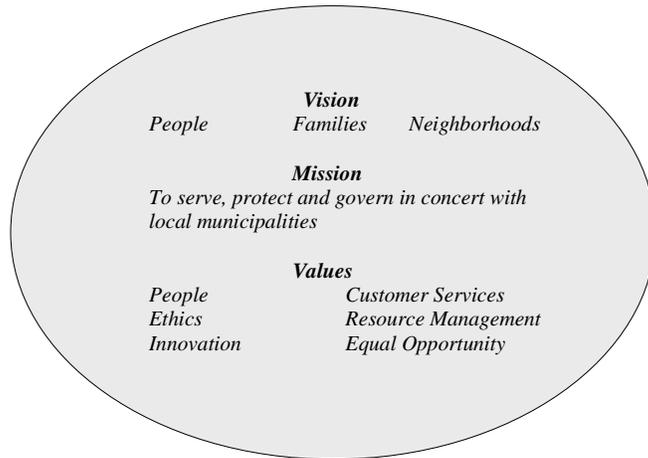




# FULTON COUNTY



**PURCHASING DEPARTMENT  
REQUEST FOR INVITATION TO BID NO. 07ITBBELLROADPHASE-1**

## **R002 BELL ROAD REUSE WATER MAIN EXTENSION PHASE 1**

**For**

**DEPARTMENT OF PUBLIC WORKS**

**BID DUE TIME AND DATE: 11:00 A.M. January 11, 2007  
PURCHASING CONTACT: Darlene Banks at (404) 730-7879  
E-MAIL: [darlene.banks@fultoncountyga.gov](mailto:darlene.banks@fultoncountyga.gov)**

**LOCATION: FULTON COUNTY PURCHASING DEPARTMENT  
130 PEACHTREE STREET, S.W., SUITE 1168  
ATLANTA, GA 30303**

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**INVITATION TO BID****R002 – BELL ROAD REUSE WATER MAIN EXTENSION PHASE 1****Purpose:**

To extend the exiting reuse water system to new customers along Bell Road.

**Description of Project:**

The project consists of obtaining all permits, furnishing all materials and equipment, and performing all labor necessary for the construction of approximately 5,350 L.F. of 20-inch diameter ductile iron pipe. The project area is located along Bell Road, starting at the Cauley Creek Water Reclamation Facility and ending on Bell Road near the Sugar Mill Subdivision.

**Purchasing the Bid Document:**

This document and supporting documents can be downloaded at the Fulton County Website, <http://www.fultoncountyga.gov> under "Bid Opportunities".

Applications for documents, along with a non-refundable \$50.00 payment must be made to Department of Public Works, 141 Pryor Street, S.W., Suite 6001, Atlanta, Georgia 30303. Payment must be in the form of a company or personal check payable to **Fulton Construction Management Partners**. Checks returned for any reason will result in the proposal being deemed non-responsive. This amount includes all fees for printing and distribution and will be used to defray a portion of the printing cost that may have been incurred for the tendering of the Project. Partial sets of the bid document will not be issued.

For payment information, contact Pamela Cody, Fulton Construction Management Partners, Department of Public Works at (404) 893-0880. All other questions should be addressed by the procedures outlined in this RFP to Darlene A. Banks, Fulton County Department of Purchasing and Contract Compliance at 404-730-4201, [darlene.banks@fultoncountyga.gov](mailto:darlene.banks@fultoncountyga.gov).

The Instructions to Bidders, Bid and Contract Requirements (Bid Form, Bid Bond, Performance Bond, Payment Bond, Contract Agreement), and other Documents (Drawings and/or Specifications) may be examined at the following locations:

McGraw Hill Construction Dodge  
3200 Riverside Dr  
STE 310  
Macon, Georgia 31210  
AGC Builders Exchange  
1940 The Exchange  
STE 300  
Atlanta, Georgia 30339  
FW Dodge Corporation  
4170 Ashford-Dunwoody Rd  
STE 200  
Atlanta, Georgia 30319

Fulton County Department of Public Works  
STE 6001  
141 Pryor ST, S.W., 6<sup>th</sup> Floor  
Atlanta, Georgia 30303  
CMD / Construction Market Data  
30 Technology Blvd  
STE 100  
Norcross Georgia 30092  
Minority Business Development Agency  
401 West Peachtree St  
Summit Bldg STE 1715  
Atlanta Georgia 30308

**Term of Contract:**

The term of this contract is 120 calendar days from issuance of Notice To Proceed.

**No Contact Provision:**

It is the policy of Fulton County that the evaluation and award process for County contracts shall be free

from both actual and perceived impropriety, and that contacts between potential vendors and County officials, elected officials and staff regarding pending awards of County contracts shall be prohibited.

- A. No person, firm, or business entity, however situated or composed, obtaining a copy of or responding to this solicitation, shall initiate or continue any verbal or written communication regarding this solicitation with any County officer, elected official, employee, or designated County representative, between the date of the issuance of this solicitation and the date of the County Manager's recommendation to the Board of Commissioners for award of the subject contract, except as may otherwise be specifically authorized and permitted by the terms and conditions of this solicitation.
- B. All verbal and written communications initiated by such person, firm, or entity regarding this solicitation, if same are authorized and permitted by the terms and conditions of this solicitation, shall be directed to the Purchasing Agent.
- C. Any violation of this prohibition of the initiation or continuation of verbal or written communications with County officers, elected officials, employees, or designated County representatives shall result in a written finding by the Purchasing Agent that the submitted Bid or proposal of the person, firm, or entity in violation is "non-responsive", and same shall not be considered for award.

**Bid Contact:**

Information regarding the bid, either procedural or technical, may be obtained by contacting Darlene A. Banks [darlene.banks@fultoncountyga.gov](mailto:darlene.banks@fultoncountyga.gov). Assistant Purchasing Agent at (404) 730-7879, Fulton County Department of Purchasing. Information regarding the bid requirements may be obtained by using the following procedure. Inquiries must be submitted in writing to;

Fulton County Department of Purchasing and Contract Compliance  
Attn: Darlene A. Banks  
130 Peachtree Street, S.W. Suite 1168  
Atlanta, GA 30303  
Phone: (404) 730-4201  
Fax: (404) 893-1744  
Reference Bid # 07ITBBELLROADPHASE-1

**Basis of Award:**

The Contract, if awarded, will be awarded to the lowest responsive and responsible bidder. No bid may be withdrawn for a period of sixty (60) days after the date of bid opening except as permitted by O.C.G.A., §36-91-41 et seq., as amended. Each Bid must be accompanied by a Bid Bond in accordance with the Bid Bond Requirements provided in the Contract Documents, on a Surety Company's Standard Bid Bond Form acceptable to the County in an amount no less than 5% of the amount bid. The successful bidder will be required to furnish a Performance Bond and Payment Bond, **on or before** the issuance of Notice to Proceed, each in the amount of 100% of the Contract Amount. All other required Contract Documents must be fully completed and executed by the Contractor and his/her Surety, and submitted to the Owner **on or before** the issuance of the Notice to Proceed.

**Pre-Bid Conference:**

Date: December 20, 2006  
Time: 9:30 AM  
Location: Fulton County Department of Purchasing and Contract Compliance, Public Safety Building  
130 Peachtree Street, S.W. Suite 1168  
Atlanta, GA 30303

A pre-bid conference will be held in the Fulton County Department of Purchasing and Contract Compliance Conference Room, located at 130 Peachtree Street, S.W. Suite 1168, Atlanta, Georgia 30303. ***Inquiries regarding the solicitation either technical or otherwise may be submitted in writing prior to the pre-bid conference and will be addressed at the pre-bid conference.*** Any additional questions asked at the pre-bid conference must be submitted in written form at the pre-bid conference and will be responded to in the form of an addendum with the County's official responses.

The Pre-bid conference will be conducted for the purpose of explaining the County's bid process, the specifications/technical documents, and to provide and initial verbal, non-binding verbal response to questions concerning these bid specifications and to discuss issues from the bidders perspective. However, no verbal response provided at the pre-bid conference binds the County. Only those responses to written and responded to by the County in written communications will be official.

**END OF SECTION**

**SECTION 1****INSTRUCTIONS TO BIDDERS****A. Contract Documents**

The Contract Documents include the Invitation to Bid, Instructions to Bidders, Contractor's Bid (including all documentation accompanying the Bid and any post-Bid documentation required by the County prior to the Notice of Award), Bonds, all Special Conditions, General Conditions, Supplementary Conditions, Specifications, Drawings and addenda, together with written amendments, change orders, field orders and the Construction Manager's written interpretations and clarifications issued in accordance with the General Conditions on or after the date of the Contract Agreement. Shop drawing submittals reviewed in accordance with the General Conditions, geotechnical investigations and soils report and drawings of physical conditions in or relating to existing surface structures at or contiguous to the site are not Contract Documents. The Contract Documents shall define and describe the complete work to which they relate.

**B. Definitions:** Where the following words or the pronouns used in their stead occur herein, they shall have the following meaning. If a conflict exists as to the meaning of a word, the definition existing in the General Conditions, if present, shall govern.

See Section 9, General Conditions, for definitions.

**C. Bidder's Modification and Withdrawal of Bids:** A Bidder may modify or withdraw its bid by written request, provided that the request is received by the County prior to the bid due date and time at the address to which bids are to be submitted. Provided further, that in case of an electronic request (i.e. facsimile, e-mail, etc.) a written confirmation thereof over the authorized signature of the Bidder must be received by the County at the address to which original Bids are to be submitted within three (3) calendar days after issue of the electronic message. Following withdrawal of its bid, the Bidder may submit a new, providing delivery is affected prior to the established bid opening date and time. **No bid may be withdrawn after bid due date for sixty (60) calendar days.****D. Addenda and Interpretations:** No interpretations of the meaning of the Drawings, Specifications or other pre-bid documents will be made to any Bidder orally. Bidders requiring clarification or interpretation of the Bidding Documents shall make a request to Darlene A. Banks no later than 2:00 PM December 29, 2006. Written requests for clarification or interpretation may be mailed, hand delivered, e-mailed or faxed to the Assistant Purchasing Agent at the address below, e-mail address or fax number. Telephone inquiries will not be accepted.

Darlene A. Banks, Assistant Purchasing Agent  
Department of Purchasing and Contract Compliance  
Fulton County Public Safety Building  
130 Peachtree Street, S.W., 1168  
Atlanta, GA 30303  
Fax: (404) 893-1744  
darlene.banks@fultoncountyga.gov

Only communications from firms that are in writing and signed will be recognized by the County as duly authorized expressions on behalf of proposers/bidders. Any and all such interpretations and any supplemental instructions will be in the form of written Addenda to the Specifications which, and if any addenda are issued to this Invitation to Bid.

**E. Site Examination:** There will be no site visit for this project. However, bidders are encouraged to visit the project area on Bell Road on their own.**F. Bid:** All Bids must be made on the Bid forms contained herein. The Bid shall be enclosed in a sealed envelope, addressed to Department of Purchasing and Contract Compliance, Fulton County Public Safety Building, 130 Peachtree Street, S.W., Suite 1168 Atlanta, Georgia 30303 and labeled "Bid for R002 Bell Road Reuse Water Main Extension Phase 1".

**THE BIDDER IS ALSO REQUIRED TO DISPLAY THE GEORGIA UTILITY CONTRACTOR LICENSE NUMBER ON THE OUTSIDE OF THE SEALED BID ENVELOPE.**

**REQUIRED SUBMITTALS:** The bidder **must complete and execute** the following:

1. Bid Form
2. Bid Schedule
3. Bid Bond
4. Certification of Acceptance of Bid/Proposal Requirements
5. Corporate or Partnership Certificate
6. Non-Collusion Affidavit of Prime Bidder
7. Non-Collusion Affidavit of Subcontractor
8. Contract Compliance Forms, fully executed
  - a. Promise of Non-Discrimination (Exhibit A)
  - b. Employment Report (Exhibit B)
  - c. Schedule of Intended Subcontractor Utilization (Exhibit C)
  - d. Letter of Intent to Perform As a Subcontractor or Provide Materials or Services (Exhibit D)
  - e. Declaration Regarding subcontractor Practices (Exhibit E)
  - f. Joint Venture Disclosure Affidavit (Exhibit F)
  - g. Equal Business Opportunity (EBO) Plan

Any bids received after the stated time and date shall not be considered. It shall be the sole responsibility of the bidder to have his/her bid delivered to the Fulton County Department of Purchasing and Contract Compliance for receipt on or before the stated time and date. If a bid is sent by U.S. Mail, the bidder shall be responsible for its timely delivery to the Purchasing Department. Bids delayed by mail will not be considered, shall not be opened, and arrangements shall be made for their return at the bidder's request and expense.

The original signed bid with three (3) copies shall be submitted in a sealed package, clearly marked on the outside "Bid for R002 Bell Road Reuse Water Main Extension Phase 1".

*Additionally, Bidder is to write their **Utility Contractor License Number on the outside of the sealed package containing the bid.** Failure to put the Utility Contractor License number on the package will result in the bid being determined to be non-responsive.*

Bid shall be publicly opened, with only the names and total bid price of the bidders disclosed at the opening.

- G. **Bid and Contract Security:** A Bid Bond for an amount equal to five percent (5%) of the bid amount must accompany each Proposal. The bid bond shall be submitted in a separate, sealed envelope marked "Bid Bond".

**Bids must be accompanied by a bid bond or certified check** in an amount of five percent (5%) of the TOTAL AMOUNT of the base bid. The bid bond or certified check shall apply ONLY TO THIS BID. The bid name and contract number must appear on the security instrument. The bond must remain in full force and effect until the Bidder executes the final Contract. Bids not satisfying the bonding requirements of this project will be declared non-responsive.

Any bid bond, performance bond, payment bond, or security deposit required for public works construction contract shall be approved and filed with purchasing agent. At the option of the County, if the surety named in the bond is other than a surety company authorized by law to do business in this state pursuant to a current certificate of authority to transact surety business by the Commissioner of Insurance, such bond shall not be approved and filed unless such surety is on the United States Department of Treasury's list of approved bond sureties.

A Purchasing Agent shall approve as to form and as to the solvency of the surety any bid bond, performance bond, or payment bond required by this. In the case of a bid bond, such approval shall be obtained prior to acceptance of the bid or proposal. In the case of payment bonds and performance bonds, such approval shall be obtained prior to the execution of the contract.

Whenever, in the judgment of the County:

- (1) Any surety on a bid, performance, or payment bond has become insolvent;
- (2) Any corporation surety is not longer certified or approved by the Commissioner of Insurance to do business in the state; or
- (3) For any cause there are no longer proper or sufficient sureties on any or all the bonds

The County may require the contractor to strengthen any or all of the bonds or to furnish a new or additional bond or bonds within ten days. Thereupon, if so ordered by the County, all work on the contract shall cease unless such new or additional bond or bonds are furnished. If such bond or bonds are not furnished within such time, the County may terminate the contract and complete the same as the agent of and at the expense of the contractor and his or her sureties.

As a condition of responsiveness the bidder must contain a Bid Bond for an amount equal to 5% of the bid amount. The Bid Bond shall be included in a separate envelope marked on the outside "Bid Bond". Checks or letters of credit of any type will not be accepted. A certified cashier's check will be acceptable. Provide a completed and fully executed Bid Bond. When the bidder's package is opened, a purchasing agent will verify the presence of the Bid Bond and remove it from the Proposal Package.

If the bidder withdraws its bid from the competition after the selection of its bid for a reason not authorized by Georgia law, the County will proceed on the Bid Bond, along with any other available remedies.

The Surety of the Bid Bond shall be from a surety company authorized to do business in the State of Georgia, shall be listed in the Department of Treasury Circular 570, and shall have an underwriting limitation in excess of 100% of the bid amount. The Bonds and Surety shall be subject to approval by the County Attorney.

Attorneys-in-fact for bidders who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

- H. **Right to Reject Bids:** The County reserves the right to reject any or all bids and to waive informalities. No bids will be received after the time set for opening bids. Any unauthorized conditions, limitations or provisions attached to the Bid, except as provided herein, will render it informal and may cause its rejection. Unbalanced bids will be subject to rejection. Any bidder may withdraw his/her bid, either personally or by telegraphic or written request, at any time prior to the scheduled closing time for receipt of bids. Telegraphic or written requests for withdrawal must be in the possession of the County prior to the closing time for receipt of bids.
- I. **Applicable Laws:** All applicable laws and regulations of the State of Georgia and ordinances and regulations of Fulton County shall apply. Protestors shall seek resolution of their complaints in the manner provided in the Fulton County Code of Laws §2-324, which is incorporated by reference herein.
- J. **Examination of Contract Documents:** Prospective bidders shall examine the contract documents and before submitting a bid, shall make a written request to the County for an interpretation or correction of any ambiguity, in consistency or error therein which could be discovered by a bidder. At the bid opening each bidder shall be presumed to have read and be familiar with the contract documents.
- K. **Termination:** The County may terminate the contract resulting from this solicitation at any time the vendor fails to carry out the contract provisions, if in the opinion of the County, the performance of the contract is unreasonably delayed, or the vendor is in direct violation of the contract conditions. The County shall provide the vendor with notice of any conditions which violate or endanger the performance of the contract and, if after such notice the contractor fails to remedy such conditions within thirty (30) days, to the satisfaction of the County, the County may exercise their option in writing to terminate the Contract without further notice to the Contractor and order the Contractor to stop work immediately and vacate the premises. Vendor agrees by its bid submission that the County's decision is final and valid.
- L. **Indemnification and Hold Harmless Agreement:** The successful contractor will agree to indemnify, save harmless and defend the County, its agents, servants, and employees from all lawsuits, claims, demands, liabilities, losses and expenses for or on account of any injury or loss in

connection with the work performed under this contract: Provided, however the Contractor shall not be liable for any damages resulting for the sole negligent or intentional acts or omission of the County and its employees, agents or representatives.

M. **Bid Opening:** Bids will be opened in public and read aloud. All bidders are requested to be present at the opening.

N. **Determination of Successful Bidder:** Fulton County desires to complete this work in a timely manner. The Contract will be awarded to the lowest responsive, responsible bidder(s), if awarded.

1) **Responsibility:** The determination of the bidder's responsibility will be made by the County based on whether the bidder meets the following minimum requirements:

- a) The County reserves the right to reject any bid if the evidence submitted by, or investigation of, the bidder fails to satisfy the County that he/she is properly qualified to carry out the obligations of the Contract.
- b) Is properly licensed to perform this type of work in Fulton County. Bidders must have a utility contractors license to perform this work. O.C.G.A. §43-14-8.3 (h)
- c) Maintains a permanent place of business individually or in conjunction with the prime contractor.
- d) Has the appropriate and adequate technical experience. Designated Project Manager must be proficient in all aspects of contracted work.
- e) Has adequate personnel and equipment to do the work expeditiously.
- f) Has suitable financial means to meet obligations incidental to the work.

2) **Responsiveness:** The determination of responsiveness will be made by the County based on a consideration of whether the bidder has submitted a complete Bid form without irregularities, excisions, special conditions, or alternative bids for any item unless specifically requested in the Bid form.

O. **Wage Clause:** Pursuant to 102-391, Each Contractor shall agree that in the performance of the Contract he will 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.

P. **Notice of Award of Contract:** As soon as possible, and within sixty (60) days after receipt of bids, the County shall notify the successful Bidder of the Award of Contract.

The award shall be made by the Board of Commissioners of Fulton County to the lowest responsive, responsible bidder(s) as soon as possible after receipt of bids, taking into consideration price and the responsiveness to the requirements set forth in the Invitation for Bid. In such case, no claim shall be made by the selected Contractor(s) for loss of profit if the contract is not awarded or awarded for less work than is indicated and for less than the amount of his bid. The total of the awarded contract shall not exceed the available funds allocated for this project.

Should the County require additional time to award the contract, the time may be extended by mutual agreement between the County and the successful bidder. If an Award of Contract has not been made within sixty (60) days from the bid date or within the extension mutually agreed upon, the Bidder may withdraw the Bid without further liability on the part of either party.

Any award made by the Board of Commissioners as a result of this bid will begin from the date of the notice to proceed. The Bidder agrees hereby to commence work under this Contract, with adequate personnel and equipment, on a date to be specified in a written order from the user department. The contract shall become effective on the Contract Date and shall continue in effect until the end of the term of the contract or until the project has been closed-out unless earlier terminated pursuant to the termination provisions of the contract.

Q. **Execution of Contract Documents:** Upon notification of Award of Contract, the County shall furnish the Contractor the conformed copies of Contract Documents for execution by the Contractor and Contractor's surety.

Within ten (10) days after receipt the Contractor shall return all the documents properly executed by the Contractor and the Contractor's surety. Attached to each document shall be an original power-of-attorney for the person executing the bonds for the surety and certificates of insurance for the required insurance coverage.

After receipt of the documents executed by the Contractor and his surety with the power-of-attorney and certificates of insurance, the County shall complete the execution of the documents. Distribution of the completed documents will be made upon completion.

Should the contractor and/or surety fail to execute the documents within the time specified, the County shall have the right to proceed on the Bid Bond accompanying the bid.

If the County fails to execute the documents within the time limit specified, the Contractor shall have the right to withdraw the Contractor's bid without penalty.

Should an extension of any of the time limits stated above be required, this shall be done only by mutual agreement between both parties.

Any agreement or contract resulting from the acceptance of a bid shall be on a County approved document form. The County reserves the right to reject any agreement that does not conform to the Invitation for Bid and any County requirements for agreements and contracts. The County reserves the right to modify the agreement resulting from this bid upon the recommendation of the County Attorney.

- R. **Joint Venture** Any Bidder intending to respond to this solicitation as a joint venture must submit an executed joint venture agreement with its offer. The agreement must designate those persons or entities authorized to execute documents or otherwise bind the joint venture in all transactions with Fulton County, or be accompanied by a document, binding upon the joint venture and its constituent members, making such designation. Offers from joint ventures that do not include these documents will be rejected as being non-responsive.
- S. **Contractors Compliance With All Assurances And/Or Promises Made In Response To Procurement:** Should any Bidder submit a response to the County promising to provide a certain level of service for either the scope of work, MFBE participation, or any other matter, including where such promise or assurance is greater than what is required by the procurement documents, and should this response containing the promise or assurance be accepted by the County and made a part of the Contract Documents, then this degree or level of service promised by the bidder relating to the scope of work, MFBE participation, or other matter shall be considered to be a material part of the Agreement between the bidder and the County, such that the bidder's failure to provide the agreed upon degree or level of service or participation shall be a material breach of the Agreement giving the County just cause to terminate the Agreement for cause, pursuant to the General Conditions of the Agreement.

**FULTON COUNTY PURCHASING DEPARTMENT****BID GENERAL REQUIREMENTS****R002 Bell Road Reuse Water Main Extension Phase 1**

The following information pertains to the submission of a Bid to Fulton County, and contains instructions on how Bids must be presented in order to be considered. Listed below are the requirements for all Bidders interested in doing business with Fulton County.

1. The Bid sheets included in this Invitation to Bid ("Bid") must be fully completed and returned with the Bid unless otherwise specified in writing by the Purchasing Department. Type or neatly print the date, company name, and the full legal name and title of the person(s) signing the Bid in the place provided at the bottom of each Bid sheet. Any additional sheets submitted must contain the same signature and Bidder information.
2. All signatures must be executed by person(s) having contracting authority for the Bidder.
3. Absolutely no fax Bids or reproduction Bids will be accepted, except that photocopies may be submitted in addition to the original when multiple copies of the Bid are specifically requested in the solicitation.
4. The envelope in which the Bid response is submitted must be sealed and clearly labeled with the Bid number, project title, due date and time, and the name of the company or individual submitting the proposal. Bids must be received by the opening date and time shown on this Bid in order to be considered. The Purchasing Agent has no obligation to consider Bids which are not in properly marked envelopes. Contract Compliance submittals shall be submitted in a separate sealed envelope or package.
5. The original and the required number of copies of the Bid must be returned to:

Fulton County Purchasing Agent  
Fulton County Department of Purchasing and Contract Compliance  
130 Peachtree Street, S.W., Suite 1168  
Atlanta, Georgia 30303

- Any inquiries, questions, clarifications or suggestions regarding this solicitation should be submitted in writing to the Purchasing Contact Person. Contact with any other County personnel in regard to a current solicitation is strictly prohibited in accordance with Fulton County "No Contact" policy outlined in Section 35.
6. Show information and prices in the format requested. Prices are to be quoted F.O.B. Destination, and must include all costs chargeable to the Contractor executing the Contract, including taxes. Unless otherwise provided in the Contract, Fulton County shall have no liability for any cost not included in the price. The Contractor shall provide Fulton County the benefit through a reduction in price of any decrease in the Contractor's costs by reason of any tax exemption based upon Fulton County's status as a tax-exempt entity.
  7. All prices Bid must be audited by the Bidder to ensure correctness before the Bid is submitted. The Bidder is solely responsible for the accuracy of information placed on a Bid sheet, including prices. Clerical or mathematical error is insufficient to void a successful Bid but a Bidder may withdraw a sealed Bid prior to opening without a penalty.
  8. All prices must be submitted in the format requested and less all trade discounts. When multiple items are being Bid, Bidder must show both the unit price and the total extended price for each item. When applicable, the Bidder must include an additional lump sum Bid for groups or items. In the event a Bidder is offering an additional discount on groups of items, Bidder must indicate the total lump sum Bid for the particular group of items before any extra discount, the amount of extra discount, and the net total for the particular group. In the event of an extension error, unit pricing shall prevail.

9. By submitting a signed Bid, Bidder agrees to accept an award made as a result of that Bid under the terms and conditions spelled out in the Bid documents. In the event of a conflict between the different Bid documents, the County's cover Contract (if used) shall have precedence, followed in order by the Invitation to Bid, Purchase Order, Bid, Contractor's Warranty Agreement, Maintenance Agreement, and/or other Contractor provided agreements.
10. A Bidder may submit only one (1) Bid response for each specific Bid solicitation unless otherwise authorized in the specifications.
11. All prices submitted by the Bidder to Fulton County must be guaranteed by the authorized person(s) against any price increase for the time period designated in the Bid specifications, and Fulton County must be given the benefit of any price decrease occurring during such designated time period.
12. All items Bid must be new. Used, rebuilt and refurbished items will not be considered unless specifically authorized by Fulton County in the written specifications.
13. All Bidders must specify in the Bid response the earliest actual delivery date for each item unless otherwise specified in writing by Fulton County. The delivery date may be a factor in deciding the Bidder's capability to perform.
14. A successful Bidder's delivery ticket(s) and invoice(s) must list each item separately and must show Fulton County's purchase order number as well as the proper department and address to which delivery was made, as listed on the purchase order or in the Bidder's contract with Fulton County.
15. Unless clearly shown as "no substitute" or words to that effect, any items in this invitation to Bid which have been identified, described or referenced by a brand name or trade name are for reference only. Such identification is intended to be descriptive but not restrictive, and is to indicate the general quality and characteristics of products that may be offered. Each item Bid must be individually identified as to whether it is a specified item or an equivalent item by typing or printing after the item(s): The brand name; model or manufacturer's number, or identification regularly used in the trade. Deviations from the specifications must be clearly and fully listed on the Bid sheet, including photographs or cuts, specifications, and dimensions of the proposed "alternate". Fulton County is the sole judge of "exact equivalent", or "alternate". The factors to be considered are: function, design, materials, construction, workmanship, finishes, operating features, overall quality, local service facilities, warranty terms and service, and other relevant features of item(s) Bid.
16. For all Bids, Fulton County reserves the right to request representative samples. If requested, samples must be delivered at the Bidder's cost within three (3) business days. Samples are submitted at the risk of the Bidder and may be subjected to destructive tests by Fulton County. Samples must be plainly tagged with Fulton County's Bid number, item name, manufacturer, and the name of the Bidder.
17. Item(s) Bid must be complete and ready to operate. No obvious omissions of components or necessary parts shall be made even though the specifications may not detail or mention them. Unit(s) must be furnished with factory installed equipment and must be comparable with the basic form, fit, and functional requirements which are all to be included in the base price as well as any other equipment included as standard by the manufacturer or generally provided to the buying public.
18. All successful Bidders must assume full responsibility for all item(s) damaged prior to F.O.B. Destination delivery and agree to hold harmless Fulton County of all responsibility for prosecuting damage claims.
19. All successful Bidders must assume full responsibility for replacement of all defective or damaged goods within thirty (30) days of notice by Fulton County of such defect or damage.
20. All successful Bidders must assume full responsibility for providing or ensuring warranty service on any and all items including goods, materials, or equipment provided to the County with warranty coverage. If a successful Bidder is not the manufacturer, all manufacturers'

- warranties must be passed through to Fulton County. The Bidder and not Fulton County is responsible for contacting the manufacturer of the warranty service provided during the warranty period and supervising the completion of the warranty service to the satisfaction of Fulton County.
21. As a successful Bidder providing any equipment which requires fitting and assembly, the Bidder shall be solely responsible for such installation being performed by a manufacturer's authorized or approved servicer or an experienced worker, utilizing workmanship of the highest caliber. The Bidder must verify all dimensions at the site, shall be responsible for their correctness, and shall be responsible for the availability of replacement parts when specified in writing by Fulton County in the specifications, purchase order, or other contract.
  22. A successful Bidder is solely responsible for disposing of all wrappings, crating, and other disposable material upon deliver of item(s).
  23. All Bidders are required to be authorized distributors or regularly engaged in the sale or distribution of the type of goods, materials, equipment or services for which the Bidder is submitting a Bid response in addition, all Bidders are required to provide Fulton County with three (3) written references documenting the successful completion of Bids or contracts for the types of items including goods, materials, equipment, or services for which the Bidder is submitting a Bid response. In instances where a Bidder has never supplied such goods, material, equipment, or services before, the Bidder must submit with the Bid response a statement and supporting documentation demonstrating such expertise, knowledge, or experience to establish the Bidder as a responsible Bidder, capable of meeting the Bid requirements should an award be made. No exceptions to this provision will be made unless authorized in the Bid specifications.
  24. Bidders may be required to furnish evidence that they maintain permanent places of business of a type and nature compatible with their Bid proposal, and are in all respects competent and eligible vendors to fulfill the terms of the specifications. Fulton County may make such investigations as it deems necessary to determine the ability of the Bidder to perform such work, and reserves the right to reject any Bidder if evidence fails to indicate that the Bidder is qualified to carry out the obligation of the Contract and to complete the work satisfactorily.
  25. All Bidders must comply with all Fulton County Purchasing laws, policies, and procedures, non-discrimination in contracting and procurement ordinances, and relevant state and federal laws including but not limited to compliance with EEOC hiring guidelines and requirements under the Americans with Disabilities Act. Successful Bidder must obtain all permits, licenses, and inspections as required and furnish all labor, materials, insurance, equipment, tools, supervision, and incidentals necessary to accomplish the work in these specifications.
  26. If a successful Bidder is unable or unwilling to enter into a Contract with Fulton County subsequent to being granted an award, or who fails to perform in accordance with the Bid specifications the Bidder will be subject to damages and all other relief allowed by law.
  27. Successful Bidders contract directly with Fulton County and are the party or parties obligated to perform. Contracts may not be assigned and any failure to perform the Contract in accordance with the specifications will constitute a breach of Contract and may result in a Bidder being found to be "non-responsive" in the future.
  28. In case of default by the successful Bidder, Fulton County may procure the articles for services from another source and hold the successful Bidder responsible for any resulting excess cost.
  29. The County may award any Bid in whole or in part to one or more vendors or reject all Bids and/or waive any technicalities if it is in the best interests of the County to do so. In the event that all Bids are not rejected, Bids for items including goods, materials, equipment, and services will be awarded to the lowest "responsible" Bidder(s) as determined by Fulton County. Submitting the lowest Bid, as published at the Bid opening, does not constitute an award or the mutual expectation of an award of a Contract and purchase order. For purposes of this notice and the attached Bid sheets, a purchase order is a Contract to provide items including goods, materials, equipment, and services and is intended to have the full

- force and effect of a Contract. A breach of the terms and conditions of a purchase order constitutes a breach of Contract.
30. Bids for projects that are solicited pursuant to the Georgia Local Government Public Works Construction Law (O.C.G.A. § 36-91-1 et seq.) may withdrawn as follows:
- Competitive sealed Bids (“Bid”) may not be revoked or withdrawn until 60 days after the time set by the governmental entity for opening of Bids. At the end of this time period, the Bid will cease to be valid, unless the Bidder provides written notice to the County prior to the scheduled expiration date that the Bid will be extended for a time period specified by the County.
31. In the evaluation of the Bids, any award will be subject to the Bid being:
- A. Compliant to the specification – meets form, fit, and function requirements stated or implied in the specification.
  - B. Lowest cost to the County over projected useful life.
  - C. Administratively Compliant – Including all required bonds, insurance, established quality of work and general reputation, financial responsibility, relevant experience, and related criteria.
32. All proposals and Bids submitted to Fulton County are subject to the Georgia “Open Records Act”, Official Code of Georgia, Annotated (O.C.G.A.) §50-18-70 et seq.
33. All proposals and Bids submitted to Fulton County involving Utility Contracting are subject to the Georgia law governing licensing of Utility Contractors, O.C.G.A. §43-14-8.2(h). The Utility Contractor License number of the person who will perform the utility work shall be written on the face of the Bid envelope.
34. The apparent silence of this specification, and any supplement thereto, as to details, of the omission from it of a detailed description concerning any point, will be regarded as meaning only the best commercial practices are to prevail. Only materials of the highest quality, correct type, size, and design are to be used. All interpretations of this specification will be made upon the basis of this statement, with Fulton County interpretation to prevail.
35. It is the policy of Fulton County that the evaluation and award process for County contracts shall be free from both actual and perceived impropriety, and that contacts between potential vendors and County officials, elected officials and staff regarding pending awards of County contracts shall be prohibited.
- A. No person, firm, or business entity, however situated or composed, obtaining a copy of or responding to this solicitation, shall initiate or continue any verbal or written communication regarding this solicitation with any County officer, elected official, employee, or designated County representative, between the date of the issuance of this solicitation and the date of the County Manager’s recommendation to the Board of Commissioners for award of the subject contract, except as may otherwise be specifically authorized and permitted by the terms and conditions of this solicitation.
  - B. All verbal and written communications initiated by such person, firm, or entity regarding this solicitation, if same are authorized and permitted by the terms and conditions of this solicitation, shall be directed to the Purchasing Agent.
  - C. Any violation of this prohibition of the initiation or continuation of verbal or written communications with County officers, elected officials, employees, or designated County representatives shall result in a written finding by the Purchasing Agent that the submitted Bid or proposal of the person, firm, or entity in violation is “non-responsive”, and same shall not be considered for award.
36. Any Bidder intending to respond to this solicitation as a Joint Venture must submit an executed Joint Venture Agreement with this Bid. This agreement must designate those persons or entities authorized to execute documents or otherwise bind the Joint Venture in all transactions with Fulton County, or are accompanied by a document, binding upon the Joint

Venture and its constituent members, making such designation. Bids from Joint Ventures that do not include these documents will be rejected as being “non-responsive”.

37. Any Bidder intending to respond to this solicitation must complete all of the Procurement Affidavit Forms provided in this solicitation. Bids that do not include these completed documents will be rejected as being “non-responsive”.

## Required Bid Submittal Check List for Invitation To Bid (ITB)

The following submittals shall be completed and submitted with each bid (see table below "Required Bid Submittal Check List."). Please check to make sure that the required submittals are in the envelope before it is sealed. Failure to submit all required submittals may deem your proposal non-responsive.

Submit one (1) Original bid, signed and dated and three (3) **complete** copies of the Original Bid including all required documents.

Item #	Required Bid Submittal Check List	Check (√)
1	Bid Form – <b>submittal shall show amounts for both Base Bid and Alternate and shall be signed and sealed by the bidder.</b> All dollar amounts must be Both in writing AND figures and represent prices for the published scope of work without exceptions.	
2	Acknowledgement of each Addendum	
3	Bid Bond (separate envelope if Public Works Construction project)	
4	Purchasing Forms Form A - Non-Collusion Affidavit of Prime Bidder/Offeror Form B - Non-Collusion Affidavit of Sub-contractor Form C - Certificate of Acceptance of Request for Bid/Proposal Requirements Form D - Georgia Utility Contractor License Form E - Certificate Regarding Debarment Form F - Corporate Certificate Form G - Disclosure Form & Questionnaire	
5	Office of Contract Compliance Requirements Exhibit A - Promise of Non-Discrimination Exhibit B - Employment Record Exhibit C - Schedule of Intended Subcontractor Utilization Exhibit D - Letter of Intent to Perform as Subcontractor Exhibit E - Declaration Regarding Subcontractor Practices Exhibit F - Joint Venture Disclosure Affidavit Exhibit G - Prime Contractor/Subcontractor Utilization Report Equal Business Opportunity Plan (EBO Plan)	
6	Risk Management Insurance Provisions Form	

**END OF SECTION**

**SECTION 2****BID FORM****R002 Bell Road Reuse Water Main Extension Phase 1**

Submitted \_\_\_\_\_, 2007.

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Bid or in the Contract to be entered into; that this Bid is made without connection with any other person, company or parties making a Bid; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the Drawings and Specifications for the work and contractual documents relative thereto, and has read all instructions to Bidders and General Conditions furnished prior to the openings of bids; that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees, if this Bid is accepted, to contract with the Board of Commissioners of Fulton County, Atlanta, Georgia, in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary, and to complete the construction of the work in full and complete accordance with the shown, noted, and reasonably intended requirements of the Specifications and Contract Documents to the full and entire satisfaction of the Board of Commissioners of Fulton County, Atlanta, Georgia, with a definite understanding that no money will be allowed for extra work except as set forth in the attached General Conditions and Contract Documents for the following prices.

THE BASE BID IS THE AMOUNT UPON WHICH THE BIDDER WILL BE FORMALLY EVALUATED AND WHICH WILL BE USED TO DETERMINE THE LOWEST RESPONSIBLE BIDDER.

The base bid may not be withdrawn or modified for a period of sixty (60) days following the receipt of bids.

**BASE BID AMOUNT** (Do not include any Bid Alternates)

\$ \_\_\_\_\_

**(Dollar Amount In Numbers)**

\_\_\_\_\_

**(Dollar Amount in Words)**

The Bidder agrees hereby to commence work under this Contract, with adequate personnel and equipment, on a date to be specified in a written order of the Contracting Officer and to fully complete all work under this Contract within **One Hundred and Twenty (120)** consecutive calendar days from and including said date.

The Bidder declares that he understands that the quantities shown for the unit prices items are subject to either increase or decrease, and that should the quantities of any of the items of work be increased, the Bidder proposes to do the additional work at the unit prices stated herein; and should the quantities be decreased, the Bidder also understands that payment will be made on the basis of actual quantities at the unit price bid and will make no claim for anticipated profits for

any decrease in quantities; and that actual quantities will be determined upon completion of work, at which time adjustments will be made to the contract amount by direct increase or decrease.

The Bidder furthermore agrees that, in the case of a failure on his part to execute the Contract Agreement and Bonds within ten days after receipt of conformed contract documents for execution, the Bid Bond accompanying his bid and the monies payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure.

The undersigned acknowledges receipt of the following addenda (list by the number and date appearing on each addendum) and thereby affirms that its Bid considers and incorporates any modifications to the originally issued Bidding Documents included therein.

ADDENDUM # \_\_\_\_\_ DATED \_\_\_\_\_

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

Signed by: \_\_\_\_\_  
[Type or Print Name]

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

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

Business Phone: \_\_\_\_\_

Bidder's Contractor License No: \_\_\_\_\_  
[State/County]

License Expiration Date: \_\_\_\_\_

Enclosed is a Bid Bond in the approved form, in the sum of:

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) according to the conditions of "Instructions to Bidders" and provisions thereof.

**END OF SECTION NO. 2**

**SECTION 3****PURCHASING FORMS & INSTRUCTIONS**

This section contains the procurement forms that are required to be executed and submitted with the bid package. This section does not contain all forms required to be included with the bid package submittal.

To be deemed responsive to this RFP, Bidders must provide the information requested and complete in detail all Purchasing Forms. The appropriate individual(s) authorized to commit the Bidder to the Project must sign the Purchasing Forms. Bidders should reproduce each Purchasing Form, as required, and complete the appropriate portions of the forms provided in this section.

- Form A: Non-Collusion Affidavit of Prime Bidder/Offeror
- Form B: Non-Collusion Affidavit of Sub-Contractors
- Form C: Certificate of Acceptance of Request for Bid/Proposal Requirements
- Form D: Contractor's Georgia Utility License Certification
- Form E: Certification Regarding Debarment
- Form F: Corporate Certificate
- Form G: Disclosure Form and Questionnaire

Form A

NON-COLLUSION AFFIDAVIT OF BIDDER/OFFEROR

STATE OF GEORGIA

COUNTY OF FULTON

I, \_\_\_\_\_ certify that pursuant to Fulton County Code Section 2-320 (11), this bid or proposal is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same work, labor or service to be done or the supplies, materials or equipment to be furnished and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of state and federal law and can result in fines, prison sentences and civil damages awards. I agree to abide by all conditions of this bid or proposal and certify that I am authorized to sign this bid or proposal for the bidder.

Affiant further states that pursuant to O.C.G.A. Section 36-91-21 (d) and (e), \_\_\_\_\_ has not, by itself or with others, directly or indirectly, prevented or attempted to prevent competition in such bidding or proposals by any means whatsoever. Affiant further states that (s)he has not prevented or endeavored to prevent anyone from making a bid or offer on the project by any means whatever, nor has Affiant caused or induced another to withdraw a bid or offer for the work.

Affiant further states that the said offer of \_\_\_\_\_ is bona fide, and that no one has gone to any supplier and attempted to get such person or company to furnish the materials to the bidder only, or if furnished to any other bidder, that the material shall be at a higher price.

\_\_\_\_\_  
(COMPANY NAME)

\_\_\_\_\_  
(PRESIDENT/VICE PRESIDENT)

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

\_\_\_\_\_  
(SECRETARY/ASSISTANT SECRETARY)

(Affix corporate seal here, if a corporation)

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

County: \_\_\_\_\_

Commission Expires: \_\_\_\_\_

**NOTE:**

**IF THE OFFEROR IS A PARTNERSHIP, ALL OF THE PARTNERS AND ANY OFFICER, AGENT, OR OTHER PERSON WHO MAY HAVE REPRESENTED OR ACTED FOR THEM IN BIDDING FOR OR PROCURING THE CONTRACT SHALL ALSO MAKE THIS OATH.**

**IF THE OFFEROR IS A CORPORATION, ALL OFFICERS, AGENTS, OR OTHER PERSONS WHO MAY HAVE ACTED FOR OR REPRESENTED THE CORPORATION IN BIDDING FOR OR PROCURING THE CONTRACT SHALL MAKE THE OATH.**

Form B

NON-COLLUSION AFFIDAVIT OF SUBCONTRACTOR

STATE OF GEORGIA

COUNTY OF FULTON

I, \_\_\_\_\_ certify that pursuant to Fulton County Code Section 2-320 (11), this bid or proposal is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same work, labor or service to be done or the supplies, materials or equipment to be furnished and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of state and federal law and can result in fines, prison sentences and civil damages awards. I agree to abide by all conditions of this bid or proposal and certify that I am authorized to sign this bid or proposal for the bidder.

Affiant further states that pursuant to O.C.G.A. Section 36-91-21 (d) and (e), \_\_\_\_\_ has not, by itself or with others, directly or indirectly, prevented or attempted to prevent competition in such bidding or proposals by any means whatsoever. Affiant further states that (s)he has not prevented or endeavored to prevent anyone from making a bid or offer on the project by any means whatever, nor has Affiant caused or induced another to withdraw a bid or offer for the work.

Affiant further states that the said offer of \_\_\_\_\_ is bona fide, and that no one has gone to any supplier and attempted to get such person or company to furnish the materials to the bidder only, or if furnished to any other bidder, that the material shall be at a higher price.

\_\_\_\_\_  
(COMPANY NAME)

\_\_\_\_\_  
(PRESIDENT/VICE PRESIDENT)

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

\_\_\_\_\_  
(SECRETARY/ASSISTANT SECRETARY)

(Affix corporate seal here, if a corporation)

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

County: \_\_\_\_\_

Commission Expires: \_\_\_\_\_

**NOTE:**

**IF THE OFFEROR IS A PARTNERSHIP, ALL OF THE PARTNERS AND ANY OFFICER, AGENT, OR OTHER PERSON WHO MAY HAVE REPRESENTED OR ACTED FOR THEM IN BIDDING FOR OR PROCURING THE CONTRACT SHALL ALSO MAKE THIS OATH.**

**IF THE OFFEROR IS A CORPORATION, ALL OFFICERS, AGENTS, OR OTHER PERSONS WHO MAY HAVE ACTED FOR OR REPRESENTED THE CORPORATION IN BIDDING FOR OR PROCURING THE CONTRACT SHALL MAKE THE OATH.**

**Form C**

**FULTON COUNTY CERTIFICATE OF ACCEPTANCE OF BID/PROPOSAL REQUIREMENTS**

This Is To Certify That On This Day Bidder/Proposer Acknowledges That He/She Has Read This Bid Document, Pages \_\_\_\_\_ To \_\_\_\_\_ Inclusive, Including Addendum(s) \_\_\_\_ To \_\_\_\_, And/Or Appendices \_\_\_\_ To \_\_\_\_, In Its Entirety, And Agrees That No Pages Or Parts Of The Document Have Been Omitted, That He/She Understands, Accepts And Agrees To Fully Comply With The Requirements Therein, And That The Undersigned Is Authorized By The Bidding/Proposing Company To Submit The Bid/Proposal Herein And To Legally Obligate The Bidder/Proposer Thereto.

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

Signature: \_\_\_\_\_

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

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

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

(Corporate Seal)

**Form D**

**CONTRACTOR'S GEORGIA UTILITY LICENSE CERTIFICATION**

Contractor's Name: \_\_\_\_\_

Utility Contractor's Name: \_\_\_\_\_

Expiration Date of License: \_\_\_\_\_

(ATTACHED COPY OF LICENSE)

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this Project.

Signed: \_\_\_\_\_

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

## Form E

**CERTIFICATION REGARDING DEBARMENT**

- (1) The Offeror certifies that neither it or its subcontractors is presently debarred, suspended, proposed for debarment, declared ineligible, or otherwise excluded from doing business with any government agency. Any such exclusion may cause prohibition of your firm from participating in any procurement by the Fulton County Government.
- (1) If the Offeror is unable to certify to any of the statements in this certification, such Offeror or subcontractor shall attach an explanation to this bid or proposal.

**INSTRUCTIONS FOR CERTIFICATION**

By signing and submitting this certification, the Offeror is providing the certification set out below:

- (1) The certification in this clause is a material representation of fact upon which reliance will be placed. If it is later determined that the prospective vendor knowingly rendered a false certification, the Purchasing Agent may pursue all available remedies, including suspension and/or debarment, for withdrawal of award or termination of a contract.
- (2) The prospective Offeror shall provide immediate written notice to the Purchasing Agent if at anytime the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- (3) Offeror shall be under a continuing duty to immediately inform the Purchasing Agent in writing of any changes, if as a result of such changes, the Offeror certification regarding debarment is affected.

**DEBARMENT ORDINANCE**

The following Section 2-322 of Fulton County Code of Laws establishes the procedure for the debarment of contractors.

**(a) Authority to suspend.**

After reasonable notice to the entity involved and reasonable opportunity for that entity to be heard, the Purchasing Agent, after consultation with user department, the County Manager and the County Attorney shall have the authority to suspend an entity for cause from consideration for award of county contracts. As used in this section, the term entity means any business entity, individual, firm, contractor, subcontractor or business corporation, partnership, limited liability corporation, firm, contractor, subcontractor or business structured; provided, further, that any such entity shall also be subject to suspension under this section if any of its constituents, members, subcontractors at any tier of such entity's and the entity, or any constituent or member, knew or should have known of the commission of the act. The suspension shall be for a period not to exceed three (3) years unless cause is based on a felony conviction for an offense related or associated with fraudulent contracting or misappropriation of funds wherein the suspension shall not exceed seven (7) years.

**(b) Causes for Suspension. The causes for suspension include:**

- 1) Conviction for commission of a criminal offense as an incident to obtain or attempting to obtain a public or private contract or subcontract, or in performance of such contract or subcontract;

- 2) Conviction of state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property or other offense indicating a lack of business integrity or business honesty which currently, seriously and directly affects responsibility as a county contractor.
- 3) Conviction of state or federal anti-trust statutes arising out of the solicitation and submission of bids and proposals;
- 4) Violation of contract provisions, as set forth below, of a character which is regarded by the Purchasing Agent to be so serious as to justify suspension action:
  - a. Failure to perform in accordance with the specifications within a time limit provided in a county contract;
  - b. A recent record of failure to perform or unsatisfactory performance in accordance with the terms of one or more contracts; provided, that failure to perform or unsatisfactory performance caused by acts beyond the control of the contractor shall not be considered to be a basis for suspension;
  - c. Material representation of the composition of the ownership or workforce or business entity certified to the county as a minority business enterprise; or
  - d. Falsification of any documents.
- 5) For violation of the ethical standards set forth in Fulton County Code Chapter 9, Code of Ethics.
- 6) Knowing misrepresentation to the county, of the use which a majority owned contractor intends to make a minority business enterprise (a business entity at least 51 percent of which is owned and controlled by minority persons, as defined in Fulton County Code Chapter 6, Article B, Minority Business Enterprise Affirmative Action Program and certified as such by the County) as a subcontractor or a joint venture partner, in performing work under contract with the County.

Failure to fully and truthfully provide the information required, may result in the disqualification of your bid/proposal from consideration or termination of the Contract, once awarded. This document must be completed and included as a part of the bid/proposal package along with other required documents.

[SIGNATURES ON NEXT PAGE]

Under penalty of perjury, I declare that I have examined this certification and all attachments hereto, if applicable, to the best of my knowledge and belief, and all statements contained hereto are true, correct, and complete.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2007

\_\_\_\_\_  
(Legal Name of Offeror) (Date)

\_\_\_\_\_  
(Signature of Authorized Representative) (Date)

\_\_\_\_\_  
(Title)

Form F

CORPORATE CERTIFICATE

Corporations

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

This \_\_\_\_\_ day of \_\_\_\_\_, 2007.

\_\_\_\_\_  
(SEAL) must be affixed

Partnership or other entities:

I, \_\_\_\_\_, certify that I am authorized to sign to commit \_\_\_\_\_ named as Contractor in the foregoing Bid. That said company is formed under the laws of the State of \_\_\_\_\_.

This \_\_\_\_\_ day of \_\_\_\_\_, 2007.

\_\_\_\_\_

It is necessary to attach a letter on company letterhead and dated on or after the date of this certificate that the individual signing to commit the partnership or other entity not a corporation to the stipulations of this bid is authorized to do so. The letter should be signed by an individual working for the company who has knowledge of this fact.

**Form G****DISCLOSURE FORM AND QUESTIONNAIRE**

1. Please provide the names and business addresses of each of the Offeror's firm's officers and directors.

For the purposes of this form, the term "Offeror" means an entity that responds to a solicitation for a County contract by either submitting a proposal in response to a Request for Proposal or a Request for Qualification or a Bid in response to an Invitation to Bid. Describe accurately, fully and completely, their respective relationships with said Offeror, including their ownership interests and their anticipated role in the management and operations of said Offeror.

2. Please describe the general development of said Offeror's business during the past five (5) years, or such shorter period of time that said Offeror has been in business.
3. Please state whether any employee, agent or representative of said Offeror who is or will be directly involved in the subject project has or had within the last five (5) years: (i) directly or indirectly had a business relationship with Fulton County; (ii) directly or indirectly received revenues from Fulton County; or (iii) directly or indirectly receives revenues from the result of conducting business on Fulton County property or pursuant to any contract with Fulton County. Please describe in detail any such relationship.

**LITIGATION DISCLOSURE:**

Failure to fully and truthfully disclose the information required, may result in the disqualification of your bid or proposal from consideration or termination of the Contract, once awarded.

1. Please state whether any of the following events have occurred in the last five (5) years with respect to said Offeror. If any answer is yes, explain fully the following:
  - (a) whether a petition under the federal bankruptcy laws or state insolvency laws was filed by or against said Offeror, or a receiver fiscal agent or similar officer was appointed by a court for the business or property of said Offeror;
  - (b) whether Offeror was subject of any order, judgment, or decree not subsequently reversed, suspended or vacated by any court of competent jurisdiction, permanently enjoining said Offeror from engaging in any type of business practice, or otherwise eliminating any type of business practice; and
  - (c) whether said Offeror's business was the subject of any civil or criminal proceeding in which there was a final adjudication adverse to said Offeror, which directly arose from activities conducted by the business unit or corporate division of said Offeror which submitted a bid or proposal for the subject project. If so please explain.
2. Have you or any member of your firm or team to be assigned to this engagement ever been indicted or convicted of a criminal offense within the last five (5) years?

Circle One: YES NO

- 3. Have you or any member of your firm or team been terminated (for cause or otherwise) from any work being performed for Fulton County or any other Federal, State or Local Government ?

Circle One: YES NO

- 4. Have you or any member of your firm or team been involved in any claim or litigation adverse to Fulton County or any other federal, state or local government, or private entity during the last three (3) years?

Circle One: YES NO

- 5. Has any offeror, member of offeror's team, or officer of any of them (with respect to any matter involving the business practices or activities of his or her employer), been notified within the five (5) years preceding the date of this offer that any of them are the target of a criminal investigation, grand jury investigation, or civil enforcement proceeding?

Circle One: YES NO

If you have answered "YES" to any of the above questions, please indicate the name(s) of the person(s), the nature, and the status and/or outcome of the information, indictment, conviction, termination, claim or litigation, the name of the court and the file or reference number of the case, as applicable. Any such information should be provided on a separate page, attached to this form and submitted with your proposal.

**NOTE: If any response to any question set forth in this questionnaire has been disclosed in any other document, a response may be made by attaching a copy of such disclosure. (For example, said Offeror's most recent filings with the Securities and Exchange Commission ("SEC") may be provided if they are responsive to certain items within the questionnaire.) However, for purposes of clarity, Offeror should correlate its responses with the exhibits by identifying the exhibit and its relevant text.**

Disclosures must specifically address, completely respond and comply with all information requested and fully answer all questions requested by Fulton County. Such disclosure must be submitted at the time of the bid or proposal submission and included as a part of the bid/proposal submitted for this project. Disclosure is required for Offerors, joint venture partners and first-tier subcontractors.

Failure to provide required disclosure, submit officially signed and notarized documents or respond to any and all information requested/required by Fulton County can result in the bid/proposal declared as non-responsive. This document must be completed and included as a part of the bid/proposal package along with other required documents.

[SIGNATURES ON NEXT PAGE]

Under penalty of perjury, I declare that I have examined this questionnaire and all attachments hereto, if applicable, to the best of my knowledge and belief, and all statements contained hereto are true, correct, and complete.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2007

\_\_\_\_\_  
(Legal Name of Proponent) (Date)

\_\_\_\_\_  
(Signature of Authorized Representative) (Date)

\_\_\_\_\_  
(Title)

**Sworn to and subscribed before me,**

this \_\_\_\_\_ day of \_\_\_\_\_, 2007

\_\_\_\_\_  
(Notary Public) (Seal)

Commission Expires \_\_\_\_\_  
(Date)

**END OF SECTION NO. 3**

**SECTION 4****BID BOND REQUIREMENTS**

No bid for a contract in Fulton County for work to be done shall be valid for any purpose unless the Contractor shall give a Bid Bond with good and sufficient surety payable to, in favor of, and for the protection of Fulton County. The Bid Bond shall be in the amount of not less than 5% of the total amount payable by the terms of the Contract. No bid shall be read aloud or considered if a proper bid bond has not been submitted.

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

Attestation for the corporation must be by the corporate officer; for a partnership by another partner; for an individual by a notary with the corporate seal.

**BID BOND**

**R002 Bell Road Reuse Water Main Extension Phase 1  
FULTON COUNTY GOVERNMENT**

KNOW ALL MEN BY THESE PRESENTS, THAT WE \_\_\_\_\_

\_\_\_\_\_ hereinafter called the PRINCIPAL, and \_\_\_\_\_

\_\_\_\_\_ hereinafter call the SURETY, a corporation chartered and existing under the laws of the State of \_\_\_\_\_ and duly authorized to transact Surety business in the State of Georgia, are held and firmly bound unto the Fulton County Government, in the penal sum of \_\_\_\_\_ Dollars and Cents (\$ \_\_\_\_\_) good and lawful money of the United States of America, to be paid upon demand of the Fulton County Government, to which payment well and truly to be made we bind ourselves, our heirs, executors, and administrators and assigns, jointly and severally and firmly by these presents.

WHEREAS the PRINCIPAL has submitted to the Fulton County Government, for **R002 Bell Road Reuse Water Main Extension Phase 1**, a Bid;

WHEREAS the PRINCIPAL desires to file this Bond in accordance with law:

NOW THEREFORE: The conditions of this obligation are such that if the Bid be accepted, the PRINCIPAL shall within ten (10) calendar days after receipt of written notification from the COUNTY of the award of the Contract execute a Contract in accordance with the Bid and upon the terms, conditions and prices set forth therein, in the form and manner required by the Fulton County Government, and execute sufficient and satisfactory Performance and Payments Bonds payable to the Fulton County Government, each in the amount of one hundred (100%) percent of the total contract price in form and with security satisfactory to said Fulton County Government, 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 Fulton County Government, 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 the event suit is brought upon this Bond by the COUNTY and judgment is recovered, the SURETY shall pay all costs incurred by the COUNTY in such suit, including attorney's fees to be fixed by the Court.

Enclosed is a Bid Bond in the approved form, in the amount of

\_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

being in the amount of five (5%) percent of the CONTRACT Sum. The money payable on this bond shall be paid to the Fulton County Government, for the failure of the Bidder to execute a CONTRACT within ten (10) days after receipt of the Contract form and at the same time furnish a Payment Bond and Performance Bond.

IN TESTIMONY THEROF, the PRINCIPAL and SURETY have caused these presents to be duly signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

(Signatures on next page)

ATTEST:

\_\_\_\_\_  
PRINCIPAL

BY \_\_\_\_\_

(SEAL)

**CERTIFICATE AS TO CORPORATE PRINCIPAL**

I, \_\_\_\_\_, certify that I am the Secretary of the Corporation named as principal in the within bond; that \_\_\_\_\_

\_\_\_\_\_,  
Who signed the said bond of said corporation; that I know this signature, and his/her signature thereto is genuine; and that said bond was duly signed, sealed and attested for in behalf of said Corporation by authority of its governing body.

\_\_\_\_\_  
SECRETARY

(CORPORATE

SEAL)

\_\_\_\_\_  
SURETY

\_\_\_\_\_  
(SEAL) BY \_\_\_\_\_

**END OF SECTION NO. 4**

## SECTION 5

### CONTRACT COMPLIANCE REQUIREMENTS

#### NON-DISCRIMINATION IN CONTRACTING AND PROCUREMENT

**Policy Statement:** It is the policy of Fulton County Government that discrimination against businesses by reason of the race, color, gender or national origin of the ownership of any such business is prohibited. Furthermore, it is the policy of the Board of Commissioners ("Board") that Fulton County and all vendors and contractors doing business with Fulton County shall provide to all businesses the opportunity to participate in contracting and procurement paid, in whole or in part, with monetary appropriations of the Board. Similarly, it is the policy of the Board that the contracting and procurement practices of Fulton County should not implicate Fulton County as either an active or passive participant in the discriminatory practices engaged in by private contractors seeking to obtain contracts with Fulton County.

**Equal Business Opportunity Plan (EBO Plan):** In addition to the proposal submission requirements, each vendor **must** submit an Equal Business Opportunity Plan (EBO Plan) with their bid/proposal. The EBO Plan is designed to enhance the utilization of a particular racial, gender or ethnic group by a bidder/proposer, contractor, or vendor or by Fulton County. The respondent **must** outline a plan of action to encourage and achieve diversity and equality in the available procurement and contracting opportunities with *this solicitation*.

The EBO Plan **must** identify and include:

1. Potential opportunities within the scope of work of *this solicitation* that will allow for participation of racial, gender or ethnic groups.
2. Efforts that will be made by the bidder/proposer to encourage and solicit minority and female business utilization in this solicitation.

Fulton County encourages joint ventures, teaming, partnering and mentor-protégé relationships with minority and female businesses in an effort to achieve contracting and procurement diversity.

**Prompt Payment:** The prime contractor **must** certify in writing and **must** document on the Exhibit G Form (Prime Contractor/Subcontractor Utilization Report) that all subcontractors, sub-consultants and suppliers have been promptly paid for work and materials, (less any retainage by the prime contractor prior to receipt of any further progress payments). In the event the prime contractor is unable to pay subcontractors, sub-consultants or suppliers until it has received a progress payment from Fulton County, the prime contractor shall pay all subcontractors, sub-consultants or suppliers funds due from said progress payments within forty-eight (48) hours of receipt of payment from Fulton County. In no event shall a subcontractor, sub-consultant or supplier be paid later than fifteen (15) days as provided for by state law.

**REQUIRED FORMS AND EBO PLAN:**

In order to be compliant with the intent and provisions of the Fulton County Non-Discrimination in Purchasing and Contracting Ordinance (99-0960), bidders/proposers **must** submit the following completed documents. Failure to provide this information **shall** result in the bid/proposal being deemed non-responsive:

- **Exhibit A** - Promise of Non-Discrimination
- **Exhibit B** - Employment Report
- **Exhibit C** - Schedule of Intended Subcontractor Utilization
- **Exhibit D** - Letter of Intent to Perform As a Subcontractor or Provide Materials or Services
- **Exhibit E** - Declaration Regarding Subcontractor Practices
- **Exhibit F** - Joint Venture Disclosure Affidavit
- **Equal Business Opportunity Plan (EBO Plan)** – This document is not a form. It is a statement created by the bidder/proposer on its company letter head addressing the EBO Plan requirements.

All Contract Compliance documents (Exhibits A – F and EBO Plan) are to be placed in a **separate sealed envelope** clearly marked “Contract Compliance”. The EBO Plan must be submitted on company letterhead. These documents are considered part of and should be submitted with the Technical Proposal.

The following document **must** be completed as instructed if awarded the bid:

- **Exhibit G** - Prime Contractor’s Subcontractor Utilization Report

**EXHIBIT A – PROMISE OF NON-DISCRIMINATION**

“Know all persons by these presents, that I/WE ( \_\_\_\_\_ ),  
Name

\_\_\_\_\_ Title \_\_\_\_\_ Firm Name

Hereinafter “Company”), in consideration of the privilege to bid on or obtain contracts funded, in whole or in part, by Fulton County, hereby consent, covenant and agree as follows:

- 1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin or gender in connection with any bid submitted to Fulton County for the performance of any resulting there from,
- 2) That it is and shall be the policy of this Company to provide equal opportunity to all businesses seeking to contract or otherwise interested in contracting with this Company without regard to the race, color, gender or national origin of the ownership of this business,
- 3) That the promises of non-discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption,
- 4) That the promise of non-discrimination as made and set forth herein shall be made a part of, and incorporated by reference into, any contract or portion thereof which this Company may hereafter obtain,
- 5) That the failure of this Company to satisfactorily discharge any of the promises of non-discrimination as made and set forth herein shall constitute a material breach of contract entitling the Board to declare the contract in default and to exercise any and all applicable rights and remedies, including but not limited to cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and/or forfeiture of compensation due and owing on a contract; and
- 6) That the bidder shall provide such information as may be required by the Director of Contract Compliance pursuant to Section 4.4 of the Fulton County Non-Discrimination in Purchasing and Contracting Ordinance.

SIGNATURE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

**EXHIBIT B – EMPLOYMENT REPORT**

The demographic employment make-up for the bidder **must** be identified and submitted with this bid/proposal. In addition, if subcontractors will be utilized by the bidder/proposer to complete this project, then the demographic employment make-up of the subcontractor(s) must be identified and submitted with this bid.

EMPLOYEES

CATEGORY	NATIVE INDIAN		AFRICAN AMERICAN		ASIAN AMERICAN		HISPANIC AMERICAN		CACUSIAN AMERICAN		OTHER	
	M	F	M	F	M	F	M	F	M	F	M	F
Male/Female												
Mgmt/Official												
Professional (Arch., P.E., etc.)												
Supervisors												
Office/ Clerical												
Craftsmen												
Laborers												
Others (Specify)												
TOTALS												

FIRM'S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

This completed form is for (Check one) \_\_\_\_\_ Bidder/Proposer \_\_\_\_\_ Subcontractor

Submitted by: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**EXHIBIT C – SCHEDULE OF INTENDED SUBCONTRACTOR UTILIZATION**

If the bidder/proposer intends to subcontract any portion of this scope of work/service(s), this form **must be** completed and **submitted with the bid/proposal**. All prime bidders/proposers **must** include Letter(s) of Intent (Exhibit D) in the bid document for all subcontractors who will be utilized under the scope of work/services.

**Prime Bidder/Proposer:** \_\_\_\_\_

**ITB/RFP NUMBER:** \_\_\_\_\_

**Project Name or Description of Work/Service(s):** \_\_\_\_\_

\_\_\_\_\_

1. My firm, as Prime Bidder/Proposer on this scope of work/service(s) is \_\_\_\_\_ is not \_\_\_\_\_ a minority or female owned and controlled business. (Please indicate below the portion of work, including, percentage of bid amount that your firm will carry out directly):

\_\_\_\_\_

If the Prime Bidder/Proposer is a Joint Venture, please complete Exhibit F: Joint Venture Disclosure Affidavit and attach a copy of the executed Joint Venture Agreement.

2. Sub-Contractors (Including suppliers) to be utilized in the performance of this scope of work/service(s), if awarded, are:

SUBCONTRACTOR NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

PHONE: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

ETHNIC GROUP\*: \_\_\_\_\_ COUNTY CERTIFIED\*\* \_\_\_\_\_

WORK TO BE PERFORMED: \_\_\_\_\_

\_\_\_\_\_

DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: \_\_\_\_\_ %

**\*Ethnic Groups: African American (AABE); Asian American (ABE); Hispanic American (HBE); Native American (NABE); White Female American (WFBE); \*\*If yes, attach copy of recent certification letter.**

**EXHIBIT C – SCHEDULE OF INTENDED SUBCONTRACTOR UTILIZATION**

SUBCONTRACTOR NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

ETHNIC GROUP\*: \_\_\_\_\_ COUNTY CERTIFIED\*\* \_\_\_\_\_

WORK TO BE PERFORMED: \_\_\_\_\_

DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: \_\_\_\_\_ %

SUBCONTRACTOR NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

ETHNIC GROUP\*: \_\_\_\_\_ COUNTY CERTIFIED\*\* \_\_\_\_\_

WORK TO BE PERFORMED: \_\_\_\_\_

DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: \_\_\_\_\_ %

SUBCONTRACTOR NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

ETHNIC GROUP\*: \_\_\_\_\_ COUNTY CERTIFIED\*\* \_\_\_\_\_

WORK TO BE PERFORMED: \_\_\_\_\_

DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: \_\_\_\_\_ %

SUBCONTRACTOR NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

ETHNIC GROUP\*: \_\_\_\_\_ COUNTY CERTIFIED\*\* \_\_\_\_\_

WORK TO BE PERFORMED: \_\_\_\_\_

DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: \_\_\_\_\_ %

**\*Ethnic Groups: African American (AABE); Asian American (ABE); Hispanic American (HBE); Native American (NABE); White Female American (WFBE); \*\*If yes, attach copy of recent certification letter.**

**EXHIBIT C – SCHEDULE OF INTENDED SUBCONTRACTOR UTILIZATION**

**Total Dollar Value of Subcontractor Agreements: (\$)**

**Total Percentage Value: (%)**

**CERTIFICATION:** The undersigned certifies that he/she has read, understands and agrees to be bound by the Bid provisions, including the accompanying Exhibits and other terms and conditions regarding subcontractor utilization. The undersigned further certifies that he/she is legally authorized by the Bidder to make the statement and representation in this Exhibit and that said statements and representations are true and correct to the best of his/her knowledge and belief. The undersigned understands and agrees that if any of the statements and representations are made by the Bidder knowing them to be false, or if there is a failure of the intentions, objectives and commitments set forth herein without prior approval of the County, then in any such event the Contractor's acts or failure to act, as the case may be, shall constitute a material breach of the contract, entitling the County to terminate the Contract for default. The right to so terminate shall be in addition to, and in lieu of, any other rights and remedies the County may have for other defaults under the contract.

Signature/Title: \_\_\_\_\_

Firm or Corporate Name: \_\_\_\_\_

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

\_\_\_\_\_

Telephone: (     ) \_\_\_\_\_

Fax Number: (     ) \_\_\_\_\_

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

**EXHIBIT D**

**LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR  
OR  
PROVIDE MATERIALS OR SERVICES**

This form **must** be completed by **ALL** known subcontractors/suppliers and submitted with the bid. The Prime Contractor **must** submit Letters of Intent for ALL known subcontractors/suppliers at time of bid submission.

**To:** \_\_\_\_\_  
(Name of Prime Contractor Firm)

**From:** \_\_\_\_\_  
(Name of Subcontractor Firm)

**ITB/RFP Number:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

The undersigned is prepared to perform the following described work or provide materials or services in connection with the above project (specify in detail particular work items, materials, or services to be performed or provided):

Description of Work	Project Commence Date	Project Completion Date	Estimated Dollar Amount

\_\_\_\_\_  
(Prime Bidder)

\_\_\_\_\_  
(Subcontractor)

Signature \_\_\_\_\_ Signature \_\_\_\_\_

Title \_\_\_\_\_ Title \_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_

**EXHIBIT E – DECLARATION REGARDING SUBCONTRACTING PRACTICES**

If the bidder/proposer **does not intend to subcontract** any portion of the scope of work services(s), this form **must be** completed and submitted with the bid.

\_\_\_\_\_ Hereby declares that it is my/our intent to  
**(Bidder)**

Perform 100% of the work required for \_\_\_\_\_  
**(IFB/RFP Number)**

\_\_\_\_\_  
**(Description of Work)**

In making this declaration, the bidder/proposer states the following:

1. That the bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform **all elements** of the work on this project with his/her own current work forces;
2. If it should become necessary to subcontract some portion of the work at a later date, the bidder will comply with all requirements of the County's Non-Discrimination Ordinance in providing equal opportunities to all firms to subcontract the work. The determination to subcontract some portion of the work at a later date shall be made in good faith and the County reserves the right to require additional information to substantiate a bidder's decision to subcontract work following the award of the contract. Nothing contained in this provision shall be employed to circumvent the spirit and intent of the County's Non-Discrimination Ordinances;
3. The bidder will provide, upon request, information sufficient for the County to verify Item Number one.

**AUTHORIZED COMPANY REPRESENTATIVE**

**Name:** \_\_\_\_\_ **Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Firm:** \_\_\_\_\_

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

**Phone Number:** \_\_\_\_\_

**Fax Number:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**EXHIBIT F – JOINT VENTURE DISCLOSURE AFFIDAVIT**

**IFB No.** \_\_\_\_\_

**Project Name** \_\_\_\_\_

This form must be completed and submitted with the bid if a Joint Venture approach is to be undertaken.

The firms listed below do hereby declare that they have entered into a joint venture agreement pursuant to the above mentioned project. The information requested below is to clearly identify and explain the extent of participation of each firm in the proposed joint venture. All items must be properly addressed before the business entity can be evaluated.

1. Firms:

1) Name of Business: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_  
 County: \_\_\_\_\_  
 Nature of Business: \_\_\_\_\_

2) Name of Business: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_  
 County: \_\_\_\_\_  
 Nature of Business: \_\_\_\_\_

3) Name of Business: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_  
 County: \_\_\_\_\_  
 Nature of Business: \_\_\_\_\_

**NAME OF JOINT VENTURE (If applicable):** \_\_\_\_\_

**OFFICE ADDRESS:** \_\_\_\_\_

**PRINCIPAL OFFICE:** \_\_\_\_\_

**OFFICE PHONE:** \_\_\_\_\_

**EXHIBIT F – JOINT VENTURE DISCLOSURE AFFIDAVIT**

Note: Attach additional sheets as required

1. Describe the capital contributions by each joint venturer and accounting thereof. Indicate the percentage make-up for each joint venture partner.
2. Describe the financial controls of the joint venture, e.g., will a separate cost center be established? Which venturer will be responsible for keeping the books? How will the expense therefore be reimbursed? What is the authority of each joint venture to commit or obligate the order?
3. Describe any Ownership, options for Ownership, or loans between the joint ventures. Identify terms thereof.
4. Describe the estimate contract cash flow for each joint venturer.
5. To what extent and by whom will the on-site work be supervised?
6. To what extent and by whom will the administrative office be supervised?
7. Which joint venturer will be responsible for material purchases including the estimated cost thereof? How will the purchase be financed?
8. Which joint venturer will provide equipment? What is the estimated cost thereof? How will the equipment be financed?
9. Describe the experience and business qualifications of each joint venturer.
10. Submit a copy of all joint venture agreements and evidence of authority to do business in the State of Georgia as well as locally, to include all necessary business licenses.
11. Percent of ownership by each joint venture in terms of profit and loss sharing: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
12. The authority of each joint venturer to commit or obligate the other: \_\_\_\_\_  
\_\_\_\_\_
13. Number of personnel to be involved in project, their crafts and positions and whether they are employees of the small business enterprise, the majority firm or the joint venture: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**EXHIBIT F – JOINT VENTURE DISCLOSURE AFFIDAVIT**

14. Identification of control and participation in venture; list those individuals who are responsible for day-to-day management and policy decision-maker, including, but not limited to, those with prime responsibility for areas designated below; (use additional sheets if necessary)

<u>Name</u>	<u>Race</u>	<u>Sex</u>	<u>Financial Decisions</u>	<u>Supervision Field Operation</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

In connection with any work that these firms, as a joint venture, might be authorized to perform in connection with above captioned contract, we each do hereby authorize representatives of the Fulton County Department of Purchasing and Contract Compliance and Departments of Finance, under the direction of the County Manger’s Office, to examine, from time to time, the books, records and files to the extent that such relate to this County project.

**WE DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, AND THAT WE ARE AUTHORIZED, ON BEHALF OF THE ABOVE FIRMS, TO MAKE THIS AFFIDAVIT AND GRANT THE ABOVE PRIVILEGE.**

FOR: \_\_\_\_\_  
(Company)

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

\_\_\_\_\_  
(Signature of Affiant)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Company)

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

\_\_\_\_\_  
(Signature of Affiant)

\_\_\_\_\_  
(Printed Name)

State of \_\_\_\_\_:

County of \_\_\_\_\_:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, before me, appeared

\_\_\_\_\_, the undersigned known to me to be the person described in the foregoing Affidavit and acknowledge that he (she) executed the same in the capacity therein stated and for the purpose therein contained.



## SECTION 6

### INSURANCE AND RISK MANAGEMENT PROVISIONS

It is Fulton County Government's practice to obtain Certificates of Insurance from our Contractors and Vendors. Insurance must be written by a licensed agent in a company licensed to write insurance in the State of Georgia, with an A.M. Best rating of at least A- VI, subject to final approval by Fulton County. Respondents shall submit with the bid/proposal evidence of insurability satisfactory to Fulton County Government as to form and content. Either of the following forms of evidence is acceptable:

- A letter from an insurance carrier stating that upon your firm/company being the successful Bidder/Respondent that a Certificate of Insurance shall be issued in compliance with the Insurance and Risk Management Provisions outlined below.
- A Certificate of Insurance complying with the Insurance and Risk Management Provisions outlined below (Request for Bid/Proposal number and Project Name, Number and Description must appear on the Certificate of Insurance).

Upon award, the Contractor/Vendor must maintain at their expense, insurance with policy limits equal to or greater than the limits described below. Any and all Insurance Coverage(s) and Bonds required under the terms and conditions of the contract shall be maintained during the entire length of the contract, including any extensions or renewals thereto, and until all work has been completed to the satisfaction of Fulton County Government.

Accordingly the Respondent shall provide a certificate evidencing the following:

**1. WORKERS COMPENSATION/EMPLOYER'S LIABILITY INSURANCE – STATUTORY (In compliance with the Georgia Workers Compensation Acts and any other State or Federal Acts or Provisions in which jurisdiction may be granted)**

Employer's Liability Insurance	BY ACCIDENT	EACH ACCIDENT	\$1,000,000
Employer's Liability Insurance	BY DISEASE	POLICY LIMIT	\$1,000,000
(Aggregate)	BY DISEASE	EACH EMPLOYEE	\$1,000,000

**2. COMMERCIAL GENERAL LIABILITY INSURANCE (Including contractual Liability Insurance)**

Bodily Injury and Property Damage Liability	Each Occurrence	\$1,000,000
(Other than Products/Completed Operations)	General Aggregate	\$2,000,000
Products\Completed Operation	Aggregate Limit	\$2,000,000
Personal and Advertising Injury	Limits	\$1,000,000
Fire Damage	Limits	\$100,000

**3. BUSINESS AUTOMOBILE LIABILITY INSURANCE**

<b>Combined Single Limits</b>	Each Occurrence	\$1,000,000
(Including operation of non-owned, owned, and hired automobiles).		

**4. ELECTRONIC DATA PROCESSING LIABILITY**

(Required if computer contractor)	Limits	\$1,000,000
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**5. UMBRELLA LIABILITY**

(In excess of above noted coverages)	Each Occurrence	\$10,000,000
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**6. PROFESSIONAL LIABILITY**

Each Occurrence \$5,000,000

(To be provided when the Contract includes specified Professional Services, and will be written with all Environmental/Pollution exclusions deleted).

**7. ENVIRONMENTAL/POLLUTION LIABILITY**

Each Occurrence \$2,000,000

**8. FIDELITY BOND**

(Employee Dishonesty)

Each Occurrence \$ 100,000

- 9. BUILDERS RISK:** "All-risk" form of builder's risk insurance providing coverage against loss or damage by fire or other peril on an "all-risk" form, including demolition and increased cost of construction, debris removal and the full replacement cost of the Project foundations and containing an agreed amount endorsement, and, 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	\$1,000

**Deductibles:**

Flood and Earthquake	\$25,000
Water Damage other than Flood	\$100,000
All other Perils	\$10,000

Owner and Contractor waive all rights against each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section, or other property insurance applicable to the Work, accept such rights as they have to the proceeds of such insurance.

The policy will name Fulton County, The Contractor and Subcontractors of all tiers as Insureds under the policy.

**Certificates of Insurance**

Certificates shall state that the policy or policies shall not expire, be cancelled or altered without at least forty-five (45) days prior written notice to Fulton County Government. Policies and Certificates of Insurance are to list Fulton County Government as an Additional Insured (except for Workers' Compensation) and shall conform to all terms and conditions (including coverage of the indemnification and hold harmless agreement) contained in the Insurance and Risk Management Provisions. The General Liability Additional Insured language should apply to on-going and completed-operations, using ISO form CG 2010 (11/85 version) or equivalent.

If Fulton County Government shall so request, the Respondent, Contractor or Vendor 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.

Such certificates and notices **must** identify the "Certificate Holder" as follows:

Fulton County Government – Purchasing Department  
130 Peachtree Street, S.W.  
Suite 1168  
Atlanta, Georgia 30303-3459

Certificates **must** list Project Name and Project Number.

It is understood that **Insurance in no way Limits the Liability of the Contractor/Vendor.**

#### **USE OF PREMISES**

Contractor shall confine its apparatus, the storage of materials and the operations of its workers to limits/requirements indicated by law, ordinance, permits and any restrictions of Fulton County Government and shall not unreasonably encumber the premises with its materials.

#### **PROTECTION OF PROPERTY**

Contractor will adequately protect its own work from damage, will protect Fulton County Government's property from damage or loss and will take all necessary precautions during the progress of the work to protect all persons and the property of others from damage or loss.

Contractor shall take all necessary precautions for the safety of employees of the work and shall comply with all applicable provisions of the Federal, State and local safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where work is being performed.

Contractor shall erect and properly maintain at all times as required by the conditions and progress of the work, all necessary safeguards for the protection of its employees, Fulton County Government employees and the public and shall post all applicable signage and other warning devices to protect against potential hazards for the work being performed.

#### **INDEMNIFICATION AND HOLD HARMLESS AGREEMENT**

Contractor/Vendor hereby agrees to release, indemnify, defend and hold harmless Fulton County, its Commissioners, officers, employees, subcontractors, successors, assigns and agents, from and against any and all losses (including death), claims, damages, liabilities, costs and expenses (including but not limited to all actions, proceedings, or investigations in respect thereof and any costs of judgments, settlements, court costs, attorney's fees or expenses, regardless of the outcome of any such action, proceeding, or investigation), caused by, relating to, based upon or arising out of any act or omission by Contractor/Vendor, its directors, officers, employees, subcontractors, successors, assigns or agents, or otherwise in connection (directly or indirectly) with its acceptance, or the performance, or nonperformance, of its obligations under these agreements. Such obligations shall not be construed to negate, abridge or otherwise reduce any other rights or obligations of indemnity which would otherwise exist as to any party or person as set forth in this paragraph.

Contractor/Vendor's obligation to protect, defend, indemnify and hold harmless, as set forth hereinabove, shall also include, but is not limited to, any matter arising out of any actual or alleged infringement of any patent, trademark, copyright, or service mark, or other actual or alleged unfair competition disparagement of product or service, or other tort or any type whatsoever, or any actual or alleged violation of trade regulations.

Contractor/Vendor further agrees to protect, defend, indemnify and hold harmless Fulton County, its Commissioners, officers, employees, subcontractors, successors, assigns and agents from and against any and all claims or liability for compensation under the Worker's Compensation Act, Disability Benefits Act, or any other employee benefits act arising out of injuries sustained by any employees of Contractor/Vendor. These indemnities shall not be limited by reason of the listing of any insurance coverage.

***If the bid/quotation involves construction services Contractor/Vendor will be responsible fully for any and all damage to the work during the course of construction, until the point of Final acceptance by Fulton County.***

FULTON COUNTY ACKNOWLEDGES THAT ALL PROVISIONS OF THIS INDEMNITY AGREEMENT MAY NOT BE APPLICABLE TO THE CONTRACTOR/VENDOR'S BUSINESS. TO THE EXTENT THAT CONTRACTOR/VENDOR MAY DEMONSTRATE SUCH NONAPPLICABILITY, FULTON COUNTY MAY NEGOTIATE AMENDMENTS TO THIS AGREEMENT AS THE CIRCUMSTANCES DICTATE.

CONTRACTOR/VENDOR ACKNOWLEDGES HAVING READ, UNDERSTANDING, AND AGREEING TO COMPLY WITH THIS INDEMNIFICATION AND HOLD HARMLESS AGREEMENT, AND THE REPRESENTATIVE OF THE CONTRACTOR/VENDOR IDENTIFIED BELOW IS AUTHORIZED TO SIGN CONTRACTS ON BEHALF OF THE RESPONDING CONTRACTOR/VENDOR.

COMPANY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

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

**SECTION 7  
CONTRACTUAL AGREEMENT**

**R002 Bell Road Reuse Water Main Extension Phase 1**

Contractor: \_\_\_\_\_ Project No. \_\_\_\_\_

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

Contact: \_\_\_\_\_ Facsimile: \_\_\_\_\_

THIS AGREEMENT is effective as of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between Fulton County, a political subdivision of the State of Georgia (hereinafter called the "County"), and the above named CONTRACTOR in accordance with all provisions of this Construction agreement, consisting of the following Contract Documents:

- General Conditions
- Special Conditions
- Bid Form
- Quantities and Pricing
- Scope of Work and Technical Specifications
- Drawings and Specifications
- Exhibits
- Insurance Forms
- Purchasing Forms
- Office of Contract Compliance Forms

WITNESSETH: That the said Contractor has agreed, and by these presents does agree with the said County, for an in consideration of a Contract Price of \_\_\_\_\_ (\$\_\_\_\_\_) and other good and valuable consideration, and under the penalty expressed on Bonds hereto attached, to furnish all equipment, tools, materials, skill, and labor of every description necessary to carry out and complete in good, firm, and substantial, and workmanlike manner, the Work specified, in strict conformity with the Drawings and the Specifications hereinafter set forth, which Drawings and Specifications together with the bid submittals made by the Contractor, General Conditions, Special Provisions, Detailed Specifications, Exhibits, and this Agreement, shall all form essential parts of this Contract. The Work covered by this Contract includes all Work indicated on Plans and Specifications and listed in the Bid entitled:

Project Number: R002

Bell Road Reuse Water Main Extension Phase 1

The Contractor shall commence the Work with adequate force and equipment within 10 days from receipt of Notice to Proceed from the County, and shall complete the work within 120 calendar days from the Notice to Proceed or the date work begins, whichever comes first. The Contractor shall remain responsible for performing, in accordance with the terms of the contract, all work assigned prior to the expiration of the said calendar days allowed for completion of the work even if the work is not completed until after the expiration of such days.

*For each calendar day that any work remains uncompleted after the time allowed for completion of the work, the Contractor shall pay the County the sum of \$ 1,000.00 not as a penalty but as liquidated damages, which liquidated damages the County may deduct from any money due the contractor. At the County's convenience and not to it prejudice the County may provide written notice of the commencement of the assessment of liquidated damages.*

As full compensation for the faithful performance of this Contract, the County shall pay the Contractor in accordance with the General Conditions and the prices stipulated in the Bid, hereto attached.

It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Surety Bonds hereto attached for its faithful performance, 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 his expense, within five days after receipt of notice from the County so to do, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the County. In such event no further payment to the Contractor shall be deemed to be due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the County.

The Contractor hereby assumes the entire responsibility and liability for any and all injury to or death of any and all persons, including the Contractor's agents, servants, and employees, and in addition thereto, for any and all damages to property caused by or resulting from or arising out of any act or omission in connection with this contract or the prosecution of work hereunder, whether caused by the Contractor or the Contractor's agents, Servants, or employees, or by any of the Contractor's subcontractors or suppliers, and the Contractor shall indemnify and hold harmless the County, the Construction Manager, or any of their subcontractors from and against any and all loss and/or expense which they or any of them may suffer or pay as a result of claims or suits due to, because of, or arising out of any and all such injuries, deaths and/or damage, irrespective of County or Construction Manager negligence (except that no party shall be indemnified for their own sole negligence). The Contractor, if requested, shall assume and defend at the Contractor's own expense, any suit, action or other legal proceedings arising there from, and the Contractor hereby agrees to satisfy, pay, and cause to be discharged of record any judgment which may be rendered against the County and the Construction Manager arising there from.

In the event of any such loss, expense, damage, or injury, or if any claim or demand for damages as heretofore set forth is made against the County or the Construction Manager, the County may withhold from any payment due or thereafter to become due to the Contractor under the terms of this Contract, an amount sufficient in its judgment to protect and indemnify it and the Construction Manager from any and all claims, expense, loss, damages, or injury; and the County, in its discretion, may require the Contractor to furnish a surety bond satisfactory to the County providing for such protection and indemnity, which bond shall be furnished by the Contractor within five (5) days after written demand has been made therefore. The expense of said Bond shall be borne by the Contractor. **[See General Conditions for similar provisions]**

This Contract constitutes the full agreement between the parties, and the Contractor 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 consent of the County in writing. Subject to applicable provisions of law, this Contract shall be in full force and effect as a Contract, from the date on which a fully executed and approved counterpart hereof is delivered to the Contractor and shall remain and continue in full force and effect until after the expiration of any guarantee period and the Contractor and his sureties are finally released by the County.

This agreement was approved by the Fulton County Board of Commissioner on [Insert approval date and item number].

[SIGNATURES NEXT PAGE]

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

NAME OF CONTRACTOR  
By: \_\_\_\_\_

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

Seal (Affix)

Attest:  
  
By: \_\_\_\_\_  
Mark Massey, Clerk to the Commission

FULTON COUNTY, GEORGIA  
  
By: \_\_\_\_\_  
Karen Handel, Chair  
Board of Commissioners

APPROVED AS TO FORM:  
  
By: \_\_\_\_\_  
County Attorney

APPROVED AS TO CONTENT:  
  
By: \_\_\_\_\_  
Assistant Director of Public Works

**END OF SECTION NO. 7**

**SECTION 8A**

**PERFORMANCE BOND REQUIREMENTS**

No contract with Fulton County for work to be done shall be valid for any purpose unless the Contractor shall give a Performance Bond with good and sufficient surety payable to, in favor of and for the protection of Fulton County. The Performance Bond shall be in the amount of at 100% of the total contract amount payable by the terms of the Contract and shall be written on the enclosed form.

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

Attestation for the corporation must be by the corporate officer; for a partnership by another partner; for an individual by a notary with the corporate seal.

**PERFORMANCE BOND**

**KNOW ALL MEN BY THESE PRESENTS** [INSERT CONTRACTOR NAME] (hereinafter called the "Principal") and [insert name of surety] (hereinafter called the "Surety"), are held and firmly bound unto **FULTON COUNTY**, a political subdivision of the State of Georgia (hereinafter called the "Owner") and their successors and assigns, the penal sum of [100% of 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 (Contract) with the Owner, dated \_\_\_\_\_, which is incorporated herein by reference in its entirety, for the **Bell Road Reuse Water Main Extension Phase 1**, more particularly described in the Contract (herein 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 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 Owner to be, in default under the Construction-Type Contract, the Surety shall promptly remedy the default as follows:

1. Complete the Contract in accordance with its terms and conditions; or, at the sole option of the Owner,
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 Owner of the lowest responsible bidder, arrange for a contract between such bidder and Owner 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 Owner the funds required by this Paragraph prior to the payment of the Owner 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 Owner to the Contractor under the Contract, and any amendments thereto, less the amount paid by the Owner to the Contractor; or, at the sole option of the Owner,
3. Allow Owner to complete the work and reimburse the Owner 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 Owner 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 Owner 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 Owner in making good any such failure of 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 Owner 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 the 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.

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

This Bond is intended to comply with O.C.G.A. Section 36-91-1 et seq., 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 Owner beyond that contemplated by O.C.G.A. Section 36-91-1 et seq. and O.C.G.A. Section 13-10-1, as amended, or any other statutory law applicable to this Project, then the additional protection shall be enforced in favor of the Owner, whether or not such protection is found in the applicable statutes.

**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 \_\_\_\_\_, \_\_\_\_\_.

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

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

Attest:

\_\_\_\_\_  
Secretary

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

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

Attest:

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
(Address of Surety's Home Office)

\_\_\_\_\_  
(Resident Agent of Surety)

**END OF SECTION NO. 8A**

**SECTION 8B****PAYMENT BOND REQUIREMENTS**

No Contract with Fulton County for work to be done shall be valid for any purpose unless the Contractor shall give a Payment Bond with good and sufficient surety payable to Fulton County for the use and protection of all sub-contractors and all persons supplying labor, materials, machinery, and equipment in the prosecution of the work provided for in the Contract. The Payment Bond shall be in the amount of 100% of the total contract amount payable by the terms of the Contract and shall be written on the following form.

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

Attestation for the corporation must be by the corporate officer; for a partnership by another partner; for an individual by a notary with the corporate seal.

**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 **FULTON COUNTY**, a political subdivision of the State of Georgia (hereinafter called the "Owner"), its successors and assigns as obligee, in the penal sum of [100% of 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 Owner, dated [insert date of contract], which is incorporated herein by reference in its entirety (hereinafter called the "Contract"), for construction-type services of a project known as **R002 Bell Road Reuse Water Main Extension Phase 1**, 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.

1. A "Claimant" shall be defined herein as any subcontractor, person, party, partnership, corporation or the 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.

2. In the event a Claimant files a lien against the property of the Owner, and the Principal fails or refuses to satisfy or remove it promptly, the Surety shall satisfy or remove the lien promptly upon written notice from the Owner, either by bond or as otherwise provided in the Contract.

3. The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in the 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, changes in payment terms, and amendments.

4. The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment or modifications 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.

5. 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-type services to be performed or supplied under the Contract, and any amendments thereto, and they and each of them may sue hereon.

6. 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.

7. This Bond is intended to comply with O.C.G.A. Section 13-10-1, 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 Owner beyond that contemplated by O.C.G.A. Section 13-10-1, or any other statutory law applicable to this Project, then the additional protection shall be enforced in favor of the Owner, 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 obligations to be signed by their duly authorized representatives this \_\_\_\_\_ of \_\_\_\_\_.

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

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

Attest:

\_\_\_\_\_  
Secretary

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

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

Attest:

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
(Address of Surety's Home Office)

\_\_\_\_\_  
(Resident Agent of Surety)

END OF SECTION NO. 8B

**SECTION 9**

## GENERAL CONDITIONS:

00700-1 FAMILIARITY WITH SITE

Execution of this agreement by the Contractor is a representation that the Contractor has visited the site, has become familiar with the local conditions under which the work is to be performed, and has correlated personal observations with the requirements of this agreement.

00700-2 CONTRACT DOCUMENTS

This agreement consists of Owner's invitation for bid, instructions to bidders, bid form, performance bond, payment bond, acknowledgments, the contract, general conditions, special conditions, specifications, plans, drawings, exhibits, addenda, and written change orders.

- A. Notice of Award of Contract:
- B. Execution of Contract Documents

Upon notification of Award of Contract, the Owner shall furnish the Contractor the conformed copies of Contract Documents for execution by the Contractor and the Contractor's surety.

Within ten (10) days after receipt the Contractor shall return all the documents properly executed by the Contractor and the Contractor's surety. Attached to each document shall be an original power-of-attorney for the person executing the bonds for the surety and certificates of insurance for the required insurance coverage.

After receipt of the documents executed by the Contractor and his surety with the power-of-attorney and certificates of insurance, the Owner shall complete the execution of the documents. Distribution of the completed documents will be made upon completion.

Should the Contractor and/or Surety fail to execute the documents within the time specified; the Owner shall have the right to proceed on the Bid Bond accompanying the bid.

If the Owner fails to execute the documents within the time limit specified, the Contractor shall have the right to withdraw the Contractor's bid without penalty.

## Drawings and Specifications:

The Drawings, Specifications, and Contract Documents, are considered essential parts of the Contract, and requirements occurring in one are as binding as though occurring in all. They are intended to define, describe and provide for all Work necessary to complete the Project in an acceptable manner, ready for use, occupancy, or operation by the Owner.

In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings.

In cases where products or quantities are omitted from the Specifications, the description and quantities shown on the Drawings shall govern.

Any ambiguities or need for clarification of the Drawings or Specifications shall be immediately reported to the Construction Manager in writing. Any such ambiguity or need for clarification shall be handled by the Construction Manager in writing. No clarification of the Drawings and Specifications hereunder by the Construction Manager shall entitle the Contractor to any additional monies unless a Change Order has been processed as provided by "Changes in the Contract" hereof.

Any work done by the Contractor following a discovery of such differing site condition or ambiguity or need for clarification in the Contract Drawings and Specifications prior to a written report to the Construction Manager shall not entitle the Contractor to additional monies and shall be done at the Contractor's risk.

The Construction Manager will furnish the Contractor five (5) copies of the Contract Drawings and the Specifications, one copy of which the Contractor shall have available at all times on the Project site.

### 00700-3 DEFINITIONS

The following terms as used in this agreement are defined as follows to the extent the definitions herein differ or conflict with those in the Instructions for Bidders, Section 00100, the definitions herein shall control.

Change Order - A written order to the Contractor issued by the County pursuant to Fulton County Policy and Procedures 800-6 for changes in the work within the general scope of the contract documents, adjustment of the contract price, extension of the contract time, or reservation of determination of a time extension.

Construction Manager or Engineer shall mean Fulton Construction Management Partners, the County authorized representative for this project.

Contractor shall mean the party of the second part to the Contract Agreement or the authorized and legal representative of such party.

Contract Documents include the Contract Agreement, Contractor's Bid (including all documentation accompanying the Bid and any post-Bid documentation required by the County prior to the Notice of Award), Bonds, all Special Conditions, General Conditions, Supplementary Conditions, Specifications, Drawings and addenda, together with written amendments, change orders, field orders and the Construction Manager's written interpretations and clarifications issued in accordance with the General Conditions on or after the date of the Contract Agreement.

Shop drawing submittals reviewed in accordance with the General Conditions, geotechnical investigations and soils report and drawings of physical conditions in or relating to existing surface structures at or contiguous to the site are not Contract Documents.

Contract Price - The sum specified in the Agreement to be paid to the Contractor in consideration of the Work.

Contract Time shall mean the number of consecutive calendar days as provided in the Contract Agreement for completion of the Work, to be computed from the date of Notice to Proceed.

Owner or County shall mean Fulton County Government, party of the first part to the Contract Agreement, or its authorized and legal representatives.

Day - A calendar day of twenty-four hours lasting from midnight of one day to midnight the next day.

Design Consultant shall mean the firm or corporation responsible for the detailed design drawings and specifications.

Director - Director of the Department of Public Works of Fulton County, Georgia or the designee thereof.

Final Completion shall mean the completion of all work as required in accordance with the terms and conditions of the contract documents.

Liquidated Damages shall mean the amount, stated in the Contract Agreement, which the Contractor agrees to pay to the Owner for each consecutive calendar day beyond the Contract time required to complete the Project or for failing to comply with associated milestones. Liquidated Damages will end upon written notification from the Owner of Final Acceptance of the Project or upon written notification of from the Owner of completion of the milestone.

Notice to Proceed - A written communication issued by the County to the Contractor authorizing it to proceed with the work, establishing the date of commencement and completion of the work, and providing other direction to the Contractor.

Products shall mean materials or equipment permanently incorporated into the work.

Program Manager - Not used in this contract. Delete all references.

Project Manual - The Contract Documents.

Provide shall mean to furnish and install.

Substantial Completion - The date certified by the Construction Manager when all or a part of the work, as established pursuant to General Condition 0700-81, is sufficiently completed in accordance with the requirements of the contract documents so that the identified portion of the work can be utilized for the purposes for which it is intended.

Work or Project - All of the services specified, indicated, shown or contemplated by the contract documents, and furnishing by the Contractor of all materials, equipment, labor, methods, processes, construction and manufacturing materials and equipment, tools, plans, supplies, power, water, transportation and other things necessary to complete such services in accordance with the contract documents to insure a functional and complete facility.

#### 00700-4 CODES

All codes, specifications, and standards referenced in the contract documents shall be the latest editions, amendments and revisions of such referenced standards in effect as of the date of the request for proposals for this contract.

#### 00700-5 REVIEW OF CONTRACT DOCUMENTS

Before making its proposal to the County, and continuously after the execution of the agreement, the Contractor shall carefully study and compare the contract documents and shall at once report to the Construction Manager any error, ambiguity, inconsistency or omission that may be discovered, including any requirement which may be contrary to any law, ordinance, rule, or regulation of any public authority bearing on the performance of the work. By submitting its proposal, the Contractor agrees that the contract documents, along with any supplementary written instructions issued by or through the Construction Manager that have become a part of the contract documents, appear accurate, consistent and complete insofar as can be reasonably determined. If the Contractor has timely reported in writing any error, inconsistency, or omission to the Construction Manager, has properly stopped the affected work until instructed to proceed, and has otherwise followed the instructions of the Construction Manager, the Contractor shall not be liable to the County for any damage resulting from any such error, inconsistency, or omission in the contract documents. The Contractor shall not perform any portion of the work without the contract documents, approved plans, specifications, products and data, or samples for such portion of the work. For purposes of this section "timely" is defined as the time period in which the contractor discovers, or should have discovered, the error, inconsistency, or omission, with the exercise of reasonable diligence.

#### 00700-6 STRICT COMPLIANCE

No observation, inspection, test or approval of the County or Construction Manager shall relieve the Contractor from its obligation to perform the work in strict conformity with the contract documents except as provided in General Condition 00700-48.

#### 00700-7 APPLICABLE LAW

All applicable State laws, County ordinances, codes, and rules and regulations of all authorities having jurisdiction over the construction of the project shall apply to this agreement. The Contractor shall comply with the requirements of any Fulton County program concerning non-discrimination in contracting.. All work performed within the right of way of the Georgia Department of Transportation and any railroad crossing shall be in accordance with Georgia Department of Transportation regulations, policies and procedures and, where applicable, those of any affected railroad. The Contractor shall comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work as specified and the Contractor agrees to indemnify and hold harmless the County, its officers, agents and employees, as well as the Construction Manager and the Program Manager against any claim or liability arising from or

based on the violation of any law, ordinance, regulation, order or decree affecting the conduct of the work, whether occasioned by the Contractor, his agents or employees.

#### 00700-8 PERMITS, LICENSES AND BONDS

All permits and licenses necessary for the work shall be secured and paid for by the Contractor. If any permit, license or certificate expires or is revoked, terminated, or suspended as a result of any action on the part of the Contractor, the Contractor shall not be entitled to additional compensation or time. The Contractor shall obtain and keep in force at all times performance and payment bonds payable to Fulton County in penal amounts equal to 100% of the Contract price.

#### 00700-9 TAXES

- A. The Contractor shall pay all sales, retail, occupational, service, excise, old age benefit and unemployment compensation taxes, consumer, use and other similar taxes, as well as any other taxes or duties on the materials, equipment, and labor for the work provided by the Contractor which are legally enacted by any municipal, county, state or federal authority, department or agency at the time bids are received, whether or not yet effective. The Contractor shall maintain records pertaining to such taxes and levies as well as payment thereof and shall make the same available to the County at all reasonable times for inspection and copying. The Contractor shall apply for any and all tax exemptions which may be applicable and shall timely request from the County such documents and information as may be necessary to obtain such tax exemptions. The County shall have no liability to the Contractor for payment of any tax from which it is exempt.
- B. 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. All taxes shall be paid by the Contractor. All refunds will accrue to the Owner.

Acceptance of the project as complete and final payment will not be made by the Owner until the Contractor has fully complied with this requirement.

#### 00700-10 DELINQUENT CONTRACTORS

The County shall not pay any claim, debt, demand or account whatsoever to any person firm or corporation who is in arrears to the County for taxes. The County shall be entitled to a counterclaim, backcharge, and offset for any such debt in the amount of taxes in arrears, and no assignment or transfer of such debt after the taxes become due shall affect the right of the County to offset any taxes owed against said debt.

#### 00700-11 LIEN WAIVERS

The Contractor shall furnish the County with evidence that all persons who have performed work or furnished materials pursuant to this agreement have been paid in full prior to submitting its demand for final payment pursuant to this agreement. A final affidavit, Exhibit A, must be completed, and submitted to comply with requirements of 00700-11. In the event that such evidence is not furnished, the County may retain sufficient sums necessary to meet all lawful claims of such laborers and materialmen. The County assumes no obligation nor in any way undertakes to pay such lawful claims from any funds due or that may become due to the Contractor.

#### 00700-12 MEASUREMENT

All items of work to be paid for per unit of measurement shall be subject to inspection, measurement, and confirmation by the Construction Manager.

00700-13 ASSIGNMENT

The Contractor shall not assign any portion of this agreement or moneys due there from (include factoring of receivables) without the prior written consent of the County. The Contractor shall retain personal control and shall provide personal attention to the fulfillment of its obligations pursuant to this agreement. Any assignment without the express written consent of the County shall render this contract voidable at the sole option of the County.

00700-14 FOREIGN CONTRACTORS

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

00700-15 INDEMNIFICATION [there are two indemnification clauses, the other is in the Contract Cover Sheet]

The Contractor hereby assumes the entire responsibility and liability for any and all injury to or death of any and all persons, including the Contractor's agents, servants, and employees, and in addition thereto, for any and all damages to property caused by or resulting from or arising out of any act or omission in connection with this contract or the prosecution of work hereunder, whether caused by the Contractor or the Contractor's agents, servants, or employees, or by any of the Contractor's subcontractors or suppliers, and the Contractor shall indemnify and hold harmless the County, the Construction Manager and the Program Manager, or any of their subcontractors from and against any and all loss and/or expense which they or any of them may suffer or pay as a result of claims or suits due to, because of, or arising out of any and all such injuries, deaths and/or damage, irrespective of County or Construction Manager or Program Manager negligence (except that no party shall be indemnified for their own sole negligence). The Contractor, if requested, shall assume and defend at the Contractor's own expense, any suit, action or other legal proceedings arising there from, and the Contractor hereby agrees to satisfy, pay, and cause to be discharged of record any judgment which may be rendered against the County, the Construction Manager and the Program Manager arising there from.

In the event of any such loss, expense, damage, or injury, or if any claim or demand for damages as heretofore set forth is made against the County or the Construction Manager or the Program Manager, the County may withhold from any payment due or thereafter to become due to the Contractor under the terms of this Contract, an amount sufficient in its judgment to protect and indemnify it and the Construction Manager and the Program Manager from any and all claims, expense, loss, damages, or injury; and the County, in its discretion, may require the Contractor to furnish a surety bond satisfactory to the County providing for such protection and indemnity, which bond shall be furnished by the Contractor within five (5) days after written demand has been made therefore. The expense of said Bond shall be borne by the Contractor.

00700-16 SUPERVISION OF WORK AND COORDINATION WITH OTHERS

The Contractor shall supervise and direct the work using the Contractor's best skill and attention. The Contractor shall be solely responsible for all construction methods and procedures and shall coordinate all portions of the work pursuant to the contract subject to the overall coordination of the Construction Manager. All work pursuant to this agreement shall be performed in a skillful and workmanlike manner.

The County reserves the right to perform work related to the Project with the County's own forces and to award separate contracts in connection with other portions of the project, other work on the site under these or similar conditions of the contract, or work which has been extracted from the Contractor's work by the County.

When separate contracts are awarded for different portions of the project or other work on the site, the term "separate contractor" in the Contract Documents in each case shall mean the contractor who executes each separate County Agreement.

The Contractor shall cooperate with the County and separate contractors in arranging the introduction and storage of materials and equipment and execution of their work, and shall cooperate in coordinating connection of its work with theirs as required by the Contract Documents.

If any part of the Contractor's Work depends for proper execution or results upon the work of the County or any separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Construction Manager any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results **within fourteen (14) days** of discovery of such discrepancy or defect. Failure of the Contractor to so report in writing shall constitute an acceptance of the County's or separate contractor's work as fit and proper to receive the Work, except as to any defects which may subsequently become apparent in such work by others.

Any costs caused by defective or untimely work shall be borne by the party responsible therefore.

Should the Contractor wrongfully cause damage to the work or property of the County or to other work or property on the site, including the work of separate contractors, the Contractor shall promptly remedy such damage at the Contractor's expense.

Should the Contractor be caused damage by any other contractor on the Project, by reason of such other contractor's failure to perform properly his contract with the County, no action shall lie against the County or the Construction Manager inasmuch as the parties to this agreement are the only beneficiaries hereof and there are no third party beneficiaries and neither the County nor the Construction Manager shall have liabilities therefore, but the Contractor may assert his claim for damages solely against such other contractor. The Contractor shall not be excused from performance of the contract by reason of any dispute as to damages with any other contractor or third party.

Where the Work of this Contract shall be performed concurrently in the same areas as other construction work, the Contractor shall coordinate with the Construction Manager and the separate contractors in establishing mutually acceptable schedules and procedures that shall permit all jobs to proceed with minimum interference.

If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up, the County may clean up and charge the cost thereof to the Contractor or contractors responsible therefore as the County shall determine to be just.

#### 00700-17 ADMINISTRATION OF CONTRACT

The Program Manager and the Construction Manager shall provide administration services as hereinafter described.

For the administration of this Contract, the Construction Manager shall serve as the County's primary representative during design and construction and until final payment to the Contractor is due. The Construction Manager shall advise and consult with the County and the Program Manager. The primary point of contact for the Contractor shall be the Construction Manager. All correspondence from the Contractor to the County shall be forwarded through the Construction Manager. Likewise, all correspondence and instructions to the Contractor shall be forwarded through the Construction Manager.

The Construction Manager will determine in general that the construction is being performed in accordance with design and engineering requirements, and will endeavor to guard the County against defects and deficiencies in the Work.

The Construction Manager will not be responsible for or have control or charge of construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, nor will it be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Construction Manager will not be responsible for or have control or charge over the acts or omissions of the Contractor, its

engineers, consultants, subcontractors, or any of their agents or employees, or any other persons performing the Work.

Based on the Construction Manager's observations regarding the Contractor's Applications for Payment, the Construction Manager shall determine the amounts owing to the Contractor, in accordance with the payment terms of the Contract, and shall issue Certificates for Payment in such amount to the County.

The Construction Manager shall render interpretations necessary for the proper execution or progress of the Work. Either party to the Contract may make written requests to the Construction Manager for such interpretations.

Claims, disputes and other matters in question between the Contractor and the County relating to the progress of the Work or the interpretation of the Contract Documents shall be referred to the Construction Manager for interpretation.

All interpretations of the Construction Manager shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in writing or in graphic form.

Except as otherwise provided in this Contract, the Construction Manager shall issue a decision on any disagreement concerning a question of fact arising under this Contract. The Construction Manager shall reduce the decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Construction Manager shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copy, the Contractor files a written appeal with the Director of Public Works and mails or otherwise furnishes the Construction Manager a copy of such appeal. The decision of the Director of Public Works or the Director's duly authorized representative for the determination of such appeals shall be final and conclusive. Such final decision shall not be pleaded in any suit involving a question of fact arising under this Contract, provided such is not fraudulent, capricious, arbitrary, so grossly erroneous as necessarily implying bad faith, or is not supported by substantial evidence. In connection with any appeal proceeding under this Article, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of Contractor's appeal. Pending any final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract as directed by the Construction Manager.

The Construction Manager shall have authority to reject Work which does not conform to the Contract Documents. Whenever, in the Construction Manager's opinion, it is considered necessary or advisable for the implementation of the intent of the Contract Documents, the County shall have authority to require special inspection or testing of the Work whether or not such Work be then fabricated, installed or completed. The Contractor shall pay for such special inspection or testing if the Work so inspected or tested is found not to comply with the requirements of the contract; the County shall pay for special inspection and testing if the Work is found to comply with the contract. Neither the Construction Manager's authority to act under this Subparagraph, nor any decision made by the Construction Manager in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the Construction Manager to the Contractor, any subcontractor, any of their agents or employees, or any other person performing any of the Work.

The Contractor shall provide such shop drawings, product data, and samples as may be required by the Construction Manager and/or as required by these Contract Documents.

The Construction Manager shall conduct inspections to determine Substantial Completion and Final Completion, and shall receive and forward to the County for review written warranties and related documents required by the Contract Documents and assembled by the Contractor. The Construction Manager shall approve and issue Certificates for Payment upon compliance with Substantial and Final Completion requirements indicated in General Conditions 00700-81, 00700-82, 00700-84 and 00700-85 of this Agreement.

Except as provided in General Condition 00700-48, the Contractor shall not be relieved from the Contractor's obligations to perform the work in accordance with the contract documents by the

activities or duties of the County or any of its officers, employees, or agents, including inspections, tests or approvals, required or performed pursuant to this agreement.

00700-18 RESPONSIBILITY FOR ACTS OF EMPLOYEES

The Contractor shall employ only competent and skilled personnel. The Contractor shall, upon demand from the Construction Manager, immediately remove any superintendent, foreman or workman whom the Construction Manager may consider incompetent or undesirable.

The Contractor shall be responsible to the County for the acts and omissions of the Contractor's employees, subcontractors, and agents as well as any other persons performing work pursuant to this agreement for the Contractor.

00700-19 LABOR, MATERIALS, SUPPLIES, AND EQUIPMENT

Unless otherwise provided in this agreement, the Contractor shall make all arrangements with necessary support agencies and utility companies, provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the execution and completion of the work.

00700-20 DISCIPLINE ON WORK SITE

The Contractor shall enforce strict discipline and good order among its employees and subcontractors at all times during the performance of the work, to include compliance with the Fulton County Drug Free Work Place Policy. The Contractor shall not employ any subcontractor who is not skilled in the task assigned to it. The Construction Manager may, by written notice, require the Contractor to remove from the work any subcontractor or employee deemed by the Construction Manager to be incompetent.

00700-21 HOURS OF OPERATION

All work at the construction site shall be performed during regular business hours of the FULTON County government, except upon the Construction Manager's prior written consent to other work hours. It is further understood that the Contractor's construction schedule is based on a normal 40 hours, five day work week, less Fulton County-recognized holidays. Contractors work schedule shall not violate Fulton County Noise Ordinance by working hours inconsistent with the Fulton County Noise Ordinance. The County's current noise ordinance or other applicable ordinance shall govern. If the Contractor desires to work in excess of this limit, the Contractor shall submit a written request to the Construction Manager, a minimum of five days prior to the desired work date. The Contractor shall be responsible for any additional expenses incurred by the Owner as a result of the extended work hours, including resident inspection overtime. The cost associated with resident inspector overtime shall be deducted from the Contractor monthly payment request.

00700-22 FAMILIARITY WITH WORK CONDITIONS

The Contractor shall take all steps necessary to ascertain the nature and location of the work and the general and local conditions which may affect the work or the cost thereof. The Contractor's failure to fully acquaint itself with the conditions which may affect the work, including, but not limited to conditions relating to transportation, handling, storage of materials, availability of utilities, labor, water, roads, weather, topographic and subsurface conditions, other separate contracts to be entered into by the County relating to the project which may affect the work of the Contractor, applicable provisions of law, and the character and availability of equipment and facilities necessary prior to and during the performance of the work shall not relieve the Contractor of its responsibilities pursuant to this agreement and shall not constitute a basis for an equitable adjustment of the contract terms. The County reserves the right to perform with its own forces or to contract with other entities for other portions of the project work, in which case the Contractor's responsibility to assure its familiarity with work conditions hereunder shall include all coordination with such other contractors and the County necessary to insure that there is no interference between contractors as will delay or hinder any contractor in its prosecution of work on the project. The County assumes no responsibility for any understandings or representations

concerning conditions of the work made by any of its officers, agents, or employees prior to the execution of this agreement.

#### 00700-23 RIGHT OF ENTRY

The County reserves the right to enter the site of the work by such agent, including the Construction Manager, as it may elect for the purpose of inspecting the work or installing such collateral work as the County may desire. The Contractor shall provide safe facilities for such access so that the County and its agents may perform their functions.

#### 00700-24 NOTICES

Any notice, order, instruction, claim or other written communication required pursuant to this agreement shall be deemed to have been delivered or received as follows:

Upon personal delivery to the Contractor, its authorized representative, or the Construction Manager on behalf of the County. Personal delivery may be accomplished by in-person hand delivery or bona fide overnight express service.

Three days after depositing in the United States mail a certified letter addressed to the Contractor or the Construction Manager for the County. For purposes of mailed notices, the County's mailing address shall be 141 Pryor Street, 6th Floor, Atlanta, Georgia 30303, or as the County shall have otherwise notified the Contractor. The Contractor's mailing address shall be the address stated in its proposal or as it shall have most recently notified the Construction Manager in writing.

#### 00700-25 SAFETY

##### A. COUNTY-CONTRACTOR SAFETY, HEALTH AND LOSS PREVENTION PROGRAM

The Contractor shall be responsible for designing and implementing a comprehensive project-specific safety, health and loss prevention process and/or program and employee substance abuse program for this project. All Sub-Contractors must either implement their own program that meets these requirements or follow the Contractor's safety, health and loss prevention process and/or employee substance abuse program.

Safety, health and loss prevention process and/or employee substance abuse program must meet or exceed all governmental regulations (OSHA, EPA, DOT, State, local), comply and other specific Fulton County or Owner Controlled Insurance Program (OCIP) requirements, and with any other safety, health and loss prevention requirements detailed in the contract documents including the requirements of the Contractor Safety and Health Management Process which is attached hereto and incorporated herein.

Within ten (10) business days of receipt of the Notice of Award (NOA), the Contractor shall submit in writing to the County's designated Representative, the Contractor's written Safety, Health and Loss Prevention Process and/or Program and Employee Substance Abuse Program and those of Sub-Contractors that meet or exceed the requirements referenced in the contract documents. Included in this submittal will be the name and qualifications of the site safety representative.

Prior to issuing the Notice to Proceed (NTP), a meeting will be held with the Contractor and all Sub-Contractors to review the safety, health and loss prevention process and/or program requirements, submittals to be provided by the Contractor, OCIP requirements and procedures, and the OCIP accident prevention process.

These program submittals must be reviewed and accepted by the County's designated Representative as meeting or exceeding safety, health, and loss prevention process and/or program requirements. A Notice to Proceed (NTP) with the work may not be issued until these submittals have been accepted.

**B. DESIGNATION OF SAFETY REPRESENTATIVE**

1. The Contractor will designate an employee by (name, phone number, pager number) as Site Safety Representative. This employee will have sufficient training and knowledge of safety and health principles, regulations, and procedures to report to the Contractor's Project Manager and/or Superintendent. Sub-Contractors must also designate a similar employee responsible for safety and health. The Sub-Contractor's safety designee will coordinate safety activities with the general contractor's safety designee.
2. For projects with significant risk or hazard potential or for any project for which the Contractor and its Sub-Contractors of any tier have 50 total employees or greater on site, Contractor must designate a qualified employee to be the full time Site Safety Representative. This person should address safety, health and loss prevention activities for the complete project including Sub-Contractors.

**C. COUNTY'S SAFETY, HEALTH, AND LOSS PREVENTION PROCESS GUIDELINES AND REQUIREMENTS**

The County and its agents reserve the right, but assume no duty, to establish and enforce safety, health, and loss prevention guidelines and to make the appropriate changes in the guidelines, for the protection of persons and property and to review the efficiency of all protective measures taken by the Contractor. The Contractor shall comply with all safety, health, and loss prevention process guidelines and requirements and changes made by the County or its agent(s). The issuance of any such guidelines or changes by the County or its agent(s) shall not relieve the Contractor of its duties and responsibilities under this Agreement, and the County or its agent(s) shall not thereby assume, nor be deemed to have assumed, any such duties or responsibilities of the Contractor.

**D. COMPLIANCE OF WORK, EQUIPMENT, AND PROCEDURES WITH ALL APPLICABLE LAWS and REGULATIONS**

All Work, whether performed by the Contractor or its Sub-Contractors of any tier, or anyone directly or indirectly employed by any of them, and all equipment, appliances, machinery, materials, tools and like items incorporated or used in the Work, shall be in compliance with and conform to:

1. All applicable laws, ordinances, rules, regulations and orders of any public, quasi-public or other governmental authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act.
2. All rules, regulations, and requirements of the County or its agent(s) and its insurance carriers relating there to. In the event of a conflict or differing requirements the more stringent shall govern.

**E. PROTECTION OF THE WORK**

1. The Contractor shall, throughout the performance of the Work, maintain adequate and continuous protection of all Work and temporary facilities against loss or damage from whatever cause, shall protect the property of the County and third parties from loss or damage from whatever cause arising out of the performance of the Work, and shall comply with the requirements of the County or its agent(s) and its insurance carriers, and with all applicable laws, codes, rules and regulations, (as same may be amended) with respect to the prevention of loss or damage to property as a result of fire or other hazards.
2. The County or its agent(s) may, but shall not be required to, make periodic inspections of the Project work area. In such event, however, the Contractor

shall not be relieved of its aforesaid responsibilities and the County or its agent(s) shall not assume, nor shall it be deemed to have assumed, any responsibility otherwise imposed upon the assurance of Contractor by this Agreement.

F. SAFETY EQUIPMENT

1. The Contractor shall provide to each worker on the Project work area the proper safety equipment for the duties being performed by that worker and will not permit any worker on the Project work area who fails or refuses to use the same. The County or its agent shall have the right, but not the obligation, to order the removal of a worker from the Project work site for his/her failure to comply with safe practices or substance abuse policies, and the Contractor shall promptly comply with the Safety Program or Substance Abuse Program and all such orders.

G. EMERGENCIES

1. In any emergency affecting the safety of persons or property, or in the event of a claimed violation of any federal or state safety or health law or regulation, arising out of or in any way connected with the Work or its performance, the Contractor shall act immediately to prevent threatened damage, injury or loss and to remedy said violation. Failing such action the County or its agent(s) may immediately take whatever steps it deems necessary including, but not limited to, suspending the Work as provided in this Agreement.
2. The County or its agent(s) may offset any and all costs or expenses of whatever nature, including attorneys' fees, paid or incurred by the County or its agent(s) (whether such fees are for in-house counsel or counsel retained by the County or its agent), in taking the steps authorized by Section 00700-25(G) (1) above against any sums then or thereafter due to the Contractor. The Contractor shall defend, indemnify and hold the County, its officers, agents, employees and the County's O.C.I.P. Administrator harmless against any and all costs or expenses caused by or arising from the exercise by the County of its authority to act in an emergency as set out herein. If the Contractor shall be entitled to any additional compensation or extension of time change order on account of emergency work not due to the fault or neglect of the Contractor or its Sub-Contractors, such additional compensation or extension of time shall be determined in accordance with General Condition 00700-52 and General Condition 00700-87 of this Agreement.

H. SUSPENSION OF THE WORK

1. Should, in the judgment of the County or its agent(s), the Contractor or any Sub-Contractor fail to provide a safe and healthy work place or fail to follow the safety requirements defined in the contract documents and approvals, the County or its agent shall have the right, but not the obligation, to suspend work in the unsafe areas until deficiencies are corrected. All costs of any nature (including, without limitation, overtime pay, liquidated damages or other costs arising out of delays) resulting from the suspension, by whomsoever incurred, shall be borne by the Contractor.
2. Should the Contractor or any Sub-Contractor fail to provide a safe and healthy work place or fail to follow the safety requirements defined in the contract documents and approvals after being formally notified in writing by the County or its agents of such non-compliance, the contract may be terminated following the termination provision of the contract.

I. CONTRACTOR'S INDEMNITY OF THE COUNTY FOR CONTRACTOR'S NON-COMPLIANCE WITH SAFETY PROGRAM

1. The Contractor recognizes that it has sole responsibility to assure its Safety Program is implemented and to assure its construction services are safely provided. The Contractor shall indemnify, defend and hold the County and its agents harmless, from and against any and all liability (whether public or private), penalties (contractual or otherwise), losses, damages, costs, attorneys' fees, expenses, causes of action, claims or judgments resulting, either in whole or in part, from any failure of the Contractor, its Sub-Contractors of any tier or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, to comply with the safety requirements of the contract. The Contractor shall not be relieved of its responsibilities under the safety requirements of the Contract should the County or its agent(s) act or fail to act pursuant to its rights hereunder. The County, its agents, and the County's O.C.I.P. Administrator shall not assume, nor be deemed to have assumed, any responsibilities otherwise imposed upon the Contractor by this Agreement, by virtue of providing the Safety Program Guidelines.
2. The Contractor shall not raise as a defense to its obligation to indemnify under this Subparagraph I any failure of those indemnified hereunder to assure Contractor operates safely, it being understood and agreed that no such failure shall relieve the Contractor from its obligation to assure safe operations or from its obligation to so indemnify. The Contractor also hereby waives any rights it may have to seek contribution, either directly or indirectly, from those indemnified hereunder.
3. In any and all claims against those indemnified hereunder by any employee of the Contractor, any Sub-Contractor of any tier or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Subparagraph I shall not be limited in any way as to the amount or type of damages, compensation or benefits payable by or for the Contractor or any Sub-Contractor of any tier under any workers' compensation act, disability benefit or other employee benefit acts.

00700-26 BLASTING AND EXCAVATION

The Contractor acknowledges that it is fully aware of the contents and requirements of O.C.G.A. § 25-9-1 through 25-9-12 concerning blasting and excavation near underground gas pipes and facilities and shall fully comply therewith.

00700-27 HIGH VOLTAGE LINES

The Contractor acknowledges that it is fully aware of the contents and requirements O.C.G.A. § 46-3-30 through 46-3-39 concerning safeguards against contact with high voltage lines, and the Contractor shall fully comply with said provisions.

00700-28 SCAFFOLDING AND STAGING

The Contractor acknowledges that it is the person responsible for employing and directing others to perform labor within the meaning of O.C.G.A. § 34-1-1 and agrees to comply with said provisions.

00700-29 CLEAN-UP

The Contractor shall clean up all refuse, rubbish, scrap materials, and debris caused by its operations to the end that the site of the work shall present a neat, orderly and workmanlike appearance at all times.

00700-30 PROTECTION OF WORK

The Contractor shall be responsible for maintenance and protection of the work, which shall include any County-furnished supplies, material, equipment, until final completion of this agreement and acceptance of the work as defined herein. Any portion of the work suffering

injury, damage or loss shall be considered defective and shall be corrected or replaced by the Contractor without additional cost to the County.

#### 00700-31 REJECTED WORK

The Contractor shall promptly remove from the project all work rejected by the Construction Manager for failure to comply with the contract documents and the Contractor shall promptly replace and re-execute the work in accordance with the contract documents and without expense to the County. The Contractor shall also bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

#### 00700-32 DEFECTIVE WORK

If the Contractor defaults or neglects to carry out any portion of the work in accordance with the contract documents, and fails within three days after receipt of written notice from the Construction Manager to commence and continue correction of such default or neglect with diligence and promptness, the County may, after three days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy the County may have, make good such deficiencies and complete all or any portion of any work through such means as the County may select, including the use of a separate Contractor. In such case, an appropriate change order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies. In the event the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the County on demand.

The County may, at its option, accept defective or nonconforming work instead of requiring its removal or correction. In such case, a change order shall be issued reducing the price due the contractor to the extent appropriate and equitable. Such contract price adjustment shall be effected whether or not final payment has been made.

#### 00700-33 WARRANTY OF NEW MATERIALS

The Contractor warrants to the County that all materials and equipment furnished under this contract will be new unless otherwise specified, and the Contractor further warrants that all work will be of good quality, free from faults and defects, and in conformance with the contract documents. The warranty set forth in this paragraph shall survive final acceptance of the work.

#### 00700-34 CONTRACTOR'S WARRANTY OF THE WORK

If within one year after the date of issuance of the certificate of final payment pursuant to General Condition 84, or within such longer period of time as may be prescribed by law or by the term of any applicable special warranty required by the contract documents, any of the work is found to be defective or not in accordance with the contract documents, the Contractor shall correct such work promptly after receipt of written notice from the Construction Manager to do so. This obligation shall survive both final payment for the work and termination of the contract.

#### 00700-35 ASSIGNMENT OF MANUFACTURERS' WARRANTIES

Without limiting the responsibility or liability of the Contractor pursuant to this agreement, all warranties given by manufacturers on materials or equipment incorporated in the work are hereby assigned by the Contractor to the County. If requested, the Contractor shall execute formal assignments of said manufacturer's warranties to the County. All such warranties shall be directly enforceable by the County.

#### 00700-36 WARRANTIES IMPLIED BY LAW

The warranties contained in this agreement, as well as those warranties implied by law, shall be deemed cumulative and shall not be deemed alternative or exclusive. No one or more of the warranties contained herein shall be deemed to alter or limit any other.

00700-37 STOP WORK ORDERS

In the event that the Contractor fails to correct defective work as required by the contract documents or fails to carry out the work in accordance with contract documents, the Construction Manager, in writing, may order the Contractor to stop work until the cause for such order has been eliminated. This right of the County to stop work shall not give rise to any duty on the part of the County or the Construction Manager to execute this right for the benefit of the Contractor or for any other person or entity.

00700-38 TERMINATION FOR CAUSE

If the Contractor is adjudged bankrupt, makes a general assignment for the benefit of creditors, suffers the appointment of a receiver on account of its insolvency, fails to supply sufficient properly skilled workers or materials, fails to make prompt payment to subcontractors or materialmen, disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, fails to diligently prosecute the work, or is otherwise guilty of a material violation of this agreement and fails within seven days after receipt of written notice to commence and continue correction of such default, neglect, or violation with diligence and promptness, the County may, after seven days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy the County may have, terminate the employment of the Contractor and take possession of the site as well as all materials, equipment, tools, construction equipment and machinery thereon. The County may finish the work by whatever methods the County deems expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is completed. If the unpaid balance of the contract price exceeds the cost of completing the work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the County on demand. This obligation for payment shall survive the termination of the contract. Termination of this agreement pursuant to this paragraph may result in disqualification of the Contractor from bidding on future County contracts.

00700-39 TERMINATION FOR CONVENIENCE

The County may, at any time upon written notice to the Contractor, terminate the whole or any portion of the work for the convenience of the County. The effective date of the terminations shall be provided in the written notice. Said termination shall be without prejudice to any right or remedy of the County provided herein. In addition, in the event this agreement has been terminated due to the default of the Contractor, and if it is later determined that the Contractor was not in default pursuant to the provisions of this agreement at the time of termination, then such termination shall be considered a termination for convenience pursuant to this paragraph.

00700-40 TERMINATION FOR CONVENIENCE - PAYMENT

If the Contract is terminated for convenience by the Owner as provided in this article, Contractor will be paid compensation for those services actually performed as approved by the Owner or his representative. Partially completed tasks will be compensated for based on a signed statement of completion prepared by the Project Manager and submitted to the Contractor which shall itemize each task element and briefly state what work has been completed and what work remains to be done. Contractor shall also be paid for reasonable costs for the orderly filing and closing of the project.

00700-41 TERMINATION FOR CONVENIENCE - PAYMENT LIMITATIONS

Except for normal spoilage, and except to the extent that the County shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor the fair value, as determined by the Construction Manager, of property which is destroyed, lost, stolen or damaged so as to become undeliverable to the County or to another buyer.

00700-42 COST TO CURE

If the County terminates for cause the whole or any part of the work pursuant to this agreement, then the County may procure upon such terms and in such manner as the Construction Manager may deem appropriate, supplies or services similar to those so terminated, and the Contractor shall be liable to the County for any excess costs for such similar supplies or services. The Contractor shall continue the performance of this agreement to the extent not terminated hereunder.

00700-43 ATTORNEY'S FEES

Should the Contractor default pursuant to any of the provisions of this agreement, the Contractor and its surety shall pay to the County such reasonable attorney's fees as the County may expend as a result thereof and all costs, expenses, and filing fees incidental thereto.

00700-44 CONTRACTOR'S RESPONSIBILITIES UPON TERMINATION

After receipt of a notice of termination from the County, and except as otherwise directed by the Construction Manager, the Contractor shall:

1. Stop work under the contract on the date and to the extent specified in the notice of termination;
2. Place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the work under the agreement as is not terminated;
3. Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the notice of termination;
4. Assign to the County in the manner, at the times, and to the extent directed by the Construction Manager, all of the rights, title and interest of the Contractor under the orders and subcontracts so terminated, in which case the County shall have the right, at its discretion, to settle or pay any and all claims arising out of the termination of such orders or subcontracts;
5. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts with the approval or ratification of the Construction Manager, to the extent the Construction Manager may require, which approval or ratification shall be final for all purposes;
6. Transfer title and deliver to the entity or entities designated by the Construction Manager, in the manner, at the times, and to the extent, if any, directed by the Construction Manager, and to the extent specifically produced or specifically acquired by the Contractor for the performance of such portion of the work as has been terminated:
  - a. The fabricated or un-fabricated parts, work, and progress, partially completed supplies, and equipment, materials, parts, tools, dyes, jigs, and other fixtures, completed work, supplies, and other material produced as a part of or acquired in connection with the performance of the work terminated by the notice of termination; and
  - b. The completed or partially completed plans, drawings, information, and other property to the work.
7. Use its best efforts to sell in the manner, at the times, to the extent, and at the prices directed or authorized by the Construction Manager, any property described in Section 6 of this paragraph, provided, however, that the Contractor shall not be required to extend credit to any buyer and further provided that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the County to the Contractor pursuant to this agreement.

8. Complete performance of such part of the work as shall not have been terminated by the notice of termination; and
9. Take such action as may be necessary, or as the Construction Manager may direct, for the protection and preservation of the property related to the agreement which is in the possession of the Contractor and in which the County has or may acquire an interest.

00700-45 RECORDS

The Contractor shall preserve and make available to the County all of its records, books, documents and other evidence bearing on the costs and expenses of the Contractor and any subcontractor pursuant to this agreement upon three days advance notice to the Contractor.

00700-46 DEDUCTIONS

In arriving at any amount due the Contractor pursuant to the terms of this agreement, there shall be deducted all liquidated damages, advance payments made to the Contractor applicable to the termination portion of the contract, the amount of any claim which the County may have against the Contractor, the amount determined

By the Construction Manager to be necessary to protect the County against loss due to outstanding potential liens or claims, and the agreed price of any materials acquired or sold by the Contractor and not otherwise recovered by or credited to the County.

00700-47 REIMBURSEMENT OF THE COUNTY

In the event of termination, the Contractor shall refund to the County any amount paid by the County to the Contractor in excess of the costs properly reimbursable to the Contractor.

00700-48 SUSPENSION, INTERRUPTION, DELAY, DAMAGES

The Contractor shall be entitled to only those damages and that relief from termination by the County as specifically set forth in this agreement. The Construction Manager may issue a written order requiring the Contractor to suspend, delay or interrupt all or any part of the work for such period of time as the County may determine to be appropriate for the convenience of the County. If the performance of the work is interrupted for an unreasonable period of time by an act of the County or any of its officers, agents, employees, contractors, or consultants in the administration of this agreement, an equitable adjustment shall be made for any increase in the Contractor's costs of performance and any increase in the time required for performance of the work necessarily caused by the unreasonable suspension, delay, or interruption. Any equitable adjustment shall be reduced to writing and shall constitute a modification to this agreement. In no event, however, shall an equitable adjustment be made to the extent that performance of this agreement would have been suspended, delayed or interrupted by any other cause, including the fault or negligence of the Contractor. No claim for an equitable adjustment pursuant to this paragraph shall be permitted before the Contractor shall have notified the Construction Manager in writing of the act or failure to act involved, and no claim shall be allowed unless asserted in writing to the Construction Manager within ten days after the termination of such suspension, delay or interruption.

00700-49 COMMENCEMENT AND DURATION OF WORK

The County may issue a Notice to Proceed at any time within 120 days following execution of the contract by the County. The Contractor shall commence work pursuant to this agreement within ten days of mailing or delivery of written notice to proceed. The Contractor shall diligently prosecute the work to completion within the time specified therefore in the Agreement. The capacity of the Contractor's construction and manufacturing equipment and plan, sequence and method of operation and forces employed, including management and supervisory personnel, shall be such as to insure completion of the work within the time specified in the Agreement. The Contractor and County hereby agree that the contract time for completion of the work is reasonable taking into consideration the average climatic conditions prevailing in the locality of

the work and anticipated work schedules of other contractors whose activities are in conjunction with or may affect the work under this contract.

00700-50 TIME OF THE ESSENCE

All time limits stated in this agreement are of the essence of this contract.

00700-51 IMPACT DAMAGES

Except as specifically provided pursuant to a stop work order or change order, the Contractor shall not be entitled to payment or compensation of any kind from the County for direct or indirect or impact damages including, but not limited to, costs of acceleration arising because of delay, disruption, interference or hindrance from any cause whatsoever whether such delay, disruption, interference or hindrance is reasonable or unreasonable, foreseeable or unforeseeable, or avoidable, provided, however, that this provision shall not preclude the recovery of damages by the Contractor for hindrances or delays due solely to fraud or bad faith on the part of the County, its agents, or employees. The Contractor shall be entitled only to extensions in the time required for performance of the work as specifically provided in the contract.

00700-52 DELAY

The Contractor may be entitled to an extension of the contract time, but not an increase in the contract price or damages, for delays arising from unforeseeable causes beyond the control and without the fault or negligence of the Contractor or its subcontractors for labor strikes, acts of God, acts of the public enemy, acts of the state, federal or local government in its sovereign capacity, by acts of another separate contractor, or by an act or neglect of the County.

00700-53 INCLEMENT WEATHER

The Contractor shall not be entitled to an extension of the contract time due to normal inclement weather. Unless the Contractor can substantiate to the satisfaction of the Construction Manager that there was greater than normal inclement weather and that such greater than normal inclement weather actually delayed the work, the Contractor shall not be entitled to an extension of time therefore. The following shall be considered the normal inclement weather days for each month listed, and extensions of time shall be granted in increments of not less than one half day only for inclement weather in excess of the days set out.

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

00700-54 DELAY - NOTICE AND CLAIM

The Contractor shall not receive an extension of time unless a Notice of Delay is filed with the Construction Manager within ten days of the first instance of such delay, disruption, interference or hindrance and a written Statement of the Claim is filed with the Construction Manager within 20 days of the first such instance. In the event that the Contractor fails to comply with this provision, it waives any claim which it may have for an extension of time pursuant to this agreement.

00700-55 STATEMENT OF CLAIM - CONTENTS

The Statement of Claim referenced in the preceding 00700-54 shall include specific information concerning the nature of the delay, the date of commencement of the delay, the construction activities affected by the delay, the person or organization responsible for the delay, the anticipated extent of the delay, and any recommended action to avoid or minimize the delay.

00700-56 WORK BEHIND SCHEDULE, REMEDY BY CONTRACTOR

If the work actually in place falls behind the currently updated and approved schedule, and it becomes apparent from the current schedule that work will not be completed within the contract time, the Contractor agrees that it will, as necessary, or as directed by the Construction Manager, take action at no additional cost to the County to improve the progress of the work, including increasing manpower, increasing the number of working hours per shift or shifts per working day, increasing the amount of equipment at the site, and any other measure reasonably required to complete the work in a timely fashion.

00700-57 DILIGENCE

The Contractor's failure to substantially comply with the requirements of the preceding paragraph may be grounds for determination by the County that the Contractor is failing to prosecute the work with such diligence as will insure its completion within the time specified. In such event, the County shall have the right to furnish, from its own forces or by contract, such additional labor and materials as may be required to comply with the schedule after 48 hours written notice to the Contractor, and the Contractor shall be liable for such costs incurred by the County.

00700-58 SET-OFFS

Any monies due to the Contractor pursuant to the preceding paragraph of this agreement may be deducted by the County against monies due from the County to the Contractor.

00700-59 REMEDIES CUMULATIVE

The remedies of the County under General Condition 56, 57, and 58 are in addition to and without prejudice to all of the rights and remedies of the County at law, in equity, or contained in this agreement.

00700-60 TITLE TO MATERIALS

No materials or supplies shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sales contract or other agreement by which any interest is retained by the seller. The Contractor hereby warrants that it has good and marketable title to all materials and supplies used by it in the work, and the Contractor further warrants that all materials and supplies shall be free from all liens, claims, or encumbrances at the time of incorporation in the work.

00700-61 INSPECTION OF MATERIALS

All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards and in accordance with the requirements of the contract documents. Additional tests performed after the rejection of materials or equipment shall be at the Contractor's expense.

00700-62 CONSTRUCTION MANAGER'S PRESENCE DURING TESTING

All tests performed by the Contractor shall be witnessed by the Construction Manager unless the requirement therefore is waived in writing. The Construction Manager may perform additional tests on materials previously tested by the Contractor, and the Contractor shall furnish samples for this purpose as requested.

00700-63 MATERIALS INCORPORATED IN WORK

The Contractor shall furnish all materials and equipment to be incorporated in the work. All such materials or equipment shall be new and of the highest quality available. Manufactured materials

and equipment shall be obtained from sources which are currently manufacturing such materials, except as otherwise specifically approved by the Construction Manager.

#### 00700-64 STORAGE OF MATERIALS

Materials and equipment to be incorporated in the work shall be stored in such a manner as to preserve their quality and fitness for the work and to facilitate inspection.

#### 00700-65 PAYROLL REPORTS

The Contractor may be required to furnish payroll reports to the Construction Manager as required by the Owner Controlled Insurance Program.

#### 00700-66 CONTRACTORS' REPRESENTATIVE

Before beginning work, the Contractor shall notify the Construction Manager in writing of one person within its organization who shall have complete authority to supervise the work, receive orders from the Construction Manager, and represent the Contractor in all matters arising pursuant to this agreement. The Contractor shall not remove its representative without first designating in writing a new representative. The Contractor's representative shall normally be present at or about the site of work while the work is in progress. When neither the Contractor nor its representative is present at the work site, the superintendent, foreman, or other of the Contractor' employee in charge of the work shall be an authorized representative of the Contractor.

#### 00700-67 SPECIALTY SUB-CONTRACTORS

The Contractor may utilize the services of specialty subcontractors on those parts of the project which, under normal contracting practices, are performed by specialty subcontractors. The Contractor shall not award more than seventy-five percent of the work to subcontractors.

#### 00700-68 INSPECTION BY THE CONSTRUCTION MANAGER

All work pursuant to this agreement shall be subject to inspection by the Construction Manager for conformity with contract drawings and specifications. The Contractor shall give the Construction Manager reasonable advance notice of operations requiring special inspection of a portion of the work.

#### 00700-69 WORK COVERED PRIOR TO CONSTRUCTION MANAGER'S INSPECTION

In the event that work is covered or completed without the approval of the Construction Manager, and such approval is required by the specifications or required in advance by the Construction Manager, the Contractor shall bear all costs involved in inspection notwithstanding conformance of such portion of the work to the contract drawings and specifications.

#### 00700-70 SCHEDULING OF THE WORK

The work of this contract shall be planned, scheduled, executed, and reported using the critical path method (CPM) as established in Section 01320 of these Contract Documents.

With ten (10) calendar days after the Notice to Proceed, the Contractor shall submit a Detailed Construction Schedule according to the requirements established herein. (Section 01 310)

#### 00700-71 PROGRESS ESTIMATES

The Contractor shall prepare a written report for the Construction Manager's approval, on County forms, of the total value of work performed and materials and equipment obtained to the date of submission. Such a report must accompany each request for a progress payment and is subject to review and approval by the Construction Manager. Approval of a progress estimate or tendering of a progress payment shall not be considered an approval or acceptance of any work performed, and all estimates and payments shall be subject to correction in subsequent estimates. Progress payments shall be made for all completed activities and for materials suitably stored on-site.

00700-72 PROGRESS PAYMENTS

Upon approval of each monthly estimate of work performed and materials furnished, the Construction Manager shall approve payment to the Contractor for the estimated value of such work, materials, and equipment, less the amount of all prior payments and any liquidated damages. The Contractor will be paid 100 percent, less retainage, of the cost of materials received and properly stored on-site but not incorporated into the work. Payments for materials or equipment stored on the site shall be conditioned upon submission by the Contractor of bills of sale to establish the County's title to such materials or equipment. The Contractor's request for payment shall provide sufficient detail as to the work completed or materials purchased for which payment is requested to permit meaningful review by the Construction Manager.

00700-73 TIME OF PAYMENT

The Contractor will be paid within 45 days following receipt of an approved Progress Estimate. The Contractor expressly agrees that the payment provisions within this Contract shall supersede the rates of interest, payment periods, and contract and subcontract terms provided for under the Georgia Prompt Pay Act, O.C.G.A. Section 13-11-1 et seq., and that the rates of interest, payment periods, and contract and subcontract terms provided for under the Prompt Pay Act shall have no application to this Contract. The County shall not be liable for any late payment interest or penalty.

00700-74 RETAINAGE

The County shall retain from each progress payment ten percent of the estimated value of the work performed until the progress payments, including retainage, total 50 percent of the contract price. If a contract includes two or more projects or assignments that have been separately priced and have separate budgets, and the performances of such projects or assignments are not related to or dependent upon the performance of any other, the 50 per cent limit shall be based upon the price for each individual project or assignment. Thereafter, no further retainage shall be withheld so long as the Contractor is making satisfactory progress to insure completion of the work within the time specified therefore. The County may reinstate the ten percent retainage in the event the Construction Manager determines that the Contractor is not making satisfactory progress to complete the work within the time specified in this agreement or in the event that the Construction Manager provides a specific cause for such withholding. The County may also withhold retainage upon substantial completion of the work as provided in O.C.G.A. §13-10-81(c). Interest may be paid upon the retainage in accordance with Georgia law.

00700-75 PAYMENT OF SUBCONTRACTORS

The Contractor shall promptly pay each subcontractor upon the receipt of payment from the County. Such payment shall be made from the amount paid to the Contractor pursuant to the subcontractor's work. The Contractor shall also maintain the records of the percentage retained from payments to the Contractor pursuant to such subcontractor's work. The Contractor shall procure agreements from each subcontractor requiring each subcontractor to pay their subcontractors, agents and employees in a similar manner. The County reserves the right to inquire of any subcontractor, supplier, materialmen, or subconsultant, the status of any indebtedness of the Contractor. The County further reserves the right to require the Contractor to designate on each instrument of payment exceeding \$400.00 to subcontractors, suppliers, materialmen, and subconsultants that such payment is on account of the work under this Contract.

00700-76 COUNTY'S RESPONSIBILITIES TO SUBCONTRACTORS

Neither the County nor the Construction Manager shall have any obligation to pay any subcontractor except as otherwise required by law.

00700-77 PROGRESS PAYMENTS - ACCEPTANCE OF WORK

Certification of progress payments, as well as the actual payment thereof, shall not constitute the County's acceptance of work performed pursuant to this agreement.

00700-78 PAYMENTS IN TRUST

All sums paid to the Contractor pursuant to this agreement are hereby declared to constitute trust funds in the hands of the contractor to be applied first to the payment of claims of subcontractors, laborers, and suppliers arising out of the work, to claims for utilities furnished and taxes imposed, and to the payment of premiums on surety and other bonds and on insurance for any other application.

00700-79 JOINT PAYMENTS

The County reserves the right to issue any progress payment or final payment by check jointly to the Contractor and any subcontractor or supplier.

00700-80 RIGHT TO WITHHOLD PAYMENT

The Construction Manager may decline to approve payment and may withhold payment in whole or in part to the extent reasonable and necessary to protect the County against loss due to defective work, probable or actual third party claims, the Contractor's failure to pay subcontractors or materialmen, reasonable evidence that the work will not be completed within the contract time or contract price or damage to the County or any other contractor on the project.

00700-81 CERTIFICATE OF SUBSTANTIAL COMPLETION

Upon the Contractor's submission of a request for a certificate of Substantial Completion, the Construction Manager shall inspect the work and determine whether the work is Substantially Complete. If the work is Substantially Complete, the Construction Manager shall issue a certificate of Substantial Completion of the work which shall establish the date of Substantial Completion, shall state the responsibilities of the County and the Contractor for security, maintenance, heat, utilities, damage to the work and insurance, and shall fix the time within which the Contractor shall complete the items submitted by the Contractor as requiring correction or further work. The certificate of substantial completion of the work shall be submitted to the County and the Contractor for their written acceptance of the responsibilities assigned to them pursuant to such certificate.

If in the sole opinion of the Construction Manager, the work is not substantially complete, the Construction Manager shall notify the Contractor of such, in writing, and outline requirements to be met to achieve Substantial Completion.

00700-82 PAYMENT UPON SUBSTANTIAL COMPLETION

Upon Substantial Completion of the work and upon application by the Contractor and approval by the Construction Manager, the County shall make payment reflecting 100% work completed, less value of work remaining as determined by Construction Manager and any authorized retainage.

00700-83 COMMENCEMENT OF WARRANTIES

Warranties required by this agreement shall commence on the date of final completion of the project as determined under General Condition 00700-84 unless otherwise provided in the certificate of Substantial Completion.

00700-84 FINAL PAYMENT - WAIVER OF CLAIMS, DISPUTE OF FINAL PAYMENT

The acceptance of the Substantial Completion payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of application for payment at Substantial Completion and except for the retainage sums due at final acceptance. Following the Construction Manager's issuance of the certificate of Substantial Completion and the Contractor's completion of the work pursuant to this agreement, the Contractor shall forward to the Construction Manager a written notice that the work is ready for final inspection and acceptance. If after inspection the Construction Manager certifies that the work is complete and issues written notification of such to the Contractor, the Contractor shall forward to the Construction Manager a final application for payment. The Construction Manager shall issue a certificate for payment, which shall approve final payment to the Contractor and shall establish the date of final completion.

In the event the Contractor timely disputes the amount of the final payment, the amount due the CONTRACTOR shall be deemed by the CONTRACTOR and the COUNTY to be an unliquidated sum and no interest shall accrue or be payable on the sum finally determined to be due to the CONTRACTOR for any period prior to final determination of such sum, whether such determination be by agreement of the CONTRACTOR and the COUNTY or by final judgment of the proper court in the event of litigation between the COUNTY and the CONTRACTOR. The CONTRACTOR specifically waives and renounces any and all rights it may have under Section 13-6-13 of the Official Code of Georgia and agrees that in the event suit is brought by the CONTRACTOR against the COUNTY for any sum claimed by the CONTRACTOR under the Contract or for any extra or additional work, no interest shall be awarded on any sum found to be due from the COUNTY to the CONTRACTOR in the final judgment entered in such suit. All final judgments shall draw interest at the legal rate, as specified by law.

#### 00700-85 DOCUMENTATION OF COMPLETION OF WORK

Neither the final payment nor the remaining retainage shall become due until the Contractor submits the following documents to the Construction Manager:

- a. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work have been paid or otherwise satisfied;
- b. The surety's consent to final payment; and
- c. Any other data reasonably required by the County or Construction Manager establishing payment or satisfaction of all such obligations, including releases, waivers of liens, and documents of satisfaction of debts.

In the event that a subcontractor refuses to furnish a release or waiver as required by the County or Construction Manager, the Contractor may furnish a bond satisfactory to the County to indemnify the County against such loss. In the event that any lien or indebtedness remains unsatisfied after all payments are made, the contractor shall refund to the County all moneys that the County may become compelled to pay in discharging such lien or other indebtedness, including all costs and reasonable attorney's fees.

#### 00700-86 GOVERNING LAW

Each and every provision of this agreement shall be construed in accordance with and governed by Georgia law. The parties acknowledge that this contract is executed in FULTON County, Georgia and that the contract is to be performed in FULTON County, Georgia. Each party hereby consents to the FULTON Superior Court's sole jurisdiction over any dispute which arises as a result of the execution or performance of this agreement, and each party hereby waives any and all objections to venue in the FULTON Superior Court.

#### 00700-87 CHANGES IN THE WORK

##### A. CHANGE ORDERS

1. A Change Order is a written order to the Contractor signed to show the approval and the authorization of the County, issued after execution of the Contract, authorizing a change in the Work and/or an adjustment in the Contract Sum or the Contract Time. Change Orders shall be written using forms designated by the County with Contractor providing supporting documentation as required by the Construction Manager. The Contract Sum and the Contract Time may be changed only by approved Change Order pursuant to Fulton County Procedure 800-6. The amount payable by the Change Order is payment in full for all direct and indirect costs incurred and related to the work under said Change Order, including but not limited to delays, imports, acceleration, disruption and extended overhead. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including the adjustment in either or both of the Contract Sum or the Contract Time.

2. The County, without invalidating the Contract, may order changes in the Work within the general scope of the Contract as defined in General Condition 2. The time allowed for performance of the work and the contract price to be paid to the Contractor may be adjusted accordingly.
3. The cost or credit to the County resulting from a change in the Work shall be determined in one or more of the following ways:
  - a. By mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
  - b. By unit prices stated in the Contract Documents or subsequently agreed upon;
  - c. By cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
  - d. By the method provided in Subparagraph A4 below.
4. If none of the methods set forth in Subparagraphs 3a, 3b, or 3c above is agreed upon, the Contractor, provided a written order signed by the Construction Manager is received, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the Construction Manager on basis of the reasonable expenditures and savings of those performing the Work attributable to the change. The cost of the change shall include only the items listed in Subparagraph 5a below, and in the case of either a decrease or an increase in the Contract Sum, an allowance for overhead and profit in accordance with the schedules set forth in Subparagraphs 5b and 6 below shall be applied to the cost or credit.
  - a. In such case, and also under Subparagraph 3a above, the Contractor shall keep and present, in such form as the Construction Manager may prescribe, an itemized accounting of all actual costs expended, together with appropriate supporting data for inclusion in a Change Order.
  - b. All hourly rate charges shall be submitted to the Construction Manager for prior review and approval. All hourly rate charges shall be properly supported as required by the Construction Manager with certified payrolls, or their acceptable equivalent. When authorized to proceed for a given change and actual expenditures have been made prior to execution of a Change Order for the entire change, such actual expenditures may be summarized monthly, and if approved, incorporated into a Change Order. When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase or decrease, if any, with respect to that change.
5. In Subparagraphs 3 and 4 above, the items included in "Cost and "Overhead" shall be based on the following schedule:
  - a. Unless otherwise provided in the Contract Documents, "Cost" shall be limited to the following: cost of materials incorporated into the Work, including sales tax and cost of delivery; cost of direct labor (labor cost may include a pro rata share of foreman's account of the change) including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workers' or workmen's compensation insurance; rental value of equipment and machinery; costs for preparing Shop Drawings.
  - b. Unless otherwise provided in the Contract Documents, "Overhead" shall include the following: bond and insurance premiums including increase

and decreases from change in the Work, supervision, superintendence, construction parking, wages of timekeepers, watchmen and clerks, small tools, consumable supplies, expendables, incidentals, general office expense, the cost of additional reproduction for the Contractor's subcontractors beyond that agreed upon in the Contract Documents, construction parking, any additional costs of craft supervision by the Contractor's or subcontractors' superintendents, and overhead charges which would be customary and expended regardless of the change in the Work due to other overlapping activities which are included as part of the original Contract, and all other expenses not included in "Cost" above.

- c. In the event that a change is issued by the County which would require the expenditure of substantial amounts of special supervision (beyond the foreman level) by the Contractor, the Contractor may, at the sole direction of the Construction Manager, be allowed to incorporate these charges into the agreement cost for the change.
6. In Subparagraphs 3 and 4 above, the allowance for overhead and profit combined, included in the total cost or credit to the County, shall be based on the following schedule:
- a. For the Contractor, for any work performed by the Contractor's own forces, ten (10) percent of the cost.
  - b. For the Contractor, for any work performed by a Contractor's subcontractor, five (5) percent of the amount due the subcontractor.
  - c. For each subcontractor or sub-subcontractor involved, for any work performed by that subcontractor's or sub-subcontractor's own forces, ten (10) percent of the cost.
  - d. For each subcontractor, for work performed by a sub-subcontractor, five (5) percent of the amount due to the sub-subcontractor.
  - e. Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 5 above unless modified otherwise.
7. In order to facilitate checking of quotations for extras or credits, all proposals or bids, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs, including labor cost, materials and subcontracts. Labor and materials shall be itemized in the manner defined in Subparagraph 4 above. Where major cost items are subcontracts, they shall be itemized also. In no case shall a change be approved without such itemization.
8. No payment shall be made for any changes to the contract that are not included in a fully executed Change Order.

**B. CONCEALED, UNKNOWN AND DIFFERING CONDITIONS**

1. Should concealed conditions be encountered in the performance of the Work below the surface of the ground, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Contract Documents, or should unknown physical conditions below the surface of the ground or concealed or unknown conditions in an existing structure of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, the Contract Sum and Contract Time shall be equitably adjusted by Change Order upon request by either party made within twenty (20) days after the first observance of the conditions. No such request for equitable

adjustment shall be valid unless the Contractor complies with this (20) days notice and Subparagraph C.1. below.

2. The Contractor shall promptly, and before such conditions are disturbed, notify the Construction Manager in writing of any claim of concealed, unknown or differing conditions pursuant to this paragraph. The Construction Manager shall authorize the Engineer to investigate the conditions, and if it is found that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work under this Contract, whether or not changed as a result of such conditions, an equitable adjustment shall be recommended to the Construction Manager.
3. No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in (a) above, prior to disturbing the condition.
4. No claim by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this Contract.
5. Any materially differing site condition as between what is shown on the Drawings and Specifications and actually found on site shall be immediately reported to the Construction Manager in writing prior to the commencement of Work at the site. Failure of the Contractor to notify the Construction Manager in writing of the differing site condition prior to performance of Work at the site shall constitute a waiver of any claim for additional monies. Any Change Order necessitated by the differing site condition shall be processed as provided under "Changes in the Contract".

#### C. REQUESTS FOR ADDITIONAL COST

1. If the Contractor wishes to request an increase in the Contract Sum, the Contractor shall give the Construction Manager written notice thereof within twenty (20) days after the occurrence of the event, or identification of the conditions, giving rise to such request. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Paragraph 10.7 of this Agreement, and Subparagraph A.4 above. No such request shall be valid unless so made within the twenty (20) days specified above. If the County and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Construction Manager. Any change in the Contract Sum resulting from such claim shall be documented by Change Order.
2. If the Contractor claims that additional cost is involved because of, but not limited to (1) any written interpretation pursuant to General Condition 00700-17 of this Agreement, (2) any order by the County to stop the Work pursuant to General Conditions 00700-25 and 00700-37 of this Agreement where the Contractor was not at fault, or any such order by the Construction Manager as the County's agent, or (3) any written order for a minor change in the Work issued pursuant to Paragraph D below, the Contractor shall submit a request for an increase in the Contract Sum as provided in Subparagraph C.1 above. No such claim shall be valid unless the Contractor complies with Subparagraph C.1 above and approved by the County pursuant to Change Order Policy 800-6.

#### D. MINOR CHANGES IN THE WORK

The Construction Manager may order minor changes in the Work not involving an adjustment in the Contract Price, extension of the time allowed for performance of the work and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by a written Change

Directive issued by the Construction Manager, and shall be binding on the County and the Contractor. The Contractor shall carry out such written orders promptly.

E. BONDS

If any change order results in an increase in the contract price, the contractor shall increase the penal sum of the performance and payment bonds to equal the increased price.

00700-88 DISAGREEMENT WITH ORDERS FOR CHANGE

Contractor's written acceptance of a Change Order or other order for changes shall constitute his final and binding agreement to the provisions thereof and a waiver of all claims in connection therewith, whether direct or consequential in nature. Should Contractor disagree with any order for changes, he may submit a notice of potential claim to the Construction Manager, at such time as the order is set forth in the form of a Change Order. Disagreement with the provisions of an order for changes shall not relieve Contractor of his obligation under Clause 00700-87, Change Orders.

00700-89 NO WAIVER OF REMEDIES

Exercise by the County of any remedy is not exclusive of any other remedy available to County and shall not constitute a waiver of any such other remedies. Failure of the County to exercise any remedy, including breach of contract remedies, shall not preclude the County from exercising such remedies in similar circumstances in the future.

00700-90 LAND AND RIGHTS-OF-WAY

The owner will provide, as indicated in the Contract Documents and prior to Notice to Proceed, the lands upon which the work is to be done, right-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, the Contractor shall receive an equitable extension of contract time dependent upon the effect on the critical path of the project schedule or the County may terminate the Contract for its convenience.

00700-91 COORDINATION WITH STATE DEPARTMENT OF TRANSPORTATION

No clearing or grading shall be completed by Contractor within the State Department of Transportation (DOT) area under construction. The Contractor must coordinate his construction scheduling with DOT.

If the Contractor begins work before DOT's completion date, he must obtain the approval of DOT before starting work in the area. The state DOT has the right to stop the Contractor's work the DOT area.

The Contractor shall receive no additional compensation or damages resulting from delay or work stoppage from DOT actions or scheduling.

Contractor shall obtain DOT drawings of the DOT, project area for verification of road geometry, storm drains, etc. from Georgia Department of Transportation or Fulton County. The Contractor is responsible for obtaining any pertinent DOT revisions.

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**EXHIBIT A**  
**FINAL AFFIDAVIT**

TO FULTON COUNTY, GEORGIA

I, \_\_\_\_\_, hereby certify that all suppliers of materials, equipment and service, subcontractors, mechanic, and laborers employed by \_\_\_\_\_ or any of his subcontractors in connection with the design and/or construction of \_\_\_\_\_ at Fulton County have been paid and satisfied in full as of \_\_\_\_\_, 200\_\_\_\_, and that there are no outstanding obligations or claims of any kind for the payment of which Fulton County on the above-named project might be liable, or subject to, in any lawful proceeding at law or in equity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Personally appeared before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_.  
\_\_\_\_\_, who under Oath deposes and says that he is \_\_\_\_\_ of the firm of \_\_\_\_\_, that he has read the above statement and that to the best of his knowledge and belief same is an exact true statement.

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

\_\_\_\_\_  
My Commission expires

END OF SECTION

## SECTION 10

## PRICING FORMS

## BASE BID AMOUNT BREAKDOWN

Provide the cost for the following items including labor, materials and installation:

## ITEM 1 - EROSION AND SEDIMENTATION CONTROL

a.	1,000	L.F.	Reinforced Silt Fence	\$_____/LF	\$_____
b.	3	Each	Hay Bale Check Dams	\$_____/EA	\$_____
c.	10	Each	Stone Check Dams	\$_____/EA	\$_____
d.	1	Each	Sediment Traps	\$_____/EA	\$_____
e.	1	Each	Inlet Filters	\$_____/EA	\$_____
f.	150	S.Y.	Rip Rap	\$_____/SY	\$_____
g.	5,485	S.Y.	Grassing	\$_____/SY	\$_____
h.	100	S.Y.	Sodding	\$_____/SY	\$_____

## ITEM 2 - REUSE WATER MAIN

a.	1,500	L.F.	20-Inch RJ DIP	\$_____/LF	\$_____
b.	3,900	L.F.	20-Inch DIP	\$_____/LF	\$_____
c.	10	L.F.	16-Inch DIP	\$_____/LF	\$_____
d.	75	L.F.	12-Inch DIP	\$_____/LF	\$_____

## ITEM 3 - FITTINGS (REUSE WATER MAIN)

a.	13	TN	Ductile Iron - All Sizes	\$_____/TN	\$_____
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## ITEM 4 - VALVES

a.	6	Each	20-Inch Butterfly Valve	\$_____/EA	\$_____
b.	1	Each	12-Inch Gate Valve	\$_____/EA	\$_____
c.	1	Each	Blow-off Assembly	\$_____/EA	\$_____
d.	3	Each	4-Inch Air/Vacuum Valve	\$_____/EA	\$_____

## ITEM 5 - THRUST RESTRAINT

a.	35	C.Y.	Concrete Thrust Blocks	\$_____/CY	\$_____
b.	20	C.Y.	Concrete Thrust Collars	\$_____/CY	\$_____

## ITEM 6 - CLEAN UP AND TESTING

a.	5,485	L.F.	Clean-up and Testing	\$1.50/LF	\$8,227.50
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## ITEM 7 - BORE AND JACK CASINGS

a.	50	L.F.	36-Inch Steel Casing	\$_____/LF	\$_____
b.	45	L.F.	24-Inch Steel Casing	\$_____/LF	\$_____

ITEM 8 – REMOVING AND REPLACING PAVEMENT

a. 100 S.Y. Remove & Replace Pavement \$\_\_\_\_\_/SY \$\_\_\_\_\_

ITEM 9 - CASH ALLOWANCES

- a. Soils and Concrete Testing \$20,000
- b. Materials Testing \$10,000
- c. Construction Surveying \$20,000
- d. Blasting Monitoring \$10,000
- e. Utility Conflict Resolution \$50,000

\*\*\*\*\* ADDITIONAL WORK IF ORDERED BY THE ENGINEER \*\*\*\*\*

ITEM 10 - TRENCH STABILIZATION

a. 100 C.Y. Beyond Bedding \$\_\_\_\_\_/CY \$\_\_\_\_\_

*This is a summary of the main components and shall include all materials and/or supplies necessary to complete this job. Operation and Maintenance manuals shall be included on every equipment/item purchased by the contractor.*

**TOTAL ITEM 1 THROUGH 10 INCLUSIVE**

the amount of \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

The County will base their review on this bottom line figure as the total bid amount for this project. Please make sure that all line items are accurately calculated and total up to this inclusive amount.

The full name and addresses of persons or parties interested in the foregoing Bid, as principals, are as follows:

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_

The Bidder shall list below work done of a similar nature to that Bid for, as references that will afford the Owner opportunity to judge as to experience, standing, and financial ability.

PROJECT NAME	OWNER'S NAME	OWNER'S REPRESENTATIVE'S TELEPHONE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**END OF SECTION NO. 10**

**Part 1 General****1.01 Description**

- A. The Work to be performed under this Contract shall consist of furnishing all labor, materials, tools, equipment and incidentals and performing all Work required to construct complete in place and ready to operate approximately 5,350 L.F. of 20-inch ductile iron pipe.
- B. All Work described above shall be performed as shown on the Drawings and as specified.

**1.02 Project Location**

The project location is along Bell Road, starting at the Cauley Creek Water Reclamation Facility and ending on Bell Road near the Sugar Mill Subdivision.

**1.03 Quantities**

The Owner reserves the right to alter the quantities of work to be performed or to extend or shorten the improvements at any time when and as found necessary, and the Contractor shall perform the work as altered, increased or decreased. Payment for such increased or decreased quantity will be made in accordance with the Instructions to Bidders. No allowance will be made for any change in anticipated profits nor shall such changes be considered as waiving or invalidating any conditions or provisions of the Contract and Bond.

END OF SECTION

**Part 1 General****1.01 Scope**

The scope of this Section is to convey to the Contractor unique and unusual stipulations and requirements which have been established for this Project. Some of the stipulations and requirements are a result of negotiations with various entities and organizations which have an interest in this Project. Some requirements are based on technical aspects of the Project which are not otherwise conveyed to the Contractor. The provisions of this Section shall supersede the provisions of the Division 1 through 17 Specifications but shall not supersede the Bidding Requirements, Contract Forms or Conditions of the Contract.

**1.02 Milestone Dates**

The Contractor shall be required to complete the following activities by the indicated date or days after the Notice to Proceed:

Consecutive Calendar Days after Notice to Proceed	Milestone	Liquidated Damages Per Calendar Day
100	Substantial Completion of All Work	\$1,000.00
120	Final Completion of All Work	\$1,000.00

**1.03 Submittals**

- A. Sequence Submittal
1. Submit a proposed sequence in accordance with Section 01340 with appropriate times of starting and completion of tasks to Engineer for review.
  2. The Contractor may propose alternatives to the sequencing constraints to that shown in this Section in an attempt to reduce the disruption of the operation of the existing facility or streamline the tasks of this Contract. The Owner and Engineer are not obligated to accept any of these alternatives.

**1.04 Existing Facility Operations**

- A. The Contractor shall coordinate the work with the Owner so that the construction will not restrain or hinder the operation of the existing facilities. If, at any time, any portion of the facilities are out of service, the Contractor must obtain approval from the Owner as to the date, time and length of time that portion of the facilities are out of service.
- B. Connections to the existing facilities or alteration of existing facilities will be made at times when the facility involved is not in use or at times, established by the Owner, when the use of the facility can be conveniently interrupted for the period of time needed to make the connection or alteration.
- C. After having coordinated the work with the Owner, the Contractor shall prepare a submittal in accordance with Section 01340 to include the time, time limits and

methods of each connection or alteration and have the approval of the Engineer before any work is undertaken on the connections or alterations.

- D. Before any roadway or facilities are blocked off, the Owner's approval shall be obtained to coordinate operations for the plant.

**1.05****Sequencing**

- A. General

1. The Contractor shall be solely responsible for all construction sequencing.
2. The completion of specific preliminary sequencing tasks indicated will be required prior to any significant site demolition.

- B. Notify the Owner at least ten days prior to starting to relocate piping or taking existing components out of service.

END OF SECTION

**Part 1 General****1.01 Partial Occupancy By Owner**

Whenever, in the opinion of the Engineer, any section or portion of the Work or any structure is in suitable condition, it may be put into use upon the written order of the Engineer and such usage will not be held in any way as an acceptance of said Work or structure, or any part thereof, or as a waiver of any of the provisions of these Specifications and the Contract. Pending final completion and acceptance of the Work, all necessary repairs and replacements, due to defective materials or workmanship or operations of the Contractor, for any section of the Work so put into use shall be performed by the Contractor at Contractor's own expense.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. The Bid lists each item of the Project for which payment will be made. No payment will be made for any items other than those listed in the Bid.
- B. Required items of work and incidentals necessary for the satisfactory completion of the work which are not specifically listed in the Bid, and which are not specified in this Section to be measured or to be included in one of the items listed in the Bid, shall be considered as incidental to the work. All costs thereof, including Contractor's overhead costs and profit, shall be considered as included in the lump sum or unit prices bid for the various Bid items. The Contractor shall prepare the Bid accordingly.
- C. Work includes furnishing all plant, labor, equipment, tools and materials, which are not furnished by the Owner and performing all operations required to complete the work satisfactorily, in place, as specified and as indicated on the Drawings.

**1.02 Descriptions**

- A. Measurement of an item of work will be by the unit indicated in the Bid.
- C. Payment will include all necessary and incidental related work not specified to be included in any other item of work listed in the Bid.
- D. Unless otherwise stated in individual sections of the Specifications or in the Bid, no separate payment will be made for any item of work, materials, parts, equipment, supplies or related items required to perform and complete the work. The costs for all such items required shall be included in the price bid for item of which it is a part.
- E. Payment will be made by extending unit prices multiplied by quantities provided and then summing the extended prices to reflect actual work. Such price and payment shall constitute full compensation to the Contractor for furnishing all plant, labor, equipment, tools and materials not furnished by the Owner and for performing all operations required to provide to the Owner the entire Project, complete in place, as specified and as indicated on the Drawings.
- F. "Products" shall mean materials or equipment permanently incorporated into the work.

**1.03 Erosion and Sedimentation Control**

- A. General
  - 1. No separate payment shall be made for temporary and/or permanent erosion and sedimentation controls, except as noted below. All other temporary and/or permanent erosion and sedimentation control costs shall be included in the unit price bid for the item to which it pertains.
  - 2. No payment will be made for any portion of the Project for which temporary erosion and sedimentation controls are not properly maintained.

3. Quantities for payment shall be based upon actual quantity constructed by the Contractor.
- B. Reinforced Silt Fence: All costs for Type C silt fence, where ordered by the Engineer, including installation, maintenance, repair, replacement, and removal, shall be included in the unit price bid for Reinforced Silt Fence.
  - C. Hay Bale Check Dams: All costs for hay bale check dams, including hay bales, necessary earthwork, periodic maintenance and repair, and removal of sediment and hay bales following establishment of permanent erosion control measures shall be included in the unit price bid for Hay Bale Check Dams.
  - D. Stone Check Dams: All costs for stone check dams, including stone, necessary earthwork, periodic maintenance and repair, and removal of sediment and stone following establishment of permanent erosion control measures shall be included in the unit price bid for Stone Check Dam.
  - E. Sediment Traps: All costs for temporary sediment traps (silt box), including installation, maintenance, repair and removal, shall be included in the unit price bid for Sediment Traps.
  - F. Inlet Filters: All costs for inlet sediment traps (pigs in a blanket), including installation, maintenance, repair and removal, shall be included in the unit price bid for Inlet Filters.
  - G. Rip Rap: The cost of all rip rap, including filter fabric, shown on the Drawings, specified, or directed by the Engineer, shall be included in the unit price bid for Rip Rap.
  - H. Stream Crossing: All costs for constructing temporary stream crossings, including temporary culverts, stone, necessary earthwork, periodic maintenance and repair, and removal of sediment and all materials placed by the Contractor, following the end of the usefulness of the temporary crossing, shall be included in the price bid for the item to which the crossing pertains. All permanent restoration required for the crossing shall be included in the price bid for the item to which it pertains.
  - I. Grassing
    1. The unit price bid for Grassing shall be for a one time clean up of the pipeline route and grassing, whether permanent, temporary, or both. Any other costs for labor, materials, and equipment for clean up and grassing of the disturbed area shall be included in the unit price bid for the item to which it pertains.
    2. No additional payment will be made for those lengths of pipeline where the Contractor must reseed due to inadequate watering and maintenance; loss of seeds caused by site erosion, e.g., wind and rain; inadequate germination of the seeds; inadequate coverage/density; providing permanent species at the appropriate season after temporary grassing has been performed.
    3. No additional payment will be made for providing a temporary species of grass where the seasonal limitations do not allow for the proper germination of a permanent species of grass. Any additional cost anticipated for sowing a temporary species shall be included in the price bid for the item to which it pertains.

4. Measurement for payment for Grassing shall be along the centerline of the pipeline, through fittings and valves. The length of pipe constructed under pavement, through casings and free bores, shall not be included in quantities for payment for Grassing.
- J. Sodding: Sodding, where ordered by the Engineer, shall be provided at the unit price bid for Sodding. Payment for sodding shall be in addition to the payment made for Grassing.

#### **1.04 Reuse Water Mains and Accessories**

- A. Existing Utilities and Obstructions
  1. No separate payment will be made for any delay or extra cost encountered by the Contractor due to protection, avoidance or relocation of existing utilities, mains or services shown or not shown on the Drawings.
  2. Horizontal Conflict: No separate payment shall be made for changing the horizontal alignment of the water main to avoid a horizontal conflict, except where authorized for additional fittings and/or pipe.
  3. Vertical Conflict: No separate payment shall be made for lowering the water main alignment to avoid a vertical conflict, except where authorized for additional fittings.
- B. Construction Along Highways, Streets and Roadways: No separate payment shall be made for traffic control or maintaining highways, streets, roadways and driveways.
- C. Location and Grade
  1. No separate payment shall be made for any surveying performed by the Contractor to establish or confirm the location of reference points, right of ways or easements or location and grade of the water main.
  2. The Construction Verification Surveying cash allowance is solely for the use of the Engineer for verification of the Contractor's reference points, centerlines and work performed. The presence of this cash allowance in no way relieves the Contractor of the responsibility of installing reference points, centerlines, temporary bench marks or verifying that the work has been performed accurately.
- D. Laying and Jointing Pipe and Accessories
  1. Payment for Reuse Water Main shall be made for the quantity provided. Measurement for payment shall be made along the centerline of the pipe, through valves and fittings. No payment shall be made for sections of pipe which are not installed.
  2. Fittings: The unit price bid for fittings shall include the costs of fittings and joint accessories. Weight of fittings for payment for diameters less than 54 inches shall be AWWA C 110 standard weight for all mechanical joint ends and shall not include the weight of bolts, glands, or cement lining.

3. Valves
    - a. The unit price bid for valves shall include the cost of providing the valve, extension stem, valve box, valve marker, and all related items.
    - b. The cost for providing the flange by restrained joint adapters shall be included in the unit price bid for valves.
  4. The unit price bid for blow-off valves shall include the cost of providing the tapping saddle and fittings, gate valve, valve box, marker, and stem, meter box, pipe, fittings and other related items as shown on the Drawings and for a complete installation.
  5. The unit price bid for air/vacuum valves shall include the cost of providing the air valve, gate valve, tee fitting, precast concrete manhole, frame and cover, crushed stone and all related items as shown on the Drawings and for a complete installation.
  6. No additional payment will be made for replacement of defective materials.
  7. No separate payment shall be made for polyethylene encasement.
  8. No separate payment shall be made for electronic ball markers.
  9. No payment will be made for cutting and beveling pipe.
  10. Solid Sleeves: Payment for solid sleeves shown on the Drawings and specified shall be made at the unit price bid for fittings. No payment shall be made for fittings provided due to the Contractor's sequence of construction, layout problems or repairs, except for those shown on the Drawings or specified.
- E. Thrust Restraint
1. No separate payment will be made for retainer glands or harnessing.
  2. Payment for concrete thrust collars shall be made at the unit price bid. The unit price shall include all associated costs including concrete, reinforcing, forming and weld on collar.
  3. Payment for concrete thrust blocking shall be made at the unit price bid. Quantities shall be determined from the dimensions shown on the Drawings for each size and type of fitting for which blocking is installed. The Contractor shall bear all costs for quantities in excess of the scheduled amount, as may be required due to over excavation or other reasons.
- F. Clean-Up and Testing
1. Payment for clean-up and testing shall be made at the unit price provided in the Bid for Clean Up and Testing. Any other cost for labor, material and equipment required shall be included in the unit price bid for Reuse Water Mains.

2. No payment for clean up and testing shall be made for any length of line unless pressure testing has been successfully completed, and clean up has been completed to the satisfaction of the Engineer for that segment of line for which payment is being requested.

**1.05 Bore and Jack Casings**

- A. Payment for casing shall be made only at the completion of all work specified for the casing installation. No partial payment shall be made for the construction of the casing.
- B. Casing pipe may be included in Partial Payment Requests as stored materials, if the casing pipe is stored at the Project site. Casing pipe which has been properly installed, but has not yet been paid for as installed casing, may also be included as stored materials.
- C. In the event that rock is encountered during the installation of the pipe casing which, in the opinion of the Engineer, cannot be removed through the casing then the Engineer may authorize the Contractor to complete the crossing by another method via a change order.
- D. No additional payment shall be made for rock excavation through the casing or through the tunnel.
- E. Payment for pipe in casing shall be made only at the completion of all work specified for the pipe installation. Payment for pipe in the casing shall be made only at the one unit price bid for the appropriate crossing.

**1.06 Removing and Replacing Pavement**

- A. Payment for removing and replacing pavement will be made as a separate item based on the measured quantity replaced at the unit price in the Bid. The unit price bid shall include all costs associated with removing and replacing pavement, including providing select backfill if necessary, traffic control and temporary measures for maintaining traffic.
- B. Payment shall be made only for that length and width for which the pipeline is constructed underneath the pavement as shown on the Drawings.
- C. Payment for soils testing shall be made from the "soils and concrete testing" cash allowance. No payment shall be made for tests that fail to verify required results.
- D. No additional payment will be made for removing and replacing damaged adjacent pavement.
- E. Costs for removal and replacement of sidewalks and curb and gutter shall be included in the unit price bid for the item to which it pertains.

**1.07 Clearing and Grubbing**

- A. No separate payment shall be made for clearing and grubbing.
- B. The cost of moving and reestablishing landscape features, including labor and materials, shall be included in the unit price bid for the item to which it pertains.

**1.08 Trench Excavation and Backfill**

- A. No separate or additional payment will be made for any special or unique method, means, techniques or equipment necessary for the Contractor's compliance with these Specifications, regulatory requirements, permits, laws or regulations which govern this Project.
- B. Trench Excavation: No separate payment will be made for trench excavation. All costs shall be included in the unit price bid for the item to which it pertains at the appropriate depth.
- C. Sheeting, Bracing and Shoring: No separate payment will be made for providing any sheeting, bracing and shoring.
- D. Trench Rock Excavation: No separate payment will be made for rock excavation. The cost of such work and all associated costs shall be included in the unit price for the item to which it pertains.
- E. Dewatering Excavations: All costs of equipment, labor and materials required for dewatering shall be included in the price bid for the item to which it pertains.
- F. Trench Foundation and Stabilization
  - 1. No payment for trench stabilization shall be authorized until after the trench has been dewatered. If the pipe is installed in an inadequately prepared trench bottom, the Engineer shall notify the Contractor in writing of the deficiency and will not authorize payment for that portion of that length of pipe which was improperly installed.
  - 2. No additional payment will be made for material required for specified bedding. Payment for trench stabilization shall be made on the basis of the amount authorized and the unit price bid for Beyond Bedding under Trench Stabilization. Payment shall include all costs for the removal and disposal of the unsuitable material and replacement with crushed stone.
- G. Bedding and Haunching
  - 1. The unit price bid for pipe reuse water mains shall include excavation of the trench to the depth below the pipe necessary to provide specified bedding and to lay the sewer to grade. Measurements for payment will be made only to the pipe invert.
  - 2. No additional payment will be made for additional trench depth.
  - 3. No separate payment will be made for material used to provide specified bedding. The cost of all bedding materials shall be included in the unit price bid for the item to which it relates, except for trench stabilization.
  - 4. No additional payment will be made for improved bedding required to compensate for over excavation of the trench.
- H. Initial Backfill
  - 1. No separate payment shall be made for initial backfill.
  - 2. No separate payment shall be made for drying out the initial backfill material in order to meet the compaction requirements.

3. No separate payment shall be made for the adding of moisture to the initial backfill materials in order to meet the compaction requirements.
  4. No separate payment shall be made for providing select material if the insitu material cannot meet the compaction requirements.
- I. Final Backfilling
1. No additional payment will be made for additional material when excavated materials are used.
  2. No separate payment shall be made for drying out the final backfill material in order to meet the compaction requirements.
  3. No separate payment shall be made for the adding of moisture to the final backfill materials in order to meet the compaction requirements.
  4. No additional payment will be made for providing select material if the insitu material cannot meet the compaction requirements.
- J. Additional Material: No separate payment will be made for additional earth or fill materials imported to the Project site.

## 1.09 Cash Allowances

- A. General
1. The Contractor shall include in the Bid Total all allowances stated in the Contract Documents. These allowances shall cover the net cost of the services provided by a firm selected by the Owner. The Contractor's handling costs, labor, overhead, profit and other expenses contemplated for the original allowance shall be included in the items to which they pertain and not in allowances.
  2. No payment will be made for nonproductive time on the part of testing personnel due to the Contractor's failure to properly coordinate testing activities with the work schedule or the Contractor's problems with maintaining equipment in good working condition. The Contractor shall make all necessary excavations and shall supply any samples of materials necessary for conducting compaction and density tests.
  3. No payment shall be provided for services that fail to verify required results.
- B. Should the net cost be more or less than the specified amount of the allowance, the Contract will be adjusted accordingly by change order. The amount of change order will not recognize any changes in handling costs at the site, labor, overhead, profit and other expenses caused by the adjustment to the allowance.
- C. Documentation
1. Submit copies of the invoices with each periodic payment request from the firm providing the services.
  2. Submit results of services provided which verify required results.
- D. Schedule of Cash Allowances

1. Soils and Concrete Testing: Allow the amount provided in the Bid for the services of a geotechnical engineering firm and testing laboratory to verify soils conditions including trench excavation and backfill, and similar issues and for the testing of concrete cylinders for poured in place concrete.
2. Materials Testing: Allow the amount provided in the Bid for the services of a testing laboratory for the testing of materials to be furnished on the Project, e.g., reinforced concrete pipe.
3. Construction Verification Surveying
  - a. Allow the amount provided in the Bid for construction surveying by an independent surveying firm, selected by the Owner, to perform horizontal and vertical alignment checks at the discretion of the Engineer.
  - b. This allowance is solely for the use of the Engineer for verification of the Contractor's reference points, centerlines and work performed. The presence of this cash allowance in no way relieves the Contractor of the responsibility of installing reference points, centerlines, temporary bench marks or verifying that the work has been performed accurately.
4. Blasting Monitoring: Allow the amount provided in the Bid for the services of an independent, qualified specialty subcontractor to monitor the blasting, when directed by the Engineer.
5. Additional Landscaping Not Shown on the Drawings: Allow the amount specified in the Bid for the provision of landscaping in addition to that shown on the Drawings, when directed by the Engineer.
6. Utility Conflict Resolution: Allow the amount provided in the Bid for the resolution of unforeseen utility conflicts, for use only when directed by the Engineer.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. Construction staking shall include all of the surveying work required to layout the Work and control the location of the finished Project. The Contractor shall have the full responsibility for constructing the Project to the correct horizontal and vertical alignment, as shown on the Drawings, as specified, or as ordered by the Engineer. The Contractor shall assume all costs associated with rectifying work constructed in the wrong location.
- B. From the information shown on the Drawings and the information to be provided as indicated under Project Conditions below, the Contractor shall:
  - 1. Be responsible for setting reference points and/or offsets, establishment of baselines, and all other layout, staking, and all other surveying required for the construction of the Project.
  - 2. Safeguard all reference points, stakes, grade marks, horizontal and vertical control points, and shall bear the cost of re establishing same if disturbed.
  - 3. Stake out the permanent and temporary easements or the limits of construction to ensure that the Work is not deviating from the indicated limits.
  - 4. Be responsible for all damage done to reference points, baselines, center lines and temporary bench marks, and shall be responsible for the cost of re establishment of reference points, baselines, center lines and temporary bench marks as a result of the operations.
- C. Baselines shall be defined as the line to which the location of the Work is referenced, i.e., edge of pavement, road centerline, property line, right of way or survey line.
- D. Record Drawing surveys shall be performed in accordance with Section 01720 of these Specifications.

**1.02 Project Conditions**

- A. The Drawings provide the location and/or coordinates of principal components of the Project. The alignment of some components of the Project may be indicated in the Specifications. The Engineer may order changes to the location of some of the components of the Project or provide clarification to questions regarding the correct alignment.
- B. The survey points, control points, and baseline to be provided to the Contractor shall be limited to only that information which can be found on the Project site by the Contractor.
- C. A boundary and topographic survey is included on the Drawings.

**1.03 Quality Assurance**

- A. The Contractor shall furnish documentation, prepared by a surveyor currently registered in the State of Georgia, confirming that staking is being done to the

horizontal and vertical alignment shown in the Contract Documents. This requires that the Contractor hire, at the Contractor's own expense, a currently registered surveyor, acceptable to the Owner, to provide ongoing construction staking or confirmation of such.

- B. Any deviations from the Drawings shall be confirmed by the Engineer prior to construction of that portion of the Project.
- C. Quantities for payments measured under this Contract shall be certified by the registered surveyor.
- D. Construction Surveying Cash Allowance
  - 1. This cash allowance is solely for the use of the Engineer for verification of the Contractor's reference points, centerlines and work performed and is not to be used by the Contractor to provide cut sheets.
  - 2. The presence of this cash allowance in no way relieves the Contractor of the responsibility of installing reference points, centerlines, temporary bench marks, verifying that the work has been performed accurately, and all other work covered by this Section.

#### **1.04 Reuse Water Mains and Accessories**

- A. Staking Precision: The precision of construction staking required shall be that which the correct location of the water main can be established for construction and verified by the Engineer. Where the location of components of the water main, e.g. fittings, valves, road crossings and are not dimensioned, the establishment of the location of these components shall be based upon scaling these locations from the Drawings with relation to readily identifiable land marks, e.g., survey reference points, power poles, manholes, etc.
- B. Reference Points
  - 1. Reference points shall be placed, at or no more than three feet, from the outside of the construction easement or right of way. The location of the reference points shall be recorded in a log with a copy provided to the Engineer for use, prior to verifying reference point locations. Distances shall be accurately measured to 0.01 foot.
  - 2. The Contractor shall give the Engineer reasonable notice that reference points are set. The reference point locations must be verified by the Engineer prior to commencing clearing and grubbing operations.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. Permits and Responsibilities: The Contractor shall, without additional expense to the Owner, be responsible for obtaining all necessary licenses and permits, including building permits, and for complying with any applicable federal, state, county and municipal laws, codes and regulations, in connection with the prosecution of the Work.
- B. The Contractor shall take proper safety and health precautions to protect the Work, the workers, the public and the property of others.
- C. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the Work, except for any completed unit of construction thereof which may heretofore have been accepted.

END OF SECTION

**Part 1 General****1.01 Description**

- A. Whenever reference is made to conforming to the standards of any technical society, organization, body, code or standard, it shall be construed to mean the latest standard, code, specification or tentative specification adopted and published at the time of advertisement for Bids. This shall include the furnishing of materials, testing of materials, fabrication and installation practices. In those cases where the Contractor's quality standards establish more stringent quality requirements, the more stringent requirement shall prevail. Such standards are made a part hereof to the extent which is indicated or intended.
- B. The inclusion of an organization under one category does not preclude that organizations' standards from applying to another category.
- C. In addition, all work shall comply with the applicable requirements of local codes, utilities and other authorities having jurisdiction.
- D. All material and equipment, for which a UL Standard, an AGA or NSF approval or an ASME requirement is established, shall be so approved and labeled or stamped. The label or stamp shall be conspicuous and not covered, painted, or otherwise obscured from visual inspection.
- E. The standards which apply to this Project are not necessarily restricted to those organizations which are listed in Article 1.02.

**1.02 Standard Organizations**

- A. Piping and Valves
 

ACPA	American Concrete Pipe Association
ANSI	American National Standards Institute
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
AWWA	American Water Works Association
CISPI	Cast Iron Soil Pipe Institute
DIPRA	Ductile Iron Pipe Research Association
FCI	Fluid Controls Institute
MSS	Manufacturers Standardization Society
NCPI	National Clay Pipe Institute
NSF	National Sanitation Foundation
PPI	Plastic Pipe Institute
Uni Bell PVC Pipe Association	
- B. Materials
 

AASHTO	American Association of State Highway and Transportation Officials
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
- C. Painting and Surface Preparation
 

NACE	National Association of Corrosion Engineers
SSPC	Steel Structures Painting Council

## D. Electrical and Instrumentation

AEIC	Association of Edison Illuminating Companies
AIEE	American Institute of Electrical Engineers
EIA	Electronic Industries Association
ICEA	Insulated Cable Engineers Association
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IPC	Institute of Printed Circuits
IPCEA	Insulated Power Cable Engineers Association
ISA	ISA – The Instrumentation, Systems, and Automation Society
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
REA	Rural Electrification Administration
TIA	Telecommunications Industries Association
UL	Underwriter's Laboratories
VRCI	Variable Resistive Components Institute

## E. Aluminum

AA	Aluminum Association
AAMA	American Architectural Manufacturers Association

## F. Steel and Concrete

ACI	American Concrete Institute
AISC	American Institute of Steel Construction, Inc.
AISI	American Iron and Steel Institute
CRSI	Concrete Reinforcing Steel Institute
NRMA	National Ready Mix Association
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute

## G. Welding

ASME	American Society of Mechanical Engineers
AWS	American Welding Society

## H. Government and Technical Organizations

AIA	American Institute of Architects
APHA	American Public Health Association
APWA	American Public Works Association
ASA	American Standards Association
ASAE	American Society of Agricultural Engineers
ASCE	American Society of Civil Engineers
ASQC	American Society of Quality Control
ASSE	American Society of Sanitary Engineers
CFR	Code of Federal Regulations
CSI	Construction Specifications Institute
EDA	Economic Development Administration
EPA	Environmental Protection Agency
FCC	Federal Communications Commission
FmHA	Farmers Home Administration

FS	Federal Specifications
IAI	International Association of Identification
ISEA	Industrial Safety Equipment Association
ISO	International Organization for Standardization
ITE	Institute of Traffic Engineers
NBFU	National Board of Fire Underwriters
(NFPA)	National Fluid Power Association
NBS	National Bureau of Standards
NISO	National Information Standards Organization
OSHA	Occupational Safety and Health Administration
SI	Salt Institute
SPI	The Society of the Plastics Industry, Inc.
USDC	United States Department of Commerce
WEF	Water Environment Federation

## I. General Building Construction

AHA	American Hardboard Association
AHAM	Association of Home Appliance Manufacturers
AITC	American Institute of Timber Construction
APA	American Parquet Association, Inc.
APA	American Plywood Association
BHMA	Builders Hardware Manufacturers Association
BIFMA	Business and Institutional Furniture Manufacturers Association
DHI	Door and Hardware Institute
FM	Factory Mutual Fire Insurance Company
HPMA	Hardwood Plywood Manufacturers Association
HTI	Hand Tools Institute
IME	Institute of Makers of Explosives
ISANTA	International Staple, Nail and Tool Association
ISDSI	Insulated Steel Door Systems Institute
IWS	Insect Screening Weavers Association
MBMA	Metal Building Manufacturers Association
NAAMM	National Association of Architectural Metal Manufacturers
NAGDM	National Association of Garage Door Manufacturers
NCCLS	National Committee for Clinical Laboratory Standards
NFPA	National Fire Protection Association
NFSA	National Fertilizer Solutions Association
NKCA	National Kitchen Cabinet Association
NWMA	National Woodwork Manufacturers Association
NWWDA	National Wood Window and Door Association
RMA	Rubber Manufacturers Association
SBC	SBCC Standard Building Code
SDI	Steel Door Institute
SIA	Scaffold Industry Association
SMA	Screen Manufacturers Association
SPRI	Single Ply Roofing Institute
TCA	Tile Council of America
UBC	Uniform Building Code

## J. Roadways

AREA	American Railway Engineering Association
DOT	Department of Transportation
SSRBC	Standard Specifications for Construction of Transportation Systems, Georgia Department of Transportation

K.	Plumbing	
	AGA	American Gas Association
	NSF	National Sanitation Foundation
	PDI	Plumbing Drainage Institute
	SPC	SBCC Standard Plumbing Code
L.	Refrigeration, Heating, and Air Conditioning	
	AMCA	Air Movement and Control Association
	ARI	American Refrigeration Institute
	ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
	ASME	American Society of Mechanical Engineers
	CGA	Compressed Gas Association
	CTI	Cooling Tower Institute
	HEI	Heat Exchange Institute
	IIAR	International Institute of Ammonia Refrigeration
	NB	National Board of Boilers and Pressure Vessel Inspectors
	PFMA	Power Fan Manufacturers Association
	SAE	Society of Automotive Engineers
	SMACNA	Sheet Metal and Air Conditioning Contractors National Association
	SMC	SBCC Standard Mechanical Code
	TEMA	Tubular Exchangers Manufacturers Association
M.	Equipment	
	AFBMA	Anti Friction Bearing Manufacturers Association, Inc.
	AGMA	American Gear Manufacturers Association
	ALI	Automotive Lift Institute
	CEMA	Conveyor Equipment Manufacturers Association
	CMAA	Crane Manufacturers Association of America
	DEMA	Diesel Engine Manufacturers Association
	MMA	Monorail Manufacturers Association
	OPEI	Outdoor Power Equipment Institute, Inc.
	PTI	Power Tool Institute, Inc.
	RIA	Robotic Industries Association
	SAMA	Scientific Apparatus Makers Association

**1.03 Symbols**

Symbols and material legends shall be as scheduled on the Drawings.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. Work under this Section includes all scheduling and administering of pre construction and progress meetings as herein specified and necessary for the proper and complete performance of this Work.
- B. Scheduling and Administration by Engineer:
  - 1. Prepare agenda.
  - 2. Make physical arrangements for the meetings.
  - 3. Preside at meetings.
  - 4. Record minutes and include significant proceedings and decisions.
  - 5. Distribute copies of the minutes to participants.

**1.02 Preconstruction Conference**

- A. The Engineer shall schedule the preconstruction conference prior to the issuance of the Notice to Proceed.
- B. Representatives of the following parties are to be in attendance at the meeting:
  - 1. Owner.
  - 2. Engineer.
  - 3. Contractor and superintendent.
  - 4. Major subcontractors.
  - 5. Representatives of governmental or regulatory agencies when appropriate.
- C. The agenda for the preconstruction conference shall consist of the following as a minimum:
  - 1. Distribute and discuss a list of major subcontractors and a tentative construction schedule.
  - 2. Critical work sequencing.
  - 3. Designation of responsible personnel and emergency telephone numbers.
  - 4. Processing of field decisions and change orders.
  - 5. Adequacy of distribution of Contract Documents.
  - 6. Schedule and submittal of shop drawings, product data and samples.
  - 7. Pay request format, submittal cutoff date, pay date and retain age.

8. Procedures for maintaining record documents.
9. Use of premises, including office and storage areas and Owner's requirements.
10. Major equipment deliveries and priorities.
11. Safety and first aid procedures.
12. Security procedures.
13. Housekeeping procedures.
14. Work hours.

### **1.03 Project Coordination Meetings**

- A. Schedule bi-weekly meetings as directed by the Engineer.
- B. Hold called meetings as the progress of the Work dictates.
- C. The meetings shall be held at the location indicated by the Engineer.
- D. Representatives of the following parties are to be in attendance at the meetings:
  1. Engineer.
  2. Contractor and superintendent.
  3. Major subcontractors as pertinent to the agenda.
  4. Owner's representative as appropriate.
  5. Representatives of governmental or other regulatory agencies as appropriate.
- E. The minimum agenda for progress meetings shall consist of the following:
  1. Review and approve minutes of previous meetings.
  2. Review work progress since last meeting.
  3. Note field observations, problems and decisions.
  4. Identify problems which impede planned progress.
  5. Review off site fabrication problems.
  6. Review Contractor's corrective measures and procedures to regain plan schedule.
  7. Review Contractor's revision to the construction schedule as outlined in the Supplementary Conditions.
  8. Review submittal schedule; expedite as required to maintain schedule.

9. Maintenance of quality and work standards.
10. Review changes proposed by Owner for their effect on the construction schedule and completion date.
11. Complete other current business.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. The work under this Section includes preparing, furnishing, distributing, and periodic updating of the construction schedules as specified herein.
- B. The purpose of the schedule is to demonstrate that the Contractor can complete the overall Project within the Contract Time and meet all required interim milestones.

**1.02 Submittals**

- A. Overall Project Schedule (OPS)
  - 1. Submit the schedule within 10 days after date of the Notice to Proceed.
  - 2. The Engineer will review the schedule and return it within 10 days after receipt.
  - 3. If required, resubmit within 10 days after receipt of a returned copy.
- B. Near Term Schedule (NTS)
  - 1. Submit the first Near Term Schedule within 10 days of the Notice to Proceed.
  - 2. The Engineer will review the schedule and return it within 10 days after receipt.
- C. Submit an update of the OPS and NTS with each progress payment request.
- D. Submit the number of copies required by the Contractor, plus four copies to be retained by the Engineer.

**1.03 Approval**

Approval of the Contractor's detailed construction program and revisions thereto shall in no way relieve the Contractor of any of Contractor's duties and obligations under the Contract. Approval is limited to the format of the schedule and does not in any way indicate approval of, or concurrence with, the Contractor's means, methods and ability to carry out the Work.

**1.04 Overall Project Schedule (OPS)**

- A. The Contractor shall submit to the Owner for approval a detailed Overall Project Schedule of the Contractor's proposed operations for the duration of the Project. The OPS shall be in the form of a Gantt/bar chart.
- B. Gantt/Bar Chart Schedule
  - 1. Each activity with a duration of five or more days shall be identified by a separate bar. Activities with a duration of more than 20 days shall be sub divided into separate activities.

2. The schedule shall include activities for shop drawing preparation and review, fabrication, delivery, and installation of major or critical path materials and equipment items.
3. The schedule shall show the proposed start and completion date for each activity. A separate listing of activity start and stop dates and working day requirements shall be provided unless the information is shown in text form on the Gantt/bar chart.
4. The schedule shall identify the Notice to Proceed date, the Contract Completion date, major milestone dates, and a critical path.
5. The schedule shall be printed on a maximum 11 x 17 inch size paper. If the OPS needs to be shown on multiple sheets, a simplified, one page, summary bar chart showing the entire Project shall be provided.
6. The schedule shall have a horizontal time scale based on calendar days and shall identify the Monday of each week.
7. The schedule shall show the precedence relationship for each activity.

#### **1.05 Near Term Schedule (NTS)**

- A. The Contractor shall develop and refine a detailed Near Term Schedule showing the day to day activities with committed completion dates which must be performed during the upcoming 30 day period. The detailed schedule shall represent the Contractor's best approach to the Work which must be accomplished to maintain progress consistent with the Overall Project Schedule.
- B. The Near Term Schedule shall be in the form of Gantt/bar chart and shall include a written narrative description of all activities to be performed and describe corrective action to be taken for items that are behind schedule.

#### **1.06 Updating**

- A. Show all changes occurring since previous submission of the updated schedule.
- B. Indicate progress of each activity and show actual completion dates.
- C. The Contractor shall be prepared to provide a narrative report at the Project Coordination Meetings. The report shall include the following:
  1. A description of the overall Project status and comparison to the OPS.
  2. Identify activities which are behind schedule and describe corrective action to be taken.
  3. A description of changes or revisions to the Project and their effect on the OPS.
  4. A description of the Near Term Schedule of the activities to be completed during the next 30 days. The report shall include a description of all activities requiring participation by the Engineer and/or Owner.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. The Contractor shall furnish all equipment and labor materials required to provide the Owner with digital construction videos and photographs of the Project. Photographs and videos shall be provided on a compact disk, in DVD format.
- B. Photo and video files shall become the property of the Owner and none of the videos or photographs herein shall be published without express permission of the Owner.

**1.02 Pre and Post Construction Videos and Photographs**

- A. Prior to the beginning of any work, the Contractor shall take project videos and photographs of the work area to record existing conditions.
- B. Following completion of the work, another recording and photos shall be made showing the same areas and features as in the pre construction videos and photographs.
- C. All conditions which might later be subject to disagreement shall be shown in sufficient detail to provide a basis for decisions.
- D. The pre construction videos and photographs shall be submitted to the Engineer within 25 calendar days after the date of receipt by the Contractor of Notice to Proceed. Post construction videos and photographs shall be provided prior to final acceptance of the project.

**1.03 Progress Photographs and Submittals**

- A. Progress photograph files shall be provided on compact discs as well as hard copies.
- B. The file name of each photograph shall at a minimum contain the date the photograph was taken. All photographs shall be labeled to indicate date, time taken, and description of work shown.
- C. A minimum of 10 photographs shall be submitted with each request for payment. The view selection will be as agreed to with the Engineer. One copy of each photograph shall be submitted. Failure to include photographs may be cause for rejection of the payment request.
- D. Videos shall be submitted with a log of the items recorded, referenced to stations and property identification numbers.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. The work under this Section includes submittal to the Engineer of shop drawings, product data and samples required by the various sections of these Specifications.
- B. Submittal Contents: The submittal contents required are specified in each section.
- C. Definitions: Submittals are categorized as follows:
  - 1. Shop Drawings
    - a. Shop drawings shall include technical data, drawings, diagrams, procedure and methodology, performance curves, schedules, templates, patterns, test reports, calculations, instructions, measurements and similar information as applicable to the specific item for which the shop drawing is prepared.
    - b. Provide newly prepared information, on reproducible sheets, with graphic information at accurate scale (except as otherwise indicated) or appropriate number of prints hereof, with name or preparer (firm name) indicated. The Contract Drawings shall not be traced or reproduced by any method for use as or in lieu of detail shop drawings. Show dimensions and note dimensions that are based on field measurement. Identify materials and products in the work shown. Indicate compliance with standards and special coordination requirements. Do not allow shop drawings to be used in connection with the Work without appropriate final "Action" markings by the Engineer.
    - c. Drawings shall be presented in a clear and thorough manner. Details shall be identified by reference to sheet and detail, specification section, schedule or room numbers shown on the Contract Drawings.
    - d. Minimum assembly drawings sheet size shall be 24 x 36 inches.
    - e. Minimum detail sheet size shall be 8 1/2 x 11 inches.
    - f. Minimum Scale:
      - i. Assembly Drawings Sheet, Scale: 1 inch = 30 feet.
      - ii. Detail Sheet, Scale: 1/4 inch = 1 foot.
  - 2. Product Data
    - a. Product data includes standard printed information on materials, products and systems, not specially prepared for this Project, other than the designation of selections from among available choices printed therein.

- b. Collect required data into one submittal for each unit of work or system, and mark each copy to show which choices and options are applicable to the Project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked and special coordination requirements.
3. Samples
    - a. Samples include both fabricated and un fabricated physical examples of materials, products and units of work, both as complete units and as smaller portions of units of work, either for limited visual inspection or, where indicated, for more detailed testing and analysis.
    - b. Provide units identical with final condition of proposed materials or products for the work. Include "range" samples, not less than three units, where unavoidable variations must be expected, and describe or identify variations between units of each set. Provide full set of optional samples where the Engineer's selection is required. Prepare samples to match the Engineer's sample where indicated. Include information with each sample to show generic description, source or product name and manufacturer, limitations and compliance with standards. Samples are submitted for review and confirmation of color, pattern, texture and "kind" by the Engineer. Engineer will note "test" samples, except as otherwise indicated, for other requirements, which are the exclusive responsibility of the Contractor.
  4. Miscellaneous submittals related directly to the Work (non administrative) ies, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, statements of applicability, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operating and maintenance materials, overrun stock, security/protection/safety keys and similar information, devices and materials applicable to the Work but not processed as shop drawings, product data or samples.

## 1.02 Specific Category Requirements

- A. General: Except as otherwise indicated in the individual work sections, comply with general requirements specified herein for each indicated category of submittal. Submittals shall contain:
  1. The date of submittal and the dates of any previous submittals.
  2. The Project title.
  3. Numerical submittal numbers, starting with 1.0, 2.0, etc. Revisions to be numbered 1.1, 1.2, etc.
  4. The Names of:
    - a. Contractor
    - b. Supplier
    - c. Manufacturer

5. Identification of the product, with the Specification section number, permanent equipment tag numbers and applicable Drawing No.
6. Field dimensions, clearly identified as such.
7. Relation to adjacent or critical features of the Work or materials.
8. Applicable standards, such as ASTM or Federal Specification numbers.
9. Notification to the Engineer in writing, at time of submissions, of any deviations on the submittals from requirements of the Contract Documents.
10. Identification of revisions on resubmittals.
11. An 8 x 3 inch blank space for Contractor and Engineer stamps.
12. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria and coordination of the information within the submittal with requirements of the Work and of Contract Documents.
13. Submittal sheets or drawings showing more than the particular item under consideration shall have all but the pertinent description of the item for which review is requested crossed out.

### **1.03 Routing of Submittals**

- A. Submittals and routine correspondence shall be routed as follows:
  1. Supplier to Contractor (through representative if applicable)
  2. Contractor to Engineer
  3. Engineer to Contractor and Owner
  4. Contractor to Supplier

## **Part 2 Products**

### **2.01 Shop Drawings**

- A. Unless otherwise specifically directed by the Engineer, make all shop drawings accurately to a scale sufficiently large to show all pertinent features of the item and its method of connection to the Work.
- B. Submit all shop drawings in the form of six hard copies and one pdf file.
- C. One reproducible for all submittals larger than 11 x 17 inches and no more than three prints of other submittals will be returned to the Contractor.

### **2.02 Manufacturer's Literature**

- A. Where content of submitted literature from manufacturers includes data not pertinent to this submittal, clearly indicate which portion of the contents is being submitted for the Engineer's review.
- B. Submit the number of copies which are required to be returned (not to exceed three) plus three copies which will be retained by the Engineer.

**2.03 Samples**

- A. Samples shall illustrate materials, equipment or workmanship and established standards by which completed work is judged.
- B. Unless otherwise specifically directed by the Engineer, all samples shall be of the precise article proposed to be furnished.
- C. Submit all samples in the quantity which is required to be returned plus one sample which will be retained by the Engineer.

**2.04 Colors**

- A. Unless the precise color and pattern is specifically described in the Contract Documents, wherever a choice of color or pattern is available in a specified product, submit accurate color charts and pattern charts to the Engineer for review and selection.
- B. Unless all available colors and patterns have identical costs and identical wearing capabilities, and are identically suited to the installation, completely describe the relative costs and capabilities of each.

**Part 3 Execution****3.01 Contractor's Coordination of Submittals**

- A. Prior to submittal for the Engineer's review, the Contractor shall use all means necessary to fully coordinate all material, including the following procedures:
  - 1. Determine and verify all field dimensions and conditions, catalog numbers and similar data.
  - 2. Coordinate as required with all trades and all public agencies involved.
  - 3. Submit a written statement of review and compliance with the requirements of all applicable technical Specifications as well as the requirements of this Section.
  - 4. Clearly indicate in a letter or memorandum on the manufacturer's or fabricator's letterhead, all deviations from the Contract Documents.
- B. Each and every copy of the shop drawings and data shall bear the Contractor's stamp showing that they have been so checked. Shop drawings submitted to the Engineer without the Contractor's stamp will be returned to the Contractor for conformance with this requirement.
- C. The Owner may back charge the Contractor for costs associated with having to review a particular shop drawing, product data or sample more than two times to receive a "No Exceptions Taken" mark.
- D. Grouping of Submittals
  - 1. Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items.

2. No review will be given to partial submittals of shop drawings for items which interconnect and/or are interdependent. It is the Contractor's responsibility to assemble the shop drawings for all such interconnecting and/or interdependent items, check them and then make one submittal to the Engineer along with Contractor's comments as to compliance, non compliance or features requiring special attention.

E. Schedule of Submittals

1. Within 30 days of Contract award and prior to any shop drawing submittal, the Contractor shall submit a schedule showing the estimated date of submittal and the desired approval date for each shop drawing anticipated. A reasonable period shall be scheduled for review and comments. Time lost due to unacceptable submittals shall be the Contractor's responsibility and some time allowance for resubmittal shall be provided. The schedule shall provide for submittal of items which relate to one another to be submitted concurrently.

**3.02 Timing of Submittals**

- A. Make all submittals far enough in advance of scheduled dates for installation to provide all required time for reviews, for securing necessary approvals, for possible revision and resubmittal, and for placing orders and securing delivery.
- B. In scheduling, allow sufficient time for the Engineer's review following the receipt of the submittal.

**3.03 Reviewed Shop Drawings**

A. Engineer Review

1. Allow a minimum of 30 days for the Engineer's initial processing of each submittal requiring review and response, except allow longer periods where processing must be delayed for coordination with subsequent submittals. The Engineer will advise the Contractor promptly when it is determined that a submittal being processed must be delayed for coordination. Allow a minimum of two weeks for reprocessing each submittal. Advise the Engineer on each submittal as to whether processing time is critical to progress of the Work, and therefore the Work would be expedited if processing time could be foreshortened.
2. Acceptable submittals will be marked "No Exceptions Taken". A minimum of three copies will be retained by the Engineer for Engineer's and the Owner's use and the remaining copies will be returned to the Contractor.
3. Submittals requiring minor corrections before the product is acceptable will be marked "Make Corrections Noted". The Contractor may order, fabricate and ship the items included in the submittals, provided the indicated corrections are made. Drawings must be resubmitted for review and marked "No Exceptions Taken" prior to installation or use of products.
4. Submittals marked "Amend and Resubmit" must be revised to reflect required changes and the initial review procedure repeated.

5. The "Rejected See Remarks" notation is used to indicate products which are not acceptable. Upon return of a submittal so marked, the Contractor shall repeat the initial review procedure utilizing acceptable products.
  6. Only two copies of items marked "Amend and Resubmit" and "Rejected See Remarks" will be reviewed and marked. One copy will be retained by the Engineer and the other copy with all remaining unmarked copies will be returned to the Contractor for resubmittal.
- B. No work or products shall be installed without a drawing or submittal bearing the "No Exceptions Taken" notation. The Contractor shall maintain at the job site a complete set of shop drawings bearing the Engineer's stamp.
- C. Substitutions: In the event the Contractor obtains the Engineer's approval for the use of products other than those which are listed first in the Contract Documents, the Contractor shall, at the Contractor's own expense and using methods approved by the Engineer, make any changes to structures, piping and electrical work that may be necessary to accommodate these products.
- D. Use of the "No Exceptions Taken" notation on shop drawings or other submittals is general and shall not relieve the Contractor of the responsibility of furnishing products of the proper dimension, size, quality, quantity, materials and all performance characteristics, to efficiently perform the requirements and intent of the Contract Documents. The Engineer's review shall not relieve the Contractor of responsibility for errors of any kind on the shop drawings. Review is intended only to assure conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site. The Contractor is also responsible for information that pertains solely to the fabrication processes or to the technique of construction and for the coordination of the work of all trades.

### **3.04 Resubmission Requirements**

- A. Shop Drawings
1. Revise initial drawings as required and resubmit as specified for initial submittal, with the resubmittal number shown.
  2. Indicate on drawings all changes which have been made other than those requested by the Engineer.
- B. Project Data and Samples: Resubmit new data and samples as specified for initial submittal, with the resubmittal number shown.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. This Section includes testing which the Owner may require, beyond that testing required of the manufacturer, to determine if materials provided for the Project meet the requirements of these Specifications.
- B. This work also includes all testing required by the Owner to verify work performed by the Contractor is in accordance with the requirements of these Specifications, i.e., concrete strength and slump testing, soil compaction, etc.
- C. This work does not include materials testing required in various sections of these Specifications to be performed by the manufacturer, e.g., testing of pipe.
- D. The testing laboratory or laboratories will be selected by the Owner. The testing laboratory or laboratories will work for the Owner.

**1.02 Payment for Testing Services**

- A. The cost of testing services required by the Contract to be provided by the Contractor shall be paid for by the Owner through the CASH ALLOWANCE, i.e., concrete testing, soil compaction, and asphalt testing.
- B. The cost of additional testing services not specifically required in the Specifications, but requested by the Owner or Engineer, shall be paid for by the Owner through the CASH ALLOWANCE.
- C. The cost of material testing described in various sections of these Specifications or as required in referenced standards to be provided by a material manufacturer, shall be included in the price bid for that item and shall not be paid for by the Owner.
- D. The cost of retesting any item that fails to meet the requirements of these Specifications shall be paid for by the Contractor. Retesting shall be performed by the testing laboratory working for the Owner.

**1.03 Laboratory Duties**

- A. Cooperate with the Owner, Engineer and Contractor.
- B. Provide qualified personnel promptly on notice.
- C. Perform specified inspections, sampling and testing of materials.
  - 1. Comply with specified standards, ASTM, other recognized authorities, and as specified.
  - 2. Ascertain compliance with requirements of the Contract Documents.
- D. Promptly notify the Engineer and Contractor of irregularity or deficiency of work which are observed during performance of services.
- E. Promptly submit three copies (two copies to the Engineer and one copy to the Contractor) of report of inspections and tests in addition to those additional copies required by the Contractor with the following information included:

1. Date issued
  2. Project title and number
  3. Testing laboratory name and address
  4. Name and signature of inspector
  5. Date of inspection or sampling
  6. Record of temperature and weather
  7. Date of test
  8. Identification of product and Specification section
  9. Location of Project
  10. Type of inspection or test
  11. Results of test
  12. Observations regarding compliance with the Contract Documents
- F. Perform additional services as required.
- G. The laboratory is not authorized to release, revoke, alter or enlarge on requirements of the Contract Documents, or approve or accept any portion of the Work.

#### **1.04 Contractor Responsibilities**

- A. Cooperate with laboratory personnel, provide access to Work and/or manufacturer's requirements.
- B. Provide to the laboratory, representative samples, in required quantities, of materials to be tested.
- C. Furnish copies of mill test reports.
- D. Furnish required labor and facilities to:
1. Provide access to Work to be tested;
  2. Obtain and handle samples at the site;
  3. Facilitate inspections and tests;
  4. Build or furnish a holding box for concrete cylinders or other samples as required by the laboratory.
- E. Notify the laboratory sufficiently in advance of operation to allow for the assignment of personnel and schedules of tests.
- F. Laboratory Tests: Where such inspection and testing are to be conducted by an independent laboratory agency, the sample(s) shall be selected by such

laboratory or agency, or the Engineer, and shipped to the laboratory by the Contractor at Contractor's expense.

- G. Copies of all correspondence between the Contractor and testing agencies shall be provided to the Engineer.

**1.05 Quality Assurance**

Testing shall be in accordance with all pertinent codes and regulations and with procedures and requirements of the American Society for Testing and Materials (ASTM).

**1.06 Product Handling**

Promptly process and distribute all required copies of test reports and related instructions to insure all necessary retesting or replacement of materials with the least possible delay in the progress of the Work.

**1.07 Furnishing Materials**

The Contractor shall be responsible for furnishing all materials necessary for testing.

**1.08 Code Compliance Testing**

Inspections and tests required by codes or ordinances or by a plan approval authority, and made by a legally constituted authority, shall be the responsibility of, and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

**1.09 Contractor's Convenience Testing**

Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

**1.10 Schedules for Testing**

- A. Establishing Schedule
  - 1. The Contractor shall, by advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform its tests and to issue each of its findings, and make all arrangements for the testing laboratory to be on site to provide the required testing.
  - 2. Provide all required time within the construction schedule.
- B. When changes of construction schedule are necessary during construction, coordinate all such changes of schedule with the testing laboratory as required.
- C. When the testing laboratory is ready to test according to the determined schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra costs for testing attributable to the delay will be back charged to the Contractor and shall not be borne by the Owner.

**1.11 Taking Specimens**

Unless otherwise provided in the Contract Documents, all specimens and samples for tests will be taken by the testing laboratory or the Engineer.

**1.12 Transporting Samples**

The Contractor shall be responsible for transporting all samples, except those taken by testing laboratory personnel, to the testing laboratory.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. Temporary facilities required for this work include, but are not necessarily limited to:
  - 1. Temporary utilities such as water and electricity.
  - 2. First aid facilities.
  - 3. Sanitary facilities.
  - 4. Potable water.
  - 5. Temporary enclosures and construction facilities.
- B. Temporary utilities for field offices shall be as specified in Section 01590 of these Specifications.

**1.02 General**

- A. First aid facilities, sanitary facilities and potable water shall be available on the Project site on the first day that any activities are conducted on site. The other facilities shall be provided as the schedule of the Project warrants.
- B. Maintenance: Use all means necessary to maintain temporary facilities in proper and safe condition throughout progress of the Work. In the event of loss or damage, immediately make all repairs and replacements necessary, at no additional cost to the Owner.
- C. Removal: Remove all such temporary facilities and controls as rapidly as progress of the Work will permit.

**1.03 Temporary Utilities**

- A. General
  - 1. Provide and pay all costs for all water, electricity and other utilities required for the performance of the Work.
  - 2. Pay all costs for temporary utilities until Project completion.
  - 3. Costs for temporary utilities shall include all power, water and the like necessary for testing equipment as required by the Contract Documents.
- B. Temporary Water: Provide all necessary temporary piping, and upon completion of the Work, remove all such temporary piping. Provide and remove water meters.
- C. Temporary Electricity
  - 1. Provide all necessary wiring for the Contractor's use.
  - 2. Furnish, locate and install area distribution boxes such that the individual trades may use, their own construction type extension cords to obtain

adequate power, and artificial lighting at all points where required by inspectors and for safety.

**1.04 First Aid Facilities**

The Contractor shall provide a suitable first aid station, equipped with all facilities and medical supplies necessary to administer emergency first aid treatment. The Contractor shall have standing arrangements for the removal and hospital treatment of any injured person. All first aid facilities and emergency ambulance service shall be made available by the Contractor to the Owner and the Engineer's personnel.

**1.05 Sanitary Facilities**

Prior to starting the Work, the Contractor shall furnish, for use of Contractor's personnel on the job, all necessary toilet facilities which shall be secluded from public observation. These facilities shall be either chemical toilets or shall be connected to the Owner's sanitary sewer system. All facilities, regardless of type, shall be kept in a clean and sanitary condition and shall comply with the requirements and regulations of the area in which the Work is performed. Adequacy of these facilities will be subject to the Engineer's review and maintenance of same must be satisfactory to the Engineer at all times.

**1.06 Potable Water**

The Contractor shall be responsible for furnishing a supply of potable drinking water for employees, subcontractors, inspectors, engineers and the Owner who are associated with the Work.

**1.07 Enclosures and Construction Facilities**

Furnish, install and maintain for the duration of construction, all required scaffolds, tarpaulins, canopies, steps, bridges, platforms and other temporary construction necessary for proper completion of the Work in compliance with all pertinent safety and other regulations.

**1.08 Parking Facilities**

Parking facilities for the Contractor's and Contractor's subcontractors' personnel shall be the Contractor's responsibility. The storage and work facilities provided by the Owner will not be used for parking by the Contractor's or subcontractor's personnel.

END OF SECTION

**Part 1 General****1.01 Barricades, Lights and Signals**

- A. The Contractor shall furnish and erect such barricades, fences, lights and danger signals and shall provide such other precautionary measures for the protection of persons or property and of the Work as necessary. Barricades shall be painted in a color that will be visible at night. From sunset to sunrise, the Contractor shall furnish and maintain at least one light at each barricade and sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any Work under construction.
- B. The Contractor will be held responsible for all damage to the Work due to failure of barricades, signs and lights and whenever evidence is found of such damage, the Contractor shall immediately remove the damaged portion and replace it at Contractor's cost and expense. The Contractor's responsibility for the maintenance of barricades, signs and lights shall not cease until the Project has been accepted by the Owner.

END OF SECTION

**Part 1 General****1.01 Scope**

Limit blowing dust caused by construction operations by applying water or employing other appropriate means or methods to maintain dust control, subject to the approval of the Owner. As a minimum, this may require the use of a water wagon twice a day to suppress dusty conditions.

**1.02 Protection of Adjacent Property**

- A. The Bidders shall visit the site and note the buildings, landscaping, roads, parking areas and other facilities near the Work site that may be damaged by their operations. The Contractor shall make adequate provision to fully protect the surrounding area and will be held fully responsible for all damages resulting from Contractor's operations.
- B. Protect all existing facilities (indoors or out) from damage by dust, fumes, spray or spills (indoors or out). Protect motors, bearings, electrical gear, instrumentation and building or other surfaces from dirt, dust, welding fumes, paint spray, spills or droppings causing wear, corrosion, malfunction, failure or defacement by enclosure, sprinkling or other dust palliatives, masking and covering, exhausting or containment.

END OF SECTION

**Part 1 General****1.01 Scope**

This Section outlines the restrictions and requirements for substitutions, product and manufacturer options, and construction method options.

**1.02 Definitions**

- A. For the purposes of these Contract Documents, a "substitute item" shall be defined as one of the following:
1. A product or manufacturer offered as a replacement to a specified product or manufacturer.
  2. A product or manufacturer offered in addition to a specified product or manufacturer.
- B. For the purposes of these Contract Documents, a "substitute construction method" shall be defined as one of the following:
1. A mean, method, technique, sequence or procedure of construction offered as a replacement for a specified mean, method, technique, sequence or procedure of construction.
  2. A mean, method, technique, sequence or procedure of construction offered in addition to a specified mean, method, technique, sequence or procedure of construction.

**1.03 General**

- A. An item or construction method, which is offered where no specific product, manufacturer, mean, method, technique, sequence or procedure of construction is specified or shown on the Drawings, shall not be considered a substitute and shall be at the option of the Contractor, subject to the provisions in the Contract Documents for that item or construction method.
- B. For products specified only by a referenced standard, the Contractor may select any product by any manufacturer, which meets the requirements of the Specifications, unless indicated otherwise in the Contract Documents.
- C. If the manufacturer is named on the Drawings or in the Specifications as an acceptable manufacturer, products of that manufacturer meeting all requirements of the Specifications and Drawings are acceptable.
- D. Whenever the Engineer's design is based on a specific product of a particular manufacturer, that manufacturer will be shown on the Drawings and/or listed first in the list of approved manufacturers in the Specifications. Any Bidder intending to furnish products of other than the first listed manufacturer, or furnish substitute items, shall
1. Verify that the item being furnished will fit in the space allowed, perform the same functions and have the same capabilities as the item specified.
  2. Include in its Bid the cost of all accessory items which may be required by the other listed substitute product,

3. Include the cost of any architectural, structural, mechanical, piping, electrical or other modifications required, and
  4. Include the cost of required additional work by the Engineer, if any, to accommodate the item.
- E. Whenever a product specification includes minimum experience requirements which the manufacturer selected by the Contractor cannot meet, the manufacturer shall furnish the Owner with a cash deposit, or bond acceptable to the Owner in an amount equal to the cost of the product, which shall remain in effect until the experience requirement has been met.

#### **1.04 Approvals**

- A. Approval, of a substitution as an acceptable manufacturer, of the Engineer is dependent on determination that the product offered:
1. is essentially equal in function, performance, quality of manufacture, ease of maintenance, reliability, service life and other criteria to that on which the design is based, and
  2. will require no major modifications to structures, electrical systems, control systems or piping systems.

#### **1.05 Substitutions and Options**

- A. After Notice to Proceed
1. Substitute items will be considered only if the term "equal to" precedes the names of acceptable manufacturers in the Specification.
  2. Where items are specified by referenced standard or specified as indicated above in Article 1.03, Paragraph A, such items shall be submitted to the Engineer for review.
  3. The Contractor shall submit shop drawings on the substitute item for the Engineer's review in accordance with the Section 01340.
- B. Prior to Opening of Bids
1. No consideration or approvals will be made for products specified by a referenced standard, or specified as indicated in Article 1.03, Paragraph A. above. Such consideration may occur only after the Notice to Proceed.
  2. No consideration or approvals will be made for products being offered where the term "equal to" precedes the name of an approved product. Such substitution consideration may occur only after the Notice to Proceed.

END OF SECTION

**Part 1 General****1.01 Scope**

This Section covers the general cleaning which the Contractor shall be required to perform both during construction and before final acceptance of the Project unless otherwise shown on the Drawings or specified elsewhere in these Specifications.

**1.02 Quality Assurance**

- A. Daily, and more often if necessary, conduct inspections verifying that requirements of cleanliness are being met.
- B. In addition to the standards described in this Section, comply with all pertinent requirements of governmental agencies having jurisdiction.

**1.03 Hazardous Material and Waste**

- A. The Contractor shall handle hazardous waste and materials in accordance with applicable local, state, and federal regulations. Waste shall also be disposed of in approved landfills as applicable.
- B. The Contractor shall prevent accumulation of wastes which create hazardous conditions.
- C. Burning or burying rubbish and waste materials on the site shall not be allowed.
- D. Disposal of hazardous wastes or materials into sanitary or storm sewers shall not be allowed.

**1.04 Disposal of Surplus Materials**

Unless otherwise shown on the Drawings, specified or directed, the Contractor shall legally dispose off the site all surplus materials and equipment from demolition and shall provide suitable off site disposal site, or utilize a site designated by the Owner.

**Part 2 Products****2.01 Cleaning Materials and Equipment**

Provide all required personnel, equipment and materials needed to maintain the specified standard of cleanliness.

**2.02 Compatibility**

Use only the cleaning materials, methods and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material or as approved by the Engineer.

**Part 3 Execution****3.01 Progress Cleaning**

## A. General

1. Do not allow the accumulation of scrap, debris, waste material and other items not required for construction of this Work.
2. At least each week, and more often if necessary, completely remove all scrap, debris and waste material from the job site.
3. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the environment.

## B. Site

1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.
2. Restack materials stored on site weekly.
3. At all times maintain the site in a neat and orderly condition which meets the approval of the Engineer.

**3.02 Final Cleaning**

- A. Definitions: Unless otherwise specifically specified, "clean" for the purpose of this Article shall be interpreted as the level of cleanliness generally provided by commercial building maintenance subcontractors using commercial quality building maintenance equipment and materials.
- B. General: Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris and waste. Conduct final progress cleaning as described in 3.01 above.
- C. Site: Unless otherwise specifically directed by the Engineer, hose down all paved areas on the site and all public sidewalks directly adjacent to the site; rake clean other surfaces of the grounds. Completely remove all resultant debris.

**3.03 Cleaning During Owner's Occupancy**

Should the Owner occupy the Work or any portion thereof prior to its completion by the Contractor and acceptance by the Owner, responsibilities for interim and final cleaning of the occupied spaces shall be as determined by the Engineer in accordance with the Supplementary Conditions of the Contract Documents.

END OF SECTION

**Part 1 General****1.01 Scope**

- A. The work under this Section includes, but is not necessarily limited to, the compiling, maintaining, recording and submitting of project record documents as herein specified.
- B. Record documents include, but are not limited to:
  - 1. Drawings;
  - 2. Specifications;
  - 3. Change orders and other modifications to the Contract;
  - 4. Engineer field orders or written instructions, including Requests for Information (RFI) and Clarification Memorandums;
  - 5. Reviewed shop drawings, product data and samples;
  - 6. Test records.
- C. The Contractor shall maintain on the Project site throughout the Contract Time an up to date set of Record Drawings.

**1.02 Maintenance of Documents and Samples**

- A. Storage
  - 1. Store documents and samples in the Contractor's field office, apart from documents used for construction.
  - 2. Provide files and racks for storage of documents.
  - 3. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with format of these Specifications.
- C. Maintenance
  - 1. Maintain documents in a clean, dry, legible condition and in good order.
  - 2. Do not use record documents for construction purposes.
  - 3. Maintain at the site for the Owner one copy of all record documents.
- D. Make documents and samples available at all times for inspection by Engineer.
- E. Failure to maintain the Record Documents in a satisfactory manner may be cause for withholding of a certificate for payment.

**1.03 Quality Assurance**

- A. Unless noted otherwise, Record Drawings shall provide dimensions, distances and coordinates to the nearest 0.1 foot.

- B. Unless noted otherwise, Record Drawings shall provide elevations to the nearest 0.01 foot for all pertinent items constructed by the Contractor.

#### **1.04 Recording**

- A. Label each document "Project Record" in neat, large printed letters.
- B. Recording
  - 1. Record information concurrently with construction progress.
  - 2. Do not conceal any work until required information is recorded.

#### **1.05 Record Drawings**

- A. The Contractor shall provide one set of the Contract drawings, with all changes recorded in that one set.
- B. Legibly mark drawings to record actual construction, including:
  - 1. All Construction
    - a. Changes of dimension and detail.
    - b. Changes made by Requests for Information (RFI), field order, clarification memorandums or by change order.
    - c. Details not on original Drawings.
  - 2. Site Improvements, Including Underground Utilities
    - a. Horizontal and vertical locations of all exposed and underground utilities and appurtenances, both new facilities constructed and those utilities encountered, referenced to permanent surface improvements.
    - b. Location of and dimensions of roadways and parking areas, providing dimensions to back of curb when present.
    - c. The locations shall be referenced to at least two easily identifiable, permanent landmarks (e.g., power poles, valve markers, etc.) or benchmarks.

#### **1.06 Specifications**

- A. Legibly mark each section to record:
  - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
  - 2. Changes made by Requests for Information (RFI), field order, clarification memorandums, or by change order.

**1.07 Submittal**

- A. At contract closeout, deliver Record Documents to the Engineer for the Owner.
- B. Accompany submittal with transmittal letter, in duplicate, containing:
  - 1. Date
  - 2. Project title and number
  - 3. Contractor's name and address
  - 4. Title and number of each record document
  - 5. Signature of Contractor or Contractor's authorized representative

END OF SECTION

**Part 1 General****1.01 Project Maintenance and Warranty**

- A. Maintain and keep in good repair the Work covered by these Drawings and Specifications until acceptance by the Owner.
- B. The Contractor shall warrant for a period of one year from the date of Owner's written acceptance of certain segments of the Work and/or Owner's written final acceptance of the Project, as defined in the Contract Documents, that the completed Work 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 throughout the warranty period.
- C. The Contractor shall not be obligated to make replacements which become necessary because of ordinary wear and tear, or as a result of improper operation or maintenance, or as a result of improper work or damage by another Contractor or the Owner, or to perform any work which is normally performed by a maintenance crew during operation.
- D. In the event of multiple failures of major consequences prior to the expiration of the one year warranty described above, the affected unit shall be disassembled, inspected and modified or replaced as necessary to prevent further occurrences. All related components which may have been damaged or rendered non serviceable as a consequence of the failure shall be replaced. A new 12 month warranty against defective or deficient design, workmanship, and materials shall commence on the day that the item is reassembled and placed back into operation. As used herein, multiple failure shall be interpreted to mean two or more successive failures of the same kind in the same item or failures of the same kind in two or more items. Major failures may include, but are not limited to, cracked or broken housings, piping, or vessels, excessive deflections, bent or broken shafts, broken or chipped gear teeth, premature bearing failure, excessive wear or excessive leakage around seals. Failures which are directly and clearly traceable to operator abuse, such as operations in conflict with published operating procedures or improper maintenance, such as substitution of unauthorized replacement parts, use of incorrect lubricants or chemicals, flagrant over or under lubrication and using maintenance procedures not conforming with published maintenance instructions, shall be exempted from the scope of the one year warranty. Should multiple failures occur in a given item, all products of the same size and type shall be disassembled, inspected, modified or replaced as necessary and rewarranted for one year.
- E. The Contractor shall, at Contractor's own expense, furnish all labor, materials, tools and equipment required and shall make such repairs and removals and shall perform such work or reconstruction as may be made necessary by any structural or functional defect or failure resulting from neglect, faulty workmanship or faulty materials, in any part of the Work performed by the Contractor. Such repair shall also include refilling of trenches, excavations or embankments which show settlement or erosion after backfilling or placement.

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- F. Except as noted on the Drawings or as specified, all structures such as embankments and fences shall be returned to their original condition prior to the completion of the Contract. Any and all damage to any facility not designated for removal, resulting from the Contractor's operations, shall be promptly repaired by the Contractor at no cost to the Owner.
  - G. The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of one year from the date of final acceptance. In the event the repairs and maintenance are not made immediately and it becomes necessary for the owner of the road to make such repairs, the Contractor shall reimburse the owner of the road for the cost of such repairs.
  - H. In the event the Contractor fails to proceed to remedy the defects upon notification within 15 days of the date of such notice, the Owner reserves the right to cause the required materials to be procured and the work to be done, as described in the Drawings and Specifications, and to hold the Contractor and the sureties on Contractor's bond liable for the cost and expense thereof.
  - I. Notice to Contractor for repairs and reconstruction will be made in the form of a registered letter addressed to the Contractor at Contractor's home office.
  - J. Neither the foregoing paragraphs nor any provision in the Contract Documents, nor any special guarantee time limit implies any limitation of the Contractor's liability within the law of the place of construction.

END OF SECTION

## APPENDICES

Design and Construction Standards For Non-Potable Reuse Water Lines

***FULTON COUNTY DEPARTMENT  
OF PUBLIC WORKS***



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**DESIGN AND CONSTRUCTION STANDARDS  
FOR  
NON-POTABLE, REUSE WATER LINES**

**2005**

(Edited October, 2006 for R002 Bell Road Reuse Water Main Extension – Phase I)

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## **ARTICLE I**

### **PURPOSE**

- 1.1** These standard specifications are intended to serve the following purposes, among others:
  - 1.1.1** To protect and promote the health, safety, and general welfare of the residents of Fulton County.
  - 1.1.2** To assure the adequate provision utilities, and other facilities and services to new and existing land developments in conformance with public improvement standards and regulations of Fulton County, Georgia.

## ARTICLE II

### DEFINITIONS

#### 2.1 PURPOSE

2.1.2 Words not defined herein shall be construed to have the meaning given by Webster's New Collegiate Dictionary, tenth edition.

#### 2.2 DEFINITIONS

2.2.1 Unless otherwise expressly stated, the following terms shall have the meaning herein indicated.

2.2.1.2 Board of Commissioners - The Board of Commissioners of Fulton County, Georgia.

2.2.1.3 Department - The Department of Public Works, Fulton County, Georgia.

2.2.1.4 Director - The Director of the Fulton County Department of Public Works, or his/her designee.

2.2.1.5 Driveway, access or shared - A paved area used for ingress or egress of vehicles, and allowing access from a street to a building, other structure or facility.

2.2.1.6 Driveway, Single-family Residential, access or shared (Private Drive) - A paved or unpaved area used for ingress or egress of vehicles which allows access from a street to a building, other structure, or facility for no more than three (3) single-family residential lots.

2.2.1.7 Easement - A grant by the property owner for use by the grantee of a portion of land for specified purposes.

2.2.1.8 Engineer – A duly recognized Professional Engineer possessing a current registration by the State of Georgia Secretary of State and representing practice in the areas of potable water and non-potable reuse water distribution system design and construction.

2.2.1.9 Land Disturbance Permit - An official authorization issued by the Department of Environment and Community Development, Fulton County, Georgia, allowing defoliation or alteration of a site or the commencement of any construction activities, including, but not limited to, clearing, grubbing, dredging, grading, excavating, transporting, and filling of land, but not including agricultural practices as defined in the Official Code of Georgia Annotated 1-3-3 (O.C.G.A.).

2.2.1.10 NPRL – Non-potable reuse line. A reuse or reclaimed water pipe or pipeline.

2.2.1.11 Plan, Conceptual - A drawing that shows the proposed layout of a non-potable reuse water project in sufficient detail to indicate its workability and feasibility, but is not in final form for recording, pursuant to these specifications. The conceptual plan is the first stage in securing a Land Disturbance Permit.

2.2.1.12 Standard Details - Illustrative minimum standards for non-potable reuse distribution activities in accordance with these specifications. These standards shall not supersede more restrictive prudent design requirements or good engineering practices as applied to specific situations on a case-by-case basis. All construction shall meet or exceed the Fulton County minimum standards.

2.2.1.13 Street, public - A dedicated and accepted right-of-way for vehicular traffic.

## ARTICLE III

### GENERAL DESIGN PROCEDURES

#### 3.1 **SYSTEM EXPANSION AND REPLACEMENT/IMPROVEMENT PROJECTS**

This section outlines procedures for designs performed by the Contractor's Engineer under a direct contract with Fulton County.

- 3.1.1 All reuse water projects will require a Land Disturbance Permit that must be issued through the Department of Environment and Community Development (ECD). A list of required submittals may be obtained through ECD.
- 3.1.2 The Engineer shall attend a Concept Review meeting with the Fulton County Project Manager to discuss project scope and parameters.
- 3.1.3 Five (5) full size copies and one (1) 11" x 17" copy of the Concept Plans shall be submitted for all proposed projects requiring a Land Disturbance Permit. All plans must be stamped by a Georgia Registered Professional Engineer. The submittals shall also be submitted in a digital format as described in Article 5. The Engineer shall conduct a field review of both sides of the road(s) for which the proposed re-use line is to be installed.
- 3.1.4 The Engineer shall develop plans of the project area showing the road centerline, edge of pavement, all side streets, creek crossings, large rock outcroppings, existing sanitary sewer manholes, existing water lines (potable and NPRL), existing storm drains and headwall structures, exceptional trees (12" or greater in diameter, ornamental or obviously cared for as ornamental by property owner), densely wooded areas or areas which would require substantial clearing, linear footage of sod lawns, existing driveways (indicating types, i.e., concrete, asphalt, stone, etc.), existing water meters, existing fences within and adjacent to the rights-of-way, power poles within the rights-of-way, existing fire hydrants and valves, and any other structures located within or adjacent to the rights-of-way which may impact the proposed construction.
- 3.1.5 The Engineer shall contact all utility companies, including but not limited to, water, gas or petroleum pipelines, natural gas, buried electric lines, buried phone cables, fiber optic lines, etc. to obtain locations of those utilities within the project limits of both sides of the rights-of-way, including side streets. (NOTE: Although the "One-Call" Utility Protection Center provides notification service to subscribing utilities for "design" locates, individual notification is also required by this Department to ensure that all available information concerning other utilities are included on the project design.)
- 3.1.6 The Engineer shall place property lines and street numbers, land lot and district lines on the plan. If the design contract includes right-of-way research, place all existing rights-of-way and prescriptive easements on the plan.
- 3.1.7 The Engineer shall meet with the Fulton County Project Manager to review plan

and determine side of road on which the main is to be installed. Fulton County's normal location is the north side of east-west streets, and the west side of north-south streets, however, field conditions and obstacles identified on the field review may dictate a deviation from this standard. **NOTE: The non-potable reuse line (NPRL) location must maintain 3'-feet horizontal separation from existing parallel water mains or sewage collection lines, and 18-inch vertical separation from any existing perpendicular crossing of sanitary sewer mains. A minimum of 18-inch vertical separation shall be provided between the bottom of any potable water line and the top of any NPRL.**

- 3.1.8 The design of the proposed NPRL shall include horizontal alignment, all creek and bridge crossings, all tie-ins, future stubs, fire hydrants and valves, and abandonment of existing water lines (potable or NPRL), if any.
- 3.1.9 Digital plans created from a county-furnished ortho-photo generally do not require any field surveying work. The Fulton County Project Manager must authorize any required field surveying not in the design contract in writing. All approved surveying work must include two GPS coordinates, tying in with the County's coordinate system.
- 3.1.10 Prepare any required easement plats.
- 3.1.11 Submit a final proposed design to Fulton County for review.
- 3.1.12 Upon return of the proposed design make any changes noted and submit two (2) additional copies to Fulton County for approval.
- 3.1.13 Prepare submittal package, including any required drawings, plans, or details, for application of Ga. D.O.T., or railroad permits, or any other necessary permit applications and submit to Fulton County for processing.
- 3.1.14 Provide the following to Fulton County for bidding purposes:
  - 1. 3 sets of reproducible copies of the final approved design and a digital copy of the design file on a CD.
  - 2. Materials list and labor items list using cost data furnished by Fulton County.
  - 3. A project cost estimate in Microsoft Excel on a CD.
  - 4. A bid summary in Microsoft Excel on a CD.
- 3.1.15 If included in the design contract, perform the following:
  - 1. Attend bid opening and prepare bid tabulation in the format to be provided by Fulton County and submit to the Fulton County Project Manager.

2. Act as advisor and answer any questions regarding design during the construction phase.
3. Prepare and submit to Fulton County four (4) hard copies of as-built drawings and digital format as per Article V.

### **3.2 PRIVATE DEVELOPMENT/SUBDIVISION PROJECTS**

This section outlines procedures for designs performed by an Owner/Developer's Engineer for private developments/subdivisions.

3.2.1 All water re-use projects will require a Land Disturbance Permit that must be issued through the Department of Environment and Community Development. A list of required submittals may be obtained through ECD.

3.2.2 The Engineer shall attend a Concept Review meeting with the Fulton County Project Manager to discuss project scope and parameters.

Five (5) full size copies and one (1) 11" x 17" copy of the Concept Plans shall be submitted for all proposed projects requiring a Land Disturbance Permit. All plans must be stamped by a Georgia registered Professional Engineer. The submittals shall also be submitted in a digital format as described in Article 3.

3.2.3 The design of the proposed NPRL shall include horizontal alignment, all creek and bridge crossings, all tie-ins, future stubs, fire hydrants and valves, and abandonment of any existing water mains, if necessary. Fulton County's required location for water mains within private development/subdivisions is on the north side of east-west streets, and the west side of north-south streets. **NOTE: The non-potable reuse line (NPRL) location must maintain 3'-feet horizontal separation from existing parallel water mains or sewage collection lines, and 18-inch vertical separation from any existing perpendicular crossing of sanitary sewer mains. A minimum of 18-inch vertical separation shall be provided between the bottom of any potable water line and the top of any NPRL.**

3.2.4 If the proposed development does not have an existing NPRL of sufficient capacity at the project entrance, the engineer shall design a NPRL of a size and source specified by Fulton County, in accordance with Fulton County design criteria.

3.2.5 Prepare submittal package, including any required drawings, plans, or details, for application of Ga. D.O.T. or railroad permits, or any other necessary permit applications and submit to Fulton County for processing.

- 3.2.6 Any subdivision which is submitted and approved as one project must either be constructed as one project, or if subsequently phased out to be constructed in multiple phases or units, be resubmitted and receive approval for each phase or unit individually prior to any further construction by Fulton County. In the instance of multiple phases or units, separate construction permits must be obtained for each phase or unit.
- 3.2.7 Record drawings (as-builts) must be submitted and approved before a project can receive final acceptance, and/or Certificates of Occupancy.
- 3.2.8 As-built record drawings must be sharp, clear, clean, legible, and suitable for microfilming and filing.
- 3.2.9 As-built record drawings shall include a site plan and any supplemental or shop drawings as may be required by Fulton County.
- 3.2.10 The Engineer/Developer must submit, for approval, four (4) sets of as-built record drawings and digital copies as per Article V.
- 3.2.11 Record Drawings must be stamped by a Professional Engineer registered in the State of Georgia.

## ARTICLE IV

### DESIGN CRITERIA

#### 4.1 **PROPOSED NON-POTABLE REUSE LINE (NPRL)**

- 4.1.1 Fulton County's standard location for a NPRL is on the same side of the street as the potable water main, between the potable water main and the right of way.
- 4.1.2 For subdivisions, the proposed NPRL shall be located on the north side of east-west streets, and on the west side of north-south streets.
- 4.1.3 For existing county roads, the proposed NPRL will generally be located 5' inside the right-of-way. For existing Ga. D.O.T. roads, the proposed NPRL **must** be located 5' inside the right-of-way. Unusual circumstances such as embankments, obstructions, other utilities, etc. may warrant deviation with written approval.
- 4.1.4 For private developments/subdivisions the NPRL shall be located 9' from the back of the curb.
- 4.1.5 For non-subdivision streets, the side of the road the proposed NPRL will be located on may be primarily determined by the location of any existing lines to be tied into at the beginning and/or end of the project.
- 4.1.6 For non-subdivision streets, the location may also be determined by existing rights-of-way, or lack thereof. The NPRL must be installed within deeded rights-of-way. Installations within "prescriptive" easements will not be permitted.
- 4.1.7 For non-subdivision streets, generally avoid designing the location on the same side of the road as the gas lines. In projects where any existing gas lines have "active" cathodic protection for corrosion prevention, the NPRL **must** be designed on the opposite side of the road, and may require additional protective measures as specified by Fulton County.
- 4.1.8 For non-subdivision streets, if none of the above apply, then design the NPRL for the side of the road that has the fewest conflicts, i.e. rock outcroppings, trees, side roads, fences, structures, involved landscaping, embankments, prescriptive easements, etc. **NOTE: The non-potable reuse line (NPRL) location must maintain 3'-feet horizontal separation from existing parallel water mains or sewage collection lines, and 18-inch vertical separation from any existing perpendicular crossing of sanitary sewer mains. A minimum of 18-inch vertical separation shall be provided between the bottom of any potable water line and the top of any NPRL.**
- 4.1.9 The proposed NPRL shall be shown on the plans as solid lines.

- 4.1.10 The existing NPRL shall be shown as dashed lines.
- 4.1.11 All existing County road crossings shall be shown to be bored, and shall be noted as follows: **"ALL COUNTY ROAD CROSSINGS TO BE BORED WITH STEEL CASING UNLESS OTHERWISE APPROVED BY THE FULTON COUNTY DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION DIVISION PRIOR TO CONSTRUCTION"**. All Ga. D.O.T. roads will be bored with steel casing.
- 4.1.12 All NPRLs owned and maintained by Fulton County shall be a minimum pipe size of 4". If adequate volumes for flow requirements, and pressures are not available at the point of connection, a larger main and/or additional improvements may be required. Determination of volume or pressure inadequacy will be hydraulically modeled and calculated by developer's Engineer.
- 4.1.13 Standard depth of cover is four (4) feet and shall not exceed five (5) feet in depth unless authorized by Fulton County. In the event the shoulder of the roadway is below the elevation of the edge of pavement, then a minimum of four (4) feet of earth cover is to be maintained at all times.

## **4.2 VALVES**

- 4.2.1 In-line valves are to be generally located every 1,000 feet, and are to be located at intersections in such a manner to enable isolation of various streets within the development without shutting down adjacent streets.
- 4.2.2 For future stubs, the valve is to be located approximately 20 feet (one full joint of ductile iron pipe) from the plugged end.
- 4.2.3 All proposed valves 12 inch and larger shall be butterfly valves (except tapping valves). All valves less than 12" shall be resilient seated gate valves.
- 4.2.4 All valves must be marked with a White Drivable marker #CIB-380 (78") inches long (manufactured by Carsonite International) to extend to the valve. The markers are not to protrude the finished surface grade more than (3') feet and no less than (18") inches above the finished grade. There must be a label on both sides of the marker. See drawing R-34 in Appendix A.
- 4.2.5 All NPRL valves will have square valve boxes with the words **RECLAIMED WATER** cast in the lid. All boxes must be painted on the inside and lid with (Pantone 522 or 512 or other shade of purple accepted by Fulton County).

### **4.3 TIE-INS TO EXISTING NPRL**

4.3.1 Tie-ins are usually made as follows:

1. Proposed main is tied straight into existing main using a solid sleeve.
2. Proposed main is tied straight into existing main using a reducer, or other fitting, and a solid sleeve.
3. Proposed main is tied into a tapping valve with a mechanical joint connection.
4. Proposed main is tied directly into an existing main by securing the bell end to the spigot end of a push-on joint

### **4.4 EASEMENTS**

4.4.1 It is the policy of Fulton County that NPRLs are to be installed only in dedicated rights-of-way or dedicated easements. Decisions as to use of easements will be made by Fulton County on a project-specific basis. Generally, use of easements will only be permitted along existing County roads where there is no right-of-way, or there is structural conflict within the right-of-way.

### **4.5 STATE HIGHWAY D.O.T PERMITS**

4.5.1 For any portion of a proposed project that enters a State of Georgia controlled right-of-way, a Ga. D.O.T. permit application is required. This is to be submitted to Fulton County for processing by the Ga. D.O.T. Pages must be 8 ½" X 11", but drawings need not be to scale. All measurements indicated on the permit application must be submitted in metric. Generally, portions of the project design can be reduced in size and matchlined, if necessary, as long as the text is still legible. Compaction notes must be included on every page of the application drawings (see "Georgia D.O.T. Utility Accommodation Policy and Standards"). Application must include four each of the following: plan, profile, traffic control plan, and section from D.O.T. county map.

### **4.6 DRAWING TEXT**

4.6.1 All existing NPRLs shall be labeled for size, material, and Fulton County project reference number(s) under which they were installed. This information can be obtained through Fulton County Records Management Section.

4.6.2 For all side streets and intersections, indicate whether existing NPRLs are one-way fed or, if not, the location of the next in-line valve. This information can be obtained through Fulton County Records Management Section.

4.6.3 Any existing NPRLs to be abandoned as part of the proposed project shall be so noted.

4.6.4 All valves shall reflect the required symbols, labeled as to size and whether gate valve or butterfly valve (GV or BFV), and stationed to the nearest 5-feet.

Manufacturer's name and model number shall be provided on the "as-built" drawings.

4.6.5 Water meter information on existing potable water lines will be provided by Fulton County in an ASCII format, and shall be imported into the drawing file and placed above the respective water meter symbol for account identification.

4.6.6 .1" fonts or larger shall be used for most text. .2" fonts or larger shall be used for road names and rights-of-way.

#### **4.7 LINE WEIGHTS**

4.7.1 Proposed water main and right-of-way should be equivalent to a #3 pen.

4.7.2 Existing utilities should be equivalent to a #2 pen.

4.7.3 Edge of pavement, driveways, property lines, fences, etc. should be equivalent to a #1 pen.

#### **4.8 RECORD DRAWINGS (AS-BUILTS)**

4.8.1 Record drawings (as-builts) must be submitted to Fulton County before a project can receive final approval, and/or Certificates of Occupancy. (NOTE: In order to avoid delays in the "approval process" of developments/subdivisions, as-built drawings should be submitted as soon as the NPRL installation is complete to allow sufficient time for review).

4.8.2 Record drawings must be sharp, clear, clean, legible, and suitable for microfilming and scanning.

4.8.3 Record drawings shall include a site plan and any supplemental or shop drawings as required by Fulton County.

4.8.4 Four (4) complete sets of record drawings must be submitted by the Engineer/Developer to Fulton County for review and approval along with digital copies as per Article V.

4.8.5 Record drawings must be stamped and signed by a Professional Engineer or Registered Land Surveyor registered in the State of Georgia.

## ARTICLE V

### DIGITAL FILE FORMAT

NOTE: The following section is mandatory for all entities designing system expansion and replacement/improvement projects under a direct contract with the County or by private developer's engineer to ensure compatibility with the County G.I.S. mapping system.

The following are standards for the formatting of digital data. Fulton County is willing to give DXF files to engineering firms to encourage digital formatted projects (Concepts, Preliminary and, As-Built reviews). If at any time a firm receives files from Fulton County for personal gain and not for the interest of Fulton County, we reserve the right to back charge for those files received and / or eliminate that firm from receiving DXF files from Fulton County at no charge.

#### **FORMAT:**

Projects are to be submitted as an AutoCAD .DWG file release 14.

#### **COORDINATE SYSTEM:**

In accordance with the Fulton County, Georgia Standards for Digital Mapping Geographic Information Systems AGIS@ the coordinate system used for mapping the County land features and the Water and Sewer Systems facilities will be the Georgia State Plane Coordinate System, Western Zone, 1983 North America Datum and in feet units. Any files submitted to Fulton County for base map, water or sewer updates will use this coordinate system.

#### **GENERAL:**

All map files contained in the Automated Mapping System are stored in ArcInfo coverages format. Automated mapping files will be supplied in AutoCAD format upon special request. Base maps are sectioned into 2500 & 5000 square foot tiles. These tiles contain topographical and hydrological features. Water, NPRL, and sewer maps are each sectioned into three (3) separate base files, one for each layer.

#### **DESIGN**

##### **DRAWINGS:** Product Requirements

1. All files provided to consultants shall be returned to Fulton County in the same format, style and coordinate system as the original files provided to the consultant. The consultant shall, as the Contract Documents specify, provide the final Water and Sewer system as-built drawings in digital format. Projects should be submitted on CD.
2. All sewer facilities and annotations shall be stored in a separate file other than the water, NPRL, or base map features. Similarly, all water facilities and annotations shall be stored in a separate file other than the sewer, NPRL, or base map features. Water, NPRL, and sewer as-built drawings must contain only a single view of the project area, a top or aerial view. Any other views, such

as map inserts, plan and profiles, location maps, etc., must be placed in separate drawings other than the as-builts. When provided for in contract documents, these separate drawings shall be delivered to Fulton County, along with the as-built drawing.

3. All water, NPRL, and sewer features must be placed on the levels/layers specified and must use the specific cells or blocks as provided. No other features should exist on the levels except those specified.
4. All water, NPRL, and sewer features must be snapped together, such that there are no undershoots or overshoots between pipes, manholes, valves, etc. Line features (i.e. pipes) shall not be broken so that text can be placed along the pipe.

For sewer facilities, lines representing sewer mains should run continuously from one manhole to the next. However, lines should not run continuously between several manholes (i.e., a line should not be digitized that runs the entire length of a street if there are more than two manholes along that street). There should be one and only one graphic line per any two manholes.

5. For water or NPRL facilities, all lines representing water mains must start and end at nodes. Nodes are located at points in the water system where the water pressure may change (i.e. change in pipe diameter or material), or where there is a change in direction (i.e. tees, bends crosses, etc.). There should be one (and only one) graphic line per two nodes.
6. Text must be placed beside each facility on the map (i.e. water and sewer), indicating the following information:

Water Main Appurtenances:   Item Description (i.e. valves, meters, fire hydrants, etc)   Station #

Water Mains:                   Diameter       Material       Depth

NPRL Appurtenances:       Item Description (i.e. valve, stubs, meters, etc.)  
Station #

Non-Potable Reuse Lines:   Diameter   Material   Depth

Sewer Manholes:           Invert Elevation(s) In           Invert Elevation(s) Out  
Top Elevation (rim)

Sewer Mains:                      Diameter      Material      Lengths and Slopes  
Existing and Proposed Ground Elevation

All text information must be placed on the layers designated as Label for each of the facilities (i.e. Manhole Labels are Placed on level two of the sewer maps).

7. No grid shall be present on the map.
8. The coordinate system of the final map must be identical to the coordinate system of the map provided by Fulton County to the consultant at the onset of the project.
9. Plans shall be delivered to Fulton County in 2D (zero Z level) format only.
10. Any user defined layers (i.e. other than 1-63) must be removed from the drawing prior to submission to Fulton County.
11. AutoCAD “shapes” will not be used in the drawing.

Any drawings not conforming to the above requirements, or their supplemental addenda, shall be rejected by Fulton County and returned to the consultant with comments for correction.

## ARTICLE VI

### CONSTRUCTION INSTALLATION

#### 6.1 PRIOR TO CONSTRUCTION

- 6.1.1 At no time will any Non-Potable Reuse Line construction commence prior to approval of all plans, receipt of any required agreement documents, and issuance of a "NON-POTABLE REUSE LINE CONSTRUCTION PERMIT".
- 6.1.2 Only Fulton County approved contractors may install Non-Potable Reuse Lines.
- 6.1.3 All NPRLs, valves, blow offs, and other appurtenances to be dedicated to or owned by Fulton County shall be installed according to the "approved" design. All field changes must be pre-approved by Fulton County. Contractor must have a set of the "approved" design drawings containing an original Fulton County stamp and a copy of the Design and Construction Standards for Non-Potable, Reuse Water Lines on site at all times.
- 6.1.4 Contractor shall adhere to all Federal, State, County, and local laws, ordinances, and regulations which in any manner affect the conduct of work, including, but not limited to, initiating, maintaining, and supervising all safety precautions and programs in connection with the Work.
- 6.1.5 The Contractor shall fully comply with the applicable requirements of local, State, and Federal agencies in the control and containment of soil erosion, during construction and including post-construction maintenance of erosion control devices.

#### 6.2 EARTH EXCAVATION

##### 6.2.1 Work Included

The Contractor shall clear the site, make all pavement cuts, remove all trees and stumps, remove any fences or other structures necessitated by the work, to install the lines at the grades indicated on the "approved" design, and complete the excavation required for the various pipe lines and structures, including any additional foundation work.

##### 6.2.2 Additional Excavation

It is expected that satisfactory foundations will be found at the elevations indicated on the "approved" design, however, should it be found desirable or necessary to go to additional depth, the excavation shall be continued and then backfilled as directed.

##### 6.2.3 Clearing and Care of Surface Materials

The areas to be excavated shall first be cleared of all paving, trees, walls, fences, sidewalks, stumps, brush, rubbish, and crops, which shall be removed or disposed of in a satisfactory manner. On all lawns and other improved grass areas, the sod shall be carefully removed, kept alive, and replaced after the

backfilling is completed or the identical sod type purchased and replaced. The Contractor shall also remove all spoil from such areas as quickly as possible after the excavation is backfilled, and shall leave the premises in as good a condition as before undertaking the work. Fences, which have been removed, damaged, or broken down, shall be replaced at or before completion of the work, in first class condition.

Topsoil shall be removed to its entire depth from all areas to be excavated or graded. The topsoil shall be piled in designated or approved locations where it will not interfere with construction operations. Topsoil, as stored, shall be reasonably free of subsoil, debris, and stones larger than two (2) inches in diameter. The stored topsoil shall be left in piles to be used for finished grading.

The removal of existing pavement shall be done in accordance with the requirements of the authority within whose jurisdiction such pavement is located.

Whenever the removal of pavements (other than gravel types) is required, the Contractor shall outline the area to be removed by making saw cuts, providing vertical kerfs in straight lines in order to permit removal in a straight line. Should pavement breakage occur beyond the original saw cut, the Contractor will be required to make a new saw cut beyond the furthest point of breakage.

#### 6.2.4 Protection of Trees and Shrubbery

The Contractor shall be responsible for the protection of tops, trunks, and roots of existing trees that are adjacent to, or are to remain within the construction boundaries of the project site, or in parks, lawns, or other improved areas. All trees shall remain and receive protection, if necessary, in areas where there is no excavation or embankment. Existing trees, which may be subject to construction damage, shall be boxed, fenced, or otherwise protected before any work is started. The boxing shall be removed when directed, or at completion of the project. Heavy equipment or stockpiles will not be permitted within branch spread. Interfering branches shall be removed without damage to trunks and all cuts or scars shall be covered with tree paint.

No tree shall be removed unless absolutely necessary for the construction, as directed by Fulton County. On areas beyond construction right-of-way or easements, no trees or shrubbery shall be removed without the written authorization of the property owners and approval of Fulton County. Copies of such written authorization are to be provided to Fulton County prior to any removal.

#### 6.2.5 Excavation Methods

All excavation shall be in open cut unless otherwise indicated on the "approved" design or directed by Fulton County. In general, topsoil may be removed by machine method. Excavation below topsoil may also be performed by machine, but shall be supplemented by such hand dressing or leveling as may be required to conform to lines and grades as given by Fulton County. Material so removed

shall be used in backfill, making embankments, filling low areas, or as otherwise directed.

Hand tool excavation shall be used where necessary to protect existing Works and structures.

All slopes shall be carefully cut or graded by hand to grades required by Fulton County and shall be tamped or otherwise compacted to maintain the material in position.

The final trimming of the bottoms and sides of excavations against which masonry is to be built, shall be done just before concrete is placed.

In open or improved lawn areas, excavation should be done, if possible, utilizing a tractor-mounted backhoe and extreme care should be taken to avoid damage to adjoining lawn areas. In areas not readily accessible by machinery and where excavation is required near existing trees and shrubs, which may be damaged by excavation equipment, the trench shall be excavated using hand tools.

#### 6.2.6 Removal of Water

The Contractor shall pump out, or otherwise remove and properly dispose of any water (including storm water), which may be found or may accumulate, as fast as it may collect in the excavation. This removal is required regardless of the source.

All necessary precautions shall be taken to prevent disturbance at, and to properly drain any areas upon which concrete is to be poured, or upon which pipe is to be laid.

There shall be located at the work site at all times during construction, proper and approved equipment with sufficient capacity for the removal of any water from the work, and in such a manner as not to withdraw sand or cement from any concrete. Contractor is also to insure that removal of any liquids will not interfere with the proper laying of masonry, pipe, or prosecution of any of the required work for the complete construction of the project.

The flow in sewers, drains, gutters, or water courses encountered during the construction shall be adequately provided by the Contractor to ensure these flows do not interfere with the execution of the Work, and are maintained in such a manner as to insure continuity of flow at all times.

Unless otherwise permitted, ground water encountered within the limits of excavation shall be depressed to an elevation not less than twelve (12) inches below the bottom of such excavation. This depression is to be done before pipe laying or concrete work is started and shall be so maintained until concrete and joint materials have attained initial set.

Should sewage or any other odorous liquids be encountered during the work in the excavation, Fulton County shall be immediately notified. Fulton County will then determine if actions by the Contractor have caused the source of the odorous liquids to leak and will promptly notify the appropriate regulatory agencies, if necessary. In addition, Fulton County will instruct the Contractor as to what actions, if any, the Contractor can and cannot perform prior to any directives, which may be issued by the regulatory agencies. Any sewage will be pumped and hauled to a manhole, pump station, or water reclamation facility, as directed by Fulton County. Any other liquids will be properly disposed of as directed by Fulton County and/or any regulatory agencies having jurisdiction.

6.2.7 Sheeting and Shoring

The Contractor shall be responsible for supporting and maintaining excavations as required. This shall include sheeting and shoring the sides and ends of excavations with timber or other supports. If the sheeting, braces, shores, stringers, wailing timbers, or other supports are not properly placed, or are insufficient, the Contractor shall provide additional or stronger supports as may be required, or as directed. The requirement of sheeting or shoring, or of the addition of supports, shall not relieve the Contractor of his responsibility of ensuring their sufficiency.

Trench sheeting shall be left in place until the backfilling has been completed to an elevation not less than twelve (12) inches above the top of the pipe. Unless otherwise ordered by Fulton County, sheeting shall be cut off at the top of the lowest set of bracing and the upper section shall be removed.

Where, in the opinion of Fulton County, the removal of sheeting may endanger the work, such sheeting shall be ordered to be left in place and the tops cut off as directed or as specified in Section 4.11. In removing the sheeting the work shall be done in such a manner as to prevent injurious caving of the sides. All voids left by the sheeting along trenches shall be carefully filled and rammed with suitable tools.

In quicksand or soft ground, sheeting shall be driven to such depth below the bottom of the trench as directed.

6.2.8 Trench Excavation

The maximum width of trench from an elevation of twelve (12) inches above the top of the pipe to the bottom of the trench shall be as indicated on Detail R-5.

Excavation of pipe trenches with sides sloping to the trench bottom shall not be permitted. Should trenches be excavated with more than the specified maximum widths, Fulton County may require the Contractor to furnish concrete cradles or concrete encasement for the pipe.

6.2.9 Length of Trench to be Opened

The length of trench to be opened, or the areas of the surface to be disturbed at any one time, shall be limited by Fulton County with regard both to expeditious construction, and to the convenience, safety, and comfort of citizens directly or indirectly affected by the work. New trenches will not be permitted to be excavated if there are previously excavated trenches that require backfilling, or surface areas that require restoration. In any event, no additional work of any kind will be permitted if there are streets or roadways that require attention to return them to a safe and proper condition. IN GENERAL, NO TRENCH SHALL BE OPENED MORE THAN 150 FEET AHEAD OF PIPE LAYING AND BACKFILLING.

6.2.10 Storage of Materials

All salvageable materials, which may be removed from the site, together with all materials taken from the trenches, shall be stored in an approved, suitable place, or as directed by Fulton County. The Contractor shall be responsible for any loss of or damage to salvageable materials through careless removal or neglectful or wasteful storage of such materials.

In the storing of excavated material, which is to be used as backfill, the Contractor shall exercise care so as to avoid inconveniencing the public. If in the opinion of Fulton County, it is necessary to remove this excavated material from streets, or lots, the Contractor shall be required to do so.

**6.3 ROCK EXCAVATION**

6.3.1 Work Included

The Contractor shall make the lines and grades as shown on the drawings or as directed, including excavation and removal of all rock and masonry as required, and shall dispose of all excavated materials as specified under Section 4.2, or as directed by Fulton County.

6.3.2 Removing Rock

In removing rock for the placement of masonry, special care shall be taken to excavate it as closely as possible to the required shape and with no projection into the neat outside line of such masonry. The surfaces of all rock foundations shall be sufficiently rough to bond well with the masonry. Before any masonry is built on or against a rock surface, the latter shall be scrupulously free of all dirt, gravel, boulders, ice, snow, or other objectionable substances, including loose fragments of rock.

Unless otherwise directed by Fulton County, rock shall be fully removed at least twenty-five (25) feet in advance of pipe laying, and at least 6" below the bottom of the pipe.

If the use or storage of explosives is required the contractor shall assume all responsibility/liability associated with blasting activities. Blasting shall be conducted so as not to endanger persons or property. Whenever required, or as

ordered by Fulton County, the blast shall be covered with mats or otherwise satisfactorily confined. **ONLY LICENSED EMPLOYEES OR SUBCONTRACTORS WILL BE ALLOWED TO CONDUCT BLASTING ACTIVITIES - PROOF OF SUCH LICENSING MUST BE PROVIDED TO FULTON COUNTY PRIOR TO ENGAGING IN ANY BLASTING ACTIVITIES.**

Explosives shall be used, handled, and stored as prescribed by the laws and regulations of the State of Georgia, and all applicable local laws and regulations pertaining to such. All explosives shall be stored in a safe place at a sufficient distance from the work, so that no damage will occur to any portion of the work should an accident occur relating to the stored explosives.

## **6.4 FOUNDATION CUSHION**

### **6.4.1 Work Included**

The Contractor shall furnish all the materials for and shall properly place at locations where deemed necessary by Fulton County, a cushion or foundation of well compacted crushed stone in order to obtain a firm base on which to build the structures and lay pipes.

### **6.4.2 Materials**

Embedment materials shall be angular graded crushed stone, ¼ inch to ¾ inch in size with no more than 5% passing a No. 8 standard sieve, in accordance with Class I materials as defined in ASTM D2321-72 Section 5.1.1.

### **6.4.3 Placement**

The bedding material shall be placed in the bottom of the trench after the trench has been excavated to an elevation sufficient to permit the placing of not less than six (6) inches, or as directed. The surface of the bedding material shall be screeded to form a uniform support for the pipe and appurtenances. After installing each section of the pipe, additional bedding material shall be placed on either side of the pipe to an elevation consistent with the Class Bedding indicated on the plans or specifications, or as directed by Fulton County. This material is to be well tamped and compacted into place so as to secure a firm, even bearing.

Foundation material shall be placed across the full width of the trench bottom.

## **6.5 PIPE AND FITTINGS**

### **6.5.1 Work Included**

The Contractor shall furnish all materials and shall properly install, adjust, test, and place in continuous operation at the location indicated on the approved plans, or as directed, all push-on ductile iron pipe and ductile iron fittings, all mechanical joint ductile iron pipe and mechanical joint ductile iron fittings, all flanged ductile iron pipe and flanged ductile iron fittings, and all steel carrier pipe

and steel fittings, for the construction of the NPRLs as required for the proper completion of the work. The contractor shall also furnish all labor and equipment necessary and sufficient to relocate existing pipelines where directed.

No work may be started or continued if the Contractor's foreman or job-site representative does not have a complete set of "approved" plans and specifications available at all times on site for reference.

Whenever the work disturbs existing conditions or work already completed, the same shall be restored in as good as or better than the original condition in every detail. All such replacement and repair shall meet with the approval of Fulton County.

It is the intent and requirement of these "Specifications" to ensure an installation, which is complete in every detail, whether or not indicated on the drawings, or specified herein. Consequently, the Contractor shall be responsible for all details, devices, accessories, and special construction which may be necessary to properly furnish, install, adjust, test and place in continuous and satisfactory operation, a complete installation.

Attention is also called to the construction procedure required. The proposed NPRL shall be constructed in complete sections; each section terminating at a valve. As each section is installed, it shall be tested, and upon receipt of a "passed" Inspection Report from the project Inspector, the Contractor shall place the section in service immediately. Reuse water shall be "carried forward" with the construction.

All pipe and fittings shall be color coded as per the general color code requirements listed in the Utility Location and Coordination Council's Uniform Color Code. NPRL main pipe and fittings shall be marked with Pantone 522 or 512 or a shade of purple accepted by Fulton County.

#### 6.5.2 Ductile Iron Pipe

No NPRL shall be less than 4". All pipe shall be ductile iron. Ductile iron pipe shall be in accordance with ANSI A21.50/AWWA C150 and conform to requirements of A21.51/AWWA C151, latest standards. Push-on and restrained joint pipe shall have a minimum rated working pressure of 200 psi. All buried pipe shall be pressure class as follows:

- 4" – 12" Pressure Class 350
- 14" – 20" Pressure Class 250
- 24" and larger – Pressure Class 200
- Pipe wall thickness shall be in accordance to the bury depth as shown on drawings.

- Flange pipe or Victaulic grooved pipe shall be class 53.
- Direct tapping may be used in lieu of service saddles for ¾” and 1” as per AWWA C-800.

### 6.5.3 Fittings

Mechanical fittings and restrained fittings shall conform to ANSI A21.53/AWWA C153 or A21.10/AWWA C110.

Flanged fittings shall conform to ANSI A21.10/AWWA C110. The AWWA C110 fitting flanges shall have facing and drilling which match AWWA C115 thread-on flanges which also match ANSI B16.1 class 125 flanges except where class 250 are specifically noted.

Fittings shall be available in 4” through 24” sizes and shall be cast from ductile iron in accordance with ANSI/AWWA C153/A21.53 with mechanical joint bells or push-on joint bells. Fittings shall be listed by an approved certifying agency as conforming to the requirements of ANSI/NSF 61. The working pressure shall be 350 PSI. Fittings shall be made in the USA. No foreign fittings shall be allowed. Ductile iron fittings shall be coated with 6-8 mil nominal thickness, fusion bonded epoxy conforming to the requirements of ANSI/AWWA C550 and C116/A21.16

### 6.5.4 Flanges

Flanged ductile iron pipe twelve inches or less in length (spool pieces), shall have flanges cast solidly to the pipe barrel. Flanges on ductile iron pipe longer than twelve inches in length shall be screw type and attached to a threaded pipe section, and shall be factory fabricated. Pipe threads shall be of such length that, with flanges screwed home, the end of the pipe projects beyond the face of the flange. Flange and pipe shall be faced to give a flush finish to the pipe and flange surface normal to the axis of the pipe. The flanges shall be of such design that flange neck completely covers the threaded portion of the pipe to protect same against corrosion. Flanges on ductile iron pipe and fittings are to be coated with a Pantone 522C or 512C or other shade of Purple accepted by Fulton County.

Flanged fittings shall conform to ANSI A21.10/AWWA C110. The AWWA C110 fitting flanges shall have facing and drilling which match AWWA C115 threaded-on flanges which also match ANSI B16.1 class 125 flanges except where class 250 are specifically noted.

Flanged bolt holes on each end of flanged ductile iron pipe and fittings shall accurately straddle the same horizontal and vertical center lines.

### 6.5.5 Push-On Joints

Pipe ends (spigot end, bell and socket) for all pipe shall be gauged with suitable gauges at sufficiently frequent intervals to ensure compliance to the standard dimensions of ANSI / AWWA C151/A1.5, latest edition.

Push-on joints shall conform to ANSI A21.11 / AWWA C111 approved Fastite, Tyton, or Belltite or equal. Push-on joints shall be made with gaskets suitably formed of high-quality vulcanized rubber, made to exact dimensions, and in the form of solid rings. Gaskets shall have a durometer hardness of approximately 65 on the large end, which enters the bell first, and approximately 85 on the other, smaller end. Composition of the rubber, its hardness, and other properties, and the design of the gasket recess shall be such that the joint is tight under all ranges from a vacuum up to a maximum rating of 350 pounds per square inch internal liquid pressure.

Sufficient lubricant shall be furnished with each order of pipe to provide a thin coating on both the gasket and the spigot-end of the pipe. Lubricant shall have no deleterious effect on the rubber gasket. Lubricant shall be of such consistency that it can be easily applied to the pipe in either hot or cold weather, and shall satisfactorily adhere to either wet or dry pipe. **ONLY LUBRICANT FURNISHED WITH THE PIPE BY THE PIPE MANUFACTURER SHALL BE USED.**

#### 6.5.6 Flanged Joints

Flange joints shall conform to ANSI A21.11 / AWWA C115. Bolts and nuts shall conform to ANSI A21.11 / AWWA C111. Form flanged joints with through, stud, or cap bolts, as required, of the size and length specified by the manufacturer to thoroughly make up the joint. Use only full-face type, red rubber gaskets one-sixteenth inch thick, as manufactured by the U.S. Rubber Company, in all flanged joints.

Except as otherwise specified or noted, machine bolts, stud bolts, and cap bolts shall be made from alloy steel, complying with the requirements of ASTM Des. A193-64, Grade B7, and nuts shall be made from alloy steel, complying with the requirements of ASTM Des. A194-64, Grade 2 or 2H.

For bolts, nuts, and threads, conform to the latest requirements of the following ANSI Standards and ASTM Designations:

Semi-finished, hexagonal bolt heads and nuts, Heavy Series dimensions	ANSI B18.2-60
Bolt threads after plating, Coarse Thread Series, Class 2A, and nut threads after plating, Coarse Thread Series, Class 2B	ANSI B1.1-60
Galvanizing (if used)	ASTM A153-61
Studs and nuts to be utilized underground or in contact with liquids - alloy steel, Grade B8	ASTM A193-64

#### 6.5.7 Restrained Joints

Restrained joints shall be American Fast-Grip, Flex-Ring, Field Flex-Ring, Lok-Ring, US Pipe TR Flex, Field Lock, Griffin Snap-Lok, Ebba megalug or equal. Restrained joints shall be in accordance with DIPRA "Thrust Restraint Designed for Ductile Iron Pipe" utilizing laying condition 2 or 3 (as specified), a pressure of 200 psi or greater, the type of soil encountered and the depth of cover shown on the drawings

Steel bolts and nuts shall be cadmium plated, Sherardized, or hot dip galvanized after the threads are cut. Threads shall be well fitting and sound after plating. Cadmium plating shall be 0.0003 to 0.0005 inches thick on the body, and 0.00015 inches thick on the threads. Connecting flanges shall be conformed to proper position and alignment without the use of external force to bring them properly together.

After each joint has been properly made, give steel bolts and nuts a phosphate type chemical wash and then paint with one coat of primer especially prepared for galvanized surfaces. After this pre-treatment has been completed, coat bolts and nuts as follows:

Give bolts and nuts that will be exposed or submerged in liquids two coats of primer as specified by the manufacturer.

Paint all bolts and nuts that will be underground with two heavy coats of Koppers Bitumastic No. 50, or approved equal, coal tar pitch and paint.

#### 6.5.8 Mechanical Joints

All mechanical joints on ductile pipe and fittings shall conform to the latest requirements of AWWA C111/A21.11 in all respects, except as otherwise specified or noted herein. Gaskets shall be of a rubber quality which is unaffected by liquids or gasses with which they will come in contact. Gland bolts shall be ductile iron.

All joints of mechanical joint ductile iron pipe and fittings shall be installed in accordance with the requirements of AWWA C600, Section 3.4, and also in accordance with the "Notes on Installation of Mechanical Joints", AWWA C111/A21.11, Appendix A. All bolts shall be tightened in alternating sequence to the recommended torque.

#### 6.5.9 Protective Coating

All ductile iron pipe and fittings shall be field encased in polyethylene encasement prior to backfill. Polyethylene encasement shall be low density, 8 mils thick, and manufactured in accordance with ANSI/AWWA C105/A21.5.

Polyethylene shall be supplied in Pantone 522 or 512 or a shade of purple accepted by Fulton County.

All polyethylene encasement shall be installed in accordance with manufacturers recommendations or ANSI/AWWA C105/A21.5.

After installation, the Contractor must paint all steel sleeves, tapping sleeves, threaded rods, straps, nuts, bolts, washers, couplings, or other connecting/restraining apparatus with either Roster Laboratories, Inc., "Roskote Mastic No. A-939", Koppers Company, Inc., "Bitumastic Superservice Black", or approved equivalent protective coating.

All exposed fittings and appurtenances shall be field coated and color coded as per the general color code requirements listed in the Utility Location and Coordination Council's Uniform Color Code.

NPRL main pipe exterior and fittings shall be completely painted with Pantone 522 or 512 or a shade of purple accepted by Fulton County. The paint shall be an all acrylic, pigment stabilized (UV resistant), water reducible, fast drying, semi-gloss coating and shall be suitable for painting over asphaltic coatings.

Coating data shall be as follows:

- Surface preparation: clean and dry
- Coverage: theoretical 615 square feet per gallon at 1.0 mil dry film thickness
- Dry film thickness: 1.0-2.0 mils per coat
- Wet film thickness: 3.0-8.0 mils per coat

Apply coating in strict accordance to the manufacturer's recommendations.

Paint shall be manufactured by Induron.

#### 6.5.10 Linings and Coatings of Pipe

Ductile iron pipe, specials and fittings shall be lined with cement lining and exterior coated with an asphaltic coating in accordance with AWWA C104, except that all pipe 42"-64" pipe shall be cement lined with high density mortar lining or with double cement lining per AWWA C104.

Defective linings shall be resolved as follows. All repairs shall be as smooth as practical and may not project into the water way. Cracks in the mortar lining greater than 0.016" in width are unacceptable. Linings shall have no "looseness" or disbondment from the inner surface of the pipe.

The lining for 42" diameter and larger ductile iron pipe shall be manufactured with or without a seal coat. The cement mortar lining shall be cured in a facility with controlled temperature and humidity.

Ductile iron pipe and fittings for buried service shall receive a 1 mil asphaltic coating in accordance with ANSI A21.50. All exposed piping shall be primed at the manufacturer's plant to receive a field coating as specified by Fulton County. Contact ductile iron manufacturer for recommended primers.

6.5.11 Storing of Materials

All tools, materials, machinery, and equipment required for the Work may be stored in a neatly, compactly stock-piled manner adjacent to the work site, in a location approved by the Fulton County Project Manager, and in such a manner as to cause the least inconvenience to the affected property owners, insure traffic safety, and so as not to endanger the general public in any way. All active, existing fire hydrants must be kept unobstructed and accessible at all times. All water and gas valves and underground power and telephone manholes must also be left uncovered by such storing of materials.

6.5.12 Cutting of Pipe

Whenever the pipe requires cutting to fit into the line, or to fabricate joints, the work shall be done in such a manner as to leave a smooth end at right angles to the axis of the pipe.

6.5.13 Drilling and Tapping of Pipe

Where indicated on the approved design, or as required by Fulton County, the Contractor shall drill and tap the ductile iron pipe or fittings to receive a threaded pipe connection. Holes shall be drilled accurately, with respect to the size and location of the pipe to be received, and at right angles to the axis of the pipe or fittings. Skilled workers using the appropriate tools shall carefully and neatly do tapping.

6.5.14 Connections to Existing Lines

Connections to existing NPRLs shall generally be made by the use of tapping sleeves and valves, except as specifically indicated on the approved drawings to be otherwise, or as may be directed by Fulton County. In certain instances it may be specified or desirable to tap a "dry" line. In this circumstance a tapping sleeve and valve is required and the tap accomplished utilizing a standard

"tapping machine". **Under no circumstances will the Contractor be permitted to "burn" a hole in the main using oxyacetylene tools.**

The closing of any existing mainline valves to isolate a particular pipe for a "wet cut-in" will be accomplished by the Contractor under the specific direction and presence of the Fulton County Project Inspector, and at such time as may be directed by Fulton County. All such shut downs must be approved in advance by Fulton County. The Contractor shall provide all labor and equipment sufficient to uncover valves and clean out valve boxes for access to any existing valves necessary to complete or repair work as part of the Project. Fulton County will provide all records and information available to assist in the locating of covered valves, and will also provide assistance in the form of electronic locating equipment. This assistance shall not relieve the Contractor of his responsibility to locate any necessary valve to accomplish the Work.

**THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING ALL CUSTOMERS WHO WILL BE AFFECTED BY THE INTERRUPTION OF REUSE WATER SERVICE. SUCH NOTIFICATION MUST BE MADE AT LEAST 24 HOURS IN ADVANCE OF THE PLANNED SHUT-DOWN. NO SERVICE MAY BE INTERRUPTED WITHOUT FULTON COUNTY INSPECTOR'S PRIOR APPROVAL.**

6.5.15 Built-In Pipe and Fittings

Where indicated on the approved drawings, specified, or as directed, pipe and fittings shall be carefully built in, connected to, or supported on concrete or brick masonry. In all instances such masonry work shall be performed so as to avoid covering or obstructing glands, bolts, nuts, retainers, etc. All such appurtenances must be free of all masonry so as to provide sufficient clearance for proper maintenance and operation after the masonry work has been completed.

6.5.16 Anchorage and Reaction Blocking

Where indicated on the approved drawings, specified, or as directed, plugs, caps, tapping sleeves, or other fittings or combination of fittings, shall be provided with concrete reaction blocking, metal thrust-restraint systems, or other methods of anchoring the fittings to provide the required pressure-system integrity. Such anchoring systems must be "individually" inspected by Fulton County to ascertain their conformity and compliance with the specific type system required for each kind of installation which requires anchoring; size and shape as identified in Details R-10 through R-16. Concrete for reaction blocking shall be Class B as specified under Section 6.10.

6.5.17 Corrosion Protection

All NPRL pipe shall be protected against corrosion as required near cathodically protected gas lines, in corrosive soils, etc. according to ANSI/AWWA C105/A21.5-93 and DIPRA's "Stray Current Effects on Ductile Iron Pipe".

6.5.18 Marking

All ductile iron pipe shall be marked in accordance with the requirements of Section 51-10, "Marking Pipe", of AWWA C151/A21.51. All ductile iron fittings shall be marked in accordance with the requirements of Section 10-9, "Marking of Fittings", of AWWA C110/A21.10.

When requested, the contractor shall furnish Fulton County with lists, in duplicate, of all pieces of pipe and fittings received on the project including copies of shipping documents from the manufacturer and/or supplier. Said lists shall indicate the serial or mark number, weight, class, length, size, and description of each typical piece received.

6.5.19 Material Inspection

When requested, the Contractor shall furnish Fulton County with three (3) copies of the manufacturer's sworn affidavit of inspection and testing of all ductile iron pipe and fittings provided for the intended work. All ductile iron pipe and fittings will be subject to the inspection and approval by Fulton County after delivery of the material to the site. Broken, cracked, misshapen, imperfectly coated, unsatisfactory, or otherwise damaged ductile iron pipe or fittings are not permitted to be used in the work.

Such inspection by Fulton County does not relieve the Contractor of full responsibility for the materials installed. FAILURE BY Fulton County TO REJECT UNACCEPTABLE MATERIALS SHALL NOT CONSTITUTE AN ACCEPTANCE OF SAID MATERIALS.

6.5.20 Unloading and Laying

Unload ductile iron pipe, fittings, and accessories from cars or trucks with hoists or by skidding. Do not skid or roll pipe handled on skidways against pipe already on the ground. Under no circumstances are said materials to be dropped off any delivery vehicle. Should any material be dropped, accidentally or otherwise, it shall be immediately set aside and thoroughly inspected by Fulton County before any decision is made regarding its acceptability. If damage occurs to the lining, repairs or replacement shall be made as directed by Fulton County. If there is any question regarding acceptability of said suspect materials by Fulton County, the contractor shall either remove and replace the questionable materials, or obtain a sworn statement from the manufacturer certifying the materials as "undamaged".

Use proper, suitable tools and appliances for the safe and convenient handling and laying of pipe and fittings. Take great care to prevent the coating and lining from being damaged.

Pipe may not be "strung" along the project within existing highway rights-of-way, unless specifically directed to do so by Fulton County, and only then after receiving permission from the road authority which has jurisdiction.

The Contractor shall carefully examine all pipe and fittings for defects just before laying and shall not lay pipe or fittings, which are known to be defective. In the event that defective pipe or fittings are discovered after having been laid, the Contractor shall remove and replace with sound pipe or fittings in a manner satisfactory to Fulton County.

It is the Contractor's responsibility to maintain a clean work site and clean materials throughout the project. All pipe and fittings shall be kept free from mud, dirt, and debris while stored on site, and shall be thoroughly cleaned before being laid. During any breaks in the laying of pipe, and when ending construction for the day, the Contractor shall install a mechanical or fitted plug in the open end of the pipe to prevent contamination of the pipeline. Should any accidental contamination occur, the pipe shall be thoroughly cleaned and swabbed out, and inspected by Fulton County, before new or further pipe installation may commence.

#### 6.5.21 Clean-Up

A thorough clean-up of the entire project shall be made before final acceptance is given by Fulton County. All excess rock, debris, stumps and roots, pipe, fittings, and materials shall be removed from the site. All public rights-of-way and private property shall be restored in as good or better than original condition, to the satisfaction of Fulton County. In private developments, final plat approval or Certificates of Occupancy may be withheld until all clean-up is complete.

#### 6.5.22 Guarantee of Work Completed

The Contractor (and Developer in private developments) shall guarantee for a period of twelve (12) months from the date of final acceptance (from date of final plat approval or Certificate of Occupancy in private developments), all water mains, appurtenances, trenches, roadway and surface restorations, landscaping, and any other areas disturbed by the construction of the project, to be free from defects, and to be installed in compliance with all regulations, specifications, plans, directions, and construction practices which govern said installations. In private developments, the conditions stated in the "Owner/Developer Agreement" shall govern.

The Contractor shall be responsible for repairs to any leaking pipe, fittings, etc. Should trenches settle during the warranty period, he shall promptly furnish and place fill to the original grade and restore any damaged landscaping. Should any leaks or trench settlement occur under new pavement, the Contractor will be held responsible for the cost of all repairs, including pavement replacement.

The determination of the requirement for the Contractor to perform work under this guarantee shall be at the sole discretion of Fulton County.

## **6.6 VALVES & WET CUT-INS**

### **6.6.1 Work Included**

The contractor shall furnish all the materials for, and shall properly set in place at the locations indicated on the drawings or as directed; all gate valves, butterfly valves, tapping sleeves and valves, and other valve-type assemblies of the size and type specified or directed, which are necessary for the completion of the work, including all excavations required for their installation.

### **6.6.2 Wet Cut-ins**

The contractor shall provide all labor and equipment necessary to make a cut-in to an existing NPRL for the purpose of making a connection, installing a valve, or other fittings and appurtenances. A "wet cut-in" is defined to be the physical cutting into any existing reuse water main which will result in the interruption of service to an existing customer, or which shall necessitate the removal of reuse water contained within the existing NPRL from the excavation which is caused by the cutting into the pipe.

### **6.6.3 Gate Valves**

Gate valves shall conform to AWWA C500-86 for double-disc gate valves or AWWA C509-87 for resilient-seated gate valves, and shall be as manufactured by American Flow Control, U.S. Pipe, Mueller, or approved equal. Gate valves shall be hand operated, non-rising stem, with ductile iron bodies, and adapted for joints as indicated in the approved design drawings, or as directed.

All gate valves shall open by turning the operating nut to the left (counter clockwise).

Gate valves shall only be used in sizes 4" through 10".

#### 6.6.4 Butterfly Valves

Butterfly valves shall conform to the requirements of AWWA C504-87, and shall be as manufactured by American Flow Control, Henry Pratt, Allis-Chalmers, or approved equal.

Butterfly valves shall be hand operated with ductile iron bodies, and adapted for joints as indicated in the approved design drawings, or as directed.

All butterfly valves shall open by turning the operating nut to the left (counter clockwise). Butterfly valves shall only be used in sizes 12" and larger.

#### 6.6.5 Tapping Sleeves and Valves

The Contractor shall furnish and install tapping sleeves and valves suitable for connection to the existing NPRLs at locations indicated on the approved plans, or as directed. The Contractor shall also provide the tapping machine and competent supervision for the making of taps. It is the Contractor's responsibility to verify the type, size, and O.D. and class of the existing pipe before ordering the tapping sleeve and valve.

Prior to making the tap, the Contractor, in the presence of the Project Inspector, shall hydrostatically pressure test the complete tapping sleeve and valve installation at a test pressure of 150 PSI, or 50 PSI over the existing system static pressure, whichever is greater, **(PNEUMATIC, OR AIR-PRESSURE TESTING IS PROHIBITED)**. The Contractor shall properly support the tapping sleeve and valve using bricks, blocks, wedges, or other substantial supporting materials, which will not permit the tapping valve or tapping machine to transfer any downward rotational force to the tapping sleeve. This support shall be provided before mounting the tapping machine.

Tapping sleeves shall be ductile iron with mechanical joint ends as manufactured by American Flow Control, Mueller, or approved equal. Outlets shall be sized to permit a tap to be made using a full-size shell cutter. The existing pipe shall be thoroughly cleaned prior to the installation of the tapping sleeve. **THE USE OF STRAP-TYPE TAPPING SADDLES FOR TAPS LARGER THAN 2" IS NOT PERMITTED.**

Tapping valves shall conform to the requirements for gate valves hereinbefore stipulated, except for any modifications necessary to permit the use of full size shell cutters. If of the double-disc variety, tapping valves 16" and larger shall be installed in a horizontal configuration, and shall be supplied with a by-pass. Resilient seated tapping valves 16" and larger may be supplied without the by-pass. When using resilient seated gate valves for making taps 16" and larger, it is the Contractor's responsibility to determine the finished depth of cover that shall remain over the operating nut of the valve after installation. If finished depth of cover in a standard vertical configuration is less than 2-feet, then the tapping valve shall be supplied in a horizontal configuration with differential operator.

- 6.6.6 Backtaps  
**BACKTAPS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY AUTHORIZED BY FULTON COUNTY.** ANY SAID AUTHORIZED BACKTAPS SHALL BE CONSTRUCTED USING M.J. FITTINGS AND "MEGALUG" RETAINER GLANDS, AND SINGLE JOINTS OF PIPE. THREADED ROD SHALL ONLY BE PERMITTED FROM THE STEEL CASING TO THE FIRST FITTING, AND SHALL BE WELDED FOR A MINIMUM OF 8-INCHES ON EACH ROD ALONGSIDE THE CASING. **WELDING OF I-BOLTS DIRECTLY TO THE CASING FOR THE PURPOSE OF INSTALLING THREADED ROD IS NOT PERMITTED.**
- 6.6.7 Accessory Equipment  
All valves, which are to be buried in the ground, shall be provided with a valve box and cover. The Contractor shall provide suitable, permanently installed valve stem extensions and guides, which have been approved by Fulton County prior to fabrication and placement.
- 6.6.8 Valve Markers  
Valve markers shall be furnished and installed with each valve on the proposed project. The markers shall be white drivable markers #CIB-380 (78") long (manufactured by Carsonite International) and extend to the valve. The markers shall be installed as close to the valve as possible, facing the street. The marker is not to protrude the finished surface grade more than (3') feet and no less than (18") inches above the finished grade. Each marker must be labeled on both sides (the labels will be provided by the Fulton County Inspector or Project Manager. (See also Article 4.2)
- 6.6.9 End of line / stub outs  
At the end of all lines there must be a four (4) inch flush point. The flush point will consist of (4)-inch ductile iron with a four inch gate valve and box. Flush points will be piped to sanitary sewer as shown on drawing R-37 in Appendix A.
- 6.6.10 Future Stubs  
All stubs for future use must be marked with a White Drivable Marker #SNFB096-01 eight (8') feet long (manufactured by Carsonite International) and extend to the pipe. The markers shall be installed facing the street. The marker is not to protrude the finished grade less than two (2') feet and not to exceed three (3') feet. Each marker must be labeled on both sides (the labels will be provided by the Fulton County Inspector or Project Manager.
- 6.6.11 Installation and Placement  
All valves shall be set accurately and carefully to the lines and grades given on the approved design, or as directed, and shall be joined to the pipe utilizing such approved joints as hereinbefore specified for ductile iron water mains.

Tapping sleeves and valves and insert valves shall be installed in accordance with the manufacturer's recommendation.

Valve boxes shall be centered plumb over the operating nut of the valve with the cover flush with the surface of the finished pavement, finished grade after landscaping, or as directed. The valve box shall not be in direct contact with the bonnet of the valve, and shall be supported in such a manner as not to transmit shock, stress, or load directly to the valve. A formed or pre-cast concrete collar shall be placed around the collar of the valve box as indicated in Detail R-8.

Valve boxes shall be Russco C2503 6.5" square. Valve box lids are to have "RECLAIMED WATER" cast in the lid. See Detail R-29 Note: Standard round valve boxes are prohibited for non-potable reuse. Valve box lids shall be painted with Pantone 522 or 512 or a shade of purple accepted by Fulton County.

Where indicated on the approved design, or as directed, the Contractor shall provide concrete thrust collars, restrained joints, or other restraining mechanisms for valves 24" and larger to prohibit movement of the pipe when the valve is closed.

6.6.12 Testing

All valves shall be tested at the point of manufacture in accordance with the specific AWWA standard for that size and type of valve. After the valves have been set in place, the Contractor shall hydrostatically field-test each valve as part of the hydrostatic test of the main. Any valve not proved to be bubble-tight shall either be repaired to make it so, or be removed from the line and replaced. Valves repaired or replaced shall be re-tested for leakage prior to acceptance by Fulton County.

6.6.13 Shop Drawings

If directed, the Contractor shall provide the Project Manager copies of all shop drawings or "cut sheets" for the proposed valves, prior to their installation.

6.6.14 Painting and Other Coatings

All valves, where not constructed of brass or bronze, or of finished steel, shall be coated at the point of manufacture in accordance with the AWWA Standard Specifications for Painting Ductile or Cast Iron Water Pipes and Fittings. Resilient seated gate valves shall only be provided with a bonded epoxy coating. Machined surfaces shall be given a suitable coating of grease or other protective material.

## 6.7 RELOCATION AND RE-CONNECTION OF EXISTING, VALVES, AND LARGE METERS

### 6.7.1 Work Included

The Contractor shall, where required, disconnect, relocate and reconnect existing, valves, and large meters. The work shall be done in accordance with the following items:

Salvaging valves shall include transporting and delivering such valves for salvage to locations designated by Fulton County.

Relocating existing 3" and larger NPRL water meters shall include removal of the existing metering device and vault, and reinstallation of these items to locations identified on the approved design. If construction phasing requires such, existing devices and vaults shall be carefully removed and stored, and properly reinstalled in the work where indicated or required.

If a wet cut-in is required for the relocation, the Contractor shall request the Fulton County Project Inspector to perform a "trial shutdown" to verify that an existing line is actually shutdown before the work is permitted to take place. **All shutdowns, which affect any existing customer service, must be authorized and coordinated by Fulton County.**

### 6.7.2 Existing Materials and Appurtenances

Existing valves which, in the opinion of Fulton County, are suitable for re-use shall be thoroughly cleaned and, if necessary, shall have their internal parts reworked, and shall be properly placed in the work where indicated or required.

The Contractor shall perform the disconnecting, relocating, and reconnecting carefully so as to avoid damaging the materials or appurtenances. Materials or appurtenances damaged in the course of performing the relocation or re-connection shall be replaced or repaired by the Contractor at his own expense and to the satisfaction of Fulton County.

## 6.8 RECLAIMED WATER SERVICE CONNECTIONS

### 6.8.1 Work Included

The Contractor shall furnish all materials, labor, tools, and equipment for the proper installation, relocation or replacement of all NPRL service connections, service lines, NPRL water meters and meter boxes which are indicated to be so addressed on the approved design, or as directed by Fulton County. If in the process of conducting the work, the Contractor determines that additional NPRL services or connections will be affected by the proposed design, or discovers NPRL services which were hereto previously unknown, the Contractor shall immediately notify the Fulton County Project Manager for direction concerning the services. New service connections to NPRLs shall be made in accordance

with the approved design, or if, in the opinion of Fulton County, such are necessary for establishing proper service to the customer.

The Contractor shall make all relocations of existing NPRL services from existing mains to NPRL mains constructed as part of the approved project, as indicated on the approved design, or as directed by Fulton County, whether or not the existing mains are to be abandoned as part of the project. When the existing mains are to remain in service, or when directed, the Contractor shall abandon all portions of the existing service by excavating the service connection at the existing main and closing the corporation stop for each service to be abandoned.

The Contractor shall make all pavement and sidewalk cuts, excavation, sheeting, shoring, boring, backfilling, sidewalk and pavement repairs, and landscaping and re-grassing/reseeding required for the installation of NPRL service connections. This includes any disturbed areas associated with long-side services on both sides of roadways.

Said work shall be accomplished as specified elsewhere in these standards.

6.8.2 Special Attention

All temporary relocations or replacements of reclaimed service connections necessary to execute the work shall be made at the Contractors expense. Any replacements made necessary due to negligent or careless operations by the Contractor shall be accomplished immediately if customer service is affected, shall be of first class workmanship, and shall be completed using only approved materials, as indicated elsewhere in these Standards, or as directed.

**NOTE: RECLAIMED SERVICE CONNECTIONS SHALL NOT BE CONNECTED TO NEW MAINS UNTIL SUCH HAS BEEN ACCEPTED By Fulton County.**

6.8.3 New Service Installations/Meters and Meter Boxes

To ensure identification of reclaimed water meters, the lid of the register, the register face, lid, shroud and meter bottom shall be painted with Pantone 522 or 512 or as approved by Fulton County. The word "RECLAIMED WATER" shall be marked on the brass housing.

All reclaimed water meters shall be installed in a Carson-Brooks Plastics box. Meter boxes and lids shall be Pantone 522 or 512 or as approved by Fulton County. Meter box lids shall be labeled "RECLAIMED WATER".

All reclaimed meter installations must maintain a minimum of three (3) feet from the potable water meter.

6.8.4 Materials

Service lines shall be constructed of copper pipe or ductile iron pipe with fittings and appurtenances in accordance with the following:

**Copper Pipe** (or tubing) shall be manufactured and furnished in accordance with ASTM Specifications B88, Type "K". Fittings shall be of the compression "pack-joint" coupling type. Copper pipe or tubing shall be polyethylene coated Aqua Shield as manufactured by Kamco Products or approved equal. Polyethylene coating shall be colored Pantone 522 or 512 or a shade of purple accepted by Fulton County.

**Ductile Iron Pipe** shall be manufactured and furnished in accordance with C151/A21.51-96: ANSI Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water and C104/A21.4-95: ANSI Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.

All ductile iron fittings shall be manufactured and furnished in accordance with C110/A21.10-98: ANSI Standard for Ductile-Iron and Gray-Iron Fittings, 3" through 48" for Water and C115/A21.15-99: ANSI Standard for Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges and C111/A21.11-00: ANSI Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings

**Appurtenances** such as corporation stops, curb stops, adapters for copper service lines shall meet the requirements of ASTM Designation B-62 for bronze construction, and AWWA C-800 for threads. Adapters shall be furnished as required for connecting. Corporation stops shall be Ford FBRW1100-4; curb stops shall be Ford B41-444W. Double strap saddles, for the purpose of tapping the main shall be Dresser Style No. 91, or Smith-Blair Style No. 313, and shall be tapped for Mueller threads.

All pipe and fittings shall be color coded as per the general color code requirements listed in the Utility Location and Coordination Council's Uniform Color Code. NPRL pipe and fittings shall be marked with Pantone 522 or 512 or a shade of purple accepted by Fulton County.

**NOTE: THE USE OF SOLDERED JOINTS OR FLARE-JOINTS FOR COPPER PIPE AND FITTINGS IS PROHIBITED.**

## **6.9 JACKED CASING**

### **6.9.1 Work Included**

The Contractor shall furnish all material, labor, tools, and equipment necessary for the complete installation of a jacked steel casing, free-bore, or installation of steel casing by open-cut method, as may be indicated on the approved plans, or as directed by Fulton County, including, but not limited to bore pit excavation, sheeting, shoring, plating, and safety barriers for the protection of workers, traffic, and general public. In general, the work shall include steel pipe casing, excavation, backfill, restoration of site, sheeting, grout, brickwork, earth augers,

jacking machine, welder, and other accessories necessary for a complete installation as specified or directed.

The Contractor shall be fully responsible for protecting against surface subsidence, damage or disturbance to adjacent property and facilities from his construction methods. If loose material is encountered and cave-ins occur or are anticipated, all jacking/augering will be suspended, shoring provided, and all voids filled or pressure grouted. Supplemental measures and alternative methods must receive Fulton County approval before jacking/augering operation re-commences. Any settlement or upheaval of the existing roadway pavements during the jacking and boring operation, and throughout the warranty period for the overall project, shall be repaired/restored by the Contractor immediately upon notification by Fulton County of the pavement failure.

All jacking/augering operations must be performed in compliance with the rules and regulations of the Fulton County Department of Transportation, State of Georgia Department of Transportation, or other authorities having jurisdiction.

Any sheeting placed for the jacking/augering operation must be completely removed by the Contractor prior to backfill.

#### 6.9.2 Maintaining Traffic and Public Safety

All working operations of the Contractor, his subcontractors, and/or their agents or employees must be subordinated to the free and unobstructed use of the highways, and structures encountered in the prosecution of jacking and boring operations.

The Contractor shall proceed with the work in such a manner as will permit regular transaction of business by commercial operations adjacent to the project site without delay or danger to persons or property, permit free access to and from private residences, and will allow the safe flow of traffic and pedestrians around the work site. The contractor shall employ the use of barricades, barriers, warning signs, signals, lights, and if necessary, watchmen, for the protection of the general public. The Contractor, when directed by Fulton County, shall suspend all operations relating to jacking and boring until necessary safety precautions have been met.

The Contractor shall submit for approval, when requested by Fulton County and/or highway Departments, all working drawings and schedules of procedure proposed to be followed in the prosecution of jacking and boring operations.

Working drawings shall show in detail the size and location of bore pits, together with all sheeting and shoring to be used in supporting embankments and trench walls, and all other structural details together with large scale plan and profile of the proposed jack and bore installation. Drawings shall also indicate the location and proximity of any adjacent structures or underground Works which could be affected by the operation.

Schedules shall set forth the sequence of the various operations together with the time proposed to begin and complete the phases of the work.

The Contractor shall not proceed with any portion of the jack and boring operation until he has received approval of the Drawings and Schedule by Fulton County and/or highway Departments.

6.9.3 Jacked Casing

The Contractor shall jack a steel casing pipe as indicated on the approved design, using a special earth auger machine. The wall thickness of the steel pipe shall be a minimum of 0.375 inches, with the pipe having sufficient strength to withstand superimposed loads and jacking stresses. The casing shall be jacked to the line and grade indicated on the approved design.

Each joint of the casing pipe shall be fully welded around its entire circumference to the adjacent joint prior to being jacked.

Following completion of the jacking operations, the NPRL pipe shall be inserted within the casing and its invert supported by wooden skids as indicated in Detail R-17. Pre-fabricated casing spacers are acceptable in lieu of wooden skids, pending pre-installation approval by Fulton County. The ends of the casing shall be sealed with brick bulkheads using brick and mortar.

6.9.4 Free-Bore

Where permitted or directed by Fulton County, the Contractor shall use a special earth auger machine to bore a hole to the line and grade as indicated on the approved design. Said hole shall be of a constant diameter, which shall not exceed the bell diameter of the proposed carrier pipe to be inserted in the borehole by more than four inches. If the annular space between the earthen hole and the carrier pipe exceeds six inches, then the Contractor shall fill such space either by pressure grouting or pumping in a fluid fill to eliminate possible settlement.

At no time will free-bores in excess of forty (40) feet be permitted.

6.9.5 Steel Casing (Open-Cut Installation)

Where permitted or directed by Fulton County, the Contractor shall place the steel casing directly in an open cut ditch for subsequent installation of a carrier pipe after backfill. Except for the method of installation, all requirements of Sections 6.9.1 through 6.9.3 relating to steel casing specification and jacked boring shall apply. Ditch preparation, backfill, and compaction shall be as required for direct-bury ductile iron pipe.

**6.10 CONCRETE**

6.10.1 Work Included

The Contractor shall furnish all materials for, and shall place all concrete masonry in the structures indicated on the approved design, and other such concrete masonry as may be found necessary for completion of the work.

There shall be two classes of concrete; Class A for foundation, cast-in-place manhole and vault sections, brace and thrust blocking, concrete pipe cradles, footings, and steel reinforcement structures; and Class B for concrete encasement and concrete fill. The Contractor shall provide concrete which on tests in standard cylinders shall have a compressive strength of not less than three thousand (3,000) pounds per square inch in twenty-eight days for Class A; and not less than two thousand (2,000) pounds per square inch in twenty eight days for Class B concrete.

Slump shall range from three to five inches for Class A concrete, and four to six inches for Class B concrete; except that where equipment that is subject to vibration is used, slump shall not exceed three inches.

The Contractor shall provide a standard cone of metal for making slump tests, and a supply of suitable containers for making standard six inch by twelve-inch cylinders for testing the compressive strength of the concrete.

**No admixtures will be permitted unless specifically approved by the Fulton County Project Manager prior to placement.**

6.10.2 Placement

Provision shall be made by the Contractor for transporting the concrete rapidly from the place of mixing to the work, and with as little jiggling as possible so that the tendency of the water to rise to the top may be reduced to a minimum. The concrete shall be placed before it has had time to obtain its initial set, and under no circumstances shall it be re-tempered and used in the work.

6.10.3 Placement in Water Prohibited

**Concrete shall not be laid in water, nor shall water be allowed to rise on or flow over freshly placed concrete until the concrete has set for at least twenty-four hours.**

6.10.4 Freezing and Inclement Weather

Concrete placed in cold weather shall be heated with an approved device to a temperature that will permit it to be transported by standard conveyance on the work site and placed in the forms at a temperature of not less than fifty degrees Fahrenheit.

**6.11 LUMBER LEFT IN PLACE**

6.11.1 Work Included

When in the opinion of Fulton County proper protection and support of the pipe or structures may be adversely affected by the continuation of the work, the Contractor may be ordered to leave in place such sheeting, sheet piling, bracing, and shoring as may be considered necessary to provide the proper protection.

Where sheeting and bracing is left in place in accordance with the orders of Fulton County, all projecting planks shall be cut off two feet below the surface of the ground. If so ordered, the upper portion of the lower set of sheeting shall be cut off so as to permit the complete filling in of the space below the timbers of the upper set of sheeting.

## **6.12 BACKFILLING**

### **6.12.1 Backfilling Structures**

Backfilling of structures shall proceed as various structures or parts of structures are completed. The Contractor shall refill the space outside and around the wall with material excavated from the site and stored for this purpose. Immediately adjacent to the structure, the backfill material shall be placed in twelve-inch layers and compacted to avoid future settlement. This filling shall be carried to such height as will bring the finished grade to the required elevations.

### **6.12.2 Trenches**

Backfill in trenches where pipe has been laid shall be placed continuously by hand in layers not exceeding six inches in thickness and carefully and thoroughly consolidated by tamping simultaneously on both sides of the pipe to a height of twelve inches above the top of the pipe. This backfilling and compacting must be done promptly and before any backfill material is deposited directly from a machine bucket, loaders, trucks, or other mechanical equipment. Once utilizing a machine bucket for backfilling, the bucket must be lowered into the trench to deposit the material in such a manner as to avoid the shock of falling earth, which could injure or damage the pipe or structure. Under no circumstances should the material be allowed to fall from the machine or loader bucket directly onto the pipe or conduit in the trench.

Except as otherwise ordered by Fulton County, all forms, bracing, and lumber shall be removed from the trench before backfilling.

Bottoms of trenches in earth must be shaped or molded and compacted to the contour of the outside of the pipe, using bedding materials, as directed, or where indicated on the approved design, to give full support to the lower segment of the pipe. This shall be done in such a manner as to prevent any subsequent settlement of the pipe. Boulders or loose rock, which might bear against the pipe, will not be permitted in the trench bottom, or in the backfill within two feet above the top of the pipe. Bottoms of excavations, which are of loose granular soils, shall be compacted by vibratory compactor prior to laying of pipe.

Where foundation conditions are such that proper bedding cannot be provided, such as in quicksand, the Contractor may be directed by Fulton County to provide foundation cushion, concrete cradles, or other special provisions as may be required for the proper support of the pipe.

Only after the backfill has been placed and hand-compacted to at least twelve inches above the top of the pipe, may the work proceed in the placement of the remaining backfill material, which must be carefully placed and compacted. In streets, other surfaced areas, or where directed, the backfill shall be placed and compacted in lifts not to exceed twelve inches in thickness. All precautions must be taken to avoid having any unincorporated material, which may result in future settlement in these areas. Approved mechanical tampers shall accomplish compaction. The number of workers tamping shall at no time be less than the number of workers backfilling, and if necessary, additional workers shall be kept in the trench to spread the material.

Material shall be compacted to a density of not less than 95% as determined by a modified proctor ASTM Des. D1557-70. When directed, the Contractor shall arrange to have such compaction tests conducted by an independent testing firm; the number and locations to be determined by Fulton County.

Materials used for backfilling shall be free from all perishable organics or other objectionable materials, and shall contain no stones larger than twelve inches in its longest dimension.

No clay backfill shall be used in pipe trenches under roadways or other paved areas. In such paved areas where clay is encountered, trenches shall be backfilled with bank run gravel.

If, in the opinion of Fulton County, the original excavated material is unsuitable for use as backfill, such as perishable matter, refuse, building materials, wire, brush, stumps, ashes, large stones, muck, or other soft materials, the Contractor shall properly dispose of the objectionable materials, and shall furnish, haul, and place borrow material suitable for proper backfill.

Backfilling shall not be done in freezing weather, except by permission of Fulton County, and shall not be done using frozen materials or upon frozen materials.

All backfilling shall be left with smooth, even surfaces, properly graded, and shall be maintained in such condition until final completion and acceptance of the work, notwithstanding applicable warranty periods. Where directed by Fulton County, the Contractor shall mound the backfill slightly above the adjacent ground to allow for settlement.

6.12.3 Embankment Over Pipes

Where indicated on the approved design, or where authorized by Fulton County, for the crown of the pipe to come close to or extend above the surface of the ground, the Contractor shall cover and protect the pipe by an embankment. This embankment shall be at least three feet deep over the top of the pipe, at least four feet wide at the top, and with side slopes not less than 1½ horizontal to 1 vertical extending to the surface of the undisturbed ground. Provisions shall be made to allow for surface drainage.

The materials of which embankments are to be constructed shall be the same as those permitted for backfill, and shall be free from objectionable materials as defined in Section 6.15.3. The earth shall be placed in layers not exceeding twelve inches in thickness, which shall be compacted by hand tamping, or by other methods approved or directed by Fulton County. The embankments shall not be built during freezing weather or with frozen materials. The surface shall be brought to the true lines and grades as indicated on the approved design, or as directed, and shall be raked smooth and left free from rubble, stones, dirt clods, or gravel. Placing of fill or embankment over and around structures shall be done evenly on all sides to avoid unbalanced loading or overturning action.

6.12.4 Concrete Protection Cap

Where indicated on the approved design, or where authorized by Fulton County, to permit less than three feet of cover over the top of the pipe, the Contractor shall construct a concrete cap over the top of the pipe for protection of the pipe for the entire length where the pipe has less than the minimum cover. The concrete cap shall be Class B concrete, a minimum of four feet wide, four inches thick, and shall be placed no less than one foot above the top of the pipe, but should not extend above the ground at any point. At no time shall a concrete cap be utilized as a substitution for an embankment as required under Section 6.12.3.

6.12.5 Erosion Control

The Contractor shall fully comply with the applicable requirements of local, State, and Federal agencies in the control and containment of soil erosion. The Contractor shall install/construct all necessary measures or devices in accordance with Best Management Practices, as may be indicated on the approved design, as may be directed by Fulton County,

or as directed by other agencies having jurisdiction, to control and contain all soil erosion within the construction limits, with no exception. Necessary measures and devices may include, but are not limited to; reinforced silt fencing, hay bales, and/or rock check dams. The Contractor shall maintain these measures until such time as a satisfactory vegetative cover is established, and final acceptance of the work is obtained from Fulton County, notwithstanding any required warranty period. The Contractor shall be held fully responsible and liable for any damages and/or penalties arising out of his failure to install or maintain an adequate soil erosion control program at all times during the project.

6.12.6 Disposal of Material

The Contractor will be required to remove from the site of the work all earth in excess of that required to backfill the excavation or to create necessary fill. This shall be done immediately after the backfill is completed to the satisfaction of Fulton County. All material removed shall become the property of the Contractor, and he shall make his own arrangements for its disposition, subject to Fulton County's approval. All surplus material, shot rock, organics, clearing debris, stumps, and other such material as Fulton County may deem unfit for use as backfill, shall be disposed of by the Contractor, and shall be done in such manner so as to give a minimum of inconvenience to the public.

Any material which may spill or drip from the vehicles while being transported on public streets, drives, or other paved surfaces, shall be immediately removed by the Contractor and those surfaces cleaned to the satisfaction of Fulton County.

6.12.7 Borrow

When acceptable excess material is not available from other parts of the Project for backfill, required fills, embankments, etc., the Contractor shall obtain the necessary "borrow" material at locations off the site of the work from locations approved by Fulton County. Locating such acceptable "borrow" sites shall be the sole responsibility of the Contractor.

All materials to be used as borrow shall be approved by Fulton County. Borrow material for backfilling trenches under roadways or other paved areas shall be bank run gravel reasonably free from loam or other foreign material.

**6.13 TESTING**

6.13.1 Testing

Pipes, fittings, and appurtenances shall be laid in such a manner as to leave joints watertight. After the pipe is laid, each section, as may be

determined or defined by Fulton County, shall be properly and adequately flushed, all air removed, and then tested under a hydrostatic pressure of 150 PSI as measured at the lowest elevation of the test section. Where static pressure exceeds 100 PSI, the test pressure, as measured at the lowest elevation of the test section shall equal to the static pressure plus 50 PSI. If elevation differentials, within a test section, vary by more than 45 feet, then the section shall be broken into shorter lengths by the insertion of additional valves.

All stub-outs shall be flushed and included in the pressure test. Each stub-out shall be properly plugged, braced, and tested with the stub-out valve open. Following a successful pressure test, all stub-out valves shall be left in the "closed" position.

**All testing of NPRL mains, fittings, and appurtenances shall be conducted in the presence of the Fulton County Project Inspector, and under his direction.** To facilitate the testing, the Contractor shall furnish: 1) a pressure gauge for measuring the pressure on the NPRL; 2) a corporation cock in the main for pressure pump connection; 3) suitable pump, piping, appliances, labor, and other items necessary to conduct the pressure test; 4) a valve wrench and labor to accompany the Fulton County Project Inspector to verify that all valves, are fully open during the pressure test. Each section of pipe shall be filled slowly with water and the specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. The pump shall operate by pumping water from a separate reservoir into the main to be tested, until the specified test pressure is attained. The County shall furnish all water necessary for flushing and testing of the main. The Contractor shall provide whatever means necessary to transport or convey the water from a designated source to the main.

Before applying the specified test pressure, **all** air must be expelled from the pipe. To accomplish this, it may be necessary for the Contractor, to install additional  $\frac{3}{4}$ " service taps at the highest elevations, including any intermediate points, of the section of the pipe to be tested, or at locations directed by Fulton County. The Contractor prior to final acceptance of the main must remove any such taps installed.

The test pressure shall be maintained for a minimum of two hours to allow for thorough examination for leakage, and permit the Fulton County project Inspector to confirm that all air has been removed, and that all valves within the test section of pipe are fully open.

## **6.14 RESTORING PAVEMENTS, SIDEWALKS, AND CURBS**

### **6.14.1 Work Included**

The Contractor shall furnish all materials for, and properly restore all pavements, drives, sidewalks, and curbs, which may have been damaged, removed, or disturbed as a result of accomplishing the Work. Restoration and replacement shall be made to the satisfaction of Fulton County. This shall include in general, but without limitation, all necessary concrete, reinforcing steel, stone, cinders, gravel, slag, asphalt, or other bituminous material necessary for the proper completion and restoration of the Work as may be required, directed, or specified.

### **6.14.2 Materials and Workmanship**

Materials to be used in the repair and restoration of pavements, drives, sidewalks, and curbs, shall be first quality. All materials removed while accomplishing the work shall be disposed of by the Contractor on sites approved by Fulton County. No existing material may be reused in the Work unless pre-approved by Fulton County. All workmanship shall be first class.

### **6.14.3 Restoring Pavements**

After the pipe has been laid, appurtenant work constructed, and backfill completed, the Contractor shall furnish, place, restore, and maintain all pavements or roadway surfaces, which have been removed or damaged by or in pursuit of the Work. The form and degree of restoration shall be as specified on the approved design, as specified herein, or as directed by Fulton County.

For backfilling roadway cuts, only crusher-run gravel, bank run gravel, or properly rammed sand shall be used. Backfill material shall be placed and compacted to a density of not less than 95% as determined by a modified proctor ASTM Des. D1557-70. Fulton County may require that tests, conducted by an independent laboratory, be made at various locations to confirm the density of the compacted material. The location and number of tests shall be designated by Fulton County as the work progresses. All costs associated with such testing shall be borne by the Contractor.

All roadway restoration shall be done in accordance with the lawful requirements of the authorities within whose jurisdiction such pavement is located. All highway Works and traffic controls are to be maintained, and work shall conform to the rules and regulations of the authorities, including the use of standard signs. The Contractor shall furnish all such bonds or checks, which may be required by the highway authorities to insure proper restoration of paved areas.

Whenever the removal of pavements is required (other than gravel types), the Contractor shall outline the area to be removed by making saw-cuts, providing vertical kerfs to allow the removal of the paving material in straight lines. Should pavement breakage occur beyond the saw-cut, the Contractor shall make a new straight saw-cut beyond the furthest point of breakage.

The Contractor shall be responsible for maintaining all pavement cuts prior to project acceptance, and during the one-year maintenance period. Should any failures be noted associated with any portion of the work, the Contractor shall remove all such damaged surfaces and make full repairs, including adding and re-compacting approved backfill materials, placing and maintaining bituminous concrete pavement or stone road surfaces. The Contractor shall affect all required pavement repairs necessitated due to pavement failure, either prior to final project acceptance or during the one-year maintenance period, within five (5) working days of notification by Fulton County. Bituminous concrete pavements or stone road surfaces, which the Contractor is required to replace, shall be in at least as good condition at the end of the one-year maintenance period as it was before construction.

#### 6.14.4 Roadway Permits

The Contractor is responsible for obtaining all road-opening permits from the Fulton County Department of Transportation, including providing any required restoration bonds.

Fulton County shall obtain all road-opening permits required by the Ga. Department of Transportation. The Contractor is not permitted to make any type cuts on roadways requiring a permit from the Ga. D.O.T. until such time as the permit is provided and prominently displayed on-site.

#### 6.14.5 Restoring Driveway Pavements

The Contractor shall repair or replace all driveway sections disturbed by the process of the work. Driveways shall be constructed of the same materials, and to the thickness of the adjoining wearing surface, or to the minimums indicated on detail drawing R-31 in the Appendix, whichever is greater. In restoring driveways, the subsoil and foundation material shall be well compacted so as to prevent any future settlement or cracking of the driveway pavement. Where necessary to cut a concrete driveway, the cuts shall be made with a masonry saw, providing a smooth, straight line completely across the driveway. Partial cut-outs, crooked cuts, or cuts made by any other method other than masonry saw are not permitted. In general or where directed, concrete slab removal shall be made in entire pavement sections to the nearest existing expansion-joint.

6.14.6 Restoring Curbs

The Contractor shall restore all curbs and combination curbs and gutters, which have been removed or disturbed in the progress of the work. Curbing shall be made to conform accurately in size, line, grade, and materials to that adjoining. In restoring curbs, the subsoil and foundation material shall be well compacted so as to prevent any future settlement of the concrete curbing.

All concrete shall conform to the specifications for Class A Concrete, Section 6.10.1

6.14.7 Restoring Sidewalks

The Contractor shall restore all sidewalks, which have been removed or disturbed in the progress of the work. Sidewalks shall be constructed to the same dimensions and materials as the adjoining sections.

Where necessary to cut a walk, entire sections shall be removed and replaced unless otherwise directed by Fulton County.

The sub-base shall be thoroughly rolled or tamped and shall be wetted just before the concrete is placed, but shall show no pools of water.

6.14.8 Contractor's Warranty of Restored Paved Surfaces

The Contractor shall make every provision to insure compaction by properly tamping any backfill under areas to be paved. Any settlement which may occur during the one-year warranty period shall be corrected by the Contractor at his expense, including removing, re-compacting, and replacing any paved surfaces which show signs of settlement, whether or not actual damage to the paved surface has occurred. This shall apply to all paved surfaces including streets, drives, sidewalks, and curbs and gutters.

Should settlement, cracks, or other indications of failure, or impending failure, appear in the paved surface, the adjoining paving shall be removed to the extent necessary to secure a firm, undisturbed bearing. All removal, re-compaction, and replacement shall be in accordance with the specifications concerning these operations as stated elsewhere.

**6.15 SEEDING / SOD REPLACEMENT**

6.15.1 Work Included

The Contractor shall furnish all materials for, and properly restore to the satisfaction of Fulton County, all ground surfaces irrespective of type, which may be disturbed in the progress of the work.

This shall include in general but without limitation, the spreading of topsoil, seeding, sod replacement, fertilizing, and mulching required to restore disturbed areas as may be necessary, directed, or specified herein. On all "sod" type lawns and other improved, well established grass areas, the sod/grass shall be carefully removed, kept alive, and replaced after the backfilling and grading is finished. The Contractor shall also remove all spoil from such areas as quickly as possible after the excavation is backfilled, and he shall leave the premises in as good condition as before undertaking the work. It is the intent of these Specifications to restore all disturbed areas, to place seed and mulch in areas not specifically identified as improved lawns, to place topsoil and seed where improved lawns existed prior to construction, and to provide for "sod" removal and replacement in areas identified as such prior to construction.

6.15.2 Standard Specification for Seeding / Sod Replacement

The requirements of the Department of Transportation of the State of Georgia "Standard Specifications - Construction of Roads and Bridges", 1983 Edition, and as revised to date, shall apply insofar as they are applicable for all seeding/sod replacement. If requirements set forth in these Specifications differ from those of the Ga. D.O.T., then these requirements shall take precedence.

6.15.3 Topsoil

Where directed by Fulton County, area to be seeded shall be covered with a layer of topsoil. The topsoil shall be of sufficient thickness that when spread and compacted, a minimum of four (4) inches will be available. The Contractor shall furnish natural topsoil of a good condition and tillable structure. Obtain topsoil as borrow from an outside source of uniform texture, drainage, and other characteristics so as to constitute a homogeneous soil meeting the requirements of the Ga. D.O.T., and as approved by Fulton County. The Contractor shall furnish topsoil that is free from objectionable materials such as hard clods, stiff clay, sods, hardpan, partially disintegrated rock, large roots, or other materials that are not integrally a natural component of good agricultural soils, and which are harmful or not beneficial for successful plant growth. Do not use topsoil containing frost or in a muddling condition. If utilizing existing material obtained from the initial excavation of the work site for re-use as topsoil, the Contractor must first obtain approval from Fulton County as to suitability of its content, including approval of location and method of storage of topsoil for re-use.

6.15.4 Seeding

Seeding shall be accomplished by the Contractor using a properly proportioned mixture of inoculated seed approved for use in "Zone One" as detailed in the Ga. D.O.T.'s Standard Specifications. Seeding shall

only be permitted in the specified planting season for "Zone One" for the specified mixture. All seeded areas shall be uniformly mulched immediately after seeding.

The Contractor shall maintain all seeded areas to include mowing, watering, and re-seeding any bare areas until a satisfactory stand of grass has been obtained and final acceptance of the work has been received from Fulton County. Areas showing evidence of settlement or loss of topsoil shall be rebuilt and re-seeded as required.

In general, the Contractor shall replace existing maintained lawn areas with the same type of grass as was established prior to construction. Any deviations or alternatives proposed due to unavailability of seasonal grasses, or inappropriateness of seeding due to time of year must be presented to Fulton County Inspector in writing with **signed** authorization of homeowner.

#### 6.15.5 Preparation of Seeded/Sod Areas

The subgrade for any areas to be seeded shall be brought to a uniform grade by the Contractor, and shall be free of stones larger than 1", roots, gravel, or other debris. Where topsoil is required by Fulton County, the topsoil shall uniformly graded, trimmed, and raked free of unsuitable materials, ridges, bumps, or depressions. Over this area, the Contractor shall spread agricultural lime at the rate of 40 pounds per 1,000 square feet, and shall spread a general fertilizer uniformly on the surface of the ground at a rate of 1,500 pounds per acre. The lime and fertilizer shall be mixed uniformly into the top four (4) inches of the soil using suitable harrows, tillers, or other mechanical equipment.

#### 6.15.6 Sod Removal/Replacement

On all well established and "sod" type lawns, the Contractor may at his discretion, utilizing suitable sod cutting equipment, cut the sod into rolls, carefully remove and store the sod, and water and maintain in a viable condition for replacement after backfill. Any such sod removed and replaced in this manner must be demonstrated to be living to Fulton County Inspector prior to final acceptance of project.

If sod is to be replaced with "new" sod, the Contractor shall only replace using sod of the same type as that removed. Any deviations or alternatives proposed due to unavailability of seasonal grasses must be presented to Fulton County Inspector in writing with **signed** authorization of homeowner.

END