FULTON COUNTY

Vision

People *Families* *Neighborhoods*

Mission

To serve, protect and govern in concert with local municipalities

Values

People *Customer Services*
Ethics *Resource Management*
Innovation *Equal Opportunity*

PURCHASING DEPARTMENT
REQUEST FOR PROPOSAL NO. 06RFP51158K-NH

S110-MARSH CREEK SEWER REPLACEMENT DESIGN/BUILD PROJECT

For

PUBLIC WORKS

RFP DUE TIME AND DATE: 11:00 A.M. July 10, 2006
PURCHASING CONTACT: Nancy Harrison at 404-730-4201
E-MAIL: Nancy.Harrison@co.fulton.ga.us

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

VOLUME 1

SECTIONS 1-6

1.0 INTRODUCTION 1-1
1.1 Overview (including Bond Requirements) 1-1

2.0 GENERAL INFORMATION 2-1
2.1 County Objectives 2-1
2.2 D/B Scope of Work 2-2
2.2.1 Company Sole Responsibility for Contract Services 2-2
2.2.2 Design/Build Guarantees 2-2
2.2.3 Design/Build Work Overview 2-2
2.3 Background 2-3
2.3.1 Fulton County 2-3
2.3.2 Focus Area 2-4
2.4 The Design Build Contract 2-4
2.5 Pricing Issues 2-5
2.6 Accuracy of RFP and Related Documents 2-5
2.7 Surety/Payment And Performance Bonds/Guarantor Required ... 2-5
2.8 Risk 2-6
2.9 D/B Company S Compliance With All Assurances And/Or Promises Made In Response To Procurement 2-6

3.0 PROCUREMENT PROCESS OVERVIEW 3-1
3.1 Procurement Process 3-1
3.2 No Contact During Procurement 3-1
3.3 County Rights and Options 3-2
3.4 Purchasing The RFP 3-4
3.5 Schedule 3-5
3.6 Pre-Proposal Meeting 3-5
3.7 Proposals Due 3-5
3.8 Responsibility of Proposer 3-5
3.9 Clarification and Interpretation of the RFP 3-5
3.10 Addenda to the RFP 3-6
3.11 Personal Investigation 3-6
3.12 Confidential Information 3-7
3.13 Non-Discrimination Requirements 3-7
Compliance Procedures 3-8
3.14 Cost of Proposal, Preparation, and Selection Process 3-9
3.15 Termination of Negotiations 3-9
Purchasing General Requirement's 3-10

4.0 PROPOSAL REQUIREMENTS 4-1
4.1 Submission Requirements 4-2

4.1.1 Proposal Submission Date and Submission Format.....4-1
4.1.2 Number of Copies.....4-1
4.2 Overview of Proposal Requirements 4-2
4.3 Technical Proposal Format and Content 4-2
4.4 Price Proposal Format and Content 4-6

5.0 EVALUATION CRITERIA 5-1
5.1 Proposal Evaluation Overview.....5-1
Figure 5-1.2 Proposal Evaluation Process 5-2
5.2 Minimum Evaluation Criteria.....5-3
5.3 Relative Evaluation Criteria 5-3
5.3.1 Technical Proposal Evaluation.....5-3
Criterion 1 5-4
Criterion 2 5-5
Criterion 3 5-6
5.3.2 Price Proposal Evaluation.....5-6
5.4 Negotiations 5-6

6.0 PROPOSAL FORMS 6-1
6.1 Introduction.....6-1
6.2 Surety and Security Forms 6-2
6.2.1 Bid Bond 6-2
6.2.2 Performance Bond 6-2
6.2.3 Payment Bond 6-2
6.3 Procurement Affidavits 6-2
6.3.1 Disbarment Certificate 6-2
6.3.2 Form A: Non-Collusion Affidavit (Prime) 6-2
Form B: Sub-Contractor Non-Collusion Affidavit
6.3.3 Certificate of Acceptance of Request for Proposal Requirements 6-3
6.3.4 Corporate Certifications 6-3
6.3.5 Proposers Disclosure & Questionnaire 6-3
6.4 Contract Compliance Exhibits 6-3
6.4.1 Promise of Non-Discrimination - Exhibit A 6-3
6.4.2 Employment Report – Exhibit B 6-3
6.4.3 Schedule of Intended Sub Design/Builder Utilization – Exhibit C 6-3
6.4.4 Letter of Intent to perform as a SubContractor – Exhibit D……..……6-3
6.4.5 Declaration Regarding SubContractor Practices – Exhibit E …… .....……6-3
6.4.6 Joint Venture Disclosure – Exhibit F 6-3
6.4.7 Equal Business Opportunity (EBO) Plan 6-3
6.4.8 SubContractor Utilization Report - Exhibit G.....6-3
6.5 Technical Proposal Forms 6-3
6.5.1 Proposal Transmittal Letter Fixed Design/Build Price.....6-3

6.5.2 Proposal Information Certification…….. 6-3
6.6 Price Proposal Forms 6-4
6.6.1 Fixed design Build Price 6-4

7.0 INSURANCE, SAFETY & HEALTH MANAGEMENT REQUIREMENTS
7.0 General Insurance and Risk Management Provisions.....7-1
7.0.1 Insurance Requirements 7-1
7.0.2 Use of Premise 7-3
7.0.3 Protection of Property.....7-3
7.0.4 Indemnification and Hold Harmless Agreement.....7-4
7.1 Owner Controlled Insurance Program 7-1
7.1.1 Introduction.....7-1
7.1.2 Definitions specific to Section 7 7-1
7.1.3 Insurance Obligations of County and Design Builder 7-2
7.1.3.1 Insurance provided by County Under OCIP.....7-2
7.1.3.2 Workers Compensation 7-3
7.1.3.3 Liability Insurance (Excluding Motor Vehicle) 7-3
7.1.3.4 All Risk Builders Risk, Including Transit.....7-4
7.1.3.5 Design Builder Retains Various Obligations 7-4
7.1.3.6 Design Builders Responsibility to Repair Defective/Damaged Work 7-5
7.1.3.7 Named Insureds 7-5
7.1.3.8 Owners Right to Audit.....7-5
7.1.3.9 Assignment.....7-6
7.1.3.10 OCIP Claims.....7-6
7.1.3.11 Limitations on OCIP Coverages 7-6
7.1.3.12 Alternative Insurance.....7-6
7.1.3.13 Procedures and Services.....7-6
7.1.3.14 Insurance Necessary for the Work but Covering Operations Outside of OCIP 7-7
7.1.3.15 Design/Builders OCIP Obligations.....7-7
7.1.3.16 Notices Costs and Losses 7-8
7.1.3.17 Subrogation and Waiver 7-8
7.1.3.18 Coverage Determined by Policy 7-9
7.2 Design Builders Liability Insurance 7-9
7.3 OCIP Insurance Information Form ..... ……7-13

8.0 SAMPLE DESIGN/BUILD CONTRACT AGREEMENT 8-1

9.0 TECHNICAL SPECIFICATIONS 9-1
00700 General Conditions of Utility Construction
01010 Summary of Work
01011 Unique Requirements

01016	Occupancy
01025	Measurement and Payment
01060	Regulatory Requirements
01070	Abbreviations and Symbols
01091	Applicable Codes and Standards
01200	Project Meetings
01310	Scheduling of the Work
01320	Progress Reports, Videos and Photographs
01340	Shop Drawings, Product Data and Samples
01420	Inspection of Work
01510	Temporary Facilities
01511	Specifications for Flow Bypass and/or Diversion Pumping
01562	Dust Control
01610	Transportation and Handling
01630	Storage and Protection
01700	Project Closeout
01710	Cleaning
01720	Project Record Documents
02110	Sewer Easement Cleaning
02115	Temporary Erosion Control
02126	Stream Crossing and Construction Exits
02225	Trench Excavation and Backfill
02270	Slope Protection and Erosion Control
02485	Seeding
02706	Pre-Conditioning Sewers and Manholes
02711	Seals Utilizing Hydraulic Expanders
02713	Cured-In-Place Sewer Repair – Carbon Fiber Material
02714	Cured-In-Place Patch or Local Repair
02720	Pipe Bursting
02726	Stream Bank Stabilization
02730	Sewer and Accessories

Drawing A Fulton County, Marsh Creek Sewer Basin

SECTION 1
INTRODUCTION

1.1 OVERVIEW

The Fulton County Department of Public Works – Water Services Division ("County") intends to replace portions of the Marsh Creek Sewer System to accommodate future demands and reduce the potential for overflows. Marsh Creek Basin is divided into 10 sub-basins labeled MA01 to MA10. A study of Marsh Creek was performed in 2000 and it described basins MA01, MA03 MA04, and MA10 as candidates for upsizing based upon their inflow and infiltration contribution to the system. A follow-up design was completed in 2002 and it detailed the corresponding pipe sizes and alignments in the initial Marsh Creek Sewer Replacement Project.

Fulton County now intends to use the initial 2002 design as a basis or starting point for completing the new "Marsh Creek Sewer Replacement Project" or "Project" with two (2) key additions. Bank stabilization and construction mitigation are to be included in the new design effort to further minimize the impacts due to construction and provide a more reliable system. Fulton County has identified in Section 01650 of this Request for Proposals ("RFP") several critical areas along the initially described alignment for further consideration. Fulton County intends to, whenever feasible, route the new sewer away from the creek bed and around problematic parcels. The overall Project is divided into three (3) sections totaling more than 2.5 miles of sewer pipe from 8 inches to 21 inches in diameter and approximately 64 manholes. The majority of the main trunk line is located in the 100-year flood plain.

County	Fulton County, Georgia
D/B Company	The Selected Proposer with whom the County executes the Design/Build Contract
Design/Build Project	The Design/Build Work necessary for the D/B Company to meet the obligations of the Design/Build Contract, including the upgrade of the Marsh Creek Sewer to meet the needs of the Marsh Creek Sewer Service Area described in the RFP.
Design/Build Contract	The entire and integrated agreement (including Appendices) between the County and the Company concerning the Design/Build Project.

Proposals provided in response to this RFP that comply with the submittal requirements set forth in Section 4.0, including all forms and certifications, will be evaluated in accordance with the criteria and procedures described in Section 5.0. Based on the results of the evaluation, the County will award the D/B

Contact to the most advantageous D/B Company based on the cost and the evaluation factors set forth in the RFP.

Bid and Contract Security: A Bid Bond for an amount equal to five percent (5%) of the Fixed Design/Build Price must accompany each Proposal. The Bid Bond shall be submitted in a separate, sealed envelope marked “Bid Bond”.

Any Bid bond, performance bond, payment bond, or security deposit required for public works construction contract shall be approved and filed with the 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.

The Purchasing Agent shall verify any Bid bond, performance bond, or payment bond required by this RFP. 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 Design/Builder 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 Design/Builder and its sureties.

As a condition of responsiveness the Proposal must contain a Bid Bond for an amount equal to 5% of the Fixed Design/Build Price. 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, except a certified cashier’s check will be acceptable. When the proposal package is opened, a Purchasing Agent will verify the presence of the Bid Bond and remove it from the Proposal Package.

If the Proposer withdraws its Proposal from the competition after the selection of its Proposal 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

Fixed Design/Build Price. The Bonds and Surety shall be subject to approval by the County Attorney.

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

SECTION 2
GENERAL INFORMATION

2.1 COUNTY OBJECTIVES

The objective of the Project is to replace the existing gravity sewer with 10", 18", and 24" ductile iron pipe installed by open-cut installation or 12", 22", and 28" minimum inside diameter high density polyethylene gravity sewer pipe installed by pipe bursting. Directional drilling or micro-tunneling may be considered as an alternative installation method in order to route the new sewer away from the creek bed or around problematic parcels.

GOALS OF PROJECT

The county seeks to accomplish the following goals. These goals will be a part of the consideration in the relative evaluation of each proposal. The evaluation criteria found in Section 5 by which these goals will be evaluated against are listed after the goal in parenthesis.

1. Utilize the private sector's expert approaches to cost-effectively complete design of the Marsh Creek Replacement in North Fulton County. (Experience, design capability, construction capability, completeness and organization)
2. To construct the project without major interference to wastewater collection system users. Design and construct the Marsh Creek Intercept Upgrade within the term of the contract but not longer than 23 months.
3. Construct a quality upgrade whose useful life will be substantial by specifying Minimum Performance and Technical Requirements. (Flexibility and maintainability)
4. Consolidate responsibility for all aspects of the Project to a single party. (Financial strength and business arrangement, experience)
5. Assign risks of the project to the party best able to manage those risks. (Terms and conditions, risk assessment, delivery schedule, exceptions to the requirements.)
6. Design and Construct the D/B Project taking into consideration all safety requirements. Perform all tasks associated with the Project in a safe and secure manner.

This procurement will help the County meet these goals by utilizing the resources and creativity of the private sector to obtain desired reliability, redundancy and cost savings. Proposers must submit a Proposal in accordance with the requirements set forth in this Request for Proposals ("RFP"). The Proposal must include a Fixed Design/Build Price for the project that satisfies all requirements of this RFP.

2.2 THE D/B PROJECT SCOPE OF WORK

This section describes generally the scope of work and performance guarantees the County is seeking in the RFP. The proposer should carefully review the RFP including the Draft D/B Contract, Appendices and all addenda to this RFP to fully understand the scope of work desired by the County, and to determine the best approach to meeting the County's objectives.

2.2.1 D/B Company Sole Responsibility for Contract Services

The D/B Company shall be solely responsible for performing all of the engineering, design, and construction required to provide the complete upgrade and replacement of designated sections of the Marsh Creek Sewer ("Work"). No conceptual design information or technical requirements contained in this RFP shall neither relieve the D/B Company of responsibility for designing and constructing the D/B Work to meet the contract requirements nor shall the inclusion of such information or requirements provide any recourse whatsoever against, or give rise to any liability of, the County, the County Board of Commissioners, County employees or agents, or consultants or attorneys for the County.

2.2.2 Design/Build Guarantees

The D/B Contract will obligate the D/B Company to comply with several specific Design/Build Performance Guarantees. Depending on the specific incidents, failure to meet these Design/Build Performance Guarantees may result in liquidated damages, claims against the performance bond, withholding of payment or claims against retainage. The Design/Build Performance Guarantees, damages, termination provisions, and other contract mechanisms are specified in the D/B Contract.

2.2.3 Design/Build Work Overview

The following is a general description of the scope of work for the design and construction of the Project. This scope of work contains the major goals and functional elements of the project, but is not intended to be an all-inclusive list of the scope of work of the Project.

Specific Illustrations of the Scope of Work, but are not limited to:

- The general area for the upgrade of the Marsh Creek Sewer is shown on the Marsh Creek Sewer Replacement Plans which is included on the data disk enclosed.

- The D/B COMPANY shall design the Project along the alignment shown on the Drawings. The design must be in accordance with Fulton County Standards. The design shall incorporate the technical specifications included in these documents. The D/B Company shall prepare and provide supplemental specifications when necessary.

- The D/B COMPANY shall replace the existing gravity sewer with 10", 18", and 24" ductile iron pipe and 12", 22", and 28" minimum inside diameter

high density polyethylene (HDPE) pipe. The current design specifies ductile iron pipe to be installed using open-cut construction and HDPE pipe to be installed using pipe bursting technology. The D/B COMPANY shall evaluate the existing design and, when appropriate, propose alternative methods of installation such as directional drilling or horizontal boring when rerouting the sewer in problematic areas or relocating the sewer out of creek to reduce the potential for spills.

- The D/B COMPANY shall design and construct new manholes as shown on the Drawings and rehabilitate existing manholes when economically feasible. New manholes shall be designed and installed in accordance with Fulton County Standards.

- The D/B COMPANY shall address in the design how service connections to the existing gravity sewer shall be located, restored, and how these services shall be provided without interruption during construction of the new sewer line.

- The D/B COMPANY shall include in the design all associated appurtenances, stream bank stabilization, and erosion and sedimentation control.

- The D/B COMPANY shall show in the design all areas for repaving and areas for repair to streets and driveways.

- The D/B COMPANY shall perform by-pass/diversion pumping during construction to maintain service and operation of the sewer line at all times.

- Where required, the D/B COMPANY may survey the existing sewer to verify service connection locations, elevations of residences, elevations of manholes (inverts, surface, etc.), location and elevation of other sewers into the project, the locations of trees within the easement, and collection of other required information to prepare a complete design.

- The D/B COMPANY shall coordinate with the County and obtain all permits for the construction of the project.

- D/B Company shall provide complete the design and installation of sewer and construct streambank improvements that fully meet the objectives of this RFP.

2.3 BACKGROUND

2.3.1 Fulton County

The Marsh Creek Sewer Study in 2000 stated that sections of the existing Marsh Creek Sewer in Fulton County were undersized for future 2020 flows. This “bottleneck” required that the existing 8” thru 21” pipe be upsized accordingly. The question, however, has been how best should this limitation be addressed.

In 2001, there was a first attempt to begin work on the replacement project. During the process, two properties presented the first challenge: 95 North Mill Road and 7007 Riverside Drive. These properties created access and easement issues because of their proximity to the existing sewer line. After evaluating various tunneling and relocation options, the recommendation was to complete the project and proceed with pipe bursting as much as possible along the existing alignment and secure any necessary easement agreements.

Since 2001, additional structures have been found to be encroaching on the easements along Marsh Creek. In addition portions of Marsh Creek Sewer have become exposed due to erosion and stream bank destabilization. Therefore, the County has identified several critical areas along the initially described alignment (See section 01650 of this RFP). Fulton County intends to, whenever feasible, route the new sewer away from the creek and around problematic parcels.

2.3.2 Focus Area

The project focus area is the combination of sub-basins MA01, MA03, MA04, MA05, and MA10 within the Marsh Creek Sewer Basin (See Attached Drawings). The focus area is divided into three (3) sections totaling more than 2.5 miles of sewer pipe from 8 inches to 21 inches in diameter and approximately 64 manholes. The majority of the main trunk line is located in the 100-year flood plain.

2.4 DESIGN/BUILD CONTRACT

Section 8 of this RFP provides the Definitions and Draft D/B Contract. Section 9 of this RFP includes the Technical Specifications Appendices, which are to be incorporated into the Draft D/B Contract. The Appendices provide specifications and definition to certain aspects of the D/B Work required for this Proposal.

The Definitions, Draft D/B Contract and Appendices summarize the primary terms and conditions on which Proposals should be based. Modifications to the Draft D/B Contract suggested within the Proposer's Technical Proposal will be evaluated. Such proposed modifications to the Draft D/B Contract and their impact upon the County will be taken into account in the evaluation of the Proposal in accordance with Section 5 of this RFP. Any modifications to the D/B Contract allowed will be at the County's sole discretion.

Certain specific information applicable to the D/B Company including but not limited to, descriptions of DB Work, equipment lists, drawings, specifications, operating parameters, will be reflected in the finalization of the D/B Contract.

Subject to the conditions set forth in this RFP with respect to the selection of Proposers for negotiation with the County, the County may revise the Draft D/B Contract and Appendices during any negotiation of the Draft D/B Contract with any Proposer selected for negotiations. This would be based on the information provided in the Proposal, including the Proposal Forms submitted, as negotiated. Revised Appendices will be attached to and shall be considered part of the D/B

Contract. The Technical Proposal should include the Proposer's suggested modifications to the Draft D/B Contract and the Appendices.
IN THE EVENT OF A CONFLICT BETWEEN THE DRAFT D/B CONTRACT AND OTHER SECTIONS OF THIS RFP INCLUDING BUT NOT LIMITED TO THE CONTRACT TERM SHEET OR APPENDICES, THE DRAFT D/B CONTRACT SHALL GOVERN.

2.5 PRICING ISSUES

The County is requiring on Price Proposal Form 1, a Fixed D/B Price for the D/B Project Scope of Work. The Fixed D/B Price shall constitute a fixed, non-adjustable component of the irrevocable offer set forth in the Proposal.

Proposers should carefully review the scope of work in Section 2 and Section 9, 01010 Summary of Work and price the D/B Project accordingly. These requirements are included to ensure that all Proposals will achieve a base level of quality.

2.6 ACCURACY OF DESIGN/BUILD RFP AND RELATED DOCUMENTS

The County assumes no responsibility that the specified technical and background information presented in this RFP, or otherwise distributed or made available during this procurement process, is complete or accurate. Without limiting the generality of the foregoing, the County will not be bound by or be responsible for any explanation or interpretation of the Proposal documents other than those given in writing as an addendum to this RFP.

Should a recipient of this RFP find discrepancies in or omissions from this RFP and related documents, the recipient of this RFP shall immediately notify the County Purchasing Agent in writing at the following address: **Nancy Harrison**, Public Safety Bldg, 130 Peachtree Street S.W., Suite 1168 Atlanta, GA 30303. A written addendum, if necessary, then will be made available to each recipient of this RFP.

2.7 SURETY/PAYMENT AND PERFORMANCE BONDS REQUIRED

Proposers will be required to provide four forms of security for various portions of this project.

- Prior to the Design/Build Date, the D/B Company must provide a Payment Bond and Performance Bond, with good and sufficient surety, payable to, in favor of, and for the protection of the County. The Payment Bond and Performance Bond shall each be in the amount equal to at least one hundred percent (100%) of the Fixed Design/Build Price. Surety companies executing such 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 a corporation by a corporate officer's signature and corporate seal; for a partnership, any partner signature; for an individual, a notarized signature.

- In addition, each Proposal must be accompanied by a Bid-Bond in the amount of five percent (5%) of the Fixed Design/Build Price in a form and substance satisfactory to the County and subject to forfeiture in the event that the Proposer withdraws its Proposal within 150 days following the Proposal Submission Date. This time period and has been extended by Fulton County in accordance OCGA 36-91-50(b) due to the complexity of this project and the period of time necessary to evaluate the proposals and award the contract. Within sixty days (60) of the proposal submission date the County shall advise and release from his or her proposal any proposer that is determined by the Fulton County to be unlikely of being selected for contract award.

- As a condition of responsiveness, the Proposal must contain a Bid Bond for an amount equal to 5% of the Fixed Design/Build Price. The Bid Bond shall be included in a separate, sealed envelope marked on the outside "BID BOND". Checks or letters of credit of any type will not be accepted, except a certified cashier's check would be acceptable. Provide a completed and fully executed AIA Document A310. When the proposal package is opened, a Procurement Agent will verify the presence of the Bid Bond and remove it from the Proposal

2.8 RISK

An objective of the Design/Build procurement method is to assign the risks of the D/B Project to the party best able to manage those risks. *Construction activities in the vicinity of a residential area* is one of the known risks. The Proposers should comment on risks associated with this project, their understanding of the risks and how they intend to mitigate the risk factors to successfully complete the project.

2.9 D/B COMPANY'S COMPLIANCE WITH ALL ASSURANCES AND/OR PROMISES MADE IN RESPONSE TO PROCUREMENT:

Should any proposer submit a response to the County promising to provide a certain level of service for either the scope of work, Minority, Female Business Enterprises (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 D/B Contract Documents, then this degree or level of service promised by the proposer relating to the scope of work, MFBE participation, or other matter shall be considered to be a material part of the Agreement between the D/B Company and the County, such that the D/B Company's failure to provide the agreed upon degree or level of service or participation shall be a material breach of the D/B Contract giving the County just cause to terminate the D/B Contract for cause, pursuant to the Article 12 of the D/B Contract.

SECTION 3
PROCUREMENT PROCESS OVERVIEW

3.1 PROCUREMENT PROCESS

The County is following a procurement process pursuant to Title 36, Chapter 91 of the Official Code of Georgia Annotated (OCGA) and other Applicable Law for the selection of a single private entity to provide the D/B Project.

The process generally consists of the following steps:

1. D/B RFP issuance
2. Pre-proposal meeting
3. D/B RFP clarification process
4. Proposal development and submittal
5. Proposal evaluation process during which Proposals are identified as responsive or non-responsive
6. Identification of Qualified Proposals using Minimum Evaluation Criteria
7. Identification of Proposals Reasonably Susceptible for Award
8. Possible negotiation with those Proposers who have submitted Proposals deemed to be reasonably susceptible of being selected for award
9. Evaluation of Proposals using Relative Evaluation Criteria
10. County Manager recommendation and Board of Commissioners Award
11. Notice of Award to the responsive and responsible Proposer whose Proposal is determined to be the most advantageous to the County, taking into consideration cost and the evaluation factors set forth in this D/B RFP

Section 5 of this RFP provides a more detailed description of the Proposal clarification and evaluation process. The Proposer must execute Technical Proposal Form 2, which releases the County from any claims or liability relating to the information contained in this RFP or otherwise distributed or made available during this procurement process.

3.2 NO CONTACT DURING PROCUREMENT

In accordance with Fulton County Policy & Procedure 800-9, 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 solicitation and the date of the County Manager's recommendation to the Board of Commissioners, except as may otherwise be specifically authorized and permitted by the terms and conditions of this solicitation.

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.

Any violation of this prohibition of the initiation of verbal or written communications with County officers, elected officials, employees, or designated County representatives shall result in a written finding by Purchasing Agent that the submitted bid or proposal of the person, firm, or entity in violation is not responsive, and same shall not thereafter be considered for award.

Between the date of the issuance of any solicitation of bids or proposals for County contracts and the date of the County Manager's recommendation to the Board of Commissioners for award of the subject contract, no County officer, elected official, employee, or designated County representative, except in the course of carrying out obligations as a member of or a designated advisor to a vendor selection committee acting in accordance with the terms and conditions of the solicitation, shall initiate or continue any verbal or written communications regarding the solicitation with any person, firm, or business entity, however situated or composed, or any such representative of same, who the officer, elected official, employee, or representative knows or should have known has obtained a copy of the solicitation and either has submitted a Proposal or provided, further, except for members of or designated advisors to a vendor selection committee, no County official, employee, or designated County representative shall contact any member of such a vendor selection committee regarding a pending solicitation between the date of the issuance of the solicitation and the date of the County Manager's recommendation to the Board of Commissioners for award of the subject contract, and all inquiries regarding the solicitation shall be directed to the Purchasing Agent:

Fulton County Department of Purchasing
Attn: Nancy Harrison
Public Safety Building
130 Peachtree Street S.W. Suite 1168
Atlanta GA 30303

P: 404-730-4201
Email: Nancy.Harrison@co.fulton.ga.us
F: 404-730-5426

3.3 COUNTY RIGHTS AND OPTIONS

This RFP constitutes an invitation to submit Proposals to the County. Without limitation or penalty, the County reserves and holds at its sole discretion, the following rights and options:

- This RFP does not obligate the County to select, procure or contract for any services whatsoever

- The County reserves the right to change or alter the schedule for any events associated with this procurement and, if required, notify the Proposers. A Proposer, by submitting a Proposal, agrees to be bound by any modifications made by the County

- All costs incurred by a Proposer in connection with responding to this RFP, the evaluation and selection process undertaken in connection with this procurement, and any negotiations with the County will be borne by the Proposer

- The County reserves the right to reject all Proposals and components thereof to eliminate all Proposers responding to this RFP from further consideration for this procurement, and to notify such Proposers of the County's determination

- The County may cancel this RFP without the substitution of another RFP and terminate this procurement at any time without any liability whatsoever

- The County reserves the right to waive any technicalities or irregularities in the Proposals

- The County reserves the right to eliminate any Proposer who submits incomplete or inadequate responses or is not responsive to the requirements of this RFP

- The County may request Proposers to send representatives to the County for interviews and presentations

- To the extent deemed appropriate by the County, the County may select and enter into discussion and negotiations with the Proposer(s) submitting Proposal(s), which are found to be reasonably susceptible for award

- The County reserves the right to discontinue negotiations with any Selected Proposer

- The County may conduct clarification discussions, at any time, subject to limitations set forth in this Section, with one or more Proposers and request additional information relating thereto

- The County reserves the right, without prior notice, to supplement, amend, or otherwise modify this RFP

- All Proposals (other than portions thereof subject to patent or copyright protection) become the property of the County and will not be returned, and the County reserves the right to utilize all such information contained in the Proposals without further cost to the County

- All activities related to this RFP and the performance of the D/B Project shall be subject to Applicable Law

- The County may add to or delete from the D/B Project Scope of Work set forth in this RFP

- Any and all Proposals not received by the Proposal Submission Date shall be rejected and returned unopened

- Neither the County, its staff, its representatives, nor any of its consultants or attorneys will be liable for any claims or damages resulting from the solicitation, collection, review, or evaluation of responses to this RFP

- The County, including its representatives and consultants, reserves the right to visit and examine any of the facilities referenced in any Proposal and to observe and investigate the operations of such facilities.

- The County reserves the right to conduct investigations of the Proposers and their responses to this RFP and to request additional evidence to support the information included in any such response.

- FUNDING: Any award of work, contract, or service for any portion of the Design/Build Project will be conditional and subject to Fulton County obtaining financing through the issuance of water and sewer revenue bonds where the proceeds from such bonds are in an amount sufficient to fund the Design/Build Project. This conditional award will be in effect until Fulton County has been successful in raising the required funds for payment of the Design/Build Project. If it proves impossible for Fulton County to raise the required funds, the conditional award will be cancelled by Fulton County without any recourse by the responding entity. The submittal of a proposal in response to any phase of the procurement for the Design/Build Project serves as acceptance of this condition by the entity responding to the procurement. Without waiving any of the conditions contained herein, and solely for informational purposes, please be aware that the Fulton County Board of Commissioners has taken legislative action authorizing the Fulton County Director of Finance to procure the services of the various professionals that will assist in obtaining the bond proceeds.

By responding to this RFP, Proposers acknowledge and consent to the rights and conditions set forth in this RFP.

3.4 PURCHASING THE RFP

This document and supporting documents can also be downloaded at the Fulton County Website, http://www.co.fulton.ga.us/ 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 3077, Atlanta, Georgia 30303. Payment must be in the form of a certified check, treasurer’s check, cashier‘s check, or money order issued by a responsible bank

or trust company payable to **Parsons PM Team**. 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 Proposal document will not be issued.

For payment information, contact **Doris Tolbert**, Department of Public Works at (404) 893-0883. All other questions should be addressed by the procedures outlined in this RFP to the Purchasing Agent, Fulton County Purchasing Department at 404-730-4201 **Nancy.Harrison@co.fulton.ga.us.**

3.5 SCHEDULE

The anticipated schedule for the procurement of the services described in this RFP is summarized below. The County reserves the right to modify any or all of the dates included on the schedule from time to time, as it may deem necessary, and at its sole discretion.

Activity	**Target Date**
Pre-Proposal Meeting and Site Visit	**2:00 PM on June 22, 2006**
Last Date for Questions	**2:00 PM on June 28,2006**
Proposal Submission Date	**11:00 AM July 10, 2006**

3.6 PRE-PROPOSAL MEETING

The County will hold a Pre-Proposal Meeting, which is on **June 22, 2006 at 2:00 PM** in the Purchasing Department, Fulton County Public Safety Building, Suite 1168, 130 Peachtree Street, S.W., Atlanta, Georgia 30303. Attendance at the Pre-Proposal Meeting is voluntary for responding to this RFP. Proposers are encouraged to attend the Pre-Proposal Meeting, since it is an opportunity to discuss issues regarding the services sought by the County through the RFP.

3.7 PROPOSALS DUE

All proposals are due in the Purchasing Department of Fulton County located in the Public Safety Building, Suite 1168, 130 Peachtree St, S.W., Atlanta Georgia 30303 on or before **July 10, 2006 at 11:00 AM,** legal prevailing time. All submitted proposals will be time and date stamped according to the clock at the front desk of the Fulton County Purchasing Department. Any proposals received after this appointed schedule will be considered late and subject to be returned unopened to the proposer. The proposal due date can be changed only by addendum.

3.8 RESPONSIBILITY OF PROPOSER

Each Proposer is encouraged to conduct all necessary investigations and review all available and relevant data and information, which are necessary in its judgment in order to assume this responsibility prior to the submittal of its

Proposal. Proposers are reminded of Fulton County's **"no contact during procurement"** policy and may only contact the person designated by the RPF. See Section 3.2.

3.9 CLARIFICATION AND INTERPRETATION OF THE DESIGN/BUILD RFP

Proposers may submit requests for clarifications or interpretations regarding this RFP and the Design/Build Contract. Proposers must prepare such requests in writing for the County's consideration as set forth in this section of this RFP. While the County has not placed an initial limitation on the number of requests which can be submitted, Proposers are cautioned that if Proposers do not request meaningful clarifications or interpretations in an organized manner (e.g., limited frequency of requests), the County will set restrictions on the frequency and number of requests permitted. The County will not respond to requests received after **June 28, 2006 at 2:00 PM,** local prevailing time. Proposers are advised that this section places no obligation on the part of the County to respond to any or all requests for clarification or interpretation, and that the County's failure to respond to any such request will not relieve the Proposer of any obligations or conditions required by this RFP.

Requests for clarification or interpretation regarding this RFP shall only be submitted in writing (letter, fax or email) to:

Fulton County Department of Purchasing
Attn: Nancy Harrison
Public Safety Building
130 Peachtree Street S.W. Suite 1168
Atlanta GA 30303
Email: Nancy.Harrison@co.fulton.ga.us
F: 404-730-5426

RE: MARSH CREEK SEWER REPLACEMENT

All responses to written requests for clarification, interpretation, or additional information will be distributed as addenda to this RFP to all persons registered with the County to have received a copy of the RFP.

No oral interpretation, instruction, or information concerning this RFP given by any employee or agent of the County shall be binding on the County. Proposers who submit a Proposal in reliance on any such oral information risk having their response to this RFP deemed non-responsive by the County. Only written responses issued by addendum to this RFP should be considered by the Proposers.

3.10 ADDENDA TO THE DESIGN/BUILD RFP

During the period provided for the preparation of Proposals, the County may issue addenda to this RFP. These addenda will be numbered consecutively and will be distributed to those who have been issued a copy of this RFP. Additionally, the addenda will be posted on the Fulton County website,

www.co.fulton.ga.us. These addenda will be issued by, or on behalf of, the County and will constitute a part of this RFP. Each Proposer is required to acknowledge by submitting an executed acknowledgment form included as Procurement Affidavit Form 3, Section 6.3.3. This acknowledgment shall include all addenda distributed prior to the Proposal Submission Date. All responses to this RFP shall be prepared with full consideration of the addenda issued prior to the Proposal Submission Date.

3.11 PERSONAL INVESTIGATION

Proposers should satisfy themselves by personal investigation and such other means as they may deem necessary, as to the conditions affecting the proposed D/B Work and the costs thereof. Proposers are solely responsible for conducting their own independent research and due diligence for the preparation of Proposals, subsequent negotiations (if conducted), and subsequent delivery of the D/B Work. No information derived from any part of this RFP or from the County or its Consultants shall relieve the Proposer from any risk or from providing the D/B Work and meeting the requirements of this RFP. The County and its Consultants are not responsible for the completeness or the accuracy of any information presented in this RFP or otherwise distributed as made available during this procurement process.

3.12 CONFIDENTIAL INFORMATION

If any Proposal contains technical, financial, or other confidential information that the Proposer believes is exempt from disclosure, the Proposer must clearly label the specific portions sought to be kept confidential and specify on what the exemption is based. The County, at its sole discretion and subject to applicable law, will determine whether such exemption applies. The County has sole discretion to make such determination regarding the disclosure of information, and by responding to this RFP, Proposers waive any challenge to the County's decisions in this regard. Marking all or substantially all of a Proposal as confidential may result in the Proposer being deemed non-responsive to this RFP.

Notwithstanding the foregoing, Proposers recognize and agree that the County, its staff, and its Consultants will not be responsible or liable in any way for any losses that the Proposer may suffer from the disclosure of information or materials to third parties.

3.13 NON-DISCRIMINATION REQUIREMENTS

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 that Fulton County Government and all vendors, Consultants and Sub 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 without regard to the race, color, gender or national origin of the ownership of

any such business. Similarly, it is the policy of Fulton County Government that the contracting and procurement practices of Fulton County Government should not implicate Fulton County as either an active or passive participant in the discriminatory practices engaged in by private Consultants, Sub Contractors or vendors who seek 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 the Proposal. 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 Plan should be designed to enhance the utilization of racial, gender or ethnic groups.

The Plan **must** identify and include:

1. Potential opportunities within the scope of work of this solicitation that will be afforded to racial, gender or ethnic groups for participation in the solicitation.
2. Efforts that will be identified to encourage and solicit minority and female businesses for opportunities within 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 Design/Builder **must** certify in writing and **must** document on the Department of Contract Compliance's Exhibit G Form (Prime Design/Builder/SubContractor Utilization Report) that all subcontractors, sub-consultants and suppliers have been promptly paid for work and materials and previous progress payments received (less any retainage by the prime Design/Builder prior to receipt of any further progress payments). In the event the prime Design/Builder is unable to pay subcontractors, sub-consultants or suppliers until receipt of a payment from Fulton County, the prime Design/Builder shall pay funds due from said progress payments within forty-eight (48) hours of receipt of payment from Fulton County and in no event later than fifteen (15) days as provided for by state law.

Authority to Investigate. The Director of the Department of Contract Compliance shall be authorized to investigate discriminatory practices of a Proposer, Consultant, SubContractor, Design/Builder or vendor who contracts with or seeks to contract with Fulton County. Such investigations may be initiated by the Director of the Department of Contract Compliance on the Director's own imitative, or by complaint from another, when information available to the Director provides a reasonable basis to believe that such Design/Builder or vendor may be engaging in private discriminatory conduct.

COMPLIANCE PROCEDURES:

In order to be compliant with the intent and provisions of the Non-Discrimination Ordinance providing for non-discrimination in purchasing and contracting in Fulton County, **proposers must submit the following completed documents**.

Failure to provide this information shall result in the Proposal being deemed non-responsive:

< Promise of Non-Discrimination (Exhibit A – Section 6.4)
< Employment Report (Exhibit B – Section 6.4)
< Schedule of Intended SubContractor Utilization (Exhibit C – Section 6.4)
< Letter of Intent to Perform As a SubContractor or Provide Materials or Services (Exhibit D – Section 6.4)
< Declaration Regarding SubContractor Practices (Exhibit E- Section 6.4), if applicable
< Joint Venture Disclosure Affidavit (Exhibit F – Section 6.4), if applicable
< **Equal Business Opportunity Plan (EBO Plan) (Section 6.4)**

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

< Prime Design/Builder's SubContractor Utilization Report **(Exhibit G –Section 6.4)**

All Contract Compliance documents **(Exhibits A-F and EBO Plan)** are to be placed in a separate sealed envelop 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."

This is a brief summary of the objectives and provisions of the **"ORDINANCE PROVIDING FOR NON-DISCRIMINATION IN PURCHASING AND CONTRACTING; TO PROVIDE FOR THE MONITORING OF PURCHASING AND CONTRACTING BY THE DEPARTMENT OF CONTRACT COMPLIANCE; TO PROVIDE FOR THE INVESTIGATION BY THE DEPARTMENT OF CONTRACT COMPLIANCE REGARDING ALLEGATIONS OF DISCRIMINATION BY PERSONS OR ENTITIES THAT DO BUSINESS WITH FULTON COUNTY; TO PROVIDE FOR HEARINGS REGARDING ALLEGATIONS OF DISCRIMINATION; TO PROVIDE FOR SANCTIONS; AND FOR OTHER PURPOSES",** enacted by the Fulton County Board of Commissioners on July 7, 1999.

For a complete copy of the Ordinance, contact the Department of Contract Compliance, 141 Pryor Street, SW, Suite 1167, Atlanta, Georgia 30303, (404) 730-6300.

In addition, the County encourages minority-owned business enterprises and women-owned business enterprises to submit Proposals (independently, or together with a Proposer team).

3.14 COST OF PROPOSAL PREPARATION AND SELECTION PROCESS

Each Proposal, including preparation of all information required to be included in a Proposal pursuant to this RFP, shall be prepared at the sole cost and expense (including, but not limited to, engineering and legal costs) of the Proposer. In addition, the Proposer shall be solely responsible for all costs (including engineering and legal costs) incurred by such Proposer in connection with this selection process, including any costs incurred by the Proposer in any subsequent negotiations entered into in connection with developing the Proposal.

There shall be no claims whatsoever against the County, its staff, or its consultants for reimbursement for the costs or expenses (including, but not limited to, engineering and legal costs) incurred during the preparation of the Proposal or other information required by this RFP or procurement process or in connection with the selection process or any negotiations.

3.15 TERMINATION OF NEGOTIATIONS

The County at its sole discretion may, at any time, to the extent permitted by Applicable Law, exclude a Proposer from further participation in any negotiation process if the County determines that such Proposer is failing to progress in the negotiations or if the terms of its Proposal are less advantageous than those of other Proposers and such Proposer is deemed to be no longer susceptible of selection. The County will give written notice of its decision to the Proposer, which shall be sent in writing, signed by the County.

FULTON COUNTY PURCHASING DEPARTMENT

REQUEST FOR PROPOSAL (RFP) GENERAL REQUIREMENTS

06RFP51158K-NH MARSH CREEK SEWER UPGRADE

The following information pertains to the submission of a proposal to Fulton County ("County"), and contains instructions on how proposals must be presented in order to be considered. If specific conditions or instructions in the text of the Request for Proposal ("RFP") conflict with the General Requirements as listed here, those conditions or instructions in the RFP shall prevail.

1. Proposals submitted in response to the attached RFP must be formatted as specified in the RFP. Additional sheets, literature, etc., should be clearly identified.

2. The original and the required number of copies of the proposal must be returned to:

   Fulton County Purchasing Department
   Nancy Harrison
   130 Peachtree Street, S.W., Suite 1168
   Atlanta, Georgia 30303

3. The envelope in which the proposal is submitted must be sealed and clearly labeled with the RFP project name and number, due date and time, and the name of the company or individual submitting the proposal. Proposals must be received by the opening date and time shown on this RFP in order to be considered. The Purchasing Agent has no obligation to consider proposals which are not in properly marked envelopes. The Technical Proposal, Cost Proposal and Contract Compliance submittals shall be submitted in separate sealed envelopes. The inclusion of any cost information in the Technical Proposal may result in such proposal being rejected by the County.

4. Proposals received after the time and date specified will not be opened or considered.

5. By submitting a signed proposal, Offeror agrees to accept an award made as a result of the submission of the prices and terms contained in that proposal. Prices proposed must be audited by the Offeror to insure correctness before the proposal is submitted. Person signing the proposal is responsible for the accuracy of information in it. The specifications, provisions, and the terms and conditions of the RFP and proposal shall become a valid contract between Fulton County and the Offeror upon notice of award of contract in writing and/or issuance of a purchase order.

6. Any contract awarded as a result of this proposal, shall comply fully with all Local, State, and Federal laws and regulations.

7. Absolutely no fax proposals or reproduction proposals will be accepted, except that if multiple copies of the proposal are required, photocopies of the original may be submitted as the additional copies, provided that they are clearly marked as such.

8. Type or neatly print company name, as well as the full legal name and title of the person signing the proposal, in all appropriate places. The Offeror's

signature must be executed by a Principal of the company duly authorized to make contracts and bind the company to all terms being proposed.

9. Proposals may be withdrawn upon receipt of a written request prior to the stated due date and time. If a firm seeks to withdraw a proposal after the due date and time, the firm must present a notarized statement indicating that an error was made, with an explanation of how it occurred. The withdrawal request must be accompanied by documentation supporting the claim. Prior to approving or disapproving the request, an opinion will be obtained from Fulton County's Legal Counsel indicating whether the firm is bound by its proposal.

   Proposals 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 be withdrawn as follows:

   The County must advise Offerors in the request for proposals of the number of days that Offerors will be required to honor their proposals. If an Offeror is not selected within 60 days of opening the proposals, any Offeror that is determined by the governmental entity to be unlikely of being selected for contract award will be released from the proposal.

10. 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 Offeror in 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 Offeror shall provide Fulton County the benefit through a reduction in price of any decrease in the Offeror's costs by reason of tax exemptions based upon Fulton County's status as a tax-exempt entity.

11. Propose all items specified or indicate under each item what alternative is being proposed and why it should be considered in lieu of the original specification. Failures to indicate any exceptions shall be interpreted as the Offeror's intent to fully comply with the specifications as written. Conditional or qualified proposals (except as specifically allowed in the specifications) are subject to rejection in whole or in part.

12. Fulton County shall be the sole judge of the quality and the applicability of all proposals. Design, features, overall quality, local facilities, terms and other pertinent considerations will be taken into account in determining acceptability.

13. The successful Offeror must assume full responsibility for delivery of all goods and services proposed and agree to relieve Fulton County of all responsibility and costs for prosecuting claims.

14. The successful Offeror must assume full responsibility for replacement of all defective or damaged goods and/or performance of contracted services within thirty (30) days notice by the County of such defect, damage or deficiency.

15. The successful Offeror must assume full responsibility for providing warranty service on all goods, materials, or equipment provided to the County with warranty coverage. Should a vendor be other than the manufacturer, the vendor and not the County is responsible for contacting the manufacturer.

The Offeror is solely responsible for arranging for the service to be performed.

16. The successful Offeror shall be responsible for the proper training and certification of personnel used in the performance of the services proposed.

17. The successful Offeror shall not assign, transfer, convey, sublet, or otherwise dispose of any contract resulting from the RFP or of any of all of its rights, title or interest therein without prior written consent of the Fulton County Board of Commissioners.

18. Proposals must contain references which reflect successful completion of contracts for the types of goods, materials, equipment, or services for which the vendor is submitting a proposal to the County. In instances where that does not apply, the proposal must contain a statement and supporting documentation demonstrating such expertise, knowledge, or experience to establish the vendor submitting the proposal as capable of meeting the demands of the proposal should an award be made to them.

19. Offerors submitting proposals may be required to furnish evidence that they maintain permanent places of business of a type and nature compatible with their proposal, and are in all respects competent and eligible vendors, able to fulfill the terms of the specifications. Fulton County may make such investigations as it deems necessary to determine the ability of the Offeror to perform such work, and reserves the right to reject any proposal if evidence fails to indicate that the proposed vendor is qualified to carry out the obligation of the contract and to complete the work satisfactorily.

20. By submitting a signed proposal, Offeror certifies that there has been no collusion with any other Offeror. Reasonable grounds for believing Offeror has an interest in more than one proposal will result in rejection of all proposals in which the Offeror has an interest. Any party to collusion may not be considered in future proposals for the same or similar work.

21. Upon notice of selection, the Offeror submitting the proposal is obligated to perform. Should a successful Offeror refuse to enter into a contract subsequent to an award, a penalty may be assessed and/or the Offeror may be found to be “non-responsible” in the future.

22. In case of default by the successful Offeror, Fulton County may procure the articles or services from another source and hold the successful Vendor responsible for any resultant excess cost.

23. Successful Offerors contract directly with the 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 an Offeror being found to be “non-responsible” in the future.

24. 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 whom the service or product was provided.

25. Fulton County reserves the right to accept or reject any or all proposals, or any part thereof, and to waive any technicalities. Fulton County reserves the

right to award a contract based on this RFP and the proposal(s) received (in whole or in part) to one or several Vendors.

26. Awards will not necessarily be based on cost alone. Other factors, as detailed in the RFP, will be considered in determining what proposal will be deemed to best meet the needs of Fulton County.

27. 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.

28. All proposals and Bids submitted to Fulton County involving Utility Contracting are subject to the Georgia law governing licensing of Utility Design/Builders, O.C.G.A. §43-14-8.2(h). The Utility Design/Builder License number of the person who will perform the utility work shall be written on the face of the Proposal envelope.

29. Prior to beginning any work, the successful Offeror shall furnish to Fulton County (for the contracting firm and for any subcontractors) a certificate from an insurance company showing issuance of Workers' compensation coverage for the State of Georgia or a certificated from the Georgia Workers' Compensation Board showing proof of ability to pay compensation directly.

30. 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.

31. Any Offeror intending to respond to this solicitation as a Joint Venture must submit an executed Joint Venture Agreement with this offer. 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 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".

32. Any Offeror intending to respond to this solicitation must complete all of the Procurement Affidavit Forms provided in Section 5. Proposals that do not include these completed documents will be rejected as being "non-responsive".

SECTION 4
PROPOSAL REQUIREMENTS

4.1 SUBMISSION REQUIREMENTS

4.1.1 Proposal Submission Date and Submittal Format

All Proposals, including all attachments, must be received by the County in a sealed package no later than **2: PM** on **June 28, 2006** and must be addressed to:

REQUEST FOR PROPOSALS RFP #06RFP51158K-NH
Fulton County Department of Purchasing
Public Safety Building
130 Peachtree Street S.E. Suite 1168
Atlanta GA 30303

The Proposal shall consist of a Technical Proposal, a Price Proposal and executed Contract compliance Exhibits (A-F). The Technical Proposal shall include Proposer information, technical information, business-related information, the Technical Proposal Forms, and all suggested changes to the Design/Build Contract. The Price Proposal shall include the Price Proposal Forms and required narrative information describing the basis for pricing and must be separately, sealed, marked and packaged.

The required content of the Technical Proposal and Price Proposal is further specified in this section of the RFP. The Proposal must be signed and acknowledged by the Proposer, including certain information to be provided under oath as required under Applicable Law, in accordance with the instructions herein and the various proposal forms.

THE TECHNICAL PROPOSAL, THE PRICE PROPOSAL AND CONTRACT COMPLIANCE EXHIBITS SHALL BE SUBMITTED IN SEPARATE, SEALED, OPAQUE ENVELOPES OR PACKAGES. THE INCLUSION OF ANY COST INFORMATION IN THE TECHNICAL PROPOSAL MAY RESULT IN SUCH PROPOSAL BEING REJECTED BY THE COUNTY.

Each envelope or package shall be clearly marked as follows:

REQUEST FOR PROPOSALS RFP # - 06RFP51158K-NH
S110 - MARSH CREEK SEWER REPLACEMENT
Design/Build [Technical or Price] Proposal
Utility Contractors License #
Proposer's Name and Address

4.1.2 Number of Copies

Proposers shall submit one (1) original and five (5) copies each of the Technical and Price Proposals. Proposer shall All Proposals must be complete with all requested information.

4.2 OVERVIEW OF PROPOSAL REQUIREMENTS

Proposers shall submit Proposals in accordance with the content and format requirements set forth in this RFP. Proposals should be clearly organized and structured in a manner that allows materials included in the document to be located easily.

The County may incorporate information provided in the selected Proposal without substantial modification into the Design/Build Contract and/or Appendices. The Proposal shall be bound and typed on 8½" x 11" paper in English using 12-point font. Hard copies of the drawings shall be provided on 11" x 17" paper. A table of contents shall identify the major sections of the Proposal as outlined herein, and any illustrations, tables, charts, or graphics included in the Proposal. The Technical Proposal shall also be submitted on CD-ROM with all files formatted in a version of Microsoft Word that is compatible with Microsoft Word 2000 (version 9.0), in a version of Microsoft Excel that is compatible with Microsoft Excel 2000 (version 9.0), and in AutoCAD, as appropriate. **The typed, hardbound proposal shall take precedence over information on the CD-ROM**. The CD-ROM shall be submitted in an appropriate sealed envelope with the same information on the envelope as the Technical Proposal.

Each of the instructions set forth in this section must be followed for a Proposal to be deemed responsive to this RFP. In all cases, the County reserves the right to determine, at its sole discretion, whether any aspect of the Proposal meets the requirements set forth in this section. The County reserves the right to reject any Proposal, which in its judgment, does not comply with these Proposal submission requirements.

4.3 TECHNICAL PROPOSAL FORMAT AND CONTENT

The Technical Proposal shall include the appropriate and requested information in sufficient detail to demonstrate that it meets the Minimum Evaluation Criteria and to allow efficient application of the Relative Evaluation Criteria set forth in Section 5.

In order to facilitate Proposal preparation and the evaluation efforts, the Technical Proposal will be limited to a total of 10 typed, single-sided pages, excluding drawings and Proposal Forms. To meet this limit, Proposers are encouraged to summarize information, to the extent possible, in tabular form. Failure of the Proposer to organize the information required by this RFP, as outlined, may result in the County, at its sole discretion, deeming the Proposal non-responsive to the requirements of this RFP and eliminating the Proposal from further consideration. Proposers using variations from the established Proposal format bear the risk that the County may fail to locate and review required information. Proposers, however, may reduce the repetition of identical information within several sections of their Proposals by making the appropriate cross-references to other sections of their Proposals. However, such cross-references must satisfy the informational requirements for each applicable section. Separate attachments or exhibits to Proposals for certain technical information such as drawings and diagrams may be used to facilitate Proposal preparation.

The Technical Proposal shall be arranged and include content as described below:

Section 1 - Executive Summary

In the Executive Summary, summarize the other sections of the Technical Proposal. Do not present information that is not presented elsewhere in the Technical Proposal.

Section 2 – Qualifications and Experience

This section of the Proposal must present general information about the Proposer. The Proposal shall include details about the type of firm or organization such as, corporation, partnership, limited liability company, joint venture or design or construction prime that will execute and deliver the D/B Project, including ownership and management structure. The use of the term proposer refers to all members of the proposing entity. This does not include Sub-Contractors unless the D/B arrangement is structured with either the design or construction firm as the prime and the other as a sub-contractor. In this case the qualifications for the design or construction sub-Contractor are significant and should be included.

- Listing of all members or partners of the proposing entity indicating status of general or limited partner. If the Proposer or joint venture is a subsidiary of a parent company, provide information about when the subsidiary was formed and its place in the corporate structure of the parent company. If a subsidiary is or will be created for the purposes of responding to this RFP, the reasons for this action must be fully disclosed.

- Brief history of the Proposer's business activities, including ownership, markets, organization, and background organized by individual company.

- Location and address of corporate and regional offices of all members of the proposing team.

- Proposer should submit an organizational chart of the business structure of the proposing entity.
- The Proposers on this project must have a Utility Contactors License to propose on the project. In the qualifications and experience portion of the technical proposal, provide the number of the Utility Contractors License and the name of the holder

- Project Personnel—Proposer should also include an organizational chart of the structure of the Team and a brief description of the roles, responsibilities and resumes of key personnel.

The Proposer should indicate relevant experience including design/build Pipebursting existing gravity sewer pipe projects and/or microtunneling or directional drilling construction projects. For a minimum of five (5) and a

maximum of ten (10) projects, provide a brief description of the project, including the following information in a table format:

- Name and Location of project.
- Client and Owner.
- Names, titles, telephone, fax numbers, and e-mail addresses of key contact persons at a management level of the owner.
- Description of gravity sewer upgrade projects designed or constructed, including pipe slope, size, material, length, terrain and other factors as appropriate.
- List key personnel from the proposing team members who were assigned to these projects and their role on the project.
- Provide a list and brief description of all Design/Build Projects during the last 10 years, which were greater than $1 million (max 10) and list all the team members that provided greater than 10% of the work and/or received 10% of the fees from the project. Include the project-constructed cost and the team member's individual percent of fees received.
- Number of change orders requested by the Proposer under relevant contracts and the percentage of the total facility construction cost represented by the sum of all change orders presented under such contract and explanation of change orders.
- For All reference project provide the amount of lost time accident man/days that were recorded in accordance with OSHA Regulations by both prime and subcontractors (any lost time accident that was reported for any referenced project must be included).

Section 3 – Technical Approach

The Technical Approach section shall describe in detail the proposed Sewer Replacement Design, including the following tasks:

- Provide scaled Preliminary and Final Design drawings, showing the following:

  - The proposed new alignment of the new Marsh Creek Sewer.
  - The general arrangement of the buildings, houses, trees, fences, swimming pools, and other landmarks in the local vicinity of the project.
  - Possible rerouting of sewers in problematic parcel areas (See Section 0165 Easements).
  - Other technologies such as directional drilling and or

microtunneling as alternatives to open-cut or pipe bursting.

- Possible relocation of the sewer out of the creek to reduce the impacts of erosion.

- Provide scaled As-Built drawings, showing the following:

  - The final alignment of the new Marsh Creek Sewer.

  - The general arrangement of the buildings, houses, trees, fences, swimming pools, and other landmarks in the local vicinity of the project.

- Provide a hydraulic profile for the design.

- Describe each affected parcel, including the limits of the final negotiated easement agreement along with any necessary stipulations.

- Provide a project schedule for execution of the D/B Project. The schedule should include the resolution of all design and permitting issues along with obtaining concurrence of all regulatory agencies.

- Provide a risk assessment of the project. Include the Design/Build Guarantees, the different methods of surety, and items in the contract that are of significant risk to the D/B COMPANY. For each item listed provide an analysis of cost of the risk and methods the D/B Company will utilize to minimize the risk.

- Provide a summary level analysis of the measures that will be required to improve maintenance access, reduce the impact to local residents, restore banks to creek, and provide slope protection and erosion control.

- Provide a detailed description of the specific pipe bursting, open-cut, directional drilling, and/or micro tunneling method that will be required to upgrade the Marsh Creek Sewer.

Section 4 – Proposer Financial Information

- Proposers will be evaluated on the strength of their Financial Statements. Annual reports include Financial Statements from recent years, which will also be reviewed. The review will focus upon the Proposer's Statement of Income, Balance Sheet and Cash Flow Statements. Ratio Analysis will be included in determining the Proposer's financial strength as well as a review of the sources and uses of funds.

  <u>Financial Statement/Capability</u>

  In order for the County to evaluate, verify and understand the Proposer's financial capability, the following documentation is requested for the Proposer:

- Provide annual reports and financial statement for the last three (3) years, including income statements, balance sheets, and any changes in financial position.
- The latest quarterly financial report and a description of any material changes in financial position since the last annual report.
- Proposer's most recent Dun & Bradstreet and/or Value Line Reports.
- Documentation and discussion of the financial condition and capability of the Proposer (s).
- State whether the Proposer or any member of the Proposer's team has ever filed a petition for bankruptcy, taken any actions with respect to insolvency, reorganization, receivership, moratorium, or assignment of benefits of creditors, or otherwise sought relief from creditors. If yes, please provide an explanation of the circumstances.

Section 5 - Confidential and Proprietary Information

This section of the Proposal shall present technical, financial, other confidential information, and proprietary information that the Proposer claims are exempt from public disclosure, as set forth in Section 3.9 of the D/B RFP.

Section 6 - Technical Proposal Forms

To be deemed responsive to this RFP, Proposers must provide the requested information and complete in detail all the Technical Proposal Forms provided in Section 6.5 of the RFP. Only Technical Proposal Forms shall be included in this section of the Proposal. **NO PRICING INFORMATION SHALL BE INCLUDED WITH THE TECHNICAL PROPOSAL FORMS.**

Section 7 - Supplemental Information

Proposer may submit supplemental information on its experiences and qualifications to execute the D/B Project.

4.4 PRICE PROPOSAL FORMAT AND CONTENT

The Price Proposal shall be provided in a **separate sealed envelope** in accordance with Sections 4.1 and 4.2. The Price Proposal shall include current information and shall be arranged and include content as described below:

The Proposer is encouraged to use the evaluation criteria identified in Section 5 of this RFP as a reference when developing the Price Proposal.

Section 1 - Introduction

The Proposer shall include an introduction which outlines the contents of the Price Proposal. In this section, the Proposer should highlight how the technical approach selected for the Proposal impacts the Fixed Design/Build Price and discuss the benefits of the selected approach. The Proposer should also describe the approach and assumptions used to determine the Fixed Design/Build Price.

Section 2 – Derivation of Costs

In this section, the Proposer shall provide a detailed breakdown of major costs such as engineering and design, permitting, and replacement of existing sewer line. The level of detail within the Price Proposals should be sufficient to allow evaluation using the process outlined in Section 5 of this RFP, and to demonstrate thoughtful consideration of the requirements of this RFP. The Price Proposal shall include utilizing alternative methods such as microtunneling or direct drilling to either reroute the sewer in the problematic areas or relocate the sewer out of creek and reduce the impacts of erosion.

Section 3 - Completed Price Proposal Forms

The Proposer is required to complete **all** of the Price Proposal Forms included in Section 6.6 of the RFP. Section 6 provides a description of the Price Proposal Forms.

SECTION 5
EVALUATION CRITERIA

5.1 PROPOSAL EVALUATION OVERVIEW

The Proposal evaluation process will consist of two phases: the Qualification Phase and the Relative Evaluation Phase, as shown in Figure 5-1.

Each Proposal shall first be reviewed to determine whether it has been submitted in accordance with the Proposal submittal requirements specified in Section 4 of this RFP. Proposals that meet this criterion will be designated "Responsive." "Non-responsive" Proposals will be rejected.

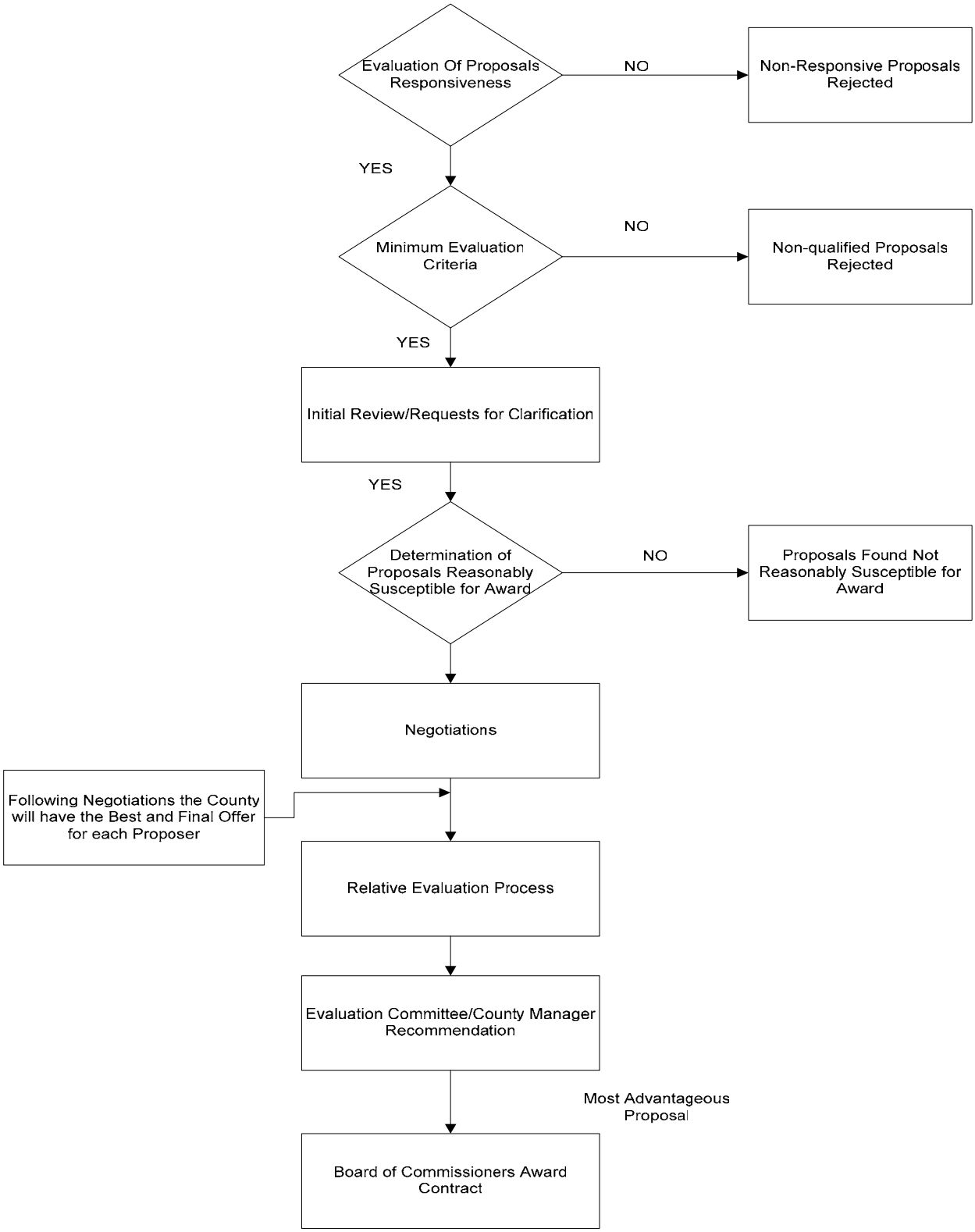
Responsive Proposals will be further evaluated to determine whether the Proposal meets the Minimum Evaluation Criteria specified in Section 5.2 of this RFP. Proposals meeting the Minimum Evaluation Criteria will be designated "Qualified." "Unqualified" Proposals will be eliminated from further review and the applicable Proposer so advised in writing.

Should the County elect to negotiate with Proposers that have submitted Qualified Proposals, the County shall determine which Proposals are "Reasonably Susceptible for Award" based on the initial review (considering the evaluation criteria set forth in this RFP) of the Proposals received, and the County may enter into discussion and negotiation with and/or permit Proposal revision by any one or all such Proposers.

Following the process to determine which Proposals are "Reasonably Susceptible for Award," the County will undertake a detailed evaluation of the negotiated Proposals based upon the Relative Evaluation Criteria in Section 5.3 of this RFP. Notwithstanding the above, the County reserves the right either: 1) to perform such a detailed evaluation without negotiations immediately upon determining the Qualified Proposals, or 2) to conduct a best and final offer process following negotiations and prior to such evaluation based on the Relative Evaluation Criteria. The Relative Evaluation process will consist of a Technical Proposal evaluation and a Price Proposal evaluation which will be weighted as follows:

Proposal	Weight
Technical	65 points
Price	35 points
Total	100 points

Figure 5-1 Design/Build Proposal Evaluation Process



The Proposer should not assume that the County will request best and final offers and should, therefore, provide its lowest price and most favorable business terms in its initial Proposal. Absent a request for best and final offers, reductions in price will only be permitted to the extent there is a corresponding change in scope or risk in the negotiated Design/Build Contract.

5.2 MINIMUM EVALUATION CRITERIA

a. Proposer shall have had at least 150,000 L.F. of pipe bursting existing gravity sewer pipe and replacing with HDPE pipe design and construction experience within the last three (3) years, **AND**

b. Proposer shall have had at least 10,000 L.F. of pipe bursting replacement with HDPE pipe two sizes greater than the host pipe, e.g. 10” to 15” diameter, 12’ to 18” diameter, etc. design and construction experience within the last three (3) years.

5.3 RELATIVE EVALUATION CRITERIA

Qualified Proposals will be evaluated as described below. The County reserves the right to request any additional information from a Proposer that may provide further insight regarding its qualifications.

It is important that the Proposal include all necessary information to demonstrate clearly its value to the County.

5.3.1 Technical Proposal Evaluation

The following factors will be considered in evaluation of the Technical Proposal. Predetermined weighting, as shown below has been allotted to these factors. Except as indicated here, the County will not further describe how points will be distributed or weighted. A detailed description of the evaluation factors is provided in Table 5-1.

1. Proposer (20 points (* Financial strength is 5pts of total 20 pts. available)
   - Experience, D/B Experience
   - Financial strength (*5pts)
   - Non-financial references
   - Design capability and availability
   - Construction capability and availability
   - Terms and Conditions
2. Technical Approach (35 points)
   - Completeness and organization
   - Justification for proposed technical approach
   - Flexibility of proposed technical approach
   - Maintainability
   - Exceptions taken to Requirements
   - Delivery schedule

3. Local Presence (10 points)

TABLE 5-1

RELATIVE EVALUATION CRITERIA – TECHNICAL PROPOSAL
CRITERION 1 – PROPOSER (20 Points)

The description provided in Table 5-1 is intended as a guide to the evaluation activities. It is NOT intended to be a list of the entire parameters, associated with each item that will be considered.

Experience: Experience of the Proposer with design and construction of sewer systems for municipal clients. Proposer's experience in wastewater projects and design/build projects will also be considered.

Financial Strength: The financial strength of the Proposer will be evaluated for its adequacy to secure the full and timely execution of the D/B Project. The financial strength is weighted at 5pts of the possible 20 pts for the Technical Proposal. Considerations may include, not necessarily in order of importance: 1) credit rating, if any, 2) net worth, 3) leverage (long-term debt to total capital ratio), 4) profitability (net and operating income trends) in relation to size, 5) liquidity (current debt to current assets ratio, and 6) overall financial stability. The extent and nature of proposed changes to the Design/Build Contract will be part of the Proposal evaluation. Substantial changes to the business arrangements presented in the Design/Build Contract may result in less favorable or unfavorable evaluations.

Non-Financial References: Favorable nature of the Proposer's references, especially with regard to the quality, operability, and ease of maintenance of wastewater reclamation facilities or individual process of such facilities designed or constructed. The Proposer's promptness, adequacy, and responsiveness in addressing design, construction, start-up, and operational issues also may be considered.

Design Capability and Availability: Proposer's ability to execute design activities associated with the D/B Project.

Construction Capability and Availability: Proposer's ability to execute construction activities associated with the D/B Project.

Business and Contractual Terms, and Risk Assumed by Proposer: Advantage to the County of the business and risk position and analysis proposed in response to the Draft D/B Contract and conditions required by County in this RFP. Considerations include but are not limited to design/build guarantees, the forms of surety, uncontrollable circumstances, any limitations on contractual liability, damages, defaults and remedies, and indemnities.

RELATIVE EVALUATION CRITERIA – TECHNICAL PROPOSAL
CRITERION 2 – TECHNICAL APPROACH (35 Points)

The description provided in Table 5-1 is intended as a guide to the evaluation activities. It is NOT intended to be a list of the entire parameters associated with each item that will be considered.

Completeness and Organization: The Completeness of the Proposer's plan in meeting the requirements of the RFP will be considered along with the organization of material presented for clarity and ease of understanding.

Justification: The characteristics of the proposed design will be considered. Also, soundness of technical approach with regard to both design and construction will be considered. Justification for selected pipe bursting, open-cut, direct drilling, and/or micro tunneling method and success of existing similar installations will be considered. Additionally, an analysis of the upgrade with the least impact to the local residents will be considered. Also the Proposer's approach to ensuring that the MARSH CREEK SEWER REPLACEMENT Project meets the County's requirements will be considered.

Flexibility: Flexibility of the proposed approach to the MARSH CREEK SEWER REPLACEMENT will be considered. The County has acquired some easements along the existing alignment and will negotiate others as the final alignment is confirmed. However, because of all of the easements have not yet been confirmed and the obvious challenges in working around existing structures such as fences and pools, flexibility in both design and construction will assist the County in completing this project on time and within budget.

Maintainability: Maintainability of the Marsh Creek Sewer will affect the cost to provide sewer service, increasing its life cycle cost. In the interest of maximizing access to the Sewer, this factor will be considered. In addition, erosion of the stream bank could lead to spills and permit violations because of pipe exposure. The extent and difficulty of maintenance labor as well as cost of maintenance materials will be considered.

Exceptions taken to Requirements: The County will consider the extent to which the proposed MARSH CREEK SEWER REPLACEMENT meets or exceeds the requirements of the RFP as well as any exceptions to the Design/Build Contract.

Delivery Schedule: The County is pursuing an extremely aggressive schedule due to the possibility of sewer overflows. Based upon increasing level of difficulty and status of the easements, it is the County's intent to complete in order Section 2, Section 3, and finally Section 1. The Proposers should consider schedule against cost and propose a cost effective, aggressive schedule. The maximum permissible schedule is 23 months.

RELATIVE EVALUATION CRITERIA – TECHNICAL PROPOSAL
CRITERION 3 – LOCAL PRESENCE (10 points)

Local Presence: Local presence (Fulton County address) of members of the Proposer or Joint Venture Team that will be responsible for design and construction of the D/B Project. Sub-Contractors are not considered in this criterion

5.3.2 Price Proposal Evaluation

The Price Proposal evaluation will consider the capital cost (Price Proposal Form 1).

Risk—the proposer understands of the specific areas of risk and risk allocation.

5.4 NEGOTIATIONS

In accordance with OCGA 36-91-40 and at the election of the County, Those Proposers who are deemed Reasonably Susceptible for Award may have the opportunity to enter into discussions, negotiations, and/or revisions of their Proposals with the County. To the extent permitted by Applicable Law, Proposals may be deemed Not Reasonably Susceptible for Award after an initial evaluation or at any time during the procurement process.

The County may or may not choose to enter into negotiations with Proposers Reasonably Susceptible for Award prior to the relative evaluation process as illustrated in Figure 5-1. Should the County choose to conduct the relative evaluation process without entering into negotiations, selection will be based on the Proposal as initially submitted. Therefore, Proposers are encouraged to present their best Proposal initially.

After any discussions, negotiations, and revisions with the Proposers deemed Reasonably Susceptible for Selection Award, the County may request best and final offers. The County does not currently anticipate requesting any best and final offers during negotiations; however, the County will not decide whether to make such a request until Proposals have been submitted or any negotiations have been conducted.

SECTION 6
PROPOSAL FORMS

6.1 INTRODUCTION

To be deemed responsive to this RFP, Proposers must provide the information requested and all Proposal Forms completed in detail. The appropriate individual(s) authorized to commit the Proposer to the Design/Build Project must sign the Proposal Forms. All Technical Proposal or Price Proposal Forms shall be included with each copy of the Technical or Price Proposal, respectively. Proposers should reproduce each Proposal Form, as required, and complete the appropriate portions of the forms provided in this section.

Surety & Contract Security Forms

Bid Bond

Performance Bond

Payment Bond

Procurement Affidavits

Procurement Affidavit Form 1	Certification Regarding Debarment
Procurement Affidavit Form 2	Form A: Non-Collusion Affidavit (Prime) Form B: Sub-Contractor Non-Collusion Affidavit
Procurement Affidavit Form 3	Certificate of Acceptance of Request for Proposal Requirements
Procurement Affidavit Form 4	Corporate Certification
Procurement Affidavit Form 5	Proposers Disclosure & Questionnaire

Contract Compliance Affidavits

Contract Compliance Exhibit A	Promise of Non-Discrimination
Contract Compliance Exhibit B	Employment Report
Contract Compliance Exhibit C	Schedule of Intended Contractor Utilization
Contract Compliance Exhibit D	Letter of Intent to Perform As a SubContractor
Contract Compliance Exhibit E	Declaration Regarding SubContractor Practices
Contract Compliance Exhibit F	Joint Venture Disclosure Affidavit

Contract Compliance	Equal Business Opportunity (EBO) Plan

Technical Proposal Forms

Technical Proposal Form 1:	Proposal Transmittal Letter
Technical Proposal Form 2:	Information Certification

Price Proposal Forms

Price Proposal Form 1:	(Fixed Design/Build Price)

6.2 PROPOSAL SURETY FORMS DESCRIPTION

The following paragraphs present an overview of each Proposal Form.

6.2.1 Bid Bond

A Bid Bond for an amount equal to five percent (5%) of the Proposal amount must accompany each Proposal. The Bid bond shall be submitted in a separate, sealed envelope marked “Bid Bond”.

6.2.2 Performance Bond

No contract with Fulton County for work to be done shall be valid for any purpose unless the Design/Builder 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 least the total amount payable by the terms of the Contract and shall be written on the enclosed form.

6.2.3 Payment Bond

No Contract with Fulton County for work to be done shall be valid for any purpose unless the Design/Builder 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 at least the total amount payable by the terms of the Contract and shall be written on the following form.

6.3 PROCUREMENT AFFIDAVIT FORMS

6.3.1 Certification Regarding Debarment

Proposer shall complete and submit Form 1, which certifies that neither it nor its subcontractors are presently debarred, suspended, proposed for debarment, declared ineligible, or otherwise excluded from doing business with any government agency.

6.3.2 Non-Collusion Affidavit and Pricing Commitment

The Proposal shall include a copy of Technical Proposal Form 2A, executed by an authorized officer of the corporation. The corporate

address shall be shown below the signature. Proposals by partnerships shall include the official business address of the partnership, and the state of organization shall be shown below the signature. Proposals developed by a joint venture shall be similarly executed by all joint venture participants. Additionally, all Sub-Contractors shall execute a copy of Technical Proposal Form 2B which shall also be submitted with the proposal.

6.3.3 Certificate of Acceptance of Proposal Requirements

Proposer shall complete and submit Form 3, which certifies that Proposer has read the solicitation including all addenda, exhibits, attachments and appendices.

6.3.4 Corporate Certifications

The Proposer shall complete Technical Proposal Form 3 based upon the legal organization of the proposing entity.

6.3.5 Proposers Disclosure & Questionnaire

The Proposer shall complete shall complete and submit with proposal.

6.4 CONTRACT COMPLIANCE EXHIBITS

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 proposal being deemed non-responsive.

6.4.1 Exhibit A – Promise of Non-Discrimination

6.4.2 Exhibit B – Employment Report

6.4.3 Exhibit C – Schedule of Intended SubContractor Utilization

6.4.4 Exhibit D – Letter of Intent to Perform as a SubContractor

or Provide Materials or Services

6.4.5 Exhibit E – Declaration Regarding SubContractors Practices

6.4.6 Exhibit F – Joint Venture Disclosure Affidavit

6.4.7 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 project:

- **Exhibit G** – Prime Design/Builder’s SubContractor Utilization Report

6.5 TECHNICAL PROPOSAL FORMS

6.5.1 Proposal Transmittal Letter

The Proposer shall copy and complete the Proposal Transmittal Letter to warrant the specified conditions. Together with each original and copy of the Proposal, the County must receive one original Proposal Transmittal Letter, as provided in Technical Proposal Form 1, on the official letterhead of the Proposer acknowledging, among other things, that the Proposer has completely reviewed, understands, and agrees to be bound by the requirements of this RFP.

Information Certification

Proposers shall complete and submit Technical Proposal Form 2, which certifies that the Proposal contains true and accurate information.

6.6 PRICE PROPOSAL FORMS

6.6.1 Fixed Design/Build Price

The Proposer shall complete Price Proposal Form 1 by providing a breakdown of the Fixed Design/Build Price. The Fixed Design/Build Price shall be broken down by the line items shown and shall incorporate miscellaneous construction items such as bypass pumping, bank stabilization, lateral reconnections and erosion control. Proposers may further subdivide any of these line items, as appropriate. Prices shown shall be inclusive of all taxes (including Georgia state sales tax, as applicable) and a statement to that fact must be signed on the bottom of the Price Proposal Form 1. Failure to sign this statement will result in the County adding the appropriate amount of tax to the Proposal. The Total of the Proposal shall include all taxes.

BID BOND

S110 – Marsh Creek Sewer Replacement

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 {Project #} – {Project Name}**,** a Bid/Proposal;

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

NOW THEREFORE: The conditions of this obligation are such that if the Proposal 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 Proposal 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 t 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 Proposer 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 _____, 2006.

(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

_____ BY_____
(SEAL)

PERFORMANCE BOND REQUIREMENTS

No contract with Fulton County for work to be done shall be valid for any purpose unless the Design/Builder 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 least the total 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.

(Remainder of the Page intentionally left blank.)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS [insert name Design/Builder] (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 "County") 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 County, dated _____, which is incorporated herein by reference in its entirety, for the [name of project], 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 County 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 County,
2. Obtain a Bid or Proposals for completing the Contract in accordance with its terms and conditions, and upon determination by the Surety and the County of the lowest responsible bidder/proposer, arrange for a contract between such bidder/proposer and County and make available as the work progresses (even though there should be a default or succession of defaults under the Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the penal sum set forth in the first paragraph hereof, as may be adjusted, and the Surety shall make available and pay to the County the funds required by this Paragraph prior to the payment of the County of the balance of the contract price, or any portion thereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by the County to the Design/Builder under the Contract, and any amendments thereto, less the amount paid by the County to the Design/Builder; or, at the sole option of the County,
3. Allow County to complete the work and reimburse the County for all reasonable costs incurred in completing the work.

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

performance of any or all of the terms, provisions, and requirements of the Contract, including any and all amendments and modifications thereto, or incurred by the County in making good any such failure 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 County to the Surety.

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

The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment to the Contract, so as to bind the Principal and 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 County and any other obligee named herein, or their executors, administrators, successors or assigns.

This Bond is intended to comply with O.C.G.A. 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 County 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 County, 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 _____, 2006.

(SEAL)

(Principal)

By:

Attest:

Secretary

(SEAL)

(Surety)

By:

Attest:

Secretary

_____

(Address of Surety's Home Office)

_____

(Resident Agent of Surety)

S110 – Marsh Creek Sewer Replacement

PAYMENT BOND REQUIREMENTS

No Contract with Fulton County for work to be done shall be valid for any purpose unless the Design/Builder 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 at least the total 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.

(Remainder of the Page intentionally left blank.)

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that [insert name of Design/Builder] (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 "County"), 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 County, 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 [insert name of project], 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 " all 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 County, 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 County, 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 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 County 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 County, whether or not such protection is found in the applicable statutes.

IN WITNESS WHEREOF, the Principal and Surety have hereunto affixed their corporate seals and caused this 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)

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.

(2) 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 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 Nancy Harrison 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 Assistant 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 Assistant 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 Design/Builders.

(a) *Authority to suspend.*

After reasonable notice to the entity involved and reasonable opportunity for that entity to be heard, the Nancy Harrison, 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, Design/Builder, subcontractor or business corporation, partnership, limited liability corporation, firm, Design/Builder, 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 Design/Builder.

(3) Conviction of state or federal anti-trust statues 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 Assistant 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 Design/Builder 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 Design/Builder 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 sub-Contractor 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 proposal from consideration or termination of the Contract, once awarded. This document must be completed and included as a part of the 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 _____, 2006

_____

(Legal Name of Offeror) (Date)

_____

(Signature of Authorized Representative) (Date)

_____

(Title)

STATE OF GEORGIA

COUNTY OF FULTON

NON-COLLUSION AFFIDAVIT OF BIDDER/OFFEROR

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 Proposal 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 Proposing is a violation of state and federal law and can result in fines, prison sentences and civil damages awards. I agree to a Proposal by all conditions of this bid or proposal and certify that I am authorized to sign this Bid or proposal for the Proposer.

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 bids or proposals by any means whatsoever. Affiant further states that (s)he has not prevented or endeavored to prevent anyone from making a Proposal or offer on the project by any means whatever, nor has Affiant caused or induced another to withdraw a Proposal 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 proposer only, or if furnished to any other Proposer, that the material shall be at a higher price.

_____

(COMPANY NAME)

_____

(PRESIDENT/VICE PRESIDENT)

Sworn to and subscribed before me this _____ day of _____, 2006

_____

(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.

STATE OF GEORGIA

COUNTY OF FULTON

NON-COLLUSION AFFIDAVIT OF SUBCONTRACTOR

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 Proposal 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 Proposing is a violation of state and federal law and can result in fines, prison sentences and civil damages awards. I agree to a Proposal by all conditions of this Proposal and certify that I am authorized to sign this Proposal for the Proposer.

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 bids or proposals by any means whatsoever. Affiant further states that (s)he has not prevented or endeavored to prevent anyone from making a Proposal or offer on the project by any means whatever, nor has Affiant caused or induced another to withdraw a Proposal 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 Proposer only, or if furnished to any other Proposer, that the material shall be at a higher price.

_____

(COMPANY NAME)

_____

(PRESIDENT/VICE PRESIDENT)

Sworn to and subscribed before me this _____ day of _____, 2006.

_____

(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.

CERTIFICATE OF ACCEPTANCE OF REQUEST FOR PROPOSAL REQUIREMENTS

This is to certify that on this day, offeror acknowledges that he/she has read this solicitation document, pages #_____ to #_____ inclusive, including any addenda #____ to #_exhibit(s) #_____ to #_____, attachment(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 offeror to submit the proposal herein and to legally obligate the offeror thereto.

Company:_____

Signature:_____

Name: _____

Title_____ Date: _____

(Affix Corporate Seal)

PROCUREMENT AFFIDAVIT FORM 4
CORPORATE CERTIFICATION*

I, _____, a Resident of _____ in the State of _____, DO HEREBY CERTIFY: that I am the Clerk/Secretary of _____, a Corporation duly organized and existing under and by virtue of the laws of the State of _____; that I have custody of the records of such Corporation; and that as of the date of this certification _____ is an _____**(Officer)_____
_
**(Title)_____
authorized to execute and deliver in the name and on behalf of the CORPORATION all documents, letters, certificates and other instruments which have been executed by such Officer on behalf of the Corporation in connection with the Corporation's Proposal to the County delivered in response to the County's Request for Proposals for the Johns Creek Environmental Campus Design/Build Project.

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of _____ 2006.

***_____
_
Clerk/Secretary

*Separate certifications shall be submitted if more than one corporate officer has executed documents as part of the Proposal.

**This must be the name of the person authorized in the corporation's by-laws to sign contracts.

***Since an officer cannot self-certify, someone other than the person signing the contract must sign this certification.

S110 – Marsh Creek Sewer Replacement

OFFEROR'S 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.

<u>LITIGATION DISCLOSURE:</u>

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 or

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 or\f 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 _____, 2006

_____
(Legal Name of Proponent) (Date)

_____
(Signature of Authorized Representative) (Date)

_____
(Title)

Sworn to and subscribed before me,

this _____ day of _____, 2006

_____
(Notary Public) (Seal)

Commission Expires _____
(Date)

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 propose/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 Proposal/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 owning on a contract; and

6) That the proposer/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/proposer **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 Proposal.

EMPLOYEES

CATEGORY	NATIVE AMERICAN		AFRICAN AMERICAN		ASIAN AMERICAN		HISPANIC AMERICAN		CAUCASIAN AMERICAN		OTHER	
Male/Female	M	F	M	F	M	F	M	F	M	F	M	F
Mgmt/Official												
Professional												
Supervisors												
Office/ Clerical												
Craftsmen												
Laborers												
Other (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 Proposal 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 enterprise. (Please indicate below the portion of work, including, percentage of bid/proposal amount that your firm will carry out directly):

   _____

   _____

2. 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.

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

SUBCONTRATOR 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, please attach copy of recent certification.**

SUBCONTRATOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:_____%

SUBCONTRATOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:_____%

SUBCONTRATOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:_____%

SUBCONTRATOR 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, please attach copy of recent certification.**

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 Bidder/Proposer provisions, including the accompanying Exhibits and other terms and conditions regarding sub-Contractor utilization. The undersigned further certifies that he/she is legally authorized by the Bidder/Proposer 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/Proposer 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 Design/Builder'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 subcontractor and submitted with the bid/proposal. The Prime Design/Builder **must** submit Letters of Intent for **ALL** known subcontractors at time of Proposal submission.

To:_____

(Name of Prime Design/Builder 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 Proposer)	**(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/proposal.

_____hereby declares that it is my/our intent to
(Proposer)

perform 100% of the work required for_____
(ITB/RFP Number)

_____
(Description of Work)

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

1. That the bidder/proposer 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/proposer 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 decision made by the bidder/proposer 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 proposer 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

ITB/RFP No._____

Project Name_____

This form must be completed and submitted with the bid/proposal if a joint venture approach is to be undertaken.

In order to evaluate the extent of small, minority and female business involvement being proposed by a Bidder/Proposer, certain relevant information must be provided prior to contract award. The information requested below is to clearly identify and explain the extent of small business participation 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:_____
Telephone No.:_____
Nature of Business:_____

2) Name of Business:_____
Street Address:_____
Telephone No.:_____
Nature of Business:_____

3) Name of Business:_____
Street Address:_____
Telephone No.:_____
Nature of Business:_____

NAME OF JOINT VENTURE (If applicable):_____

ADDRESS:_____

_____

PRINCIPAL OFFICE:_____

OFFICE PHONE:_____

Note: Attach additional sheets as required

1. Describe the capital contributions by each joint venturer and accounting thereof.

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 estimated 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 Minority/Female Business Enterprises 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 Minority/Female Business Enterprises enterprise, the majority firm or the joint venture: _____

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)

Name	Race	Sex	Financial Decisions	Supervision Field Operation
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

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 Contract Compliance, Departments of Purchasing and 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.

EXHIBIT – G PRIME DESIGN/BUILDER/SUB-CONTRACTOR UTILIZATION REPORT

This report **must** be submitted by the **tenth day** of each month, along with a copy of your monthly invoice (schedule of values/payment application) to Contract Compliance. Failure to comply **shall** result in the County commencing proceedings to impose sanctions to the prime Design/Builder, in addition to pursuing any other available legal remedy. Sanctions may include the suspending of any payment or part thereof, termination or cancellation of the contract, and the denial of participation in any future contracts awarded by Fulton County.

REPORTING PERIOD		**PROJECT NAME:**	
FROM:		**PROJECT NUMBER:**	
TO:		**PROJECT LOCATION:**	

PRIME DESIGN/BUILDER		**Contract Award Date**	**Contract Award Amount**	**Change Order Amount**	**Contract Period**	**% Complete to Date**
Name:						
Address:						
Telephone #:						

AMOUNT OF REQUISITION THIS PERIOD: $_____

TOTAL AMOUNT REQUISITION TO DATE: $_____

SUBCONTRACTOR UTILIZATION (add additional rows as necessary)

Name of Sub-Contractor	**Description of Work**	**Contract Amount**	**Amount Paid To Date**	**Amount Requisition This Period**	**Contract Period Starting Date**	**Ending Date**
TOTALS						

Executed By: _____ _____

(Signature) ***(Printed Name)***

Notary: _____ **Date:**

My Commission Expires: _____

Should you have questions regarding any of the documents contained in Section 6, please feel free to contact the Office of Contract Compliance at (404) 763-6300, for further assistance.

TECHNICAL PROPOSAL FORM 1
PROPOSAL TRANSMITTAL LETTER

(To be typed on Proposer's letterhead)

Date:

Proposer:

Address:

Telephone:

Contact Person:

Type of Business Entity and State of Organization (Corporation, Limited Liability Company, Partnership, Joint Venture, Other):

In submitting this Proposal, the Proposer warrants and represents that:

1. In submitting this Proposal, the Proposer warrants and represents that:

   A. The Proposer has reviewed and understands the requirements of this Design/Build RFP and the addenda to this Design/Build RFP, and, if selected, will carry out the provisions of the Proposal and the Proposer further guarantees that it will in no way deviate from the schedule, price and warranties or other terms and conditions contained in the proposal accepted by the County.

   B. All information submitted in support of the Proposal is accurate and factual and is submitted fairly.

   C. All representations made regarding the Proposer's willingness to meet the required Scope of Work, and the Proposer's concurrence with the proposed business arrangement, are true.

   D. The individuals who will be the Proposer's key technical and business representatives for this procurement are set forth below:

Name	Title	Address	Phone

E. The contact person who will serve as the interface between the County and the Proposer is:

NAME
TITLE
ADDRESS
PHONE
FAX
E-MAIL

2. The provisions of the Draft Design/Build Contract are acceptable to Proposer and constitute part of the binding and irrevocable offer of the Proposer, except where modifications have been made in the Proposal.

3. The letter of credit, bonding and the insurance coverage required by this RFP can and will be provided by the Proposer as and when required.

4. The Proposal is submitted pursuant to due authorization by, and is in all respects binding upon, the Proposer.

5. The Proposer is duly organized and validly existing in good standing and is duly qualified to transact business in each and every jurisdiction where such qualification is required to enable the Proposer to perform its obligations under the Service Contract. The Proposer and any and all of its subContractors have not been debarred from contracting in the State of Georgia**.** The submittal of this Proposal has been authorized by all required action of the Proposer, including any action required by any charter, by-laws, partnership agreement, and/or operating agreement, as the case may be, and any Applicable Laws which regulate the conduct of the Proposer's affairs. The performance of all obligations of the Proposer set forth in the Proposal do not conflict with and do not constitute a breach of or event of default under any charter, by-laws partnership agreement, and/or operating agreement, as the case may be, of the Proposer or any agreement, indenture, mortgage, contract or instrument to which the Proposer is a party or by which it is bound.

6. There is no action, suit or proceeding, at law or in equity, before or by any court or similar governmental body against the Proposer wherein an unfavorable decision, ruling or finding would materially adversely affect the performance by the Proposer of its obligations under the D/B Contract or the other transactions contemplated thereby, or which, in any way, would materially adversely affect the validity or enforceability of the obligations proposed to be undertaken by the Proposer, or any agreement or instrument entered into by the Proposer in connection with the transaction contemplated hereby.

7. No corporation, partnership, individual or association, officer, director, employee, manager, parent, subsidiary, affiliate or principal shareholder of the Proposer has been adjudicated to be in violation of any state or federal environmental law, or charged with or convicted of bribery, fraud, collusion, or any violation of any state or federal anti-trust

or similar statute within the preceding five years, or previously adjudged in contempt of any court order enforcing such laws.

8. The Proposer's obligations under the Design/Build Contract will be guaranteed by [Name of Guarantor], as evidenced by the Guarantor Acknowledgement Form.

9. I certify, under the penalties of perjury, that the Proposer, to my best knowledge and belief, has filed all Georgia state tax returns and paid all Georgia state taxes and all other taxes required by law.

10. Proposer agrees that in the performance of the Design/Build Contract it will comply with all lawful agreements, if any, which the Proposer has 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.

State Taxpayer Identification Number[1]: _____

Federal Taxpayer Identification Number[1]: _____

_____
Name of Proposer

_____
Name of Authorized Signatory

_____
Signature

_____
Title

TECHNICAL PROPOSAL FORM 2
INFORMATION CERTIFICATION

The undersigned execution officer of the Proposer hereby certifies, under oath, that the information contained in this Proposal is true and accurate. Without limiting the foregoing, the undersigned hereby certifies that the information provided to the County with respect to the Proposer's previous performance on projects of comparable magnitude, the Proposer's environmental compliance record, and any civil or criminal penalties incurred by the Proposer during the last five years is true and accurate.

_____
Name of Proposer

_____
Name of Execution Officer

_____
Signature

_____
Title

_____
(Notary Public)

State of_____
County of_____

On this _____ day of_____, 20___ before me appeared _____, personally known to me to be the person described in and who executed this _____ and acknowledged that (he/she) signed the same freely and voluntarily for the uses and purposes therein described.

In witness thereof, I have hereunto set my hand and affixed my official seal the day and year last written above.

PRICE PROPOSAL FORM 1
FIXED DESIGN/BUILD PRICE

It is not the County's intention to dictate the design of the Marsh Creek Sewer Replacement. This form was developed to assist the Proposer in determination of their Fixed Design/Build Price and for the County to understand the allocation of cost among a selected number of line item.

SUMMARY OF FIXED DESIGN/BUILD PRICE		QUANTITY	UNIT PRICE		EXTENSION
	Section 1 Design Costs:				
	Permitting	1	LS	**$**	**$**
	Preliminary Design	1	LS	**$**	**$**
	Final Design	1	LS	**$**	**$**
					Total
	Section 2 Design Costs:				
	Permitting	1	LS	**$**	**$**
	Preliminary Design	1	LS	**$**	**$**
	Final Design	1	LS	**$**	**$**
					Total
	Section 3 Design Costs:				
	Permitting	1	LS	**$**	**$**
	Preliminary Design	1	LS	**$**	**$**
	Final Design	1	LS	**$**	**$**
					Total

	Construction:				
	Open-Cut 10” DIP	600	LF	**$**	**$**
	Open-Cut 18” DIP	300	LF	**$**	**$**
	Open-Cut 24” DIP	6,100	LF	**$**	**$**
	Pipe Burst Gravity Sewer to 12” DR17 HDPE	1,300	LF	**$**	**$**
	Pipe Burst Gravity Sewer to 22” DR17 HDPE	2,800	LF	**$**	**$**
	Pipe Burst Gravity Sewer to 28” DR17 HDPE	2,500	LF	**$**	**$**
	MH Rehabilitation	29	EA	**$**	**$**
	MH Replacement	34	EA	**$**	**$**
					Total
	Allowances:				
	Soil Testing Services				**$5,000**
	Materials Testing Services				**$5,000**
	Concrete Testing Services				**$5,000**
	Blasting and/or Construction Monitoring				**$20,000**
	Utility Conflict Resolution				**$400,000**
	Construction Surveying				**$20,000**
	Landscaping				**$40,000**
	TOTAL FIXED DESIGN/BUILD PRICE			**$**	

SECTION 7
INSURANCE, SAFETY AND HEALTH MANAGEMENT REQUIREMENTS

7.0 GENERAL 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. 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 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.

7.0.1 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	$500,000
Employer's Liability Insurance	BY DISEASE	- POLICY LIMIT	$500,000
(Aggregate)	BY DISEASE	- EACH EMPLOYEE	$500,000

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	-	$1,000,000
Personal and Advertising Injury	Limits	-	$1,000,000
Fire Damage	Limits	-	$ 100,000

3. **BUSINESS AUTOMOBILE LIABILITY INSURANCE**
   Combined Single Limits 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

5. **UMBRELLA LIABILITY**
(In excess of above noted coverage's) Each Occurrence - $2,000,000

6. **PROFESSIONAL LIABILITY** Each Occurrence - $1,000,000
(Required if respondent providing bid/quotation for professional services).

7. **FIDELITY BOND**
(Employee Dishonesty) Each Occurrence - $ 100,000

8. **BUIDERS RISK:** ***If the bid/quotation involves construction-related services the respondent will provide*** "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	TBD
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.

Certificates shall state that the policy or policies shall not expire, be cancelled or altered without at least thirty (30) 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.

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 shall be sent to:

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

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

7.0.2 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.

7.0.3 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 t 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:_____

7.1 OWNER-CONTROLLED INSURANCE PROGRAM

7.1.1 INTRODUCTION

Fulton County has implemented an Owner-Controlled Insurance Program ("O.C.I.P.") that covers this Project. Certain relevant provisions of the County's O.C.I.P. are outlined below. This O.C.I.P. does not affect Fulton County Government's statutory immunity. Under the O.C.I.P., the County shall **furnish certain portions** of the Workers' Compensation, General Liability, and Builder's Risk insurance associated with the County's construction projects. Insurance furnished under the O.C.I.P. covers the County, the Design/Builder and its Sub-Contractors of all tiers (with some exceptions, as described below), and other persons or interests as the County may designate in connection with the performance of the Work. The O.C.I.P. provides the County a lower insurance cost, and efficient management of insurance claims. As detailed below, the **Design/Builder** still provides certain other portions of insurance coverage not included in the O.C.I.P.

7.1.2 DEFINITIONS SPECIFIC TO THIS SECTION 7

7.1.2.1 "Owner-Controlled Insurance Program" (O.C.I.P.) means an insurance delivery method that assures the Design/Builder, and its Sub-Contractors of all tiers, and other persons or interests as the County may designate in connection with the performance of the work are insured for certain prescribed Statutory Workers' Compensation, Employers Liability and Commercial General Liability, and such other coverages as the County may in writing specifically add or delete for the Project.

7.1.2.2 "O.C.I.P. Administrator" means the administrator retained by the County to implement and administer the O.C.I.P. The O.C.I.P. Administrator is Resurgens Risk Management/Willis.

7.1.2.3 The term "enrolled" applies to the entities covered under the O.C.I.P. The Design/Builder is enrolled in the O.C.I.P. The Design/Builder's Sub-Contractors of all tiers shall be enrolled in the O.C.I.P., provided in general that they are performing construction work at the Project site and that the work being performed is not temporary to the project and is an elemental component of the completed project. The Design/Builder shall assure that all enrolled Sub-Contractors of all tiers satisfy all safety program obligations, claim management and applicable insurance requirements relative to the O.C.I.P. The Design/Builder understands that all Design/Builder obligations set forth in the County's O.C.I.P., whether performed directly by the Design/Builder obligations set forth in the County's O.C.I.P., whether performed directly by the Design/Builder or indirectly by its enrolled Sub-Contractors, are the responsibility of the Design/Builder. Whenever this Agreement establishes obligations for Design/Builder with respect to the O.C.I.P., it shall also be deemed to establish obligations for enrolled Sub-Contractors. Certain exceptions apply to enrolled entities, as described below.

7.1.2.4 The term "non-enrolled applies to the entities not covered under the O.C.I.P. In general vendors, suppliers, fabricators, material dealers, drivers and others who merely transport, pick up, deliver or carry materials, personnel, parts or equipment or any other items or persons to or form the Project site shall be considered non-enrolled

entities for the purpose of insurance coverage under the County's O.C.I.P. This non-enrolled O.C.I.P. Design/Builder status also applies to those Design/Builders whose only work is temporary to the site and are not involved in any project construction that is part of the work on the finished project. The Design/Builder shall assure that all non-enrolled Sub-Contractors of all tiers satisfy all safety program obligations, claim management and applicable insurance requirements relative to the O.C.I.P.

7.1.2.5 "Agent" means the Fulton County's designated Representative, as defined within this Agreement. For purposes of the O.C.I.P., the County's designated Representative shall serve as the County's primary contact for communication with the Design/Builder related to the O.C.I.P."

7.1.3 INSURANCE OBLIGATIONS OF THE COUNTY AND DESIGN/BUILDER

7.1.3.1 INSURANCE PROVIDED BY THE COUNTY UNDER ITS O.C.I.P.

(a) The County shall secure and thereafter maintain, except as otherwise provided herein, the insurance coverages described in Subparagraphs 7.1.3.2, 7.1.3.3, and 7.1.3.4 below, covering as insured parties the County, the Design/Builder and its Sub-Contractors of all tiers (except as detailed below), and such other persons or interests as the County may designate in connection with the performance of the Work, and with limits not less than those specified for each coverage ("O.C.I.P. insurance coverage").

(b) No insurance coverage provided by the County's O.C.I.P. shall extend to the activities or products of the following:

(i) Any person and/or organization that fabricates and/or manufactures products, materials, and/or supplies away from the Project site(s).

(ii) Any non-enrolled architect, engineer or surveyor and their consultants except where required by the Contract Documents.

(iii) Truckers, materialmen, vendors, suppliers, and operators (as independent Design/Builders), whose operation(s) and/or employee(s) is/are engaged solely in the loading, hauling and/or unloading of material, supplies and/or equipment to or from the Project site(s).

(iv) Any employee(s) of the Design/Builder or an enrolled or non-enrolled Sub-Design/Builder of any tier, including employee(s) of truckers, materialmen, vendors, suppliers, and operators (as independent Design/Builders), which is/are engaged solely in the loading, hauling and/or unloading of material, supplies and/or equipment to or from the Project site(s).

(v) Any employee(s) of the Design/Builder or an enrolled Sub-Design/Builder of any tier that does not work and/or generate payroll at the Project site(s).

(vi) Any employee(s) of the Design/Builder or an enrolled Sub-Design/Builder of any tier, not specifically required to perform Work at the Project site(s), that occasionally visits the Project site(s) to make deliveries, pick up supplies and/or personnel, to perform supervisory and/or progress inspections, or for

any other reason.

(vii) Any other entity specifically to be determined by the County to be excluded.

(viii) Any leased or temporary laborers.

(c) Unless herein otherwise specifically indicated, the policies set forth in Subparagraphs 7.1.3.2, 7.1.3.3 and 7.1.3.4 below shall cover only those operations of the insured parties performed at the Project site or sites incidental to the Work called for in this Owner-Design/Builder Agreement.

(d) The County assumes no obligation to provide insurance other than that evidenced by the policies referred to in Subparagraphs 7.1.3.2, 7.1.3.3 and 7.1.3.4. Furthermore, any obligation of the County to provide insurance under its O.C.I.P. is expressly limited to the insurance referred to in Subparagraphs 7.1.3.2, 7.1.3.3 and 7.1.3.4. The County, however, reserves the right to furnish insurance coverage of various types and limits, provided that such coverage shall not be less than that specified below (so long as such insurance and limits are reasonably available in the insurance market) and provided that the costs of such insurance shall be borne by the County.

7.1.3.2 WORKERS' COMPENSATION INSURANCE

Workers' Compensation insurance in statutory limits of the Workers' Compensation laws of the State of Georgia, with Coverage B - Employer's Liability, to limits of not less than one million dollars ($1,000,000) covering operations of the insured parties at the Project site. Coverage under the Broad Form All States extension is also included. This insurance is primary for all occurrences at the Project site.

7.1.3.3.1 LIABILITY INSURANCE (EXCLUDING MOTOR VEHICLE LIABILITY)

(a) Liability insurance (excluding Motor Vehicle Liability) under a Commercial General Liability insurance policy and covering the insured parties in connection with the performance of the Work at the Project site, including hazards of operations (explosion, collapse and underground exposures), independent Design/Builders, employees as additional insureds, completed operations (for 5 years after final completion of the Work), contractual liability coverage (for contracts related to the Work), personal injury liability coverage, and excess Employer's Liability coverage for claims arising out of the Work hereunder, for personal injury, bodily injury, and property damage, in policies of insurance such that the total available limits to all insureds combined will not be less than twenty-five million dollars ($25,000,000) combined single limits for each occurrence and aggregates, as applicable.

(b) Notwithstanding the actual policy deductible, the Design/Builder shall be liable for a deductible not to exceed five thousand dollars ($5,000) each occurrence, to the extent losses payable are attributable to, involve, or relate to the performance, actions, errors, omissions, or negligence of the Design/Builder or its Sub-Contractors, uninsured parties, or any other entity or person for whom it may be responsible. The Design/Builder's deductible shall encompass the costs of

defense, including court costs and attorneys' fees. All such deductibles shall be collected as part of the Contract close-out process and final payment.

(c) The insurance provided under the O.C.I.P. will not extend coverage for products liability to any insured party or uninsured party. However, Products/Completed Operations liability arising from manufacturing or assembly of items manufactured or assembled at the Project site, as required by this Agreement, is covered.

7.1.3.4 ALL RISK BUILDER'S RISK, INCLUDING TRANSIT

(a) All Risk Builder's Risk, including transit and installation risks, insuring the interest of the County, the Design/Builder and its Sub-Contractors, providing coverage on an All Risk basis, including, but not limited to, coverage against flood, fire, lightning, wind damage, hail, explosion, riot or civil commotion, aircraft and other vehicles, and collapse.

(b) The policies for such insurance will be secured and maintained by the County in a form and amount consistent with such coverage, commonly purchased for construction projects.

(c) Coverage will include materials, supplies and equipment that are intended for specific installation in the Work while such materials, supplies and equipment are located at the Project site, in transit or while temporarily located away from the Project site for the purpose of repair, adjustment or storage at the risk of one of the insured parties.

(d) Except as otherwise provided in Subparagraph 7.1.3.4(c), this insurance will not include coverage for tools or clothing of workers, or tools, equipment, protective fencing, scaffolding, temporary structures, coffer damming, pipe stulling or bracing, or forms owned, rented or used by the Design/Builder, its Sub-Contractors, or uninsured parties and used in the performance of the Work, unless such items are specifically identified in this Agreement and their values declared under the Builder's Risk insurance policy.

(e) The County, its officers, agents, employees and consultants rendering services at the Project site, and the O.C.I.P. Administrator will not be liable or responsible for loss or damage to the items excluded in Subparagraph 7.1.3.4(d), and the Design/Builder shall indemnify and hold harmless the County, its officers, agents, employees, its consultants rendering services at the Project site, the O.C.I.P. Administrator, and other Project Design/Builders and their Sub-Contractors from claims or causes of action brought by any person or parties as a result of loss or damage to such excluded items.

(f) The Builder's Risk policy will be endorsed waiving the carrier's rights of recovery under subrogation against the County, its officers, agents, employees and consultants rendering services at the Project site, the O.C.I.P. Administrator, and the Design/Builder and its Sub-Contractors, whose respective interests are insured under such policy.

(g) Notwithstanding the actual policy deductible, the Design/Builder shall be liable for a deductible not to exceed five thousand dollars ($5,000) each occurrence for all

perils excluding theft and mysterious disappearance, and twenty-five thousand dollars ($25,000) each occurrence for theft and mysterious disappearance. All such deductibles shall be collected as part of the Contract close-out process and final payment.

7.1.3.5 DESIGN/BUILDER RETAINS VARIOUS OBLIGATIONS

Nothing contained herein, or in any document referenced herein, shall relieve, limit or be construed to relieve or limit the Design/Builder, its Sub-Contractors or uninsured parties of responsibility or obligations otherwise imposed by this Agreement. The O.C.I.P. shall not be construed as limiting, among other things:

(a) The extent to which the Design/Builder may be held legally responsible for damages to persons or property.

(b) The Design/Builder's indemnity obligations under this Agreement.

7.1.3.6 DESIGN/BUILDER RESPONSIBILITY TO REPAIR DEFECTIVE OR DAMAGED WORK

(a) Notwithstanding the provisions of this Agreement, and until final acceptance of the Work by the County, the Design/Builder shall have full and complete charge and care of the Work or any portion thereof (including the Owner-furnished supplies, material, equipment or other items to be utilized or incorporated in the Work).

(b) The Design/Builder shall rebuild, repair, restore and make good losses of, and injuries or damages to, the Work or any portion thereof (including the Owner-furnished supplies, material, equipment or other items to be utilized with, or incorporated in, the Work and which are in the Project site) before final acceptance of the Work. Such rebuilding, repair or restoration shall be at the Design/Builder's sole cost and expense provided, however, the County will make available applicable proceeds from the Builder's Risk policy provided by the County, as specified in Section 7.1.3.4.

7.1.3.7 NAMED INSUREDS

The Named Insureds on the County's O.C.I.P. policies shall include Fulton County; the County's officers, agents, employees, and consultants; the O.C.I.P. Administrator; and Design/Builders, including their Sub-Contractors of any tier (but excluding suppliers, vendors, materialmen, truckers or haulers) whom Fulton County has contracted with and for whom the County has agreed to furnish coverage under the O.C.I.P.

7.1.3.8 OWNER'S RIGHT TO AUDIT

(a) The Design/Builder hereby warrants to the County the accuracy of the information provided on the O.C.I.P. Insurance Information Form submitted with its Proposal, and agrees that the County, its officers, agents, insurance carriers and the O.C.I.P. Administrator may audit the records of the Design/Builder and its Sub-Contractors to confirm the accuracy of the information provided, including, but not limited to, the accuracy of all estimated payrolls, and to ascertain any effect on insurance

resulting from changes in the Work. The audit will be held during the Design/Builder's normal business hours at the office of the Design/Builder or at another mutually agreeable location.

(b) The County shall be entitled to credits in O.C.I.P. insurance premiums that may accrue as a result of the audit.

(c) The Design/Builder shall maintain or cause to be maintained sufficient records as may be necessary to audit its compliance and its Sub-Contractors' compliance with the requirements of the O.C.I.P.

7.1.3.9 ASSIGNMENT

The Design/Builder and each of its Sub-Contractors of any tier shall assign to the County all return premiums, premium refunds, dividends and other monies due or to become due in connection with the insurance provided by the County. The Design/Builder and its Sub-Contractors of any tier shall execute such other further documentation as may be required by the County to effectuate this assignment.

7.1.3.10 O.C.I.P. CLAIMS

The Design/Builder, its Sub-Contractors and uninsured parties shall assist the County, its agents, and the O.C.I.P. Administrator and provide the utmost cooperation in the adjustment of claims arising out of the operations conducted under, or in connection with, the Work and shall cooperate with the County's insurance carriers in claims and demands that arise out of the Work and that the insurance carriers are called upon to adjust or resist.

7.1.3.11 LIMITATIONS ON O.C.I.P. COVERAGES

Although the scope of coverages afforded under this program may provide coverage beyond the scope required by the Owner-Design/Builder Agreement in the absence of an O.C.I.P., the County makes no warranty or representation that such broad coverage will remain in effect throughout the duration of the Work. The County further does not warrant or represent that the O.C.I.P. coverages constitute an insurance portfolio, which adequately addresses all the risk faced by the Design/Builder or its Sub-Design/Builder(s). The Design/Builder and Sub-Contractors of every tier shall satisfy themselves as to the existence, extent and adequacy of the O.C.I.P. coverages prior to the commencement of the Work. The County shall issue Certificates of Insurance and make available copies of specimen insurance policies at the time of the Notice to Proceed.

7.1.3.12 ALTERNATIVE INSURANCE

In the event the County, after commencement of the Work, is unable to furnish, or elects not to furnish or to continue to furnish, the insurance coverage herein described, and upon 30 days written notice from the County, the following shall be required:

(a) The Design/Builder shall secure and maintain all, or as much of the insurance herein described, as the County designates, at the County's expense, and the County will thereafter no longer be obligated to furnish such insurance.

(b) All insurance secured by the Design/Builder or its Sub-Contractors pursuant to this subparagraph shall be in policies subject to the prior written approval of the County as to form, content, limits of liability, cost and issuing company as outlined in the "Base Proposal" version of this Article 11, i.e., as if the O.C.I.P. had not been implemented for the Project.

7.1.3.13 PROCEDURES AND SERVICES

The Design/Builder shall fully comply with, and shall require its Sub-Contractors of any tier to fully comply with, all of said plans, procedures and services, including but not limited to, completion of all necessary applications for coverage, prompt and full compliance with all audit requests and claim reporting procedures, and full compliance with the safety, loss prevention and loss control programs implemented by, or at the request of the County.

7.1.3.14 INSURANCE NECESSARY FOR THE WORK, BUT COVERING OPERATIONS OUTSIDE THE O.C.I.P.

(a) The Design/Builder shall, for the duration of this Agreement, provide and maintain insurance and shall require each Sub-Design/Builder to provide and maintain insurance of the type and in the limits as described in 7.0 and Paragraph 7.2, which is intended to cover employee injury, personal injury, bodily injury and property damage liability for ongoing operations work performed away from the Project site.

(b) The insurance described in Subparagraphs 7.2.1.2.B (Motor Vehicle Liability) and 7.2.1.2.D (Professional Liability) shall apply to Work performed by both enrolled and non-enrolled entities both at and away from the Project site, and shall be provided and maintained for the duration of this Agreement. Such insurance shall name the parties required to secure same as insureds and shall be in a form and through issuing companies acceptable to the County. Such insurance shall contain a defense of suits provision.

(c) The Design/Builder shall assure that all non-enrolled entities provide and maintain, for the duration of this Agreement, insurance of the type and in the limits as described in 7.0 and Paragraph 7.2, which shall cover those entities for employee injury, personal injury, bodily injury, and property damage liability for any Work performed at the Project site.

7.1.3.15 DESIGN/BUILDER O.C.I.P. OBLIGATIONS

(a) The Design/Builder and each of its Sub-Contractors shall:

(i) Furnish to Fulton County's designated Representative all information and documentation that the County may require from time to time, in connection

with the issuance of policies under this Agreement, in such form and substance as the O.C.I.P. Administrator may prescribe.

(ii) Furnish to the County's designated Representative monthly certified payroll and accident summary reports on forms provided by the O.C.I.P. Administrator, and payroll records, as required.

(iii) Segregate their respective reports relating to the Work for which O.C.I.P. coverage is herein provided, from their records relating to other work for which such coverage is not provided.

(iv) Promptly comply with the recommendations of the O.C.I.P. insurance carriers, as submitted through the County's designated Representative.

(b) The Design/Builder shall not violate or knowingly permit to be violated any conditions of the policies of insurance provided by the County under the terms of this Agreement, and shall at all times satisfy the requirements of the issuing insurance companies.

(c) The Design/Builder shall assure that all O.C.I.P. requirements imposed upon and to be performed by the Design/Builder shall likewise be imposed upon, assumed and performed by each of its Sub-Contractors and uninsured parties with whom it or its Sub-Contractors have a contractual relationship and are performing work under the agreement.

(d) The Design/Builder shall furnish each proposer and negotiating Sub-Design/Builder, vendor, supplier, material dealer or other person or business entity that may provide goods or services in connection with the Work, a copy of this document describing the insurance requirements for the Design/Builder, and its Sub-Contractors shall require each to impose the same requirement in their subcontracting and procurement procedures.

(e) If the Design/Builder or any of its Sub-Contractors should fail to comply with the requirements of this document, the County may withhold payments due to the Design/Builder or suspend the Work until such time as the Design/Builder and its Sub-Contractors have performed such obligations to the reasonable satisfaction of the County.

(f) The Design/Builder agrees that the Contract Sum includes all costs of complying with the O.C.I.P., as herein described.

7.1.3.16 NOTICES, COSTS AND LOSSES

(a) All policies of insurance that either the Design/Builder, its Sub-Contractors, or the County is required to secure and maintain, shall be endorsed to provide that the insurance company shall notify the County, the Design/Builder, and each Named Insured at least thirty (30) days prior to the effective date of any cancellation or modification of such policies.

(b) The Design/Builder shall furnish to the County's designated Representative certificates of insurance for insurance required to be maintained by the

Design/Builder and its Sub-Contractors, as provided herein. Prior to the issuance of the Notice to Proceed, the Design/Builder shall not be permitted on the Project site.

(c) The County will pay the cost of the premiums for the insurance described above as being provided by the County, and the County will receive and pay, as the case may be, all adjustments in such costs, whether by way of dividends or otherwise. The Design/Builder shall execute such instruments of assignment as may be necessary to permit the County's receipt of such adjustments and shall cause all Sub-Contractors covered by such insurance to do the same.

(d) The Design/Builder shall be responsible for the payment of the deductible amounts indicated in Subparagraphs 7.1.3.3 and 7.1.3.4. If the actual County-provided O.C.I.P. policies have deductible amounts greater than those indicated in Subparagraphs 7.1.3.3 and 7.1.3.4, such excess amounts will be paid by the County.

(e) The Design/Builder shall be responsible for all losses greater than O.C.I.P. policy limits.

(f) Payments by the insurer for all losses covered under the All Risk Builder's Risk policy, as specified in Section 7.1.3.4, will be made to the County. The County will make proceeds from the Builder's Risk policy available to the Design/Builder for rebuilding work damaged by covered perils.

7.1.3.17 SUBROGATION AND WAIVER

(a) The Design/Builder shall require all policies of insurance that are related to the Work and that are secured and maintained by the Design/Builder and its Sub-Contractors to include clauses providing that each underwriter and carrier shall waive all of their respective rights
of recovery, under subrogation or otherwise, against the County, its officers, agents, employees and consultants rendering services at the Project site, the O.C.I.P. Administrator, the Design/Builder and its Sub-Contractors, regardless of tier, and all other Project Design/Builders and their Sub-Contractors, regardless of tier.

(b) The Design/Builder waives all rights of recovery against its Sub-Contractors, the County, its officers, agents, employees and consultants rendering services at the Project site, the O.C.I.P. Administrator, and other Project Design/Builders and their Sub-Contractors, regardless of tier, that the Design/Builder may have or acquire because of deductible clauses in or inadequacy of limits of policies of insurance that are in any way related to the Work and that are secured and maintained by the Design/Builder.

(c) The Design/Builder shall require its Sub-Contractors of every tier to waive the rights of recovery in the same manner (as waived in the preceding paragraph by the Design/Builder) against the County, its officers, agents, employees and consultants rendering services at the Project site, the O.C.I.P. Administrator, the Design/Builder, and other Project Design/Builders and their Sub-Contractors, regardless of tier.

7.1.3.18 COVERAGE DETERMINED BY POLICY

The coverages referred to above are set forth in full in the respective policy forms, and the foregoing descriptions of such policies are not intended to be complete, or to alter or amend any provision of the actual policies, and in matters, if any, in which the said description may be conflicting with such instruments, the provisions of the policies of the insurance shall govern.

7.2 DESIGN/BUILDER'S LIABILITY INSURANCE

7.2.1 Pursuant to the exclusions of the Owner-Controlled Insurance Program (O.C.I.P.) described in Paragraph 7.1 above, the Design/Builder shall purchase and maintain during the life of this Agreement, from a company or companies licensed to do business in its agents and acceptable to the County, such insurance as shall fully protect him, the County, any other Professional Consultant or Architect or Engineer hired by the County, and any parties, consultants, or Sub-Contractors performing work covered by this Agreement from any and all claims, including those resulting from bodily injury (including accidental death), professional liability of the , property damage (other than to the work itself) or personal injury which may arise or result from the Design/Builder's operations under this Agreement **which are not covered under the O.C.I.P**., whether such operations be by himself or by any Sub-Design/Builder, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

(a) Said insurance shall specifically provide coverage during the life of this Agreement to the County, its agents, any Professional Consultant or Architect or Engineer hired by the County, and any Sub-Design/Builder performing work covered by this Agreement for claims made by any persons, including the employees and parties in privity of the contract with the Design/Builder, claiming injury as a result of the performance of the Project.

(b) At a minimum, such insurance must include but not necessarily be limited to:

(i) Worker's Compensation and Employer's Liability insurance (**for all operations away from the Project site**);

(ii) Motor Vehicle Liability insurance, covering all motor vehicles, whether owned, non-owned, or hired (**for all operations both at and away from the Project site**);

(iii) Comprehensive (or Commercial) General Liability insurance, with Broad Form Liability endorsement. Comprehensive (or Commercial) General Liability policy with Broad Form Liability endorsement shall be further endorsed naming County, Program Manager, Construction Manager, and County's Professional Consultants as additional insured (**for all operations away from the Project site**).

(iv) Professional Liability insurance, specifying that the Design/Builder shall be responsible to the County for acts, errors and omissions of the Design/Builder's directors, officers, employees and parties in privity of the

contract with the Design/Builder to perform a portion of the work, including their agents and employees (**for all operations both at and away from the Project site**). The Design/Builder shall require the architects and the engineers that are responsible for the design and engineering to purchase and maintain liability insurance with no less coverage than $1,000,000.00 or 10% of the construction value of the Work, whichever is greater, throughout the duration of the project and for two years following the Date of Substantial Completion.

7.2.2 The insurance required by Subparagraph 7.2.1 above shall be written for not less than the following liability limits, or greater if required by law:

Note: The Design/Builder shall require all Sub-Contractors performing work under this Agreement to obtain an insurance certificate showing proof of Workers' Compensation coverage conforming to the above limits.

A. WORKERS COMPENSATION – STATUTORY (In compliance with the Georgia Workers Compensation Acts and any other State or Federal Acts or Provisions in which jurisdiction may be granted)

By Accident -	Each Accident -	$GA Statutory limits
By Disease -	Policy Limit -	$500,000.
By Disease - Employers Liability	Each Employee - Aggregate	$100,000. $1,000.000

B. 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	$1,000,000
Personal and Advertising Injury	Limits -	$1,000,000
Fire Damage	Limits -	$100,000

C. BUSINESS AUTOMOBILE LIABILITY INSURANCE

Combined Single Limits	Each Occurrence	$1,000,000

(Including operation of non-owned, owned, and hired automobiles).

D. ELECTRONIC DATA PROCESSING LIABILITY

(Required if computer Design/Builder)	Limits	$1,000,000

E. UMBRELLA LIABILITY

(In excess of above noted coverage's)	Each Occurrence-	$2,000,000

F. PROFESSIONAL LIABILITY	Each Occurrence-	$1,000,000

(Required if respondent providing quotation for professional services).

G. FIDELITY BOND

(Employee Dishonesty)	Each Occurrence	$ 100,000

It is Fulton County Government's practice to obtain Certificates of Insurance from our Design/Builders and Vendors. Insurance must be written by a licensed agent in a company licensed to write insurance in the State of Georgia. Respondents shall submit with the bidl/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 Proposer/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 Description must appear on the Certificate of Insurance).

Upon award, the Design/Builder/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 coverages stated in section 7.2.2:

Certificates shall state that the policy or policies shall not expire, be cancelled or altered without at least thirty (30) 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.

If Fulton County Government shall so request, the Offeror, Design/Builder 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 shall be sent to:

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

The Design/Builder/Vendor shall insure that the Request for Bid/Proposal number and Project Description appears on the Certificate of Insurance.

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

OCIP INSURANCE INFORMATION FORM

The attached form is required to be completed and submitted by Proposer and its subcontractors. Refer to the instruction sheet attached to the form for specific instructions.

OCIP INSURANCE INFORMATION FORM
OCIP Insurance Information Form Instructions (one page) follows

FULTON COUNTY OCIP
INSURANCE COST IDENTIFICATION WORKSHEET

Design/Builder _____ **Indv** _____ **Ptshp** _____ **Corp** _____ **J/V** _____

Address _____ FEIN _____

Office Contact: _____ Phone _____ Fax: _____

Site Contact _____ Phone _____ Fax: _____

Safety Contact _____ Phone _____ Fax: _____

CONTRACT INFORMATION – Contract Value: $ _____ **JOB#:** _____

Job Name Description _____

Awarding Design/Builder: Prime Design/Builder:

Start Date: _____ Est. Completion Date **%**Self Performed _____ Est. Manhours _____

% Subcontracted: Est. # of Subcontractors

CURRENT INSURANCE INFORMATION; REQUIRED INSURANCE COVERAGES AND LIMITS ARE SHOWN IN THE PROPOSAL AND CONTRACT DOCUMENTATIONS. INFORMATION DISCLOSED ON THIS FORM IS SUBJECT TO AUDIT AND ADJUSTMENT THROUGHOUT THE TERM OF THE CONSTRUCTION OF PROJECT

DESIGN/BUILDER'S INSURANCE BROKER OR AGENT:

Company Name _____ **Contract:** _____

City _____ **Phone:** _____

WORKER'S COMPENSATION

Current WC Ins. Co.: _____ Policy Period _____

Experience Modifier: _____ Rate Date: _____ Deductible _____ Retention: _____

A. Workers' Compensation (Project Site Payroll Only) Attach additional pages if required				
W.C. Classification	**W.C. Code**	**W.C. Rate/ $100 Payroll**	**Estimated Payroll***	**Premium**
1.				
2.				
3.				
4.				
5.				
6.				
		Subtotal		
* ***Although credits should be identified, the only allowable credits are Experience Modifier and Premium Discount*** It is extremely important to accurately estimate payrolls anticipated for this contract. Payroll should be raw wages <u>without</u> burden, fringes, or overtime premium: but should include sick, vacation, holiday pay and imputed income. **<u>Attach a copy of your declaration page and schedule rate sheets</u>**			Increases Limit Factor:_____% Experience Modifier Discounts or Surcharges	$ $ $
			Deductible/Self Insured Retention Credit* OR *Expected Losses within Deductible/Self Insured Retention	$ $
			Total Workers' Compensation Premium	**A** $

NO CERTIFICATES OF INSURANCE OR POLICIES WILL BE PROVIDED UNDER THE OCIP UNTIL THIS FORM IS RECEIVED.

FULTON COUNTY OCIP
INSURANCE COST IDENTIFICATION WORKSHEET

GENERAL LIABILITY

Current GL Ins. Co.: _____ Policy Period _____

Current GL rate is based on _____ Payroll or _____ Receipts per _____ $10 0 ___ $1,000 or Flat Premium ____

Deductible _____ Retention $: _____

B. General Liability (Project Site Payroll/Receipts Only) Attach additional pages if required				
G.L Classification	**G. L. Code**	**G.L. Rate**	**Estimated Payroll/Receipts ***	**Premium**
1.				
2.				
3.				
4.				
It is extremely important to accurately estimate payrolls anticipated for this contract. ***Attach a copy of your declaration page and schedule rate sheet.***			Deductible/Self Insured Retention Credit OR Expected Losses within Deductible/Self Insured Retention	$ $
			Total General Liability Premium	**B**$
C. Estimated Subcontractor Premiums FORM-1 MUST BE COMPLETED BY AWARDING DESIGN/BUILDER FOR EACH SUBCONTRACTOR.				**C**$
D. Umbrella Excess Rate: _____ Per $ _____ Name of Insurer:_____ Term: _____				**D**$
E. Builder's Risk Rate: _____ Per $ _____ Name of Insurer: _____ Term: _____				**E**$
F. TOTAL PREMUIMS (A+B+C+D+E) This amount must equal the insurance credit indicated on your bid/proposal.				**F**$
"Total Premiums" indicated in F represent the amount of insurance premiums the Design/Builder has excluded from the Proposal amount since the Owner is furnishing the construction insurance.				

It is each Design/Builder's responsibility to notify its own insurance carrier to exclude all work to be done under this contract from your current insurance program.

AGREEMENT

Fulton County, Georgia, as sponsor of the OCIP, or their Agent, is granted permission by Design/Builder to inspect the insurance and payroll records used in determining the above credit. Fulton County will deduct the above amount from Design/Builder's Proposal to determine contract amount. At completion of the Work, Fulton County's Agent shall audit the project payroll records of Design/Builder and adjust Contract amount for final audited insurance premiums in accordance with the insurance premium audit provisions of the insurance policy. Any and all returns of premiums, dividends, discounts or other adjustments to any OCIP policy is assigned, transferred and set over absolutely to Fulton County. This assignment is valid for insurance policies whose premiums have been paid by Fulton County on behalf of such Design/Builder.

Signed _____ Title _____ Date _____

NO CERTIFICATES OF INSURANCE OR POLICIES WILL BE PROVIDED UNDER THE OCIP UNTIL THIS FORM IS RECEIVED.

INSTRUCTIONS

Specific instructions for completing the "OCIP Insurance Information Form":

Section I: Workers' Compensation

A. For project site operations only, report the classifications, codes, experience modifier and rates and payroll estimates used in your appropriate workers compensation policy. Provide the name of your regular workers' compensation carrier, along with your policy effective dates and Federal Employer ID#.

B. If your regular W.C. program includes a deductible or retention level, include allocated losses you would expect within that deductible/retention on this Project.

Section II: General Liability

A. Use the appropriate rates and payroll estimates applicable to on-site project operations as outlined in your appropriate policy.

B. If your regular G.L. program includes a deductible or retention level, include allocated losses you would expect within that deductible/retention on this Project.

Section III: Excess/Umbrella Liability

A. Use the appropriate rates applicable to on-site project operations as outlined in your appropriate policy.

B. If you presently do not carry an Excess or Umbrella liability policy, contact your insurance representative or broker for an estimate.

Section IV: Completed Operations (1 Year)

Use the appropriate rates applicable to on-site project operations as outlined in your appropriate policy.

Section V: Subcontractor Premiums and Allocated Losses (excluding Motor Vehicle)

A. If lower-tier Design/Builders (subcontractors or sub-subcontractors) are included in your Proposal, you must provide them with a set of these forms and instructions. Attach the lower-tier Design/Builders' forms to your submission. (Reference O.C.I.P. contract language for information regarding which entities are eligible for coverage under the O.C.I.P.)

B. If lower-tier Design/Builders have a deductible or retention level within their insurance program, they must also include allocated losses which they would expect within that deductible/retention on this Project.

Section VI: Overhead & Profit on Insurance Premiums

Enter the overhead and profit percentage your firm adds to the insurance premiums (5%, 10%, etc.).

END OF SECTION 7

SECTION 8

DESIGN BUILDER SAMPLE CONTRACT AGREEMENT

OWNER - DESIGN/BUILDER AGREEMENT

AGREEMENT:

Made as of this the _____ day of _____, in the year of Two Thousand and Six.

Between the Owner (County):

FULTON COUNTY BOARD OF COMMISSIONERS
Fulton County Government Center
141 Pryor Street, S.W.
Atlanta, Georgia 30303

And the Design/Builder:

{Insert Proposer}

The Project:

{Insert Project name and #}

The Work:

IFB Number:
Contract Name: **Design/Build Services**
{Insert Project Name}

Contract Sum: Refer to Article 9, Payments & Completion

The Program/Construction Manager:

Parsons PM Team
Fulton County Government Center
141 Pryor Street, S.W., Suite 3077
Atlanta, Georgia 30303

TABLE OF CONTENTS

ARTICLE 1 CONTRACT DOCUMENTS

1.1 Definitions
1.2 Execution, Correlation and Intent
1.3 Ownership and Use of Documents

ARTICLE 2 ADMINISTRATION

2 1 Program Manager / Construction Manager
2.2 Administration of the Contract

ARTICLE 3 COUNTY

3.1 Definition
3.2 Information and Services Required of the County
3.3 County's Right to Stop the Work
3.4 County's Right to Carry out the Work

ARTICLE 4 DESIGN/BUILDER

4.1 Definition
4.2 Design/Builder’s Architects and Engineers
4.3 Review of Contract Documents and Field Conditions By the Design/Build Design/Builder
4.4 Supervision and Construction Procedures
4.5 Labor and Materials
4.6 Warranty
4.7 Taxes
4.8 Permits, Fees and Notices
4.9 Allowances
4.10 Superintendent
4.11 Design/Builder's Design and Construction Schedule
4.12 *(not used)*
4.13 Documents and Samples At the Site
4.14 Shop Drawings, Product Date and Samples
4.15 Use of Site
4.16 Cutting and Patching / Existing Structures and Utilities
4.17 Cleaning Up
4.18 Communications
4.19 Copyright, Royalties and Patents
4.20 Indemnification

ARTICLE 5 SUBCONTRACTORS AND SUBCONSULTANTS

5.1 Definitions
5.2 Subcontractual Relations

ARTICLE 6 WORK BY COUNTY OR BY SEPARATE DESIGN/BUILDERS

6.1 County's Right to Perform Work and to Award Separate Contracts
6.2 Mutual Responsibility
6.3 County's Right to Clean Up

ARTICLE 7 MISCELLANEOUS PROVISIONS

7.1 Governing Law
7.2 Successors and Assigns
7.3 Written Notice
7.4 Claims for Damages
7.5 Performance Bond and Labor and Material Payment Bond
7.6 Rights and Remedies
7.7 Tests and Inspections
7.8 Interest
7.9 Work Performance & Conduct
7.10 Open Records Act

ARTICLE 8 TIME

8.1 Definitions
8.2 Contract Time Limits
8.3 Damages for Late Completion
8.4 Delays and Extensions of Time

ARTICLE 9 PAYMENTS AND COMPLETION

9.1 Contract Sum
9.2 Schedule of Values
9.3 Payments
9.4 Applications for Payment
9.5 Certificates for Payment
9.6 Payments Withheld
9.7 Substantial Completion
9.8 Final Completion and Final Payment

ARTICLE 10 SAFETY

10.1 Design/Builder's Safety Program
10.2 Designation of Safety Representative
10.3 Fulton County's Safety Program Guidelines
10.4 Compliance of Work, Equipment, and Procedures with All applicable Laws and Regulations
10.5 Protection of the Work
10.6 Safety Equipment
10.7 Emergencies
10.8 Suspension of the Work
10.9 Design/Builder's Indemnity of the County for Design/Builder's Non-Compliance with Safety Program

ARTICLE 11 INSURANCE

11.1 Owner-Controlled Insurance Program
11.2 Design/Builder's Liability Insurance
11.3 Loss of Use Insurance

ARTICLE 12 CHANGES IN THE WORK

12.1 Change Orders
12.2 Concealed Conditions
12.3 Requests for Additional Cost
12.4 Minor Changes In the Work

ARTICLE 13 UNCOVERING AND CORRECTION OF WORK

13.1 Uncovering of Work
13.2 Correction of Work
13.3 Acceptance of Defective of Nonconforming Work

ARTICLE 14 TERMINATION OF THE CONTRACT

14.1 Termination for Default
14.2 Termination for Convenience of the County
14.3 Termination Provisions

ARTICLE 15 MINORITY/FEMALE BUSINESS ENTERPRISE PARTICIPATION

ARTICLE 16 FULL PERFORMANCE REPRESENTATION

The Owner and the Design/Builder agree as set forth below:

ARTICLE 1

CONTRACT DOCUMENTS

1.1 DEFINITIONS - The following is a partial list of terms and their meanings as used in the administration of the project and in the Contract Documents:

1.1.1 Documents:

A. "Proposal Documents" include (1) the Request For Proposal, which is comprised of the Proposal Manual (including Instructions to Proposers, the Proposal Forms, and other Proposal information), the Project Manual (including the Owner-Design/Builder Agreement and other Contract forms, the General Requirements, program documents, specifications, schedules and other project information) and any Drawings which may be bound separately and listed in a List of Drawings included in the Project Manual; and (2) any Addenda to the Request for Proposal issued prior to receipt of Proposals.

B. "Contract Documents" for the Work consist of the Proposal Documents and all modifications issued after award of the Contract. A modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a written interpretation issued by the Construction Manager pursuant to Subparagraph 2.2.7 of this Agreement, or (4) a written order for a minor change in the Work issued by the Construction Manager pursuant to Article 12 of this Agreement.

1.1.2 The Contract Documents represent the entire and integrated agreement between the parties hereto and supersede all prior negotiations, representations or agreements, either written or oral. The Contract Documents may be amended or modified only by a modification as defined in above in this Subparagraph. The Contract Documents shall not be construed to create any contractual relationship of any kind between any persons or entities other than the County, including the Program Manager and Construction Manager, and the Design/Builder. Nothing contained in the Contract Documents shall create any contractual relationship between the County, Program Manager, Construction Manager, or any other consultant employed by the County, and any of the Design/Builder's architects, engineers, consultants, subcontractors or sub-subcontractors.

1.1.3 The Work:

The Work comprises the complete design, permitting and construction of the replacement sewer required of Design/Builder as described in the Contract Documents, and includes all labor, materials, equipment, and services necessary to produce the constructed sewer in a complete, finished and operating manner.

1.1.4 The Project:

The Project is the total design, engineering, furnishing, equipping and construction of which the Work performed under this Contract as described in the Contract Documents or any law, ordinance, code or standard may be a part.

1.1.5 Approve:

Where used in conjunction with the County's response to submittals, requests, applications, inquiries, reports and claims by Design/Builder, the meaning of the term "approved" shall be held to limitations of the County's responsibilities and duties as described herein. In no case shall "approval" be interpreted as a release of Design/Builder from responsibilities to fulfill the requirements of the Contract Documents.

1.1.6 Proposer:

Any individual, company, corporation, partnership, or joint venture who submits a Proposal for the Work required as distinct from a sub-contractor or sub consultant who submits a Proposal to a prime Proposer or Consultant.

1.1.7 Directed, Required, Acceptable:

When these words refer to work or its performance, "directed", "required", "requested", "authorized", "selected", "permitted", "ordered", "designated", "prescribed", and words of like implication, mean "by direction of", the County. Likewise, "acceptable", "satisfactory", "in the judgment of", and words of like import, mean "recommended by", "acceptable to", "satisfactory to", or "in the judgment of" the County.

1.1.8 As Shown, As Indicated, As Detailed:

These words, and words of like implication, refer to information contained by drawings and/or specifications describing the Work, unless explicitly stated otherwise in other Contract Documents.

1.1.9 Manufacturer:

An individual, company, or corporation who manufactures, fabricates or assembles a standard product. A standard product is one that is not made to special design, and is furnished either directly to the Design/Builder or through a material supplier or vendor to the Design/Builder.

1.1.10 Material Supplier or Vendor:

An individual, company, or corporation who supplies, but who is not responsible for the installation of, materials, products and equipment for this particular contract.

1.1.11 Notice of Award:

This notice is provided by the County to the apparent successful Proposer, and indicates that it is the County's intent to award the Contract to that Proposer, contingent upon the Proposers's execution of the Owner-Design/Builder Agreement and submission of other necessary documents as specified in the Proposal Documents, and contingent upon the County's subsequent acceptance of same and formal approval of the Contract by the Fulton County Board of Commissioners.

1.1.12 Notice to Proceed:

This notice is provided by the County to the successful Proposer after the County has accepted and approved the Proposersexecuted Owner-Design/Builder Agreement and other documents as required by and specified in the Proposal Documents. The actual date for commencement of the Work shall be extracted from the Notice to Proceed and inserted into the Agreement in the appropriate location, when the County executes the Agreement.

1.1.13 Plans or Drawings:

All drawings, sketches or reproduction of drawings pertaining to required Work.

1.1.14 Product:

The term "product" includes materials, systems and equipment permanently incorporated into the work.

1.1.15 Project Manual:

The Project Manual includes the Owner-Design/Builder Agreement and other Contract forms, the General Requirements, program documents, specifications, schedules and other project information, all contained in one or more volumes.

1.1.16 Proposal:

A complete and properly signed document whereby a Proposer proposes to perform the Work or designated portion thereof for the sums stipulated therein, supported by all data called for by the Proposal requirements and documents.

1.1.17 Provide:

As a directive to the Design/Builder, "provide" means "furnish and install completely."

1.1.18 Specifications:

Descriptions, provisions and requirements, pertaining to method and manner of performing work, or the quantities and qualities of materials to be furnished under the terms of the Contract.

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 Execution of this Owner-Design/Builder Agreement is a representation that the Design/Builder and its architects, engineers, consultants, and subcontractors have visited the site, have become familiar with the local conditions under which the Work is to be performed, and have correlated personal observations with the requirements of the Contract Documents.

1.2.2 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents shall not be required unless it is consistent therewith and is reasonably inferable therefrom as being necessary to produce the intended results. Words

and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2.3 The organization of the Proposal Manual and Project Manual and any related Specifications provided to the Design/Builder into divisions, sections and articles, and the arrangement of any Drawings provided to the Design/Builder, shall not control the Design/Builder in dividing the Work among architects, engineers, consultants, subcontractors and trades, or in establishing the extent of work to be performed by any such entity; nor shall any responsibility be assumed by the County, Program Manager or Construction Manager for the manner in which the Design/Builder utilizes such documentation provided to divide the Work among such entities.

1.2.4 If any portion of the Contract Documents shall be in conflict with any other portion, the various documents comprising the Contract Documents shall govern in the following order of precedence: the Owner-Design/Builder Agreement; the General Requirements; any outline or technical Specifications provided; any Drawings provided; any other program data provided. As between figures given on Drawings and the scaled measurements, the figures shall govern; as between large-scale Drawings and small-scale Drawings, the larger scale shall govern. All such discrepancies and/or conflicts shall be submitted in writing to the Construction Manager for clarification before the Design/Builder's Proposal is submitted, so that an addendum may be issued if necessary.

1.3 OWNERSHIP AND USE OF DOCUMENTS

1.3.1 All Drawings and Specifications furnished by the Design/Builder to the County, as well as any Drawings and Specifications included in the Contract Documents, are and shall remain the property of the County. They are to be used by the Design/Builder only with respect to this Project and are not to be used on any other project. Submission or distribution of same to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the rights of the County or other reserved rights.

****

ARTICLE 2

ADMINISTRATION

2.1 PROGRAM MANAGER / CONSTRUCTION MANAGER

2.1.1 MANAGEMENT APPROACH

2.1.1.1 The County has established a process for the design and construction of infrastructure and facilities projects in its Capital Improvements Program which utilizes a team concept involving the use of a Program/Construction Manager. The Program/Construction Manager provides a wide range of services to assist and support the County in comprehensive program planning, organization, coordination, control, budgeting, and implementation of the design and construction of each project in the program. It is the County's intent that the Program/Construction Manager, and the Design/Builder work as a unified team with the County in the delivery of this project.

2.1.2 THE PROGRAM MANAGER / CONSTRUCTION MANAGER

2.1.2.1 The "Program Manager" or "Construction Manager" or "Program/Construction Manager" shall mean the person or entity identified in writing, by the County. The term's shall be synonymous and shall mean the Program Management / Construction Management Joint Venture contracted with the County to provide program and project planning, direction, performance goals and to perform as the County's agent for purposes of contract administration for numerous projects contained in the County's Capital Improvements Program. The Program/Construction Manager is also responsible for monitoring the implementation of projects to assure that program priorities and goals are met, and for reporting overall program status to the County. The Program/Construction Manager is also is responsible for all status reporting of implementation activities, and provides technical and planning support as requested.

2.2 ADMINISTRATION OF THE CONTRACT

2.2.1 The Program/Construction Manager shall provide administration services as hereinafter described.

2.2.2 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 Design/Builder is due. The Construction Manager shall advise and consult with the County and the Program Manager. <u>The primary point of contact for the Design/Builder shall be the Construction Manager. All correspondence from the Design/Builder to the County shall be forwarded through the Construction Manager. Likewise, all correspondence and instructions to the Design/Builder shall be forwarded through the Construction Manager.</u>

2.2.3 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.

2.2.4 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 Design/Builder'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 Design/Builder, its architects, engineers, consultants, subcontractors, or any of their agents or employees, or any other persons performing the Work.

2.2.5 The County, the Program Manager, the Construction Manager and any other consultants employed by the County shall at all times have access to the Work. The Design/Builder shall provide safe facilities for such access so that they may perform their functions.

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

2.2.7 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.

2.2.8 Claims, disputes and other matters in question between the Design/Builder 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 by the County Attorney. The Construction Manager shall provide a written recommendation.

2.2.9 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.

2.2.10 In matters relating to artistic effect, the interpretation of the Design/Builder's architect shall be final, if the County determines that it is consistent with the intent of the Contract Documents.

2.2.11 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 Design/Builder. 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 Design/Builder files a written appeal with the County Manager or Designer and mails or otherwise furnishes the Construction Manager a copy of such appeal. The decision of the County Manager or Designer shall be final and conclusive. Such final decision of the County Manager or Designer 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 Design/Builder shall be afforded an opportunity to be heard and to offer evidence in support of Design/Builder's appeal. Pending any final decision of a dispute hereunder, the Design/Builder shall proceed diligently with the performance of the Contract and in accordance with the Construction Manager's decision.

2.2.12 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 in accordance with Subparagraph 7.7.3, whether or not such Work be then fabricated, installed or completed. 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 Design/Builder, any subcontractor, any of their agents or employees, or any other person performing any of the Work.

2.2.13 The Construction Manager, in coordination with the County and the Program Manager, will determine from the Design/Builder's approved submittal register those shop drawings, product data, and samples requiring review by the County, Program Manager, or Construction Manager, and shall communicate that information to the Design/Builder. The Construction Manager shall receive from the Design/Builder two (2) copies of all so identified submittals only after review and comment by the Design/Builder's architect and/or engineers; all submittals received by the Construction Manager shall include the Design/Builder's architect's or engineers' review comments or approval. The Construction Manager, the Program Manager and/or the County shall review submittals only for compliance with County program and standards and the information given in the Contract Documents, with promptness and in accord with schedule. The Construction Manager shall indicate requirements for resubmittal (if any), or approval of submittal, and return submittals to Design/Builder for distribution, or for resubmission.

2.2.14 The Construction Manager shall take appropriate action on Change Orders in accordance with Article 12 of this Agreement, and shall have authority to order minor changes in the Work as provided in Subparagraph 12.4.1 of this Agreement.

2.2.15 The Construction Manager shall conduct inspections to determine the dates of 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 Design/Builder. The Construction Manager shall approve and issue Certificates for Payment upon compliance with Substantial and Final Completion requirements indicated in Article 9 of this Agreement.

****

ARTICLE 3

COUNTY

3.1 DEFINITION

3.1.1 The County (Owner) is the person or entity identified as such herein. The term “County” means the County or the County's authorized representative. The term “County” also means any agent of the County, including the Program Manager and the Construction Manager. The terms “County” and “Owner” may be used interchangeably in the Contract Documents.

3.2 INFORMATION AND SERVICES REQUIRED OF THE COUNTY

3.2.1 The County shall furnish all reasonably available site information describing the physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site.

3.2.2 Except as indicated otherwise, the County shall secure and pay for necessary easements required for the construction of permanent structures.

3.2.3 Information or services under the County's control shall be furnished by the County with reasonable promptness.

3.2.4 The County shall forward all instructions to the Design/Builder through the Construction Manager.

3.3 COUNTY'S RIGHT TO STOP THE WORK

3.3.1 If the Design/Builder fails to correct defective Work as required by Paragraph 13.2, or persistently fails to carry out the Work in accordance with the Contract Documents, the County, by a written order signed personally or by an agent specifically so empowered by the County in writing, may order the Design/Builder to stop the Work, or any portion thereof, until the cause for such order has been eliminated;”

3.4 COUNTY'S RIGHT TO CARRY OUT THE WORK

3.4.1 If the Design/Builder defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails within **seven (7) days** after receipt of written notice from the County to commence and continue correction of such default or neglect with diligence and promptness, the County may, after **four (4) days** following receipt by Design/Builder of an additional written notice and without prejudice to any other remedy the County may have, make good such deficiencies. In such case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Design/Builder for the cost of correcting such deficiencies, including compensation for the County's Agents or Professional Consultants for additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the County are not sufficient to cover such amount, the Design/Builder shall pay the difference to the County.

****

ARTICLE 4

DESIGN/BUILDER

4.1 DEFINITION

4.1.1 The Design/Builder is the person or entity identified as such herein. The term "Design/Builder" means the Design/Builder or the Design/Builder's designated representative.

4.1.2 The Design/Builder is the prime entity that provides program verification, professional design and engineering services, space planning, construction services including labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, furnishings, equipment and other facilities and services for execution and completion of the work, whether temporary or permanent and whether or not incorporated or to be incorporated into the work. The term "Design/Builder" shall be taken to include the Design/Builder's subconsultants (architects, engineers, and other professional consultants), subcontractors, sub-subcontractors, and other entities providing design, engineering, materials, labor and construction for execution of the work.

4.2 DESIGN/BUILDER'S ARCHITECTS AND ENGINEERS

4.2.1 Architects and engineers utilized in the performance of the Work in the capacity of Architect and Engineer(s) of Record, and those who review and approve the design of architectural, structural, civil, mechanical, electrical, and other engineering features of the Work, shall be legally licensed in the State of Georgia. Design and engineering services shall be performed by qualified architects, engineers and other professionals selected and paid for by the Design/Builder.

4.2.2 The Design/Builder's architects and engineers shall fully develop the complete interior space planning, architectural design, building systems engineering and design, and site development engineering and design, including the preparation of construction drawings and specifications as necessary, to produce the constructed facility in a complete, finished, and operable condition.

4.2.3 The Design/Builder's architects and engineers shall be responsible, as the Architects and Engineers of Record, for review and approval of shop drawings, product data, and samples produced by the Design/Builder and its subcontractors.

4.2.4 The Design/Builder's architects and engineers shall visit the site at intervals appropriate to the stage of construction to become familiar with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. Field observation reports shall be produced and distributed for each site visit. Reference Section 01 320, Progress Reports & Photographs of the General Requirements for procedural details.

4.3 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY THE DESIGN/BUILDER

4.3.1 Starting upon the Design/Builder's receipt of the Notice to Proceed, the Design/Builder shall again carefully study and compare the Contract Documents and field conditions of the jobsite and shall immediately report to the Construction Manager any error, inconsistency, ambiguity or omission that may be discovered; or, if no such errors, inconsistencies, ambiguities or omissions are found, the Design/Builder shall so state in writing to the Construction Manager.

4.4 SUPERVISION AND CONSTRUCTION PROCEDURES

4.4.1 The Design/Builder shall provide qualified personnel to supervise and direct the Work. The Design/Builder shall be solely responsible for all design, engineering, space planning, construction, fabrication, delivery, erection, installation, means, methods, techniques, sequences and procedures, and shall coordinate all portions of the Work.

4.4.2 The Design/Builder shall be responsible to the County for the acts and omissions of the Design/Builder's officers, directors, consultants, employees, architects, suppliers, engineers, Design/Builders, subcontractors and their agents and employees, and any other persons performing any of the Work.

4.4.3 The Design/Builder shall not be relieved from obligations to perform the Work in accordance with the County requirements, either by the activities or duties of the Program Manager or the Construction Manager in the administration of the Contract, or by inspections, tests or reviews required or performed by persons other than the Design/Builder.

4.4.4 The Design/Builder shall be responsible for printing and distribution of documents including drawings, Project Manuals, submittals and other documents associated with the work.

4.5 LABOR AND MATERIALS

4.5.1 The Design/Builder shall 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 proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

4.5.2 The Design/Builder shall at all times enforce strict discipline and good order among the Design/Builder's employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned them.

4.6 WARRANTY

4.6.1 The Design/Builder warrants to the County that all materials and equipment furnished under this Contract shall be new unless otherwise specified, and that all Work shall be of good, first quality, free from faults and defects. All Work not conforming to these requirements, including substitutions not properly approved and authorized by the County, may be considered defective. If required by the County, the Design/Builder shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions under Paragraph 13.2 of this Agreement.

4.7 TAXES

4.7.1 The Design/Builder shall pay all sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Design/Builder which are legally enacted at the time proposals or Bids are received, whether or not yet effective at time of Proposal.

4.8 PERMITS, FEES AND NOTICES

4.8.1 The Design/Builder shall apply for, pay for and secure all permits required for the proper execution of the Work. Demolition and building permits issued by Fulton County will be done so at no charge. The Design/Builder shall secure and pay for all other permits and governmental fees required to execute the Work, including but not limited to licenses and inspections necessary for the proper execution and completion of the Work, and for the

occupancy of the Work upon Substantial Completion and which are legally required at the time Proposals are received.

4.8.1.1 Other permits required by any department of Fulton County Government, or any other jurisdiction must be obtained by the Design/Builder.

4.8.1.2 Design/Builder shall be responsible for obtaining interim and/or final Certificates of Occupancy from the authority having jurisdiction. The Design/Builder shall be responsible for all costs which may be necessary in order to obtain these certificates, with the exception of those defined below.

4.8.1.3 Design/Builder shall be responsible for acquiring and installing water and sewer taps for the project including all fees. Cost of meters and other materials and labor shall be the responsibility of the Design/Builder.

4.8.2 The Design/Builder shall give all notices and comply with all laws, codes, ordinances, rules, regulations and lawful orders of any public authority having jurisdiction which bear on the performance of the Work. The Construction Manager shall be notified within two (2) days in writing of any jurisdiction observations or inspections that require changes to the design and engineering requirements in the Contract Documents.

4.8.3 It is the responsibility of the Design/Builder to make certain that the Construction Documents are in accordance with applicable laws, statutes, building codes and regulations. If the Design/Builder observes that any of the Construction Documents are at variance therewith in any respect, the Design/Builder shall promptly rectify such variance at no cost to the County. Should such variance be due to any inaccuracy or inconsistency in the Contract Documents made part of this Agreement, the Design/Builder shall notify the Construction Manager in writing, and any necessary changes shall be accomplished by appropriate modification. All necessary modifications which result from such conflicts shall be issued to the Design/Builder in writing by the Construction Manager.

4.8.4 If the Design/Builder performs any Work knowing it to be contrary to applicable laws, statutes, building codes, and regulations, and the source of the conflict is an inaccuracy or inconsistency in the Contract Documents made part of this Agreement, and such Work is performed without notice of such having been made to the Construction Manager, the Design/Builder shall assume full responsibility therefore and shall bear all direct and indirect costs and liabilities attributable thereto.

4.9 ALLOWANCES

4.9.1 The Design/Builder shall include in the contract sum all allowances stated in the Contract Documents. Descriptions of allowances, if any, are found in Section 9, specification 01150 of the Technical Specifications Appendices.

4.9.2 Monetary amounts for allowances have been stipulated in Section 9, specification 01150. The performance or non-performance of work under an allowance is solely at the discretion of the Owner. Allowances are provided for work that may or may not be required and that could be defined at the time of Proposal. Any work performed under an allowance shall be considered a change in the project scope and handled as specified for changes in the work under Article 12 of the Owner Design/Builder Agreement, contained in the Contract Document. Design/Builder shall be entitled to receive payment for only those portions of the allowance authorized as an approved Change Order. The final contract amount shall be adjusted by summary change order to reflect actual approved amounts of any allowances. All change orders must be approved by the County through established procedures and the governing authority of the County.

4.10 SUPERINTENDENT

4.10.1 The Design/Builder shall employ a competent, full time, experienced superintendent and necessary assistants who shall be in attendance at the Project site during the progress of the Work. The superintendent shall have project experience comparable to the Contract scope, type, size and cost and shall have full authorization by the Design/Builder to fully represent the Design/Builder. All communications given to the superintendent shall be as binding as if given to the Design/Builder. Important communications shall be confirmed in writing. Other communications shall be so confirmed on written request in each case.

4.10.2 The superintendent shall remain on the Project not less than eight (8) hours per day, five days per week minimum, unless the job is closed down due to a general strike or conditions beyond the control of the Design/Builder, or until Termination of the Contract in accordance with the Contract Documents. The superintendent shall not be employed on any other Project during the course of this Work.

4.10.3 The superintendent or project supervisor shall be satisfactory to the Construction Manager and shall not be changed except with the consent of the Construction Manager, unless the superintendent proves to be unsatisfactory to the Design/Builder and ceases to be in his employ. At any time during the execution of the Work, should the superintendent become unsatisfactory to the Construction Manager, the Design/Builder shall **within 15 (fifteen) days** upon receiving written notice from the Construction Manager, remove and replace the superintendent. Any such replacement superintendent shall be satisfactory to the Construction Manager.

4.10.4 In the event that any of the following conditions shall exist, the Design/Builder shall require that its superintendent be at the job site not less than ten (10) hours per day, six (6) days per week. This shall be done at no additional cost to the County.

4.10.4.1 should Substantial Completion not be accomplished on schedule;

4.10.4.2 should Final Completion not be accomplished on schedule;

4.10.4.3 should a schedule review show the Design/Builder to be fourteen (14) or more days behind schedule at any time during construction up until 30 days prior to a scheduled Substantial Completion;

4.10.4.4 should the schedule review show the Design/Builder to be seven (7) or more days behind schedule at any time during the last thirty (30) days prior to scheduled Substantial Completion.

4.10.5 The Design/Builder's superintendent shall document work activities and conditions on a daily basis. Reference Section 01 320 of the Technical Specifications for procedural details.

4.11 DESIGN/BUILDER'S DESIGN AND CONSTRUCTION SCHEDULE

4.11.1 The Design/Builder shall prepare and submit for the Construction Manager's review a detailed Design/Builder's Design and Construction Schedule for the Work, which shall provide for expeditious and practicable execution of the Work. The schedule shall not exceed time limits indicated under this Agreement and shall be revised at intervals as required by conditions of the Work and the Project. Schedules shall be kept current and updated and submitted monthly with a written report of changes. The Design/Builder shall also submit to accompany the construction schedule, a schedule showing percentage amount of work completed and dollar value for each month of construction. The schedules shall also show design and engineering activities and their associated cost. Reference Section 01 310 of the Technical Specifications for procedural details.

4.11.2 The Design/Builder shall prepare and keep current, for the Construction Manager's review, a schedule of submittals which is coordinated with the Design/Builder's design and construction schedule. Schedule shall show submittal date, date sent to Design/Builder's

architects and engineers, date sent to Construction Manager, date received from Design/Builder's architects and engineers and Construction Manager, dates of receipt from and return to subcontractors and suppliers, and action taken.

4.12 *(not used)*

4.13 DOCUMENTS AND SAMPLES AT THE SITE

4.13.1 The Design/Builder shall maintain at the Project site, on a current basis, one record copy of all Drawings, Specifications, Submittals, Samples, Product Data, Addenda, Change Orders, Modifications and other documents related to the work in good order and marked currently to record all changes made during construction. These shall be available to the Construction Manager and shall be delivered to the Construction Manager for submittal to the County upon completion of the Work. The Design/Builder shall advise the Construction Manager on a current basis of all changes in the Work made during construction.

4.14 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

4.14.1 The Design/Builder shall prepare and submit to the Construction Manager, per the procedures contained in Section 01 340 of the Technical Specifications, a comprehensive Submittal Register for review and approval by the Construction Manager.

4.14.2 The Design/Builder shall prepare, review, approve and submit to its architects and engineers, and to the Construction Manager if required, with reasonable promptness and in such sequence as to cause no delay in the Work or to any separate Design/Builder, all Shop Drawings, Product Data and Samples required by the Contract Documents. The Design/Builder shall coordinate its Shop Drawings, Product Data and Samples with those of other separate Design/Builders, if any. Reference Section 01 340 of the Technical Specifications for definitions and procedural details.

4.14.3 By approving and submitting Shop Drawings, Product Data, and Samples, the Design/Builder represents that he has determined and verified all materials, field measurements and field construction criteria related thereto, or shall do so with reasonable promptness, and has checked and coordinated the information contained within such submittals between all trades and with the requirements of the Work, the Project and the Contract Documents.

4.15 USE OF SITE

4.15.1 The Design/Builder shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment. The Design/Builder shall control accessibility to the site and not unreasonably impede the normal flow of traffic in the vicinity, including truck and equipment entrances, allowable use of contiguous sidewalks and streets, and parking facilities. Reference Section 01 650 of the Technical Specifications for details.

4.16 CUTTING AND PATCHING / EXISTING STRUCTURES AND UTILITIES

4.16.1 The Design/Builder shall be responsible for all cutting, fitting or patching that may be required to complete the Work.

4.16.2 The Design/Builder shall not damage or endanger any portion of the Work or the work of the County or any separate Design/Builders by cutting, patching or otherwise altering any Work, or by excavation. The Design/Builder shall not cut or otherwise alter the work of the County or any separate Design/Builder except with the written consent of the County and of such separate Design/Builder. The Design/Builder shall not unreasonably withhold from the County or any separate Design/Builder consent to cutting or otherwise altering the Work.

4.16.3 The Design/Builder shall coordinate and be responsible for any modifications to existing structures which may be required to complete the Work.

4.16.4 Construction operations that require physical connection to existing operating buildings or structures and affect air quality, noise or utilities, shall be maintained so as to not interfere with any existing ongoing building operations.

4.16.5 The Design/Builder shall coordinate and be responsible for all modifications and connections to the existing utilities, as well as be responsible to coordinate any upgrades and new utility work.

4.17 CLEANING UP

4.17.1 The Design/Builder shall at all times keep the premises free from accumulation of waste materials or rubbish caused by the Design/Builder's operations, and shall adhere to all of the terms of the General Requirements. At the completion of the Work, the Design/Builder shall remove all the waste materials and rubbish from and about the Project as well as all the tools, construction equipment, machinery and surplus materials.

4.17.2 If the Design/Builder fails to clean up adequately, the County may do so as provided in Paragraph 3.4 of this Agreement, and the cost thereof shall be charged directly as a deduct to the Contract Sum.

4.18 COMMUNICATIONS

4.18.1 The Design/Builder shall forward all communications to the County through the Construction Manager.

4.19 COPYRIGHT, ROYALTIES AND PATENTS

4.19.1 The documents, including but not limited to all plans, designs, drawings, specifications, shop drawings and other documentation resulting from the design, engineering and construction services, shall become the sole property, custody and control of Fulton County. The Design/Builder or any other entity associated with the documents shall not receive any additional compensation in the future if Fulton County uses the documents for use in planning, design, engineering and construction of any future project.

4.19.2 The Design/Builder shall pay all royalties and license fees, shall defend all suits or claims for infringement of any patent rights, and shall hold the County, the Program Manager, the Construction Manager, and other consultants of the County for the Project, and their agents and employees, harmless from loss on account thereof. If the Design/Builder has reason to believe that the design, process or product selected is an infringement of a patent, it shall be responsible for such loss unless such information is promptly given to the County.

4.20 INDEMNIFICATION

4.20.1 The Design/Builder agrees to protect, defend, indemnify and hold harmless the County, the Program Manager, the Construction Manager, and other consultants of the County for the Project, and their agents and employees from and against any and all liability, loss, damages, claims, suits, liens and judgements including attorneys fees, of whatever nature, including claims for contributions and/or indemnification, for injuries to or death or any person or persons, or damage to the property or other rights of any person or persons to the extent caused by the negligent acts, errors, or omissions or willful acts of the Design/Builder in its performance or nonperformance of the work, whether such injury, death, loss or damage results from any cause whatsoever. Design/Builder's obligation to protect, defend, indemnify and hold harmless, as set forth herein above, shall also include,

but not be limited, to any matter arising out of any actual or alleged infringement of any patent, trademark, copyright, or service mark, or any actual or alleged unfair competition disparagement of produce or service, or other business tort of any type whatsoever, or any actual or alleged violation of trade regulations. Design/Builder shall not indemnify or hold harmless the County for the acts or omissions of employees or officers of the County. The Design/Builder further agrees to protect, defend, indemnify and hold harmless the County, the Program Manager, the Construction Manager, and other consultants of the County for the Project, and their agents and employees from and against any and all claims or liability for compensation under the Worker's Compensation Act arising out of injuries sustained by any employees of the Design/Builder. These indemnities shall not be limited by reason of the listing of any insurance coverage.

4.20.2 In any and all claims against any person or entity indemnified under this Paragraph 4.20 by any officer, director, or employee of the Design/Builder, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 4.20 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Design/Builder or any subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

****

ARTICLE 5

SUBCONTRACTORS AND SUBCONSULTANTS

5.1 DEFINITIONS

5.1.1 A subcontractor or subconsultant is a person or entity who has a direct contract with the Design/Builder to perform any portion of the Work. The terms "subcontractor" and "subconsultant" mean a subcontractor or subconsultant or an authorized representative thereof. The term "subconsultant" includes any architect, engineer, or other professional consultant employed by the Design/Builder as such. The terms "subcontractor" and "subconsultant" do not include any separate Design/Builder or professional consultant who may be hired by the Owner or the Construction Manager or any separate Design/Builder's subcontractors or subconsultants.

5.1.2 A sub-subcontractor or sub-subconsultant is a person or entity who has a direct or indirect contract with a subcontractor or subconsultant to perform any portion of the Work. The terms "sub-subcontractor" and "sub-subconsultant" mean a sub-subcontractor or sub-subconsultant or an authorized representative thereof.

5.2 SUBCONTRACTUAL RELATIONS

5.2.1 By an appropriate written agreement, the Design/Builder shall require each subcontractor and subconsultant, to the extent of the Work to be performed by the subcontractor or subconsultant, to be bound to the Design/Builder by the terms of the Contract Documents, and to assume toward the Design/Builder all the obligations and responsibilities which the Design/Builder, by these Documents, assumes toward the County, the Program Manager, and the Construction Manager. Said agreement shall preserve and protect the rights of the Owner, the Program Manager and the Construction Manager under the Contract Documents with respect to the Work to be performed by the subcontractor or subconsultant so that the subcontracting thereof will not prejudice such rights, and shall allow to the subcontractor or subconsultant, unless specifically provided otherwise in the Design/Builder-Subcontractor or Design/Builder-Subconsultant agreement, the benefit of all rights, remedies, and redress against the Design/Builder that the Design/Builder, by these Documents, has against the County. Wherever appropriate, the Design/Builder shall require each subcontractor and subconsultant to enter into similar agreements with their sub-subcontractors and sub-subconsultants.

5.2.2 The Design/Builder shall make available to each proposed subcontractor and subconsultant, prior to the execution of such entities' agreement with the Design/Builder, copies of the Contract Documents to which the subcontractor or subconsultant will be bound by this Paragraph 5.2, and identify to the subcontractor or subconsultant any terms and conditions of the proposed agreement which may be at variance with the Contract Documents. Each subcontractor and subconsultant shall similarly make copies of such Documents available to their sub-subcontractors and sub-subconsultants, who shall also be bound therein.

5.2.3 In the event that a subcontractor, sub-subcontractor, subconsultant, or sub-subconsultant fails to perform as required according to the Contract Documents, the Design/Builder, at the written direction of the County or the Construction Manager and after such notice as is proper according to the Contract Documents, shall direct and guarantee the removal or

replacement of said subcontractor, sub-subcontractor, subconsultant, or sub-subconsultant at no cost to the County. If desired by the County, the work which was to be performed by the subcontractor, sub-subcontractor, subconsultant, or sub-subconsultant shall then be removed from the Design/Builder's Work and shall be performed by Design/Builders working directly for the County.

ARTICLE 6

WORK BY COUNTY OR BY SEPARATE DESIGN/BUILDERS

6.1 COUNTY'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

6.1.1 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 Design/Builder's work by the County.

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

6.1.3 Prior to any separate Design/Builder starting work, the County shall require that such separate Design/Builder submit an executed insurance certificate indicating all coverages required by the separate Design/Builder's Contract Documents are in effect, or otherwise be covered under the County's Owner-Controlled Insurance Program.

6.2 MUTUAL RESPONSIBILITY

6.2.1 The Design/Builder shall afford the County and separate Design/Builders reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall connect and coordinate the Work with theirs as required by the Contract Documents.

6.2.2 If any part of the Design/Builder's Work depends for proper execution or results upon the work of the County or any separate Design/Builder, the Design/Builder shall, prior to proceeding with that portion of the Work, promptly report **within fourteen (14) days** to the Construction Manager any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Design/Builder to so report in writing shall constitute an acceptance of the County's or separate Design/Builder'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.

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

6.2.4 Should the Design/Builder wrongfully cause damage to the work or property of the County or to other work or property on the site, the Design/Builder shall promptly remedy such damage as provided in Subparagraph 13.2.6 of this Agreement.

6.2.5 Should the Design/Builder be caused damage by any other Design/Builder on the Project, by reason of such other Design/Builder'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 here of and there are no third party beneficiaries and neither the County nor the Construction Manager shall have liabilities therefore, but the Design/Builder may assert his claim for damages solely against such other Design/Builder.

If, after reasonable attempts at resolution, the Design/Builder and any separate Design/Builder involved in such a third party damages claim is unable to resolve such dispute the Construction Manager shall intervene to assist the parties in the settlement of such claims. The Construction Manager may make monetary determinations as necessary in order to resolve the issue with such determinations subject to approval by the County.

Such determinations shall be final. Such action shall in no way prejudice the County's position as stated in the preceding paragraph or elsewhere in the Contract Documents.

6.2.6 Where the Work of this Contract shall be performed concurrently in the same areas as other construction work, the Design/Builder shall, with the supervision of the Construction Manager, establish a mutually acceptable schedule and procedures that shall permit all jobs to proceed with minimum interference.

6.3 COUNTY'S RIGHT TO CLEAN UP

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

****

ARTICLE 7

MISCELLANEOUS PROVISIONS

7.1 GOVERNING LAW

7.1.1 The Contract shall be governed by the law of the State of Georgia and all other applicable local laws and statutes unless indicated otherwise.

7.1.2 Jurisdiction of litigation arising from this Agreement shall be in the Fulton County Superior Court.

7.2 SUCCESSORS AND ASSIGNS

7.2.1 The County to the extent allowable by law and the Design/Builder respectively bind themselves, their partners and successors, to the other party hereto and to the partners and successors of such other party with respect to all covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract, or the proceeds therefrom, or sublet it as a whole without the written consent of the other. Assignment of any portion of the contract by the Design/Builder without the prior written consent of the County shall terminate the contract on its terms on the date of such improper assignment.

7.3 WRITTEN NOTICE

7.3.1 Written notice to the Design/Builder shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving the notice.

7.3.2 Written notices to the County, relative to the project, shall be made through the Construction Manager. The Construction Manager has the duty to keep the County informed of all notices.

7.4 CLAIMS FOR DAMAGES

7.4.1 Should the Design/Builder suffer injury or damage to person or property because of any act or omission of the County or any of the County's employees, agents, or others for whose acts the County is legally liable, notice of claim shall be made by the Design/Builder in writing **within twenty (20) days** after the first observance of such injury or damage.

7.5 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

7.5.1 The Design/Builder is required to furnish a Labor and Materials Payment Bond and a Performance Bond in penal sums of at least the full amount of the Contract, issued by a surety registered to do business in the State of Georgia and acceptable to the County. These bonds shall secure the faithful performance of the Contract, and the payment of all persons, firms or corporations to whom the Design/Builder may become legally indebted for professional services, construction labor, materials or equipment of any nature employed or used by it in performing the Work.

7.5.2 Bonds shall be provided on forms as provided in Section 6 of the RFP.

7.5.3 Bonds shall be made out to Fulton County, Georgia.

7.6 RIGHTS AND REMEDIES

7.6.1 The duties and obligations imposed by the Owner-Design/Builder Agreement and the rights and remedies available thereunder shall be in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

7.6.2 No action or failure to act by the County, the Program Manager, the Construction Manager, or the Design/Builder shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing between Design/Builder and the County.

7.7 TESTS AND INSPECTIONS

7.7.1 All testing and inspection, whether required by the specification sections or by laws, ordinances, rules, regulations, codes or orders of any public authority having jurisdiction, or whether performed by the Design/Builder for quality control, shall be at the Design/Builder's expense unless otherwise indicated in the Contract Documents. The Design/Builder shall procure and pay for the services of an independent testing and inspection agency registered in Georgia, and acceptable to and for the County. The Design/Builder shall submit testing and inspection agency qualifications and a work plan specific to project to the Construction Manager with a listing of testing and inspection work required by the Contract Documents. Services shall include but not be exclusive of the following:

7.7.1.1 Soils (below pavement, foundations and slabs)

7.7.1.2 Foundations (sub-grade preparation, reinforcement and concrete)

7.7.1.3 Concrete work (sub-grade preparation, reinforcement and concrete)

7.7.1.4 Structural steel connections

7.7.1.5 Masonry/Reinforced Masonry

7.7.1.6 Welding

7.7.1.7 Paving (sub-grade preparation, installation)

7.7.1.8 Acceptance and Performance Tests (as required)

7.7.2 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Design/Builder shall give the Construction Manager **forty-eight (48) hours advance notice** of its readiness so the Construction Manager and/or other representative of the County may observe such inspection, testing or approval. The Design/Builder shall bear all costs of such inspections, tests or approvals conducted by public authorities.

7.7.3 If the County, the Construction Manager, or public authority having jurisdiction determines that any Work requires special inspection, testing or approval which this Paragraph 7.7 does not include, the Construction Manager shall, upon written authorization from the County, instruct the Design/Builder to make arrangements for such special inspection, testing or approval, by an entity acceptable to the County, and the Design/Builder shall give notice as provided in Subparagraph 7.7.2 above. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Design/Builder shall bear all costs thereof, including compensation for the Construction Manager's or other consultant's additional services made necessary by such failure, if any; otherwise the County shall bear such costs, and an appropriate Change Order shall be issued.

7.7.4 Required certificates of inspection, testing or approval shall be secured by the Design/Builder and the Design/Builder shall promptly deliver them to the Construction Manager.

7.7.5 If the County, the Construction Manager, or other consultant wishes to observe the inspections, tests or approvals required by the Contract Documents, they shall do so promptly and, where practicable, at the source of supply.

7.7.6 In the event notice of readiness pursuant to Subparagraph 7.7.2 above, shall have been issued prematurely by the Design/Builder, his action shall be deemed to be a "false start," and the Design/Builder shall be liable for the damage resulting from the aforesaid false start, including but not limited to, the salary, professional fees and travel and living expenses of the persons or parties inconvenienced by the false start.

7.7.7 Neither the observations of the County, the Program Manager, or the Construction Manager, in their administration of the Contract, nor inspections, tests or approvals by persons other than the Design/Builder, shall relieve the Design/Builder from his obligations to perform the work in accordance with the Contract Documents.

7.7.8 Re-inspections and re-tests to confirm compliance after corrections have been made shall be paid for by the Design/Builder.

7.7.9 All references to standard specifications, American National Standards Institute (ANSI) Standards, American Society for Testing and Materials (ASTM) Standards, or standard methods, trade association standards, or other material of like character in the Contract, shall mean the latest revision of the pertinent standard or specification in effect as of the date of Proposal submission unless a specific date is established in the Contract Documents.

7.7.10 Where these methods (ASTM designations; other test standards) or criteria have not been stipulated in the Contract Documents, the Design/Builder may contest the applicability of methods or criteria to be used or which have been used.

7.7.11 If any test indicates a failure to comply with Contract requirements, the Design/Builder, at his own expense and subject to the following conditions, may promptly undertake counter-testing for the purpose of demonstrating compliance with Contract requirements.

7.7.12 Counter-tests shall be undertaken and concluded within fourteen (14) days after notice to Design/Builder of failure of County-conducted tests. The testing agency shall be selected by the Design/Builder, but shall be subject to approval by the County and/or the Construction Manager. Quantity and nature of counter-tests shall be determined by the County after consultation with the Design/Builder and others. The tests may be observed by the County's representatives and timely advance notice of date, hour and place shall be provided by the Design/Builder. Application of Paragraph 13.2 of this Agreement, is stayed pending reports on the counter-tests, provided that such reports are delivered within seven (7) days of completion of test.

7.7.13 If counter-tests demonstrate compliance with Contract requirements, and the Design/Builder has met the time requirements of Subparagraph 7.7.12 above, the County shall reimburse the Design/Builder for all definable costs of the counter-tests, as recommended by the Construction Manager; and a Change Order shall be issued covering such costs and, if warranted, a reasonable extension of the Contract Time as recommended by the Construction Manager pursuant to a change order. Otherwise, all responsibility for the costs and delays occasioned by the counter-tests shall remain with the Design/Builder.

7.7.14 If the counter-tests indicate defective work or failure to conform to the Contract Documents, the Construction Manager may reject the work, after which Paragraph 13.2 of this Agreement applies.

7.7.15 If the Design/Builder objects to the use of a test method or criterion which has not been stipulated in the Contract Documents, he shall so notify the Construction Manager at least seven (7) days prior to the start of the testing.

7.7.16 The Design/Builder shall provide the Construction Manager with a copy of all inspection and test reports. Reports indicating compliant results shall be distributed on white bond paper and reports indicating non-compliance for a specific test shall be distributed on yellow bond paper.

7.8 INTEREST

7.8.1 In no event shall interest be due and payable by the County to the Design/Builder, any subcontractor or subconsultant of any tier, or any other party on any of the sums the Design/Builder, any subcontractor or subconsultant of any tier, or any other party has submitted an Application for Payment for and receipt of payment by the Design/Builder from the County has not transpired, nor for funds retained by the County pursuant to any of the terms or provisions of any of the Contract Documents.

7.9 WORK PERFORMANCE & CONDUCT

7.9.1 In accordance with County policy and other applicable laws, the Design/Builder's performance under this Agreement shall be documented with the Fulton County Purchasing Department and may be used by the County in consideration for future work.

7.9.2 The Design/Builder shall be responsible for maintaining satisfactory standards of employees' competency, conduct, courtesy, appearance, honesty, and integrity, and shall be responsible for taking such disciplinary action with respect to any employee, as may be necessary.

7.9.3 The County may request the Design/Builder to immediately remove from this assignment and/or dismiss any employee found unfit to perform duties due to one or more of the following reasons:

7.9.3.1 Neglect of duty.

7.9.3.2 Disorderly conduct, use of abusive or offensive language, quarreling, intimidation by words or actions or fighting.

7.9.3.3 Theft, vandalism, immoral conduct or any other criminal action.

7.9.3.4 Selling, consuming, possessing, or being under the influence of intoxicants, including alcohol, or illegal substances while on assignment for the County.

7.9.3.5 Other reasons that adversely affect the performance of the work.

7.10 <u>OPEN RECORDS ACT:</u>

7.10.1 The Georgia Open Records Act, O. C.G.A. Section 50-18-70 <u>et seq</u>., applies to this AGREEMENT. The DESIGN/BUILDER, CONSULTANT acknowledges that any documents or computerized data provided to the COUNTY by the Consultant may be subject to release to the public. The DESIGN/BUILDER, CONSULTANT also acknowledges that documents and computerized data created or held by The DESIGN/BUILDER, CONSULTANT in

relation to the AGREEMENT may be subject to release to the public, to include documents turned over to the COUNTY. The DESIGN/BUILDER, CONSULTANT shall cooperate with and provide assistance to the COUNTY in rapidly responding to Open Records Act requests. The DESIGN/BUILDER, CONSULTANT shall notify the COUNTY of any Open Records Act requests no later than 24 hours following receipt of any such requests by the DESIGN/BUILDER, CONSULTANT. The DESIGN/BUILDER, CONSULTANT shall promptly comply with the instructions or requests of the COUNTY in relation to responding to Open Records Act requests.

****

ARTICLE 8

TIME

8.1 DEFINITIONS

8.1.1 Unless otherwise provided, the Contact Time is the period of time allotted in the Contract Documents from issuance of a Notice to Proceed to the Design/Builder's Substantial Completion of the Work as defined below, including authorized adjustments thereto.

8.1.2 The date of award of the Contract is the date specified in the Notice of Award. This is the date which should be used on the certificate of insurance, performance and payment bonds, and any other information required prior to the issuance of a Notice to Proceed by the County. This date shall also be the date entered in the Contract Documents on page 1 of this Agreement. In the event of a conflict between these dates, the date indicated in this Agreement shall prevail.

8.1.3 The date of commencement of the Work is the date established in the Notice to Proceed.

8.1.4 The Date of Substantial Completion of the Work or designated portion thereof is the date certified by the Construction Manager when construction is sufficiently complete, in accordance with the Contract Documents, so that the County or the County's separate Design/Builders can occupy or utilize the Work or a designated portion thereof for the use for which it is intended. A Certificate of Occupancy is required to achieve Substantial Completion, as well as submission of complete and final project record documents to the Construction Manager for review, including record drawings, operation and maintenance manuals, warranties and other submittal requirements detailed in the General Requirements.

8.1.5 The Date of Final Completion of the Work is the date certified by the Construction Manager when all construction is fully complete, including rectification of all punch list items, and when all record documentation and other closeout items required by the Contract Documents have been reviewed and found acceptable by the Construction Manager.

8.1.6 The term "day" as used in the Contract Documents shall mean "calendar day" unless specifically designated otherwise.

8.1.7 The term "milestone" shall mean a date at which an intermediate portion of the Work must be completed, as indicated in the Contract Documents.

8.2 CONTRACT TIME LIMITS/TOTAL CONTRACT TIME

8.2.1 ***Milestones***: The Design/Builder shall begin the Work on the date specified in the Notice to Proceed. The Design/Builder shall carry the Work forward expeditiously with adequate forces and achieve the following interim milestones:

A. Preliminary Design: Completion of preliminary design and engineering will be as follows: all time is calculated **calendar days** From of receipt of the Notice to Proceed.

A.1. County Review of Preliminary Design: Completion of reviews by the County and its agents and/or consultants shall be within:

a. Section 2 - Sixty (60) days thereafter.
b. Section 3 – One Hundred Twenty (120) days thereafter.
c. Section 1 – Two Hundred Forty (240) days thereafter.

B. Final Design: Completion of final design and engineering shall be within:

a. Section 2 – One Hundred Twenty (120) days thereafter.
b. Section 3 – Two Hundred Forty (240) days thereafter.
c. Section 1 – Four Hundred Twenty (420) days thereafter.

8.2.2 Substantial Completion of the Work: The Design/Builder shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion of the Work within **Six Hundred -Sixty (660) calendar days** after receipt of the Notice to Proceed, including the time indicated above for County reviews of the Design/Builder's design submissions, or this Contract shall be subject to termination by the County in addition to the imposition of damages as set forth herein.

8.2.3 Final Completion of the Work: The Work shall be fully completed Thirty (30) calendar days thereafter or **Six Hundred-Ninety (690) calendar days** after receipt of the Notice to Proceed.

8.2.4 Design/Builder shall not proceed to furnish such services and the County shall not become obligated to pay for same until a written authorization to proceed (Notice to Proceed) has been sent to the Design/Builder from County. The time of performance shall begin upon date of the Notice to Proceed and continue for a total contract time of **(690) Six Hundred-Ninety** calendar days after the notice to proceed. Notwithstanding any other provision of this Agreement, this Agreement shall terminate absolutely and without further obligation of the County (a) at the close of the calendar year in which it is executed if the County, not later than thirty (30) days prior to the end of such calendar year, issues a written "Notice of Termination" to the Design/Builder, or (b) at the close of the fiscal year in which it is executed, if the board of Commissioners fails to appropriate funding for the Agreement for the succeeding fiscal year, if funds are allocated for the successive calendar year and the thirty (30) days notice is not given, this Agreement shall automatically renew for the successive calendar year, except as the Agreement may automatically terminate on its terms (total contract time). Termination pursuant to this provision of the Agreement shall not result in a claim for payment or damages by Design/Builder, except that the Design/Builder shall be paid for actual services rendered through the date of termination.

8.3 DAMAGES FOR LATE COMPLETION

8.3.1 All time limits stated in the Contract Documents are of the essence of the Contract. The Design/Builder confirms that the Contract Time is a reasonable period for performing the Work. It is understood and agreed by the Design/Builder that failure to meet the time limits shall result in damages to the County for which the Design/Builder shall be liable, including, but not limited to the County's:

8.3.1.1 Costs for extended professional services (program management, construction management, etc.),

8.3.1.2 (enter other special damages here; or indicate "not used")

8.3.1.3 Other costs and expenses incurred by the County for failure by the Design/Builder to meet the time limits.

8.3.2 The Design/Builder and the Design/Builder's surety shall be liable for and shall pay the County the sum of One Thousand ($1,000.00) per calendar day as liquidated damages for each calendar day of delay beyond the Substantial Completion Date required by Subparagraph 8.2.2 of this Owner-Design/Builder Agreement, adjusted for any schedule extensions which may be granted by the County by Change Order, until the Work is considered substantially complete. This sum represents the amount that is reasonably estimated to be incurred by the County for the causes cited in Subparagraph 8.3.1, as a

direct result of the Design/Builder's delay, should such delay occur. This amount is not negotiable and will be withheld from progress payments as accrued and projected after the Substantial Completion Date required by Subparagraph 8.2.2, as adjusted for any schedule extensions that may be granted by the County by Change Order.

8.3.3 The sums which may be paid by the Design/Builder for liquidated damages are strictly designed to cover the estimated losses to the County as a direct result of possible Design/Builder delays on the project. The assessment of liquidated damages in no way limits the amount of damages which may be recoverable by the County for the completion of unfinished or defective work performed by the Design/Builder.

8.4 DELAYS AND EXTENSIONS OF TIME

8.4.1 It is hereby understood and mutually agreed; by and between the Design/Builder and the County; that the date of beginning and the time for completion of the Work, including any activities to be done hereunder are ESSENTIAL CONDITIONS of this Contract; and it is further mutually understood and agreed that the Contract Time specified in this Contract shall commence on the date specified in the Notice to Proceed. The County and separate Design/Builders are entitled to rely upon such dates which by its acceptance of this Contract, have been agreed upon by the Design/Builder.

8.4.2 The Design/Builder agrees that said Work shall be executed regularly, diligently and uninterruptedly at such rate of progress as shall insure full completion thereof within the time specified. It is expressly understood and agreed that the Design/Builder has considered all contingencies and factors affecting his ability to perform all the Work within the time specified, including among others, delays caused by bad weather and other possible delays caused by the industrial conditions prevailing in this locality, and after consideration of these factors, he has made an allowance for such factors before agreeing to the completion date specified in the Contract Documents, and does, further, agree that all things considered, such completion date is a reasonable time for completion of all Work to be performed hereunder, without the need for any extension of time or any other reasons than those specified below.

8.4.3 Completion time shall not be extended for normal bad weather. The following bad weather days per month shall be anticipated and included in the contractual time period given for project completion. The Design/Builder's request for additional time shall only be granted for days beyond those listed below for which work was actually significantly impeded or precluded by bad weather. The burden of proof and documentation for such request for additional time beyond the days shown below shall rest solely with the Design/Builder. Documentation must clearly show the additional weather days are historically unique to the area. No change in Contract Sum will be granted by the County for adjustments to the Contract Time due to weather.

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	2 days
November	5 days
December	9 days

8.4.3.1 Requests for time extensions for delays due to severe weather shall normally not be processed until after the building is enclosed (as applicable).

8.4.3.2 Only those days lost in excess of the cumulative allowable number of bad weather calendar days, according to the schedule above, will be considered.

8.4.3.3 Time extensions for time losses due to severe weather conditions will not be

considered in fractions of less than one-half (1/2) day.

8.4.4 It is further agreed that time is of the essence of each and every portion of this Contract wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any of the Work, the new time limit fixed by such extension shall be of the essence of this Contract.

8.4.5 The County, Program/Construction Manager shall not be responsible or liable to the Design/Builder for compensation, damages, expenses or any other costs as a result of, or due to any delays, impact and/or acceleration.

8.4.6 In no event shall delay damages be due resulting from the Design/Builder's submittal of a schedule indicating early completion of the Work, regardless of whether such schedule is acknowledged or approved by the Construction Manager, which is then followed by the Design/Builder's subsequent completion of the Work on a later date but still within the Contract Time, regardless of cause.

8.4.7 If the Design/Builder is delayed at any time in the progress of the Work by any of the following causes, or by any other cause which the Construction Manager determines may cause the delay, then the Contract Time may be extended, without cost as a no cost change order, for such time as the Construction Manager may determine when the delay in completion of work is due:

8.4.7.1 to any preference, priority or allocation order duly issued by Government or the County.

8.4.7.2 to unforeseeable cause beyond the control and without the fault or negligence of the Design/Builder, restricted to acts of God, or of the public enemy, acts of another Design/Builder in the performance of the Contract with the County, fire, floods, epidemics, quarantine restrictions, strikes or labor disputes, freight embargoes or other unusual delays in transportation, and unusually severe weather in excess of normal weather losses allowed in Subparagraph 8.4.3 above.

8.4.7.3 to review of the Design/Builder's design submissions by the County beyond the milestones provided in Subparagraph 8.2.1 above.

8.4.7.4 to any delays of subcontractors or suppliers occasioned by any of the causes specified except that delays occasioned by the failure of the Design/Builder, subcontractors, or suppliers to issue purchase orders with sufficient lead time to assure delivery by the date needed, and production line schedule delays of the product manufacturer, shall not be considered grounds for a time extension.

8.4.8 Provided further, that the Design/Builder shall, **within ten (10) days** from the beginning of such delay notify the County through the Construction Manager as agent for the County, in writing, of the causes of the delay for each delay caused by reasons other than the weather, and provide whatever supporting or substantiating information required by the Construction Manager. The Construction Manager shall, where possible, ascertain the facts and extent of the delay or delays for time extension, other than those caused by weather, filed by the Design/Builder and report his findings and recommendations to the County no less frequently than monthly. If the Construction Manager recommends a time extension, it shall be documented in a no cost change order. In cases where a time extension is filed, except those that are of a continuing nature and extend beyond the normal monthly reporting period stated herein, the Construction Manager shall ascertain the facts and render its recommendation **within thirty (30) days** of the receipt of the final data relating to the time extension.

8.4.9 If no agreement is made stating the dates upon which interpretations as provided in Subparagraph 2.2.7 of this Agreement shall be furnished, then no time extension for delay shall be allowed on account of failure to furnish such interpretations **until fifteen (15) days** after written request is made for them, and not then unless need for such time extension is clearly demonstrated to the Construction Manager, and that such request for interpretation shall have been made **prior to thirty (30) days** having elapsed since the receipt of the Notice to Proceed.

****

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

9.1.1 The County shall pay the Design/Builder for the performance of the Work, subject to additions and deductions by Change Order as provided in the Contract Documents, a Contract Sum not to exceed the following amount:

{Insert Contract Value}
(in numbers)

{Insert Contract Value}
(in words)

The Contract Sum is determined as follows:

A. Summary of Fixed Design/Build Cost	
Section 1 Design Costs	**$** {Insert Cost)
Section 2 Design Costs	**$** {Insert Cost)
Section 3 Design Costs	**$** {Insert Cost)
B. Construction Costs	**$** {Insert Cost)
C. Allowances	**$ 495,000.00**
TOTAL BASE CONTRACT AMOUNT. (A+B+C)	$**{Insert Contract Value}**

9.1.1.1 UNIT PRICES

The unit prices are as provided for in Section 6 Price Proposal Form; as offered by the Design/Builder in its proposal, and are incorporated into the Contract. These unit prices shall be used to determine equitable adjustments to the Contract Sum in connection with changes or additional work performed under the Contract. Detailed descriptions of these unit prices are found in Section 01150 of the Technical Specifications; refer to section 01010 for a description of the Summary of Work.

9.1.2 The Contract Sum as stated herein, including authorized adjustments thereto by Change Order as provided in the Contract Documents, is the total amount payable by the County to the Design/Builder for the performance of the Work under the Contract Documents.

9.2 SCHEDULE OF VALUES

9.2.1 Before the first Application for Payment, the Design/Builder shall submit to the Construction Manager a Schedule of Values allocated to the various portions of the Work (including costs for design and other professional services), prepared in such form and supported by such data to substantiate its accuracy as the Construction Manager may require, and as is further defined in the General Requirements. This schedule, as approved by the Construction Manager, shall be used as the basis for the Design/Builder's Applications for Payment.

9.3 PAYMENTS

9.3.1 After the Construction Manager has issued a Certificate for Payment as described in Paragraph 9.5 below, the County shall, subject to the provisions of this Article and the General Requirements, pay the Design/Builder ninety (90) percent of the portion of the Contract Sum properly allocable to professional services, labor, materials, and equipment incorporated in the Work, suitably stored at the site or at some other location agreed upon in writing by the parties as of the date the Application for Payment is submitted to the Construction Manager, less the aggregate of previous payments in each case, and less the aggregate of accrued and projected liquidated damages, as stipulated in Subparagraph 8.3.2.

9.3.2 No certification of an Application for Payment by the Construction Manager, any payment, or any partial or entire use or occupancy of the Project by the County, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

9.3.3 Neither the Owner, Program/Construction Manager shall have any obligation to pay or to see to the payment of any monies to any subcontractor or subconsultant except as may otherwise be required by law.

9.3.4 The Design/Builder hereto expressly agrees that the payment provisions within this Article 9 shall supersede the rates of interest, payment periods, and contract and subcontract terms provide for under the Georgia Prompt Pay Act, O.C.G.A. 13-11-1 et seq., pursuant to 13-11-7(b), and 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.

9.3.5 The Design/Builder shall promptly pay each subcontractor and subconsultant upon receipt of payment from the County, out of the amount paid to the Design/Builder on account of such subcontractors or subconsultant's Work, the amount to which said subcontractor or subconsultant is entitled, reflecting the percentage actually retained, if any, from payments to the Design/Builder on account of such subcontractor's or subconsultant's Work. The Design/Builder shall, by an appropriate agreement with each subcontractor and subconsultant, require each subcontractor and subconsultant to make payments to their sub-subcontractors and sub-subconsultants in a similar manner.

9.3.6 The County reserves the right to inquire of the Design/Builder's subcontractors, subconsultants, and suppliers directly or indirectly, to determine the current status of indebtedness. Should undisputed amounts be owed to any such subcontractors, subconsultants, or suppliers, and upon seven (7) days written notice to the Design/Builder, the County may make checks payable jointly to the Design/Builder and the subcontractor, subconsultant, or supplier, or directly to the subcontractor, subconsultant, or supplier for the account of the Design/Builder in such amount. Payment to the Design/Builder or for its account shall not be deemed to be an admission or approval by the County of the sufficiency of the Work covered by such payment.

9.3.7 The Owner reserves the right to require the Design/Builder to designate on each check for payment exceeding four hundred dollars ($400.00) to material suppliers, subcontractor, subconsultants, or others that such payment is on account of the Work covered under this Contract.

9.4 APPLICATIONS FOR PAYMENT

9.4.1 Applications for Payment shall be submitted no more frequently than monthly to the Construction Manager. Each Application for Payment shall be supported by such data substantiating the Design/Builder's right to payment as the Construction Manager or the County may require, and reflecting retainage, if any, as provided for in the Contract

Documents. The Construction Manager will review the Application for Payment, determine the amount to be recommended for payment by the County, and shall certify its recommendation and forward a Certificate for Payment to the County for review and processing. Further provisions are contained in the General Requirements. Reference Section 01 025 of the Technical Specifications for procedural details.

9.4.2 The Design/Builder warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the County either by incorporation in the construction or upon receipt of payment by the Design/Builder, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in the Contract as "liens"; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Design/Builder, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Design/Builder on such other person.

9.4.3 Unless otherwise provided in the Contract Documents, payments will be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the Project site, and, if approved in advance by the County, payments may similarly be made for materials or equipment suitably stored at some other location agreed upon in writing. Payments for materials or equipment stored on or off the Project site shall be conditioned upon submission by the Design/Builder of bills of sale or other such procedures satisfactory to the County to establish the County's title to such materials or equipment or otherwise protect the County's interest, including applicable insurance and transportation to the Project site for those materials and equipment stored off of the Project site. Reference Section 01 025 of the Technical specifications for detailed instructions.

9.5 CERTIFICATES FOR PAYMENT

9.5.1 The Construction Manager will, with reasonable promptness upon receipt of the Design/Builder's Application for Payment, review the Application for Payment and either issue a Certificate for Payment to the County with a copy for distribution to the Design/Builder for such amounts as the Construction Manager determines are properly due, or notify the Design/Builder in writing of the reasons for withholding a Certificate for Payment as provided in Subparagraph 9.6.1.

9.5.2 By issuing a Certificate for Payment, it shall not thereby be deemed to be represented that the Construction Manager has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, has reviewed the construction means, methods, techniques, sequences or procedures, or has made any examination to ascertain how or for what purpose the Design/Builder has used any monies previously paid on account of the Contract Sum.

9.6 PAYMENTS WITHHELD

9.6.1 The Construction Manager may decline to certify payment, and may withhold a certification for payment in whole or in part to the extent necessary to reasonably protect the County, if in the Construction Manager's opinion, the Construction Manager is unable to make representations as to the accuracy of the Application for Payment to reflect the current status of the Work. If the Design/Builder and the Construction Manager cannot agree on a revised amount, the Construction Manager shall promptly issue a Certificate for Payment for the amount for which the Construction Manager is able to make such representations. The Construction Manager may also decline to certify payment or, because of subsequently discovered evidence or subsequent observations, the Construction Manager may nullify the whole or any part of any Certificate for Payment previously issued to such extent as may be necessary, in the Construction Manager's opinion, to protect the County from loss for several reasons including, but not limited to:

9.6.1.1 defective Work not remedied.

9.6.1.2 third party claims filed or reasonable evidence indicating probable filing of such claims.

9.6.1.3 failure of the Design/Builder to make payments properly to subcontractors or subconsultants, or for labor, materials or equipment.

9.6.1.4 reasonable belief that the Work cannot be completed for the unpaid balance of the Contract Sum for the line items under discussion.

9.6.1.5 damage to the County or another Design/Builder.

9.6.1.6 reasonable evidence that the Work will not be completed within the Contract Time; or

9.6.1.7 persistent or repeated failure to carry out the Work in accordance with the Contract Documents or written direction provided by the Construction Manager.

9.6.1.8 accrued liquidated damages, as stipulated in Subparagraph 8.3.2.

9.6.2 When the grounds above are removed, payment shall be made for amounts withheld.

9.7 SUBSTANTIAL COMPLETION

9.7.1 When the Design/Builder considers that the Work, or a designated portion thereof which is acceptable to the County, is substantially complete, the Design/Builder, including the Design/Builder's architects and engineers, shall prepare for the Construction Manager a list of items to be completed or corrected. The Design/Builder shall proceed to complete and correct items on the list. The failure to include any items on such list does not alter the responsibility of the Design/Builder to complete all Work in accordance with the Contract Documents.

9.7.2 Upon receipt of the Design/Builder's list of items to be completed or corrected, the Construction Manager, in conjunction with the County and/or the Program Manager, shall make an inspection to determine that the Work or designated portion thereof is substantially complete. When the Construction Manager, on the basis of inspection and consultation with the County and/or the Program Manager, determines that the Work or designated portion thereof is substantially complete, the Construction Manager will then prepare a Certificate of Substantial Completion of the Work, on the latest version of *AIA Document G704/CMa, Certificate of Substantial Completion – Construction Manager-Advisor Edition*, which shall establish the Date of Substantial Completion of the Work, shall state the responsibilities of the County and the Design/Builder for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Design/Builder shall complete the items listed therein as incomplete or requiring correction. The Certificate of Substantial Completion shall be submitted to the County, the Construction Manager, and the Design/Builder for their written acceptance of the responsibilities assigned to them in such Certificate.

9.7.3 At no time shall a certification of Substantial Completion be considered for issuance unless a Certificate of Occupancy has been approved and received.

9.7.4 Prior to and as a condition of the Construction Manager issuing a Certificate of Substantial Completion, all Project Closeout Documents including, but not limited to project record documents (as-builts), operation and maintenance manuals, warranties and other

documents, shall have been submitted to the Construction Manager for review and approval.

9.7.5 Warranties required by the Contract Documents shall commence on the Date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion of the Work or designated portion thereof. Warranties for Work that is not accepted by the County shall commence on a date when the Work is finally accepted by the County.

9.7.6 Reference Section 01 700 of the Technical specifications for additional procedural details regarding Substantial Completion.

9.8 FINAL COMPLETION AND FINAL PAYMENT

9.8.1 Following issuance of the approved Certificate of Substantial Completion of the Work or designated portion thereof, and the Design/Builder's final completion of the Work, the Design/Builder shall forward to the Construction Manager a written notice that the Work is ready for final inspection and acceptance, and shall also forward to the Construction Manager a final Application for Payment. The written notice shall include signatures of the Design/Builder's Architects and Engineers of Record. The Construction Manager, in conjunction with the County and/or the Program Manager, shall make such inspections and, when the Construction Manager finds the Work acceptable and fully performed, the Construction Manager shall certify the final Application for Payment, which will approve the final payment due the Design/Builder. This approval shall constitute a representation that, to the best of the Construction Manager's knowledge, information and belief, and on the basis of observations and inspections, the Work has been completed in accordance with the Terms and Conditions of the Contract Documents and that the entire balance found to be due the Design/Builder, and noted in said certified final Application for Payment, is due and payable.

9.8.2 Final payment, including all remaining retainage, and less accrued liquidated damages as stipulated in Subparagraph 8.3.2, shall not become due until the Design/Builder submits to the Construction Manager,

9.8.2.1 An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the County or the County's property might in any way be responsible, have been paid or otherwise satisfied (*AIA Document G706, Design/Builder's Affidavit of Payment of Debts and Claims*, latest version),

9.8.2.2 Consent of Surety to Final Payment (*AIA Document G707*, latest version), and

9.8.2.3 Other data establishing payment or satisfaction of all such obligations, including receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the County (including, but not limited to*, AIA Document G706A, Design/Builder's Affidavit of Release of Liens*, latest version).

If any subcontractor or subconsultant refuses to furnish a release or waiver required by the County, the Design/Builder may furnish a bond satisfactory to the County to indemnify the County against any such lien. If any such lien remains unsatisfied after all payments are made, the Design/Builder shall refund to the County all monies that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.8.2.4 All final Project Closeout Documents including, but not limited to project record documents (as-builts), operation and maintenance manuals, warranty manuals and

other documents, shall have been finalized and re-submitted to the County for review and final approval and acceptance.

9.8.2.5 A final Contract amendment has been executed to reduce the contract price by the amount of the accrued liquidated damages, if any, as stipulated in Subparagraph 8.3.2.

Reference Section 01 700 of the Technical Specifications for additional procedural details regarding Final Completion.

9.8.3 The making of final payment shall, after the Date of Substantial Completion, constitute a waiver of all claims by the County except those arising from:

9.8.3.1 unsettled liens;

9.8.3.2 faulty or defective Work appearing after Substantial Completion of the Work;

9.8.3.3 failure of the Work to comply with the requirements of the Contract Documents;

9.8.3.4 terms of any special warranties required by the Contract Documents.

9.8.4 The acceptance of final payment shall, after the Date of Substantial Completion of the Work, constitute a waiver by the Design/Builder of all claims except those previously made in writing and identified by the Design/Builder as unsettled at the time of the final Application for Payment.

9.8.5 All provisions of this Agreement, including without limitation those establishing obligations and procedures, shall remain in full force and effect notwithstanding the making or acceptance of final payment prior to the Date of Substantial Completion of the Work.

****

ARTICLE 10

SAFETY

10. DESIGN BUILDER'S SAFETY, HEALTH AND LOSS PREVENTION PROGRAM

10.1.1 The Design/Builder 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 subcontractors must either implement their own program that meets these requirements or follow the Design/Builder's safety, health and loss prevention process and/or employee substance abuse program.

10.1.2 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 Design/Builder Safety and Health Management Process which is attached hereto and incorporated herein.

10.1.3 Within ten (10) business days of receipt of the Notice of Award (NOA), the Design/Builder shall submit in writing to the Construction Manager, the Design/Builder's written Safety, Health and Loss Prevention Process and/or Program and Employee Substance Abuse Program and those of subcontractors 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, a meeting will be held with the general Design/Builder/design/builder and all subcontractors to review the safety, health and loss prevention process and/or program requirements, submittals to be provided by the Design/Builder, OCIP requirements and procedures, and the OCIP accident prevention process.

These program submittals must be reviewed and accepted by the Construction Manager and/or the OCIP Program Administrator as meeting or exceeding safety, health, and loss prevention process and/or program requirements. A notice to Proceed (NTP) with the work will not be issued until these submittals have been accepted.

10.2 DESIGNATION OF SAFETY REPRESENTATIVE

10.2.1 The Design/Builder 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 Design/Builder's Project Manager and/or Superintendent. SubContractors must also designate a similar employee responsible for safety and health. The subcontrctors safety designee will coordinate safety activities with the general Design/Builder's safety designee.

For projects with significant risk or hazard potential or for any project for which the Design/Builder and its subcontractors of any tier have 50 total employees or greater on site, Design/Builder 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 subcontractor.

10.3 FULTON COUNTY'S SAFETY, HEALTH, AND LOSS PREVENTION PROCESS GUIDELINES AND REQUIREMENTS

10.3.1 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 Design/Builder. The Design/Builder 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 Design/Builder 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 Design/Builder.

10.4 COMPLIANCE OF WORK, EQUIPMENT, AND PROCEDURES WITH ALL APPLICABLE LAWS and REGULATIONS

10.4.1 All Work, whether performed by the Design/Builder or its SubContractors 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:

(a) 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.

(b) 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.

10.5 PROTECTION OF THE WORK

10.5.1 The Design/Builder 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.

10.5.2 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 Design/Builder 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 Design/Builder by this Agreement.

10.6 SAFETY EQUIPMENT

10.6.1 The Design/Builder 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 Design/Builder shall promptly comply with the Safety Program or Substance Abuse Program and all such orders.

10.7 EMERGENCIES

10.7.1 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 Design/Builder 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.

10.7.2 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 10.7.1 above against any sums then or thereafter due to the Design/Builder. The Design/Builder shall defend, indemnify and hold the County, its officers, agents, employees and the O.C.I.P. Administrator harmless against any and all costs or expenses pursuant to Section 10.7.1, by whomsoever incurred. If the Design/Builder 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 Design/Builder or its SubContractors, such additional compensation or extension of time shall be determined in accordance with Section 8 and Section 12 of this Agreement.

10.8 SUSPENSION OF THE WORK

10.8.1 Should, in the judgment of the County, its insurance representative, or its agent, the Design/Builder fail to provide a safe area for the performance of the Work or any portion thereof, the County, its insurance representative, or its agent(s) shall have the right but not the obligation, to suspend work n the unsafe area."

10.8.2 Should the Design/Builder or any subcontractor fail to provide a safety 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.

10.9 DESIGN/BUILDER'S INDEMNITY OF THE COUNTY FOR DESIGN/BUILDER'S NON-COMPLIANCE WITH SAFETY PROGRAM

10.9.1 The Design/Builder recognizes that it has sole responsibility to assure its Safety Program is implemented and to assure its construction services are safely provided. The Design/Builder 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 Design/Builder, its SubContractors 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 Design/Builder 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 O.C.I.P. Administrator shall not assume, nor be deemed to have assumed, any responsibilities otherwise imposed upon the Design/Builder by this Agreement, by virtue of providing the Safety Program Guidelines.

10.9.2 The Design/Builder shall not raise, as a defense to its obligation to indemnify under this Subparagraph 10.9 any failure of those indemnified hereunder to assure Design/Builder operates safely, it being understood and agreed that no such failure shall relieve the Design/Builder from its obligation to assure safe operations or from its obligation to so indemnify. The Design/Builder also hereby waives any rights it may have to seek contribution, either directly or indirectly, from those indemnified hereunder.

10.9.3 In any and all claims against those indemnified hereunder by any employee of the Design/Builder, any SubContractor 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 10.9 shall not be limited in any way as to the amount or type of damages, compensation or benefits payable by or for the Design/Builder or any SubContractor of any tier under any workers' compensation act, disability benefit or other employee benefit acts.

****

ARTICLE 11

INSURANCE

11.1 OWNER-CONTROLLED INSURANCE PROGRAM

11.1.1 INTRODUCTION

Fulton County has implemented an Owner-Controlled Insurance Program ("OCIP") that covers this Project. Certain relevant provisions of the County's OCIP are outlined below. This OCIP does not affect Fulton County Government's statutory immunity. Under the OCIP, the County shall **furnish certain portions** of the Workers' Compensation, General Liability, and Builder's Risk insurance associated with the County's construction projects. Insurance furnished under the OCIP covers the County, the Design/Builder and its Sub-Contractors of all tiers (with some exceptions, as described below), and other persons or interests as the County may designate in connection with the performance of the Work. As detailed below, the **Design/Builder** still provides certain other portions of insurance coverage not included in the OCIP.

11.1.2 DEFINITIONS SPECIFIC TO THIS ARTICLE 11

11.1.2.1 "Owner-Controlled Insurance Program" (OCIP) means an insurance delivery method that assures the Design/Builder, and its Sub-Contractors of all tiers, and other persons or interests as the County may designate in connection with the performance of the work are insured for certain prescribed Statutory Workers' Compensation, Employers Liability and Commercial General Liability, and such other coverages as the County may in writing specifically add or delete for the Project.

11.1.2.2 "OCIP Administrator" means the administrator retained by the County to implement and administer the OCIP. The OCIP Administrator is Resurgens Risk Management/Willis.

11.1.2.3 The term "enrolled" applies to the entities covered under the OCIP. The Design/Builder is enrolled in the OCIP. The Design/Builder's Sub-Contractors of all tiers shall be enrolled in the OCIP, provided in general that they are performing construction work at the Project site and that the work being performed is not temporary to the project and is an elemental component of the completed project. The Design/Builder shall assure that all enrolled Sub-Contractors of all tiers satisfy all safety program obligations, claim management and applicable insurance requirements relative to the OCIP. The Design/Builder understands that all Design/Builder obligations set forth in the County's OCIP, whether performed directly by the Design/Builder obligations set forth in the County's OCIP, whether performed directly by the Design/Builder or indirectly by its enrolled Sub-Contractors, are the responsibility of the Design/Builder. Whenever this Agreement establishes obligations for Design/Builder with respect to the OCIP, it shall also be deemed to establish obligations for enrolled Sub-Contractors. Certain exceptions apply to enrolled entities, as described below.

11.1.2.4 The term "non-enrolled" applies to the entities not covered under the OCIP. In general vendors, suppliers, fabricators, material dealers, drivers and others who merely transport, pick up, deliver or carry materials, personnel, parts or equipment or any other items or persons to or form the Project site shall be considered non-enrolled entities for the

purpose of insurance coverage under the County's OCIP. This non-enrolled OCIP Design/Builder status also applies to those Design/Builders whose only work is temporary to the site and are not involved in any project construction that is part of the work on the finished project. The Design/Builder shall assure that all non-enrolled Sub-Contractors of all tiers satisfy all safety program obligations, claim management and applicable insurance requirements relative to the OCIP.

11.1.2.5 "Agent" means the Fulton County's designated Representative, as defined within this Agreement. For purposes of the OCIP, the County's designated Representative shall serve as the County's primary contact for communication with the Design/Builder related to the OCIP.

11.1.3 INSURANCE OBLIGATIONS OF THE COUNTY AND DESIGN/BUILDER

11.1.3.1 INSURANCE PROVIDED BY THE COUNTY UNDER ITS OCIP.

(a) The County shall secure and thereafter maintain, except as otherwise provided herein, the insurance coverages described in Subparagraphs 11.1.3.2, 11.1.3.3, and 11.1.3.4 below, covering as insured parties the County, the Design/Builder and its Sub-Contractors of all tiers (except as detailed below), and such other persons or interests as the County may designate in connection with the performance of the Work, and with limits not less than those specified for each coverage ("OCIP insurance coverage").

(b) No insurance coverage provided by the County's OCIP shall extend to the activities or products of the following:

(i) Any person and/or organization that fabricates and/or manufactures products, materials, and/or supplies away from the Project site(s).

(ii) Any non-enrolled architect, engineer or surveyor and their consultants except where required by the Contract Documents.

(iii) Truckers, material-delivery, vendors, suppliers, and operators (as independent Design/Builders), whose operation(s) and/or employee(s) is/are engaged solely in the loading, hauling and/or unloading of material, supplies and/or equipment to or from the Project site(s).

(iv) Any employee(s) of the Design/Builder or an enrolled or non-enrolled Sub-Design/Builder of any tier, including employee(s) of truckers, material-delivery, vendors, suppliers, and operators (as independent Design/Builders), which is/are engaged solely in the loading, hauling and/or unloading of material, supplies and/or equipment to or from the Project site(s).

(v) Any employee(s) of the Design/Builder or an enrolled Sub-Design/Builder of any tier that does not work and/or generate payroll at the Project site(s).

(vi) Any employee(s) of the Design/Builder or an enrolled Sub-Design/Builder of any tier, not specifically required to perform Work at the Project site(s), that occasionally visits the Project site(s) to make deliveries, pick up supplies and/or personnel, to perform supervisory and/or progress inspections, or for any other

reason.

(viii) Any other entity specifically to be determined by the County to be excluded.

(viii) Any leased or temporary laborers.

(c) Unless herein otherwise specifically indicated, the policies set forth in Subparagraphs 11.1.3.2, 11.1.3.3 and 11.1.3.4 below shall cover only those operations of the insured parties performed at the Project site or sites incidental to the Work called for in this Owner-Design/Builder Agreement.

(d) The County assumes no obligation to provide insurance other than that evidenced by the policies referred to in Subparagraphs 11.1.3.2, 11.1.3.3 and 11.1.3.4. Furthermore, any obligation of the County to provide insurance under its OCIP is expressly limited to the insurance referred to in Subparagraphs 11.1.3.2, 11.1.3.3 and 11.1.3.4. The County, however, reserves the right to furnish insurance coverage of various types and limits, provided that such coverage shall not be less than that specified below (so long as such insurance and limits are reasonably available in the insurance market) and provided that the costs of such insurance shall be borne by the County.

11.1.3.2 WORKERS' COMPENSATION INSURANCE

Workers' Compensation insurance in statutory limits of the Workers' Compensation laws of the State of Georgia, with Coverage B - Employer's Liability, to limits of not less than one million dollars ($1,000,000) covering operations of the insured parties at the Project site. Coverage under the Broad Form All States extension is also included. This insurance is primary for all occurrences at the Project site.

11.1.3.3 LIABILITY INSURANCE (EXCLUDING MOTOR VEHICLE LIABILITY)

(d) Liability insurance (excluding Motor Vehicle Liability) under a Commercial General Liability insurance policy and covering the insured parties in connection with the performance of the Work at the Project site, including hazards of operations (explosion, collapse and underground exposures), independent Design/Builders, employees as additional insureds, completed operations (for 5 years after final completion of the Work), contractual liability coverage (for contracts related to the Work), personal injury liability coverage, and excess Employer's Liability coverage for claims arising out of the Work hereunder, for personal injury, bodily injury, and property damage, in policies of insurance such that the total available limits to all insureds combined will not be less than twenty-five million dollars ($25,000,000) combined single limits for each occurrence and aggregates, as applicable.

(e) Notwithstanding the actual policy deductible, the Design/Builder shall be liable for a deductible not to exceed five thousand dollars ($5,000) each occurrence, to the extent losses payable are attributable to, involve, or relate to the performance, actions, errors, omissions, or negligence of the Design/Builder or its Sub-Contractors, uninsured parties, or any other entity or person for whom it may be responsible. The Design/Builder's deductible shall include the costs of defense, including court costs and attorneys' fees of a covered OCIP claim and shall not be construed to affect the

Design/Builder rights to indemnify the County under the contract. All such deductibles shall be collected as part of the Contract close-out process and final payment.

(f) The insurance provided under the OCIP will not extend coverage for products liability to any insured party or uninsured party. However, Products/Completed Operations liability arising from manufacturing or assembly of items manufactured or assembled at the Project site, as required by the contract, is covered.

11.1.3.4 ALL RISK BUILDER'S RISK, INCLUDING TRANSIT

(h) All Risk Builder's Risk, including transit and installation risks, insuring the interest of the County, the Design/Builder and its Sub-Contractors, providing coverage on an All Risk basis, including, but not limited to, coverage against flood, fire, lightning, wind damage, hail, explosion, riot or civil commotion, aircraft and other vehicles, and collapse.

(i) The policies for such insurance will be secured and maintained by the County in a form and amount as determined by Fulton County. The amount may be amended depending on the amount of a specific project.

(j) Coverage will include materials, supplies and equipment that are intended for specific installation in the Work while such materials, supplies and equipment are located at the Project site, in transit or while temporarily located away from the Project site for the purpose of repair, adjustment or storage at the risk of one of the insured parties.

(k) Except as otherwise provided in Subparagraph 11.1.3.4(c), this insurance will not include coverage for tools or clothing of workers, or tools, equipment, protective fencing, scaffolding, temporary structures, coffer damming, pipe stulling or bracing, or forms owned, rented or used by the Design/Builder, its Sub-Contractors, or uninsured parties and used in the performance of the Work, unless such items are specifically identified in this Agreement and their values declared under the Builder's Risk insurance policy.

(l) The County, its officers, agents, employees and consultants rendering services at the Project site, and the OCIP Administrator will not be liable or responsible for loss or damage to the items excluded in Subparagraph 111.3.4(d), and the Design/Builder shall indemnify and hold harmless the County, its officers, agents, employees, its consultants rendering services at the Project site, the OCIP Administrator, and other Project Design/Builders and their Sub-Contractors from claims or causes of action brought by any person or parties as a result of loss or damage to such excluded items.

(m) The Builder's Risk policy will be endorsed waiving the carrier's rights of recovery under subrogation against the County, its officers, agents, employees and consultants rendering services at the Project site, the OCIP Administrator, and the Design/Builder and its Sub-Contractors, whose respective interests are insured under such policy.

(n) Notwithstanding the actual policy deductible, the Design/Builder shall be liable for a deductible not to exceed five thousand dollars ($5,000) each occurrence for all perils excluding theft and mysterious disappearance, and twenty-five thousand dollars ($25,000) each occurrence for theft and mysterious disappearance. All such

deductibles shall be collected as part of the Contract close-out process and final payment.

11.1.3.5 DESIGN/BUILDER RETAINS VARIOUS OBLIGATIONS

Nothing contained herein, or in any document referenced herein, shall relieve, limit or be construed to relieve or limit the Design/Builder, its Sub-Contractors or uninsured parties of responsibility or obligations otherwise imposed by the Contract. The OCIP shall not be construed as limiting, among other things:

(a) The extent to which the Design/Builder may be held legally responsible for damages to persons or property.

(b) The Design/Builder's indemnity obligations under this Agreement.

11.1.3.6 DESIGN/BUILDER RESPONSIBILITY TO REPAIR DEFECTIVE OR DAMAGED WORK

(a) Notwithstanding the provisions of this Agreement, and until final acceptance of the Work by the County, the Design/Builder shall have full and complete charge and care of the Work or any portion thereof (including the Owner-furnished supplies, material, equipment or other items to be utilized or incorporated in the Work).

(b) The Design/Builder shall rebuild, repair, restore and make good losses of, and injuries or damages to, the Work or any portion thereof (including the Owner-furnished supplies, material, equipment or other items to be utilized with, or incorporated in, the Work and which are in the Project site) before final acceptance of the Work. Such rebuilding, repair or restoration shall be at the Design/Builder's sole cost and expense provided, however, the County will make available applicable proceeds from the Builder's Risk policy provided by the County, as specified in Section 11.1.3.4.

11.1.3.7 ADDITIONAL INSURED

The Additional Insured on the County's OCIP policies shall include Fulton County; the County's officers, agents, employees, and consultants; the OCIP Administrator; and Design/Builders, including their Sub-Contractors of any tier (but excluding suppliers, vendors, material-delivery, truckers or haulers) whom Fulton County has contracted with and for whom the County has agreed to furnish coverage under the OCIP.

11.1.3.8 OWNER'S RIGHT TO AUDIT

(a) The Design/Builder hereby warrants to the County the accuracy of the information provided on the OCIP Insurance Information Form submitted with its Proposal, and agrees that the County, its officers, agents, insurance carriers and the OCIP Administrator may audit the records of the Design/Builder and its Sub-Contractors to confirm the accuracy of the information provided, including, but not limited to, the accuracy of all estimated payrolls, and to ascertain any effect on insurance resulting from changes in the Work. The audit will be held during the Design/Builder's normal business hours at the office of the Design/Builder or at another mutually agreeable location.

(b) The County shall be entitled to credits in OCIP insurance premiums that may accrue as a result of the audit.

(c) The Design/Builder shall maintain or cause to be maintained sufficient records as may be necessary to audit its compliance and its Sub-Contractors' compliance with the requirements of the OCIP.

11.1.3.9 ASSIGNMENT

The Design/Builder and each of its Sub-Contractors of any tier shall assign to the County all return premiums, premium refunds, dividends and other monies due or to become due in connection with the insurance provided by the County. The Design/Builder and its Sub-Contractors of any tier shall execute such other further documentation as may be required by the County to effectuate this assignment.

11.1.3.10 OCIP CLAIMS

The Design/Builder, its Sub-Contractors and uninsured parties shall assist the County, its agents, and the OCIP Administrator and provide the utmost cooperation in the adjustment of claims arising out of the operations conducted under, or in connection with, the Work and shall cooperate with the County's insurance carriers in claims and demands that arise out of the Work and that the insurance carriers are called upon to adjust or resist.

11.1.3.11 LIMITATIONS ON OCIP COVERAGES

Although the scope of coverages afforded under this program may provide coverage beyond the scope required by the Owner-Design/Builder Agreement in the absence of an OCIP, the County makes no warranty or representation that such broad coverage will remain in effect throughout the duration of the Work. The County further does not warrant or represent that the OCIP coverages constitute an insurance portfolio, which adequately addresses all the risk faced by the Design/Builder or its Sub-Design/Builder(s). The Design/Builder and Sub-Contractors of every tier shall satisfy themselves as to the existence, extent and adequacy of the OCIP coverages prior to the commencement of the Work. The cost to obtain any “extra” coverages shall be the responsibility of the Design/Builder. The County shall not assume any responsibility for the premium cost of any “extra” insurance. The County shall issue Certificates of Insurance and make available copies of specimen insurance policies at the time of the Notice to Proceed.

11.1.3.12 ALTERNATIVE INSURANCE

In the event the County, after commencement of the Work, is unable to furnish, or elects not to furnish or to continue to furnish, the insurance coverage herein described, and upon 30 days written notice from the County, the following shall be required:

(a) The Design/Builder shall secure and maintain all, or as much of the insurance herein described, as the County designates, at the County's expense, and the County will thereafter no longer be obligated to furnish such insurance.

(b) All insurance secured by the Design/Builder or its Sub-Contractors pursuant to this subparagraph shall be in policies subject to the prior written approval of the County as to form, content, limits of liability, cost and issuing company as outlined in the Base

Price Proposal version of this Article 11, i.e., as if the OCIP had not been implemented for the Project.

11.1.3.13 PROCEDURES AND SERVICES

The Design/Builder shall fully comply with, and shall require its Sub-Contractors of any tier to fully comply with, all of said plans, procedures and services, including but not limited to, completion of all necessary applications for coverage, prompt and full compliance with all audit requests and claim reporting procedures, and full compliance with the safety, loss prevention and loss control programs implemented by, or at the request of the County.

11.1.3.14 INSURANCE NECESSARY FOR THE WORK, BUT COVERING OPERATIONS OUTSIDE THE OCIP

(a) The Design/Builder shall, for the duration of this Agreement, provide and maintain insurance and shall require each Sub-Design/Builder to provide and maintain insurance of the type and in the limits as described in Paragraph 11.2, which is intended to cover employee injury, personal injury, bodily injury and property damage liability for ongoing operations work performed away from the Project site.

(b) The insurance described in Subparagraphs 11.2.1.2.B (Motor Vehicle Liability) and 11.2.1.2.D (Professional Liability) shall apply to Work performed by both enrolled and non-enrolled entities both at and away from the Project site, and shall be provided and maintained for the duration of this Agreement. Such insurance shall name the parties required to secure same as insureds and shall be in a form and through issuing companies acceptable to the County. Such insurance shall contain a defense of suits provision.

(c) The Design/Builder shall assure that all non-enrolled entities provide and maintain, for the duration of this Agreement, insurance of the type and in the limits as described in Paragraph 11.2, which shall cover those entities for employee injury, personal injury, bodily injury, and property damage liability for any Work performed at the Project site.

11.1.3.15 DESIGN/BUILDER OCIP OBLIGATIONS

(a) The Design/Builder and each of its Sub-Contractors shall:

(i) Furnish to Fulton County's designated Representative all information and documentation that the County may require from time to time, in connection with the issuance of policies under this Agreement, in such form and substance as the OCIP Administrator may prescribe.

(ii) Furnish to the County's designated Representative monthly certified payroll and accident summary reports on forms provided by the OCIP Administrator, and payroll records, as required.

(iii) Segregate their respective reports relating to the Work for which OCIP coverage is herein provided, from their records relating to other work for which such coverage is not provided.

(iv) Promptly comply with the recommendations of the OCIP insurance carriers, as submitted through the County's designated Representative.

(b) The Design/Builder shall not violate or knowingly permit to be violated any conditions of the policies of insurance provided by the County under the terms of this Agreement, and shall at all times satisfy the requirements of the issuing insurance companies.

(c) The Design/Builder shall assure that all OCIP requirements imposed upon and to be performed by the Design/Builder shall likewise be imposed upon, assumed and performed by each of its Sub-Contractors and uninsured parties with whom it or its Sub-Contractors have a contractual relationship and are performing work under the Contract.

(d) The Design/Builder shall furnish each Proposer and negotiating Sub-Contractor, vendor, supplier, material dealer or other person or business entity that may provide goods or services in connection with the Work, a copy of this document describing the insurance requirements for the Design/Builder, and its Sub-Contractors shall require each to impose the same requirement in their subcontracting and procurement procedures.

(e) If the Design/Builder or any of its Sub-Contractors should fail to comply with the requirements of this document, the County may withhold payments due to the Design/Builder or suspend the Work until such time as the Design/Builder and its Sub-Contractors have performed such obligations to the reasonable satisfaction of the County.

(f) The Design/Builder agrees that the Contract Sum includes all costs of complying with the OCIP, as herein described.

11.1.3.16 NOTICES, COSTS AND LOSSES

(a) All policies of insurance that either the Design/Builder, its Sub-Contractors, or the County is required to secure and maintain, shall be endorsed to provide that the insurance company shall notify the County, the Design/Builder, and each Named Insured at least thirty (30) days prior to the effective date of any cancellation or modification of such policies.

(c) The Design/Builder shall furnish to the County's designated Representative certificates of insurance for insurance required to be maintained by the Design/Builder and its Sub-Contractors, as provided herein. Prior to the issuance of the Notice to Proceed, the Design/Builder shall not be permitted on the Project site.

(c) The County will pay the cost of the premiums for the insurance described above as being provided by the County, and the County will receive and pay, as the case may be, all adjustments in such costs, whether by way of dividends or otherwise. The Design/Builder shall execute such instruments of assignment as may be necessary to permit the County's receipt of such adjustments and shall cause all Sub-Contractors covered by such insurance to do the same.

(d) The Design/Builder shall be responsible for the payment of the deductible amounts indicated in Subparagraphs 11.1.3.3 and 11.1.3.4. If the actual County-provided OCIP

policies have deductible amounts greater than those indicated in Subparagraphs 11.1.3.3 and 11.1.3.4, such excess amounts will be paid by the Design/Builder.

(f) The Design/Builder shall be responsible for all losses greater than OCIP policy limits.

(f) Payments by the insurer for all losses covered under the All Risk Builder's Risk policy, as specified in Section 11.1.3.4, will be made to the County. The County will make proceeds from the Builder's Risk policy available to the Design/Builder for rebuilding work damaged by covered perils.

11.1.3.17 SUBROGATION AND WAIVER

(a) The Design/Builder shall require all policies of insurance that are related to the Work and that are secured and maintained by the Design/Builder and its Sub-Contractors to include clauses providing that each underwriter and carrier shall waive all of their respective rights of recovery, under subrogation or otherwise, against the County, its officers, agents, employees and consultants rendering services at the Project site, the OCIP Administrator, the Design/Builder and its Sub-Contractors, regardless of tier, and all other Project Design/Builders and their Sub-Contractors, regardless of tier.

(b) The Design/Builder waives all rights of recovery against its Sub-Contractors, the County, its officers, agents, employees and consultants rendering services at the Project site, the OCIP Administrator, and other Project Design/Builders and their Sub-Contractors, regardless of tier, that the Design/Builder may have or acquire because of deductible clauses in or inadequacy of limits of policies of insurance that are in any way related to the Work and that are secured and maintained by the Design/Builder.

(d) The Design/Builder shall require its Sub-Contractors of every tier to waive the rights of recovery in the same manner (as waived in the preceding paragraph by the Design/Builder) against the County, its officers, agents, employees and consultants rendering services at the Project site, the OCIP Administrator, the Design/Builder, and other Project Design/Builders and their Sub-Contractors, regardless of tier.

11.1.3.18 COVERAGE DETERMINED BY POLICY

The coverages referred to above are set forth in full in the respective policy forms, and the foregoing descriptions of such policies are not intended to be complete, or to alter or amend any provision of the actual policies, and in matters, if any, in which the said description may be conflicting with such instruments, the provisions of the policies of the insurance shall govern.

11.2 DESIGN/BUILDER’S LIABILITY INSURANCE

11.2.1 Pursuant to the exclusions of the Owner-Controlled Insurance Program (OCIP) described in Paragraph 11.1 above, the Design/Builder shall purchase and maintain during the life of this Agreement, from a company or companies licensed to do business in its agents and acceptable to the County, such insurance as shall fully protect him, the County, any other Professional Consultant or Architect or Engineer hired by the County, and any parties, consultants, or Sub-Contractors performing work covered by this Agreement from any and all claims, including those resulting from bodily injury (including accidental death), professional liability of the property damage (other than to the work itself) or personal injury which may arise or result from the Design/Builder's operations under this Agreement

which are not covered under the OCIP, whether such operations be by himself or by any Sub-Design/Builder, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

(a) Said insurance shall specifically provide coverage during the life of this Agreement to the County, its agents, any Professional Consultant or Architect or Engineer hired by the County, and any Sub-Design/Builder performing work covered by this Agreement for claims made by any persons, including the employees and parties in privity of the contract with the Design/Builder, claiming injury as a result of the performance of the Project.

(b) At a minimum, such insurance must include but not necessarily be limited to the provisions set out in Section 7 of this RFP:

(i) Worker's Compensation and Employer's Liability insurance (**for all operations away from the Project site**);

(ii) Motor Vehicle Liability insurance, covering all motor vehicles, whether owned, non-owned, or hired (**for all operations both at and away from the Project site**);

(iii) Comprehensive (or Commercial) General Liability insurance, with Broad Form Liability endorsement. Comprehensive (or Commercial) General Liability policy with Broad Form Liability endorsement shall be further endorsed naming County, Program Manager, Construction Manager, and County's Professional Consultants as additional insured (**for all operations away from the Project site**).

(v) Professional Liability insurance, specifying that the Design/Builder shall be responsible to the County for acts, errors and omissions of the Design/Builder's directors, officers, employees and parties in privity of the contract with the Design/Builder to perform a portion of the work, including their agents and employees (**for all operations both at and away from the Project site**). The Design/Builder shall require the architects and the engineers that are responsible for the design and engineering to purchase and maintain liability insurance with no less coverage than $1,000,000.00 or 10% of the construction value of the Work, whichever is greater, throughout the duration of the project and for two years following the Date of Substantial Completion.

11.2.2 The insurance required by Subparagraph 11.2.1 above shall be written for not less than the following liability limits, or greater if required by law. Evidence of such insurance shall be provided PRIOR to the day of actual work being performed (refer to OCIP Enrollment procedures provided by the OCIP Administrator for more assistance, or contact Fulton County's designated Representative.)

(a) <u>Worker's Compensation</u>

Each Accident	GA Statutory Limits
Disease – Policy Limit	$500,000
Disease – Each Employee	$500,000
Employers Liability	$1,000,000

<u>General Liability</u>

Bodily Injury/Property Damage	$1,000,000
Personal Injury	$1,000,000
General Aggregate	$2,000,000

<u>Automobile Liability</u>

Bodily Injury $1,000,000 CLS

Excess/Umbrella

As specified and required in the Contract

Professional Liability (if required by the specific Contract and Project)

Limit of $1,000,000 or 10% of Contract value, whichever is greater.

Note: The Design/Builder shall provide and shall require all Sub-Contractors performing work under this Agreement to obtain an insurance certificate showing proof of insurance coverage conforming to the above limits, and showing FULTON COUNTY GOVERNMENT as the “Certificate Holder” and “Additional Insured” without such certificate, the Design/Builder and any Sub-Contractor are considered NON-ENROLLED in OCIP, and cannot commence work.

If the bid/quotation involves construction-related services the respondent will provide “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 sub-limits of insurance and deductibles as specified in Section 7 of this RFP.

ARTICLE 12

CHANGES IN THE WORK

12.1 CHANGE ORDERS

12.1.1 A Change Order is a written order to the Design/Builder signed to show the recommendation of the Construction Manager, and 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 the latest version of *AIA Document G701/CMa, Change Order – Construction Manager-Advisor Edition*, or similar form. The Contract Sum and the Contract Time may be changed only by approved Change Order. A Change Order signed by the Design/Builder indicates the Design/Builder's agreement therewith, including the adjustment in either or both of the Contract Sum or the Contract Time.

12.1.2 The County, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions as defined in Subparagraph 1.1.1.B, the Contract Sum and the Contract Time being adjusted accordingly as determined by the Construction Manager. All such changes in the Work shall be documented by Change Order, and shall be performed under the applicable conditions of the Contract Documents. The Design/Builder shall proceed with the change to the Work as soon as the change order is approved by the County and is given notice by the Construction Manager.

12.1.3 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:

12.1.3.1 by mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;

12.1.3.2 by unit prices stated in the Contract Documents or subsequently agreed upon;

12.1.3.3 by cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or

12.1.3.4 by the method provided in Subparagraph 12.1.4 below.

12.1.4 If none of the methods set forth in Subparagraphs 12.1.3.1, 12.1.3.2 or 12.1.3.3 above is agreed upon, the Design/Builder, provided a written order signed by the County Manager and Purchasing Agent is received, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the County with assistance 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 12.1.5.1 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 12.1.5.2 and 12.1.6 below shall be applied to the cost or credit.

12.1.4.1 In such case, and also under Subparagraph 12.1.3.3 above, the Design/Builder 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.

12.1.4.2 All hourly rate charges shall be submitted to the Construction Manager for prior review and approval by the County. 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.

12.1.5 In Subparagraphs 12.1.3 and 12.1.4 above, the items included in "Cost" and "Overhead" shall be based on the following schedule:

12.1.5.1 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.

12.1.5.2 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 Design/Builder's subcontractors beyond that agreed upon in the Contract Documents, construction parking, any additional costs of craft supervision by the Design/Builder'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.

12.1.5.3 In the event that a change is issued by the Owner which would require the expenditure of substantial amounts of special supervision (beyond the foreman level) by the Design/Builder, the Design/Builder may, at the sole direction of the County, be allowed to incorporate these charges into the agreement cost for the change.

12.1.6 In Subparagraphs 12.1.3 and 12.1.4 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:

12.1.6.1 For the Design/Builder, for any work performed by the Design/Builder's own forces, <u>ten (10) percent</u> of the cost.

12.1.6.2 For the Design/Builder, for any work performed by a Design/Builder's subcontractor, <u>five (5) percent</u> of the amount due the subcontractor.

12.1.6.3 For each subcontractor or sub-subcontractor involved, for any work performed by that subcontractor's or sub-subcontractor's own forces, <u>ten (10) percent</u> of the cost.

12.1.6.4 For each subcontractor, for work performed by a sub-subcontractor, <u>five (5) percent</u> of the amount due to the sub-subcontractor.

12.1.6.5 Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 12.1.5 above unless modified otherwise.

12.1.7 In order to facilitate checking of quotations for extras or credits, all proposals,,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 12.1.4 above. Where major cost items are subcontracts, they shall be itemized also. In no case shall a change be approved without such itemization.

12.1.8 No payment shall be made for any changes to the contract that are not included in a fully executed Change Order.

12.2 CONCEALED CONDITIONS

12.2.1 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 Design/Builder complies with this (20) days notice and Subparagraph 12.3.1 below.

12.3 REQUESTS FOR ADDITIONAL COST

12.3.1 If the Design/Builder wishes to request an increase in the Contract Sum, the Design/Builder 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 Design/Builder who shall not proceed with the work without the prior approval of the County, except in an emergency endangering life or property in which case the Design/Builder shall proceed in accordance with Paragraph 10.7 of this Agreement, and Subparagraph 12.1.4 above. **No such request shall be valid unless so made within the twenty (20) days specified above**. Any change in the Contract Sum resulting from such request for equitable adjustment shall be documented by Change Order.

12.3.2 If the Design/Builder considers that additional cost is involved because of, but not limited to (1) any written interpretation pursuant to Subparagraph 2.2.7 of this Agreement, (2) any order by the County to stop the Work pursuant to Paragraph 3.3 of this Agreement where the Design/Builder 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 12.4 below, the Design/Builder shall submit a request for an increase in the Contract Sum as provided in Subparagraph 12.3.1 above. No such request shall be valid unless the Design/Builder complies with Subparagraph 12.3.1 above.

12.4 MINOR CHANGES IN THE WORK

12.4.1 The Construction Manager will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order issued by the Construction Manager, and shall be binding on the County and the Design/Builder. The Design/Builder shall carry out such written orders promptly.

****

ARTICLE 13

UNCOVERING AND CORRECTION OF WORK

13.1 UNCOVERING OF WORK

13.1.1 If any portion of the Work should be covered contrary to the request of the Construction Manager, or to requirements specifically expressed in the Contract Documents, the work must, if requested in writing, be uncovered for the Construction Manager's observation and shall be replaced at the Design/Builder's expense.

13.1.2 If any other portion of the Work has been covered which the Construction Manager has not specifically requested to observe prior to it's being covered, the Construction Manager may request to see such Work and it shall be uncovered by the Design/Builder. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be submitted to the Construction Manager. If such Work be found not in accordance with the Contract Documents, the Design/Builder shall pay such costs unless it be found that this condition was caused by the County or a separate Design/Builder as provided in Article 6 of this Agreement, in which event the County shall be responsible for the payment of the cost of uncovering and replacing the cover, and the cost of repair of any damage to the Work shall be borne by the party responsible as provided in Article 6 of this Agreement.

13.2 CORRECTION OF WORK

13.2.1 The Design/Builder shall, within seven (7) days after notice, commence correction of all Work rejected by the Construction Manager, or a Design/Builder's architect or engineer, as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion of the Work and whether or not fabricated, installed or completed. The Design/Builder shall bear all costs of correcting such rejected Work, including compensation for the Construction Manager's additional services made necessary thereby.

13.2.2 If within one (1) year after the Date of Substantial Completion of the Project or designated portion thereof, or within one year after acceptance by the County of designated equipment, or within such longer period of time as may be prescribed by law or by the terms 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 Design/Builder shall commence correction **within 14 days** after receipt of a written notice from the County to do so unless the County has previously given the Design/Builder a written acceptance of such condition. This obligation shall survive both final payment for the Work or designated portion thereof and termination of the Contract.

13.2.2.1 The warranty against defects in equipment and workmanship on all mechanical and electrical equipment and work shall be for the specified period of time of normal operation without breakdown or malfunction.

13.2.2.2 The warranty period for mechanical and electrical equipment shall begin at the Date of Substantial Completion of the Work or from the date the equipment is put into normal operation after a breakdown or malfunction that occurred after the Date of Substantial Completion of the Work, but before the date of Final Completion, whichever date is the later.

13.2.3 The Design/Builder shall remove from the site all portions of the Work which are defective or nonconforming and which have not been corrected under Subparagraphs 4.6.1, 13.2.1 and 13.2.2 of this Agreement, unless removal is waived by the County.

13.2.4 If the Design/Builder fails to correct defective or nonconforming Work as provided in Subparagraphs 4.6.1, 13.2.1, and 13.2.2 of this Agreement, the Owner may correct it in accordance with Paragraph 3.4 of this Agreement.

13.2.5 If the Design/Builder does not proceed with the correction of such defective or nonconforming Work within the time limits set herein, the Owner may remove it and may store the materials or equipment at the expense of the Design/Builder. If the Design/Builder does not pay the cost of such removal and storage within ten (10) days thereafter, the County may, upon ten (10) additional days' written notice, sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Design/Builder, including compensation for the Construction Manager's additional services made necessary thereby. If such proceeds of sale do not cover all costs which the Design/Builder should have borne, the difference shall be charged to the Design/Builder and an appropriate Change Order shall be issued. If the payments then or thereafter due the Design/Builder are not sufficient to cover such amount, the Design/Builder shall pay the difference to the County.

13.2.6 The Design/Builder shall bear the cost of making good all Work (of the County or separate Design/Builders) destroyed or damaged by correction or removal of defective work.

13.2.7 Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which the Design/Builder might have under the Contract Documents, including Paragraph 4.6 of this Agreement. The establishment of the time periods noted in Subparagraph 13.2.2 above, or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents, relates only to the specific obligation of the Design/Builder to correct the Work, and has no relationship to the time within which the Design/Builder's obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Design/Builder's liability with respect to the Design/Builder's obligations other than specifically to correct the Work.

13.3 ACCEPTANCE OF DEFECTIVE OR NONCONFORMING WORK

13.3.1 If the County prefers to accept defective or nonconforming Work, the County may do so instead of requiring its removal and correction, in which case a Change Order shall be issued to reflect a reduction in the Contract Sum where appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

****

ARTICLE 14

TERMINATION OF THE CONTRACT

14.1 TERMINATION FOR DEFAULT

14.1.1 This Contract may be terminated for default by the County upon the occurrence of any of the following events:

14.1.1.1 Persistent failure or refusal on the part of the Design/Builder to perform the Work in accordance with the Contract Documents, including, but not limited to, failure or refusal to supply enough properly skilled workers or suitable materials or equipment, or failure to adhere to the required construction scheduling responsibilities;

14.1.1.2 Insolvency or bankruptcy of the Design/Builder, whether voluntary or involuntary;

14.1.1.3 Any general assignment by the Design/Builder for the benefit of creditors, unless approved in advance by the County;

14.1.1.4 Appointment of a trustee, receiver, custodian, or agent of the Design/Builder for the benefit of creditors or for the purpose of enforcing a lien against the property of the Design/Builder;

14.1.1.5 Written admission by the Design/Builder of its inability to pay its debts generally as they become due;

14.1.1.6 Disregard on the part of the Design/Builder of laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or

14.1.1.7 Substantial violation of any other provision of the Contract Documents.

14.1.2 Should any of the above events occur, and should the Design/Builder fail **within seven (7) 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 (7) days** following receipt by the Design/Builder of an additional written notice and without prejudice to any other remedy the County may have, terminate the services the Design/Builder and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by or in the possession of the Design/Builder, and may finish the Work by whatever methods the County may deem expedient.

14.1.3 If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for the Program Manager's, the Construction Manager's, and the County's other Professional Consultant's additional services made necessary thereby, such excess shall be paid to the Design/Builder. However, in such case the Design/Builder shall not be entitled to receive any payment until the Work is finished. If the cost or finishing the Work exceeds the unpaid balance of the Contract Sum, the Design/Builder shall pay the difference to the County. The amount to be paid to the Design/Builder or to the County, as the case may be, shall be made, upon application, in the manner provided in Article 9 of this Agreement, and this obligation for payment shall survive the termination of the Contract.

14.2 TERMINATION FOR CONVENIENCE OF THE COUNTY

14.2.1 Upon **seven (7) days** written notice to the Design/Builder, the County may terminate this Contract, in whole or in part, for its convenience, without prejudice to any other right or remedy.

14.2.2 In the event of termination in accordance with Subparagraph 14.2.1 above, the Design/Builder shall be paid for all Work performed and acceptable to the County, and any expense sustained shall be limited to the cost of such Work plus reasonable termination expenses.

14.3 TERMINATION PROVISIONS

14.3.1 After receipt of written notice of termination from the County pursuant to Paragraph 14.1 or 14.2, the Design/Builder shall:

14.3.1.1 Stop work on the date and to the extent specified in the notice of termination;

14.3.1.2 Place no further purchase orders or subcontracts for materials, equipment, supplies, services, or facilities except as may be necessary for the completion of such portion of the Work under this Contract not terminated;

14.3.1.3 Terminate all purchase orders and subcontracts to the extent that they relate to the performance of the Work terminated by the notice of termination;

14.3.1.4 Assign to the County, in the manner, at the times, and to the extent directed by the County, all of the rights, title, and interests of the Design/Builder under the purchase orders and subcontracts so terminated, in which case the County shall have the right, at its discretion, to settle or pay any or all claims arising out of the termination of such purchase orders and subcontracts;

14.3.1.5 Transfer title and deliver to the County, in the manner, at the times, and to the extent directed by the County:

a. The fabricated and un-fabricated parts, Work in process, 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 related to the Work.

14.3.1.6 Complete performance of such part of the Work as shall not have been terminated by the notice of termination.

14.3.2 The Design/Builder acknowledges and agrees that if any court rules that termination by the County was a wrongful termination, such action by the County shall be deemed a termination for convenience, and the Design/Builder shall only be entitled to recover legitimate expenses up to the time of termination, and shall not be entitled to fees, costs, expenses, profits, or overhead after the date of termination.

****

ARTICLE 15

Intentionally not used.

****

ARTICLE 16

FULL PERFORMANCE REPRESENTATION

The Design/Builder agrees to complete the project within the time prescribed in, for the prices set out in, and as required by, the contract documents. The undersigned Design/Builder declares and represents that he has reviewed and understands the Contract Documents and 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, including those conditions affecting the cost of the Work and the delivery, handling and storage of equipment and materials at the place where the Work is to be executed; that the Design/Builder and its subcontractors, architects, and engineers have examined and read the Contract Documents; and he has satisfied himself that the Contract Documents are an adequate and acceptable reflection of Work which is required to be performed, and that he is willing and able to perform all of the necessary Work based upon the information and representations contained within the Contract Documents. The Design/Builder hereby agrees that no additional information is required to complete the Work within the cost and schedule constraints established and agreed upon within this Agreement.

DESIGN/BUILDER

By: _____ (ATTEST)

Title: _____

By: _____ (OFFICER)

Title: _____

(SEAL)

FULTON COUNTY

By: _____
Mark Massey, Clerk to the Commissioner

By: _____
Karen Handel, Chairman
Board of Commissioners

(SEAL)

APPROVED AS TO FORM:

By: _____
County Attorney

APPROVED AS TO CONTENT:

By: _____
Angela Parker, Director
Department of Public Works

END OF OWNER-DESIGN/BUILDER AGREEMENT

SECTION 9
TECHNICAL SPECIFICATION

S110 Marsh Creek Sewer Replacment
SECTION 00700
GENERAL CONDITIONS

FOR FULTON COUNTY
PUBLIC UTILITIES SEWER/WATER CONSTRUCTION CONTRACTS

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, Contract Documents, and all supplemental 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 - The Construction Manager is the person or entity identified as such in writing by the County. The term “Construction Manager” means the Construction Manager or the Construction Manager’s authorized representative. The Construction Manager is the County’s agent for purposes of administering this contract.

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

County - Fulton County, Georgia, a political subdivision of the State of Georgia, acting by and through the Chairman of its Board of Commissioners; Owner.

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

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

Engineer – Shall be the Director of Public Works or his duly authorized representative.

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.

Program Manager - The Program Manager is the person or entity identified in writing by the County. The term “Program Manager” means the Program Manager or the Program Manager’s authorized representative.

The County has contracted with the Program Manager to provide program planning that establishes direction and performance goals for the implementation of numerous projects contained in the County’s Capital Improvements Program.

OCIP – "Owner-Controlled Insurance Program" is an insurance delivery method that assures the Contractor, and its subcontractors of all tiers, and other persons or interests as the County may designate in connection with the performance of the work are insured for certain prescribed Statutory Workers' Compensation, Employers Liability and Commercial General Liability, and such other coverages as the County may in writing specifically add or delete for the Project. The OCIP and contractor's insurance requirements are set out in Exhibit C – *Insurance*, attached hereto.

Project Manual - The Contract Documents.

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 - 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, hereto, and the Fulton County Safety Management Program, as set out in the

Contractor Safety and Health Management Process, attached hereto as Exhibit "B", and the Owner Controlled Insurance Program and contractor's insurance requirements, as set out in Exhibit "C" hereto. 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 D, 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 therefrom (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 therefrom, 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 therefrom.

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 form 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:

1. 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.
2. 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

(1) 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.

(2) 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.

(3) 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.

a) 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

a. 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.

b. 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

(1) 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

(1) 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:

(a) 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.

(b) 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 data 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 therefor. 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

A. 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.

B. 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 30 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 therefor. 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, materialman, 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 judgements 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 other 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 b 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, <u>ten (10) percent</u> 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. <u>In no case shall a change be approved without such itemization</u>.

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

a. 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.

~~b.~~ 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.

c. 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.

d. No claim by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this Contract.

e. 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

a. 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 give 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.

b. If the Contractor claims that addition 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

a. 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

a. 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

a. 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.

b. 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.

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

d. 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.

I N D E X

SUBJECT	**GENERAL CONDITION**
Administration of Contract	17
Applicable Law	7
Assignment	13
Blasting and Excavation	26
Changes	87, 88
Clean Site	29
Codes	4
Commencement of Work	49
Contract Documents	2
Contractor's Representative	66
Defective Work	31, 32
Definitions	3
Delay	51, 52, 54, 55
Extension of Time	52, 53, 54
Familiarity of Time	1, 22
Final Payment	84
Governing Law	86
High Voltage Lines	27
Inclement Weather	53
Indemnification	15
Inspections	23, 61, 62, 68, 69
Interruption	48
Licenses	8
Liquidated Damages	46
New Materials	33, 63
Notices	24
Payment	72, 73, 75
Payment of Subcontractors	75, 76
Payment Upon Substantial Completion	82, 84
Payroll Reports	65
Permits	8
Progress Payments	72, 73, 77, 78, 79, 80
Protection of Work	30, 64
Records Inspection	45
Retainage	11, 74
Safety	25
Scaffolding and Staging	28
Scheduling	70
Service of Process	14
Stop Work Order	37
Subcontractors	67, 76
Substantial Completion	81
Suspension	48
Supervision of Work	16, 66

Surety's Responsibility 17
Taxes 9, 10
Termination for Cause 38, 44, 47
Termination for Convenience 39, 40, 41
Time of the Essence 50
Warranties 33, 34, 35, 36
Work Behind Schedule 56

END OF SECTION NO. 00700

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01010
SUMMARY OF WORK

1.01 LOCATION

A. The work described by the drawings and specifications is located on Marsh Creek Sewer Replacement in Fulton County, Georgia.

1.02 WORK INCLUDED

Work shall include, but not be limited to, the complete design, permitting, procurement, construction and site restoration of approximately 2.5 miles of gravity sewer for the replacement of the existing Marsh Creek Sewer.

The work is divided into the following:

A. Surveying

a. Where required, the D/B COMPANY may survey the existing sewer to verify service connection locations, elevations of residences, elevations of manholes (inverts, surface, etc.), location and elevation of other sewers into the project, the locations of trees within the easement, and collection of other required information to prepare a complete design.
b. The D/B Company shall locate, using near edge of pavement as baseline, all existing utilities (e.g., telephone, gas, cable TV, power, etc.) and existing structures (e.g., mail boxes, telephone poles, fire hydrants, driveways, new roads, property pins, above ground and underground utilities, fences, trees, stream crossings, etc.) that might interfere with construction along the selected project route.
c. The D/B Company shall identify all existing property owners and property lines along the proposed route.
d. The D/B Company shall perform Topographic Survey – a topographic survey shall be performed at any extreme changes in grade, stream crossings, etc,. Vertical and horizontal control shall be tied to County's GIS monument system. GIS monument location can be obtained through the Fulton County Project Manager.

B. Easement Assistance

a. The D/B Company shall provide technical assistance for land acquisition. The D/B Company shall support County Land Department in the easement acquisition process and finalize all easement plats. The D/B Company shall provide (10) site visits to property owners for assistance in easement negotiations with the County

C. Preliminary Design

a. The D/B Company shall consult with Fulton County and determine the general design concept and Project requirements based upon information furnished by Fulton County as well as any study Report on the Project. Prepare and submit to the County preliminary design documents consisting of final design criteria, preliminary drawings, an outline of specifications, and written descriptions of all significant features of Project.

b. The D/B Company shall obtain permit approval, if any required, from Corps of Engineers, Georgia Department of Natural Resources, Environmental Protection Division, Georgia Department of Transportation, and Fulton County Development Services Division (DSD). Meet all requirements so that an Erosion Control Plan, Tree Protection Plan, and other plans required by Fulton Development Services Division can be obtained. Permit acquisition fees to DSD will be paid by Fulton County.
c. Easement Acquisition – Upon acceptance of the preliminary design, The D/B Company shall determine required easement width and location. The D/B Company shall discuss proposed easements with impacted property owners. The D/B Company shall prepare preliminary easement plats for use by the County in processing the required easements.
d. The D/B Company shall furnish five (5) copies of each above referenced submittal document to Fulton County for Fulton County's use, and shall review same in person with Fulton County.

D. Final Design

a. The D/B COMPANY shall design and construct new manholes as shown on the Drawings and rehabilitate existing manholes when economically feasible. When required, new manholes shall be designed in accordance with Fulton County Standards.
b. The D/B Company shall prepare plans at a scale of 1 inch = 50 foot. Plan and profiles shall be shown including any information as required by Georgia Department of Transportation for Utility Encroachment Permit.
c. The D/B COMPANY shall address in the design how service connections to the existing gravity sewer shall be located, restored, and how these services shall be provided without interruption during construction of the new sewer line.
    1. The D/B COMPANY shall show in the design all areas for repaving and areas for repair to streets and driveways.
    2. The D/B Company shall prepare technical specifications (in general conformance with the sixteen-division format of the Construction Specifications Institute).
    3. Standard technical specifications and details shall be provided for use in this project. Information is to be used as a guide in preparation of documents. Technical specifications shall be complete with all details needed for construction.
    4. The D/B Company shall participate in design review meetings and document the minutes of each meeting. An electronic file shall be provided to the Consultant containing standard technical specifications for sewer replacement construction. Five (5) sets of drawings shall be provided to the County for each completion stage. (Note: The standard specifications for construction are in draft form and may not be approved prior to this projects execution. The D/B Company may utilize these specifications and make constructive comments on them for County use in finalizing the specifications).
    5. One-hundred percent (100%) completion shall include plans and specifications with all constructability comments addressed. The electronic files shall be submitted in Adobe PDF and mylar format.

E. Construction

1. The D/B COMPANY shall replace the existing gravity sewer with 10”, 18”, and 24” ductile iron pipe and 12”, 22”, and 28” minimum inside diameter high density polyethylene (HDPE) pipe. The current design specifies ductile iron pipe to be installed using open-cut construction and HDPE pipe to be installed using pipe bursting technology. The D/B COMPANY shall evaluate the existing design and, when appropriate, propose alternative methods of installation such as directional drilling or horizontal boring when rerouting the sewer in problematic areas or relocating the sewer out of creek to reduce the potential for spills.
2. The D/B COMPANY shall provide all associated stream bank stabilization, and erosion and sedimentation control as well as reconnection of laterals.
3. The D/B COMPANY shall perform by-pass/diversion pumping during construction to maintain service and operation of the sewer line at all times.
4. The D/B Company shall coordinate, schedule and facilitate a pre-construction meeting for the project.
5. At project completion, the D/B Company shall provide record drawings in the form of an electronic file in Adobe PDF and mylar of record drawings.

1.03 WORK COORDINATION

F. The Design/Builder shall coordinate his work with third parties (such as public utilities and telephone company) in areas where such parties may have rights to underground property or facilities, and request maps or other descriptive information as to the nature and location of such underground facilities or property.

G. The Design/Builder shall also coordinate his work with owners of private and public property where access is required for the performance of the work. Legal access will be acquired and provided by the County.

1.04 CONDITIONS AT THE SITES

A. The Design/Builder shall make all necessary investigations to determine the existence and location of all underground utilities.

B. The Design/Builder will be held responsible for any damage to and for maintenance and protection of existing utilities and structures.

C. Nothing in these Contract Documents or associated Drawings shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist, or that other utilities are not within the area of the operations.

END OF SECTION # 01010

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01011
UNIQUE REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE

A. The scope of this Section is to convey to the Design/Builder 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 Design/Builder. The provisions of this Section shall supersede the provisions of the Division 1 through 17 Specifications but shall not supersede the Proposal Requirements, Contract Forms or Conditions of the Contract.

B. Project Time Frame

The design and construction must be complete no later than 23 months after the Notice to Proceed. It is anticipated that the award of this D/B Company services contract will occur at the County **Council meeting in June 2006.**

The following are the major milestones for the Design/Builder.

MILESTONE	SCHEDULE
Issue Notice to Proceed (NTP)	Issued within 90 business days after award of contract.
Submit Project Schedule	10 calendar days after notice to proceed (NTP) date.
Submittal Register	10 calendar days after notice to proceed (NTP) date.
Section 2 Preliminary Design	60 calendar days after the notice to proceed (NTP) date.
Section 2 Final Design	120 calendar days after the notice to proceed (NTP) date.
Section 2 Construction Complete	120 calendar days after the final design
Section 3 Preliminary Design	120 calendar days after the notice to proceed (NTP) date.
Section 3 Final Design	240 calendar days after the notice to proceed (NTP) date.
Section 3 Construction Complete	180 calendar days after the final design
Section 1 Preliminary Design	240 calendar days after the notice to proceed (NTP) date.
Section 1 Final Design	420 calendar days after the notice to proceed (NTP) date.
Section 1 Construction Complete	240 calendar days after the final design
*Substantial Completion	30 calendar days prior to project completion date.
Project Completion Date	690 calendar days after notice to proceed (NTP) date.
Progress Meetings	Monthly deliverable
Updated Project Schedule Submittal	Monthly deliverable
Monthly Progress Reports	Monthly deliverable
Project Close-out Meeting #1	60 calendar days prior to project completion date.
Project Close-Out Meeting #2	30 calendar days prior to project completion date.

Substantial completion is defined as: having all construction work approved complete and accepted by the Construction Manager.

C. Submittals and deliverables will be reviewed and returned to the DESIGN/BUILDER within 9 calendar days of receipt save the Preliminary Design. The Preliminary Design will be reviewed and returned to the DESIGN/BUILDER within 15 calendar days of receipt

1.02 EXISTING OPERATIONS

A. The existing facilities must of necessity remain in operation while the investigation and construction activities are in progress.

B. The Design/Builder 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 Design/Builder must obtain approval from the Owner as to the date, time and length of time that portion of the facilities are out of service.

C. After having coordinated the work with the Owner, the Design/Builder 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.

1.03 SEQUENCING

A. General

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

B. Notify the Owner at least 72 hours prior to starting to relocate piping or taking existing components out of service.

C. 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 Design/Builder 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 SEQUENCING CONSTRAINTS

A. The following construction sequencing constraints are to emphasize critical tasks of the Work in this Contract. It is not a complete list of all work to be completed.

1. All work ad activities must remain within County easements.
2. Clearing and grubbing within the easement must be done in order to gain access to portions of the trunk main.

3. The condition of the sewer system shall be determined, by televised inspection, prior to cleaning and rehabilitation.
4. Work in wetland areas shall be done in accordance with the requirements of the Corps of Engineers.

1.05 DESIGN/BUILDER'S SUPERINTENDENCE

A. The DESIGN/BUILDER shall submit, with the initial Detailed Construction Schedule, a detailed manpower organization chart indicating the management and supervisory personnel for the control and supervision of all aspects the WORKS. Particular reference must be made to those personnel proposed for overall project direction, co-ordination and programming roles. Only in exceptional circumstances will substitute candidates be allowed when work commences. Under these exceptional circumstances only a candidate may be submitted with equivalent or better experience.

B. Particulars of nominees for all key positions shall be provided, including detailed resume, giving qualifications and previous experience. The key positions, which may be combined or separate, shall include:

1. Project Director
2. Project Manager
3. Site Safety Manager/Supervisor
4. Clearing and Grubbing Manager/Supervisor
5. Internal Sewer Condition Assessment Manager/Supervisor
6. Preconditioning and Cleaning Manager/Supervisor
7. Sewerage Rehabilitation Installation Manager/Supervisor
8. Sewerage Rehabilitation Testing Manager/Supervisor

In general, managers shall have a minimum of five years experience and supervisors a minimum of three years experience.

C. The organization chart shall be an accurate statement of the DESIGN/BUILDER'S intention.

1.06 WORKING HOURS

A. The DESIGN/BUILDER'S representative on site directly responsible for the work shall be immediately contact-able at any time during the normal working day and shall immediately respond to all or any query by the CONSTRUCTION MANAGER.

B. Adequate means of communication by telephone, portable radio, CB, walkie-talkies, or other electronic means of communication must be established at all times as part of the routine work methodology and in case of an emergency, between all relevant points of any activity along the length of the sewer.

C. Daytime working is defined as 0700 to 1900 hours. No work shall be carried out at any other time or on a bank holiday, including Saturday and Sunday, without permission in writing from the CONSTRUCTION MANAGER except when the work is unavoidable or absolutely necessary for the saving of life, property or for the safety of the works, in which case the DESIGN/BUILDER shall immediately notify the CONSTRUCTION MANAGER of such works.

D. Night work shall be defined as the period of 1900 to 0700 hours.

E. Weekend working shall be defined as the period from 0700 hours Saturday to 0700 hours Monday.

F. Work on principal highway routes shall be restricted to certain hours as directed by the CONSTRUCTION MANAGER. No work will be permitted outside these hours.

1.07 NOISE CONTROL

A. The DESIGN/BUILDER shall employ the “best practicable means” to minimize and mitigate noise as well as vibration resulting from operations. Mitigation measures shall include the utilization of sound suppression devices on all equipment and machinery particularly in residential areas and in the near vicinity of hospitals and schools, especially at night.

B. Sound reduced equipment is defined as equipment which emits a sound pressure level t exceeding 75dB(A) at 30-feet in any direction from the center of the machine if the equipment is to be used between the hours of 0700 and 1900, and 65 dB(A) if used outside those hours.

C. The DESIGN/BUILDER shall inform the CONSTRUCTION MANAGER before the commencement of the Works, or of any significant phase thereof, or immediately any change in the method of working not previously notified is affected.

D. Any pumps, generators, combination cleaners or other noise emitting equipment shall be suitably screened to minimize nuisance and pollution.

E. This shall not be taken as preventing or prohibiting the execution of works which are absolutely necessary for the saving of life or property or for the safety of the works. The use of machinery or equipment in an emergency situation shall be notified as soon as practicable to the CONSTRUCTION MANAGER

1.08 TRAFFIC MANAGEMENT

A. The DESIGN/BUILDER shall comply with the relevant provisions related to traffic control and safety published by Fulton County and the Georgia Department of Transportation.

B. The work shall be carried out so as not to interfere unnecessarily or improperly with the passage of pedestrians and vehicles or the access to use public or private roads; footpaths and properties.

C. For work requiring occupation of the public highway the DESIGN/BUILDER shall comply at all times with the requirements of the relevant Traffic Signs Manual concerning construction works in the highway. The DESIGN/BUILDER shall supply and place and maintain warning signs to the satisfaction of the CONSTRUCTION MANAGER. These signs shall be removed when work is not in progress.

D. The DESIGN/BUILDER shall not commence any works which affect vehicular passage along the highway until details of all traffic management safety and control measures necessitated by the works have been submitted to the CONSTRUCTION MANAGER for consideration and are fully operational.

E. If conditions are such that temporary traffic signals and signs, illuminated or otherwise, are necessary, then these will be provided and maintained by the DESIGN/BUILDER.

F. Where the volume of traffic on any road makes it impracticable or hazardous to carry out work during normal working hours, the DESIGN/BUILDER shall apply to the CONSTRUCTION MANAGER for permission to work at night or weekends. The DESIGN/BUILDER shall also make all necessary arrangements to enable work to be carried out at manholes which are covered by parked vehicles.

G. Should the DESIGN/BUILDER wish to divert traffic onto any temporary routes or to close a roadway or lane of traffic he shall submit any such request to CONSTRUCTION MANAGER at least 8 weeks in advance of the proposed diversion.

H. The DESIGN/BUILDER shall provide and allow for watching and lighting the site, provide safe passage to pedestrians and vehicular traffic at all times at no additional cost to the OWNER.

I. If the use of traffic lights and associated signs is requested by Fulton County or requested by CONSTRUCTION MANAGER during the course of the work, then the DESIGN/BUILDER shall make his own arrangements to provide these at no additional cost to the OWNER.

J. The DESIGN/BUILDER shall notify the local police of his presence when working on highways and shall keep the police aware of his appropriate area of working at all times. The DESIGN/BUILDER shall make available to the police a telephone number of a person who may be contacted during the survey in order to resolve any queries.

K. Where the volume of traffic or parked vehicles makes it impracticable or hazardous to carry out the work during normal working hours the DESIGN/BUILDER shall apply to CONSTRUCTION MANAGER for permission to work outside of normal working hours.

L. The DESIGN/BUILDER shall comply with any special traffic requirements of Fulton County and any other municipality in which the work may be conducted.

END OF SECTION # 01011

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01016
OCCUPANCY

PART 1 - GENERAL

1.01 PARTIAL OCCUPANCY BY OWNER

A. Whenever, in the opinion of the Owner, any section or portion of the Work is in suitable condition, it may be put into use upon the written order of the Owner and such usage will not be held in any way as an acceptance of said work, 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 Design/Builder, for any section of the Work so put into use shall be performed by the Design/Builder at Design/Builder's own expense.

END OF SECTION # 01016

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01025
APPLICATIONS FOR PAYMENT

1. 01 SUBMITTAL OF APPLICATION FOR PAYMENT

A. The County will make payments to the Design/Builder on the basis of a duly certified and approved estimate of the Work completed through the 25th day of each calendar month, as reviewed by the Construction Manager, provided the estimate was submitted in accordance with the following requirements:

B. The Applications for Payment shall be itemized as directed by the Construction Manager. Applications for Payment are to serve as certification by the Design/Builder as to the status of the Work. All monthly payments invoiced by the Design/Builder to the County shall be based on Completion of the work in accordance with the cost-loaded Construction Schedule, and Schedule of Values.

C. On or prior to the 20th day of each month, the Design/Builder will prepare a preliminary, itemized Application for Payment for work completed and the value of any stored materials, projected through the 25th of the current month, as well as additional information required herein or as Construction Manager may require to verify and approve the amount of payment applied for. The Design/Builder may be requested to review the Application for Payment with the Construction Manager on the jobsite in order to verify work in place or the location of stored materials.

D. After the Construction Manager has advised the Design/Builder of the acceptability of the Application for Payment, and on or before the 25th day of each month, the Design/Builder shall submit to the Construction Manager an itemized, notarized Application for Payment. The Design/Builder shall also submit items in paragraph (I) and if requested, additional documentation, including, but not limited to, all sworn statements, waivers and releases of liens and claims, including those required of Sub-Contractors of any tier as may be requested by the Construction Manager, reflecting all retainage, previous Applications for Payment, payment for labor and material, payment for materials stored and other documentation and requirements related to Work performed as provided elsewhere in the Contract Documents or as required by the Construction Manager.

E. Late applications will not be accepted for any reason whatsoever. If the Design/Builder is late with its pay application, it will not be processed until the next pay cycle.

F. The Design/Builder shall submit the Application for Payment in four (4) paper hardcopies and one electronic copy on CD-ROM. An electronic version of the standard forms will be provided to the Design/Builder at or before the Pre-Construction Conference. Each copy shall display an original signature by a duly authorized agent of the Design/Builder. The application shall be generated by the use of Microsoft Excel or other applications package acceptable to the Construction Manager, and provided that the forms generated are in the format acceptable to the Construction Manager. All four copies shall be individually notarized.

G. Nothing in this section is meant to be in conflict with the Contract. Any inconsistencies between this section and the contract, the contract shall prevail.

H. For a payment submittal to be accepted by the Construction Manager all the conditions as defined in the contract must be met by the Design/Builder. Failure to meet these requirements constitutes non-submittal of the payment request.

I. With each payment submittal the Design/Builder must include:

1. a reasonably detailed description of all Work actually completed during the period of the payment submittal
2. an up-to-date and annotated Construction Schedule which shall reflect the status of the Design/Builder 's Construction Schedule since the date of the last payment submittal
3. an up-to-date and annotated Schedule of Values indicating the percentage of Work completed by activity and milestone for the project.
4. revisions to the critical path schedule which shall reflect changes in the critical path schedule since the date of the last payment submittal.
5. notice of any liens or "Encumbrances which have been filed, together with evidence that the Design/Builder has bonded or discharged such liens or encumbrances
6. a complete and filled-out Exhibit G, Technical Proposal Form 8
7. construction Progress Photos
8. any other documents or information relating to the Work or this Contract requested by the Construction Manager as my be required by Applicable Law or this Contract

J. Schedule Of Values Utilization

1. Applications for Payment: The Schedule of Values, that is acceptable to the County, shall be the basis for the Design/Builder's applications for payment.
2. Changes to the Schedule of Values: The County shall have the right to require the Design/Builder to alter the value or add/delete categories listed on the Schedule of Values at any time for the following reasons:

   a) The Schedule of Values appears to be incorrect or unbalanced.

   b) A revision to the segregation of values is required due to the Design/Builder revising the sequence of construction or assembly of building components, which in turn invalidates the Schedule of Values.

   c) Change Orders are issued to the Design/Builder and require incorporation into the Schedule of Values.

K. <u>At no time during the contract will the Design/Builder be allowed to bill for an amount which is in excess of the amount of its contract (total Proposal amount), including all signed and executed change orders.</u>

1.02 PAYMENT FOR MATERIALS STORED ON SITE

A. As provided in the Contract Documents, payments will be made on account of materials or equipment not incorporated in the Work, but delivered and suitably stored at the site, provided such materials are stored according to the provisions of the Contract Documents and the satisfaction of the Construction Manager.

B. The Design/Builder shall include with his payment request an itemization of the quantity of such materials, and shall document with invoices, Bills of Sale or other documentation acceptable to the Construction Manager, the cost of said materials.

1.03 PAYMENT FOR MATERIALS STORED OFF SITE

A. Payment for materials stored at a location off the project site will not be made under any circumstance.

1.04 PROGRESS PAYMENTS

A. If the Design/Builder has made Application for Payment as detailed herein, the Construction Manager will confirm the amounts to be paid to the Design/Builder, certify each copy by original signature, retain one signed copy for its project files, and transmit the remaining copies as Certification for Payment to the County.

B. The Design/Builder may expect payment from the County within forty-five (45) days of the Certification by the Construction Manager of the Design/Builder's submittal of an Application for Payment per Paragraph 1.01 of this Section. Any follow-up inquiries on the status of payments shall be through the Construction Manager. <u>The Design/Builder is not permitted to contact the County directly with any payment inquiries.</u>

C. No approval of any application for progress payment, or any progress payment, or any partial or entire use of occupancy of the Work or the Project by the County, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

D. Progress Payments will be delivered to the Design/Builder via U.S. Mail only.

1.05 RETAINAGE

A. The County shall withhold a retainage amount of each monthly payment otherwise due and payable to the Design/Builder in the amount of 10 percent. Such holdbacks shall continue until the Design/Builder satisfactorily completes 50 percent of the value of the Design/Build Work performed is satisfactory to the County, at which time further payments will not be subject to retainer holdbacks. The County may, however, withhold additional retainage after 50 percent of the work is complete pursuant to the Design/Build Contract. The retained amount shall be released upon Acceptance except for amounts equal to 200 percent of the value of any outstanding Design/Build Work.

1.06 FINAL PAYMENT/CLOSE-OUT OF PROJECT

A. Following acceptance and the project milestone **"Complete"** has been achieved the project must be closed-out for the Design/Builder to receive the Final Payment. The Design/Builder shall provide as part of the project submittals the following documents:

1. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work have been paid otherwise satisfied; each subcontractor must also provide an affidavit.

2. The surety's and guarantor's consent to final payment
3. Certificate of Occupancy when applicable
4. Design/Builder Statement of Completion of all Work
5. OCIP Signoff –Exhibit B
6. A Final Exhibit G – Prime Design/Builder and Sub-Design/Builder Utilization Report
7. Notification of Warranty Period for all major pieces of equipment
8. Transmittals signed by Construction Manager for all deliverables
9. A final invoice for the Work

END OF SECTION # 01025

S110 – Marsh Creek Sewer Replacement

SECTION 01 060

REGULATORY REQUIREMENTS

PART - 1 GENERAL

1.01 SCOPE

A. Permits and Responsibilities: The Design/Builder shall, without additional expense to the Owner, be responsible for obtaining all 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 Design/Builder shall take proper safety and health precautions to protect the Work, the workers, the public and the property of others.

C. The Design/Builder 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.

D. Business Licenses: The Design/Builder shall provide the County, on the proper form, proof of being licensed to do business within Fulton County; proof of proper business licenses shall also be provided by the Design/Builder for any and all subcontractors coming under the jurisdiction of this Contract.

END OF SECTION 01 060

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01070
ABBREVIATIONS

PART I - GENERAL

1.01 INTENT

Wherever in these Specifications and Contract Documents the abbreviations or pronouns in place of them are used, the intent and meaning shall be interpreted as specified herein.

1.02 ABBREVIATIONS

AASHTO	American Association of State Highway Transportation Officials
ACI	American Concrete Institute
AEIC	Association of Edison Illuminating Companies
AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
APA	American Plywood Association
APHA	American Public Health Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
CFR	Code of Federal Regulations
CRSI	Concrete Reinforcing Steel Institute
EUS	Electronic Industries Association
EPA	Environmental Protection Agency
FS	Federal Specifications
IEEE	Institute of Electronic and Electrical Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
IPC	Institute of Printed Circuits
ISA	Instrument Society of America
NACE	National Association of Corrosion Engineers
NBFU	National Board of Fire Underwriters
NBS	National Bureau of Standards
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NRMA	National Ready-Mix Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
SBC	Southern Building Code
SSPC	Steel Structures Painting Council

UBC	Uniform Building Code
UL	Underwriters Laboratories
USDC	United States Department of Commerce
WPCF	Water Pollution Control Federation

END OF SECTION

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01091
APPLICABLE CODES

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 Proposals. This shall include the furnishing of materials, testing of materials, fabrication and installation practices. In those cases where the Design/Builder'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 organization's 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 other-wise 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
D. SSPC	Steel Structures Painting Council

E. Electrical and Instrumentation

AEIC	Association of Edison Illuminating Companies
AIEE	American Institute of Electrical Engineers
EIA	Electronic Industries Association
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IPC	Institute of Printed Circuits
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
TIA	Telecommunications Industries Association
UL	Underwriter's Laboratories
VRCI	Variable Resistive Components Institute

F. Aluminum

AA	Aluminum Association
AAMA	American Architectural Manufacturers Association

G. 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

H. PCA Portland Cement Association

PCI	Prestressed Concrete Institute

I. Welding

ASME	American Society of Mechanical Engineers

AWS	American Welding Society

J. 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

K. 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

L. Roadways

AREA	American Railway Engineering Association
DOT	Department of Transportation
SSRBC	Standard Specifications for Road and Bridge Construction, Georgia Department of Transportation
SSHC	Standard Specification for Highway Construction, 1986 Edition, South Carolina Department of Highways and Public Transportation

M. Plumbing

AGA	American Gas Association
NSF	National Sanitation Foundation
PDI	Plumbing Drainage Institute
SPC	SBCC Standard Plumbing Code

N. 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's National Association
TEMA	Tubular Exchangers Manufacturers Association

O. 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 Contract Drawings.

END OF SECTION # 01091

S111 – MARSH CREEK INTERCEPTOR UPGRADE
SECTION NO. 01150
MEASUREMENT OF PAYMENT-ALLOWANCE

PART 1

1.01 GENERAL

A. This section identifies each Measurement of Payment for items in the Proposal Sheet and describes the methods by which evaluation of work complete will be based. This section should be used to assist in the development of the Construction Schedule, the Schedule of Values and in determination for completion of work the following measurement criteria shall be used.

1.02 NON-PAYMENTS

A. No separate payment shall be made for the restoration of developed property and the cost shall be included in the overall prices for the execution of the work unless specifically noted otherwise.

B. No separate payment shall be made for cutting of concrete and asphalt pavement, excavation, disposal of rubbish and debris, pipe bedding, backfill, dewatering of trench, repair of damaged properties. All testing required for the execution of the work shall be done as part of the price for the item involved.

C. No separate payment shall be made for any traffic control, work area protection, recording, safety measures, set-up of equipment and set-up of staging area except as indicated below. Payment for these items shall be part of the unit price Proposal for each particular item of work.

D. No separate payment shall be made for providing detail surveys needed for construction. The County shall furnish bench marks, reference points and stakes to establish a base line for locating the principal component of the Work. The D/B Company shall be responsible in providing further survey necessary to complete the Work. The D/B Company shall carefully preserve the established points, and in case of willful or careless destruction, the D/B Company shall be responsible for the costs of reestablishing the bench marks, reference points and stakes.

E. The D/B Company shall allow the County a minimum of 15 days after the issue of a RFI. No payment shall be made for “down time”.

PART 2 - MEASUREMENT AND PAYMENT

2.01 SCOPE

A. The Proposal lists each item of Work for which payment will be made. No payment will be made for any items other than those listed in the Proposal.

B. Required items of work and incidentals necessary for the satisfactory completion of the Work which are not specifically listed in the Proposal, and which are not specified in this section to be measured or to be included in one of the items listed in the Proposal, shall be considered as incidental to the Work. All costs thereof, including D/B Company’s overhead costs and profit, shall be considered as included in the lump sum or unit prices Proposal for the various Proposal items. The D/B Company shall prepare his Proposal accordingly.

C. Work includes furnishing all plant, labor, equipment, tools, and materials, which are not furnished by the County, and performing all operations required to complete the Work satisfactorily, in place, as indicated on the Drawings, specified or directed by the Construction Manager.

2.02 DESCRIPTIONS

A. Measurement of an item of Work will be by % completion of activities and milestones as indicated on the schedule of value.

B. Unless otherwise stated in individual sections of the Specifications or in the Proposal Schedule, 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 Contract Price Proposal of which it is a part.

C. Payment will be made at the Contract Price per unit indicated in the Proposal Schedule, with the total price of the Contract being equal to the Total Proposal and then summing the extended prices to reflect actual work. Such price and payment shall constitute full compensation to the D/B Company for furnishing all plant, labor, equipment, tools, and materials not furnished by the County, and for performing all operations required to provide to the County the entire Project, complete in place, as specified and as indicated on the Drawings.

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

E. “Provide” shall mean furnish and install.

2.03 DESIGN

A. Payment for the design shall be made upon the completion and acceptance by the County. Payment shall be made at the completion of each identified phase of the design:

   a. Preliminary Design (including 8-1/2 x11 plats for easement negotiations and surveying, if necessary)

   b. Final Design

   c. Permitting (as demonstrated by issuance of an LDP for the Project)

2.04 CONSTRUCTION

A. Prior to construction of the Sewer, the D/B Company shall submit and the Construction Manager shall review for acceptance a proposed Schedule of Values. **The total of the Schedule of Values shall not exceed the construction total described in Price Proposal Form 1.** The Schedule of Values shall provide all cost information related to the construction and shall be the basis for measurement and payment for the construction portion of the Work.

B. No payment will be made until the Schedule of Values is accepted by the Construction Manager.

C. Payment for blasting monitoring shall be made for in the “BLASTING MONITORING “ CASH ALLOWANCE. A fee must be agreed upon by the Owner and Construction Manager prior to the D/B Company employing an independent, qualified specialty subD/B Company prior to the Owner’s approval of the fee, all such costs are subject to non-reimbursement.

2.05 CLEAN-UP, AND TESTING

A. All cost for clean-up, and testing shall be included in the unit price Proposal for Construction. Final payment shall not be made for any length of line unless both testing and clean-up have been performed satisfactorily for that length of line for which payment is being requested.

B. The cost of moving and re-establishing man-made and landscape features, including labor and materials shall be included in the unit price Proposal for Construction.

2.06 ACCESSORIES

A. Existing Underground Utilities and Obstructions

1. Payments for conflicts with existing utilities shall be made only when the sewer cannot be routed to avoid the conflict. Payment for avoidance of underground utilities and obstructions will be authorized under the ALLOWANCES: UTILITY CONFLICT RESOLUTIONS item.

2. No payment will be made for any delay or extra cost encountered by the Design/Builder due to protection, avoidance, or relocation of existing utilities, mains or services or changing the horizontal or vertical alignment of the Sewer.

2.07 TASK ALLOWANCES:

A. All Task Allowances shall be determined and approved by the Fulton County Project Manager.

B. General

C. The D/B Company shall include in the Total Proposal all allowances stated in the Contract Documents. The allowances shall cover the net cost of the services provided by a firm selected by the County. The D/B Company'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.

D. No payment will be made for nonproductive time on the part of testing personnel due to the D/B Company's failure to properly coordinate testing activities with the work schedule or the D/B Company's problems with maintaining equipment in good working condition.

E. No payment shall be provided for services, which fail to verify required results. The D/B Company shall be responsible for payment of failed tests.

F. Should the net cost be more or less than the specified amount of the allowance, the Contract would 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.

G. The County's authorized representative shall select a firm, which has a valid standby contract with the County and issue a notice to proceed describing the required services, duration of these services, and the not to exceed amount. Upon notification by the County, the D/B Company shall issue a purchase order to the selected firm. The D/B

Company shall issue the selected firm with conformed contract documents and relevant updates.

H. Documentation

1. Submit copies of the invoices with each periodic payment request from the firm providing the services.

2. Clearly identify project information, date and type of service.

3. Submit invoice back up for all direct expenses.

4. Submit reports documenting the results of services provided which verify compliance with the contract requirements.

5. Schedule of Task Allowances

I. Soil, Materials and Concrete Testing

1. Allow the amount provided in the Proposal Schedule for the services of a geotechnical Construction Management firm and testing laboratory to verify soils conditions including trench excavation and backfill, pile bearing resistance, asphalt coring and density tests, testing of concrete cylinders and other similar issues as directed as directed by the Construction Manager.

J. Utility Conflict Resolution

1.allow the amount provided in the Proposal Schedule to resolve any unforeseen utility conflicts including relocating and/or replacement.

2. Payment for conflicts with existing utilities shall be made only when the sewer can not be routed to avoid the conflict.

3. No payment will be made for any delay or extra cost encountered by the D/B Company due to protection, avoidance, or relocation of existing utilities, main or services or changing the horizontal or vertical alignment of the sewer.

K. Construction Surveying

1. Allow the amount provided in the Proposal Schedule for construction surveying by an independent surveying firm, selected by the County, to perform horizontal and vertical alignment checks at the discretion of the Construction Manager.

2. This allowance is solely for the use of the County at the Construction Manager's recommendation for verification of the D/B Company's reference points, centerlines, and work performed.

3. The presence of this allowance in no way relieves the D/B Company of the responsibility of installing reference points, centerlines, temporary benchmarks, or verifying that the work has been performed accurately.

4. No payment shall be made for survey work performed by or for the D/B Company in the reestablishment of reference points, benchmarks, including their restoration, as well as centerlines or baseline points.

L. Blast Monitoring

1. Allow the amount provided in the Proposal Schedule for the services of an independant qualified specialty subcontractor to monitor the blasting, when directed by the Construction Manager.

END OF SECTION # 01150

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01200
PROJECT MEETINGS

1.01 DESCRIPTION

A. The Construction Manager will schedule and administer the preconstruction meeting.

B. The Construction Manager shall schedule and preside at the periodic progress meetings and specially called progress meetings throughout the progress of the work..

C. Representatives of Design/Builders, subContractors and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.

D. The Construction Manager will attend progress meetings to ascertain that work is executed consistent with the Contract Documents and the construction schedules.

E. Related Requirements:

1. Section 01010:Summary of Work
2. Section 01310:Construction Schedules
3. Section 01340:Shop drawings, Product Data, and Samples

1.02 PRECONSTRUCTION MEETING

A. The Construction Manager will schedule the meeting within 30 days after Notice of Award of Contract. The Construction Manager will prepare agenda for the meeting, distribute written notice of the meeting to the meeting invitees.

B. The location, date and time of the meeting will be designated by the Construction Manager.

C. The following parties shall attend the meeting:

1. County's Representative.
2. Construction Manager and/or Program Manager
3. Resident Project Representative
4. Design/Builder's Superintendent.
5. Major SubContractors.
6. Major Suppliers.
7. Others as Appropriate.

D. Suggested Agenda:

1. Distribution and discussion of:
   A. List of major subContractors and suppliers.
   B. Projected Construction Schedules.
2. Critical work sequencing.
3. Major equipment deliveries and priorities.
4. Project Coordination.
   A. Designation of responsible personnel.
5. Procedures and processing of:
   A. Field decisions.
   B. Proposal requests.
   C. Submittals.

D. Change Orders.
E. Applications for Payment.

6. Adequacy of distribution of Contract Documents.
7. Procedures for maintaining Record Documents.
8. Use of premises:
   A. Office work and storage areas.
   B. County's requirements.
9. Construction facilities, controls and construction aids.
10. Temporary utilities.
11. Safety and first aid procedures.
12. Security procedures.

D. The Design/Builder shall record the minutes, including all significant proceedings and decisions reached during the meeting. The Design/Builder shall submit the audio recording of the meeting together with a draft of the written meeting minutes in electronic and hardcopy formats acceptable to the Construction Manager within three days after the meeting. The Design/Builder shall incorporate the Construction Manger's comments and distribute the final meeting minutes to all participants in the meeting and to all parties affected by decisions made at the meeting within two(2) days after receiving Construction Manager's comments.

1.03 PROGRESS MEETINGS

A. The location, date and time of the regular periodic meetings will be designated by the Construction Manager.

B. The following parties shall attend the meetings:

1. Construction Manager, and and/or Program Manager.

2. SubContractors as appropriate to the agenda.

3. Suppliers as appropriate to the agenda.

4. Others as required.

C. The Design/Builder shall prepare agenda for these meetings, and distribute written notice of the meetings at least three(3) work days in advance of the each meeting date, and make physical arrangements for the meetings. The Design/Builder shall submit a draft agenda for each meeting for Construction Manager's review and approval at least two(2) work days prior to distribution to the meeting invitees.

D. Suggested Agenda:

E. Review and approval of minutes of previous meeting.
   1 Review of work progress since previous meeting.
   2 Field observations, problems, and/or conflicts.
   3 Problems which impede Construction Schedule.
   4 Review of off-site fabrication, delivery schedules.
   5 Corrective measures and procedures to regain projected schedule.
   6 Revisions to Construction Schedule.
   7 Plan progress, schedule, during succeeding work period.
   8 Coordination of schedules.
   9 Review submittal schedules; expedite as required.
   10 Maintenance of quality standards.
   11 Review proposed changes for:
      i. Effect on Construction Schedule and on completion date.

ii. Effect on other components of the Project.

12 Other business.

F. The Design/Builder shall record the minutes, including all significant proceedings and decisions reached during the meetings. The Design/Builder shall submit the audio recording of the meeting together with a draft of the written meeting minutes in electronic and hardcopy formats acceptable to the Construction Manager within three days after each meeting. The Design/Builder shall incorporate the Construction Manger's comments and distribute the final meeting minutes to all participants in the meeting and to all parties affected by decisions made at the meeting within two(2) days after receiving Construction Manager's comments.

1.04 OTHER PROJECT MEETINGS

A. At the discretion of the Construction Manager, other project meetings, including but not limited to, milestone progress meetings, non-conformance review and resolution, and safety issue review and resolution, may be scheduled.

B. The location, date and time of these meetings will be designated by the Construction Manager.

C. The following parties shall attend the meetings:

Construction Manager, and and/or Program Manager.

SubContractors as appropriate to the agenda.

Suppliers as appropriate to the agenda.

Others as required.

D. The Construction Manager will prepare agenda for the meetings, distribute written notice of the meetings to the meeting invitees.

E. The Design/Builder shall record the minutes, including all significant proceedings and decisions reached during the meetings. The Design/Builder shall submit the audio recording of the meeting together with a draft of the written meeting minutes in electronic and hardcopy formats acceptable to the Construction Manager within three days after each meeting. The Design/Builder shall incorporate the Construction Manger's comments and distribute the final meeting minutes to all participants in the meeting and to all parties affected by decisions made at the meeting within two(2) days after receiving Construction Manager's comments.

END OF SECTION # 01200

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01310
SCHEDULING OF THE WORK

1.0 INTRODUCTION

This Section describes the Construction Scheduling and progress reporting requirements of the Contract. The primary objectives of the requirements are:

1. To insure adequate planning and execution of the work by the Design/Builder ;
2. To assist the County and Construction Manager in evaluating the progress of the work;
3. To provide for optimum coordination by the Design/Builder of its Sub-Contractors, trades, and suppliers, and of its Work with the work or services provided by the County or any separate Design/Builders; and
4. To permit the timely prediction or detection of events or occurrences which may affect the timely prosecution of the Work?
5. To provide for a basis of progress of work for invoicing and payment to Design/Builder.

Contract Term

The Contract will have a Term of 690 calendar days. This term is the maximum time that the Contract is in effect and constitutes the maximum period of time during which the Work can be accomplished and completed without change order. The Design/Builder shall prepare their detailed Construction Schedule to be less than or equal to the term of the Contract.

2.0 GENERAL SCHEDULING REQUIREMENTS

A. The work of this contract shall be planned, scheduled, executed, and reported using the critical path method (CPM). The Design/Builder shall use one of the following software programs to develop its detailed Construction Schedule:
   1. Microsoft Project, latest version
   2. SureTrak Project Manager, latest version
   3. Primavera Project Planner

B. The detailed Construction Schedule shall represent the Design/Builder's commitment and intended plan for completion of the Work in compliance with the Contract completion date and interim milestone dates specified. The detailed Construction Schedule shall take into account all foreseeable activities to be accomplished by any separate Design/Builders or the County, and interface dates with utility companies, the County's operations, and others. The detailed Construction Schedule shall anticipate all necessary manpower and resources to complete the Work within the dates set forth.

C. Once approved by the Construction Manager, the detailed Construction Schedule will become the Baseline Schedule and Schedule of Record for coordinating the Work, scheduling the Work, monitoring the Work, reviewing the progress payment requests, evaluating time extension requests, and all other objectives listed above.

D. The Design/Builder is responsible for determining the sequence of activities, the time estimates of the detailed construction activities and the means, methods, techniques

and procedures to be employed. The detailed Construction Schedule shall represent the Design/Builder's best judgment of how it will prosecute the Work in compliance with the Contract requirements. The Design/Builder shall ensure that Detailed Construction Schedule is current and accurate and is properly and timely monitored, updated and revised as Project conditions and the Contract Documents may require.

E. When there are separate Design/Builders working concurrently on the Project whose work must interface or be coordinated with the Work of the Design/Builder, the Design/Builder shall coordinate its activities with the activities of the separate Design/Builders, and the Detailed Construction Schedule shall take into account and reflect such work by others.

F. The Design/Builder shall be solely responsible for expediting the delivery of all materials and equipment to be furnished by it so that the progress of construction shall be maintained according to the currently approved Construction Schedule for the Work. The Design/Builder shall notify the Construction Manager in writing, and in a timely and reasonable manner, whenever the Design/Builder determines or anticipates that the delivery date of any material or equipment to be furnished by the Design/Builder will be later than the delivery date indicated by the currently approved Construction Schedule, or required consistent with the completion requirements of this Contract, subject to schedule updates as herein provided.

3.0 DETAILED CONSTRUCTION SCHEDULE

A. Initial D/B Schedule was submitted with the successful Design/Builder's proposal in response to the D/B RFP. Within 14 days after the Notice to Proceed, the Design/Builder shall submit a detailed Construction Schedule according to the requirements. The Construction Manager will review the Construction Schedule and will return the reviewed copy within the time-period specified for submittals. If required, the Design/Builder shall resubmit schedule to the Construction Manager making any required revisions within ten (10) days following the return date, and then again similarly for all such partial approvals and the final approval.

B. The detailed Construction Schedule shall consist of a time-scaled, detailed network graphic representation of all activities that are part of the Design/Builder 's construction plan and an accompanying listing of activity's dependencies and interrelationships. The detailed Construction Schedule submission shall include, but not be limited to, the following information:

1. Project name
2. The Work shall be divided into logical and identifiable subdivisions called activities. All activities will be assigned to a Milestone. The total cost of the all the work represented by all the Milestones shall equal the Total Proposal Amount (section 00300). Work shall be further subdivided into Activities as defined below.
3. Activities for all aspects of the work, with durations not exceeding fourteen (14) calendar days for all activities for which the Design/Builder will perform actual construction work. Material procurement, submittals, concrete curing and other similar activities may exceed fourteen (14) calendar days if approved by the Construction Manager. Related activities, each of duration of five (5) calendar days or less, may be shown as one activity together, if not on the critical path of timely job completion.
4. The Construction schedule shall indicate the Critical Path for the work. This can be accomplished on the Construction Schedule, on a separate schedule.

5. Outage schedules for existing utility services, if any, that will be interrupted during the performance of the Work
6. Acquisition and installation of equipment and materials supplied and/or installed by the County or separate Design/Builders
7. All start dates, milestones, float and completion dates
8. An accounting of the number of workdays anticipated to be lost due to weather. This accounting shall be in accordance with allowable days per month provided elsewhere in the Contract Documents.
9. A tabular report listing all predecessor and successor activities for each activity
10. A legible time scaled network diagram
11. A listing of the project calendar, indicating the anticipated days of work performance
12. A CD-ROM in a form and format acceptable to the Construction Manager, of the detailed Construction Schedule including all required submission information resident in the computer system and containing all of the files associated with the schedule; or a legible spreadsheet report with activity number, description, duration and successor activities.

C. All Milestones and Activities are to appear on the detailed Construction Schedule shall include, but not be limited to, preliminary construction activities, pre-construction meetings, site work, structure erection, roof close-in, exterior wall systems, paving, major material fabrication and delivery, shop drawings submittals, bi-weekly progress meetings, furniture delivery and installation, equipment delivery and installation, coordination requirements, mock-up installations and inspections, dates of Substantial and Final Completion, Certificate of Occupancy inspection, systems testing and instruction, and special County decision points that impact the Work.

D. Schedule Reports: Schedule submissions will contain the following minimum information for each activity:
    1. Activity number, description and estimated duration
    2. Anticipated start and finish dates
    3. Responsibility for activity
    4. The cost loading values for each activity.

E. For all major equipment and materials to be fabricated or supplied for the Project, the Detailed Construction Schedule shall show a sequence of activities including:
    1. Preparation of shop drawings and sample submissions
    2. A reasonable time for review of shop drawings and samples or such time as specified in the Contract Documents
    3. Shop fabrication, delivery and storage
    4. Erection or installation
    5. Testing of equipment and materials.

F. The Design/Builder shall submit, as a part of the data submitted to the Construction Manager, a narrative report indicating the anticipated allocation by the Design/Builder of the following resources and work shifts for each activity which he proposes to be utilized on the Project:
    1. Labor resources;
    2. Equipment resources; and

3. Whether it proposes the Work to be performed on single, double or triple shifts, and whether it is to be done on a 5, 6 or 7 day work week basis. (see work hours)

G The Construction Manager shall have the right to require the Design/Builder to modify any portion of the Design/Builder's Detailed Construction Schedule, or Recovery Schedule, including cost loading with the Design/Builder bearing the expense thereof, which the Construction Manager reasonably determines to be:

1. Impractical;
2. Based upon erroneous calculations or estimates;
3. Unreasonable;
4. Not in compliance with other provisions of the Contract Documents;
5. Required in order to ensure proper coordination by the Design/Builder of the Work of its Sub-Contractors and with the work or services being provided by any separate Design/Builder;
6. Necessary to avoid undue interference with the County's operations or those of any utility companies or adjoining property owners;
7. Necessary to ensure completion of the Work by the milestone and completion dates set forth in the Contract Documents;
8. Required in order for the Design/Builder to comply with the requirements of this Appendix or any other requirements of the Contract Documents; or
9. Not in accordance with the Design/Builder's actual operations.

4.0 BASELINE SCHEDULE

A. Upon final approval, the detailed Construction Schedule shall be used as a Baseline Schedule. The Baseline Schedule will be change only under the following circumstances after review and approval of the Construction Manager.

1. An approved Change Order to the Work, which constitutes an adjustment to the original scope of work and requires additional time to complete. The baseline schedule will be change to reflect the additional time of the change order.
2. Unavoidable delays, not the fault of the Design/Builder, contained in a time-only approved Change Order. The baseline schedule will have the additional time added to the schedule.
3. A Change Order approved by the County that has an additional time extension.
4. A request by the Design/Builder for a revision to the Detailed Construction Schedule that does not extend the Acceptance Date beyond the term of the Contract.

B. It should be noted that delays attributed to the Design/Builder or failure of the Design/Builder to make major milestones that require a subsequent recovery schedule does not change the baseline (original) schedule. Recovery schedules, when required, will be used until the project regains the baseline schedule or until the Work is complete, the term of the contract reached or the contract terminated. The baseline schedule remains the baseline unless changed by an approved change order or is revised and equals the term of the contract.

5.0 SCHEDULE OF VALUES

A. As part of the submission of the detailed Construction Schedule, the Design/Builder shall submit a breakdown of the expected value of each of the schedule activities for which payment will be requested. Activities shall roll-up into Milestones. The total cost of all Milestones will be equal to the Total Amount in Price proposal Form 1.

The cost breakdown of the detailed Construction Schedule shall have a direct correlation to the Schedule of Values to be used as the basis for Applications for Payment.

B. Draw Down Schedule: Upon acceptance, by the County of the Schedule of Values, the Design/Builder shall prepare and submit to the County a schedule of draw down payments, referred to as Draw Down Schedule, totaling the Total Amount of Proposal. This Draw Down Schedule will be used by the County to anticipate the cash flow needed to meet its financial obligations under the Design/Build Contract. Any change in the Schedule of Values, as specified below, will require that the Draw Down Schedule be revised and resubmitted.

6.0 UPDATING OF CONSTRUCTIONSCHEDULE—DESIGN AND CONSTRUCTION PROGRESS REPORTS

A. The Design/Builder shall submit for the monthly progress report and for all payment requests an update of the Construction Schedule. The Construction Manager will review the Construction Schedule contained in Monthly Progress Report or payment request to determine the Design/Builder's actual progress. Prepared by the Design/Builder, said schedule updates shall set forth current and accurate progress data and shall be based upon the Design/Builder's best judgment. Said schedule updates shall be prepared by the Design/Builder in consultation with all principal sub-Design/Builder and suppliers.

B. The updated Schedule shall show the activities, or portions of activities, completed during the reporting period, the actual start and finish dates for these activities, remaining duration and/or estimated completion dates for activities currently in progress, and quantities of material installed during the reporting period. The Construction Manager will produce a computerized update worksheet for the Design/Builder to complete as a part of this process.

C. At the monthly progress meeting held in accordance with Appendix 10, a total review of the Project will take place including but not limited to, the following:

1. Current update of the Detailed Construction Schedule
2. Anticipated detailed construction activities for the subsequent report period
3. Critical items pending
4. Design/Builder's requested changes to the detailed Construction Schedule. These changes shall be accompanied by a change order to the scope of work and term or a change order to the term only.

D. The Design/Builder shall submit a narrative with the progress report which shall include, but not be limited to, a description of problem areas, current and anticipated delaying factors and their impact, explanations of corrective actions taken or planned, any proposed newly planned activities or changes in sequence, and proposed logic for a Recovery Schedule, if required, as further described herein. The report shall also include:

1. A narrative describing actual work accomplished during the reporting period
2. A list of major construction equipment used on the Project during the reporting period
3. The total number of men by craft actually engaged in the work during the reporting period, with such total stated separately as to office, supervisory, and field personnel
4. A manpower and equipment forecast for the succeeding thirty (30) days, stating the total number of men by craft, and separately stating such total as to office, supervisory and field personnel

5. A list of Design/Builder supplied materials and equipment, indicating current availability and anticipated job site delivery dates
6. Anticipated changes or additions to Design/Builder's supervisory personnel.

E As part of the updating process, the Construction Manager will calculate, based upon progress data provided by the Design/Builder and agreed to by the Construction Manager, the value of Work completed based on the sum of the cost loading amounts for all activities, including activities specifically defined for stored materials, less the amount previously paid. Summation of all values of each activity less the appropriate percent of retainage shall be the maximum amount payable to the Design/Builder, provided that the Design/Builder has complied with all requirements of the Contract Documents.

7.0 RECOVERY SCHEDULE

A. Should the updated detailed Construction Schedule, at any time during the Design/Builder 's performance, show, in the sole opinion of the Construction Manager, that the Design/Builder is fourteen (14) or more days behind schedule for any milestone or completion date for any location or category of work, the Design/Builder , at the request of the Construction Manager, shall prepare a Recovery Schedule within 5 days, at no additional cost to the County (unless the County is solely responsible for the event or occurrence which has caused the schedule slippage), explaining and displaying how the Design/Builder intends to reschedule its Work in order to regain compliance with the detailed Construction Schedule.

B. The Design/Builder in preparing a recover schedule shall prepare and submit to the Construction Manager a Recovery Schedule, incorporating the best available information from sub-Contractors and others that will permit a return to the Detailed Construction (baseline) Schedule at the earliest possible time. The Design/Builder shall prepare a Recovery Schedule to the same level of detail as the detailed Construction Schedule. The Recovery Schedule shall be prepared in coordination with other separate Design/Builders, Contractors on the Project.

C. Within two (2) days after submission of the Recovery Schedule to the Construction Manager, the Design/Builder and any of the necessary sub-Contractors, suppliers, vendors, manufacturers, etc. shall participate in a conference with the Construction Manager to review and evaluate the Recovery Schedule. Each of the participants will give a written commitment to comply with the Recovery Schedule. Within two (2) days of the conference, the Design/Builder shall submit the revisions necessitated by the review for the Construction Manager's review and approval. The Design/Builder shall use the approved Recovery Schedule as its plan for returning to the detailed Construction Schedule.

D. The Design/Builder shall confer continuously with the Construction Manager to assess the effectiveness of the Recovery Schedule. As a result of these conferences, the Construction Manager will direct the Design/Builder as follows:

1. If the Construction Manager determines the Design/Builder continues behind schedule, the Construction Manager will direct the Design/Builder to prepare a Schedule Revision. If the submitted Schedule Revisions will exceed the term of the Contract then the Design/Builder must also submit and change order request. This change order request will be for the amount of time the project has been delayed. All conditions effecting the requested change order and liquidated damages or construction claims that might arise from the delay or from the change order must be included in the Change Order request.

2. If the Construction Manager determines the Design/Builder has successfully complied with provisions of the Recovery Schedule, the Construction Manager will direct the Design/Builder to return to the use of the approved detailed Construction Schedule.

SCHEDULE REVISIONS

A. If the Design/Builder cannot recover the detailed Construction Schedule via the Recovery Schedule then the Design/Builder must prepare a Schedule Revision and if this revision extends the detailed Construction Schedule beyond the term of the Contract, a request for a Change Order must be submitted. If the Schedule does not exceed the term of the contract the Construction Manager can approve the revision that now becomes the new Detailed Construction Schedule and Baseline. If the Term of the Contract is exceeded then a Change Order request must be submitted and the schedule revision with reasons for the delay. If the delay is the fault of the Design/Builder then only the detailed Construction Schedule is revised with the Baseline remaining unchanged. If the delay is County's fault or request or an uncontrollable circumstance then the detailed Construction Schedule and baseline will be revised following approval of the Change Order. Change Orders within Fulton County can take several months. The requests for a Change Order must be well thought out and analyzed to insure that all delays are requested and documented.

B. Requests for revision will be accompanied by evidence acceptable to the Construction Manager that the Design/Builder's suppliers and sub-Contractors are in agreement with the proposed revisions. If there are separate Design/Builders on the Project, the approval of the separate Design/Builders shall be obtained to make the proposed schedule revisions. If accepted by the Construction Manager and County, the revisions shall be binding upon the Design/Builder and all separate Design/Builders on the Project.

9.0 FLOAT TIME

A. Float or slack time associated with one chain of activities is defined as the amount of time between earliest start date and latest start date or between earliest finish date and latest finish date for such activities, as calculated as part of the currently approved Construction Schedule. Float or slack time shown on the currently approved Construction Schedule is not for exclusive use or benefit of either the County or the Design/Builder and is available for use by either of them according to whichever first needs the benefit of the float to facilitate the effective use of available resources and to minimize the impact of Project problems, delays, impact, acceleration or changes in the Work which may arise during performance. The Design/Builder specifically agrees that the County or Construction Manager in conjunction with their review activities or to resolve Project problems may use float time. The Design/Builder agrees that there will be no basis for any modification of the milestone or completion dates or an extension of the Contract Time, or a claim for additional compensation as a result of any Project problem, delay, impact, acceleration, or change order which only results in the loss of available float on the currently approved Construction Schedule.

B Float time shown on any Construction Schedule shall not be used arbitrarily by the Design/Builder in a manner, which, in the opinion of the Construction Manager, unnecessarily delays separate Design/Builders from proceeding with their work in a way which is detrimental to the interests of the County

END OF SECTION # 01310

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01320
PROGRESS REPORTS AND PHOTOGRAPHS

1.01 GENERAL

A. The Design/Builder shall submit to the Construction Manager, on the last day of each week, the daily progress reports for each day worked that week, including the following information:

B. Prior to the beginning of any work, the Design/Builder shall take project photographs of the work area to record existing conditions. Following completion of the work, another recording shall be made showing the same area and features as in the pre-construction photographs. All conditions which might later be subject to disagreement shall be shown in sufficient detail to provide a basis for decisions. The pre-construction photographs shall be submitted to the Construction Manager within 25 calendar days after the date of receipt by the Design/Builder of Notice to Proceed. Post-construction photographs shall be provided prior to final acceptance of the project. Two (2) 8" x 10" color prints of each photographic shot, for a total of thirty (30) shots shall be submitted for the Pre-Construction and Post-Construction Phases.

1. A statement of work performed that day
2. Manpower report indicating numbers working that day by trade, including subContractors.
3. A copy of a delivery receipt of all deliveries, to the project on that day, of the equipment or materials that require approval according to these Specifications.
4. Weather conditions.
5. Other data pertinent to the progress of the work.

C. As the work progresses, the Design/Builder shall provide record photographs with negatives of all major components of the construction. The photographs shall be taken at least monthly, or more frequently as necessary to provide an appropriate record of the work. A minimum of three (3) 8" x 10" color prints of each photographic shot, for a total of ten (10) shots shall be submitted monthly with each pay request. The photographs shall be representative of the primary work being claimed for during the period under consideration. The view selection will be agreed to with the Construction Manager. Pertinent information will be provided at the bottom front left corner of each photograph, including: project name, Design/Builder's name, description of subject, orientation, and date and time of exposure. Photographs submitted shall be enclosed back to back in a double face plastic sleeve punched to fit a standard three-ring binder.

D. Additionally, all photos taken shall be provided to the Construction Manager on CD/ROM at the same time that hardcopies are required.

END OF SECTION # 01320

S110 – MARSH CREEK SEWER REPLACEMENT
SECTION NO. 01340
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

1.01 GENERAL

A. The Design/Builder shall submit shop drawings, product data and samples as required by the Contract Documents or as requested by the Construction Manager.

B. Related Requirements:

1. General Conditions

1.02 SHOP DRAWINGS AND PRODUCT DATA

A. Submit shop drawings, product data, and/or samples covering the following items of work.

1. Paving and surfacing materials
2. Concrete mix design
3. Water pipe material
4. Ductile iron pipe
5. Precast concrete structures
6. Manhole frames, covers and flexible joints
7. Pumps
8. Pump motors
9. Pump controls
10. Electrical equipment
11. Building specialties
12. Valves
13. Chemical Feed and Storage Equipment
14. Structural steel
15. Miscellaneous metals
16. Paints, waterproofing
17. Hoisting Equipment
18. Instrumentation and SCADA Equipment
19. Flow measurement equipment
20. Piping layouts

B. Submit shop drawings and product data for any additional items of work as necessary for the successful completion of the project.

C. Shop drawings for any structure shall consist of such detailed plans as may be required for the prosecution of the work but not included in the Drawings. All necessary shop drawings shall be furnished by and through the Design/Builder. They shall include shop details, erection plans, and bending diagrams for reinforcing steel. Review by the Construction Manager must be obtained before any work involving these plans may be performed. Plans for falsework, centering and form work may also be required, and such cases shall be likewise subject to review by the Construction Manager.

1.03 DESIGN/BUILDER'S RESPONSIBILITIES

A. Approve shop drawings, product data and samples prior to submission.

B. Determine and verify:

1. Field measurements and quantities.
2. Field construction criteria.
3. Materials of construction.
4. Catalog numbers and similar data.
5. Conformance with specifications.

C. Coordinate each submittal with requirements of the work of other submittals and of the Contract Documents.

D. Notify the Construction Manager in writing, at time of submission, of any deviations in the submittals from the requirements of the Contract Documents in order that, if the deviations are deemed acceptable, suitable action may be taken for proper adjustment. Otherwise, the Design/Builder will not be relieved of the responsibility for executing the work in accordance with the Drawings and Specifications even though such shop drawings have been reviewed by the Construction Manager.

E. Fabrication or work which requires submittals shall not begin until return of submittals after the Construction Manager's review.

F. Keep one set of approved and reviewed shop drawings on the job site at all times.

A. Produce the required shop drawings.

1.04 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule, and in such sequence as not to cause delay in the work or in the work of any other Design/Builder or SubContractor.

B. Number of submittals required

1. Shop drawings and product data: The Design/Builder shall submit seven copies of shop drawings and product data to the Construction Manager for review.
2. Samples: The Design/Builder shall submit two samples, with tags and properly identified, for each item requiring samples.

C. Each submission must be accompanied by a consecutively numbered letter of transmittal in duplicate, listing the contents of the submission and identifying each item by reference to Specification Section or Drawing number.

D. Submittals shall contain:

1. The date of submission and the dates of any previous submissions.
2. The Project title and number.
3. Contract identification.
4. The names of:
   a. Design/Builder/SubContractor.
   b. Supplier.
   c. Manufacturer.
5. Identification of the product, with the Specification Section number.
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. Identification of deviations from Contract Documents.
10. Identification of revisions on resubmittals.
11. An 8 inch by 3 inch blank space for Design/Builder and Construction Manager stamps.
12. Design/Builder's stamp shall be initialed or signed, certifying to approval of the submittal, to the verification of products, field measurements and field construction criteria, and to the coordination of the information within the submittal with the requirements of the work and of Contract Documents.

E. Catalog plates and other similar materials that cannot be conveniently labeled shall be bound in suitable covers bearing the identifying data.

F. Shop drawings shall be accompanied by all required certifications and other such supporting materials, and shall be submitted in such sequence or in such groups that all related items may be reviewed together. When shop drawings cannot be reviewed because the submission is not complete, or because related shop drawings or items have not been received, such shop drawings will be returned without action or will be held until the lacking materials are received. Any delay to the project resulting from the submission of incomplete shop drawing data shall be the responsibility of the Design/Builder and shall not constitute grounds for a project time extension.

G. Other special requirements may be listed in the Specifications and/or given to the Design/Builder at the preconstruction conference.

1.05 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes to the submittals required by the Construction Manager and resubmit for review.

B. Shop drawings and product data:

1. Revise initial drawings or data, and resubmit as specified for the initial submittal.
2. Indicate any changes which have been made other than those requested by the Construction Manager.

C. Samples: Submit new samples as required for initial submittal.

1.06 DISTRIBUTION

A. Distribute shop drawings and product data which have been reviewed by the Construction Manager to:

1. Job site file.
2. SubContractors.
3. Supplier or Manufacturer.
4. As requested by Construction Manager.

1.07 CONSTRUCTION MANAGER'S DUTIES

A. Review submittals with reasonable promptness and in accordance with the shop drawing schedule.

B. Affix stamp and initials or signature, and indicate whether the review is complete, or resubmittal is required.

C. Return submittals to the Design/Builder for distribution, or for resubmission.

1.08 REVIEW OF DRAWINGS

A. Review of shop drawings will be general, for conformance with the design concept of the project and compliance with the information given in the Contract Documents, and will not include verification of quantities, detailed dimensions, nor adjustments of dimensions to actual field conditions. Review shall not be construed as permitting any departure from the Contract requirements, as authorization of any increase in price, or as relieving the Design/Builder of the responsibility for any error in details, dimensions or otherwise that may exist.

B. Review by the Construction Manager of Design/Builder's shop drawings does not relieve the Design/Builder of any responsibility for accuracy of dimensions and details. The Design/Builder shall be responsible for agreement and conformity of his shop drawings with the Drawings and Specifications.

C. Allow a minimum of 30 days for the Construction Manager’s initial processing of each submittal. This time frame shall also apply to resubmitted shop drawings.

1.09 PAYMENT

A. The contract price shall include the cost of furnishing all shop drawings, product data and samples. No extra payment will be made for such drawings, data, and samples.

END OF SECTION # 01340

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01420
INSPECTION OF WORK

1.01 CONSTRUCTION MANAGER'S INSPECTION

A. The Construction Manager shall have the right of access to and inspection of the work at all times. Materials, equipment and products shall be subject to the Construction Manager's review as specified herein.

B. The Construction Manager is responsible for general surveillance of the work on behalf of the County. The Construction Manager is not responsible for construction means, methods, sequences, or procedures or for safety precautions and programs in connection with the work. The Construction Manager is not responsible for supervision of the work and shall not give instruction to the Design/Builder's personnel as to methods of execution of the work. The Construction Manager is not responsible for the Design/Builder's failure to carry out the work in accordance with the Contract Documents.

1.02 DESIGN/BUILDER'S DUTIES

A. The Design/Builder is responsible for all materials, equipment, methods, and procedures in execution of the work.

B. The Design/Builder shall correct to the satisfaction of the Construction Manager any work or material found to be defective or of deficient quality. Such corrections shall be made by the Design/Builder at no additional expense to the County.

1.03 RIGHT OF ENTRY

A. Representatives of Fulton County System, the Environmental Protection Division of the Georgia Department of Natural Resources, and the U.S. Department of Agriculture, Soil Conservation Services and others as may be identified by the County shall have access to the work wherever it is in preparation or progress. The Design/Builder shall provide proper facilities for such access and inspection.

END OF SECTION # 01420

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01510
TEMPORARY FACILITIES

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.

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 electricity and other utilities required for the performance of the Work. Water will be provided by the Owner.
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.

1.04 FIRST AID FACILITIES

A. The Design/Builder shall provide a suitable first aid station, equipped with all facilities and medical supplies necessary to administer emergency first aid treatment. The Design/Builder 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 Design/Builder to the Owner and the Engineer's personnel.

1.05 SANITARY FACILITIES

A. Prior to starting the Work, the Design/Builder shall furnish, for use of Design/Builder'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

A. The Design/Builder 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

A. 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

A. Parking facilities for the Design/Builder's and Design/Builder's subContractors' personnel shall be the Design/Builder's responsibility. The storage and work facilities provided by the Owner will not be used for parking by the Design/Builder's or subContractors personnel.

1.09 TEMPORARY SIGNAGE

A. Project Signs: The Design/Builder shall construct, erect and maintain two (2) four foot by eight foot (4'x8') project signs of ¾ inch (minimum) exterior grade plywood, given two coats of paint and mounted securely on two four inch by four inch (4"x4") posts set 30 inches (30") (minimum) into the ground. The signs shall be clearly lettered by one skilled in the sign trade with the facility name, address, County Logo, names of County Commissioners, the County Manager and other County representatives, Design/Builder name, major subContractor names and the jobsite telephone number. Locate the project signs as designated by the Construction Manager. Avoid placement that may inhibit safe entry or exit from the site. Verify each sign's content with County, through the Construction manager, prior to procuring and erecting the sign.

B. No other signs or advertising shall be displayed on the premises without the approval of the Construction Manager, other than the posting of required notices and cautionary signage by the Design/Builder, and signage on equipment and trailers to designate ownership.

END OF SECTION NO. 01 510

S110 – Marsh Creek Sewer Replacement

SECTION NO. 01511

FLOW BYPASS OR DIVERSION PUMPING

PART 1 GENERAL

1.01 SCOPE

A. The objective of flow bypass and/or diversion pumping is to:

B. maintain an efficient and uninterrupted level of service to wastewater collection system users whilst maintenance or construction operations (including rehabilitation, repair or replacement) are facilitated on the segment or segments being bypassed and/or from which flow is being diverted, within the wastewater collection system ensure all levels of sewage flow are continuously and effectively handled around the segment or segments of sewer being bypassed and/or from which flow is being diverted by:

- ensuring that bypass and diversion pumps are adequately fueled, lubricated and maintained
- ensuring backup spare parts are expeditiously applied to the flow bypass and/or diversion pumping system in the event of component breakdown
- ensure an emergency backup plan is smoothly implemented in the event of system failure
- preventing backup, spillage, flooding or overflow onto streets, yards and unpaved areas

C. or into buildings, adjacent ditches, storm sewers, and waterways, whilst flow bypass or diversion pumping takes place and ensure that installation, startup and subsequent disassembly of the flow bypass and diversion pumping system is smoothly transitioned:

D. When pumps are operating, an experienced bypass/diversion pump maintenance operator/mechanic and/or deputy shall continuously be on site to monitor the operation of the entire bypass/diversion system. The operator/mechanic and/or deputy shall comprehensively, methodically and continuously:

- adjust pump speed as appropriate so as not to adversely impact upstream or downstream flow condition levels
- check that the effectiveness and security of bulkheads, dams, diaphragms, plugs, valves, weirs, and all other flow control devices are working effectively and according to plan
- check the integrity of hoses and couplings along the entire bypass/diversion system
- monitor fuel tanks and top up as appropriate
- monitor lubrication levels and top up as necessary
- facilitate minor repairs as required, and
- report on problems arising.

1.02 DEFINITIONS

A. Flow bypass and diversion pumping is the efficient and effective installation and operation of bulkheads, plugs, hoses, piping, and pumps to maintain sewage flow and prevent backup, spillage, flooding or overflow.

1.03 SUBMITTALS

A. The Design/Builder shall submit ten copies of the flow bypass and/or diversion pumping plan for all sewers with diameter greater than 36" with sufficient detail to show:

- the location, number and size of pumps,
- the number, location size and type of piping or hoses,
- the number, location, size and type of plugs

Any proposal to implement flow control arrangements on sewers including plugging and/or blocking, high-velocity nozzles, and/or bypass and/or diversion pumping as well as any sewer rehabilitation, repair or replacement construction, shall be outlined in writing and submitted to the Construction Manager at least 14 days prior to the implementation of the flow control system or sewer rehabilitation, repair or replacement. For sewers greater than 36" diameter two copies of a plan as described above together with all necessary details shall be submitted to the Construction Manager.

B. All proposed flow control arrangements, including flow bypass and/or diversion plans, shall indicate or show the location and position, in detail if necessary, any special features where pipes or hoses cross roadways, including intersections, such as temporary trenches, support bridges, ramp-overs etc.

C. All proposed flow control arrangements, including flow bypass and/or diversion pumping plans for sewers greater than 36" diameter, shall also include an emergency response plan to be followed in the event of a failure of the bypass pumping and/or diversion system.

D. The Design/Builder shall notify the Construction Manager 24 hours prior to commencing actual flow bypass and/or diversion pumping operations. The Design/Builder's flow control proposal shall be agreed to by the Construction Manager before the Design/Builder shall be allowed to commence sewerage bypass pumping and/or diversion.

1.04 ELATED SECTIONS

A. The Work of the following sections apply to the Work of this section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of Work.

1. Section 02720 – Pipe bursting Method
2 Section 02730 – Sewers and Accessories

PART 2 PRODUCTS

2.01 PUMPING EQUIPMENT

A. The Design/Builder shall design all piping, joints, and accessories to withstand twice the maximum system pressure or 50 psi, whichever is greater. A spare pump, appropriate piping, fuel, lubrication and spare parts shall be at the site, ready for use in case of breakdown.

B. No more than three (3) pump discharge hoses shall be used for the bypass/diversion over the length of the line of segment(s). If the flow exceeds

the capacity of 3 “hoses” then rigid piping shall be used. The rigid piping shall consist of HDPE, PVC or steel pipes with suitably pressure rated couplings to withstand twice the maximum system pressure or 50 psi, whichever is greater.

C. Pumps shall be self-priming type or submersible electric, in good working order, with a working pressure gauge on the discharge. Pumps shall meet all the requirements of the Specification in relation to noise levels.

PART 3 EXECUTION

3.01 PLANNING

A. The Design/Builder shall be solely responsible for planning and executing sewer flow control, bypass and diversion pumping operations. The Design/Builder shall be entirely liable for damages to private or public property that may result from his operations and for all cleanup, disinfection, damages, and resultant fines in the event of a spillage, flooding or overflow.

3.02 GENERAL

A. If, during normal rehabilitation works on manholes and sewers, where flow control devices, including flow bypass and diversion pumping, has not been deployed, and wastewater flow depth exceeds the workable levels, rehabilitation works shall be immediately discontinued. Rehabilitation works shall only re-continue, at no extra cost to the Owner when minimum flow levels prevail–normally between 2.00 am to 5.30 a.m. Under these circumstances one or more of the following flow control systems shall be deployed, which ever is appropriate for the levels of flow encountered:

- plugging or blocking
- high-velocity jet nozzles
- bypass and/or diversion pumping

Normally 14 days notice shall be given of any such planned activity on any sewer. For sewers greater than 36” diameter a flow bypass and/or diversion plan shall be submitted.

Before any flow control arrangement is installed the Design/Builder shall arrange to de-silt the segment of sewer to be bypassed whilst still under flow. Subsequent jetting and final cleaning before rehabilitation or repair shall be undertaken while the segment of sewer is bypassed.

3.03 PLUGGING OR BLOCKING

A. Insert sewer line plug into the line at a manhole upstream from the manhole or sewer that is to be rehabilitated and tested. For manhole rehabilitation the plug shall be designed so that a portion of the sewage can be released downstream. During this portion of the operation, shut off or substantially reduce flows so that the manhole can be properly cleaned, prepared and rehabilitated. Flow shall be shut off as required, to properly rehabilitate the manhole or sewer.

3.04 FLOW BYPASS AND/OR DIVERSION PUMPING SCHEDULING

A. If the Owner is operating or maintaining conventional pumping facilities and/or flow bypass and/or diversion pumping in the construction area of the present Contract, the Design/Builder shall coordinate with the Construction Manager as necessary to determine and effect optimum working arrangements.

B. The Design/Builder shall immediately cease bypass and/or diversion pumping when so ordered by the Construction Manager or Owner.

3.05 FIELD QUALITY CONTROL

A. During flow bypass and/or diversion pumping, the Design/Builder is prohibited from allowing any sewage to be dumped, or spilled in or onto the ground or any area outside of the existing wastewater collection system. In addition due care and attention shall be given to prevent vehicular or pump fuel or lubrication oil to be leaked.

3.06 CLEANING

A. When flow bypass and diversion pumping operations are complete, the residual contents of sewage in piping shall be drained into the existing sewer prior to disassembly.

***3.07* BACKUP, SPILLAGE, FLOODING OR OVERFLOW**

A. In the event of accidental overflow or spillage the Design/Builder shall immediately stop the overflow and take action to clean up and disinfect the spillage. The Construction Manager shall be notified immediately and in any event not less than twenty-four hours following the occurrence.

B. Should fines be subsequently imposed as a direct result of the overflow or spillage and the Design/Builder is deemed to be partially or entirely responsible, the Design/Builder shall pay such fines as are imposed by the authorities in accordance with the General Terms of the Contract. No fine shall be paid by the Owner where it is shown that the Design/Builder was entirely responsible for any overflow or spillage.

C. Flow bypass and diversion pumping shall be done in such a manner so as not to damage private or public property, or create a nuisance or public menace. The pumped sewage shall be in an enclosed hose or pipe that is adequately protected from traffic, and shall be redirected into the wastewater collection system. After the work is completed, flow shall be returned to the sewer and all temporary equipment removed.

END OF SECTION 01 511

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01562
DUST CONTROL

PART 1 - GENERAL

1.01 SCOPE

A. Limit blowing dust caused by construction by applying water or employing other appropriate means or methods to maintain dust control subject to the approval of the County. 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 Proposers 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 Design/Builder shall make adequate provision to fully protect the surrounding area and will be held fully responsible for all damages resulting from Design/Builder's operations.

B. Protect all existing facilities (indoors and out) from damage by dust, 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 # 01562

S110 – Marsh Creek Sewer Replacement

SECTION NO. 01610

TRANSPORTATION AND HANDLING

PART 1 GENERAL

1.01 SCOPE

A. The Design/Builder shall provide transportation of all equipment, materials and products furnished under these Contract Documents to the Work site. In addition, the Design/Builder shall provide preparation for shipment, loading, unloading, handling and preparation for installation and all other work and incidental items necessary or convenient to the Design/Builder for the satisfactory prosecution and completion of the Work.

B. All equipment, materials and products damaged during transportation or handling shall be repaired or replaced by the Design/Builder at no additional cost to the Owner prior to being incorporated into the Work.

1.02 TRANSPORTATION

A. All equipment and materials shall be suitably boxed, crated or otherwise protected during transportation.

B. Where materials will be installed using existing cranes or hoisting equipment, the Design/Builder shall ensure that the weights of the assembled sections do not exceed the capacity of the cranes or hoisting equipment.

1.03 HANDLING

A. All equipment, materials and products shall be carefully handled to prevent damage or excessive deflections during unloading or transportation.

B. Lifting and handling drawings and instructions furnished by the manufacturer or supplier shall be strictly followed. Eyebolts or lifting lugs furnished on the equipment shall be used in handling the equipment. Shafts and operating mechanisms shall not be used as lifting points. Spreader bars or lifting beams shall be used when the distance between lifting points exceeds that permitted by standard industry practice.

C. Under no circumstances shall equipment or products such as pipe, structural steel, castings, reinforcement, lumber, piles, poles, etc., be thrown or rolled off of trucks onto the ground.

D. Slings and chains shall be padded as required to prevent damage to protective coatings and finishes.

END OF SECTION NO 01610

S110 – Marsh Creek Sewer Replacement

SECTION NO. 01611

STORAGE & PROTECTION

PART 1 GENERAL

1.01 SCOPE

A. The work under this Section includes, but is not necessarily limited to, the furnishing of all labor, tools and materials necessary to properly store and protect all materials, equipment, products and the like, as necessary for the proper and complete performance of the Work.

1.02 STORAGE AND PROTECTION

A. Storage

1. Maintain ample way for foot traffic at all times, except as otherwise approved by the Engineer.
2. All property damaged by reason of storing of material shall be properly replaced at no additional cost to the Owner.
3. Packaged materials shall be delivered in original unopened containers and so stored until ready for use.
4. All materials shall meet the requirements of these Specifications at the time that they are used in the Work.
5. Store products in accordance with manufacturer's instructions.

B. Protection

1. Use all means necessary to protect the materials, equipment and products of every section before, during and after installation and to protect the installed work and materials of all other trades.
2. All materials shall be delivered, stored and handled to prevent the inclusion of foreign materials and damage by water, breakage, vandalism or other causes.
3. Substantially constructed weather tight storage sheds, with raised floors, shall be provided and maintained as may be required to adequately protect those materials and products stored on the site which may require protection from damage by the elements.

C. Replacements: In the event of damage, immediately make all repairs and replacements necessary for the approval of the Engineer and at no additional cost to the Owner.

D. Equipment and products stored outdoors shall be supported above the ground on suitable wooden blocks or braces arranged to prevent excessive deflection or bending between supports. Items such as pipe, structural steel and sheet construction products shall be stored with one end elevated to facilitate drainage.

E. Unless otherwise permitted in writing by the Engineer, building products and materials such as cement, grout, plaster, gypsum board, particleboard, resilient flooring, acoustical tile, paneling, finish lumber, insulation, wiring, etc., shall be

stored indoors in a dry location. Building products such as rough lumber, plywood, concrete block and structural tile may be stored outdoors under a properly secured waterproof covering.

F. Tarps and other coverings shall be supported above the stored equipment or materials on wooden strips to provide ventilation under the cover and minimize condensation. Tarps and covers shall be arranged to prevent ponding of water.

END OF SECTION NO 01611

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01630
SUBSTITUTION AND PRODUCT OPTIONS

PART 1 - GENERAL

1.01 EQUIPMENT PROPOSALS

A. Equipment Proposals shall be submitted in accordance with the procedures set forth in the Instruction to Proposers.

1.02 MATERIAL AND EQUIPMENT LIST

A. Within 30 days after Notice of Award, the Design/Builder shall submit for approval a complete list of materials and equipment proposed for use in connection with the project. Partial lists submitted from time to time will not be considered.

B. After any material or piece of equipment has been approved, no change in brand or make will be permitted unless satisfactory written evidence is presented to prove that the manufacturer cannot make scheduled delivery of approved material or that material delivered has been rejected and the substitution of a suitable material is an urgent necessity, or that other conditions have become apparent which indicates that approval of such other material is in the best interest of the County.

1.03 SUBMISSIONS FOR PRODUCT SUBSTITUTION

A. Product substitutions may be proposed by the Design/Builder in accordance with procedures outlined in the Instructions to Proposers, as indicated by the “or equal” phrase appearing throughout these Specifications, provided the substitute product is equal to or better than named products.

B. The Design/Builder shall furnish sufficient detailed information so that an evaluation can be made of any proposed “equal” product. This information shall be submitted with the shop drawings. Submission of inadequate or incomplete information as required to properly evaluate a proposed “or equal” product will be sufficient grounds for rejection. Submission shall include, but is not limited, to the following:

a. Performance capabilities.
b. Materials and construction details.
c. Manufacturer’s production and service capabilities.
d. Evidence of proven reliability.
e. Specific references to characteristics either superior or inferior to specified requirements.
f. Detailed estimate of operating and maintenance costs.

1.04 EVALUATION OF PRODUCT SUBSTITUTIONS

The information required to be furnished for evaluation of product substitutions will be evaluated as follows:

A. Performance capabilities, and materials and construction details will be evaluated based upon conformance with the Specifications. Products that do not conform to

the Specifications will not be acceptable.

B. Manufacturer's production and service capabilities, and evidence of proven reliability will be acceptable if the following is furnished:

a. Written evidence that the manufacturer has not less than three years experience in the design and manufacture of the substitute product.

b. Written evidence of at least one application, of a type and size similar to the proposed substitute product, in successful operation for a period of at least one year.

c. In lieu of furnishing evidence of a manufacturer's experience and successful operation of an application of the product to be substituted, the Design/Builder may furnish a cash deposit or bond, which will guarantee replacement if the product furnished, does not satisfy the other requirements specified in this section. The amount of cash deposit or bond will be subject to the approval of the Construction Manager.

C. Specific reference to characteristics either superior or inferior to specified requirements will be evaluated based on their net effect on the project. Products with any characteristics inferior to those specified will not be acceptable unless offset by characteristics that, in the opinion of the Construction Manager, will cause the overall effect of the product on the project to be at least equal to that of those specified.

D. The detailed estimate of operating and maintenance costs will be evaluated based on comparison with similar data on the specified products. Proposed substitute products which have an operating and maintenance costs, which, in the opinion of the Construction Manager, exceeds that of the specified products, will not be considered equal and will not be acceptable.

1.05 REIMBURSEMENT

A. The Design/Builder shall be responsible for all costs associated with the product substitutions, which require major design changes to related, or adjacent work made necessary by the substitutions.

END OF SECTION # 01630

SECTION 01650

EASEMENT

PART 1 - GENERAL

1.01 The County has acquired some easements for this project along the existing alignment. Easements for Sections 2 and 3 are generally shown on the Drawings. However, due to time constraints and problematic parcels, easements for Section 1 were not obtained and are, consequently, not shown. Copies of all easements, regardless of status, shall be provided to the D/B Company.

1.02 The D/B Company shall make notification to all property owners prior to commencement of work on their property. Notification shall be provided at least seven (7) working days before any activity on the property.

1.03 As part of any current or future easement agreement, the County may make certain concessions as to work that will be performed during the course of this project. The following table and corresponding drawings present the current information. The D/B Company shall provide its specific alignment and pipe upgrade method based upon overcoming the existing design issues. It is the sole responsibility of the D/B Company to verify the status of all easements and coordinate the acquisition process with the County based upon the final recommended alignment, not the existing. No separate compensation will be provided for this work as it is considered incidental to the construction of the replacement sewer.

1.04 None of the easements on the 37 parcels along the Section 1 existing alignment have been obtained. The following table describes the typical design issues encountered on the problematic parcels:

SECTION 1

Owner	Address	STA	+	Parcel	Design Issues
Garcia, Pedro & Brenda	7007 Riverside Dr.	1	72.50	1	Alignment and method of installation must be confirmed to address nearby structures. Bank stabilization should be considered.
Perry, John & Erin	95 North Mill Rd.	15	52.33	9	Alignment and method of installation must be confirmed to address nearby structures. Bank stabilization should be considered.
The Tuscany Corporation		29	38.69	12	Alignment and method of installation must be confirmed to address steep terrain and overpass. Bank stabilization should be considered.
Charles E. Quigg	7015 Brandon Mill Rd.	35	1.33	13	Alignment and method of installation must be confirmed

					to address steep terrain and overpass. Bank stabilization should be considered.

15 of the easements on the 19 parcels along the Section 2 existing alignment have been obtained. The following table describes the typical design issues of the 4 remaining problematic parcels where easements have yet to be finalized:

SECTION 2

Owner	**Address**	**STA**	+	**Parcel**	**Design Issues**
Sharon S. Goowin & Pamela Lee		0	0.00	1	Existing easement needs field verification
Abernathy Road, LLC		3	53.63	3	Existing easement needs field verification. Construction access must be determined.
Richard & Jill Sanders	6487 Cherry Tree Lane	20	21.71	17	Alignment and method of installation must be confirmed to address steep terrain, a bridge with supports, deep pipe, and a large rock wall
Helon T. Robert	6478 Cherry Tree Lane	21	45.65	19	Alignment and method of installation must be confirmed to address the amount of construction access required. Existing easement needs field verification.

9 of the easements on the 12 parcels along the Section 3 existing alignment have been obtained. The following table describes the typical design issues of the 3 remaining problematic parcels where easements have yet to be finalized:

SECTION 3

Owner	Address	STA	+	Parcel	Design Issues
Brown, Robert & Linda	970 Edgewater Dr.	11	43.05	2	Alignment and method of installation must be confirmed to address the amount of construction access required. Lateral connection and additional easement should also be confirmed.
Shavin, Mark	980 Edgewater Dr.	15	43.43	3	Alignment and method of installation must be confirmed to address the amount of construction access required. Lateral connection and additional easement should also be confirmed.
Bradfield, David & Nancy	1045 Edgewater Dr.	22	26.98	6	Alignment and method of installation must be confirmed to address pool and rock wall. Additional easement should also be confirmed based on structures, shared ingress and egress with owner, and pipe burst pit box, if necessary.

END OF SECTION 01650

S110 – MARSH CREEK SEWER REPLACEMENT
SECTION NO. 01700
PROJECT CLOSEOUT

1. GENERAL REQUIREMENTS

A. Comply with requirements for administrative procedures stated in this and other sections of the Project Manual in closing out the Work. Closeout procedures are summarized in this Section.

B. Contract requirements shall be met when design and construction activities have successfully produced, in order, completion of these three closeout stages:

   1. Substantial Completion
   2. Final Completion
   3. Final Payment

C. The Design/Builder shall provide all written notices and supporting documentation as described in Paragraphs 2 and 3 below when requesting Substantial Completion and Final Completion, respectively. Partial submittals of the required documents shall not represent a valid request, and the County and Construction Manager shall not be liable for any delays in the Substantial and Final Completion dates arising there from.

2. SUBSTANTIAL COMPLETION

A. Reference the DEFINITIONS, regarding Substantial Completion.

B. When the Work is substantially complete, the Design/Builder shall submit to the Construction Manager:

   1. a written notice that the Work, or designated portion thereof, is substantially
      i. Complete.
   2. An original Certificate of Occupancy for the Project (as applicable).
   3. a list of items to be completed or corrected (hereinafter referred to as a
      i. "Punch List").
   4. A request for a Substantial Completion inspection on a date acceptable to the County and the Construction Manager.
   5. Project record documents, operation & maintenance manuals, warranties, and certificates for review and approval.

D. Within a reasonable time after receipt of such notice, the Construction Manager, the Design/Builder, and at its option, the County, will make an inspection to determine the status of completion.

E. The Punch List submitted by the Design/Builder will be reviewed in detail, with items added or deleted to indicate Work to be corrected or completed.

   1. The Construction Manager reserves the right to issue a revised Punch List.
   2. The Construction Manager will reproduce and distribute all necessary copies of any revised Punch List to the Design/Builder and see that the items requiring correction or completion are given prompt attention by the Design/Builder.

3. The Construction Manager may withhold the issuance of the Certificate of Substantial Completion until corrections required by said Punch List are made or all parties are satisfied that they will be made.

F. Should the Construction Manager determine that the Work is not substantially complete:

1. The Construction Manager will promptly notify the Design/Builder in writing, giving the reasons therefore.
2. The Design/Builder shall remedy the deficiencies in the Work, and then send a second written notice of Substantial Completion to the Construction Manager.

G. Paragraphs 2.B through 2.D will be repeated.

H. Should it become necessary to perform more than one (1) re-inspection due to the inaccurate claims of the status of completion made by the Design/Builder, the Construction Manager may deduct the costs of such re-inspections from the final payment, including but not limited to costs incurred by the Construction Manager, and costs incurred by the Owner for payment of compensation to the Construction Manager, for services performed for the re-inspection(s). Also refer to General Requirements Section 01 400, *Quality Control*.

I. When the Construction Manager concurs that the Work is substantially complete, the Construction Manager will:

1. Prepare a Certificate of Substantial Completion accompanied by the Design/Builder's Punch List of items to be completed or corrected, as verified and amended by the Construction Manager and the County. (Note: Contract responsibilities are not altered by inclusion or omission of required Work for the Punch List.)
2. Sign the Certificate of Substantial Completion and submit it to the County and the Design/Builder for their written acceptance of the responsibilities assigned to them in the Certificate.

3. FINAL COMPLETION

A. Reference the Definitions, regarding Final Completion.

B. To attain Final Completion, the Design/Builder shall complete the activities pertaining to Substantial Completion Certificate and complete work on all Punch List items. Only then shall a written request to the Construction Manager for final inspection be submitted.

C. When the Work is complete, the Design/Builder shall submit to the Construction Manager written certification, signed jointly with its Architect and Engineers of Record (as required), that:

1. The Contract Documents have been complied with in their entirety.
2. The Work has been inspected for compliance with Contract Documents.
3. The Work has been completed in accordance with Contract Documents.
4. The Work is completed and ready for final inspection.

D. The Construction Manager, Design/Builder and County will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

E. Should the Construction Manager determine that the Work is incomplete or defective:

5. The Construction Manager will promptly notify the Design/Builder in writing, listing the incomplete or defective Work.
6. The Design/Builder shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the Construction Manager that the Work is complete.

F. Paragraphs 3.B through 3.D will be repeated.

G. Should it become necessary to perform more than one (1) re-inspection due to failure of the Work to comply with the claims of status of completion made by the Design/Builder, the Construction Manager may deduct the costs of such re-inspections from the final payment, including but not limited to costs incurred by the Construction Manager, and costs incurred by the Owner for payment of compensation to the Construction Manager, for services performed for the re-inspection(s). Also refer to General Requirements Section 01 400, *Quality Control*.

H. When the Construction Manager finds that the Work is acceptable under the Contract Documents, the Design/Builder will be requested to make a final closeout submittal.

4. DESIGN/BUILDER'S CLOSEOUT SUBMITTALS

A. The Design/Builder shall provide to the Construction Manager the following documents in the quantity of one original and one copy unless otherwise noted. Note that with the exception of Subparagraphs 4.G, 4.H, 4.J, and 4.K below, submittal for approval shall have already been made prior to Substantial Completion. Submittal under this Paragraph would be for a final submittal should revisions or additional copies be required of previously submitted documentation.

B. Evidence of Compliance with all requirements of governing authorities:

1. Certificate(s) of Occupancy (as applicable)
2. Certificates of Inspection, for Mechanical, Electrical, Plumbing, Fire Protection, and others as may be required.

C. Project Record Documents: Refer to Section 01 720 of the General Requirements.

D. Operation & Maintenance Manuals: Refer to Section 01 730 of the General Requirements.

E. SubContractors List: A complete listing of all subContractors and their suppliers, indicating business addresses, telephone numbers, contact names, and items supplied by each.

F. Manufacturer List: A listing of manufacturers of major materials, equipment and systems installed in the Work, and local contact addresses and phone numbers.

G. Warranties: Refer to Section 01 740 of the General Requirements, and individual sections of the Technical Specifications.

H. Payment of Debts and Claims and Consent of Surety: The Design/Builder shall submit adequate evidence that the Design/Builder has paid all obligations to date arising out of the Contract. Design/Builder shall also submit written consent of its Surety to final payment.

I. Release of Claims and Liens: The Design/Builder and each subContractor shall also submit a certified Release of Claims and Liens, indicating that the releases for waivers submitted are complete to the best of its knowledge and information.

J. Final Approvals and Certificates:

1. Plans and Certificates approved by the Fulton County Development Services Department which were maintained at the jobsite shall be amended to show construction changes and resubmitted as required by law.

2. Design/Builders requiring filing shall complete all Fulton County inspections and permits records before Application for Final Payment. Submit all approvals and certificates required by the Specifications, Drawings and applicable codes and regulations of all relevant departments or agencies of Fulton County, State of Georgia, and local authority having jurisdiction.

K. Shop Drawings, Manufacturer's Literature and Test Data (one copy only): The Design/Builder shall submit through the Construction Manager to the County, before final acceptance, all reviewed shop drawings (with all corrections noted), plus sets of all approved catalog cuts, equipment manuals, etc. All materials shall be indexed by Specification section. This submittal shall include a list of each room and its paint manufacturers and/or wall covering number (as applicable) for the County's use.

L. Keys and Maintenance Materials: All keys, maintenance kits or stock, replacement parts or materials, spare construction materials, and equipment required under the Contract Documents shall be delivered or made available to the County. Also refer to Section 01 760 of the General Requirements.

M. No partial submittals of the above items are to be made to the Construction Manager. All items of each category are to be collected by the Design/Builder and delivered at one time to the Construction Manager, together with a letter of transmittal listing all items. Where items are to be delivered to the County's representative, the Design/Builder shall include a copy of the transmittal letter listing all enclosures, signed by the County's representative acknowledging receipt.

UNCONDITIONAL WAIVER AND RELEASE
UPON FINAL PAYMENT

STATE OF GEORGIA
COUNTY OF _____

The undersigned mechanic and/or materialman has been employed by _____ (name of Design/Builder) to furnish _____ (describe materials and/or labor) for the construction of improvements known as _____ (title of the project or building) which is located in the City of _____, County of _____, and is owned by _____ (name of owner) and more particularly described as follows:

(DESCRIBE THE PROPERTY UPON WHICH THE IMPROVEMENTS WERE MADE BY USING EITHER A METES AND BOUNDS DESCRIPTION, THE LAND LOT DISTRICT, BLOCK AND LOT NUMBER, OR STREET ADDRESS OF THE PROJECT.)

Upon the receipt of the sum of $_____, the mechanic and/or materialman waives and releases any and all liens or claims of liens or any right against any labor and/or material bond it has upon the foregoing described property.

Given under hand and seal this _____ day of _____, 200_.

_____ (Seal)

_____
_____
(Witness)

_____
(Address)

END OF SECTION # 01700

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01710
CLEANING

PART 1 - GENERAL

1.01 SCOPE

A. This Section covers the general cleaning which the Design/Builder 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 Design/Builder shall handle hazardous waste and materials in accordance with applicable local, state, and federal regulations. Waste shall also be disposed of in WFPA approved landfills as applicable.

B. The Design/Builder 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 waters shall not be allowed.

1.04 DISPOSAL OF SURPLUS MATERIALS

A. Unless otherwise shown on the Drawings, specified or directed, the Design/Builder 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 County.

PART 2 - PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT

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

2.02 COMPATIBILITY

A. 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 Construction Manager.

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. Re-stack materials stored on site weekly.
3. At all times maintain the site in a neat and orderly condition which meets the approval of the Construction Manager.

C. Structures

1. Weekly and more often if necessary, inspect the structures and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.
2. Weekly and more often if necessary, sweep all interior spaces clean. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other material capable of being removed by using a hand-held broom.
3. As required preparatory to installation of successive materials, clean the structures or pertinent portions as recommended by the manufacturer of the successive material.
4. Following the installation of finish floor materials, clean the finish floor daily. "Clean", for the purpose of this paragraph, shall be interpreted as meaning free from all foreign material which, in the opinion of the Construction Manager, may be injurious to the finish floor material.
5. Schedule cleaning operation so that dust and other contaminants resulting from cleaning operations will not fall on wet, recently painted surfaces.

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 Construction Manager, hose down all paved areas on the site and all sidewalks; rake clean other surfaces of the grounds. Completely remove all resultant debris.

D. Structures

1. Remove all traces of soil, waste material, splashed material, and other foreign matter to provide a uniform degree of exterior cleanliness. Visually inspect all exterior surfaces and remove all traces of soil, waste material, and other foreign matter. Remove all traces of splashed materials from adjacent surfaces. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure. In the event of stubborn stains not removable with water, the Construction Manager may require light sandblasting or other cleaning at no additional cost to the County.
2. Visually inspect all interior surfaces and remove all traces of soil, waste material, smudges and other foreign matter. Remove all paint droppings, spots, stains and dirt from finished surfaces.
3. Clean all glass inside and outside.
4. Polish all surfaces requiring the routine application of buffed polish. Provide and apply polish as recommended by the manufacturer of the material being polished.

E. Post-Construction Cleanup: All evidence of temporary construction facilities. Haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other evidence of construction, as directed by the Construction Manager.

F. Restoration of Landscape Damage: Any landscape feature damaged by the Design/Builder shall be restored as nearly as possible to its original condition at the Design/Builder's expense. The Construction Manager will decide what method of restoration shall be used.

G. Timing: Schedule final cleaning as approved by the Construction Manager to enable the County to accept the Project.

3.03 CLEANING DURING COUNTY'S OCCUPANCY

A. Should the County occupy the Work or any portion thereof prior to its completion by the Design/Builder and acceptance by the County, responsibilities for interim and final cleaning of the occupied spaces shall be as determined by the Construction Manager in accordance with the Supplementary Conditions of the Contract Documents.

END OF SECTION # 01710

S110 – Marsh Creek Sewer Replacement
SECTION NO. 01720
PROJECT RECORD DOCUMENTS

1.01 GENERAL

A. The Design/Builder shall maintain at the site for the County one record copy of:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change orders and other modifications to the Contract.
5. Construction Manager field orders or written instructions.
6. Approved shop drawings, product data, and samples.
7. Field test records.

B. Related Requirements:

1. Section 01050: Construction Layout
2. Section 01200: Project Meetings
3. Section 01340: Shop Drawings, Product Data, and Samples
4. Section 01500: Construction Facilities and Temporary Controls

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

A. The Design/Builder shall store record documents and samples in the field office apart from documents used for construction.

1. Provide files and racks for storage of documents.
2. Provide locked cabinet or secure storage space for storage of samples.

B. Documents and samples shall be filed in accordance with Data Filing Format of the Uniform Construction Index.

C. Documents shall be maintained in a clean, dry, legible condition and in good order. Record documents shall not be used for construction purposes.

D. Documents and samples shall be available at all times for inspection by the Construction Manager.

1.03 MARKING DEVICES

A. The Design/Builder shall provide felt tip marking pens for recording information in the color code designated by the Construction Manager.

1.04 RECORDING

A. Each document shall be labeled "PROJECT RECORD" in large printed letters.

B. Record information shall be kept current with construction progress.

C. Record Drawings:

1. The Design/Builder shall keep an accurate record of variations between the work actually provided and that shown on the Contract Drawings. The representation of such variations shall conform to standard drafting practice and shall include such supplementary notes, legends and details as may be necessary for legibility and clear portrayal of the construction.

2. Do not conceal any work until required information is recorded.
3. Following the construction of the project, Design/Builder shall provide a Record Survey performed by a Registered Professional Land Surveyor. Survey shall accurately reflect installed location, depth, pipe size and other pertinent details. Cost for the survey shall be included in the price Proposal for pipe and no separate payment will be made for this survey.

1.05 SUBMITTAL

A. Sketches showing the "Record" information shall be provided monthly to the Construction Manager and submitted with the partial pay request.

B. The Design/Builder shall have the complete set of Record Documents certified as to their completeness and correctness by the Resident Inspector and shall deliver the certified Record Documents to the Construction Manager with the final pay estimate.

C. Each submittal shall be accompanied by a transmittal letter in duplicate, containing:

1. Date.
2. Project title and number.
3. Design/Builder's name and address.
4. Title and number of each Record Document.
5. Signature of the Design/Builder or his authorized representative.

END OF SECTION # 01720

S110 – Marsh Creek Sewer Replacement

SECTION NO. 02110S

SEWER EASEMENT CLEARING

PART 1 - GENERAL

Definitions:

1. Light Clearing: This area requires “bush hog” equipment for tree and shrub removal.
2. Medium Clearing: This area requires “bush hog” and “chipper” equipment for tree and shrub removal.
3. Heavy Clearing: This area requires “timbering” equipment for tree and shrub material.

1.01 SCOPE

A. Sewer Easement Clearing includes, but is not limited to removal from the project site of trees, stumps, roots, brush, structures, abandoned utilities, trash, debris, and all other materials found on or near the surface of the ground in the construction area and understood by generally accepted engineering practice not to be suitable for construction of the type contemplated. Precautionary measures to prevent damage to existing features to remain are considered part of the work.

B. Sewer Easement Clearing Operations shall be coordinated with temporary and permanent erosion and sedimentation control procedures.

1.02 QUALITY ASSURANCE

A. The Design/Builder shall comply with applicable codes, ordinances, rules, regulations, and laws of local, municipal, state or federal authorities having jurisdiction over the project. All required permits shall be obtained for construction operations by the Design/Builder.

B. Open burning will not be permitted.

PART 2 - PRODUCTS

2.01 EQUIPMENT

A. The Design/Builder shall furnish equipment with operators of the type normally used in clearing and grubbing operations including, but not limited to tractors, trucks, loaders, and root rakes.

PART 3 - EXECUTION

3.01 SEWER EASEMENT CLEARING

A. Clear and grub the permanent easement, but not to exceed 10 feet on each side of the pipeline before initiating other items of work. Remove all trees, growth, debris, stumps and other objectionable matter, except as directed by the County.

B. Materials to be cleared, grubbed and removed from the construction area include, but are not limited to the following: trees, stumps, roots, brush, trash, organic matter, paving, miscellaneous structures, debris, and abandoned utilities.

C. Grubbing shall consist of completely removing roots, stumps, trash, and other debris from all graded areas so that topsoil is free of roots and debris. Topsoil is to be left sufficiently clean so that further picking and raking will not be required.

D. All stumps, roots, foundations and planking embedded in the ground shall be removed and disposed of. Piling and butts of utility poles shall be removed to a minimum depth of two feet below the limits of excavation for structures, trenches and roadways or two feet below finished grade, whichever is lower.

E. Landscaping features shall include, but are not necessarily limited to, fences, cultivated trees, cultivated shrubbery, property corners, man-made improvements, subdivision and other signs, and shall be moved off or removed from the easement. The Design/Builder shall take extreme care in moving landscape features and shall re-establish these features as directed by the County.

F. Surface rocks and boulders shall be grubbed from the soil and removed from the site if not suitable as rip rap.

G. Where tree limbs interfere with utility wires, or where the trees to be felled are in close proximity to utility wires, the tree shall be taken down in sections to eliminate the possibility of damage to the utility.

H. Any work pertaining to utility poles shall comply with the requirements of the appropriate utility.

I. All fences adjoining any excavation or embankment that, in the Design/Builder's opinion, may be damaged or buried, shall be carefully removed, stored and replaced. Any fencing that, in the County's opinion, is significantly damaged shall be replaced with new fence material.

J. Stumps and roots shall be grubbed and removed to a depth not less than 2 feet below grade. All holes or cavities which extend below the subgrade elevation of the proposed work shall be filled with crushed rock or other suitable material, compacted to the same density as surrounding material.

K. The Design/Builder shall exercise special precautions for the protection and preservation of trees, cultivated shrubs, sod, fences, etc. situated within limits of the construction area but not directly within excavation and/or fill limits. The Design/Builder shall be held liable for any damage his operations have inflicted on such property.

L. The Design/Builder shall be responsible for all damages to existing improvements outside the permanent easement resulting from Design/Builder's operations.

M. Burying of residual materials will not be allowed.

3.02 DISPOSAL OF DEBRIS

A. The debris resulting from the clearing and grubbing operation shall be hauled to a disposal site secured by the Design/Builder and shall be disposed of in accordance with all requirements of federal, state, county and municipal regulations. No debris of any kind shall be deposited in any stream or body of water, or in any street or alley. No debris shall be deposited upon any private property except with written consent of the property owner. In no case shall any material or debris be left on the Project, shoved onto abutting private properties or buried on the Project.

B. Open burning will not be permitted.

END OF SECTION NO 02110S

S110 – MARSH CREEK SEWER REPLACEMENT
SECTION NO. 02115
TEMPORARY EROSION CONTROL

PART 1 - GENERAL

1.01 SCOPE OF THE WORK

A. Erosion control shall be employed during the construction period and shall include all necessary temporary measures required to prevent soil erosion from the site until permanent erosion control and finished surfaces are installed.

B. Erosion control measures shall be considered incidental to all construction involving land disturbing activities.

1.02 QUALITY ASSURANCE

A. The Design/Builder shall comply with applicable codes, rules, ordinances, regulations, and laws of local, municipal, state or federal authorities having jurisdiction over the project.

B. Work on public streets rights-of-way shall comply with the Georgia DOT Standard Specifications for Construction of Roads and Bridges.

C. Erosion control measures for construction shall conform to Project Drawings, these Specifications, and the "Manual for Erosion and Sediment Control of Georgia," published by the State Soil and Water Conservation Committee of Georgia.

PART 2 - PRODUCTS

2.01 SLOPE DRAINS

A. Slope drains shall be flexible plastic pipe of a manufacture for the intended purpose.

2.02 FILTER CLOTH

A. Filter cloth for silt fences shall be a pervious sheet of synthetic polymer filaments forming a stable network so that fibers retain their relative positions. Filter cloth shall be of the type recommended by its manufacturer for the intended application. The filter cloth shall meet the following requirements:

1. Minimum Average Thickness: 30 mils (by ASTM D1777).
2. Air Permeability: 250 to 550 CFM/Sq. Ft.
3. Minimum Grab Strength: 110 lbs. (by ASTM D1682).

PART 3 - EXECUTION

3.01 GENERAL

A. Temporary erosion control shall be directed toward and have the purpose of controlling soil erosion at its potential source. Downstream sediment entrapment measures shall be employed, but only as a backup to primary control at the source.

B. A continuing program of installation and maintenance of sediment control shall be employed during the construction period.

3.02 TEMPORARY EROSION CONTROL DURING CONSTRUCTION

A. Temporary erosion control during construction shall be employed until such time as permanent paving, planting, and restoration of natural areas is effective in control of erosion from the site.

See also Section 02270- Slope Protection and Erosion Control.

B. SILT FENCES

1. Temporary silt fences shall be located at all points where surface water can leave the construction area if the source area is subject to soil erosion.

2. Silt fences shall be constructed to remove sediments from flowing water through filtration and sedimentation. Silt fences shall be constructed in accordance with the details shown on the drawings.

3. Silt fences shall be arranged to create ponding behind them. Provision shall be made for removing accumulated sediments and maintaining ponding capacity.

4. Silt fences shall be removed and the area restored when permanent erosion control is effective.

C. GRADING OPERATIONS

1. Grading operations shall be scheduled so that the ground surface will be disturbed for the shortest possible time before permanent construction is installed. Large areas shall be maintained as flat as possible to minimize soil transport through surface flow.

2. Wherever steeper slopes or abrupt changes in grade are required, a diversion or berm shall be constructed at the top of the slope to cause the surface water to flow along the diversion to a control point to be transported downslope in a slope drain. In no case shall surface water be allowed to flow uncontrolled down slopes.

D. SLOPE DRAINS

1. Temporary slope drains shall be provided to convey surface water down slopes. Slope drains shall be provided with an apron at their tops to anchor them and properly direct water into them. Stone or rubble shall be placed at slope drain outlets to prevent scour at these points.

E. STORM DRAINAGE SYSTEM

1. As much of the permanent storm drainage system as is practicable shall be initially installed and surface water diverted into the system. The remainder of the storm drainage system shall be installed as soon as conditions will allow.

2. Temporary sediment barriers shall be maintained around drainage structures until final subgrade preparation is begun.

F. GROUND COVER

1. All exposed soils sloping 5 percent or greater shall be protected by application of ground cover.

2. Ground cover may consist of any effective erosion preventative treatment such as straw or other mulches, temporary seeding, etc.

3. All grassing or planting operations shall include mulching as stabilization until ground cover by planting is effective.

3.03 CLEANUP AND REMOVAL

A. At the time that permanent erosion control is effective, temporary devices and their accumulated sediments shall be removed.

END OF SECTION NO 02115

S110 – Marsh Creek Sewer Replacement

SECTION NO. 02126

STREAM CROSS AND CONSTRUCTION EXITS

PART 1 GENERAL

1.01 SCOPE

A. The section shall apply to all temporary road construction, including stream crossings and access roads.

B. Temporary road construction includes, but is not limited to, providing all construction exits, rip-rap, traffic control, and excavation work necessary to create vehicular access throughout the entire length of the project.

1.02 DEFINITIONS

A. A "construction exit" is defined as a stone-stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk, or parking area.

B. A "stream crossing" is defined as a temporary structure installed across a flowing stream or watercourse for use by construction equipment.

1.03 JOB CONDITIONS

A. Location of the Work: The area to be constructed as shown schematically on the Drawings or specified below.

1.04 RELATED SECTIONS

A. Section 02125: Erosion and Sediment Control

B. Section 02120: Site Prep

PART 2 PRODUCTS

2.01 EQUIPMENT

A. The Design/Builder shall furnish equipment of the type normally used in temporary road construction operations, including, but not limited to, tractors, trucks, loaders, graders, bulldozers, and cranes.

PART 3 EXECUTION

3.01 CONSTRUCTION EXIT

A. Provide temporary stone exit/entrance pad located at points of vehicular ingress and egress to the site and maintain in service until instructed otherwise by the Construction Manager. Minimum pad thickness shall be 6 inches; minimum length shall be 50 feet. Maintain in a condition that will prevent tracking or flow of mud onto public road. Construction Exits shall conform with the requirements setforth in the Manual for Erosion and Sediment Control in Georgia Fifth Edition (2000), Georgia Soil and Water Conservation Commission. Excerpts from the manual are included in this Specification.

3.02 STREAM CROSSINGS

A. Provide temporary stream crossings located at points of vehicular crossings and maintain in service until instructed otherwise by the Construction Manager.

Structures shall be protected from washout during periods of peak discharges by diverting water around the structures. Structures shall be designed to withstand flows from a 10-year, 24 hour frequency storm or the storm specified in Title 12-7-1 of the Official Code of the Georgia Annotated. ***Design/Builder shall obtain the services of a licensed Georgia Professional Engineer (P.E.) to size these structures and certify that the design has met the above referenced criteria.*** Excerpts from the Manual for Erosion and Sediment Control in Georgia Fifth Edition (2000) are included in this specification for reference.

(Remainder of this page intentionally blank.)

END OF SECTION # 02126

S110 - MARSH CREEK SEWER REPLACEMENT
SECTION NO. 02225
TRENCH EXCAVATION AND BACKFILL

PART 1 - GENERAL

A.01 SCOPE

A. The work under this Section consists of furnishing all labor, equipment and materials and performing all operations in connection with the trench excavation and backfill required to install the pipelines shown on the Drawings and as specified.

B. Excavation shall include the removal of any trees, stumps, brush, debris or other obstacles which remain after the clearing and grubbing operations, which may obstruct the work, and the excavation and removal of all earth, rock or other materials to the extent necessary to install the pipe and appurtenances in conformance with the lines and grades shown on the Drawings and as specified.

C. Backfill shall include the refilling and compaction of the fill in the trenches and excavations up to the surrounding ground surface or road grade at crossing.

D. The trench is divided into five specific areas:

1. Foundation: The area beneath the bedding, sometimes also referenced to as trench stabilization.
2. Bedding: The area above the trench bottom (or foundation) and below the bottom of the barrel of the pipe.
3. Haunching: The area above the bottom of the barrel of the pipe up to a specified height above the bottom of the barrel of the pipe.
4. Initial Backfill: The area above the haunching material and below a plane 12-inches above the top of the barrel of the pipe.
5. Final Backfill: The area above a plane 12-inches above the top of the barrel of the pipe.

E. The choice of method, means, techniques and equipment rests with the Design/Builder. The Design/Builder shall select the method and equipment for trench excavation and backfill depending upon the type of material to be excavated and backfilled, the depth of excavation, the amount of space available for operation of equipment, storage of excavated material, proximity of man-made improvements to be protected, available easement or right-of-way and prevailing practice in the area.

1.02 QUALITY ASSURANCE

A. Density: All references to “maximum dry density” shall mean the maximum dry density defined by ASTM D 698, except that for cohesion less, free draining soils “maximum dry density” shall mean the maximum index density as determined by ASTM D 4253. Determination of the density of foundation, bedding, haunching, or backfill materials in place shall meet with the requirements of ASTM D 1556, ASTM D 2922 or ASTM D 2937.

B. Sources and Evaluation Testing: Testing of materials to certify conformance with the Specifications shall be performed by an independent testing laboratory.

1.03 SAFETY

A. Perform all trench excavation and backfilling activities in accordance with the Occupational Safety and Health Act of 1970 (PL 91-596), as amended. The Design/Builder shall pay particular attention to the Safety and Health Regulations Part 1926, Subpart P "Excavation, Trenching & Shoring" as described in OSHA publication 2226.

PART 2 - PRODUCTS

2.01 TRENCH FOUNDATION MATERIALS

A. Crushed stone shall be utilized for trench foundation (trench stabilization) and shall meet the requirements of the Georgia Department of Transportation Specification 800.01, Group I (limestone, marble or dolomite) or Group II (quartzite, granite or gneiss). Stone size shall be between No. 57 and No. 4, inclusive.

2.02 BEDDING AND HAUNCHING MATERIALS

A. Unless specified otherwise, bedding and haunching materials shall be earth material as specified below.

B. Crushed stone utilized for bedding and haunching shall meet the requirements of the Georgia Department of Transportation Specification 800.01, Group I (limestone, marble or dolomite) or Group II (quartzite, granite or gneiss). Stone size shall be between No. 57 and No. 4, inclusive.

2.03 INITIAL BACKFILL

A. Initial backfill material shall be earth materials or crushed stone as specified for bedding and haunching materials.

B. Earth materials utilized for initial backfill shall be suitable materials selected from materials excavated from the trench. Suitable materials shall be clean and free of rock larger than 2-inches at its largest dimension, organics, cinders, stumps, limbs, frozen earth or mud, man-made wastes and other unsuitable materials. Should the material excavated from the trench be saturated, the saturated material may be used as earth material, provided it is allowed to dry properly and it is capable of meeting the specified compaction requirements. When necessary, initial backfill materials shall be moistened to facilitate compaction by tamping. If materials excavated from the trench are not suitable for use as initial backfill material, provide select material conforming to the requirements of this Section.

2.04 FINAL BACKFILL

A. Final backfill material shall be general excavated earth materials, shall not contain rock larger than 2-inches at its greatest diameter, cinders, stumps, limbs, man-made wastes and other unsuitable materials. If materials excavated from the trench are not suitable for use as final backfill material, provide select material conforming to the requirements of this Section.

2.05 SELECT BACKFILL

A. Select backfill shall be materials which meet the requirements as specified for bedding, haunching, initial backfill or final backfill materials, including compaction requirements.

2.06 CONCRETE

A. Concrete for bedding, haunching, initial backfill or encasement shall have a compressive strength of not less than 3,000 psi, with not less than 5.5 bags of cement per cubic yard and a slump between 3 and 5-inches. Ready-mixed concrete shall be mixed and transported in accordance with ASTM C 94. Reinforcing steel shall conform to the requirements of ASTM A 615, Grade 60.

2.07 FLOWABLE FILL

A. Flowable fill, where required for trench backfill, shall meet the requirements of Georgia Department of Transportation Standard Specifications, Section 600 for Excavatable or Non-Excavatable type.

2.08 GRANULAR MATERIAL

A. Granular material, where required for trench backfill, shall be sand, river sand, crushed stone or aggregate, pond screenings, crusher run, recycled concrete, or other angular material. Granular material shall meet gradation requirements for Size No. 57 or finer.

PART 3 - EXECUTION

3.01 TRENCH EXCAVATION

A. Topsoil and grass shall be stripped a minimum of 6-inches over the trench excavation site and stockpiled separately for replacement over the finished grading areas.

B. Trenches shall be excavated to the lines and grades shown on the Drawings with the centerlines of the trenches on the centerlines of the pipes and to the dimensions which provide the proper support and protection of the pipe and other structures and accessories.

C. Trench Width for Pipelines

1. The sides of all trenches shall be vertical, as much as possible, to a minimum of one foot above the top of the pipe. Unless otherwise indicated on the Drawings, the maximum trench width shall be equal to the sum of the outside diameter of the pipe plus two feet. The minimum trench width shall be that which allows the proper consolidation of the haunching and initial backfill material.

2. Excavate the top portion of the trench to any width within the construction easement or right-of-way which will not cause unnecessary damage to adjoining structures, roadways, pavement, utilities, trees or private property. Where necessary to accomplish this, provide sheeting and shoring.

3. Where rock is encountered in trenches, excavate to remove boulders and stones to provide a minimum of 6-inches clearance between the rock and any part of the pipe or manhole. The maximum allowable width of rock excavation for payment shall be based on a trench width equal to the outside diameter of the pipe barrel plus 18-inches, but the total allowable rock excavation width for payment will not be less than 36-inches.

4. Wherever the prescribed maximum trench width is exceeded, the Design/Builder shall use the next higher Class or Type of bedding and haunching as shown on the Drawings for the full trench width as actually

cut. The excessive trench width may be due to unstable trench walls, inadequate or improperly placed bracing and sheeting which caused sloughing, accidental over-excavation, intentional over-excavation necessitated by the size of the Design/Builder's tamping and compaction equipment, intentional over-excavation due to the size of the Design/Builder's excavation equipment, or other reasons beyond the control of the Engineer or the County.

D. Depth

1. The trenches shall be excavated to the required depth or elevation which allow for the placement of the pipe and bedding to the dimensions shown on the Drawings.

2. Where rock is encountered in trenches for pipelines, excavate to the minimum depth which will provide clearance below the pipe barrel of 8-inches for pipe 21-inches in diameter and smaller and 12-inches for larger pipe and manholes. Remove boulders and stones to provide a minimum of 6-inches clearance between the rock and any part of the pipe, manhole or accessory.

E. Excavated Materials

1. Excavated materials shall be placed adjacent to the work to be used for backfilling as required. Top soil shall be carefully separated and lastly placed in its original location.

2. Excavated material shall be placed sufficiently back from the edge of the excavation to prevent caving of the trench wall, to permit safe access along the trench and not cause any drainage problems. Excavated material shall be placed so as not to damage existing landscape features or man-made improvements.

3.02 SHEETING, BRACING AND SHORING

A. Sheeting, bracing and shoring shall be performed in the following instances:

1. Where sloping of the trench walls does not adequately protect persons within the trench from slides or cave-ins.

2. In caving ground.

3. In wet, saturated, flowing or otherwise unstable materials. The sides of all trenches and excavations shall be adequately sheeted, braced and shored.

4. Where necessary to prevent damage to adjoining buildings, structures, roadways, pavement, utilities, trees or private properties which are required to remain.

5. Where necessary to maintain the top of the trench within the available construction easement or right-of-way.

B. In all cases, excavation protection shall strictly conform to the requirements of the Occupational Safety and Health Act of 1970, as amended.

C. Timber: Timber for shoring, sheeting, or bracing shall be sound and free of large or loose knots and in good, serviceable condition. Size and spacing shall be in accordance with OSHA regulations.

D. Steel Sheeting and Sheet Piling: Steel sheet piling shall be the continuous interlock type. The weight, depth and section modulus of the sheet piling shall be sufficient to restrain the loads of earth pressure and surcharge from existing foundations and live loads. Procedure for installation and bracing shall be so scheduled and coordinated with the removal of the earth that the ground under existing structures shall be protected against lateral movement at all times. The Design/Builder shall provide closure and sealing between sheet piling and existing facilities.

E. Trench Shield: A trench shield or box may be used to support the trench walls. The use of a trench shield does not necessarily preclude the additional use of bracing and sheeting. When trench shields are used, care must be taken to avoid disturbing the alignment and grade of the pipe or disrupting the haunching of the pipe as the shield is moved. When the bottom of the trench shield extends below the top of the pipe, the trench shield shall be raised in 6-inch increments with specified backfilling occurring simultaneously. At no time shall the trench shield be "dragged" with the bottom of the shield extending below the top of the pipe.

F. Remove bracing and sheeting in units when backfill reaches the point necessary to protect the pipe and adjacent property. Leave sheeting in place when in the opinion of the Engineer it cannot be safely removed or is within three feet of an existing structure, utility, or pipeline. Cut off any sheeting left in place at least two feet below the surface.

G. Sheet piling within three feet of an existing structure or pipeline shall remain in place, unless otherwise directed by the Engineer.

3.03 TRENCH ROCK EXCAVATION

A. Definition of Trench Rock: Any material which cannot be excavated with conventional excavating equipment, and is removed by drilling and blasting, and occupies an original volume of at least one cubic yard.

B. Blasting: Exhaust other practical means of excavating prior to utilizing blasting as a means of excavation. Provide licensed, experienced workmen to perform blasting. Conduct blasting operations in accordance with all existing ordinances and regulations. Protect all buildings and structures from the effects of the blast. Repair any resulting damage. If the Design/Builder repeatedly uses excessive blasting charges or blasts in an unsafe or improper manner, the Engineer may direct the Design/Builder to employ an independent blasting consultant to supervise the preparation for each blast and approve the quantity of each charge.

C. Removal of Rock: Dispose of rock off site that is surplus or not suitable for use as rip rap or backfill.

D. The Design/Builder shall notify the Engineer prior to any blasting. Additionally, the Design/Builder shall notify the Engineer and local fire department before any charge is set.

E. Following review by the Engineer regarding the proximity of permanent buildings and structures to the blasting site, the Engineer may direct the Design/Builder to employ an independent, qualified specialty sub-Design/Builder, approved by the Engineer, to monitor the blasting by use of a seismograph, identify the areas where light charges must be used, conduct pre-blast and post-blast inspections of structures, including photographs or videos, and maintain a detailed written log.

3.04 DEWATERING EXCAVATIONS

A. Dewater excavation continuously to maintain a water level two feet below the bottom of the trench.

B. Control drainage in the vicinity of excavation so the ground surface is properly pitched to prevent water running into the excavation.

C. There shall be sufficient pumping equipment, in good working order, available at all times, to remove any water that accumulates in excavations. Where the utility crosses natural drainage channels, the work shall be conducted in such a manner that unnecessary damage or delays in the prosecution of the work will be prevented. Provision shall be made for the satisfactory disposal of surface water to prevent damage to public or private property.

D. In all cases, accumulated water in the trench shall be removed before placing bedding or haunching, laying pipe, placing concrete or backfilling.

E. Where dewatering is performed by pumping the water from a sump, crushed stone shall be used as the medium for conducting the water to the sump. Sump depth shall be at least two feet below the bottom of the trench. Pumping equipment shall be of sufficient quantity and/or capacity to maintain the water level in the sump two feet below the bottom of the trench. Pumps shall be a type such that intermittent flows can be discharged. A standby pump shall be required in the event the operating pump or pumps clog or otherwise stop operation.

F. Dewater by use of a well point system when pumping from sumps does not lower the water level two feet below the trench bottom. Where soil conditions dictate, the Design/Builder shall construct well points cased in sand wicks. The casing, 6 to 10-inches in diameter, shall be jetted into the ground, followed by the installation of the well point, filling casing with sand and withdrawing the casing.

3.05 TRENCH FOUNDATION AND STABILIZATION

A. The bottom of the trench shall provide a foundation to support the pipe and its specified bedding. The trench bottom shall be graded to support the pipe and bedding uniformly throughout its length and width.

B. If, after dewatering as specified above, the trench bottom is spongy, or if the trench bottom does not provide firm, stable footing and the material at the bottom of the trench will still not adequately support the pipe, the trench will be determined to be unsuitable and the Engineer shall then order trench stabilization by directing the Design/Builder to over excavate trench bottom and fill with crushed stone.

C. Where the replacement of unsuitable material with crushed stone does not provide an adequate trench foundation, the trench bottom shall be excavated to a depth of at least two feet below the specified trench bottom. Place filter fabric in the bottom of the trench and support the fabric along the trench walls until the trench stabilization, bedding, haunching and pipe have been placed at the proper grade. The ends of the filter fabric shall be overlapped above the pipe.

D. Where trench stabilization is provided, the trench stabilization material shall be compacted to at least 90 percent of the maximum dry density, unless shown or specified otherwise.

3.06 BEDDING AND HAUNCHING

A. Prior to placement of bedding material, the trench bottom shall be free of any water, loose rocks, boulders or large dirt clods.

B. Bedding material shall be placed to provide uniform support along the bottom of the pipe and to place and maintain the pipe at the proper elevation. The initial layer of bedding placed to receive the pipe shall be brought to the grade and dimensions indicated on the Drawings. All bedding shall extend the full width of the trench bottom. The pipe shall be placed and brought to grade by tamping the bedding material or by removal of the excess amount of the bedding material under the pipe. Adjustment to grade line shall be made by scraping away or filling with bedding material. Wedging or blocking up of pipe shall not be permitted. Applying pressure to the top of the pipe, such as with a backhoe bucket, to lower the pipe to the proper elevation or grade shall not be permitted.

C. Each pipe section shall have a uniform bearing on the bedding for the length of the pipe, except immediately at the joint.

D. At each joint, excavate bell holes of ample depth and width to permit the joint to be assembled properly and to relieve the pipe bell of any load.

E. After the pipe section is properly placed, add the haunching material to the specified depth. The haunching material shall be shovel sliced, tamped, vigorously chinked or otherwise consolidated to provide uniform support for the pipe barrel and to fill completely the voids under the pipe, including the bell hole. Prior to placement of the haunching material, the bedding shall be clean and free of any water, loose rocks, boulders or dirt clods.

F. Bedding shall conform to the individual requirements for the pipe or conduit material being used. Unless otherwise specified or shown on the Drawings, bedding shall be Class D.

G. Manholes: Excavate to a minimum of 6-inches below the planned elevation of the base of the manhole. Place and compact crushed stone bedding material to the required grade before constructing the manhole.

H. Excessive Width and Depth

1. If the trench is excavated to excess width, provide the next higher type or class of pipe bedding, as detailed on the Drawings.

2. If the trench is excavated to excessive depth, provide crushed stone to place the bedding at the proper elevation or grade.

I. Compaction: Bedding and haunching materials under pipe, manholes and accessories shall be compacted to a minimum of 90 percent of the maximum dry density, unless shown or specified otherwise.

3.07 INITIAL BACKFILL

A. Initial backfill shall be placed to anchor the pipe, protect the pipe from damage by subsequent backfill and ensure the uniform distribution of the loads over the top of the pipe.

B. Place initial backfill material carefully around the pipe in uniform layers to a depth of at least 12-inches above the pipe barrel. Layer depths shall be a maximum of 6-inches for pipe 18-inches in diameter and smaller and a maximum of 12-inches for pipe larger than 18-inches in diameter.

C. Backfill on both sides of the pipe simultaneously to prevent side pressures.

D. Compact each layer thoroughly with suitable hand tools or tamping equipment.

E. Initial backfill shall be compacted to a minimum 90 percent of the maximum dry density, unless shown or specified otherwise.

F. If materials excavated from the trench are not suitable for use as backfill materials, provide select backfill material conforming to the requirements of this Section for initial backfill.

3.08 CONCRETE ENCASEMENT FOR PIPELINES

A. Where concrete encasement is shown on the Drawings for pipelines, excavate the trench to provide a minimum of 6-inches clearance from the barrel of the pipe. Lay the pipe to line and grade on solid concrete blocks or solid bricks. In lieu of bedding, haunching and initial backfill, place concrete to the full width of the trench and to a height of not less than 6-inches above the pipe bell. Do not backfill the trench for a period of at lease 24 hours after concrete is placed.

3.09 FINAL BACKFILL

A. Backfill carefully to restore the ground surface to its original condition.

B. The top 6-inches shall be topsoil obtained as specified in “Trench Excavation” of this Section.

C. Excavated material which is unsuitable for backfilling, and excess material, shall be disposed of in a manner approved by the Engineer. Surplus soil may be neatly distributed and spread over the site, if approved by the Engineer, except that surplus soil shall not be distributed and spread over the site in areas under Corps of Engineers jurisdiction. If such spreading is allowed, the site shall be left in a clean and sightly condition and shall not affect pre-construction drainage patterns. Surplus rock from the trenching operations shall be removed from the site.

D. If materials excavated from the trench are not suitable for use as backfill materials, provide select backfill material conforming to the requirements of this Section.

E. After initial backfill material has been placed and compacted, backfill with final backfill material. Place backfill material in uniform layers, compacting each layer thoroughly as follows:

1. In 6-inch layers, if using light power tamping equipment, such as a “jumping jack”.
2. In 12-inch layers, if using heavy tamping equipment, such as hammer with tamping feet.
3. In 24-inch layers, if using a hydra-hammer.

F. Settlement: If trench settles, re-fill, compact and grade the surface to conform to the adjacent surfaces.

G. Final backfill shall be compacted to a minimum 90 percent of the maximum dry density, unless specified otherwise.

3.10 ADDITIONAL MATERIAL

A. Where final grades above the pre-construction grades are required to maintain minimum cover, additional fill material will be as shown on the Drawings. Utilize excess material excavated from the trench, if the material is suitable. If excess excavated materials are not suitable, or if the quantity available is not sufficient, provide additional suitable fill material.

3.11 BACKFILL WITHIN RIGHT-OF-WAYS

A. Compact backfill underlying pavement and sidewalks, and backfill under dirt and gravel roads to a minimum 95 percent of the maximum dry density.

3.12 BACKFILL WITHIN GEORGIA DOT RIGHT-OF-WAY

A. Backfill within the Georgia DOT right-of-way shall meet the requirements stipulated in the "Utility Accommodation Policy and Standards", published by the Georgia Department of Transportation.

3.13 FLOWABLE FILL

A. Where flowable fill is required, excavate the trench to provide a minimum of 6-inches clearance on either side of the pipe barrel. Lay the pipe to line and grade on solid concrete blocks or bricks. In lieu of bedding, haunching and initial backfill, place flowable fill to the full width and depth of the trench.

B. Flowable fill shall be protected from freezing for a period of 36 hours after placement. Minimum temperature of flowable fill at point of delivery shall be 50 degrees F.

C. The Design/Builder shall provide steel plates over flowable fill in road locations.

3.14 COMPACTED GRANULAR MATERIAL

A. Where compacted granular material is required as initial and final backfill material, it shall be placed after bedding and haunching material specified elsewhere has been placed. Compacted granular material shall be compacted to a minimum 95 percent of the maximum dry density.

3.15 TESTING AND INSPECTION

A. The soils testing laboratory is responsible for the following:

1. Compaction tests in accordance with Article 1.02 of this Section.
2. Field density tests for each two feet of lift, one test site between each manhole, every 100 feet within road rights-of-way, or more frequently if ordered by the Engineer. The County shall direct where density tests will be performed along the Project route.
3. Inspecting and testing stripped site, subgrades and proposed fill materials.

B. The Design/Builder's duties relative to testing include:

1. Notifying laboratory of conditions requiring testing.
2. Coordinating with laboratory for field testing.
3. Paying costs for additional testing performed beyond the scope of that required and for re-testing where initial tests reveal non-conformance with specified requirements.
4. Providing excavation as necessary for laboratory personnel to conduct tests.

C. Inspection

1. Earthwork operations, acceptability of excavated materials for bedding or backfill, and placing and compaction of bedding and backfill is subject to inspection by the Engineer.

2. Foundations and shallow spread footing foundations are required to be inspected by a geotechnical engineer, who shall verify suitable bearing and construction.

3. Comply with applicable codes, ordinances, rules, regulations and laws of local, municipal, state or federal authorities having jurisdiction

END OF SECTION # 02225

S110 – Marsh Creek Sewer Replacement

SECTION NO. 02270

SLOPE PROTECTION AND EROSION CONTROL

PART 1 - GENERAL

1.01 SCOPE

A. This section shall consist of temporary control measures as shown in the plans or directed by the Engineer during the life of the Contract to control erosion and water pollution, through the use of berms, dikes, darns, sediment basins, fiber mats, netting, mulches, grasses, slope drains, temporary silt fences, and other control devices.

B. The temporary pollution control provisions contained herein shall be coordinated with the permanent erosion control features, to assure economical, effective, and continuous erosion control throughout the construction and post-construction period.

C. See also Section 02115- Temporary Erosion Control.

1.02 DEFINITIONS

A. Throughout Section 02270, Engineer refers to the Design/Builder.

PART 2 - PRODUCTS

2.01 TEMPORARY BERMS

A. A temporary berm is constructed of compacted soil, with or without a shallow ditch, at the top of fill slopes or transverse to centerline on fills.

B. These berms are used temporarily at the top of newly constructed slopes to prevent excessive erosion until permanent erosion controls are installed or slopes stabilized.

2.02 TEMPORARY SLOPE DRAINS

A. A temporary slope drain is a facility consisting of stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half-round pipe, metal pipe, plastic pipe, sod or other material acceptable to the Engineer that may be used to carry water down slopes to reduce erosion.

2.03 SEDIMENT STRUCTURES

A. Sediment basins, ponds, and traps are prepared storage areas constructed to trap and store sediment from erodible areas in order to protect properties and stream channels below the construction areas from excessive siltation.

2.04 CHECK DAMS

A. Check dams are barriers composed of logs and poles, large stones or other materials placed across a natural or constructed drainage way.

B. Stone check dams shall not be utilized where the drainage area exceeds fifty acres. Log and pole structures shall not be used where the drainage area exceeds five acres.

2.05 TEMPORARY SEEDING AND MULCHING

A. Temporary seeding and mulching are measures consisting of seeding, mulching, fertilizing, and matting utilized to reduce erosion. All cut and fill slopes including waste sites and borrow pits shall be seeded when and where necessary to eliminate erosion.

2.06 BRUSH BARRIERS

A. Bush barriers shall consist of brush, tree trimmings, shrubs, plant, and other approved refuse from the clearing and grubbing operation.

B. Brush barriers are placed on natural ground at the bottom of fill slopes, where the most likely erodible areas are located to restrain sedimentation particles.

2.07 BALED HAY OR STRAW CHECKS

A. Baled hay or straw erosion checks are temporary measures to control erosion and prevent siltation. Bales shall be either hay or straw containing five cubic feet or more of materials.

B. Baled hay or straw checks shall be used where the existing ground slopes toward or away from the embankment along the toe of slopes, in ditches, or other areas where siltation erosion or water run-off is a problem.

2.08 TEMPORARY SILT FENCES

A. Silt fences are temporary measures utilizing woven wire or other approved material attached to posts with filter cloth composed of burlap, plastic filter fabric, etc., attached to the upstream side of the fence to retain the suspended silt particles in the run-off water.

PART 3 - EXECUTION

3.01 PROJECT REVIEW

A. Prior to the preconstruction conference the Design/Builder shall meet with the Engineer and go over in detail the expected problem areas in regard to the erosion control work. Different solutions should be discussed so that the best method might be determined. It is the basic responsibility of the Design/Builder to develop an erosion control plan acceptable to the Engineer.

3.02 PRECONSTRUCTION CONFERENCE

A. At the preconstruction conference the Design/Builder shall submit for acceptance his schedule for accomplishment of temporary and permanent erosion control work, as are applicable for clearing and grubbing, grading, bridges and other structures at watercourses, construction, and paving. He shall also submit for acceptance his proposed method of erosion control on haul roads and borrow pits and his plan for disposal of waste materials. No work shall be started until the erosion control schedules and methods of operations have been accepted by the Engineer.

3.03 CONSTRUCTION REQUIREMENTS

A. The Engineer has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and fill operations, and to direct the Design/Builder to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other

watercourses, lakes, ponds, or other water impoundment. Such work may involve the construction of temporary berms, dikes, dams, coffer dams, sediment basins, slope drains, and use of temporary mulches, mats, seeding or other control devices or methods as necessary to control erosion. Cut and fill slopes shall be seeded and mulched as the excavation proceeds to the extent directed by the Engineer.

B. The Design/Builder shall be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in his accepted schedule. Temporary pollution control measures shall be used to correct conditions that develop during construction that were not foreseen during the design stage or that are needed prior to installation or develops during normal construction practices, but are not associated with permanent control features on the project.

C. Where erosion is likely to be a problem, clearing and grubbing operations should be so scheduled and performed that grading operations and permanent erosion control features can follow immediately thereafter if the project conditions permit; otherwise erosion control measures may be required between successive construction stages.

D. The Engineer may limit the areas of excavation, borrow, and embankment operations in progress commensurate with the Design/Builder's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent pollution control measures current in accordance with the accepted schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified.

E. The Engineer may increase or decrease the amount of surface area of erodible earth material to be exposed at one time by clearing and grubbing, excavation, borrow and fill operations as determined by his analysis of project conditions.

F. In the event of conflict between these requirements and pollution control laws, rules, or regulations or other Federal or State or local agencies, the more restrictive laws, rules, or regulations shall apply.

3.04 CONSTRUCTION OF STRUCTURES

A. TEMPORARY BERMS

1. A temporary berm shall be constructed of compacted soil and covered with at least 6" of crushed stones, with a minimum width of 24 inches at the top and a minimum height of 12 inches with or without a shallow ditch constructed at the top of fill slopes or transverse to centerline on fills or as shown in the plans. Temporary berms shall be graded so as to drain to a compacted outlet at a slope drain. The area adjacent to the temporary berm in the vicinity of the slope drain must be properly graded to enable this inlet to function efficiently and with minimum ponding in this area. All transverse berms required on the downstream side of a slope drain shall extend across the grade to the highest point to approximately a 10-degree angle with a perpendicular to centerline. The top width of these berms may be wider and the side slope flatter on transverse berms to allow equipment to pass over the berms with minimal disruptions. When practical and until final roadway elevations are approached,

embankments should be constructed with a gradual slope to one side of the embankment to permit the placement of temporary berms and slope drains on only one side of the embankment.

B. TEMPORARY SLOPE DRAINS

1. Temporary slope drains shall consist of stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half-round pipe, metal pipe, plastic pipe, flexible rubber, or other materials which can be used at temporary measures to carry water accumulating in the cuts and on the fills down the slopes prior to installation of permanent facilities or growth of adequate ground cover on the slopes.

2. Fiber mating and plastic sheeting shall not be used on slopes steeper than 4:1 except for short distances of 20 feet or less.

3. All temporary slope drains shall be adequately anchored to the slope to prevent disruption by the force of the water flowing in the drains. The base for temporary slope drains shall be compacted and concavely formed to channel the water or hold the slope drain in place. The inlet end shall be properly constructed to channel water into the temporary slope drain. Energy dissipators, sediment basins, or other approved devices shall be constructed at the outlet end of the slope drains to reduce erosion downstream. An ideal dissipator would be dumped rock or a small sediment basin, which would slow the water as well as pick up some sediment. All temporary slope drains shall be removed when no longer necessary and the site restored to match the surroundings.

C. SEDIMENT STRUCTURES

1. Sediment structures shall be utilized to control sediment at the foot of embankments where slope drains outlet; at the bottom as well as in the ditch lines atop waste sites; in the ditch lines or borrow pits. Sediment structures may be used in most drainage situations to prevent excessive siltation of pipe structures. All sediment structures shall be at least twice as long as they are wide.

2. Where use of temporary sediment structures is to be discontinued, all sediment accumulation shall be removed, and all excavation backfilled and properly compacted. The existing ground shall be restored to its natural or intended condition.

D. CHECK DAMS

1. Check dams shall be utilized to retard stream flow and catch small sediment loads. Materials utilized to construct check dams are varied and should be clearly illustrated or explained in the Design/Builder's erosion control plan.

2. All check dams shall be keyed into the sides and bottom of the channel a minimum depth of 2 feet. A design is not needed for check dams but some typical designs are shown in the standard plans of erosion control details.

3. Stone check dams should generally not be utilized where the drainage area exceeds fifty (50) acres. Log and pole structures should generally not be used where the drainage area exceeds five acres.

E. TEMPORARY SEEDING AND MULCHING

1. Seeding and mulching shall be performed in accordance with Section 02485, Seeding, of these Specifications.

F. BRUSH BARRIERS

1. Brush barriers shall consist of brush, tree trimmings, shrubs, plants and other approved refuse from the clearing and grubbing operation. The brush barriers shall be constructed approximately parallel to original ground contour. The brush barrier shall be compressed to an approximately height of 3 to 5 feet and approximately width of 5 to 10 feet. The embankment shall not be supported by the construction of brush barriers.

G. BALED HAY OR STRAW EROSION CHECKS

1. Hay or straw erosion checks shall be embedded in the ground 4 to 6 inches to prevent water flowing under them. The bales shall be anchored securely to the ground by wooden stakes driven through the bales into the ground. Bales can remain in place until they rot, or be removed after they have served their purpose, as determined by the Engineer. The Design/Builder shall keep the checks in good condition by replacing broken or damaged bales immediately after damage occurs. Normal debris cleanout will be considered routine maintenance.

H. TEMPORARY SILT FENCES

1. Temporary silt fences shall be placed on the natural ground, at the bottom of fill slopes, in ditches, or other areas where siltation is a problem. Silt fences are constructed of wire mesh fence with a covering of burlap or some other suitable material on the upper grade side of the fence and anchored into the soil.

2. The Design/Builder shall be required to maintain the silt fence in a satisfactory condition for the duration of the project or until it is removed. The silt accumulation at the fence may be left in place and seeded, removed, etc., as directed by the Engineer. The silt fence becomes the property of the Design/Builder whenever the fence is removed.

3.05 MAINTENANCE

A. The temporary erosion control features installed by the Design/Builder shall be acceptably maintained by the Design/Builder until no longer needed or permanent erosion control methods are installed. Any materials removed shall become the property of the Design/Builder.

B. In the event that temporary erosion and pollution control measures are required due to the Design/Builder's negligence, carelessness, or failure to install permanent controls as a part of work as scheduled, and are ordered by the Engineer, such work shall be performed by the Design/Builder at his own expense.

C. Where the work to be performed is not attributed to the Design/Builder's negligence, carelessness, or failure to install permanent controls and falls within

the specifications for a work item that has a contract unit price, the units of work shall be paid for at the proper contract unit prices.

3.06 EROSION CONTROL OUTSIDE PROJECT AREA

A. Temporary pollution control shall include construction work outside the project area where such work is necessary as a result of construction such as: borrow pit operations, haul roads and equipment storage sites. Proposal price in such cases shall include all necessary clearing and grubbing, construction incidentals, maintenance, and site restoration when no longer needed.

END OF SECTION NO 02270

S110 – Marsh Creek Sewer Replacement

SECTION NO. 02485

SEEDING

PART 1 - GENERAL

1.01 SCOPE

A. The work covered by this section consists of furnishing all labor, equipment, and material required to place topsoil, seed, commercial fertilizer, agricultural limestone, and mulch material, including seedbed preparation, harrowing, compacting, and other placement operations on graded earthen areas as described herein and/or shown on the Drawings. In general, seeding operations shall be conducted on all newly graded earthen areas not covered by structures, pavement, or sidewalks; all cleared or grubbed areas which are to remain as finish grade surfaces; and on all existing turf areas which are disturbed by construction operations and which are to remain as finish grade surfaces. Areas disturbed by borrow activities shall also be seeded according to these Specifications.

B. The work shall include temporary seeding operations to stabilize earthen surfaces during construction or inclement weather and to minimize stream siltation and erosion. Temporary seeding shall be performed at times and locations as directed by the Engineer.

1.02 QUALITY ASSURANCE

A. Prior to seeding operations, the Design/Builder shall furnish to the Engineer labels or certified laboratory reports from an accredited commercial seed laboratory or a state seed laboratory showing the analysis and germination of the seed to be furnished. Acceptance of the seed test reports shall not relieve the Design/Builder of any responsibility or liability for furnishing seed meeting the requirements of this Section.

B. Prior to topsoil operations, the Design/Builder shall obtain representative samples and furnish soil test certificates including textural, pH, and organic ignition analysis from the State University Agricultural Extension Services or other certified testing laboratory.

PART 2 - PRODUCTS

2.01 TOPSOIL

A. Utilizing designated stockpiles or borrow areas on site, if any, the Design/Builder shall place a minimum of 4 inches of topsoil over all graded earthen areas and over any other areas to be seeded. Sources of topsoil shall be approved by the Engineer prior to disturbance. Importing topsoil from offsite sources shall be at the discretion of the Engineer and shall be justification for additional compensation to the Design/Builder. A Change Order properly authorized by the Owner shall be agreed upon prior to importing offsite topsoil. No additional compensation will be allowed for spreading of topsoil.

B. Topsoil shall be a friable loam containing a large amount of humus and shall be original surface soil of good, rich, uniform quality, free from any material such as

hard clods, stiff clay, hardpan, partially disintegrated stone, pebbles larger than ½ inch in diameter, lime, cement, bricks, ashes, cinders, slag, concrete, bitumen or its residue, boards, sticks, chips, or other undesirable material harmful or unnecessary to plant growth. Topsoil shall be reasonably free from perennial weeds and perennial weed seeds, and shall not contain objectionable plant material, toxic amounts of either acid or alkaline elements or vegetable debris undesirable or harmful to plant life.

C. Topsoil shall be natural topsoil without admixture of subsoil material, and shall be classifiable as loam, silt loam, clay loam, sandy loam, or a combination thereof. The pH shall range from 5.5 to 7.0. Topsoil shall contain not less than 5 percent nor more than 20 percent, by weight, of organic matter as determined by loss on ignition of oven-dried samples to 65 °C.

2.02 SEED

A. Seed shall be delivered in new bags or bags that are sound and labeled in accordance with the U. S. Department of Agriculture Federal Seed Act.

B. All seed shall be from the last crop available at time of purchase and shall not be moldy, wet, or otherwise damaged in transit or storage.

C. Seed shall bear the growers analysis testing to 98 percent for purity and 90 percent for germination. At the discretion of the Engineer samples of seed may be taken for check against the growers analysis.

D. Species, rate of seeding, fertilization, and other requirements are shown in the Seeding Requirements Table.

2.03 FERTILIZER AND LIMING MATERIALS

A. Fertilizer and liming materials shall comply with applicable state, local, and federal laws concerned with their production and use.

B. Commercial fertilizer shall be a ready mixed material and shall be equivalent to the grade or grades specified in the Seeding Requirements Table. Container bags shall have the name and address of the manufacturer, the brand name, net weight, and chemical composition.

C. Agricultural limestone shall be a pulverized limestone having a calcium carbonate content of not less than 85 percent by weight. Agricultural limestone shall be crushed so that at least 85 percent of the material will pass a No. 10 mesh screen and 50 percent will pass a No. 40 mesh screen.

2.04 MULCH MATERIAL

A. All mulch materials shall be air dried and reasonably free of noxious weeds and weed seeds or other materials detrimental to plant growth.

B. Mulch shall be composed of wood cellulose fiber, straw, or stalks, as specified herein. Mulch shall be suitable for spreading with standard mulch blowing equipment.

C. Wood-cellulose fiber mulch shall be as manufactured by Weyerhauser Company, Conway Corporation, or equal.

D. Straw mulch shall be partially decomposed stalks of wheat, rye, oats, or other approved grain crops.

E. Stalks shall be the partially decomposed, shredded residue of corn, cane, sorghum, or other approved standing field crops.

2.05 MULCH BINDER

A. Mulch on slopes exceeding 3 to 1 ratio shall be held in place by the use of an approved mulch binder. The mulch binder shall be non-toxic to plant life and shall be acceptable to the Engineer.

B. Emulsified asphalt binder shall be Grade SS-1, ASTM D 977. Cutback asphalt binder shall be Grade RC 70 or RC 250.

2.06 INNOCULANTS FOR LEGUMES

A. All leguminous seed shall be innoculated prior to seeding with a standard culture of nitrogen-fixing bacteria that is adapted to the particular seed involved.

2.07 WATER

A. Water shall be clean, clear water free from any objectionable or harmful chemical qualities or organisms and shall be furnished by the Design/Builder.

PART 3 - EXECUTION

3.01 SECURING AND PLACING TOPSOIL

A. Topsoil shall be secured from areas from which topsoil has not been previously removed, either by erosion or mechanical methods. Topsoil shall not be removed to a depth in excess of the depth approved by the Engineer.

B. The area or areas from which topsoil is secured shall possess such uniformity of soil depth, color, texture, drainage, and other characteristics as to offer assurance that, when removed the product will be homogeneous in nature and will conform to the requirements of these Specifications.

C. All areas from which topsoil is to be secured, shall be cleaned of all sticks, boards, stones, lime, cement, ashes, cinders, slag, concrete, bitumen, or its residue, and any other refuse which will hinder or prevent growth.

D. In securing topsoil from a designated pit, or elsewhere, should strata or seams of material occur which do not come under the requirements for topsoil, such material shall be removed from the topsoil, or if required by the Engineer, the pit shall be abandoned.

E. Before placing or depositing topsoil upon any areas, all improvement within the area shall be completed, unless otherwise approved by the Engineer.

F. The areas in which topsoil is to be placed or incorporated shall be prepared before securing topsoil for use.

3.02 SEEDBED PREPARATION

A. Before fertilizing and seeding, the topsoil surfaces shall be trimmed and worked to true line free from unsightly variation, bumps, ridges and depressions, and all detrimental material, roots, and stones larger than 3 inches in any dimension shall be removed from the soil.

B. Not earlier than 24 hours before the seed is to be sown, the soil surface to be seeded shall be thoroughly cultivated to a depth of not less than 2 inches with a

weighted disc, tiller, pulvimixer, or other equipment, until the surface is smooth and in a condition acceptable to the Engineer.

C. If the prepared surface becomes eroded as a result of rain or for any other reason, or becomes crusted before the seed is sown, the surface shall again be placed in a condition suitable for seeding.

D. Ground preparation operations shall be performed only when the ground is in a tillable and workable condition, as determined by the Engineer.

3.03 FERTILIZATION AND LIMING

A. Following seedbed preparation, fertilizer shall be applied to all areas to be seeded so as to achieve the application rates shown in the Seeding Requirements Table.

B. Fertilizer shall be spread evenly over the seedbed and shall be lightly harrowed, raked, or otherwise incorporated into the soil for a depth of ½ inch.

C. Fertilizer need not be incorporated in the soil as specified above when mixed with seed in water and applied with power sprayer equipment. The seed shall not remain in water containing fertilizer for more than 30 minutes when a hydraulic seeder is used.

D. Agricultural limestone shall be thoroughly mixed into the soil according to the rates in the Seeding Requirements Table. The specified rate of application of limestone may be reduced by the Engineer if pH tests indicate this to be desirable. It is the responsibility of the Design/Builder to obtain such tests and submit the results to the Engineer for adjustment in rates.

E. It is the responsibility of the Design/Builder to make one application of maintenance fertilizer according to the recommendations listed in the Seeding Requirements Table.

3.04 SEEDING

A. Seed of the specified group shall be sown as soon as preparation of the seedbed has been completed. No seed shall be sown during high winds, nor until the surface is suitable for working and is in a proper condition. Seeding shall be performed during the dates shown in the Seeding Requirements table unless otherwise approved by the Engineer. Seed mixtures may be sown together provided they are kept in a thoroughly mixed condition during the seeding operation.

B. Seeds shall be uniformly sown by any approved mechanical method to suit the slope and size of the areas to be seeded, preferably with a broadcast type seeder, windmill hand seeder, or approved mechanical power drawn seed drills. Hydro-seeding and hydromulching may be used on steep embankments, provided full coverage is obtained. Care shall be taken to adjust the seeder for seedings at the proper rate before seeding operations are started and to maintain their adjustment during seeding. Seed in hoppers shall be agitated to present segregation of the various seeds in a seeding mixture.

C. Immediately after sowing, the seeds shall be covered and compacted to a depth of ¼ to 1/2 inch by a cultipacker or suitable roller.

D. Leguminous seeds shall be innoculated prior to seeding with an approved and compatible nitrogen-fixing innoculant in accordance with the manufacturer's mixing instructions.

3.05 MULCHING

A. All seeded areas shall be uniformly mulched in a continuous blanket immediately after seeding. The mulch shall be applied so as to permit some sunlight to penetrate and the air to circulate and at the same time shade the ground, reduce erosion, and conserve soil moisture. Approximately 25 percent of the ground shall be visible through the mulch blanket.

B. One of the following mulches shall be spread evenly over the seeded areas at the following application rates:

1.	Wood Cellulose Fiber	1,400 pounds/acre
2.	Straw	4,000 pounds/acre
3.	Stalks	4,000 pounds/acre

These rates may be adjusted at the discretion of the Engineer at no additional cost to the Owner, depending on the texture and condition of the mulch material and the characteristics of the seeded area.

C. Mulch on slopes greater than 3 to 1 ratio shall be held in place by the use of an approved mulch binder. Binder shall be thoroughly mixed and applied with the mulch. Emulsified asphalt or cutback asphalt shall be applied at the approximate rate of 5 gallons per 1,000 square feet as required to hold the mulch in place.

D. The Design/Builder shall cover structures, poles, fence, and appurtenances if the mulch binder is applied in such a way that it would come in contact with or discolor the structures.

E. Mulch and binder shall be applied by suitable blowing equipment at closely controlled application rates in a manner acceptable to the Engineer.

3.06 WATERING

A. Design/Builder shall be responsible for maintaining the proper moisture content of the soil to insure adequate plant growth until a satisfactory stand is obtained. If necessary, watering shall be performed to maintain an adequate water content in the soil.

B. Watering shall be accomplished by hoses, tank truck, or sprinklers in such a way to prevent erosion, excessive runoff, and overwatered spots.

3.07 MAINTENANCE

A. Upon completion of seeding operations, the Design/Builder shall clear the area of all equipment, debris, and excess material and the premises shall be left in a neat and orderly condition.

B. The Design/Builder shall maintain all seeded areas without additional payment until final acceptance of the work by the Owner, and any regrading, refertilizing, reliming, reseeding, or remulching shall be done at his own expense. Seeding work shall be repeated on defective areas until a satisfactory uniform stand is accomplished. Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, compacting, and repeating the seeding work at his expense.

SEEDING REQUIREMENTS TABLE

Rates per 1,000 Square Feet

Area	Sowing Season	Species	Seed	Fertilizer	Limestone	Maintenance
Flat to rolling terrain with slopes less than 3:1	3/1 to 6/1	Kentucky 31 Fescue Ladino White Clover*	4lbs. ¼ lb.	30lbs. 6-12-12	200lbs.	15lbs. 10-10-10
	8/1 to 11/1	Kentucky 31 Fescue Ladino White Clover* Annual Ryegrass	4lbs. ¼ lb. 2lbs.	30lbs. 6-12-12	200lbs.	15lbs. 10-10-10
Embankments with slopes greater than 3:1	3/1 to 6/1	Crownvetch* Kentucky 31 Fescue Weeping Lovegrass	1 lb. 2lbs. ¼ lb.	30lbs. 6-12-12	200lbs.	10lbs. 0-20-20
	8/1 to 11/1	Crownvetch* Kentucky 31 Fescue Annual Ryegrass	1 lb. 2lbs. 2lbs.	30lbs. 6-12-12	200lbs.	10lbs. 0-20-20

*Requires inoculation.
**Maintenance fertilizer shall be applied in early spring following initial establishment of cover.

END OF SECTION NO 02485

S110 – Marsh Creek Sewer Replacement

SECTION 02706

PRECONDITIONING MANHOLES AND SEWERS

PART 1 GENERAL

1.01 SCOPE

A. The objective of preconditioning is to maximize sewer and manhole service efficiency and effectiveness. Preconditioning involves removal of silt comprising any and all solid or semi-solid materials including fine and granular material, such as sand, grit gravel and rock as well as debris, grease, oil, sludge, slime or any other loose material or encrustation lodged in the manhole or sewer. Preconditioning also involves removal of invading roots, corroded concrete, corroded rungs, corroded ladders, intruding laterals and any other extraneous debris.

B. Two levels of performance concerning preconditioning of manholes and sewers shall be adhered to in this contract, as directed:

1. Preconditioning as a general level of service; which requires that manholes and sewers shall be considered preconditioning if:

   a. not more than a nominal amount of 10% of the through flow channel depth in manholes, or sewer depth between manholes is obscured by silt, where the through flow channel or sewer has an equivalent diameter up to an including 2- feet, and
   b. not more than a nominal amount of 5% of the through flow channel depth in manholes or sewer depth between manholes is obscured by silt, where the through flow channel or sewer has an equivalent diameter greater than 2- feet.
   c. No surface or appurtenance in manholes including walls, cones, slabs, rungs and benchings and drop shafts shall have any remnant of silt, coating, loose bricks, unsound concrete or mortar or loose material.
   d. All roots, corroded concrete, corroded rungs, corroded ladders, intruding laterals and any other extraneous debris are removed.
   e. Fulfillment of the requirements (e.g., depth of silt or cleanliness of surface) is to be determined by internal manhole and sewer condition survey or inspection of each manhole and sewer length preconditioned as directed.

2. Preconditioning prior to rehabilitation and repair; which requires that manholes and sewers shall be considered precondition if in addition to the requirements of 1) above, all silt has been removed from a minimum of 95% of the through flow channel and sewer cross section. Additionally,

in the case of manholes, all surfaces shall be free of cleaning agents and their reactant products.

3. Fulfillment of these requirements is to be established by internal manhole and sewer condition survey or inspection of each manhole and sewer length preconditioned as directed.

C. The Design/Builder shall precondition the manholes and sewers listed on the plans so as to remove all silt, debris, roots, corroded concrete, corroded rungs and ladders, intruding laterals etc. and dispose of such arisings to an approved dumpsite.

D. The manholes and lengths of sewers listed in the Bill of Quantities provide the Design/Builder with a basis for estimating the lengths and quantities of silt to be removed and preconditioning to be carried out. The Design/Builder must satisfy himself from a reconnaissance of the manholes and sewers as well as inspection of all or any relevant archival information in order to estimate quantities and types of silt to be removed as well as all preconditioning Work.

E. During preconditioning work and all other operations associated with these works, sewer services to the consumer shall be maintained at all times (this requirement may be relaxed at the discretion of the Construction Manager).

F. The manholes and sewers to be preconditioned convey foul, surface or combined flows. In some instances such sewers are subject to high flows either continuously or in a periodically varying cycle or due to rainfall, pumping operations. The Design/Builder shall include in his rates for dealing with such variations and where necessary, program the work to suit.

G. The Design/Builder shall submit a comprehensive equipment list to the Construction Manager before commencement of the work. The complete list, which shall include all backup and standby equipment, shall be broken down in to component parts at least in relation to:

1. Safety equipment
2. Manhole preconditioning equipment
3. Sewer preconditioning equipment
4. Flow diversion and flow control equipment
5. Traffic control equipment
6. All other equipment necessary for the completion of the work.

1.02 DEFINITIONS

A. Silt: For the purposes of this specification silt shall be defined as any and all solid or semi-solid materials, including fine and granular material such as sand, grit, gravel and rock as well as grease, sludge slime, debris or any other loose material or encrustation lodged in the manhole or sewer.

B. Manhole Structure: Reference to and all activities relevant to manhole structures throughout the text shall also be taken to include junction boxes, inspection chambers, drop shafts, sumps, CSO/Es and all other ancillary structures appurtenant to the sewerage system.

1.03 RELATED SECTIONS

A. The work of the following Sections apply to the work of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of work.

1. Internal Sewer Condition Assessment
2. Safety Requirements
3. Standard Specifications

B. Except as otherwise indicated in this Section of the Specifications, the Design/Builder shall comply with the latest edition of all relevant local, state and federal Standard Specifications for Public Works Construction

1.04 REGULATORY REQUIREMENTS

A. The work of this Section shall comply with the current versions, with revisions, of OSHA 29 CFR 1910.146 (permit-required confined-space regulations).

B. All work and testing shall comply with the applicable Federal codes, including Federal Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, as amended, and applicable state and local codes and standards; and to the extent applicable with the requirements of the Underwriters Laboratories, Inc. and the National Electric Code.

PART 2 EXECUTION OF THE WORK

2.01 GENERAL

Preconditioning works shall be carried out from the downstream access manhole or chamber to the upstream access manhole or chamber and shall entirely comply with the performance requirements defined in the relevant sub-clause of clause 1.01 above.

2.02 WORKING AREA

A. The working area in which machinery and equipment operates is to be kept to a minimum. Equipment not in use is to be removed from the works so as to minimize disruption to traffic and general public.

B. The working area is to be free from silt and debris when the Design/Builder leaves the site at the end of each visit.

C. Open manholes, machinery and standing equipment shall be protected at all times.

2.03 LOCATION

The location of sewers to be cleaned are detailed in the attached Tables and Drawings.

2.04 PROGRAMMING OF WORKS

The Design/Builder shall, after discussion with the Construction Manager, submit a program of work that will meet the requirements of the Owner. The Construction Manager will assist with the works program, to ensure, where practicable, a continuity of labor and plant utilization, and the Design/Builder shall undertake to adhere to the agreed program in a manner set out in the General Conditions of Contract.

2.05 PROLONGED ABSENCE FROM SITE

If it is apparent that the Design/Builder will be absent from the site, or part of the site, for a prolonged period, he shall inform the Construction Manager, replace manhole covers and clear any highways of his equipment and materials including temporary traffic control measures he may be using.

2.06 OPERATIONAL REQUIREMENTS

A. Each preconditioning unit and each CCTV/sonar unit shall carry sufficient numbers of guides and rollers such that, when cleaning and inspecting or surveying, all bonds are supported away from sewer and manhole structures.

B. Each preconditioning and cleaning unit shall carry a range of flow control equipment, as opposed to overpumping equipment, for use in controlling the flow during the works. A minimum of one item of each size of equipment ranging from 6-inch to 42-inch diameter inclusive shall be carried.

C. Equipment used to precondition manholes and sewers shall be operated in a manner to prevent overflows and result in spillage. Where flows in sewers are such that the overflow or spillage will occur during preconditioning and cleaning operations, the Design/Builder shall make arrangements to prevent the premature overflow of spillage or shall stop operations until such flows are reduced to allow cleaning to continue.

D. In the event of accidental overflow or spill, the Design/Builder shall immediately stop the overflow and take action to clean up and disinfect spillage. The Construction Manager shall be notified immediately and in any event not less than 24 hours following the occurrence.

E. Should fines be subsequently imposed as a direct result of the overflow or spillage and the Design/Builder is deemed to be partially or entirely responsible, the Design/Builder shall pay such fines in accordance with the General Terms of the Contract. No fine shall be paid by the Owner where it is shown that the Design/Builder was entirely responsible for any overflow or spillage.

F. The system of silt and debris removal shall be capable of operating in such a way as to minimize the obstruction to sewer flows and preconditioning operations.

G. Basement, homes and all other vulnerable property shall be prevented from being flooded where hydraulic preconditioning and cleaning methods are used to precondition manholes and sewers. The Construction Manager shall be notified of all vulnerable property before hydraulic preconditioning works commence.

H. The Design/Builder shall make his own arrangements for the off-road overnight parking of his vehicles and plant and shall comply with all relevant statutory traffic regulations and local bylaws.

2.07 ARISINGS

A. The Design/Builder shall remove all silt, debris, detritus, etc. resulting from all manhole and sewer preconditioning and cleaning activities at least once each working day. Such material shall be caught and collected in a suitable trap or weir or dam within the manhole or chamber being preconditioned and cleansed and/or at the downstream manhole from where the sewer is being preconditioned. The Design/Builder shall ensure that the capture method or methods adopted shall be wholly effective in the prevention of silt migration downstream. Such methods including details of the equipment used shall be provided to the Construction Manager on request.

B. Arisings shall be deposited into suitable closed watertight containers such that the total amount removed can be easily measured if required. The Design/Builder is to give the Construction Manager such assistance as may be necessary in carrying out this measurement work.

C. The type and capacity of containers to be employed for the holding and transport of the arising shall be stated by the Design/Builder. The Design/Builder shall not be allowed to accumulate debris silt and/or liquid waste, sludge on site and under no circumstances shall sewage, silt or solids be dumped on the ground surface, ditches, catch basins or storm drains.

D. The method of working shall be such that sewer preconditioning work is not held up through a lack of an empty container in which to deposit the arisings.

E. The Design/Builder shall bear in mind that it may not always be possible for the container to be sited immediately adjacent to the manhole from which arisings are being raised and should allow for the fact that double handling of the arising may be necessary. The Design/Builder shall provide for such double handling to be carried out safely and efficiently.

F. The Design/Builder must make his own arrangements for the dumping of materials removed from the sewer. The dump must be licensed and approved by the Construction Manager prior to commencement of the works.

G. All costs associated with dumping must be included in the Design/Builder's rates.

H. The containers for the disposal of arisings shall be routed via an approved weighbridge and a copy of each weighbridge ticket submitted to the Construction Manager. Such tickets shall be used to assess the quantities of materials removed for payment.

2.08 PRECAUTION AGAINST ADVERSE EFFECT ON FABRIC OF MANHOLE OR SEWER

The Design/Builder shall take satisfactory precautions against improper use of the preconditioning equipment. The Design/Builder shall also take satisfactory precautions against adversely affecting the fabric and structural condition of the manhole or sewer

being preconditioned. If in the Construction Manager's opinion damage was found to have been inflicted on the manhole or sewer being preconditioned by the Design/Builder then the Design/Builder shall repair the sewer at no additional cost to the Owner and to the complete satisfaction of the Construction Manager.

PART 3 EXECUTION

3.01 SEWERS

A. GENERAL

1. The Design/Builder shall certify that sufficient cleaning units can be provided, including standby units in the event of breakdown, in order to complete the work within the contract period. Further, the Design/Builder, shall certify that standby or back-up equipment can be delivered to the site within 48 hours in the event of equipment breakdown.

2. The cleaning unit(s) provided for cleaning purposes shall be capable of operating up to a minimum of 500-feet from the point of access to the sewer.

3. Each cleaning unit shall carry a mobile telephone to facilitate communication with the Construction Manager and to comply with safety requirements defined in the safe working procedures approved by the Construction Manager for the execution of the works.

B. CCTV and Sonar Inspection/Survey Units: All CCTV and sonar survey units shall comply with the specification set down elsewhere in the current edition of the "Specification for Internal Sewer Condition Assessment" unless otherwise determined.

C. WINCHING EQUIPMENT

1. The winching equipment used shall be sufficient for the purposes of attaining the degree of cleanliness specified in the relevant sub-clause of clause 1.01.

2. The Design/Builder shall provide conventional power winching equipment together with ancillary equipment, winching buckets, balls, breakers, kites, scooters, scrapers, tires, etc. tools and safety apparatus. Complete and full details of equipment proposed shall be provided to the Construction Manager before work commences.

3. Dredging of sewer shall be undertaken by passing various sized buckets, balls, breakers, kites, scooters, scrapers, tires, etc, through the sewers to physically remove accumulated silt, sludge and other debris. Where conditions dictate, power boring equipment and/or winching equipment shall be used to loosen the silt prior to its removal. All necessary equipment including cables, lines, props, tools must be available at all times as required.

4. The equipment shall be capable of operating efficiently and effectively in the sizes of sewers and depth stated and in sewers up to minimum distances of 500- feet between adjacent manholes.

5. The sewers convey storm water, foul or combined sewage flows. Certain sections of sewer may be flowing entirely full or in a surcharged condition and the Design/Builder should be prepared at all times to use manual pushing rods, mechanical boring equipment or other methods to pass a leading line through the sewer prior to commencing dredging operations with winching.

6. Any item of plant or equipment associated with the work which may cause obstruction to the flow in the sewer shall be removed from the sewer at the close of work each day. It shall be permitted to leave a line or winching cable through the sewer during breaks in the work.

7. Dredging operations in a particular section of sewer will generally proceed in a downstream direction, working between consecutive manholes using winch buckets of sizes stated below.

8. The size of winch bucket used in sewers from 12” to 48” shall be 90% of the sewer bore up to a maximum of 24”. It is anticipated that for sewers greater than 48” that scooters, kites and other alternative means of silt removal will be pursued.

9. It is anticipated that buckets of smaller sizes than those stated will need to be winched through sections of sewer prior to the use of the maximum sizes. The maximum size bucket as stated may be varied at the discretion of the Construction Manager but on no account shall buckets larger than these maximum sizes be used without the approval of the Construction Manager.

10. The Design/Builder’s attention is drawn to sizes of manhole covers and access restrictions. It should be noted that the maximum sizes of buckets listed above may not be practical due to restricted access. The Design/Builder shall ensure that his working procedure will not be unduly affected by such restrictions and shall include for all such restrictions in his rates.

11. The winches used to draw buckets, balls, breakers, scooters, scrapers or tires shall be power driven. They shall incorporate a torque limiting device so as to prevent the breaking of winching lines in the event of the line becoming jammed by obstructions.

12. Where the operational equipment is towed by winch and bond through the sewer, all winches shall be stable with either lockable or ratcheted drums. All bonds shall be steel or of an equally non-elastic material to ensure the smooth and steady progress of the equipment. All winches shall be inherently stable under loaded conditions.

D. PRESSURE JETTING EQUIPMENT

1. The pressure jetting equipment used shall be sufficient for the purposes of attaining the degree of cleanliness specified in the relevant sub-clause of clause 1.01.

2. The jetting unit must be capable of jetting a minimum distance of 500-feet either upstream or downstream from a manhole. Minimum nominal hose size shall be one-inch diameter.

3. The cost of jetting shall be included in the unit rates for Sewer Preconditioning and shall be for jetting both upstream and downstream.

4. Successive passes using the pressure jetting technique shall be used with the silt removed at manholes until such time that the sewer is cleaned to the level specified. No silt shall be allowed to pass beyond the section of sewer being cleaned.

5. Pass rates (rewind speed) for the jetting head shall be at a consistent speed avoiding jerking and excessive variations, typical pass rates being 4-inch to 8-inch per second. The hose reel shall be power driven in the rewind direction.

6. The Construction Manager shall be notified in the Proposal documents of the jetting equipment proposed by the Design/Builder. The proposed equipment shall be categorized from the table below:

Category	Machine Type	Min. & Max. Capacity (gal/min)	Man. & Max. Pressure (Bar)
Manholes			
1	High Pressure/Low Volume – Trailers	1-35	200-700
2	High Pressure/Low Volume – Mini	9-35	200-700
3	High Pressure/Low Volume – Non HGV/HGV Jetter/ Combination	9-35	200-350
Sewers			
4	Low Pressure/High Volume – HGV	30 mins. – 50	100 – 140
5	Low Pressure/High Volume – Combination	30 min.- 75	100 – 200
6	Low Pressure/High Volume – Super Combination	75 – 175	140 – 175
7	Low Pressure/High Volume – Separate Jumbo Jetter/ Suction Units	75 – 200	140 – 175

Note: The categories listed are typical only of the equipment for use in the present contract. Exceptions to the duty and equipment shown above will be allowed subject to appropriate notification approval. The Design/Builder is required to complete the table with details of any other equipment proposed.

7. Where a jetting is fitted with an airflow suction unit for removal of detritus from the sewer, it shall be capable of removing materials such as sludge, silt and brick from depths up to 32-feet with minimum suction of 2500-cfm. A tank with a minimum capacity of 175-cf shall be provided and be capable of decanting off collecting liquors back to the sewer. The suction hose of such a system shall have a minimum internal diameter of 6-inches.

8. Jetting equipment shall be calibrated on an annual basis for an approved body and calibration certificates made available for inspection by the Construction Manager as requested. Such equipment shall also be maintained on a regular basis in accordance with the manufacturer's specification. The Design/Builder shall make available to the Construction Manager, copies of his maintenance certificates and/or schedules as required.

9. An automatic pressure relief valve shall be incorporated on the pump discharge chamber to prevent the pressure exceeding the safe maximum for the whole system. This may take the form of a pressure relief valve of bursting disc type in holder; or an automatic pressure regulating valve (unloading valve). The maximum working pressure is the lowest value of the maximum working pressure ratings of all individual components of the system.

E. Air Driven, Electromechanical and/or Mechanical Precondition Tools: Where necessary, and additional to winching and pressure cleaning equipment, appropriate air driven, electrically driven and/or mechanical tools may be used to needle hammer or scrape or grind of corroded concrete, scarify and remove compacted silt, chip-off spilt grout, detach encrustations, trim and cut laterals and roots, etc., with prior notification being given to the Construction Manager.

F. Ventilation of Confined Spaces: The Design/Builder shall provide, operate, maintain and subsequently remove on completion, adequate ventilation apparatus in the form of blowers and/or fans. The ventilation apparatus shall introduce a fresh air supply to support a safe environment for work in sewers, manholes, and all other confined spaces which shall be kept free from dangerous, toxic and/or explosive gases whether generated from sewage, soil strata or otherwise.

3.02 MANHOLES

A. PRECONDITIONING AS A GENERAL LEVEL OF SERVICE

1. With the exception of the through flow channel, all surfaces shall be thoroughly preconditioned using high pressure water with sufficient pressure (minimum force of 3500 psi (240 bar)) to achieve the specified level of preparation. Preconditioning shall include the removal of all roots, corroded concrete, corroded rungs, intruding laterals and any other extraneous, loose material, debris or foreign matter using air driven, electrically driven or mechanical equipment as specified.

2. Silt, sand and debris traps shall be installed at the entrance to the downstream sewer to retain all silt and debris material before preconditioning work commences.

B. PRECONDITIONING PRIOR TO REHABILITATION AND REPAIR

1. All concrete and masonry surfaces to be rehabilitated or repaired shall be meticulously preconditioned by water blasting utilizing a 210 ° F steam

unit and appropriate nozzles to provide a contamination-free and sound surface. Other methods such as wet or dry sand blasting, acid wash, concrete cleansers, degreasers or mechanical means may be required to completely clean the manhole surface prior to rehabilitation or repair.

2. All surfaces on which preconditioning methods outlined in 3.02A above have been used, shall be thoroughly rinsed, scrubbed, and neutralized to remove cleaning agents and their reactant products before rehabilitation commences. Concrete surfaces shall be declared satisfactory for the purpose of rehabilitation when they are sound, surface dry, porous and free from dust, dirt, oil, grease, fat efflorescence, concrete hardening or sealing chemicals, previous coatings, rush, form-release agents, laitance, other penetrating contaminants, fins, surface projections, thin crusts, bridging voids, and loosely adhering concrete and dirt particles.

3. All manhole infiltration type leaks, including gushers and runners, shall be sealed in areas where linings are to be installed. The Design/Builder will not be allowed to commence rehabilitation work until leaks have been satisfactorily sealed.

4. Where required by the relevant manhole rehabilitation system manhole surfaces to be rehabilitated shall have a pH of 7 to 10. Accordingly surfaces shall be tested in accordance with ASTM D4262.

5. Where instructed by the Construction Manager the Design/Builder shall test prepared surfaces by Swiss impact hammer or other physical method to determine soundness,

3.03 QUALITY CONTROL/PRECONDITIONING REPORT

A. GENERAL

1. A quality control inspection or survey of preconditioned sewers shall be carried out as directed, immediately following completion of preconditioning work. If a sewer or pipe line has not been preconditioned as specified (by visual inspection, tape review of field analysis) in the sole opinion of the Construction Manager, the sewer shall be re-preconditioned and cleaned in accordance with the specification at no cost to the Owner.

2. The Design/Builder shall supply one copy of survey/inspection CD for each reach of sewer completed. No more than five surveys/inspections segments will be allowed on each video cassette.

3. When required by the Construction Manager, the Design/Builder shall supply one copy of the full internal sewer condition assessment report, completed in accordance with the requirements of the “Specification for Internal Sewer Condition Assessment”. This specification includes a sample report sheet also reproduced at the end of this specification. The sample report sheet shall be accurately and fully adopted in format and in

detail and submitted by the Design/Builder immediately following the QA/AC inspection.

B. DAILY LOG

1. On daily completion of the works the Design/Builder shall provide a report. The report shall be submitted to the Construction Manager no later than 24 hours following completion of the work. The report shall comprise separate sheet for each manhole and sewer reach preconditioned. Blank report sheets shall be provided by the Construction Manager or his representative on site.

2. The Design/Builder shall immediately draw the Construction Manager's attention to any material such as brickwork, concrete or clayware appearing in the arisings from preconditioning and cleaning activities.

END OF SECTION

S110 – MARSH CREEK SEWER REPLACEMENT
SECTION NO. 02720
PIPE BURSTING METHOD

PART 1 -- GENERAL

1.01 DESCRIPTION

A. This specification shall cover the rehabilitation of existing gravity sanitary sewers. Pipebursting is a system by which the burster unit splits the existing pipe while simultaneously installing a new polyethylene pipe. The new pipe may be of the same size or larger size. The work also involves the reconnection of the existing sewer service house connections, television inspection of the polyethylene pipe and completion of the installation in accordance with the contract documents.

B. Only pneumatically operated equipment with either front or rear expanders for the proper connection to the polyethylene pipe will be allowed for use. Exception to this requirement will only be considered where a static burster unit is proposed for use on isolated segments of pipeline that are to be burst closely adjacent to building foundations or other sensitive structures and where pneumatic bursting might be detrimental. The pneumatic burster must be used in conjunction with a constant tension hydraulic twin capstain winch of either 20, 10 or 5 tons, the size of the winch depends on the diameter of the pipe to be replaced. In no case is the constant tension on the winch to exceed 20 tons.

1.02 QUALIFICATIONS

A. The DESIGN/BUILDER shall be certified by the pipe bursting system patent owner, Britishgas – PLC, U.S. Patent 4738565, which such a company is a fully trained and licensed user of the pipe bursting system.

B. Polyethylene pipe jointing shall be performed by personnel trained in the use of butt-fusion equipment and recommended methods for new pipe connections. Personnel directly involved with installing the new pipe shall receive training in the proper methods for handling and installing the polyethylene pipe. Training shall be performed by a qualified representative.

C. DESIGN/BUILDER shall hold the County and Engineer harmless in any legal action resulting from patent infringements.

D. DESIGN/BUILDER or Pipebursting subcontractor shall have:

1. Minimum experience of 150, 000 L.F. of pipe bursting existing gravity sanitary sewer pipe and replacing with polyethylene pipe within the last three years, AND
2. Minimum experience of 10, 000 L.F. of pipe bursting replacement experience with polyethylene pipe two sizes greater than the host pipe, e.g. 10-inch to 15-inch diameter, 12-inch to 18-inch diameter, etc, in the last three years.

1.03 STANDARD SPECIFICATIONS

B. Except as otherwise indicated in this Section of the Specifications, the DESIGN/BUILDER shall comply with the latest edition of the Standard Specifications for Fulton County Public Works Construction together with the latest

adopted editions of the Regional and Fulton County Supplement Amendments, especially concerning the reconstruction of manholes and cleanouts.

C. Except as otherwise indicated, the current editions of the following apply to the WORK of this Section:

1. ASTM D 1248 Polyethylene Plastics Molding and Extrusion Materials

1.04 REGULATORY REQUIREMENTS

A. The WORK of this Section shall comply with the current versions, with revisions, of the following:

B. OSHA 29 CFR 1910.146 (permit-required confined-space regulations)

B. All work and testing shall comply with the applicable Federal codes, including Federal Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, as amended, and applicable state and local codes and standards; and to the extent applicable with the requirements of the Underwriter's Laboratories, Inc. and the National Electric Code.

1.05 RESPONSIBILITY FOR OVERFLOWS OR SPILLS

A. It shall be the responsibility of the DESIGN/BUILDER to schedule and perform his work in a manner that does not cause or contribute to incidence of overflows or spills of sewage from the sewer system.

B. In the event that the DESIGN/BUILDER's work activities contribute to overflows or spills, the DESIGN/BUILDER shall immediately take appropriate action to contain and stop the overflow, clean up the spillage, disinfect the area affected by the spill, and notify the designated CONSTRUCTION MANAGER in a timely manner.

C. DESIGN/BUILDER will indemnify and hold harmless the County for any fines or third-party claims for personal or property damage arising out of a spill or overflow that is fully or partially the responsibility of the DESIGN/BUILDER, including the legal, engineering and administrative expenses of the County in defending such fines and claims.

1.06 SUBMITTALS

A. Submit 10 copies each of the following:

1. Detail drawings and written descriptions of the entire construction procedure to install pipe, bypass sewerage flow and reconnection of sewer service connections, restoration of manhole base and provision for facilitating watertight junction of new pipe to existing and reconstructed manholes.

2. Certification of workmen trained for welding and installing pipe.

3. Written certification that the DESIGN/BUILDER is an approved BG-PLC licensee of the pneumatic bursting system from approved vendor

4. Pre and post repair CCTV inspection reports and CD-ROMs. Post repair reports and CDs shall be made after pipe installation and re-connection of all laterals.

5. An <u>initial schedule</u> shall be submitted to the Project Manager prior to the work beginning at the work site for each repair assigned. Thereafter at

the end of each week until the project is complete, the DESIGN/BUILDER shall submit a report in writing comprising:

i. a list of those activities shown on the current schedule which were begun during the week stating their remaining duration's and their anticipated completion times

ii. a list of those activities begun previously upon which work continued during the week and their anticipated completion times

iii. a list of those activities begun previously but upon which no work was carried out during week stating their remaining duration's in weeks and their anticipated completion times

iv. a list of activities completed during the week

1. If the anticipated completion time of any activity reported is later than that previously reported or where not previously reported later than the completion time shown on the current schedule the circumstances which in the opinion of the DESIGN/BUILDER have caused the anticipated delay shall be stated. Any other matters not previously reported which in the opinion of the DESIGN/BUILDER may cause delay to the current schedule shall be described. The current schedule is the revised schedule last produced and submitted to the Project Manager or where no revised schedule has been submitted the latest revision of the initial schedule submitted.

PART 2 -- PRODUCTS

2.01 MATERIALS

A. Polyethylene Plastic Pipe shall be high density solid wall polyethylene pipe and meet the applicable requirements of ASTM F714 Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter, ASTM1248, ASTM D3550.

1. Sizes of the insertions to be used shall be such to renew the sewer to greater flow capacity.
2. All pipes shall be made of virgin material. No reworked material shall be used except that obtained from the manufacturer's own production of the same formulation.
3. The pipe shall be homogenous throughout and shall be free of visible cracks, discoloration, pitting, varying wall thickness, holes, foreign material, blisters, or other deleterious faults.
4. Dimensions Ratios: The minimum wall thickness of the polyethylene pipe shall be SDR 17 throughout. Where required by Engineer, pipes may be tested at ground surface for circularity before installation and welding commences. Circularity will be checked by pulling a closed cylindrical mandrel through the polyethylene pipe. The mandrel shall be at least three times the diameter of the pipe in length and not greater than inside diameter of pipe minus 2 millimeters. Pipes will be rejected which have greater than 5% deformation due to thermal softening.
5. Material color shall be black. Interior of pipe shall have a light reflective color to allow easier/better viewing for television inspection.
6. Manufacturer shall be Chevron, Phillips 66 Driscopipe or equal.

2.02 DELIVERY, STORAGE, AND HANDLING

A. Transportation, handling, and storage of the polyethylene pipe and fittings shall be as recommended by manufacturer.

B. If new pipe and fittings become damaged before or during installation, it shall be repaired as recommended by the manufacturer or replaced as required by the Project Manager at the DESIGN/BUILDER's expense, before proceeding further.

C. Deliver, store and handle other materials as required to prevent damage.

2.03 MATERIAL TESTS

A. Design/Builder shall be furnish samples and material tests for compliance with this specification from an independent laboratory to verify the required physical properties and characteristics of supplied materials in accordance with the applicable ASTM Specification. A certificate shall be furnished by the manufacturer, upon request, for all material furnished under this specification. Polyethylene plastic pipe and fittings may be rejected that does not meet any requirements of this specification. The OWNER shall pay for tests on pipe material which meets specification requirements. DESIGN/BUILDER shall pay for failed tests and re-testing of failed materials

2.04 EQUIPMENT

A. The pipe bursting tool shall be designed and manufactured to force its way through existing pipe materials by fragmenting the pipe and compressing the old pipe sections into the surrounding soil as it progresses. The bursting unit shall be pneumatic and shall generate sufficient force to burst and compact the existing pipe line. See manufacturer's specifications for what size tool should be used in what diameter of pipe, as well as parameters of what size tool for percentage of upsize allowed.

B. The pipe bursting tool shall be pulled through the sewer by a winch located at the upstream manhole. The bursting unit shall pull the polyethylene pipe with it as it moves forward. The bursting head shall incorporate a shield/expander to prevent collapse of the hole ahead of the PE pipe insertion. The pipe bursting unit shall be remotely controlled.

C. The pipe bursting tool shall be pneumatic. The bursting action of the tool shall increase the external dimensions sufficiently, causing breakage of the pipe at the same time expanding the surrounding ground. This action shall not only break the pipe but also create the void into which the burster can be winched and enables forward progress to be made. At the same time the polyethylene pipe, directly attached to the sleeve on the rear of the burster, shall also move forward.

D. The burster shall have its own forward momentum while being assisted by winching. A hydraulic winch shall give the burster friction by which it can be move forward. To form a complete operating system, the burster must be matched to a constant tension hydraulic winching system.

2.05 WINCH UNIT

A. A winch shall be attached to the front of the bursting unit. The winch shall provide a constant tension to the burster in order that it may operate in an efficient manner. The winch shall ensure directional stability in keeping the unit on line.

B. The winch shall be of the constant tension type but shall be fitted with a direct reading load gauge to measure the winching load which must automatically be maintained at a constant tension at a set tonnage reading. The winch, which shall be hydraulically operated to provide the constant tension throughout the bursting operation, shall supply sufficient cable in one continuous length so that the pull may be continuous between approved winching points.

C. The winch, cable and cable drum must be provided with safety cage and supports so that it may be operated safely without injury to persons or property.

D. The DESIGN/BUILDER shall provide a system of guide pulleys and bracing at each manhole to minimize cable contact with the existing sewer between manholes.

E. The supports to the trench shoring in the insertion pit shall remain completely separate from the winch boom support system and shall be so designed that neither the pipe nor the winch cable shall be in contact with them.

PART 3 -- EXECUTION

3.01 SEWER SERVICE CONNECTIONS

A. All sewer service connections shall be identified and located prior to pipe insertion. The complete list of service laterals, included relevant footage and diameter of lateral, shall be submitted prior to pipe bursting to the CONSTRUCTION MANAGER for information. Upon commencement, pipe insertion shall be continuous and without interruption from one manhole to another, except as approved by the engineer and/or his representative. Upon completion of insertion of the new pipe, the DESIGN/BUILDER shall complete the reconnection of all service laterals on the segment within 24 hours of commencing pipe bursting, to minimize any inconvenience to customers.

B. The preferred method of saddle connection to the main line shall be either by

a. Inserter Tee, Fowler Manufacturing, Oregon, or

b. fusion of saddle connection with one of the following approved systems.

1. Electrofusion saddles as manufactured by Central Plastics shall be installed in accordance with the manufacturers recommended procedures.

2. Conventional Fusion saddles as manufactured by Central Plastics, Phillips Driscopipe, or Plexco shall be installed in accordance with the manufacturers recommended procedures.

C. Saddle material shall be compatible with that of the main pipe.

3.02 EXISTING FLOW

A. The DESIGN/BUILDER shall provide bypass pumping during the pipe bursting/replacement process. The pumps and by-pass lines shall be of adequate capacity and size to handle all flows including peak wet weather flow. All costs for by-pass pumping, required during installation of the pipe shall be included in the rate for pipe replacement by pipe bursting.

B. The DESIGN/BUILDER shall be responsible for maintaining continuous sanitary sewer service to each and every property connected to the segment of sewer

subject to pipe bursting operations. The cost of dealing with tanking, by pass pumping and all other private service flow management shall be included in the rate for pipe replacement.

C. If sewage backup occurs and enters buildings, the DESIGN/BUILDER shall be responsible for clean-up, dis-infection, repair, property damage as well as all resultant costs and claims.

3.03 PRE-INSTALLATION CCTV SURVEY

A. Pipelines that will be upgraded by pipe bursting and open cut shall be televised (CCTV) in conformance with the Section for Internal Sewer Preconditioning.

B. CCTV inspection conditions shall include the following:

1. Preconstruction CDs shall be available for viewing by the Construction Manager before construction begins and throughout the project.

2. CD of the video of the sewer pipe to remain property of the County. DESIGN/BUILDER to retain second copy for his use.

3. All flows tributary to reach of sewer being inspected are to be completely by-passed around the reach during preconstruction inspection if necessary and required by the County.

4. Should any portion of the inspection tapes be of inadequate quality or coverage, as determined by the COUNTY or DESIGN/BUILDER, The DESIGN/BUILDER will have the portion re-inspected and video taped at no additional expense to the COUNTY.

3.04 CONSTRUCTION METHOD

A. Equipment used to perform the work shall be located away from buildings in order to minimize noise impact which under all circumstances shall be less than 70 dB unless otherwise allowed by the Construction Manager due to circumstances beyond the Design/Builder of pipebursting subcontractor. A silent engine compartment with the winch shall be provided to reduce machine noise.

B. The DESIGN/BUILDER shall install all pulleys, rollers, bumpers, alignment control devices and other equipment required to protect existing manholes, and to protect the polyethylene pipe from damage during installation. Lubrication may be used as recommended by the manufacturer. Under no circumstances shall the pipe be stressed beyond its elastic limit. The winch line must be centered in the existing pipe to be burst with an adjustable boom.

C. The installed polyethylene pipe shall be allowed to relax and cool following installation in accordance with the manufacturer's recommended time, but not less than four (4) hours, prior to any reconnection of service lines, scaling of the annulus or backfilling of the insertion pit. Sufficient excess length of new pipe, but not less than four (4) inches, shall be allowed to protrude into the manhole to provide for further length reduction. End restraint of pipe ends shall be achieved by means of Central Plastics Electrofusion couplings . The Electrofusion couplings shall be slipped over pipe ends against manhole wall and fused in place. Installation of all electrofusion couplings shall be carried out in accordance with the manufacturers recommended procedures.

D. Following the relaxation period, the annular space may be sealed. Sealing shall be made with materials approved by the Engineer and/or his representative and

shall extend a minimum of eight (8) inches into the manhole wall in such a manner as to form a smooth, uniform, watertight joint. The terminating pipe ends in manholes shall be connected by Central Plastics Electrofusion couplings to eliminate ground water infiltration. Installations of electrofusion couplings shall be installed in accordance with the manufacturers recommended procedures.

3.05 POST-INSTALLATION CCTV SURVEY

A. Following installation of new pipelines between manholes where bursting has occurred, CCTV inspection shall be carried out in accordance with the requirements of this Contract of Internal Sewer Condition Assessment. The finished tape shall be continuous over the entire length of the sewer between two manholes and shall be completely free from visual defects.

B. Defects which may affect the integrity or strength of the pipe in the opinion of the Engineer shall be repaired or the pipe replaced at the DESIGN/BUILDER's expense.

1. Post construction video tape upon completion of reconstruction of each reach of sewer as appropriate with stationing of services indicated. Data and stationing to be on video.
2. Video tapes to remain property of the county. DESIGN/BUILDER to retain second copy for his use.
3. Post construction CDroms shall be available to view within one month after project is completed. Post construction CDs shall be submitted to Fulton County before final invoices and any retainage is released.
4. Should any portion of the inspection tapes be of inadequate quality or coverage, as determined by the COUNTY of DESIGN/BUILDER will have the portion re-inspected and video taped at no additional expense to the COUNTY.

3.06 PIPE JOINING

A. The polyethylene pipe shall be assembled and joined at the site using the butt-fusion method to provide a leak proof joint in strict accordance with the manufacturer's instructions and ASTM D 2657. Threaded or solvent-cement joints and connections are not permitted.

B. All equipment and procedures used shall be used in strict compliance with the manufacturer's instructions and recommendations. Fusing shall be accomplished by personnel certified as fusion technicians by a manufacturer of polyethylene pipe and/or fusing equipment.

C. The butt-fused joint shall be true alignment and shall have uniform roll-back beads resulting from the use of proper temperature and pressure. The joint shall be allowed adequate cooling time before removal of pressure. The fused joint shall be watertight and shall have tensile strength equal to that of the pipe.

D. All joints shall be subject to acceptance by the engineer and/or his representative prior to insertion. All defective joints shall be cut out and replaced at no cost to the COUNTY. Any section of the pipe with a gash, blister, abrasion, nick, scar, or other deleterious fault greater in depth than ten percent (10%) of the wall thickness, shall not be used and must be removed from the site. However, a

defective area of the pipe may be cut out and the joint fused in accordance with the procedures stated above.

E. Any section of the pipe having other defects such as concentrated ridges, discoloration, excessive spot roughness, pitting, variable wall thickness or any other defect of manufacturing or handling as determined by the Engineer and/or his representative shall be discarded and not used.

F. Terminal sections of pipe that are joined within the insertion pit shall be connected with Central Plastics Electrofusion Couplings or connectors with tensile strength equivalent to that of the pipe being joined.

PART 4 -- WARRANTY

4.01 MATERIAL WARRANTY

A. A written guarantee of 10 years submitted to Fulton County for the specific project shall be provided by the MANUFACTURER against any breakdown of the polyethylene pipe material effectiveness.

.END OF SECTION NO 2720

S110 – MARSH CREEK SEWER REPLACEMENT
SECTION NO. 02726
STREAM BANK STABILIZATION

PART 1 GENERAL

1.01 SUMMARY

A. Scope of Work. Implement a best management practice to provide streambank stabilization along the heavy eroded segments of Marsh Creek.

1.02 REFERENCES

A. Maintain copies of the following reference documents at the construction site at all times.

1. Stream corridor Restoration, Principles, Processes and Practices, October 1998, The Federal Interagency Stream Restoration Working Group.

2. Guideline for Streambank Restoration, Georgia Soil and Water Conservation Commission, in cooperation with Metro Atlanta Association of Conservation Districts, USDA Soil Conservation Service and Georgia Environmental Protection Division, September, 1994.

3. Manual for Erosion and Sediment Control in Georgia (the “Green Book”), March 2000 Edition.

4. State of Georgia Department of Transportation Standard Specifications, Construction of Roads and Bridges, (the GDOT Specifications).

B. All work and materials shall conform to the applicable local, State, and federal requirements. In case of conflict between any requirements set forth in these Specifications and any provisions of said requirements, the most stringent requirements shall control.

1.03 DEFINITIONS

A. Engineer. For the purposes of the Section, the term Engineer is synonymous with consulting engineer, licensed professional, designer, and consultant as used in permits, laws, rules, regulations, ordinances, and other soil erosion and sediment control references.

B. Owner’s Representative. The County has retained the services of a consulting engineer who will act as the County’s representative and who may regularly periodically visit the site to monitor the progress of the work. For the purposes of this Section, the County consultant may at any time during the project provide direction. This direction shall be considered equivalent to direction from the Engineer.

C. Design/Builder. For the purposes of this Section, the term Design/Builder is synonymous with general Design/Builder, discharger, operator, primary co-permittee, and permittee (permit holder) as used in permits, laws, rules, regulations, ordinances, and other soil erosion and sediment control references.

D. Qualified Personnel. For purposes of this Section, the term Qualified Personnel means a person who had successfully completed an erosion and sediment control short course eligible for continuing education units, or an equivalent course approved by Environmental Protection Division of the Georgia Department of Natural Resources and the State Soil and Water Conservation Commission.

E. Other Definitions. Definitions as listed in the NPDES Permit GAR 100001 shall apply in this section.

1.04 REGULATORY COMPLIANCE

A. Design/Builder is responsible for obtaining all required permits associated with the streambank stabilization project.

B. COE

C. MRPA – Metropolitan River Protection Act

D. Design should be consistent with guidelines outlined in the Stream Corridor Restoration.

1.05 SUBMITTALS

A. Provide product data for the following terms:

1. Silt fence fabric
2. Seed information
3. Filter fabric
4. Number 16 gauge wire

B. Submit to Owner's Representative the proposed schedule for installation, and maintenance of all temporary and permanent stream bank stabilization. The schedule shall reflect the sequencing requirements specified herein and must show the anticipated starting and completion date for specific activities including:

1. Installation of temporary and permanent sediment control structures
2. Storm water management facilities
3. Clearing operations

4. Grubbing operations

5. Rough and finished grading

6. Building construction

7. Landscaping, including all seeding and sodding, and

8. Removal of temporary sediment control structures

C. Prior to execution of contract, the Design/Builder shall submit a harvesting and plan for approval by the Owner's Representative. The plan shall include, but not limited to, identification of plant material source, the method of harvesting, storage, and transportation plans, equipment information and installation methods. Harvesting and Planting Plans must address all requirements set forth in this specification. No work shall commence until the Owner;s Representative has reviewed and approved the plan.

D. Submit to the Owner the completed Erosion and Sediment Control Inspection Checklists on a monthly basis.

E. Submit copies of all approved permits and supporting documents for information.

1.06 SPECIFIC REQUIREMENTS

A. The requirements specified herein and shown in the Contract Documents are minimum requirements for preventing or minimizing soil erosion and sediment transport, and potential water pollutants from surface water runoff sources. Requirements set forth in the Manual for Erosion and Sediment Control in Georgia shall govern in case of conflicting information, unless clearly identified as a deviation from the Manual.

PART 2 PRODUCTS

2.01 SILT FENCE

A. Material Specifications: Filter fabric must meet the requirements set forth in Section 171-Temporary Silt Fence, of the State of Georgia Department of Transportation (DOT) Standard Specifications, Construction of Roads and Bridges. Design/Builder shall submit to Engineer copies of delivery invoices, certifications of other documentation that the filter fabric complies with these specifications, if requested by the Engineer.

B. Fabric shall conform to the requirements specified in Table No.1. Acceptable manufacturers include Mirafi, Inc. (Envirofence) and Amoco Fabric, Inc. (Siltstop)

Table No. 1: Physical Requirements for Silt Fence Fabric

Requirements	Physical Test	Physical Method
1. Weight, oz./sy. (min)	2.5	ASTM D-3776
2. Grab Strength, lbs. (min)	120	ASTM D-4632

3. Grab Elongation, % (max)	30	ASTM D-4632
4. Trapezoidal Tear Strength, lbs. (min)	65	ASTM D-4533
5. Mullen Burst Strength, psi (min)	300	ASTM D-3786
6. Thickness, mils (min)	17	ASTM D-1777
7. Coef. of Permeability, cm/sec	0.01	ASTM D-4491
8. Opening Water Flow Rate, gal/min/sf	40	ASTM D-4491
9. Apparent Opening Size, US Std. Sieve	20-35	ASTM D-4751
10. Ultraviolet Stability, %	90	ASTM D-1682 & G-26

C. Posts shall be steel or wood, meeting fabric manufacturer specifications.

D. Provide metal staked and wire reinforced support for all fences.

E. Provide a minimum of two rows of fence adjacent to streams, rivers, or other water courses, whether shown on the drawings or not.

2.02 ROCK RIP-RAP

A. Rip-rap to be used shall be the rock previously installed in various areas along the streambank.

2.03 LIVE FASCINES

A. Live Branch Cuttings

1. Live branch cuttings shall be approximately ½ inch in diameter. Cuttings will not exceed 2 inches in diameter.

2. Cuttings shall be 3 to 6 feet in length.

3. Live branch cuttings shall consist of a mix of two or more of the approved plant species as set forth in the following table. Each will consist of no more than 60%, and less than 40%, of the mix.

B. Live Stakes

1. Live cuttings for live pegs shall be ½ inch to 1-½ inch in diameter and between 2 to 4 feet in length. Side branches shall be removed and the bark left intact prior to installation.

2. Buds on the pegs shall be orientated in an upward position. The basal (bottom) ends shall be tapered to a point to facilitate insertion into the soil. The top shall be cut smooth and square.

3. Live pegs shall consist of the same species listed above for live branch cuttings.

C. Dead Stakes

1. Dead Stakes shall be constructed of new, sound, and unused and untreated, 2 inch by 4-inch lumber.

2. Dead Stakes shall be constructed from 2-½ to 3 foot long sections of lumber. Each length shall be cut again diagonally across the 4-inch face to make two stakes of the correct length. The diagonal cut begins and end 1/8 to ¼ inch from the edge of the piece so the finished stake will have a 1/8 to ¼ inch tip.

3. Any stakes that split, shatter or are otherwise during installation shall be replaced.

D. Mulch Materials

1. Upon installation of the live fascines, the exposed soils between fascines shall be mulched to protect from soil erosion.

2. Mulch material shall be long straw or other similar material. Cellulose hydromulch without grass seed is also acceptable.

E. Twine

1. Twine used for tying live branch cuttings in fascines shall be natural jute twine or an approved equal.

2. Twine shall be untreated and free from preservatives.

F. Backfill

1. Backfill materials for the fascine shall consist of moist topsoil. Backfill shall be free of cobbles and excessive gravel. Backfill material shall be approved by the Owner's Representative prior to use.

2.04 LIVE STAKES/POSTS

A. Live Stake cuttings shall be approximately ½ inch to 1 ½ inches in diamter. Cuttings will not exceed 2 inches in diameter. Cuttings shall be 2 to 3 feet in length and reasonably straight.

B. Live Post cuttings shall be 2 inch to 4 inches in diameter and will not exceed 6 inches in diameter. Cuttings shall be between 4 feet and 8 feet in length. Side branches shall be removed and the bark left intact prior to installation. Live pegs shall consist of the same species listed above for the Live Post cuttings.

C. The basal ends should be cleanly cut at an angle, for easy inserting into the soil. The top should be cut square or blunt for tamping. Cuttings must be fresh and must be kept moist after they have been cut into appropriate lengths.

2.05 JOINT PLANTING

A. Description: Joint planting is a system that installs willow stakes (as previously described) between rip-rap placed previously along the streambank. It is intended to increase the effectiveness of the rock system by forming a living root mat in the base upon which the rock has been placed.

B. The stakes shall be 1 to 2 inches in diameter and 3 to 3 ½ feet in length. Side branches shall be removed and the bark left intact prior to installation.

C. The basal ends should be cleanly cut at an angle, for easy inserting into the soil. The top should be cut square or blunt for tamping. Cuttings must be fresh and must be kept moist after they have been cut into appropriate lengths.

2.06 BRUSHMATTRESS

A. Description: The brushmattress is a combination of living units that forms an immediate, protective surface cover over the streambank.

B. Cuttings must be taken from species that root rapidly and have long flexible branches.

C. The branches are used in three ways:

1. Live Stakes: See Section 2.05

2. Live Fascines: See Section 2.04

3. Brushmattress: Long flexible braches placed against the bank surface.

D. Live branches and live stakes shall be ½ to 1 inch in diameter.

2.07 VEGETATIVE SOIL STABILIZATION

A. Seed shall be clean, delivered in original unopened packages and bearing an analysis of the contents. Guaranteed 95 percent pure with minimum germination rate of 85% is required. Summer seed mix shall be 40 percent by weight Fawn Fescue, 30 percent by weight Perennial Ryegrass, 15 percent by weight Orchard Grass, and 15 percent by weight Dutch White Clover. Winter seed mix shall be 35 percent by weight Fawn Fescue, 30 percent by weight Perennial Ryegrass, 30 percent by weight Hairy Vetch, and 5 percent by weight Dutch White Clover.

B. Fertilizer shall be used as directed by Owner's Representative. Fertilizer shall be commercial, chemical type, uniform in composition, free-flowing, conforming to state and federal laws, and suitable for application with equipment designed for that purpose. Fertilizer shall have a minimum percentage of plant food by weight for the following: Summer mix shall be 10 percent nitrogen, 10 percent phosphoric acid, and 6 percent potash. Winter mix shall be 16 percent nitrogen, 8 percent phosphoric acid, and zero percent potash.

C. Straw mulch shall be threshed straw of oats, wheat, or rye, free from obnoxious weeds, or shall be clean hay. Average stalk length shall be 6 inches. Wood waste, asphaltic emulsion, or erosion control matting such as jute, excelsior, are also appropriate for temporary stabilization. Asphaltic emulsion shall be CSS-1 as manufactured by Chevron Asphalt Company, or equal.

D. Design/Builder shall submit to Engineer certificates of inspection of seed by state of federal authorities and copies of delivery invoices or other documentation of quantities of mulch and fertilizer.

E. The Design/Builder shall give at least three days notice to the Owner's Representative of the time and place of starting the following operations:

   a. Delivery of materials

   b. Planting of grass.

F. Design/Builder shall keep the Engineer advised of his schedule of operations.

G. Unless otherwise specified or indicated provide permanent vegetative stabilization with quantities and methods as recommended in the Georgia Erosion Control Manual (the Green Book) of fescue grass, topsoil, seed, and mulch. Plant and establish only during recommended planting seasons. Water, fertilize, and maintain vegetative cover until a thick and well established stand of grass has developed, but not less than 6 months.

2.08 FILTER FABRIC

A. Filter fabric must meet the requirements set forth in Section 171 – Temporary Silt Fence, of the State of Georgia Department of Transportation (DOT) Standard Specifications, Construction of Roads and Bridges.

B. Acceptable manufacturers include Mirafi (140N).

PART 3 EXECUTION

3.01 INSPECITION BY THE ENGINEER

A. The Design Engineer will inspect the BMPs within one week of the start of construction excavation activities and notify the primary permittee(s) of any deficiencies noted. Correct all deficiencies identified within one week after receiving notice.

3.02 SILT FENCE

A. The silt fence shall be installed in accordance with the manufacturer's specifications.

B. The approximate location of required sediment and erosion controls are shown on the drawings.

C. It shall be the responsibility of the Design/Builder to extend or upgrade sediment and erosion control devices or other protective measures whenever overland flow off-site is occurring in order to prevent the off-site migration of sediment.

D. Installation: In general, silt fence shall be installed on the down gradient side of all areas to be disturbed as well as the perimeter of the project site (Engineer may authorize an exception for a perimeter which is up gradient from all land disturbing activity). All posts used to install silt fence shall comply with the specifications in the Manual for Erosion and Sediment Control in Georgia. Posts must be placed at least 18 inches in the ground and cannot be more than 6 feet apart from one another. Fence fabric must be inserted below ground and fence fabric must be fastened to posts according to the specifications in the Manual.

E. Maintenance: Inspect all silt fencing once every seven (7) calendar days and within 24 hours of a rainfall event that has precipitation of 0.5 inches or greater. Perform any

maintenance needed within 24 hours of the inspection. All silt fencing materials, including fabric, posts, and fasteners must be replaced six months after installation. At the earlier of (1) every 14 calendar days, or (2) when sediment reaches a depth of one half the installed fence height, all soil, silt, sediment, and other material captured by the silt fence should be removed and returned upgradient on the construction site. The silt fence shall be maintained such that it minimizes sediment transport as designed.

3.03 LIVE FASCINES

A. Harvesting

1. The Design/Builder shall locate and secure dormant materials of the species indicated in Section 2.04. The Design/Builder is responsible for obtaining the necessary approvals for harvesting and for obtaining the permission of all landowners of the harvest sites.

B. Live Material Preparation

1. Plant material shall be harvested such that maximum survival is obtained. All cuts shall be smooth and the cut surface shall be kept small. Harvesting may be done using hand tools (pruning shears) or power tools (chainsaws, power trimmers with blades). Plant material with excessive damage or oblique cuts, or with excessive damage to the bark, will to be acceptable.
2. All live materials shall be properly stored to insure viability. Plant material must be moved from the harvest site to storage within 8 hours of cutting, or must be planted.
3. Design/Builder shall protect plant materials from drying and overheating at the time of harvest, during transport and during the construction process. Live plant material shall receive continuous shade and will as protection from the wind. Shade fabric, heeling, mulches, plastic and watering are all techniques that may be used. Misting and watering shall be not be done with water exceeds 15°C.
4. Live materials shall be planted the same day as harvested, or stored for a period of no longer than 2 days. Storage of fascine materials shall be approved by the Owner's Representative.
5. Shrubs and young trees used in preparation of live pegs shall be cut directly above the ground. Trees that are more than 3 inches in diameter shall be topped.
6. Fascines shall be constructed as bundles of cuttings that are staggered with the plant tops distributed evenly along the length of fascine. All growing tips shall be oriented in one direction.
7. Live fascines shall be bundles of 10 to 20 feet and 6 to 8 inches in diameter.

C. Placement

1. Live Fascine shall be installed according to the Harvesting and Planting Plan and in accordance with the plans, details and following specifications.
2. The slope of the streambank shall be graded back to 3H (Horizontal) to 1V (Vertical).
3. Live Fascine shall be placed so that ¼ to 1/3 inch of the fascine's face is exposed at the final grade. The fascine shall not extend above the grade.

4. Fascines shall be placed in trenches on the slope. Trenches shall be approximately one foot wide and 6 to 8 inches deep based on diameter of the fascines.

5. Dead Stakes shall be driven into and through the Live Fascine as shown in the standard drawing. Dead Stakes shall be placed every 3 feet along the length of the Live Fascine. Extra stakes shall be used at the ends of each Live Fascine.

6. Fascine bundles shall be overlapped minimum of one foot where two fascines meet in a row.

7. Live Stakes are placed on the downslope side of the Live Fascine. Live Stakes shall be driven below and against the Live Fascine between the previously installed Dead Stakes. Live Stakes shall protrude 2 to 3 inches above the top of the fascine.

8. Fascines will be spaced in parallel rows as shown in standard drawing.

D. Backfilling

1. All Live Fascine trenches shall be backfilled to insure good soil/cutting contacts. Backfilling shall be done so as to minimize voids in the fascines.

2. All Live Fascines shall be covered with clean, moist soil. Backfill will be gently tamped and watered during placement to fill voids. The top of the fascine (1/4 to 1/3 of bundle diameter) shall be exposed, but flush with the surface, when completed.

E. Jute Covering

1. Prior to placement of the jute mesh, the Design/Builder shall apply a temporary mulch to all disturbed areas.

2. All surfacing shall be covered with a single layer of just mesh. Mesh opening shall be a minimum of ½ inch and larger than 1 ½ inches.

3. The Design/Builder shall secure the Jute Mesh in a matter approved by the manufacturer of the Jute Mesh. The Design/Builder will provide details of the materials to be used as well as installation plans in their Harvesting and Planting Plan.

F. Clean-up

1. During installation, reasonable efforts will be taken to protect surrounding sod and vegetation. The work area shall be kept clean and free of debris such as unusable plant materials.

2. Final Cleanup shall be the responsibility of the Design/Builder. Upon completion of the project, and prior the issue of final, the Design/Builder shall remove all debris and trash from the site and dispose of such materials off site.

G. Site Inspection

1. Upon completion of the planting, the Design/Builder and Owner's Representative/Project Engineer will inspect all plantings. Inspections will be completes prior to placements of the Jute Mesh. The Design/Builder shall correct all deficiencies within 10 calendar days of the inspection.

3.04 LIVE STAKES/POSTS

A. Mulch Materials

1. Prior to placement of Live Stakes/Posts, the Design/Builder shall place a suitable erosion control fabric on the prepared surface. The erosion control materials must be approved by the Owner's Representative prior to use. The Design/Builder shall install all commercial erosion control materials in accordance with the manufacturers specifications.

B. Harvesting

1. The Design/Builder shall locate and secure dormant materials of the species indicated in Section 2.04. The Design/Builder is responsible for obtaining the necessary approvals for harvesting and for obtaining the permission of all landowners of the harvest sites.

C. Live Material Preparation

1. Plant material shall be harvested such that maximum survival is obtained. All cuts shall be smooth and the cut surface shall be kept small. Harvesting may be done using hand tools (pruning shears) or power tools (chainsaws, power trimmers with blades). Plant material with excessive damage or oblique cuts, or with excessive damage to the bark, will not be acceptable.

2. All live materials shall be properly stored to insure viability. Plant material must be moved from the harvest site storage within 8 hours of cutting, or must be planted.

3. Design/Builder shall protect plant materials from drying and overheating at the time of harvest, during transport and during the construction process. Live plant materials shall receive continuous shade and well as protection from the wind the wind. Shade fabric, heeling, mulches, plastic and watering are all techniques that may be used. Misting and watering shall be not be done with water exceeds 15°C.

4. Live materials shall be planted the same day as harvested, or stored for a period of no longer than 2 days. Storage of fascine materials shall be approved by the Owner's Representative.

5. Shrubs and young trees used in preparation of live pegs shall be cut directly above the ground. Buds on the Live Posts shall be orientated in an upward position. The basal (bottom) ends shall be tapered to a point to facilitate insertion into the soil. The top shall be cut smooth and square.

D. Placement

1. Live Stakes/Posts shall be according to the Harvesting and planting Plan and in accordance with the plans, details and following specifications.

2. The Live Stakes/posts shall be placed so that 2/4 to 4/5 of their length is buried. And the Stake/Post shall be tamped or otherwise backfilled, to insure continuous soil to cutting contact, with no excessive voids in the surrounding soil materials.

3. Typical spacing for Live Stakes will be 2 to 3 feet using a triangular spacing. Total Live Stake density will be 2 to 4 stakes per square yard. Spacing on live Posts is typically 4 to 6 feet apart.

4. Neither Live Stakes or Live Posts shall be split during installation. Live Stakes or Posts which are spilt shall be removed and replaced, or if the spilt is less than 1/6

of the cutting length, the top may be re-trimmed after installation to remove the damaged portion.

E. Backfilling

1. All Live Stakes/Posts shall be planted such that the stake/post is tamped, and has full contact between the soil and cutting. In the event that an auger is used to pre-drill holes for Live Posts, or a bar is used to initiate a pilot hole for Live Stakes, the holes will be filled with loose soil after the Stake/Post is installed. The Design/Builder shall use water, poured in each hole, to insure that the cutting is in firm contact with the backfill.

F. Clean-up

1. During installation, reasonable efforts will be taken to protect surrounding sod and vegetation. The work area shall be kept clean and free of debris such as unusable plant materials. Final cleanup shall be the responsibility of the Design/Builder. Upon completion of the project, and prior to the issue of the final payment, the Design/Builder shall remove all debris and trash from the site and dispose of such materials off site.

G. Site Inspection

1. Upon completion of the planting, the Design/Builder and Owner's Representative will inspect all planting. Inspections will be completed prior to placement of the Jute Mesh. The Design/Builder shall correct all deficiencies within 10 calendar days of the inspection.

3.05 JOINT PLANTING

A. The Live Stakes shall be placed so that at least 2/3 of their length is buried below the previously placed rock layer. A dead blow hammer can be used to tamp live stakes into the ground.

B. The density of the installation shall range from 3 to 5 cuttings per square yard.

3.06 BRUSHMATRESS

A. The slope of the streambank shall be graded to 3H (Horizontal) to 1V (Vertical) or flatter. In areas where space is limited and the soils are stiff (such as clays), the slope can be steepened to 2H to 1V.

B. A Fascine bundle shall be placed in a trench at the base of the slope. The trench shall be approximately one foot wide and 6 to 8 inches deep.

C. Live and Dead Stakes shall be driven in square pattern over the slope face.

D. Place basal ends of the brushmattress at the base of the slop under the live fascine and the growing tips towards the top. The branches should lie smoothly against the bank.

E. Dead Stake should be driven directly through live fascine bundles (See Section 3.02).

F. Use 16 gauge wire to tie down mattress branches against streambank face.

G. Cover mattress with soil, but be sure that the branches are visible.

3.07 VEGETATIVE SOIL STABILIZATION

A. Provide temporary stabilization of soil to prevent erosion following clearing, grubbing, grading or other construction activities in the areas identified in the Contract Documents or as directed by the Engineer. The Engineer may modify the use, location, and

quantities of the areas requiring stabilization in the interest of the County. During construction, the Owner's Representative will designate the extent of stabilization used in each location throughout the project.

B. Initiate the stabilization measures specified herein on all disturbed areas including dikes and ditches within 24 hours of completion to minimize erosion and soil transport. However, stabilization measures specified herein do not have to be initiated in the even that construction activities will resume on that portion of the site within fourteen (14) days from the date activities temporarily ceased. For cleared areas which may not receive permanent vegetative or other stabilization measure for six (6) months or less and a suitable growing season is not available for seeding to establish an erosion retardant cover mulch may be applied as specified herein

C. Application: Perform planting and seeding in accordance with the following schedule:

1. Summer Seeding: No earlier than April 1 and no later than October 15.

2. Winter seeding: October 16 until weather conditions prohibit further construction operations as determined by the Owner's Representative.

3. Soil Preparation: Prior to seeding operations, and after surface has been shaped, graded, and compacted, scarify surface to a minimum depth of 1 inch.

4. Seeding: All seedbeds shall be a minimum depth of 1 inch. Seedbeds shall be reviewed by the Owner's Representative prior to seeding. For designated wetlands, reference seeding specification in the Section 02930. After soil has been scarified, apply required seed mix, as specified in this section, uniformly with a cyclone seeder, drill cultipacker seeder, or hydroseeder. When hydroseeding is the selected method of seeding, prepare and apply slurry at the rate and proportion specified below:

   a. Seed mix 100 lbs/acre

   b. Fertilizer 650 lbs/acre

   c. Water as necessary

   The required fertilizer mix shall be uniformly applied at the time of seeding. Upon completion of the seeding operations, apply straw mulch to a reasonably uniform thickness of 1 ½ inches to 2 ½ inches in depth. Mulch shall be loose enough to shade ground, reduce evaporation rate, and prevent or materially reduce erosion of underlying soil. Retain straw in place by applying asphaltic emulsion at a rate of 100 gallons per acre or mechanically tack the mulch into the soil to approximately 3 inches. Equipment used for tacking shall be designed for this use.

D. Application of Mulch only: For areas receiving mulch only, apply at the following rates and to the following depths:

1. Dry straw or hay: Spread at a rate of two and one-half (2 ½) tons per acre. Apply to a depth of six (6) to ten (10) inches. Apply uniformly and anchor as necessary.

2. Wood waste: Spread at a rate of six (6) to nine (9) tons per acre. Apply to a depth of two (2) to three (3) inches. Apply wood waste only on slopes that are 3:1 or flatter. Anchoring is not necessary.

3. Jute matting or Excelsior Netting: Apply in accordance with the manufacturer's recommendations.

4. Asphaltic emulsion: Apply at a rate of 1200 gallons per acre. Apply uniformly.

E. Maintenance: Inspect all stabilized areas once every seven (7) calendar days and within 24 hours of a rainfall event that has precipitation of 0.5 inches or greater. Perform any maintenance needed within 24 hours of the inspection. Apply additional stabilization as required to maintain compliance with the provision of this specification.

3.08 INSPECTIONS

A. Maintain erosion, sediment and pollutant controls as described in these Drawings and Specifications in good working condition throughout the life of the project. Promptly repair or replace any component damaged or defective. Remove or incorporate into the ground and replace straw bales, which become deteriorated or broken.

B. Designate a Qualified Person to perform inspections required by this Section. Inspect the following areas once every seven (7) calendar days and within 24 hours of a rainfall event that has precipitation o f0.5 inches or greater. Perform any maintenance needed within 24 hours of that inspection.

1. Disturbed areas of the construction site that have not undergone final stabilization
2. Erosion and sediment control measures.
3. All locations where vehicles enter or exit the site.
4. Material storage and construction laydown areas that are exposed to precipitation and have not been fully stabilized.

C. In areas that have been fully stabilized, inspections by Design/Builder shall occur at least once per month for the duration of the contract or project, whichever is longer. Perform maintenance on all stabilized areas as required.

D. During inspection, the following will be observed and appropriate maintenance procedures taken:

1. The conformance to specifications and current conditions of all erosion and sediment control measures.
2. The effectiveness of and operational success of all erosion and sediment control measures.
3. The presence of sediments or other pollutants in storm water runoff at all runoff discharge points.
4. If reasonably accessible, the presence of sediments or other pollutants in receiving waters.
5. Evidence of offsite sediment tracking at all locations where vehicles enter or exit the site

E. An inspection checklist is included at the end of this section. The checklist may be modified to suit specific BMPs and erosions control measures of this project. This checklist must be completed during each inspection, dated and signed by the Qualified Person conducting the inspection. Maintain copies of the completed inspection checklists on-site with the Contract documents and submit to the Owner on a monthly basis. Repair any deficiencies noted within 24 hours of inspection.

3.09 MONITORING AND REPORTING

A. Implementation of the Comprehensive Monitoring Program (CMP) as designed by the Engineer to comply with EPD guidelines as set forth in Part V. MONITORING, REPORTING, AND RETENTION OF RECORDS, NPDES Permit No. GAR 100000 or most recent version.

B. Prepare and submit to the Engineer (and the EPD as required) forms, attachments (schedule) for inclusion in the Owner's Notice of Intent submittal.

C. Prepare and submit a summary of the monitoring results to the Engineer and the EPD as required in the NPDES permit (Current Address: Northwest Georgia Regional Office, Ga. Environmental Protection Division, Suite 114, 4244 International Parkway, Atlanta, GA 30354). The Owner reserves the right to use its won resources to duplicate monitoring and verify the work required by the Design/Builder in this section.

3.10 REMOVAL OF TEMPORARY SEDIMENT CONTROL STRUCTURES

A. At such time that temporary erosion and control structures are no longer required under this Specification, the Design/Builder shall notify the Engineer and Owner's Representative of its intent and schedule for the removal of the temporary structures, and obtain the Engineer's approval in writing prior to removal. Following receipt of such written approval from the Engineer, remove as approved the temporary structures and return all sediments accumulated at the removed structure upgradient. In areas where temporary control structures are removed, the site shall be left in a condition that will restore original drainage. Such areas shall be evenly graded and seeded as specified in the sections titled Vegetative Soil Stabilization.

B. Remove and dispose off-site all temporary silt fences, posts and straw bales.

3.11 NOTICE OF TERMINATION (NOT)

A. When all construction activities have ceased, final stabilization has been implemented, and the site is in compliance with the NPDES permit, the Design/Builder together with the Owner shall submit a Notice of Termination.

END OF SECTION NO. 02726

SECTION NO. 02730
SEWER & ACCESSORIES

PART 1 - GENERAL

1.01 SCOPE

A. This Section describes products to be incorporated into sewers and accessories and requirements for the installation and use of these items. Furnish all products and perform all labor necessary to fulfill the requirements of these Specifications.

B. General: Supply all products and perform all work in accordance with applicable American Society for Testing and Material (ASTM), American Water Works Association (AWWA), American National Standards Institute (ANSI), or other recognized standards. Latest revisions of all standards are applicable.

1.02 QUALIFICATIONS

If requested by the Engineer, submit evidence that manufacturers have consistently produced products of satisfactory quality and performance for a period of at least two years.

1.03 SUBMITTALS

If required by the County or Engineer, Complete product data and engineering data, including shop drawings, shall be submitted to the Engineer in accordance with the requirements of Section 01340 of the Contract Documents.

1.04 TRANSPORTATION AND HANDLING

A. Unloading: Furnish equipment and facilities for unloading, handling, distributing and storing pipe, fittings, valves and accessories. Make equipment available at all times for use in unloading. Do not drop or dump materials. Any materials dropped or dumped will be subject to rejection without additional justification.

B. Handling: Handle pipe, fittings, valves and accessories carefully to prevent shock or damage. Handle pipe by rolling on skids, forklift, or front loader. Do not use material damaged in handling.

C. Lined pipe shall be handled and transported to prevent damage to linings.

1.05 STORAGE AND PROTECTION

A. Store all pipe which cannot be distributed along the route. Make arrangements for the use of suitable storage areas.

B. Stored materials shall be kept safe from damage. The interior of all pipe, fittings and other appurtenances shall be kept free from dirt or foreign matter at all times.

C. Pipe shall not be stacked higher than the limits recommended by the manufacturer. The bottom tier shall be kept off the ground on timbers, rails or concrete. Pipe in tiers shall be alternated: bell, plain end; bell, plain end. At least two rows of timbers shall be placed between tiers and chocks, affixed to each other in order to prevent movement. The timbers shall be large enough to prevent contact between the pipe in adjacent tiers.

D. Store joint gaskets in a cool location, out of direct sunlight. Gaskets shall not come in contact with petroleum products. Gaskets shall be used on a first-in, first-out basis.

1.06 QUALITY ASSURANCE

A. Product manufacturers shall provide the Engineer with written certification that all products furnished comply with all applicable provisions of these Specifications.

B. If ordered by the Engineer, each pipe manufacturer shall furnish the services of a competent factory representative to supervise and/or inspect the installation of pipe. This service will be furnished for a minimum of five days during initial pipe installation.

PART 2- PRODUCTS

2.01 DUCTILE IRON PIPE (DIP)

A. Ductile iron pipe shall be utilized where shown on the Drawings.

B. Ductile iron pipe shall be manufactured in accordance with AWWA C151. All pipe, except specials, shall be furnished in nominal lengths of 18 to 20 feet. Sizes will be as shown on the Drawings. All pipe shall have a minimum pressure rating as indicated in the following table, and corresponding minimum wall thickness, unless otherwise specified or shown on the Drawings. Pipe wall thickness shall be determined based on dead loads indicated on the Drawings and the anticipated live loads, assuming a minimum HS 20 live load.

Pipe Sizes (inches)	Pressure Class (psi)
4 - 12	350
14 - 20	250
24	200
30 - 60	150

C. Fittings and Accessories

1. Fittings shall be ductile iron and shall conform to AWWA C110/ANSI A21.10 or AWWA C153/ANSI A21.53 with a minimum rated working pressure of 250 psi.

2. Flanged elbow fittings shall be ANSI pattern using short radius elbows except where noted differently on the Drawings. Special fittings, ductile iron wall pipes and sleeves shall conform to the dimensions and details as shown on the Drawings.

D. Joints for Ductile Iron Pipe and Fittings

1. General

a. Joints for ductile iron pipe and fittings shall be mechanical joint, flanged joint or push-on joint as shown on the Drawings or specified herein.

b. Unless otherwise shown on the Drawings, specified or directed, all ductile iron pipe laid underground shall be joined using push-on type joints.

c. In all cases, gaskets shall be made of material that will not be damaged by the fluid being transported nor by the environment in which the pipe is installed.

d. Provide the necessary bolts for connections. All bolts and nuts shall be threaded in accordance with ANSI B1.1, Coarse Thread Series, Class 2A external and 2B internal fit. All bolts and nuts shall be made in the U.S.A.

2. Mechanical Joints

a. Joints shall conform to AWWA C111/ANSI A21.11.

b. Bolts and nuts shall be Tee Head Bolts and nuts of high strength low-alloy steel in accordance with ASTM A 242 to the dimensions shown in AWWA C111/ANSI A21.11.

c. Gaskets shall be in accordance with AWWA C111/ANSI A21.11 and shall be constructed of plain rubber.

d. Mechanical joint glands shall be ductile iron.

3. Push-On Joints: Push-on joints and gaskets shall conform to AWWA C111/ANSI A21.11. Details of the joint design shall be in accordance with the manufacturer's standard practice such as ACIPCO "Fastite", McWane (Clow) "Bell-Tite", or U.S. Pipe "Tyton" joints.

E. Cement Linings: Pipe and fittings shall be cement lined in accordance with AWWA C104/ANSI/AWWA C104/A21.4. Seal coat is not required.

F. Polyethylene Encasement: Polyethylene film shall meet the requirements of AWWA C 105.

G. Wall Sleeves and Wall Pipes

1. Where piping passes through concrete structures, furnish and install wall sleeves unless wall pipes or other provisions are specifically shown on the Drawings. Wall sleeves shall be accurately located and securely fastened into position before concrete is poured.

2. Wall Sleeves

a. For pipe sizes smaller than 3-inches, wall sleeves shall be steel oversize sleeves furnished with a full circle, integral, or continuously welded waterstop collar. The sleeve seal shall be the mechanically expanded, synthetic rubber type. Provide all associated bolts, seals and seal fittings, pressure clamps, or plates necessary to achieve a watertight installation. Sleeves shall extend the full thickness of the concrete. Sleeves and seal shall be Link Seal.

b. For larger pipe sizes, wall sleeves shall be ductile iron mechanical joint wall sleeves. Unless specified or shown otherwise for a specific situation, wall sleeves shall be mechanical joint bell-plain end type with waterstop/thrust collar. The collar shall be capable of withstanding a thrust force caused by a 250 psi dead end load from either direction on that size pipe. Sleeves shall be constructed with studs and mechanical joint retainer gland on the air side of the concrete structure. Provide retainer gland where shown on the

Drawings. Where the concrete structure is exposed to dirt on one side and is wet on the other side, construct with studs and glands on the dirt side. Wall sleeves shall be equal to ACIPCO A-10771.

3. Wall Pipes

a. Wall pipes shall be either ductile iron with integral waterstop/thrust collar or centrifugally cast ductile iron with a continuously welded waterstop/thrust collar. The welded on collar shall be attached to the pipe by the manufacturer. The collar shall be capable of withstanding a thrust force caused by a 250 psi dead end load from either direction on that size pipe. Wall pipes shall be furnished uncoated on the outside and cement lined on the inside. Unless specified or shown otherwise, wall pipes shall be flange end type.

b. Wall pipes shall be cast and/or fabricated and lined in one manufacturer's facilities and delivered to the job site ready for use.

2.02 VITRIFIED CLAY PIPE (VCP)

A. Pipe: All vitrified clay pipe shall be extra strength pipe conforming to ASTM C 700. Acceptance shall be on the basis of crushing strength, absorption, hydrostatic, and acid resistance requirements as described in Paragraph 4 of ASTM C 700, and inspection for compliance with design and freedom from defects. Vitrified clay pipe shall be furnished in minimum lengths of four feet.

B. Joints: Pipe joints shall be sleeve type joints and shall conform to the applicable provisions of ASTM C 425. Sleeve type joints of PVC or similar materials shall be handled and jointed in strict conformance with the pipe manufacturer's recommendations.

C. Acceptance

1. Acceptance shall be on the basis of plant load-bearing tests, material tests, and inspection of manufactured pipe for visual defects and imperfections.

2. Provide results of tests on pipe, joint material, and made-up joints performed by an independent testing laboratory approved by the Engineer. Include materials, absorption, crushing, and hydrostatic leakage tests on pipe of each size in accordance with applicable specifications.

3. Inspect pipe after delivery for shape, cracks, uniformity, blisters and imperfect surfaces, hammer test, damaged ends, and gasket grooves. Do not accept or use repaired or patched pipe or pipe with repaired or patched gasket grooves or shoulders.

2.03 REINFORCED CONCRETE PIPE (RCP)

A Pipe

1. Pipe shall be bell and spigot reinforced concrete conforming to ASTM C 76 for Class III, IV and V pipe as shown on the Drawings. Wall thickness design shall correspond to Wall C.

2. In addition, the pipe and materials shall meet the following requirements:

a. Concrete shall have a minimum compressive strength of 5,000 psi for Class III and IV and 6,000 psi for Class V;

b. Cement shall meet the requirements of ASTM C 150, Type II;

c. Absorption shall not exceed six percent when tested in accordance with ASTM C 497.

3. Reinforced concrete pipe shall be supplied in lengths of at least eight feet, except for specials.

B Joints: Pipe shall have concrete and rubber O-ring gasket type joints conforming to ASTM C 361. A rectangular groove shall be supplied in the spigot end to receive the rubber O-ring gasket, and it shall be so formed that when the joint is complete the gasket will be deformed to a rectangular shape and confined on all four sides. Bell and spigot surfaces shall be accurately formed and smooth to provide a close sliding fit with a nominal clearance of 1/16-inch.

C Fittings and Specials: Reinforced concrete pipe fittings and specials shall meet all requirements for reinforced concrete pipe, including materials of construction, structural strength, linings, and joints. Provide special adapters or transition pieces for connection to pipe of different materials where shown on the Drawings.

D Acceptance

1. Acceptance of pipe shall be on the basis of plant load-bearing tests for the load to produce 0.01-inch crack, material tests, and inspection of manufactured pipe for visual defects and imperfections as described in Paragraph 5.1.1 of ASTM C 76.

2. Provide results of tests on pipe, pipe materials, joint material, and made-up joints performed by an independent testing laboratory approved by the Engineer. Include materials, absorption, crushing, and hydrostatic leakage tests on pipe of each size in accordance with applicable specifications.

3. Each length of pipe shall be stamped by a regular employee of the approved testing laboratory.

4. Inspect pipe after delivery for laboratory stamp, shape, cracks, uniformity, blisters and imperfect surfaces, hammer test, damaged ends, and gasket grooves. Do not accept or use pipe with repaired or patched gasket grooves or shoulders. Any pipe repaired or patched is subject to rejection if such repairs or patches, in the opinion of the Engineer or County, are not sound and properly finished.

5. The County shall, at its own discretion, select another independent testing laboratory to confirm those tests performed by the manufacturer's testing laboratory. This testing laboratory shall observe the tests conducted by the laboratory selected by the manufacturer, or, as necessary, conduct its own tests. The manufacturer shall provide the necessary facilities for the performance of these tests at the plant site. These test specimens shall be provided in accordance with paragraph 11 of ASTM C 76.

6. No pipe shall be shipped before it has been cured for a minimum of 14 days.

2.04 POLYVINYL CHLORIDE (PVC) GRAVITY SEWER PIPE

A. Acceptability of PVC pipe for gravity sewers is indicated in the following table:

Standard							

Minimum Thickness Type PVC[1]	Wall	Acceptable Manufacturers	≤ 6	8 to 15	18	21	24
ASTM D 3034 SDR 35 12454B	Solid Wall	Open	Yes	Yes	No	No	No

[1] As specified in ASTM D 1784

B. All pipe shall have a minimum pipe stiffness of 46 psi at five percent deflection as determined by ASTM D 2412.

C. PVC gravity sewer pipe shall be supplied in lengths not longer than 13 feet.

D. Fittings

1. Fittings 15 inches in diameter and less shall be manufactured in accordance with ASTM D 3034. PVC compound shall be 12454B or 12454C as specified in ASTM D 1784.

   a. For sizes 8-inches and less in diameter, fittings shall be molded in one-piece with no solvent welded joints. Minimum socket depths shall be as specified in ASTM D 3034, Table 2.

   b. For sizes 10-inches and larger in diameter, fittings shall be fabricated from pipe conforming to ASTM D 3034 using solvent welding. No field fabrication of fittings will be allowed. All such fabrication shall be performed at the factory and the fittings shall be delivered ready for use.

2. Fittings 18 inches in diameter and larger shall be fabricated from pipe conforming to ASTM F 679 using solvent welding. No field fabrication of fittings will be allowed. All such fabrication shall be performed at the factory and the fittings shall be delivered ready for use.

E. Joints: Joints for pipe and fittings shall be of the integral bell and spigot type with a confined elastomeric gasket having the capability of absorbing expansion and contraction without leakage, when tested in accordance with ASTM D 3212. Gaskets shall meet the requirements of ASTM F 477. The joint system shall be subject to the approval of the Engineer and shall be identical for pipe and fittings.

F. Manhole Connections - Solid Wall Pipe: The sewer shall be connected to manholes utilizing a boot connection.

G. Acceptance: Acceptance will be on the basis of the Engineer's inspection and the manufacturer's written certification that the pipe and fittings were manufactured and tested in accordance with the applicable standards.

2.05 MANHOLES AND PRECAST CONCRETE PRODUCTS

A. Precast Concrete Sections

1. Precast concrete sections shall meet the requirements of ASTM C 478 or ASTM C 913. The minimum compressive strength of the concrete in precast sections shall be 4,000 psi.

2. Wall thickness shall be as shown on the Drawings.

3. Transition slabs or cones which convert bases larger than four feet in diameter to four foot diameter risers shall be designed by the manhole manufacturer to carry the live and dead loads exerted on the slab.

4. Seal joints between precast sections by means of rubber O-ring gaskets or flexible butyl rubber sealant. Butyl rubber sealants shall meet the requirements of AASHTO M-198. Sealant shall be pre-formed type with a minimum nominal diameter of 1-inch. Butyl rubber sealant shall be equal to Kent Seal No. 2 or Concrete Sealants CS202.

B. Brick and Mortar: Brick shall be whole and hardburned, conforming to ASTM C 32 Grade MS. Mortar shall be made of one part Portland cement and two parts clean sharp sand. Cement shall be Type 1 and shall conform to ASTM C 150. Sand shall meet ASTM C 144.

C. Iron Castings

1. Cast iron manhole frames and covers shall meet the requirements of ASTM A 48 for Class 30 gray iron and all applicable local standards. All castings shall be tough, close grained, smooth and free from blow holes, blisters, shrinkage, strains, cracks, cold shots and other imperfections. No casting will be accepted which weighs less than 95 percent of the design weight. Shop drawings must indicate the design weight and provide sufficient dimensions to permit checking.

2. Manhole frames and covers shall be as shown on the Standard Details.

3. All frames and covers shall have machined horizontal bearing surfaces.

4. All manholes shall have standard frames and covers except where specifically shown otherwise on the Drawings.

5. Watertight covers shall be bolt-down type and shall be equipped with four 1/2-inch stainless steel bolts and a 1/8-inch red rubber or rubber O-ring gasket. Covers shall be able to be rotated and interchangeable. Bolt holes shall be bored through so that debris entering the bolt hole will fall into the manhole. Bolt holes shall have the full 360 degree circle within the cover's radius when bored through the cover.

D. Ductile Iron Castings

1. Manhole frames and covers shall be manufactured from ductile iron, in accordance with the requirements of ASTM A356 Grade 80-55-06 (55ksi), in accordance with ISO 1083 as well as all applicable local standards. The iron material used in products provided shall have a minimum recycled materials content of 75%. Covers shall be hinged and incorporate a 90 degree blocking system. Covers shall be one man operable using standard tools. Frames shall be circular with a 24 inch clear opening and shall incorporate a 360 degree mechanically attached elastomer seating gasket.

The hinge box shall include a self cleaning, dual wiper infiltration plug, The frame depth shall not exceed 4 inches. The flange shall incorporate bedding slots, bolt holes and lifting eye. Castings shall be of uniform quality, free from sand holes, gas holes, and shrinkage. Cracks and other surface defects. For traffic service castings, bearing surfaces between manhole rings and covers shall be cast or machined with such precision to prevent rocking. Casting dimensional tolerances shall be +/- 1/16 inch per foot and casting weights shall not vary more than =/- 5 percent. No casting will be accepted which weights less than 95 % of the design weight. Each casting shall be identifiable and show, at a minimum, the following: name of the producing foundry, country of manufacture, ASTM material designation, recycle symbol, individual part number and the cast or heat date.

E. Steps: Manhole steps shall be polypropylene molded around a steel rod as detailed on the Drawings and shall be equal to products of M.A. Industries.

F. Boots: Provide preformed rubber boots and fasteners equal to those manufactured by Kor-N-Seal or Press Seal Gasket Corporation. Boots may be mechanically attached to the manhole or cast into the walls of the manhole.

2.06 MISCELLANEOUS ACCESSORIES

A. Flexible Adapter Couplings

1. Couplings for pipe sizes 15-inches in diameter and less shall be elastomeric plastic sleeves designed to connect pipes of dissimilar materials. Adapters shall provide a positive seal against infiltration and exfiltration and remain leak proof and root proof up to 4.3 psi. The adapter manufacturer shall provide all stainless steel clamps and required accessories.

2. Couplings shall be products of Fernco and shall be installed in accordance with the manufacturer's recommendations.

PART 3 - EXECUTION

3.01 EXISTING UTILITIES AND OBSTRUCTIONS

A. The Drawings indicate utilities or obstructions that are known to exist according to the best information available to the County. The Design/Builder shall call the Utilities Protection Center (UPC) (1-800-282-7411) as required by Georgia law (O.C.G.A. §§25-9-1 through 25-9-13) and all utilities, agencies or departments that own and/or operate utilities in the vicinity of the construction work site, at least 72 hours (three business days) prior to construction, to verify the location of the existing utilities.

B. Existing Utility Location: The following steps shall be exercised to avoid interruption of existing utility service.

1. Provide the required notice to the utility owners and allow them to locate their facilities according to Georgia law. Field utility locations are valid for only ten days after original notice. The Design/Builder shall ensure, at the time of any excavation that a valid utility location exists at the point of excavation.

2. Expose the facility to verify its true location and grade for a distance of at least 200 feet in advance of pipeline construction to verify its true location

and grade. Repair, or have repaired, any damage to utilities resulting from locating or exposing their true location.

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

4. Maintain a log identifying when phone calls were made, who was called, area for which utility relocation was requested and work order number issued, if any. The Design/Builder shall provide the Engineer an updated copy of the log bi-weekly, or more frequently if required.

C. Conflict with Existing Utilities

1. Horizontal Conflict: Horizontal conflict shall be defined as when the actual horizontal separation between a utility, main, or service and the proposed water main does not permit safe installation of the sewer by the use of sheeting, shoring, tieing-back, supporting, or temporarily suspending service of the parallel or crossing facility. The Design/Builder may change the proposed alignment of the sewer to avoid horizontal conflicts if the new alignment remains within the available right-of-way or easement and complies with regulatory agency requirements after a written request to and subsequent approval by the Engineer. Where such relocation of the sewer is not approved by the Engineer, the Design/Builder shall arrange to have the utility, main, or service relocated.

2. Vertical Conflict: Vertical conflict shall be defined as when the actual vertical separation between a utility, main, or service and the proposed sewer does not permit the crossing without immediate or potential future damage to the utility, main, service, or the sewer. The Design/Builder may change the proposed grade of the sewer to avoid vertical conflicts if the changed grade provides minimum required capacity, maintains adequate cover and complies with regulatory agencies requirements, after written request to and subsequent approval by the Engineer. Where such relocation of the sewer is not approved by the Engineer, the Design/Builder shall arrange to have the utility, main, or service relocated.

D. Electronic Locator: Have available at all times an electronic pipe locator and a magnetic locator, in good working order, to aid in locating existing pipe lines or other obstructions.

E. Water and Sewer Separation

1. Sewers should maintain a minimum 10 foot edge-to-edge separation from water mains. Where the sewer crosses a water main, an 18-inch vertical separation shall be maintained where possible. Where possible, a full joint of sewer pipe shall be centered over the water main. Any deviation shall be requested in writing to the Engineer.

2. No water main shall be permitted to pass through or come in contact with any part of a manhole.

3.02 CONSTRUCTION ALONG HIGHWAYS, STREETS AND ROADWAYS

A. Install pipe lines and appurtenances along highways, streets and roadways in accordance with the applicable regulations of, and permits issued by, the Department of Transportation and Fulton County with reference to construction operations, safety, traffic control, road maintenance and repair.

B. Traffic Control

1. The Design/Builder shall provide, erect and maintain all necessary barricades; suitable and sufficient lights and other traffic control devices; provide qualified flagmen where necessary to direct traffic; take all necessary precautions for the protection of the work and the safety of the public. Flagmen shall be certified by a Georgia DOT approved flagman training program.

2. Construction traffic control devices and their installation shall be in accordance with the current Manual on Uniform Traffic Control Devices for Streets and Highways.

3. Placement and removal of construction traffic control devices shall be coordinated with the Georgia Department of Transportation and Fulton County a minimum of 48 hours in advance of the activity.

4. Placement of construction traffic control devices shall be scheduled ahead of associated construction activities. Construction time in street right-of-way shall be conducted to minimize the length of time traffic is disrupted. Construction traffic control devices shall be removed immediately following their useful purpose. Traffic control devices used intermittently, such as "Flagmen Ahead", shall be removed and replaced when needed.

5. Existing traffic control devices within the construction work zone shall be protected from damage. Traffic control devices requiring temporary relocation shall be located as near as possible to their original vertical and horizontal locations. Original locations shall be measured from reference points and recorded in a log prior to relocation. Temporary locations shall provide the same visibility to affected traffic as the original location. Relocated traffic control devices shall be reinstalled in their original locations as soon as practical following construction.

6. Construction traffic control devices shall be maintained in good repair, and shall be clean and visible to affected traffic for daytime and nighttime operation. Traffic control devices affected by the construction work zone shall be inspected daily.

7. Construction warning signs shall be black legend on an orange background. Regulatory signs shall be black legend on a white background. Construction sign panels shall meet the minimum reflective requirements of the Department of Transportation and Fulton County. Sign panels shall be of durable materials capable of maintaining their color, reflective character and legibility during the period of construction.

8. Channelization devices shall be positioned preceding an obstruction at a taper length as required by the current Manual on Uniform Traffic Control Devices for Streets and Highways, as appropriate for the speed limit at that location. Channelization devices shall be patrolled to insure that they are maintained in the proper position throughout their period of use.

C. Construction Operations

1. Perform all work along highways, streets and roadways to minimize interference with traffic.

2. Stripping: Where the pipe line is laid along road right-of-way, strip and stockpile all sod, topsoil and other material suitable for right-of-way restoration.
3. Trenching, Laying and Backfilling: Do not open the trench any further ahead of pipe laying operations than is necessary. Backfill and remove excess material immediately behind laying operations. Complete excavation and backfill for any portion of the trench in the same day.
4. Shaping: Reshape damaged slopes, side ditches, and ditch lines immediately after completing backfilling operations. Replace topsoil, sod and any other materials removed from shoulders.
5. Construction operations shall include cleanup and utility exploration.

D. Excavated Materials: Do not place excavated material along highways, streets and roadways in a manner which obstructs traffic. Sweep all scattered excavated material off the pavement in a timely manner.

E. Drainage Structures: Keep all side ditches, culverts, cross drains, and other drainage structures clear of excavated material. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.

F. Landscaping Features: Landscaping features shall include, but are not necessarily limited to: fences; property corners; cultivated trees and shrubbery; manmade improvements; subdivision and other signs within the right-of-way and easement. The Design/Builder shall take extreme care in moving landscape features and promptly re-establishing these features.

G. Maintaining Highways, Streets, Roadways and Driveways

1. Maintain streets, highways, roadways and driveways in suitable condition for movement of traffic until completion and final acceptance of the work.

2. During the time period between pavement removal and completing permanent pavement replacement, maintain highways, streets and roadways by the use of steel running plates. The edges of running plates shall have asphalt placed around their periphery to minimize vehicular impact. The backfill above the pipe shall be compacted, as specified elsewhere up to the existing pavement surface to provide support for the steel running plates.

3. Furnish a road grader or front-end loader for maintaining highways, streets, and roadways. Make the grader or front-end loader available at all times.

4. Immediately repair all driveways that are cut or damaged. Maintain them in a suitable condition for use until completion and final acceptance of the work.

3.03 PIPE DISTRIBUTION

A. Pipe shall be distributed and placed in such a manner that will not interfere with traffic.

B. No pipe shall be strung further along the route than 1,000 feet beyond the area in which the Design/Builder is actually working without written permission from the County. The County reserves the right to reduce this distance to a maximum distance of 200 feet in residential and commercial areas based on the effects of the distribution to the adjacent property owners.

C. No street or roadway may be closed for unloading of pipe without first obtaining permission from the proper authorities. The Design/Builder shall furnish and maintain proper warning signs and obstruction lights for the protection of traffic along highways, streets and roadways upon which pipe is distributed.

D. No distributed pipe shall be placed inside drainage ditches.

E. Distributed pipe shall be placed as far as possible from the roadway pavement, but no closer than five feet from the roadway pavement, as measured edge-to-edge.

3.04 LOCATION AND GRADE

A The Drawings show the alignment and grade of the sewer and the position of manholes and other appurtenances. The slope shown on the profile and/or called for in the Specifications is the slope of the invert of the pipe.

B Prior to clearing and grubbing, construction staking shall be performed.

C Construction shall begin at the low end of the sewer and proceed upstream without interruption. Multiple construction sites shall not be permitted without written authorization from the Engineer for each site. As a minimum, cut sheets between construction sites shall be submitted and approved before multiple construction sites will be permitted.

D The Design/Builder shall be responsible for any damage done to reference points, base lines, center lines and temporary bench marks, and shall be responsible for the cost of re-establishment of reference points, base lines, center lines and temporary bench marks as a result of the operations.

a. LAYING AND JOINTING PIPE AND ACCESSORIES

A. Lay all pipe and fittings to accurately conform to the lines and grades established by the Engineer.

B. Pipe Installation

1. Proper implements, tools and facilities shall be provided for the safe performance of the Work. All pipe, fittings and valves shall be lowered carefully into the trench by means of slings, ropes or other suitable tools or equipment in such a manner as to prevent damage to sewer materials and protective coatings and linings. Under no circumstances shall sewer materials be dropped or dumped into the trench.

2. All pipe, fittings and appurtenances shall be examined carefully for damage and other defects immediately before installation. Defective materials shall be marked and held for inspection by the Engineer, who may prescribe corrective repairs or reject the materials.

3. All lumps, blisters and excess coating shall be removed from the socket and plain ends of each pipe, and the outside of the plain end and the inside of the bell shall be wiped clean and dry and free from dirt, sand, grit or any foreign materials before the pipe is laid. No pipe which contains dirt shall be laid.

4. Foreign material shall be prevented from entering the pipe while it is being placed in the trench. No debris, tools, clothing or other materials shall be placed in the pipe at any time.

5. As each length of pipe is placed in the trench, the joint shall be assembled and the pipe brought to correct line and grade. The pipe shall be secured in place with approved backfill material.

6. It is common practice to lay pipe with the bells facing the direction in which work is progressing, however, it is not mandatory.

7. Applying pressure to the top of the pipe, such as with a backhoe bucket, to lower the pipe to the proper elevation or grade shall not be permitted.

8. Polyethylene Encasement: Installation shall be in accordance with AWWA C105 and the manufacturer's instructions. All ends shall be securely closed with tape and all damaged areas shall be completely repaired to the satisfaction of the Engineer.

C. Alignment and Gradient

1. Lay pipe straight in alignment and gradient or follow true curves, where shown on the Drawings, as nearly as practicable. Do not deflect any joint more than the maximum deflection recommended by the manufacturer.

2. Maintain a transit, level and accessories on the job to lay out angles and ensure that deflection allowances are not exceeded.

3. The Design/Builder shall check the invert elevation at each manhole and the pipe invert elevation at least three times daily, start, mid-day and end of day. Elevations shall be checked more frequently if more than 100 feet of pipe is installed in a day or if the pipe is being constructed at minimum slope.

4. The Design/Builder shall check the horizontal alignment of the sewer at the same schedule as for invert elevations.

D. Expediting of Work: Excavate, lay the pipe, and backfill as closely together as possible, as determined by the Engineer. Do not leave un-jointed pipe in the trench overnight. Backfill and compact the trench as soon as possible after laying and jointing is completed. Cover the exposed end of the installed pipe each day at the close of work and at all other times when work is not in progress. If necessary to backfill over the end of an uncompleted pipe or accessory, close the end with a suitable plug, either push-on, mechanical joint, restrained joint or as approved by the Engineer.

E. Joint Assembly

1. Joints shall be assembled in accordance with the manufacturer's recommendations.

2. The Design/Builder shall internally inspect each pipe joint to insure proper assembly for pipe 30-inches in diameter and larger after the pipe has been brought to final alignment.

3. On reinforced concrete pipe, diameters 30-inches and larger, the Design/Builder shall fill the voids, on the pipe joint interior, with grout.

F. Cutting Pipe

1. Cut ductile iron pipe using an abrasive wheel saw.

2. Cut PVC pipe using a suitable saw.

3. Remove all burrs and smooth the end before jointing.

4. The Design/Builder shall cut the pipe and bevel the end, as necessary, to provide the correct length of pipe necessary for installing the fittings, valves, accessories and closure pieces in the correct location. Only push-on or mechanical joint pipe shall be cut.

G. House Connections: Install wyes or tees in locations designated by the Engineer for future connection of service lines. Plug the branch of the wye or tee. Record the location of fittings installed on a copy of the Contract Drawings to be submitted as Record Drawings, and on the report form supplied by the County.

a. MANHOLE AND PRECAST CONCRETE PRODUCT CONSTRUCTION

A. Construct manholes as shown on the Drawings.

B. Precast Concrete: Handle sections carefully to prevent cracking or chipping. Provide uniform bedding of the bottom section to prevent uneven loading. Install gaskets and joint sealants in accordance with manufacturer's recommendations to produce a watertight structure.

C. Brick: Bed the bottom and sides of every brick in mortar. Apply a smooth coat of mortar, 3/4-inch thick, on the inside and outside.

D. Pipe Connections: Seal the connection between the pipe and the manhole as follows:

1. Pipe 36-Inch Diameter and Less: Connect pipe to manhole utilizing rubber boots.

2. Pipe 42-Inch Diameter and Larger: Construct manhole collars as shown on the Drawings after the pipe has been sealed into the manhole.

3. If rubber boots are damaged, replace Type I boots with a new boot and repair Type II boots by constructing a manhole collar.

4. If preformed openings must be enlarged or altered, or if new openings must be made in the field, minimize the amount of material removed to provide closely matched surfaces for grouting.

E. Inverts: Form channels as shown on the Drawings, rounded, and troweled smooth with brick faces exposed. Maintain consistent grade through the invert.

F. Top Elevations: Build manholes outside of paved areas to 18-inches above finished grade unless otherwise shown on the Drawings or directed by the Engineer. Build manholes in paved areas to existing grades.

G. Drop Connections: Manholes requiring drop connections are shown on the Drawings. Construct drop connections of the same materials as the upstream sewer and in accordance with the details shown on the Drawings.

H. Frames and Covers: Unless frame and cover is at grade, the frame shall be cast into the cone section.

I. Seal all manhole joints and lift holes, both inside and out, with grout. Between precast sections, this is in addition to joint sealant.

b. CONCRETE COLLARS

i. Construct collars as shown on the Drawings.

c. INSPECTION AND TESTING

A. Clean and test lines before requesting final acceptance. Where any obstruction is met, clean the sewers by means of rods, swabs, or other instruments. When requested by the Engineer, flush out lines and manholes before final inspection.

B. Alignment: Pipe lines shall be straight and show a uniform grade between manholes. Correct any discrepancies discovered during inspection.

C. Water tightness: All sewers constructed shall be tested for water tightness to the maximum extent feasible. Infiltration tests and exfiltration tests shall be performed on all new sewers constructed as indicated below, except for those new sewers constructed which have active services tied into it as the pipe is being installed. In such cases the water tightness of the sewers less than or equal to 24-inches shall be based on a visual inspection, and for sewers 30-inches and larger based on the individual joint test as specified below. All visible leaks, including those found via television inspection, shall be repaired.

D. Infiltration Tests

1. Install suitable weirs in manholes selected by the Engineer to determine the leakage of ground water into the sewer. The maximum length of line for each infiltration test shall be 5,000 feet. Install weir for a minimum of four hours before measuring flow. If leakage in any section of the sewer line exceeds 100 gpd/inch diameter/mile, locate and repair leaks. Repair methods must be approved by the Engineer. After repairs are completed, re-test for leakage.

2. Furnish, install, and remove the necessary weirs, plugs, and bulkheads required to perform the leakage tests.

3. Weirs shall be V-notch type equal to Pollard (800/437-1146).

E. Exfiltration Tests

1. Low-Pressure Air Test: Sewer diameters less than or equal to 24-inches.

a. Prior to air testing, the section of sewer between manholes shall be thoroughly cleaned and wetted. Immediately after cleaning or while the pipe is water soaked, the sewer shall be tested with low-pressure air. At the Design/Builder's option, sewers may be tested in lengths between manholes or in short sections (25 feet or less) using inflatable balls pulled through the line from manhole to manhole. Air shall be slowly supplied to the plugged sewer section until internal air pressure reaches approximately 4.0 psi. After this pressure is reached and the pressure allowed to stabilize (approximately two to five minutes), the pressure may be reduced to 3.5 psi before starting the test. If a 1.0 psi drop does not occur within the test time, then the line has passed the test. If the pressure drops more than 1.0 psi during the test time, the line is presumed to have failed the test, and the Design/Builder will be required to locate the failure, make necessary repairs, and retest the line. Minimum test time for various pipe sizes and types is as follows:

Nominal Pipe Size, inches	Time (Min/100 feet)	
	VCP, RCP	DIP, PVC
6	0.7	5.7
8	1.2	7.6
10	1.5	9.4
12	1.8	11.3
15	2.1	14.2
18	2.4	17.0
21	3.0	19.8
24	3.6	22.8

b. Required test equipment, including inflatable balls, braces, air hose, air source, timer, rotameter as applicable, cut-off valves, pressure reducing valve, 0-15 psi pressure gauge, 0-5 psi pressure gauge with gradations in 0.1 psi and accuracy of + two percent, shall be provided by the Design/Builder. Testing equipment shall be equal to Cherne Air-Loc Testing Systems.

c. The Design/Builder shall keep records of all tests made. Copy of such records will be given to the Engineer or the County. Such records shall show date, line number and stations, operator, and such other pertinent information as required by the Engineer.

d. The Design/Builder is cautioned to observe proper safety precautions in performance of the air testing. It is imperative that plugs be properly secured and that care be exercised in their removal. Every precaution shall be taken to avoid the possibility of over-pressurizing the sewer line.

2. Individual Joint Test: Pipe joints for sewers 30-inches in diameter and larger shall be air tested individually. The joint tester assembly shall be placed over the joint and shall pressurize the joint area to 4 psi. The pressure shall not drop more than 2 psi in 10 seconds. The joint tester assembly shall be equal to Cherne Industries, Inc.

F. Deflection Test: All polyvinyl chloride pipe gravity sewers.

1. Test PVC gravity sewer for excessive deflection by passing a mandrel through the pipe. Deflection of the pipe shall not exceed five percent.

2. The mandrel size shall be based upon the maximum possible inside diameter for the type of pipe being tested, taking into account the allowable manufacturing tolerances of the pipe. The mandrel shall have an odd number of legs, or vanes, with a quantity of such equal to or greater than nine. The legs of the mandrel shall be permanently attached to the mandrel. A mandrel with variable sizes shall not be allowed. The mandrel shall be constructed of steel, aluminum or other material approved by the Engineer, and shall have sufficient rigidity so the legs of the mandrel will not deform when pulling through a pipe. The mandrel dimensions shall be checked by the Engineer before use by the Design/Builder.

3. Excavate and install properly any section of pipe not passing this test. Re-test until results are satisfactory.

4. This test shall be performed twice:

   a. once within the first 30 days of installation, and

   b. once during final inspection, but no sooner than 30 days after pavement backfill done, at the completion of this contract.

G. Closed Circuit Television: The interior of the gravity sewers shall be subjected to a televised inspection. The audio/video tape shall provide an audio description of what is being viewed; provide a continuous running footage indicator between manholes; and be prepared in the presence of the County's Inspector. Prior to Final Acceptance the County shall be provided with one copy of the TV inspection report and video cassette showing the entire length of gravity sewer being tested. The report shall contain the condition of pipe, type of pipe, depth, location of services, length, type joint, roundness, and distance between manholes. Any pipe found to be cracked, leaking, misaligned, bellied or otherwise defective shall be removed and replaced.

H. Manholes

1. Prior to testing manholes for water tightness, all lift holes shall be plugged with a non-shrink grout, all joints between precast sections shall be properly sealed and all pipe openings shall be temporarily plugged and properly braced.

2. Vacuum Tests: The manhole, after proper preparation as noted above, shall be vacuum tested prior to or after backfilling. The test head shall be placed at the inside of the top of the cone section and the compression head inflated to 40 psi to effect a seal between the vacuum base and the manhole structure. Connect the vacuum pump to the outlet port with the valve open. A vacuum of 10-inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to 9-inches. The manhole shall pass if the time is greater than that specified in the table below. If the manhole fails the initial test, necessary repairs shall be made with non-shrink grout while the vacuum is still being drawn. Retesting shall proceed until a satisfactory test is obtained. Vacuum testing equipment shall be equal to that as manufactured by P.A. Glazier, Inc.

MINIMUM TEST TIMES FOR VARIOUS MANHOLE DIAMETERS AND DEPTHS			
Depth (feet)	**Diameter, feet**		
	4	**5**	**6**
8	20	28	33
10	25	33	41
12	30	39	49
14	35	48	57
18	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
26	64	85	105
28	69	91	113
30	74	98	121

d. PROTECTION AND RESTORATION OF WORK AREA

A. General: Return all items and all areas disturbed, directly or indirectly by work under these Specifications, to their original condition or better, as quickly as possible after work is started.

1. The Design/Builder shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a practical minimum.

2. All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of underground facilities, ditches, and disturbed areas shall be accomplished on a daily basis as work is completed. Finishing, dressing, and grassing shall be accomplished immediately thereafter, as a continuous operation within each area being constructed and with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.

3. Handwork, including raking and smoothing, shall be required to ensure that the removal of roots, sticks, rocks, and other debris is removed in order to provide a neat and pleasing appearance.

4. The Department of Transportation's engineer shall be authorized to stop all work by the Design/Builder when restoration and cleanup are unsatisfactory and to require appropriate remedial measures.

B. Man-Made Improvements: Protect, or remove and replace with the Engineer's approval, all fences, walkways, mail boxes, pipe lines, drain culverts, power and telephone lines and cables, property pins and other improvements that may be encountered in the work. Fences crossing the easement shall be gated.

C. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the Engineer. Any such trees or shrubbery which must be removed shall be heeled in and replanted under the direction of an experienced nurseryman.

D. Cutting of Trees: Do not cut trees for the performance of the work except as absolutely necessary. Protect trees that remain in the vicinity of the work from damage from equipment. Do not store spoil from excavation against the trunks. Remove excavated material stored over the root system of trees within 30 days to allow proper natural watering of the root system. Repair any damaged tree over 3-inches in diameter, not to be removed, under the direction of an experienced nurseryman. All trees and brush that require removal shall be promptly and completely removed from the work area and disposed of by the Design/Builder. No stumps, wood piles, or trash piles will be permitted on the work site. The Design/Builder may chip and grind vegetation and spread over the disturbed area if approved by the County.

E. Disposal of Rubbish: Dispose of all materials cleared and grubbed during the construction of the project in accordance with the applicable codes and rules of the appropriate county, state and federal regulatory agencies.

F. Swamps and Other Wetlands

1. The Design/Builder shall not construct permanent roadbeds, berms, drainage structures or any other structures which alter the original topographic features within the easement.

2. All temporary construction or alterations to the original topography will incorporate measures to prevent erosion into the surrounding swamp or wetland. All areas within the easement shall be returned to their original topographic condition as soon as possible after work is completed in the area. All materials of construction and other non-native materials shall be disposed by the Design/Builder.

3. The Design/Builder shall provide temporary culverts or other drainage structures, as necessary, to permit the free migration of water between portions of a swamp, wetland or stream which may be temporarily divided by construction.

4. The Design/Builder shall not spread, discharge or dump any fuel oil, gasoline, pesticide, or any other pollutant to adjacent swamps or wetlands.

END OF SECTION NO. 02730