory, or if, for any reason, such bonds cease to be adequate to cover the performance of the Work, the Contractor shall, at its sole expense and within five (5) days after the receipt of notice from the County to do so, furnish additional bond or bonds in such form and amount and with such surety or sureties as shall be satisfactory to the County.

VIII. NEW ETHICS POLICY

- A. To the extent that the Organizational Act, Section 22A, the Code of DeKalb County, and the rules of Executive Order 2014-4 allow a gift, meal, travel expense, ticket, or anything else of value to be purchased for a CEO or employee by a contractor doing business with the County, the contractor must provide written disclosure, quarterly, of the exact nature and value of the purchase to the Chief Integrity Officer, if created, or the Finance Director or his/her designee. Additionally, every contractor who conducts business with the County will receive a copy of the ethical rules at the time of execution of the contract.
- B. Copies of Required Executive Order 2014-4, New Ethics Policy Page(s) shall be attached hereto as Attachment I.

IX. ATTACHMENTS

- A. This Contract includes the following Attachments all of which are incorporated herein by reference:

Attachment A, General Requirements, GR-1 through GR-44.

Attachment B, Contractor's Affidavit.

Attachment C, Subcontractor's Affidavit(s).

Attachment D, Sub-subcontractor's Affidavit(s).

Attachment E, Certificate of Corporate Authority or Joint Venture Certificates

Attachment F, Performance Bond and Accompanying Power of Attorney

Attachment G, Payment Bond and Accompanying Power of Attorney

Attachment H, Copies of Required Insurance policies with Declarations Page(s)

Attachment I, Federal Highway Administration ("FHWA") Funds requirement

Attachment J, DeKalb County Code of Ethic Page(s)

Attachment K, Federal Documents (See Exhibit 4)

- B. In addition to the foregoing, the Bid Document Package dated _____, the original of which is maintained in the County's Department of Purchasing and Contracting, forms an essential part of this Contract as if fully set out herein.

X. FUNDING CLAUSE

The Contractor has been informed and understands that funding for this Contract is provided under the Federal and HOST Funds and expressly agrees that performance of the Contract, in whole or in part, is contingent upon and subject to the availability of such funding under the Federal and HOST Funds of DeKalb County, Georgia.

[SIGNATURES APPEAR ON NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have set their hands and caused their seals to be affixed hereupon in four (4) counterparts, each to be considered as an original by their authorized representatives.

NAME OF CONTRACTOR

DEKALB COUNTY, GEORGIA

By: _____
Signature (SEAL)

_____ **by Dir.(SEAL)**
MICHAEL L. THURMOND
Chief Executive Officer
DeKalb County, Georgia

Name (Typed or Printed)

Date

Title

Federal Tax I.D. Number

Date

ATTEST:

ATTEST:

Signature

BARBARA H. SANDERS, CCC
Clerk of the Chief Executive Officer
and Board of Commissioners of
DeKalb County, Georgia

Name (Typed or Printed)

Title

APPROVED AS TO SUBSTANCE:

APPROVED AS TO FORM:

DeKalb County
Department Director

County Attorney Signature

County Attorney Name
(Typed or Printed)

ATTACHMENT A

GENERAL REQUIREMENTS

INDEX TO GENERAL REQUIREMENTS

<u>Section</u>	<u>Title</u>
GR-1	Definitions of Terms
GR-2	Prior Use by County.....
GR-3	Contractor’s Obligations
GR-4	Authority of the County
GR-5	Changes in the Work and Change Orders.....
GR-6	Time for Completion.....
GR-7	Schedules, Reports, and Records.....
GR-8	County’s Right to Suspend or Terminate Work
GR-9	Final Inspection
GR-10	Warranties, Guarantees and Correction of Work.....
GR-11	Contractor’s Personnel and Independent Contractor Status
GR-12	Subcontracting
GR-13	Assignments.....
GR-14	Indemnification and Hold Harmless.....
GR-15	Royalties and Patents
GR-16	Laws and Regulations.....
GR-17	Permits and Inspection Fees.....
GR-18	Land and Rights-of-Way.....
GR-19	Protection of Work, Property, and Persons.....
GR-20	Prohibited Interests
GR-21	Foreign Corporations
GR-22	Specification and Drawings
GR-23	Contractor’s Submittals
GR-24	As-Built Drawings
GR-25	Examination of Work by Contractor.....
GR-26	Inspection and Testing of Materials.....
GR-27	Inspection of Work
GR-28	Requests for Substitutions.....
GR-29	Rejections of Work and Materials
GR-30	Materials, Services, and Facilities
GR-31	Utilities during Construction.....
GR-32	Temporary Heat and Air Conditioning
GR-33	Maintenance Manual.....
GR-34	Weather Conditions
GR-35	Lines, Grades, and Measurements
GR-36	Cleaning Up

GR-37 Barricades
GR-38 No Third-Party Beneficiary.....
GR-39 Severability
GR-40 Interpretation.....
GR-41 Prior Contracts; Conflict in Documents.....
GR-42 Entire Agreement.....
GR-43 Counterparts.....
GR-44 Venue

SAMPLE

GR-1. DEFINITIONS OF TERMS

The section captions contained in this Contract are for convenience only and do not in any way limit or amplify any term or provision hereof. The use of the terms "hereof," "hereunder" and "herein" shall refer to this Contract as a whole, inclusive of the Attachments, except when noted otherwise. The use of the masculine or neuter genders herein shall include the masculine, feminine and neuter genders and the singular form shall include the plural when the context so requires. The following terms shall have the meanings indicated:

“Addendum” or “Addenda” shall mean written or graphic instruments issued prior to the execution of the Contract, which modify or interpret the Work, or the Invitation to Bid by additions, deletions, clarifications, or corrections.

“Bid” shall mean the offer of the Bidder submitted on the prescribed form setting forth the price(s) for the Work to be performed.

“Bid Document Package” shall consist of documents entitled as follows: Acknowledgement of Contractor, Advertisement for Bids, Instructions to Bidders, Addenda, Business License, Utility Systems Contractor’s License, Utility Manager’s Certificate, Utility Foreman’s Certificate, General Contractor’s License, Bidder’s Lump Sum Cost, Bidder’s Unit Price, Certificate of Corporate Bidder, Certificate of Authority/Joint Venture, Bidder’s Affidavit of Compliance with O.C.G.A.13-10-91, Reference and Release Form, Preferred Employee Tracking Form, Subcontractor Tracking Form, Bid Bond and Power of Attorney, Public Works Construction Affidavit and Oath of Successful Bidder, Technical Specifications, and Drawings.

“Bidder” shall mean any person, firm, or corporation submitting a Bid for the Work.

“Bonds” shall mean bid, performance, and payment bonds and other instruments of security, furnished by the Contractor and his surety in accordance with the Contract.

“Change Order” includes the term “amendment” and shall mean a written order authorizing a change in the Work, if applicable, and an adjustment in the Contract Price, Contract Time or Contract Term, as adopted and approved by the Contractor and the DeKalb County Governing Authority, or the Chief Executive Officer, if exempted from Governing Authority adoption and approval in accordance with the express terms of this Contract.

“Contract” or “Agreement” shall consist of the written Contract executed by the parties, all attachments to the Contract, Change Orders, Field Orders, and the Bid Document Package. The intent of these documents is for the Contractor to furnish all materials, appliances, tools, labor and services of every kind necessary for the proper execution of the Work, and the terms and conditions of payment therefore.

“Contract Price” shall mean the total monies payable to the Contractor under the terms and conditions of the Contract.

“Contract Time” shall mean the number of days stated in the Contract for the completion of the Work.

“Contract Term” shall mean the length of time the Contract shall remain in effect.

“Contractor” or “General Contractor” shall mean the individual, firm, joint venture or corporation undertaking the execution of the Work as an independent contractor under the terms of the Contract and acting through his or its agents or employees.

“County” shall mean DeKalb County, Georgia.

“Day(s)” shall mean calendar day(s).

“Drawings” shall mean the part of the Contract which shows, largely through graphical presentation, the characteristics and scope of the Work to be performed and which have been prepared or approved by the County. The Drawings are included in the Bid Document Package.

“Field Order” shall mean a written order issued by an authorized County official/employee to the Contractor during construction effecting a change in the Work by authorizing an addition, deletion, or revision in the Work within the general scope of the Work not involving an adjustment in the Contract Price or a change to the Contract Time or Term. No Field Order shall be valid or effective unless it is signed by the County employee(s) who has been authorized in writing by the Chief Executive Officer or his/her designee to execute Field Orders.

“Notice of Award” shall mean a written notice of the acceptance of the Bid from the County to the successful Bidder.

“Notice to Proceed” shall mean a written communication issued by the County authorizing the Contractor to proceed with the Work and establishing the date of commencement of the Work. The effective date of the Notice to Proceed shall be the date set forth on the Notice to Proceed.

“Project” shall mean the undertaking to be performed as provided in the Contract.

“Shall” is mandatory; “may” is permissive.

“Specifications” or “Technical Specifications” shall mean a part of the Contract consisting of written descriptions of a technical nature regarding materials, equipment, construction systems, standards, and workmanship specified for this Project.

“Subcontractor” shall mean any person, firm, or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work.

“Submittals” shall mean all shop drawings, diagrams, illustrations, brochures, schedules, samples, and other data which are prepared by the Contractor, a Subcontractor, manufacturer,

Supplier, or distributor, which illustrates how specific portions of the Work shall be fabricated or installed.

“Substantial Completion” or “Substantial Completion of the Work” shall mean that date determined by the County when the construction of the Project or an expressly stipulated part thereof is sufficiently completed, in accordance with the Contract, so that the Project or stipulated part can be fully utilized for the purposes for which it is intended.

“Superintendent” shall mean the Contractor’s authorized on-the-job representative designated in writing by the Contractor prior to commencement of any work.

“Supplier” shall mean any person, supplier, or organization who furnishes materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.

“Work” shall have the meaning assigned to that term in the article in the Contract entitled Scope of Work.”

GR-2. PRIOR USE BY COUNTY

Prior to completion of the Work, the County may take over operation and/or use of the Project or portions thereof. Such prior use of facilities by the County shall not be deemed as acceptance of any Work or relieve the Contractor from any of the requirements of the Contract.

GR-3. CONTRACTOR’S OBLIGATIONS

The Contractor shall, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities, and all things necessary or proper to perform and complete all the Work within the time herein specified and in accordance with the provisions of this Contract, the Specifications, the Drawings, and any and all supplemental drawings pertaining to the Work. Contractor shall furnish, erect, maintain, and remove such construction, plants, and such temporary works as may be required. Contractor alone shall be responsible for the safety, efficiency, and adequacy of its plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance, or operation. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements and limitations imposed by the Contract and local ordinances, and state and federal laws; and shall do, carry on, and complete the entire Work.

GR-4. AUTHORITY OF THE COUNTY

- A. The Contractor shall perform all of the Work under the general direction, and to the entire satisfaction, approval, and acceptance of the County. The County shall decide all questions relating to measurements of quantities, the character and

acceptability of the Work performed, and as to whether the rate of progress is such that the Work will be completed within the time limit of the Contract. All questions as to the meaning of the Drawings and the Specifications will be decided by the County.

- B. The approval of the County of any materials, plant, equipment, Drawings, or of any other items executed, or proposed by the Contractor, shall be construed only to constitute an approval of general design. Such approval shall not relieve the Contractor from the performance of the Work in accordance with the Contract, or from any duty, obligations, performance guarantee, or other liability imposed upon him by the provisions of the Contract.
- C. Whenever in this Contract, the words “directed,” “required,” “permitted,” “ordered,” or words of like import are used, it shall be understood that the direction, requirement, permission, or order of the County is intended, and similar words, “approved,” “acceptable,” “satisfactory,” or words of like import shall mean approved by, acceptable to, or satisfactory to the County.

GR-5. CHANGES IN THE WORK, FIELD ORDERS, AND CHANGE ORDERS

- A. All changes, alterations, or instructions in regard to any feature of the Work that differ from the Specifications and Drawings must be approved in writing by Field Order or Change Order in all cases. No verbal instruction or order will be regarded as a basis for a claim for extra compensation or time.
- B. If a minor change in the Work is found to be necessary due to actual field conditions, the Contractor shall submit detailed drawings and written notification of the problems necessitating such departure for approval by the County before making the change. If the Contractor fails to make such request, no excuse will be entertained thereafter for Contractor’s failure to carry out the Work in the required manner and to provide required guarantees, warranties, and Bonds, and Contractor shall not be entitled to any change in the Contract Price, Contract Time or the Contract Term.
- C. The County may at any time, by issuing a Field Order, make changes in the details of the Work. The Contractor shall proceed with the performance of any changes in the Work so ordered by the County unless such Field Order entitles the Contractor to a change in Contract Price, Time, and/or Term, in which event the Contractor shall give the County written notice thereof within fifteen (15) days after the receipt of the ordered change, and the Contractor shall not execute such changes until it receives an executed Change Order from the County. No extra cost or extension of time shall be allowed unless approved by the County and authorized by execution of a Change Order.

- D. The County may at any time order changes within the scope of the Work without invalidating the Contract.
- E. No claims for extra cost or time will be considered based on an escalation of prices throughout the Contract Term. The value of any work covered by a Change Order or of any claim for increase or decrease in the Contract Price shall be determined by one of the following methods in the order of precedence listed below.
- (1) Unit prices previously approved.
 - (2) An agreed lump sum.
 - (3) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the changed Work. In addition, there shall be added an amount agreed upon but not to exceed fifteen percent (15%) of the actual cost of such work to cover the cost of general overhead and profit.
- F. The parties' execution of any Change Order constitutes a final settlement of all matters relating to the change in the Work which is the subject of the Change Order, including, but not limited to, all direct or indirect costs associated with such change and any and all adjustment to the Contract Price and the construction schedule. In the event a Change Order increases the Contract Price, Contractor must include the Work covered by such Change Orders in requests for payment as if such Work were originally part of the Contract.

GR-6. TIME FOR COMPLETION

- A. The Contractor understands and agrees that the date of the beginning of Work, rate of progress, and time for completion of the Work are essential conditions of this Contract.
- B. The Contractor agrees that the Work shall be executed regularly, diligently, and uninterrupted at such rate of progress as will insure its full completion thereof within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the County, that the time for the completion of the Work described herein is a reasonable time for the completion of the same, taking into consideration the average climate range and usual industrial conditions prevailing in this locality.
- C. If extraordinary adverse weather conditions are the basis for a claim for additional time, such claim shall be supported by the attachment of records of the National Oceanic and Atmospheric Administration showing meaningful variances from historic trends thereby substantiating the fact that weather conditions were

abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction activities. The Contractor shall be entitled to an extension of the Contract Time only for extraordinary adverse weather conditions that unavoidably delay activities scheduled at that time, and then only for the number of days of delay which are due solely to such extraordinary adverse weather conditions. The Contractor is not entitled to any costs associated with extraordinary adverse weather conditions.

- D. The County shall not be liable to the Contractor or any Subcontractor for claims or damages of any nature caused by or arising out of delays, regardless of cause. The sole remedy against the County for delays shall be the allowance of additional time for completion of the Work, the amount of which shall be based on actual and unavoidable delay.

GR-7. SCHEDULES, REPORTS, AND RECORDS

- A. The Contractor shall submit to the County such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data as the County may request concerning the Work performed or to be performed. The Contractor shall also submit a schedule of payments that he anticipates earning during the course of the Work.
- B. That Contractor shall coordinate and hold a meeting with its major Subcontractors and the County to discuss the Project schedule. Such meeting shall be held prior to Commencement of the Work under this Contract, but in no event later than ten (10) days after execution of this Contract by all parties. At that meeting, the Contractor shall present a draft Project schedule, and the Contractor and its Subcontractors shall, in collaboration with the County, assist in the preparation of a detailed and specific construction schedule. The Contractor shall be responsible for preparing and updating such schedule, which shall be complete in all respects and shall, when approved by the County, become the Construction Schedule and be automatically incorporated into the Contract and shall not be changed without the prior written consent of the County. The Construction Schedule shall not exceed the Contract Time, shall be revised and updated at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract, shall utilize Critical Path Method (CPM) software that is compatible with County software, and shall provide for expeditious and practicable execution of the Work. The Construction Schedule shall be cost-loaded.
- C. The Construction Schedule shall, in such detail as the County may require, show the order in which Contractor will carry on the Work, including dates on which the various parts of the Work will start, and the estimated date of completion of each part. It shall also depict all requisite shop drawing submittals and approvals,

manufacturing, fabrication, the installation of materials, supplies and equipment, testing, start-up, and training.

- D. The Contractor shall prepare and keep current, for the County's approval, a schedule of submittals which is coordinated with the Construction Schedule and allows the County reasonable time to review submittals. The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the County.
- E. In the event the County determines that the performance of the Work has not progressed or reached the level of completion required by the Contract, the County will have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation, (1) working additional shifts or overtime; (2) supplying additional manpower, equipment, and facilities; and (3) other similar measures (hereinafter referred to collectively as "Extraordinary Measures"). Such Extraordinary Measures must continue until the progress of the Work complies with the stage of completion required by the Contract and the Construction Schedule. The County's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the Construction Schedule. The Contractor is not entitled to an adjustment in the Contract Price for undertaking Extraordinary Measures required by the County. The County may exercise the rights furnished the County under or pursuant to this paragraph as frequently as the County deems necessary to ensure that the Contractor's performance of the Work will comply with the completion date set forth in the Contract as the Contract Time.

GR-8. COUNTY'S RIGHT TO SUSPEND OR TERMINATE WORK

- A. *Termination for Convenience.* County may, for its own convenience and at its sole option, without cause and without prejudice to any other right or remedy of County, elect to terminate the Contract by delivering to the Contractor, at the address listed in the Notices article of this Contract, a written notice of termination specifying the effective date of termination. Such notice shall be delivered to Contractor at least thirty (30) days prior to the effective date of termination.
- B. *Termination for Default.* If the Contractor is adjudged bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the Contractor or for any of his property, or if he files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or applicable laws, or if he fails to supply sufficient skilled workers or suitable materials or equipment, make payments to Subcontractors or for labor, materials or equipment, or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the Work, or if he otherwise violates any provision of the Contract, then the County may, without prejudice to any other right or remedy, and after giving the Contractor and his surety a

maximum of seven (7) days from delivery of a written notice, declare the Contract in default and terminate this Contract. In that event, the County may take possession of the Project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor. The County may cause the Work to be completed and corrected by whatever method it deems expedient. If called upon by the County to finish the Work, the Contractor's surety shall promptly do so. In any case, the Contractor and its surety shall be liable to the County for any and all damages and costs incurred by the County as a result of any default by the Contractor, including without limitation all costs of completion or correction of the Work, liquidated damages, attorneys' fees, expert fees, and other costs of dispute resolution. Termination of this Contract pursuant to this paragraph may result in disqualification of the Contractor from bidding on future County contracts for a period of time not to exceed five (5) years.

- C. If Contractor's services are terminated by the County pursuant to paragraph A or B in this General Requirement, the termination will not affect any rights or remedies of the County then existing or which may thereafter accrue against Contractor or its surety. Any retention or payment of moneys due Contractor by County will not release Contractor from liability. If it is determined that the Contractor was not in default or that the failure to perform is excusable, a termination for default will be considered to have been a termination for the convenience of the County, and the rights and obligations of the parties shall be governed accordingly.
- D. In case of termination of this Contract before completion of the Work, Contractor will be paid only for materials and equipment accepted by the County and the portion of the Work satisfactorily performed through the effective date of termination as determined by the County.
- E. Except as otherwise provided in this General Requirement, neither party shall be entitled to recover lost profits, special, consequential or punitive damages, attorney's fees or costs from the other party to this Contract for any reason whatsoever.
- F. The parties' obligations pursuant to this General Requirement shall survive any Acceptance of Work, or expiration or termination of this Contract.

GR-9. FINAL INSPECTION

Upon notice from the Contractor that the Work is completed, the County shall make a final inspection of the Work, and shall notify the Contractor of all instances where the Work fails to comply with the Specifications and Drawings, as well as any defects the County may discover. At no cost to the County, the Contractor shall immediately make such alterations as are necessary to bring the Work into compliance with the Contract, the Drawings, and Specifications.

GR-10. WARRANTIES, GUARANTEES AND CORRECTION OF WORK

- A. The Contractor warrants to the County that materials and equipment furnished under the Contract will be new and of good quality, unless otherwise required or permitted by the Contract; that the Work will be free from defects not inherent in the quality required or permitted; and that the Work will conform to the requirements of the Contract. Work not conforming to these requirements, including substitutions not properly approved and authorized, is considered defective. The County, in its sole discretion, may exclude from the Contractor's warranty; remedies for damage or defect which the County determines were caused by abuse; modifications not executed by the Contractor; improper or insufficient maintenance; improper operation; and normal wear and tear and normal usage.
- B. Upon the completion of the Work, and as a condition of final payment, the Contractor shall guarantee in writing that all Work has been accomplished in conformance with the Contract. If required by the County, the Contractor shall also furnish additional satisfactory evidence as to the kind and quality of materials and equipment.
- C. The Contractor shall promptly, and in no event later than 48 hours after receiving written demand from the County, remedy any error, omission, defect, or non-compliance in the Work discovered by the County during construction or at any time thereafter until one year after the final completion of the Work. Nothing herein shall be deemed to shorten any statutory period of limitation otherwise applicable to any legal action by the County against the Contractor.
- D. Contractor shall pay for any damage caused by any omission or defect in the Work, including without limitation, any damage to other improvements or facilities. In the event that the Contractor should fail to timely make repairs, adjustments, or other remedy that may be made necessary by such defects, the County may do so, and charge the Contractor the cost thereby incurred.
- E. All warranties and guaranties shall extend for the greatest of one (1) full year commencing on the dates of Substantial Completion of the Project or such longer period of time as is required by the Contract. The one (1) year period shall be extended with respect to portions of the Work first performed after Substantial Completion for a period of one (1) year after the actual performance of the Work. If any defect or deviation should exist, develop, be discovered or appear within such one (1) year period, the Contractor, at its sole cost and expense and immediately upon demand, shall fully and completely repair, correct, and eliminate such defect. The foregoing warranties and guarantees are cumulative of and in addition to, and not restrictive of or in lieu of, any and all other warranties and guarantees provided for or required by law. No one or more of the warranties contained herein shall be deemed to alter or limit any other. The Performance

Bond shall remain in full force and effect throughout the applicable guarantee period set forth in this paragraph.

- F. Neither the final payment nor any provision of the Contract, nor partial or entire occupancy or use of the Work by the County, shall constitute an acceptance of any part of the Work that is not in accordance with the Contract or relieve the Contractor of liability for incomplete or faulty materials or workmanship.
- G. All manufacturer warranties and guarantees shall be delivered to the County prior to Substantial Completion and such delivery shall be a condition precedent to the issuance of the Certificate of Substantial Completion. Before final payment, the Contractor shall assign and transfer to the County all guarantees, warranties and agreements from all contractors, Subcontractors, vendors, Suppliers, or manufacturers regarding their performance, quality of workmanship or quality of materials supplied in connection with the Work. The Contractor represents and warrants that all such guarantees, warranties and agreements will be freely assignable to the County, and that upon final completion of the Work, all such guarantees, warranties and agreements shall be in place and enforceable by the County in accordance with their terms. Contractor's obligations pursuant to this General Requirement shall survive any acceptance of Work, or termination or expiration of this Contract.
- H. The Contractor is not responsible for defects arising from pre-existing conditions or damages caused by others.

GR-11. CONTRACTOR'S PERSONNEL AND INDEPENDENT CONTRACTOR STATUS

- A. The Contractor will supervise and direct the Work, including the Work of all Subcontractors. Contractor will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. An experienced Superintendent and necessary assistants competent to supervise the particular types of work involved shall be assigned to the Project by the Contractor, and shall be available at all times when work is in progress. The name of the Superintendent shall be submitted with qualifications of same prior to the start of the Work. If approved by the County, the Superintendent so named by the Contractor shall be employed by the Contractor and shall have served in a supervisory capacity on at least one Project of like description and size performed by the Contractor during the previous twelve months. Under no circumstances shall an employee of any Subcontractor serve as the Superintendent, unless approved by the County prior to being named Superintendent. The Superintendent shall represent the Contractor, and all directions given to the Superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.
- B. The Contractor shall not change key members of its staff without the prior

consent of the County, unless such staff members prove to be unsatisfactory to the Contractor and cease to be in its employ. If the Contractor intends to change a key staff member (defined as certain full-time personnel stationed at the site including Project Manager, Superintendent, Project Engineer, Assistant Project Manager, Assistant Superintendent, or Assistant Project Engineer) it shall give the County written notice at least fifteen (15) days prior to the intended change. The written notice shall include a description of qualifications for the new proposed key staff member. The County shall have the right to approve or disapprove the proposed key staff member.

- C. Only persons skilled in the type of work which they are to perform shall be employed. The Contractor shall, at all times, maintain discipline and good order among his employees, and shall not employ any unfit person or persons or anyone unskilled in the work assigned him.
- D. The relationship between the County and the Contractor shall be that of owner and independent contractor. Other than the consideration set forth herein, the Contractor, its officers, agents, servants, employees, and any Subcontractors shall not be entitled to any County employee benefits including, but not limited to social security, insurance, paid annual leave, sick leave, worker's compensation, free parking or retirement benefits. All services provided by Contractor shall be by employees of Contractor or its Subcontractors and subject to supervision by Contractor. No officer or employee of Contractor or any Subcontractor shall be deemed an officer or employee of the County. Personnel policies, tax responsibilities, social security payments, health insurance, employee benefits and other administrative policies, procedures or requirements applicable to the Work or services rendered under this Contract shall be those of the Contractor, not the County.

GR-12. SUBCONTRACTING

- A. The Contractor understands and agrees that it shall be a breach of this Contract to subcontract any portion of the Work on this Project unless
 - 1. The Work and the Subcontractor proposed to perform it have been declared in the Bid to the Contract; or
 - 2. The Contractor shall have obtained advance written approval from the County.
- B. The Contractor further understands and agrees that any work on this Project, which the Contractor secures in violation of this General Requirement, shall be deemed a donation from the Contractor for which the County shall not be obligated to pay. Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the County. Upon request, Contractor

shall provide the County with copies of each of its contract(s) and amendments with each Subcontractor.

- C. Nothing contained in this Contract shall create, nor be interpreted to create privity, or any other relationship whatsoever, between the County and any person, or entity or than Contractor.

GR-13. ASSIGNMENTS

The Contractor agrees it shall not sublet, assign, transfer, pledge, convey, sell, or otherwise dispose of the whole or any part of this Contract or his right, title, or interest therein to any person, firm, or corporation without the previous written consent of the County. If the County consents to any such assignment or transfer, then the Contractor binds itself, its partners, successors and assigns to all covenants of this Contract.

GR-14. INDEMNIFICATION AND HOLD HARMLESS

- A. The Contractor shall be responsible from the execution date or from the time of the beginning of the Work, whichever shall be the earlier, for all injury or damage of any kind resulting from the Work, to persons or property, including employees and property of the County. The Contractor shall exonerate, indemnify, and save harmless the County, its elected officials, officers, employees, agents and servants, hereinafter collectively referred to in this General Requirement as “the County Indemnitees,” from and against all claims or actions based upon or arising out of any damage or injury (including without limitation any injury or death to persons and any damage to property) caused by or sustained in connection with the performance of this Contract or by conditions created thereby or arising out of or any way connected with Work performed under this Contract, as well as all expenses incidental to the defense of any such claims, litigation, and actions. Furthermore, Contractor shall assume and pay for, without cost to the County Indemnitees, the defense of any and all claims, litigation, and actions suffered through any act or omission of the Contractor, or any Subcontractor, or anyone directly or indirectly employed by or under the supervision of any of them. Notwithstanding any language or provision in this Contract, Contractor shall not be required to indemnify any County Indemnitee against claims, actions, or expenses based upon or arising out of the County Indemnitee’s sole negligence.
- B. As between the County Indemnitees and the Contractor as the other party, the Contractor shall assume responsibility and liability for any damage, loss, or injury, including death, of any kind or nature whatever to person or property, resulting from any kind of claim made by Contractor’s employees, agents, vendors, Suppliers or Subcontractors caused by or resulting from the performance of Work under this Contract, or caused by or resulting from any error, omission, or the negligent or intentional act of the Contractor, vendors, Suppliers, or Subcontractors, or any of their officers, agents, servants, or employees. The Contractor shall defend, indemnify, and hold harmless the County Indemnitees

from and against any and all claims, loss, damage, charge, or expense to which they or any of them may be put or subjected by reason of any such damage, loss, or injury.

- C. The Contractor expressly agrees to provide a full and complete defense against any claims brought or actions filed against the County Indemnitees, where such claim or action involves, in whole or in part, the subject of the indemnity contained in this Contract, whether such claims or actions are rightfully or wrongfully brought or filed. The County has the sole discretion to choose the counsel who will provide the defense.
- D. No provision of this Contract and nothing herein shall be construed as creating any individual or personal liability on the part of any elected official, officer, employee, agent or servant of the County, nor shall the Contract be construed as giving any rights or benefits hereunder to anyone other than the parties to this Contract.
- E. The parties agree that Contractor shall be liable for all fines or civil penalties, which may be imposed by any local, federal or state department or regulatory agency that are a result of Contractor's performance of the Work under this Contract. Contractor shall pay the costs of contesting any such fines. The parties' obligations pursuant to this General Requirement shall survive any acceptance of Work, or termination or expiration of this Contract.

GR-15. ROYALTIES AND PATENTS

The Contractor shall hold and save the County and its elected officials, officers, agents, servants, and employees harmless from liability of any nature or kind, including cost and expenses for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the County, unless otherwise specifically stipulated in the Contract.

GR-16. LAWS AND REGULATIONS

- A. The Contractor's attention is directed to the fact that all applicable federal, state, and County laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full. The Contractor shall keep itself and its employees and Subcontractors fully informed of all laws, ordinances, and regulations in any manner affecting those engaged or employed in the Work or the materials used in the Work or in any way affecting the conduct of the Work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If Contractor discovers any discrepancy or inconsistency in this Contract or in the Drawings or Specifications in relation to any such law,

regulation, ordinance, order, or decree, Contractor shall promptly report the same, in writing, to the County. Contractor shall at all times observe and comply with all such laws, ordinances, and regulations, and shall protect and indemnify the County and its agents against any all damages and claims arising out of any violation of such law, ordinance, regulation, order, or decree, whether by Contractor or its employees or Subcontractors.

- B. Contractor shall not discriminate against any person in its operations, activities or performance of Work under this Contract. Contractor shall affirmatively comply with all applicable provisions of federal, state and local equal employment laws and shall not engage in or commit any discriminatory practice against any person based on race, age, religion, color, gender, national origin, physical or mental disability, or political affiliation. Contractor shall maintain a Drug Free Workplace.

GR-17. PERMITS AND INSPECTION FEES

- A. Permits shall be secured by the Contractor, and inspections will be required, but the County will not charge the Contractor for permits and inspections obtained from the County. The Contractor shall secure and pay for any permits and inspection fees required by any other governmental entity or agency.
- B. Prior to execution of this Contract, Contractor shall provide the County with a copy of its current, valid business license. If Contractor is not a Georgia corporation, Contractor shall submit a certificate of authority to transact business in the state of Georgia and a copy of their valid business license issued by their home jurisdiction. Contractor shall provide the County with copies of all other required licenses, certifications and permits for the Contractor and/or all of Contractor's employees, personnel, agents or Subcontractors performing services that require licensure by the federal government, the State of Georgia, or the County. Contractor hereby warrants and represents that at all times during the Contract Term it shall maintain in good standing all required licenses, certifications, and permits required under federal, state and local laws necessary to perform the services required by this Contract.

GR-18. LAND AND RIGHTS-OF-WAY

Prior to entering on any land or right-of-way, the Contractor shall ascertain the requirements of applicable permits or easements obtained by the County, and shall conduct his work in accordance with requirements thereof, including the giving of notice. The Contractor shall be fully responsible for performing work to the requirements of any permit or easement granting entity, even though such requirements may exceed or be more stringent than that otherwise required by the Contract, and shall compensate the County fully for any loss or expense arising from failure of the Contractor to perform as required by such entity. The Contractor shall provide, at its own expense without liability to the County, any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials.

GR-19. PROTECTION OF WORK, PROPERTY, AND PERSONS

- A. The Contractor is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the Project and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, lakes, drainage ways, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.
- B. The Contractor shall erect and maintain, as required by the conditions and progress of the Work, all necessary warning safeguards for devices and the safety and protection of the Work, the public and adjoining property.
- C. If existing utilities or structures are indicated by the Contract, no warranty is made as to the accuracy or completeness of such indication or the information provided regarding such utilities or structures. The Contractor shall comply with all applicable state law concerning the marking and location of existing utilities. The Contractor shall, prior to commencing other on-site work, accurately locate above and below ground utilities and structures, which may be affected by the Work, using whatever means may be appropriate, and shall verify the nature and condition of such utilities and structures. The Contractor shall mark the location of existing utilities and structures, if they are not otherwise readily visible, with flagging, stakes, barricades, or other suitable means, and shall preserve and protect all utilities and structures not designated for removal, relocation, or replacement in the course of construction. Contractor shall notify the County promptly of discovery of any conflict between the Contract and any existing facility.
- D. All existing utilities, both public and private, including but not limited to, sewer, gas, water, electrical, and telephone services, shall be protected and their operation shall be maintained through the course of the Work. Any temporary shutdown of an existing service shall be arranged between the Contractor and the responsible agency. The Contractor shall assume full responsibility and hold the County harmless from the result of any damage that may occur as a result of the Contractor's activities in this regard.
- E. In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, or unanticipated conditions where delay would substantially impact the time or cost of work, the Contractor, upon notification to the County, shall act to prevent threatened damage, injury, or loss. Any claim for compensation or extension of time by the Contractor due to such extra work shall be submitted to the County within ten (10) days of the date of performing such work or deviations in the manner prescribed for a Change Order.

GR-20. PROHIBITED INTERESTS

No official of the County who is authorized in such capacity and on behalf of the County to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction, or material supply contract, or any subcontract in connection with the construction of the Project, shall become directly or indirectly interested personally in this Contract or in any part hereof. No officer, employee, architect, attorney, engineer, or inspector of or for the County who is authorized in such capacity and on behalf of the County to exercise any legislative, executive, supervisory, or other similar functions in connection with the construction of the Project, shall become directly or indirectly interested personally in this Contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the Project.

GR-21. FOREIGN CORPORATIONS

In the event the Contractor is a foreign corporation, partnership, or sole proprietorship, the Contractor hereby irrevocably appoints the Georgia Secretary of State as its agent for service of all legal process for the purposes of this Contract only.

GR-22. SPECIFICATIONS AND DRAWINGS

- A. The Specifications, the Drawings and the Contract shall be supplementary to each other, and any material, workmanship, and/or service which may be in one, but not called for in the others, shall be as binding as if indicated, called for, or implied by all.

- B. Each section or type of work is described separately in the Technical Specifications; however, should any item of material, equipment, work, or combinations of such be required in one section, and not be described in that section and a similar item described in another section, that description shall apply regardless of the section under which it is described.
- C. Any discrepancies found between the Specifications and Drawings and site conditions, or any inconsistencies or ambiguities in the Drawings or Specifications shall be immediately reported to the County, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies, or ambiguities shall be done at the Contractor's risk.
- D. INTENTIONALLY OMITTED
- E. The Contractor shall furnish, with reasonable promptness, all samples as directed by the County for approval for conformance with the design concept of the Project and for compliance with the information stated in the Contract. The Work shall be in accordance with approved samples.
- F. The County may, without changing the scope of the Work, furnish the Contractor additional instructions and detail drawings, as necessary to carry out the Work required by the Contract. The additional drawings and instructions thus supplied will become a part of the Contract. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.
- G. Attention is directed to the fact that the detailed Specifications and separate sections may be written in short or abridged form. In regard to every section of the Specifications and all parts thereof, mentioned therein, or indications on the Drawings of articles, materials, operations, or methods, require that the Contractor:
- (1) Provide each item mentioned and indicated of a quality or subject to qualifications noted;
 - (2). Perform according to conditions stated, each operation prescribed; and
 - (3) Provide therefore all necessary labor, equipment, and incidentals.
- H. For convenience of reference and to facilitate the letting of contracts and subcontracts, these Specifications are separated into titled sections. Such separation shall not, however, operate to make the County an arbiter to establish limits for the contracts between the Contractor and Subcontractors.

- I. Notwithstanding the appearance of such language in the various sections of the Specifications as, “The Paving Contractor,” “The Grading Contractor,” etc., the Contractor is responsible to the County for the entire Contract and the execution of all Work referred to in the Contract.

GR-23. CONTRACTOR’S SUBMITTALS

- A. The Contractor shall submit all Submittals to the official or employee so designated by the chief executive officer all Submittals as required under the Specifications and in such time and manner that will allow at least ten (10) days for the County’s review, pursuant to the Construction Schedule. No portion of the Work shall commence until all Submittals relating to such portion have been approved by the County.
- B. The approved Drawings will be supplemented by such shop drawings as are needed to adequately control the Work. Shop Drawings, product data, samples and other Submittals are not parts of the Contract. The purpose of their submittal is to demonstrate for those portions of the Work for which Submittals are required by the Contract, the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract. Informational Submittals, upon which a County employee, the Architect or Engineer, if retained by the County in connection with the Project, is not expected to take responsive action, may be so identified in the Contract. Submittals which are not required by the Contract may be returned by the County without action. The approval of a Submittal shall not authorize any deviation from or alteration of the Drawings or Specifications absent a Change Order or Field Order.
- C. Shop drawings to be furnished by the Contractor for any structure shall consist of such detailed drawings as may be required for the execution of the Work.
- D. Drawings for false work, centering, and form work may also be required per the Specifications and in such cases shall be likewise subjected to approval unless approval is waived.
- E. The County’s review will be within reasonable promptness as to cause no delay in the Work. Approval of the Contractor’s Submittals does not relieve the Contractor of any responsibility for accuracy of dimensions and details or from otherwise ensuring that the Work complies with the requirements of the Contract. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of Submittals with the Specifications and Drawings. The County will review and approve or take other appropriate action upon the Contractor's Submittals such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance with information given and the

design concept expressed in the Contract. Review of submittals is not conducted for the purpose of determining the accuracy and completeness of details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract. The County's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences or procedures. The County's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

- D. It is the responsibility of the Contractor to check all Submittals before same are submitted to the County for approval. Submittals which have not been checked and approved by the Contractor will not be reviewed by the County.
- E. Submittals shall be submitted only by the Contractor who shall indicate by a signed stamp on the drawings that he has checked the Submittals and that the work shown on them is in accordance with Contract requirements and has been checked for dimensions and relationship with work of all other trades involved. Under no conditions shall Submittals be accepted from anyone other than the Contractor.
- F. The Contractor shall furnish the County with at least six copies of all Submittals for approval. Two finally approved copies will be returned to the Contractor for his use. The Contract Price shall include the cost of furnishing all Submittals and the Contractor will be allowed no extra compensation for such drawings.
- G. The approval of such Submittals shall not relieve the Contractor from responsibility for deviations from Drawings or the Specifications unless he has in writing called attention to such deviations, and the County has approved the changes or deviations in writing at the time of submission, nor shall it relieve him from the responsibility for errors of any kind in Submittals. When the Contractor does call such deviations to the attention of the County, he shall state in writing whether or not such deviations involve any extra cost. If this is not mentioned, it will be assumed that no extra cost is involved for making the change.
- H. The Contractor shall prepare and maintain a log of all Submittals which includes, at a minimum, the submittal number, revision number, description, responsible company, proposed submittal date, date actually submitted, date approved, any comments received, approval status, and resubmittal information. The log shall be updated at least on a monthly basis and made available to the County for review upon request.

GR-24. AS-BUILT DRAWINGS

The Contractor shall maintain a red-lined set of drawings on site during the progress of the Work, indicating any Field Orders, Change Orders and the location of the portion of the Work or equipment actually installed. The Contractor shall, upon completion of the Work,

furnish a marked set of reproducible drawings indicating any field changes and the location of Work as actually installed, if different from the requirements of the Contract, and deliver them to the County in hard copy as well as an electronic copy compatible with the County's software and hardware system.

GR-25. EXAMINATION OF WORK BY CONTRACTOR

It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the Work, the configuration of the ground, the character, quality, and quantity of the facilities needed preliminary to and during the prosecution of the Work, the general and local conditions, and all other matters which can in any way affect the Work or the cost thereof under this Contract.

GR-26. INSPECTION AND TESTING OF MATERIALS

Unless otherwise specifically provided for, the inspection and testing of materials and finished articles to be incorporated in the Work as required by the Specifications shall be made by the County, or bureaus, laboratories, or agencies selected by the County. The cost of such inspection and testing shall be paid by the Contractor unless County agrees to pay the cost. All testing is to meet the requirements outlined in the GDOT Sampling, Testing, and Inspection Guide. Materials and finished articles shall have passed the required tests prior to the incorporation of such materials and finished articles in the Work. The County may require, and the Contractor shall furnish if required to do so, certificates from manufacturers to the effect that the products or materials furnished by them for use in the Work comply with the applicable specified requirements for the materials or products being furnished. Additionally, all testing shall meet the requirements outlined in the GDOT Sampling, Testing, and Inspection Guide. Contractor must use suppliers on the appropriate GDOT Qualified Products List (QPL).

GR-27. INSPECTION OF WORK

- A. The Contractor shall, at all times, permit and facilitate inspection of the Work by authorized representatives of the County and public authorities having jurisdiction in connection with the Work of this Contract. The presence or observations of the County or its representative at the site of the Work shall not be construed to, in any manner, to relieve the Contractor of its responsibility for strict compliance with the provisions of the Contract.
- B. If the Drawings, Specifications, County's instructions, laws, ordinances, or a public authority require any work to be specially tested or approved, the Contractor shall give the County timely notice of its readiness for observation or inspection. If the inspection is by another authority, then the County shall be advised of the date fixed for such inspection. Required certificates of inspection shall be secured by the Contractor. Contractor, having secured all certificates of inspection, will deliver same to the County upon completion. If any Work should be covered up without approval or consent of the County, it shall, if required by

the County, be uncovered for examination at the Contractor's expense. The recovering of such Work after inspection shall be at Contractor's expense.

- C. Should any disagreement or difference arise as to the estimate, quantities, or classifications or as to the meaning of the Drawings or Specifications, or any point concerning the character, acceptability, and nature of the several kinds of work, any materials and construction thereof, the decisions of the County shall be final and conclusive and binding upon all parties to the Contract.
- D. If the County determines that portions of the Work require additional testing, inspection or approval beyond the requirements of the Specifications, the County will instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the County, and the Contractor shall give timely notice to the County of when and where tests and inspections are to be made so that the County may be present for such procedures. Such costs, except as provided below, shall be at the County's expense.
- E. If such procedures for testing or inspection reveal failure of the portions of the Work to comply with requirements established by the Contract, all costs made necessary by such failure including those of repeated procedures shall be at the Contractor's expense.
- F. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract, be secured by the Contractor and promptly delivered to the County or the Architect if one is retained by the County in connection with the Project. Tests or inspections conducted, pursuant to the Contract, shall be made promptly to avoid unreasonable delay in the Work.

GR-28. REQUESTS FOR SUBSTITUTIONS

- A. Requests for substitutions of proprietary products or of a particular manufacturer, vendor, or Subcontractor must be accompanied by the following documentation:
 - (1) Full explanation of the proposed substitution and submittal of all supporting data including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and other like information necessary for a complete evaluation of the substitution;
 - (2) Reasons the substitution is advantageous or necessary, including benefits to the County and the Work in the event the substitution is acceptable;
 - (3) The adjustment, if any, in the Contract Price, in the event the substitution is acceptable;
 - (4) The adjustment, if any, in the Contract Term or Time and the construction schedule in the event the substitution is acceptable;

- (5) An affidavit stating that (1) the proposed substitution conforms and meets all the requirements of the pertinent Specifications and the requirements shown on the Drawings and (2) the Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified;
- (6) Proposals for substitutions must be submitted in triplicate to the County in sufficient time to allow the County no less than ten (10) working days for review; and
- (7) No substitutions will be considered or allowed without the Contractor's submittal of complete substantiating data and information as stated hereinbefore.

B. Substitutions and alternates may be rejected at the County's discretion without explanation and will be considered only under one or more of the following conditions:

- (1) Required for compliance with interpretation of code requirements or insurance regulations then existing;
- (2) Unavailability of specified products, through no fault of the Contractor; or
- (3) Subsequent information discloses inability of specified products to perform properly or to fit in designated space;
- (4) Manufacturer/fabricator refuses to certify or guarantee performance of specified product as required; and
- (5) When in judgment of the County, that a substitution would be substantially to the County's best interests, in terms of costs, time, or other considerations.

C. Whether or not any proposed substitution is accepted by the County, the Contractor must reimburse the County for any fees charged by the Architect or other consultants for evaluating each proposed substitute. By making requests for substitutions based on the above, the Contractor:

- (1) Represents and warrants that the Contractor has personally investigated the proposed substitute product or Subcontractor and determined that it is equal or superior in all respects to the product or Subcontractor previously specified;
- (2) Represents and warrants that the Contractor will provide the same warranty for the substituted product or for the workmanship of the

substituted Subcontractor, as applicable, that the Contractor would have provided for the product or Subcontractor previously specified;

- (3) Certifies that the cost data presented, in the form of certified quotations from Suppliers of both specified and proposed equipment is complete and includes all related costs under this Contract, but excludes costs under separate contracts, and waives all claims for additional costs related to the substitution which subsequently become apparent; and
 - (4) Agrees that the Contractor will coordinate the installation of the accepted substitution, making such changes as may be required for the Work to be complete and in accordance with the Contract in all respects.
- D. Contractor shall not propose an item for substitution unless it is equal to or superior to the specified item or items in construction, efficiency, and utility. The opinion of the County as to the equality or superiority of the item shall be final, and no substitute material or article shall be purchased or installed without the County's written approval.
- E. In case of a difference in price, the County shall receive all benefits of the difference in cost involved in any substitution, when lower, and the Contract altered by Change Order to credit the County with any savings to be obtained. However, the County shall not be charged for any additional cost in the case of a price increase.

GR-29. REJECTIONS OF WORK AND MATERIALS

- A. All Work that is defective or deviates from the Drawings or Specifications will be rejected. All rejected Work shall be replaced immediately with other material, equipment, or work which conforms with the Specifications and Drawings at no additional cost to the County. If rejected Work is not removed within forty-eight hours from the date of letter of notification, the County shall have the right and authority to stop the Work immediately and/or to arrange for the removal of said rejected Work at the cost and expense of the Contractor.
- B. Inspection of the Work shall not relieve the Contractor of any of its obligations, and defective Work shall be made good regardless of whether it has been previously inspected by the County and accepted or estimated for payment. The failure of the County to reject or condemn improper materials or workmanship shall not be considered as a waiver of any defect that may be discovered later.

GR-30. MATERIALS, SERVICES, AND FACILITIES

- A. The Contractor shall at all times employ sufficient labor and equipment for executing the Work to full completion in the manner and time specified. Failure of the Contractor to provide adequate labor and equipment shall constitute a

default of the Contract. The labor and equipment to be used in the Work by the Contractor shall be sufficient to meet the requirements of the Work and shall be such as to produce a satisfactory quality of work in accordance with accepted industry practices and within the Contract Time.

- B. Materials and equipment shall be so stored and handled as to insure the preservation of their quality and fitness for the Work. Stored materials and equipment to be incorporated in the Work shall be located so as to facilitate prompt inspection. No product which has in any way become unfit for the intended purpose shall be incorporated into the Work.
- C. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, cleaned, and conditioned as directed by the manufacturer. Contractor shall promptly notify the County of any conflict between the instructions of any manufacturer and the requirements of the Drawings or the Specifications.
- D. Materials, supplies, and equipment to be incorporated into the Work shall be new and unused unless otherwise specifically stated in the Contract. The source of supply for all such products shall be submitted to the County, together with detailed descriptions thereof in the form of samples, shop drawings, tests, or other means necessary to adequately describe the items proposed. Approval by the County of a manufacturer or supplier shall not constitute the approval of materials, supplies, or equipment obtained from such manufacturer or supplier if they do not comply with the requirements of the Contract. If, after trial or installation, it is found that sources of supply, even though previously approved by the County, have not furnished products meeting the intent of the Contract, the Contractor shall thereafter furnish products from other approved sources, and shall remove completed Work incorporating products which do not meet Contract requirements.
- E. The Contractor shall confine operations to areas permitted by law, ordinances, permits and the Contract, and shall not unreasonably encumber the site with materials or equipment. The Contractor shall provide parking for all construction vehicles only within the construction limits as indicated on the drawings or make appropriate arrangements as permitted by law.
- F. Only materials and equipment which are to be used directly in the Work may be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it must be promptly removed from the Project site. Protection of construction materials and equipment stored at the Project site from weather, theft, damage, and all other adversity is the sole responsibility of the Contractor.

- G. The Contractor and any entity for which the Contractor is responsible must not erect any sign on the Project site without the prior written consent of the County, which may be withheld in the sole discretion of the County.
- H. Contractor must ensure that the Work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, and for emergency response to the site of the Work and all adjacent areas. The Work must be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the Work are free from debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract, Contractor must use its best efforts to minimize any interference with the occupancy or beneficial use of any areas and buildings adjacent to the site of the Work, or the Project.
- I. Without prior approval of the County, the Contractor shall not permit any worker to use any existing facilities at the Project site, including, without limitation, lavatories, toilets, entrances, and parking areas other than those designated by the County for such use. Without limitation of any other provision of the Contract, the Contractor shall use its best efforts to comply with all rules and regulations promulgated by the County in connection with the use and occupancy of the Project site, as amended from time to time. The Contractor shall immediately notify the County in writing if during the performance of the Work, the Contractor finds compliance with any portion of such rules and regulations to be impracticable, setting forth the problems that may be caused by such compliance and suggesting alternatives through which the results intended by such portions of the rules and regulations can be achieved. The County may, in the County's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirements of the rules and regulations. The Contractor shall also comply with all insurance requirements applicable to the use and occupancy of the Project site.
- J. Unless otherwise provided in the Contract, Contractor shall provide and maintain a suitable office on the site for its own use and for the use of representatives of the County. Contractor shall furnish sufficient heat, artificial light, ventilation and janitor's service, and shall also provide a table or desk, plan rack and chairs, all for the use of those visiting the job, in addition to such furnishings as he provides for his own use. Temporary offices and other structures shall be located where approved by the County, and shall be removed from the premises upon completion of the Contract or earlier if so directed by the County.
- K. Contractor may be required by the County, at the beginning of Work, to provide, at the Project site, suitable and adequate temporary toilets and enclosure for use of workers on the job, shall maintain same in sanitary condition, and shall remove same at the completion of construction operations and/or when directed by the County. Contractor shall not allow any sanitary nuisances to be committed in or about the site and shall enforce sanitary regulations of local and state health

authorities.

- L. The Contractor shall cooperate with the County in any required use of the property and arrange for storage of materials on the Project site in such areas as are mutually agreed upon. The Contractor shall allot suitable and proper space to its Subcontractors for the storing of their materials and for the erection of their sheds and tool houses. Should it be necessary at any time to move materials, sheds, or storage platforms, the Contractor shall, at its own expense move same as and when directed by the County.
- M. Unless otherwise instructed by the County, the Contractor shall repair and return to original condition all buildings, streets, curbs, sidewalks, utilities or other facilities affected by the Contractor's performance of the Work. The County's decisions in matters relating to aesthetic effect shall be final if consistent with the intent of the Contract.

GR-31. UTILITIES DURING CONSTRUCTION

Contractor shall furnish all utilities and pay for all bills for utilities used during construction. Utilities shall include electric power, fuel of any sort used for heating, etc., telephone services, cable and internet, if necessary, and water. Contractor shall provide all temporary connections to utilities when not provided by the utility company or others at no additional cost to the County. Contractor shall, if required by the County, install and maintain at his own expense, a job telephone and communications equipment necessary for the execution of the Work for the Contract Time.

GR-32. TEMPORARY HEAT AND AIR CONDITIONING

The Contractor shall provide, at his own expense, temporary heat or air conditioning, as necessary, to protect all Work and materials against injury from heat, dampness or cold. Fuel, equipment and method of heating and cooling shall be satisfactory to the County and shall not present a fire hazard. Contractor shall comply with the requirements in the Specifications for specific temperatures to be maintained.

GR-33. MAINTENANCE MANUAL

Contractor shall, prior to completion of Contract, deliver to the County two (2) copies of a manual, assembled, indexed, and bound, for the County's guidance, full details for care and maintenance of visible surfaces and of equipment included in Contract. Contractor shall, for this manual, obtain from Subcontractors literature of manufacturers relating to equipment, including motors; also furnish cuts, wiring diagrams, instruction sheets and other information pertaining to same that will be useful to the County in over-all operation and maintenance. Where the above-described manuals and data are called for under separate sections of the Specifications, they are to be included in the manual described in this General Requirement.

GR-34. WEATHER CONDITIONS

The Contractor will be required to protect all work and materials against damage or injury from the weather. If, in the opinion of the County, any work or materials shall have been damaged or injured by reason of failure to protect such, all such materials or work shall be removed and replaced at the expense of the Contractor.

GR-35. LINES, GRADES, AND MEASUREMENTS

- A. Such stakes and markings as the County may set for either its or the Contractor's guidance shall be preserved by the Contractor. Failure to protect such stakes or markings may, at the County's discretion, shall result in the Contractor being charged for their replacement.
- B. The Contractor must exercise proper care and caution to verify the grades and figures furnished by or on behalf of the County before proceeding with the Work, and shall be responsible for any damage or defective work caused by its failure to exercise such care and caution. Contractor shall promptly notify the County of any errors or discrepancies it may discover in order that the proper corrections may be made.
- C. Before ordering materials or doing work, the Contractor shall measure and verify the dimensions and locations of all existing structures, substrata, and features that affect the Work and shall be responsible for the correctness of same. No consideration will be given any claim based on the differences between the actual dimensions and those indicated on the Drawings. Contractor shall promptly notify the County of any difference which may be found, and shall obtain direction from the County before proceeding with the affected Work.

GR-36. CLEANING UP

- A. The Contractor shall at all times, keep the premises free from accumulation of waste materials or rubbish caused by Contractor's employees or work. Upon completion of the Work, the Contractor shall remove all his plants, tools, materials, and other articles from the property of the County.
- B. If the Contractor fails to clean up, as provided in the Contract, the County may do so, and the cost thereof shall be charged to the Contractor. Contractor shall ensure that neither it, its Subcontractors, nor their employees or agents bring any hazardous materials or other materials/waste regulated by state, federal or local law, which are not commonly used in the construction process or which are not listed in any Specifications for the Project onto the Project site without first obtaining the County's advance written approval. Contractor agrees to ensure that any hazardous materials/waste or other materials/waste regulated by state, federal or local law that Contractor, its Subcontractors or their employees or agents, bring

onto or generate at the Project Site are handled in accordance with all applicable laws.

- C. The Contractor shall pay all required material disposal fees and shall dispose of all materials in accordance with all applicable laws and regulations. The Contractor shall be responsible for all costs associated with improper disposal of materials, including any clean-up costs, fines or penalties, whether levied against the Contractor or the County.
- D. In addition to removing rubbish on a periodic basis and leaving the building broom clean, the Contractor shall clean all tile and glass; replace broken glass; remove stains, paint spots, and dirt from all Work; clean and polish all plumbing fixtures and equipment; and remove all temporary protection items. To the maximum extent reasonably possible, the Contractor shall keep the interior of the building free of combustible materials as the Work progresses.
- E. The Contractor shall maintain and keep clean at all times the immediate approach to the Project site, including the roads abutting the Project site.

GR-37. BARRICADES

- A. Contractor shall provide barricades and protective barriers around excavations, so that the public is adequately warned of such hazards. Lanterns shall remain lighted from sundown to sunrise and at all other times when the labor forces are not on the job site.
- B. Delivery of construction materials and equipment shall be only to locations approved by the County.

GR-38. NO THIRD-PARTY BENEFICIARY

Except as expressly and specifically set forth herein, this Contract shall not be deemed to provide any third-party with any remedy, claim, right of action, or other right.

GR-39. SEVERABILITY

If any provision of this Contract or the application thereof to any person or circumstance shall to any extent be held invalid, then the remainder of this Contract or the application of such provision to persons or circumstances, other than those as to which it is held invalid, shall not be affected thereby, and each provision of this Contract shall be valid and enforced to the fullest extent permitted by law.

GR-40. INTERPRETATION

The laws of the State of Georgia shall govern the construction of this Contract without regard for conflicts of laws. Should any provision of this Contract require judicial interpretation,

it is agreed that the court interpreting or construing the same shall not apply a presumption that the terms hereof shall be more strictly construed against one party, by reason of the rule of construction, that a document is to be construed more strictly against the party who itself or through its agent prepared same; it being agreed that the agents of all parties have participated in the preparation hereof, and all parties have had an adequate opportunity to consult with legal counsel. In interpreting this Contract in its entirety, the printed provisions of this Contract, and any additions written or typed hereon, shall be given equal weight, and there shall be no inference by operation of law or otherwise; that any provision of this Contract shall be construed against either party hereto.

GR-41. PRIOR CONTRACTS; CONFLICT IN DOCUMENTS

The Contractor may in no case claim a waiver of any specification requirements on the basis of previous approval of material or workmanship on other jobs of like nature or on the basis of what might be considered "standard" for material or workmanship in any particular location. The Contract for this Project shall govern the Work. If any portion of the Contract shall be in conflict with any other portion, the various documents comprising the Contract shall govern in the following order of precedence: Contract, Change Orders or modifications issued after execution of the Contract; the General Requirements of the Contract; the Specifications; the Drawings, as between schedules and information given on the Drawings, the schedules shall govern; as between figures given on Drawings and the scaled measurements, the figures shall govern; as between large-scale Drawings and small-scale Drawings, the larger scale shall govern; and detailed Drawings shall govern over general Drawings; and the Bid Document Package.

GR-42. ENTIRE AGREEMENT

This Contract constitutes the sole contract between the County and the Contractor. The terms, conditions, and requirements of this Contract may not be modified, except by Change Order or Field Order. No verbal agreement or conversation with any officer, agent, or employee of the County, either before or after the execution of the Contract, shall affect or modify any of the terms or obligations herein contained. No representations, oral or written, shall be binding on the parties unless expressly incorporated herein. No Change Order or Field Order shall be enforceable unless approved by official action of the County as provided by law or in this Contract.

GR-43. COUNTERPARTS

This Contract may be executed in several counterparts, each of which shall be deemed an original, and all such counterparts together shall constitute one and the same Contract.

GR-44. VENUE

The courts of DeKalb County, Georgia shall have exclusive jurisdiction to try disputes arising under or by virtue of this Contract.

ATTACHMENT B

Contractor Affidavit under O.C.G.A. §13-10-91

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

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD – PI# 0008121 / 0012789

Name of Project

DeKalb County Georgia Government

Name of Public Employer

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

Executed on _____, 20__ in _____ (city), _____ (state).

By: _____
Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

Subscribed and Sworn before me on this the _____ day of _____, 20__.

NOTARY PUBLIC

My Commission Expires:

ATTACHMENT C

Subcontractor Affidavit under O.C.G.A. § 13-10-91

By executing this affidavit, the undersigned Subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____ (insert name of Contractor) on behalf of DEKALB COUNTY, GEORGIA has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned Subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the Subcontractor with the information required by O.C.G.A. § 13-10-91. Additionally, the undersigned Subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the Contractor within five business days of receipt. If the undersigned Subcontractor receives notice that a sub-subcontractor has received an affidavit from any other contracted sub-subcontractor, the undersigned Subcontractor must forward, within five business days of receipt, a copy of the notice to the Contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Subcontractor

ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD – PI# 0008121 / 0012789)

Name of Project

DeKalb County Georgia Government

Name of Public Employer

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

Executed on _____, 20__ in _____ (city), _____ (state).

By: _____

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

Subscribed and Sworn before me on this the _____ day of _____, 20__.

NOTARY PUBLIC

My Commission Expires:

ATTACHMENT D

Sub-subcontractor Affidavit under O.C.G.A. § 13-10-91

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract for _____ (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract) and _____ (name of Contractor) on behalf of DEKALB COUNTY, GEORGIA has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned sub-subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. § 13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to _____ (name of Subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of any affidavit from a sub-subcontractor to _____ (name of Subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-subcontractor

ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD – PI# 0008121 / 0012789

Name of Project

DeKalb County Georgia Government

Name of Public Employer

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

Executed on _____, 20__ in _____ (city), _____ (state).

By: _____

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

Subscribed and Sworn before me on this the _____ day of _____, 20__.

NOTARY PUBLIC

My Commission Expires: _____

ATTACHMENT E
(Consisting of 2 pages)

DEKALB COUNTY, GEORGIA
CERTIFICATE OF CORPORATE AUTHORITY
(Choose Applicable Certificate)

I, _____, certify that I am Secretary of the corporation named as Contractor herein, same being organized and incorporated to do business under the laws of the State of _____; that _____, who executed this Contract on behalf of the Contractor was, then and there, _____; and that said Contract was duly signed by said officer for and in behalf of said corporation, pursuant to the authority of its governing body and within the scope of its corporate powers.

I further certify that the names and addresses of the owners of all the outstanding stock of said corporation as of this date are as follows:

This _____ day of _____, 20____.

Secretary (Corporate Seal)

ATTACHMENT E, cntd

**DEKALB COUNTY, GEORGIA
CERTIFICATE OF AUTHORITY – JOINT VENTURE
(Separate Certificate to be submitted by each joint venture partner)**

I, _____, ⁽¹⁾ certify that

4. I am the _____ ⁽²⁾ of _____, ⁽³⁾ (hereinafter “Venturer”);

5. Venturer is a partner and participant in the joint venture named as Contractor in that certain Contract for Construction dated _____ with DeKalb County, issued pursuant to Invitation to Bid No. 17-100896;

6. Venturer is organized and incorporated to do business under the laws of the State of _____;

7. _____, who executed this Contract on behalf of the Contractor was, then and there, _____; and

8. Said Contract was duly signed by said officer for and in behalf of said Venturer and the Contractor pursuant to the authority of the governing body of each and within the scope of its corporate powers.

9. I further certify that the names and addresses of the owners of all the outstanding stock or ownership interest in Venturer as of this date are as follows:

This _____ day of _____, 20____.

INSTRUCTIONS:

1. Name of secretary (if Venturer is a corporation), or Manager or CEO (if Venturer is a LLP) of Venturer.
2. Title of person executing Certification.
3. Name of joint venture partner.

MAKE COPIES OF THIS FORM AND SUBMIT A SEPARATE FORM FOR EACH JOINT VENTURE PARTNER.

ATTACHMENT F
(Consisting of 3 pages)
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that _____ [Insert name of contractor] (hereinafter called the “Principal”) and _____ [Insert name of surety] (hereinafter called the “Surety”), are held and firmly bound unto _____ County (hereinafter called the “County”) and their successors and assigns, in the penal sum of _____ Dollars (\$ _____), lawful money of the United States of America, for the payment of which the Principal and the Surety bind themselves, their administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered, or is about to enter, into a certain written contract with the County, awarded by the DeKalb County Governing Authority on _____, which is incorporated herein by reference in its entirety (hereinafter called the “Contract”), for the ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD – PI# 0008121 / 0012789, more particularly described in the Contract (hereinafter called the “Project”); and

NOW, THEREFORE, the conditions of this obligation are as follows, that if the Principal shall fully and completely perform all the undertakings, covenants, terms, conditions, warranties, and guarantees contained in the Contract, including all change orders, modifications, amendments, changes, deletions, additions, and alterations thereto that may hereafter be made, then this obligation shall be void; otherwise, it shall remain in full force and effect.

Whenever the Principal shall be, and declared by the County to be, in default under the Contract, the Surety shall promptly remedy the default as follows:

1. Complete the Contract in accordance with the terms and conditions; or
2. Obtain a Bid or Bids for completing the Contract in accordance with its terms and conditions, and upon determination by the Surety and the County of the lowest responsible bidder, arrange for a contract between such bidder and County and make available as the work progresses (even though there should be a default or succession of defaults under the Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the penal sum set forth in the first paragraph hereof, as may be adjusted, and the Surety shall make available and pay to the County the funds required by this Paragraph prior to the payment of the County of the balance of the contract price, or any portion thereof. The term “balance of the contract price,” as used in this paragraph, shall mean the total amount payable by the County to the Contractor under the Contract, and any amendments thereto, less the amount paid by the County to the Contractor; or, at the option of the County; or

3. Allow County to complete the work and reimburse the County for all reasonable costs incurred in completing the work.

In addition to performing as required in the above paragraphs, the Surety shall indemnify and hold harmless the County from any and all losses, liability and damages, claims, judgments, liens, costs, and fees of every description, including reasonable attorney's fees, litigation costs and expert witness fees, which the County may incur, sustain, or suffer by reason of the failure or default on the part of the Principal in the performance of any or all of the terms, provisions, and requirements of the Contract, including any and all amendments and modifications thereto, or incurred by the County in making good any such failure to performance on the part of the Principal.

The Surety shall commence performance of its obligations and undertakings under this Bond promptly and without delay, after written notice from the County to the Surety.

The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in payment terms, and any other amendments in or about the Contract, and agrees that the obligations undertaken by this bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, alterations, extensions of time, change in payment terms, and amendments.

The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment to the Contract, so as to bind the Principal and Surety to the full and faithful performance of the Contract as so amended or modified, and so as to increase the penal sum to the adjusted Contract Price of the Contract.

The Surety's obligations under this bond include all of the Contractor's duties under the Contract, including without limitation its maintenance and guarantee obligations.

No right of action shall accrue on this bond to or for the use of any person, entity, or corporation other than the County and any other obligee named herein, or their executors, administrators, successors or assigns.

This Bond is intended to comply with O.C.G.A. §36-91-70, and shall be interpreted so as to comply with the minimum requirements thereof. However, in the event the express language of this Bond extends protection to the County beyond that contemplated by O.C.G.A. §36-91-70, or any other statutory law applicable to this Project, then the additional protection shall be enforced in favor of the County, whether or not such protection is found in the applicable statutes.

If any one or more of the provisions of this Bond are determined to be illegal or unenforceable by a court of competent jurisdiction, all other provisions shall remain effective.

IN WITNESS WHEREOF the undersigned have caused this instrument to be executed and their respective corporate seals to be affixed and attested by their duly authorized representatives this ____ day of _____, 20__.

PRINCIPAL

By: _____ (SEAL)
Signature of Principal

Print Name and Title of Authorized Signer

Print Name of Principal Business

ATTEST:

Corporate Secretary

SURETY

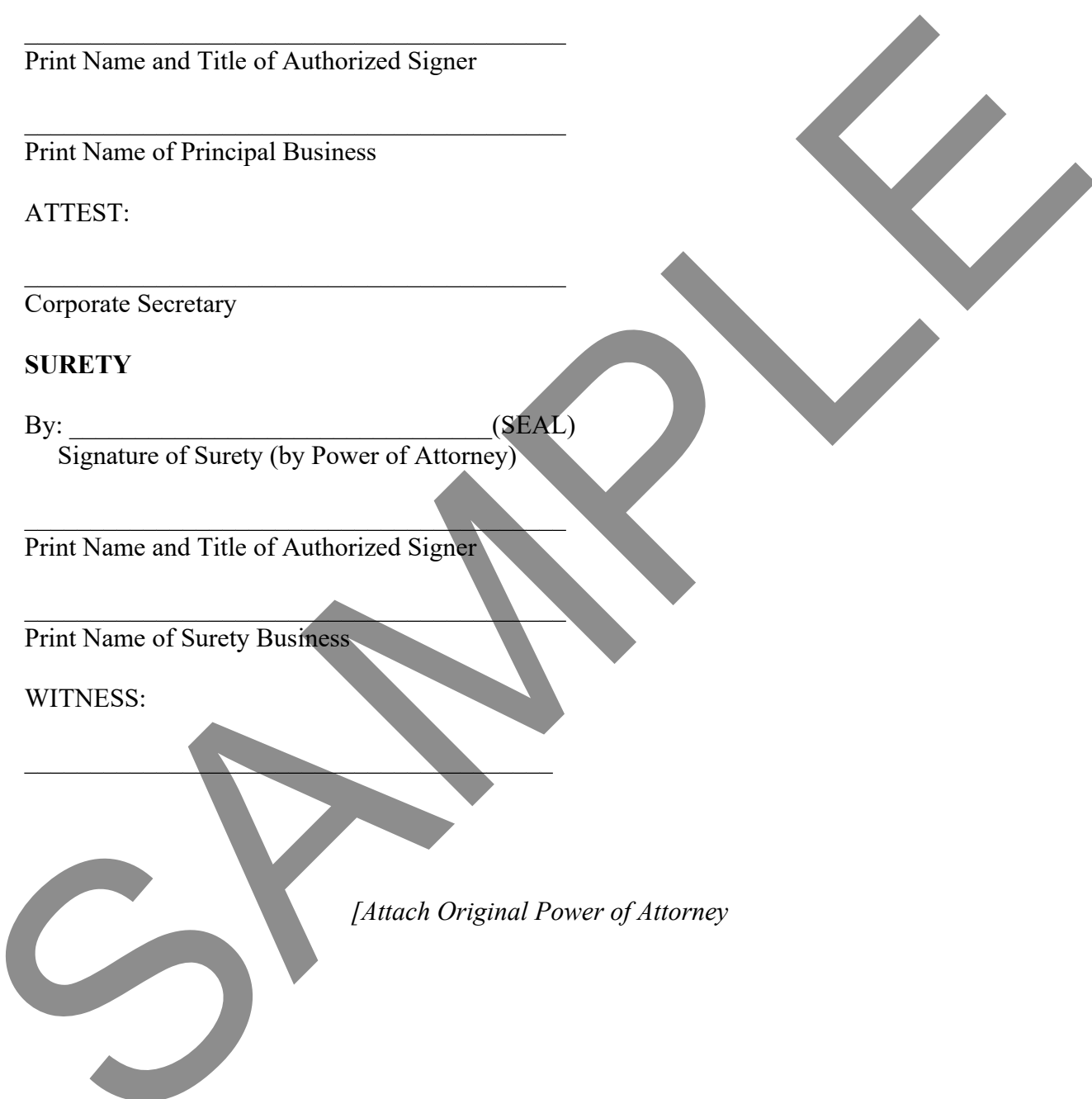
By: _____ (SEAL)
Signature of Surety (by Power of Attorney)

Print Name and Title of Authorized Signer

Print Name of Surety Business

WITNESS:

[Attach Original Power of Attorney



ATTACHMENT G

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that _____ [Insert name of contractor] (hereinafter called the “Principal”) and _____ [Insert name of surety] (hereinafter called the “Surety”), are held and firmly bound unto _____ County, (hereinafter called the “County”), its successors and assigns as obligee, in the penal sum of \$ _____ (Insert contract amount), lawful money of the United States of America, for the payment of which the Principal and the Surety bind themselves, their administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered, or is about to enter, into a certain written contract with the County, awarded by the DeKalb County Governing Authority on _____ [insert date of award] which is incorporated herein by reference in its entirety (hereinafter called the “Contract”), for the construction of a project known as ROAD WIDENING, SIDEWALKS, BIKE LANES (ROCKBRIDGE ROAD - ALLGOOD TO ROWLAND ROAD – PI# 0008121 / 0012789 as more particularly described in the Contract (hereinafter called the “Project”);

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to all persons working on or supplying labor or materials under the Contract, and any amendments thereto, with regard to labor or materials furnished and used in the Project, and with regard to labor or materials furnished but not so used, then this obligation shall be void; but otherwise it shall remain in full force and effect.

4. A “Claimant” shall be defined herein as any Subcontractor, person, party, partnership, corporation or other entity furnishing labor, services, or materials used, or reasonably required for use, in the performance of the Contract, without regard to whether such labor, services, or materials were sold, leased, or rented, and without regard to whether such Claimant is or is not in privity of contract with the Principal or any Subcontractor performing work on the Project, including, but not limited to, the following labor, services, or materials: water, gas, power, light, heat, oil, gasoline, telephone service, or rental of equipment directly applicable to the Contract.
5. In the event a Claimant files a claim against the County, or the property of the County, and the Principal fails or refuses to satisfy or discharge it promptly, the Surety shall satisfy or discharge the claim promptly upon written notice from the County, either by bond or as otherwise provided in the Contract.
6. The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in payment terms, and any other amendments in or about the Contract and agrees that the obligations undertaken by this bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, alternations, extensions of time, changes in payment terms, and amendments.
7. The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment or modification to the Contract, so as to bind the Principal and Surety, jointly and severally, to the full payment of any Claimant under the Contract, as amended or modified, provided only that the Surety shall not be liable for more than the penal sum of the Bond, as specified in the first paragraph hereof.

8. This Bond is made for the use and benefit of all persons, firms, and corporations who or which may furnish any materials or perform any labor for or on account of the construction to be performed or supplied under the Contract, and any amendments thereto, and they and each of them may sue hereon.
9. No action may be maintained on this Bond after one (1) year from the date the last services, labor, or materials were provided under the Contract by the Claimant prosecuting said action.
10. This Bond is intended to comply with O.C.G.A. §36-91-90, and shall be interpreted so as to comply with the minimum requirements thereof. However, in the event the express language of this Bond extends protection to the County beyond that contemplated by O.C.G.A. §36-91-90, or any other statutory law applicable to this Project, then the additional protection shall be enforced in favor of the County, whether or not such protection is found in the applicable statutes.

IN WITNESS WHEREOF, the Principal and Surety have hereunto affixed their corporate seals and caused this obligation to be signed by their duly authorized representatives this ____ day of _____, 20__.

PRINCIPAL

By: _____ (SEAL)
Signature of Principal

Print Name and Title of Authorized Signer

Print Name of Principal Business

ATTEST:

Corporate Secretary

SURETY

By: _____ (SEAL)
Signature of Surety (by Power of Attorney)

Print Name and Title of Authorized Signer

Print Name of Surety Business

WITNESS:

[Attach Original Power of Attorney]

SAMPLE

ATTACHMENT H

Copies of Required Insurance Policies with Declarations Page(s)
(Supplied by Contractor)

ATTACHMENT I

Federal Highway Administration (“FHWA”) Funds requirement

(See next 5 pages)

SAMPLE



MEMORANDUM

2016 JAN 28 PM 3 41

This communication is confidential and protected by the attorney-client privilege and attorney work product rule. It is intended only for the individual or entity to which it is addressed and should not be given to persons or entities not directly involved with the subject matter on behalf of the County. It expresses the professional judgment of the attorney(s) rendering the opinion regarding the legal issues expressly addressed herein. By rendering an opinion, the attorney(s) does not insure or guarantee any particular result or success of any transaction or lawsuit.

January 27, 2016

VIA PDF AND HAND DELIVERY

To: Lee May, Interim Chief Executive Officer
Zachary Williams, Chief Operating Officer
Talisa Clark, Interim Chief Procurement Officer

From: O.V. Branley, County Attorney

Subject: Title VI Language in Bids and Contracts when GDOT Funds Utilized
(Our File No. 54-1200)

The purpose of this memorandum is to make you aware of specific language that must be included in all of DeKalb County's bids and contracts for which Federal Highway Administration funds ("FHWA funds") are received or utilized pursuant to Title VI of the 1964 Civil Rights Act ("Title VI"). In short, Title VI and related authorities prohibit discrimination or exclusion on the grounds of race, color, sex, national origin, age, low income or disability. The Georgia Department of Transportation ("GDOT") has notified the County that specific language is required in order to receive federal funds from the Federal Highway Administration through GDOT.

The language required to be included in bids and contracts for which FHWA funds are received or utilized is attached hereto as Attachment "A." I also have the language in word format and am happy to send the word version to each of you. As you know, in the near future, the Board of Commissioners will be considering adoption of a Title VI Policy. I understand from David Pelton, Director of the Transportation Division, that this language needs to be included in the relevant bids and contracts as soon as practicable, even before adoption of a Title VI Policy, because of outstanding projects with GDOT for which FHWA funds are being utilized. My staff has discussed adding this language with you and Purchasing has agreed to add such language to the relevant contracts. With such agreement, Zachary Williams will sign "Title

This memorandum only addresses language required to be included in order to receive FHWA funds through GDOT. Additional, or different, language may be required in other bids and contracts in order to receive other types of federal aid. I anticipate that the County will need to employ a full time Title VI Coordinator to implement and oversee the County's Title VI Plan. My office will work with the Coordinator to determine whether additional language is necessary in certain bids or contracts.

Memorandum to Loe May, Interim Chief Executive Officer
Zachary Williams, Chief Operating Officer
Talina Clark, Interim Chief Procurement Officer
January 27, 2016
Page 2 of 2

VI Assurances" required by GDOT, whereby the County assures GDOT it is including the required language when necessary.

VHE/twa

cc: Antwyn Brown, Chief of Staff, BOC
Peggy Allen, Director, Roads and Drainage Division
Mario A. Evans, Director, DeKalb Peachtree Airport
David Pelton, Director, Transportation Division
Patrece Keeter, Deputy Director, Transportation Division
Cornelia Louis, Deputy Director, Finance, Internal Audit Division
Viviane H. Brastes, Deputy County Attorney
Matthew Welch, Senior Assistant County Attorney
Lori Brill, Senior Assistant County Attorney
Nicole W. Aigner, Assistant County Attorney

Attachment "A"

GDOT has provided notice to the County that the following language must be included in all bids related to projects that utilize or receive federal funds through GDOT:

The Georgia Department of Transportation and DeKalb County, Georgia, in accordance with Title VI of the Civil Rights Act of 1964 and 78 Stat. 252, 42 USC 2000d-42 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that they will affirmatively ensure that any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award.

Further, GDOT has also provided notice to the County that the following language must be included in all contracts for projects that utilize or receive federal funds through GDOT:

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. Compliance with Regulations

The Contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation (hereinafter referred to as DOT), Title 49, Code of Federal Regulations, part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination

The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Subcontracts, Including Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiations made by the Contractor for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the

Contractor's obligations under this contract and the Regulations relative to nondiscrimination on the ground of race, color, sex, or national origin.

4. Information and Reports

The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by DeKalb County, Georgia, the Georgia Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to DeKalb County, Georgia, the Georgia Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance

In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, DeKalb County, Georgia or the Georgia Department of Transportation shall impose such contract sanctions as they or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- a. Withholding of payments to the Contractor under the contract until the Contractor complies; and/or
- b. Cancellation, termination, or suspension of the contract, in whole or in part.

6. Incorporation of Provisions

The Contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The Contractor shall take such action with respect to any subcontractor or procurement as DeKalb County, Georgia, the Georgia Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request the Georgia Department of Transportation enter into such litigation to protect the interests of the state and, in addition, the Contractor may request the

United States to enter into such litigation to protect the interests of the United States.

SAMPLE

SAMPLE

ATTACHMENT J

CODE OF ETHICS
(See the next 6 pages)



Office of Interim Chief Executive Officer

DeKalb County, Georgia

Lee N. May
Interim CEO

Executive Order No. 2014-4 New Ethics Policy

WHEREAS, the citizens of DeKalb County, Georgia are entitled to have complete confidence and the highest degree of trust in their County government; and

WHEREAS, ethical conduct is a key ingredient to sustaining trust with DeKalb County, Georgia residents; and

WHEREAS, the Organizational Act and Code of DeKalb County include rules to ensure ethical conduct by officials and employees; and

WHEREAS, reminding employees of the existing ethical rules and management's need to monitor employee's compliance with those rules shall help to ensure that government conducts itself in an open, honest, and fair manner; and

WHEREAS, training employees annually of the existing ethical rules shall further help to ensure that government continues to conduct itself in an open, honest, and fair manner; and

WHEREAS, the Interim Chief Executive Officer of DeKalb County is charged with the responsibility of ensuring that the County employees serve the best interests of the public at all times; and

WHEREAS, the Interim Chief Executive Officer of DeKalb County believes it is in the best interests of the citizens of DeKalb County to prevent fraud and abuse of office in government;

NOW THEREFORE, I, Lee N. May, Interim Chief Executive Officer of DeKalb County, by virtue of the authority vested in me, do hereby issue the following Executive Order:

June 24, 2014

Section 1: Scope of this Order and Reminder of Existing Rules

This Executive Order applies to all merit-exempt and merit employees subject to the supervisory and administrative control of the Chief Executive Officer (hereinafter referred to as "CEO employees").¹ CEO employees shall adhere to all applicable ethical rules listed in Section 22A of the Organizational Act and the Code of DeKalb County. A copy of Section 22A and the relevant ethics provisions of the Code of DeKalb County referenced by this Executive Order are attached. Violations of these Rules shall not be tolerated.

CEO employees shall adhere to the ethical rules listed in Organizational Act, Section 22A, and the Code of DeKalb County applicable to them. All merit-exempt CEO employees shall comply with the Organizational Act, Section 22A, which includes, but is not limited to the Conflicts of Interest provisions in sections 22A(c)(1), (c)(5), (c)(6), and (e); the Gifts and Gratuities provisions governed by section 22A(c)(2)(a.); Disclosure of Confidential Information covered by section 22A(c)(3); and the Disclosure of Interests provisions of section 22A(d).

All CEO employees in departments under the merit system, as provided in Chapter 20 of the Code of DeKalb County shall comply with that chapter which includes, but is not limited to the ethics rules of Section 20-20, Conflicts of Interest and Section 20-20.1 regarding Financial Disclosure Reports.

Section 2: New Ethical Rules for CEO Merit-Exempt Employees

In addition to the existing ethical rules identified above, all CEO merit-exempt employees shall adhere to the following rules governing each specific area listed below. While Section 20-20 of the Code of DeKalb County contains specific monetary limits for merit employees, the Organizational Act does not contain such specific limits. These new rules are designed to impose specific monetary limits on merit-exempt employees. To the extent that any rule in this Executive Order conflicts with Section 22A of the Organizational Act or applicable provisions of the Code of DeKalb County, the Organizational Act and the applicable provisions of the Code of DeKalb County shall apply. To the extent any rule below is stricter than Section 22A of the Organizational Act and the applicable provisions of the Code of DeKalb County, the stricter rules below shall govern.

1. *Gifts*. A CEO merit-exempt employee may accept gifts² from an Interested Source³, having an aggregate market value of forty dollars (\$40.00) or less per Interested Source

¹This Executive Order cannot and does not apply to employees of the Board of Commissioners and deputies and employees of other elected officers of DeKalb County. This Executive Order does not apply to campaign contributions, donations and any activities a person conducts during the course of seeking nomination or election to any public office as those activities and campaign contributions and donations are regulated by applicable state and federal law.

²"Gift" includes any gratuity, favor, discount, entertainment, trip, hospitality, loan, forbearance or other item having monetary value. It includes services as well as gifts, of training, transportation, travel, lodging, meals, whether provided in-kind, by purchase of a ticket, payment in advance, or reimbursement after the expense has been incurred. A gift does not include: modest items of prepared food and refreshments such as soft drinks, or coffee or donuts other than as part of a meal; loans from banks or other financial institution on terms generally available to the public; social invitations from persons or entities other than Interested Sources.

per occasion, provided that the aggregate market value of individual gifts received from any single Interested Source shall not exceed one hundred twenty dollars (\$120.00) in a calendar year, except in the following circumstances, which are exceptions to this rule:

- a. *Meals.* CEO merit-exempt employees are allowed to accept reasonable meals and refreshments from an Interested Source furnished in connection with participation at a public, civic, charitable, or non-profit ceremony, event, convention, or conference.
- b. *Travel.* CEO merit-exempt employees may accept “reasonable hosting expenses” from Interested Sources for travel, meals, lodging, and conference fees provided in connection with (1) teaching, (2) a speaking engagement, (3) participation on a professional or civic panel, or (4) attendance at a conference in an official capacity. CEO merit-exempt employees may accept travel from other non-County sources for any official purpose, provided that they disclose the travel payments made or reimbursements received on a Travel Disclosure Report filed with either the Chief Integrity Officer, if created, or the Finance Director or his/her designee. CEO merit-exempt employees may accept travel reimbursements from a County contractor for training if it is part of the County’s contract or falls within the exception for gifts of travel to the County.
- c. *Tickets.* CEO merit-exempt employees may accept tickets to concerts, plays, athletic or other entertainment events from an Interested Source only when performing an official duty at the event.
- d. *Honoraria.* CEO merit-exempt employees may not accept personal honoraria from an Interested Source.
- e. *Awards, other exceptions.* CEO merit-exempt employees may accept awards, plaques, certificates, mementos, novelties, or similar items given in recognition of public service; nominal gifts from representatives of other governments; gifts from family members; and gifts accepted on behalf of the County.

Section 3: Chief Executive Officer

As Chief Executive Officer, I am governed by the ethical rules in the Organizational Act of DeKalb County. As such, those rules do not contain specific monetary limits on gifts, and I believe it is important that I set an example for the employees who are under my supervisory and administrative control. As a result, I am choosing to be governed by the ethical rules governing gifts stated in Section 2 of this Executive Order, and I will abide by the rules in Section 2 of this

³ “Interested Source” means any person or entity who: (a) is seeking official action by the employee or the employee’s department; (b) does business or seeks to do business with the county or the employee’s department; (c) conducts activities regulated by the employee or the employee’s department; (d) has interests that may be substantially affected by performance or nonperformance of the employee’s official duties; or (e) is an organization having a majority of its members as described in paragraphs (a) through (d).

Order, in addition to all other applicable provisions and exceptions of this Executive Order, and local and state ethical rules and law.

Section 4: Training

All CEO employees shall comply with these ethical rules and shall receive annual ethics training regarding these rules. Additionally, every CEO employee shall receive a copy of these ethical rules, shall be required to read the rules and sign a form acknowledging his/her obligation to comply with the ethical rules and the potential penalties for failing to do so. Those penalties may include civil action, criminal prosecution, and/or disciplinary action, up to and including termination of employment.

Section 5: Contractors and CEO-sponsored events

1. *Contractors.* To the extent that the Organizational Act, Section 22A, the Code of DeKalb County, and the rules in this Executive Order allow a gift, meal, travel expense, ticket or anything else of value to be purchased for a CEO employee by a contractor doing business with the County, the contractor must provide written disclosure, quarterly, of the exact nature and value of the purchase to either the Chief Integrity Officer, if created, or the Finance Director or his/her designee. Additionally, every contractor who conducts business with the County will receive a copy of these ethical rules at the time of execution of the contract.
2. *CEO-sponsored events.* No violation of Section 2 of this Executive Order has occurred for any solicited sponsorship⁴ from an Interested Source for official events, functions, luncheons, breakfasts, or meetings to honor employees, or further or discuss an official policy or other related County issue of concern to the Chief Executive Officer, so long as within 30 days of the event the Interested Source and/or the Chief Executive Officer discloses in writing to either the Chief Integrity Officer, if created, or the Finance Director or his/her designee, the exact nature and value of each solicited sponsorship. No solicited sponsorship(s) received from any single Interested Source shall exceed ten thousand dollars (\$10,000.00) in a calendar year.

Section 6: Support of the Ethics Board of DeKalb County

I am recommending a midyear budget adjustment to fund the creation of a full-time Chief Integrity Officer ("Integrity Officer"), investigator, and administrative assistant to serve the Ethics Board of DeKalb County ("Ethics Board"). If these additional positions are funded their exact duties will be determined by the Ethics Board. I recommend the Integrity Officer perform the following duties and functions:

1. Educating and training all County elected officials, employees and County officials to have an awareness and understanding of the mandate for and

⁴ A "solicited sponsorship" means a sponsorship that would not have been offered or given had the County employee or official not held the status, authority or duties associated with his/her County position.

enforcement of ethical conduct and advising of the provisions of the code of ethics of the County;

2. Meeting with and supporting the Ethics Board as necessary;
3. Advising County elected officials, employees and County officials regarding disclosure statements and reviewing same to ensure full and complete financial reporting;
4. Urging compliance with the code of ethics by calling to the attention of the Ethics Board any failure to comply or any issues, including the furnishing of false or misleading information, that the Integrity Officer believes should be investigated by the Ethics Board of so that the Board may take such action as it deems appropriate;
5. Monitoring, valuating and acting upon information obtained from an "ethics hotline" which shall be a County telephone number for the receipt of information about ethical violations. Each complaint, as of the time it is reported, whether by telephone or otherwise, shall be deemed to be a separate pending investigation of a complaint against a public officer or employee as provided by the Georgia Open Records Act;
6. Notifying the subject of a report of any alleged violation of the ethics code, whether the report is anonymous, made by an identified individual or is written. Such notice shall be given in writing, by facsimile or hand delivery, to the subject of the complaint at the same time and in the same form that any disclosure of information is required by the Georgia Open Records Act;
7. Notifying the Ethics Board of any report of an alleged violation of the ethics code received by the Integrity Officer;
8. Reporting, as appropriate, suspected ethical violations to the Ethics Board;
9. Reporting, as appropriate, suspected criminal violations to state or federal law enforcement agencies; and
10. Filing with the Ethics Board, the Chief Executive Officer and the Board of Commissioners each January a written report describing the activities of the Integrity Officer in carrying out the goals of his or her office and the code of ethics and reporting on the ethical health of the County.

Section 7: Comprehensive and Updated Ethical Rules

While it is understood that amendment to the Code of Ethics in Section 22A of the Organizational Act requires action by the Georgia General Assembly, the newly instituted Government Operations Task Force also is reviewing the ethical standards for County employees and elected officials and will make recommendations for improved rules, if necessary. If and when such recommendations are received, the County Attorney and Executive Assistant are directed to consider such recommendations and to determine if the ethical rules governing DeKalb County need updating or revision. If revisions by the General Assembly are necessary, the County Attorney and Executive Assistant are directed to have such revisions ready to be included in the County's 2015 legislative package. If after such review, the ordinances of DeKalb County also need revision and updating, the Executive Assistant and County Attorney are directed to simultaneously submit such an ordinance to the Chief Executive Officer and each member of the Board of Commissioners for review and possible adoption.

Section 8: Compliance and Effective Date

All CEO employees are hereby directed to comply with the terms of this Executive Order. This Executive Order shall take effect immediately upon signature and publication

SO ORDERED this 25th OF June, 2014.


LEE N. MAY
Interim Chief Executive Officer

ATTEST:


BARBARA H. SANDERS, CCC
Clerk to the Chief Executive Officer
and Board of Commissioners

This Executive Order shall remain in the custody of the County Clerk. Certified copies are available upon request.

“EXHIBIT 2”

TECHNICAL SPECIFICATIONS **&** **GEORGIA DEPARTMENT OF TRANSPORTATION** **PROVISIONS**

(Next 108 pages)

Unless otherwise directed, all work performed under this Contract shall be in accordance with the State of Georgia Department of Transportation *Standard Specifications for the Construction of Transportation Systems*, dated April 18, 2013 Edition, and GDOT Supplemental Specifications Book, 2016 Edition and any current Supplemental Shelf, and/or Reference Specifications modifying them, except as noted in the attached Special Provisions.

How to Obtain the Specifications:

1.) State of Georgia, Department of Transportation, *STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF TRANSPORTATION SYSTEMS* dated April 18, 2013

All of the specific sections from these standard specifications referred to in these Contract Documents are available for review and downloading at:

<http://www.dot.ga.gov/PartnerSmart/Business/Source/specs/DOT2013.pdf>

2.) Shelf Special Provisions are available for review and downloading under the State of Georgia, Department of Transportation *THE SOURCE* website:

<http://www.dot.ga.gov/PS/Business/Source/SpecialProvisions>

3.) To order hard copies (books) of the two publications listed above, please contact:

Georgia Department of Transportation
600 West Peachtree St., NW
Atlanta, Georgia 30308
Phone: (404) 631-1215

TECHNICAL SPECIFICATIONS

Unless otherwise directed, all work performed under this Contract shall be in accordance with the State of Georgia Department of Transportation *Standard Specifications for the Construction of Transportation Systems, 2013 and 2016 Edition, any current Supplemental Specifications and/or Reference Specifications* modifying them, except as noted in the attached *Special Provisions*.

How to Obtain the Specifications:

1.) State of Georgia, Department of Transportation, *STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF TRANSPORTATION SYSTEMS* dated April 18, 2013, and June 16, 2016.

All of the specific sections from these standard specifications referred to in these Contract Documents are available for review and downloading at:

<http://www.dot.ga.gov/PartnerSmart/Business/Source/specs/DOT2013.pdf>

http://www.dot.ga.gov/PartnerSmart/Business/Source/special_provisions/2016%20Supplemental%20Specifications/2016SupplementalSpecBook.pdf

2.) Special Provisions are available for review and downloading under the State of Georgia, Department of Transportation *THE SOURCE* website:

<http://www.dot.ga.gov/PS/Business/Source>

3.) To order hard copies (books) of the two publications listed above, please contact:

Georgia Department of Transportation
600 West Peachtree St., NW
Atlanta, Georgia 30308
Phone: (404) 631-1215

Please note it is the contractor's responsibility to print and make copies of the bid plans. DeKalb County will not provide paper copies of the plans during the bidding process or to the selected Contractor.

TS-1

DEKALB COUNTY

P.I. Number: 0008121/0012789

INVITATION TO BID NO. 19-101072

TECHNICAL SPECIFICATIONS

Modifications of the Specifications

Unless otherwise directed, all work performed under this contract shall be in accordance with the Georgia Department of Transportation Standard Specifications, Construction of Roads and Bridges, **2013 Edition** and GDOT Supplemental Specifications Book, 2016 Edition, modifying them, except as noted below and in the Special Provisions.

SECTION 107 LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

Section 107.01 LAWS TO BE OBSERVED

Delete in its entirety and substitute the following:

The Contractor's attention is directed to the fact that all applicable Federal, State and County laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Projects shall apply to the Contract throughout, and they will be deemed to be included in the Contract as though written out in full herein. The Contractor shall keep fully informed of all laws, ordinances and regulations of the Federal, State, County, and municipal governments or authorities in any manner affecting those engaged or employed in the Work or the materials used in the Work or in any way affecting the conduct of the Work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in these Contract Documents or in the Drawings or Specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, the Contractor shall herewith report the same in writing to the Owner. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances and regulations, and shall protect and indemnify the Owner and the Owner's agents against the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor or by the Contractor's employees.

Section 107.02 PERMITS AND LICENSES

Add the following:

Permits and licenses of a temporary nature, including building permits, necessary for the prosecution of the Work shall be secured and paid for by the Contractor. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified. The Contractor will pay all sales, consumer, use and other similar taxes required by the law of the place where the Work is

performed. The Contractor is obligated to comply with all local and state sales and use tax laws. The Contractor shall provide the Owner with documentation to assist the Owner in obtaining sales and/or use tax refunds for eligible machinery and equipment used for the primary purpose of reducing or eliminating air or water pollution as provided for in Chapter 48-8-3(36) and (37) of the Official Code of Georgia Annotated. Acceptance of the project as completed will not be made by the Owner until the Contractor has fully complied with this requirement.

Section 107.07 PUBLIC CONVENIENCE AND SAFETY

Add the following:

The Contractor shall install all necessary appurtenances along highways, streets and roadways in accordance with MUTCD and DeKalb County regulations, with reference to construction operations, safety, traffic control, road maintenance and repair.

A. PROTECTION OF TRAFFIC:

The contractor shall provide suitable signs, barricades and lights for protection of traffic in locations where traffic may be endangered by Roadway improvements. They shall be removed as soon as conditions which necessitated their placement have been cleared. No highway, street, or roadway shall be closed without first obtaining permission from the proper authority.

1. The contractor shall provide, erect and maintain all necessary barricades suitable and sufficient lights and other traffic control devices; shall provide qualified flaggers where necessary to direct traffic; shall take all necessary precautions for the protection of the work and the safety of the public. Flaggers shall be certified by attending a Georgia DOT approved flagged training program.
2. Roadway construction traffic devices and their installation shall be in accordance with the current Manual On Uniform Traffic Control Devices for Streets and Highways.
3. Placement and removal of construction traffic control devices shall be coordinated with the DOT and DeKalb County a minimum of 48 hours in advance.
4. Installation of construction traffic control devices shall be performed prior to commencement of channel improvement activities. Construction traffic control devices shall be removed immediately following their useful purpose.
5. Traffic control devices used intermittently, such as Flagmen Ahead signs, shall be removed and replaced when needed.
6. Channelization devices shall be positioned preceding an obstruction at a taper length as required by current Manual on Uniform Traffic Control Devices for streets and

SECTION 107 LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

Highways, appropriate for the speed limit at location. Channel devices shall be patrolled to ensure that they are maintained in the proper position throughout their period of use.

Section 107.13 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

Section 107.13.B. EROSION AND SILTATION CONTROL

Add the following:

NOTE: The Contractor shall comply with all aspects of the current National Pollutant Discharge Elimination System (NPDES) general Permit No. GAR 100002.

All measures for the control of erosion and siltation must follow the guidelines as specified in the Georgia Erosion and Sedimentation Act of 1975 (as amended).

Add the following paragraphs to Section 107.13.C:

All measures required to minimize water pollution to affected waters shall be undertaken in the proposed Work. To achieve this end, regard shall be given to the protection of the watershed natural cover, measures instituted to assure minimal siltation and bank erosion from the construction, and other measures taken to reduce water pollution to a minimum. The Contractor must adhere to the Soil Erosion and Sedimentation Act of 1975 (as amended) and the Erosion and Sedimentation Control Ordinance of DeKalb County in effect at the time of the issuance of this agreement.

Any area used or involved in the Project disturbed by the Contractor, shall be restored to present or better condition even though such area is outside the limits of that specified for grading, grassing or landscaping.

All chemicals used during Project construction or furnished for Project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

Necessary sanitary conveniences for the use of the labor on the Work shall be erected and maintained by the Contractor to comply with all applicable laws and regulations and in accordance with all Safety requirements. Their use shall be strictly enforced.

Should the Contractor so desire, he may build shanties or other structures for housing tools, machinery, and supplies, but they will be permitted only in locations approved by the Construction Manager, and their surroundings shall be maintained at all times in a sanitary and satisfactory manner. On or before the completion of the Work, all such structures shall be removed, together with all rubbish and trash, at the expense of the Contractor.

The Contractor shall restore all easement areas upon completion of the Work and before leaving

SECTION 107 LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

the Project Work Area. The Owner reserves the right to withhold funds for unsatisfactory clean-up and easement restoration.

Section 107.13 F. Mailboxes

Delete subsection F and substitute the following:

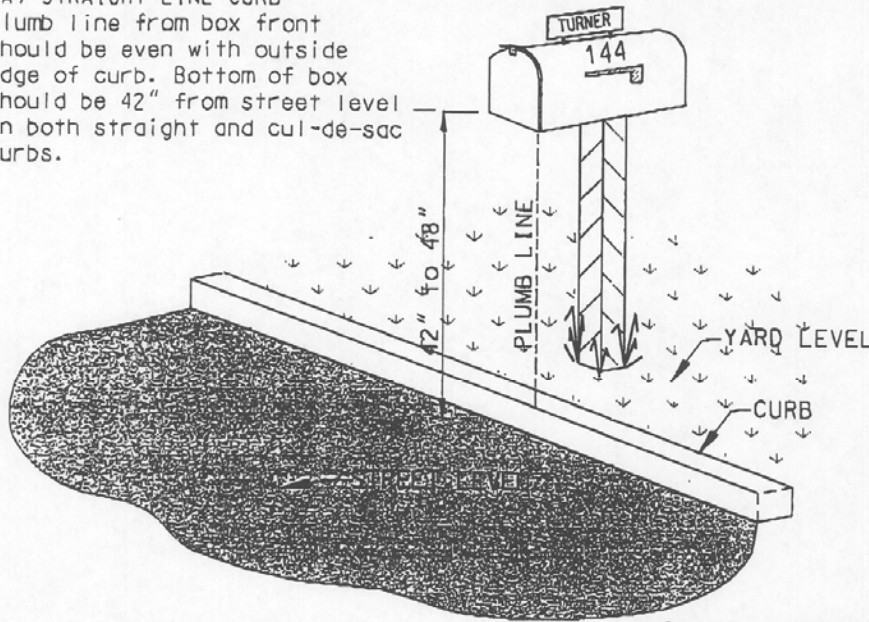
The Contractor shall have responsibility for removing and relocating all mailboxes to an area outside of the construction limits but still accessible for mail deliveries and convenient to the mail carrier and the patron during the entire time of construction. It may be necessary for the Contractor to confer with the Post Office serving the area. The U.S. Postal Service has provided guidelines for the final placement of mailboxes as shown in the following figures.

As soon as construction has progressed to the stage that the mailbox may be erected in its permanent position, the Contractor shall coordinate the erection with the patron and the Post Office serving the area. Any damages to the posts or mailboxes due to the removal and/or relocations by the Contractor will remain the responsibility of the Contractor, all damages posts and/or mailboxes shall be replaced and installed by the Contractor at his expense, excluding mailbox enclosures of masonry construction.

Mailboxes that are to be installed adjacent to or within the proposed sidewalks shall be placed in such a manner as to maintain the appropriate sidewalk width between the mailbox and the sidewalk edge. The Contractor is solely responsible for complying with current ADA guidelines at the site of the mailbox. If it is determined by the Engineer that ADA guidelines have not been met due to failure to install the mailbox correctly, the mailbox shall be moved by the Contractor at no expense to the County.

Any cost or costs to the Contractor for removing, relocating or installations of mailboxes as stated above, shall be included in the overall bid price.

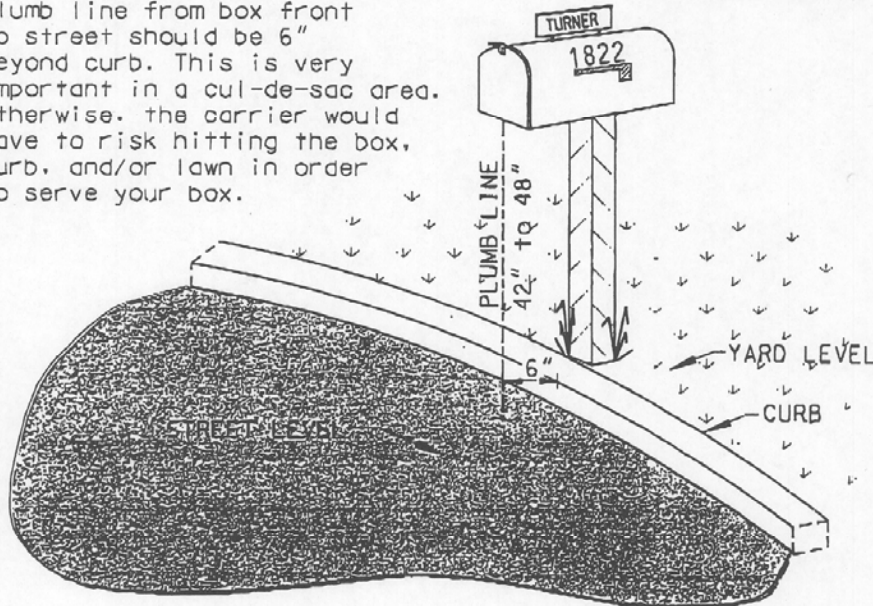
(A) STRAIGHT LINE CURB
 Plumb line from box front should be even with outside edge of curb. Bottom of box should be 42" from street level on both straight and cul-de-sac curbs.



* Street number on all boxes

(B) CUL-DE-SAC CURB
 Plumb line from box front to street should be 6" beyond curb. This is very important in a cul-de-sac area. Otherwise, the carrier would have to risk hitting the box, curb, and/or lawn in order to serve your box.

* Street number on all boxes



U.S. POSTAL SERVICE MAILBOX GUIDELINES

The carrier can best serve/approach your box when it is positioned to the right of your driveway (when facing house), unless there is a cement drain on that side or, of course, if you live on a corner and your box and driveway are not on the same street. CAUTION : Be careful not to dig into telephone or power lines when erecting mail box.

Section 107.16 OPENING SECTIONS OF PROJECT TO TRAFFIC

Add the following:

The Owner shall have the right to take possession of or use any completed or partially completed part of the Work. Prior to such possession or use, the Construction Manager shall furnish the Contractor an itemized list of work remaining to be performed or corrected on such portions of the Project as are to be possessed or used by the Owner, provided that failure to list any item of Work shall not relieve the Contractor of the responsibility for compliance with the terms of the Contract. Such possession or use shall not be deemed an acceptance of any Work under the Contract. While the Owner has such possession or use, the Contractor, notwithstanding the provisions of the article of this Contract, entitled, Permits and Responsibilities shall be relieved of the responsibility for the loss or damage to the Work resulting from the Owner's possession or use. If such prior possession or use by the Owner delays the progress of the Work or causes additional expense to the Contractor, such shall be transmitted to the owner in writing and an equitable adjustment in the Contract Price or the time of completion may be made, and the Contract may be modified in writing accordingly.

Section 107.18 ACQUISITION OF RIGHT-OF-WAY

Add the following paragraphs:

The Owner will provide, as indicated in the Contract Documents, the lands upon which the Work is to be done, rights-of-way for access thereto, and such other lands which are designated for the use of the Contractor. The Contractor shall confine the Contractor's Work and all associated activities to the easements and other areas designated for the Contractor's use. The Contractor shall comply with any limits on construction methods and practices which may be required by easement agreements. If, due to some unforeseen reason, the necessary easements are not obtained as scheduled, the Contractor may receive an extension of Contract Time, dependent upon the effect on the critical path activities of the project schedule.

Notwithstanding any provision to the contrary herein, should the owner fail to obtain the necessary rights-of-way contemplated in the scope of work, and should the work to be performed be stopped, delayed and/or enjoined by a court-of-law or otherwise, either party may terminate this agreement pursuant to the Termination for Convenience Clause and such clause shall govern in all respects any termination stemming from the Owners failure to obtain the necessary rights-of-way contemplated in the scope of work.

The Contractor shall inspect all easements and rights-of-way to ensure that the County has obtained all land and rights-of-way as shown in the plans necessary for completion of the Work to be performed pursuant to the Contract Documents. The Contractor shall comply with all stipulations contained in easements acquired by the Department.

Section 107.20 NO WAIVER OF LEGAL RIGHTS

Add the words AND WARRANTY to the title of this section.

Add the following:

WARRANTY:

The Contractor shall warrant for a period of one year from the date of the final acceptance that the completed project is free from all defects due to faulty products or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the warranty period.

Section 107.21 GENERAL DESCRIPTION

Add the following sentence to GENERAL DESCRIPTION

The Contractor is responsible for the location of above and below ground utilities and structures which may be affected by the Work.

Add the following to 107.21.B:

EXISTING UNDERGROUND UTILITIES AND OBSTRUCTIONS:

The contractor, as required by Georgia Law (Code Section 25-9-1 through 25-9-13), shall call the Utilities Protection Center (UPC) at 811, and all utilities, agencies or departments that own/operate utilities in the vicinity of the construction work site to verify the location of existing utilities.

A. EXISTING UTILITY LOCATION:

The following steps shall be exercised to avoid interruption of existing utility service.

1. Provide the required notice to the utility owners and allow them to locate their facilities according to the Georgia Law.
2. Expose the facility to verify its true location and grade in advance of roadway improvement. Repair or have repaired, any damage to utilities resulting from locating or exposing their true location.

3. Avoid utility damage and interruption by protecting it with means or methods recommended by the utility owner.

Add the following to 107.21.C.

The Contractor shall so schedule the Work that the operation of any existing facility, including water mains and sewers, will not be interrupted. In the event certain tie-ins or other operations make it absolutely necessary to interrupt the operation of existing facilities, the Owner will be notified and such work will be done at a time and in a manner acceptable to the Construction Manager. Bypasses of untreated or partially treated wastes which are absolutely necessary to complete the Work shall be shown on the Construction Progress Schedule. The Construction Manager shall be notified in writing of the date and time, and duration of such bypasses at least ten (10) days in advance.

The Contractor shall protect from damage all existing improvements or utilities at or in proximity to the site of the Work, and shall repair or restore any damage to such facilities resulting from failure to exercise reasonable care, in the performance of work. If the Contractor fails or refuses to repair any such damage promptly, the Owner may have the Work performed and charges the cost thereof to the Contractor.

Prior to implementing Roadway Improvements, the Contractor shall verify all existing utilities true vertical and horizontal location within the vicinity. In order to avoid conflicts between existing and proposed facilities or utilities, the Contractor shall take whatever means may be necessary to protect existing facilities or utilities during performance of Roadway Improvements, as approved by the Engineer/Construction Manager. No payment will be made for the relocation of existing utilities or for any work associated with the protection of existing facilities or utilities unless contract pay items are included.

The owner and/or operators of private or public utilities shall have access to such utilities at all times for the installation, maintenance, adjustment, repair and operation of said utilities. No extra compensation will be allowed because of the delay or interference caused by such work.

The plans show the approximate location of certain underground utilities, gas mains, water lines, drains, telephone cables, and structures according to information presented and available in the records. The determination of the exact location and other data on all existing facilities, their proper protection, maintenance and support during the prosecution of the work, is the express responsibility of the Contractor.

Wherever existing utilities are encountered which conflict in actual position and location with the proposed work, the Contractor shall promptly notify the utility owner and Construction Manager.

Temporary support, beams or bridging for utilities shall be left in place during backfill operations unless otherwise directed by the Construction Manager.

SECTION 107 LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

All costs in connection with supporting, protecting, relocating, removal, repair of damage, restoration of other ground structures, whether or not they are shown on the plans, not borne by the owner or owners of the utilities shall be borne by the Contractor.

No separate payment will be made for any work performed as herein above specified unless otherwise stated in the bid as a separate payment item. All costs in connection therewith shall be included in the contract price for the item to which the work pertains.

The Contractor shall be solely and directly responsible to the owner and/or other operator of such utility properties for any damage, injury, expense, loss, inconvenience or delay, or for any suits, actions, claims or any character brought on account of any damages which may result from the carrying out of the work provided the utility location was marked properly by the utility owner.

The utilities shown on the plans are for the Contractor's benefit and are to be considered as approximate in location and are not all-inclusive or exact. It is the Contractor's responsibility to contact all utilities and have them locate their lines in the field. Utilities shall be contacted a minimum of two (2) working days prior to commencing of construction.

It will be the Contractor's responsibility to conform to all the requirements of the specifications as they relate to cooperation with utility owners and the protection of utility installations that exist on the Project.

The Contractor will not be paid for any delays or extra expense caused by utility facilities, obstructions, or any other items not being removed or relocated to clear construction in advance of his work.

It shall be the responsibility of the Contractor to coordinate his work with any work to be performed by others in any right-of-way clearance and arrange a schedule of operations that will allow for completion of the Project without undue delay.

Information concerning utility facilities known to exist within the Project limits is shown on the contract drawings.

Add the following Section 107.26 EQUAL OPPORTUNITY

Except as otherwise provided, during the performance of this Contract the Contractor agrees as follows:

The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.

The Contract will take affirmative action to ensure that applications are employed and treated during employment without regard to race, color, religion, sex, or national origin. Such action shall include but not be limited to, the following.

SECTION 107 LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this Equal Opportunity Clause.

The Contractor will in all solicitations or advertisement for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

The Contractor will send to each labor union or representative of workers with which Contractor has collective bargaining agreements or other contracts or understanding, a notice advising the labor union or worker's representative of the Contractor's commitments under this Equal Opportunity Clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. Contractor agrees to comply with all Lawful agreements, if any, which the contractor had made with any association, union, or other entity, with respect to wages, salaries, and working conditions so as not to cause inconvenience, picketing, or work stoppage.

The Contractor shall include the provisions of this Equal Opportunity article in every subcontract or purchase order so that such provisions will be binding upon each subcontractor or vendor.

Failure of a successful bidder or contractor to fully disclose all the contractors or subcontractors to be engaged in a given public contract award may result in cancellation of the contract and imposition of a sanction on such violating bidder or contractor for the period of one (1) year.

November 13, 2018

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SPECIAL PROVISION**

PROJECT NUMBER: CSTEE-0008-00(121)

COUNTY: DEKALB

P.I. No.: 0008121/0012789

SECTION 108 - PROSECUTION AND PROGRESS

Retain Sub-Section 108.08 as written and add the following:

108.08. Failure or Delay in Completing Work on Time

C: Restrictive Work Hours

1. Failure to re-open travel lanes as specified in Special Provision Section 150.6.A will result in the assessment of liquidated damages in the amount of \$1000, per hour or portion thereof.

D: Milled Surfaces

1. Failure to cover milled surfaces as specified in Special Provision Section 150.6 will result in the assessment of liquidated damages in the amount of \$1000 per calendar day.

E. Traffic Signal Malfunctions and Loops

1. Failure to replace traffic loops removed or damaged during construction as specified in Special Provision Section 150.6 will result in the assessment of liquidated damages in the amount of \$500.00 per hour or portion thereof.

The above rates are cumulative and are in addition to any Liquidated Damages which may be assessed for failure to complete the overall project.

Office of Program Delivery

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SPECIAL PROVISION**

PROJECT NUMBER: CSTEE-0008-00(121)

COUNTY: DEKALB

P.I. No.: 0008121/0012789

SECTION 150 – TRAFFIC CONTROL

Add the following:

150.6 Special Conditions:

- A. The Contractor shall not install lane closures, pace traffic or move equipment or materials that interferes with traffic on Rockbridge Road between the hours of 6:00 am to 9:00 am and 3:30 pm to 7:00 pm, Monday through Friday or between the hours of 8:00 am and 2 pm on Sunday.**
- B. Milled Surfaces**
 - 1. All milled surfaces shall be covered before shall be covered within 3 days.
- C. Traffic Signal Loops**
 - 1. Traffic loops removed or damaged during construction shall be replaced and operational within 48 hours. Failure in having replacement traffic loops operational within the time specified will result in the assessment of Liquidated Damages in accordance with Special Provision 108.08

Office of Program Delivery

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SPECIAL PROVISION

PROJECT: CSTE-0008-00(121)

COUNTY: DEKALB COUNTY

P.I.: 0008121

Section 670—Water Distribution System

Delete Section 670 and substitute the following:

670.1 General Description

This work consists of furnishing materials, labor, tools, equipment, and other items necessary for installing, removing, abandoning, relocating, and adjusting water distribution systems according to the Plans and Specifications.

670.1.01 Definitions

- A. General Provisions 101 through 150
- B. Whenever the term “Utility Owner” is used in this Special Provision and its related documents, it shall be understood to mean “The Facility Owner” and its subsidiaries, successors and/or assignees.
- C. The term “Project Manager” shall mean the authorized individual having the authority to give instructions pertaining to the work and to approve or reject the work. The “Project Manager” shall not however be authorized to revoke, alter, enlarge, relax, or release any requirements of the Contract, Plans, and Specifications, nor shall they act as an agent for the Contractor. All Contract items pertaining to the Utility Owner shall be coordinated with the Georgia Department of Transportation’s (GDOT) Project Manager and the Utility Owner.

670.1.02 Related References

A. Standard Specifications

[Section 104—Scope of Work](#)

[Section 107—Legal Regulations and Responsibility to the Public](#)

[Section 108—Prosecution and Progress](#)

[Section 205—Roadway Excavation](#)

[Section 207—Excavation and Backfill for Minor Structures](#)

[Section 210—Grading Complete](#)

[Section 400—Hot Mix Asphaltic Concrete Construction](#)

[Section 444—Sawed Joints in Existing Pavements](#)

[Section 500—Concrete Structures](#)

[Section 600—Controlled Low Strength Flowable Fill](#)

[Section 611—Relaying, Reconstructing or Adjusting to Grade of Miscellaneous Roadway Structures](#)

[Section 615—Jacking or Boring Pipe](#)

[Section 810—Roadway Materials](#)

B. Related Documents

1. General Provisions 101 through 150.
2. All products supplied and all work performed shall be in accordance with The Facility Owner's Standard Specifications, applicable standards from American Society for Testing and Material (ASTM), American Water Works Association (AWWA), American National Standards Institute (ANSI), GDOT Utility Accommodation Policy and Standards, and the Georgia Environmental Protection Division (EPD) Minimum Standards for Public Water Systems. Latest revisions of all standards shall apply.

670.1.03 Submittals

A. General Provisions 101 through 150.

B. Refer to The Facility Owner's Standard Specifications, current published edition, for water utility submittal requirements. Copies of all submittals and documentation shall be submitted to GDOT, who shall distribute to the Utility Owner.

C. Shop Drawings / Product Data

1. Submit [6] copies of the following submittals to the GDOT Project Manager:
 - a. Product data, including size, dimension, capacity, pressure rating, accessories, and special features, installation instructions, and operating characteristics for all proposed materials to show compliance with the requirements of this Special Provision.
 - b. Test reports specified in the Quality Acceptance section of this Special Provision.
 - c. Pipe manufacturer certification of compliance with specifications.
 - d. Operation and maintenance literature, warranties, and other specified information.

D. Construction Record Documentation

1. The Contractor shall record on two sets of utility as-built drawings that will record changes and deviations from the Contract Drawings in sizes, lines or grade. Record also the exact final horizontal and vertical locations of underground utilities and appurtenances to an accuracy of +/- 0.2 ft, referenced to permanent surface improvements. Drawings shall utilize State Plane Coordinates and shall be legibly marked to record actual construction and submitted to GDOT no later than 30 days after installation and prior to Final Acceptance of the Project. The Utility Owner shall determine if the utility record drawings are complete prior to Final Acceptance of the project.
2. Record Drawings shall be signed and sealed by a professional engineer or land surveyor registered in the State of Georgia.
3. Record Drawings shall also be submitted in digital format as indicated in accordance with the Department's current Electronic Utility File Guidelines.
4. Except for standard bound materials, bind all 8.5"x11" (A4) documentation, including 11" x 17" (A3) drawings folded to 8.5"x11" (A4), in logical groupings in loose-leaf binders of either the 3-ring or plastic slide-ring type. Permanently and appropriately label each such bound grouping of documentation.

670.1.04 Quality Assurance

- A.** Contractor to comply with requirements and details in DeKalb County Potable Water Main, Gravity Sanitary Sewer and Sanitary Sewer and Force Main Design Standards, 2017 Edition, Version 0. See Appendix D for Potable Water Main Standard Details. See Appendix I for Gravity Sanitary Sewer Standard Details. Actual field conditions may dictate more stringent requirements if deemed necessary by the construction inspector
- B.** Furnish manufactured items, pipe, fittings, valves, service components, and appurtenances from manufacturers having regularly produced such items as specified herein which have proven satisfactory in actual service, over at least a 2-year period, or as approved by the Utility Owner and GDOT.
- C.** Regardless of tolerances permitted by industry standards specified herein, the Utility Owner or the GDOT Project Manager may reject pipe or appurtenances at the manufacturing plant or project site which have cracks, chips, blisters, rough interior or exterior surface, evidence of structural weakness, joint defects, or other imperfections that might in the opinion of the Project Manager contribute to reduced functional capability, accelerated deterioration or reduced structural strength.
- D.** The Utility Owner and the Utility Owner's consultant shall have the right to visit and inspect the work at any time. The Utility Owner may also have an Inspector assigned to the project authorized to inspect portions or all of the utility work done and the preparation, fabrication, or manufacture of the materials to be used. The Utility Owner shall be able to advise GDOT Project Manager of any observed discrepancies or potential problems. The cost of these inspections shall be the responsibility of the Utility Owner.
- E.** GDOT shall notify the Utility Owner before authorizing any changes or deviations which might affect the Utility Owner's facilities. Contractor shall notify GDOT and Utility Owner a minimum of 24 hours prior to beginning work on utilities.
- F.** The Utility Owner shall be notified by GDOT Project Manager when all utility work is complete and ready for final inspection. The Utility Owner shall be invited to attend the final inspection and may provide a corrections list to GDOT Project Manager prior to the final inspection.
- G.** The Contractor shall verify the actual location and depth of all utilities prior to construction. All utilities and structures shall be protected during construction. Any damaged facilities shall be repaired or replaced at the Contractor's expense.

670.2 Materials

All materials provided shall be in conformance with the requirements and standards set forth in The Facility Owner's Standard Specifications, current published edition. All pipeline and appurtenance materials in contact with potable water shall be National Sanitation Foundation (NSF) 61 Certified and part of GDOT QPL list.

Pipes and appurtenances shall comply with Section 1417(a)(1) of the Safe Water Drinking Act as amended in 2011 which prohibits the use of any pipe, any pipe or plumbing fitting or fixture, and solder, or any flux, after June 1986, in the installation or repair of (i) any public water system; or (ii) any plumbing in a residential or non-residential facility providing water for human consumption, that is not lead free as defined in Section 1417(d).

670.2.01 Water Piping systems and Appurtenances

A. Ductile Iron Pipe and Fittings

- 1. Ductile iron pipe shall meet the latest edition of ANSI/AWWA C150/A21.50 and C151/A21.51 for the class and joint specified with a nominal laying length of 18 (5.5 m) to 20 feet (6 m). Joints for buried ductile iron pipe shall be mechanical or push-on joints. Unless specified otherwise in The Facility Owner's Standard Specifications, ductile iron pipe diameters 12 inch (300 mm) or less shall be minimum Pressure Class 350, while pipe diameters greater than 12 inch (300 mm) shall be minimum Pressure Class 250.
- 2. Ductile iron pipe for the interior of structures and above ground installations shall be flanged. Flanges shall be ductile iron and shall be threaded-on flanges conforming to ANSI/AWWA C115/A21.15 or cast-on flanges conforming to ANSI/AWWA C110/A21.10. The minimum class thickness for ductile iron flanged pipe to be threaded is Class 53.
- 3. Interior surfaces of ductile iron pipe and fittings shall be cement mortar lined in accordance with AWWA C104.

4. Ductile iron shall have an exterior coating as specified in AWWA C151 for ductile iron pipe and AWWA C153/C110 for ductile iron fittings.
5. Buried ductile iron pipe and fittings shall be polyethylene encased for all new ductile iron pipe that is installed. Polyethylene encasement tubing shall be in accordance with ANSI/AWWA C105/A21.5 and ASTM A674 and shall have a minimum thickness of 8 mils. Polyethylene encasement tubing shall be blue in color to designate potable water.
6. Fittings: Ductile iron fittings shall be epoxy coated and meet the requirements of ANSI/AWWA C153/A21.53 or ANSI/AWWA C110 A21.10 with a minimum pressure rating of 250 psi. Ends shall be restrained mechanical joint. All ductile iron fittings shall bear the NSF approval seal for potable water pipe.
7. Mechanical Joint Fittings: Mechanical joints consisting of bell, socket, gland, gasket, bolts, and nuts shall conform to ANSI/AWWA C111/A21.11.
8. Push-On Joints: Push-on joints shall be designed in accordance with ANSI/AWWA C111/A21.11. Joint lubrication shall be as furnished by the manufacturer.
9. Rubber gasket joints for push-on or mechanical joints shall conform to the requirements of ANSI/AWWA C111/A21.11.
10. Restrained Joints: Restrained joints shall be provided as shown on the Plans and where required for thrust restraint. Restrained joints shall not require field welding or grooves cut into the pipe barrel for restraint. The restraining joints for mechanical joint fittings shall conform to the requirements of ANSI/AWWA C111/A21.11 with assembly in conformance with AWWA C600 and manufacturer's recommendations. Restrained joints for pipe shall be mechanical joints with ductile iron retainer or push-on type joints and shall have a minimum rated working pressure of 250 psi.
11. Mechanical joint retainer glands may be used to restrain mechanical joint pipe and fittings to the plain end of ductile iron pipe and fittings. Restrainer glands shall be manufactured of ductile iron per ASTM A536.
12. Corrosion-resistant bolts used with ductile iron joints shall be high-strength, low-alloy steel as specified in ANSI/AWWA C111/A21.11.
13. Welded Outlets: Welded outlets in ductile iron pipe shall be provided where specified and indicated on the Plans. Outlets shall be fabricated by welding sections of ductile iron pipe manufactured in accordance with ANSI/AWWA C151/A21.51. Welded outlet pipe shall be fabricated only by the pipe manufacturer. The minimum ductile iron pipe thickness for fabrication of welded outlet pipe shall be Thickness Class 53 for 4-inch to 54-inch (100 to 1350 mm) diameter pipe. All joints on welded-on branch outlets shall be provided in accordance with the latest revision of ANSI/AWWA C111/A21.11 and/or ANSI/AWWA C115/A21.15, as applicable. After the outlets are welded together and prior to finishing, the assembly shall be subjected to a 15 psi air test for leakage. The maximum size and laying length of the welded-on branch outlet shall be recommended by the pipe manufacturer and acceptable to the Utility Owner for the field conditions and connecting pipe or valve.

B. Polyvinyl Chloride (PVC) Pipe

1. PVC pipe diameters 4-inch through 12-inch (100 mm to 300 mm) shall meet ANSI/AWWA C900 requirements, and shall be a minimum pipe dimension ratio (DR) 18, Pressure Class 235 psi. PVC pipe diameters 14-inch (350 mm) and greater shall meet ANSI/AWWA C905 requirements, shall be DR 18 minimum, Pressure Class 235 psi. Pipe shall have a bell with an integral wall section with a factory installed, solid cross section elastomeric ring in accordance with ASTM F477.
2. All PVC pipe shall be formulated for sunlight exposure, be blue in color to designate potable water, and bear the NSF approval seal.
3. Joints for 4-inch (100 mm) and larger PVC pipe shall meet the requirements of AWWA C900/C905, latest edition. The rubber gaskets used for the joints shall consist of flexible elastomeric material conforming to ASTM F477.

4. PVC pipe shall have the same outside diameter (OD) as ductile iron pipe and be compatible for use with ductile iron fittings.
5. Fittings for PVC pipe 4 inches (100 mm) and larger shall be ductile iron mechanical joint and comply with the requirements set forth in the specifications for Ductile Iron Pipe and Fittings.
6. Restrained Joints: Restrained joints shall be provided as shown on the Plans and where required for thrust restraint. Restrained joints shall comply with the requirements set forth in the specifications for Ductile Iron Pipe and Fittings.
7. Unless specified otherwise in the Plans or The Facility Owner's Standard Specifications, 2-inch (50 mm) and 3-inch (75 mm) diameter PVC pipe shall conform to the requirements of ASTM D2241 Class 1120 or 1220 (SDR 21) with a working pressure rating of 200 psi with integral bell gasketed joints. Pipe is to be manufactured to IPS standard pipe equivalent outside diameters.
8. Schedule 80 PVC pipes smaller than 4-inch (100 mm) nominal diameter shall be in accordance with ASTM D1785. Schedule 80 pipe shall have threaded joints. Solvent cemented joints are not allowed for buried pipes. Threaded type fittings for Schedule 80 PVC pipe shall be in conformance with ASTM D2464. All threaded joints shall be watertight.
9. Flanges for Schedule 80 PVC pipe shall be rated for a 150 psi working pressure with ANSI B16.1 dimensions and bolting pattern. Flanges shall be connected to PVC piping with threaded joints in accordance with ASTM D2467 or ASTM 2464, respectively.

C. Fusible PVC Pipe

1. Fusible PVC pipe sizes 4-inch (100 mm) to 36-inch (900 mm) shall conform to AWWA C900/C905 as applicable and follow the dimension ratios (DR) set forth in the requirements listed for PVC pipe.
2. Fusible PVC pipe shall be blue in color to designate potable water.
3. Fusible PVC pipe shall be extruded with plain ends. The ends shall be square to the pipe and free of any bevel or chamfer. There shall be no bell or gasket of any kind incorporated into the pipe.
4. Fusible PVC pipe shall be manufactured in a standard 40-foot nominal length-, or custom lengths as specified.
5. Joints shall be made by butt fusing sections of pipe with manufacturer-approved equipment.
6. Fittings shall be ductile iron mechanical joint and comply with the requirements set forth in the specifications for Ductile Iron Pipe and Fittings.

D. High Density Polyethylene (HDPE) Pipe

1. HDPE pipe sizes 4-inch (100 mm) and larger shall be a PE 4710/3408 high density, extra-high molecular weight polyethylene manufactured from first-quality high density polyethylene resin containing no additives, fillers, or extenders. The HDPE pipe shall have an ASTM D3350 cell classification of PE 445574C , shall meet the requirements of AWWA C906, and shall be sized based upon the ductile iron pipe size (DIPS), outside diameter (OD) sizing system.. The HDPE pipe shall be a minimum DR 11, pressure class 160 psi, and shall bear the NSF approval seal.
2. HDPE pipe shall be blue or marked with a permanent blue stripe to designate potable water.
3. Joints shall be made by butt fusing sections of pipe with manufacturer-approved equipment.
4. Fittings shall be ductile iron mechanical joint meeting the requirements of ANSI/AWWA C110/A21.10 and ANSI/AWWA C111/A21.11.
5. The pipe shall have fusion welded restrainer ring, follower gland, and a 12-inch (300 mm) stainless steel insert for the mechanical joint connection.
6. HDPE water mains shall be properly sized utilizing the inside diameter of the nominal pipe diameter. If during construction HDPE is substituted for other pipe materials, the Contractor shall verify that the inside diameter of the HDPE is the same or larger than the inside diameter of the pipe originally specified.

E. Steel Casing Pipe

1. All materials, design, fabrication, handling, and testing of steel casing pipe shall conform to the requirements of ASTM A139, AWWA C200 and AWWA Manual M11 "Steel Pipe – A Guide for Design and Installation."
2. Steel casing pipe shall be new, smooth-wall, carbon steel pipe conforming to ASTM Specification A139, Grade B with a minimum yield strength of 35,000 psi. Steel casings shall be used with the size, minimum thickness, length, and coating specified on the Plans or The Facility Owner's Standard Specifications.
3. Additional anti-corrosion measures, as specified by the manufacturer or indicated on the Plans, shall be provided at connectors, couplings, rollers, restraints, etc.
4. Unless specified otherwise in the Plans or The Facility Owner's Standard Specifications, casing pipe end seals shall consist of 1/8-inch (6 mm) thick flexible synthetic rubber boot with adjustable stainless steel banding straps. The annular space of the casing shall not be filled with concrete or grout.
5. Casing spacers shall consist of a stainless steel shell, PVC ribbed liner, and non-conducting separators to keep the carrier pipe from touching the casing pipe. Spacers shall be provided at a maximum of 10-foot intervals and within 2 feet (0.6 m) of the end of the casing pipe.

F. Pipe Detection Wire

1. Unless otherwise specified by the Plans or The Facility Owner's Standard Specifications, open cut installations of non-metallic pipe shall include minimum #12 gauge tracing wire. Pipe installed by directional drill shall include two (2) insulated 8 gauge tracer wire. Wire shall be solid copper insulated with HDPE installed along pipe, wrapped around service line stub outs and stubbed into valve boxes for locating purposes. Wire shall be properly spliced to provide continuous conductivity.

G. Warning Tape

1. Water mains shall be installed with polyethylene film warning tape manufactured for marking and identifying underground water utilities. Tape shall be a minimum of 2 inches (50 mm) wide and 4 mils thick, blue in color, with continuously printed letters reading "CAUTION BURIED WATER LINE BELOW".

H. Gate Valves

1. Gate valves 3 inches (80 mm) and larger shall be of the resilient seat type meeting the requirements of AWWA C509 or C515. Valves shall be iron body, bronze trimmed, with non-rising stems, and shall be fusion-bonded epoxy coated per ANSI/AWWA C550. Valves shall have a minimum design working pressure of 200 psi.
2. Valves shall be manually operated by nut and open counter-clockwise unless specified otherwise in the Plans or The Facility Owner's Standard Specifications.
3. The resilient seating arrangement shall provide zero leakage at the design working pressure when installed with line flow in either direction. All ferrous surfaces inside and outside shall have a fusion bonded epoxy coating. All valves shall be provided with O-ring seals. The design and machining of valves shall be such as to permit replacing the O-ring seals in the valves while in service without leakage.
4. All gate valves, when fully opened, shall have an unobstructed waterway diameter equal to or larger than the full nominal diameter of the valve.
5. In general, valves shall be designed for vertical installation. Valves installed in the horizontal position shall be provided with bevel gears, extended gear case, rollers, tracks, and scrapers.
6. Exposed or above-ground gate valves shall be outside screw and yoke (OS&Y) flanged joint type with an operating hand wheel. The face-to-face dimensions and drilling shall conform to ANSI B16.10 for Class 125 flanged joint end gate valves.
7. Valves shall include mechanical joints, bolts, glands, gaskets, and all other materials necessary to join to existing work.

8. Provide brass identification tag imprinted with "WATER", valve size, valve type, and direction and number of turns to open. Provide a ¼-inch (8 mm) hole in the brass tag and attach the tag to the end of the locate wire (twist wire around tag). Tag shall be 2-inch (50 mm) diameter and ⅛-inch (6 mm) thick brass with a ¼-inch (8 mm) hole.

I. Insertion Valve

1. Insertion type valves shall be resilient wedge gate valves designed to be installed into an existing pressurized potable water main without interruption of flow through the pipe and no reduction of line pressure.
 - a. Valve shall be fusion-bonded epoxy coated in compliance with AWWA C550.
 - b. The construction of the resilient wedge shall comply with AWWA C509 requirements.
 - c. The resilient wedge shall be fully encapsulated with EPDM rubber and shall seat on the valve body and not the pipe. The resilient wedge shall be totally independent of the carrier pipe.
 - d. Valve shall be restrained to the pipe.
 - e. Valves shall be suitable for operating pressures up to 250 psi.

J. Butterfly Valves

1. Butterfly valves shall be of the tight-closing, rubber seated type, with rubber seat positively locking in place sealing against flow from either direction. Valves shall be hand operated with cast or ductile iron bodies. Valves shall conform to the requirements of AWWA C504, Class 150B, and shall be fusion-bonded epoxy coated per ANSI/AWWA C550.
2. Valves shall have a 2-inch (50 mm) square operating nut and shall be installed with extension stems to extend the operating nut in accordance with the project details. Valves shall open by turning the operating nut counter clockwise unless specified otherwise in the Plans or The Facility Owner's Standard Specifications.
3. Valve shafts shall be of 304 or 316 stainless steel.
4. Buried butterfly valve end connections shall be installed using restrained mechanical joints.
5. Flanged valves shall be fully faced and drilled in accordance with ANSI Standard B16.1, Class 125.
6. Provide brass identification tag imprinted with "WATER", valve size, valve type, and direction and number of turns to open. Provide a ¼-inch (8 mm) hole in the brass tag and attach the tag to the end of the locate wire (twist wire around tag). Tag shall be 2-inch (50 mm) diameter and ⅛-inch (6 mm) thick brass with a ¼-inch (8 mm) hole.

K. Ball Valves

1. Ball valves 2-inch (50 mm) and smaller shall be designed for a working pressure of not less than 175 psi. End connection shall be threaded. The body and all parts shall be made in accordance with AWWA C800 and ASTM B62 latest revision.

L. Tapping Sleeves and Valve Assembly

1. Tapping sleeves and valves sizes 4-inches (100 mm) and larger shall be stainless steel with wraparound gasket style, or ductile iron of the split-sleeve, mechanical joint type. Tapping sleeves shall be rated for a minimum 150 psi working pressure in accordance with ANSI/AWWA C110/A21.10.
2. When tapping an existing asbestos cement pipe, a stainless steel tapping sleeve which contains a full gasketed surface within the sleeve body shall be used due to variances in the manufactured outside diameter of the asbestos cement pipe.
3. Tapping sleeve shall have an outlet flange per ANSI B16.1, Class 125 standard.
4. The Contractor shall determine the outside diameter of the existing main before ordering the sleeve.
5. Tapping valves shall be mechanical joint outlet, non-rising stem, resilient seated gate valves meeting the applicable requirements of ANSI/AWWA C509/C515 and C550 with a minimum design working pressure of 200 psi.
6. Tapping valves shall be specifically designed for pressure tapping with sufficient seat opening to allow full diameter taps to be made.
7. Tapping valves shall be manufactured with an integral tapping flange having a raised lip design.

8. Tapping valves shall be furnished with a combination flange and mechanical joint for connecting the branch to the main.

M. Valve Boxes

1. All valves shall be equipped with valve boxes. The valve boxes shall be heavy, roadway type boxes. The valve box cover shall be marked "WATER VALVE" or "WATER".
2. Valve box materials shall conform to the requirements and standards set forth in The Facility Owner's Standard Specifications, current published edition.
3. The valve boxes shall be adjustable up or down from the nominal required cover over the pipe. Extensions shall be provided as necessary. A precast concrete ring shall be placed around the valve box opening when outside of paved areas.
4. Valves shall be furnished with extension stems as necessary to bring the operating nut to within 24 inches (600 mm) minimum of the top of the valve box.

N. Service Connection Assemblies

1. Water service connections and plumbing should conform to the standards set forth in The Facility Owner's Standard Specifications and relevant local and/or state plumbing codes or to the Standard Plumbing Code as applicable within the jurisdiction in which the system is located.
2. Service connection assemblies shall be provided for all new service line connections to existing meters. Existing service lines indicated for replacement shall be replaced with new materials from the water main to the existing or new water meter.
3. Service connection assemblies shall include:
 - a. Service saddle
 - b. Corporation stop
 - c. Service line
 - d. Fittings
 - e. Curb stop
 - f. Water meter box
 - g. Water meter (separate Pay Item for new service connections)
 - h. Backflow preventer (separate Pay Item for new service connections)

O. Service Saddles

1. Service saddles shall have ductile iron or bronze body with stainless steel epoxy coated double tie straps and nuts with pressure rating not less than that of the pipe to which it is to be connected.
2. Saddles shall have a rubber gasket cemented to the body, with compatible threading between the saddle and corporation stop. Saddles shall conform to ANSI/AWWA C800 standards.
3. The service saddle shall provide full support around the circumference of the pipe, providing a bearing area of sufficient width so that pipe will not distort when the saddle is tightened.

P. Water Service Pipe

1. Polyethylene (PE) pipe for water service lines shall conform to AWWA C901 and ASTM D-2737 and shall be 200 psi pipe, SDR 9 for copper tube size (CTS). Polyethylene extrusion compound from which the polyethylene pipe is extruded shall comply with applicable requirements for PE 3408 ultra-high molecular weight polyethylene plastic material as specified in AWWA C901.
2. Marking on the PE service pipe shall include the nominal pipe or tubing size, the type of plastic material, the standard thermoplastic pipe dimension ratio or the pressure rating in psi, the ASTM designation with which the pipe complies, and manufacturer's name or trade mark and code. It shall also include the NSF seal of approval for use with potable water.

3. Copper tubing for water service lines shall be seamless and shall conform to ANSI/AWWA C800 and ASTM B88, Type K soft, suitable for potable water use with a working pressure of 150 psi.
4. Water service line fittings shall be as indicated in The Facility Owner's Standard Specifications.

Q. Corporation and Curb Stops

1. Corporation stops, curb stops, and other appurtenances for plastic or copper service lines shall meet the requirements of ASTM B62 and AWWA C800.
2. Service line taps shall be equipped with corporation stops. Corporation stops in sizes 1-inch (25 mm) through 2-inch (50 mm) shall be manufactured from cast bronze with machined fitting surfaces. The corporation shall be pressure rated to no less than 150 psi.
3. Curb stops shall be ball valve type and made of bronze. Pipe connections shall be suitable for the type of service pipe used and shall be pressure rated for no less than 150 psi.

R. Water Meters

1. Water meters shall conform to the requirements and standards set forth in The Facility Owner's Standard Specifications.

S. Meter Boxes

1. Water meter boxes shall be high density reinforced plastic body with one piece cast iron lid with lettering "WATER METER" on cover unless otherwise indicated on the Plans. Recessed hole shall be included in lid, if required by Utility Owner for electronic reading capability. Provide box of size and height appropriate to installation of meter and accessories required. Meter and curb stop shall be fully encased by the meter box.

T. Concrete Vault

1. Concrete vaults shall conform to the requirements and standards set forth in The Facility Owner's Standard Specifications and standard details.

U. Air Release Valve Assembly

1. Air release, air/vacuum valves, and combination air valves shall be suitable for use with potable water systems and manufactured in compliance with ANSI/AWWA C512.
2. Air release valves shall have a small venting orifice to vent the accumulation of air and other gases in the line or system under pressure.
3. Air/vacuum valves shall have a large venting orifice to permit the release of air as the line is filling or relieve the vacuum as the line is draining or is under negative pressure.
4. Combination air valves shall have operating features of both the air/vacuum valve and air release valve.
5. Valves shall be suitable for pressures up to 250 psi.
6. Air release, air/vacuum valves, and combination air valves shall conform to the requirements set forth in The Facility Owner's Standard Specifications and standard details.

V. Fire Hydrant Assembly

1. Fire hydrants shall be the compressive, post style, dry barrel type, and shall conform to the requirements of ANSI/AWWA C502 and local code requirements. The valve opening shall not be less than 4½-inch (115 mm). All hydrants shall be complete including joint assemblies.
2. Hydrants shall be suitable for working pressure of 150 psi and shall be hydrostatically factory tested to 300 psi.
3. All working parts, including the seat ring, shall be removable through the top without excavating or disturbing the barrel of the hydrant.
4. Hydrants shall be constructed with a lubricant chamber which encloses the operating threads and which provides automatic lubrication of the threads and bearing surfaces each time the hydrant is operated. This assembly shall be

comprised of a top O-ring serving as a dirt and moisture barrier and a lower O-ring which will serve as a pressure seal.

5. Hydrants shall include two 2½-inch (65 mm) hose nozzles and one 4½-inch (115 mm) pumper connection with National Standard Fire Hose Threads unless specified otherwise in the Plans or The Facility Owner's Standard Specifications. Hydrant threads shall comply with the specifications of the local agency providing fire service.
6. Hydrant nozzle shall be constructed to face in any direction at any time by removing the safety flange bolts and revolving the head without digging or shutting off water.
7. Hydrants shall have pentagon operating nut measuring 1½-inch (40 mm) point to flat and shall open by turning counter-clockwise.
8. Hydrant shall have a safety-type vertical barrel with a minimum 3½-foot bury and be designed with safety flange and/or bolts to protect the barrel and stem from damage, eliminate flooding, and allow rapid replacement if hydrant is struck. All risers necessary for deeper bury applications shall be provided by the hydrant manufacturer.
9. Hydrants shall include positive, automatic drain valves which shall be fully closed when the main valve is open.
10. Bottom inlet of hydrant shall be provided with mechanical joint connection complete with accessories as specified and shall be 6-inch (150 mm) nominal diameter.
11. Fire hydrant shall be painted above ground with rust inhibiting enamel paint in accordance with The Facility Owners Standard Specifications.
12. Hydrant assemblies shall be restrained from the hydrant to the tee at the main.

W. Backflow Prevention Devices

1. Backflow prevention devices shall be installed where indicated on the Plans and shall meet all applicable AWWA, State, and local code/ordinance requirements.
2. Backflow preventer materials shall conform to the requirements and standards set forth in The Facility Owner's Standard Specifications.

X. Thrust Collars and Thrust Blocks

1. Concrete used for thrust collars or thrust blocks shall meet the "Class A" requirements for concrete listed in Section 500.
2. Thrust collars shall include welded-on collars attached by the pipe manufacturer or retainer glands. Concrete shall be poured continuous around the pipe and bear against undisturbed earth.
3. Reinforcing steel shall meet the requirements set forth in the Plans or The Facility Owner's Standard Specification].
4. Mechanical joint restraints shall be utilized in lieu of thrust blocks with the approval of Utility Owner.

Y. Manholes

1. Precast reinforced manholes shall be manufactured in accordance with ASTM C478 and shall have a minimum wall thickness of 5 inches (127 mm). All concrete shall have a minimum compressive strength of 4,000 psi when tested in accordance with ASTM C478.
2. Joints between precast sections shall be sealed by means of rubber O-ring gaskets or flexible butyl rubber sealant.
3. Non-shrinking grout or a flexible seal shall be used to seal the pipe penetrations and prevent water from entering the manhole.
4. Manhole rings and cover shall be per The Facility Owner's Standard Specifications and standard details.

670.2.02 Delivery, Storage, and Handling

- A. Handle pipe, fittings, valves, and accessories carefully to prevent damage. Handle pipe by rolling on skids, forklift, or front end loader. Do not use material damaged in handling. Slings, hooks, or pipe tongs shall be padded and used in such a manner as to prevent damage to the exterior coatings or internal lining of the pipe. Do not use chains in handling pipe, fittings, or appurtenances.

- B. To unload pipe, carefully lift and lower it into position using approved padded slings, hooks, or clamps. Furnish equipment and facilities for unloading, handling, distributing, and storing pipe, fittings, valves, and accessories. Make equipment available at all times for use in unloading. Do not roll, drop or dump materials. Any materials dropped or dumped shall be subject to rejection without additional justification.
- C. Stored materials including salvaged materials shall be kept in suitable areas safe from damage. The interior of all pipe, fittings, and other appurtenances shall be kept free from dirt or foreign matter at all times. Store and support plastic pipe to prevent sagging and bending. Store plastic pipe and gaskets to prevent exposure to direct sunlight. Valves and hydrants shall be stored and protected from damage by freezing.
- D. Pipe shall not be stacked higher than the limits recommended by the manufacturer. The bottom tier shall be kept off the ground on timbers, rails, or concrete.

670.3 Construction Requirements

670.3.01 Personnel

- A. General Provisions 101 through 150.
- B. Construction and installation of all water utilities shall be performed by a Contractor prequalified/registered with GDOT.
- C. All work specified in this section, except for water system service line installation shall be performed by a Contractor with a valid Utility Contractor's license issued by the State of Georgia. Water service line installation shall be performed by either a Utility Contractor licensed in the State of Georgia or by a Master Plumber licensed in the State of Georgia.

670.3.02 Equipment

- A. Ensure all equipment used is in conformance with the requirements and standards set forth in The Facility Owner's Standard Specifications, current published edition.

670.3.03 Preparation

General Provisions 101 through 150.

670.3.04 Fabrication

General Provisions 101 through 150.

670.3.05 Construction

A. Finding Existing Underground Utilities and Obstructions

1. Comply with Subsection 107.13 and Subsection 107.21.
2. According to the best information available to GDOT, all known water lines, sewer lines, gas lines, telephone conduits, drainage structures, etc. are shown on the Plans. However, to find such installations, use an electronic pipe and cable finder in locating existing installations or obstructions to the work.
3. When unforeseen conflicts require Plan changes, perform the work as altered according to Subsection 104.03 and Subsection 104.04.
4. Follow all Utility Owner customer notification requirements and obtain approval from the Utility Owner and GDOT Project Manager prior to disrupting any existing water services as required to install the water facilities shown on the Plans.

B. Jack and Bore

Comply with Section 615 for sewer main installations by jack and bore.

C. Directional Drilling

1. Install water mains and services by means of directional drilling at locations shown on the Plans or where approved by GDOT or Utility Owner. Provide submittals and follow all relevant procedures and requirements set forth in The Facility Owner's Standard Specifications.
2. The Contractor shall not initiate horizontal directional drilling until all submittals are received, reviewed, and accepted by GDOT and the Utility Owner, and all required permits are obtained.

3. The Contractor shall select drilling additives and fluid mixture proportions to ensure continuous circulation, bore stability, reduce drag on the pipe, and completely fill the annular space between the bore and the pipe to ensure stability and control settlement.
4. The Contractor shall submit contingency plans for remediation of potential problems that may be encountered during the drilling operations. The contingency plans shall address the observations that would lead to the discovery of the problem and the methods that would be used to mitigate the problem. Potential problems that shall be addressed include:
 - a. Loss of returns/loss of circulation of drilling fluid.
 - b. Encountering obstruction during pilot bore or reaming/pullback.
 - c. Drill pipe or product pipe cannot be advanced.
 - d. Deviations from design line and grade exceed allowable tolerances.
 - e. Drill pipe or product pipe broken off in borehole.
 - f. Product pipe collapse or excessive deformation occurs
 - g. Utility strike.
 - h. Hydrolock occurs or is suspected.
 - i. Excessive ground settlement or heave of ground surface or existing utilities.
 - j. Inadvertent returns / hydrofracture or surface spills resulting in drilling fluids entering water or reaching the surface.
5. Pipe damaged in directional drilling operations shall be removed and replaced at no additional expense to GDOT or the Utility Owner.
6. Voids developed or encountered during the installation operation shall be pressure grouted with a grout mix approved by GDOT.
7. Installation shall include a locatable conduit system, with identification markers on each side of GDOT right-of-way where applicable. Two (2) insulated 8 gauge solid copper tracers wire shall be attached to the leading end of the pipe pulling head and shall extend the full length of the installed pipe.
8. The location and alignment of the pilot drill progress shall be continuously monitored for compliance with the proposed installation alignment and for verification of the depth of the bore. Monitoring shall be accomplished by computer generated bore logs which map the bore path based on x, y, z coordinate information provided by the locating/tracking system. Readings or plots shall be obtained on every drill rod, and shall be provided to the Inspector on a daily basis. Deviations between the recorded and design bore path shall be calculated and reported on the daily log. If the deviations exceed tolerances specified elsewhere, such occurrences shall be reported immediately to GDOT. The Contractor shall undertake all necessary measures to correct deviations and return to design line and grade.
9. Upon completion of the directional drill the Contractor shall furnish GDOT and the Utility Owner an as-built drawing along with a report of the monitoring of the drilling fluids during the pilot hole and back reamed hole.
10. Drilling fluid pressures, flow rates, viscosity, and density shall be monitored and recorded by the Contractor. The pressures shall be monitored at the pump. These measurements shall be included in daily logs submitted to GDOT. The Contractor shall document modifications to the drilling fluids, by noting the types and quantities of drilling fluid additives and the dates and times when introduced. The reason for the addition of drilling fluid additives or other modifications shall be documented and reported.
11. Management and disposal of drilling fluids shall be the Contractor's responsibility. Excess drilling fluids shall be contained at the entry and exit points until recycled or removed from the site. All drilling fluids shall be disposed of in a manner acceptable to the appropriate local, state and federal regulations. The Contractor's work will be immediately suspended by GDOT whenever drilling fluids seep to the surface other than in the boring entrance or exit pit, or when a paved surface is displaced.

12. Surfaces damaged by the work shall be restored to their preconstruction conditions at no additional cost to GDOT or Utility Owner, and with no increase in contract time.
13. The following items shall be as shown on the Plans, unless otherwise approved in writing by GDOT:
 - a. Entry / exit points
 - b. Drill entry / exit angles
 - c. Pilot bore path
 - 1) Radius of Curvature
 - 2) Entry / exit tolerances: Contractor shall be solely responsible for all work necessary to correct excessive deviations from line and grade, including re-drilling, redesigning connections, and acquiring additional easement, at no additional cost to GDOT or Utility Owner and without schedule extension.
14. The pilot bore shall be pre-reamed and reamed using equipment and methods submitted by the Contractor. The Contractor shall completely ream the bore to the final diameter prior to pullback.
15. Pullback: The pipe shall be installed by pulling it into the reamed bore path in a continuous operation, behind a final reaming tool selected by the Contractor. The pipe shall be isolated from excessive torsional and axial stresses by a swivel device with a pre-established breakaway tensile capacity that is lower than the allowable tensile strength of the pipe. The maximum pull (axial tension force) exerted on the pipelines shall be measured continuously and limited to the maximum allowed by the pipe manufacturer with an appropriate factor of safety so that the pipe or joints are not overstressed. The end of the pipe shall be closed during the pull back operation.
16. Pipelines shall be adequately supported during installation so as to prevent overstressing or buckling. The Contractor shall provide adequate support/rollers along the pipe layout area to support the required length of pipe for the bore. The pipe layout area shall be cleared of all large stones, construction debris, or other foreign objects that could damage the pipe during pullback. The Contractor shall monitor and inspect pipe rollers and method for suspending pipe at entry during the pullback operation to avoid damage to the pipe.
17. The end of the pipe shall be closed during the pull back operation.
18. Each length of pipe shall be inspected and cleaned as necessary to be free of debris immediately before joining.
19. The Contractor shall at all times handle the pipe in a manner that does not overstress or otherwise damage the pipe. Vertical and horizontal curves shall be limited so that wall stresses do not exceed 50% of yield stress for flexural bending of the pipe. If the pipe is buckled or otherwise damaged, the damaged section shall be removed and replaced by the Contractor at his expense. The Contractor shall take appropriate steps during pullback to ensure that the pipe and tracer wires will be installed without damage.
20. If necessary, the pipe shall have water added as it enters the bore to achieve neutral buoyancy and reduce pullback loads and to ensure that adequate internal pressure is maintained at all points to counter balance collapse pressures.
21. The Contractor shall cease pullback operations if the pipe is damaged and shall remove the pipe from the bore and repair the pipe using the manufacturer's recommended procedure or replace the damaged pipe before resuming installation.
22. Damage to the pipe resulting from manufacturer defects, installation, or grouting is the responsibility of the Contractor, including costs for replacement and labor and materials. To confirm no damage to the pipe, upon completion of pull back, the Contractor shall pull a sphere or pig through the entire length of the pipeline. The pig shall be one inch less in diameter than the internal diameter of the product pipe, capable of allowing water to pass through it, complete with a pulling cable on either side. If the pig or sphere cannot pass through the pipe, it shall be considered collapsed and damaged.
23. After the carrier pipe is completely pulled through the bore, a sufficient relaxation period as recommended by the pipe manufacturer shall be provided before the final pipe tie-in.
24. The Contractor shall conduct a final hydrostatic test of the installed pipeline. Final test shall be in accordance with these specifications. The Contractor shall repair any defects discovered during this test, and repeat until the pipe passes the test.

D. Excavating Trenches

1. The Contractor shall provide all necessary shoring and bracing materials as required to assure safe working conditions and to protect the excavations. The Contractor shall be required to fully comply with all applicable OSHA Excavation Safety Standards. No separate payment shall be made for any special procedure used in connection with the excavation.
2. Excavate trenches to the proper depth and width as follows:
 - a. Trench to Grade: Excavated trench bottoms shall be firm, free from boulders, and conform to the established grade. Limit open trench excavation to a maximum of three 300 feet (90 m) ahead of completed backfill.
 - b. Care shall be taken not to over excavate except where necessary to remove unstable material, irregularities, lumps, rock, and projections. Unnecessary over excavation shall be replaced at the Contractor's sole expense and in accordance with Subsection 670.3.05.
 - c. Excavation carried below the established grade lines shown or established by the Utility Owner shall be backfilled according to Section 207 and Subsection 670.3.05. Use Class I or Class II Soils (defined in Section 810) and firmly compact the soil.
 - d. Where the established grade of a trench is in rock, undercut the bottom of the trench by at least 6 inches (150 mm) beneath the pipe or conduit and the greater of 24 inches (600 mm) wider than the pipe/conduit (12 inches or 300 mm each side) or 42 inches (1050 mm) wide, then backfill and compact according to Subsection 670.3.05.
 - e. Excavation in pavement and pavement patching shall be according to GA Standard No. 1401. Remove the pavement according to Section 444, except no separate payment shall be made for sawed joints.
 - f. Dewatering: Remove all water from excavations and maintain the excavations free of water while construction therein is in progress. Provide dewatering equipment as necessary to conform to this requirement. Dewatering procedures must meet all state and local regulatory requirements.
3. Minimum Trench Depth
 - a. Excavate trenches to provide at least 48 inches (1.2 m) cover depth directly above the pipe to the finished pavement surface, sidewalk, grass, etc. unless indicated otherwise on the Plans or by the Utility Owner and GDOT Project Manager. In order to avoid existing utilities, it may be necessary for the pipe to be laid shallower or deeper than the minimum cover specified. At such time the Contractor shall not be allowed extra compensation for additional excavation necessary for deeper installations.
 - b. Side slopes of the trenches shall be as nearly vertical as practicable. Trenches in excess of 5 feet (1.5 m) deep shall either have the trench sides laid back to conform to OSHA requirements for trench safety, if such area is available within the limits of excavation, or, alternatively, trenches deeper than 5 feet (1.5 m) shall be excavated via trench box or shored and braced.
 - c. If any part of a water main is to be placed in or under a new embankment, finish the embankment to at least a 2-foot plane above the outermost portion of the pipe barrel before excavating the trench.
4. Trench Width: Excavate trenches to uniform widths wide enough to allow proper installation of pipe, fittings, and other materials, a minimum of 6 inches (150 mm) and a maximum of 12 inches (300 mm) each side of the pipe or conduit.
5. Trench Bell Holes: Excavate bell holes deeply and widely enough to make joints and to allow the pipe barrel to rest firmly on the trench bottom.
6. Trench bottom: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduits. Shape subgrade to provide continuous support of bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits/pipes. Remove projecting stones, tree roots, debris, and sharp objects along trench subgrade. Abrupt changes in grade of the trench bottom shall be avoided. Unless otherwise indicated in the Plans or The Facility Owner's Standard Specifications, trenches for water mains shall be graded as much as possible to avoid high and low points that necessitate air release valves.

7. Excavations may be completed and refilled either by hand or by machinery. Hand tool excavation shall be conducted where necessary to protect existing utilities and structures.
8. In the event that unsuitable material is encountered at or below the excavation depth specified or shown on the Plans, the Utility Owner and GDOT Project Manager shall be notified. Such material shall be removed and replaced with suitable material in accordance with Section 205 by the written request of the GDOT Manager.

E. Connecting to Existing Mains

1. Connect to an existing main with the appropriate fittings according to the Plans or the Utility Owner and GDOT Project Manager. When making connections under pressure, (i.e. when normal water service must be maintained), furnish and use a tapping sleeve and valve assembly or line stop fittings as indicated. Coordinate with Utility Owner 72 hours in advance for water service interruptions and temporary shut-offs. Evening or weekend work may be required to complete direct connections and tie-ins. Connect to existing mains as follows:
 - a. Before opening new pipeline trenches, locate the various points of connection to be made into existing pipelines. If necessary, uncover pipelines for the Utility Owner and GDOT Project Coordinators to prescribe the connections and fittings needed.
 - b. Connect to existing pipelines only to meet operating requirements. Cut existing lines only after obtaining the Utility Owner and GDOT Project Manager's permission.
 - c. Provide temporary line stops, associated fittings, and bypass pumping as indicated on the Plans and as necessary when cutting and plugging existing water mains to prevent service interruptions. Line stop and associated fittings shall be suitable for working pressures of 250 psi.
 - d. Connections to existing asbestos cement pipe shall be installed as indicated on the Plans or in The Facility Owner's Standard Specifications. Cutting, removing, handling, and disposing of asbestos cement pipe shall be in accordance with requirements established by EPA, OSHA, GDOT, NIOSH, and the State of Georgia Environmental Protection Division, and any other applicable laws and ordinances.

F. Laying Water Mains and Appurtenances

1. Preparing and Handling Pipes
 - a. Thoroughly clean the pipe and fittings before laying them. Keep them clean until accepted.
 - b. Use suitable tools and equipment. Do not damage the pipe, especially the cement lining inside the pipe.
 - c. Cut pipe in a manner to avoid damage to pipe or lining, leaving a smooth end at right angles to pipe axis. Smooth and bevel edges of cut pipe for push-on, gasket type joints.
 - d. Bedding shall be provided as specified by the Utility Owner or pipe manufacturer for the type of conditions encountered. Bedding typically consists of granular soil free of lumps, clods, cobbles, and frozen materials, and shall be graded to a firm-but-yielding surface without abrupt changes in bearing value. Unstable soils and rock ledges shall be undercut from the bedding zone and replaced with suitable material.
 - e. Bed pipe on coarse granular material in flat bottom trench with entire pipe barrel bearing uniformly on coarse granular material, except for an approximately 18-inch (450 mm) gap at pipe balance point for sling removal. Hand excavate and backfill as required to provide uniform and continuous bearing and support for the pipe. Do not support pipe on hubs or end bells. Consolidate coarse granular material under and around pipe up to pipe centerline by tamping.
 - f. Join pipe with bells facing direction in which laying operation is progressing. Lay pipe upgrade wherever line grade exceeds 10%.
 - g. Carefully examine pipe for cracks and other defects and do not lay defective pipe. If pipe or castings appear to be cracked, broken, or defective after laying, remove and replace those sections.
2. Alignment and Gradient

- a. Pipe alignment and gradient shall conform to the Plans. Deflect pipe lines only where indicated on the Plans, within allowable horizontal and vertical deflection angles according to the manufacturer.
 - b. Water mains shall be laid at least 10 feet (3 m) horizontally from any existing or proposed sanitary sewer, storm sewer or sewer manhole. The distance shall be measured edge-to-edge. When local conditions prevent a horizontal separation of 10 feet (3 m), the water main may, on a case-by-case basis, be laid closer to a sewer provided the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer at such an elevation that the bottom of the water main is at least 18 inches (450 mm) above the top of the sewer.
 - c. Maintain a vertical separation of at least 18 inches (450 mm) between the crown of sanitary sewers and the invert of existing or proposed water mains with the sewer located below the water main. Where a vertical separation of 18 inches (450 mm) cannot be provided, and the water main cannot be relocated to provide adequate clearance, center one full length of water main over the sewer so that both joints of the water main will be as far from the sewer as possible.
3. Special Requirements for Laying Water Mains
- a. Excavate, clean, lay, joint, and backfill progressively and uniformly according to these requirements:
 - 1) Never leave pipe in the trench overnight without completely jointing and capping.
 - 2) Do not leave completed pipeline exposed in the trench. Backfill and compact the trench as soon as possible after laying, jointing, and testing are complete.
 - 3) At the close of work each day and when laying pipe, close the exposed end of the pipeline in the trench with an approved wood or metal head or barrier.
 - 4) If necessary to cover the end of an incomplete pipeline with backfill, close the end of the pipe with a satisfactory cap or plug.

G. Installing Water Mains by Open Cut

- 1. Use the following flexible joints for connections inside the roadway shoulders or curbs and gutters:
 - a. Mechanical Joints:
 - 1) When using mechanical joints, thoroughly wash bell sockets, spigots, gland, gasket, nuts, and bolts with soapy water before assembly. Keep these parts wet until the jointing operation is complete.
 - 2) Tighten nuts within the torque range recommended by the manufacturer. Check the tightening tolerance with a torque wrench.
 - 3) If effective sealing is not attained at the maximum recommended torque, disassemble, thoroughly clean, then reassemble the joint.
 - 4) Do not overstress bolts to compensate for improper installation or defective parts.
 - b. Push-On Type Joints
 - 1) Use push-on joints made according to the manufacturer's recommendations.
 - 2) Install PVC pipe in accordance with AWWA C605.
 - 3) Install ductile iron pipe in accordance with AWWA C600.
- 2. Restraints for pipe joints and fittings shall be provided as specified and as shown on the Plans. Restraints shall be installed per manufacturer's recommendations.
- 3. Buried ductile iron pipe and fittings shall be polyethylene encased as specified and as indicated on the Plans. Polyethylene encasement tubing shall be secured with polyethylene tape and installed in accordance with ANSI/AWWA C105/A21.5.
- 4. Unless otherwise specified by The Facility Owner's Standard Specifications, provide pipe detection wire on all non-metallic pipe systems. Tape the tracer wire to the top center of the pipe at intervals which prevent wire displacement during backfilling operations. Stub tracer wire up 6 inches (150 mm) above finished grade at all valves

and fire hydrants. For splices, use direct bury kits. After backfilling is complete, test electrical continuity of each tracer wire segment and provide test results to Utility Owner and GDOT Project Manager.

5. Install continuous underground warning tape during backfilling of trench for underground water distribution piping. Install 12 inches (300 mm) below finished grade, or 6 inches (150 mm) below subgrade under pavements and walkways, and buried directly over piping.
6. Use pipe cutters when cutting pipe or special castings. Do not use a hammer, chisel, or a cutting torch.
7. Locations where water mains do not meet minimum depth of cover requirements shall include a steel casing or concrete encasement installed per The Facility Owner's Standard Specifications.
8. If HDPE pipe is to be installed where high groundwater table or water surrounding the pipe is expected, precautions shall be taken to provide neutral buoyancy to prevent floatation or a change in alignment.
9. Isolation Valves on Water Mains: Install and joint gate and butterfly valves as specified in Subsection 670.2.01 in accordance with AWWA C600. Include the valve box and valve marker where required.
10. Air release valves shall be located at high elevation points on the pipeline. Air release valves shall be installed at locations indicated in the Plans and in accordance with manufacturer's recommendations.
 - a. Air release valves shall be installed in a shallow manhole or vault as indicated in the Plans and The Facility Owner's Standard Specifications. Automatic air relief valves shall not be used in areas where flooding of the manhole or vault may occur.
 - b. An isolation valve shall be installed between the air release assembly and the connection to the main.
 - c. The Contractor shall furnish and install at no additional cost to GDOT or Utility Owner all necessary fittings for the installation of air release valves at high points.
11. Pressure reducing/sustaining valves of the size and type indicated shall be installed as shown on the Plans per manufacturer's recommendations and The Facility Owner's Standard Specifications.
12. Fire Hydrants: Install and joint hydrants as specified in Subsection 670.2.01 and in accordance with AWWA C600. Include required vertical extension sections. Also, include pipe strap installation, restraints, crushed stone drain, and backfill according to the Plans and this Section. Spacing of fire hydrants shall be as indicated in The Facility Owner's Standard Specifications.
13. Concrete Thrust Collars and Thrust Blocks: If required, furnish materials and install thrust collars or concrete blocking according to Subsection 670.2.01. Form and pour concrete thrust collars or blocks in accordance with the Plans and The Facility Owner's Standard Specifications. Blocking shall be poured against undisturbed earth and all forms shall be removed before backfilling.
14. Backfilling
 - a. Furnish equipment, labor, and when necessary material required for backfilling the pipe line trenches according to Section 207, and as follows:
 - 1) When testing for visual leaks in open trenches, do not backfill until testing is complete and leaks are eliminated.
 - 2) When retaining pavement adjacent to trenches, replace removed pavement with the same or better material when approved in accordance with the appropriate Section for the pavement type replaced.
 - 3) Place backfill on subgrades free of mud, frost, snow, or ice.
 - 4) Place and compact bedding course on trench bottoms and where indicated. Shape the bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits/pipes.
 - 5) Backfill shall include Class I or Class II Soils as defined in Section 810 or suitable material that conforms with The Facility Owner's Standard Specifications.
 - 6) Backfill shall be placed in two stages: first, side fill to a height of 12 inches (300 mm) above the top of pipe; second, overfill to former surface grade. Side fill shall consist of granular material laid in 6-inch (150

mm) layers each consolidated by mechanical tamping and controlled addition of moisture, to a density of 95% as determined by as determined by the Standard Proctor test (AASHTO T-99 Method D) or GDT 67. Overfill shall be layered and consolidated to match the entrenched material in cohesion and compaction. The top 12 inches (300 mm) shall be compacted to 100% of specified density. Consolidation by saturation or ponding shall not be permitted.

- 7) Soil Moisture Control: Uniformly moisten and aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2% of optimum moisture content. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2% and is too wet to compact to specified dry unit weight.
- 8) Initial backfill shall be carefully compacted under pipe haunches and evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Place and compact fill and backfill of satisfactory soil to final subgrade elevation. Backfill voids with satisfactory soil while removing shoring and bracing and/or trench boxes.
- 9) After backfilling, maintain temporary surface restoration per GA Standard No. 1401 until permanent repaving is complete. No separate payment shall be made for replaced pavement.

15. Disinfection of Water Mains

- a. New and existing pipelines and appurtenances shall be disinfected before placing into service. Disinfection can be conducted in conjunction with the pressure test.
- b. Before the main is chlorinated, it shall be filled to eliminate air pockets and shall be flushed to remove particulates.
- c. During disinfection of the water mains, an appropriate cross-connection control device, consistent with the degree of hazard, shall be provided for backflow protection of the active distribution system.
- d. Chlorination: Sterilize using only potable water with calcium hypochlorite (HTH), 1% chlorine solution, or other products acceptable to the Utility Owner and GDOT Project Manager and Department of Public Health. Comply with AWWA C651 including Section 9 procedures on final connections to existing mains.
 - 1) The chlorine solution used for disinfection of water mains shall have a free chlorine residual concentration not less than 25 mg/L or in accordance with The Facility Owner's Standard Specifications.
 - 2) Add enough disinfectant to provide a chlorine residual of not less than 10 parts per million (ppm) in 24 hours or as required in The Facility Owner's Standard Specifications. All valves and hydrants shall be operated to ensure disinfection of the appurtenances.
 - 3) At the end of 24 hours, check the chlorine residual. If it is less than 10 ppm, add additional chlorine and check the line again after 24 hours.
- e. After the applicable retention period, the chlorinated water must not be disposed in a manner that will harm the environment. Neutralizing chemicals, such as Sulfur Dioxide, Sodium Bisulfite, Sodium Sulfite or Sodium Thiosulfate can be used to neutralize the chlorine residual remaining in the water to be wasted.
- f. After sterilization, flush the line with potable water until the chlorine residual is equal to the existing system.
 - 1) After final flushing and before the water main is placed into service, water samples shall be collected from the main and tested for microbiological quality in accordance with the Georgia Rules for Safe Drinking Water. Samples shall be taken in the presence of the Utility Owner and GDOT Project Manager.
 - 2) When test results are not satisfactory, the pipeline shall be flushed and disinfected again as necessary without additional compensation until satisfactory results are obtained.

H. Laying Service Lines and Appurtenances

1. Except as modified in this Section, construct and install service connection assemblies and lines according to the Plans and the requirements for laying water mains. Install service lines at locations shown on the Plans or where designated by the Utility Owner and GDOT Project Manager.

2. Install new pipe from the water main to the final location of the meter or to points designated by the Utility Owner and GDOT Project Manager to connect with existing or future service lines on abutting property.
3. No water service connections shall be performed until the main is tested and disinfected. Water service lines shall be tested and disinfected prior to connection to the main.
4. If required, install water service line inside casing pipe according to the Plans or The Facility Owner's specification document.
5. At roads, paved drives, retaining walls, and other paved areas, install service tubing or casing pipe by pushing, pulling, or augering techniques. At all other locations, install service tubing by trenching and backfilling unless directed otherwise by GDOT.
6. Service line installation includes all connections using saddles, unions, valves, fittings, corporation stops, curb stops, casing, and any and all appurtenant work required to provide a complete water service connection.
7. Excavate for service lines as specified in Subsection 670.3.05 with the following exceptions:
 - a. Ensure that trenches under pavements and across driveways are deep enough to provide at least 48 in (1.2 m) of cover, unless otherwise specified by The Facility Owner's Standard Specifications or directed by the Utility Owner and GDOT Project Manager.
 - b. At other areas, trench depth and backfill cover may be adjusted at the discretion of the Utility Owner and GDOT Project Manager to provide at least 18 in (450 mm) of cover.
8. Backfill service lines as specified in Subsection 670.3.05.
9. All service lines, fittings, and appurtenances necessary for the water service connections shall be installed and backfilled in accordance with the manufacturer's recommendations and as per The Facility Owner's Standard Specifications and standard details.

I. Cutting and Capping Existing Water Mains

1. Disconnect by sawing or cutting and removing a segment of existing pipe where cutting and capping or plugging is shown on the Plans or directed by the Utility Owner or GDOT Project Manager. Provide a watertight pipe cap or plug and restraint mechanism to seal off existing mains indicated to remain in service. If water main is to be abandoned or removed and not specified to be grout filled, seal ends with a pipe cap or plug or with a masonry plug and minimum 6-inch (150 mm) cover of concrete on all sides around the end of the pipe.
2. The Contractor shall be responsible for uncovering and verifying the size and material of the existing main to be capped or plugged.
3. Abandoned manholes and water mains greater than 6-inch (150 mm) shall be filled with flowable fill per Section 600 at the locations indicated on the Plans. Air release valves and water service connections along the abandoned main shall be plugged prior to grouting. Prior to backfilling, the bottom of the manhole shall be broken up in such a manner that water will readily pass through. The top portion of the manhole structure shall be removed in order to establish a minimum of 3 feet cover from subgrade or finished grade when not under the pavement and filled with sand or suitable backfill.
4. Water mains shall be flushed prior to placement of flowable fill. Use concrete or grout pumps capable of continuous delivery at planned placement rate with sufficient pressure to overcome friction and fill the sewer main.

J. Relocating, Adjusting, and Removing

1. Fire Hydrant Assemblies
 - a. Relocate, adjust to grade, or remove fire hydrant assemblies including valve and valve boxes according to the Plans or as designated by the Utility Owner and GDOT Project Manager.
 - b. Protect items during removal and relocation. Replace lost or damaged Items at no expense to GDOT or the Utility Owner.
 - c. Disconnect each joint before removing items from the trench.

- d. Install relocated fire hydrant assemblies with tapping sleeve, and as specified herein for new fire hydrant assemblies.
 - e. Test for leakage, adjust, and retest until no leaks appear.
 - f. Backfill as specified in Subsection 670.3.05.
 - g. Consider valve boxes part of the valve assembly and remove them intact with the valve.
2. Water Valves and Boxes
- a. Adjust or remove water valves and valve boxes according to the Plans or as designated by the Utility Owner and GDOT Project Manager.
 - b. Protect items during adjustment or removal. Replace lost or damaged Items at no expense to GDOT or the Utility Owner.
 - c. Disconnect each joint before removing items from the trench.
 - d. Test for leakage, adjust, and retest until no leaks appear.
 - e. Backfill as specified in Subsection 670.3.05.
 - f. Consider valve boxes part of the valve assembly and remove them intact with the valve.
3. Existing Water Meters and Boxes
- a. Relocate existing water meters and boxes according to the Plans or the Utility Owner and GDOT Project Manager.
 - b. To relocate water meters, remove the existing meter, associated backflow preventer, and box and replace with a short section of pipe.
 - c. Inspect along with the Utility Owner and GDOT Project Manager each meter and backflow preventer before removal to determine the condition of each.
 - d. Unless specified otherwise in the Plans or The Facility Owner's Standard Specifications, new water meters and backflow preventers shall be furnished by the Contractor as necessary if these devices are deemed unsuitable for reuse. Contractor shall provide new water meter boxes if deemed unsuitable for reuse. The Contractor shall coordinate delivery of the water meters and backflow preventers to correspond to construction operations to minimize service interruptions.
 - e. Relocation of water meters and boxes shall include without additional compensation, required pipe, unions and appurtenances, adapter fittings, necessary storage protection, and installation of meter, backflow preventer, meter box, and curb stop in the existing service line.
4. Existing Water Service Lines
- a. Water lines shall be adjusted to grade by excavating the existing lines, lowering or raising the lines, and backfilling according to the Plans or the Utility Owner and GDOT Project Manager.
 - b. Furnish new materials or fittings required for the adjustment without additional compensation.
 - c. Change connections at the main that result from this work.
 - d. Repair leaks and damage caused by the operations at no expense to GDOT.
 - e. When retaining a water meter where an existing service line is to be adjusted, adjust the existing meter and box to the proper grade without additional compensation.
5. Other Water Appurtenances
- a. Relocate, adjust to grade, or remove water main appurtenances including but not limited to air release valves, backflow preventers, pressure reducing/sustaining valves according to the Plans or as designated by the Utility Owner and GDOT Project Manager.
6. Utility related items identified on the Plans to be salvaged are the property of the Utility Owner. Contractor shall coordinate with Utility Owner on delivery of salvaged materials. Should the Utility Owner choose to not accept these materials they shall be removed from the project site as soon as practical.

K. Aerial Crossings

- 1. Support must be provided for all joints in pipes utilized for aerial crossings. The supports must be installed to prevent frost heave, overturning, and settlement. Precautions against freezing, such as insulation, shall be provided.

2. When the aerial crossing is accomplished by attachment to a bridge or drainage structure, the crossing shall meet all requirements of the agencies that own or have jurisdiction over such structures.
3. Aerial installations shall be installed to avoid or minimize stream blockage during normal high water events.
4. Underground valves shall be provided at both ends of the aerial crossing so that the section can be isolated for testing or repair. The valves shall be restrained, easily accessible, and not subject to flooding. An air release/vacuum relief valve shall be installed at all high points along the aerial crossing.
5. Appropriate guards shall be installed at both ends of the aerial crossing to prevent public access to the pipe.

670.3.06 Quality Acceptance

A. Materials Certification

For certain products, assemblies and materials, not on GDOT QPL List, and in lieu of normal sampling and testing procedures by the Contractor, the Utility Owner, and GDOT may accept from the Contractor the manufacturer's certification with respect to the product involved under the conditions set forth in the following paragraphs:

1. Material certifications shall be provided to GDOT, who shall distribute to the Utility Owner. Material certifications shall be approved by GDOT and the Utility Owner prior to construction. The certification shall state/specify that the named product conforms to these specifications and requirements of the Utility Owner and GDOT, and representative samples thereof have been sampled and tested as specified.
2. The certification shall either:
 - a. Be accompanied by a certified copy of the test results, or
 - b. Certify such test results are on file with the manufacturer and will be furnished to the Utility Owner and GDOT Project Coordinators upon demand.
3. The certification shall state/specify the name and address of the manufacturer and the testing agency and the date of tests; and sets forth the means of identification which shall permit field determination of the product delivered to the project as being the product covered by the certification.
4. Submit certification in triplicate with two copies of the covered product to the GDOT Project Coordinator, and one copy sent to GDOT's State Materials and Research Engineer at 15 Kennedy Drive, Forest Park, Georgia. The certification shall specify the project number and contract ID number. No certificate shall be required for Portland cement when furnished from a manufacturer approved by GDOT.
5. GDOT or the Utility Owner will not be responsible for any costs of certification or for any costs of the sampling and testing of products in connection therewith.
6. GDOT and the Utility Owner reserve the right to require samples and test products for compliance with pertinent requirements irrespective of prior certification of the products by the manufacturer. Any materials that fail to meet specification requirements will be rejected.
7. In accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.
 - a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.

- b. Records to be provided by the Contractor for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

B. Flushing

- 1. Prior to testing, water mains shall be cleaned and flushed to remove all sand and foreign matter. Water used for filling and cleaning shall be from an approved potable water source. Sufficient flushing water shall be introduced into the mains to produce a scouring velocity of not less than 3.5 feet per second to resuspend the solids, and this rate of flow shall be continued until the discharge is clear and no evidence of silt or foreign matter is visible. The Contractor shall dispose of all water used for flushing without causing a nuisance or property damage.
- 2. In the event that the Contractor cannot obtain the flushing velocity, a poly-pig swab may be used to clean the pipeline. The Contractor shall submit pigging plan to the Utility Owner and GDOT for review. The plan shall include type of pig material, water flow rate, discharge points, poly-pig detector and retrieval options.

C. Hydrostatic Testing of Water Mains

- 1. When the Utility Owner and GDOT Project Manager approve a section of pipe for testing, the Contractor shall furnish the materials, equipment, and labor to conduct the pressure and leakage tests. Use a test pump, pressure gauge, and a means of measuring the water necessary to maintain the required pressure during the prescribed testing time. All pressure and leakage testing shall be done in the presence of the Utility Owner and GDOT Project Coordinators as a condition precedent to the approval and acceptance of the system. All pipes shall have been thoroughly flushed prior to testing. Simultaneous or separate pressure and leakage tests may be performed.
- 2. All water for testing and flushing shall be potable water provided by the Contractor, at no cost to the Utility Owner or GDOT, from an approved source. Flow velocity during line filling shall not exceed 2 feet (0.6 m) per second (fps).
- 3. Testing Requirements
 - a. Water mains shall be tested in sections between valves, thereby, testing each valve for secure closure. Testing shall be done immediately after installation and backfilling has been completed.
 - b. The mains shall be tested in accordance with the latest revision of AWWA C600 for ductile iron and C605 for PVC under an average hydrostatic pressure of the greater of 1.5 times the maximum working pressure or 150 psi as measured at the lowest point in the system for a minimum of 2 hours. Pressure shall be maintained until all sections under testing have been checked for evidence of leakage.
 - c. While the system is being filled with water, air shall be carefully and completely exhausted. If permanent air vents are not located at all high points, the Contractor shall install corporation stops or fittings and valves at such points at no additional expense to the Utility so the air can be expelled as the pipe system is slowly filled.
 - d. Makeup water shall be added, as required, to maintain the pressure within 5 psi of the test pressure. The quantity used shall be measured by pumping from a calibrated container. The maximum amount of makeup water allowed shall be determined by the following formula:

$$L = \frac{SD P^{0.5}}{148,000}$$

148,000

in which,

L = Allowable Leakage in gallons per hour

S = Length of pipe being tested in feet

D = Nominal pipe diameter in inches

P = Average test pressure during the test in psi gauge

- e. Visible leaks shall be corrected regardless of total leakage shown by test. All pipe fittings and other materials found to be defective under test shall be removed and replaced. Lines which fail to meet test requirements shall be repaired and retested as necessary until test requirements are met. No additional compensation shall be made for repairs or retesting.

670.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

670.4 Measurement

Incidentals including excavation, rock removal, backfilling, disinfection, testing, temporary water connections, pavement removal, pavement replacement, and other incidentals required for the installation of water distribution items are not measured for separate payment and shall be included in the applicable Pay Items below. Water mains, service lines, and other associated Items of work in this Specification, complete, in place, and accepted, are measured for payment as follows:

A. Ductile Iron Water Mains

Ductile iron water mains shall be measured in linear feet (meters) for each size, thickness class, and type (restrained, non-restrained) installed. Measurement shall be horizontally above the centerline of the pipe and shall include the length of valves and fittings.

B. PVC Water Main

PVC water mains shall be measured in linear feet (meters) for each size and type (restrained, non-restrained) installed. Measurement shall be horizontally above the centerline of the pipe and shall include the length of valves and fittings.

C. Fusible PVC Water Main

Fusible PVC water mains shall be measured in linear feet (meters) for each size and type installed. Measurement shall be horizontally above the centerline of the pipe and shall include the length of valves and fittings.

D. HDPE Water Main

HDPE water mains shall be measured in linear feet (meters) for each size and type installed. Measurement shall be horizontally above the centerline of the pipe and shall include the length of valves and fittings.

E. Ductile Iron Fittings

Ductile iron fittings are considered subsidiary to the water line in which they are used and are not measured for separate payment. This Item includes, but is not limited to, wyes, tees, bends, crosses, sleeves, plugs and caps, and reducers.

F. Restrained Joints

Joint restraints used with the installation of PVC or ductile iron pipe are considered subsidiary to the water line in which they are used and are not measured for separate payment.

G. Gate Valves

Gate valves shall be measured on an individual basis for each size valve and box assembly acceptably installed.

H. Butterfly Valves

Butterfly valves shall be measured on an individual basis on the number of each size valve and box assembly acceptably installed.

I. Tapping Sleeve and Valve Assembly

Tapping sleeve and valve assemblies shall be measured on an individual basis on the number of each size tapping sleeve and valve assembly acceptably installed.

J. Double Strap Saddle

Double strap saddles shall be measured on an individual basis on the number of each size double strap saddle acceptably installed.

K. Fire Hydrant Assemblies

Fire hydrant assemblies shall be measured on an individual basis on the number of hydrants acceptably installed.

L. Water Service Lines

Service lines shall be measured in linear feet (meters) for each size of service pipe installed. Measurements are made from end to end and from center of lines to ends of branches and include tapping saddle, sleeve, valves, service connection assemblies, sleeves, adapters, and fittings.

M. Air Release Valve Assembly

Air release valve assemblies shall be measured on an individual basis on the number of each size and type of air release valve assembly acceptably installed.

N. Pressure Reducing / Sustaining Valve

Pressure reducing/sustaining valve shall be measured on an individual basis on the number of each pressure reducing/sustaining valves acceptably installed.

O. Blow-Off Assemblies

Blow-off assemblies shall be measured on an individual basis on the number of each blow-off assembly acceptably installed.

P. Backflow Prevention Assembly

Backflow prevention assemblies shall be measured on an individual basis on the number of each size and type backflow preventer acceptably installed.

Q. Water Meter

Water meters shall be measured on an individual basis on the number of each size meter acceptably installed.

R. Steel Casing

Steel casing pipe of the wall thickness and diameter specified shall be measured by the linear foot for each size and thickness of steel casing pipe installed. Measurement shall be horizontally above the centerline of the casing.

S. Relocation of Existing Fire Hydrant Assemblies, Air Release Valves, Water Meters, Water Backflow Preventers, Pressure Reducing or Sustaining Valves, Water Valves and Water Meter including Bypass and Vault

Relocation of existing fire hydrant assemblies, air release valves, water meters, backflow preventers, pressure reducing or sustaining valves, water valves, and water meter including bypass and vault shall be measured on an individual basis on the number of each acceptably relocated including relocation and final adjustment of boxes.

T. Adjustment of Existing Meter Boxes and Valve Boxes to Grade

Adjustment of existing meter boxes and valve boxes adjusted to grade in their original locations shall be measured on an individual basis on the number of each acceptably adjusted in accordance with Section 611.

U. Adjustment of Blow-Off Assembly

Adjustment of blow-off assembly to grade in their original locations shall be measured on an individual basis on the number of each acceptably adjusted.

V. Adjustment of Existing Fire Hydrant Assembly

Adjustment of existing fire hydrant assembly to grade in their original locations shall be measured on an individual basis on the number of each acceptably adjusted.

W. Adjustment of Existing Backflow Preventers

Adjustment of existing backflow preventers to grade in their original locations shall be measured on an individual basis on the number of each acceptably adjusted.

X. Removal of Water Meters, Fire Hydrant Assemblies, Backflow Preventers, Water Valves, and Air Release Valves

Removal of existing water meters and boxes, fire hydrants assemblies, backflow preventers, water valves, and air release valves, shall be measured on an individual basis on the number of each removed.

Y. Adjustment of Water Service Lines

Adjustment of water service lines shall be measured in linear feet (meters) of service line pipe lowered or raised, and shall include the length of valves, fittings, meters, boxes, and other appurtenances. Measurements are made from end to end of actual adjustments.

Z. Concrete Thrust Blocks

Concrete thrust blocking installed shall be measured as indicated in Section 500 per cubic yard of concrete acceptably installed. When Concrete Thrust Blocks is not shown as a pay item, include the cost of the work in the bid price for the appropriate item.

AA. Concrete Thrust Collars

Concrete thrust collars shall be measured on an individual basis on the number of each size thrust collar acceptably installed. When Concrete Thrust Collars is not shown as a pay item, include the cost of the work in the bid price for the appropriate item

BB. Cut and Plug Existing Water Main

Cutting and plugging of existing water mains shall be measured on an individual basis per each instance of cutting and plugging existing mains as shown on the Plans.

CC. Removal of Water Mains

Unless specified removal of water mains shall be removed in accordance with Section 210. If specified removal of water mains shall be measured per linear foot for each size pipe actually removed in accordance with Section 610. Measurement shall be horizontally above the centerline of the pipe removed and shall include the length of valves and fittings.

DD. Line Stop

Line stops shall be measured on an individual basis on the number of each size line stop actually installed.

EE. Flowable Fill

Flowable fill shall be measured as indicted in Section 600 per cubic yard of flowable fill acceptably installed. When flowable fill is not shown as a pay item, include the cost of the work in the bid price for the appropriate item.

FF. Insertion Valve

Insertion valves shall be measured on an individual basis on the number of each size valve acceptably installed.

GG. Three-Dimensional (3D) Survey

Three-dimensional survey shall be measured as one lump sum for a complete and accepted survey. This item will be included in the overall pipe measurement. No separate payment for this work.

670.4.01

Limits

General Provisions 101 through 150.

670.5

Payment

The Contract Unit Price for each Item, complete and accepted, shall include all costs incidental to the construction of the Item according to the Plans and as specified in this Section. The unit prices bid shall include due allowance for the salvage value of all materials removed from existing or temporary lines and not installed in the completed work. All such surplus items shall become the property of the Contractor unless such surplus items are specified to be salvaged. Payment for any Item listed below is full compensation for the Item or Items complete in place.

A. Ductile Iron Water Mains

Ductile iron mains shall be paid for at the unit price per linear foot for each diameter pipe installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of pipe, joints and jointing materials, anchoring, warning tape, polyethylene encasement, protection of existing utilities, connections to existing water mains, sampling taps, temporary blow-offs, flushing, cleaning, pigging, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration and all work and materials necessary to place the pipe into service.

B. PVC Water Main

PVC water mains shall be paid for at the unit price per linear foot for each diameter pipe installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of pipe, anchoring, tracer wire, warning tape, protection of existing utilities, connections to existing water mains, sampling taps, temporary blow-offs, flushing, cleaning, pigging, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the pipe into service.

C. Fusible PVC Water Main

Fusible PVC water mains shall be paid for at the unit price per linear foot for each diameter pipe installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, entry/exit pits, installation of pipe, joints and jointing materials, tracer wire, warning tape, mechanical joint adapters, protection of existing utilities, connections to existing water mains, fusion process materials and equipment, directional drilling materials and equipment, tracking system, assembling, welding, supporting, stringing, pulling, pigging, cleaning, sampling taps, temporary blow-offs, flushing, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, and restoration, and all incidentals necessary to place the pipe into service except where such items are shown to be paid for under a separate Pay Item.

D. HDPE Water Main

HDPE water mains shall be paid for at the unit price per linear foot for each diameter pipe installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, entry/exit pits, installation of pipe, tracer wire, warning tape, mechanical joint adapters, protection of existing utilities, connections to existing water mains, fusion process materials and equipment, directional drilling materials and equipment, tracking system, assembling, welding, supporting, stringing, pulling, pigging, cleaning, sampling taps, temporary blow-offs, flushing,

chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, and restoration, and all incidentals necessary to place the pipe into service except where such items are shown to be paid for under a separate Pay Item.

E. Ductile Iron Fittings

Ductile iron fittings are considered subsidiary to the water line in which they are used and are not measured for separate payment as outlined in the manufacturers' catalogues and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of fittings, joints and jointing materials, anchoring, warning tape, polyethylene encasement, protection of existing utilities, flushing, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, all other related and necessary materials, work and equipment required to install a complete and operable pipeline fitting. This Item includes, but is not limited to, wyes, tees, bends, crosses, sleeves, plugs and caps, couplings, and reducers.

F. Restrained Joints

Restrained joints are considered subsidiary to the water line in which they are used and are not measured for separate payment as outlined in the manufacturers' catalogues and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting, shoring, installation of the restraint device, polyethylene encasement, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the restrained joint.

G. Gate Valves

Gate valves shall be paid for at the unit price per each size gate valve and box assembly installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the gate valves (including valve box), concrete pad or collar, valve identification disc, valve marker, valve tag, polyethylene encasement, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the gate valve and place it in service.

H. Butterfly Valves

Butterfly valves shall be paid for at the unit price per each size butterfly valve and box assembly installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the butterfly valves including valve box, concrete pad or collar, valve identification disc, valve marker, valve tag, polyethylene encasement, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration and all work and materials necessary to install the butterfly valve and place it in service.

I. Tapping Sleeve and Valve Assembly

Tapping sleeve and valves assemblies shall be paid for at the unit price per each size tapping sleeve and valve assembly installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of tapping sleeves and valve assemblies including valve box, concrete pad or collar, valve marker, valve tag, polyethylene encasement, protection of existing utilities, tapping the potable water main, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and necessary hardware to install the tapping sleeve assembly and valve and place it in service.

J. Tapping Sleeve

Tapping sleeves shall be paid for at the unit price per each size tapping sleeve installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of tapping sleeves, concrete pad

or collar, valve marker, valve tag, polyethylene encasement, protection of existing utilities, tapping the potable water main, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and necessary hardware to install the tapping sleeve and place it in service.

K. Double Strap Saddle

Double strap saddles shall be paid for at the unit price per each size double strap saddle installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of double strap saddles, concrete pad or collar, valve marker, valve tag, polyethylene encasement, protection of existing utilities, tapping the potable water main, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and necessary hardware to install the double strap saddle.

L. Fire Hydrant Assembly

Fire hydrant assemblies shall be paid for at the unit price per each hydrant installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the fire hydrant assemblies (all configurations), vertical extensions, tapping sleeve, valve, hydrant lead piping, joint connections, fittings, tees, restraints, crushed stone drain, polyethylene encasement, protection of existing utilities, valve box, concrete pad or collar, valve identification disc, valve marker, valve tag, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the fire hydrant assembly and place it in service.

M. Water Service Line

Water service lines shall be paid for at the unit price per linear feet (meters) of the size service line installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of water service line, tracer wire, tapping saddle, sleeve, corporation stops, fittings, curb stops, casing pipe, plugging abandoned water service connection, removal of abandoned water service line, protection of existing utilities, locating and connection to existing or new water main, chlorine for disinfection, disinfection, sampling points, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the water service line into service. Water meter and box shall be paid for under a separate Pay Item.

N. Water Meter and Box

Water meters shall be paid for at the unit price per each size water meter installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the meter and box, adjustment to final grade, fittings, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the meter into service except where such items are to be paid for under a separate Pay Item.

O. Backflow Prevention Assembly

Back flow prevention assemblies shall be paid for at the unit price per each type backflow preventer installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the backflow preventer, concrete vault, adjustment to final grade, testing and certification, fittings, tees, restraints, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the meter into service except where such items are to be paid for under a separate Pay Item.

P. Air Release Valve Assembly

Air release valve assemblies and required vaults shall be paid for at the unit price per each size and type of air release valve assembly installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the air release assembly, tapping saddle, isolation valve, reducers, piping, restraints, fittings, tracer wire, concrete manhole or vault, ring and cover, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the air release assembly into service.

Q. Pressure Reducing / Sustaining Valve

Pressure reducing / sustaining valve shall be paid for at the unit price per each size and type of pressure reducing / sustaining valve installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the pressure reducing / sustaining valve, reducers, piping, restraints, fittings, tracer wire, concrete manhole or vault, ring and cover, tracer wire, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the pressure reducing / sustaining valve into service.

R. Blow-Off Assembly

Blow-off assemblies shall be paid for at the unit price per each blow-off assembly installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the blow-off assembly, valves, valve boxes, concrete pad or collar, piping, restraints, fittings, tracer wire, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the blow-off assembly into service.

S. Steel Casing

Steel casing pipe shall be paid for at the unit price per linear foot according to the diameter and thickness of the steel casing installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, protection of existing utilities, steel casing pipe, skid, steel straps, coatings, casing spacers, end seals, boring and jacking pits, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the steel casing except where such items are shown to be paid for under a separate Item. The carrier pipe shall be paid from other applicable Pay Item.

T. Relocation of Existing Air Release Valve

Relocation of air release valves shall be paid for at the unit price per each air release valve assembly relocated and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing air release valve assembly, installation at another location, piping, restraints, tracer wire, fittings, adjustment to final grade, polyethylene encasement, protection of existing utilities, chlorine for disinfection, disinfection backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration and all work necessary to locate, remove and relocate the air release valve except where such items are shown to be paid for under a separate Pay Item.

U. Relocation of Existing Fire Hydrant Assembly

Relocation of fire hydrants shall be paid for at the unit price per each hydrant assembly relocated and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing fire hydrant assembly, installation at another location, vertical extensions, hydrant lead piping, joint connections, fittings, tees,

restraints, crushed stone drain, polyethylene encasement, valve box, concrete pad or collar, valve identification disc, valve marker, adjustment to final grade, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work necessary to locate, remove and relocate the hydrant.

V. Relocation of Existing Backflow Prevention Devices

Relocation of backflow prevention devices shall be paid for at the unit price per each backflow preventer relocated and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing backflow preventer, installation at another location, adjustment to final grade, testing and certification, fittings, tees, restraints, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work necessary to locate, remove and relocate the backflow prevention device. The service line from the main to the relocated backflow preventer shall be paid for under a separate Pay Item.

W. Relocation of Water Meter and Box

Relocation of existing water meter and boxes shall be paid for at the unit price of each water meter and box relocated and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, removal of existing water meter and box, installation at another location, adjustment to final grade, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to relocate the water meter and box except where such items are shown to be paid for under a separate Item. The new service line from the main to the relocated meter shall be paid for under a separate Pay Item.

X. Relocation of Water Meter, including Bypass and Vault

Relocation of existing water meter including bypass and vault shall be paid for at the unit price of each water meter including bypass and vault relocated and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, removal of existing water meter, bypass and vault, installation at another location, adjustment to final grade, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to relocate the water meter including bypass and vault except where such items are shown to be paid for under a separate Item. The new service line from the main to the relocated meter, bypass and vault shall be paid for under a separate Pay Item.

Y. Relocation of Pressure Reducing/Sustaining Valve

Relocation of pressure reducing/sustaining valve shall be paid for at the unit price of each pressure reducing/sustaining valve relocated and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, removal of existing water meter and box, installation at another location, adjustment to final grade, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to relocate the water meter and box except where such items are shown to be paid for under a separate Item. The new service line from the main to the relocated pressure reducing/sustaining valve shall be paid for under a separate Pay Item.

Z. Relocation of Water Valve and Box

Relocation of existing water valves and boxes shall be paid for at the unit price of each water valve and box relocated and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, removal of existing water meter and box, installation at another location, adjustment to final grade, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials

necessary to relocate the water meter and box except where such items are shown to be paid for under a separate Item. The new service line from the main to the relocated valve shall be paid for under a separate Pay Item.

AA. Adjustment of Existing Water Service Line

Adjustment of existing water service lines shall be paid in accordance with Section 611, for at the unit price per linear foot of service line adjusted and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, adjustment of service line, tracer wire and splices, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to adjust the service line except where such items are shown to be paid for under a separate Pay Item.

BB. Adjustment of Existing Water Valve Boxes to Grade

Adjustment of existing valve boxes shall be paid for in accordance with Section 611, at the unit price per each valve box adjusted to final grade and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, valve case and lid, trench adapter and operating nut extensions/reductions, tracer wire and splices, tracer wire riser and threaded plug, concrete pad, valve identification disc, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to adjust the valve box.

CC. Adjustment of Blow-off Assembly

Adjustment of existing blow-off assemblies shall be paid for at the unit price per each blow-off adjusted to final grade and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, valve case and lid, trench adapter and operating nut extensions/reductions, tracer wire and splices, tracer wire riser and threaded plug, piping, concrete pad or collar, valve identification disc, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to adjust the blow-off assembly.

DD. Adjustment of Existing Water Meter Boxes to Grade

Adjustment of existing meter boxes shall be paid for at the unit price per each meter box adjusted to finished grade and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, adjustment of water meter box to final grade, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to adjust the water meter box.

EE. Adjustment of Backflow Preventer

Adjustment of existing backflow preventers shall be paid for at the unit price per each backflow preventer adjusted to finished grade and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, adjustment of backflow preventer to final grade, adjustment of backflow preventer vault to final grade, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to adjust the water meter box.

FF. Adjustment of Existing Fire Hydrant Assembly to Grade

Adjustment of existing fire hydrants shall be paid for, at the unit price per each hydrant adjusted to finished grade and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, adjustment of hydrant, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to adjust the hydrant.

GG. Removal of Water Valve and Box

Removal of water valves shall be paid for at the unit price per each valve removed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing water valve and box, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, storage and delivery of removed valves identified to be salvaged, and all work necessary to remove the valve and box.

HH. Removal of Water Meter and Box

Removal of water meters shall be paid for at the unit price per each meter removed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing water meter and box, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, storage and delivery of removed meters and boxes identified to be salvaged, and all work necessary to remove the meter.

II. Removal of Fire Hydrant Assembly

Removal of fire hydrant assemblies shall be paid for at the unit price per each hydrant assembly removed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing fire hydrant assembly, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, storage and delivery of removed hydrants identified to be salvaged, and all work necessary to remove the hydrant.

JJ. Removal of Air Release Valve

Removal of air release valves shall be paid for at the unit price per each air release valve removed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, removal of air release valve assemblies, piping, concrete manholes or vaults, and fabricated enclosures, backfilling, backfill materials, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, storage and delivery of air release valves identified to be salvaged, and all work necessary to remove the air release valve.

KK. Removal of Backflow Prevention Devices

Removal of backflow prevention devices shall be paid for at the unit price per each backflow preventer removed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing backflow preventer and vault, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, storage and delivery of removed backflow preventers identified to be salvaged, and all work necessary to remove the backflow preventers.

LL. Concrete Thrust Blocks

Concrete thrust blocks shall be paid for at the unit price per cubic yard of concrete complete in place as indicated in Section 500 and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, concrete, forming, reinforcement, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install a complete thrust block. When Concrete Thrust Blocks is not shown as a pay item, include the cost of the work in the bid price for the appropriate item

MM. Concrete Thrust Collars

Concrete thrust collars shall be paid for at the unit price per each size of thrust collar and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, reinforced concrete thrust collars, retainer glands, reinforcement, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install a complete thrust collar. When Concrete Thrust Collar is not shown as a pay item, include the cost of the work in the bid price for the appropriate item.

NN. Removal of Water Main

Removal of water mains shall be paid for at the unit price per linear foot of the size of water main to be removed in accordance with Section 610 and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, bypass pumping (as required), restoration, and all work and materials necessary to locate, remove and dispose of the pipe and associated appurtenances. Unless indicated for removal in a separate Pay Item, appurtenances to be removed shall include but not be limited to fittings, isolation valves, air release valves, valve boxes, blow-offs, steel casings, casing spacers, fire hydrant assemblies, water service lines, water meter boxes, thrust blocks, and concrete. All such surplus items shall become the property of the Contractor unless specified to be salvaged by the Utility Owner.

OO. Cut and Plug Existing Water Main

Cutting and plugging of existing water mains shall be paid for at the unit price per each installation and shall cover all materials, transportation, labor, equipment, excavation, sheeting and shoring, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to cut and plug existing water mains, except where such items are shown to be paid for under a separate Pay Item.

PP. Line Stops

Line stops shall be paid for at the unit price per each size line stop installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the line stop assemblies, valves, valve boxes, fittings, restraints, protection of existing utilities, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the gate valve and place it in service.

QQ. Flowable Fill

Flowable fill shall be paid for at the unit price per cubic yard of flowable fill complete in place as indicated in Section 600 and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, flushing, plugging air release valves and service connections, installation of flowable fill, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the gate valve and place it in service. When flowable fill is not shown as a pay item, include the cost of the work in the bid price for the appropriate item

RR. Insertion Valve

Insertion valves shall be paid for at the unit price per each size valve inserted and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the valve, valve boxes, fittings, restraints, concrete pad or collar, valve identification disc, valve marker, polyethylene encasement, protection of existing utilities, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the insertion valve and place it in service.

SS. Three-Dimensional (3D) Survey

Three-dimensional survey cost will be included in the overall pipe measurement and no separate payment for this work will be made, and it shall cover the costs for all non-destructive methods of locating installed utilities and associated electronic deliverables per Utility Owner specifications.

Payment will be made under:

Item No. 670	Water Main _____ in (mm)	Per linear foot (meter)
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Item No. 670	Gate Valve_____in (mm)	Per each
Item No. 670	Tapping Sleeve and Valve Assembly __ in (mm) x_____in (mm)	Per each
Item No. 670	Fire Hydrant	Per each
Item No. 670	Water Service Line_____in (mm)	Per linear foot (meter)
Item No. 670	Relocate Existing Fire Hydrant	Per each
Item No. 670	Relocate Existing Air Release Valve Assembly	Per each
Item No. 670	Relocate Existing Water Valve including Box	Per each
Item No. 670	Relocate Existing Water Meter including Box	Per each
Item No. 670	Adjust Water Service Line to Grade	Per linear foot (meter)
Item No. 670	Remove Existing Water Meter including Box	Per each
Item No. 670	Steel casing_____in (mm)	Per linear foot (meter)
Item No. 670	Butterfly valve_____in (mm)	Per each
Item No. 670	Double strap saddle_____in (mm) x_____in (mm)	Per each
Item No. 670	Tapping Valve, ___in(mm)	Per each
Item No. 670	Air Release Valve Assembly_____in (mm)	Per each
Item No. 670	Water Meter, ___in	Per each
Item No. 670	Insertion Valve, ___in	Per each
Item No. 670	Line Stop_____in (mm)	Per each
Item No. 670	Cut and Plug Existing Water Main	Per each
Item No. 670	Blow-Off Assembly, Complete	Per each
Item No. 670	Pressure Reducing/Sustaining Valve	Per each
Item No. 670	Backflow Prevention Assembly	Per each
Item No. 670	Concrete Thrust Collar, _____in	Per each
Item No. 670	Relocate Backflow Prevention Assembly	Per each
Item No. 670	Relocate Existing Water Meter, including Bypass & Vault_____in (mm)	Per each
Item No. 670	Relocate Pressure Reducing/Sustaining Valve	Per each
Item No. 670	Adjust Blowoff Assembly	Per each
Item No. 670	Adjust Fire Hydrant Assembly	Per each
Item No. 670	Adjust Backflow Preventer	Per each
Item No. 670	Remove Existing Water Valve, including Box	Per each
Item No. 670	Remove Existing Fire Hydrant	Per each
Item No. 670	Remove Existing Backflow Preventer	Per each
Item No. 670	Remove Existing Air Release Valve	Per each

670.5.01 Adjustments

General Provisions 101 through 150.

First Use Date: January 1, 2007
Revised: March 26, 2008
March 5, 2009
September 30, 2009
August 6, 2012

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SPECIAL PROVISION

Utility Conflicts

Utility companies having known facilities that conflict with the construction of this project will be directed by the Department to adjust or relocate their facilities and will be notified of the contract award.

Conform to all the requirements of the Specifications as they relate to cooperation with utility owners and the protection of utility installations that exist on the project. Refer to the requirements of Section 107, Legal Regulations and Responsibility to the Public, with particular attention to Subsection 107.21.

Coordinate The Work with any work to be performed by others in any right of way clearance and arrange a schedule of operations that will allow for completion of the Project within the specified contract time. Where stage construction is required, notify the utility owner when each stage of work is completed and the site is available for utility work to proceed.

Information concerning utility facilities known to exist within the project limits, including the list of owners, is available for reference.

Under Georgia Code Section 32-6-171, utilities are required to remove or relocate their facilities. The Department is required to give the utility at least 60 days written notice directing the removal, relocation, or adjustment and the utility owner is required to begin work within the time specified in the utility's work plan or revised work plan.

Upon request, copies of all approved Work Plans submitted by utility companies having facilities on this project will be made available for examination by the Contractor at the Department's District Office. Utility Adjustment Schedules, when submitted to the Department by the utilities, will be made available to the Contractor after the Notice to Contractors has been posted by the Office of Construction Bidding Administration. The Contractor is responsible for considering in its bid all existing and proposed utility locations and the removals, relocations, and adjustments specified in the Utility's Work Plan.

For this Project, Utility Owners that are required to remove, relocate, or adjust their facility to accommodate the construction of this Project may be liable to the Contractor for damages or delay costs resulting from the Utility Owner's failure to clear conflicts

within the time specified in the approved Utility Work Plan. If the Utility Owner is unable to submit and obtain Department approval of a revised Work Plan or fails to complete the removal, relocation, or adjustment of its facilities in accordance with the approved Work Plan, the Utility Owner may be liable to the Department, or the Contractor, for damages or delay costs.

In accordance with Subsection 105.06 of the Specifications, the Department is not liable for payment of any claims due to utility delays, inconvenience or damage sustained by the Contractor due to interference of any utilities or appurtenances, or the operation of moving them.

In any case in which the Contractor believes that it will be entitled to damages or delay costs from the Utility Owner in accordance with O.C.G.A. 32-6-171, the Contractor shall provide written notice to the Utility Owner and the Department within ten (10) days from the time of the dispute or potential dispute is identified. The Contractor shall follow the Procedures for Utility Damages or Delay Costs outlined in the latest edition of The Utility Accommodation Policy and Standards Manual. Failure to follow the above will result in waiver of the Contractor's claim against the Utility Owner for damages or delay costs.

In accordance with Subsection 107.21.G delays by utilities will continue to be considered by the Department in charging Contract Time. For purposes of applying provisions of this paragraph, railroads and the Metropolitan Atlanta Rapid Transit Authority (MARTA) are considered utilities.

Office of Utilities

Date: May 29, 2001
First Use Date 2001 Specifications: November 1, 2002
Revised: March 15, 2013

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SPECIAL PROVISION

**Section 103—Award and Execution of Contract
(120 Day Clause)**

Delete paragraph one of Subsection 103.02 and substitute the following:

If a Contract is Awarded, it will be Awarded to the lowest reliable bidder whose Proposal shall have met all the prescribed requirements. The Contract will be Awarded, if at all, within 120 calendar days after the opening of the Proposals, unless a longer period is specified in the Proposal or the successful Bidder agrees in writing to a longer period for the Award.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SPECIAL PROVISION

Section 105—Control of Work

105.01 Authority of the Engineer

The Engineer will decide all questions that may arise as to the quality and acceptability of materials furnished, work performed, and the rate of progress of The Work; the interpretation of the Plans and Specifications, and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor. The Engineer will determine the quantities of the several kinds of work performed and materials furnished which are to be paid for under the Contract and his determination shall be final.

The Engineer will have the authority to suspend The Work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workmen or general public; for failure to carry out provisions of the Contract, or for failure to carry out orders; for such periods as he may deem necessary due to unsuitable weather; for conditions considered unsuitable for the prosecution of The Work; or for any other condition or reason deemed to be in the public interest.

The Contractor may request and will receive written instructions from the Engineer upon any important items.

After the Contract has been executed, and before work begins, the Engineer may designate a time and place to hold a Preconstruction Conference with the Contractor. At such time, the Contractor shall furnish the Engineer with a Progress Schedule as provided in Subsection 108.03 unless this schedule has been specifically exempted by Special Provision. The Contractor will also be given a decision on any alternate Traffic Control Plan that he may have previously submitted.

Any matters pertaining to order of work, interpretation of Plans and Specifications, traffic control, utility adjustments, or others, may be discussed at the Preconstruction Conference.

105.02 Plans and Working Drawings

Plans will show details of all structures, lines, grades, typical cross sections of the roadway, location and design of all structures, and a summary of Items appearing in the Proposal.

The Plans will be supplemented by such working drawings as are necessary to adequately control the Work. Working drawings for structures shall be furnished by the Contractor and shall consist of such detailed Plans as may be required to adequately control The Work and which are not included in the Plans furnished by the Department. They shall include stress sheets, shop drawings, erection plans, falsework plans, cofferdam plans, bending diagrams for reinforcing steel or any other supplementary plans, or similar data required of the Contractor. All working drawings must be approved by the Engineer and such approval shall not operate to relieve the Contractor of any responsibility under the contract for the successful completion of The Work. The Contract Bid Prices shall include the cost of furnishing all working drawings.

105.03 Conformity with Plans and Specifications

All Work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on the Plans or indicated in the Specifications.

Plan dimensions and contract Specification values are to be considered as the target values to be strived for and complied with as the design values from which any deviations are allowed. It is the intent of the Specifications that the materials and workmanship shall be uniform in character and shall conform as nearly as realistically possible to the prescribed target value or to the middle portion of the tolerance range. The purpose of the tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons. When either a maximum and minimum value or both are specified, the production and processing of the material and the performance of the work shall be so controlled that material or work will not be preponderantly of borderline quality or dimension.

In the event the Engineer finds the materials or the finished product in which the materials are used not within reasonably close conformity with the Plans and Specifications, but that reasonably acceptable work has been produced, the Engineer

Section 105—Control of Work

shall then make a determination if the work shall be accepted and remain in place. In this event, except in cases where the appropriate price adjustments are provided for in the Specifications covering the materials and/or the finished product, a Supplemental Agreement will be executed documenting the basis of acceptance that will provide for an appropriate price adjustment in the Contract Price for such work or materials as the Engineer deems necessary to conform to his determination based on engineering judgement.

In the event the Engineer finds the materials or the finished product in which the materials are used or the work performed are not in reasonably close conformity with the Plans and Specifications, and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

105.04 Coordination of Plans, Specifications, Supplemental Specifications, and Special Provisions

These *Standard Specifications*, the Supplemental Specifications, the Plans, Special Provisions, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work.

In cases of discrepancy, the governing descending order will be as follows:

1. Project Specific Special Provisions
2. Project Plans including Special Plan Details
3. Special Provisions
4. Supplemental Specifications
5. Standard Plans including Standard Construction Details
6. Standard Specifications

Calculated dimensions will govern over scaled dimensions.

The Contractor shall take no advantage of any apparent error or omission in the Plans or Specifications. In the event the Contractor discovers such an error or omission, he shall immediately notify the Engineer. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Plans and Specifications.

A. Specifications of Other Organizations

When work is specified to be done or when materials are to be furnished according to the published specifications of organizations other than the Department, the latest specifications published by those organizations at the time bids are received shall apply unless otherwise specified.

AASHTO Interim Specifications and ASTM Tentative Specifications will be considered effective on date of issue.

B. Item Numbers

The first three digits of any Item Number in the itemized Proposal designates the Specification section under which the Item shall be constructed.

105.05 Cooperation by Contractor

The Contractor will be supplied with an electronic copy of approved Plans and Contract assemblies including Special Provisions. The Contractor shall be responsible for maintaining one set of the approved plans on the project site at all times.

The Contractor will be supplied with of approved Plans and Contract assemblies including Special Provisions.

The Contractor shall give The Work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the Engineer, Inspectors, and other Contractors in every way possible.

The Contractor shall have accessible to the Engineer at all times, as his agent, a competent Superintendent, capable of reading and thoroughly understanding the Plans and Specifications, and thoroughly experienced in the type of work being performed, who shall receive instructions from the Engineer or his authorized representatives. The Superintendent shall have full authority to execute orders or directions of the Engineer without delay and to promptly supply such materials, equipment, tools, labor, and incidentals as may be required. Such superintendence shall be furnished irrespective of the amount of work sublet.

Section 105—Control of Work

The Superintendent shall notify the Engineer prior to starting any Pay Item Work. The Prime Contractor shall coordinate and be responsible to the Engineer for all activities of subcontractors.

105.06 Cooperation with Utilities

The Department will notify all utility companies, all pipeline owners, all railroad companies, or other parties affected of Award of the Contract, giving the name and address of the Contractor, and will assist the Contractor in arranging for all necessary adjustments of the public or private utility fixtures, pipe lines, and other appurtenances within or adjacent to the limits of construction.

Water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, railroad facilities, and all other utility appurtenances within the limits of the proposed construction which are to be relocated or adjusted are to be moved by the owners at their expense, except as otherwise provided for elsewhere in the Contract.

It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present location or relocated positions, and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by him due to any interference from said utility appurtenances or the operation of moving them. Delays and interruptions to the controlling Item or Items of The Work are covered in Subsection 107.21.G.

It shall be the Contractor's responsibility to plan with each utility owner a schedule of operations which will clearly set forth at which stage of the Contractor's operations the utility owner will be required to perform his removal and relocation work.

105.07 Cooperation Between Contractors

The Department reserves the right at any time to Contract for and perform other or additional work on or near The Work covered by the Contract.

When separate Contracts are let within the limits of any one Project, each contractor shall conduct his work so as not to interfere with or hinder the progress or completion of The Work being performed by other Contractors. Contractors working on the same Project shall cooperate with each other.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his Contract and shall protect and save harmless the Department from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced by him because of the presence and operations of other Contractors working within the limits of the same Project.

The Contractor shall arrange his work and shall place and dispose of the materials being used so as not to interfere with the operations of the other contractors within the limits of the same Project. He shall join his work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others. At the request of the Structure Contractor, the Engineer will designate an area within the right-of-way, adjacent to each structure, to be reserved for use by the Structure Contractor for Storage of Equipment and Materials necessary to construct the particular structure. So long as he occupies this area, the Structure Contractor shall be responsible for its maintenance. The Structure Contractor must relinquish this area, however, as it becomes practical to utilize completed portions of the structure.

105.08 Construction Stakes, Lines and Grades

(Subsection 105.08 Omitted)

105.09 Authority and Duties of the Resident Engineer

The Resident Engineer, regardless of his administrative title, is the Engineer designated by the Department to be the direct representative of the Chief Engineer. The Resident Engineer has immediate charge of the engineering details of each construction Project, and is responsible for contract administration. Such administration includes the designation of subordinates to represent him and make routine decisions. The Resident Engineer has the authority to reject defective material and to suspend any work that is being improperly performed.

105.10 Duties of the Inspector

Inspectors employed by the Department are authorized to inspect all work done and materials furnished. Such inspection may extend to all or any part of The Work and to the preparation, fabrication, or manufacture of the materials to be used. The Inspector will not be authorized to alter or waive the provisions of the Contract. The Inspector will not be authorized to issue instructions contrary to the Plans and Specifications or to act as foreman for the Contractor.

105.11 Inspection of the Work

All materials and each part of the detail of The Work shall be subject to inspection by the Engineer.

The Engineer shall be allowed access to all parts of The Work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

Upon the Engineer's request, the Contractor, at any time before Final Acceptance of the project, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of The Work to the standard required by the Specifications. Should The Work thus exposed or examined prove acceptable, the uncovering or removing and the replacing of the covering or making good of the parts removed will be paid for as Extra Work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Any work done or materials used without supervision or inspection by an authorized Department representative may be ordered removed and replaced at the Contractor's expense, unless the Department representative failed to inspect after having been given reasonable notice in writing that The Work was to be performed.

When any unit of government or political subdivision or any railroad corporation is to pay a portion of the cost of The Work covered by the Contract, its respective representatives shall have the right to inspect The Work. Such inspection shall in no sense make any unit of government or political subdivision or any railroad corporation a party to the Contract and shall in no way interfere with the rights of either party hereunder.

105.12 Removal of Unacceptable and Unauthorized Work

All work that does not conform to the requirements of the Contract will be considered unacceptable unless otherwise determined acceptable under the provisions in Subsection 105.03.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the Final Acceptance of The Work, shall be removed immediately and replaced in an acceptable manner.

Except as elsewhere noted, no work shall be done without lines and grades having been given by the Engineer. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the Plans or as given, except as herein specified, or any Extra Work done without authority will be considered as unauthorized and will not be paid for under the provisions of the Contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this section, the Engineer will have authority to cause unacceptable work to be remedied or removed and replaced and to cause unauthorized work to be removed, and to deduct the costs from any monies due or to become due the Contractor.

105.13 Claims for Adjustments and Disputes

Whenever the Contractor believes that it is or will be entitled to additional compensation, whether due to delay, extra work, breach of contract, or other causes, the Contractor shall follow the procedures set forth in this Sub-Section.

A. Claims For Acceleration

The Department shall have no liability for any constructive acceleration. If the Department gives express written direction for the Contractor to accelerate its effort, then both parties shall execute a Supplemental Agreement as provided in Subsection 104.03.

B. Claims For Delay and All Other Claims Except Acceleration

1. The Department shall have no liability for damages beyond those items which are specifically payable under this Sub-Section.
2. The Department will be liable only for those delay damages caused by or arising from acts or omissions on the part of the Department which violate legal or contractual duties owed to the Contractor by the Department. The Contractor assumes the risk of damages from all other causes of delay.

Section 105—Control of Work

3. The parties recognize that delays caused by or arising from right of way problems, defects in plans or design, redesign, changes in The Work by the Department, the actions of suppliers or other Contractors, the shop-drawing approval process, injunctions, court orders and other such events, forces or factors are commonly experienced in highway construction work. Such delays shall not constitute breaches of the Contract. However, such delays may constitute a basis for a claim for delay damages, if found to be in accordance with Subsection 105.13.B.2 above and other provisions of the Contract, and/or a request for a time extension.
4. The term "delay" shall be deemed to mean any event, action, force or factor which extends the Contractor's time of performance. This Subsection is intended to cover all such events, actions, forces or factors, whether they be styled "delay," "disruption," "interference," "impedance," "hindrance", "impact" or otherwise.
5. Compliance with the provisions of Subsection 105.13 will be an essential condition precedent to any recovery of damages by the Contractor.
6. The following items, and only the following items, may be recoverable by the Contractor as "damages":
 - a. Additional direct hourly rates paid to employees for job site labor, including payroll taxes, welfare, insurance, benefits and all other labor burdens.
 - b. Documented additional costs for materials.
 - c. Additional equipment costs, as determined in accordance with this Sub-Section.
 - d. Documented costs of extended job-site overhead. (Not applicable for claims other than delay claims.)
 - e. An additional 15 percent of the total of Subsections 105.13.B.6. a, b, c and d, which sum includes home office overhead and profit.
 - f. Bond costs.
 - g. Subcontractor costs, as determined by, and limited to, those items identified as payable under Subsection 105.13.B.6. a, b, c, d, e, and f.
7. For purposes of computing additional equipment costs, rates used shall be based on the Contractor's actual experienced cost for each piece of equipment. These rates shall be supported by equipment cost records furnished by the Contractor. In no case will equipment rates be allowed in excess of 70% of those determined utilizing the "Rental Rate Blue Book," with the appropriate adjustments noted in Subsection 109.05
8. The parties agree that, in any claim for damages, the Department will have no liability for the following items of damages or expense:
 - a. Profit, in excess of that provided herein.
 - b. Loss of profit.
 - c. Labor inefficiencies, except as allowed under Subsection 105.13.B.6.a.
 - d. Home office overhead in excess of that provided herein.
 - e. Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities and insolvency.
 - f. Indirect costs or expenses of any nature.
 - g. Attorneys fees, claims preparation expenses, or costs of litigation.
 - h. Interest of any nature.
9. NOTICE OF POTENTIAL CLAIM: In any case in which the Contractor believes that it will be entitled to additional compensation, the Contractor shall notify the Engineer in writing of its intent to claim such additional compensation. Such notice shall be given in order that the Department can assess the situation, make an initial determination as to who is responsible, and institute appropriate changes or procedures to resolve the matter.
 - a. Claims for Delay - The Department shall have no liability for any delay which occurred more than one week prior to the filing of such written notice. Failure of the Contractor to give such written notice in a timely fashion will be grounds for denial of the claim.
 - b. All Other Claims Except Acceleration and Delay - If the Contractor does not file such written notice before beginning the work out of which such claim arises, then the Contractor hereby agrees that it shall have waived any additional compensation for that work and the Contractor shall have no claim thereto.

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10. RECORDS: After filing a "Notice of Potential Claim", the Contractor shall keep daily records of all labor, material, and equipment costs incurred for operations affected. These daily records shall identify each operation affected and the specific locations where work is affected. The Department will also keep records of all labor, material, and equipment used on operations affected. At the time and place, as designated by the Engineer, on Monday, or the first work day, of each week following the date of filing a "Notice of Potential Claim", the Contractor shall meet with the Department's representative and present the daily records for the preceding week. If the Contractor's records indicate costs greater than those kept by the Department, the Department will present its records to the Contractor. The Contractor shall notify the Engineer in writing within three (3) work days of any inaccuracies noted in, or disagreements with, the Department's records. Refusal or repeated failure by the Contractor to attend these weekly meetings and present its records will constitute a waiver by the Contractor of any objections as to the accuracy of the Department's records. When the Contractor makes an objection as to the accuracy of the Department's records, the Engineer shall review the matter, and correct any inaccuracies he finds in the Department's records. For purposes of computing damages, the Department's records will control.

In the event the Contractor wishes to contest the accuracy of the Department's records, it may file a petition pursuant to Rule 672-1-.05 of the Official Rules and Regulations of the Department of Transportation. The decision of the Engineer, or, if contested, the decision of the Agency, will be final and binding upon the parties as to any objections to the accuracy of the Department's records, subject to the Contractor's right to judicial review under O.C.G.A. Section 50-13-19.

11. On a weekly basis after filing a "Notice of Potential Claim" for delay damages, the Contractor shall prepare and submit to the Engineer written reports providing the following information:
- a. Potential effect to the schedule caused by the delay.
 - b. Identification of all operations that have been delayed, or are to be delayed.
 - c. Explanation of how the Department's act or omission delayed each operation, and estimation of how much time is required to complete the project.
 - d. Itemization of all extra costs being incurred, including:
 - 1) An explanation as to how those extra costs relate to the delay and how they are being calculated and measured.
 - 2) Identification of all project employees for whom costs are being compiled.
 - 3) Identification of all manufacturer's numbers of all items of equipment for which costs are being compiled.

C. Required Contents of Claims

All claims shall be submitted in writing, and shall be sufficient in detail to enable the Engineer to ascertain the basis and the amount of each claim. The claim submission shall include six (6) printed copies and one (1) digital copy on Recordable disk. All information submitted to the Department under this Subsection will be used exclusively for analyzing the claim, resolving the claim or any litigation which might arise from the claim. At a minimum, the following information shall be provided:

1. A description of the operations that were delayed, the reasons for the delay, how they were delayed, including the report of all scheduling experts or other consultants, if any. (Not applicable for claims other than delay claims)
2. An as-built chart, CPM scheme or other diagram depicting in graphic form how the operations were adversely affected. (Not applicable for claims other than delay claims except where an extension of time is sought)
3. A detailed factual statement of the claim providing all necessary dates, locations and items of work affected by the claim.
4. The date on which actions resulting in the claim occurred or conditions resulting in the claim became evident.
5. A copy of the "Notice of Potential Claim" filed for the specific claim by the Contractor.
6. The name, function, and activity of each Department official, or employee, involved in, or knowledgeable about facts that gave rise to such claim.
7. The name, function, and activity of each Contractor or Subcontractor official, or employee, involved in, or knowledgeable about facts that gave rise to such claim.
8. The identification of any pertinent documents, and the substance of any material oral communication relating to such claim.
9. A statement as to whether the additional compensation or extension of time sought is based on the provisions of the Contract or an alleged breach of Contract.
10. The specific provisions of the Contract which support the claim, and a statement of the reasons why such provisions support the claim.

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11. The amount of additional compensation sought and a break-down of that amount into the categories specified as payable under Subsection 105.13.B.6, above.
12. If an extension of time is also sought, the specific days for which it is sought and the basis for such request.

D. Required Certification of Claims

When submitting the claim, the Contractor shall certify in writing, under oath in accordance with the formalities required by Georgia law, as to the following:

1. That the claim is made in good faith.
2. That supportive data are accurate and complete to the Contractor's best knowledge and belief that the amount of the claim accurately reflects what the Contractor in good faith believes to be the Department's liability.

The Contractor shall use the CERTIFICATE OF CLAIM form, which can be obtained from the Department, in complying with these requirements.

E. Auditing of Claims

All claims filed against the Department shall be subject to audit at any time following the filing of such claim, whether or not such claim is part of a suit pending in the courts of this State. The audit may be performed by employees of the Department or by an independent auditor on behalf of the Department. The audit may begin on ten days notice to the Contractor, Subcontractor, or Supplier. The Contractor, Subcontractor, or Supplier shall make a good faith effort to cooperate with the auditors. Failure to cooperate with the auditor shall constitute a waiver by the Contractor of the claim in its entirety. Failure of the Contractor, Subcontractor, or Supplier to maintain and retain sufficient records to allow the Department's auditor to verify the claim shall constitute a waiver of that portion of such claim that cannot be verified and shall bar recovery thereunder. If the claim is part of a suit pending in a court of this state or if the claim becomes a part of a suit in a court of this state, the questions of whether the Contractor has cooperated with the auditor or failed to maintain and retain sufficient records to allow the auditor to verify the claim shall be questions for determination by the judge without the assistance of a jury.

Without limiting the generality of the foregoing, and as a minimum, the auditors shall have available to them the following documents:

1. Daily time sheets and foreman's daily reports.
2. Project payroll register.
3. Profit and loss statements for the Project.
4. Payroll tax returns.
5. Material invoices, purchase orders, and all material and supply acquisition contracts for the Project.
6. Material cost distribution worksheet for the Project.
7. Equipment records (list of company equipment, rates, etc.)
8. Vendor rental agreements, and subcontractor invoices.
9. Subcontractor payment certificates.
10. Canceled checks (payroll and vendors) for the Project.
11. Job cost report for the Project.
12. Job payroll ledger for the Project.
13. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals.
14. Cash Disbursements journal for the Project.
15. Certified financial statements for all years reflecting the operations on this project.
16. Depreciation records on all company equipment whether such records are maintained by the company involved, its accountant, or others.
17. If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.
18. All documents which relate to each and every claim together with all documents which support the amount of damages as to each claim.
19. Worksheets used to prepare the claim establishing the cost components for items of the claim including, but not limited to, labor, benefits and insurance, materials, equipment, subcontractors, and all documents which establish the time periods, individuals involved, the hours and the rates for the individuals.

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F. Mediation

After compliance by the Contractor with parts B., C., D. and E. of Subsection 105.13 and if the Contractor's claim has been disallowed in whole or in part, then the Contractor may, within 30 calendar days from receipt of the ruling of the Engineer, make a written request to the Engineer that the claim or claims be referred to mediation.

If requested in accordance with this specification, mediation shall be granted by the Department. In which case, within 30 days of receipt by the Department of the Contractor's request for mediation, the Contractor and the Department will meet to select a mediator. The mediator will then schedule the mediation at a place, time, and earliest date agreeable to the Contractor and the Department.

The Contractor and the Department mutually agree that mediation shall be a condition precedent to the filing of any lawsuit concerning claims or alleged breaches of the Contract. The costs and expenses of the mediator, selected by mutual agreement of the parties, will be divided equally between the Department and the Contractor. Each party to the mediation shall bear its own costs of preparing for and participating in the mediation.

G. Remedies Exclusive

In the event any legal action is instituted against the Department by the Contractor on account of any claim for additional compensation, whether on account of delay, acceleration, breach of contract, claimed extra work, or otherwise, the Contractor agrees that the Department's liability will be limited to those items which are specifically identified as payable in Sub-Section 105.13.

105.14 Maintenance During Construction

The Contractor shall maintain the project during construction and until the Project is accepted. This maintenance shall constitute the continuous and effective work prosecuted day by day, with adequate equipment and forces to the end that all areas of the project are kept in satisfactory condition at all times.

The Contractor's area of responsibility for maintenance is confined to the physical construction limits plus any areas affected by the Contractor's activities. Once maintenance acceptance or final acceptance has been made, the Contractor is no longer responsible for damage to The Work other than that attributable to the Contractor's actions or inadequate construction.

In case of separate contracts, each Contractor shall be responsible for any damage to the completed work of others caused by his actions or negligence. Where the work of one Contractor has been accepted by the Department, the Contractor performing subsequent work in the area shall be responsible for the maintenance and protection of all work previously completed.

If separate bridge contracts are let within the limits of a Roadway Project and the Bridge Contractor completes his Contract before the Roadway Contractor, the Bridge Contract may be accepted and the Roadway Contractor will be responsible for maintenance of the new bridge until it is opened to traffic. If the Roadway Contractor hauls materials across the bridge the Roadway Contractor shall protect the endposts, deck surface, deck edges, joints, and all other vulnerable features of the bridge by use of adequate timber or earth cushions as directed by the Engineer. The Roadway Contractor shall repair all damage caused by such use, including resealing of joints and rerubbing of finish at his own expense.

All cost of maintenance work during construction and before the Project is accepted shall be included in the Unit Prices Bid on the various Pay Items and the Contractor will not be paid an additional amount for such work except as provided in Subsection 104.05.B.

The Contractor shall not allow vegetative growth at any time to obstruct signs, delineation, traffic movements, or sight distance. The Contractor shall at intervals not to exceed six months, clean up and remove litter and debris; remove weeds from around guardrail, barrier, poles, standards, utility facilities, and other structures; and cut or trim trees, bushes or tall grass. These requirements shall apply to all areas within the project termini and lateral limits.

105.15 Failure to Maintain Roadway or Structures

If at any time, the Contractor fails to comply with the provisions of Subsection 105.14, the Engineer will immediately notify the Contractor of such noncompliance. If the Contractor fails to remedy the unsatisfactory maintenance within 48 hours after receipt of such notice, the Engineer may immediately proceed to maintain The Work, and the entire cost of this maintenance will be deducted from monies due or to become due the Contractor under the Contract. As an alternative to the Engineer's maintaining the Work, all the Items and quantities of work done, but not properly maintained, may be deducted from the current progress estimate, even if such Items have been paid for in a previous estimate.

105.16 Final Inspection and Acceptance

A. Corrective list

Excluding resurfacing projects, no less than 60 (Sixty) calendar days prior to the Contract Completion Date the Engineer will hold a Closing Conference and perform an inspection of the Work. Any items found unsatisfactory during this inspection will be detailed as necessary remedial work and provided to the Contractor in the form of a Corrective list. A Corrective list is intended to facilitate timely completion of the Work. Resurfacing projects necessitate the Engineer commence a Closing Conference and inspection no less than 14 calendar days to the Contract Completion Date unless otherwise arranged and agreed to by the Contractor.

The Contractor is encouraged to request additional inspections earlier in the Project as major portions of the work appear complete.

Production of a Corrective list does not, in any way, represent a Final Inspection having been performed.

B. Final Inspection

Upon receipt of due written notice from the Contractor of completion of the entire Project, the Engineer will schedule and make an inspection for Acceptance within 7 business days. No time charges shall be applied to the Contractor for the Engineer's inability to meet the 7 business day allowance. If all construction provided for and contemplated by the Contract is found completed to the Engineer's satisfaction and all documents required in connection with the Project have been submitted by the Contractor, the Engineer will consider this the Final Inspection. The Engineer will subsequently make the Final Acceptance and notify the Contractor in writing of this acceptance. The Engineer will have the final decision on when the Project is complete.

If, however, the Inspection discloses any work, in whole or part, as being unsatisfactory, the Engineer will detail the remedial work required to achieve acceptance and provide the Contractor the necessary instructions for correction of same. Only one list of instructions will be generated by the Engineer. The Contractor shall immediately comply with and execute such instructions. Subsequent inspections will be made on the remedial work until the Engineer accepts all Work. Such subsequent inspections are only for the purpose of assessing completion of the instructions provided. When all construction provided for and contemplated by the Contract is found completed to the Engineer's satisfaction, including submission of all documents required in connection with the Project, the Engineer will make the Final Acceptance and notify the Contractor in writing of this acceptance.

When the Contractor has finished a major portion of the Contract, the Contractor may request that a semi-final inspection be made. At the discretion of the Engineer, who shall be sole judge as to making the inspection, if the work is satisfactory, as described in the first paragraph of this Section, that portion of the Contract may be accepted, opened to traffic, if not already carrying traffic, and the Contractor relieved of the maintenance obligations as described elsewhere in these Specifications.

Such partial acceptance shall in no way relieve the Contractor of responsibility for satisfactory completion of the Contract, or for failure of any portion of the accepted work prior to Final Acceptance of the Project.

**DEPARTMENT OF
TRANSPORTATION STATE OF
GEORGIA**

SUPPLEMENTAL SPECIFICATION

**Section 107 – Legal Regulations and Responsibility to the
Public**

Delete Section 107 and Substitute the following:

107.01 Laws to Be Observed

The Contractor shall keep fully informed of all Federal and State laws, all local laws, ordinances, codes, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on The Work, or which in any way affect the conduct of The Work. The Contractor shall at all times observe and comply with all such laws, ordinances, codes, regulations, orders, decrees, and permits; and shall protect and indemnify the Department and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, code, regulation, order, decrees, and permits, whether by himself, his employees, subcontractors, or agents.

107.02 Permits and Licenses

The Contractor shall procure all permits and licenses, pay all charges, taxes, and fees, and give all notices necessary and incidental to the due and lawful prosecution of The Work.

107.03 Patented Devices

If the Contractor employs any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the Surety shall indemnify and save harmless the Department from any and all claims for infringement by reason of the use of any such patented design, device, material, or process, or any trademark or copyright, and shall indemnify the Department for any costs, expenses, and damages which it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of The Work.

107.04 Restoration of Surfaces Opened By Permit

The right to construct or reconstruct any utility service in the highway or street and to grant permits for the same at any time, is expressly reserved by the Department for the proper authorities of the municipality or county in which The Work is done and the Contractor shall not be entitled to any damages either for the digging up of the street or highway, or for any delay occasioned thereby.

Any individual, firm, or corporation wishing to make an opening in the street or highway must secure a permit from the Department. The Contractor shall allow parties bearing such permits, and only those parties, to make openings in the street or highway. When ordered by the Engineer, the Contractor shall make in an acceptable manner all necessary repairs due to such openings and such necessary work will be paid for as Extra Work, or as provided in the Specifications, and will be subject to the same conditions as original work performed.

107.05 Federal-Aid Provisions

When the United States Government pays all or any part of the cost of a project, the Federal laws and the rules and regulations made pursuant to such laws must be observed by the Contractor, and The Work shall be subject to the

inspection of the appropriate Federal agency. Such inspection shall in no sense make the Federal Government a party to this Contract and will in no way interfere with the rights of either party hereunder.

107.06 Sanitary Provisions

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements of the State Department of Health and other authorities having jurisdiction, and shall permit no public nuisance.

107.07 Public Convenience and Safety

The Contractor shall at all times so conduct The Work as to assure the least possible obstruction of traffic. The safety and convenience of the general public and the residents along the highway and the protection of persons and property shall be provided for by the Contractor as specified under Subsection 104.05, Subsection 107.09, Section 150, the Project Plans, and Special Provisions.

Traffic whose origin and destination is within the limits of the Project shall be provided ingress and egress at all times unless otherwise specified in the Plans or Special Provisions. The ingress and egress includes entrance and exit via driveways at the various properties, and access to the intersecting roads and streets. The Contractor shall maintain sufficient personnel and equipment on the project at all times, particularly during inclement weather, to ensure that ingress and egress are provided when and where needed.

Two-way traffic shall be maintained at all times unless otherwise specified or approved. The Contractor shall not stop traffic without permission granted by the Engineer.

All equipment used on The Work shall come equipped with factory-installed mufflers, or manufacturer's recommended equivalent, in good condition. These mufflers shall be maintained in good condition throughout the construction period.

107.08 Railroad-Highway Provisions

All work to be performed by the Contractor on a railroad company's right-of-way or property shall be done in a manner satisfactory to the chief engineer of the railroad company, or his authorized representative, and shall be performed at such times and in such manner as not to unnecessarily interfere with the movement of trains or traffic upon the track of the railroad company. The Contractor shall use all reasonable care and precaution in order to avoid accidents, damage, or unnecessary delay or interference with the railroad company's trains or other property, or property of tenants of railroad company.

The Contractor shall notify the railroad company and obtain its approval before commencing work on the railroad company's right-of-way or property.

The Contractor shall determine what measures are required by the railroad company to protect its operations and right-of-way or property during construction. Such protection may include the use of a flagger or flaggers provided by the railroad company. The Contractor shall be responsible for ensuring that the required protection is provided and shall pay the railroad company directly for any and all such services which may be required to accomplish the construction unless otherwise specified.

Any temporary grade crossings or other means needed during construction by the Contractor for transporting materials of any nature and/or equipment across the railroad tracks will be the responsibility of the Contractor to handle directly with the railroad company and bear all costs incidental to such crossings including flagging services provided by the railroad company.

A "Special Provisions for the Protection of Railroad Interests" may be included in the proposal to stipulate insurance and other requirements of the railroad company.

107.09 Barricades and Danger, Warning, and Detour Signs

The Contractor shall furnish, install, and maintain all necessary and required barricades, signs, and other traffic control devices in accordance with these Specifications, Project Plans, Special Provisions, and the MUTCD, and take all necessary precautions for the protection of the work and safety of the public.

Unless otherwise specified, all traffic control devices furnished by the Contractor shall remain the property of the Contractor.

107.10 Forest Protection

In carrying out work within or adjacent to State or National Forests, or any other forests, parks, or other public or private lands, the Contractor shall obtain necessary permits and comply with all of the regulations of the appropriate authorities having jurisdiction over such forest, park, or lands. The Contractor shall keep the areas in an orderly condition, dispose of all refuse, obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other structures in accordance with the requirements of the appropriate authority.

The Contractor shall take all reasonable precautions to prevent and suppress forest fires and shall require his employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and suppress and to assist in preventing and suppressing forest fires; to notify a forest official at the earliest possible moment of the location and extent of any fire seen by them; and to extinguish or aid in extinguishing nearby fires.

107.11 Construction Over or Adjacent to Navigable Waters

A. Navigation to Be Protected

Since navigable waterways are under the jurisdiction of the United States Coast Guard and/or the United States Army Corps of Engineers, all work done in, over, on or adjacent to such waters shall comply with their requirements. Free navigation shall not be impeded, and navigable depths shall be maintained.

The Contractor shall comply with permits issued by the United States Coast Guard and/or the United States Army Corps of Engineers, and the Contractor shall obtain and comply with other permits in accordance with the requirements of Subsection 107.02

Special Provisions for environmental protection may be included in the proposal to stipulate environmental commitments and other requirements.

B. Obstructions to be Removed

When the construction has progressed enough to permit removal, all falsework, piling and other obstructions shall be removed to the satisfaction of the Federal agency having jurisdiction. In all cases such clearing must be done thoroughly before The Work will be accepted by the Department.

107.12 Use of Explosives

When the use of explosives is necessary for the prosecution of The Work, the Contractor shall exercise the utmost care not to endanger life or property, and shall obey all State, Federal and other Governmental regulations applying to transportation, storage, use, and control of such explosives. The Contractor shall be completely responsible for any and all damage resulting from the transportation, storage, use, and control of explosives in the prosecution of The Work by the Contractor, the Contractor's agents, or employees; and shall hold the Department harmless from all claims of damages resulting in any manner therefrom.

The Contractor shall notify each public utility owner having structures or other installations, above or below ground, near the site of The Work of his intention to use explosives. Such notice shall be given sufficiently in advance to enable the utility owners to take such steps as they may deem necessary to protect their property from injury. Such notice shall not relieve the Contractor of responsibility for all damages resulting from his blasting operations.

All explosives shall be stored securely in compliance with all laws and ordinances, and all such storage places shall be clearly marked DANGEROUS EXPLOSIVES. Explosives and detonators shall be stored in separate storage facilities in separate areas. Where no laws or ordinances apply, locked storage shall be provided satisfactory to the Engineer, never closer than 1,000 ft (300 m) from any travel-road, building, or camping area.

In all cases where the transport, storage, or use of explosives is undertaken, such activities shall be controlled and directed by fully qualified representatives of the Contractor.

Whenever electric detonators are used, all radio transmitters shall be turned off within a radius of 500 ft (150 m). No blasting supplies shall be transported in vehicles with two-way radio unless the transmitter is turned off, or extra shielding precautions are taken. Appropriate signs shall be placed so as to give ample warning to anyone driving a vehicle equipped with two-way radio. Electrical detonators will not be used within 500 ft (150 m) of a railroad.

Submit a blasting plan to the Engineer a minimum of five working days prior to use of explosives that provides details of the proposed blasting plan, including, but not limited to, the type and amount of explosives, the shot sequence, the description of and distance to the closest inhabitable structure, and other information as requested by the Engineer. Submission of blasting plan does not relieve the contractor of the responsibility for the adequate and safe performance of the blasting.

107.13 Protection and Restoration of Property and Landscape

A. General Provisions

The Contractor shall be responsible for the preservation of all public and private property, crops, fish ponds, trees, monuments, highway signs and markers, fences, grassed and sodded areas, etc. along and adjacent to the highway, and shall use every precaution necessary to prevent damage or injury thereto, unless the removal, alteration, or destruction of such property is provided for under the Contract. The Contractor shall use suitable precaution to prevent damage to all underground structures, whether shown on the Plans or not, and shall protect carefully from disturbance or damage, all land monuments and property marks until the Engineer has witnessed or otherwise referenced their location and shall not move them until directed. The Contractor shall not willfully or maliciously injure or destroy trees or shrubs, and he shall not remove or cut them without proper authority.

The Contractor shall be responsible for all sheet piling, shoring, underpinning, etc., as may be required for the protection of abutting property, nearby buildings, streets, and the like.

The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of The Work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing The Work, or at any time due to defective work or materials, and said responsibility will not be released until the Project shall have been completed and accepted.

When the Contractor's excavating operations encounter remains of prehistoric people's dwelling sites or artifacts of historical or archeological significance, the operations shall be temporarily discontinued. The Engineer will contact archeological authorities and the Office of Environmental Services to determine the disposition thereof. When directed by the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and shall remove them for delivery to the custody of the proper authorities. Such excavation will be considered and paid for as Extra Work.

When the Contractor's normal operations are delayed by such stoppage or extra work, an appropriate time extension will be granted.

The Contractor shall plan, coordinate, and prosecute the work so that disruption to personal property and business is held to a practical minimum.

No resident or business shall be denied vehicular access to their property for any length of time other than as determined by the Engineer is absolutely necessary. Where two or more existing driveways are present for a business, only one existing driveway shall be closed at any time. All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of each drainage structure or section of curb and gutter, sidewalk, or driveway shall be accomplished as soon as adequate strength is obtained. Finishing, dressing, and grassing shall be accomplished immediately thereafter as a continuous operation within each area being constructed with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.

Handwork, including raking and smoothing, shall be required to ensure that roots, sticks, rocks, and other debris are removed in order to provide a neat and pleasing appearance. Grassing, when in season, shall immediately follow in order to establish permanent cover at the earliest date. If grassing is not in season, proper erosion control shall be installed and maintained.

The work described above shall be in addition to that required by Subsection 104.07, "Final Cleaning Up" and Subsection 105.16, "Final Inspection and Acceptance".

B. Erosion and Siltation Control

The Contractor shall take all necessary measures throughout the life of the Project to control erosion and silting of rivers, streams, and impoundments (lakes, reservoirs, etc.). Construction of drainage facilities as well as performance of other Contract work which will contribute to the control of erosion and siltation shall be carried out in conjunction with clearing and grubbing, and earthwork operations as stipulated in Section 161.

C. Pollution

The Contractor shall exercise every reasonable precaution throughout the life of the Contract to prevent pollution of rivers, streams or impoundments. Pollutants such as chemicals, fuels, lubricants, bitumens, raw sewage and other harmful waste shall not be discharged into or alongside rivers, streams, and impoundments, or into natural or manmade channels leading thereto. The Contractor shall also comply with the applicable regulations of other State and Federal departments and to all governmental statutes relating to the prevention and abatement of pollution.

D. Insect Control Regulations

The Plant Pest Control Division of the U.S. Department of Agriculture and the Georgia State Department of Agriculture restrict the movement of certain items from areas infested with Japanese Beetles or Imported Fire Ants so as to prevent the spread of these pests to non-infested areas. Where insect infested areas are shown on the Plans, Contractors will control their operations in such a manner as to comply fully with the requirements of Section 155.

E. Reclamation of Material Pits and Waste Disposal Areas

Whenever or wherever the Contractor obtains material from a source or wastes material on an area other than within the Right-of-Way, regardless of the fashion, manner or circumstances for which the source or area is obtained, it shall be reclaimed in accordance with the requirements of Section 160.

F. Mailboxes

The property owner shall have the responsibility for removing and relocating the mailbox to an area outside construction limits.

The Engineer will mark a point for the relocation of the box. The stake should be set so that the location of the box will be convenient to both the mail carrier and the patron, yet not interfering with the proposed work. It may be necessary for the Engineer to confer with the Post Office serving the area.

The Contractor shall notify each affected owner, in writing, that their mailbox is in conflict with the proposed construction, that they have ten days to relocate the box and that, after the expiration of the 10 days' notice, if the owner has not relocated the box, it shall be removed by the Contractor and laid upon the owner's property, clear of the Right-of-Way.

Any cost to the Contractor for removing the mailboxes as stated above shall be included in the price bid for other items.

G. Failure to Comply

Failure of the Contractor to comply with any of the above provisions or to install erosion prevention items included in the Contract at the time specified, will be evidence of omission and neglect, and the Contractor will be liable for damages as outlined in Subsection 107.13.H below. Furthermore, the Engineer shall withhold payment on all Contract Items until such time as the Contractor complies in full with all of the aforesaid provisions.

H. Payment for Damages

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work, or in consequence of the nonexecution thereof by the Contractor, the Contractor shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed, or shall make good such damage or injury in an acceptable manner.

I. Compensation

All costs pertaining to any requirement contained herein shall be included in the overall Bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

107.14 Load Restrictions

It is hereby agreed between the Department and the Contractor that in the performance of The Work under the Contract, the following load restrictions and stipulations shall be in full force and effect during the life of the Contract:

A. Parties Affected

The load restrictions and stipulations contained herein shall be applicable to the equipment of the Contractor; each agent or subcontractor employed by the Contractor; and each person or persons, firm, partnership, corporation or any combination thereof, hauling materials, supplies or equipment to or on the Project, by or for the Contractor.

B. Within Project Limits

No hauling equipment which is loaded beyond those limits provided by State Law shall be permitted on any portion of the new or existing pavement structure except that such loads will be permitted on nonstabilized bases and subbases prior to placing roadway paving subject to the provisions of Subsection 107.17.

Axle loads and gross weight limits will be evaluated in accordance with current Georgia Law.

All damage caused by any equipment to any permanent installation or portion of The Work shall be promptly repaired by the Contractor at his expense. When it becomes necessary to cross existing pavement with excessive loads, the Contractor shall provide and remove, at his own expense, proper cushioning by means of earth blanket or otherwise as directed.

C. Outside Project Limits

All equipment users included in Subsection 107.14.A, above, operating equipment on roads outside the Project limits shall be governed by the following regulations:

1. No vehicle shall carry any load in excess of that specified by Georgia Law.
2. On County System roads the maximum total gross weight shall not exceed 56,000 lbs. (25,400 kg) unless a vehicle is making a pickup or delivery on such roads.
3. For a specific individual trip the above weight limitations may be exceeded provided a special permit is obtained from the Department for each such movement. A special permit will not relieve the Contractor of liability for damage that may result from such a movement. Refer to O.C.G.A §32-6-26 Weight of Vehicle and Load, SB54 (2011) for compliance with weight limitations and exceptions.
4. Authorized personnel of the Department of Public Safety shall be permitted to weigh each truck hauling material to the Project whenever the Department so desires. The owner of each truck shall instruct his operators to cooperate with and assist the truck weighers in every way possible.
5. A Certified Public Weigher operating under the provisions of Standard Operating Procedure 15 shall not dispatch any vehicle loaded with material to be incorporated into the Project when the gross vehicle weight exceeds the limit established by law.
6. Ready Mix Concrete trucks shall comply with load restrictions as specified in Laboratory Standard Operating Procedure 10, "Quality Assurance for Ready-Mixed Concrete Plants in Georgia."

D. Responsibilities

It will be the responsibility of the Contractor to advise his personnel, and all equipment users included in Subsection 107.14.A, as to the load restrictions and stipulations contained herein.

E. Excess Loads and Violations

If multiple violations assignable to a given Certified Public Weigher are occurring, that Certified Public Weigher may be suspended from weighing materials dispatched to Department of Transportation projects.

107.15 Responsibility for Damage Claims

The Contractor shall indemnify and save harmless the Department, its officers and employees, from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the said Contractor; or on account of or in consequence of any neglect in safe-guarding The Work; or through use of unacceptable materials in constructing The Work; or because of any act of omission, neglect or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the Workmen's Compensation Act, or any other law, ordinance, order, or decree; and so much of the money due the said Contractor under and by virtue of his Contract as may be considered necessary by the Department for such purpose may be withheld for the use of the State; or, in case no money is due, his surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the Department; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he is adequately protected by public liability and property damage insurance.

107.16 Opening Sections of Project to Traffic

Whenever any bridge or section of roadway is in acceptable condition for travel, the Engineer may direct that it be opened to traffic, whether or not the opening was originally provided for, and such opening shall not be held to be in any way an acceptance of the bridge or roadway, or any part thereof, or as a waiver of any of the provisions of the Contract. Necessary repairs or renewals made on any section of the roadway or bridge thus opened to traffic under instructions from the Engineer, due to defective material or work, or to any cause other than ordinary wear and tear, pending completion and acceptance of the roadway, bridge, or other work, shall be done by the Contractor, without additional compensation. Also, the Contractor shall not receive additional compensation for completing the Work except as specified in Subsection 104.03.

If the Contractor is dilatory in completing shoulders, drainage structures, or other features of work, the Engineer may so notify him in writing and establish therein a reasonable period of time in which the Work should be completed. If the Contractor is dilatory, or fails to make a reasonable effort toward completion in this period of time, the Engineer may then order all or a portion of the Project opened to traffic. On such sections which are so ordered to be opened, the Contractor shall conduct the remainder of his construction operations so as to cause the least obstruction to traffic and shall not receive any added compensation due to the added cost of the Work by reason of opening such section to traffic.

On any section opened to traffic under any of the above conditions, whether stated in the Special Provisions or opened by necessity of Contractor's operations, or unforeseen necessity, any damage to the highway not attributable to traffic which might occur on such section (except slides) shall be repaired by the Contractor at his expense. The removal of slides shall be done by the Contractor on a basis agreed to prior to the removal of such slides.

107.17 Contractor's Responsibility for the Work

From the first day the Contractor begins work, or from the date Contract Time commences, whichever occurs first, until written final acceptance of the project by the Engineer, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of The Work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of The Work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except that the Department may, in its discretion, reimburse the Contractor for the repair of damage to The Work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, of the public enemy or of governmental authorities. The Contractor's responsibility for damages and injuries is defined in Subsection 104.05.A.

In case of suspension of work from any cause whatsoever, the Contractor shall be responsible for the Project and shall take such precautions as may be necessary to prevent damage to the Project, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities at his expense.

107.18 Acquisition of Right-of-Way

Rights of Way for the project will be obtained by the Department, in coordination with local governments and others. However, the Contractor's access to the portions of the right-of-way may be restricted. Where such

restrictions are known in advance to the Department they will be listed in the bid proposal. Delays to the progress of the Work may be encountered because of restricted access to portions of the right-of-way. When such delays occur, whether caused by restrictions listed in the bid proposal or restrictions that develop after the Contract is signed, the parties agree in executing the Contract that such delays do not constitute breach of the Contract. Delays in availability of right-of-way beyond those listed in the bid proposal, or that develop after the Contract has been signed, that impact the controlling Item or Items of the Work will not be charged against the Contract Time. Additional compensation for such delays shall not be paid, except as provided in Subsection 105.13, "Claims for Adjustments and Disputes," or Subsection 109.09, "Termination Clause." In the event the Department is unable to acquire right-of-way needed for the project, resulting in delay to or termination of the project, such situation will also be controlled by this Section, and will not constitute a breach of the Contract by the Department.

107.19 Personal Liability of Public Officials

In carrying out any of the provisions of the Contract or in exercising any power or authority granted to the Board, Commissioner, Chief Engineer, their agents and employees, by the Contract, there shall be no liability, either personally or as officials or representatives of the Department, it being understood that in all such matters they act solely as agents and representatives of the Department.

107.20 No Waiver of Legal Rights

Upon completion of The Work, the Department will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or estop the Department from correcting any measurement, estimate, or certificate made before or after completion of The Work, nor shall the Department be precluded or estopped from recovering from the Contractor or his Surety, or both, such over-payment as it may sustain, or by failure on the part of the Contractor to fulfill his obligations under the Contract. A waiver on the part of the Department of any breach of any part of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the Contract, shall be liable to the Department for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Department's rights under any warranty or guaranty.

107.21 General Description

The Contractor shall designate, prior to beginning any work, a Worksite Utility Coordination Supervisor (WUCS) who shall be responsible for initiating and conducting utility coordination meetings and accurately recording and reporting the progress of utility relocations and adjustment work. Also, the WUCS shall prepare an Emergency Response Plan for the purpose of planning, training, and communicating among the agencies responding to the emergency. The WUCS shall be the primary point of contact between all of the Utility companies, the Contractor and the Department. The WUCS shall recommend the rate of recurrence for utility coordination meetings and the Engineer will have the final decision on the regularity for utility coordination meetings. In no case will utility coordination meetings occur less than monthly until controlling items of utility relocations and adjustment milestones are completed. The WUCS shall contact each of the utility companies for the purpose of obtaining information including, but not limited to, a Utility Adjustment Schedule for the controlling items of utility relocations and adjustments. The WUCS shall notify the appropriate utility company and/or utility subcontractors and the Department of the status of controlling items of relocations and adjustment milestones as they are completed. The WUCS shall furnish the Engineer, for approval, a Progress Schedule Chart, immediately following the receipt of the Notice to Proceed unless otherwise specified, which includes the utility companies controlling items of work and other information in accordance with Section 108.03 or elsewhere in the Contract documents.

A. Qualifications

The WUCS shall be an employee of the Prime Contractor, shall have at least one year experience directly related to highway and utility construction in a supervisory capacity and have a complete understanding of the Georgia Utilities Protection Center operations, and shall be knowledgeable of the High-voltage Safety Act and shall be trained on the Georgia Utility Facility Protection Act (GUFPA). The Department does not provide any training on GUFPA but will maintain a list of the Georgia Public Service Commission certified training programs developed by other agencies. Currently the following companies offer approved GUFPA training programs:

Associated Damage Consultants
Phone: 706.234.8218 or 706.853.1362
Georgia Utility Contractors Association
Phone: 404.362.9995

Georgia Utilities Protection Center
Phone: 678.291.0631 or 404.375.6209
H B Training & Consulting
Phone: 706.619.1669 or 877.442.4282 (Toll Free)

The Prime Contractor is responsible for obtaining the GUFPA training for their employees. Questions concerning the Georgia Public Service Commission GUFPA training program should be directed to:

Georgia Public Service Commission
244 Washington St. SW
Atlanta, GA 30334-5701
404.463.9784

B. Ticket Status

During the utility coordination meetings the WUCS shall collect and maintain the Ticket Status information to determine the status of all locate requests within the project limits. This information will be used to assure those planning to use mechanized equipment to excavate or work within the project limits are prepared to begin work when they have reported or estimated beginning work. At points where the Contractor's or utility company's operations are adjacent to or conflict with overhead or underground utility facilities, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not commence until all arrangements necessary for the protection thereof have been made.

C. Notice

The names of known utility companies and the location of known utility facilities will be shown on the Plans, or listed in the Subsurface Utility Engineering Investigation if performed or in the Special Provisions; and the WUCS shall give 24-hour notice to such utility companies before commencing work adjacent to said utility facilities which may result in damage thereto. The WUCS shall further notify utility companies of any changes in the Contractor's work schedules affecting required action by the utility company to protect or adjust their facilities. Notice to the utility companies by the Department of the Award of Contract, under Subsection 105.06, shall not be deemed to satisfy the notice required by this paragraph. Furthermore, this 24-hour notice shall not satisfy or fulfill the requirements of the Contractor as stated in Chapter 9 of Title 25 of the Official Code of Georgia Annotated, known as the "Georgia Utility Facility Protection Act".

D. Agenda

The WUCS shall cooperate with the companies of any underground or overhead utility facilities in their removal and relocations or adjustment work in order that these operations may progress in a reasonable manner, that duplication of their removal and relocations or adjustment work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted. To promote this effort the WUCS shall prepare an agenda for the utility coordination meetings and circulate same in advance of the meeting to encourage input and participation from all of the utility companies. The agenda will be prepared by an examination of the project site and may include photographs of potential/actual utility conflicts.

E. Emergency Response Plan

The WUCS shall prepare an Emergency Utility Response Plan (EURP) within 30 days following the receipt of the Notice to Proceed. The EURP shall indicate the project location (which includes street address and or major intersections / major highway route, if possible with a land mark) that would be reported in case of an emergency, WUCS, Emergency Utility Coordinator (EUC), utility company name, utility company emergency contact information to include but not limited to emergency phone number, response time for emergency, working condition of devices needed to facilitate prompt shut off, and primary point of contact name and phone number for the project.

Emergency Utility Coordinator (EUC) shall be an employee of the Prime Contractor and shall notify the appropriate utility company and/or utility subcontractors in case of an emergency. EURP must include the contact details of the EUC, if WUCS is not the primary emergency utility coordinator for this project.

The plan will also include a means of reporting emergencies and the Utility Emergency Response Information for each company. The WUCS/EUC shall post the EURP in an area readily accessible to the Department and project personnel. Also, WUCS shall distribute the copies of EURP by e-mail and hard copy to GA DOT Area Engineer, GA DOT Construction Project Engineer, Contractor's project manager, superintendent, and all approved subcontractors whose work can be in conflict with utilities facilities, personnel of the each facility/owner/ operator who has facilities within the project limits and keep a copy in close proximity to active construction.

In the event of interruption to gas, water or other utility services as a result of accidental breakage or as a result of being exposed or unsupported, the WUCS/EUC shall promptly notify the appropriate emergency officials, the Georgia Utilities Protection Center and the appropriate utility facility company or operator, if known. Until such time as the damage has been repaired, no person shall engage in excavating or blasting activities that may cause further damage to the utility facility.

In order to keep up with the latest / most updated EURP contact information (name and phone numbers); WUCS shall include an item in the agenda of Utility Coordination meeting about the updates / changes in the EURP plan.

The Emergency Utility Response Plan and Emergency Utility Response Information template can be found at the State of Georgia, Office of Utilities Webpage.

F. Submission

Provisions for reporting all utility coordination meetings, the progress of utility relocation and adjustment work milestones and ticket status information will be reported on a form developed by the WUCS and will be distributed by the WUCS to all of the utility companies as milestones are met and shall be included as part of the project records. These reports shall be delivered to the Engineer for review, on a monthly basis. The WUCS shall immediately report to the Engineer any delay between the utility relocation and adjustment work, the existing Utility Adjustment Schedule, or the proposed Utility Adjustment Schedule so that these differences can be reconciled.

G. Delays

Delays and interruptions to the controlling Item or Items of The Work caused by the adjustment or repair of water, gas, or other utility appurtenances and property may be considered for an extension of Contract Time as provided in Subsection 108.07.E unless such delays are due to the negligence of the Contractor.

H. Facilities Supported on Bridges

If the utility facilities are to be supported on bridges, the following provisions shall apply:

1. The Plans will show the location of the facility and the auxiliary items necessary to support the facility.
2. The Contractor constructing the bridge shall install anchor bolts, thimbles, inserts, or other auxiliary items attached to the bridge as a part of the support for the utility facility. The Utility Company shall furnish these auxiliary items, unless the Contract indicates these items are to be furnished by the Contractor as a part of the bridge construction.
3. The Utility or its subcontractor constructing the utility facility shall install hanger rods, pipe rollers, and other attachments necessary for the support of the utility facility as indicated on the Plans. The Utility Company shall furnish these attachments at no cost to the Department or the prime contractor unless otherwise specified. This work shall also include:
 - a. Caulking the openings around the utility where it passes through endwalls to prevent the passage of undesirable materials.
 - b. Painting the exposed portions of utility supports unless such supports are corrosion resistant. Painting shall be done in accordance with the applicable portions of Section 535, unless otherwise specified.
4. The sequence of bridge construction work may be set forth in the Plans and/or the Special Provisions and will show at what stage of the Work a utility company will be allowed to make the utility installation. Further, all or any portion of The Work under Subsection 107.21.H.3 may be included in the bridge Contract by the Plans and/or the Special Provisions.

5. Any damage to the bridge structure caused by the utility installation shall be repaired to the satisfaction of the Engineer at the expense of the Utility or its subcontractor installing the utility facility.

I. Clearances

The Plans provide for at least minimum clearance of utilities as required by the National Electrical Safety Code, U.S. Department of Commerce, and National Bureau of Standards. Any additional clearance the Contractor may desire or require in performing The Work shall be arranged by the Contractor with the utility company. The Department will pay no extra compensation for such additional clearances.

J. Utility Relocation Progress Schedule

The purpose of the Utility Adjustment Schedule is to provide the Contractor with the pertinent information, including any utility staging required, dependent activities, or joint-use coordination that is required for the creation of a feasible progress schedule. A suitable Utility Adjustment Schedule form is available from the Department for the WUCS to circulate to utility companies for any proposed project construction staging or should a utility company not duly file a Utility Adjustment Schedule to the Department during the preconstruction phase of the project. The WUCS shall submit a Utility Relocation Progress Schedule showing together the Progress Schedule Chart referenced in Section 108.03 and the proposed Utility Adjustment Schedules from all utility companies to the Engineer for review and approval. Copies of existing Utility Adjustment Schedules with utility companies having facilities on this project will be made available at the Georgia Department of Transportation, Office of Construction Bidding Administration, located at One Georgia Center, 600 West Peachtree Street, NW, Atlanta, GA 30308, for examination by the Contractor. The Utility Adjustment Schedules are available on-line at: www.dot.ga.gov/partner_smart/contractors/bidding_letting/bidx/default.aspx

K. Compensation

There will be no separate measurement or payment for this Work. The cost associated with this Work shall be included in the overall Bid submitted.

107.22 Hazardous and/or Toxic Waste

When the Contractor's operations encounter or expose any abnormal condition which may indicate the presence of a hazardous and/or toxic waste, such operations shall be discontinued in the vicinity of the abnormal condition and the Engineer shall be notified immediately. The presence of barrels, discolored earth, metal, wood, or visible fumes, abnormal odors, excessively hot earth, smoke, or anything else which appears abnormal may be indicators of hazardous and/or toxic wastes and shall be treated with extraordinary caution as they are evidence of abnormal conditions.

The Contractor's operations shall not resume until so directed by the Engineer.

Disposition of the hazardous and/or toxic waste will be made in accordance with the requirements and regulations of the Department of Human Resources and the Department of Natural Resources. Where the Contractor performs work necessary to dispose of hazardous and/or toxic waste, payment will be made at the unit prices for pay items included in the contract which are applicable to such work or, where the contract does not include such pay items, payment will be as provided in Subsection 109.05, "Extra Work."

107.23 Environmental Considerations

A. Construction

Erosion control measures shall be installed, to the greatest practical extent, prior to clearing and grubbing. Particular care shall be exercised along stream buffers, wetlands, open waters and other sensitive areas to ensure that these areas are not adversely affected.

Construction equipment shall not cross streams, rivers, or other waterways except at temporary stream crossing structures shown on the plans or as allowed by permit.

Construction activities within wetland areas are prohibited except for those within the construction limits as shown on the Plans and as specified in Subsection 107.23.E.

All sediment control devices (except sediment basins) installed on a project shall, as a minimum, be cleaned of sediment when one half the capacity, by height, depth or volume, has been reached. Sediment basins shall be cleaned of sediment when one-third the capacity by volume has been reached.

B. Bridge Construction Over Waterways

Construction waste or debris, from bridge construction or demolition, shall be prevented from being allowed to fall or be placed into wetlands, streams, rivers or lakes.

Excavation, dewatering, and cleaning of cofferdams shall be performed in such a manner as to prevent siltation. Pumping from cofferdams to a settling basin or a containment unit will be required if deemed necessary by the Engineer.

Operations required within rivers or streams, i.e. jetting or spudding, shall be performed within silt containment areas, cofferdams, silt fence, sediment barriers or other devices to minimize migration of silt off the project.

C. Environmental Clearance of Local Material or Disposal Sites

Specific written environmental approval from the Engineer will be required for any local material or disposal sites not included in the Plans. No work shall be started at any potential local material or waste site not shown on the plans prior to receiving said environmental approval from the Engineer. Local material sites are defined as borrow pits, common borrow, base, embankment, sand clay base, topsoil base, soil cement base, granular embankment, asphalt sand, maintenance pits, or stockpiled borrow sources. Disposal sites, as defined in Standard Specification 201.3.05.E.3, may be defined as excess material, common fill, or inert waste.

The Contractor may obtain environmental approval on a site with one of two methods: 1) GDOT provided environmental surveys or 2) environmental surveys obtained by the Contractor at no cost to the Department. The Contractor must choose one method for review and approvals, which will apply to all sites required for a given project, and submit an Environmental Review Notification indicating their chosen method.

1. If the Contractor chooses to obtain their own environmental surveys, they shall be conducted by a consultant(s) prequalified to work with the Department in the following area classes: 1.06(b) – History; 1.06(e) – Ecology; and 1.06(f) – Archaeology. Background research and field methods shall be conducted in accordance with the Office of Environmental Services Environmental Procedures Manual, with documentation in an Environmental Survey Results Memorandum (template available from the Office of Environmental Services).
2. If the Contractor requests that GDOT conduct required environmental surveys, an Environmental Survey Request shall be submitted for each site (template available from the Office of Environmental Services).

Upon receipt of an Environmental Survey Request, the Office of Environmental Services shall provide environmental approval or denial within thirty (30) business days. Upon receipt of an Environmental Survey Results Memorandum, the Office of Environmental Services shall provide environmental approval or denial within ten (10) business days. The Department will not accept requests for review of sites before a Notice to Proceed is issued. Incomplete Survey Requests, surveys that are not conducted by a GDOT prequalified consultant, or surveys that do not meet the required level of field effort or documentation, will be denied by GDOT OES and may require resubmittal.

The Engineer will inform the Contractor in writing as to the approval or denial of environmental clearance. Approvals may be provided upon condition that an Environmentally Sensitive Area (ESA) be designated within or adjacent to the site prior to use. All ESA stipulations shall be adhered to in accordance with Standard Specification 107.23.F. If a site is denied, the Contractor may, at no expense to the Department, seek to obtain permits or pursue other remedies that might otherwise render the site(s) acceptable, if available. Any and all changes to proposed sites or their associated haul roads that are not included within the original Environmental Survey Request or Environmental Survey Results Memorandum, including expansion,

utilization for purposes other than those indicated in the original submittal, etc. must be submitted for further environmental review and approval prior to use.

Sites included in the Plans have environmental clearance and shall be used only for the purpose(s) specified in the Plans or other contract documents. Should the Contractor wish to expand or utilize said sites for any purpose other than that provided for in the Plans or other contract documents, specific written environmental clearance as noted above shall be obtained.

D. Control of Pollutants

Pollutants or potentially hazardous materials, such as fuels, lubricants, lead paint, chemicals or batteries, shall be transported, stored, and used in a manner to prevent leakage or spillage into the environment. The Contractor shall also be responsible for proper and legal disposal of all such materials.

Equipment, especially concrete or asphalt trucks, shall not be washed or cleaned-out on the Project except in areas where unused product contaminants can be prevented from entering waterways.

E. Temporary Work in Wetlands Outside of the Construction Limits within the Right-of-Way and Easement Areas

Temporary work in wetlands (that are not delineated with orange barrier fence) will be subject to the following requirements:

1. Temporary work in wetlands shall be accomplished by using temporary structures, timber, concrete, soil with geotextile fabric, or other suitable matting. The area shall not be grubbed.
2. Soil matting shall be protected from erosion in accordance with the Specifications.
3. Whenever temporary work is required in Saltwater Marsh Wetlands, all temporary structures and/or matting shall be removed in their entirety prior to Final Acceptance of the Project. Matted and compressed soils shall be backfilled to their original ground elevation with material meeting the requirements of Section 212 – Granular Embankment.
4. Whenever temporary work is required in Freshwater Wetlands, all temporary structures and/or matting (exclusive of soil matting to be retained in the final roadway section) shall be removed in their entirety prior to Final Acceptance of the Project.
Once the temporary materials have been removed, the area shall be covered by Excelsior or Straw blankets according to Section 713 of the Specifications. The grassing and ground preparation referenced in Subsection 713.3.03, "Preparation", will not be applicable to this Work.
5. The Engineer shall be notified so that a field inspection may be conducted to certify that the temporary materials were properly removed and that the area was properly restored. The Contractor shall be responsible for any corrective action required to complete this Work.
6. There will be no separate measurement or payment for this Work. The cost associated with this work shall be included in the overall Bid submitted.

F. Environmentally Sensitive Areas

Some archaeological sites, historic sites, wetlands, streams, stream and pond buffers, open waters and protected animal and plant species habitat within the existing/required Right-of-Way and easement areas may be designated as ENVIRONMENTALLY SENSITIVE AREAS (ESAs). These areas are shown on the applicable Plan sheets and labeled "ESA" (e.g. ESA – Historical Boundary, ESA – Wetland Boundary). The Department may require that some ESAs or portions thereof be delineated with orange barrier fence. The Contractor shall install, maintain, and replace as necessary orange barrier fence at ESAs as delineated in the Plan sheets.

The Contractor shall not enter, disturb, or perform any construction related activities, other than those shown on the approved plan sheets within areas designated as ESAs including ESAs or portions thereof not delineated with orange barrier fence. This includes but is not limited to the following construction activities: clearing and grubbing; borrowing; wasting; grading; filling; staging/stockpiling; vehicular use and parking;

sediment basin placement; trailer placement; and equipment cleaning and storage. Also, all archaeological sites, historic sites, wetlands, streams, stream and pond buffers, open waters, and protected animal and plant species habitat that extend beyond the limits of existing/required Right-of- Way and easement areas shall be considered ESAs and the Contractor shall not perform any construction related activities (such as those listed above) within these areas or make agreements with property owners to occupy these areas for construction related activities (such as those listed above). The Contractor shall make all construction employees aware of the location(s) of each ESA and the requirement to not enter or otherwise disturb these areas.

If the Contractor is found to have entered an ESA, either within or outside the project area, for any purpose not specifically shown on the approved plan sheets, the Department may, at its discretion, issue a stop work order for all activities on the project except erosion control and traffic control until such time as all equipment and other items are removed and the ESA is restored to its original condition.

However, should damage to an ESA occur as a result of the Contractor's action in violation of this section, and notwithstanding any subsequent correction by the Contractor, the Contractor shall be liable for any cost arising from such action, including but not limited to, the cost of repair, remediation of any fines, or mitigation fees assessed against the Department by another government entity.

G. Protection of Migratory Birds and Bats

The following conditions are intended as a minimum to protect migratory birds and bats during construction activities.

1. Project personnel shall be advised about the potential presence and appearance of federally protected migratory birds, including the barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), and eastern phoebe (*Sayornis phoebe*), and that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting these species in violation of the Migratory Bird Treaty Act of 1918. The law protects adults, fledglings, nestlings, eggs, and active nests. All bats are protected under Georgia state law (Official Code of Georgia § 27-1-28), with some species protected under the federal Endangered Species Act of 1973. Pictures and habitat information shall be posted in a conspicuous location in the Project field office until such time that construction has been completed and time charges have stopped.
2. The demolition of existing bridge and culvert, the extension of existing culvert, and bridge maintenance activities on the underside of the bridge deck shall take place outside of the breeding and nesting season of phoebes, swallows and other migratory birds, which begins April 1 and extends through August 31, unless exclusionary barriers are put in place to prevent birds from nesting. For bridges, exclusionary barriers may be made of plastic, canvas or other materials proposed by the Contractor and approved by the State Environmental Administrator prior to installation. For box culverts, exclusionary barriers may be overlapping strips of flexible plastic (also called "PVC Strip Doors" or "Strip Curtains") or an alternate material proposed by the Contractor and approved by the State Environmental Administrator prior to installation. Exclusionary barriers must be installed on the bridge(s) and/or box culvert(s) prior to March 1 or after August 31, but in no time in between this period. Exclusionary barriers are not a guaranteed method of preventing migratory birds from nesting beneath bridges and work schedules shall take into account the possibility that barriers will not be successful. If exclusionary barriers are to be used, these steps shall be followed:
 - a. The Project ecologist shall be notified by phone (404) 631-1100 of the decision to install exclusionary barriers and the date of the proposed installation prior to the installation of any exclusionary devices.
 - b. The structure(s) shall be checked for nests prior to the placement of exclusionary barriers. If nests are present, they shall be inspected to ensure that eggs or birds are not present. If the nests are found to be occupied, construction activities associated with the bridge shall be postponed until after August 31 when the breeding season is complete.

- c. For any box culvert(s) being replaced, exclusionary barriers shall be installed on both the inlet and outlet openings. For any box culvert(s) being extended, exclusionary barriers shall be placed on the opening(s) (inlet and/or outlet) where work is taking place. For bridge(s) being removed, barriers shall be installed along the full length of the bridge(s). In all cases, barriers shall be installed prior to March 1 and left in place until August 31 or until the culvert removal, culvert extension, or bridge demolition is complete. If the exclusionary barriers fail to prevent nesting (i.e., birds are able to bypass barriers and build nests), construction activities associated with the bridge shall be postponed until after August 31.
 - d. During construction activities, exclusionary barriers shall be inspected daily for holes or other defects that impair its ability to exclude migratory birds from nesting beneath the bridge. Any holes or defects shall be repaired immediately.
 - e. Entanglement and/or entrapment of barn swallows, cliff swallows, and eastern phoebes in exclusionary netting constitutes harm to migratory birds. Any entanglement and/or entrapment of migratory birds shall be reported immediately to the Project Engineer, who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101.
3. Migratory birds may nest in other structures or natural features that will be impacted by construction activities. If active nests containing eggs are encountered within the footprint of construction activities, the finding shall be reported immediately to the Project Engineer, who in turn shall notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101. All activity within 50 feet of active nests shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and the lead Federal Agency.
 4. When working on bridges and culverts, sightings of bat species shall be reported immediately to the Project Engineer who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101. All construction activity on the structure shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and/or the Georgia Department of Natural Resources and/or the lead Federal Agency. The Department will inform the Contractor of any changes to the project.
 5. In the event any incident occurs that causes harm or injury to migratory birds during construction activities, the incident shall be reported immediately to the Project Engineer who in turn shall notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101. All activity shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and the lead Federal Agency.
 6. Within 30 days of the completion of construction and the stopping of time charges, a report shall be provided to the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services, 600 West Peachtree Street NW, Atlanta, Georgia 30308. GDOT in turn will provide copies of the report to the U.S. Fish and Wildlife Service, the Georgia Department of Natural Resources Wildlife Resources Division, and the lead Federal Agency. The following information will be included in the report:
 - a. Contractor name and address.
 - b. Name and title of report preparer.
 - c. GDOT Project Identification (PI) number.
 - d. County(s) in which project is located.
 - e. Project description.

- f. Construction start and end dates.
 - g. Date GDOT was notified of intent to install barrier(s) per # 107.23G.2.a.
 - h. Number and type(s) of structures on which exclusion barriers were installed.
 - i. Type(s) of exclusion material used on each structure.
 - j. Start and end date(s) of installation of exclusionary barrier on each structure.
 - k. Start and end date(s) of removal of exclusionary barrier from each structure.
 - l. Photographs of each structure before and after exclusionary barrier installation.
 - m. Statement regarding whether the exclusionary barrier was effective in deterring bird use of the structure during construction.
 - n. Description of any incidents causing harm or injury to migratory birds during construction. This should include incidents that were reported as required under 107.23G.5.
 - o. Description of any sightings of bat species when working on bridges and culverts. This should include incidents that were reported as required under 107.23G.4.
7. All costs pertaining to any requirement contained herein shall be included in the overall bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

107.24 Closing of Roadways without On-Site Detours

When existing roadways are to be closed to through traffic and on-site detours are not provided, the Contractor shall submit a written notice to the Engineer for approval 14 days prior to the closure of the existing roadways.

After receiving approval from the Engineer for the closure, the Contractor shall install signs at each closure site, in accordance with the MUTCD, to inform the traveling public of the proposed closure, including the date of closure. The sign shall be placed 5 days prior to the closure, at the direction of the Engineer.

Prior to the closure, the Area Engineer will inform local government officials and agencies, local news media, and the DOT Public Information Office of the proposed closure of the roadways.

107.25 Disruption to Residential and Commercial Property

The Contractor shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a practical minimum.

All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of each drainage structure or section of curb and gutter, sidewalk, or driveway shall be accomplished as soon as adequate strength is obtained. Finishing, dressing and grassing shall be accomplished immediately thereafter as a continuous operation within each area being constructed with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.

Handwork, including raking and smoothing, shall be required to ensure that roots, sticks, rocks, and other debris is removed in order to provide a neat and pleasing appearance. Grassing, when in season, shall immediately follow in order to establish permanent cover at the earliest date. If grassing is not in season, proper erosion control shall be installed and maintained.

The work described herein shall be in addition to that required by Subsection 104.07 "Final Cleaning Up" and Subsection 105.16 "Final Inspection and Acceptance."

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

SPECIAL PROVISION

Section 107 – Legal Regulations and Responsibility to the Public

Retain Section 107.23 A and add the following:

107.23 Environmental Considerations

A. Construction

For plan sets that include an Environmental Resources Impacts Table in the General Notes section, the Contractor shall abide by all restrictions noted in the Environmental Resources Impact Table.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SPECIAL PROVISION

Section 150—Traffic Control

150.1 General Description

This section, as supplemented by the Plans, Specifications, and Manual on Uniform Traffic Control Devices (MUTCD) shall be considered the Temporary Traffic Control (TTC) Plan in accordance with Work Zone Safety and Mobility Policy. Activities shall consist of furnishing, installing, maintaining, and removing necessary traffic signs, pedestrian signs, barricades, lights, signals, cones, pavement markings and other traffic control devices and shall include flagging and other means for guidance and protection of vehicular and pedestrian traffic through the Work Zone. This Work shall include both maintaining existing devices and installing additional devices as necessary in construction work zones.

The contractor shall be responsible for the maintenance of traffic signals and Advanced Traffic Management system (ATMs) devices from the time that the system is modified until final acceptance. The maintenance of traffic signals and ATMs devices that are not a part of the work and that are not in conflict with any portion of the work shall not be the responsibility of the contractor. However, the contractor is still responsible for damages to all devices that he or his subcontractors cause, in accordance with Section 107 and other specifications.

When any provisions of this Specification or the Plans do not meet the minimum requirements of the MUTCD, the MUTCD shall control. The 2009 Edition of the MUTCD shall be in effect for the duration of the project.

All traffic control devices used during the construction of the project shall meet the standards utilized in the MUTCD, and shall comply with the requirements of these Specifications, Georgia Construction Standards and Details, Project Plans, Design Manuals, and Special Provisions.

The needs and control of all road users (motorists, bicyclists and pedestrians within the highway right-of-way and easements, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA), Title II, Paragraph 35.130) through a Temporary Traffic Control (TTC) zone shall be an essential part of highway construction, utility work, maintenance operations and management of traffic incidents.

Utilities included in the contract are bounded by Special Provision 150 and shall follow its requirements. For utilities not included in the contract but working within the project limits, they shall, at a minimum follow the MUTCD. Moreover, in accordance with Utility Accommodation Policy and Standards Manual dated 2016, the Engineer reserves the right to require additional certified flaggers, signs, warning lights, channelization devices, and other safety devices as may be necessary to properly protect, warn, and safeguard the traveling public. In addition, the Department reserves the right to place time restrictions or moratoriums on all utility work covered under a permit when, in the opinion of the Department, the continuance of the Work would seriously hinder traffic flow, be needlessly disruptive, or would unnecessarily inconvenience the traveling public. In case of emergencies, Utilities shall be provided access in accordance with Utility Accommodation Policy and Standard Manual.

150.1.01 Definitions

For Special Provision 150, the definitions for “shall”, “should”, and “may” will be in accordance with MUTCD (1A.13).

Shall (Standard) - a statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device.

Should (Guidance) - a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate.

May (Option) — a statement of practice that is a permissive condition and carries no requirement or recommendation.

150.1.02 Content

150.1 General Description

150.1.01 Definitions

150.1.02 Content

150.1.03 Related References

- A. Standard Specification
- B. Reference Documents

150.1.04 Submittals/Preconstruction

- A. Worksite Traffic Control Supervisor
- B. Sequence of Operations
- C. Pedestrian Considerations
 - 1. Pedestrian Signage
 - 2. Temporary Pedestrian Facilities

150.2 Materials and Traffic Control Devices

150.2.01 Traffic Control Devices

- A. NCHRP 350 and MASH
- B. Approval
- C. Quality Guidelines for All Temporary Traffic Devices

150.2.02 Reflectorization Requirements

- A. Signs
- B. Channelization Devices

150.2.03 Arrow Panels

150.2.04 Channelization Devices

- A. General
- B. Drums
 - 1. Design
 - 2. Application
 - 3. Longitudinal Channelization
 - 4. Removal
- C. Vertical Panels
 - 1. Design

2. Application

D. Cones

- 1. Design
- 2. Applications

E. Barricades

- 1. Design
- 2. Application

F. Warning Lights

- 1. Design
- 2. Application

150.2.05 Flashing Beacon

150.2.06 Guardrail

150.2.07 Interim Signs

- A. Posts
- B. Sign Blanks and Panels

150.2.08 Pavement Markings

- A. All Traffic Striping for Forty-Five (45) Days or Less (≤ 45 Days)
- B. All Temporary Striping Beyond Forty-Five (45) days (> 45 Days)
- C. All Temporary Traffic Striping on Final Surface

150.2.09 Portable Changeable Message Signs

150.2.10 Portable Impact Attenuators

150.2.11 Portable Temporary Traffic Control Signals

150.2.12 Raised Pavement Markers

150.2.13 Rumble Strips

150.2.14 Temporary Barriers

- A. Design
- B. Application

150.2.15 Temporary Guardrail Anchorage- Type 12

150.2.16 Temporary Traffic Signal

150.3 Construction Requirements

150.3.01 General

- A. Implementation Requirements
- B. Maintenance of Traffic Control Devices

C. Traffic Interruption Restrictions

D. Work Zone Restrictions

1. Interstate

2. Non-Interstate Divided Highways

3. Non-Divided Highways

E. Work Zone Geometric Restrictions

F. Clear Zone

G. Milled Surface Restrictions

H. Construction Vehicle

I. Environmental Impacts

J. Existing Street Lights

K. Nighttime Work Lighting

L. Removal/Reinstallation of Miscellaneous Items

150.3.02 Personnel – Worker Safety Apparel

150.3.03 Signage – General

A. Signing Requirements of the Temporary Traffic Control (TTC) Plan

B. Conflicting or Non-Applicable Signs

C. Removal of Existing Signs and Supports

D. Interim Guide, Warning and Regulatory Signs

E. Existing Special Guide Signs

1. Special Guide Signs

2. Interim Special Guide Signs

3. Interim Overhead Guide Sign Structures

4. Permanent Special Guide Signs

F. Stop Sign Regulated Intersections

G. Low Shoulder Signage

1. Low Shoulder for Construction/Reconstruction/Resurfacing Projects

2. Shoulder Drop-Off for Construction/Reconstruction/Resurfacing Project

H. Bump Signage

I. Sign Visibility

150.3.04 Advance Warning Signs

A. Project Signs - All Type of Highways

1. State Routes

2. Interstate, Limited Access and Multilane Divided Highways

3. Ramp Work on Limited Access Highways

B. Highway Work Zone

1. No Reduction in the Existing Posted Speed Limit in Highway Work Zone

2. Reducing the Speed Limit in a Highway Work Zone

3. Variable Speed Limit Zones

C. Installation/Removal of Work Area Signage

150.3.05 Shoulder/Lane Closure

A. Approval/Restrictions

1. Closure Length
2. Duration

B. Shoulder Closure

C. Lane Closure

1. Advance Warning Signs
2. Transition Area – Taper
3. Activity Area
4. Termination Area

D. Removal of Lane Closures

E. Exit and Entrance Ramps

150.3.06 Traffic Pacing Method

A. Pacing Of Traffic

B. Methods of Signing For Traffic Pacing

150.3.07 Flagging Operation

A. Flaggers

B. Flagger Certification

C. Flagger Appearance and Equipment

D. Flagger Warning Signs

E. Pilot Vehicle Requirements

F. Automated Flagger Assistance Devices

G. Portable Temporary Traffic Control Signals

150.3.08 Traffic Signals

A. Responsibility/Cost

B. Law Enforcement Officer Requirement

150.3.09 Mobile Operations

150.3.10 Pavement Markings

A. General

1. Resurfacing Projects
2. Widening and Reconstruction Projects
3. New Location Construction Projects

B. Installation and Removal of Pavement Markings

1. Installation
2. Removal
3. Intermediate Surface
4. Final Surface
5. Pay Factor Reduction for Asphaltic Concrete Final Surfaces
6. Preparation and Planning for Traffic Shifts

C. Raised Pavement Markers

1. Supplementing Lane Lines
2. Supplementing Ramp Gore Lines
3. Other Lines

D. Exceptions for Interim Markings

1. Two-Lane, Two-Way Roadway
2. Multi-Lane Highway – with No Paved Shoulder(s) or Paved Shoulder(s) Four Feet or Less ($\leq 4'$)
3. Limited Access Roadways and Roadways with Paved Shoulder Greater than Four Feet ($>4'$)
4. Ramps for Multi-lane Divided Highways
5. Miscellaneous Pavement Markings

150.3.11 Differences in Elevation between Travel Lanes and Shoulders

A. Differences in Elevations

1. Difference of Two Inches ($\leq 2''$) or Less Between Adjacent Travel Lanes
2. Difference of Two Inches ($\leq 2''$) or Less Between Adjacent Travel Lane and Paved Shoulder
3. Difference of Greater Than Two Inches ($>2''$) is Permitted for Continuous Operations
4. Difference of Greater Than Two Inches ($>2''$) Between Travel Lanes and/or Shoulders for Non-Continuous Operations

B. Healed Section

C. Emergency Situations

D. Plating

E. Asphaltic Concrete Resurfacing Projects

1. Shoulder Construction Included as a Part of the Contract
2. Shoulder Construction Not Included as a Part of the Contract

150.3.12 Work Zone Law Enforcement

150.4 Measurement

150.4.01 Traffic Control Items

A. Traffic Control

B. Changeable Message Sign, Portable

C. Flashing Beacon Assembly

D. Pavement Markings

E. Portable Impact Attenuators

F. Signs

1. Interim Ground Mounted or Interim Overhead Special Guide Signs
2. Remove And Reset Existing Special Guide Signs, Ground Mount or Overhead
3. Modify Special Guide Signs, Ground Mount or Overhead

G. Temporary Audible Information Device

H. Temporary Barrier

I. Temporary Curb Cut Wheelchair Ramps

J. Temporary Guardrail Anchorage, Type 12

K. Temporary Walkways with Detectable Edging

L. Traffic Signal Installation - Temporary

M. Work Zone Law Enforcement

150.5 Payment

150.5.01 Enforcement and Adjustments

150.1.03 Related References

A. Standard Specifications

Section 104-Scope of Work

Section 105-Legal Regulations and Responsibility to the Public

Section 107-Legal Regulations and Responsibility to the Public

Section 108-Prosecution and Progress

Section 209-Subgrade Construction

Section 400-Hot Mix Asphaltic Concrete Construction

Section 441-Miscellaneous Concrete

Section 429-Rumble Strips

Section 620-Temporary Barrier

Section 632-Portable Changeable Message Signs

Section 641-Guardrail

Section 647-Traffic Signal Installation

Section 648-Traffic Impact Attenuator

Section 652-Painting Traffic Stripe

Section 653 – Thermoplastic Traffic Stripe

Section 654-Raised Pavement Markers

Section 656-Removal of Pavement Markings

Section 657 – Preformed Plastic Pavement Markings

Section 658 – Standard and Wet Weather Polyurea Traffic Stripe

Section 659 Hot Applied Preformed Plastic Pavement Markings

Section 911-Sign Posts

Section 912-Sign Blanks and Panels

Section 913 - Reflectorizing Materials

B. Referenced Documents

ASTM D4956-13 (Retro-reflectivity)

American Traffic Safety Services Association (ATSSA)

Construction Detail A-3 Curb Cut (Wheelchair) Ramps Concrete Sidewalk Details

Construction Detail A-4 Detectable Warning Surface Truncated Dome Size, Spacing and Alignment Requirements

Construction Detail T-3A (Type 7, 8, and 9 Square Tube Post Installation Detail)

GDOT Signing and Marking Design Guidelines

Georgia Standard 4000W “Lengths of Advancement, Clear Zone Distances, Fill Height Embankment”

Georgia Standard 4960 “Temporary Barrier (End Treatment Options)”

Georgia Standard 9102 “Traffic Control Detail for Lane Closure on Two-Lane Highway”

Georgia Standard 9106 “Traffic Control Detail for Lane Closure on Multi-Lane Divided Highway”

Georgia Standard 9107 “Traffic Control Detail for Lane Closure on Multi-Lane Undivided Highway”

Georgia Standard 9121 “Tapers, Signs, and Markings for Passing Lanes”

Manual for Assessing Safety Hardware (MASH)

Manual on Uniform Traffic Control Devices (MUTCD)

National Cooperative Highway Research Program (NCHRP) 350

National Safety Council

Quality Product List #29 (QPL-29) Reflective Sheeting

Quality Product List #34 (QPL-34) Work Zone Traffic Control Devices (Drums, Type III Barricades, Vertical Panels, and Portable Sign Systems)

Quality Product List #35 (QPL-35) Drive Type Galvanized Steel Sign Posts

Quality Product List #46 (QPL-46) Traffic Pavement Markings

Quality Product List #64 (QPL-64) Attenuator Units (Compression Crash Cushion) and Guardrail End Treatments

Quality Product List #76 (QPL-76) Raised Pavement Markers and Channel Markers

Quality Product List #79 (QPL -79) Portable Arrow Boards

Quality Product List #82 (QPL -82) “Portable Changeable Message Signs”

Utility Accommodation Policy and Standards Manual

Work Zone Safety and Mobility Policy

150.1.04 Submittals/Preconstruction

A. Worksite Traffic Control Supervisor

The Contractor shall designate a qualified individual as the Worksite Traffic Control Supervisor (WTCS). The WTCS shall be responsible for selecting, installing and maintaining all traffic control devices in accordance with the Plans, Specifications, Special Provisions and the MUTCD. The WTCS shall be currently certified by the American Traffic Safety Services Association (ATSSA) Work Site Traffic Supervisor Certification program or the National Safety Council Certification program. On-line classes will not be accepted.

The WTCS shall be available on a twenty-four (24) hour basis to perform his duties. If the work requires traffic control activities to be performed during the daylight and nighttime hours, it may be necessary for the Contractor to designate an alternate WTCS. An alternate WTCS must meet the same requirements and qualifications as the primary WTCS and be accepted by the Engineer prior to beginning any traffic control duties. The Worksite Traffic Control Supervisor's traffic control responsibilities shall have priority over all other assigned duties.

As the representative of the Contractor, the WTCS shall have full authority to act on behalf of the Contractor in administering the TTC Plan. The WTCS shall have appropriate training in safe traffic control practices in accordance with Part 6 of the MUTCD. In addition to the WTCS, all other individuals making decisions regarding traffic control shall meet the training requirements of the Part 6 of the MUTCD.

The Worksite Traffic Control Supervisor (WTCS) shall have a copy of Part 6 of the MUTCD and the Contract on the job site. Copies of the current MUTCD may be obtained from the FHWA web page at <http://mutcd.fhwa.dot.gov>.

The WTCS shall supervise the initial installation of traffic control devices. The Engineer, prior to the beginning of construction, will review the initial installation. Modifications to traffic control devices as required by sequence of operations or staged construction shall be reviewed by the WTCS.

Any work performed on the interstate or limited access highway right-of-way that requires traffic control shall be supervised by a submitted/approved certified Worksite Traffic Control Supervisor. No work requiring traffic control shall be performed unless the certified WTCS is on the worksite. Failure to maintain a Certified Worksite Traffic Control Supervisor on the work will be considered as non-performance under Subsection 150.5.01.

The WTCS or alternate WTCS shall be available on a full-time basis to maintain traffic control devices with access to all personnel, materials, and equipment necessary to respond effectively to an emergency situation within forty-five (45) minutes of notification of the emergency.

The WTCS shall perform inspections, at a minimum once a month, to ensure that traffic control is maintained. For all interstate and limited access highways, the WTCS shall perform, as a minimum, weekly traffic control inspections. The inspections will start with the installation of the advance warning signs and will stop when a maintenance acceptance is issued or when the punch list is completed.

An inspection shall include both daytime and nighttime reviews. The inspection shall be reported to the Engineer on a Traffic Control Inspection Report, (TC-1). Unless modified by the special conditions or by the Engineer, routine deficiencies shall be corrected within a twenty-four (24) hour period. Failure to comply with these provisions shall be grounds for dismissal from the duties of WTCS and/or removal of the WTCS from the project. Failure of the WTCS to execute his duties shall be considered as non-performance under Subsection 150.5.01.

TRAFFIC CONTROL INSPECTION REPORT (TC-1)

Project No.: _____ County: _____

Contractor: _____ Date: _____ Daytime: _____

Nighttime: _____

PURPOSE: To provide adequate warning, delineation, and channelization to assist in guiding road users in advance of and through the work zone by utilizing proper pavement markings, signs, and other MUTCD compliant devices.

RESPONSIBILITY: The Worksite Traffic Control Supervisor (WTCS) has the duty of ensuring that all traffic control devices are installed and maintained according to the requirements of the Traffic Control Plan.

DEFICIENCIES: Items noted below required corrective measures be performed with the next _____ hours/days.

<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>ACTION REQUIRED</u>

(use additional sheets if needed)

Signature: _____ WTCS or DOT performing inspection

DOT inspection presented to WTCS Date: _____ Time: _____

TO BE COMPLETED BY THE WTCS

The attached deficiencies were corrected by Date: _____ Time: _____

Signature _____ Return TC-1 to DOT inspector.

The WTCS certifies that all traffic control devices in use on the project are MASH/NCHRP 350 crashworthy compliant.

Traffic Control Checklist

Satisfactory Unsatisfactory Non-applicable

Signs

S

U

N

- Are the signs correctly installed?
- Signs are in place according to TTC plans. Signs are plumb and level. Signs are at the proper height.
- Are the signs visible and readable to the public both daytime and nighttime?
- Is retroreflectivity good?
- Are signs not in use including PCMS properly stored?

TTC Devices

S

U

N

- Are they MASH/NHCRP 350 approved? Do they meet MUTCD and Special Provision 150 requirements?
- Are they installed according to manufacture recommendation?
- Are they in acceptable/marginal condition? Are they stable? Is the retroreflectivity good?

Clear Zone

S

U

N

- Are all material and equipment stored beyond the clear zone?
- If stored in clear zone, are they protected by positive barrier?
- Are drop-off marked and healed according to Special Provision 150?

Positive Barriers

S

U

N

- Are the barriers in acceptable/marginal condition and FHWA approved?
- Are the barrier reflectors proper and in good condition?
- Do the barriers extend to the proper advancement length? Are the tapers according to GA Standards?

Attenuators and Guardrails

S

U

N

- Are the proper attenuators assemblies in use?
- Gating Is the recovery area free of debris and provide the necessary recovery area?
- Is the assembly in accordance with manufacture recommendation?
- Are the guardrails properly anchor and/or attached to the barrier?
- Are shoes and transition sections in accordance with Standards?

Pavement Markings

S

U

N

- Are the pavement markings visible and legible?
- Can they be seen during the daytime and nighttime?
- Are there no conflicting pavement markings?
- Are the pavement markings including RPM installed and maintained according to section 150?

The Engineer will periodically review the work for compliance with the requirements of the TTC plan.

On projects where traffic control duties will not require full time WCTS supervision, the Engineer may allow the Contractor's Project superintendent, foreman, subcontractor, or other designated personnel to serve as the WTCS as long as satisfactory results are obtained. Nevertheless, the individual shall meet the requirements and perform the duties of a WTCS.

B. Sequence of Operations

Any Sequence of Operations provided in this Contract in conjunction with any staging details which may be shown in the plans, is a suggested sequence for performing the Work. It is intended as a general staging plan for the orderly execution of the work while minimizing the impact on pedestrian facilities, mainline, cross-streets and side streets. The Contractor shall develop detailed staging and temporary traffic control plans for performing specific areas of the Work including but not limited to all traffic shifts, detours, bridge widenings, paces, or other activities that disrupt traffic or pedestrian flow. The Engineer may require detailed staging and TTC plans for lane closures or disruption to pedestrian facilities. These plans shall be submitted for approval at least two (2) weeks prior to the scheduled date of the activity. Activities that have not been approved at least seven (7) days prior to the scheduled date shall be rescheduled.

Where traffic is permitted through the work area under stage construction, the Contractor may choose to construct, at no additional expense to the Department, temporary on-site bypasses or detours in order to expedite the work. Plans for such temporary bypasses or detours shall be submitted to the Engineer for review and approval thirty (30) calendar days prior to the proposed construction. Such bypasses or detours shall be removed promptly when in the opinion of the Engineer; they are no longer necessary for the satisfactory progress of the Work. Bypasses and detours shall meet the minimum requirements of Subsection 150.3.01.D.

As an option to the Sequence of Operations in the Contract, the Contractor may submit an alternative Sequence of Operations for review and approval. Alternate Sequence of Operations for pedestrian facilities shall be in compliance with the MUTCD and ADA. Pedestrian needs identified in the preconstruction phase shall be included in the proposed alternate plan.

The Department will not pay, or in any way, reimburse the Contractor for claims arising from the Contractor's inability to perform the Work in accordance with the Sequence of Operations provided in the Contract or from an approved Contractor alternate.

The Contractor shall secure the Engineer's approval of the Contractor's proposed plan of operation, sequence of work and methods of providing for the safe passage of vehicular and pedestrian traffic before it is placed in operation. The proposed plan of operation shall supplement the approved traffic control plan. Any major changes to the approved TTC plan, proposed by the Contractor, shall be submitted to the Department for approval.

Some additional traffic control details will be required prior to any major shifts or changes in traffic. The traffic control details shall include, but not be limited to, the following:

1. A detailed drawing showing traffic locations and lanes for each step of the change.
2. The location, size, and message of all signs required by the MUTCD, Plan, Special Provisions, and other signs as required to fit conditions. Any portable changeable message signs used shall be included in the details.
3. The method to be used in, and the limits of, the obliteration of conflicting lines and markings.
4. Type, location, and extent of new lines and markings.
5. Horizontal and vertical alignment and superelevation rates for detours, including cross-section and profile grades along each edge of existing pavement.
6. Drainage details for temporary and permanent alignments.
7. Location, length, and/or spacing of channelization and protective devices (temporary barrier, guardrail, barricades, etc.)

8. Starting time, duration and date of planned change.
9. For each traffic shift, a paving plan, erection plan, or work site plan, as appropriate, detailing workforce, materials, and equipment necessary to accomplish the proposed work. This will be the minimum resource allocation required in order to start the work.

A minimum of three (3) copies of the above details shall be submitted to the Engineer for approval at least fourteen (14) days prior to the anticipated traffic shift. The Contractor shall have traffic control details for a traffic shift which has been approved by the Engineer prior to commencement of the physical shift. All preparatory work relative to the traffic shift, which does not interfere with traffic, shall be accomplished prior to the designated starting time. The Engineer and the Contractor's representative will verify that all conditions have been met prior to the Contractor obtaining materials for the actual traffic shift.

C. Pedestrian Considerations

All existing pedestrian facilities, including access to transit stops, shall be maintained. Where pedestrian routes are closed, alternate routes shall be provided. Closures of existing, interim and final pedestrian facilities shall have the prior written approval of the Engineer. When existing pedestrian facilities are disrupted, closed or relocated in a TTC zone, the temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility. Pedestrian facilities are considered improvements and provisions made to accommodate or encourage walking. Whenever a sidewalk is to be closed, the Engineer shall notify the maintaining agency two (2) weeks prior to the closure. Prior to closure, detectable barriers (that are detectable by a person with a visual disability traveling with the aid of a long cane), as described by the MUTCD, shall be placed across the full width of the closed sidewalk. Barriers and channelizing devices used along a temporary pedestrian route shall be in compliance with the MUTCD.

Temporary Traffic Control devices used to delineate a Temporary Traffic Control Zone Pedestrian Walkway shall be in compliance with Subsection 150.3.01.A. Appropriate signs as described in the MUTCD shall be maintained to allow safe passage of pedestrian traffic or to advise pedestrians of walkway closures (Refer to MUTCD Figures TA-28 and TA-29 for guidance). Advance closure signing should be placed at intersections rather than midblock locations so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing. Temporary Traffic Control devices and construction material shall not intrude into the usable width of the pedestrian walkway. Signs and other devices shall be placed such that they do not narrow or restrict any pedestrian passage to less than forty-eight inches ($\geq 48''$).

1. Pedestrian Signage

A pedestrian walkway shall not be severed or relocated for non-construction activities, such as parking for construction vehicles and equipment. Movement by construction vehicles and equipment across designated pedestrian walkways should be minimized. When necessary, construction activities shall be controlled by flaggers. Pedestrian walkways shall be kept free of mud, loose gravel or other debris.

When temporary covered walkways are used, they shall be lighted during nighttime hours. When temporary traffic barrier is used to separate pedestrian and vehicular traffic, the temporary barrier shall meet NCHRP-350 Test Level Three. The barrier ends shall be protected in accordance with Georgia Standard 4960. Curbing shall not be used as a substitute for temporary traffic barriers when temporary traffic barriers are required. Tape, rope or plastic chain strung between temporary traffic control devices are not considered as detectable and shall not be used as a control for pedestrian movements.

The WTCS shall inspect the activity area daily to ensure that effective pedestrian TTC is being maintained. The inspection of TTC for pedestrian traffic shall be included as part of the TC-1 report.

2. Temporary Pedestrian Facilities

Temporary pedestrian facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. The geometry, alignment and construction of the facility should meet the

applicable requirements of the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)”.

a. Temporary Walkways with Detectable Edging

A smooth, continuous hard surface (firm, stable and slip resistant) shall be provided throughout the entire length of the temporary pedestrian facility. Compacted soils, sand, crushed stone or asphaltic pavement millings shall not be used as a surface course for walkways.

Temporary walkways shall include detectable edging as defined in the MUTCD. When temporary traffic barrier is included as a pay item in the contract and where locations identified on the plans for positive protection will also allow them to serve as pedestrian detectable edging, payment will be made for the temporary traffic barrier in accordance with Section 620. No payment will be made for temporary walkways with Detectable Edging where existing pavements or existing edging (that meets the requirements of MUTCD) are utilized as temporary walkways. Payment for temporary detectable edging, including approved barriers and channelizing devices, installed on existing pavements shall be included in Traffic Control-Lump Sum.

Regardless of the materials used, temporary walkways shall be constructed with sufficient thickness and durability to withstand the intended use for the duration of the construction project. If concrete or asphalt is used as the surface course for the walkway, it shall be a minimum of one and one-half inches ($\geq 1\text{-}1/2''$) thick. Temporary walkways constructed across unimproved streets and drives shall be a minimum thickness of four inches ($\geq 4''$) for concrete and three inches ($\geq 3''$) for asphalt. Joints formed in concrete sidewalks shall be in accordance with Section 441. Concrete surfaces shall have a broom finish.

If plywood is used as a walkway, it must be a minimum of three quarters of an inch ($\geq 3/4''$) thick, pressure treated and supported with pressure treated longitudinal joists spaced a maximum of sixteen inches ($\leq 16''$) on center. The plywood shall be secured to the joist with galvanized nails or galvanized deck screws. Nails and screws shall be countersunk to prevent snagging or tripping the pedestrians. A slip resistant friction course shall be applied to any plywood surface that is used as a walkway. Any slip resistant material used shall have the prior written approval of the engineer.

The contractor may propose alternate types of Temporary Walkways provided that the contractor can document that the proposed walkway meets the requirements of the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)”. Alternate types of Temporary Walkways shall have the prior written approval of the engineer.

Temporary walkways shall be constructed and maintained so there are no abrupt changes in grade or terrain that could cause a tripping hazard or could be a barrier to wheelchair use. The contractor shall construct and maintain the walkway to ensure that joints in the walkway have a vertical difference in elevation of no more than one quarter ($\leq 1/4''$) of an inch and that the horizontal joints have gaps no greater than one half ($\leq 1/2''$) of an inch. The grade of the temporary walkway should parallel the grade of the existing walkway or roadway and the cross slope should be no greater than two percent ($\leq 2\%$).

A width of sixty inches (60”), if practical, should be provided throughout the entire length of any temporary walkway. The temporary walkway shall be a minimum width of forty eight inches (48”). When it is not possible to maintain a minimum width of sixty inches (60”) throughout the entire length of temporary walkway, a sixty inch (60”) by sixty inch (60”) passing space should be provided at least every two hundred feet (200 ft.), to allow individuals in wheelchairs to pass.

Temporary walkways shall be constructed on firm subgrade. Compact the subgrade according to Section 209. Furnish and install any needed temporary pipes prior to constructing any walkway to ensure positive drainage away from or beneath the temporary walkway. Once the walkway is no longer required, remove any temporary materials and restore the area to the original conditions or as shown in the plans.

b. Temporary Curb Cut Wheelchair Ramps

Temporary curb cut wheelchair ramps shall be constructed in accordance with Section 441 and Construction Detail A-3 Curb Cut (Wheelchair) Ramps Concrete Sidewalk Details. Ramps shall also include a detectable

warning surface in accordance with Construction Detail A-4 Detectable Warning Surface Truncated Dome Size, Spacing and Alignment Requirements. Other types of material for the construction of the temporary curb cut wheelchair ramps, including the detectable warning surface, may be used provided the contractor can provide documentation that the material to be used meets the requirements of the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)”. When a wheelchair ramp is no longer required, remove the temporary materials and restore the area to existing conditions or as shown in the plans. For the items required to restore the area to original conditions or as shown in the plans, measures for payment shall be covered by contract pay items. If pay items are not included in the contract, then payment for these items shall be included in Traffic Control-Lump Sum.

c. Temporary Audible Information Device

Temporary audible information devices, when shown in the plans, shall be installed in compliance with the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)”. The devices shall be installed in accordance with the manufacturer’s recommendations. Prior to installation, the contractor shall provide the engineer with a set of manufacturer’s drawings detailing the proper installation procedures for each device. When no longer required, the devices shall remain the property of the contractor.

150.2 Materials and Traffic Control Devices

150.2.01 Traffic Control Devices

A. NCHRP 350 and MASH

All devices shall be certified in accordance with the Manual for Assessing Safety Hardware (MASH) Test Level 3 and/or the National Cooperative Highway Research Program (NCHRP) 350 Test Level 3 as applicable unless modified by this Special Provision. In addition, temporary work zone devices, including portable barriers, manufactured after December 31, 2019, must have been successfully tested under 2016 edition of MASH requirements. Such devices manufactured on or before this date, and successfully tested under either NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

B. Approval

All traffic control devices with applicable Qualified Products List (QPL) categories shall come from the appropriate QPL list. Products not on the QPL may be used with an approval letter from the Georgia Department of Transportation Office of Materials and Testing. If there are no applicable QPL, the Contractor shall provide proof of MASH/NCHRP 350 certification. The proof may be a letter or written statement from the manufacturer that the product is MASH/NCHRP 350 approved. Decal certifications are not proof of certification and are not required.

C. Quality Guidelines for All Temporary Traffic Devices

All traffic control devices found to be unacceptable in accordance with the current ATSSA, “Quality Guidelines for Temporary Traffic Devices and Features” regardless of total numbers shall be replaced within twenty-four (24) hours unless stated otherwise in the specifications, in the contract, or as directed by the Engineer.

150.2.02 Retroreflectivity Requirements

A. Signs

Reflective sheeting should meet the requirements of Section 913 and QPL-29

All construction warning signs (black on fluorescent orange) shall meet the minimum reflectivity and color requirements of ASTM D4956 Type XI regardless of the mounting height. All other signs reflectorization shall be in accordance with the plans, contract, and “GDOT Signing and Marking Design Guidelines”.

B. Channelization Devices

Reflective sheeting should meet the requirements of Section 913 and QPL-29

All channelization devices (white/ fluorescent orange and white/red) shall meet the minimum retroreflectivity requirements of ASTM D4956 Type VI.

150.2.03 Arrow Panels

Arrow panel should meet the requirements for MUTCD (6F.61) and QPL-79.

Portable sequential arrow, sequential chevron, or flashing arrow panels shall be a minimum size of forty-eight inches (48”) high by ninety-six inches (96”) wide with not less than fifteen (15) lamps used for the arrow. The arrow shall occupy virtually the entire size of the arrow panel and shall have a minimum legibility distance of one (1) mile. The minimum legibility distance is the distance at which the arrow panel can be comprehended by an observer on a sunny day, or clear night. Arrow panels shall be equipped with automatic dimming features for use during hours of darkness. The arrow panels shall also meet the requirements for a Type C panel as shown in the MUTCD (6F.61). The sequential or flashing arrow panels shall not be used for lane closure on two-lane, two-way highways when traffic is restricted to one-lane operations in which case, appropriate signing, flaggers and when required, pilot vehicles will be deemed sufficient.

The arrow panels shall be placed on the shoulder at or near the point where the lane closing transition begins. The panels shall be mounted on a vehicle, trailer, or other suitable support. Vehicle mounted panels shall be provided with remote controls. Minimum mounting height shall be seven feet (7’) above the roadway to the bottom of the panel, except on vehicle mounted panels which should be as high as practical.

For emergency situations, arrow display panels that meet the MUTCD requirements for Type A or Type B panels may be used until Type C panels can be located and placed at the site. The use of Type A and Type B panels shall be held to the minimum length of time possible before having the Type C panel(s) in operation. The Engineer shall determine when conditions and circumstances are considered to be emergencies. The Contractor shall notify the Engineer, in writing, when any non-specification arrow display panel(s) is being used in the work.

150.2.04 Channelization Devices

A. General

Channelization shall clearly delineate the travel way through the work zone and alert drivers and pedestrians to conditions created by work activities in or near the travel way. Channelization shall be accordance with the plans, specifications, MUTCD, QPL-34, and the following requirements.

B. Drums

1. Design

Drums shall meet the minimum requirement of the MUTCD (6F.67). For all projects let **June** 2018 and afterward, drums shall have six inch (6”) wide stripes – white/fluorescent orange.

2. Application

Drums shall be used as the required channelizing device to delineate the full length of a lane closure, shift, or encroachment, except as modified by this Subsection.

3. Longitudinal Channelization

Drums shall be spaced as listed below for various roadside work conditions except as modified by Subsection 150.3.11. Spacing shall be used for situations meeting any of the conditions listed as follows:

- a. FORTY FOOT (40’) SPACING MAXIMUM

- For difference in elevation exceeding two inches ($> 2''$).
- For heeled sections no steeper than 4:1 as shown in Subsection 150.3.11, Detail 150-H..

b. EIGHTY FOOT (80') SPACING MAXIMUM

- For difference in elevation of two inches ($\leq 2''$) or less.
- Flush areas where equipment or workers are within ten feet ($\leq 10'$) of the travel lane.

c. 200 FOOT SPACING MAXIMUM: Where equipment or workers are more than ten feet ($> 10'$) from travel lane. Lateral offset clearance to be four feet (4') from the travel lane.

- For paved areas, eight feet ($> 8'$) or greater in width that are paved flush with a standard width travel lane.
- For disturbed shoulder areas not completed to typical section that are flush to the travel lane and considered a usable shoulder.

4. Removal of Drums

Drums may be removed after shoulders are completed to typical section and grassed. Guardrail and other safety devices shall be installed and appropriate signs advising of conditions such as soft or low shoulder shall be posted before the drums are removed.

C. Vertical Panels

1. Design

All vertical panels shall meet the minimum requirements of the MUTCD (6F.66). All vertical panels shall have a minimum of 270 square inches of retroreflective area facing the traffic and be a minimum thirty-six inches ($\geq 36''$) high. For all projects let **June** 2018 and afterward, the vertical panel shall be in addition a minimum eight inches ($\geq 8''$) wide with a stripe width of six inches (6") – white/fluorescent orange.

2. Application

Vertical panels with retroreflectivity less than type VI can only be used when traffic drums reduce the travel lane to less than ten feet ($\leq 10'$); vertical panels shall be used to restore the travel lane to ten feet ($\geq 10'$) or greater. No other application of vertical panels with retroreflectivity less than type VI will be permitted.

Vertical panels with a minimum type VI retroreflectivity and six inch (6") stripe may be used for longitudinal channelization in the activity zone where work takes place for short-term stationary lane closures and intermediate-term stationary lane closures. They can be used for lane closures lasting three (3) days and with Engineer approval up to seven (7) days. They shall not be used in the transition zone including the tapers and the tangent lengths between tapers.

D. Cones

1. Design:

All cones shall be a minimum of twenty-eight inches ($\geq 28''$) in height regardless of application and shall meet the requirements of the MUTCD (6F.64).

Retroreflectivity may be deleted from all cones.

2. Application

On interstate cones shall be prohibited. On all other routes cones may only be used for longitudinal channelization in the activity zone where work takes place for short-term stationary lane closures. They shall not be used in the

transition zone including the tapers and the tangent lengths between tapers. The use of cones for nighttime work will not be permitted. Cones shall not be stored or allowed to be visible on the worksite during nighttime.

Cones may be used for daytime flagging operations including tapers at flagging stations.

E. Barricades

1. Design

Type 3 barricades shall meet the minimum requirements of the MUTCD (6F.68). The Contractor has the option of choosing Type 3 barricades from the QPL-34 or the Contractor may utilize generic barricades that are approved by the Federal Highway Administration (FHWA). When barricades have been specifically crash tested with signs attached, the contractor has the responsibility to attach the signs as per the manufacturer's recommendations to ensure crashworthiness. If the barricades were not tested with the signs, crashworthy compliance may require that rigid signs be mounted separate from the Type 3 barricade.

The use of Type 1 and Type 2 barricades will not be permitted.

2. Application

Type 3 barricades shall be placed as required by the plans, the Standards, and as directed by the Engineer.

When a barricade is placed so that it is subject to side impact from a vehicle, a drum shall be placed at the side of the barricade to add target value to the barricade.

F. Warning Lights

1. Design

All warning lights shall meet the requirements of the MUTCD (6F.83).

2. Application:

- a. Type A low-intensity flashing lights shall be used as shown in the Plans, the Standards, and as directed by the Engineer.
- b. Type C Steady-Burn lights shall be used as shown in the Plans, the Standards, and as directed by the Engineer.

150.2.05 Flashing Beacon

The flashing beacon assembly, when specified, shall be used in conjunction with construction warning signs, regulatory, or guide signs to inform traffic of special road conditions which require additional driver attention. The flashing beacon assembly shall be installed in accordance with the requirements of Section 647.

150.2.06 Guardrail

Guardrail shall comply with Section 641 Guardrail and the guardrail standards.

When the removal and installation of guardrail is required, as a part of the work, the following time restrictions shall apply unless modified by the special conditions:

From the time that the existing guardrail or temporary positive barrier protection is removed, the Contractor has fourteen (14) days to install the new guardrail and anchors. During the interim, the location without guardrail shall be protected with drums spaced at a maximum spacing of twenty feet (20'). The guardrail blunt end is to be treated as a fix object and shall be projected. The maximum length of rail that can be removed at any time without being replaced with positive barrier protection is a total of 2000 linear feet of existing rail or the total length of one run of existing rail, whichever is less. Based on existing field conditions, the Engineer may review the work and require that the guardrail be installed earlier than the maximum time allowed.

The contractor shall install new guardrail, such that traffic exposure to fixed objects is minimized. Within the same workday, temporary attenuators, as defined in Subsection 150.2.10, should be installed on the approach to fixed objects that can't be protected with guardrail. Truck mounted attenuators may be used to shield exposed fixed objects for periods not to exceed fourteen (14) days. No separate payment will be made for truck mounted attenuators, attenuators, or other methods unless provided for in the contract.

When the roadway is open to traffic, guardrail panels shall be lapped to comply with the directional flow of traffic. Should the staging of the work require that the lap of the guardrail be changed, this work shall be completed before the roadway is opened to traffic. The work to change the lap of any guardrail shall be included in Traffic Control-Lump Sum.

The laps on anchors shall be in accordance with the manufacture's recommendations and installation instructions. As a result, a trailing anchor may be lapped opposing the flow of traffic.

Failure to comply with the above time and quantity restrictions shall be considered as non-compliance under Subsection 150.5.01.

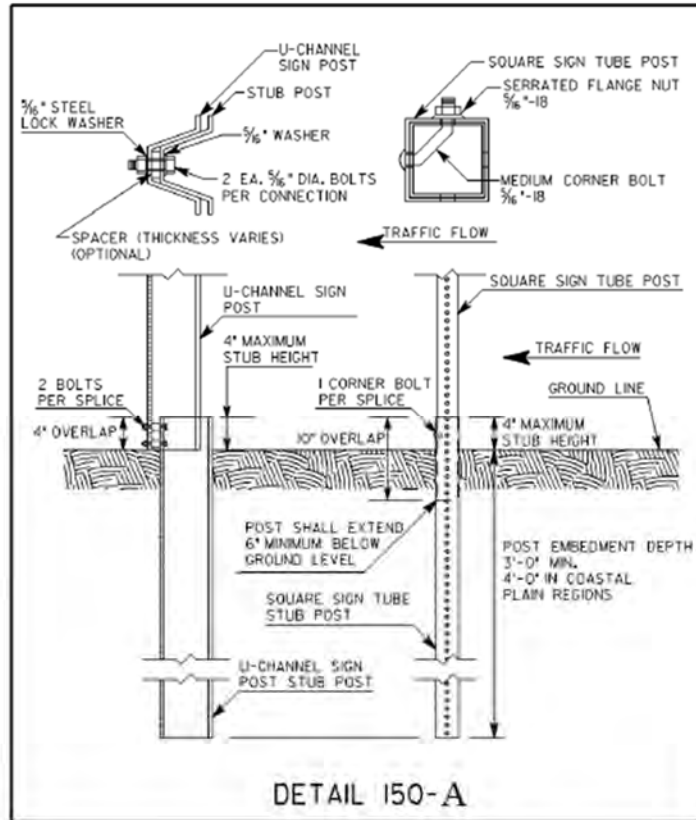
150.2.07 Interim Signs

A. Posts

Permanent mounting height to the bottom of sign shall be seven (7) feet – eight (8) feet measured vertically from the bottom of the sign to the elevation of the near edge of the pavement or from the walkway. Posts for all interim signs should be square tubular post meeting the requirements of Section 911, QPL-35, and Construction Detail T-3A (Type 7, 8, and 9 Square Tube Post Installation Detail). Ground mounted sign(s) greater than 48" wide shall be mounted on two posts. For barrier mounted sign, single post mount is allowed. The post(s) shall not extend beyond the top of the sign(s). The sign(s) shall be substantially plumbed and leveled.

Galvanized U-Channel post can be used in lieu of square tubular posts until December 31, 2019. The U-Channel post shall meet the requirements of Section 911. Ground mounted sign(s) greater than nine (9) square feet shall be mounted on two posts. All posts replaced or installed on or after January 01, 2020 shall be square tubular posts.

Unprotected interim posts shall be spliced as shown in Detail 150-A, unless full length unspliced posts are used. Unprotected post splices will not be permitted any higher than four inches above the ground line to lessen the possibility of affecting the undercarriage of a vehicle. Installation of posts may require establishment of openings in existing pavements, islands, shoulders etc.



B. Sign Blanks and Panels

All TTC sign blanks and panels should conform to Section 912 of the Specifications. Alternative sign blank materials (composites, polycarbonates, fiberglass reinforced plastics, recycled plastics, etc.) shall have a letter of approval from the Office of Materials and Testing for use as interim construction signs before these materials are allowed to be incorporated into the work, unless these rigid sign blanks are currently approved as a crashworthy sign blank material under QPL 34. Unless specified elsewhere in the contract, specifications, plans, and/or directed by the Engineer, sign sizes are according to the following:

1. All construction signs sizes should follow the dimensions provide in MUTCD Table 6F-1 “Temporary traffic Control Zone Sign and Plaque Sizes” under the column for “Freeway or Expressway”.
2. For all other signs used just for staging, the sign sizes should follow the dimensions provide in MUTCD Table 2B-1 “Regulatory Sign and Plaque Sizes” for the largest size.
3. Permanent signs used for staging shall be according to plans.

Plywood blanks or panels will not be permitted.

The use of flexible signs will not be permitted.

For utility work not included in the contract, the utility contractor may use flexible signs within the project limits.

150.2.08 Pavement Markings

All temporary traffic striping shall conform to the requirements of Section 652, Section 653, Section 657, Section 658, Section 659, and QPL-46.

A. All Traffic Striping for 45 Days or Less (≤ 45 Days)

All traffic striping that will be in place for 45 days or less shall be 4 inches or greater in width.

B. All Temporary Striping Beyond 45 days (>45 Days)

All traffic striping applied on intermediate surfaces shall be a minimum 5 inches in width or as shown on plans. On final surfaces when temporary striping will be overlaid or eradicated, the temporary striping shall be a minimum 5 inches in width.

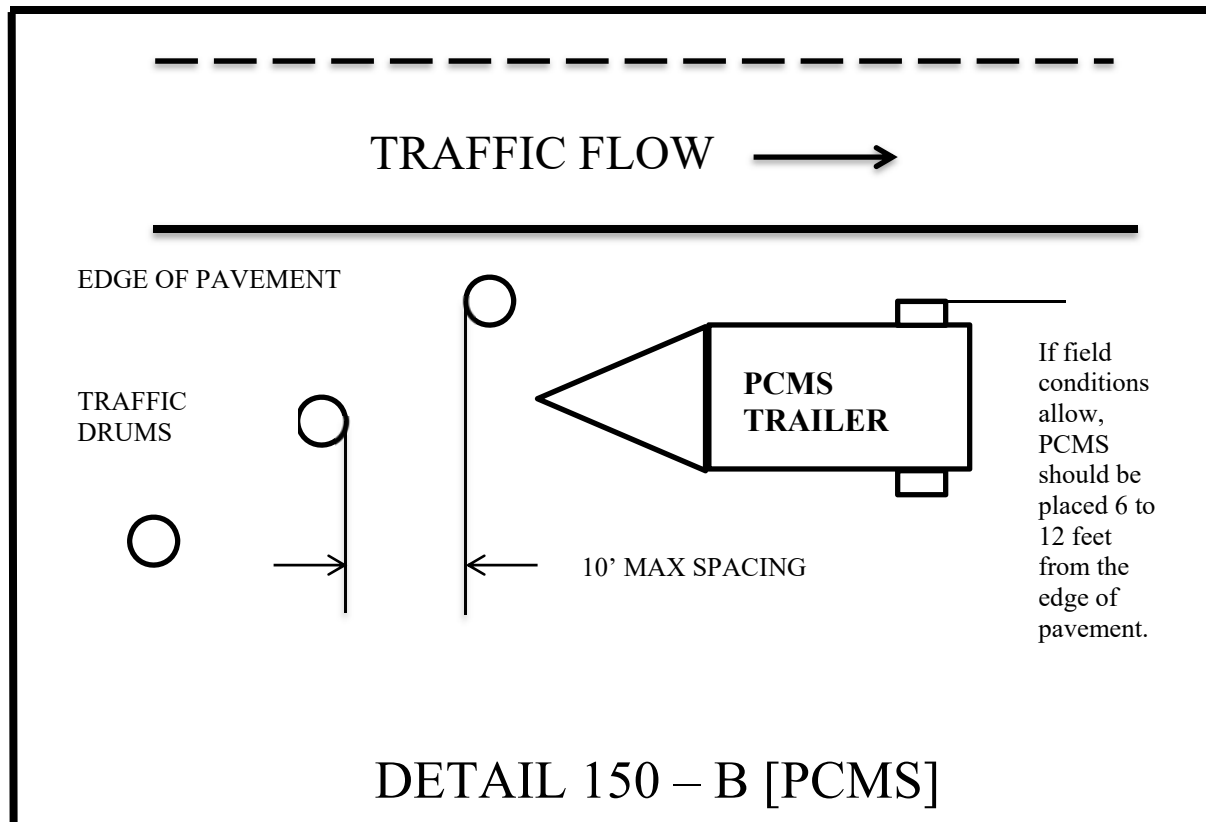
C. All Temporary Traffic Striping on Final Surface

All temporary traffic striping applied to final surfaces which will not be overlay or grinded may be 4 inches in width or as shown on the plans.

150.2.09 Portable Changeable Message Signs

Unless specified as a paid item in the contract, the use of a portable changeable message sign will not be required. When specified, a portable changeable message sign (PCMS) shall meet the minimum requirements of Section 632, MUTCD (6F.60) and be on QPL-82. The maximum amount of messages allowed to be flashed on one PCMS is two phases (flashes). The language and the timing of the messages shall comply with the MUTCD and Section 632. When used as an advanced device, the PCMS should typically be placed ahead of the construction activities. If the PCMS is used as a substitute for another device, then the requirements for the other device apply.

Any PCMS in use, which is not protected by positive barrier protection, shall be delineated by a minimum of three drums that meet the requirement of Subsection 150.2.04.B. The drum spacing shall not exceed a maximum of ten (10') feet as shown in Detail 150-B. When the PCMS is within twenty (20') feet of the opposing traffic flow, the trailing end of the PCMS shall be delineated with a minimum of three drums spaced in the same manner as the approach side of the PCMS.



When not in use, the PCMS shall be removed from the roadway, unless protected by positive barrier protection. If the PCMS is protected by positive barrier protection, the sign panel shall be turned away from traffic when not in use.

150.2.10 Portable Impact Attenuators

This work consists of the furnishing (including spare parts), installation, maintenance, relocation, reuse as required, and removal of Portable Impact Attenuator Units/Arrays.

Portable Impact Attenuator Unit/Arrays installation shall conform to the requirements of Section 648, Manufacturer's recommendations and Georgia Standard 4960 "Temporary Barrier (End Treatment Options)" and shall be installed at locations designated by the Engineer, and/or as shown on the plans. When gating attenuators are used, the contractor shall maintain the appropriate recovery area in accordance with the manufacturers' recommendations.

Generic sand/water loaded modules are prohibited. Manufacturers' sand/water loaded modules with specific arrays that have been NCHRP 350/MASH approved can be used in appropriate locations.

The test level of protection provided shall equal or exceed the speed limit. Test level 3 shall be used for forty-five (45) mph or above.

150.2.11 Portable Temporary Traffic Control Signals

The use of Portable Temporary Traffic Control Signals shall meet the following minimum requirements:

Only two-lane, two-way roadways will be allowed to utilize Portable Temporary Traffic Control Signals.

All portable traffic control signals shall meet the physical display and operational requirements of conventional traffic signals described in the MUTCD.

Each signal face shall have at least three lenses. The lenses shall be red, yellow, or green in color and shall give a circular type of indication. All lenses shall be twelve (12") inches nominal in diameter.

A minimum of two signal faces shall face each direction of traffic. A minimum of one signal head shall be suspended over the roadway travel lane in a manner that will allow the bottom of the signal head housing to be not less than seventeen (17') feet above and not more than nineteen (19') feet above the pavement grade at the center of the travel lane. The second signal head may be located over the travel lane with the same height requirements or the second signal head may be located on the shoulder. When the signal head is located on the shoulder, the bottom of the signal head housing shall be at least eight (8') feet but not more than (15') feet above the pavement grade at the center of highway.

Advance warning signage and appropriate pavement markings shall be installed as part of the temporary signal operation.

The signals shall be operated in a manner consistent with traffic requirements. The signals may be operated in timed-mode or in a vehicle-actuated mode. The signals shall be interconnected in a manner to ensure that conflicting movements cannot occur. To ensure that the appropriate operating pattern, including timing is displayed to the traveling public, regular inspections, including the use of accurate timing devices shall be made by the Worksite Traffic Control Supervisor. If, at any time, any part of the system fails to operate within these requirements then the use of the signal shall be suspended and the appropriate flagging operation shall begin immediately.

The Worksite Traffic Control Supervisor (WTCS) shall continuously monitor the portable traffic control signal to insure compliance with the requirements for maintenance under the MUTCD. The signal shall be maintained in a manner consistent with the intention of the MUTCD, with emphasis on cleaning of the optical system. Timing changes shall be made only by the WTCS. The WTCS shall keep a written record of all timing changes.

The portable temporary signal shall have two power sources and shall be capable of running for seven calendar days continuously.

The Contractor shall have an alternate temporary traffic control plan in the event of failure of the signal.

150.2.12 Raised Pavement Markers

Raised pavement markers (RPMs) shall meet the requirements of Section 654 and QPL-76.

150.2.13 Rumble Strips

Rumble strips incorporated into the work shall meet the requirements of Section 429 and the MUTCD. Existing rumble strips that are positioned in the traveled way to warn traffic of a stop condition shall be reinstalled prior to opening to traffic. Based on the following requirements:

Intermediate surfaces that will be in use for more than forty-five (45) calendar days shall have rumble strips reinstalled on the traveled way in the area of a stop condition. Non-refundable deductions in accordance with Subsection 150.5.01 will be assessed for any intermediate surface in place for greater than 45 days without rumble strips.

Rumble strips shall be installed on the final surface within fourteen (14) calendar days of the placement of the final surface in the area of the stop condition. Failure to install within fourteen (14) calendar days will result in assessment of non-refundable deductions in accordance with Subsection 150.5.01.

Prior to the removal of any rumble strips located in the travel lane, stop ahead (W3-1) warning signs shall be double indicated ahead of the stop condition. These warning signs shall be a minimum of 48 inches by 48 inches. These warning signs shall remain in place until the rumble strips have been reinstalled on the traveled way. Any existing warning signs for the stop ahead condition shall be removed or covered while the 48" X 48" (W3-1) signs are in place. When the rumble strips have been reinstalled, these warning signs should be promptly removed and any existing signage placed back in service.

150.2.14 Temporary Barriers

A. Design:

Temporary barriers shall meet the requirements of Sections 620. The lengths of advancement should be in accordance with Georgia Standard 4000W "Lengths of Advancement, Clear Zone Distances, and Fill Height Embankment". The

approach end of the taper should have 10:1 or flatter ground slope. Temporary barriers shall not be used as a channelization device. Their use is in accordance with MUTCD (6F.85).

B. Application:

Temporary barriers shall be placed as required by the plans, standards, and as directed by the Engineer. When Temporary barrier is located twenty feet ($\leq 20'$) or less from a travel lane, yellow reflectors shall be fixed to the top of the barrier at intervals not greater than forty feet ($\leq 40'$) in the longitudinal section and twenty feet ($20'$) in the taper section and shall be mounted approximately two inches ($2''$) above the barrier. If both lanes of a two-lane two-way roadway are within twenty feet ($\leq 20'$) or less of the barrier then the reflectors shall be installed for both directions of traffic.

The reflectors shall be hundred (100) square inches (ASTM Type VII or VIII/ Type XI) reflective sheeting mounted on flat-sheet blanks. The reflectors shall be mounted approximately two inches above the top of the barrier. The reflectors shall be attached to the barrier with adhesive or by a drilled-in anchor type device. The reflectors shall not be attached to a post or board that is placed between the gaps in the barrier sections.

Approach end of Temporary barrier shall be protected according to Georgia Standard 4960 “Temporary Barrier (End Treatment Options)” or by a portable impact attenuator.

On interstates or other controlled access highways where lane shifts or crossovers cause opposing traffic to be separated by less than forty feet ($<40'$), portable barrier should be used as a separator.

150.2.15 Temporary Guardrail Anchorage- Type 12

This work consists of the furnishing, installation, maintenance and removal of Temporary Guardrail Anchorage- Type 12 used for Portable Barrier or temporary guardrail end treatment. Materials used in the Temporary Guardrail Anchorage- Type 12 shall meet the requirements of Section 641 of the Specifications and current Georgia Standards and may be new or used. Materials salvaged from the Project, which meet the requirements of Standards, may be utilized if available. The use of any salvaged materials will require prior approval of the Engineer.

Installation of the Temporary Guardrail Anchorage- Type 12 shall conform to the requirements of the Plans, current Georgia Standards and Section 641 of the Specifications. Installation shall also include sufficient additional guardrail and appurtenances to effect the transition and connection to Temporary Concrete Barrier as required by the details in Georgia Standard 4960 “Temporary Barrier (End Treatment Options)”.

150.2.16 Temporary Traffic Signals

Temporary traffic signals shall meet the requirements of Section 647 and the MUTCD.

150.3 Construction Requirements

150.3.01 General

A. Implementation Requirements

No work shall be started on any project phase until the appropriate traffic control devices have been placed in accordance with the Project requirements. Changes to traffic flow shall not commence unless all labor, materials, and equipment necessary to make the changes are available on the Project.

When any shift or change is made to the location of traffic or to the flow patterns of traffic, including pedestrian traffic, the permanent safety features shall be installed and fully operational before making the change. If staging or site conditions prevent the installation of permanent features then the equivalent interim devices shall be utilized. This work shall also include any necessary removal and reinstallation of guardrail panels to achieve the required panel lap to accommodate the appropriate shift and traffic flow including the final traffic flow configuration. The cost of performing this work shall be included in Traffic Control-Lump Sum.

Any section of the work that is on a new location shall have all permanent safety features installed and fully operational before the work is opened to traffic. Safety features shall include, but are not limited to the following items:

- 1) Guardrails including anchors and delineation with properly lapped panels
- 2) Impact attenuators
- 3) Traffic signals
- 4) Warning devices
- 5) Pavement markings including words, symbols, stop bars, and crosswalks
- 6) Roadway signs including regulatory, warning, and guide

Outdoor lighting shall be considered as a safety feature for welcome centers, rest areas, and weigh station projects. For typical roadway type projects, new street lighting is not considered a safety feature, unless specifically noted in the plans or in the special conditions.

B. Maintenance of Traffic Control Devices

Traffic control devices shall be in acceptable condition when first erected on the project and shall be maintained in accordance with Section 104 throughout the construction period. All unacceptable traffic control devices shall be replaced within twenty-four (24) hours. When not in use, all traffic control devices shall be removed, placed or covered so as not to be visible to traffic. All construction warning signs shall be removed within seven (7) calendar days after time charges are stopped or pay items are complete. If traffic control devices are left in place for more than ten (10) calendar days after completion of the Work, the Department shall have the right to remove such devices, claim possession thereof, and deduct the cost of such removal from any monies due, or which may become due, the Contractor.

C. Traffic Interruption Restrictions

The Department reserves the right to restrict construction operations when, in the opinion of the Engineer, the continuance of the Work would seriously hinder traffic flow, be needlessly disruptive or unnecessarily inconvenience the traveling public. The Contractor shall suspend and/or reschedule any work when the Engineer deems that conditions are unfavorable for continuing the Work.

Advanced notification requirements to the Contractor to suspend work will be according to the events and the time restrictions outlined below:

Incident management - No advanced notice required

Threatening/Inclement weather – twenty-four (24) hours

Holiday, sporting events, unfavorable conditions - Three (3) calendar days

If the work is suspended, the Contractor may submit a request for additional contract time as allowed under Section 108. The Department will review the request and may grant additional contract time as justified by the impact to the Contractor's schedule. Compensation for loss of productivity, rescheduling of crews, rental of equipment or delays to the Contractor's schedule will not be considered for payment. Additional contract time will be the only consideration granted to the Contractor.

D. Work Zone Restrictions

1. Interstate

The Contractor should not simultaneously perform work on both the inside shoulder and outside shoulder on either direction of traffic flow when the Work is within 12 feet of the travel-way. Shoulders can be alternated if areas are separated by at least one-half mile of distance.

2. Non-Interstate Divided Highways

The Contractor should not simultaneously perform work on both the inside shoulder and outside shoulder on either direction of traffic flow when the Work is within 12 feet of the travel-way. Shoulders can be alternated if areas are separated by at least one-half mile distance in rural areas or at least 500 feet of distance in urban areas.

3. Non-Divided Highways

- a. The Contractor should not simultaneously perform work on opposite sides of the roadway when the work is within 12 feet of the travel-way. Shoulders can be alternated if areas are separated by at least one-half mile of distance in rural areas or at least 500 feet of distance in urban areas.
- b. On two-lane projects where full width sections of the existing subgrade, base or surfacing are to be removed, and new base, subgrade, or surfacing are to be constructed, the Contractor should maintain one-lane traffic through the construction area by removing and replacing the undesirable material for half the width of the existing roadway at a time. Replacement should be made such that paving is completed to the level of the existing pavement in the adjacent lane by the end of the workday or before opening all the roadway to traffic.

E. Work Zone Geometric Restrictions

There should be no reduction in the total number of available traffic lanes including turning lanes that existed prior to construction, except as specifically allowed by the Contract and as approved by the Engineer.

Travel lane Clearances: All portions of the work should maintain the following minimum requirements:

Horizontal: The combined dimensions of the paved shoulder and the roadway surface remaining outside the Work Zone should be no less than sixteen feet ($\geq 16'$) in width at any location.

Vertical: The overhead clearance should not be reduced to less than fifteen feet ($\geq 15'$) at any location.

The restrictions above apply to all shifts, lane closures, on-site detours and off-site detours whether shown in the contract or proposed by the Contractor. It shall be the responsibility of the Contractor to verify that these minimum requirements have been met before proceeding with any phase of the Work. Two-lane, two-way roadways may have temporary horizontal restrictions of less than sixteen feet ($\geq 16'$) during flagging operations. The minimum horizontal clearance should be restored before the flagging operation is removed.

F. Clear Zone

At the end of the workday, all equipment, materials, and TTC devices not in use should be moved out of the clear zone or behind positive protection. The clear zone is defined by Georgia Standard 4000W "Lengths of Advancement, Clear Zone Distances, Fill Height Embankment". For urban roadway with curb, the minimum set back is six (6') feet from the curb face. If stored behind positive protection, proper lengths of advancement should be maintained. If stored behind guardrail the items shall be a minimum five feet ($\geq 5'$) from the face of the guardrail and not in the recovery zone of the anchor.

The Worksite Traffic Control Supervisor (WTCS) shall monitor the work to ensure that all the rocks, boulders, construction debris, stockpiled materials, equipment, tools and other potential hazards are kept clear of the travel lane.

G. Milled Surface Restrictions

Unless modified by the special conditions, a milled surface on any asphaltic concrete surface shall not be allowed to remain open to traffic for a period of time that exceeds thirty (> 30) calendar days.

H. Construction Vehicles

The Contractor's vehicles shall travel in the direction of normal roadway traffic and shall not reverse direction except at intersections, interchanges, or approved temporary crossings. The Contractor may submit a plan requesting that construction traffic be allowed to travel in the opposite direction of normal traffic when it would be desirable to modify traffic patterns to accommodate specific construction activities.

Prior approval of the Engineer shall be obtained before any construction traffic is allowed to travel in a reverse direction. If the Contractor's submittal is approved, the construction traffic shall be separated from normal traffic by appropriate traffic control devices.

The parking of Contractor's and/or workers' personal vehicles within the work area or adjacent to traffic is prohibited. It shall be the responsibility of the Worksite Traffic Control Supervisor to ensure that any vehicle present at the worksite is necessary for the completion of the work.

I. Environmental Impacts

The Contractor shall ensure that dust, mud, and other debris from construction activities do not interfere with normal traffic operations or adjacent properties.

J. Existing Street Lights

Existing street lighting shall remain lighted as long as practical and until removal is approved by the Engineer.

K. Nighttime Work Lighting

Adequate temporary lighting shall be provided at all nighttime work sites where workers will be immediately adjacent to traffic.

L. Removal/Reinstallation of Miscellaneous Items

In the prosecution of the Work, if it becomes necessary to remove any existing signs, markers, guardrail, etc. not covered by specific pay item, they shall be removed, stored and reinstalled, when directed by the Engineer, to line and grade, and in the same condition as when removed.

150.3.02 Personnel – Worker Safety Apparel

In accordance with MUTCD (6D.03) all workers, within the right-of-way who are exposed either to traffic or to work vehicles and construction equipment within the TTC zone, shall wear high-visibility safety apparel that meets the Performance Class 2 or better.

150.3.03 Signage - General

A. Signing Requirements of the Temporary Traffic Control (TTC) Plan

When existing regulatory, warning or guide signs are required for proper traffic and pedestrian control, the Contractor shall maintain these signs in accordance with the temporary traffic control (TTC) plan. The Contractor shall review the status of all existing signs, interim signs added to the work, and permanent sign installations that are part of the work to eliminate any conflicting or non-applicable signage in the TTC Plan. The Contractor's review of all signs in the TTC Plan shall establish compliance with the requirements of the MUTCD and Section 150. Any conflicts shall be reported to the Engineer immediately and the WTCS shall take the necessary measures to eliminate the conflict.

The Contractor shall make every effort to eliminate the use of interim signs as soon as the Work allows for the installation of permanent signs.

All existing illuminated signs shall remain lighted and be maintained by the Contractor.

Existing street name signs shall be maintained at street intersections.

B. Conflicting or Non-Applicable Signs

Any sign(s) or portions of a sign(s) that are not applicable to the TTC plan shall be covered so as not to be visible to traffic or shall be removed from the roadway when not in use. The WTCS shall review all traffic shifts and changes in the traffic patterns to ensure that all conflicting signs have been removed. The review shall confirm that the highest priority signs have been installed and that signs of lesser significance are not interfering with the visibility of the high priority signs.

High priority signs include signs for road closures, shifts, detours, lane closures and curves. Any signs, such as speed zones and speed limits, passing zones, littering fines and litter pick up, that reference activities that are not applicable due to the presence of the Work shall be removed, stored and reinstalled when the Work is completed.

Failure to promptly eliminate conflicting or non-applicable signs shall be considered as non-performance under Subsection 150.5.01.

C. Removal of Existing Signs and Supports

The Contractor shall not remove any existing signs and supports without prior approval from the Engineer. All existing signs and supports which are to be removed shall be stored and protected if this material will be required later in the work as part of the TTC plan. If the signs are not to be utilized in the work then the signs will become the property of the Contractor unless otherwise specified in the contract documents.

D. Interim Guide, Warning and Regulatory Signs

Interim guide, warning, or regulatory signs required to direct traffic and pedestrians shall be furnished, installed, reused, and maintained by the Contractor in accordance with the MUTCD, the Plans, Special Provisions, Special Conditions, or as directed by the Engineer. These signs shall remain the property of the Contractor. When the signs are used for long-term stationary operations as defined MUTCD (6G.02), the bottom of all interim signs shall be mounted seven feet (7') to eight feet (8') above the level of the pavement edge or sidewalk. The signs offset should be six feet (6') to twelve feet (12') from the pavement edge or two feet ($\geq 2'$) minimum for sidewalks according to MUTCD (6F-1). Special Conditions under Subsection 150.6 may modify this requirement.

Portable signs may be used when the duration of the work is less than three (3) days or as allowed by the special conditions in Subsection 150.6. Portable signs shall be used for all punch list work. Portable interim signs shall be mounted a minimum of one foot ($\leq 1'$) above the level of the pavement edge for directional traffic of two (2) lanes or less and at seven feet (7') for directional traffic of three (3) or more lanes according to MUTCD (6F-2). Signs shall be mounted at the height recommended by the manufacturer's crashworthy testing requirements.

All sign blanks shall be rigid whether the sign is mounted as a portable sign, on a Type III barricade or as a permanent mount height sign. Utilities and their subcontractors working in the project limits, and not included in the project contract, may use non-rigid signs.

E. Existing Special Guide Signs

Existing special guide signs on the Project shall be maintained until conditions require a change in location or legend content. When change is required, existing signs shall be modified and continued in use if the required modification can be made within existing sign borders using design requirements (legend, letter size, spacing, border, etc.) equal to that of the existing signs, or of Subsection 150.3.E.2. Differing legend designs shall not be mixed in the same sign.

1. Special Guide Signs

Special guide signs are those expressway or freeway guide signs that are designed with message content (legend) that applies to a particular roadway location. When an existing special guide sign is in conflict with work to be performed, the Contractor shall remove the conflicting sign and reset it in a new, non-conflicting location which has been approved by the Engineer.

2. Interim Special Guide Signs

When it is not possible to utilize existing signs, either in place or relocated, the Contractor shall furnish, erect, maintain, modify, relocate, and remove new interim special guide signs in accordance with the Plans or as directed by the Engineer. Interim special guide signs that may be required in addition to, or a replacement for, existing expressway and freeway (interstate) signs shall be designed and fabricated in compliance with the minimum requirements for guide signing contained in Part 2E "Guide Signs – Freeway and Expressway" of the MUTCD. All interstate shields on these signs shall be 48 inches and 60 inches for two-numeral and three-numeral routes, respectively.

The road name of the exit or route shield shall be placed on the exit gore sign.

3. Interim Overhead Guide Sign Structures

Interim overhead special guide sign structures are not required to be lighted unless specifically required by the Plans. If lighting is required, the sign shall be lighted as soon as erected and shall remain lighted, during the hours of darkness, until the interim sign is no longer required. The Contractor shall notify the Power Company at least thirty (30) days prior to desire connection to the power source.

4. Permanent Special Guide Signs

The installation of new permanent special guide signs and the permanent modification or resetting of existing special guide signs, when included in the contract, shall be accomplished as soon as practical to minimize the use of interim special guide signs. If lighting is required by the Plans, all new permanent overhead special guide signs shall be lighted as soon as erected.

F. Stop Sign Regulated Intersections

For intersections that utilize stop sign(s) to control the flow of traffic and to restrict the movement of vehicles, the stop sign(s) shall be maintained for the duration of the work or until such time that the stop condition is eliminated or until an interim or permanent traffic signal can be installed to provide proper traffic control. The traffic signal shall be installed and properly functioning before the removal of the existing stop sign(s) is permitted. If the existing intersection is enhanced traffic control features, such as stop lines, double indicated stop signs, oversized signs, advanced warning stop ahead signs, rumble strips on the approaches or flashing beacons located overhead or on the shoulders then these features shall be maintained for the duration of the project or until the permanent traffic control plan has been implemented.

Whenever the staging of the work requires that the traveled way be relocated or realigned the Contractor shall reinstall all enhanced traffic control features noted above on the newly constructed sections of the work. The cost of relocating the stop lines, stop signs, advanced warning signs, the rumble strips and the flashing beacons shall be included in the price bid for Traffic Control - Lump Sum unless individual pay items are included in the contract for rumble strips and/or flashing beacons. When pay items are included in the contract for rumble strips or flashing beacons then these items will be paid per each.

When staging requires the relocation or realignment of an existing stop condition, it may be necessary to consider the addition of enhanced traffic control features even though none existed at the original location. Horizontal and vertical alignment changes at a new location may have decreased or restricted sight distance or the stop condition may occur sooner than in the previous alignment. If these conditions occur, then the Engineer and/or the WTCS should consider additional measures to enhance the motorist's awareness of the changes even though the staging plans may not address enhanced features. Stop signs should be a minimum of 36 inches for interim situations. The use of 48 inch stop signs may be warranted under project specific conditions. Flags may be used on interim/permanent stop signs that are mounted at seven (7') feet in height for a short duration in order to direct additional attention to a new or relocated stop sign(s). Flags should not be used for durations exceeding two weeks unless unusual or site specific conditions warrant a longer period of time. The use of Type "A" flashing red light(s) attached to the stop sign(s) may be appropriate during the same period that the flags are in use to increase attention.

The use of rumble strips and/or portable changeable message signs may be considered. The use of new rumble strips, where none previously existed, shall have the prior approval of District Traffic Operations before being included as part of the temporary traffic control plan. The message(s) displayed on any PCMS shall have the prior approval of the Engineer and the message(s) shall be included as part of the TTC plan for the interim staging.

The placement of any additional interim ground mounted signs and posts or stop lines shall be considered as incidental to the price bid for Traffic Control - Lump Sum. The installation of rumble strips, flashing beacons or the use of Portable Changeable Message Signs (PCMS) shall be considered as Extra Work unless pay items are included in the contract.

G. Low Shoulder Signage

1. Low Shoulder for Construction/Reconstruction/Resurfacing Projects

“Low Shoulder” (W8-9) signs shall be erected when a difference in elevation less than four (< 4’) feet from the traveled way, exceeds one inch (> 1”) but does not exceed three inches (≤ 3 ”) between the travel lane and any type of shoulder.

The spacing of the signs shall not exceed one (1) mile and the signs shall be placed immediately past each crossroad intersection. The “Low” signs shall remain in place until the difference in elevation is eliminated and the shoulder has been dressed and permanently grassed for a minimum of thirty (30) calendar days. These signs shall be furnished, installed, maintained and removed by the Contractor as part of Traffic Control-Lump Sum. These signs shall be fluorescent orange with black borders.

2. Shoulder Drop-Off for Construction/Reconstruction/Resurfacing Project

“Shoulder Drop-Off” (W8-17) signs shall be used when a difference in elevation, less than four feet (< 4’) from the traveled way, exceeds three inches (> 3”) and is not protected by positive barrier protection. These warning signs shall be placed in advance of the drop-off.

The spacing of the signs shall not exceed one (1) mile and the signs shall be placed immediately past each crossroad intersection. The “Shoulder Drop-Off” signs shall remain in place until the difference in elevation is eliminated and the shoulder has been dressed and permanently grassed for a minimum of thirty (30) calendar days. These signs shall be furnished, installed, maintained, and removed by the Contractor as part of Traffic Control-Lump Sum. These signs shall be black borders on fluorescent orange background.

H. Bump Signage

A bump sign (W8-1) shall be utilized when a transverse joint in the pavement structure has a vertical difference in elevation of three quarters ($\geq 3/4$ ”) of an inch or greater in depth with no horizontal taper to ramp the traffic from one elevation to the other. This condition typically occurs at approach slabs during pavement milling operations and at transverse joints in asphaltic pavement lifts. Other conditions include utility and storm drainage repairs that require concrete placement for patching and/or steel plating.

The W8-1 sign shall be placed sufficiently in advance to warn the motorist of the condition.

I. Sign Visibility

All existing, interim and new permanent signs shall be installed so as to be completely visible and legible for an advance distance in compliance with the MUTCD. Any clearing required for maintaining the line of sight to existing, interim or permanent signs shall be done as part of the requirements of the TTC plan. The clearing shall include any advance warning signs, both interim and permanent, that are installed as a part of the work including advance warning signs that are installed outside the limits of the project. Limbs, brush, construction equipment and materials shall be kept clear of the driver’s line of sight to all signs that are part of the TTC plan.

150.3.04 Advance Warning Signs

A. Project Signs - All Type of Highways

Advance warning signs shall be placed ahead of the work area in accordance with Part 6 of the MUTCD and shall include a series of at least three advance road work (W20-1) signs placed at the termini of the project. The series shall have the legend ROAD WORK (1500 FEET, 1000 FEET, AND 500 FEET).

At grade intersecting roadways and on-ramps shall be signed with a minimum of one ROAD WORK AHEAD sign.

When work terminates at a “T” intersection, a minimum of one “ROAD WORK AHEAD” sign shall be placed in advance of the intersection and one “END ROAD WORK” sign shall be placed at the termination end of the intersection. Field conditions may require the use of additional warning signage.

1. State Routes

Advanced Warning Signs on State Routes shall be a minimum dimension of forty-eight inches by forty-eight inches (48” x 48”). When a State Route intersects a project which consists of adding travel lanes, reconstructing an existing roadway or new location work, the State Route approaches shall have a minimum of three (W20-1) advanced warning

signs (1500 ft., 1000 ft., 500 ft.). The termination end of an intersecting State Route shall have END ROAD WORK signage.

The W20-1 signs shall be placed at the termini of the project or sufficiently in advance of the termini to allow for lane shifts, lane closures and other activities which may also require advanced warning signs. The advanced warning signs for the project should not overlap with the advanced warning signs for lane shifts, lane closures, etc.

The length of a work zone should be held to the minimum length required to accomplish the work. If a project has multiple individual worksites within the overall limits of the project, each site should be signed individually if the advance warning signs for each site can be installed without overlapping an adjacent worksite. As soon as the work is completed at any individual site, the warning signs shall be removed from that site. Clean-up work and punch list work shall be performed with portable signage.

Project mileage indicated on the G20-1 sign shall be the actual project mileage rounded up to the nearest whole mile. Projects less than two (< 2) miles in length or individual worksites that are part of a multiple worksite project may delete this sign. The G20-1 sign shall be forty-eight inches by twenty-four inches (48" x 24") and the G20-2 sign shall be forty-eight inches by twenty-four inches (48" x 24").

2. Interstate, Limited Access and Multilane Divided Highways

In addition to the W20-1 signs required at 500 ft., 1000 ft. and 1500 ft., multi-lane divided highways shall also have additional advanced warning signs installed with the legend "ROAD WORK (2 MILES, 1 MILE and 1/2 MILE). All construction warning signs on divided highways shall be double indicated (i.e., on the left and right sides of the roadway.) If the use of the half (1/2) mile, one (1) mile and two (2) mile advanced warning signs cause an overlap with other work or do not benefit field conditions then the Engineer may review the use of these signs and eliminate their installation. When the posted speed limit is fifty (≤ 50) mph or less, the one-half (1/2) mile, one (1) mile and two (2) mile signs should be eliminated especially in urban areas.

The W20-1 advance warning signs for ROAD WORK 500 FEET; 1000 FEET; and 1500 FEET shall be temporarily covered when work involving the advanced warning signs for lane shifts and lane closures overlap these signs. The ROAD WORK 1/2 MILE, ROAD WORK 1 MILE, and ROAD WORK 2 MILES shall be in place when the 500, 1000 and 1500 foot signs are temporarily covered.

When the temporary traffic control zone already has advanced warning (W20-1) signs installed the W20-1 signs required for lane closures under Standard 9106 should be eliminated.

3. Ramp Work on Limited Access Highways

The work zone shall not be signed for the entire length of the mainline of a limited access highway when only short individual worksites, interchange or ramp work is being performed.

When work is restricted to ramp reconstruction or widening activities, the advance warning signs on the mainline section of the limited access highway shall be limited to the use of portable advance warning signs. These portable advance warning signs shall only be utilized when work activity is within the gore point of the ramp and the mainline traveled way or work is active in the acceleration/deceleration lane adjacent to the mainline traveled way. Portable advance warning signs (W20-1: 1500 ft. /1000 ft. /500 ft.) shall be installed on the traveled way of the limited access highway when the above conditions are present. The advance warning signs shall be installed only in one direction where work is active. All portable signs shall be double indicated. When work is not active, the ramp work shall be advanced warned by the use of a single forty-eight inches by forty-eight inches (48" x 48") "ROAD WORK AHEAD" (W20-1) with an "ON RAMP" plaque (W13-4p) sign along the right shoulder of the mainline traveled way prior to the beginning of the taper for the deceleration lane. Differences in elevation shall be in compliance with the requirements of Subsection 150.3.11 prior to the removal of the portable (W20-1) advanced warning signs from the mainline.

B. Highway Work Zone

In accordance with Georgia Code, O.C.G.A. § 40-6-188, all sections or segments of the roadway under construction or reconstruction shall be signed as a Highway Work Zone except non-state highway two-lane two-way resurfacing projects.

Two conditions can be applied to a Highway Work Zone. Condition 1 is when no reduction in the existing speed limit is required. Condition 2 is when worksite conditions require a reduction of the speed limit through the designated Work Zone. Properly marking a Highway Work Zone shall include the following minimum requirements:

1. No Reduction in the Existing Posted Speed Limit in Highway Work Zone

- a. Signage shall be posted at the beginning point of the Highway Work Zone warning the traveling public that increased penalties for speeding violations are in effect. The beginning point of Highway Work Zone is at the project limits, start of work zone, or at the start of the first taper. The HWZ-2 sign shall be placed a minimum of 600 feet in advance of the Highway Work Zone and shall not be placed more than 1000 feet in advance of the Work Zone. If no speed reduction is required, it is recommended that the HWZ-2 be placed at 750 feet from the work area between the ROAD WORK 500 FT. and the ROAD WORK 1000 FT. signs.

HWZ-2 signs shall be placed at intervals not to exceed one mile for the length of the project. HWZ-2 signs should be placed on the mainline after all major intersections except State Routes. State Routes shall be signed as per the requirements for intersecting roadways below.

- b. The existing speed limit shall be posted at the beginning of the Work Zone. Existing Speed Limit signs (R2-1) shall be maintained.
- c. Intersecting state routes shall be signed in advance of each intersection with the Work Zone with a HWZ-2 sign to warn motorists that increased fines are in effect. All other intersecting roadways that enter into a designated Highway Work Zone may be signed in advance of each intersection with the Work Zone. When construction equipment and personnel are present in the intersection on the mainline of a multi-lane roadway, the intersecting side roads shall be signed in advance with HWZ-2 signs. As soon as the work operation clears the intersection, the signage may be removed.
- d. Sign HWZ-3 shall be posted at the end of the Highway Work Zone indicating the end of the zone and indicating that increased penalties for speeding violations are no longer in effect.
- e. When a designated Highway Work Zone is no longer necessary, all signs shall be removed immediately.

2. Reducing the Speed Limit in a Highway Work Zone

Highway Work Zone signs shall be posted as required in Condition 1 above in accordance with Detail 150-C.

A “Reduce Speed Limit Ahead” (W3-5) sign shall be posted 600 feet prior to the reduced speed limit.

Then a “Speed Limit” signage (R2-1) for the reduced speed limit shall be erected at the beginning of the work zone. Additional signs shall be placed at whichever is least:

- a. on non-interstate roads after every junction with a numbered (state or U.S.) route.
- b. on interstates entrance ramp 1,500 feet from the end of the entrance taper. Detail 150-D
- c. on non-interstate and interstate a maximum spacing of no greater than one (1) mile apart.

On multi-lane divided highways, the speed limit signs shall be double indicated when the reduced speed is in use.

Additional signs may be necessary to adjust for actual field conditions.

For limited access (interstate) highways and controlled access multi-lane divided highways, the posted speed limit shall be reduced as required below.

When any one or more of the following conditions exist and the existing speed limit is sixty-five (65) mph or seventy (70) mph, the speed limit shall be reduced by ten (10) mph. If the existing speed limit is sixty (60) mph, the speed limit should be reduced by five (5) mph. If the existing speed limit is fifty-five (≤ 55) mph or less, the Contractor can

only reduce the speed limit with the prior approval of the Engineer. The reduction in the speed limit shall be no greater than ten (10) mph:

- a) Lane closure(s) of any type and any duration.
- b) The difference in elevation exceeds two inches ($> 2''$) adjacent to a travel lane as shown in Subsection 150.3.11, Detail 150-E, Detail 150-F.
- c) Any areas where equipment or workers are within ten feet (10') of a travel lane.
- d) Temporary portable concrete barriers located less than two feet (2') from the traveled way.
- e) As directed by the Engineer for conditions distinctive to this project.

When the above conditions are not present, the speed limit shall be immediately returned to the existing posted speed limit. A speed reduction shall not be put in place for the entire length of the project unless conditions warranting the speed reduction are present for the entire project length. All existing speed limit signs within the temporary speed reduction zone shall be covered or removed while the temporary reduction in the speed limit is in effect. All signs shall be erected to comply with the minimum requirements of the MUTCD.

At a minimum, the following records shall be kept by the WTCS:

- a) Identify the need for the reduction.
- b) Record the time of the installation and removal of the temporary reduction.
- c) Fully describe the location and limits of the reduced speed zone.
- d) Document any accident that occurs during the time of the reduction.

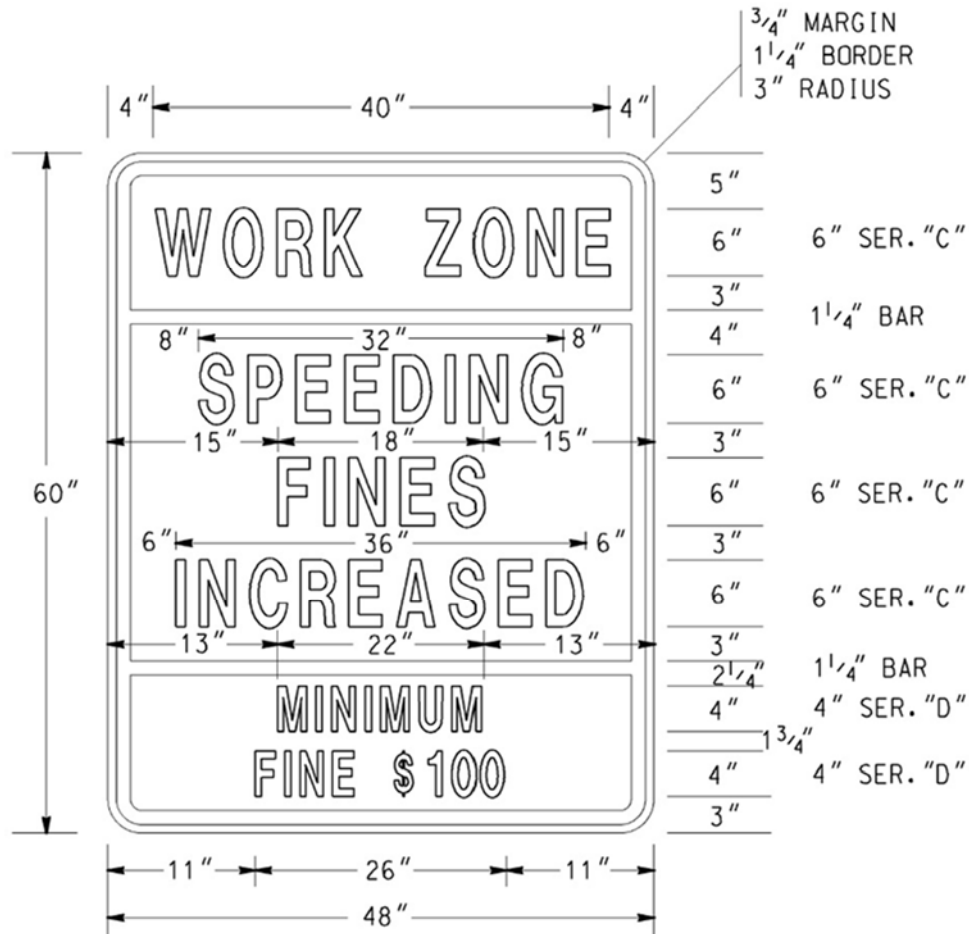
A copy of the weekly records for reduced speed zones shall be submitted to the Engineer.

When a pilot vehicle is used on a two-lane two-way roadway, the speed limit should not be reduced. For special conditions specific to the work, on two-lane two-way roadways or multi-lane highways, the contractor may reduce the posted speed limit with the prior approval of the Engineer.

3. Variable Speed Limit Zones

Projects that are within or extends into variable speed limit zones shall be posted according to condition 1 with HWZ-1, HWZ-2, and HWZ-3 signs. No additional "speed limit" signs, (R2-1), shall be posted. Any reduction or increase in speed limits will be controlled by the normal operation of the variable speed limit system.

Upon request, a maximum speed limit of fifty-five (55) mph **may** be set for the project limits.



HWZ-2

COLORS

TOP PANEL

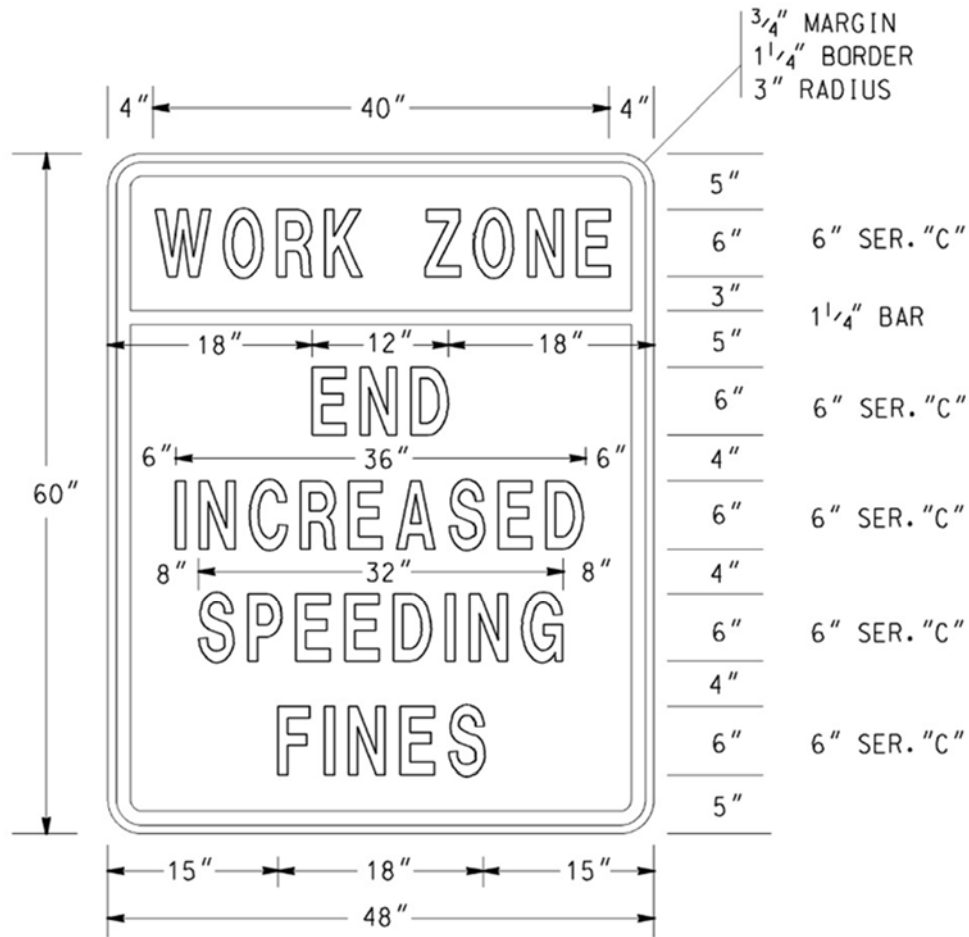
LEGEND & BORDER - BLACK (NON-REFL)
 BACKGROUND - FLUORESENT ORANGE

MIDDLE & BOTTOM PANELS

LEGEND & BORDER - BLACK
 BACKGROUND - WHITE

NOTES:

1. ALL HWZ-2 SIGN PANELS SHALL BE RIGID.
2. THE SIZE OF THE HWZ-2 SIGN SHALL NOT BE REDUCED FOR USE ON TWO-LANE ROADWAYS.



HWZ-3

COLORS

TOP PANEL

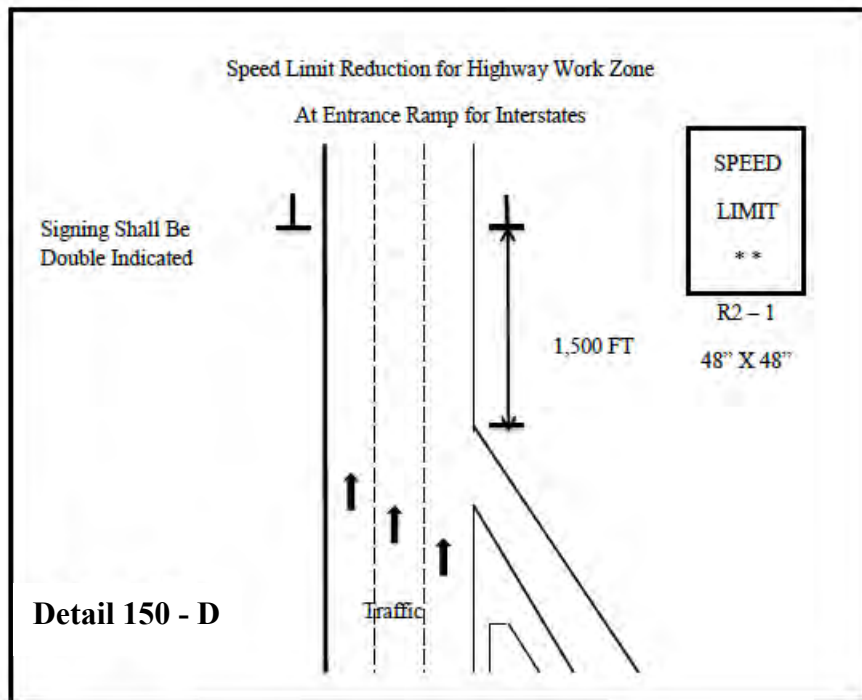
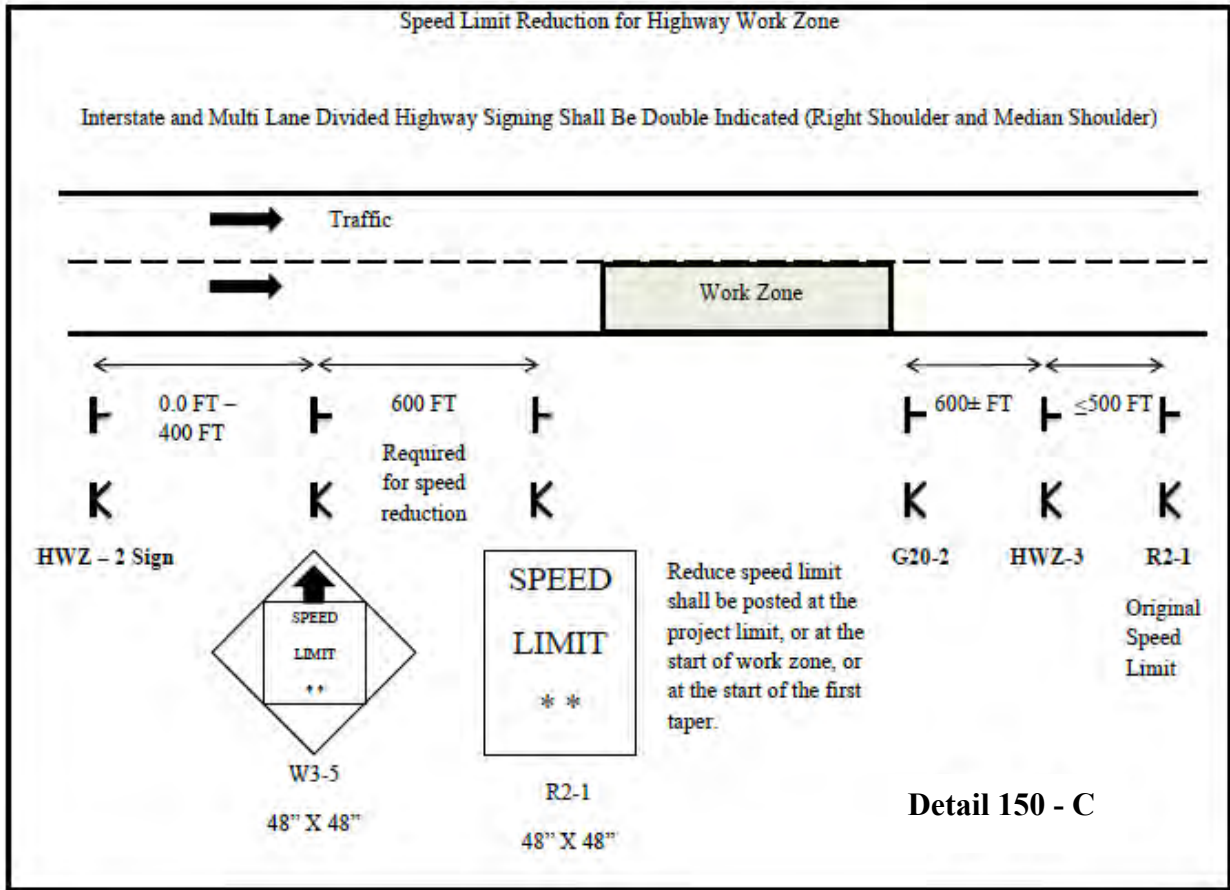
LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND - FLUORESENT ORANGE

BOTTOM PANEL

LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND - WHITE

NOTES:

1. ALL HWZ-3 SIGN PANELS SHALL BE RIGID.
2. THE SIZE OF THE HWZ-3 SIGN SHALL NOT BE REDUCED FOR USE ON TWO-LANE ROADWAYS.



C. Installation/Removal of Work Area Signage

No payment will be made for Traffic Control-Lump Sum until the Work has actually started on the project. The installation of traffic control signage does not qualify as the start of work. Advanced warning signs shall not be installed until the actual beginning of work activities. Any permanent mount height signs installed as the work is preparing to start shall be covered until all signs are installed unless all signs are installed within seven (≤ 7) calendar days after beginning installation.

All temporary traffic control devices shall be removed as soon as practical when these devices are no longer needed. When work is suspended for short periods of time, temporary traffic control devices that are no longer appropriate, shall be removed or covered.

All construction warning signs shall be removed within seven (≤ 7) calendar days after time charges are stopped or pay items are complete. If traffic control devices are left in place for more than ten (> 10) calendar days after completion of the Work, the Department shall have the right to remove such devices, claim possession thereof, and deduct the cost of such removal from any monies due, or which may become due, the Contractor.

PUNCH LIST WORK: Portable signs shall be utilized to accomplish the completion of all punch list items. The portable signs shall be removed daily. All permanent mount height signs shall be removed prior to the beginning of the punch list work except "Low/Soft Shoulder" signs and any signs that have the prior written approval of the Engineer to remain in place while the punch list work is in progress.

Failure to promptly remove the construction warning signs within the seven (7) calendar days after the completion of the Work or failure to remove or cover signs when work is suspended for short periods of time shall be considered as non-performance under Subsection 150.5.01.

150.3.05 Shoulder/Lane Closures

A. Approval/Restrictions

All shoulder closures and lane closures of any type or duration shall have the prior approval of the Engineer.

1. Closure Length

The length of a shoulder closure and a lane closure shall not exceed two (2) miles in length excluding the length of the tapers unless the prior approval of the Engineer has been obtained. The Engineer may extend the length of the closure based upon field conditions; however, the length of a work zone should be held to the minimum length required to accomplish the Work. Shoulder closure and Lane Closures shall not be spaced closer than one mile. The advanced warning signs for the project should not overlap with the advanced warning signs for lane shifts, lane closures, etc.

2. Duration

The first (7) calendar days in an Urban area and the first three (3) calendar days in a Rural area of any lane closure shall be signed and marked as per Georgia Standard 9106 "Traffic Control Detail for Lane Closure on Multi-Lane Divided Highway" or Georgia Standard 9107 "Traffic Control Detail for Lane Closure on Multi-Lane Undivided Highway". However, lane closures that exist for a duration longer than three (> 3) calendar days may be signed and marked as per the details in Georgia Standard 9121 "Tapers, Signs, and Markings for Passing Lanes", provided the prior approval of the Engineer is obtained. The approved lane drop shall utilize a Portable Message Board (PCMS) and only the signs and markings shown for the termination end of the lane drop in Georgia Standard 9121. All warning signs in the lane drop sequence shall be used. Drums may be substituted for the Type I Crystal Delineators at the same spacing.

B. Shoulder Closures

In accordance with MUTCD 6G.07, when paved shoulders, having a width of eight feet ($\geq 8'$) or more are closed, at least one (1) advance warning sign shall be used. The sign(s) should read SHOULDER CLOSED (W21-5a). The signs are only posted on the side with the shoulder closure. Where the downstream end of the shoulder closure extends beyond the distance

that can be perceived by road users, a supplementary plaque bearing the message NEXT XX FEET(W16-4P) or MILES (W7-3aP) should be placed below the SHOULDER CLOSED (W21-5a) sign. These signs shall be placed 500 feet prior to the shoulder closure. For multi-shoulder closures, the Shoulder Closed sign shall be repeated after two (2) miles at 500 feet prior to the next shoulder closure.

A shoulder closure will require a shoulder taper of $(1/3) L$ (L =merging taper length). Traffic drums shall be used for the taper. Arrow boards are not required.

If positive barriers are used to close the shoulder, the taper and drums shall be in accordance with Standard 4960, Temporary Barrier (End Treatment Options). The approach end of the barrier taper should be 10:1 or flatter slope.

C. Lane Closure

1. Advance Warning Signs

The advance Warning signs shall be in accordance with MUTCD and Georgia Standard 9106 “Traffic Control Detail for Lane Closure on Multi-Lane Divided Highway” and Georgia Standard 9107 “Traffic Control Detail for Lane Closure on Multi-Lane Undivided Highway”.

When the temporary traffic control zone already has advanced warning (W20-1) signs installed the W20-1 signs required for lane closures under Standard 9106 and 9107 should be eliminated.

For Interstate, Limited Access and Multi-lane Divided Highways, an additional Portable Changeable Message Sign (PCMS) shall be placed one (1) mile in advance of a lane closure with a message denoting the appropriate lane closure one (1) mile ahead. No other message shall be displayed on this PCMS. The PCMS shall be placed on the outside shoulder in accordance with Detail 150-B [PCMS]. This is in addition to the other traffic control devices required by Standard 9106.

At the discretion of the Engineer, the Contractor may start placing advance warning signs a half-hour (1/2 hr.) prior to the lane closure.

2. Transition Area – Taper

Drums shall be used on all transition tapers. If traffic drums with retroreflectivity of less than type VI are used for a merge taper that exists into the night, all drums located in the taper shall have, for the length of the taper only, a six inch (6”) fluorescent orange (ASTM Type VI, VII, VIII, IX or X) reflectorized top stripe on each drum. The top six inch (6”) stripe may be temporarily attached to the drum while in use in a taper. The Engineer may allow the fluorescent orange reflectorized six inch (6”) top stripe on each drum in a merging taper to remain in place during daylight hours provided there is a lane closure(s) with a continuous operation that begins during one nighttime period and ends during another nighttime period. All drums that have the six inch (6”) top stripe permanently attached shall not be used for any other conditions.

In accordance with MUTCD (6C.08), the minimum length for a merging taper for a lane closure on the travel way shall be as shown in Table 150-1:

TABLE 150-1

Posted Speed Limit, MPH	Lane Width 9 Feet	Lane Width 10 Feet	Lane Width 11 Feet	Lane Width 12 Feet	Maximum Drum Spacing in Tapers, (Feet)
Minimum Taper Length (L) in Feet					
20	60	70	75	80	20
25	95	105	115	125	25
30	135	150	165	180	30
35	185	205	225	245	35
40	240	270	295	320	40
45	405	450	495	540	45
50	450	500	550	600	50
55	495	550	605	660	55
60	540	600	660	720	60
65	585	650	715	780	65
70	630	700	770	840	70
75	675	750	825	900	75

If site conditions require a longer taper, then the taper shall be lengthened to fit particular individual situations.

The length of shifting tapers should be at least one-half (1/2) L.

Multiple Lane Closures:

- a. A maximum of one (1) lane at a time shall be closed with each merge taper.
- b. A minimum tangent length of two (≥ 2) L shall be installed between each individual lane closure taper. The tangent length is part of the transition area. Therefore, only traffic drums can be used in the tangent.

3. Activity Area

The activity area consists of a buffer and the work space. Georgia Standard 9106 “Traffic Control Detail for Lane Closure on Multi-Lane Divided Highway” states “Buffer zones of 300’ minimum, 500’ desirable are required for tangent sections and shall be increased for horizontal or vertical curves due to sight distance considerations”

Georgia Standard 9107 “Traffic Control Detail for Lane Closure on Multi-Lane Undivided Highway” requires a fifty feet (50’) buffer. The buffer shall be increased for horizontal or vertical curves due to sight distance considerations”

The channelization devices are spaced at a maximum of eighty feet (80’).

4. Termination Area

Georgia Standard 9106 “Traffic Control Detail for Lane Closure on Multi-Lane Divided Highway” requires a 150 feet buffer and a minimum 200 feet downstream taper.

Georgia Standard 9107 “Traffic Control Detail for Lane Closure on Multi-Lane Undivided Highway” requires 150 feet downstream taper.

D. Removal of Lane Closures

To provide the greatest possible convenience to the public in accordance with Section 107, the Contractor shall remove all signs, lane closure markings, and devices immediately when lane closure work is completed or temporarily suspended for any length of time or as directed by the Engineer. All portable signs and portable sign mounting devices shall be removed from the roadway to an area which will not allow the sign to be visible and will not allow the sign or sign mounting device to be impacted by traffic. All devices shall be stored beyond the clear zone or behind positive protection.

E. Exit and Entrance Ramps

On multi-lane highways, where traffic has been shifted to the inside lanes, the exit and entrance ramps shall have drums placed on both sides of the ramp. This requirement will apply to any situation where traffic is shifted to contra flows or inside staging lanes to facilitate reconstruction work in the vicinity of exit and entrance ramps. The temporary ramp taper length should be greater than, or equal to, the existing taper length. Interim EXIT gore signs shall be placed at the ramp divergence. The "EXIT OPEN" sign shown in Figure TA-42 of the MUTCD shall be utilized. For exit ramps, drums spacing shall be decreased to ten feet (10') for 200 feet in advance of the temporary gore, and be decreased to ten feet (10') for the first 100 feet of the temporary gore, and throughout the exit ramp. For on-ramps, drums should be used 200 feet prior to the ramp and end 100 feet past the merge taper. The drum spacing for the on ramp may be decreased but should not obstruct the view of the drivers i.e. for the ramp vehicles.

150.3.06 Traffic Pacing Method

A. Pacing Of Traffic

With prior approval from the Engineer, traffic may be paced allowing the Contractor up to twenty (20) minutes maximum to work in or above all lanes of traffic for the following purposes:

1. Placing bridge members or other bridge work.
2. Placing overhead sign structures.
3. Other work items requiring interruption of traffic.

The Contractor shall provide a uniformed law enforcement officer with patrol vehicle and blue flashing light for each direction of pacing. The law enforcement officer, Engineer, and flaggers at ramps shall be provided with a radio which will provide continuous contact with the Contractor.

When ready to start the work activity, the law enforcement vehicle will act as a pilot vehicle slowing the traffic, thereby providing a gap in traffic allowing the Contractor to perform the Work. Any on-ramps between the pace and the work area shall be blocked during pacing of traffic, with a flagger properly dressed and equipped with a Stop/Slow paddle. Each ramp should be opened after the law enforcement vehicle has passed.

Pilot vehicles shall travel at a safe pace speed. The Contractor shall provide a vehicle to proceed in front of the law enforcement vehicle and behind the other traffic in order to inform the Contractor's work force when all vehicles have cleared the area.

Traffic should not be permitted to stop during pacing unless approved by the Engineer.

B. Methods of Signing For Traffic Pacing

At a point not less than 1,000 feet in advance of the beginning point of the pace, the Contractor shall place a portable changeable message sign with the message "TRAFFIC SLOWED AHEAD **EXPECT** SHORT DELAY".

150.3.07 Flagging Operations

A. Flaggers

Flaggers shall be provided as required to handle traffic, as specified in the Plans or Special Provisions, and as required by the Engineer.

B. Flagger Certification

All flaggers shall meet the requirements of the MUTCD and shall have received training and a certificate upon completion of the training from one of the following organizations:

National Safety Council
American Traffic Safety Services Association (ATSSA)

On-line classes are not accepted.

Failure to provide certified flaggers as required above shall be reason for the Engineer suspending work involving the flagger(s) until the Contractor provides the certified flagger(s). Flaggers shall have proof of certification and valid identification (photo I.D.) available any time they are performing flagger duties.

C. Flagger Appearance and Equipment

Flaggers shall wear Performance Class 3 or better high-visibility clothing. Flagger stations shall be illuminated at night according to MUTCD (6F.82). They shall use a Stop/Slow paddle meeting the requirements of the MUTCD (6E.03) for controlling traffic. The Stop/Slow paddles shall have a shaft length of seven feet ($\geq 7'$) minimum. The Stop/Slow paddle shall be retroreflectorized for both day and night usage. In addition to the Stop/Slow paddle, a flagger may use a flag as an additional device to attract attention. This flag shall meet the minimum requirements of the MUTCD (6E.03). The flag shall, as a minimum, be twenty-four inches ($\geq 24"$) square and red or red/orange in color.

D. Flagger Warning Signs

Signs for flagger traffic control shall be placed in advance of the flagging operation, in accordance with the MUTCD and Georgia Standard 9102 "Traffic Control Detail for Lane Closure on Two-Lane Highway". In addition, signs at regular intervals, warning of the presence of the flagger shall be placed beyond the point where traffic can reasonably be expected to stop under the most severe conditions for that day's work.

E. Pilot Vehicle Requirements

Pilot vehicles should be required during placement of bituminous surface treatment or asphaltic concrete on two-lane roadways unless otherwise specified. Pilot vehicles shall meet the requirements of the MUTCD (6C.13).

F. Automated Flagger Assistance Devices

The Contractor may request, in writing, the use of Automated Flagger Assistance Devices (AFAD). The equipment shall meet the requirements of MUTCD (6E.04). As a part of this request, the Contractor shall also submit an alternate temporary traffic control plan in the event of a failure of the AFAD. Any alternate plan that requires the use of flaggers shall include the use of certified flaggers. The Contractor shall obtain the approval of the Engineer before the use of any AFAD will be permitted.

G. Portable Temporary Traffic Control Signals

The Contractor may request, in writing, the substitution of portable temporary traffic control signals for flaggers on two-lane two-way roadways provided the temporary signals meets the requirements of the MUTCD, Section 647, and subsection 150.2.11. As a part of this request, the Contractor shall also submit an alternate temporary traffic control plan in the event of a failure of the signals. Any alternate plan that requires the use of flaggers shall include the use of certified flaggers. The Contractor shall obtain the approval of the Engineer before the use of any portable temporary traffic control signals will be permitted.

150.3.08 Traffic Signals

A. Responsibility/Cost

If the sequence of operations, staging, or the temporary traffic control plan requires the relocation or shifting of any components of an existing traffic signal system then any work on these traffic signals will be considered as part of Traffic Control – Lump Sum.

B. Law Enforcement Officer Requirement

In accordance with Georgia law § 40-6-20, law enforcement officers shall be used to regulate and maintain traffic control at functioning signalized intersections when lane closures or traffic shifts block or restrict movements causing interference with road user flows and will not allow the activated traffic signal to guide the traffic through the signal site.

150.3.09 Mobile Operations

A mobile operation is defined by a minimum speed of three (3) mph. When pavement markings (centerlines, lane lines, and edge lines) are applied in a continuous operation by moving vehicles and equipment, the following minimum equipment and warning devices shall be required. These devices and equipment are in addition to the minimum requirements of the MUTCD.

All vehicles shall be equipped with the official slow moving vehicle symbol sign. All vehicles shall have a minimum of two (2) flashing or rotating beacons visible in all directions. All protection vehicles shall have an arrow panel mounted on the rear. All vehicles requiring an arrow panel shall have, as a minimum, a Type B panel. All vehicle mounted signs shall be mounted with the bottom of the sign a minimum height of forty-eight inches (48") above the pavement. All sign legends shall be covered or removed from view when work is not in progress.

The lead vehicle may be a separate vehicle or the work vehicle applying the pavement markings may be used as the lead vehicle. The lead vehicle shall have an arrow panel mounted so that the panel is easily visible to oncoming (approaching) traffic. The arrow panel should operate in the caution mode.

The work vehicle(s) applying markings shall have an arrow panel mounted on the rear. The arrow panel should typically operate in the caution mode. The work vehicle placing cones shall follow directly behind the work vehicle applying the markings.

A protection vehicle shall follow the last work vehicle at all times and shall be equipped with a truck mounted attenuator that shall be certified for impacts not less than sixty-two (62) mph in accordance with MASH/NCHRP350 Test Level Three (3).

150.3.10 Pavement Markings

A. General

Full pattern pavement markings in conformance with Section 3A and 3B, except 3B.02, of the MUTCD are required on all courses before the roadway is opened to traffic, unless noted in this section. No passing zones shall be marked to conform to Subsection 150.3.10.D.1.b. During construction and maintenance activities on all highways open to traffic, both existing markings and markings applied under this Section shall be fully maintained until Final Acceptance. If the pavement markings are, or become, unsatisfactory in the judgment of the Engineer due to wear, weathering, or construction activities, they shall be restored immediately.

Markings on the final surface course, which must be removed, shall be a removable type. The Contractor will be permitted to use paint, thermoplastic, or tape on pavement which is to be overlaid as part of the project, unless otherwise directed by the Engineer. Partial (skip) reflectorization (i.e. reflectorizing only a portion of a stripe) will not be allowed.

1. Resurfacing Projects

Pavement markings shall be provided on all surfaces that are placed over existing markings. Interim and final markings shall conform in type and location to the markings that existed prior to resurfacing unless changes or additions are noted in the Contract. The replacement of parking spaces will not be required unless a specific item or note has been included in the Contract. Any work to make additions to the markings that existed prior to resurfacing is to be considered as extra work.

2. Widening And Reconstruction Projects

If the lane configuration is altered from the preconstruction layout then pavement markings will be as required by the plans or the Engineer.

3. New Location Construction Projects

Pavement marking plans will be provided.

B. Installation and Removal of Pavement Markings

1. Installation

All pavement markings, both interim and permanent, shall be applied to a clean surface. The Contractor shall furnish the layout and preline the roadway surface for the placement of pavement markings applied as part of the temporary traffic control plan. All interim marking tape and RPM's on the final surface shall be removed prior to the placement of the final markings.

The Contractor shall sequence the work in such a manner as to allow the installation of markings in the final lane configuration at the earliest possible stage of the work.

2. Removal

Markings no longer applicable shall be removed in accordance with Section 656.

The elimination of conflicting pavement markings by overpainting with unapproved paint or any type of liquid asphalt is not acceptable.

3. Intermediate Surface

Interim markings shall be removed by methods that will cause minimal damage to the pavement surface, while also ensuring that traveling public will not be confused or misdirected by any residual markings remaining on the intermediate surface. The use of approved black-out tape and black-out paint (manufactured for the sole purpose of covering existing pavement markings) may be permitted on some interim surfaces, provided the results are satisfactory to the Engineer.

4. Final Surface

No interim paint or thermoplastic markings will be permitted on any final surface unless the interim markings are in alignment with the location of the permanent markings and the interim marking will not interfere or adversely affect placement of the permanent markings. The proposed method of removal for layout errors that require markings to be removed from the final surface shall have the prior approval of the Engineer. Any damage to the final pavement surface caused by the pavement marking removal process shall be repaired at the Contractor's expense by methods acceptable and approved by the Engineer. Section 400 shall apply when corrective measures are required. The use of black-out tape or black-out paint will not be permitted under any circumstance to correct layout errors on any final surface.

Traffic shifts that are done on the final surface shall be accomplished using interim traffic marking tape that can be removed without any blemishing of the final surface. Interim traffic marking tape shall be used on any of the following final surfaces; asphaltic concrete, Portland cement concrete, and bridge deck surfaces. The contractor may propose alternate traffic markings and removal methods on the final surface. Submitted proposals shall include the type of material, method of removal and a cost comparison to the traffic marking tape method. Prior to any approval, the contractor shall field demonstrate to the satisfaction of the Engineer that the proposed traffic markings can be removed without any blemishing of the final surface. If the proposal is determined to be acceptable, a supplemental agreement will be executed prior to the installation of the proposed alternate traffic markings. The supplemental agreement shall denote the type of traffic marking materials, method of removal and any cost and/or time savings to the Department. The Department will not consider or participate in any cost increase that may result from implementing the proposed alternate method.

5. Pay Factor Reduction for Asphaltic Concrete Final Surfaces

When the correction of an error in the layout of the final pavement markings requires the final surface to be grounded, blemished, scarred, or polished the pay factor shall be reduced to 0.95 for the entire surface area of the final topping that has a blemish, polished or a scarred surface. The reduced pay factor shall not be confined to only the width and length of the stripe or the dimensions of the blemished areas, the whole roadway surface shall have the reduced pay factor applied. The area of the reduced pay factor shall be determined by the total length and the total width of the roadway affected. If the affected area is not corrected, the reduction in pay shall be deducted from the final payment

for the topping layer of asphaltic concrete. The Engineer shall make the final determination whether correction or a reduced pay factor is acceptable.

The eradication of pavement markings on intermediate and final concrete surfaces shall be accomplished by a method that does not grind, polish, or blemish the surface of the concrete. The method used for the removal of the interim markings shall not spall chip the joints in the concrete and shall not damage the sealant in the joints. Any joint or sealant repairs shall be included in the bid price for Traffic Control-Lump Sum. The proposed method of removal shall have the prior approval of the Engineer.

Failure to promptly remove conflicting or non-applicable pavement markings shall be considered as non-performance under Subsection 150.5.01.

6. Preparation and Planning For Traffic Shifts

When shifting of traffic necessitates removal of centerline, lane lines, or edge lines, all such lines shall be removed prior to, during, or immediately after any change so as to present the least interference with traffic. Interim traffic marking tape shall be used as a temporary substitute for the traffic markings being removed.

Before any change in traffic lane(s) alignment, marking removal equipment shall be present on the project for immediate use. If marking removal equipment failures occur, the equipment shall be repaired or replaced (including leasing equipment if necessary), so that the removal can be accomplished without delay.

Except for the final surface, markings on asphaltic concrete may be obliterated by an overlay course, when approved by the Engineer. When an asphaltic concrete overlay is placed for the sole purpose of eliminating conflicting markings and the in place asphaltic concrete section will allow, said overlay will be eligible for payment only if designated in the Plans. Overlays to obliterate lines will be paid for only once and further traffic shifts in the same area shall be accomplished with removable markings. Only the minimum asphaltic concrete thickness required to cover lines will be allowed. Excessive build-up will not be permitted. When an overlay for the sole purpose of eliminating conflicting markings is not allowed, the markings no longer applicable shall be removed in accordance with Section 656.

C. Raised Pavement Markers

Retroreflective raised pavement markers (RPMs) should be placed as listed below for all asphaltic concrete pavements before the roadway is open to traffic, unless noted this section. On the final surface, RPM's shall be placed according to the timeframes specified in Subsection 150.3.10.D for full pattern pavement markings. When Portland Cement Concrete is an intermediate or final surface and is open to traffic, one (1) calendar day is allowed for cleaning and drying before the installation of RPMs is required.

Raised pavement markers are not allowed on the right edge lines under any situation.

Retroreflective raised pavement markers (RPMs) should be placed and/or maintained on intermediate pavements surfaces on all highways that the final ride surface is not completed within 45 calendar days which is open to traffic, This includes all resurfacing projects along with widening and reconstruction projects. The RPMs shall be placed as follows:

1. Supplementing Lane Lines:
 - a. Eighty foot (80') center on skip lines with curvature less than three degrees. (Includes tangents)
 - b. Forty foot (40') centers on solid lines and all lines with curvature between three degrees and six degrees.
 - c. Twenty foot (20') centers on curves over six degrees.
 - d. Twenty foot (20') centers on lane transitions or shifts.
2. Supplementing Ramp Gore Lines:
 - a. Twenty foot (20') centers, two each, placed side by side.

3. Other Lines:

- a. As shown on the plans or directed by the Engineer.

D. Exceptions for Interim Markings

Some exceptions to the time of placement and pattern of markings are permitted as noted below; however, full pattern pavement markings are required for the completed project.

1. Two-Lane, Two-Way Roadways

- a. Skip Lines

If used, interim temporary tape or paint skip (broken) stripe may only be used for a maximum of three (3) calendar days. The stripes shall be at least two feet ($> 2'$) long with a maximum gap of thirty-eight feet ($\leq 38'$). On curves greater than six degrees ($>6^\circ$), a one-foot ($1'$) stripe with a maximum gap of nineteen feet ($\leq 19'$) shall be used. In lane shift areas, solid lines will be required.

Interim raised pavement markers may be substituted for the interim skip (broken) stripes. If raised pavement markers are substituted for the two foot ($2'$) interim skip stripe, three (3) markers spaced at equal intervals over a two feet ($2'$) distance will be required. No separate payment will be made if the interim raised pavement markers are substituted for interim skip lines.

Interim raised pavement markers shall be retro-reflective, shall be the same color as the pavement markers for which they are substituted, and shall be visible during daytime.

The type of interim marker and method of attachment to the pavement shall be approved by the Office of Materials and Testing but in no case will the markers be attached by the use of nails. Flexible reflective markers, Type 14 or Type 15, may be used for a maximum of three (3) calendar days as an interim marker. Any flexible reflective markers in use shall be from the QPL-76.

The interim raised pavement markers shall be maintained until the full pattern pavement markings are applied. At the time full pattern markings are applied the interim raised markers shall be removed in a manner that will not interfere with application of the full pattern pavement markings.

- b. No Passing Zones Two-Lane, Two-Way Roadways

Passing zones shall be re-established in the locations existing prior to resurfacing. No changes to the location of passing zones shall be done without the written approval of the Engineer. For periods not to exceed three (3) calendar days where interim skip centerlines are in place, no-passing zones shall be identified by using post or portable mounted DO NOT PASS regulatory signs (R4-1) twenty-four inches by thirty inches ($24'' \times 30''$) at the beginning and at intervals not to exceed one-half ($\leq \frac{1}{2}$) mile within each no-passing zone. A post or portable mounted PASS WITH CARE regulatory sign (R4-2) twenty-four inches by thirty inches ($24'' \times 30''$) shall be placed at the end of each no-passing zone. Post mounted signs shall be placed in accordance with the MUTCD. Portable signs shall be secured in such a manner to prevent misalignment and minimize the possibility of being blown over by weather conditions or traffic.

On new location projects and on projects where either horizontal or vertical alignments has been modified, the location of No-Passing Zones will be identified by the Engineer.

- c. Edge lines

- Bituminous Surface Treatment Paving

Edge lines will not be required on intermediate surfaces (including asphaltic concrete leveling for bituminous surface treatment paving) that are in use for a period of less than sixty (<60) calendar days except at bridge

approaches, on lane transitions, lane shifts, and in such other areas as determined by the Engineer. On the final surface, edge lines shall be placed within thirty (≤ 30) calendar days of the time that the final surface was placed.

- All Other Types of Pavement

Edge lines will not be required on intermediate surfaces that are in use for a period of less than thirty (< 30) calendar days except at bridge approaches, on lane transitions, lane shifts, and in such other areas as determined by the Engineer. On the final surface, edge lines shall be placed within fourteen (≤ 14) calendar days of the time that the surface was placed.

2. Multi-Lane Highways – With No Paved Shoulder(s) or Paved Shoulder(s) Four Feet or Less ($\leq 4'$)

a. Undivided Highways (Includes Paved Center Turn Lane)

- Centerlines and No-Passing Barrier-Full Pattern centerlines and no-passing barriers shall be restored before opening to traffic.
- Lane lines- Interim skip (broken) stripe as described in Subsection 150.3.10.D.1.a. may be used for periods not to exceed three (≤ 3) calendar days. Skip lines are not permitted in lane shift areas. Solid lines shall be used.
- Edge lines- Edge lines shall be placed on intermediate and final surfaces within three (3) calendar days of obliteration.

b. Divided Highways (Grass or Raised Median)

- Lane lines- Full pattern skip stripe shall be restored before opening to traffic. Skip lines are not permitted in lane shift areas. Solid lines shall be required.
- Centerline/Edge line- Solid lines shall be placed on intermediate and final surfaces within three calendar days of obliteration.

3. Limited Access Roadways and Roadways with Paved Shoulders Greater Than Four Feet ($> 4'$)

a. Same as Subsection 150.3.10.D.2 except as noted in (b) below.

b. Edge lines-

- Asphaltic Concrete Pavement- Edge lines shall be placed on intermediate and final surfaces prior to opening to traffic.
- Portland Cement Concrete Pavement- Edge lines shall be placed on any surface open to traffic no later than one calendar day after work is completed on a section of roadway. All water and residue shall be removed prior to daily striping.

4. Ramps for Multi-Lane Divided Highways

A minimum of one solid line edge stripe shall be placed on any intermediate surface of a ramp prior to opening the ramp to traffic. The other edge stripe may be omitted for a maximum period of three (3) calendar days on an intermediate surface. Appropriate channelization devices shall be spaced at a maximum of twenty-five feet (25') intervals until the other stripe has been installed.

The final surface shall have both stripes placed prior to opening the ramp to traffic.

5. Miscellaneous Pavement Markings

a. Final Surface

School zones, railroads, symbols, words and other similar markings shall be placed on final surfaces conforming to Section 652 within fourteen (14) calendar days of completion of the final surface. Final markings shall conform to the type of pay item in the plans. When no pay item exists in the plans the final markings shall conform to Section 652 for painted markings.

b. Intermediate Surface

Intermediate surfaces that will be in use for more than forty-five (45) calendar days shall have the miscellaneous pavement markings installed to conform to the requirement of Section 652. Under Subsection 150.6, Special Conditions, or as directed by the Engineer these markings may be eliminated.

c. Stop Line

All stop signs and traffic signals shall have temporary twelve inch (12") stop lines placed in accordance with MUTCD (3B.16) on all surfaces prior to opening to traffic. Temporary tape **may** be used.

150.3.11 Differences In Elevations Between Travel Lanes And Shoulders

All time frames and requirements may be changed with the Engineer's approval.

A. Differences in Elevations

Difference in elevations due to construction between travel lanes and/or shoulders within the clear zone should be limited to the following:

1. Difference of two inches ($\leq 2''$) or less between adjacent travel lanes should remain for a maximum period of fourteen (14) calendar days.
2. Difference of two inches ($\leq 2''$) or less between adjacent travel lane and paved shoulder should remain for a maximum of thirty (30) calendar days. Traffic control devices shall be in accordance with Detail 150-G.
3. Difference of greater than two inches ($> 2''$) is permitted for continuous operations. Traffic control devices shall be in accordance with Detail 150-E.
4. Difference of greater than two inches ($> 2''$) between travel lanes and/or shoulders for non-continuous operations will not be allowed for more than a twenty-four (24) hour period. For the first twenty-four (24) hours, traffic control shall be in accordance with Detail 150-E. After twenty-four (24) hours the section should be healed according to Detail 150-H. This condition can exist for a maximum sixty (60) calendar days.
 - a. A single length of area that does not exceed 1000 feet total length may be left open as a startup area for periods not to exceed forty-eight (48) hours provided the Contractor can demonstrate the ability to complete the Work in a proficient manner. Prior approval of the Engineer shall be obtained before any startup area may be allowed.
 - b. For cement stabilized base, work adjacent to the travel lane and/or shoulders shall be healed as per Detail 150-H within forty-eight (48) hours after the seven (7) calendar day curing period is complete for each section placed. During the placement and curing period, traffic control shall be in accordance Detail 150-E.

Failure to meet these requirements shall be considered as non-performance of Work under Subsection 150.5.01.

B. Healed Section

Healed section and traffic control devices should be placed in accordance with Detail 150-H. If crushed stone materials are used to provide a healed section no separate payment will be made for the material used to heal any section. The

Contractor may submit a plan to utilize existing pay items for crushed stone provided the plan clearly demonstrates that the materials used to heal an area will be incorporated into the work with minimal waste. Handling and hauling of any crushed stone used to heal shall be kept to a minimum. The Engineer shall determine if the crushed stone used to heal meets the specifications for gradation and quality when the material is placed in the final location.

C. Emergency Situations

Inclement weather, traffic accidents, and other events beyond the control of the Contractor may prevent the work from being completed as required above. The Contractor shall notify the Engineer in writing stating the conditions and reasons that have prevented the Contractor from complying with the time limitations. The Contractor shall also outline a plan detailing immediate steps to complete the work. Failure to correct these conditions on the first calendar day that conditions will allow corrective work shall be considered as non-performance of Work under Subsection 150.5.01.

D. Plating

Plating for drainage structures, utility facilities, etc. is prohibited on the interstates. Plating on State Routes and secondary roads will require the prior approval of the project engineer. Steel plates shall not be used on highways with a posted speed greater than forty-five (45) mph. The plate shall completely cover the pavement cut or excavation. The plate shall be adequately secured and shall provide a safe and reasonable transition to the adjoining roadway surface. An asphalt wedge can be used to provide a smooth transition over the plate(s). Temporary traffic control warning signs W8-24 shall be posted in advance warning motorist about plates in roadway in accordance with the MUTCD. Plating should not remain in place for more than four (4) calendar days.

E. Asphaltic Concrete Resurfacing Projects

1. Shoulder Construction Included as a Part of the Contract

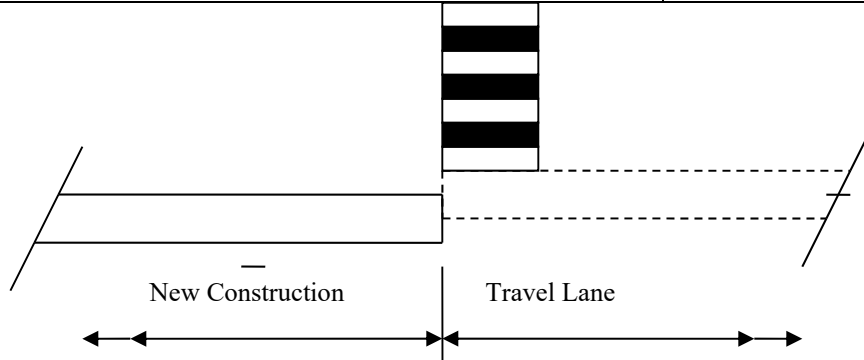
When the placement of asphaltic concrete materials creates a difference in elevation greater than two inches (> 2”) between the earth shoulder (grassed or un-grassed) and the edge of travel lane or between the earth shoulder and a paved shoulder that is less than four feet (< 4’) in width, the Contractor shall place and maintain drums in accordance with the requirements of Subsection 150.2.04.B.3. When the edge of the paved surface is tapered with a safety edge, drums may be spaced at two (2) times the speed limit in MPH. Drums shall remain in place and be maintained until the difference in elevation has been eliminated by the placement of the appropriate shoulder materials.

2 Shoulder Construction Not Included as a Part of the Contract

When the placement of asphaltic concrete materials creates a difference in elevation greater than two inches (> 2”) between the earth shoulder (grassed or un-grassed) and the edge of travel lane or between the earth shoulder and a paved shoulder that is less than four feet (< 4’) in width, the Contractor shall notify the Engineer, in writing, when the resurfacing work including all punch list items has been completed.

Drums spaced at twenty foot (20') intervals. **Note:** If the travel way width is reduced to less than ten feet (< 10') by the use of drums, vertical panels shall be used in lieu of drums.

Location of drums when Elevation Difference exceeds four inches (> 4")

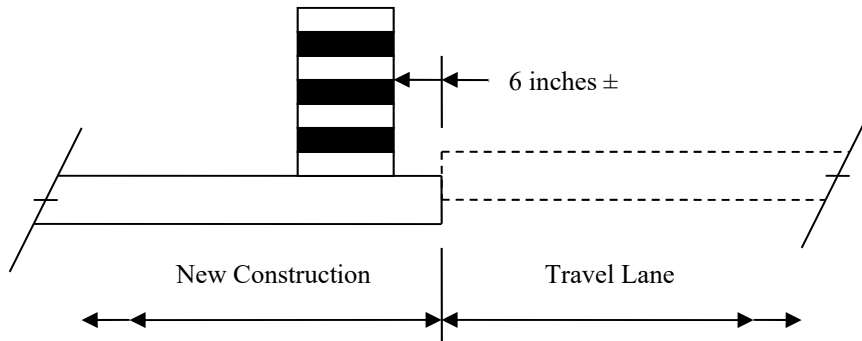


ELEVATION DIFFERENCE GREATER THAN FOUR INCHES (> 4")

DETAIL 150-E

Drums spaced at forty foot (40') intervals.

Location of drums when Elevation Difference is greater than two inches (> 2") to four inches (4")

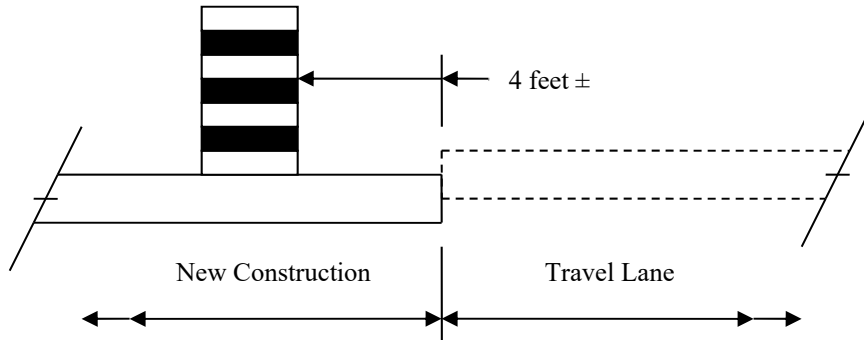


ELEVATION DIFFERENCE GREATER THAN TWO INCHES (> 2") TO
FOUR INCHES (4")

DETAIL 150-F

Drums spaced at eighty foot (80') intervals.

Location of drums when Elevation Difference is two inches ($\leq 2''$) or less.



ELEVATION DIFFERENCE OF TWO INCHES ($\leq 2''$) OR LESS

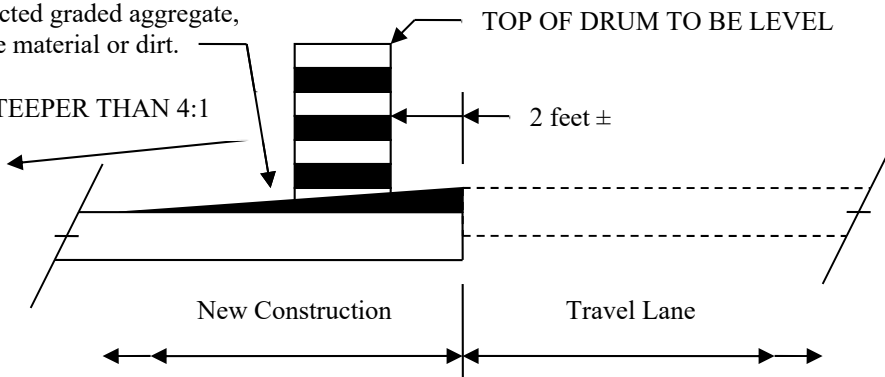
DETAIL 150-G

Location of drums immediately after completion of healed sections spaced at 40 foot (40') intervals

Healed Section

Compacted graded aggregate, subbase material or dirt.

NO STEEPER THAN 4:1



HEALED SECTION

DETAIL 150-H

150.3.12 Work Zone Law Enforcement

Work zone law enforcement consists of utilizing a uniformed law enforcement officer equipped with patrol vehicle and blue flashing lights to enforce traffic laws in construction work zones and the administration of this service. Payment for work zone law enforcement will be made only for the utilization in work zones during lane closures, traffic pacing, or other activities that occur within travel lanes. The Contractor will be responsible for negotiating a rate of reimbursement and making reimbursement to that law enforcement agency.

The Contractor will be responsible for coordinating and scheduling the utilization of the work zone law enforcement. The Engineer may require the use of work zone law enforcement at specific times and locations.

150.4 Measurement

150.4.01 Traffic Control Items

A. Traffic Control

When listed as a pay item in the Proposal, payment will be made at the lump sum price bid, which will include all traffic control not paid for separately, and will be paid as follows:

When the first Construction Report is submitted, a payment of twenty-five percent (25%) of the lump sum price will be made. For each progress payment thereafter, the total of the Project percent complete shown on the last pay statement plus twenty-five percent (25%) will be paid (less previous payments), not to exceed one hundred percent (100%).

When no payment item for Traffic Control-Lump Sum is shown in the Proposal, all of the requirements of Section 150 and the Temporary Traffic Control Plan shall be in full force and effect. The cost of complying with these requirements will not be paid for separately, but shall be included in the overall bid submittal.

B. Changeable Message Sign, Portable

Portable changeable message sign will be measured as specified in Section 632.

C. Flashing Beacon Assembly

Flashing beacon assemblies will be measured as specified in Section 647.

D. Pavement Markings

Pavement markings will be measured as specified in Section 150.

E. Portable Impact Attenuators

Each portable impact attenuator will be measured by the unit/array which shall include all material components, hardware, incidentals, labor, site preparation, and maintenance, including spare parts recommended by the manufacturer for repairing accident damage. Each unit will be measured only once regardless of the number of locations installed, moves required, or number of repairs necessary because of traffic damage. Upon completion of the project, the units shall be removed and retained by the Contractor.

F. Signs

When shown as a pay item in the contract, interim special guide signs will be paid for as listed below. All other regulatory, warning, and guide signs, as required by the Contract, will be paid for under Traffic Control Lump Sum or included in the overall bid submitted.

1. Interim ground mounted or interim overhead special guide signs will be measured for payment by the square foot. This payment shall be full compensation for furnishing the signs, including supports as required, erecting, illuminating

overhead signs, maintaining, removing, re-erecting, and final removal from the Project. Payment will be made only one time regardless of the number of moves required.

2. Remove and reset existing special guide signs, ground mount or overhead, complete, in place, will be measured for payment per each. Payment will be made only one time regardless of the number of moves required.
3. Modify special guide signs, ground mount or overhead, will be measured for payment by the square foot. The area measured shall include only that portion of the sign modified. Payment shall include materials, removal from posts or supports when necessary, and remounting as required.

G. Temporary Audible Information Device

Temporary audible information devices are measured as the actual number furnished and installed in accordance with the manufacturer's recommendations, which shall include all necessary materials, equipment, labor, site preparation, maintenance and removal. Each temporary audible information device will be paid for only one time regardless of the number of times it's reused during the duration of The Work. These devices shall remain the property of the Contractor.

H. Temporary Barrier

Temporary barrier shall be measured as specified in Sections 620.

I. Temporary Curb Cut Wheelchair Ramps

Temporary curb cut wheelchair ramps are measured as the actual number formed and poured, complete and accepted, which shall include all necessary materials, equipment, labor, site preparation, maintenance and removal. No additional payment will be made for sawing existing sidewalk and removal and disposal of removed material for temporary wheelchair ramp construction. No additional payment will be made for constructing the detectable warning surface.

J. Temporary Guardrail Anchorage, Type 12

Temporary guardrail anchorage- type 12 will be measured by each assembly, complete in place and accepted according to the details shown in the plans, which shall also include the additional guardrail and appurtenances necessary for transition and connection to temporary concrete barrier. Payment shall include all necessary materials, equipment, labor, site preparation, maintenance and removal.

K. Temporary Walkways with Detectable Edging

Temporary walkways with detectable edging will be measured in linear feet (meters), complete in place and accepted, which shall include all necessary materials, equipment, labor, site preparation, temporary pipes, passing spaces, maintenance and removal. Excavation and backfill are not measured separately for payment. No payment will be made for temporary walkways where existing pavements or existing edging (that meets the requirements of MUTCD) are utilized for the temporary walkway. Payment for temporary detectable edging, including approved barriers and channelizing devices, installed on existing pavement shall be included in Traffic Control-Lump Sum.

L. Traffic Signal Installation- Temporary

Temporary traffic signal installation will be measured as specified in Section 647.

M. Work Zone Law Enforcement

When work zone law enforcement is shown as a pay item, work zone law enforcement will be measured for payment by the hour. The Contractor shall provide a daily work record containing the actual number of hours charged by the law enforcement officer. The daily work record shall be compiled on a form provided by the Department, signed by the law enforcement officer, signed by the Contractor's Worksite Traffic Control Supervisor attesting that the law enforcement was utilized during the time recorded, and then submitted to the Engineer.

Work zone law enforcement will be measured for payment by the hour up to the maximum number of hours included in the contract. The Engineer may at his discretion increase the maximum number of hours.

Payment shall be full compensation for reimbursing the law enforcement agency, and for all cost incurred by the Contractor in coordinating, scheduling, and administering the item work zone law enforcement.

If no work zone law enforcement pay item is included in the contract, then all work zone law enforcement cost shall be included in Traffic Control – Lump Sum.

150.5 Payment

When shown in the Schedule of Items in the Proposal, the following items will be paid for separately. Payment will be made under:

Item No. 150	Traffic control -	Lump sum
Item No. 150	Traffic control, solid traffic stripe ___ inch, (color)	Per linear mile
Item No. 150	Traffic control, skip traffic stripe ___ Inch, (color)	Per linear mile
Item No. 150	Traffic control, solid traffic stripe, thermoplastic 24 inch, color	Per linear mile
Item No. 150	Traffic control, raised pavement markers –all types	Per each
Item No. 150	Remove and reset, existing special guide signs, overhead, complete-in-place	Per each
Item No. 150	Temporary walkways with detectable edging	Per linear foot
Item No. 150	Temporary curb cut wheelchair ramps	Per each
Item No. 150	Temporary audible information device	Per each
Item No. 150	Single lane closure	Per each
Item No. 150	Multilane closure	Per each
Item No. 150	Work Zone Law Enforcement	Per hour

150.5.01 Enforcement and Adjustments

The safe passage of pedestrians and traffic through and around the temporary traffic control zone, while minimizing confusion and disruption to traffic flow, shall have priority over all other Contractor activities. Continued failure of the Contractor to comply with the requirements of Section 150 - Traffic Control will result in non-refundable deductions of monies from the Contract as shown in this Subsection for non-performance of Work.

Failure of the Contractor to comply with this Specification shall be reason for the Engineer suspending all other work on the Project, except erosion control and traffic control, taking corrective action as specified in Section 105, and/or withholding payment of monies due to the Contractor for any work on the Project until traffic control deficiencies are corrected. These other actions shall be in addition to the deductions for non-performance of traffic control.

SCHEDULE OF DEDUCTIONS FOR EACH CALENDAR DAY OF DEFICIENCIES OF TRAFFIC CONTROL INSTALLATION AND/OR MAINTENANCE		
ORIGINAL TOTAL CONTRACT AMOUNT		
From More Than	To and Including	Daily Charge
\$0	\$100,000	\$250
\$100,000	\$1,000,000	\$650
\$1,000,000	\$5,000,000	\$1,300
\$5,000,000	\$20,000,000	\$2,000
\$20,000,000	\$40,000,000	\$2,600
\$40,000,000	\$-----	\$4,000

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SPECIAL PROVISION

Section 161—Control of Soil Erosion and Sedimentation

Add the following to Section 161:

161.1 General Description

This Work includes using best management practices (BMPs) shown on the Plans, ordered by the Engineer, or as required during the life of the Contract to control soil erosion and sedimentation through the use of any of the devices or methods referred to in this Section.

161.1.01 Definitions

Certified Personnel— certified personnel are defined as persons who have successfully completed the Level IA, or higher, certification course approved by the Georgia Soil and Water Conservation Commission. For Department projects the certified person must also have successfully completed the Department’s Worksite Erosion Control Supervisor (WECS) certification course.

Design Professional— as used within this specification, means that which is defined in the current National Pollutant Discharge Elimination System (NPDES) Infrastructure Permit No. GAR100002, Part I.B.

161.1.02 Related References

A. Standard Specifications

- Section 105—Control of Work
- Section 106—Control of Materials
- Section 107—Legal Regulations and Responsibility to the Public
- Section 109—Measurement and Payment
- Section 160—Reclamation of Material Pits and Waste Areas
- Section 162—Erosion Control Check Dams
- Section 163—Miscellaneous Erosion Control Items
- Section 166—Restoration or Alteration of Lakes and Ponds
- Section 170—Silt Retention Barrier
- Section 171—Silt Fence
- Section 205—Roadway Excavation
- Section 434—Asphalt Paved Ditches
- Section 441—Miscellaneous Concrete
- Section 603—Rip Rap
- Section 700—Grassing
- Section 711— Turf Reinforcement Matting
- Section 716—Erosion Control Mats (Slopes)

Section 161—Control of Soil Erosion and Sedimentation

Erosion control measures contained in the Specifications include:

Erosion Control Measure	Section
Concrete Paved Ditches	441
Check Dams	163.3.05.J
Mulching	700.3.05.G
Erosion Control Mats (Slopes)	716
Grassing	700
Maintenance of Temporary Erosion and Sedimentation Control Devices	165
Turf Reinforcement Matting	711
Reclamation of Material Pits and Waste Areas	160
Rip Rap	603
Restoration or Alteration of Lakes and Ponds	166
Asphalt Ditch Paving	434
Temporary Sediment Basin	163.3.05.C
Silt Control Gates	163.3.05.A
Silt Retention Barrier	170
Sod	700.3.05.H & 700.3.05.I
Mulch	163.3.05.G
Temporary Grass	163.3.05.F
Silt Fence	171
Temporary Slope Drains	163.3.05.B
Triangular Silt Barrier	720
Silt Filter Bag	719
Organic and Synthetic Material Fiber Blanket	713

B. Referenced Documents

NPDES Infrastructure Permit No. GAR100002

GDOT WECS seminar

Georgia Soil and Water Conservation Commission Certification Level IA and Level II courses

Environmental Protection Divisions Rules and Regulations (Chapter 391-3-7)

OCGA 12-7-1

Erosion, Sedimentation and Pollution Control Plan (ESPCP)

161.1.03 Submittals

A. Status of Erosion Control Devices

The Worksite Erosion Control Supervisor (WECS) or certified personnel will inspect the installation and maintenance of the Erosion Control Devices according to Subsection 167.3.05.B and the ESPCP.

1. Submit all reports to the Engineer within 24 hours of the inspection. Refer to Subsection 167.3.05.C for report requirements.
2. The Engineer will review the reports and inspect the Project for compliance and concurrence with the submitted reports.

Section 161—Control of Soil Erosion and Sedimentation

3. The Engineer will notify the WECS or certified personnel of any additional items that should be added to the reports.
4. Items listed in the report requiring maintenance shall be completed within seventy-two (72) hours.
5. BMPs that have failed or is deficient beyond routine maintenance and has resulted in sediment deposition into waters of the State shall have immediate reasonable steps taken to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events. When the repair does not require a new or replacement BMP or significant repair, the BMP failure or deficiency must be corrected by the close of the next business day from the time of discovery. If the correction requires a new or replacement BMP or significant repair, the correction must be completed and operational within seven (7) days from the time of discovery. If seven (7) days is infeasible, document why the timeframe is infeasible and coordinate with the Engineer to schedule the correction as soon as feasible after the seven (7) day timeframe. The Department must be in agreement with the infeasibility.

B. Erosion and Sediment Pollution Control Plan

1. Project Plans

An Erosion, Sedimentation and Pollution Control Plan (ESPCP) for the construction of the project will be provided by the Department. The ESPCP will be prepared for the various stages of construction necessary to complete the project. If the Contractor elects to alter the stage construction from that shown in the plans, it will be the responsibility of the Contractor to have the plans revised and prepared in accordance with the current GAR100002 NPDES permit by a Design Professional to reflect all changes in Staging. This will also include any revisions to erosion and sedimentation control item quantities. If the changes affect the Comprehensive Monitoring Program (CMP), the Contractor will be responsible for any revisions to the CMP as well. Submit revised plans and quantities to the Engineer for review prior to land disturbing activities.

2. Haul Roads, Borrow Pits, Excess Material Pits, etc.

The Contractor is responsible for amending the approved erosion, sedimentation and control plans if they add a haul road that is outside of the project roadway but within the right of way or construct any borrow pits, or excess material pits inside the Right of Way. Prepare these plans for all stages of construction and include the appropriate items and quantities. Submit these plans to the Engineer for review prior to land disturbing activities. These plans are to be prepared by a Design Professional.

If construction of haul roads, or borrow pits, or excess material pits, etc., (inside the Right of Way) encroach within the 25 foot (7.6 m) buffer along the banks of all state waters or within the 50 ft. (15 m) buffer along the banks of any state waters classified as a “trout stream”, a state water buffer variance must be obtained by the Contractor prior to beginning any land disturbing activity in the stream buffer.

3. Erosion Control for Borrow and Excess Material Pits Outside the Right-of-Way

Erosion control for borrow pits and excess material pits outside the right of way is the responsibility of the Contractor. If borrow or excess material pits require coverage under the National Pollutant Discharge Elimination System permit (NPDES) or other permits or variances are required, submit a copy of all documentation required by the permitting agency to the Engineer. All costs associated with complying with local, state, and federal laws and regulations are the responsibility of the Contractor.

4. Culverts and Pipes

The ESPCP does not contain approved methods to construct a stream diversion or stream diversion channel. The Contractor shall prepare a diversion plan utilizing a Design Professional as defined in the current NPDES permit. See Subsection 161.3.05 G for additional information.

5. Temporary Asphalt or Concrete Batch Plants

In addition to the requirements of any applicable specifications, if the Department authorizes the temporary installation and use of any asphalt, concrete or similar batch plants within its right of way, the contractor shall submit an NOI to the Georgia Environmental Protection Division for coverage under the following NPDES permits; The Infrastructure permit for the construction of the plant, and the Industrial permit for the operation of, such a plant. The contractor shall submit the NOIs as both the Owner and the Operator.

161.2 Materials

General Provisions 101 through 150.

Section 161—Control of Soil Erosion and Sedimentation

161.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

161.3 Construction Requirements

161.3.01 Personnel

A. Duties of the Worksite Erosion Control Supervisor

Before beginning Work, designate a Worksite Erosion Control Supervisor (WECS) to initiate, install, maintain, inspect, and report the condition of all erosion control devices as described in Sections 160 through 171 or in the Contract and ESPCP documents. The designee shall submit their qualifications on the Department provided resume form for consideration and approval. The contractor may utilize additional persons having WECS qualifications to facilitate compliance however, only one WECS shall be designated at a time.

The WECS and alternates shall:

- Be an employee of the Prime Contractor.
- Have at least one year of experience in erosion and sediment control, including the installation, inspection, maintenance and reporting of BMPs.
- Successfully completed the Georgia Soil and Water Conservation Commission Certification Course Level IA and the Department's WECS Certification Course.
- Provide phone numbers where the WECS can be located 24 hours a day.

The WECS' duties include the following:

- Be available 24 hours a day and have access to the equipment, personnel, and materials needed to maintain erosion control, and to the extent practicable, flooding control. An approved representative can be substituted for the WECS in regard to 24 hour availability. This representative shall be at least GSWCC Level IA, or higher, but is not required to be certified as a WECS.
 - Inform the Engineer in writing whenever the alternate WECS will assume project responsibilities for more than 3 (three) days.
 - Ensure that erosion control deficiencies are corrected within seventy-two (72) hours.
 - Ensure that erosion control deficiencies that resulted in sediment deposition into waters of the State are corrected.
 - Deficiencies that interfere with traffic flow, safety, or downstream turbidity are to be corrected immediately.
- Be on the site within three (3) hours after receiving notification of an emergency prepared to positively respond to the conditions encountered. The Department may handle emergencies without notifying the Contractor. The Department will recover costs for emergency maintenance work according to Subsection 105.15, "Failure to Maintain Roadway or Structures."
- Maintain and submit for project record, "As-built" Erosion, Sedimentation and Control Plans that supplement and graphically depict EC-1 reported additions and deletions of BMPs. The As-Built plans are to be accessed and retained at a Department facility at all times.
- Ensure that both the WECS and the alternate meet the criteria of this Subsection.
- The WECS shall maintain a current certification card for the duration of the project. Recertification of the WECS may begin within 365 days of the expiration date of the current certification and upon receiving a passing examination grade; the current expiration date shall be extended three (3) years. Certification shall be allowed to occur without a lapse of the credential for a period not to exceed ninety (90) days after the current expiration date. If the allowed ninety (90) days has lapsed, the individual is no longer certified to serve in a WECS capacity on the project until the individual attends and passes the course examination.

Section 161—Control of Soil Erosion and Sedimentation

161.3.02 Equipment

General Provisions 101 through 150.

161.3.03 Preparation

General Provisions 101 through 150.

161.3.04 Fabrication

General Provisions 101 through 150.

161.3.05 Construction

A. Control Dust Pollution

The contractor shall keep dust pollution to a minimum during any of the activities performed on the project. It may be necessary to apply water or other BMPs to roadways or other areas reduce pollution.

B. Perform Permanent or Temporary Grassing

Perform permanent grassing, temporary grassing, or mulching on cut and fill slopes weekly (unless a shorter period is required by Subsection 107.23) during grading operations. When conditions warrant, the Engineer may require more frequent intervals.

Under no circumstances shall the grading (height of cut) exceed the height operating range of the grassing equipment. It is extremely important to obtain a cover, whether it is mulch, temporary grass or permanent grass. Adequate mulch is a must.

When grading operations or other soil disturbing activities have stopped, perform grassing or erosion control as shown in the Plans, as shown in an approved Plan submitted by the Contractor, or as directed by the Engineer.

C. Seed and Mulch

Refer to Subsection 161.3.05 B, “Perform Permanent and Temporary Grassing.”

D. Implement Permanent or Temporary Erosion Control

1. Silt fence shown along the perimeter, e.g. right of way, and sediment containment devices, e.g. sediment basins, shall be installed prior to major clearing and grubbing operations. Minor clearing and grubbing are allowed for the sole purpose of installing perimeter controls and other initial phase BMPs.
2. Incorporate permanent erosion control features into the Project at the earliest practicable time, e.g. velocity dissipation, permanent ditch protection.
3. Use temporary erosion control measures to address minor conditions that develop during construction, e.g. between construction stages.
4. Use temporary erosion control measures when installation of permanent erosion control features cannot be accomplished.

The Engineer has the authority to:

- Limit the surface area of erodible earth material exposed by clearing and grubbing.
- Limit the surface area of erodible earth material exposed by excavation and borrow and fill operations.
- Limit the area of excavation, and embankment operations in progress to correspond with the Contractor’s ability to keep the finish grading, mulching, seeding, and other permanent erosion control measures current.
- Direct the Contractor to provide immediate permanent or temporary erosion control to prevent contamination of adjacent streams or water courses, lakes, ponds, or other areas of water impoundment.

Such Work may include constructing items listed in the table in Subsection 161.1.02.A, “Related References” or other control devices or methods to control erosion.

Section 161—Control of Soil Erosion and Sedimentation

E. Erodible Area

NOTE: Never allow the surface area of erodible earth material exposed at one time to exceed 17 acres (7 ha) except as approved by the State Construction Engineer.

The maximum of 17 acres (7 ha) of exposed erodible earth applies to the entire Project and to all of its combined operations as a whole, not to the exposed erodible earth of each individual operation.

Upon receipt of a written request from the contractor the State Construction Engineer, or his designee, will review; the request, any justifications and the Project conditions for waiver of the 17 acres (7 ha) limitation. If the 17 acre limitation is increased by the State Construction Engineer, the WECS shall not be assigned to another project in that capacity and should remain on site each work day that the exposed acreage exceeds 17 acres.

After installing temporary erosion control devices, e.g., grassing, mulching, stabilizing an area, and having it approved by the Engineer, that area will be released from the 17 acres (7 ha) limit.

F. Perform Grading Operations

Perform the following grading operations:

1. Whenever practicable, complete each roadway cut and embankment continuously.
2. Maintain the top of the earthwork in roadway sections throughout the construction stages to allow water to run off to the outer edges, including techniques to minimize concentrated flow.
3. Provide temporary slope drain facilities with inlets and velocity dissipaters (straw bales, silt fence, aprons, etc.) to carry the runoff water to the bottom of the slopes. Place drains at intervals to handle the accumulated water.
4. Continue temporary erosion control measures until permanent drainage facilities have been constructed, pavement placed, and the grass on planted slopes stabilized to deter erosion.

G. Perform Construction in Rivers and Streams

Perform construction in river and stream beds as follows:

1. Unless otherwise agreed to in writing by the Engineer, restrict construction operations in rivers, streams, and impoundments to areas where channel changes or access for construction are shown on the Plans to construct temporary or permanent structures.
2. If channel changes or diversions are not shown on the Plans, the Contractor shall develop diversion plans prepared in accordance with the current GAR100002 NPDES Infrastructure Construction permit utilizing a design professional as defined within the permit. The Engineer will review prepared diversion plans for content only and accepts no responsibility for design errors or omissions. Amendments will be made part of the project plans by attachment. Include any associated costs in the price bid for the overall contract. Any contract time associated with the submittal or its review and subsequent response will not be considered for an extension of Contract time. All time associated with this subsection shall be considered incidental.
3. If additional access for construction or removal of work bridges, temporary roads/access or work platforms is necessary, and will require additional encroachment upon river or stream banks and bottoms, the contractor shall prepare a plan in accordance with the current GAR100002 NPDES Infrastructure Construction permit utilizing a design professional as defined within the permit. Plans should be submitted at least 12 weeks prior to the date the associated work is expected to begin. If necessary, the plan will be provided to the appropriate regulating authority, e.g. United States Army Corps of Engineers by the Department for consideration and approval. No work that impacts areas beyond what has been shown in the approved plans will be allowed to begin until written approval of the submitted plan has been provided by the Department. Approved plan amendments will be made part of the project plans by attachment. Include any associated costs in the price bid for the overall contract. Any contract time associated with the submittal or its review and subsequent response will not be considered for an extension of Contract time. All time associated with this subsection shall be considered incidental.
4. Clear rivers, streams, and impoundments of the following as soon as conditions permit:
 - Falsework

Section 161—Control of Soil Erosion and Sedimentation

- Piling that is to be removed
 - Debris
 - Other obstructions placed or caused by construction operations
5. Do not ford live streams with construction equipment.
 6. Use temporary bridges or other structures that are adequate for a 25-year storm for stream crossings. Include costs in the price bid for the overall contract.
 7. Do not operate mechanized equipment in live streams except to construct channel changes or temporary or permanent structures, and to remove temporary structures, unless otherwise approved in writing by the Engineer.

H. State Water Buffers and Environmental Restrictions

1. The WECS shall review the plans and contract documents for environmental restrictions, Environmentally Sensitive Areas (ESA), e.g. buffers, etc prior to performing land disturbing activities.
2. The WECS shall ensure all parties performing land disturbing activities within the project limits are aware of all environmental restrictions.
3. Buffer delineation shall be performed prior to clearing, or any other land disturbing activities. Site conditions may require temporary delineation measures to be implemented prior to the installation of orange barrier/safety fencing. The means of temporary delineation shall have the Engineer's prior approval.
4. The WECS shall allow the Engineer to review the buffer delineation prior to performing any land disturbing activities, including but not limited to clearing, grubbing and thinning of vegetation. Any removal and relocation of buffer delineation based upon the Engineer's review will not be measured for separate payment.
5. The WECS shall advise the Engineer of any surface water(s) encountered that are not shown in the plans. The WECS shall prevent land disturbing activities from occurring within surface water buffers until the Engineer provides approval to proceed.

I. Maintenance Projects

Projects that consist of asphalt resurfacing, shoulder reconstruction and/or shoulder widening; schedule and perform the construction of the project to comply with the following:

1. After temporary and permanent erosion control devices are installed and the area permanently stabilized (temporary or permanent) and approved by the Engineer, the area may be released from the 1 acre (0.4 ha) limit.
2. The maximum of 1 acre (0.4 ha) of erodible earth applies to the entire project and to all combined operations, including borrow and excess material operations that are within the right of way, not 1 acre (0.4 ha) of exposed erodible earth for each operation.
3. Do not allow the disturbed exposed erodible area to exceed 1 acre (0.4 ha). This 1 acre (0.4 ha) limit includes all disturbed areas relating to the construction of the project including but not limited to slope and shoulder construction.
4. At the end of each working day, permanently stabilize all of the area disturbed by slope and shoulder reconstruction to prevent any contamination of adjacent streams or other watercourses, lakes, ponds or other areas of water impoundment. For purposes of this Specification, the end of the working day is defined as when the construction operations cease. For example, 6:00 a.m. is the end of the working day on a project that allows work only between 9:00 p.m. and 6:00 a.m.)
5. Stabilize the cut and fill slopes and shoulder with permanent or temporary grassing and a Wood Fiber Blanket (Section 713, Type II). Mulching is not allowed. Borrow pits, soil disposal sites and haul roads will not require daily applications of wood fiber blanket. The application rate for the Wood Fiber Blanket on shoulder reconstruction is the rate specified for Shoulders. For shoulder reconstruction, the ground preparation requirements of Subsection 700.3.05.A.1 are waived. Preparation consists of scarifying the existing shoulders

Section 161—Control of Soil Erosion and Sedimentation

4 to 6 in (100 to 150 mm) deep and leaving the area in a smooth uniform condition free from stones, lumps, roots or other material.

6. If a sudden rain event occurs that would not allow the Contractor to apply the Type II Wood Fiber Blanket per Section 713, install Wood Fiber Blanket Type I per Section 713 if directed by the Engineer. Wood Fiber Blanket Type I application is for emergency use only.
7. Install temporary grass or permanent grass according to seasonal limitations and Specifications. When temporary grass is used, use the over seeding method (Subsection 700.3.05.E.4) when planting permanent grass.
8. Remove and dispose of all material excavated for the trench widening operation at an approved soil disposal site by the end of each working day. When shoulder reconstruction is required, this material may be used to reconstruct the graded shoulder after all asphaltic concrete pavement has been placed.
9. Provide immediate permanent and/or temporary erosion control measures for borrow pits, soil disposal sites and haul roads to prevent any contamination of adjacent streams or other watercourses, lakes, ponds or other areas of water impoundment.
10. Place asphalt in the trench the same day as the excavation occurs. Place asphalt or concrete in driveways and side roads being re-graded the same day as the excavation occurs. Stabilize any disturbed or exposed soil that is not covered with asphalt with a Wood Fiber Blanket (and grass seed). Payment will be made for the Wood Fiber Blanket and grass seed only if the shoulder has been constructed to final dimensions and grade and no further grading will be required.
11. Do not allow the grading (height of cut or fill) to exceed the operating range of the grassing equipment.
12. When grading operations or other soil disturbing activities are suspended, regardless of the reason, promptly perform all necessary permanent stabilization and/or erosion control work.
13. Use temporary erosion control measures to:
 - Correct conditions that develop during construction but were unforeseen during the design stage.
 - Use as needed before installing permanent erosion control features.
 - Temporarily control erosion that develops during normal construction practices but are not associated with permanent control features on the Project.
14. When conditions warrant, such as unfavorable weather (rain event), the Engineer may require more frequent intervals for this work.

J. Other Projects

On non-NOI construction projects that have minimal amounts of grading with the installation of BMP's, the Contractors qualified personnel shall be required to submit a weekly EC-1 inspection form in accordance with Section 167. This weekly EC-1 inspection shall begin when BMP's are installed and continue until the acceptance of permanent stabilization.

161.3.06 Quality Acceptance

Before Final Acceptance of the Work, clean drainage structures within the project limits, both existing and newly constructed, and ensure that they are functioning properly. Costs to accomplish this work are incidental and shall be included in the overall bid for the Contract.

161.3.07 Contactor Warranty and Maintenance

Maintain the erosion control features installed to:

- Contain erosion within the limits of the right-of-way
- Control storm water discharges from disturbed areas

Section 161—Control of Soil Erosion and Sedimentation

Effectively install and maintain the erosion control features. Ensure these features contain the erosion and sediment within the limits of the rights of way and control the discharges of storm-water from disturbed areas to meet all local, state, and federal requirements on water quality.

161.4 Measurement

Control of soil erosion and sedimentation is not measured separately for payment.

161.4.01 Limits

General Provisions 101 through 150.

161.5 Payment

When no pay item is shown in the Contract, the requirements of this Specification and the Erosion, Sedimentation and Pollution Control Plan shall be in full effect. The cost of complying with these requirements will not be paid for separately, but shall be included in the overall bid submitted with the exception of inspections performed by qualified personnel which will be included in Section 167.

When listed as a pay item in the Contract, payment will be made at the unit price bid for each particular item.

No payment will be made for erosion control outside the Right-of-Way or construction easements except as provided for by the Plans.

161.5.01 Enforcement and Adjustments

A. Failure to Provide WECS

If a designated WECS is not maintained, activities will cease except traffic control and erosion control work. Monies that are due or may become due could be withheld according to the Specifications.

B. Failure to Comply with Specifications

If the Contractor repeatedly fails to comply with any of the requirements of this Specification, all activities should cease immediately except traffic control and erosion control related work.

Monies that are currently due or that may become due shall be withheld according to the specifications. In addition, nonrefundable monies shall be deducted from the contract as shown in the Schedule of Deductions table below. These deductions are in addition to any actions taken in the above subsections. Deductions assessed for uncorrected deficiencies shall continue until all corrections are completed to the satisfaction of the Engineer.

Failure of the WECS or alternate to perform the duties specified in the Contract, or whose performance, has resulted in a citation being received from a State or Federal Regulatory Agency, e.g. the Georgia Environmental Protection Division, should result in one or more of the following:

- Suspension of the WECS' certification for a period of not less than 30 days
- Removal of the Contractor's project superintendent in accordance with Subsections 105.05 and 108.05 for a period not less than 14 days
- Department wide revocation of the WECS certification for a period of 12 months
- Removal of the Contractor's project superintendent in accordance with Subsections 105.05 and 108.05

C. Receipt of a Consent Order, Notice of Violation, etc.

Regulatory enforcement actions will be resolved including the minimum following steps:

- The Department will perform an internal review of the alleged violations
- The Department will then meet with the Contractor to review and further determine responsibilities for the alleged violations
- The Department will then arrange to collectively meet with the regulatory agencies to negotiate resolutions and/or settlements.

Section 161—Control of Soil Erosion and Sedimentation

The Department does not waive any rights of the Contractor to resolve such matters however, in the event that regulatory agency communication is addressed jointly to the Department and to the contractor, the Department reserves the right to coordinate all communications, e.g., written correspondence, and to schedule jointly attended meetings with Regulatory agencies such that timely and accurate responses are known to the Department.

Such Orders or Notices may result in the assessment of Deductions from the table below for each day the condition remains non-compliant following an agreed remedy.

Monetary penalties for which the contractor is obligated for as a result of regulatory enforcement may be withheld from future monies due the contractor.

Schedule of Deductions for Each Calendar Day of Erosion Control Deficiencies Initial Occurrence* Original Total Contract Amount		
From More Than	To and Including	Daily Charge
0	\$100,000	\$750
\$100,000	\$1,000,000	\$1125
\$1,000,000	\$5,000,000	\$2000
\$5,000,000	\$15,000,000	\$3000
\$15,000,000	-	\$5000

***Continued non-compliance with the requirements of this specification may result in the doubling of the above tabulated Daily Charge.**

Upon written request from the Contractor, the Engineer may allow, limited activities to concurrently proceed once significant portions of the corrective work have been completed. This authorization may be similarly rescinded if in the opinion of the Engineer corrective work is not being diligently pursued.

DEPARTMENT OF TRANSPORTATION
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Section 163—Miscellaneous Erosion Control Items

Delete Section 163 and substitute the following:

163.1 General Description

This work includes constructing and removing:

- Silt control gates
- Temporary erosion control slope drains shown on the Plans or as directed
- Temporary sediment basins
- Sediment barriers and check dams
- Rock filter dams
- Stone filter berms
- Stone filter rings
- Temporary sediment traps
- Other temporary erosion control structures shown on the Plans or directed by the Engineer

This work also includes applying mulch (e.g., straw, hay, erosion control compost), and temporary grass.

163.1.01 Related References

A. Standard Specifications

Section 109—Measurement and Payment

Section 161—Control of Soil Erosion and Sedimentation

Section 171—Silt Fence

Section 500—Concrete Structures

Section 576—Slope Drain Pipe

Section 603—Rip Rap

Section 700—Grassing

Section 711—Turf Reinforcement Matting

Section 716—Erosion Control Mats (Slopes)

Section 720 – Triangular Silt Barrier

Section 800—Coarse Aggregate

Section 801—Fine Aggregate

Section 822—Emulsified Asphalt

Section 845—Smooth Lined Corrugated Polyethylene (PE) Culvert Pipe

Section 860—Lumber and Timber

Section 863—Preservative Treatment of Timber Products

Section 881—Fabrics

Section 890—Seed and Sod

Section 893—Miscellaneous Planting Materials

B. Referenced Documents

AASHTO M252

AASHTO M294

163.1.02 Submittals

Provide written documentation to the Engineer as to the average weight of the bales of mulch.

163.2 Materials

Provide materials shown on the Plans, such as pipe, spillways, wood baffles, and other accessories including an anti-seep collar, when necessary. The materials shall remain the Contractor's property after removal, unless otherwise shown on the Plans.

Materials may be new or used; however, the Engineer shall approve previously used materials before use.

Materials shall meet the requirements of the following Specifications:

Material	Section
Mulch	893.2.02
Temporary Silt Fence	171
Concrete Aprons and Footings shall be Class A	500
Rip Rap	603
Temporary Grass	700
Triangular Silt Barrier	720
Coarse Aggregate	800
Lumber and Timber	860.2.01
Preservative Treatment of Timber Products	863.1
Corrugated Polyethylene Temporary Slope Drain Pipe	845

163.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

163.3 Construction Requirements

163.3.01 Personnel

General Provisions 101 through 150.

163.3.02 Equipment

General Provisions 101 through 150.

163.3.03 Preparation

General Provisions 101 through 150.

163.3.04 Fabrication

General Provisions 101 through 150.

163.3.05 Construction

A. Silt Control Gates

If silt control gates are required or are directed by the Engineer, follow these guidelines to construct them:

1. Clear and grade only that portion of the roadway within the affected drainage area where the drainage structure will be constructed.

2. Construct or install the drainage structure and backfill as required for stability.
3. Install the silt control gate at the inlet of the structure. Use the type indicated on the Plans.
4. Vary the height of the gate as required or as shown on the Plans.
5. Finish grading the roadway in the affected drainage area. Grass and mulch slopes and ditches that will not be paved. Construct the ditch paving required in the affected area.
6. Keep the gate in place until the work in the affected drainage area is complete and the erodible area is stabilized.
7. Remove the Type 1 silt gate assembly by sawing off the wood posts flush with the concrete apron. Leave the concrete apron between the gate and the structure inlet in place. The gate shall remain the property of the Contractor.

B. Temporary Slope Drains

If temporary slope drains are required, conduct the roadway grading operation according to Section 161 and follow these guidelines:

1. Place temporary pipe slope drains with inlets and velocity dissipaters (straw bales, silt fence, or aprons) according to the Plans.
2. Securely anchor the inlet into the slope to provide a watertight connection to the earth berm. Ensure that all connections in the pipe are leak proof.
3. Place temporary slope drains at a spacing of 350 ft (105 m) maximum on a 0% to 2% grade and at a spacing of 200 ft (60m) maximum on steeper grades, or more frequently as directed by the Engineer. Keep the slope drains in place until the permanent grass has grown enough to control erosion.
4. Remove the slope drains and grass the disturbed area with permanent grass. However, the temporary slope drains may remain in place to help establish permanent grass if approved by the Engineer.

C. Temporary Sediment Basins

Construct temporary sediment basins according to the Plans at the required locations, or as modified by the Engineer.

1. Construct the unit complete as shown, including:
 - Grading
 - Drainage
 - Riprap
 - Spillways
 - Anti-seep collar
 - Temporary mulching and grassing on internal and external slopes
 - Accessories to complete the basin
2. When the sediment basin is no longer needed, remove and dispose of the remaining sediment.
3. Remove the sediment basin. Grade to drain and restore the area to blend with the adjacent landscape.
4. Mulch and permanently grass the disturbed areas according to Section 700.

D. Sediment Barriers

Construct sediment barriers according to the Plan details.

The following items may be used for sediment barriers

1. Type A Silt Fence.
2. Type C Silt Fence.
3. Rectangular, mechanically produced and standard-sized baled wheat straw.
4. Triangular Silt Barrier.
5. Synthetic Fiber: Use synthetic fiber bales of circular cross section at least 18 in (450 mm) in diameter. Use synthetic bales of 3 ft or 6 ft (0.9 m or 1.8 m) in length that are capable of being linked together to form a continuous roll of the desired total length. Use bales that are enclosed in a geotextile fabric and that contain a pre-made stake hole for anchoring.
6. Coir: Use coir fiber bales of circular cross section at least 16" (400mm) in diameter. Use coir bales of 10 ft, 15 ft, or 20 ft (3 m, 4.5 m, or 6 m) in length. Use coir baled with coir twine netting with 2 in X 2 in (50 mm X 50 mm)

openings. Use coir bales with a dry density of at least 7 lb/ft³ (112 kg/m³). Anchor in place with 2 in X 4 in (50 mm X 100 mm) wooden wedges with a 6 in (150 mm) nail at the top. Place wedges no more than 36 in (900 mm) apart.

7. Excelsior: Use curled aspen excelsior fiber with barbed edges in circular bales of at least 18 in (450 mm) in diameter and nominally 10 ft (3 m) in length. Use excelsior baled with polyester netting with 1 in X 1 in (25 mm by 25 mm) triangular openings. Use excelsior bales with a dry density of at least 1.4 lb/ft³ (22 kg/m³). Anchor in place with 1 in (25 mm) diameter wooden stakes driven through the netting at intervals of no more than 2 ft (600 mm).
8. Compost Filter Sock: Use general use compost (see Subsection 893.2.02.A.5.b) in circular bales at least 18 in (450 mm) diameter. Use compost baled with photo-degradable plastic mesh 5 mils thick with a maximum 0.38 in X 0.38 in (10 mm X 10 mm) openings. Anchor in place with 1 in (25 mm) diameter wooden stakes driven through the netting at intervals of no more than 2 ft (600 mm) in concentrated flow applications and no more than 5 ft (1500 mm) in sheet flow applications. The sock shall be dispersed on site when no longer required, as determined by the Engineer. Do not use Compost Filter Socks in areas where the use of fertilizer is restricted.
9. Compost Filter Berm: Use erosion control compost (see Subsection 893.2.02) to construct a noncompacted 1.5 ft to 2 ft (450 mm to 600 mm) high trapezoidal berm which is approximately 2 ft to 3 ft (600 mm to 1 m) wide at the top and minimum 4 ft (1.2 m) wide at the base. Do not use Compost Filter Berms in areas where the use of fertilizer is restricted.

The construction of the compost filter berm includes the following:

- a. Keeping the berm in a functional condition.
- b. Installing additional berm material when necessary.
- c. Removing the berm when no longer required, as determined by the Engineer. At the Engineer's discretion, berm material may be left to decompose naturally, or distributed over the adjacent area.

E. Other Temporary Structures

When special conditions occur during the design stage, the Plans may show other temporary structures for erosion control with required materials and construction methods.

F. Temporary Grass

Use a quick-growing species of temporary grass such as rye grass, millet, or a cereal grass suitable to the area and season.

Use temporary grass in the following situations:

- When required by the Specifications or directed by the Engineer to control erosion where permanent grassing cannot be planted.
- To protect an area for longer than mulch is expected to last (60 calendar days), plant temporary grass as follows:
 1. Use seeds that conform to Subsection 890.2.01, "Seed." Perform seeding according to Section 700; except use the minimum ground preparation necessary to provide a seed bed if further grading is required.
 2. Prepare areas that require no further grading according to Subsection 700.3.05.A, "Ground Preparation." Omit the lime unless the area will be planted with permanent grass without further grading. In this case, apply the lime according to Section 700.
 3. Apply mixed grade fertilizer at 400 lbs/acre (450 kg/ha). Omit the nitrogen. Mulch (with straw or hay) temporary grass according to Section 700. (Erosion control compost Mulch will not be allowed with grassing.)
 4. Before planting permanent grass, thoroughly plow and prepare areas where temporary grass has been planted according to Subsection 700.3.05.A, "Ground Preparation".
 5. Apply Polyacrylamide (PAM) to all areas that receive temporary grassing.
 6. Apply PAM (powder) before grassing or PAM (emulsion) to the hydroseeding operation.
 7. Apply PAM according to manufacturer specifications.
 8. Use only anionic PAM.

For projects that consist of shoulder reconstruction and/or shoulder widening, refer to Section 161.3.05H for Wood Fiber Blanket requirements.

G. Mulch

When staged construction or other conditions prevent completing a roadway section continuously, apply mulch (straw or hay or erosion control compost) to control erosion. Mulch may be used without temporary grassing for 60 calendar days or less. Areas stabilized with only mulch (straw/hay) shall be planted with temporary grass after 60 calendar days.

Apply mulch as follows:

1. Mulch (Hay or Straw) - Without Grass Seed
 - a. Uniformly spread the mulch over the designated areas from 2 in to 4 in (50 mm to 100 mm) thick.
 - b. After spreading the mulch, walk in the mulch by using a tracked vehicle (preferred method), empty sheep foot roller, light disking, or other means that preserves the finished cross section of the prepared areas. The Engineer will approve of the method.
 - c. Place temporary mulch on slopes as steep as 2:1 by using a tracked vehicle to imbed the mulch into the slope.
 - d. When grassing operations begin, leave the mulch in place and plow the mulch into the soil during seed bed preparation. The mulch will become beneficial plant food for the newly planted grass.
2. Erosion control compost - Without Grass Seed
 - a. Uniformly spread the mulch (erosion control compost) over the designated areas 2 in (50 mm) thick.
 - b. When rolling is necessary, or directed by the Engineer, use a light corrugated drum roller.
 - c. When grassing operations begin, leave the mulch in place and plow the mulch into the soil during seed bed preparation. The mulch will become beneficial plant food for the newly planted grass.
 - d. Plant temporary grass on area stabilized with mulch (erosion control compost) after 60 calendar days.
 - e. Do not use Erosion Control Compost in areas where the use of fertilizer is restricted.

H. Miscellaneous Erosion Control Items Not Shown on the Plans

When conditions develop during construction that were unforeseen in the design stage, the Engineer may direct the Contractor to construct temporary devices such as but not limited to:

- Bulkheads
- Sump holes
- Half round pipe for use as ditch liners
- U-V resistant plastic sheets to cover critical cut slopes

The Engineer and the Contractor will determine the placement to ensure erosion control in the affected area.

I. Diversion Channels

When constructing a culvert or other drainage structure in a live stream that requires diverting a stream, construct a diversion channel.

J. Check Dams

Check dams are constructed of the following materials;

- Stone plain riprap according to Section 603 (Place woven plastic filter fabric on ditch section before placing riprap.)
- Sand bags as in Section 603 without Portland cement
- Baled wheat straw
- Compost filter socks
- Fabric (Type C silt fence)

Check dams shall be constructed according to plan details and shall remain in place until the permanent ditch protection is in place or being installed and the removal is approved by the Engineer.

K. Construction Exits

Locate construction exits at any point where vehicles will be leaving the project onto a public roadway. Install construction exits at the locations shown in the plans and in accordance with plan details.

Construction exit tire wash assemblies shall be installed when conditions dictate additional tire cleaning measures are necessary to assist in protecting public roadways. Install construction exit tire wash assemblies in accordance with the Plan details as directed by the Engineer. The Contractor may submit other construction exit tire wash assembly and

sediment storage methods for review and approval by the Engineer. Remove the construction exit tire wash assembly from the construction exit as directed by the Engineer.

L. Retrofits

Add the retrofit device to the permanent outlet structure as shown on the Plan details.

When all land disturbing activities that would contribute sediment-laden runoff to the basin are complete, clean the basin of sediment and stabilize the basin area with vegetation.

When the basin is stabilized, remove the retrofit device from the permanent outlet structure of the detention pond.

M. Inlet Sediment Traps

Inlet sediment traps consist of a temporary device placed around a storm drain inlet to trap sediment. An excavated area adjacent to the sediment trap will provide additional sediment storage.

Inlet sediment traps may be constructed of Type C silt fence, plastic frame and filter, hay bales, baffle box, or other filtering materials approved by the Engineer. Construct inlet sediment traps according to the appropriate specification for the material selected for the trap. Place inlet sediment traps as shown on the Plans or as directed by the Engineer.

N. Rock Filter Dams

Construct rock filter dams of the material selected as shown in the approved erosion and sediment control plan. Construct and place this item in accordance with the approved erosion control construction detail(s) and Standard Specification Section 603.

Rock filter dams shall remain in place until the permanent ditch protection is in place or is being installed and their removal is approved by the Engineer.

O. Stone Filter Berms

Construct stone filter berms of the material selected as shown in the approved erosion and sediment control plan. Construct and place this item in accordance with the approved erosion control construction detail(s) and Standard Specification Section 603.

Stone filter berms shall remain in place until the permanent slope protection is in place or is being installed and their removal is approved by the Engineer.

P. Stone Filter Rings

Construct stone filter rings of the material selected as shown in the approved erosion and sediment control plan. Construct and place this item in accordance with the approved erosion control construction detail(s) and Standard Specification Section 603.

A stone filter ring shall remain in place until final stabilization of the area which drains toward it is achieved and its removal is approved by the Engineer.

Q. Temporary Sediment Traps

Construct temporary sediment traps of the material selected as shown in the approved erosion and sediment control plan. Construct and place this item in accordance with the approved erosion control construction detail(s) and Standard Specification Section 603.

A temporary sediment trap shall remain in place until final stabilization of the area which drains toward it is achieved and its removal is approved by the Engineer.

163.3.06 Quality Acceptance

General Provisions 101 through 150.

163.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

163.4 Measurement

A. Silt Control Gates

Silt control gates are measured for payment by the entire structure constructed at each location complete in place and accepted. Silt control gates constructed at the inlet of multiple lines of drainage structures are measured for payment as a single unit.

B. Temporary Slope Drains

Temporary slope drains are measured for payment by the linear foot (meter) of pipe placed. When required, the inlet spillway and outlet apron and/or other dissipation devices are incidental and not measured separately.

C. Temporary Sediment Basins

Temporary sediment basins are measured for payment by the entire structure complete, including construction, maintenance, and removal. Temporary grassing for sediment basins is measured separately for payment. Measurement also includes:

- Earthwork
- Drainage
- Spillways
- Baffles
- Riprap
- Final cleaning to remove the basin

D. Sediment Barriers

Sediment barriers are measured by the linear foot (meter).

E. Other Temporary Structures

Other temporary structures are not measured for payment. Costs for the entire structure complete, including materials, construction (including earthwork), and removal is included in the price bid for the drainage structure or for other Contract items.

F. Temporary Grass

Temporary grass is measured for payment by the acre (hectare). Lime, when required, is measured by the ton (megagram). Mulch and fertilizer are measured separately for payment.

G. Mulch

Mulch (straw or hay, or erosion control compost) is measured for payment by the ton (megagram).

H. Miscellaneous Erosion Control Items Not Shown on the Plans

These items are not measured for payment. The cost for construction, materials, and removal is included in the price bid for other contract items.

I. Diversion Channels

Diversion channels are not measured for payment. The cost for the entire structure complete, including materials, construction (including earthwork), and removal is included in the price bid for the drainage structure or for other contract items.

J. Check Dams

Stone, sand bags, baled wheat straw, and compost filter sock check dams are measured per each, which includes all work necessary to construct the check dam including woven plastic filter fabric placed beneath stone check dams. Fabric check dams are measured per linear foot.

K. Construction Exits

Construction exits are measured per each which will include all work necessary to construct the exit including the required geotextile fabric placed beneath the aggregate.

Construction exit tire wash assemblies are measured per each when added to an existing construction exit. Measurement includes all work necessary to construct the construction exit tire wash assembly including an acceptable sediment trap, water source, and removal.

L. Retrofits

Retrofit will be measured for payment per each. The construction of the detention pond and permanent outlet structure will be measured separately under the appropriate items.

M. Inlet Sediment Traps

Inlet sediment traps, regardless of the material selected, are measured per each which includes all work necessary to construct the trap including any incidentals and providing the excavated area for sediment storage.

N. Rock Filter Dams

Rock filter dams are measured for payment per each required. This includes the entire structure at each location and all the work necessary for construction.

O. Stone Filter Berms

Stone filter berms are measured for payment per linear foot (meter) required. This includes the entire structure at each location and all the work necessary for construction.

P. Stone Filter Rings

Stone filter rings are measured for payment per each required. This includes the entire structure at each location and all the work necessary for construction.

Q. Temporary Sediment Traps

Temporary sediment traps are measured for payment per each required. This includes the entire structure at each location and all the work necessary for construction.

163.4.01 Limits

General Provisions 101 through 150.

163.5 Payment

A. Silt Control Gates

The specified silt control gates are paid for at the Contract Unit Price per each. Payment is full compensation for:

- Furnishing the material and labor
- Constructing the concrete apron as shown on the Plans
- Excavating and backfilling to place the apron
- Removing the gate

B. Temporary Slope Drains

Temporary slope drains are paid for by the linear foot (meter). Payment is full compensation for materials, construction, removal (if required), inlet spillways, velocity dissipaters, and outlet aprons.

When temporary drain inlets and pipe slope drains are removed, they remain the Contractor's property and may be reused or removed from the Project as the Contractor desires. Reused pipe or inlets are paid for the same as new pipe or inlets.

C. Temporary Sediment Basins

Temporary sediment basins, measured according to Subsection 163.4,C "Measurement," are paid for by the unit, per each, for the type specified on the Plans. Price and payment are full compensation for work and supervision to construct, and remove the sediment basin, including final clean-up.

D. Sediment Barriers

Sediment barriers are paid by the linear foot (meter). Price and payment are full compensation for work and supervision to construct, and remove the sediment barrier, including final clean-up.

E. Other Temporary Structures

Other temporary structures are not measured for payment. Costs for the entire structure complete, including materials, construction (including earthwork), and removal is included in the price bid for the drainage structure or for other Contract items.

F. Temporary Grass

Temporary grass is paid for by the acre (hectare). Payment is full compensation for all equipment, labor, ground preparation, materials, wood fiber mulch, polyacrylamide, and other incidentals. Lime (when required) is paid for by the ton (megagram). Mulch and fertilizer are paid for separately.

G. Mulch

Mulch is paid for by the ton. Payment is full compensation for all materials, labor, maintenance, equipment and other incidentals.

The weight for payment of straw or hay mulch will be the product of the number of bales used and the average weight per bale as determined on certified scales provided by the Contractor or state certified scales. Provide written documentation to the Engineer stating the average weight of the bales.

The weight of erosion control compost mulch will be determined by weighing each loaded vehicle on the required motor truck scale as the material is hauled to the roadway, or by using recorded weights if a digital recording device is used. The Contractor may propose other methods of providing the weight of the mulch to Engineer for approval.

H. Miscellaneous Erosion Control Items Not Shown on the Plans

These items are not paid for separately. They are included in the price bid for other contract items.

I. Diversion Channel

Diversion channels are not paid for separately. They are included in the price bid for other contract items.

J. Check Dams

Payment is full compensation for all materials, construction, and removal. Stone plain riprap, sand bag, baled wheat straw, or compost filter socks check dams are paid for per each. The required woven filter fabric required under each stone check dams is included in the bid price. Fabric check dams are paid for per linear foot.

K. Construction Exits

Construction exits are paid for per each. Payment is full compensation for all materials including the required geotextile, construction, and removal.

Construction exit tire wash assemblies are paid for per each when added to an existing construction exit. Payment is full compensation for all labor, equipment, materials, construction, and removal. An acceptable sediment trap and water source is required and included in the price bid for each.

L. Retrofits

This item is paid for at the Contract Unit Price per each. Payment is full compensation for all work, supervision, materials (including the stone filter), labor and equipment necessary to construct and remove the retrofit device from an existing or proposed detention pond outlet structure.

M. Inlet Sediment Traps

Inlet sediment traps are paid for per each. Payment is full compensation for all materials, construction, and removal.

N. Rock Filter Dams

Rock filter dams are paid for per each. Payment is full compensation for all materials, construction, and removal for each. Clean reused stone Type 3 riprap and #57 stone are paid for on the same basis as new items. Plastic woven filter fabric is required under rock filter dams and is included in the price bid for each.

O. Stone Filter Berms

Stone filter berms are paid for per linear foot (meter). Payment is full compensation for all materials, construction, and removal for each. Clean reused stone Type 3 riprap and #57 stone are paid for on the same basis as new items. Plastic woven filter fabric is required under rock filter berms and is included in the price bid for linear foot (meter).

P. Stone Filter Rings

Stone filter rings are paid for per each. Payment is full compensation for all materials, construction, and removal for each. Clean reused stone Type 3 riprap and #57 stone are paid for on the same basis as new items. Plastic woven filter fabric is required under stone filter rings and is included in the price bid for each.

Q. Temporary Sediment Traps

Temporary sediment traps are paid for payment per each required. This includes the entire structure at each location and all the work necessary for construction.

The items in this section (except temporary grass and mulch) are made as partial payments as follows:

- When the item is installed and put into operation the Contractor will be paid 75 percent of the Contract price.
- When the Engineer instructs the Contractor that the item is no longer required and is to remain in place or is removed, whichever applies, the remaining 25 percent will be paid.

Temporary devices may be left in place at the Engineer’s discretion at no change in cost. Payment for temporary grass will be made based on the number of acres (hectares) grassed. Mulch will be based on the number of tons (megagrams) used.

Payment is made under:

Item No. 163	Construct and remove silt control gates	Per each
Item No. 163	Construct and remove temporary pipe slope drains	Per linear foot (meter)
Item No. 163	Construct and remove temporary sediment barriers	Per linear foot (meter)
Item No. 163	Construct and remove sediment basins	Per each
Item No. 163	Construct and remove check dams except fabric dams	Per each
Item No. 163	Construct and remove fabric check dams	Per linear foot (meter)
Item No. 163	Construct and remove construction exits	Per each
Item No. 163	Construct and remove construction exit tire wash assembly	Per each
Item No. 163	Construct and remove retrofits	Per each
Item No. 163	Construct and remove rock filter dams	Per each
Item No. 163	Construct and remove stone filter berms	Per linear foot (meter)
Item No. 163	Construct and remove stone filter rings	Per each
Item No. 163	Construct and remove inlet sediment traps	Per each
Item No. 163	Construct and remove temporary sediment traps	Per each
Item No. 163	Temporary grass	Per acre (hectare)
Item No. 163	Mulch	Per ton (megagram)

163.5.01 Adjustments

General Provisions 101 through 150.

DEPARTMENT OF TRANSPORTATION
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**Section 165—Maintenance of Temporary Erosion and Sedimentation
Control Devices**

Delete Section 165 and substitute the following:

165.1 General Description

This work consists of providing maintenance on temporary erosion and sediment control devices, including but not limited to the following:

- Silt control gates
- Temporary erosion control slope drains shown on the Plans or as directed
- Temporary sediment basins
- Silt control gates
- Check dams
- Sediment barriers
- Rock filter dams
- Stone filter berms
- Stone filter rings
- Temporary sediment traps

It also consists of removing sediment that has accumulated at the temporary erosion and sedimentation control devices.

165.1.01 Definitions

General Provisions 101 through 150.

165.1.02 Related References

A. Standard Specifications

General Provisions 101 through 150.

B. Referenced Documents

General Provisions 101 through 150.

165.1.03 Submittals

General Provisions 101 through 150

165.2 Materials

General Provisions 101 through 150.

165.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

165.3 Construction Requirements

165.3.01 Personnel

General Provisions 101 through 150.

165.3.02 Equipment

General Provisions 101 through 150.

165.3.03 Preparation

General Provisions 101 through 150.

165.3.04 Fabrication

General Provisions 101 through 150.

165.3.05 Construction

As a minimum, clean sediment from all temporary erosion control devices (except temporary sediment basins) installed on the project when one-half the capacity by volume, as measured by depth, has been reached. Clean sediment from all temporary sediment basins installed on a project when one-third the capacity of the storage volume has been filled.

Handle excavated sediment from any erosion or sediment control device in one of the following ways:

- Remove sediment from the immediate area and immediately stabilize it to prevent the material from refilling any erosion or sediment control device.
- Place and mix it in the roadway embankment or waste it in an area approved by the Engineer.

Repair or replace at no cost to the Department any erosion or sediment control device that is not functioning properly or is damaged due to negligence or abuse.

A. Temporary Silt Fence

Maintenance of temporary silt fence consists of furnishing all labor, tools, materials, equipment and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0 % filled). Also included is the removal of sediment accumulations (“filtercake”) on the fabric by tapping the fabric on the downstream side. Maintenance of silt fence also includes the removal and replacement of any deteriorated filter fabric reducing the effectiveness of the silt fence on any properly installed silt fence.

B. Silt Control Gates

Maintenance of temporary silt control gates consists of all labor, tools, materials, equipment and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled). When applicable, this item will include the removal of sediment accumulations on the fabric by tapping the fabric on the downstream side.

C. Check Dams (all types)

Maintenance of temporary erosion control check dams shall consist of all labor, tools, materials, equipment and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled). This item also includes the removal of any material deposited in sump holes. When applicable, this item will include the removal of sediment accumulations on the fabric by tapping the fabric on the downstream side, or from the baled straw by similar means.

D. Silt Retention Barriers

Maintenance of temporary silt retention barriers consists of all labor, tools, materials, equipment and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled).

E. Temporary Sediment Basins

Maintenance of temporary sediment basins consists of all labor, tools, materials, equipment and necessary incidentals to remove and dispose of accumulated sediment down to the original bottom of the basin. This also includes removing accumulated sediment from the rock filter and restoring the rock filter to its original specified condition and any work necessary to restore all other components to the pre-maintenance conditions.

F. Sediment Barriers

Maintenance of sediment barriers consists of furnishing all labor, tools, materials, equipment and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0 % filled). Also included is the removal of sediment accumulations on the barriers by tapping.

G. Triangular Silt Barriers

Maintenance of triangular silt barriers consists of all labor, tools, materials, equipment and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled).

H. Retrofits

Maintenance of the retrofits device consists of all labor, tools, materials, equipment and necessary incidentals to remove and properly dispose of accumulated sediment in the permanent detention pond being utilized as a temporary sediment basin. This item also includes any maintenance that is required to ensure the retrofit device is maintained per Plan details and any maintenance of the stone filter to maintain its filtering ability, including cleaning and replacement.

I. Construction Exits

Maintenance of the construction exits consists of all labor, tools, materials, equipment and incidentals, including additional stone and geotextile fabric as required to prevent the tracking or flow of soil onto public roadways. This includes scarifying existing stone, cleaning existing stone, or placement of additional stone.

Maintenance of the construction exit tire wash assembly consists of all labor, tools, materials, and equipment and incidentals, including stone and geotextile fabric as required to prevent the tracking or flow of soil onto public roadways. This includes scarifying existing stone, cleaning existing stone, cleaning tire wash assembly area, or placement of additional stone. It also includes the removal and dispose of accumulated sediment in the required approved sediment storage device down to the original ground line (0% filled).

Cleaning of the construction exit by scraping and/or brooming only will not be measured for payment.

J. Inlet Sediment Traps

Maintenance of inlet sediment traps consists of all labor, tools, materials, equipment, and necessary incidentals to remove and properly dispose of accumulated sediment in the trap and/or the excavated area adjacent to the trap. It also includes any maintenance that is required to remove sediment accumulations ("filtercake") from the material selected to construct the inlet sediment trap.

K. Rock Filter Dams

Maintenance of rock filter dams consists of all labor, tools, materials, equipment, and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled). This item also includes the removal of any material deposited in sump holes.

L. Stone Filter Berms

Maintenance of stone filter berms consists of all labor, tools, materials, equipment, and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled). This item also includes the removal of any material deposited in sump holes.

M. Stone Filter Rings

Maintenance of stone filter rings consists of all labor, tools, materials, equipment, and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled). This item also includes the removal of any material deposited in sump holes.

N. Temporary Sediment Traps

Maintenance of temporary sediment traps consists of all labor, tools, materials, equipment, and necessary incidentals to remove and dispose of accumulated sediment down to the original ground line (0% filled). This item also includes the removal of any material deposited in sump holes.

165.3.06 Quality Acceptance

General Provisions 101 through 150.

165.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

165.4 Measurement

A. Temporary Silt Fence

Maintenance of temporary silt fence, Type A or C, is the actual linear feet (meter) of silt fence measured in place where sediment is removed or where the silt fence has become undermined due to no fault or negligence of the Contractor. Any deteriorated filter fabric reducing the effectiveness of the silt fence that needs to be removed and replaced will be measured as maintenance of temporary silt fence.

B. Silt Control Gates

Maintenance of temporary silt control gates, Type 1, 2, or 3, as specified on the Plans is measured as a single unit.

C. Check Dams (All Types)

Maintenance of temporary erosion control check dams as specified on the Plans is the actual linear feet (meter) of baled straw, or rip rap, measured in place, where sediment is removed.

D. Silt Retention Barriers

Maintenance of temporary silt retention barrier as specified on the Plans is measured by the linear foot (meter) where sediment is removed.

E. Temporary Sediment Basins

Maintenance of temporary sediment basins as specified on the Plans is measured as a single unit.

F. Sediment Barriers

Maintenance of sediment barriers is the actual linear feet (meter) measured in place where sediment is removed.

G. Triangular Silt Barriers

Maintenance of triangular silt barrier as specified on the plans is measured by the linear foot (meter) where sediment is removed.

H. Retrofits

Maintenance of retrofit devices at the location specified on the Plans is measured per each.

I. Construction Exits

Maintenance of construction exits at the location specified on the Plans, or as directed by the Engineer is measured per each.

Maintenance of construction exit tire wash assemblies, including the required approved sediment storage device, at the location specified on the Plans, or as directed by the Engineer are measured per each when added to an existing construction exit.

Each location will be measured as either maintenance of construction exit or maintenance of construction exit tire wash assembly, but not measured simultaneously for payment.

J. Inlet Sediment Traps

Maintenance of inlet sediment traps at the location specified on the Plans, or as added by the Engineer is measured per each.

K. Rock Filter Dams

Maintenance of rock filter dams as specified on the plans is measured as a single unit.

L. Stone Filter Berms

Maintenance of stone filter berms as specified on the plans is measured per linear foot (meter).

M. Stone Filter Rings

Maintenance of stone filter rings as specified on the plans is measured as a single unit.

N. Temporary Sediment Traps

Maintenance of temporary sediment traps as specified on the plans is measured as a single unit.

165.4.01 Limits

General Provisions 101 through 150.

165.5 Payment

A. Temporary Silt Fence

Maintenance of temporary silt fence, Type A or C, is paid for at the contract unit price bid per linear foot (meter).

B. Silt Control Gates

Maintenance of temporary silt control gates, Type 1, 2, or 3, as specified on the Plans is paid for at the contract unit price bid per each.

C. Check Dams

Maintenance of check dams as specified on the Plans is paid for at the contract unit price bid per linear foot (meter).

D. Silt Retention Barriers

Maintenance of temporary silt retention barriers as specified on the Plans is paid for at the contract unit price bid per linear foot (meter).

E. Temporary Sediment Basins

Maintenance of temporary sediment basins as specified on the Plans is paid for at the contract unit price bid per each.

F. Sediment Barriers

Maintenance of sediment barriers as specified on the Plans is paid for at the contract unit price bid per linear foot (meter).

G. Triangular Silt Barriers

Maintenance of triangular silt barriers as specified on the Plans is paid for at the contract unit price bid per linear foot (meter).

H. Retrofits

Maintenance of the retrofit devices at the location specified on the Plans is paid for at the contract unit price bid per each.

I. Construction Exits

Maintenance of the construction exits at the location specified on the Plans or as added by the Engineer is paid for at the contract unit price per each.

Maintenance of construction exit tire wash assembly at the location specified on the Plans or as added by the Engineer is paid for at the contract unit price per each when added to an existing construction exit.

J. Inlet Sediment Traps

Maintenance of the inlet sediment traps at the location specified on the Plans or at the location specified by the Engineer is paid for at the contract unit price per each.

K. Rock Filter Dams

Maintenance of rock filter dams as specified on the Plans is paid for at the contract unit price bid per each.

L. Stone Filter Berms

Maintenance of stone filter berms as specified on the Plans is paid for at the contract unit price bid per linear foot (meter).

M. Stone Filter Rings

Maintenance of stone filter rings as specified on the Plans is paid for at the contract unit price bid per each.

N. Temporary Sediment Traps

Maintenance of temporary sediment traps as specified on the Plans is paid for at the contract unit price bid per each.

Payment will be made under:

Item No. 165	Maintenance of temporary silt fence	per linear foot (meter)
Item No. 165	Maintenance of silt control gates	per each
Item No. 165	Maintenance of check dams	per linear foot (meter)
Item No. 165	Maintenance of silt retention barriers	per foot (meter)
Item No. 165	Maintenance of temporary sediment basins	per each
Item No. 165	Maintenance of sediment barriers	per linear foot (meter)
Item No. 165	Maintenance of triangular silt barriers	per linear foot (meter)
Item No. 165	Maintenance of retrofits	per each
Item No. 165	Maintenance of construction exits	per each

Item No. 165	Maintenance of construction exit tire wash assembly	per each
Item No. 165	Maintenance of inlet sediment traps	per each
Item No. 165	Maintenance of rock filter dams	per each
Item No. 165	Maintenance of stone filter berms	per linear foot (meter)
Item No. 165	Maintenance of rock filter dams	per each
Item No. 165	Maintenance of temporary sediment traps	per each

165.5.01 Adjustments

General Provisions 101 through 150.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SPECIAL PROVISION**

Section 167—Water Quality Monitoring

Delete Section 167 and substitute the following:

167.1 General Description

This Specification establishes the Contractor’s responsibility to meet the requirements of the current National Pollutant Discharge Elimination System (NPDES) Infrastructure Permit No. GAR100002 as it pertains to Part IV. Erosion, Sedimentation and Pollution Control Plan. In the case of differing requirements between this specification and the Permit, whichever is the more stringent requirement shall be adhered to.

167.1.01 Definitions

Certified Personnel— certified personnel are defined as persons who have successfully completed the appropriate certification course approved by the Georgia Soil and Water Conservation Commission. For Department projects the certified person must also have successfully completed the Department’s Worksite Erosion Control Supervisor (WECS) certification course.

Water Quality Sampling – as used within this specification, the term “sampling” shall be inclusive of the acts of detecting, noting, discerning, monitoring, etc. for the purpose of gauging compliance with the NPDES General Permit GAR100002.

Qualifying Rainfall Sampling Event—as used within this specification, means that which is defined in the NPDES General Permit GAR100002, Part IV.D.6.d(3).

167.1.02 Related References

A. Standard Specifications

Section 161—Control of Soil Erosion and Sedimentation

B. Referenced Documents

NPDES Infrastructure Permit No. GAR100002

GDOT WECS seminar.

Environmental Protection Divisions Rules and Regulations (Chapter 391-3-7)

Georgia Soil and Water Conservation Commission Certification Level IA course

OCGA 12-7-1

Erosion, Sedimentation and Pollution Control Plan (ESPCP)

167.1.03 Submittals

General Provisions 101 through 150

167.2 Materials

General Provisions 101 through 150.

Section 167 – Water Quality Monitoring

167.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

167.3 Construction Requirements

167.3.01 Personnel

Use GASWCC Level IA certified and WECS certified personnel to perform all monitoring, sampling, inspections, and rainfall data collection.

Use the Contractor-designated WECS or select a prequalified consultant from the Qualified Consultant List (QCL) to perform water quality monitoring, sampling, inspections, and rainfall data collection.

The Contractor is responsible for having a copy of the current GAR100002 Permit onsite at all times.

167.3.02 Equipment

Provide equipment necessary to complete the Work or as directed by the Engineer.

167.3.03 Preparation

General Provisions 101 through 150.

167.3.04 Fabrication

General Provisions 101 through 150.

167.3.05 Construction

A. General

Perform inspections, rainfall data collection, testing of samples, and reporting the test results on the project according to the requirements in Part IV of the NPDES Infrastructure Permit and this Specification. Take samples manually or use automatic samplers, according to the GAR100002 permit. Note that the GAR100002 permit requires the use of manual sampling or rising stage sampling for qualifying events that occur after the first instance of the automatic sampler not being activated during a qualifying event. Analyze all samples according to the Permit, regardless of the method used to collect the samples. If samples are analyzed in the field using portable turbidimeters, the monitoring results shall state they are being used and a digital readout of NTUs is what is provided. Submit bench sheets, work sheets, etc., when using portable turbidimeters. There are no exceptions to this requirement. Perform required inspections and submit all reports required by this Specification within the time frames specified. Failure to perform the inspections within the time specified will result in the cessation of all construction activities with the exception of traffic control and erosion control. Failure to submit the required reports within the times specified will result in non-refundable deductions as specified in Subsection 161.5.01.B.

B. Water Quality Inspections

The Department will provide one copy of the required inspection forms for use and duplication. Inspection forms may change during the contract to reflect regulatory agency needs or the need of the Department. Any costs associated with the change of inspection forms shall be considered incidental. Alternate formats of the provided forms may be created, used and submitted by the Contractor provided the required content and/or data fields and verbatim certification statements from the Department's current forms are included.

The Engineer shall inspect the installation and condition of each erosion control device required by the erosion control plan within seven days after initial installation. This inspection is performed for each stage of construction when new devices are installed. The WECS shall ensure all installation deficiencies reported by the Engineer are corrected within two business days.

Ensure the inspections of the areas listed below are conducted by certified personnel and at the frequencies listed. Document all inspections on the appropriate form provided by the Department.

1. Daily (when any work is occurring):
 - a. Petroleum product storage, usage and handling areas for spills or leaks from vehicles or equipment.
 - b. All locations where vehicles enter/exit the site for evidence of off-site sediment tracking.

Section 167 – Water Quality Monitoring

Continue these inspections until a Notice of Termination (NOT) is submitted and use the daily inspection forms.

2. Weekly and after Rainfall Events:

Conduct inspections on these areas every seven calendar days and within twenty-four hours after the end of a rainfall event that is 0.5 in (13 mm) or greater (unless such storm ends after 5:00 PM on any Friday or any non-working Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first):

- a. Disturbed areas not permanently stabilized
- b. Material storage areas that are exposed to precipitation or stormwater and poses a risk to discharging pollutants
- c. Structural control measures, Best Management Practices (BMPs) to ensure they are operating correctly
- d. Water quality sampling locations and equipment
- e. Discharge locations or points, e.g., outfalls and drainage structures that are accessible to determine if erosion control measures are effective in preventing significant impacts to receiving waters

Continue these inspections until all temporary BMPs are removed and a NOT is submitted and use the EC-1 Form.

3. Monthly:

Once per month, inspect all areas where final stabilization has been completed. Look for evidence of sediments or pollutants entering the drainage system and or receiving waters. Inspect all permanent erosion control devices remaining in place to verify the maintenance status and that the devices are functioning properly. Inspect discharge locations or points, e.g. outfalls, drainage structures, that are accessible to determine if erosion control measures are effective in preventing significant impacts to receiving waters.

Continue these inspections until the Notice of Termination is submitted and use the monthly inspection form.

C. Water Quality Sampling

When the sampling location is a receiving water, the upstream and downstream samples are taken for comparison of NTU values. When the sampling location is an outfall, a single sample is taken to be analyzed for its absolute NTU value.

D. Reports

1. Inspection Reports:

Summarize the results of inspections noted above in writing on the appropriate Daily, Weekly, Monthly, or EC-1 form provided by the Department and includes the following information:

- Date(s) of inspection
- Name of certified personnel performing inspection
- Construction phase
- Status of devices
- Observations
- Action taken in accordance with Part IV.D.4.a.(5) of the GAR100002 Permit
- Signature of personnel performing the inspection
- Any instance of non-compliance

When the report does not identify any non-compliance instances, the inspection report shall contain a statement that the best management practices are in compliance with the Erosion, Sedimentation and Pollution Control Plan. (See the EC-1 form.)

The reports shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to the Georgia Department of Natural Resources

Section 167 – Water Quality Monitoring

Environmental Protection Division (GAEPD). Such reports shall be readily available by the end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. The inspection form certification sheet shall be signed by the project WECS and the inspector performing inspections on behalf of the WECS (if not the same person). Submit all inspection reports to the Engineer within twenty-four hours of the inspection. The Engineer will review the submitted reports to determine their accuracy. The Engineer will notify the certified personnel of any additional items that should be added to the inspection report.

Complete any items listed in the inspection report requiring routine maintenance within seventy-two (72) hours of notification or immediately during perimeter BMP failure emergencies. Deficiencies that interfere with traffic flow, safety, or downstream turbidity shall have immediate reasonable steps taken to address the deficiencies.

BMPs that have failed or is deficient beyond routine maintenance and has resulted in sediment deposition into waters of the State shall have immediate reasonable steps taken to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events. When the repair does not require a new or replacement BMP or significant repair, the BMP failure or deficiency must be corrected by the close of the next business day from the time of discovery. If the correction requires a new or replacement BMP or significant repair, the correction must be completed and operational within seven (7) days from the time of discovery. If seven (7) days is infeasible, document why the timeframe is infeasible and coordinate with the Engineer to schedule the correction as soon as feasible after the seven (7) day timeframe. The Department must be in agreement with the infeasibility.

Assume responsibility for all costs associated with additional sampling as specified in Part IV.D.6.d.3.(c) of the NPDES GAR100002 Permit if either of these conditions arise:

- BMPs shown in the Plans are not properly installed and maintained, or
- BMPs designed by the Contractor are not properly designed, installed and maintained.

2. Sampling Reports

- a. All sampling shall be performed in accordance with the requirements of the GAR100002 Permit for the locations identified in the ESPCP approved by the Department.
- b. Report Requirements

Include in all reports, the following certification statement, signed by the WECS or consultant providing sampling on the project:

“I certify under penalty of law that this report and all attachments were prepared under my direct supervision in accordance with a system designed to assure that certified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

When a rainfall event requires a sample to be taken, submit a report of the sampling results to the Engineer within seven working days of the date the sample was obtained. Include the following information in each report:

- 1) Date and time of sampling
- 2) Name of certified person(s) who performed the sampling and analyses.
- 3) Date the analyses were performed
- 4) Time the analyses were initiated
- 5) Rainfall amount on the sampling date (sampling date only)

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- 6) References and written procedures, when available, for the analytical techniques or methods used
- 7) Whether the samples were taken by automatic sampler, rising-stage sampler, or manually (grab sample)
- 8) The NTU of each sample, the results of the analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine the results
- 9) Location where each sample was taken (station number and left or right offset)
- 10) Identification of whether a sample is a receiving-water sample or an outfall sample
- 11) Project number and county
- 12) A clear note if a sample exceeds 1000 NTUs by writing “exceeds 1000 NTUs” prominently upon the report

c. Report Requirements with No Qualifying Rainfall Events

In the event a qualifying rainfall event does not produce a discharge to sample, or sampling is “impossible”, as defined in the GAR100002 Permit, a written justification must be included in the report as required at Part IV.D.4.a.(6) of the GAR100002 Permit.

d. Sampling Results

Provide sampling results to the Project Engineer within 48 hours of the samples being analyzed. This notification may be verbal or written. This notification does not replace the requirement to submit the formal summary to the Engineer within 7 working days of the samples being collected. The Engineer will ensure submission of the sampling report to GAEPD by the 15th of the month following the sampling results as per the GAR100002 Permit. The WECS will be held accountable for delayed delivery to the Department which results in late submissions to GAEPD resulting in enforcement actions.

3. Rainfall Data Reports:

Record the measurement of rainfall within disturbed areas that have not met final stabilization once each twenty-four hour period, except for non-working Saturdays, non-working Sundays and non-working Federal Holidays until a Notice of Termination is submitted. Project rain gauges and those used to trigger the automatic samplers are to be emptied after every rainfall event. This will prevent a cumulative effect and prevent automatic samplers from taking samples even though the rainfall event is not a qualifying event. The daily rainfall data supplied by the WECS to the Engineer will be the official rainfall data for the project for compliance with the permit.

167.3.06 Quality Acceptance

General Provisions 101 through 150.

167.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

167.4 Measurement

Water Quality Inspections in accordance with the inspection and reports sub-sections will be measured for payment by the month up to the time the Contract Time expires. Required inspections and reports after Contract Time has expired will not be measured for payment unless a time extension is granted.

Water Quality Sampling is measured per each. “Each” means each qualifying rainfall sampling event, not each sampled site.

167.4.01 Limits

General Provisions 101 through 150. Submit the monitoring summary report to the Engineer within 7 working days

167.5 Payment

Payment for Water Quality Inspections and Water Quality Sampling will be made as follows:

Water Quality Inspections will be paid at the Contract Price per month. This is full compensation for performing the requirements of the inspection section of the NPDES Permit and this Specification, any and all necessary

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incidentals, and providing results of inspections to the Engineer, within the time frame required by the NPDES Infrastructure Permit, and this Specification.

Water Quality Monitoring and Sampling per each qualifying rainfall sampling event is full compensation for meeting the requirements of the monitoring sections of the NPDES Permit and this Specification, obtaining samples, analyzing samples, any and all necessary incidentals, and providing results of turbidity tests to the Engineer, within the time frame required by the NPDES Infrastructure Permit, and this Specification. This item is based on the rainfall events requiring sampling as described in Part IV.D.6 of the Permit. The Department will not pay for samples taken and analyzed for rainfall events that are not qualifying events as compared to the daily rainfall data supplied by the WECS.

Payment will be made under:

Item No. 167	Water quality inspections	Per month
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Water Quality Monitoring and Sampling will be paid per each qualifying rainfall sampling event.

Payment will be made under:

Item No. 167	Water quality monitoring and sampling	Per each
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167.5.01 Adjustments

General Provisions 101 through 150.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SUPPLEMENTAL SPECIFICATION**

Section 171—Silt Fence

Delete Section 171 and substitute the following:

171.1 General Description

This work includes furnishing, installing, and removing a water permeable filter fabric fence to remove suspended particles from drainage water.

171.1.01 Definitions

General Provisions 101 through 150.

171.1.02 Related References

A. Standard Specifications

Section 163—Miscellaneous Erosion Control Items

Section 700—Grassing

Section 862—Wood Posts and Bracing

Section 881—Fabrics

Section 894—Fencing

B. Referenced Documents

ASTM D 3786

ASTM D 4355

ASTM D 4632

ASTM D 4751

GDT 87

QPL 36

171.1.03 Submittals

General Provisions 101 through 150.

171.2 Materials

Materials shall meet the requirements of the following Specifications:

Material	Section
Fabrics	<u>881</u>
Fencing	<u>894</u>
Wood Posts and Bracing	<u>862</u>

Conditions during Project construction will affect the quantity of the silt fence to be installed.

The Engineer may increase, decrease, or eliminate the quantity at his or her direction. Variations in quantity are not changes in details of construction or in the character of the work.

Section 171—Silt Fence

For Type A, B, and C fences, use fabric as specified in Subsection 881.2.07, “Silt Fence Filter Fabric.”

171.2.01 Delivery, Storage, and Handling

During shipment and storage, wrap the fabric in a heavy-duty covering protecting the cloth from sunlight, mud, dust, dirt, and debris. Do not expose the fabric to temperatures greater than 140 °F (60 °C).

When installed, the Engineer will reject the fabric if it has defects, rips, holes, flaws, deterioration, or damage incurred during manufacture, transportation, or storage.

171.3 Construction Requirements

171.3.01 Personnel

General Provisions 101 through 150.

171.3.02 Equipment

General Provisions 101 through 150.

171.3.03 Preparation

General Provisions 101 through 150.

171.3.04 Fabrication

General Provisions 101 through 150.

171.3.05 Construction

Install the silt fence according to this Specification, as shown on the Plans, or as directed by the Engineer

A. Install Silt Fence

1. Install silt fence by either of the following methods:
 - a. Excavated Trench Method
Excavate a trench 4 to 6 in (100 to 150 mm) deep using equipment such as a trenching machine or motor grader. If equipment cannot be operated on the site, excavate the trench by hand.
 - b. Soil Slicing Method
Create a mechanical slice in the soil 8 to 12 in (200 to 300 mm) deep to receive the silt fence. Ensure the width of the slice is not more than 3 in (75 mm). Mechanically insert the silt fence fabric into the slice in a simultaneous operation with the slicing ensuring consistent depth and placement.
2. Install the first post at the center of the low point (if applicable). Space the remaining posts a maximum of 6 ft (1.8 m) apart for Types A and B fence and 4 ft (1.2 m) apart for Type C fence.
3. Bury the posts at least 18 in (450 mm) into the ground. If this depth cannot be attained, secure the posts enough to prevent the fence from overturning from sediment loading.
4. Attach the filter fabric to the post using wire, cord, staples, nails, pockets, or other acceptable means.
 - a. Staples and Nails (Wood Posts): Evenly space staples or nails with at least five per post for Type A fence and four per post for Type B fence.
 - b. Pockets: If using pockets and they are not closed at the top, attach the fabric to a wood post using at least one additional staple or nail, or to a steel post using wire. Ensure the additional attachment is within the top 6 in (150 mm) of the fabric.
 - c. Install the filter fabric so 6 to 8 in (150 to 200 mm) of fabric is left at the bottom to be buried. Provide a minimum overlap of 18 in (450 mm) at all splice joints.
 - d. For Type C fence:
 - 1) Woven Wire Supported
 - Steel Post: Use wire to attach the fabric to the top of the woven wire support fence at the midpoint between posts. Also, use wire to attach the fabric to the post.
 - 2) Polypropylene Mesh Supported
 - Wood Post: Use at least six staples per post. Use two staples in a crisscross or parallel pattern to secure the top portion of the fence. Evenly space the remaining staples down the post.
 - Steel Post: Use wire to attach the fabric and polypropylene mesh to the post.

Section 171—Silt Fence

5. Install the fabric in the trench so 4 to 6 in (100 to 150 mm) of fabric is against the side of the trench with 2 to 4 in (50 to 100 mm) of fabric across the bottom in the upstream direction.
6. Backfill and compact the trench to ensure flow cannot pass under the barrier. When the slice method is used, compact the soil disturbed by the slice on the upstream side of the silt fence first, and then compact the downstream side.
7. When installing a silt fence across a waterway producing significant runoff, place a settling basin in front of the fence to handle the sediment load, if required. Construct a suitable sump hole or storage area according to Section 163.

B. Remove the Silt Fence

1. Keep all silt fence in place unless or until the Engineer directs it to be removed. A removed silt fence may be used at other locations if the Engineer approves of its condition.
2. After removing the silt fence, dress the area to natural ground, grass and mulch the area according to Section 700.
3. The silt fence shall remain until the Project is accepted or until the fence is removed. Also, remove and dispose of the silt accumulations at the silt fence.
4. Remove and replace any deteriorated filter fabric reducing the effectiveness of the silt fence.

171.3.06 Quality Acceptance

Approved silt fence is listed in QPL 36. Approved fabrics must consistently exceed the minimum requirements of this Specification as verified by the Office of Materials and Research. The Office of Materials and Research will remove fabric failing to meet the minimum requirements of this specification from the QPL until the products' acceptability has been reestablished to the Department's satisfaction.

At the time of installation, the Engineer will reject the fabric if it has defects, rips, holes, flaws, deterioration, or damage incurred during manufacture, transportation, or storage.

171.4 Measurement

The quantity of silt fence to be paid for is the actual number of linear feet (meters) of silt fence, measured in place from end post to end post of each separate installation. The silt fence must be complete and accepted.

171.4.01 Limits

General Provisions 101 through 150.

171.5 Payment

Silt fence Type A, B, or C measured as defined in Subsection 171.4, "Measurement," is paid for at the Contract Unit Price bid per linear foot (meter).

Payment is full compensation for the following:

- Furnishing materials
- Erecting the fence
- Dressing and grassing, when required
- Removing the fence, when required

Payment for this Item is made as follows:

- Seventy-five percent of the Contract Price bid per linear foot (meter) is paid when each fence is complete in place.
- Twenty-five percent is paid at removal or acceptance.

If the silt fence must be repaired or removed, as the result of neglect or damage, perform the work at no additional cost to the Department.

Payment will be made under:

Item No. 171	Silt fence, type__	Per linear foot (meter)
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171.5.01 Adjustments

General Provisions 101 through 150.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SUPPLEMENTAL SPECIFICATION

Section 201 – Clearing and Grubbing Right of Way

Delete Subsection 201.3.05.E.3 and substitute the following:

3. Solid Waste Material

a. Nonregulated Material

1) Common fill is defined as soil, rock, brick, concrete without reinforcement, concrete with reinforcement where the reinforcement has been removed flush with the surface of the concrete and cured asphalt, provided that such material does not contain hazardous waste constituents above background levels and the material results from Department funded construction contracts. Such fill is not subject to the Georgia Comprehensive Solid Waste Management Act of 1990 and the Solid Waste Management Rules when used as fill material on Department funded construction contracts or Department property or when used as fill material on property not owned by the Department when all requirements of this specification are fully met. Common fill meeting this definition may be placed as follows:

a. At a permitted municipal, construction and demolition materials or inert landfill fully meeting all requirements of the Solid Waste Rules and Act and any other applicable laws or ordinances.

b. At an off-site engineered fill location in accordance with the following requirements;

- Place the material in uniform layers 3 ft thick or less and distributed to avoid the formation of large voids or pockets.
- Fill voids with finer material.
- Cover the last layer of fill with at least 2 ft of soil.
- Construct the fill according to Section 208, except compact it to at least 90 percent of the maximum laboratory dry density.
- A Georgia registered professional engineer shall document, certify and submit the following information on behalf of the Contractor to the Department; compaction rates, waste description including average particle size, and the depth of clean earthen fill lying above the engineered fill.

c. On site as compacted fill if prior written approval has been granted by the Engineer and in accordance with the following requirements:

- As compacted fill incorporated into embankment only. No area shall be excavated for the sole purpose of disposing of common fill.
- Place the material in uniform layers 3 ft thick or less and distributed to avoid the formation of large voids or pockets.
- Fill voids with finer material.
- Cover the last layer of fill with at least 2 ft of soil.
- Construct the fill according to Section 208, except compact it to at least 90 percent of the maximum laboratory dry density.
- Records of the exact location by station and offsets, amount disposed per location in cubic yards, waste description including average particle size, compaction rates and depth of clean earthen fill lying above the composite materials shall be kept by the Engineer.

d. Materials that may be recycled or reused such as asphaltic concrete, Portland cement concrete, plastic, metal and materials that qualify under EPD regulations for sale or use may be reclaimed by the Contractor.

b. Regulated Material

- 1) Inert waste is defined as organic debris such as stumps, limbs and leaves, cured asphalt and any of the aforementioned common fill items that do not meet the compaction requirements when placed in an excess materials pit. An inert waste landfill permit shall be obtained in accordance with GDNR/EPD Rules to properly record the disposal of inert waste when compaction requirements are not met at an excess materials pit. If disposed of at a landfill, inert waste may only be disposed at a permitted municipal, construction and demolition materials or inert landfill fully meeting all requirements of the Solid Waste Rules and Act and any other applicable laws or ordinances.
- 2) Construction and demolition waste is defined as construction forms, barrels, scrap metal, and other such by-products of construction not specifically listed above as either common fill or inert waste. Construction and or demolition waste must be disposed of at a permitted municipal, construction and demolition materials, or inert landfill fully meeting all requirements of the Solid Waste Rules and Act and any other applicable laws or ordinances.
- 3) Dispose of oils, solvents, fuels, untreated lead paint residue, and other solid hazardous waste through a properly licensed hazardous waste disposal facility.

- 4) Remove municipal solid waste discovered during construction or shown on the Plans according to Section 215.

c. Solid Waste Handling and Disposal Documentation Requirements:

- 1) Waste disposed at a permitted municipal or construction and demolition landfill – all tipping receipts generated by the receiving landfill shall be provided to the Engineer.
- 2) Waste disposed at inert landfill – a copy of the landfill's Permit By Rule notification, and for landfills exceeding one acre, a copy of the landfill's NPDES General Storm water Permit Notice of Intent (NOI) and any local jurisdiction Land Disturbing Activity Permit, if applicable, shall be provided to the Engineer.
- 3) Any necessary documentation regarding a disposal site's permit status must be obtained by the Contractor and verified by the Department before any common fill, inert waste, or other solid waste is allowed to leave the site.
- 4) The documentation listed herein shall be maintained on-site in the project files and at any other location the Department deems necessary until a valid NPDES Notice of Termination is filed.

Recyclable materials must be separated from all waste materials and shall be properly stored in containers when practicable.

Excluding the above allowances, all types of waste shall be handled in full compliance with the following:

- The Georgia Solid Waste Management Rules, as amended (391-3-4)
- Georgia Comprehensive Solid Waste Management Act of 1990, as amended (O.C.G.A. 12-8-20)
- The Georgia Erosion & Sedimentation Act as amended (O.C.G.A. 12-7-1) and any applicable Local and State requirements as well as the General Permits of the Georgia Water Quality Control Act
- Any other applicable Federal, State, or Local rules or laws

Office of Construction

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SUPPLEMENTAL SPECIFICATION

Section 550—Storm Drain Pipe, Pipe-Arch Culverts, and Side Drain Pipe

Delete Section 550 and Substitute the following:

550.1 General Description

This work includes furnishing and installing the following:

- Storm drain pipe
- Side drain pipe
- Pipe-arch culverts
- Elliptical pipe
- Flared end sections
- Safety end sections
- Tapered pipe inlets

Install structures according to the Specifications and the details shown on the Plans, or as directed by the Engineer.

550.1.01 Definitions

Side Drain – All driveway pipes (commercial, non-commercial, residential, utility, farm, logging, and mining).

Storm Drain Pipe –All pipe used in the highway drainage system that receives surface water through inlets and conveys the water through conduits to a pipe outlet

Thermoplastic Pipe – High Density Polyethylene (HDPE), Polypropylene (PP) and Polyvinyl Chloride (PVC).

General Provisions 101 through 150.

550.1.02 Related References

A. Standard Specifications

Section 205—Roadway Excavation

Section 207—Excavation and Backfill for Minor Structures

Section 208—Embankments

Section 645—Repair of Galvanized Coatings

Section 812—Backfill Materials

Section 815—Graded Aggregate

Section 834—Masonry Materials

Section 840—Corrugated Aluminum Alloy Pipe

Section 841—Iron Pipe

Section 843—Concrete Pipe

Section 844—Steel Pipe

Section 845—Thermoplastic Pipe

Section 847—Miscellaneous Pipe

Section 848—Pipe Appurtenances

B. Referenced Documents

General Provisions 101 through 150.

GDOT Manual on Drainage Design for Highways

Ga. Std. 1030D

Ga. Std. 1030P

GDT 136

ASTM D 2321

550.1.03 Submittals

General Provisions 101 through 150.

550.2 Materials

Ensure materials meet the requirements of the following Specifications:

Material	Section
Backfill Materials	207
Graded Aggregate	815
Reinforced Concrete Pipe	843.2.01
Nonreinforced Concrete Pipe	843.2.02
Mortar And Grout	834.2.03
Bituminous Plastic Cement	848.2.05
Rubber Type Gasket Joints (Concrete Pipe)	848.2.01
Preformed Plastic Gaskets	848.2.06
Corrugated Steel Pipe	844.2.01
Bituminous Coated Corrugated Steel Pipe	844.2.02
Corrugated Aluminum Alloy Pipe	840.2.01
Bituminous Coated Corrugated Aluminum Pipe	840.2.03
Aluminized Type 2 Corrugated Steel Pipe	844.2.06
Ductile Iron Pipe, Fittings and Joints	841
Precoated, Galvanized Steel Culvert Pipe	844.2.05
Smooth Lined Corrugated High Density (HDPE) Polyethylene Culvert Pipe	845.2.01
Polyvinyl Chloride (PVC) Profile Wall Drain Pipe	845.2.02
Polyvinyl Chloride (PVC) Corrugated Smooth Interior Drain Pipe	845.2.03
Smooth Lined Corrugated Polypropylene (PP) Pipe	845.2.05
Miscellaneous Pipe	847

Use any of the following types of pipe:

- Reinforced concrete

- Nonreinforced concrete
- Corrugated steel or Aluminum
- Smooth-lined corrugated high density polyethylene (HDPE)
- Ductile iron
- Polyvinyl Chloride (PVC) Profile Wall Drain Pipe
- Polyvinyl Chloride (PVC) Corrugated Smooth Interior Drain Pipe
- Precoated, Galvanized Steel Culvert Pipe (Polymer)
- Smooth Lined Corrugated Polypropylene (PP) Pipe

Use the type of pipe designated on the Plans, or acceptable alternate types when applicable. For a listing of acceptable alternate pipe types see the GDOT Approved Material Selections List in Chapter 7– Storm Drain Design of the Department’s Manual on Drainage Design for Highways. This document summarizes general applications for pipe.

For concrete, corrugated steel and aluminum pipes see Ga. Std. 1030D for minimum thicknesses, minimum cover, maximum fill, allowable pipe diameters and trench construction detail.

For thermoplastic pipes see Ga. Std. 1030P for minimum cover, maximum fill, allowable pipe diameters and trench construction details.

A. Thermoplastic Pipe Project Restrictions

Thermoplastic pipe is restricted to the following project conditions:

1. Storm Drain
 - a. Travel Bearing: ADT equal to or less than 15,000
 - b. Non-Travel Bearing: Non-Interstate
2. Side Drain
 - a. Allowed on all projects

550.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

550.3 Construction Requirements

550.3.01 Personnel

General Provisions 101 through 150.

550.3.02 Equipment

General Provisions 101 through 150.

550.3.03 Preparation and Backfill

Before installing pipe, shape the foundation material as shown on the Plans.

Prepare structure excavations, foundation and backfill according to Section 207. Except, use the following foundation and backfill material requirements for thermoplastic pipe installations:

1. For storm drain applications (cross and longitudinal) use graded aggregate material meeting Subsection 815.2.01.
 - a. 20 ft (6.1 m) maximum fill height for High Density (HDPE) Polyethylene Culvert Pipe.
 - b. 25 ft (7.6 m) maximum fill height for Polyvinyl Chloride (PVC) and Polypropylene (PP) Pipe.
2. For side drain applications (driveway) use backfill material based on fill height.

- a. Fill heights up to 10 ft (3 m), use normal backfill material meeting the following soil classes per Subsection 810.2.01.
 - High Density (HDPE) Polyethylene Culvert Pipe use Class II B2 soil or better.
 - Polyvinyl Chloride (PVC) and Polypropylene (PP) Pipe use Class II B3 soil or better.
 - If the required soil Class is not available use graded aggregate material meeting Subsection 815.2.01.
- b. Fill heights above 10 ft (3 m), use graded aggregate material meeting Subsection 815.2.01.

550.3.04 Fabrication

General Provisions 101 through 150.

550.3.05 Construction

A. Drainage

Provide necessary temporary drainage. Periodically remove any debris or silt constricting the pipe flow to maintain drainage throughout the life of the Contract.

B. Damage

Protect the structure by providing sufficient depth and width of compacted backfill before allowing construction over a culvert. Repair damage or displacement from traffic or erosion occurring after installing and backfilling at no additional cost to the Department.

C. Installation

Check vertical and horizontal alignment of the pipe culvert or pipe barrel by sighting along the crown, invert and sides of the pipe, and by checking for sagging, faulting and invert heaving. Repair any issues involving incorrect horizontal and/or vertical alignment before backfilling pipe.

1. Concrete Pipe

Lay sections in a prepared trench with the socket ends pointing upstream. Join section using rubber gasket installed according to Subsection 848.2.01 and the manufacturer's recommendations.

2. Ductile Iron Pipe

Lay pipe sections in a prepared trench, with bells pointing upstream. Construct joints according to Subsection 841.2.02.A.

3. Corrugated Aluminum or Steel Pipe and Pipe-Arches

Lay pipe sections in a prepared trench, with outside laps of circumferential joints pointing upstream and longitudinal joints at the sides. Join the sections with coupling bands, fastened by two or more bolts. Before backfilling the structure:

- a. Repair areas of damaged coatings and exposed base metal according to applicable AASHTO Standard Specification specified in Section 844.

4. Smooth-Lined Corrugated HDPE Pipe

Install smooth-lined corrugated HDPE pipe according to ASTM D 2321 using backfill requirements in Subsection 550.3.03. Use fitting and couplings that comply with the joint performance criteria of AASHTO Standard Specifications for Highway Bridges, Division II. Ensure all joints are "silt tight" as stated in the AASHTO bridge specifications.

5. Specials (Wyes, Tees, and Bends)

Install wyes, tees, and bends as shown on the Plans or as directed.

6. Tapered Pipe Inlets

Locate and install tapered pipe inlet end sections as shown on the Plans or as directed.

7. Elongation

Elongate metal pipe as shown on the Plans. Order the elongation of the vertical axis of the pipe to be done in the shop.

Ensure the manufacturer ship metal pipe with wire ties in the pipe ends. Remove wire-ties immediately after completing the fill.

8. Flared End Sections

Use flared end sections on the inlet, outlet, or on both ends of storm drain pipe, according to Plan details.

9. PVC Drain Pipe

Install polyvinyl chloride (PVC) drain pipe according to ASTM D 2321 using backfill requirements in Subsection 550.3.03. Use fittings and couplings complying with the joint performance criteria of AASHTO Standard Specifications for Highway Bridges, Division II. Ensure all joints are “silt tight” as stated in the AASHTO bridge specifications.

10. Smooth-Lined Polypropylene Pipe

Install smooth-lined polypropylene pipe according to ASTM D 2321 using backfill requirements in Subsection 550.3.03. Use fittings and couplings complying with the joint performance criteria of AASHTO Standard Specifications for Highway Bridges, Division II. Ensure all joints are “silt tight” as stated in the AASHTO bridge specifications.

550.3.06 Quality Acceptance

A. Post Installation Inspection

For projects located on the State Route system, including interstates, inspect 100% of all storm drain pipe and a minimum of 10.0 % of all side drain pipe installations. Conduct post installation inspections in accordance with the requirements of this Specification and GDT 136.

Before post installation inspection, dewater installed pipe (if necessary) and provide the Engineer with a post installation inspection schedule. Notify the Engineer at least seven days in advance of beginning inspection. Perform post installation inspections once compacted backfill has reached a depth of 8 feet or after completion of the pipe installation and final cover, which includes the embankment and all non-asphalt bases and/or subgrades. Notify the Engineer of problems found during the inspection. The Engineer will determine if corrective action is necessary.

Perform post installation inspection with the use of low barrel distortion video equipment with laser profile technology, non-contact video micrometer and associated software.

Video and laser profiling and measurement technology must be certified by the company performing the work to meet the requirements of GDT 136. Inspection contractor personnel completing remote inspections shall be NASSCO – PACP Certified Technicians.

For video recorded, laser profiled pipe indicating deflection is in excess of Specification requirements, the Contractor may elect to further test the pipe with the use of a mandrel. Ensure mandrel meets requirements of GDT 136 and the Engineer has approved before use. Pull the mandrel by hand.

Manual post installation inspection allowed for pipe diameters greater than 48 inches per Subsection 550.3.06.B.

Re-inspect 100% of pipe remediation locations or where replacement was required.

B. Manual Post Installation Inspections

Perform a manual inspection by entering the pipe structure to record video and to make measurements. For all pipe structures considered a confined space, provide entry for all project inspection personnel according to OSHA requirements. Furnish a video recording of each inspection. On the recording, identify the date and time of the inspection, a description of the pipe structure, location, and viewing direction. Record the entire run of pipe. Provide a light source which allows observation of all areas of concern on the video recording. Furnish the video recording in a digital, reproducible format on one of the following media types: DVD or CD.

Measure the deflection of the pipe using either a metal or fabric tape and read to the nearest 0.5 inch (10 mm). Measure crack width using either a crack comparator or a feeler gage capable of measuring 0.01 inch (0.25 mm). Measure joint gaps using a tape or ruler and read to the nearest 0.5 inch (10 mm). Other measuring devices may be used if approved by the Engineer.

Record the measurements and include them in the inspection report. Measure and record the following:

1. The location, length and greatest width of each crack.
2. Smallest inside diameter three times for each pipe section in the run. Take the first measurement vertically from the crown to invert (12 o'clock to 6 o'clock positions). Take the second measurement by rotating 60 degrees from

vertical (2 o'clock to 8 o'clock positions). Take the third measurement by rotating 120 degrees from vertical (4 o'clock to 10 o'clock positions). For all measurements, stretch tape to full extent across inside of pipe.

3. Widest gap at each joint in the run.

Record the location and describe other defects not listed above. For each measurement location in a pipe, record the length from the nearest drainage structure.

C. Inspection Report

Submit inspection report to the Engineer after completion of the required post installation inspection. Ensure inspection report meets the requirements of this Specification and GDT 136.

D. Requirements for Concrete Pipe

1. Joints: Note differential movement, cracks, spalling, improper gasket placement, movement or settlement of pipe sections, and leakage in the inspection report. Repair or replace pipe sections to the satisfaction of the Engineer where joint separation is greater than 1 inch (25 mm). Repair or replace pipe sections where soil migration through the joint is occurring.
2. Longitudinal and Transverse Cracks: Cracks with a width less than 0.01 inch (0.25 mm) are considered hairline and minor and only need to be noted in the inspection report, no corrective action is necessary. When cracks are wider than 0.01 inch (0.25 mm) and extend for a length of 12 inch (300 mm) or more, regardless of position in the wall of the pipe, measure the width, length, and locations of the cracks and diameter of the pipe, both horizontally and vertically, use remediation methods in accordance with recommendations of the pipe manufacturer and submit to the Engineer for review and approval an evaluation utilizing a Professional Engineer that takes into consideration structural integrity, environmental conditions, and the design service life of the pipe.

Seal by a method approved by the Engineer cracks having widths equal to or greater than 0.01 inch (0.25mm) that extend for a length of 12 inch (300 mm) or more and determined to be detrimental. Remediate or replace pipe with cracks widths greater than 0.1 inch (2.5 mm) and determined by the Engineer to be beyond satisfactory structural repair. Repair or replace pipes having displacement across the crack.

E. Requirements for Thermoplastic Pipe

1. Joints: Remediate pipe showing evidence of crushing at the joints. Note differential movement, improper joint sealing, movement or settlement of pipe sections, and leakage in the inspection report. Remediate joint separation of greater than 1 inch (25 mm). Repair or replace pipe sections where soil migration through the joint is occurring.
2. Cracks: Remediate cracks or splits in the interior wall of the pipe. Use remediation methods in accordance with recommendations of the pipe manufacturer and accepted and authorized by the Engineer.
3. Buckling, bulging, and racking: Note in the inspection report flat spots or dents at the crown, sides or flowline of the pipe due to racking. Note areas of wall buckling and bulging in the inspection report. The Engineer will determine if corrective action is necessary.
4. Deflection: Where pipe deflection exceeds 5% of the nominal diameter, submit to the Engineer for review and approval an evaluation utilizing a Professional Engineer taking into consideration the severity of the deflection, structural integrity, environmental conditions, and the design service life of the pipe. Remediate or replace pipe where the evaluation finds the deflection could be problematic or where pipe deflection exceeds 7.5% of the nominal diameter.

F. Requirements for Corrugated Aluminum or Coated Steel Pipe

1. Joints: Remediate pipe showing evidence of crushing at the joints. Note differential movement, improper joint sealing, movement or settlement of pipe sections, and leakage in the inspection report. Remediate joint separation of greater than 1 inch (25 mm). Repair or replace pipe sections where soil migration through the joint is occurring.
2. Cracks: Remediate cracks or splits in the interior wall of the pipe. Use remediation methods in accordance with recommendations of the pipe manufacturer and accepted and authorized by the Engineer.
3. Buckling, bulging, and racking: Note flat spots or dents at the crown, sides or flowline of the pipe due to racking in the inspection report. Note areas of wall buckling and bulging in the inspection report. The Engineer will determine if an additional evaluation by a Professional Engineer is required. Remediate or replace pipe where the evaluation finds the damaged section could be problematic.

4. Deflection: Where pipe deflection exceeds 5% of the nominal diameter, submit to the Engineer for review and approval an evaluation utilizing a Professional Engineer that takes into consideration the severity of the deflection, structural integrity, environmental conditions, and the design service life of the pipe. Remediate or replace pipe where the evaluation finds the deflection could be problematic or where pipe deflection exceeds 7.5% of the nominal diameter.
5. Coating: Note areas of the pipe where the original coating has been scratched, scoured or peeled in the inspection report. The Engineer will determine if repair is necessary. Use remediation methods in accordance with recommendations of the pipe manufacturer and accepted and authorized by the Engineer.

550.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

550.4 Measurement

A. Excavation and Backfill

Foundation backfill materials Types I, II and III are measured according to Subsection 207.4, "Measurement."

Normal backfill is not measured separately.

No measurement will be made for grade aggregate used for structural backfill of thermoplastic pipe.

B. Flat Bottom and Circular Pipe (All Types)

The overall length of pipe installed, excluding tapered inlets, is measured in linear feet (meters), along the central axis of the diameter of the pipe. Wyes, tees, and bends are included in this measurement.

C. Pipe-Arches

The overall length of pipe-arch installed is measured in linear feet (meters), along the bottom center line of the pipe.

D. Multiple Installations

In multiple installations, each single line of culvert structure is measured separately.

E. Tapered Pipe Inlets

Tapered pipe inlet sections are measured as a unit; do not include them in the overall length of the pipe.

F. Flared-End Sections

Flared-end sections are measured separately by the unit and not included in the overall pipe length.

G. Smooth-Flow Pipe

Smooth-flow pipe is measured by the linear foot (meter) along the pipe invert.

H. Elliptical Pipe

Elliptical pipe is measured in linear feet (meters) along the bottom center line of the pipe.

I. Post Installation Inspection

No measurement will be made for post installation inspection.

550.4.01 Limits

Excavation and normal backfill are not measured for payment.

550.5 Payment

A. Backfill

Foundation backfill material Type II and III will be paid for according to Section 207.

Foundation backfill material Type I will be paid for according to Section 205 or Section 206.

Graded aggregate used for structural backfill of thermoplastic pipe will not be paid for separately, payment will be included in the overall price bid for pipe.

B. Pipe Installations

Pipe installations complete in place and accepted will be paid for at the Contract Price for each item.

This payment is full compensation for excavating, furnishing, and hauling materials; installing, cutting pipe where necessary; repairing or replacing damaged sections; post installation inspection, making necessary connections; strutting, elongating, providing temporary drainage; joining an extension to an existing structure where required; and removing, disposing of, or using excavated material as directed by the Engineer.

1. Smooth Flow Pipe

The quantity of each diameter and steel thickness of smooth flow pipe as measured will be paid for at the Contract Unit Price per linear foot (meter) bid for the various sizes. Payment is full compensation for furnishing labor, materials, tools, O-ring mechanical joints, equipment, and incidentals to complete this Item, including removing and disposing excavation material.

2. Flared-End Sections

Flared-end sections, measured as specified above, will be paid for at the Contract Unit Price for each section of the specified size.

Payment will also include sawing, removing, and replacing existing pavement removed to install a new drainage structure.

C. Post Installation Inspection

No separate payment will be made for this work. Include the cost in the bid submitted for this pay item.

Payment for this item is made as follows:

One hundred percent of the Contract Price bid per linear foot (meter) is paid when the pipe is installed per the specifications including the required material documentation. The Contract Price is paid before post installation inspection.

Payment will be made under:

Item No. 550	Storm drain pipe ___ in (mm), H=___	Per linear foot (meter)
Item No. 550	Side drain pipe ___ in (mm), H=___	Per linear foot (meter)
Item No. 550	Pipe arch (span) ___ in (mm) x (rise) ___ in (mm)	Per linear foot (meter)
Item No. 550	Tapered pipe inlet ___ in (mm),	Per each
Item No. 550	Flared-end section ___ in (mm),	Per each
Item No. 550	Elliptical pipe ___ in (mm) wide x ___ in (mm) high	Per linear foot (meter)

550.5.01 Adjustments

Excavation will not be paid for separately, but the other provisions of Section 205 and Section 208 shall govern.

Office of Materials and Testing

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SUPPLEMENTAL SPECIFICATION

Section 653—Thermoplastic Traffic Stripe

Replace Section 653 with the following:

653.1 General Description

This work includes furnishing and applying standard, wet weather, and audible profiled thermoplastic reflectorized pavement marking compound. Ensure markings conform to Plan details and locations, these Specifications, and the Manual on Uniform Traffic Control Devices.

Thermoplastic traffic stripe consists of solid or broken (skip) lines, words, and symbols according to Plan color, type, and location.

653.1.01 Definitions

Thermoplastic Marking Compound: A heated compound extruded or mechanically sprayed on the pavement that cools to pavement temperature. When combined with glass spheres and/or reflective composite optics it produces a reflectorized pavement marking.

Short Lines: Crosswalks, stop bars, arrows, symbols, and crosshatching. Extrude short lines rather than spraying them on.

653.1.02 Related References

A. Specifications

Section 656—Removal of Pavement Markings

B. Referenced Documents

QPL 46

QPL 71

SOP 37

SOP 38

SOP 39

Federal Test Standard Number 595B

Federal Test Standard Number 695B

AASHTO M 247

AASHTO M 249

ASTM D 92

ASTM D 476

ASTM D 2240

ASTM D 4960

ASTM E 1710

ASTM E 2177

40 CFR 261.24

EPA Method 3050

Section 653—Thermoplastic Traffic Stripe

EPA Method 3052

EPA Method 6010

EPA Method 7000A

653.1.03 Submittals

Ensure the producers of the thermoplastic compound and the producers of both the intermix and drop-on glass spheres furnish to the Department copies of certified test reports showing results of all tests specified in this Section. Also ensure that producers certify that the materials meet the other requirements of this Section by submitting copies of certification at the time of sampling.

653.2 Materials

A. General Characteristics of Thermoplastic

Use thermoplastic material produced from an approved source listed on QPL 46. Use thermoplastic material that meets the requirements of AASHTO M 249 with the following exceptions:

1. Material Composition

Ensure the resin of the thermoplastic material is an alkyd binder. Ensure the alkyd binder consists of a mixture of synthetic resins and a high boiling point plasticizer. Ensure at least one synthetic resin is a solid at room temperature. Ensure at least 50% of the binder composition is 100% maleic-modified glycerol ester resin. Ensure at least 18% by weight of the entire material formulation consists of binder. Do not use alkyd binder that contains petroleum based hydrocarbon resins. Ensure the finished thermoplastic material is not adversely affected by contact with pavement materials or by petroleum droppings from traffic. Use thermoplastic material that has been evaluated (2 year field evaluation) by the National Transportation Product Evaluation Panel (NTPEP) test facility or other approved test facility.

2. Suitability for Markings

Use thermoplastic material that is especially compounded for traffic markings and has the following characteristics:

- Prevents markings from smearing or spreading under normal traffic conditions at temperatures below 120 °F (49 °C)
- Gives a uniform cross section, with pigment evenly dispersed throughout the material
- Has a uniform material density and character throughout its thickness
- Allows the stripe to maintain its original dimensions and placement
- Ensures that the exposed surface is free from tack and is not slippery when wet
- Does not lift from the pavement in freezing weather
- Has cold ductility properties that permit normal movement with the road surface without chipping or cracking

3. Color

Confirm the color of thermoplastic as follows:

- White – Use titanium dioxide that meets the requirements of ASTM D 476, Type II, Rutile, as the pigment for white thermoplastic material. Do not use anatase titanium dioxide pigment. Ensure thermoplastic material is free from dirt or tint. Ensure white thermoplastic material heated for 240 ± 5 minutes at 425 ± 3 °F (218 ± 3 °C) and cooled to 77 ± 3 °F (25 ± 2 °C) matches Federal Test Standard Number 695B-Color 17925. Ensure the material, when compared to the magnesium oxide standard using a standard color spectrophotometer according to ASTM D 4960, meets the following:

Scale	Definition	Magnesium Oxide Standard	Sample
Rd	Reflectance	100	75 min.
a	Redness-Greenness	0	-5 to + 5
b	Yellowness-Blueness	0	-10 to + 10

- Yellow – Use only non-hazardous pigments as defined by the Resource Conservation and Recovery Act (RCRA) Subarticle C rules, table 1 of 40 CFR 261.24 “Toxicity Characteristic”. Do not use yellow

Section 653—Thermoplastic Traffic Stripe

thermoplastic containing more than 3.0 ppm lead by weight when tested in accordance with the most recent EPA Methods 3050 and 6010 or 7000. Ensure yellow thermoplastic material heated for 240 ± 5 minutes at 425 ± 3 °F (218 ± 2 °C) and cooled to 77 ± 3 °F (25 ± 2 °C) matches Federal Test Standard Number 595B-Color 13538. Ensure the material, when compared to PR#1 Chart using a standard color spectrophotometer according to ASTM D 4960, plots within the following chromaticity coordinates:

	1	2	3	4
X	0.455	0.510	0.472	0.530
Y	0.444	0.485	0.400	0.456

- c. Initial Reflectance (CIE Y): 45 minimum
- d. Ensure the in-service daytime chromaticity for yellow material plots within the following coordinates after a period of 30 days:

	1	2	3	4
X	0.435	0.510	0.449	0.530
Y	0.429	0.485	0.377	0.456

4. Indentation Resistance

Measure the hardness by a Shore Durometer, Type A2, as described in ASTM D 2240. Maintain the temperature of the Durometer, 4.4 lb. (2 kg) load and the specimen for 2 hours at 115 °F (45 °C). Apply the Durometer and 4.4 lb. (2 kg) load to the specimen. The reading must fall between 50 to 75 units, after 15 seconds.

5. Reheating

Ensure that the compound does not break down, deteriorate, scorch, or discolor if held at application temperature of 425 °F (218 °C) for 6 hours and if reheated up to 4 times to the application temperature. Ensure that the color of white and yellow thermoplastic comply with Subsection 653.2.A.3.a and Subsection 653.2.A.3.b after prolonged heating or reheating.

6. Intermixed Glass Spheres and Reflective Composite Optics

Ensure glass spheres meet the requirements of AASHTO M 247.

Do not use glass spheres and /or reflective composite optics containing greater than 200 ppm total arsenic, 200 ppm total antimony, or 200 ppm total lead when tested according to US EPA Methods 3052 and 6010C, or other approved methods.

7. Flashpoint

Ensure the thermoplastic flashpoint is not less than 500 °F (260 °C) as determined by ASTM D 92.

B. Drop-On Glass Spheres and Reflective Composite Optics

Ensure glass spheres meet the requirements of AASHTO M 247. Use spheres produced from an approved source listed on QPL 71. Glass spheres conforming to an alternative gradation may be used provided all other requirements of AASHTO M 247 and this specification are met. Do not use glass spheres and /or reflective composite optics containing greater than 200 ppm total arsenic, 200 ppm total antimony, or 200 ppm total lead when tested according to US EPA Methods 3052 and 6010C, or other approved methods.

C. Sealing Primer

Place the particular type of binder-sealer at the application rate as recommended in writing by the thermoplastic material manufacturer.

653.2.01 Delivery, Storage, and Handling

Use material delivered in 50 lb (22.7 kg) unit cardboard containers or bags strong enough for normal handling during shipment and on-the-job transportation without loss of material.

Ensure that each unit container is clearly marked to indicate the following:

- Color of the material
- Process batch number or similar manufacturer's identification
- Manufacturer's name
- Address of the plant

Section 653—Thermoplastic Traffic Stripe

- Date of manufacture

653.3 Construction Requirements

653.3.01 Personnel

General Provisions 101 through 150.

653.3.02 Equipment

Depending on the marking required, use hand equipment or truck-mounted application units on roadway installations.

A. Application Machine

Ensure that each application machine is equipped with the following features:

- Parts continuously mix and agitate the material.
- Truck-mounted units for lane, edge, and center lines operate at a uniform, predetermined rate of speed, both uphill and downhill, in order to produce a uniform application of striping material and capable of following straight lines and making normal curves in a true arc.
- Conveying parts between the main material reservoir and the shaping die or gun prevent accumulation and clogging.
- Parts that contact the material are easily accessible and exposable for cleaning and maintenance.
- Mixing and conveying parts, including the shaping die or gun, maintain the material at the plastic temperature with heat transfer oil or electrical element controlled heat. Do not use an external source of direct heat.
- Parts provide continuously uniform stripe dimensions.
- Applicator cleanly and squarely cuts off stripe ends and applies skip lines. Do not use pans, aprons, or similar appliances that the die overruns.
- Parts produce varying widths of traffic markings.
- Applicator is mobile and maneuverable enough to follow straight lines and make normal curves in a true arc.

B. Automatic Bead Dispenser

Apply glass spheres and/or reflective composite optics to the surface of the completed stripe using a dispenser attached to the striping machine to automatically dispense the beads/optics instantaneously upon the installed line. Synchronize the glass sphere/optics dispenser cutoff with the automatic cutoff of the thermoplastic material.

C. Special Kettles

Use special kettles for melting and heating the thermoplastic material. Use kettles equipped with automatic thermostatic control devices that provides positive temperature control and prevents overheating. Ensure that the applicator and kettles are equipped and arranged according to the requirements of the National Fire Underwriters.

D. Hand Equipment

Use hand equipment for projects with small quantities of lane lines, edge lines, and center lines, or for conditions requiring the equipment. Use hand equipment approved by the Engineer.

Ensure hand equipment can hold 150 lbs. (68 kg) of molten material and is maneuverable to install crosswalks, arrows, legends, lane, edge, and center lines.

E. Auxiliary Vehicles

Supply the necessary auxiliary vehicles for the operation.

653.3.03 Preparation

For asphaltic concrete pavement, do not begin placement of thermoplastic striping until 15 calendar days after completion of the final surface course.

653.3.04 Fabrication

General Provisions 101 through 150.

Section 653—Thermoplastic Traffic Stripe

653.3.05 Construction

A. General Application

Notify the Engineer prior to the placement of the thermoplastic materials. Furnish the Engineer with the manufacturer's name and batch numbers of the thermoplastic materials and glass spheres to be used. Ensure that the approved batch numbers appear on the thermoplastic materials and glass spheres packages.

Thoroughly clean pavement areas to be striped. Use hand brooms, rotary brooms, air blasts, scrapers, or other approved methods that leave the pavement surface clean and undamaged. Take care to remove all vegetation and road film from the striping area. Ensure all new Portland cement concrete pavement surfaces are mechanically wire brushed or abrasive cleaned to remove all laitance and curing compound before being striped.

Lay stripe with continuous uniform dimensions.

Apply the type of stripe at each location according to the Plans, using one of the following methods:

- Spray techniques
- Extrusion methods wherein one side of the shaping die is the pavement and the other three sides are contained by or are part of the suitable equipment to heat and control the flow of material.
- Extrusion methods using a pressurized ribbon gun to control the application of material.

1. Temperature

Apply thermoplastic traffic stripe only when the pavement temperature in the shade is above 40 °F (4 °C).

To ensure optimum adhesion, install the thermoplastic material in a melted state at the manufacturer's recommended temperature but not at less than 375 °F (190 °C).

2. Moisture

Do not apply when the surface is moist. When directed by the Engineer, perform a moisture test on the Portland cement concrete pavement surface. Perform the test as follows:

- a. Place approximately 1 yd² (1m²) of roofing felt on the pavement surface.
- b. Pour approximately 1/2 gallon (2 L) of molten thermoplastic onto the roofing felt.
- c. After 2 minutes, lift the roofing felt and inspect to see if moisture is present on the pavement surface or underside of the roofing felt.
- d. If moisture is present, do not proceed with the striping operation until the surface has dried sufficiently to be moisture free.

3. Sealing Primer

To ensure optimum adhesion, apply a binder-sealer material before installing the thermoplastic in each of the following cases:

- Where directed by the Engineer for sprayed thermoplastic
- Old asphaltic concrete pavements with exposed aggregates
- Portland cement concrete pavements
- Bridge Deck Polymer Overlay

Ensure that the binder-sealer material forms a continuous film that mechanically adheres to the pavement and dries rapidly. Use a binder-sealer currently in use and recommended by the thermoplastic material manufacturer according to QPL 46.

Apply the binder-sealer immediately in advance of, but concurrent with, the application of the thermoplastic material. Apply in a continuous film over the pavement surface.

4. Bonding to Old Stripe

If the old stripe is to be renewed by overlaying with new material, ensure the new material bonds to the old line without splitting or cracking.

5. Offset from Construction Joints

Off-set longitudinal lines at least 2 in (50 mm) from construction joints of Portland cement concrete pavements.

6. Crosswalks, Stop Bars, and Symbols

Section 653—Thermoplastic Traffic Stripe

Make crosswalks, stop bars, and symbols at least 3/32 in (2.4 mm) thick at the edges and no more than 3/16 in (4.8 mm) thick at the center.

7. Thickness

a. Maintain the following minimum average dry thicknesses above the surface on all types of pavements

- 0.090 in (2.3 mm)* for lane lines
- 0.060 in (1.5 mm)* for edge lines
- 0.120 in (3.0 mm)* for gore area lines
- 0.120 in (3.0 mm)* for polymer overlay edge lines and lane lines

(See below for ‘*’ reference.)

Compute the minimums by the amount of material used each day, as follows:

(For 5 in wide stripe)	
* Average Thickness (in) =	$[(\text{lbs. used}) \div (\text{total linear feet})] \times 0.236$
(For 125 mm wide stripe)	
*Average Thickness (mm) =	$[(\text{kg used}) \div (\text{total linear meters})] \times 4.0$
(For 10 in wide stripe)	
* Average Thickness (in) =	$[(\text{lbs. used}) \div (\text{total linear feet})] \times 0.118$
(For 250 mm wide stripe)	
* Average Thickness (mm) =	$[(\text{kg used}) \div (\text{total linear meters})] \times 2.0$

b. Audible Profiled Thermoplastic – Apply a flat edge line having a thickness of 0.100 inches – 0.150 inches (100 mils – 150 mils) above the surface on all types of pavements, exclusive of bumps.

8. Glass Spheres and Reflective Composite Optics

- a. Apply glass spheres and/or reflective composite optics to installed stripe surface above the minimum rate recommended by the thermoplastic material manufacturer to produce the required retro-reflectivity value in accordance with Subsection 653.3.06.
- b. Apply the glass sphere and/or reflective composite optics top-coating with a pressure-type gun specifically designed for applying glass spheres and/or reflective composite optics that will embed at least one-half of the sphere’s and optic’s diameter into the thermoplastic immediately after the material has been applied to the pavement.
- c. Audible Profiled Thermoplastic– Apply glass sphere and/or reflective composite optics to all markings at the rates determined by the manufacturer’s recommendations as identified in the APL system.

9. Dimensions of Raised Bumps:

- a. Apply the raised bumps with a profile such that the leading and trailing edges are sloped at a sufficient angle to create an audible and vibratory warning.
- b. Bumps on the edge line and centerline marking shall be at least 0.45 inches (11 mm) at the highest point of the bump, above the pavement surface including the base line. The height measures after the application of the drop-on retroreflective elements or glass spheres.
- c. Bumps shall have a minimum baseline coverage dimension of 2.5 inches (65 mm) in both the transverse and longitudinal directions.
- d. The bumps may have a drainage channel. The width of each drainage channel will not exceed 0.25 inches (6 mm) at the bottom of the channel. The longitudinal distance between bumps shall be approximately 30 inches (762 mm).

B. Removing Existing Stripe

Remove existing stripe according to Section 656.

Remove 100 percent of existing traffic stripe from:

- Portland cement concrete pavement where the new stripe will be placed at the same location as the existing marking

Section 653—Thermoplastic Traffic Stripe

- Pavement where the new stripe will be placed at a different location from the existing markings

C. Tolerance and Appearance

- No traffic stripe shall be less than the specified width and shall not exceed the specified width by more than 1/2 in (13 mm). The length of the 10 ft. (3 m) segment for skip stripe and the 30 ft. (9 m) gap between segments may vary plus or minus 1 ft. (300 mm). The alignment of the stripe shall not deviate from the intended alignment by more than 1 in (25 mm) on straight lines. On curves up to and including 1 degree (radius of 1745 m or greater), the alignment of the stripe shall not deviate from the intended alignment by more than 1 in (25 mm). On curves exceeding 1 degree (radius less than 1745 m), the alignment of the stripe shall not deviate from the intended alignment by more than 2 in (50 mm).
- Stop work when deviation exceeds the above dimensions, and remove the nonconforming stripe.
- No more than 1% of the bumps or more than three consecutive bumps are missing or broken (less than half a bump remaining) within the first 45 days under traffic, replace all failed bumps at no cost to the Department.
- If the bumps are replaced and more than 2% of the replaced bumps fail within the first 45 days under traffic, the replacement period will be extended an additional 45 days from the date all replacement bumps were installed.
- If at the end of the additional 45 days more than 2% of all bumps (initial and replacement) fail, replace all failed bumps at no expense to the Department.

D. Traffic Marking Protection (Audible Profile Thermoplastic)

Do not allow traffic onto or permit vehicles to cross newly applied pavement markings until they are sufficiently dry. Remove and replace any portion of the pavement markings damaged by passing traffic or from any other cause, at no additional cost to the Department.

653.3.06 Quality Acceptance

A. General

For a minimum of 30 days from the time of placement, ensure the thermoplastic pavement marking material and/or audible profiled thermoplastic shows no signs of failure due to blistering, excessive cracking, chipping, bleeding, staining, discoloration, oil content of the pavement materials, smearing or spreading under heat, deterioration due to contact with grease deposits, oil, diesel fuel, or gasoline drippings, spilling, poor adhesion to the pavement material, vehicular damage, and normal wear. In the event that failures mentioned above occur, ensure corrective work is completed at no additional cost to the Department.

Obtain pavement marking retroreflectivity values with a 30 meter geometry retroreflectometer.

B. Initial Retroreflectivity

1. Longitudinal Lines

Within 30 days of installation, ensure the in-place markings meet the following minimum reflectance values:

a. Standard

	White	Yellow
Dry (ASTM E 1710)	400 mcd/lux/m ²	300mcd/lux/m ²

b. Wet Weather

	White	Yellow
Dry (ASTM E 1710)	400 mcd/lux/m ²	300 mcd/lux/m ²
Wet recovery (ASTM E 2177)	150 mcd/lux/m ²	125 mcd/lux/m ²

c. Audible Profile Thermoplastic

	White	Yellow
Dry (ASTM E 1710)	300 mcd/lux/m ²	250 mcd/lux/m ²

For each center line, edge line, and skip line, measure retroreflectivity 9 times for each mile; 3 times within the first 500 ft (152 m), 3 times in the middle, and 3 times within the last 500 ft (152 m). For projects less than one mile (1600 m) in length, measure retroreflectivity 9 times as above.

Record all retroreflectivity measurements on the form OMR CVP 66 in SOP 39.

Section 653—Thermoplastic Traffic Stripe

2. Messages, Symbols, and Transverse Lines

At the time of installation, ensure the in-place markings when tested according to ASTM E 1710 meet the following minimum reflectance value of 275 mcd/lux/m².

Perform at a minimum, one retroreflectivity measurement at one message, one symbol and one transverse line per intersection. Take one measurement per mile (1600 m) for locations other than intersections (i.e. school messages, railroad messages, bike symbols etc.)

C. Six Month Retroreflectivity (Longitudinal Lines)

Maintain the following minimum reflectance values for 180 days after installation:

1. Standard

	White	Yellow
Dry (ASTM E 1710)	400 mcd/lux/m ²	300 mcd/lux/m ²

2. Wet Weather

	White	Yellow
Dry (ASTM E 1710)	400 mcd/lux/m ²	300 mcd/lux/m ²
Wet recovery (ASTM E 2177)	150 mcd/lux/m ²	125 mcd/lux/m ²

3. Audible Profile Thermoplastic

	White	Yellow
Dry (ASTM E 1710)	300 mcd/lux/m ²	250 mcd/lux/m ²

Retest the in-place markings according to Subsection 653.3.06.B.1, 180 days after installation to ensure these minimum retroreflectance values are maintained.

NOTE: The Contractor is responsible for retro-reflectivity testing. Furnish initial test results to the Engineer within 30 days of application. Furnish additional testing for a period that totals 180 days from initial application or the stoppage of contract time, whichever comes first.

D. Thickness

1. New Striping

Check the thicknesses on all skip lines, edge lines and center lines with an approved traffic marking thickness gage consisting of 3 dials as follows:

For each center line, edge line, and skip line, measure thickness above the pavement 3 times for each mile (1600 m); once within the first 500 ft (150 m), once in the middle, and once within the last 500 ft (150 m). For projects less than one mile (1600 m) in length, measure the thickness above the pavement 3 times.

Record all thickness measurements on the form OMR CVP 66 in SOP 39.

2. Recapping Refurbishment Thermoplastic

Place durable tape, film, or metal plate of known and uniform thickness on an area to be striped. After the striper has passed over, remove the sample and measure the thickness with calipers or a micrometer.

For each center line, edge line, and skip line, measure thickness above the pavement 3 times for each mile (1600 m); once within the first 500 ft (150 m), once in the middle, and once within the last 500 ft (150 m). For projects less than one mile (1600 m) in length, measure the thickness above the pavement 3 times.

Submit results to the Engineer.

3. Audible Profiled Thermoplastic

Ensure the thickness of white and yellow pavement marking conform to Subsection 653.3.05.A.7.b

Record all thickness measurements on the form OMR CVP 66 in SOP 39 and submit to the Engineer.

The Engineer will verify the thickness of the pavement marking in accordance with Subsection 653.3.05.A.7.b within 30 days of receipt of the Contractor's certification.

Thickness measurement may be performed using a strong adhesive tape to install a metal plate (approximately 6 inches (150 mm) wide by 8 inches (200 mm) long, the thickness of the plate can be 1/8 inch (3 mm) as long as the plate does not deform) to the roadway where the pavement marking will be placed. After the material has dried remove the plate and check the thickness of the pavement marking material on the plate with a micrometer.

Section 653—Thermoplastic Traffic Stripe

E. Corrective Work

For each mile (1600 m) section, if the thermoplastic traffic stripe fails to meet Plan details or Specifications or deviates from stated dimensions, correct it at no additional cost to the Department. If removal of pavement markings is necessary, perform it according to Section 656 and place it according to this Specification. No additional payment will be made for removal and replacement of unsatisfactory striping. Ensure corrective work is completed at no additional cost to the Department. Perform testing according to this Specification. Any retest due to failures will be performed at no additional cost to the Department. Furnish all test reports to the Department.

Retroreflectivity and Thickness Longitudinal Line Deficiency: A deficiency will ensue when two or more Location Average results as recorded on form OMR CVP 66 within a One-Mile (1600 m) Section do not meet the performance criteria herein. The entire line within this one mile (1600 m) section will be determined to be deficient. If the evaluated section is less than 1.0 mile (1600 m), a single Location Average result not meeting the performance criteria herein will result in the entire line to be determined to be deficient.

Retroreflectivity Transverse Markings and Symbol Deficiency: A single Location Average result on the marking or symbol not meeting the performance criteria herein will result in the marking or symbol to be determined to be deficient.

653.3.07 Verification

See SOP 39

653.4 Measurement

When stripe will be paid for by the square yard (meter), the actual number of square yards (meters) painted will be measured. The space between the stripes will be included in the overall measurement.

Linear measurements may be made by electronic measuring devices attached to a vehicle.

Thermoplastic traffic stripe, complete in place and accepted, is measured as follows:

A. Solid Traffic Stripe (Including Audible Stripe)

Stripe is measured by the linear foot (meter), linear mile (kilometer), or square yard (meter). Breaks or omissions in solid lines or stripes at street or road intersections are not measured for payment.

B. Skip Traffic Stripe

Skip stripe is measured by the gross linear mile (kilometer) as specified. The unpainted space between the painted stripes is included in the overall measurement if the Plan ratio of one to three (10 ft [3 m] segment and 30 ft [9 m] gap or other patterns as designated on the Plans) remains uninterrupted. Measurement begins and ends on a stripe.

C. Words and Symbols

Each word or symbol complete according to Plan dimensions is measured by the Unit.

653.4.01 Limits

General Provisions 101 through 150.

653.5 Payment

Payment is full compensation for the Work under this section, including:

- Cleaning and preparing surfaces
- Furnishing all materials
- Applying, curing, and protecting stripe
- Protecting traffic, including providing necessary warning signs
- Furnishing tools, machines, and other equipment necessary to complete the Item

Measurement and payment for removing pavement markings will be according to Section 656 when shown in the Proposal as a payment Item. Otherwise, removal will not be paid for separately, but will be included in the payment for other Work under this section.

Payment will be made under:

Item No. 653	Thermoplastic solid traffic stripe, ___ in (mm), (color)	Per linear foot (meter)
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Section 653—Thermoplastic Traffic Stripe

Item No. 653	Thermoplastic solid traffic stripe, __ in (mm), (color)	Per linear mile (kilometer)
Item No. 653	Thermoplastic skip traffic stripe, __ in (mm), (color)	Per gross linear foot (meter)
Item No. 653	Thermoplastic skip traffic stripe, __ in (mm), (color)	Per gross linear mile (kilometer)
Item No. 653	Audible profiled thermoplastic solid traffic stripe, __ in (mm), (color)	Per linear foot (meter)
Item No. 653	Audible profiled thermoplastic solid traffic stripe, __ in (mm), (color)	Per linear mile (kilometer)
Item No. 653	Audible profiled thermoplastic skip traffic stripe, __ in (mm), (color)	Per gross linear foot (meter)
Item No. 653	Audible profiled thermoplastic skip traffic stripe, __ in (mm), (color)	Per gross linear mile (kilometer)
Item No. 653	Thermoplastic pavement markings, words, and symbols (color), type _____	Per each
Item No. 653	Thermoplastic traffic stripe	Per square yard (meter)
Item No. 653	Wet Weather Thermoplastic solid traffic stripe, __ in (mm), (color)	Per linear foot (meter)
Item No. 653	Wet Weather Thermoplastic solid traffic stripe, __ in (mm), (color)	Per linear mile (kilometer)
Item No. 653	Wet Weather Thermoplastic skip traffic stripe, __ in (mm), (color)	Per gross linear foot (meter)
Item No. 653	Wet Weather Thermoplastic skip traffic stripe, __ in (mm), (color)	Per gross linear mile (kilometer)
Item No. 653	Wet Weather Thermoplastic pavement markings, words, and symbols (color), type _____	Per each
Item No. 653	Wet Weather Thermoplastic traffic stripe	Per square yard (meter)

653.5.01 Adjustments

General Provisions 101 through 150.

“EXHIBIT 3”

DAVIS-BACON INFORMATION SHEET

The Davis-Bacon and Related Acts (DBRA)

This fact sheet provides general information concerning DBRA.

LABORER: Concrete Paving Joint Sealer.....	\$ 17.66	0.00
LABORER: Grade Checker.....	\$ 11.45	0.00
LABORER: Mason Tender - Brick...	\$ 11.61	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 13.00	0.00
LABORER: Pipelayer.....	\$ 12.45	0.00
LABORER: Asphalt (Includes Distributor, Raker, Screed, Shoveler, and Spreader).....	\$ 13.49	0.00
LABORER: Common or General, Includes Erosion Control.....	\$ 11.08	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 16.97	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 13.38	0.00
OPERATOR: Broom/Sweeper.....	\$ 14.83	1.38
OPERATOR: Bulldozer.....	\$ 16.07	1.81
OPERATOR: Compactor.....	\$ 14.64	0.00
OPERATOR: Concrete Saw.....	\$ 18.94	0.00
OPERATOR: Crane.....	\$ 21.06	4.24
OPERATOR: Distributor.....	\$ 16.58	1.13
OPERATOR: Grader/Blade.....	\$ 18.42	5.04
OPERATOR: Hydroseeder.....	\$ 15.20	0.00
OPERATOR: Loader.....	\$ 13.21	0.93
OPERATOR: Mechanic.....	\$ 19.54	0.00
OPERATOR: Milling Machine Groundsman.....	\$ 13.43	1.24
OPERATOR: Milling Machine.....	\$ 15.87	1.10
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 16.08	0.00
OPERATOR: Piledriver.....	\$ 16.70	0.00
OPERATOR: Roller.....	\$ 13.45	0.83
OPERATOR: Scraper.....	\$ 12.64	0.00
OPERATOR: Screed.....	\$ 14.41	1.16
OPERATOR: Shuttle Buggy.....	\$ 14.06	1.98
PAINTER: Spray.....	\$ 23.30	0.00

TRAFFIC CONTROL: Flagger.....	\$ 11.71	0.00
TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper.....	\$ 12.52	0.00
TRAFFIC SIGNALIZATION: Laborer.....	\$ 12.17	1.01
TRUCK DRIVER: Dump Truck.....	\$ 15.00	0.00
TRUCK DRIVER: Flatbed Truck.....	\$ 14.91	1.07
TRUCK DRIVER: Hydroseeder Truck.....	\$ 16.74	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 18.98	0.00
TRUCK DRIVER: Off the Road Truck.....	\$ 12.38	0.00
TRUCK DRIVER: Pickup Truck.....	\$ 13.29	0.00
TRUCK DRIVER: Water Truck.....	\$ 13.19	1.46
TRUCK DRIVER: Semi/Trailer Truck.....	\$ 16.26	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the

cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

“EXHIBIT 4”

Federal Documents & CUF Form **(next 103 pages)**

NOTICE TO ALL BIDDERS

ALL BIDDERS SUBMITTING BIDS IN EXCESS OF \$2,000,000
SHALL BE PRE-QUALIFIED WITH THE GEORGIA DEPARTMENT OF
TRANSPORTATION (GDOT).

ALL BIDDERS SUBMITTING BIDS \$2,000,000
OR LESS SHALL BE REGISTERED SUBCONTRACTORS OR PRE-QUALIFIED
WITH THE GDOT.

SUBCONTRACTORS SHALL BE PRE-QUALIFIED OR
REGISTERED WITH THE GDOT.

IF CONSTRUCTION WORK INVOLVES WELDED STRUCTURES,
SUCH AS BRIDGES, THE MANUFACTURER OF THE
STRUCTURE SHALL BE ON THE GDOT QPL LIST 60.

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free “hotline” Monday through Friday, 8:00 AM to 5:00 PM, Eastern Time. Anyone with the knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report such activities.

The “hotline” is part of the DOT’s continuing effort to identify and investigate highway construction contract fraud and abuse, and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

**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.

SPECIAL PROVISION

Required Contract Provisions Federal-Aid Construction Contracts

1. *Subsection I.4 Selection of Labor; Delete the last sentence in the paragraph.*
2. *Subsections IV Davis Bacon and Related Act Provisions; Delete the first paragraph in its entirety and substitute the following:*

“This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts. The requirements apply to all projects located within the right-of-way of a roadway.”

**GEORGIA DEPARTMENT OF TRANSPORTATION
REQUIRED CONTRACT PROVISIONS, FEDERAL-AID HIGHWAY PROGRAM**

EFFECTIVE FEBRUARY 15, 2016

The Cargo Preference Act (CPA) establishes certain requirements for the use of privately owned United States-flag commercial vessels in transporting equipment, materials, and commodities by ocean vessel. Contractors are required to comply with the CPA requirements and 46 CFR 381 and are required to insert the substance of these provisions into any subcontracts issued pursuant to this contract.

Cargo Preference Act Requirements

All Federal-aid projects shall comply with 46 CFR 381.7 (a)–(b) as follows:

(a) *Agreement Clauses.* Use of United States-flag vessels:

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(b) *Contractor and Subcontractor Clauses.* Use of United States-flag vessels: The contractor agrees—

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the Gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

The CPA requirements would be appropriate for oceanic shipments of materials or equipment that is intended for use on a specific Federal-aid project, such as a precast concrete structural members, fabricated structural steel, tunnel boring machines, or large-capacity cranes.

The CPA requirements are not applicable for goods or materials that come into inventories independent of an FHWA funded-contract. For example, the requirements would not apply to shipments of Portland cement, asphalt cement, or aggregates, as industry suppliers and contractors use these materials to replenish existing inventories. In general, most of the materials used for highway construction originate from existing inventories and are not acquired solely for a specific Federal-aid project.

A test for whether CPA requirements apply or do not apply to shipped goods or materials would be if the goods or materials are what one would consider to be common inventory supplies for highway construction contractor, then CPA would **not apply**. If the materials or goods are considered to be supplies one would consider to be not common supplies of a highway construction contractor then CPA would **apply**.

APPENDIX A
NOTICE TO CONTRACTORS
COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964
FOR
FEDERAL-AID CONTRACTS

During the performance of this Contract, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the “Contractor”), agrees as follows:

1. Compliance with Regulations: The Contractor will comply with the Regulations of the Department of Transportation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (Title 49, Code of Federal Regulations, Part 21, hereinafter referred to as the “Regulations”), which are herein incorporated by reference and made a part of the Contract.
2. Nondiscrimination: The Contractor, with regard to the work performed by it afterward and prior to completion of the contract work, will not discriminate on the ground of race, color, national origin, disability, sex, or age in the selection and retention of subcontracts including procurements of materials and leases of equipment. This will be done in accordance with Title VI of the Civil Rights Act of 1964 and other Non-Discrimination Authorities i.e., Section 504 of the 1973 Rehabilitation Act, the 1973 Federal-Aid Highway Act, the 1975 Age Discrimination Act, and the Americans with Disabilities Act of 1990. The Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when contract covers a program set forth in Appendix B of the Regulations. In addition, the Contractor will not participate either directly or indirectly in discrimination prohibited by 23 CFR 710.405 (b).
3. Solicitations for subcontracts, including procurements of materials and equipment: In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor’s obligations under this Contract and the Regulations relative to nondiscrimination on the ground of race, color, national origin, disability, sex or age.

4. Information and Reports: The Contractor will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the Department of Transportation shall impose such Contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- (a) withholding of payments to the Contractors under the Contract until the Contractor complies, and/or
- (b) Cancellation, termination or suspension of the Contract, in whole or in part.

6. Incorporation of Provisions: The Contractor will include the provisions of paragraph (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, orders or instruction issued pursuant thereto. The Contractor will take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as result of such direction, the Contractor may request the State to enter into such litigation to protect the interests of the State, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

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NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246) (43 FR 14895)

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

GOALS FOR FEMALE PARTICIPATION

**APPENDIX A
(43 FR 19473)**

The following goals and timetables for female utilization shall be included in all Federal and federally assisted construction contracts and subcontracts in excess of \$10,000. The goals are applicable to the contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a Federal of federally-assisted construction contract or subcontract. Area covered: Goals for Women apply nationwide.

Goals and timetables

Timetable	Goals (percent)
4-1-78 to 3-31-79	3.1
4-1-79 to 3-31-80	5.0
4-1-80 Until Further Notice	6.9

**GOALS FOR
MINORITY PARTICIPATION**

Appendix B-80

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographical areas. The goals are applicable to each nonexempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or non-federally related project, contract or subcontract.

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Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4-5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the areas covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply with the applicable SMSA or EA goal contained in this appendix B-80.

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State	Goal (percent)
Georgia:	
035 Augusta, GA:	
SMSA Counties:	
0600 Augusta, GA-SC	27.2
GA Columbia; GA Richmond, SC Aiken;	
Non-SMSA Counties 32.-8	
GA Burke; GA Emanuel; GA Glascock; GA Jefferson;	
GA Jenkins; GA Lincoln; GA McDuffie, GA Talferferro;	
GA Warren; GA Wilkes; SC Allendale; SC Bamberg;	
SC Barnwell; SC Edgefield; SC McCormick;	
036 Atlanta, GA:	
SMSA Counties:	
0520 Atlanta, GA	21.2
GA Butts; GA Cherokee; GA Clayton; GA	
Cobb; GA DeKalb; GA Douglas; GA Fayette, GA	
Forsyth; GA Fulton; GA Gwinnett; GA Henry; GA	
Newton; GA Paulding; GA Rockdale; GA Walton	
Non-SMSA Counties 19.5	
GA Banks; GA Barrow; GA Bartow; GA Carroll; GA Clarke;	
GA Coweta; GA Dawson; GA Elbert; GA Fannin;	
GA Floyd; GA Franklin; GA Gilmer; GA Gordon;	
GA Greene; GA Habersham; GA Hall; GA	
Haralson; GA Hart; GA Heard; GA Jackson; GA	
Jasper; GA Lamar; GA Lampkin; GA Madison;	
GA Morgan; GA Oconee, GA Oglethorpe; GA	
Pickins, GA Pike; GA Polk; GA Rabun; GA	
Spalding; GA Stephens; GA Towns; GA; Union; GA Upson	
White	
037 Columbus, GA:	
SMSA Counties:	
1800 Columbus, GA – AL	29.6
Al Russell; GA Chattahoochee; GA Columbus	

Non-SMSA Counties	31.6
Al Chambers; AJ Lee; GA Harris; GA Marion; GA Meriwether; GA Quitman; GA Schley; GA Stewart; GA Sumter; GA Talbot; GA Troup; GA Webster	
038 Macon, GA:	
SMSA Counties:	
4680 Macon, GA	27.5
GA Bibb; GA Houston; GA Jones; GA Twiggs	
Non-SMSA Counties	31.7
GA Baldwin; GA Bleckley; Crawford; GA Crisp; GA Dodge; GA Dooly; GA Hancock; GA Johnson; GA Laurens; GA Macon; GA Monroe; GA Peach; GA Pulaski; GA Putman; GA Taylor; GA Telfair; GA Treutlan; GA Washington; GA Wheeler; GA Wilcox; GA Wilkinson	
039 Savannah, GA:	
SMSA Counties:	
7520 Savannah, GA	30.6
GA Bryan; GA Chatham; GA Effingham	
Non-SMSA Counties	29.8
GA Appling; GA Atkinson; GA Bacon, GA Bulloch; GA Candler; GA Coffee; GA Evans; GA Jeff Davis; GA Liberty; GA Long; GA McIntosh; GA Montgomery; GA Screven; GA Tattnell; GA Toombs; GA Wayne; SC Beaufort; SC Hampton; SC Jasper	
040 Albany, GA:	
SMSA Counties:	
0120 Albany, GA	32.1
GA Dougherty; GA Lee	
Non-SMSA Counties	31.1
GA Baker; GA Ben Hill; GA Berrien; GA Brooks; GA Calhoun; GA Clay; GA Clinch; GA Colquitt; GA Cook; GA Decatur; GA Early; GA Echols; GA Grady; GA Irwin; GA Lanier; GA Lowndes; GA Miller; GA Mitchell; GA Randolph; GA Seminole; GA Terrell; GA Thomas; GA Tift; GA Turner; GA Worth	
Florida:	
041 Jacksonville FL:	
Non-SMSA Counties.....	22.2
GA Brantley; GA Camden; GA Charlton; GA Glynn; GA Pierce; GA Ware	

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**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246) (43 FR 14895)**

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegated authority;
 - c. "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

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5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, nor the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minority and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing the notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year, and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

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- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc. prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female and community organization, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and test to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete

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benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISADVANTAGED BUSINESS ENTERPRISE PROGRAM
CRITERIA FOR ACCEPTABILITY

The purpose of this special provision is to establish criteria for acceptability of DBE firms for work performed on this contract. The intent is to ensure all participation counted toward fulfillment of the DBE goals is (1) real and substantial, (2) actually performed by viable, independent DBE owned firms, and (3) in accordance with the spirit of the applicable laws and regulations.

The policy of the Georgia Department of Transportation is to ensure compliance with Title VI of the Civil Rights Act of 1964, 49 Code of Federal Regulations, Part 26 and related statutes and regulations in all program activities.

To this end the Georgia Department of Transportation shall not discriminate on the basis of race, color, sex or national origin in the award, administration and performance of any Georgia Department of Transportation assisted contract or in the administration of its Disadvantaged Business Enterprise Program. The Georgia Department of Transportation shall take all necessary and reasonable steps to ensure nondiscrimination.

The DBE Goal specified in the contract will be a percentage representing the DBE Race Conscious Participation. The Contractor will strive to achieve an additional percentage in his/her contracts for all projects during the course of the current State Fiscal Year, in order to meet the overall Georgia Department of Transportation DBE goal.

The DBE program applies to all Federal Aid projects regardless if a DBE Goal is established in the Contract or not. If no percentage goal is set forth in the proposal, the contractor may enter a proposed DBE participation. This voluntary DBE participation will count as race neutral DBE participation. Prime Contractor shall report race-neutral participation in accordance with the DBE Monthly Report requirements shown in this document.

Project DBE payments and commitments may not be transferred to or combined with another contract.

DEFINITIONS: For the purposes of this provision, the following definitions will apply:

Disadvantaged Business Enterprises (DBE) are firms Certified by the Georgia Unified Certification program that are for-profit small business concerns:

- 1) Which is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and
- 2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own the business.

Good Faith Efforts means efforts to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Joint Venture means an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

Socially and Economically Disadvantaged Individual means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is –

- (1) Any individual who the Department finds to be a socially and economically disadvantaged individual on a case-by-case basis.
- (2) Any individual in the following groups, members of which are reputedly presumed to be socially and economically disadvantaged.
 - (i) “Black Americans,” which includes persons having origins, in any of the Black racial groups of Africa;
 - (ii) “Hispanic Americans,” which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - (iii) “Native Americans,” which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

- (iv) “Asian-Pacific Americans,” which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
- (v) “Subcontinent Asian Americans,” which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
- (vi) Women;
- (vii) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

(3) GDOT will presume that such persons are socially and economically disadvantaged only to the extent permitted by applicable federal law.

Race-conscious measure is one focused specifically on assisting only DBEs, including women-owned DBEs.

Race-neutral measure is one being, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender-neutrality.

Joint Check is a two-party check written by a prime contractor, to a DBE firm and a regular dealer of material/supplies or another third party for items or services incorporated into a project. The prime contractor issues the check as payer to the DBE and the supplier jointly (to guarantee payment to the supplier) in payment for the material/supplies used by the DBE.

DBE DIRECTORY: A DBE directory or source list is available to facilitate identifying DBEs with capabilities relevant to general contracting requirements and to particular solicitations. The Department has made the directory electronically available to all bidders and proposers in their efforts to meet the DBE requirements. The directory or listing includes firms which the Department has certified to be eligible DBEs in accordance with 49 CFR Part 26.

GOAL FOR PARTICIPATION: If a percentage goal for DBE participation in this contract is set forth elsewhere in this proposal, the Contractor shall complete the DBE GOALS – Commitment List form included in the proposal.

The Contractor is encouraged to make every effort to achieve the goal set by the Department. However, if the Contractor cannot find sufficient DBE participants to meet the goal established by the Department, the Department may consider for award a proposal with less participation than the established goal in accordance with GDOT Standard Specification 102.07.H Failure to List Disadvantaged Business Enterprise (DBE) Participants, 49 Code of Federal Regulations 26.53 Good Faith Effort Procedures, and 49 CFR Appendix A to Part 26—Guidance Concerning Good Faith Efforts.

To be eligible for award of this contract, all bidders are required to submit the following information, as well as Good Faith Effort supporting documentation when applicable, to the Department by the close of business on the 3rd working day following opening of the bid as a matter of bidder responsibility

- i. The names and addresses of DBE firms committed to participate in the Contract;
- ii. A description of the work each DBE will perform; The Contractor shall provide information with their bid showing that each DBE listed by the Contractor is certified in the NAICS code(s) for the kind of work the DBE will be performing.
- iii. The dollar amount of participation for each DBE firm participating; Written documentation of the bidder's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal;
- iv. Written confirmation from the DBE committed to participating in the contract, as provided in the prime contractor's commitment.
- v. If the contract goal is not met, evidence of good faith efforts must be provided.

Failure by a bidder to furnish the above information may subject the bid to disqualification. Also failure by the bidder to submit satisfactory evidence of good faith efforts may subject the bid to disqualification.

Award of a contract by the Department to a Prime Contractor who has listed DBE participants with the bid does not constitute final approval by the Department of the listed DBE. The Department reserves the right to approve or disapprove a Disadvantaged firm after a review of the Disadvantaged firm's proposal participation. Payment to the Contractor under the contract may be withheld until

final approval of the listed DBEs is granted by the Department.

If the Contractor desires to substitute a DBE in lieu of those listed in the proposal, a letter of concurrence shall be required from the listed DBE prior to approval of the substitution, unless this requirement is waived by the Department.

Agreements between bidder and a DBE promising not to provide Subcontracting quotations to other bidders are prohibited.

SUBLETTING DISCRIMINATION PROHIBITED: No person shall be excluded from participation in, denied the benefits of, or otherwise discriminated against in connection with the award and performance of this contract on the grounds of race, color, sex or national origin.

The following assurance becomes a part of this contract and must be included in and made a part of each subcontract the prime contractor enters into with their subcontractors (49 CFR

26.13):

“The contractor, and/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 (breach) of this contract which may result in the termination of this contract or such other remedy as the Department deems appropriate”.

FAILURE TO ACHIEVE REQUIREMENTS: Periodic reviews shall be made by the Department to determine the extent of compliance with the requirements set forth in this provision. If the Contractor is found to be in noncompliance, further payments for any work performed may be withheld until corrective action is taken. If corrective action is not taken, it may result in termination of this contract. During the life of the contract, the contractor will be expected to demonstrate good faith efforts at goal attainment as provided by 49 CFR 26.

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the Department’s written consent to substitute and, unless the Department’s consent is provided the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE, in accordance with 49 CFR 26.53.

Participation will be counted toward fulfillment of the DBE goal as follows:

- (A) When a DBE participates in a contract, the Contractor counts only the value of

the work actually performed by the DBE toward DBE goals.

(1) Count the entire amount of the portion of a construction contract (or other contract not covered by paragraph (A) (2) of this section) performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).

(2) Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, toward DBE goals, provided the Department determines the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.

(3) When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

(B) **Joint Venture:** When a DBE performs as a participant in a joint venture, count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract the DBE performs with own forces toward DBE goals.

(C) **Commercially Useful Function:** Count expenditures to a DBE contractor toward DBE goals only if the DBE is performing a commercially useful function (CUF) on that contract.

(1) A DBE performs a commercially useful function when responsible for execution of the work of the contract and carrying out responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

- a. **Joint Check Agreement:** All two-party checks written by a prime contractor, to a DBE firm and a third party must be approved by the Department prior to claiming DBE credit. After-the-fact requests may not be permitted toward the Goal.
 - (2) A DBE does not perform a commercially useful function if their role is limited to being an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.
 - (3) If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of their contract with their own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the Department will presume the DBE is not performing a commercially useful function.
 - (4) When a DBE is presumed not to be performing a commercially useful function as provided in paragraph (C) (3) of this section, the DBE may present evidence to rebut this presumption.
 - (5) The Department's decisions on commercially useful function matters are subject to review by the US DOT, but are not administratively appealable to the US DOT.
- (D) **Trucking:** The following factors are to be used in determining whether a DBE trucking company is performing a commercially useful function:
- (1) The DBE must be responsible for the management and supervision of the entire trucking operation for which they are responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.
 - (2) The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
 - (3) The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.
 - (4) The DBE may lease trucks from another DBE firm, including an owner / operator who are certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provided on the contract.
 - (5) The DBE may also lease trucks from a non-DBE and is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The

DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.

- (6) The DBE may lease trucks without drivers from a non-DBE bona-fide truck leasing agency. If the DBE leases trucks from a non-DBE truck leasing agency and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.
- (7) For purposes of this paragraph (D), a lease must indicate the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display a "leased to" sign with the name and identification number of the DBE.

(E) Count expenditures with DBEs for materials or supplies toward DBE goals as provided in the following:

- (1) (i) If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies toward DBE goals.
 - (ii) For purposes of this paragraph, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
- (2) (i) If the materials or supplies are obtained from a DBE regular dealer, count 60 percent of the cost of the materials or supplies toward DBE goals. (ii) For purposes of this section, a regular dealer is a firm owning, operating, or maintaining a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
 - (A) To be a regular dealer, the firm must be an established, regular business engaging, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
 - (B) A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as provided in this

paragraph (E)(2)(ii) if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

(C) Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph (E)(2).

- (3) With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided you determine the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. Do not count any portion of the cost of the materials and supplies themselves toward DBE goals, however.
- (4) You must determine the amount of credit awarded to a firm for the provision of materials and supplies (e.g., whether a firm is acting as a regular dealer or a transaction expeditor) on a contract-by-contract basis. Do not count the participation of a DBE subcontractor toward the prime contractor's DBE achievements until the amount being counted toward the goal has been paid to the DBE.
- (5) No participation will be counted not in compliance with Special Provision entitled "Criteria for Acceptability" which is a part of this contract or with any provisions included in 49 CFR Part 26.

- (6) If the contract amount overruns, the contractor will not be required to increase the dollar amount of DBE participation. Likewise, if the contract amount under runs, the contractor will not be allowed to under run the dollar amount of DBE participation except when the DBE subcontracted items themselves under run. Contractor must demonstrate Good Faith Effort in meeting the goal during commission of the contract.

REPORTS

- A. The contractor shall submit a “DBE Participation Report” on this contract monthly which shall include the following:
 1. The name of each DBE participating in the contract.
 2. A description of the work to be performed, materials, supplies, and services provided by each DBE.
 3. Whether each DBE is a supplier, subcontractor, owner/operator, or other.
 4. The dollar value of each DBE subcontract or supply agreement.
 5. The previous, current, and total-to-date payments to each DBE participating in the contract, minus any credits not allowed.
 6. Must include Contractor’s signature with the following statement: “I HEREBY CERTIFY THAT THE ABOVE STATEMENT IS TRUE AND CORRECT. SUPPORTING DOCUMENTATION IS ON FILE AND IS AVAILABLE FOR INSPECTION BY DEPARTMENT _____ PERSONNEL AT ANY TIME. ALL PARTICIPATION COUNTED TOWARD FULFILLMENT OF THE DBE GOAL IS (1) REAL AND SUBSTANTIAL; (2) ACTUALLY PERFORMED BY VIABLE, INDEPENDENT DBE OWNED FIRMS; AND (3) IN ACCORDANCE WITH THE SPIRIT OF APPLICABLE LAWS AND REGULATIONS”.
 7. The report shall be updated by the Prime Contractor whenever the approved DBE has performed a portion of the work that has been designated for the contract. Copies of this report should be transmitted promptly to the Engineer. Failure to submit the report within 30 calendar days following the end of the month may cause payment to the contractor to be withheld.

8. The Prime Contractor shall notify the Project Engineer at least 24 hours prior to the time the DBE commences working on the project. The DBE must furnish supervision of the DBE portion of the work, and the person responsible for this supervision must report to the Project Engineer when they begin work on the project. They must also inform the Project Engineer when their forces will be doing work on the project.

B. In order to comply with 49 CFR 26.11, the Prime Contractor shall submit documentation regarding all payments made from the Prime to all DBE subcontractors on federal aid projects in the form of copies of cancelled checks or bank electronic fund transfer (EFT) receipts which validate said payments made on the DBE Monthly Participation Reports. This information shall be required monthly and submitted with the DBE Monthly Participation Report.

C. Failure to respond within the time allowed in the request will be grounds for withholding all payments on all Contracts.

SUBSTITUTION OF DBEs: The Contractor shall make reasonable efforts to replace a DBE Subcontractor unable to perform work for any reason with another DBE. The Department shall approve all substitutions of Subcontractors in order to ensure the substitute firms are eligible DBEs.

When a DBE subcontractor is terminated, or fails to complete its work on the contract for any reason, the prime contractor must make good faith efforts to find another DBE subcontractor to substitute for the original DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal. The good faith efforts shall be documented by the contractor. If the recipient requests documentation under this provision, the contractor shall submit the documentation within 7 days, which may be extended for an additional 7 days if necessary at the request of the contractor, and the recipient shall provide a written determination to the contractor stating whether or not good faith efforts have been demonstrated.

CERTIFICATION OF DBEs: To ensure the DBE Program benefits only firms owned and controlled by Disadvantaged Individuals, the Department shall certify the eligibility of DBEs and joint ventures involving DBEs named by bidders.

Questions concerning DBE Certification/Criteria should be directed to the EEO Office at (404) 631-1972.

INSTRUCTIONS FOR LIST OF DBE PARTICIPANTS

If a DBE Goal is indicated, you must propose to achieve a goal that is equal or greater than the percentage required. If no goal is indicated, you may propose your own goal.

The DBE firms to be utilized as counting toward the proposed goal must be listed on this form, along with their addresses, type of work, and the amount to be paid to each of the minority firms. The amount entered will not necessarily be the contract amount, but must be the actual amount that will be paid to the DBE firm. In the case of a DBE supplier, the amount paid and 60% of that amount both will be entered; and only the 60% figure should be added to the total. An example of this is shown in the example chart:

Vendor Number	Company Name And Address (City and State)	Type Of Work	*Work Code	Race Neutral	Race Conscious	Amount
	ABC Oil Company Atlanta, GA	Diesel Fuel Supplier				\$80,000.00 (60%= \$48,000.00)

* For Departmental use ONLY. Do not fill in Work Codes.

The Contractor shall indicate for each DBE and Type of Work whether the DBE Participant is Race Neutral or Race Conscious by placing a checkmark in the appropriate column.

PLEASE NOTE: For 60% of the amount paid to a DBE supplier to be eligible to count toward fulfilling the DBE goal, the supplier must be an established "regular dealer" in the product involved, and not just a broker. A "regular dealer" would normally sell the product to several customers and would usually have product inventory on hand.

DBE GOALS

VENDOR ID: _____ BIDDER'S COMPANY NAME: _____
 PROJECT NO. & COUNTY: **PI # 0012789 - DeKalb County**
 LET NO: _____ LET DATE: _____ TOTAL BID: _____
 THE REQUIRED DBE GOAL ON THIS CONTRACT IS: **14 %**
 I PROPOSE TO UTILIZE THE FOLLOWING DBE CONTRACTORS:

LIST OF DBE PARTICIPANTS

VENDOR NUMBER	DBE NAME/ ADDRESS (CITY, STATE)	TYPE OF WORK	*WORK CODE	Race Neutral	Race Conscious	AMOUNT
TOTAL						

***For Departmental use only. Do not fill in Work codes.**

PLEASE NOTE: Only 60 % of the participation of a DBE Supplier who does not manufacture or install the product will be counted toward the goal. See below for further instructions.

DBE GOALS

VENDOR ID: _____ BIDDER'S COMPANY NAME: _____
 PROJECT NO. & COUNTY: **PI # 0008121 - DeKalb County**
 LET NO: _____ LET DATE: _____ TOTAL BID: _____
 THE REQUIRED DBE GOAL ON THIS CONTRACT IS: **14 %**
 I PROPOSE TO UTILIZE THE FOLLOWING DBE CONTRACTORS:

LIST OF DBE PARTICIPANTS

VENDOR NUMBER	DBE NAME/ ADDRESS (CITY, STATE)	TYPE OF WORK	*WORK CODE	Race Neutral	Race Conscious	AMOUNT
TOTAL						

***For Departmental use only. Do not fill in Work codes.**

PLEASE NOTE: Only 60 % of the participation of a DBE Supplier who does not manufacture or install the product will be counted toward the goal. See below for further instructions.

INSTRUCTIONS TO CONTRACTOR DBE PARTICIPATION REPORT

In order to receive credit toward the DBE Goal, the prime contractor must complete the report in its entirety and submit this form MONTHLY to the Project Manager in charge of the contract. Failure to submit this form will result in no credit toward the contract DBE requirements.

1. PROJECT NUMBER – This is the GDOT assigned project number – See Contract.
2. COUNTY – See Contract.
3. CONTRACT ID NUMBER – This is the GDOT Contract Identification Number – See Contract.
4. CONTRACTOR NAME –
5. REPORT SUBMISSION DATE – This is the date the report is completed.
6. REPORT NUMBER – Reports must be consecutively numbered.
7. REPORT TYPE – This should be checked monthly until all work has been completed, at which time the Report Type should be changed to Final and submitted to the Project Manager.
8. DATE WORK BEGAN – This is the date of the first day any work occurred on the project.
9. DBE REQUIRED PERCENTAGE – This is the total required % of the original contract amount.
10. CONTRACT \$ AMOUNT – DBE Amount: *The DBE amount and percentage are the DBE amount and percentage shown in the original contract. (In some instances, this amount may be greater than the percentage amount and may exceed the percentage in the contract; for reporting purposes, the amount over the DBE percentage on this contract is considered race neutral). Original subcontract amount should be at least the amount listed in the contract. Any amounts above the race conscious number or percentage are counted as race neutral and should be shown on report on a separate line than the race conscience. The contractor cannot add the race neutral until the race conscious is exceeded.*
11. PERCENT \$ COMPLETE – Insert the Percentage Complete, which reflects the percentage of project completed in dollars to the ending date of this report.
12. DBE \$ AMOUNT – This is the total dollar amount representing the percentage of the original contract.
13. PERCENT PROJECT COMPLETE – Insert the Percentage of Project Complete, which indicates the time completed on the project.
14. DATE CLOSING THIS REPORT – Please check the appropriate date for the close of payments for this report.
15. SUPPLIER (S) – One who supplies material to the Project. The dollar value shown in the contracts for suppliers represents the calculated sixty percent (60%) dollar value of the original amount; therefore, the supplier percentage requires no further adjustments. The amount in the contract should be shown as the subcontract amount.
16. OWNER / OPERATOR (O) – One who owns and operates the equipment themselves.
17. SUBCONTRACTOR (SC) – Those who aren't a supplier or owner/operator.
18. SUBCONTRACTOR AGREEMENT RECEIVED (SAR): The Department requests that you supply a copy of valid executable subcontract agreements between your company and your DBE subcontractors per section 108.01 of the Standard Specifications. All subcontracts shall include the Required Contract Provisions, FHWA 1273; these provisions shall not be incorporated by reference. A copy of subcontractor agreement (SAR) between the prime and each DBE must be submitted to the Area Engineer's Office.
19. RACE NEUTRAL (RN) – DBE participation that would have been used in the absence of any contract goal provisions.
20. RACE CONSCIOUS – DBE participation that was utilized specifically to meet the proposed contract goal or portion thereof.

21. ORIGINAL SUBCONTRACT AMOUNT – This is the original amount shown in the Signed Contract.
22. PREVIOUS PAYMENTS – This totals all PAYMENTS prior to this report.
23. PAYMENTS THIS REPORT – These are the totals of PAYMENTS during this report period only.
24. PAYMENTS TO DATE – Show the actual amount that each DBE has payments to-date under the contract based on the unit prices paid to the DBE by the prime contractor and not contract unit prices. When a supplier is used to fulfill the DBE requirements, only 60% of the amount earned by the supplier may be entered. Show that total amount in the space provided.
25. CURRENT COLUMN TOTALS – Total each column.
26. PERCENT OF CONTACT – This percentage is calculated using the contract amount and the total DBE payments-to-date.
27. CERTIFICATION – The contractor or his authorized representative must sign this form prior to submittal. Failure to complete and submit this form in a timely manner may delay monthly progress payments.
28. DBE must perform at least 30% of work with own forces to meet commercially useful function criteria (49CFR26.55). If a DBE subcontracts part of the work of its contract to another firm, the value of the work can only be counted toward the DBE goal if the DBE's subcontractor is itself a DBE.
29. A DBE hauler must itself own and operate at least one fully licensed, insured and operational truck to be used on the contract.
30. Payments and commitments for Federal-aid projects **shall be separate and distinct and cannot be transferred or combined in any manner.**
31. Credits towards DBE goal can only be claimed after the amount being claimed toward the goal has been paid to the DBE. Attach cancelled checks: Prime Contractor shall submit documentation regarding all payments made from the Prime to all DBE subcontractors on federal aid projects in the form of copies of cancelled checks or notarized electronic documentation which validates said payments made on the DBE Monthly Participation Reports. This information shall be required monthly and submitted with the DBE Monthly Participation Report (49CFR26.11).

GENERAL INFORMATION

The prime contractor may change DBE firms only with the approval of the District Engineer, provided the changes conform to contract regulations.

The prime contractor is responsible for sending a copy of the subcontractor agreement between the prime and its subcontractors to the Project Manager. After submitting this document to the Project Manager, the prime contractor checks the block on the DBE Participation Report. Only one copy of the subcontractor agreement is requested for each DBE subcontractor.

If the prime contractor has not submitted a copy of the subcontractor agreement between the prime and its DBE subcontractor(s), the project manager will contact the prime contractor and request this document.

The prime contractor is not requested to send copies of the subcontractor agreement signed with the DBE firms to multiple offices within GDOT. Sending this information to the Project Manager will satisfy the federal requirements.

The prime contractor is responsible to accurately complete the report prior to submitting to the department. Once submitted to the department, the department project manager is responsible for reviewing it for accuracy.

If the report is inaccurate, the department project manager shall send the report back to the prime contractor for corrections. Payment will be withheld by the Department until a correct report is received.

The prime contractor is required to submit the monthly DBE from the month of Notice To Proceed until the Final DBE Report is submitted. Payment will be withheld by the Department until the report is received.

Upon completion of the work, a final "DBE Participation Report" will be required and submitted to the Area Engineer prior to final payment. All information shown on the form must be completed, including the payments of each approved DBE.

Joint ventures between non-DBE and certified DBE: Only that portion of the work for which the DBE is responsible may be used to satisfy the requirements.

Should you have questions about the Monthly DBE Participation Report – ARRA Reporting, contact the local District Contracts Administration Office or District EEO Officer.

FOR DEPARTMENTAL USE ONLY:

Federal Law requires that the work of DBE contractors be monitored in the field as part of the effort to ensure that DBEs are actually performing the work (49CFR26.37 (b)).

District EEO Officers must receive copies of the Monthly DBE Participation Reporting.

MONTHLY DBE PARTICIPATION REPORT

REPORT SUBMISSION DATE: _____

PROJECT NO.: _____
 COUNTY: _____
 CONTRACT ID NO.: _____
 CONTRACTOR: _____

REPORT NO.: _____

NOTICE TO PROCEED: _____
 DATE WORK BEGAN: _____
 CONTRACT \$ AMOUNT: _____
 DBE \$ AMOUNT: _____

DBE REQUIRED %: _____
 % DOLLAR COMPLETE: _____
 % PROJECT COMPLETE: _____

31-Jan	31-Jul
28-Feb	31-Aug
31-Mar	30-Sep
30-Apr	31-Oct
31-May	30-Nov
30-Jun	31-Dec

S = SUPPLIER

SC = SUBCONTRACTOR

APPROVED DBE				VENDOR ID	DESCRIPTION OF WORK	
	S	SC	ORIGINAL SUBCONTRACT AMOUNT	PREVIOUS PAYMENTS	PAYMENTS THIS REPORT	TOTAL PAYMENTS TO DATE
1						
RN						
RC						
2						
RN						
RC						
3						
RN						
RC						
4						
RN						
RC						
5						
RN						
RC						
6						
RN						
RC						
RN COLUMN TOTALS:						
RC COLUMN TOTALS:						

TOTAL % PAID TO DATE: _____

I HEREBY CERTIFY THAT THE ABOVE STATEMENT IS TRUE AND CORRECT AND SUPPORTING DOCUMENTATION IS ON FILE AND IS AVAILABLE FOR INSPECTION BY DEPARTMENT PERSONNEL AT ANY TIME. ALL PARTICIPATION COUNTED TOWARD FULFILLMENT OF THE DBE GOALS IS (1) REAL AND SUBSTANTIAL; (2) ACTUALLY PERFORMED BY VIABLE, INDEPENDENT DBE OWNED FIRMS; AND (3) IN ACCORDANCE WITH THE SPIRIT OF APPLICABLE LAWS AND REGULATIONS.

PRINT NAME: _____
 NAME / TITLE

SIGNATURE: _____

FOR DEPARTMENT USE ONLY

THIS DOCUMENT HAS BEEN REVIEWED AT THE PROJECT LEVEL BY:

PRINT NAME: _____
 NAME / TITLE

SIGNATURE: _____
 (Mandatory)

THIS DOCUMENT HAS BEEN REVIEWED AT THE DISTRICT LEVEL BY:

PRINT NAME: _____
 NAME / TITLE

SIGNATURE: _____
 (Mandatory)

MONTHLY DBE PARTICIPATION REPORT

REPORT SUBMISSION DATE: _____

PROJECT NO.: _____
 COUNTY: _____
 CONTRACT ID NO.: _____
 CONTRACTOR: _____

REPORT NO.: _____

NOTICE TO PROCEED: _____
 DATE WORK BEGAN: _____
 CONTRACT \$ AMOUNT: _____
 DBE \$ AMOUNT: _____

DBE REQUIRED %: _____
 % DOLLAR COMPLETE: _____
 % PROJECT COMPLETE: _____

31-Jan	31-Jul
28-Feb	31-Aug
31-Mar	30-Sep
30-Apr	31-Oct
31-May	30-Nov
30-Jun	31-Dec

S = SUPPLIER SC = SUBCONTRACTOR

APPROVED DBE				VENDOR ID	DESCRIPTION OF WORK	
	S	SC	ORIGINAL SUBCONTRACT AMOUNT	PREVIOUS PAYMENTS	PAYMENTS THIS REPORT	TOTAL PAYMENTS TO DATE
1						
RN						
RC						
2						
RN						
RC						
3						
RN						
RC						
4						
RN						
RC						
5						
RN						
RC						
6						
RN						
RC						
RN COLUMN TOTALS:						
RC COLUMN TOTALS:						

TOTAL % PAID TO DATE: _____

I HEREBY CERTIFY THAT THE ABOVE STATEMENT IS TRUE AND CORRECT AND SUPPORTING DOCUMENTATION IS ON FILE AND IS AVAILABLE FOR INSPECTION BY DEPARTMENT PERSONNEL AT ANY TIME. ALL PARTICIPATION COUNTED TOWARD FULFILLMENT OF THE DBE GOALS IS (1) REAL AND SUBSTANTIAL; (2) ACTUALLY PERFORMED BY VIABLE, INDEPENDENT DBE OWNED FIRMS; AND (3) IN ACCORDANCE WITH THE SPIRIT OF APPLICABLE LAWS AND REGULATIONS.

PRINT NAME: _____
 NAME / TITLE

SIGNATURE: _____

FOR DEPARTMENT USE ONLY

THIS DOCUMENT HAS BEEN REVIEWED AT THE PROJECT LEVEL BY:

PRINT NAME: _____
 NAME / TITLE

SIGNATURE: _____
 (Mandatory)

THIS DOCUMENT HAS BEEN REVIEWED AT THE DISTRICT LEVEL BY:

PRINT NAME: _____
 NAME / TITLE

SIGNATURE: _____
 (Mandatory)

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

First Use 2013 Specifications: November 01, 2013

Updated July 01, 2018

SPECIAL PROVISION

PROMPT PAYMENT:

Prime Contractors, who sublet a portion of their work, shall pay their subcontractors for satisfactory performance of their contracts no later than 10 calendar days from receipt of each payment made to them. Any delay or postponement of payment among the parties may take place only for good cause with prior written approval from the Department. If the contractor is found to be in noncompliance with these provisions, it shall constitute a breach of contract and further payments for any work performed may be withheld until corrective action is taken. If corrective action is not taken, it may result in termination of the contract.

Prime contractors must maintain records and documents of payments to subcontractors, including DBEs, for a minimum of three (3) years after Contract Final Acceptance. These records shall be made available for inspection upon request by any authorized representative of the Georgia Department of Transportation or USDOT.

All subcontract agreements shall contain this requirement.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

REQUIRED CONTRACT PROVISIONS FOR FEDERAL-AID CONTRACTS

BUY AMERICA

Revised: March 25, 1992

Revised: January 7, 1994

Revised: June 9, 1995

First Use 2013 Specifications: November 1, 2013

All manufacturing processes for steel and iron materials and steel and iron coatings permanently incorporated into this project must occur in the United States of America. However, pig iron and processed, pelletized, or reduced iron ore used in the production of these products may be manufactured outside the United States.

This requirement, however, does not prevent a minimal use of foreign materials and coatings, provided the cost of materials and coatings used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or \$2,500.00, whichever is greater.

NOTE: Coatings include: epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of the material.

CONVICT PRODUCED MATERIALS

March 25, 1992

Revised: September 6, 1993

First Use 2013 Specifications: November 1, 2013

Materials produced by convict labor after July 1, 1991, may not be used for Federal-Aid highway construction projects unless it meets the following criteria:

1. The materials must be produced by convicts who are on parole, supervised release or probation from a prison; or,
2. If produced in a qualified prison facility, the amount of such materials produced in any 12-month period shall not exceed the amount produced in such facility for such construction during the 12-month period ending July 1, 1987. A qualified prison is defined as one producing convict made materials prior to July 1, 1987.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

FEDERAL AID CERTIFICATION
(English Project)

First Use Date 2013 Specifications: November 22, 2013
Revised: June 8, 2016

Failure to complete appropriate certification requirements identified below or submission of a false certification shall render the bid non-responsive.

EQUAL EMPLOYMENT OPPORTUNITY

I further certify that I have ___/have not ___ participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that I have ___ / have not ___ filed with the Joint Reporting Committee, the Director of the *Office of Federal Contract Compliance*, a Federal Government contracting or administering agency, or the former *President's Committee on Equal Employment Opportunity*, all reports due under the applicable filing requirements.

I understand that if I have participated in a previous Contract or Subcontract subject to the Executive Orders above and have not filed the required reports that 41 CFR 60-1.7(b)(1) prevents the award of this Contract unless I submit a report governing the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U. S. Department of Labor.

Reports and notifications required under 41 CFR 604, including reporting subcontract awards in excess of \$10,000.00 should be addressed to:

Mr. Sam Maiden
Regional Director
U.S. Department of Labor for OFCCP
61 Forsyth Street, S.W.
Atlanta GA 30303-8931

EXAMINATION OF PLANS AND SPECIFICATIONS

I acknowledge that this Project will be constructed in English units.

I certify that I have carefully examined the Plans for this Project and the Standard Specifications 2013 Edition, Supplemental Specifications and Special Provisions included in and made a part of this Proposal, and have also personally examined the site of the work. On the basis of the said Specifications and Plans, I propose to furnish all necessary machinery, tools, apparatus and other means of construction, and do all the work and furnish all the materials in the manner specified.

I understand the quantities mentioned are approximate only and are subject to either increase or decrease and hereby propose to perform any increased or decreased quantities of work or extra work on the basis provided for in the Specifications.

I also hereby agree that the State, or the Department of Transportation, would suffer damages in a sum equal to at least the amount of the enclosed Proposal Guaranty, in the event my Proposal should be accepted and a Contract tendered me thereunder and I should refuse to execute same and furnish bond as

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

herein required, in consideration of which I hereby agree that, in the event of such failure on my part to execute said Contract and furnish bond within fifteen (15) days after the date of the letter transmitting the Contract to me, the amount of said Proposal Guaranty shall be and is hereby, forfeited to the State, or to the Department of Transportation, as liquidated damages as the result of such failure on my part.

I further propose to execute the Contract agreement described in the Specifications as soon as the work is awarded to me, and to begin and complete the work within the time limit provided. I also propose to furnish a Contract Bond, approved by the State Transportation Board, as required by the laws of the State of Georgia. This bond shall not only serve to guarantee the completion of the work on my part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted, as well as to fully comply with all the laws of the State of Georgia.

CONFLICT OF INTEREST

By signing and submitting this Contract I hereby certify that employees of this company or employee of any company supplying material or subcontracting to do work on this Contract will not engage in business ventures with employees of the Georgia Department of Transportation (GA D.O.T.) nor shall they provide gifts, gratuities, favors, entertainment, loans or other items of value to employees of this department.

Also, by signing and submitting this Contract I hereby certify that I will notify the Georgia Department of Transportation through its District Engineer of any business ventures entered into between employees of this company or employees of any company supplying material or subcontracting to do work on this Contract with a family member of GA D.O.T. employees.

DRUG FREE WORKPLACE

The undersigned certifies that the provisions of Code Sections 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the "Drug-free Workplace Act", have been complied with in full. The undersigned further certifies that:

- (1) A drug-free workplace will be provided for the Contractor's employees during the performance of the Contract; and
- (2) Each Contractor who hires a Subcontractor to work in a drug-free workplace shall secure from that Subcontractor the following written certification:

"As part of the subcontracting agreement with _____ (Contractor's name) _____, _____ (Subcontractor's name) certifies to the Contractor that a drug free workplace will be provided for the Subcontractor's employees during the performance of this Contract pursuant to paragraph (7) of subsection (b) of Code Section 50-24-3."

Also, the undersigned further certifies that he will not engage in the unlawful manufacture, sale distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance of the Contract.

BOYCOTT OF ISRAEL

By signing and submitting this Contract and Pursuant to O.C.G.A. Sec. 50-5-85, CONTRACTOR hereby certifies that it is not currently engaged in, and agrees that for the duration of this contract, it will not engage in a boycott of Israel.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

NON-COLLUSION CERTIFICATION

I hereby certify that I have not, nor has any member of the firm(s) or corporation(s), either directly or indirectly entered into any agreement, participated in any collusion, nor otherwise taken any action in restraint of free competitive bidding in connection with this submitted bid.

It is understood and agreed that this Proposal is one of several competitive bids made to the Department of Transportation, and in consideration of mutual agreements of the bidders, similar hereto, and in consideration of the sum of One Dollar cash in hand paid, receipt whereof is hereby acknowledged, the undersigned agrees that this Proposal shall be an option, which is hereby given by the undersigned to the Department of Transportation to accept or reject this Proposal at any time within thirty (30) calendar days from the date on which this sealed proposal is opened and read, unless a longer period is specified in the Proposal or the successful bidder agrees in writing to a longer period of time for the award, and in consideration of the premises, it is expressly covenanted and agreed that this Proposal is not subject to withdrawal by the Proposer or Bidder, during the term of said option.

I hereby acknowledge receipt of the following checked amendments of the Proposal, Plans, Specifications and/or other documents pertaining to the Contract.

Amendment Nos.: 1__2__3__4__5__. I understand that failure to confirm the receipt of amendments is cause for rejection of bids.

Witness my hand and seal this the ____ day of _____, 20____.

The bidder(s) whose signature(s) appear on this document, having personally appeared before me, and being duly sworn, deposes and says that the above statements are true and correct.

Sworn to and subscribed before me this ____ day of _____, 20____.

(Notary Public)

My Commission expires the ____ day of _____, 20____.

(Federal ID No./IRS No.)

(Print Company Name)

By _____ (Seal)
Corporate President/Vice President or
Individual Owner or Partner (Strike
through all except the one which applies.)

Joint Bidder:

(Print Company Name)

By _____ (Seal)
Corporate President/Vice President or
Individual Owner or Partner (Strike
through all except the one which applies.)

Joint Bidder:

(Print Company Name)

By _____ (Seal)
Corporate President/Vice President or
Individual Owner or Partner (Strike
through all except the one which applies.)



Contractor's Name:	
Solicitation/Contract No./ Call No. or Project Description:	

CONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services on behalf of the Georgia Department of Transportation has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number
(EEV/E-Verify Company Identification Number)

Date of Authorization

Name of Contractor

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

Printed Name (of Authorized Officer or Agent of Contractor)

Title (of Authorized Officer or Agent of Contractor)

Signature (of Authorized Officer or Agent)

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

____ DAY OF _____, 20 ____

[NOTARY SEAL]

Notary Public

My Commission Expires: _____

**COMMERCIALLY USEFUL FUNCTION (CUF)
PROJECT SITE REVIEW (CONSTRUCTION PROJECTS)**

Per 49 CFR 26.55, "A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved". It is the primary responsibility of the Prime Contractor to ensure that the DBE is performing a CUF. The Department, as the contracting agency, has oversight responsibility to ensure that the Prime Contractor has effectively met this responsibility under its contract with the Department.

- Document a minimum of one review for each DBE for each project with a DBE goal. File the completed form in the official project records with the applicable DBE report. The review should be started when the DBE first begins work and is not complete until the DBE has received a payment. Continue to monitor compliance through the course of the project. Use the CUF form to document any further noted concerns or inconsistencies. Contact the District EEO Officer if you believe a DBE may not be performing a Commercially Useful Function (CUF), or if you have any questions related to the program. This form does not document every possible question or concern. Monitoring the DBE for CUF is a continuous process through the life of the project.

Project Number: 0008121/0012789
County: DeKalb County
Prime Contractor:

GDOT Reviewer:
Reviewer's Title:
Review Date:

DBE Name:

DBE is performing as a Contractor: The Prime Contractor A Subcontractor A Tier Subcontractor

DBE is performing as a Material Supplier: A Manufacturer A Regular Dealer A Broker

Scope of Work

Provide a brief description of the DBE's scope of work. (Refer to Subcontract Agreement and/or Purchase Order if needed.)

	YES	NO
A. Prime Contractor Interview and Subcontract Approval		
1. Does the Prime Contractor have a process in place to substantiate the DBE's CUF and the allowable credit toward the DBE goal in the Contract?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the DBE only using equipment it owns, rents, or leases? (Obtain copies of all rent or lease agreements).	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the DBE performing <i>at least</i> 30% of their work described in the subcontract?	<input type="checkbox"/>	<input type="checkbox"/>
4. Does the DBE hauling firm own or lease their trucks? (Obtain copies of lease agreements, if applicable).....(NA <input type="checkbox"/>)	<input type="checkbox"/>	<input type="checkbox"/>
B. Field Observations during work inspection and Payroll Inspection		
1. Is the DBE firm supervising its employees and their work?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the supervisor a full-time employee of the DBE?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the DBE working without assistance from the prime contractor or another subcontractor? (Use of prime's equipment in an emergency is allowed but the cost associated with the use of the equipment cannot be credited towards the goal.)	<input type="checkbox"/>	<input type="checkbox"/>
4. Are DBE leased trucks properly placard?	<input type="checkbox"/>	<input type="checkbox"/>
C. Labor Interviews		
1. Does the DBE have employees on the job to perform the work?	<input type="checkbox"/>	<input type="checkbox"/>
2. Do the DBE's employees only work for the DBE?	<input type="checkbox"/>	<input type="checkbox"/>
D. Material Invoice Inspection		
1. Does a review of the haul tickets associated with the project indicate that hauling is being performed by the DBE?.....(NA <input type="checkbox"/>)	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the DBE's name appear on all invoices, haul tickets, and/or bills of lading?	<input type="checkbox"/>	<input type="checkbox"/>
E. Commensurate		
1. Is Payment received by the DBE comparable with the work being performed? (Comparison of DBE report, canceled checks, subcontract, and inspection pay reports).	<input type="checkbox"/>	<input type="checkbox"/>
F. Joint Checks... (if applicable)		
1. Is the Prime paying the DBE and the DBE's Supplier with one check?	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the Department approved the use?	<input type="checkbox"/>	<input type="checkbox"/>
G. CUF		
1. Does the DBE appear to be performing a Commercially Useful Function (CUF)? (If no, provide comments and contact your District EEO Officer at _____)	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS: *if any response recorded in section A- E is "no", comments explaining the "no" are mandatory. Attach a 2nd page if necessary.*

CUF DETERMINANTS

PERFORMING

- a. DBE must be responsible for performing its own work on the project
- b. At least 30% of the work must be performed by the DBE with its own workforce
- c. The DBE keeps a regular workforce and has its own employees
- d. The DBE is utilizing its own equipment
- e. Operation of the equipment must be subject to the full control of the DBE

RED FLAGS

- A portion of the DBE's work being done by the Prime Contractor or jointly with another contractor
- Employee working for both the Prime and the DBE
- Equipment used by DBE belongs to the Prime Contractor or another contractor with no formal lease agreement
- Equipment signs and markings cover another contractor's identity

RECORDS/DOCUMENTS

- Subcontract Agreement or Purchase Order
- Equipment ownership, rental, or lease documents
- Certified payrolls

MATERIALS (For material credit)

- a. DBE is responsible for the delivery of the materials
- b. DBE is ordering the material and invoices indicate that DBE is the customer
- c. Material invoices indicate that DBE owner or Superintendent is the contact person
- d. Department has approved use of joint checks

RED FLAGS

- Materials for DBE credited work are delivered by the Prime Contractor
- Materials are ordered, billed to, and/or paid by the Prime Contractor
- Invoices do not indicate that DBE is the customer
- Prime's employee is listed as the contact person on invoices
- Materials come from Prime's stockpiles

RECORDS/DOCUMENTS

- Invoices
- Haul tickets or Bills of Lading
- Material on Hand documentation
- Joint check agreement
- Cancelled checks

SUPERVISING

- a. DBE supervisor is a full-time employee of the DBE
- b. Employees are being supervised by DBE supervisor
- c. DBE is scheduling work operations

RED FLAGS

- DBE's employees are being supervised by Prime Contractor or another contractor
- DBE provides little or no supervision of work
- DBE supervisor is not a full-time employee of the DBE

RECORDS/DOCUMENTS

- Certified Payrolls
- Document communication with DBE owner or Superintendent

“EXHIBIT 5”

DRAWINGS