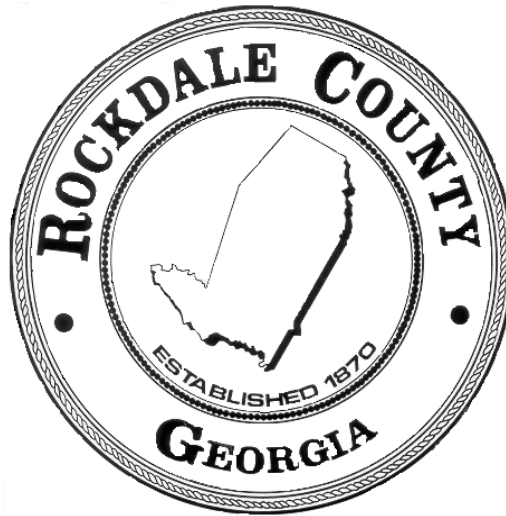


ROCKDALE COUNTY, GEORGIA

July 20, 2015

HAYNES RIDGE ROAD WATER LINE EXTENSION

**INVITATION TO BID (ITB)
No. 15-29**



**ROCKDALE COUNTY FINANCE DEPARTMENT
PROCUREMENT OFFICE
958 MILSTEAD AVENUE
CONYERS, GA 30012
770-278-7552**

INTRODUCTION:

This is an Invitation to Bid (ITB) to procure construction services for the Haynes Ridge Road Water Line Extension in Rockdale County. Instructions for preparation and submission of a bid are contained in this packet. Bids must be typed or printed in ink.

Rockdale County provides equal opportunity for all businesses and does not discriminate against any person or business because of race, color, religion, sex, national origin, and handicap or veterans status. This policy ensures all segments of the business community have access to supplying the goods and services needed by Rockdale County.

PURCHASING CONTACT FOR THIS REQUEST:

All questions concerning this invitation and all questions arising subsequent to award are to be addressed to the Procurement Officer at the following address:

Rockdale County Finance Department
Attn: Tina Malone, CPPO, CPPB
958 Milstead Avenue
Conyers, GA 30012
Phone: (770) 278-7552, Fax (770) 278-8910
E-mail: tina.malone@rockdalecounty.org

To maintain a “level playing field”, and to assure that all bidders receive the same information, bidders are requested **NOT** to contact anyone other than the contact above until after the award of the contract. Doing so could result in disqualification of the bidder.

BID COPIES FOR EVALUATION:

Four (4) hard copies and one (1) original hard copy and one (1) CD in Adobe PDF format will be required for review purposes (*with the original clearly marked “Original” and the Copies clearly marked “Copies.”*). CD’s that are blank or have incorrect information on them will not be acceptable and may be justification for disqualification. Check your disk(s) to ensure that they have the appropriate material on it before submitting.

All bid materials must be completed and enclosed in a sealed envelope prior to submittal. The ITB number (15-29) must be clearly written on the outside of the envelope. **Incomplete, incorrect, unsealed, unmarked, or improperly submitted bids may be rejected.**

CONTRACT TERM:

The contract will be effective for 12 months after award by the Board of Commissioners. However, all work shall be completed no later than 90 days after issuance of the Notice to Proceed (NTP), unless a time extension is granted by the Project Manager. Please see the example contract in Attachment 1 of this ITB for more information.

DUE DATE:

Sealed bids will be received at the Rockdale County Finance Department, Procurement Division, 958 Milstead Avenue, Conyers, GA 30012 no later than **2:00 P.M., local time, Thursday, August 13, 2015**. Bids received after this time will not be accepted.

PRE-BID CONFERENCE:

There will not be a pre-bid conference for this ITB.

QUESTIONS AND CLARIFICATIONS:

You should submit your questions and/or requests for clarifications about this RFP no later than **2:00 p.m., local time, on Thursday, August 6, 2015**. Written responses from the County to the questions it receives will be in an addendum and posted to the County's website at www.rockdalecounty.org, Bids, RFPs and Announcements/Current Bids.

ADDENDA:

Answers to questions submitted that materially change the conditions and specifications of this ITB will be issued in an addendum and posted to the County's website at www.rockdalecounty.org, Bids, RFPs and Announcements/Current Bids. Any discussions or documents will be considered non-binding unless incorporated and issued in an addendum.

Bidders should check the website at www.rockdalecounty.org, Bids, RFPs and Announcements/Current Bids frequently during the process to verify that they have received all issued addenda. Bidders have the responsibility of making sure that they have received all issued addenda.

EXCHANGES

Due to the adding and deleting of employees and the change in sizes of existing employees, the successful bidder will exchange clothing (which has not been worn), for another size.

QUALIFICATIONS OF OFFERORS:

Bidders must have a current business license from their home office jurisdiction and provide a copy of that license with the submittal of their bid response. Rockdale County vendors doing business in Rockdale County must have a current Rockdale County Business License.

Bids from any offeror that is in default on the payment of any taxes, license fees, or other monies due to Rockdale County will not be accepted.

Bidders are to submit at least (3) three references from projects with similar experience using the materials and process in this Invitation to Bid labeled Attachment 2.

ESCALATION CLAUSE:

During the life of the contract, if the successful bidder requests a price increase, the successful bidder shall furnish price lists to the County for his/her increases and those of his/her supplier (e.g. factory) increases, as and if prices are changed. Furnish also a list of his/her supplier's (e.g. factory) prices that had been in effect during bidder's earlier prices; so that County can see the difference. Price change will be in effect only after receipt and approval of one copy of these price lists, (or catalogs), by the Rockdale County Purchasing Department. Price lists and changes thereto are to be furnished under the contract and without charge to the County. Catalogue(s) or Price List(s) are to be submitted to Purchasing Department, P.O. Box 289, Conyers, GA 30012. All price

increases will require Board of Commissioners approval as a change order to the contract.

SILENCE OF SPECIFICATIONS

The apparent silence of these specifications and any supplemental specifications as to any details, or the omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail and that only materials of first quality and correct type, size and design are to be used. All workmanship is to be first quality. All interpretations of this specification shall be made upon the basis of this statement, with County interpretation to prevail.

OPTION TO AUDIT

Successful bidder will be required to maintain complete records during the life of the contract and for a period of one year after completion of the contract. Such records are to be made available to the County if officially requested, to be audited by a designated County auditing staff. In such audits reveal overcharges and/or undercharges, such will be adjusted and compensation made by either party to correct charges.

TORT IMMUNITY:

No officer, employee, or agent of the County acting within the scope of his/her employment or function shall be held personally liable in tort or named as a defendant in any action for injury or damage suffered because of any act, event, or failure to act.

PROPRIETARY INFORMATION:

Careful consideration should be given before submitting confidential information to Rockdale County. The Georgia Open Records Act permits public scrutiny of most materials collected as part of this process. Please clearly mark any information that is considered a trade secret, as defined by the Georgia Trade Secrets Act of 1990, O.C.G.A. §10-1-760 et seq., as trade secrets are exempt from disclosure under the Open Records Act. Rockdale County does not guarantee the confidentiality of any information not clearly marked as a trade secret.

AWARD OF CONTRACT:

The Rockdale County Procurement Office and/or Evaluation Committee make a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Procurement Office and/or Evaluation Committee. Rockdale County reserves the right to make no awards, multiple awards, one award for all items; or whatever the County deems to be in its best interest.

QUANTITIES:

The quantities listed in the Bidders Response Schedule are provided as an estimate for bid purposes. The County will not be obligated to quantities beyond actual needs.

SELECTION PROCESS:

The Rockdale County Procurement Office and/or Evaluation Committee makes a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Purchasing Department and/or Evaluation Committee.

This is a past performance/quality/price trade-off source selection in which competing

offeror's past and present performance history and product quality will be evaluated on a basis approximately equal to price. Award will be made to the responsible offeror whose bid represents the best value after evaluation in accordance with the factors listed below. Rockdale County Board of Commissioners may reject any or all bids if such action is in the county's interest.

Rockdale County may evaluate bids and award a contract without discussions with offerors. Therefore, the offeror's initial bid should contain the offeror's best terms from a price and technical standpoint. The County reserves the right to conduct discussions if the County later determines them to be necessary.

INSURANCE:

The Company shall maintain in full force and effect the following insurance during the term of the Agreement.

Coverage	Limits of Liability
Workers' Compensation	Statutory
Employers' Liability	\$1,000,000.00
Bodily Injury Liability	\$1,000,000.00 each occurrence
except Automobile	\$1,000,000.00 aggregate
Property Damage Liability	\$1,000,000.00 each occurrence
except Automobile	\$1,000,000.00 aggregate
Personal & Advertising Injury Limit	\$1,000,000.00
Products / Completed Ops.	\$2,000,000.00 aggregate
Automobile Bodily Injury	\$1,000,000.00 each person
Liability	\$1,000,000.00 each occurrence
Automobile Property Damage	\$1,000,000.00 each occurrence
Liability	
Professional Liability/General Liability	\$1,000,000.00

All insurance shall be provided by an insurer(s) acceptable to the County, and shall provide for thirty (30) days prior notice of cancellation to the County. Upon contract award, Contractor shall deliver to the County a certificate or policy of insurance evidencing Contractor's compliance with this paragraph. Contractor shall abide by all terms and conditions of the insurance and shall do nothing to impair or invalidate the coverage.

Rockdale, GA shall be named as Additional Insured under any General Liability, Business Auto and Umbrella Policies using ISO Additional Insured Endorsement forms CG 2010 or its equivalent. Coverage shall apply as Primary and non-contributory with Waiver of Subrogation in favor of Rockdale County, Georgia.

The insurance carrier must have a minimum rating of A or higher as determined by the rating firm A.M. Best.

Certificates to contain policy number, policy limits and policy expiration date of all policies issued in accordance with this contract.

BONDS:

Rockdale County shall request the following for bids/proposals in excess of Fifty Thousand Dollars (\$50,000.00).

BID BOND

Each bid shall include a bid bond in the amount of five percent (5%) of the total bid amount as guarantee that the bidder shall not withdraw the bid for 90 days after the scheduled bid opening. If awarded the contract, Bidders shall enter a written agreement with Rockdale County in accordance with the bid.

PERFORMANCE BOND

Upon execution and delivery of the contract, the bidder shall furnish Rockdale County a performance bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the County. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

PAYMENT BOND

Upon execution and delivery of the contract, the bidder shall furnish Rockdale County a payment bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the County. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

All sureties of bonds for Rockdale County must be licensed to do business in the State of Georgia and must be listed on the Department of Treasury Federal Register.

PERMITS:

The awarded contractor will be responsible for acquiring any permits that are required for this project/purchase. Rockdale County will waive fees on all permits issued by Rockdale County.

ILLEGAL IMMIGRATION REFORM AND ENFORCEMENT ACT OF 2011

Vendors submitting a Qualification package in response to this ITB must complete the Contractor Affidavit under O.C.G.A. §13-10-91(b)(1) which is provided with the ITB package to verify compliance with the Illegal Immigration Reform and Enforcement Act of 2011.

- A. The form must be signed by an authorized officer of the contractor or their authorized agent.
- B. The form must be notarized.
- C. The contractor will be required to have all subcontractors and sub-subcontractors who are engaged to complete physical performance of services under the final contract executed between the County and the contractor complete the appropriate subcontractor and sub-subcontractor affidavits and return them to the County a minimum of five (5) days prior to any work being accomplished by said subcontractor or sub-subcontractor. Format for this affidavit can be provided to the contractor if necessary.

LOCAL VENDOR PREFERENCE POLICY

The Rockdale County Board of Commissioners adopted a Local Vendor Preference Policy on March 26, 2013. The policy will apply to all qualified Invitations to Bid and Request for Proposals after May 1, 2013. The Local Vendor Preference Policy allows Rockdale County vendors to get an extra 5 points on the evaluation criteria scoring for Request for Proposal. The Policy will give the local bidder the opportunity to match the price of a non-local vendor's bid price if they are low and within 5% of the low bidder's price on Invitations to Bid. A copy of the Policy may be downloaded from the County website at www.rockdalecounty.org, under Finance/Purchasing.

The Local Vendor Preference Policy: will √/will not _____ apply to this ITB.

GENERAL INFORMATION:

RECEIPT OF BID:

No bids received after said time or at any place other than the time and place as stated in the notice shall be considered. No responsibility shall attach to Rockdale County for the premature opening of a bid not properly addressed and identified.

WITHDRAWAL OF BID:

A bidder may withdraw his bid before the bid due date, without prejudice to the bidder, by submitting a written request of withdrawal to the Rockdale County Procurement Office.

REJECTION OF BID:

Rockdale County may reject any and all bids and must reject a bid of any party who has been delinquent or unfaithful in any formal contract with Rockdale County. Also, the right is reserved to waive any irregularities or informalities in any bid in the proposing procedure. Rockdale County shall be the sole judge as to which bid is best, and in ascertaining this, will take into consideration the business integrity, financial resources, facilities for performing the work, and experience in similar operations of the various bidders.

STATEMENT OF EXPERIENCE AND QUALIFICATIONS:

The bidder may be required, upon request, to prove to the satisfaction of Rockdale County that he/she has the skill, experience, necessary facilities and ample financial resources to perform the contract(s) in a satisfactory manner and within the required time. If the available evidence of competency of any bidder is not satisfactory, the bid of such bidder may be rejected. The successful bidder is required to comply with and abide by all applicable federal and state laws in effect at the time the contract is awarded.

NON-COLLUSION AFFIDAVIT:

By submitting a bid, the bidder represents and warrants that such bid is genuine and not sham or collusive or made in the interest or in behalf of any person not therein named, that the bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm or corporation to refrain from proposing and that the bidder has not in any manner sought by collusion to secure to that bidder any advantage over any other bidder.

INTEREST OF:

By submitting a bid, the bidder represents and warrants that a Commissioner, Administrator, employee, nor any other person employed by Rockdale County has, in any manner, an interest, directly or indirectly, in the bid or in the contract which may be made under it, or in any expected profits to arise therefrom.

DOCUMENTS DEEMED PART OF THE CONTRACT:

The notice, invitation to bidders, general conditions, and instructions for bidders, special conditions, specifications, bid, and addenda, if any, will be deemed part of the contract.

GOVERNING LAWS:

This contract is made under and shall be governed and construed in accordance with the laws of the State of Georgia.

ERRORS AND OMISSIONS:

The vendor shall not take advantage of any errors or omissions in this Bid Request, and shall promptly notify Rockdale County of any omissions or errors found in this document.

STANDARD INSTRUCTIONS:

1. The instructions contained herein shall be construed as a part of any bid invitation and/or specifications issued by Rockdale County and must be followed by each bidder.
2. The written specifications contained in this bid shall not be changed or superseded except by written addendum from Rockdale County. Failure to comply with the written specifications for this bid may result in disqualification by Rockdale County.
3. All goods and materials shall be F.O.B. Destination Conyers, Georgia and no freight or postage charges will be paid by Rockdale County unless such charges are included in the bid price.
4. The following ITB# **15-29** must be written clearly on the outside of each bid envelope in order to avoid prior opening in error.
5. All bids must be received and in-hand at bid due date and time. Each bidder assumes the responsibility for having his/her bid received at the designated time and place of bid due date. Bids received after the stated time and date may be subject to rejection without consideration, regardless of postmark. Rockdale County accepts no responsibility for mail delivery.
6. Unless otherwise stated, all bids submitted shall be valid and may not be withdrawn for a period of 120 days from the due date.
7. Each bid form submitted must include the name of the business, mailing address, the name, title and signature of the person submitting the bid. When submitting a bid to Rockdale County the first page of your bid package should be the bid form listing the price, delivery date, etc., unless the bid form is requested to be in a separate envelope.
8. Rockdale County reserves the right to accept a bid that is not the lowest price if, in the County's judgment, such bid is in the best interest of the County and the public. The County reserves the right to reject any and all bids.
9. Telephone, Telegraphic or Facsimile bids will not be accepted.
10. No sales tax will be charged on any orders except for contracts that include construction materials being purchased through a third party.

Federal I.D. #58-6000882
Sales Tax Exempt #58-800068K
11. If applicable, completed questionnaires must be signed manually. Rockdale County reserves the right to accept or reject any bid on the basis of incomplete or inaccurate answers to the questionnaire.
12. If applicable, warranty information shall be provided.
13. Bidders shall state delivery time after receiving order.
14. Bidders shall identify any subcontractors, and include an explanation of the service or product that they may provide.

BID SPECIFICATIONS:

The specifications are as follows and on the attached pages:

BID FORM – ITB No. 15-29

Instructions: Complete all THREE (3) parts of this bid form.

PART I: Bid Summary

Complete the information below. If you wish to submit more than one brand, make a photocopy of this Bid Form.

Instructions: Type or clearly print all prices.

Any modifications to items, quantities, or units will result in rejection of the bid.

Item #	Item Description	Approx. Quantity	Unit	Unit Price	Projected Price
1	8-Inch Ductile Iron Pipe Water Line Installation	1,650	LF		
2	AWWA C-153 DIP Fittings Incl. Conc. Thrust Block/Collars	2	TN		
3	AWWA C-502 Fire Hydrant Assembly	4	EA		
4	Tie-In to Existing Water Main	1	EA		
5	Water Svcs. Connection from Main to House Incl. Meter Boxes at ROW (Meters and BFP to Be provided by RWR)	14	LS		
6	Well Abandonment	14	LS		
7	Soil Erosion and Sediment Control	LS	LS		
8	Pressure Test	1,650	LF		
9	Trench Rock Excavation & Removal	350	CY		
10	Blast Monitoring	1	EA		
11	Jack & Bore – 16” Dia. Steel Casing	70	LF		
12	Jack & Bore – Free Bore Driveways	90	LF		
Subtotal					
Contingency (10% of Subtotal)					
Total Bid Amount					

Representative's Signature: _____ Date: _____

PART II: Addenda Acknowledgements (if applicable)

Each vendor is responsible for determining that all addenda issued by the Rockdale County Finance Department – Purchasing Division have been received before submitting a bid.

Addenda	Date Vendor Received	Initials
"1"		
"2"		
"3"		
"4"		
"5"		
"6"		

PART III: Vendor Information:

Company Name	
Address	
Telephone	
E-Mail	
Current Georgia General Contractor License Number	
Utility Contractor's License Number	
License Classification	
Expiration Dates of the above Licenses	
Current GDOT Pre-Qualification Number	
Representative's Name and Title (Typed or Printed)	
Signature of Representative	
Date Submitted	

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

Representative's Signature: _____ Date: _____

BID SPECIFICATIONS FOR ITB No. 15-29

Project Name: Haynes Ridge Road Water Line Extension Project

Project Location: Haynes Ridge Road, Loganville, Georgia

Latitude: 33°44'14.7"N Longitude: 83°55'26.40"W

Scope of Work: Provide all labor, materials, and equipment for the water line extension project along Haynes Ridge Road. Work will include the installation of an 8-inch ductile iron water line of approximately 1,650 feet. There will also be a tie-in to the existing water main, installation of fire hydrants, and **water service connection from the main to the house (meters to be provided by RWR)**. This project also includes the abandonment of seven wells. Additionally, provide all necessary purchasing, coordination, supervision, mobilization, traffic control, erosion and sedimentation control, construction staking, removal, disposal, utility protection and relocation, grading, compaction, marking, cleanup, and other services required for the project.

Estimates of material and labor required for the project are shown in the Bid Item Table. The cost of any work performed, materials furnished, services provided, or expenses incurred, which are not specifically delineated in the contract documents, but which are incidental to the scope, intent, and completion of the project, shall be deemed to have been included in the Total Bid Amount.

Unless specifically directed otherwise in the project plans, specifications, or contract documents, all work shall be performed according to RWR and GDOT current policies and publications (e.g. Standard Specifications, Construction Standards and Details), shall follow manufacturer instructions and industry standards, shall conform to the Special Terms and Conditions for RWR Projects, and shall comply with all local, State, and Federal regulations. In the event of conflict between these various requirements, the most stringent requirement shall take precedence.

Bidders are strongly encouraged to visit the project site and carefully review the Construction Plans, ITB, specifications, and regulations before preparing a bid.

Additionally, prior to submitting a bid, bidders are strongly encouraged to use the Bidder's Checklist (Attachment 4) to ensure that all necessary documents have been completed and included.

**SPECIAL TERMS AND CONDITIONS
FOR ROCKDALE WATER RESOURCES PROJECTS**

1. Definitions:

- a. The term "County" shall mean "Rockdale County, Georgia", but also will be used to refer to Rockdale County's Water Resource Utility, Finance Department, Board of Commissioners, and other personnel responsible for the procurement and administration of the contract.
- b. The term "ITB" shall mean "Invitation to Bid", but will also be used to refer to this particular document in its entirety.
- c. The term "bidder" shall mean a business entity that submits a response to this ITB.
- d. The term "project" shall refer to the services outlined in the Scope of Work within this ITB.
- e. The term "bid" shall mean all documentation submitted by a particular bidder, in addition to any information about such bidder obtained during the evaluation process, whether it is discovered by the County or provided by references.
- f. The term "Contractor" shall mean the particular bidder that has been awarded a contract to provide the services necessary to complete the project.
- g. The term "Representative" shall mean a single employee of the Contractor who is expected to be the main point of contact between the County and the Contractor, and who will be responsible for coordinating all work.
- h. The term "Project Manager" shall mean a single employee of the County who has the authority to make decisions about the execution and acceptability of all work associated with the project.

2. Communication:

- a. Unless specifically stated elsewhere, all written communication required in the execution of contract responsibilities shall be sent through e-mail, and communication shall only occur between the Project Manager and the Representative.
- b. The Representative shall be available to receive telephone calls and e-mail from the Project Manager at any time (i.e. 24 hours a day, seven days a week) during the contract term, and shall respond as necessary and in a timely manner.
- c. If the Contractor needs to change its Representative, due to personnel changes or leaves of absence (e.g. vacations, illness), the Project Manager shall be given the new Representative's contact information as soon as possible.

3. Scheduling:

- a. The amount of time allotted for mobilization and completion of the project is specified in the contract, and may only be extended by the Project Manager.
- b. Upon contract award, the Representative shall create a proposed schedule in bar-chart format (e.g. Gantt Chart), which demonstrates how the Contractor will complete the project within the allotted time. The schedule shall show the appropriate sequence and duration of the remaining tasks, and shall account for all known and anticipated sources of delay (e.g. weather, subcontractor availability).
- c. The Representative shall update the proposed schedule as necessary, and shall send it to the Project Manager on a weekly basis.
- d. The Representative shall notify the Project Manager as soon as possible, if a significant change is made to the proposed schedule.
- e. Time extensions will not be granted for issues and factors which are reasonably within the Contractor's ability to predict, prevent, mitigate, withstand, or control. In particular, an extension will not be granted for:
 - 1. Poor planning, coordination, or execution of work

- 2. Late, incorrect, or incomplete submittal of shop drawings or other time-sensitive documentation
- 3. Seasonal weather conditions of normal frequency, duration, and intensity
- f. The Representative may be required to demonstrate why a certain cause for delay was unforeseeable, unavoidable, or unmanageable.
- g. The Contractor shall not be entitled to charge the County for extended overhead costs associated with delays or time extensions, unless the contract term is extended through a change order.
- h. Unless otherwise authorized by the Project Manager, the Contractor shall perform work only between 7:30 AM and 5:30 PM, Monday through Friday, except for official County holidays.
- i. The Project Manager may stop work at any time, and may delay work as much as necessary, if the Contractor is deemed to be noncompliant with its contract obligations.

4. Quality Control and Assurance:

- a. The Contractor shall be solely responsible for the quality and accuracy of the work it performs and the work performed by its subcontractors.
- b. The Contractor shall ensure that an experienced and qualified supervisor will be present throughout all construction operations.
- c. The Contractor shall perform all work in strict conformance to the project's plans and specifications, and shall employ the means necessary to ensure the intended methods, materials, shapes, sizes, elevations, alignments, angles, strengths, pressures, capacities, clearances, finishes, etc. have been satisfied to the greatest extent practicable.
- d. Unless specifically directed otherwise in the project plans, specifications, or contract documents, all work shall be performed according to RWR and GDOT current policies and publications (e.g. Standard Specifications, Construction Standards and Details), shall follow manufacturer instructions and industry standards, shall conform to the Special Terms and Conditions for Rockdale Water Resources Projects, and shall comply with all local, State, and Federal regulations. In the event of conflict between these various requirements, the most stringent requirement shall take precedence.
- e. At the Project Manager's request, the Representative shall demonstrate with measurements, photos, onsite testing, etc. that all work has been properly constructed.
- f. If directed by the Project Manager, the Contractor shall immediately correct any errors, deficiencies, and defects.
- g. Work shown in shop drawings shall not begin without the Project Manager's written approval.
- h. Any questions or concerns about the work shall be directed to the Project Manager.
- i. Any necessary deviations from either the plans or specifications shall be reported to the Project Manager as soon as possible. Modifications shall not be made without prior written authorization from the Project Manager.
- j. When the project is nearly complete, the Project Manager and Representative shall inspect the work together. The Contractor shall correct all errors, deficiencies, and defects before final payment is authorized.
- k. Upon completion of the work and before final payment is made, the Representative shall provide a written guarantee to the County, stating that the Contractor shall correct any defects in its workmanship or any damage resulting from such defects for a period of one year, without expense to the County. However, this guarantee shall not require the Contractor to remedy any problems arising from normal deterioration, inadequate design, vandalism, or natural phenomena.

5. Invoicing, Field Orders, and Change Orders:

- a. Invoices may be submitted monthly or at project milestones, as agreed upon by the Representative and the Project Manager.
- b. Retainage amounts will be determined by the contract.
- c. No payment will be made for portions of the project that are not completed or provided.
- d. Payment will be made according to actual quantities expended at the time of invoicing (i.e. not based upon an estimated completion percentage).
- e. Each contractual item price shall be inclusive of all administration, correspondence, preparatory actions, equipment, labor, fuel, permitting, licensing, bonding, insurance, taxes, fees, postage, and any other material or service expenditures necessary to complete the work associated with that item.
- f. With each invoice, the Representative shall submit material receipts, time sheets, dump tickets, dimensioned sketches, photographs, or other documentation to verify the actual amount of labor, materials, and other resources expended. All such documentation shall become the sole property of the County.
- g. The Contractor shall only charge the County for mobilization once, regardless of how many trips are necessary to complete the project.
- h. The Contractor shall only charge the County for traffic control once, regardless of whether additional traffic control measures become necessary, and regardless of whether such measures are employed at multiple locations.
- i. The project's Scope of Work shall include not only the work that is specifically outlined in the plans and specifications, but also anything that is considered incidental to that work.

**SPECIAL TERMS AND CONDITIONS
FOR ROCKDALE WATER RESOURCES PROJECTS**

- j. The Project Manager shall have the sole discretion whether approved quantity increases or additional services will be considered a “field order” and paid out of the project’s contingency fund, or if they will be considered a “change order”. Change orders require a formal contract amendment, and are subject to the approval of the Board of Commissioners.
 - k. The Representative shall notify the Project Manager as soon as possible if any quantities are expected to exceed the estimated amounts, or if additional services are needed outside of the Scope of Work. No such changes will be made without prior written authorization from the Project Manager. Changes made without the Project Manager’s authorization will not be reimbursable, and may be reversed or removed at the Project Manager’s discretion and at the Contractor’s cost.
- 6. Protection of Public, Property, Infrastructure, and Environment:**
- a. The Contractor shall perform its work in such a manner as to cause the least amount of interference and inconvenience to the public as possible. Unnecessary noise, construction debris, utility outages, restricted ingress/egress, traffic delays, property damage, and safety hazards will not be tolerated.
 - b. The Contractor shall not perform work outside of the project’s designated easements, staging areas, and limits of disturbance, unless authorized by the Project Manager. The Contractor shall be responsible for all damage caused by its unauthorized access to adjacent areas.
 - c. The Contractor shall protect its work throughout the project, to prevent damage from weather, flooding, erosion, sedimentation, sloughing, subsidence, contamination, tampering, etc. The Contractor shall repair and replace its damaged work at its own cost, and to the Project Manager’s satisfaction.
 - d. The Contractor shall repair all rutting and pavement damage it causes within the project area, to the Project Manager’s satisfaction.
 - e. The Contractor shall provide traffic control measures (e.g. signage, barriers, road plates, flagmen) as necessary to protect the public and the Contractor’s personnel for the duration of the project.
 - f. All traffic control measures and practices shall satisfy USDOT and GDOT requirements and specifications (e.g. Manual on Uniform Traffic Control Devices).
 - g. The Contractor shall abide by all regulations concerning occupational safety (e.g. OSHA regulations).
 - h. The Contractor shall be responsible for coordinating utility location activities prior to beginning construction. Work shall not begin until all underground utilities are properly located and marked.
 - i. The Contractor shall be responsible for coordination, permitting, and construction associated with any necessary protection, removal, or relocation of existing utilities. All plans, schedules, and agreements with utility owners shall be provided to the Project Manager as soon as possible. All work must comply with the utility owners’ requirements and specifications.
 - j. The Representative shall contact the Project Manager immediately, by e-mail and by telephone, if the Contractor causes any unauthorized damage or pollution. The Contractor shall bear all costs of any necessary replacement, repair, cleaning, containment, mitigation, or other action necessary to correct such problems. All such remedial work shall be done to the Project Manager’s satisfaction.

- k. The Contractor shall ensure that at least one "certified person" is onsite during all land disturbing activities; that is, the Contractor shall have at least one person onsite who possesses a valid Level 1A "blue card", Level 1B "red card", or Level II "tan/gray card" issued by the GSWCC.
- l. Whenever possible, the Contractor shall avoid working within streams, surface water, wetlands, or saturated soils. If such work is necessary, the Contractor shall provide adequate temporary stream diversions, pump-arounds, cofferdams, dewatering, stream crossings, wooden mats, etc. All such measures shall be provided at the Contractor's expense and in accordance to the project's plans, specifications, and regulations. If not shown in the project's plans and specifications, all proposed measures must be authorized by the Project Manager.
- m. The contractor shall keep the project site clean, and shall not allow debris or waste to accumulate.
- n. All sediment, debris, unsuitable fill, and other waste materials removed from the project site shall be properly disposed by the Contractor. The Contractor shall comply with all applicable Federal, State, and local regulations related to the hauling, handling, and disposal of such waste materials.
- o. The Representative shall demonstrate that all waste materials have been properly disposed (e.g. by providing dump tickets from a legal landfill or invoices from an appropriate disposal service).

**SPECIAL TERMS AND CONDITIONS
FOR ROCKDALE WATER RESOURCES PROJECTS**

7. Water Usage:

- a. Water used for construction and maintenance activities shall be provided at the Contractor's expense, and may be obtained by any of the following sources:
 - 1. Natural groundwater or surface water from within the County's right-of-way, provided that: withdrawals do not cause damage to property or the environment; withdrawals do not exceed Georgia EPD's limitations; and such water is not transported outside of the County's boundary, unless authorized in writing beforehand by the Project Manager.
 - 2. Hydrants belonging to Rockdale Water Resources (RWR), provided that: the Contractor has written authorization from RWR to purchase such water; the Contractor is not delinquent in its RWR utility fees; and the Contractor follows all RWR regulations.
 - 3. Any other legal source of water, whether located inside or outside of the County's boundary, provided that such source is authorized in writing beforehand by the Project Manager.
- b. The Contractor may dispose unused, clean water within the following locations:
 - 1. County right-of-way and County-owned property, provided that: the discharged water does not cause erosion, flooding, or other damage to property or the environment; discharged water is not released onto any road surface, driveway entrance, or parking lot drive aisle; and the discharging activities do not disrupt traffic or other public activities.
 - 2. Sanitary sewer systems owned by RWR, provided that the Contractor has written authorization from RWR.

8. Liability:

- a. The Contractor and its subcontractors shall be solely responsible for obtaining and maintaining all necessary licenses, permits, approvals, insurance, and bonds, and shall pay all associated costs, taxes, and fees.
- b. The Contractor and its subcontractors shall be solely responsible for the health and safety of their employees.
- c. The Contractor and its subcontractors shall be solely responsible for the protection, cleaning, maintenance, repair, recovery, or replacement of their equipment and materials.
- d. The Contractor and its subcontractors shall be solely responsible for paying any damages, lost wages, attorney fees, court costs, settlements, judgments, penalties, fines, interest payments, or other expenses associated with its failure to meet its professional, contractual, or regulatory obligations.

Attachment 1 SAMPLE CONTRACT

AGREEMENT FOR THE CONSTRUCTION OF THE Haynes Ridge Road Water Line Extension

This Agreement entered into on this ____ day of _____, 2015, between ROCKDALE COUNTY, GEORGIA, a political subdivision of the State of Georgia, whose address is 962 Milstead Avenue, Conyers, Georgia 30012, (hereinafter referred to as the “County”) and [CONTRACTOR’S NAME], a [DESCRIPTION OF CONTRACTOR’S BUSINESS TYPE], whose address is [CONTRACTOR’S ADDRESS] (hereinafter referred to as “Contractor”).

WHEREAS, the County desires to engage the services of Contractor for the construction of the **Haynes Ridge Road Water Line Extension**; and

WHEREAS, Contractor is qualified to perform this service and desires to render this service to the County as provided herein.

NOW THEREFORE, the County engages the services of Contractor for and in consideration of the mutual promises contained in this Agreement and the parties agree as follows:

1. **Services Provided by Contractor.**

The Contractor will furnish all products, tools, construction equipment, skill and labor of every description necessary to carry out and to complete in a good, firm, substantial workmanlike manner the construction of the **Haynes Ridge Road Water Line Extension** as described in the County’s Invitation to Bid (ITB) No. 15-29 incorporated herein by reference, (hereinafter called “Work”), and Contractor’s bid dated [DATE], attached hereto and made a part hereof (hereinafter called “Bid”). Contractor shall provide, at their expense, all vehicles and equipment necessary to provide this Work. The Work shall be performed at the direction of the Rockdale Water Resources General Engineering Manager or their designee and consistent with all Federal, State and Local laws.

The Contract Documents, Bid documents, Invitation to Bid, and drawings are considered essential parts of the Agreement, and requirements occurring in one are as binding as though occurring in all. They are intended to define, describe and provide for all labor necessary to complete the Work in an acceptable manner, ready for use, or operation by the County.

2. **Fees and Compensation.**

- (a) **Contract Price:** The Contract Price shall not exceed [CONTRACT AMOUNT], and shall be the total amount payable by the County to the Contractor for the performance of the Work set forth in the Contract Documents, unless amended as agreed upon by both

parties in writing as detailed in Section 6 of this Agreement. The County shall provide payment within thirty (30) days of receiving said invoice.

It is understood that the Contractor shall provide and pay for all products, labor (including labor performed after regular working hours, on Saturdays or Sundays, or on legal holidays), tools, construction equipment, supervision, and all other services and facilities of any nature whatsoever necessary to execute, complete, place into operation, and deliver the Work.

The Contractor shall be responsible for any additional expenses incurred by the County as a result of the extended work hours, including resident inspection overtime. The cost associated with resident inspector overtime will be deducted from the Contractor's monthly payment request.

- (b) **Payments Withheld:** The County may decline to approve an application for payment, in whole or in part, as may be necessary to protect the County from loss because of:
- (1) Failure of the Contractor to make payments properly to subcontractors or for labor or products.
 - (2) Unsatisfactory prosecution of the Work by the Contractor either due to quality of the Work or if the Contractor is behind the currently approved construction schedule.

When the above reasons for nonpayment are corrected, then payment will be made for amounts withheld because of such reasons, not later than the next payment.

- (c) **Retention:** The County will retain the following amounts from each properly certified estimate:
- (1) Until the value of the Work completed, including stored materials, is at least 50 percent of the Contract amount, 10 percent of the value of all Work satisfactorily completed, including stored materials.
 - (2) When the value of the completed Work totals at least 50 percent of the Contract amount, the County will reduce the retainage to 5 percent of the value of Work completed, including stored materials provided the Work is progressing satisfactorily and there is no specific cause for retaining a larger sum. The total amount retained will be at least 5 percent of the Contract amount, adjusted for Change Orders, until the date of final payment.
 - (3) The County may elect to reinstate retention of 10 percent of the value of the Work completed if at any time the Contractor fails to make satisfactory progress or if there is other specific cause. No form of collateral in lieu of cash will be acceptable as retainage.

Amounts retained by the Contractor from payments due to suppliers and subcontractors (expressed as a percentage) shall not exceed that being retained by the County.

3. **Effective Dates of Agreement.**

The effective date of this Agreement shall be the date said Agreement is signed by the Chairman of the Rockdale County Board of Commissioners (the "Board"). The term of this Agreement shall be twelve (12) months from the effective date, unless terminated by either party as detailed in section 13 of this Agreement.

The Contractor shall begin the Work no later than fourteen (14) days after issuance of the Notice to Proceed, and shall complete the Work no later than ninety (90) days after issuance of the Notice to Proceed, unless a time extension is authorized in writing by the Project Manager.

Time is of the essence and is an essential element of this Contract, and the Contractor shall pay to the County, not as a penalty, but as liquidated damages, the sum of \$100.00 for each calendar day that there is default of completing the Work within the time limit named herein. If the Contractor abandons the Contract before commencement of the Work or defaults in completion of all the Work after commencement thereof, the Contractor shall be liable for such liquidated damages. These fixed liquidated damages are not established as a penalty but are calculated and agreed upon in advance by the County and the Contractor due to the uncertainty and impossibility of making a determination as to the actual and consequential damages incurred by the County and the general public of Rockdale County, Georgia as a result of the failure on the part of the Contractor to complete the Work on time. Such liquidated damages referred to herein are intended to be and are cumulative and shall be in addition to every other remedy now or hereafter enforceable at law, in equity, by statute, or under the Contract.

4. **Rejection of Work and Materials.**

All products furnished and all Work completed will be inspected by the County. All products furnished and all Work completed that is not in accordance with the Contract Documents or that is defective will be rejected. All rejected products or Work shall be removed immediately. If rejected products or Work is not removed within 48 hours, the County will have the right and authority to stop the Work immediately and will have the right to arrange for the removal of said rejected products or Work at the cost and expense of the Contractor.

5. **Supervision of Work.**

The Contractor shall supervise and direct the Work. The Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of the Work. The Contractor shall employ and maintain on the Work a qualified supervisor or superintendent who shall be designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

The supervisor shall have full authority to act on behalf of the Contractor and to execute the orders or directions of the County without delay. The supervisor shall have full authority to promptly supply products, tools, plant equipment and labor as may be required. The supervisor's authority shall be such that all communication given to the supervisor shall be as binding as if given to the Contractor.

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

6. **Changes in the Contract.**

The County may at any time, as the need arises, order changes within the scope of the Work without invalidating the Contract Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment will be authorized by Change Order.

7. **Insurance.**

The Contractor shall not commence any work under this Contract until all insurance, as stipulated in the Invitation to Bid, has been obtained and such insurance has been approved by the County, nor shall the Contractor allow any subcontractor to commence any work on subcontractor's contract until all similar insurance required of the subcontractor has been so obtained and approved by the Contractor.

8. **Interruption of Facility Operations.**

The Contractor shall provide the County with written notice at least three days prior to any interruption in facility operations required by construction activity. The notice shall include the date and time of the scheduled interruption, the length of time the interruption will be in effect, the procedures to be followed, a complete identification of all those processes, equipment and operations to be affected and all other information the County may require. The Contractor shall provide any equipment, piping, auxiliary power or other means necessary to sustain facility operations.

9. **Protection of Work, Property and Persons.**

- (a) The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all products to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- (b) The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction, promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54) as amended. The Contractor shall erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection.
- (c) The Contractor shall remedy all damage, injury or loss to any property, improvements or facilities caused, directly or indirectly, in whole or in part, by the Contractor or any of the Contractor's subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The property, improvements or facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the Work. In case of failure on the part of the Contractor to restore such property, or make good such damages or injury, the County may, after 48 hours written notice, proceed to repair, rebuild, or otherwise restore such property, improvements or facilities as may be deemed necessary. The cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract.
- (d) In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the County, shall act to prevent threatened damage, injury or loss.
- (e) Completed Work and stored products shall be suitably protected during unseasonable weather, to allow Work to proceed in a timely fashion. Work planned, or in progress, should be performed to minimize impact of adverse weather.

10. **Protection of the Environment.**

- (a) The Contractor shall be responsible for taking all measures required to minimize all types of pollution associated with the undertaking of the proposed Work, and shall abide by the requirements of all governmental agencies having jurisdiction over the Work or Contractor's Project operations. This shall include but not be limited to air, water & noise pollution during torch cutting, grinding, burning and grading operations.
- (b) Any area used or involved in the Project that is disturbed by the Contractor, shall be restored to original or better condition, even though such area is outside the limits of that specified for grading, grassing or landscaping.
- (c) The Contractor is responsible for maintenance of all erosion control measures, final removal of all temporary BMP's, and irrigation of all permanent vegetative measures until fully established.

11. **Protection, Location and Relocation of Utilities.**

The Contractor shall notify utility owners of the new work in accordance with Georgia Law by calling the Utilities Protection Center (UPC) at 800-282-7411, 72 hours before work is to begin. The Contractor shall protect from damage all existing improvements or utilities at, or in proximity to, the site of the Work, and shall repair or restore any damage to such facilities resulting from failure to exercise reasonable care in the performance of Work. If the Contractor fails or refuses to repair any such damage promptly, the County may have the Work performed and charge the cost thereof to the Contractor.

Prior to the construction or installation of any new Work, the Contractor shall excavate all existing utilities within the vicinity of the Work to their actual vertical and horizontal location. In order to avoid conflicts between existing and new Work, the Contractor shall either relocate the existing utility on a temporary or permanent basis, or shall take whatever means necessary to protect the existing facilities or utilities during the installation of new Work.

12. **Indemnification.**

In addition to its agreement to obtain and maintain insurance as set forth herein, the Contractor agrees to indemnify and hold harmless the County, its officers, agents, and employees, from any and all claims against the County, its officers, agents and employees, which arise out of any act or omission of the Contractor or any of the Contractor's officers, agents and/or employees, and any and all claims which result from any condition created or maintained by the Contractor or anyone employed by the Contractor or any of their officers, agents or employees, which condition does not specify to be created or maintained by this Contract.

13. **Termination of Agreement.**

In the event either party elects to terminate this Agreement for whatever reason deemed appropriate, written notice shall be provided and termination shall be effective 15 days from receipt of written notice.

14. **Notice.**

Any notice or other communication required or permitted to be given under this Agreement must be in writing and must be mailed by overnight delivery or certified mail, postage prepaid, so that the notifying party can prove delivery of notice and the date thereof, and addressed as follows:

To the County:

To the Contractor:

Rockdale County, Georgia
Rockdale Water Resources
Attn: [PROJECT MANAGER]
1329 Portman Drive, Suite H
Conyers, Georgia 30094

[COMPANY NAME]
Attn: [REPRESENTATIVE]
[ADDRESS 1]
[ADDRESS 2]
[CITY, STATE, ZIP CODE]

And copy to:

Rockdale County Finance Department
Attention Purchasing Division
958 Milstead Ave., Suite 300
Conyers, GA 30012

The addresses stated in this paragraph may be changed by the respective parties upon a documented notice delivered in advance, pursuant to this paragraph.

15. **Assignment.**
The Contractor shall have no right to transfer or assign its interest in this Agreement without the prior written consent of an authorized representative of the County.
16. **Corporate Authority.**
Contractor represents to the County that this Agreement, the transaction contemplated in this Agreement, and the execution and delivery hereof, have been duly authorized by all necessary corporate proceedings and actions, including, without limitation, the action on the part of the directors. The individual executing this Agreement on behalf of Contractor warrants that he or she is authorized to do so and that this Agreement constitutes the legally binding obligation of the corporation.
17. **Waiver.**
No action taken pursuant to this Agreement shall be deemed to constitute a waiver by the party taking such action of compliance with any representation, warranty, covenant or agreement in this Agreement. The waiver by any party of a breach of any provision or condition contained in this Agreement shall not operate or be construed as a waiver of any subsequent breach or of any other conditions.
18. **Severability.**
If any provision of this Agreement or application to any party or circumstances shall be determined by any court of competent jurisdiction to be unenforceable to any extent, the remainder of this Agreement or the application of such provision to such person or circumstances, other than those as to which it is so determined invalid or unenforceable, shall not be affected thereby, and each provision hereof shall be valid and shall be enforced to the fullest extent permitted by law.
19. **Interpretation.**
Should any provision of this Agreement require a judicial interpretation, the parties agree that the body interpreting or construing this Agreement will not apply the assumption that the terms of this Agreement will be more strictly construed against one party by reason of the rule of legal construction that an instrument is to be construed more strictly against the party which itself or through its agents prepared the Agreement. The parties acknowledge and agree that they and their agents have each participated equally in the negotiation and preparation of this Agreement.

20. **Venue & Jurisdiction.**
The County and the Contractor, by entering into this Promissory Note, hereby agree that the courts of Rockdale County, Georgia shall have jurisdiction to hear and determine any claims or disputes between them pertaining directly or indirectly to this Agreement. Contractor expressly submits and consents in advance to such jurisdiction in any action or proceeding commenced in said courts. The choice of forum set forth in this section shall not be deemed to preclude the bringing of any action by the County or the enforcement by the County of any judgment obtained in such forum in any other appropriate jurisdiction. Further, the Contractor hereby waives the right to assert the defense of forum non-conveniens and the right to challenge the venue of any court proceeding.
21. **Governing Law.**
This Agreement shall be construed and interpreted according to the provisions of the laws of the State of Georgia.
22. **Binding Effect.**
This Agreement shall be binding upon the Contractor and its successors and permitted assigns.
23. **Further Assurances.**
The Contractor agrees to execute, acknowledge, seal and deliver, after the date of this Agreement, without additional consideration, such further assurances, instruments and documents, and to take such further actions, as the County may reasonably request in order to fulfill the intent of this Agreement and the transactions contemplated by this Agreement.

SECTION 00410
BID BOND
STATE OF GEORGIA
COUNTY OF ROCKDALE

KNOW ALL MEN BY THESE PRESENTS, that
we, _____, as Principal, and
_____ as Surety, are held and firmly bound unto
Rockdale County, Georgia in the sum
of _____
Dollars (\$ _____) lawful money of the United States, for
the payment of which sum well and truly to be made, we bind ourselves,
our heirs, personal representatives, successors and assigns, jointly and severally, firmly
by these presents.

WHEREAS, the Principal has submitted to the Owner a Bid for “**Haynes Ridge Road
Water Line Extension**”

NOW THEREFORE, the conditions of this obligation are such that if the Bid be
accepted, the Principal shall, within 10 days after receipt of conformed Contract
Documents, execute a Contract in accordance with the Bid upon the terms, conditions
and prices set forth therein, and in the form and manner required by the Contract
Documents and execute sufficient and satisfactory separate Performance and Payment
Bonds payable to the Owner, each in an amount of 100 percent of the total Contract
Price, in form satisfactory to the Owner, then this obligation shall be void; otherwise, it
shall be and remain in full force and effect in law; and the Surety shall, upon failure of
the Principal to comply with any or all of the foregoing requirements within the time
specified above, immediately pay to the aforesaid Owner, upon demand, the amount
hereof in good and lawful money of the United States of America, not as a penalty, but as
liquidated damages.

This bond is given pursuant to and in accordance with the provisions of O.C.G.A. Section
36-10-1 et. seq. and all the provisions of the law referring to this character of bond as set
forth in said Sections or as may be hereinafter enacted and these are hereby made a part
hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said Principal has hereunder affixed its signature and seal,
and said Surety has hereunto caused to be affixed its corporate signature and seal, by its
duly authorized officers, on this _____ day of _____, 20____.

CONTRACTOR - PRINCIPAL:

By: _____

Name: _____
(Please Print)

Address: _____

Phone: _____

ATTEST:

Name: _____
(Please Print)

Title: _____ (SEAL)

Note: Attest for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

SURETY:

By: _____

Name: _____
(Please Print)

Title: _____

Phone: _____

ATTEST:

Name: _____
(Please Print)

Title: _____ (SEAL)

Note: 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 where the Project is located.

Resident agent in state in which Work is to be performed:

Name: _____

Address: _____

Phone: _____

END OF SECTION 00410

SECTION 00420

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information desired. Attach all additional sheets to this statement.

1. Name of Bidder:
2. Permanent main office address:
3. When organized:
4. If a Corporation, where incorporated:
5. How many years have you been engaged in the contracting business under your present firm or trade name?
6. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion):
7. General description of work performed by your company:
8. Have you ever been involved in litigation regarding work awarded to you as prime Contractor or Subcontractor?
9. Have you ever failed to complete any work awarded to you? If so, where and why?
10. Have you ever defaulted on a contract? If so, where and why?
11. List the most important projects recently completed by your company, stating the approximate cost for each, and the month and year completed:
12. Experience in construction work similar in importance to this project:

13. Background and experience of the principal members of your organization, including officers:
14. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the local public agency in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated this _____ day of _____, 2015.

(Name of Bidder)

By: _____

Title: _____

State of _____

County of _____

_____ being duly sworn deposes and says that he or she is

_____ of _____ and
that the answers to the foregoing questions and all statements therein contained are true
and correct. Subscribed and sworn

to before me this _____ day of _____, 20_____.

(Notary Public)

My Commission Expires: _____ (SEAL)
(Date)

END OF SECTION 00420

**SECTION 00422
CORPORATE CERTIFICATE**

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

_____ This _____ day of _____, 20_____.

(SEAL)

END OF SECTION 00422

SECTION 00425

CONTRACTOR'S LICENSE CERTIFICATION

Contractor's
Name: _____

Utility Contractor's License
Number: _____

License
Classification: _____

Expiration Date of
License: _____

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

Signed: _____

Date: _____

END OF SECTION 00425

SECTION 00610

PERFORMANCE BOND

STATE OF GEORGIA BOND NO. _____

COUNTY OF ROCKDALE

KNOW ALL MEN BY THESE PRESENTS, that we
_____ ,

as Principal, (hereinafter known as "Contractor"), and
we, _____ known as Surety, do hereby acknowledge
ourselves indebted and firmly bound and held unto Rockdale County, Georgia for use and
benefit of those entitled thereto, in the sum of

\$ _____ for the payment
of which will and truly to be made, in lawful money of the United States, we do hereby
bind ourselves, successors, assign, heirs and personal representatives.

BUT THE CONDITION OF THE FOREGOING OBLIGATION OR BOND IS THIS:

WHEREAS, the Owner has engaged the said Contractor for the sum of
\$ _____ for the **“Haynes Ridge Road Water Line Extension”**, as
more fully appears in a written Contract Agreement

bearing the date of _____, 2015, a copy of which Contract
Agreement is by
reference hereby made a part hereof.

NOW, THEREFORE, if said Contractor shall fully and faithfully perform all the
undertakings and obligations under the said Contract Agreement hereinbefore referred to
and shall fully indemnify and save harmless the said Owner from all costs and damage
whatsoever which it may suffer by reason of any failure on the part of said Contractor to
do so, and shall fully reimburse and repay the said Owner any and all outlay and expense
which it may incur in making good any such default, and shall correct all defects in
products and workmanship appearing within one year of the completion of all Work, then
this obligation shall be null and void, otherwise, it shall remain in full force and effect.

And for value received it is hereby stipulated and agreed that no change, extension of
time, alteration or addition to the terms of the said Contract Agreement, or in the Work to
be performed there under, or the Specifications accompanying the same shall in any wise
affect the obligations under this Contract Agreement or Bond, and notice is hereby
waived of any such damage, extension of time, alteration or addition to the terms of the
Contract Agreement or to the Work or to the Contract Documents.

This bond is given pursuant to and in accordance with the provisions of O.C.G.A. Section
36-10-1 et. seq. and 36-82-100 et. seq. and all the provisions of the law referring to this

character of Bond as set forth in said Sections or as may be hereinafter enacted, and these are hereby made a part hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said Contractor has hereunder affixed its signature and seal, and said Surety has hereunto caused to be affixed its corporate signature and seal, by its duly authorized

officers, on this ____ day of _____, 2015, executed in six counterparts.

CONTRACTOR - PRINCIPAL:

By: _____

Name: _____
(Please Print)

Title: _____

ATTEST:

Name: _____
(Please Print)

(SEAL)

Title: _____

Note: Attention for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

SURETY:

By: _____

Name: _____
(Please Print)

Title: _____

ATTEST:

Name: _____
(Please Print)

(SEAL)

Title: _____

Note: 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 where the Project is located.

**END OF SECTION 00610
SECTION 00620**

PAYMENT BOND

STATE OF GEORGIA BOND NO. _____

COUNTY OF ROCKDALE

KNOW ALL MEN BY THESE PRESENTS, that we,

as Principal, (hereinafter known as "Contractor"), and we,
_____, as Surety, are held and firmly bound unto
Rockdale County, Georgia (hereinafter called the

"Owner"), in the penal sum of \$ _____
lawful money of the United States, for the payment of which sum will and truly to be
made, we bind ourselves, our heirs, personal representatives, successors and assigns,
jointly and severally, firmly by these presents.

WHEREAS, said Contractor has entered into a certain Contract Agreement with said
Owner, dated _____, , (hereinafter called "**Haynes Ridge Road
Water Line Extension**"), which Contract Agreement and the Contract Documents for
said Work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, the condition of this obligation is such, that if said Contractor and
all subcontractors to whom any portion of the Work provided for in said Contract
Agreement is sublet and all assignees of said Contractor and of such subcontractors shall
promptly make payments to all persons supplying them with labor, products, services, or
supplies for or in the prosecution of the Work provided for in such Contract Agreement,
or in any amendment or extension of or addition to said Contract Agreement, and for the
payment of reasonable attorney's fees, incurred by the claimant in suits on this Bond, then
the above obligation shall be void; otherwise, it shall remain in full force and effect.

HOWEVER, this Bond is subject to the following conditions and limitations:

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

- (b) The Principal and Surety hereby designate and appoint the _____, as the agent of each party to receive and accept service of process or other pleading issued or filed in any proceeding instituted on this Bond and hereby consent that such service shall be the same as personal service on the Contractor and/or Surety.
- (c) In no event shall the Surety be liable for a greater sum than the penalty of this Bond, or subject to any suit, action or proceeding thereon that is instituted later than one year after the final settlement of said Contract Agreement.
- (d) This Bond is given pursuant to and in accordance with provisions of O.C.G.A. Section 13-10-1 et. seq. and 36-82-100 et. seq. hereinafter, and all the provisions of law referring to this character of Bond as set forth in said Sections or as may be hereinafter enacted, and these are hereby made a part hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said Contractor has hereunder affixed its signature and seal, and said Surety has hereunto cause to be affixed its corporate signature and seal, by its duly authorized officers on this ____ day of _____, 2015, executed in six counterparts.

CONTRACTOR - PRINCIPAL:

By: _____

Name: _____
(Please Print)

Title: _____

ATTEST:

Name: _____
(Please Print)

(SEAL)

Title: _____

Note: Attestation for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

SURETY:

By: _____

Name: _____
(Please Print)

Title: _____

WITNESS: _____

Name: _____
(Please Print)

(SEAL)

Title: _____

Note: 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 where the Project is located.

END OF SECTION 00620

SECTION 00700

GENERAL CONDITIONS

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SECTION 00700

GENERAL CONDITIONS

GENERAL: The provisions of these General Conditions are intended, but are not limited to, providing general conditions of agreement and provisions toward the awarding of the Contract, the obligations of the successful Bidder and requirements for execution and administration of the Contract. IN ANY EVENT, PROVISIONS IN THIS SECTION ARE SUBJECT TO AND GOVERNED BY PROVISIONS IN THE SUPPLEMENTARY CONDITIONS, AS APPLICABLE.

ARTICLE 1 - NOTICE OF AWARD OF CONTRACT: After receipt of Bids, the Owner shall notify the successful Bidder of the award of the Contract as stipulated in the Supplementary Conditions.

ARTICLE 2 - EXECUTION OF CONTRACT DOCUMENTS: Within 15 days of notification of Award of Contract, the Owner will furnish the Contractor with conformed copies of Contract Documents for execution by the Contractor and the surety.

Within 10 days after receipt, the Contractor shall return all the Documents properly executed by the Contractor and the 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.

Within 30 days after receipt of the conformed Documents executed by the Contractor and the surety with the power-of-attorney and certificates of insurance, the Owner will complete the execution of the Documents. Upon execution by the Owner, the completed Documents will be distributed.

Should the Contractor and/or the surety fail to properly execute the Documents within the specified time, the Owner will 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 will have the right to withdraw the Bid without penalty. In such event the Owner will have no liability to the Contractor under these Documents or otherwise.

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

ARTICLE 3 - CONTRACT SECURITY: The Contractor shall furnish separate Performance and Payment Bonds each in a sum equal to the amount of the Contract Price, the Performance Bond conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and the Payment Bond conditioned upon the prompt payment by the Contractor to all persons supplying labor and products in the prosecution of the Work provided by the Contract Documents. Such Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the State of Georgia and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the Contractor. If at any time a surety on any such Bond is declared bankrupt or

loses its right to do business in the State where the Project is located or is removed from the list of Surety Companies accepted on Federal Bonds, the Contractor shall, within 10 days after notice from the Owner to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety as may be satisfactory to the Owner. The Contractor shall pay the premium on such Bond (or Bonds). No further progress payments shall be deemed due, nor shall be made, until the new surety furnishes an acceptable Bond to the Owner.

The person executing the Bond on behalf of the surety shall file with the Bond a general power of attorney, unlimited as to amount and type of Bond covered by such power of attorney and certified to by an official of said surety.

ARTICLE 4 - INSURANCE: The Contractor shall not commence any work under this Contract until all insurance, as stipulated in the Supplementary Conditions, has been obtained and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence any work on subcontractor's contract until all similar insurance required of the subcontractor has been so obtained and approved by the Contractor.

ARTICLE 5 - INDEMNIFICATION: The Contractor shall indemnify and hold harmless the Owner, the Engineer and their agents and employees from and against all claims, damages, losses and expenses including claims consultants' and attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom; and is caused in whole or in part by willful act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

In any and all claims against the Owner, the Engineer or any of their agents or employees, by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under worker's compensation acts, disability benefit acts or other employee benefits acts.

This indemnification and hold harmless obligation shall extend to cover any and all claims not covered by the Owner's Protective Liability Insurance, the requirements of which are specified in Article 4 of the Supplementary Conditions.

ARTICLE 6 - NOTICE TO PROCEED: The Notice to Proceed will be issued, following the pre-construction conference, within 10 days of the execution of the Contract Agreement by the Owner. The time may be extended by mutual agreement in writing between the Owner and the Contractor. If the Notice to Proceed has not been issued within the 10-day period or within the period mutually agreed upon, the Contractor may terminate the Contract Agreement without further liability on the part of either party.

ARTICLE 7 - TERMINATION OF WORK FOR DEFAULT

- (a) The Work may be terminated by the Owner if:
- (1) The Contractor is adjudged bankrupt or insolvent.
 - (2) The Contractor makes a general assignment for the benefit of creditors.
 - (3) A trustee or receiver is appointed for the Contractor or for any of Contractor's property.
 - (4) The Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws.
 - (5) The Contractor repeatedly fails to supply sufficient skilled workmen, materials or equipment.
 - (6) The Contractor fails to make satisfactory progress toward timely completion of the Work.
 - (7) The Contractor repeatedly fails to make prompt payments to subcontractors or material suppliers for labor, materials or equipment.
 - (8) The Contractor disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the Work.
 - (9) The Contractor fails to comply with directives of the Engineer.
 - (10) The Contractor otherwise violates any provision of the Contract Documents.
- (b) The Owner may, without prejudice to any other right or remedy and after giving the Contractor and surety a minimum of 10 days from delivery of a written notice, terminate the services of the Contractor and take possession of the Project and of all products thereon owned by the Contractor, and finish the Work by whatever method the Owner may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor and/or surety shall pay the difference to the Owner. Such costs incurred by the Owner will be determined by the Engineer and incorporated in a Change Order.
- (c) Where the Contractor's services have been so terminated by the Owner, said termination will not affect any right of the Owner against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from compliance with the Contract Documents.

ARTICLE 8 - TERMINATION FOR CONVENIENCE OF THE OWNER: If, for any reason other than those provided for under Article 7, the Owner elects to discontinue, in whole or part, the Work under this Contract, the Owner may, after 10 days from delivery of a written notice to the Contractor and the Engineer, terminate, in whole or in part, the Contractor's performance of the Work under this Contract. The notice of termination shall specify the extent to which performance of the Work under the Contract is terminated.

In the event of such termination by the Owner, the Contractor shall be entitled to payment for the Work at the jobsite acceptably performed up to the time of the termination and reimbursement for such costs as are reasonably incurred by the Contractor due to the termination and not otherwise compensated. The Contractor shall also be entitled to profit on the amounts payable

to the Contractor, but such profit shall be limited to 6 percent of such amounts. The Contractor will not be entitled to any payment, including any anticipated profit, on Work not performed and will not be entitled to any compensation for other economic loss arising out of or resulting from such compensation or damages of any nature.

ARTICLE 9 - ASSIGNMENTS: The Contractor shall not assign the whole or any part of this Contract or any monies due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior liens of all persons, firms, and corporations for services rendered or materials supplied for the performance of the Work called for under this Contract.

ARTICLE 10 - SUBCONTRACTING

- (a) The Contractor shall not subcontract the complete Work, or any part thereof, and shall not award any work to any subcontractor without prior written approval of the Owner. Owner approval will not be given except upon the basis of written statements containing such information as the Owner may require. At the pre-construction conference, the Contractor shall submit all subcontractors that the Contractor plans to use on the Project. Any changes or additional subcontractors should be submitted at least 14 days prior to the needed approval.
- (b) The Contractor shall utilize the services of specialty subcontractors on those parts of the Work that, under normal contracting practices, are best performed by specialty subcontractors, at no additional cost to the Owner.

If the Contractor desires to perform specialty work, the Contractor shall submit a request to the Owner, accompanied by evidence that the Contractor's own organization has successfully performed the type of work in question, is presently competent to perform the type of work, and the performance of the work by specialty subcontractors will result in materially increased costs or inordinate delays.

- (c) The Contractor shall be fully responsible to the Owner for the acts and omissions of subcontractors and of persons either directly or indirectly employed by the Contractor.
- (d) The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.
- (e) Nothing contained in this Contract shall create any contractual relation between any subcontractor and the Owner.

ARTICLE 11 - AUTHORITY OF THE ENGINEER: The Engineer will act as the Owner's representative during the construction period. The Engineer will decide questions that may arise

as to quality and acceptability of products furnished and Work performed. The Engineer will interpret the intent of the Contract Documents in a fair and unbiased manner. The Engineer will make visits to the site and determine if the Work is proceeding in accordance with the Contract Documents. The Engineer will judge as to the accuracy of quantities submitted by the Contractor in partial payment estimates and the acceptability of the Work that these quantities represent. The decisions of the Engineer will be final and conclusive.

ARTICLE 12 - SEPARATE CONTRACTS

- (a) The Owner reserves the right to let other contracts related to this project. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their products and the execution of their work, and the Contractor and other contractors shall properly connect and coordinate their work with each other. If the proper execution or results of any part of the Contractor's work depends upon the work of any other contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results.
- (b) The Owner may perform additional work related to the Project with Owner's own forces. The Contractor shall afford the Owner reasonable opportunity for the introduction and storage of products and the execution of work, and shall properly connect and coordinate Contractor's work with work performed by Owner's own forces.
- (c) If the performance of additional work by other contractors or the Owner is not noted in the Contract Documents prior to the execution of the Contract, written notice thereof will be given to the Contractor prior to starting any such additional work. If the Contractor believes that the performance of such additional work by the Owner or others involves the Contractor in additional expense or entitles the Contractor to an extension of the Contract Time, the Contractor may make a claim therefor as provided in Article 29.

ARTICLE 13 - LAWS AND REGULATIONS: The Contractor's attention is directed to the fact that all applicable federal, state, county and city laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract as though written out in full herein. The Contractor shall keep fully informed of all laws, ordinances and regulations of the federal, state, county, city and municipal governments or authorities in any manner affecting those engaged or employed in the Work or the materials used in the Work or in any way affecting the conduct of the Work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in these Contract Documents herein referred to, in relation to any such law, ordinance, regulation, order or decree, the Contractor shall herewith report the same, in writing, to the Owner. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances and regulations, and shall protect and indemnify the Owner, the Engineer and their agents against the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor or by the Contractor's employees.

ARTICLE 14 - TAXES: The Contractor shall pay all sales, consumer, use and other similar taxes required by the law of the place where the Work is performed. The Owner will be

responsible for any sales or use tax due on products furnished by the Owner to the Contractor to be incorporated into the Work.

ARTICLE 15 - NOTICE AND SERVICE THEREOF

- (a) All notices, demands, requests, instructions, approvals, and claims shall be in writing.
- (b) Any notice to or demand upon the Contractor will be sufficiently given if delivered at the office of the Contractor specified in the Bid (or at such other office as the Contractor may from time to time designate to the Owner in writing), or if delivered by the United States Mail in a sealed, postage-prepaid envelope, or delivered by facsimile transmission, followed by written confirmation, in each case addressed to such office.
- (c) All papers that are required to be delivered to the Owner shall be delivered as stipulated in the Supplementary Conditions.
- (d) Any such notice or demand shall be deemed to have been given to the Owner or made as of the time of actual delivery to Owner.

ARTICLE 16 - PATENTS

- (a) The Contractor shall hold and save the Owner, the Engineer and their agents harmless from liability of any kind, including cost and expenses, reasonable attorney's fees, for, or on account of, any patented or un-patented invention, process, article, or appliance manufactured or used in the performance of the Work, including its use by the Owner.
- (b) If the Contractor uses any design, process, device or materials covered by letters, trademarks, patent or copyright, the Contractor shall provide for such use by suitable agreement between the Owner and the holder of such patented or copyrighted design, device or material. The Contract prices shall include royalties or costs arising from the use of such design, device or materials, in any way involved in the Work. The Contractor and the Contractor's sureties shall indemnify and save harmless the Owner, the Engineer and their agents from claims for infringement by reason of the use of such patented or copyrighted design, process, device or materials or any trademark or copyright in connection with Work agreed to be performed under this Contract, and shall indemnify the Owner, the Engineer and their agents for any cost, expense, damage and reasonable attorney's fees which it may be obliged to pay by reason of such infringement, at any time during the prosecution of the Work or after completion of the Work.

ARTICLE 17 - LAND AND RIGHTS-OF-WAY: The Owner will provide, as indicated in the Contract Documents and prior to the Notice to Proceed, the lands upon which the Work is to be done, rights-of-way for access thereto, and such other lands which are designated for the use of the Contractor. The Contractor shall confine 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 that may be required by easement agreements.

If, due to some unforeseen reason, the necessary easements are not obtained as of the issuance of Notice to Proceed, the Contractor shall receive an equitable extension of the Contract Time and / or an equitable increase in the Contract Price to cover the Contractor's additional costs as a result

thereof, provided the Owner is notified immediately of the claim. The Contractor's claim therefor shall be handled as provided for under Article 29.

Should additional temporary easements for ingress or egress be required by the Contractor for more suitable access to the Work, these easements shall be obtained by the Contractor, at no additional cost to the Owner.

Additional requirements shall be as stipulated in the Supplementary Conditions.

ARTICLE 18 - PRODUCTS

- (a) Products shall be so stored in accordance with the manufacturer's recommendations to insure the preservation of their quality and fitness for the Work. Stored products to be incorporated in the Work shall be located so as to facilitate prompt inspection.
- (b) Manufactured products shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.
- (c) Products shall be furnished in accordance with submittals, manufacturer's data, shop drawings and / or samples submitted by the Contractor and approved by the Engineer.
- (d) Products to be incorporated into the Work shall not be purchased by the Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

ARTICLE 19 - SUPERVISION OF WORK: The Contractor shall supervise and direct the Work. The Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor shall employ and maintain on the Work a qualified supervisor or superintendent who shall be designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

The supervisor shall have full authority to act on behalf of the Contractor and to execute the orders or directions of the Engineer without delay. The supervisor shall have full authority to promptly supply products, tools, plant equipment and labor as may be required. The supervisor's authority shall be such that all communication given to the supervisor shall be as binding as if given to the Contractor.

The supervisor(s) shall be designated as "Competent Person" as defined in OSHA Regulations Subpart P.

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

The Contractor shall possess a valid Utility Contractor's License issued by the State of Georgia. The Contractor shall employ a Certified Utility Manager and employ a Certified Utility Foreman on-site at all times.

ARTICLE 20 - INTERRUPTION OF FACILITY OPERATIONS: The Contractor shall provide the Owner with written notice at least three days prior to any interruption in facility operations required by construction activity. The notice shall include the date and time of the scheduled interruption, the length of time the interruption will be in effect, the procedures to be followed, a complete identification of all those processes, equipment and operations to be affected, and all other information the Owner may require. The Contractor shall provide any equipment, piping, auxiliary power or other means necessary to sustain facility operations or function for interruptions which have not been identified by the Specifications, or when interruptions must exceed the time allowed by the Specifications.

Additional requirements, if any, shall be as stipulated in the Supplementary Conditions.

ARTICLE 21 - PROTECTION OF WORK, PROPERTY AND PERSONS

- (a) The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all products to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- (b) The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction, promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54) as amended. The Contractor shall erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection.
- (c) The Contractor shall remedy all damage, injury or loss to any property, improvements or facilities caused, directly or indirectly, in whole or in part, by the Contractor or any of the Contractor's subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The property, improvements or facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the Work. In case of failure on the part of the Contractor to restore such property, or make good such damages or injury, the Owner may, after 48 hours written notice, proceed to repair, rebuild, or otherwise restore such property, improvements or facilities as may be deemed necessary. The cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract.
- (d) In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Engineer or Owner, shall act to prevent threatened damage, injury or loss.
- (e) Completed Work and stored products shall be suitably protected during unseasonable weather, to allow Work to proceed in a timely fashion. Work planned, or in progress, should be performed to minimize impact of adverse weather.

ARTICLE 22 - PROTECTION OF THE ENVIRONMENT

- (a) The Contractor shall be responsible for taking all measures required to minimize all types of pollution associated with the undertaking of the proposed Work, and shall abide by the requirements of all governmental agencies having jurisdiction over the Work or Contractor's Project operations. This shall include but not be limited to air, water & noise pollution during torch cutting, grinding, burning and grading operations.
- (b) Any area used or involved in the Project that is disturbed by the Contractor, shall be restored to original or better condition, even though such area is outside the limits of that specified for grading, grassing or landscaping.
- (c) The Contractor is responsible for maintenance of all erosion control measures, final removal of all temporary BMP's, and irrigation of all permanent vegetative measures until fully established.

ARTICLE 23 - PROTECTION, LOCATION AND RELOCATION OF UTILITIES: The Contractor shall notify utility owners of the new work in accordance with Georgia Law by calling the Utilities Protection Center (UPC) at 800-282-7411, 72 hours before work is to begin. The Contractor shall protect from damage all existing improvements or utilities at, or in proximity to, the site of the Work, and shall repair or restore any damage to such facilities resulting from failure to exercise reasonable care in the performance of Work. If the Contractor fails or refuses to repair any such damage promptly, the Owner may have the Work performed and charge the cost thereof to the Contractor.

Prior to the construction or installation of any new Work, the Contractor shall excavate all existing utilities within the vicinity of the Work to their actual vertical and horizontal location. In order to avoid conflicts between existing and new Work, the Contractor shall either relocate the existing utility on a temporary or permanent basis, or shall take whatever means necessary to protect the existing facilities or utilities during the installation of new Work.

ARTICLE 24 - SCHEDULES, REPORTS AND RECORDS: The Contractor shall submit to the Owner progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed as stipulated in the Supplementary Conditions.

ARTICLE 25 - 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.

The Engineer will furnish the Contractor five copies of the Contract Documents, one copy of which the Contractor shall have available at all times on the Project site. Any additional copies will be furnished at additional cost.

All wiring, diagrams, equipment lists and proposed manufacturers will be provided by the Contractor under this contract. The Contractor shall satisfy himself of existing site conditions prior to submittal of this bid. Any Change Order necessitated by changing site conditions shall be processed as provided under Article 29.

Any ambiguities or need for clarification of the Drawings or Specifications shall be immediately reported in writing to the Engineer. Any such ambiguity or need for clarification will be handled by the Engineer, in writing, as authorized by Article 11. No clarification of the Drawings and Specifications hereunder by the Engineer will entitle the Contractor to any additional monies unless a Change Order has been processed as provided by Article 29 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 Engineer, shall not entitle the Contractor to additional monies and shall be done at the Contractor's risk.

ARTICLE 26 - SURVEYS:

The Drawings show horizontal and vertical reference points for locating the Work. From this information, the Contractor shall perform all survey and stake-out necessary to construct the Work in the locations shown on the Drawings. The Contractor shall obtain horizontal and vertical control points and information from DOT contractors as required to locate and construct the Work.

ARTICLE 27 - TESTING, INSPECTION AND REJECTION OF WORK

- (a) **Testing of Materials:** Unless otherwise specifically provided for in the Specifications, the inspection and testing of products to be incorporated in the Work at the site shall be made by bureaus, laboratories, or agencies approved by the Owner; the cost of such inspection and testing shall be paid by the Contractor. The Contractor shall furnish evidence, satisfactory to the Owner, that the products have passed the required tests prior to their incorporation into the Work. The Contractor shall promptly segregate and remove rejected products from the site of the Work.
- (b) **Inspection:** The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether or not the Work performed and products used are in accordance with the requirements and intent of the Specifications and Contract Documents. No Work shall be done or products used without suitable inspection by the Engineer or Engineer's representative. Failure to reject any defective Work or product shall not in any way prevent later rejection when such defect is discovered, or obligate the Owner to final acceptance.
- (c) **Authority and Duties of the Resident Inspector:** The Owner may elect to employ a Resident Inspector who will be authorized to observe and inspect all Work done and all products furnished, including preparation, fabrication and manufacture of the products to be used, but the Resident Inspector will not be authorized to alter or waive any requirements of the Contract Documents or approve changes. The Resident Inspector may reject products or suspend the Work until any question at issue can be referred to and decided by the Engineer.
- (d) **Rejection of Work and Materials:** All products furnished and all Work done that is not in accordance with the Drawings or Specifications or that is defective will be rejected. All rejected products or Work shall be removed immediately. If rejected products or Work is not removed within 48 hours, the Engineer will have the right and authority to stop the

Work immediately and will have the right to arrange for the removal of said rejected products or Work at the cost and expense of the Contractor.

- (e) Contractor's Responsibilities: Inspection of the Work by the Owner, Engineer or Resident Inspector shall not relieve the Contractor of any obligation to fulfill the terms and conditions of the Contract Documents. Defective Work shall be made acceptable regardless of whether such Work has been previously inspected by the Engineer and accepted or paid for by the Owner.

ARTICLE 28 - CONTRACT TIME AND LIQUIDATED DAMAGES: The Contract Time and Liquidated Damages are specified in the Contract Agreement.

The Contractor shall proceed with the Work at a rate of progress that will insure completion within the Contract Time. It is expressly understood and agreed by and between the Contractor and the Owner that the Contract Time for the Work described herein is a reasonable time, taking into consideration the average climatic and economic conditions, and other factors prevailing in the locality of the Work.

If the Contractor shall fail to perform the Work required within the Contract Time, or extended Contract Time if authorized by Change Order, then the Contractor shall pay to the Owner the full amount of liquidated damages specified in the Contract Agreement for each calendar day that the Contractor shall be in default after the time stipulated in the Contract Agreement.

The Contractor shall not be charged with liquidated damages or any excess cost when the delay in performance of the Work is due to the following and the Contractor has promptly given written notice of such delay to the Owner and Engineer:

- (a) To any preference, priority or allocation order duly issued by the Owner.
- (b) To unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God or of the public enemy, acts of the Owner, acts of another contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and,
- (c) To any delays of subcontractors occasioned by any of the causes specified in paragraphs (a) and (b).

ARTICLE 29 - CHANGES IN THE CONTRACT

- (a) Changes in the Work: The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Contract Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment will be authorized using a Change Order.

The Engineer, also, may at any time, by issuing a field order, make changes in the details of the Work. These changes by field order will not affect Contract Time or Contract Price. The Contractor shall proceed with the performance of any changes in the Work so ordered by the Engineer, unless the Contractor believes that such field order entitles Contractor to a change in

Contract Price or Contract Time or both, in which event Contractor shall give the Engineer immediate, written notice thereof and if required by the Owner, an immediate estimate of the direct cost of Work as outlined in (b) below, after the receipt of the ordered change, and the Contractor shall not execute such changes pending the receipt of an executed Change Order or further written instruction from the Owner.

Should the Contractor encounter, or the Owner discover, during the progress of the Work, subsurface or latent conditions at the site materially differing from those shown on the Drawings or indicated in the Specifications, or unknown conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Drawings and Specifications, the Owner and Engineer shall immediately be notified in writing of such conditions before they are disturbed. The Owner will thereupon promptly investigate the conditions. If the Owner finds that conditions do so materially differ, or are of an unusual nature, and upon written request of the Contractor, an equitable adjustment will be authorized using a Change Order.

If the Contractor does not immediately notify the Owner and Engineer in writing of the belief that a field order, additional work by other contractors or the Owner, or subsurface, latent or unusual unknown conditions entitles the Contractor to a Change Order, no consideration for time or money will be given the Contractor.

The Owner may, with the Contractor's concurrence, elect to postpone the issuance of a Change Order until such time that a single Change Order of substantial importance can be issued incorporating several changes. In such cases, the Owner will indicate this intent for each change in the Contract in a written response to the Contractor's request for a change, following agreement by the Owner and Contractor on the change's scope, price and time.

- (b) Changes in Contract Price: only a Change Order may change The Contract Price. The value of any Work covered by a Change Order for increase or decrease in the Contract Price will be determined by one or more of the following methods, (in the order of precedence listed):
- (1) By estimating the number of unit quantities of each part of the Work which is changed (either increased or decreased) and then multiplying the estimated number of such unit quantities by the price Bid (which price shall include the Contractor's overhead and profit) for a unit quantity thereof.
 - (2) The Owner will fix the total lump sum value of the change in the Work of the Contractor following the Contractor's submittal, within a reasonable time, of an estimate of the direct cost of the Work. The direct cost estimate will be added to, or deducted from, the Contract Price (which price will include the Contractor's overhead and profit as outlined below). If the Contractor does not submit a cost estimate of the Work in a reasonable time or if the Owner and Contractor do not reach agreement on the cost, the Owner may fix the total lump sum value at a reasonable amount. On any lump sum change that involves a net credit to the Owner, no allowance for overhead and profit will be figured.
 - (3) By ordering the Contractor to proceed with the Work and to keep and present, in such form as the Owner may direct, a correct account of the cost of the change together with all vouchers therefor. The cost hereunder will only include an allowance for overhead and profit as outlined below.

For the Work performed in item (2) or (3) above, payment will be made for the documented actual direct cost of the following:

- (aa) Labor, including foremen but excluding superintendents, field engineer, project manager, etc. whose hours are compensated through overhead, for those hours they are assigned and participating in the Work covered by the change order (actual direct payroll cost of wages). The Contractor shall furnish, if required by the Owner, certified payrolls to verify wages. All labor related costs will be included in a 30 percent markup of the cost of direct payroll wages. This refers to the Contractor's specific labor wages.
- (bb) Material delivered and used on the designated Work, including sales tax, if paid for by the Contractor and as verified by original invoices or otherwise verifiable to the Owner's acceptance.
- (cc) Rental, or ownership cost of equipment, including necessary transportation of equipment, having a purchase value in excess of \$300.00. Rental or ownership cost will be allowed for only those hours during which the equipment is required on the project site. Cost allowances will not exceed the rates defined as follows: the hourly rate, for equipment not used exclusively in the change to the scope of work, will be the monthly rate, as printed in the current Rental Blue Book for Construction Equipment published by Dataquest, divided by 176; the rate, for equipment used exclusively for those tasks identified in the change to the scope of work, will be the daily, weekly or monthly rate, used singularly or in combination, which will provide the lowest total cost. The rates will be modified by the Rate Adjustment Table factors to reflect a depreciation allowance indexed to the year a machine was originally manufactured and sold. The rates will be adjusted to account for regional differences in annual use hours, cost of labor, freight, taxes, etc. The amount by which basic rates will be increased or decreased is shown on the adjustment maps included in the "Blue Book".

The equipment use period will begin only at the time equipment is unloaded at the site of the changed work, will include each day that the equipment is required at the site of the changed work and will terminate at the end of the day on which the use of such equipment becomes unnecessary, plus reasonable transportation time. The maximum time to be paid per day will not exceed eight hours unless the equipment is in operation for a longer time. The time that will be paid for per day, for equipment not used exclusively in the change to the scope of work, will be the hours that the equipment was actually in operation on the changed work.

In addition to the actual costs in items (aa) through (cc) above, there will be, for the Contractor actually performing the work, a fixed fee of 16 percent for bond, insurance, overhead and profit added to the cost of Items (aa), (bb) and (cc), above.

If all or a portion of the Change Order is performed by a subcontractor, payment will be made for the documented actual direct cost as outlined in (aa), (bb) and (cc), above. A fixed fee of 16 percent for bond, insurance, overhead and profit will be added to the cost of (aa), (bb) and (cc) of the subcontractor's work only.

A fixed fee of 10 percent will be added to the subcontractor's Work for the Contractor's administrative handling of portions of the Work that are performed by an approved subcontractor. No additional fixed fee will be allowed for the Contractor's or a subcontractor's administrative handling of Work performed by a subcontractor's subcontractor, unless by written permission from the Owner. All other costs not specifically listed above are considered to be included in the fixed fee.

- (4) The Contractor shall, when required by the Owner, furnish the Owner with an itemized breakdown of the quantities and prices used in computing the value of any change that might be ordered, in a printed format, and with sufficient detail as required by the Owner.
- (c) Changes in Contract Time: only a Change Order may change The Contract Time. Changes in the Work described in (a) and the Owner will evaluate any other claim made by the Contractor for a change in the Contract Time with the assistance and input of the Engineer and if the conditions warrant, an appropriate adjustment of the Contract Time will be made.

The Owner, when making these evaluations will take into consideration the amount and scope of Work, which has been changed and will evaluate if the change in Work has affected the critical path as currently accepted on the progress schedule such that it would delay the completion of the Project. If after these evaluations have been made and in the sole opinion of the Owner, the Contractor is due an extension of time, then it will be granted by a Change Order and the Owner will pay the associated cost due the Contractor for direct field costs, only as outlined under Changes in Contract Price (aa) and (cc), exclusive of Item (bb), based on any delays to the overall Project. Extensions of time granted as a result of weather will not result in a change in Contract Price.

ARTICLE 30 - PAYMENTS AND COMPLETION

- (a) Contract Price: The Contract Price is the sum of the unit prices stated in the Contract Agreement, for each item multiplied by the actual quantities installed of each item, and is the total amount payable by the Owner to the Contractor for the performance of the Work set forth in the Contract Documents.

It is understood that the Contractor shall provide and pay for all products, labor (including labor performed after regular working hours, on Sundays, or on legal holidays), equipment, tools, water, light, temporary power, permanent power, sewer, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, place into operation, and deliver the Work.

It is further understood that the Contractor's proposed construction schedule is based on a normal 40 hour, 5 day work week, less recognized holidays. If the Contractor desires to work in excess of this limit, the Contractor shall submit a written request to the Owner 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 will be deducted from the Contractor's monthly payment request. The cost of resident inspector overtime is specified in the Supplementary Conditions.

- (b) Breakdown of Cost: Before the first application for payment the Contractor shall submit to the Engineer a breakdown of cost for the various portions of the Work, including quantities if required by the Engineer, aggregating the total Contract Price prepared in such form as specified or as the Engineer and the Contractor may agree upon and supported by such data to substantiate its correctness as the Engineer may reasonably require. This schedule of values, when approved by the Engineer, will be used only as a basis for the Contractor's application for payment; however, the payment schedule will correlate directly with the Overall Project Schedule (OPS) cost information, when applicable.
- (c) Progress Payments: At the beginning of each work day, the Contractor shall obtain the Resident Inspector's signed agreement on the previous day's Work Report. At the end of each calendar month, the Contractor shall submit the signed Work Reports with the Progress Payment Request. Contractor shall only bill for each site as it is completed.

At the end of each calendar month, the Contractor shall submit to the Engineer an itemized application for payment supported by such other substantiating data as the Engineer may reasonably require covering Work completed through the 25th day of the month. Any progress payment submitted by the Contractor after the first of the month will be included in the following month's payment.

Application for payment may include, at the Contractor's option, the cost of products not yet incorporated into the Work which have been delivered to the site or to other storage locations authorized and approved by the Engineer. The Owner reserves the right to accept or reject pay requests for stored materials, and to limit payments to those stored materials which, in the Engineer's judgment, are necessary for continuing satisfactory Project progress.

Payment for stored products will be subject to the following conditions being met or satisfied:

- (1) The products shall be received in a condition satisfactory for incorporation in the Work, including manufacturer's storage and installation instructions.
 - (2) The products shall be stored in accordance with the manufacturer's recommendations and in such manner that any and all manufacturer's warranties will be maintained and that they will not be damaged due to weather, construction operations or any other cause.
 - (3) An invoice from the manufacturer shall be furnished for each item on which payment is requested. The request may include reimbursement for cost of delivery, limited to common carrier rates, to the site, but will not include the Contractor handling, on or off site, or for storage expense.
 - (4) The Contractor shall, on request of the Engineer, furnish written proof from the supplier of payment (less retention equal in percentage to that being retained by the Owner) for the products no later than 30 days after receipt of payment for same from the Owner. The Owner will have the right to deduct from the next payment estimate an amount equal to the payment for the products if reasonable and adequate proof is not submitted.
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- (5) Shop drawings, manufacturer's certifications, product data and samples, showing "No Exceptions Taken", has been received from the Contractor for that specific equipment or material.

The Contractor warrants that title to all Work and products covered by an Application for Payment, whether incorporated into the Project or not, will pass to the Owner upon the receipt of such payment by the Contractor, free and clear of all liens, claims, security interests or encumbrances (except retention equal in percentage to that being retained by the Owner which may be withheld from suppliers and subcontractors to guarantee completion and performance).

- (d) Certificate for Payment: If the Contractor has made application for payment as provided above, the Engineer will issue a Certificate for Payment to the Owner, with a copy to the Contractor, for such amount as the Engineer determines to be properly due, or the Engineer will state, in writing, itemized and specific reasons for withholding a Certificate as provided herein.

After the Engineer has issued a Certificate for Payment, the Owner will pay to the Contractor the amount covering Work completed plus stored products, less retention and less previous payments made.

No certificate for a progress payment, nor any progress payment, nor any partial or entire use of occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

- (e) Retention: The Owner will retain the following amounts from each properly certified estimate:
 - (1) Until the value of the Work completed, including stored materials, is at least 50 percent of the Contract amount, 10 percent of the value of all Work satisfactorily completed, including stored materials.
 - (2) When the value of the completed Work totals at least 50 percent of the Contract amount, the Owner will reduce the retainage to 5 percent of the value of Work completed, including stored materials, provided the Work is progressing satisfactorily and there is no specific cause for retaining a larger sum. The total amount retained will be at least 5 percent of the Contract amount, adjusted for Change Orders, until the date of final payment.
 - (3) The Owner may elect to reinstate retention of 10 percent of the value of the Work completed if at any time the Contractor fails to make satisfactory progress or if there is other specific cause. Satisfactory progress is identified as conforming to the construction progress schedule as required in Article 24, as modified by the Supplementary Conditions.

No form of collateral in lieu of cash will be acceptable as retainage.

Amounts retained by the Contractor from payments due to suppliers and subcontractors (expressed as a percentage) shall not exceed that being retained by the Owner.

- (f) Payments Withheld: The Engineer may decline to approve an Application for Payment and may withhold certificate, in whole or in part, as may be necessary to protect the Owner from loss because of:
- (1) Failure of the Contractor to make payments properly to subcontractors or for labor or products.
 - (2) Unsatisfactory prosecution of the Work by the Contractor either due to quality of the Work or if the Contractor is behind the currently approved construction schedule.

However, nothing in this Article shall place a duty upon the Engineer to determine if payments have been made to subcontractors performing work on this project nor give cause for action against the Engineer for failing to stop payment to Contractor in the event Contractor fails to pay the subcontractors.

When the above reasons for nonpayment are corrected, then payment will be made for amounts withheld because of such reasons, not later than the next payment.

Completion and Final Acceptance shall be as stipulated in the Supplementary Conditions.

END OF SECTION 00700

SECTION 00800

SUPPLEMENTARY CONDITIONS

General: The provisions in this Section of the Specifications shall govern in the event of any conflict between this Section and the General Conditions.

ARTICLE 1 - NOTICE OF AWARD OF CONTRACT

Article 1 - Notice of Award of Contract, of the General Conditions, is hereby modified to include the following:

Within 30 days after receipt of Bids, the Owner will notify the successful Bidder of the award of the Contract.

Should the Owner require additional time to award a Contract, the time may be extended by the mutual agreement between the Owner and the successful Bidder. If an award of Contract has not been made within 30 days from the Bid date or within the extension mutually agreed upon, the Bidder may withdraw the Bid without further liability on the part of either party.

ARTICLE 15 - NOTICE AND SERVICE THEREOF

Article 15 - Notice and Service Thereof, Section (c), of the General Conditions is hereby modified to include the following:

- (a) All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to Rockdale County, Dept. of Water Resources, 958 Milstead Avenue, Conyers, Georgia 30012, Attn: Engineer.
- (b) Any notice to or demand upon the Owner shall be sufficiently given if delivered to the Engineer or if delivered by the United States Mail in a sealed, postage-prepaid envelope, or delivered by facsimile transmission, followed by written confirmation, in each case addressed to said Engineer or to such other representative of the Owner or to such other address as the Owner may subsequently specify in writing to the Contractor for such purposes.

ARTICLE 17 - LAND AND RIGHTS-OF-WAY

Article 17 - Lands and Rights-of-Way, of the General Conditions, is hereby modified to include the following:

Portions of the work to be done may require work within utility easements or rights-of-way. This work is allowed under permit. The Contractor shall fully coordinate schedule and work activities with the respective easement holder before proceeding with work thereon.

The Contractor shall comply with the stipulations and requirements contained in the easements and permits.

ARTICLE 24 - SCHEDULES, REPORTS AND RECORDS

Article 24 - Schedules, Reports and Records, of the General Conditions, is hereby modified to include the following:

- (a) The Contractor shall maintain an up to date set of Record Drawings on the Project site throughout the Contract Time. Record Drawings shall depict the Project as actually constructed. They shall provide elevations, dimensions, angles, details, sections, etc., as required to locate all exposed or concealed features of the construction. Special attention shall be given to recording deviations from the Contract Drawings. The locations shall be referred to easily identifiable, permanent landmarks or benchmarks.
 - (b) The Contractor shall employ a currently registered surveyor to prepare the Record Drawings from a post-construction, field run survey. The Record Drawings shall provide elevations to the nearest 0.01 foot for all manhole inverts, manhole frames and other pertinent items. The Record Drawings shall provide dimensions and distances to the nearest 0.01 foot and horizontal angles to the nearest 10 seconds. The Record Drawings shall include the horizontal angle and distance between manhole covers and the location of the pertinent items.
 - (c) Record Drawings shall be reproducible, shall have a title block indicating that the drawings are Record Drawings, the name of the company preparing the Record Drawings and the date the Record Drawings were prepared. The Contractor will be provided paper sepias of the Contract Drawings, at the cost of reproduction, or the Contractor may elect to provide reproducible drawings via another method.
 - (d) The Contractor shall submit to the Owner progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed as stipulated in the various sections of these Specifications.
 - (e) Immediately after execution of the Contract by the Owner, and before the first partial payment is made, the Contractor shall deliver to the Owner a construction progress schedule in form satisfactory to the Owner, showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the Contract Documents and the anticipated amount of each monthly payment that will be due the Contractor in accordance with the progress schedule.
 - (f) An updated schedule shall be presented with each partial payment request. Failure to update the schedule will delay processing of the pay request until receipt of the updated schedule.
 - (g) If the schedule reflects a completion date before the completion date established by the Contract Agreement, this shall afford no basis to claim for delay should the Contractor not complete the Work prior to the projected completion date. Instead all "float" between the completion date in the Contractor's schedule and the completion date established in the Contract Agreement shall belong to and be exclusively available to the Owner. Should a change order be executed with a revised completion date, the progress schedule shall be revised to reflect the new completion date.
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- (h) Project Coordination Meetings: The Contractor shall participate in project coordination meetings to be held monthly at the Owner's address, or more often if conditions warrant, to establish the current state of completion and revise the schedule as necessary. The Owner and the Engineer will conduct the project coordination meeting.
- (i) Contractor's Responsibilities
 - 1. Implement the construction progress schedule of activities to the fullest extent possible between project coordination meetings.
 - 2. If a current activity or series of activities is behind schedule and if the late status is not due to an excusable delay for which a time extension would be forthcoming, the Contractor shall attempt to reschedule the activity to be consistent with the overall project schedule so as not to delay any of the Contract milestones. The Contractor agrees that:
 - (aa) The Contractor shall attempt to expedite the activity completion so as to have it agree with the overall project schedule. Such measures as the Contractor may choose shall be made explicit during the project coordination meeting.
 - (bb) If, within two weeks of identification of such behind-schedule activity, the Contractor is not successful in restoring the activity to an on schedule status, the Contractor shall:
 - (1) Carry out the activity with the scheduled crew on an overtime basis until the activity is complete or back on schedule.
 - (2) Increase the crew size or add shifts so the activity can be completed as scheduled.
 - (3) Commit to overtime or increased crew sizes for subsequent activities, or some combination of the above as deemed suitable by the Engineer.

These actions shall be taken at no increase in the Contract amount.

- 4. Maintain a current copy of all construction schedules on prominent display in the Contractor's field office at the project site.
- 5. Cooperate with the Owner in all aspects of project scheduling. Failure to implement the project schedule or to provide specified schedules, diagrams and reports, or to implement actions to re-establish progress may be causes for withholding of payment.

ARTICLE 30 - PAYMENTS AND COMPLETION

Article 30 - Payments and Completion, of the General Conditions, is hereby modified to include the following:

- (a) Following last sentence, add,

The cost associated with resident inspection overtime will be \$40.00/hour.

- (b) Completion: ALL WORK REQUIRED BY THE CONTRACT DOCUMENTS, CONTRACT DRAWINGS AND SPECIFICATIONS MUST BE COMPLETED
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BEFORE THE FINAL INSPECTION IS PERFORMED. This includes, but is not limited to, the following:

- (1) Performing testing of water and sewer lines as described in the Specifications.
- (2) Removing temporary plugs, bulkheads, bypasses, etc. and diverting flow into sewers when directed by the Engineer.
- (3) Grassing and restoration of the work area.
- (4) All previous inspection reports and punch lists.
- (5) Submit Record Drawings.

Upon completion of all work required, the Contractor shall submit completed Record Drawings to the Engineer and request, in writing, that the final inspection be performed. If the Engineer finds the work of the Contractor complete and acceptable in accordance with the provisions of the Contract Documents and that the Record Drawings accurately depict the complete work, Engineer will recommend to the Owner that the job be accepted and that final payment be made.

In the event that the final inspection reveals deficiencies in meeting the Contract requirements, the Contractor shall complete all remaining items of work, and make adjustments found to be necessary. Upon receipt of written notice from the Contractor that the work is complete and ready for re-inspection, the Engineer will make a final inspection.

The Owner of the final acceptance of the work will notify the Contractor, in writing. The date of final acceptance shall be the termination date for the Contractor's liability for the physical properties of the facilities and the beginning of the warranty period.

Before final payment can be made, the Contractor must certify, in writing, to the Owner that all payrolls, materials bills, and other indebtedness connected with the work have been paid.

Final payment will not be made if there is disputed indebtedness or if there are liens upon the property.

If upon completion of all work there is disputed indebtedness or there are liens upon the property, semi-final payment may, be made, at the Owner's option, in accordance with the following provisions:

- (1) The Owner will retain an amount equal to the disputed indebtedness and/or liens upon the property including all related cost and interest in connections with said disputed indebtedness and liens which the Owner may be compelled to pay upon and subsequent adjudication.
 - (2) The Contractor shall certify to those items of work not disputed that all payables, materials bills and other indebtedness connected with the work have been paid or otherwise satisfied.
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The making of the final payment shall constitute a waiver of all claims by the Owner, other than those for faulty work covered by and appearing within the warranty period.

The acceptance of final payment shall constitute a waiver of all claims by the Contractor, except those previously made, in writing, and still unsettled.

END OF SECTION 00800

**SECTION 01025
MEASUREMENT AND PAYMENT**

PART 1 GENERAL

1.01 SCOPE

- A. The Bid 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 Bid.
- B. Required items of Work necessary for the satisfactory completion of the Work, which are not specifically listed in the Bid, and not specified in this Section to be measured or included in one of the items listed in the Bid, shall be considered incidental to the Work. All costs thereof, including Contractor's overhead costs and profit and all mobilization costs for the Contract duration shall be included in the unit prices bid for the various Bid items. The Contractor shall prepare the Bid accordingly.

No separate or future payments shall be made for MOBILIZATION except as specifically shown in the Bid.

- C. Work includes furnishing all plant, labor, equipment, tools, power and materials, and performing all operations required to complete the Work satisfactorily, as specified and as indicated on the Drawings.

1.02 DESCRIPTIONS

- A. Measurement of an item of Work will be by the unit indicated in the Bid.
- B. Final payment quantities shall be determined from the Record Drawings. The Record Drawing quantities shall be determined by a survey after the completion of all required work. The survey shall conform to Article 24 - Schedules, Reports and Records as specified in Section 00800, Supplementary Conditions. The precision of measurement for final payment quantities shall match the precision shown for that item in the Bid.

1.03 PAYMENT

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

A. General

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

Documentation

1. Submit copies of the invoices with each periodic payment request from the firm providing the services.
 2. Submit results of services provided which verify required results.
- D. Schedule of Cash Allowances
1. Soils and Concrete Testing: Allow the amount provided in the Bid for the services of a geo-technical engineering firm and testing laboratory to verify soils conditions including trench excavation and backfill and similar issues and for the testing of concrete cylinders for poured in place concrete.
 2. Construction Surveying
 - a) Allow the amount provided in the Bid for construction surveying by an independent surveying firm, selected by the Owner, to perform horizontal and vertical alignment checks at the discretion of the Owner.
 - b) This allowance is solely for the use of the Owner for verification of the Contractor's reference points, centerlines and work performed. The presence of this cash allowance in no way relieves the Contractor of the responsibility of installing reference points, centerlines, temporary bench marks or verifying that the work has been performed accurately.
 3. Blasting Monitoring: Allow the amount provided in the Bid for the services of an independent, qualified specialty subcontractor to monitor the blasting.
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1.05 CLEARING AND GRUBBING

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

1.07 TRENCH EXCAVATION AND BACKFILL

- A. No separate or additional payment will be made for any special or unique method, means, techniques or equipment necessary for the Contractor's compliance with these Specifications, regulatory requirements, permits, laws or regulations which govern this Project.
 - B. Trench Excavation: No separate payment will be made for trench excavation. All costs shall be included in the unit price bid for the item to which it pertains at the appropriate depth.
 - C. Sheeting, Bracing and Shoring: No separate payment will be made for providing any sheeting, bracing and shoring.
 - D. Rock Excavation
 1. Rock excavation shall be paid for as an extra in addition to payment for pipe provided for elsewhere in these Specifications. Payment will be made for the measured quantity of rock excavated, at the sum of the unit prices for Rock Base Cost and Rock Premium Cost.
 2. The unit price for Rock Base Cost is for the normally anticipated cost of rock excavation, the cost of additional bedding and backfill material as specified and all costs incidental thereto.
 3. The unit price bid for Rock Premium Cost shall be for all additional costs for rock excavation which, in the opinion of the Contractor, are in excess of the Base Cost, including but not limited to extra blasting protection, closer grouping of blasting holes, more detonator caps, more caution, etc. The Contractor shall not bid less than zero (bid a deduct) for the Rock Premium Cost. Any Bids containing a deduct will be declared non-responsible and rejected by the Owner.
 4. The maximum allowable volume 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 not less than 36-inches total width, and depth of rock on the pipe centerline, from the top of the rock to the bottom of the rock or the specified bottom of the trench, whichever has the higher elevation.
 5. The Owner must be given reasonable notice to measure all rock.
 6. No allowance shall be made for excavating to extra widths for construction of manholes or other appurtenances, for excavating to sloping sides, or for excavation made necessary by the physical limitations of the Contractor's equipment. Cost of such
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additional rock excavation shall be included in the unit price bid for the item to which it pertains.

7. Payment for blasting monitoring shall be made from the "BLASTING MONITORING" CASH ALLOWANCE. The Engineer prior to the Contractor employing an independent, qualified specialty subcontractor to monitor the blasting must agree upon a fee. If the Contractor employs the specialty subcontractor prior to the Owner's approval of the fee, all such costs are subject to non-reimbursement.
- E. Dewatering Excavations: All costs of equipment, labor and materials required for dewatering shall be included in the price bid for the item to which it pertains.
- F. Trench Foundation and Stabilization
1. No payment for trench stabilization shall be authorized until after the trench has been dewatered. If the pipe is installed in an inadequately prepared trench bottom, the Owner shall notify the Contractor in writing of the deficiency and will not authorize payment for that portion of that length of pipe, which was improperly installed.
 2. Payment for trench stabilization shall be made on the basis of the amount authorized and the unit price bid for TRENCH STABILIZATION. Payment shall include all costs for the removal and disposal of the unsuitable material and replacement with crushed stone. No additional payment will be made for material required for specified bedding.
- G. Bedding and Haunching
1. The unit price bid for pipe for WATER LINE shall include the abandoning of existing water pipe where shown on the Drawings, excavation of the trench to the depth below the pipe necessary to provide specified bedding and to lay the new waterline. Measurements for payment will be made from ground surface to the pipe invert.
 2. No separate payment will be made for material used to provide specified bedding. The cost of all bedding materials shall be included in the unit price bid for the item to which it relates, except for trench stabilization.
 3. No additional payment will be made for improved bedding required to compensate for over excavation of the trench.
- H. Initial Backfill
1. No separate payment shall be made for initial backfill.
 2. No separate payment shall be made for drying out the initial backfill material in order to meet the compaction requirements.
 3. No separate payment shall be made for the adding of moisture to the initial backfill materials in order to meet the compaction requirements.
 4. No separate payment shall be made for providing select material if the insitu material cannot meet the compaction requirements.
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I. Final Backfilling

1. No additional payment will be made for additional material when excavated materials are used.
2. No separate payment shall be made for drying out the final backfill material in order to meet the compaction requirements.
3. No separate payment shall be made for the adding of moisture to the final backfill materials in order to meet the compaction requirements.
4. No additional payment will be made for providing select material if the insitu material cannot meet the compaction requirements.

1.08 WATER LINE AND ACCESSORIES

A. Existing Utilities and Obstructions –

Horizontal and Vertical Conflict: Payments for conflicts with existing utilities shall be made only where the Owner approves additional lengths of pipe. Said payment shall be made at the unit prices in the Bid. No other payment will be made for any delay or extra cost encountered by the Contractor due to protection, avoidance or relocation of existing utilities, mains or services or changing the horizontal or vertical alignment of the sewer.

- B. Location and Grade - No separate payment shall be made for survey work performed by or for the Contractor in the establishment of reference points, benchmarks, cut sheets, limits of right-of-way or easement, including their restoration, as well as centerline or baseline points. There is a cash allowance in the Bid Form for a final boundary survey to be performed after completion of all other work.

C. Laying and Jointing Pipe and Accessories

1. Measurement for payment at the unit price for WATER LINE shall be made for the actual quantity installed. Depth of cut shall be measured from pipe invert to ground level at pipe centerline. Cut sheets prepared by the Contractor and approved by the Owner shall be the basis for payment.
 2. No additional payment will be made for replacement of defective materials.
 3. No additional payment will be made for maintaining service while placing the new water main in service.
 4. No payment will be made for cutting and beveling pipe.
 5. Payment shall be made only where authorized by the Owner for sewer to be removed and installed.
 9. Clean-up and Testing: Payment for clean up and testing shall be made at the unit price shown for CLEAN-UP AND TESTING. Measurement for clean up and testing shall be per lined foot of water line cleaned, tested and disinfected. Any other cost for labor,
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materials and equipment required for clean up shall be included in the unit price bid for the item to which it pertains. No payment for CLEAN-UP AND TESTING shall be made for any length of line unless both testing and clean up have been performed satisfactorily for that segment of line for which payment is being requested.

- D. All costs related to the implementation of the easement and permit stipulations shall be included in the unit price bid for the item to which it pertains.

END OF SECTION 01025



SECTION 01055

CONSTRUCTION STAKING

PART 1 GENERAL

1.01 SCOPE

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

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

1.03 QUALITY ASSURANCE

- A. The Contractor shall furnish documentation, prepared by a surveyor currently registered in the State in which the Project is located, confirming that staking is being done to the horizontal and vertical alignment shown in the Contract Documents. This requires that the Contractor hire, at the Contractor's own expense, a currently registered surveyor, acceptable to the Owner, to provide ongoing construction staking or confirmation of such.
- B. Any deviations from the Drawings shall be confirmed by the Engineer prior to construction of that portion of the Project.
- C. Construction Surveying Cash Allowance
 - 1. This cash allowance is solely for the use of the Engineer for verification of the Contractor's reference points, centerlines and work performed.
 - 2. The presence of this cash allowance in no way relieves the Contractor of the responsibility of installing reference points, centerlines, temporary bench marks, verifying that the work has been performed accurately, and all other work covered by this Section.

END OF SECTION 01055

SECTION 01200

PROJECT MEETINGS

PART 1 GENERAL

1.01 SCOPE

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

1.02 PRECONSTRUCTION CONFERENCE

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

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

1.03 PROJECT COORDINATION MEETINGS

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

END OF SECTION 01200

SECTION 01320

CONSTRUCTION PHOTOGRAPHS

PART 1 GENERAL

1.01 CONSTRUCTION PHOTOGRAPHS

- A. Prior to the beginning of utility construction along roadways, the Contractor shall take project photographs of the work area to record existing conditions.
- B. All conditions, which might later be subject to disagreement, shall be shown in sufficient detail to provide a basis for decisions.
- C. Photographs shall be taken to record the general progress of the Project. Photographs shall be representative of the primary work being performed at that time.
- D. Following completion of the work, another recording shall be made showing the same areas and features as in the pre-construction photographs.
- E. The photographs shall include the date and time marking of the recording. All photographs shall be labeled on a tab connected to the bottom of the photo to indicate date and description of work shown.
- F. Photographs shall be submitted in plastic sleeves pre-punched for a 3-ring binder. Negatives shall be submitted in polyethylene preservers, 8-1/2 x 11-inches in size.
- G. Negatives shall become the property of the Owner and none of the photographs herein shall be published without express permission of the Owner.

1.02 SUBMITTALS

- A. The first construction photographs shall be submitted by the Contractor to the Owner within 25 calendar days after Notice to Proceed.
- B. A minimum of 10 exposures shall be submitted with each request for payment. The view selection will be as agreed to with the Engineer. Two prints of each exposure shall be submitted.

END OF SECTION 01320

SECTION 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, electricity and telephone.
 2. First aid facilities.
 3. Sanitary facilities.
 4. Temporary heat.
 5. Temporary enclosures and construction facilities.

1.02 PRODUCT HANDLING

- A. Protection: Use all means necessary to maintain temporary facilities in proper and safe condition throughout progress of the Work.
- B. Replacements: In the event of loss or damage, immediately make all repairs and replacements necessary and at no additional cost to the Owner.

PART 2 PRODUCTS

2.01 UTILITIES

- A. Temporary Utilities
1. General
 - a. Provide and pay all costs for all water, electricity and telephone service required for the performance of the Work.
 - b. Pay all costs for temporary utilities until Project completion.
 - c. Costs for temporary utilities shall include all power, water and the like necessary for testing equipment as required by the Contract Documents.
 2. Temporary Water: Furnish and install all necessary temporary piping, and upon completion of the Work, remove all such temporary piping. Install and remove water meters.

2.02 SANITARY FACILITIES

Prior to starting Work, the Contractor shall furnish all necessary toilet facilities. These facilities shall be chemical toilets. 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.

2.03 POTABLE WATER

The Contractor shall be responsible for furnishing a supply of potable drinking water.

END OF SECTION 01510

SECTION 01610

TRANSPORTATION AND HANDLING

PART 1 GENERAL

1.01 SCOPE

The Contractor shall provide transportation of all equipment, materials and products furnished under these Contract Documents to AND FROM the Work site. In addition, the Contractor shall provide preparation for shipment and storage, unloading, handling and re-handling, short-term storage, extended storage, preparation for installation and all other work and incidental items necessary or convenient to the Contractor for the satisfactory prosecution and completion of the Work.

1.02 TRANSPORTATION

- A. All equipment and material shall be suitably boxed, crated or otherwise protected during transportation.
- B. The Contractor shall be responsible for ensuring that the equipment is assembled and transported in such a manner as to clear buildings, power lines, bridges and similar structures encountered during shipment or delivery to the Work site.

1.03 HANDLING

- A. All equipment, materials and products shall be carefully handled to prevent damage during unloading or transportation. All equipment, materials and products damaged during transportation or handling shall be repaired or replaced by the Contractor at no additional cost to the Owner prior to being incorporated into the Work.

END OF SECTION 01610

SECTION 01740

WARRANTIES AND BONDS

PART 1 GENERAL

1.01 PROJECT MAINTENANCE AND WARRANTY

- A. Maintain and keep in good repair the Work covered by these Drawings and Specifications until acceptance by the Owner.
- B. The Contractor shall warrant for a period of one year from the date of Owner's written Final Acceptance of certain segments of the Work and/or Owner's written Final Acceptance of the Project, as defined in the Contract Documents, that the completed Work is free from all defects due to faulty products or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments or other work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect throughout the warranty period.
- C. The Contractor shall not be obligated to make replacements which become necessary because of ordinary wear and tear, or as a result of improper operation or maintenance, or as a result of improper work or damage by another Contractor or the Owner, or to perform any work which is normally performed by a maintenance crew during operation.
- D. The Contractor shall, at Contractor's own expense, furnish all labor, materials, tools and equipment required and shall make such repairs and removals and shall perform such work or reconstruction as may be made necessary by any structural or functional defect or failure resulting from neglect, faulty workmanship or faulty materials, in any part of the Work performed by the Contractor. Such repair shall also include refilling of trenches, excavations or embankments which show settlement or erosion after backfilling or placement.
- E. Except as noted on the Drawings or as specified, all structures such as embankments and fences shall be returned to their original condition prior to the completion of the Contract. The Contractor at no cost to the Owner shall, promptly repair any and all damage to any facility resulting from the Contractor's operations.
- F. The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of one year from the date of final acceptance. In the event the repairs and maintenance are not made immediately and it becomes necessary for the owner of the road to make such repairs, the Contractor shall reimburse the owner of the road for the cost of such repairs.

- G. In the event the Contractor fails to proceed to remedy the defects upon notification within 15 days of the date of such notice, the Owner reserves the right to procure the required materials and perform the work as described in the Drawings and Specifications, and to hold the Contractor and the sureties on Contractor's bond liable for the cost and expense thereof.
- H. Notice to Contractor for repairs and reconstruction will be made in the form of a registered letter addressed to the Contractor at Contractor's home office.
- I. Neither the foregoing paragraphs nor any provision in the Contract Documents, nor any special guarantee time limit implies any limitation of the Contractor's liability within the law of the place of construction.

END OF SECTION 01740

SECTION 02125

Erosion and Sedimentation Control

PART 1 GENERAL

1.01 SCOPE

A. Submittals and Permits

1. The Designer shall prepare a description, drawings and schedule for proposed temporary and permanent erosion and sedimentation controls. The description and drawings shall meet the requirements of the Georgia Erosion and Sedimentation Act of 1975 as amended in 1989 and local soil erosion and sedimentation control ordinances. The Owner will acquire Land Disturbance Permits from the appropriate authority and shall pay any fees for said permits. All fines imposed for improper erosion and the Contractor shall pay sedimentation control.
2. Land disturbance activity shall not commence until the Land Disturbance Permit is issued.

B. Basic Principles

1. Conduct the earthwork and excavation activities in such a manner to fit the topography, soil type and condition.
2. Minimize the disturbed area and the duration of exposure to erosion elements.
3. Stabilize disturbed areas immediately.
4. Safely convey run-off from the site to an outlet such that erosion will not be increased off site.
5. Retain sediment on site that was generated on site.
6. Minimize encroachment upon watercourses.

C. Implementation

1. The Contractor is solely responsible for the control of erosion within the Project site and the prevention of sedimentation from leaving the Project site or entering waterways.

2. The Contractor shall install temporary and permanent erosion and sedimentation controls, which will ensure that runoff from the disturbed area of the Project site, shall pass through a filter system before exiting the Project site.
 3. The Contractor shall provide temporary and permanent erosion and sedimentation control measures to prevent silt and sediment from entering the reels
 4. The Contractor shall limit land disturbance activity to those areas shown on the Drawings.
 5. The Contractor shall maintain the disturbed area on the entire site until acceptance of the Project at no additional cost to the Owner. Maintenance shall include mulching, re-seeding, clean-out of sediment barriers and sediment ponds, replacement of washed-out or undermined rip rap and erosion control materials, to the satisfaction of the Engineer.
 6. All fines imposed for improper erosion and the Contractor shall pay sedimentation control.
- D. Temporary Erosion and Sedimentation Control: In general, temporary erosion and sedimentation control procedures shall be directed toward:
1. Preventing soil erosion at the source.
 2. Preventing silt and sediment from entering any waterway if soil erosion cannot be prevented.
 3. Preventing silt and sediment from migrating downstream in the event it cannot be prevented from entering the waterway.
- E. Permanent Erosion Control: Permanent erosion control measures shall be implemented to prevent sedimentation of the waterways and to prevent erosion of the Project site.

1.02 QUALITY ASSURANCE

- A. General: Perform all work under this Section in accordance with all pertinent rules and regulations including, but not necessarily limited to, those stated herein and these Specifications.
- B. Conflicts: Where provisions of pertinent rules and regulations conflict with these Specifications, the more stringent provisions shall govern.

PART 2 PRODUCTS

2.01 TEMPORARY EROSION AND SEDIMENTATION CONTROL MATERIALS

- A. Silt Fence: Silt fence shall meet the requirements of Section 171 - Temporary Silt Fence of the Department of Transportation, State of Georgia, Standard Specification, latest edition. Silt fence fabric must be on the Georgia DOT Qualified Product List.
- B. Hay bales shall be clean, seed free cereal hay type.
- C. Netting shall be 1/2-inch, galvanized steel, chicken wire mesh.
- D. Filter stone shall be crushed stone conforming to Georgia Department of Transportation Table 800.01H, Size Number 3.

PART 3 EXECUTION

3.01 GENERAL

Standards: Provide all materials and promptly take all actions necessary to achieve effective erosion and sedimentation control in accordance with the Georgia Erosion and Sedimentation Act of 1975 as amended in 1989, local enforcing agency guidelines and these Specifications.

3.02 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Temporary erosion and sedimentation control procedures should be initially directed toward preventing silt and sediment from entering the creeks. The preferred method is to provide an undisturbed natural buffer, extending a minimal 25 feet from the top of the bank, to filter the run-off. Should this buffer prove infeasible due to construction activities being too close to the creek, or if the amount of sediment overwhelms the buffer, the Contractor shall place silt fences to filter the run-off and, if necessary, place

permanent rip rap to stabilize the creek banks. When excavation activities disturb the previously stated preventative measures, or if they are not maintained, or whenever the construction activities cross the creeks, the check dams shall be installed downstream and within 200 feet of the affected area.

- B. Silt dams, silt fences, traps, barriers, check dams, appurtenances and other temporary measures and devices shall be installed as indicated on the approved plans and working

drawings, shall be maintained until no longer needed, and shall then be removed. Deteriorated hay bales and dislodged filter stone shall be replaced with new materials.

- C. Where permanent grassing is not appropriate, and where the Contractor's temporary erosion and sedimentation control practices are inadequate, the Engineer may direct the Contractor to provide temporary vegetative cover with fast growing seedlings. Such temporary vegetative cover shall be provided by the Contractor in compliance with the Manual for Erosion and Sedimentation Control in Georgia, specifically in the selection of species, planting dates and application rates for seeding, fertilizer and mulching, with the exception that kudzu shall not be permitted.
- D. All erosion and sedimentation control devices, including check dams, shall be inspected by the Contractor at least daily and after each rainfall occurrence and cleaned out and repaired by the Contractor as necessary.
- E. Temporary erosion and sedimentation control devices shall be installed and maintained from the initial land disturbance activity until the satisfactory completion and establishment of permanent erosion control measures. At that time, temporary devices shall be removed.

3.03 PERMANENT EROSION CONTROL

- A. Permanent erosion control shall include:
 - 1. Restoring the work site to its original contours, unless shown otherwise on the Drawings or directed by the Engineer.
 - 2. Permanent vegetative cover shall be performed in accordance with Article 3.04 of this Section and Section 02933 of these Specifications.
 - 3. Permanent stabilization of steep slopes and creeks shall be performed in accordance with Article 3.05 of this Section.
- B. Permanent erosion control measures shall be implemented as soon as practical after the completion of pipe installation or land disturbance for each segment of the Project. In no event shall implementation be postponed when no further construction activities will impact that portion or segment of the Project. Partial payment requests may be withheld for those portions of the Project not complying with this requirement.

3.04 GRASSING

A. General

1. All references to grassing, unless noted otherwise, shall relate to establishing permanent vegetative cover.
2. When final grade has been established, all bare soil, unless otherwise required by the Contract Documents, shall be seeded, fertilized and mulched in an effort to restore to a protected condition. Critical areas shall be sodded as approved or directed by the Engineer.
3. Specified permanent grassing shall be performed at the first appropriate season following establishment of final grading in each section of the site.
4. Permanent grassing shall be of a perennial species.

B. Replant grass removed or damaged in residential areas using the same variety of grass and at the first appropriate season. Where sod is removed or damaged, replant such areas using sod of the same species of grass at the first appropriate season. Outside of residential or landscaped areas, grass the entire area disturbed by the work on completion of work in any area. In all areas, promptly establish successful stands of grass.

C. Where permanent vegetative cover (grassing) cannot be immediately established (due to season or other circumstances) the Contractor shall provide temporary vegetative cover. The Contractor must return to the site (at the appropriate season) to install permanent vegetation in areas that have received temporary vegetative cover.

END OF SECTION 02125

SECTION 02229 Bore and Jack Casings

PART 1 GENERAL

1.01 SCOPE

- A. The work covered by this Section includes furnishing all labor, materials and equipment required to bore and jack casings and to properly complete pipeline construction as described herein and/or shown on the Drawings.
- B. Supply all materials and perform all work in accordance with applicable American Society for Testing and Materials (ASTM), American Water Works Association (AWWA), American National Standards Institute (ANSI) or other recognized standards. Latest revisions of all standards are applicable. If requested by the Owner, submit evidence that manufacturer has consistently produced products of satisfactory quality and performance over a period of at least two years.

1.02 SUBMITTALS

- A. Submit shop drawings, product data and experience in accordance with the requirements of Section 01340 of these Specifications.
- B. Material Submittals: The Contractor shall provide shop drawings and other pertinent specifications and product data as follows:
 - 1. Shop drawings for casing pipe showing sizes and connection details.
 - 2. Design mixes for concrete and grout.
 - 3. Casing Spacers.
- C. Experience Submittals: Boring and jacking casings is deemed to be specialty contractor work. If the Contractor elects to perform the work, the Contractor shall provide evidence as required by the General Conditions. A minimum of five continuous years of experience in steel casing construction is required of the casing installer. Evidence of this experience must be provided with the shop drawings for review by the Owner.

1.03 STORAGE AND PROTECTION

All materials shall be stored and protected in accordance with the manufacturer's recommendations and as approved by the Owner.

PART 2 PRODUCTS

2.01 MATERIALS AND CONSTRUCTION

A. Casing

1. The casing shall be new and unused pipe. The casing shall be made from steel plate having minimum yield strength of 35,000 psi. The steel plate shall also meet the chemical requirements of ASTM A 36.
2. The thickness of casing shown in paragraph B. below are minimum thickness. Actual thickness shall be determined by the casing installer, based on an evaluation of the required forces to be exerted on the casing when jacking. Any buckling of the casing due to jacking forces shall be repaired at no additional cost to the Owner.
3. The diameters of casing shown in paragraph B. below and shown on the Drawings are minimum. Larger casings, with the Owner's approval, may be provided at no additional cost to the Owner, for whatever reasons the Contractor may decide, whether casing size availability, line and grade tolerances, soil conditions, etc.

B. Casing Sizes

UNDER HIGHWAYS		
Pipe Diameter, inches	Casing Diameter, inches	Wall Thickness, inches
8	16	0.200

C. Casing Spacers: Casing spacers shall meet one of the following requirements:

1. Casing spacers shall be flanged, bolt-on style with a two-section stainless steel shell lined with a PVC liner, minimum 0.09-inch thick also having a hardness of 85-90 durometer. Runners shall be attached to stainless steel risers which shall be properly welded to the shell. The height of the runners and risers shall be manufactured such that the pipe does not float within the casing. Casing spacers shall be Cascade Waterworks Manufacturing Company or Advanced Products & Systems, Inc.

2. Casing spacers shall be a two-section, flanged, bolt on style constructed of heat fused PVC coated steel, minimum 14 gauge band and 10 gauge risers, with 2-inch wide glass reinforced polyester insulating skids, heavy duty PVC inner liner, minimum 0.09-inch thick having a hardness of 85-90 durometer, and all stainless steel or cadmium plated hardware shall be Pipeline Seal and Insulator, Inc.
- D. Carrier Pipe: Carrier pipes shall meet requirements as specified in Section 02730 of these Specifications.
- E. Surface Settlement Markers: Surface settlement markers within pavement areas shall be P.K. nails. Surface settlement markers within non-paved areas shall be wooden hubs.

2.02 EQUIPMENT

- A. A cutting head shall be attached to a continuous auger mounted inside the casing pipe.
- B. On casing pipe for gravity sewer over 60 feet in length, the installation equipment shall include a steering head and a grade indicator.
- C. The steering head shall be controlled manually from the bore pit. The grade indicator shall consist of a water level attached to the casing which would indicate the elevation of the front end of the casing or some other means for grade indication approved by the Owner.

PART 3 EXECUTION

3.01 GENERAL

- A. Interpretation of soil investigation reports and data, investigating the site and determination of the site soil conditions prior to bidding is the sole responsibility of the Contractor. The appropriate authority having jurisdiction over the site must approve any subsurface investigation by the Bidder or Contractor. Rock and/or water, if encountered, shall not entitle the Contractor to additional compensation.
- B. Casing construction shall be performed so as not to interfere with, interrupt or endanger roadway surface and activity thereon, and minimize subsidence of the surface, structures, and utilities above and in the vicinity of the casing. Support the ground continuously in a manner that will prevent loss of ground and keep the perimeters and face of the casing, passages and shafts stable. The Contractor shall be responsible for all settlement resulting from casing operations and shall repair and restore damaged property to its original or better condition at no cost to the Owner.

- C. Face Protection: The face of the excavation shall be protected from the collapse of the soil into the casing.
- D. Casing Design: Design of the bore pit and required bearing to resist jacking forces are the responsibility of the Contractor. The excavation method selected shall be compatible with expected ground conditions. The lengths of the casing shown on the Drawings are the minimum lengths required. The length of the casing may be extended for the convenience of the Contractor, at no additional cost to the Owner. Due to restrictive right-of-way and construction easements, boring and jacking casing lengths less than the nominal 20-foot length may be necessary.
- E. Highway Crossings
 - 1. The Contractor shall be held responsible and accountable for the coordinating and scheduling of all construction work within the highway right-of-way.
 - 2. Work along or across the highway department rights-of-way shall be subject to inspection by such highway department.
 - 3. All installations shall be performed to leave free flows in drainage ditches, pipes, culverts or other surface drainage facilities of the highway, street or its connections.
 - 4. No excavated material or equipment shall be placed on the pavement or shoulders of the roadway without the express approval of the highway department.
 - 5. In no instance will the Contractor be permitted to leave equipment (trucks, backhoes, etc.) on the pavement or shoulder overnight. Construction materials to be installed, which are placed on the right-of-way in advance of construction, shall be placed in such a manner as not to interfere with the safe operation of the roadway.
 - 6. The Contractor shall be responsible for providing the Owner sufficient information in a timely manner for obtaining a blasting permit. Delays in obtaining the permit due to insufficient information furnished or review time by the DOT will not be grounds for additional compensation or delay claims.

3.02 GROUNDWATER CONTROL

- A. The Contractor shall control the groundwater throughout the construction of the casing.
- B. Methods of dewatering shall be at the option and responsibility of the Contractor. Maintain close observation to detect settlement or displacement of surface facilities due to dewatering. Should settlement or displacement be detected, notify the Engineer

immediately and take such action as necessary to maintain safe conditions and prevent damage.

- C. When water is encountered, provide and maintain a dewatering system of sufficient capacity to remove water on a 24 hour basis keeping excavations free of water until the backfill operation is in progress. Dewatering shall be performed in such a manner that removal of soil particles is held to a minimum. Dewater into a sediment trap and comply with requirements specified in Section 02125 of these Specifications.

3.03 SAFETY

- A. Provide all necessary bracing, bulkheads and shields to ensure complete safety to all traffic, persons and property at all times during the work. Perform the work in such a manner as to not permanently damage the roadbed or interfere with normal traffic over it.
- B. Observe all applicable requirements of the regulations of the authorities having jurisdiction over this site. Conduct the operations in such a manner that all work will be performed below the level of the roadbed.
- C. Perform all activities in accordance with the Occupational Safety and Health Act of 1970 (PL-596), as amended, applicable regulations of the Federal Government, OSHA 29CFR 1926 and applicable criteria of ANSI A10.16-81, "Safety Requirements for Construction of Tunnel Shafts and Caissons".

3.04 SURFACE SETTLEMENT MONITORING

- A. Provide surface settlement markers, placed as specified and as directed by the Owner. The Contractor shall place settlement markers outside of pavement area, along the centerline of the casing at 20 foot intervals and offset 10 feet each way from the centerline of the tunnel. Markers shall also be placed at each shoulder of the roadway, at each edge of pavement, at the centerline of the pavement and at 10 and 25 feet in each direction from the centerline of the casing. Tie settlement markers to bench marks and indices sufficiently removed as not to be affected by the casing operations.
- B. Make observations of surface settlement markers, placed as required herein, at regular time intervals acceptable to the Owner. In the event settlement or heave on any marker exceeds 1-inch, the Contractor shall immediately cease work and using a method approved by the Owner and the authority having jurisdiction over the project site, take immediate action to restore surface elevations to that existing prior to start of casing operations.
- C. Take readings and permanently record surface elevations prior to start of dewatering operations and/or shaft excavation. The following schedule shall be used for obtaining

and recording elevation readings: all settlement markers, once a week; all settlement markers within 50 feet of the casing heading, at the beginning of each day; more frequently at the Owner's direction if settlement is identified. Make all elevation measurements to the nearest 0.01 foot.

- D. The Contractor shall cooperate fully with jurisdictional personnel. Any settlement shall be corrected by, and at the expense of, the Contractor.
- E. Promptly report any settlement and horizontal movement immediately to the Owner and take immediate remedial action.

3.05 BORING AND JACKING

A. Shaft

1. Conduct boring and jacking operations from a shaft excavated at one end of the section to be bored. Where conditions and accessibility are suitable, place the shaft on the downstream end of the bore.
2. The shaft shall be rectangular and excavated to a width and length required for ample working space. If necessary, sheet and shore shaft properly on all sides. Shaft sheeting shall be timber or steel piling of ample strength to safely withstand all structural loadings of whatever nature due to site and soil conditions. Keep preparations dry during all operations. Perform pumping operations as necessary.
3. The bottom of the shaft shall be firm and unyielding to form an adequate foundation upon which to work. In the event the shaft bottom is not stable, excavate to such additional depth as required and place a gravel sub-base or a concrete sub-base if directed by the Owner due to soil conditions.

B. Jacking Rails and Frame

1. Set jacking rails to proper line and grade within the shaft. Secure rails in place to prevent settlement or movement during operations. The jacking rails shall cradle and hold the casing pipe on true line and grade during the progress of installing the casing.
2. Place backing between the heels of jacking rails and the rear of the shaft. The backing shall be adequate to withstand all jacking forces and loads.
3. The jacking frame shall be of adequate design for the magnitude of the job. Apply thrust to the end of the pipe in such a manner to impart a uniformly balanced load to the pipe barrel without damaging the joint ends of the pipe.

- The dry auger boring method without jetting, sluicing or wet boring shall accomplish C. Boring and jacking of casing pipes.
- D. Auger the hole and jack the casing through the soil simultaneously.
 - E. Bored installations shall have a bored-hole diameter essentially the same as the outside diameter of the casing pipe to be installed.
 - F. Execute boring ahead of the casing pipe with extreme care, commensurate with the rate of casing pipe penetration. Boring may proceed slightly in advance of the penetrating pipe and shall be made in such a manner to prevent any voids in the earth around the outside perimeter of the pipe. Make all investigations and determine if the soil conditions are such as to require the use of a shield.
 - G. As the casing is installed, check the horizontal and vertical alignment frequently. Make corrections prior to continuing operation. For casing pipe installations over 100 feet in length, the auger shall be removed and the alignment and grade checked at minimum intervals of 60 feet.
 - H. Any casing pipe damaged in jacking operations shall be repaired, if approved by the Owner, or removed and replaced at Contractor's own expense.
 - I. Lengths of casing pipe, as long as practical, shall be used except as restricted otherwise. Joints between casing pipe sections shall be butt joints with complete joint penetration, single groove welds, for the entire joint circumference, in accordance with AWS recommended procedures. Prior to welding the joints, the Contractor shall ensure that both ends of the casing sections being welded are square.
 - J. The Contractor shall prepare a contingency plan, which will allow the use of a casing lubricant, such as bentonite, in the event excessive frictional forces jeopardize the successful completion of the casing installation.
 - K. Once the jacking procedure has begun, it should be continued without stopping until completed, subject to weather and conditions beyond the control of the Contractor.
 - L. Care shall be taken to ensure that casing pipe installed by boring and jacking method will be at the proper alignment and grade.
 - M. The Contractor shall maintain and operate pumps and other necessary drainage system equipment to keep work dewatered at all times.
 - N. Adequate sheeting, shoring and bracing for embankments, operating pits and other appurtenances shall be placed and maintained to ensure that work proceeds safely and

expeditiously. Upon completion of the required work, the sheeting, shoring and bracing shall be left in place, cut off or removed, as designated by the Engineer.

- O. Trench excavation, all classes and type of excavation, the removal of rock, muck, debris, the excavation of all working pits and backfill requirements are included under this Section.
- P. All surplus material shall be removed from the right-of-way and the excavation finished flush with the surrounding ground.
- Q. Grout backfill shall be used for unused holes or abandoned pipes.

3.06 VENTILATION AND AIR QUALITY

Provide, operate and maintain for the duration of casing project a ventilation system to meet safety and OSHA requirements.

3.07 ROCK EXCAVATION

- A. In the event that rock is encountered during the installation of the casing pipe which, in the opinion of the Owner, cannot be removed through the casing, the Owner may authorize the Contractor to complete the crossing by a method established in a change order.
- B. At the Contractor's option, the Contractor may continue to install the casing and remove the rock through the casing at no additional cost to the Owner.

3.08 INSTALLATION OF PIPE

- A. After construction of the casing is complete, and has been accepted by the Owner, install the pipeline in accordance with the Drawings and Specifications.
- B. Check the alignment and grade of the casing and prepare a plan to set the pipe at proper alignment, grade and elevation, without any sags or high spots.
- C. The pipe shall be supported within the casing by use of casing spacers sized to limit radial movement to a maximum of 1-inch. Provide a minimum of two casing spacers per nominal length of pipe. Casing spacers shall be attached to the pipe at maximum 10 foot intervals.
- D. Close the ends of the casing with 4-inch brick walls.

3.09 SHEETING REMOVAL

Remove sheeting used for shoring from the shaft and off the job site. The removal of sheeting, shoring and bracing shall be done in such a manner as not to endanger or damage either new or existing structures, private or public properties and also to avoid cave-ins or sliding in the banks.

3.10 INTERSTATE RESTORATION

When boring and jacking operations encroach upon the right-of-ways of the federal interstate system, the Contractor shall restore all screening trees with seedlings of like species.

END OF SECTION 02229

SECTION 02575

Removing and Replacing Pavement

PART 1 GENERAL

1.01 SCOPE

The work to be performed under this Section shall consist of removing and replacing existing pavement, sidewalks and curbs in paved areas where such have been removed for construction of sewers, manholes and all other sewer appurtenances and structures.

1.02 SUBMITTALS

- A. Provide certificates stating that materials supplied comply with Specifications. The asphalt producer and the Contractor shall sign certificates.
- B. Traffic paint manufacturer's application instructions and a description and other data relative to the Contractor's application equipment and methods shall be submitted to the Engineer for approval.

1.03 CONDITIONS

- A. Weather Limitations
 - 1. Apply bituminous prime and tack coats only when the ambient temperature in the shade has been at least 50 degrees F for 12 hours immediately prior to application.
 - 2. Do not conduct paving operations when surface is wet or contains excess of moisture, which would prevent uniform distribution and required penetration.
 - 3. Construct asphaltic courses only when atmospheric temperature in the shade is above 40 degrees F, when the underlying base is dry and when weather is not rainy.
 - 4. Place base course when air temperature is above 35 degrees F and rising.
- B. Grade Control: Establish and maintain the required lines and grades for each course during construction operations.

PART 2 PRODUCTS

2.01 MATERIALS AND CONSTRUCTION

- A. Graded Aggregate Base Course: Graded aggregate base course shall be of uniform quality throughout and shall meet the requirements of Section 815.01 of the Georgia Department of Transportation Standard Specifications.
- B. Black Base: Black base course shall be of uniform quality throughout and shall conform to the requirements of Section 828 of the Georgia Department of Transportation Standard Specifications.
- C. Binder Course: The binder course of all paved roadways shall conform to the requirements of Section 400, Type "B" of the Georgia Department of Transportation Standard Specifications.
- D. Surface Course: The surface course for all pavement, including prime or tack coat when required by the Engineer, shall conform to the requirements of Section 400, Type "F" of the Georgia Department of Transportation Standard Specifications.
- E. Concrete: Provide concrete and reinforcing for concrete pavement or base courses in accordance with the requirements of the Georgia Department of Transportation Standard Specifications, Section 430. Concrete shall be of the strength classifications shown in Section 02730 of these Specifications.
- F. Special Surfaces: Where driveways or roadways are disturbed or damaged which are constructed of specialty type surfaces, e.g., brick, stone, or decorative sidewalks, these driveways and sidewalks shall be restored utilizing similar, if not original, materials. A specialty contractor shall be used to restore the surfaces to their previous or better condition. Special surfaces shall be removed and replaced to the limits to which they were disturbed.

2.02 TYPES OF PAVEMENTS

- A. General: All existing pavement removed, destroyed or damaged by construction shall be replaced with the same type and thickness of pavement as that existing prior to construction, unless otherwise directed by the Engineer. Materials, equipment and construction methods used for paving work shall conform to the Georgia Department of Transportation specifications applicable to the particular type required for replacement, repair or new pavements.
- B. Aggregate Base: Aggregate base shall be constructed in accordance with the requirements of Section 310 of the Georgia Department of Transportation Standard Specifications. The maximum thickness to be laid in a single course shall be 6-inches

compacted. If the design thickness of the base is more than 6-inches, it shall be constructed in two or more courses of approximate equal thickness. After the material placed has been shaped to line, grade and cross-section, it shall be rolled until the course has been uniformly compacted to at least 100 percent of the maximum dry density when Group 2 aggregate is used, or to at least 98 percent of maximum dry density when Group 1 aggregate is used.

- C. Concrete Pavement: Concrete pavement or base courses shall be replaced with concrete. The surface finish of the replaced concrete pavement shall conform to that of the existing pavement. The surface of the replaced concrete base course shall be left rough. The slab depth shall be equivalent to the existing concrete pavement or base course, but in no case less than 6-inches thick. Transverse and longitudinal joints removed from concrete pavement shall be replaced at the same locations and to the same types and dimensions as those removed. Concrete pavements or concrete base courses shall be reinforced.
- D. Asphaltic Concrete Base, Binder and Surface Course: Asphaltic concrete base, binder and surface course construction shall conform to Georgia Department of Transportation Standard Specifications, Section 400. The pavement mixture shall not be spread until the designated surface has been previously cleaned and prepared, is intact, firm, properly cured, dry and the tack coat has been applied. Apply and compact the base in maximum layer thickness by asphalt spreader equipment of design and operation approved by the Engineer. After compaction, the black base shall be smooth and true to established profiles and sections. Apply and compact binder and the surface course in a manner approved by the Engineer. Immediately correct any high, low or defective areas by cutting out the course, replacing with fresh hot mix, and immediately compacting to conform and thoroughly bond to the surrounding area.
- E. Surface Treatment Pavement: Bituminous penetration surface treatment pavement shall be replaced with a minimum thickness of 1-inch conforming to Section 424, Georgia Department of Transportation Standard Specifications.
- F. Temporary Measures: During the time period between pavement removal and complete replacement of permanent pavement, maintain highways, streets and roadways by the use of steel running plates anchored to prevent movement. The backfill above the pipe shall be compacted, up to the existing pavement surface to provide support for the steel running plates. All pavement shall be replaced within seven calendar days of its removal.

PART 3 EXECUTION

3.01 REMOVING PAVEMENT

- A. General: Remove existing pavement as necessary for installing the pipe line and appurtenances.
- B. Marking: Before removing any pavement, mark the pavement neatly paralleling pipe lines and existing street lines. Space the marks the width of the trench.
- C. Breaking: Break asphalt pavement along the marks using pavement shearing equipment, jack hammers or other suitable tools. Break concrete pavement along the marks by scoring with a rotary saw and breaking below the score by the use of jack hammers or other suitable tools.
- D. Machine Pulling: Do not pull pavement with machines until the pavement is completely broken and separated from pavement to remain.
- E. Damage to Adjacent Pavement: Do not disturb or damage the adjacent pavement. If the adjacent pavement is disturbed or damaged, remove and replace the damaged pavement.
- F. Sidewalk: Remove and replace any sidewalks disturbed by construction for their full width and to the nearest undisturbed joint.
- G. Curbs: Tunnel under or remove and replace any curb disturbed by construction to the nearest undisturbed joint.

3.02 REPLACING PAVEMENT

- A. Preparation of Subgrade: Upon completion of backfilling and compaction of the backfill, arrange to have the compaction tested by an independent testing laboratory selected by the Owner. After compaction testing has been satisfactorily completed, replace all pavements, sidewalks and curbs removed.
 - 1. The existing street pavement or surface shall be removed along the lines of the work for the allowable width specified for the trench or structure. After the installation of the sewerage or water works facilities and after the backfill has been compacted suitably, the additional width of pavement to be removed, as shown on the Drawings, shall be done immediately prior to replacing the pavement.
 - 2. Trench backfill shall be compacted for the full depth of the trench as specified.

3. Temporary trench backfill along streets and driveways shall include 6-inches of crushed stone or cherty clay as a temporary surfacing of the trenches. The Contractor shall maintain this temporary surface carefully at grade and dust-free until the backfill of the trench has thoroughly compacted in the opinion of the Owner and permission is granted to replace the street pavement.
4. When temporary crushed stone or chert surface is considered by the Owner to be sufficient surface for gravel pavement, the surface shall be graded smooth and to an elevation that will make the final permanent surfacing level with the adjacent surfacing that was undisturbed.

B. Pavement Replacement

1. Prior to replacing pavement, make a final cut in concrete pavement 12-inches back from the edge of the damaged pavement with a concrete saw. Remove asphalt pavement 12-inches back from the edge of the damaged pavement using pavement shearing equipment, jack hammers or other suitable tools.
2. Replace all street and roadway pavement as shown on the Drawings. Replace driveways, sidewalks and curbs with the same material, to nearest existing undisturbed construction joint and to the same dimensions as those existing.
3. If the temporary crushed stone or chert surface is to be replaced, the top 6-inches shall be removed and the crushed stone surfacing for unpaved streets or the base for the bituminous surface shall be placed.
4. Following this preparation, the chert or crushed stone base shall be primed with a suitable bituminous material and surfaced with the proper type of bituminous surface treatment.
5. Where the paved surface is to be replaced with asphaltic concrete pavement, concrete pavement or with a concrete base and a surface course, the temporary chert or crushed stone surface and any necessary backfill material, additional existing paving and new excavation shall be removed to the depth and width shown on the Drawings. All edges of the existing pavement shall be cut to a straight, vertical edge. Care shall be used to get a smooth joint between the old and new pavement and to produce an even surface on the completed street. Expansion joints, where applicable, shall be replaced in a manner equal to the original joint.
6. Where driveways or roadways, constructed of specialty type surfaces, e.g., brick, stone or decorated sidewalks are disturbed or damaged, these driveways, roadways or sidewalks shall be restored utilizing similar materials. A specialty contractor shall be used to restore the surfaces to their previous or better

condition. Special surfaces shall be removed and replaced to the limits to which they were disturbed.

- D. Pavement Striping: Pavement striping removed or paved over shall be replaced with the same type, dimension and material as original unless directed otherwise by the Engineer.

3.03 SIDEWALK AND CURB REPLACEMENT

A. Construction

1. All concrete sidewalks and curbs shall be replaced with concrete.
 2. Preformed joints shall be 1/2-inch thick, conforming to the latest edition of AASHTO M59 for sidewalks and AASHTO M 123 for curbs.
 3. Forms for sidewalks shall be of wood or metal, shall be straight and free from warp, and shall be of sufficient strength, when in place, to hold the concrete true to line and grade without springing or distorting.
 4. Forms for curbs shall be metal and of an approved section. They shall be straight and free from distortions, showing no vertical variation greater than 1/8-inch in 10 feet and no lateral variation greater than 1/4-inch in 10 feet from the true plain surface on the vertical face of the form. Forms shall be of the full depth of the structure and constructed such to permit the inside forms to be securely fastened to the outside forms.
 5. Securely hold forms in place true to the lines and grades.
 6. Wood forms may be used on sharp turns and for special sections, as approved by the Owner. Where wooden forms are used, they shall be free from warp and shall be the nominal depth of the structure.
 7. All mortar and dirt shall be removed from forms and all forms shall be thoroughly oiled or wetted before any concrete is deposited.
- B. When a section is removed, the existing sidewalk or curb shall be cut to a neat line, perpendicular to both the centerline and the surface of the concrete slab. Existing concrete shall be cut along the nearest existing construction joints.
 - C. Existing concrete sidewalks and curbs that have been cut and removed for construction purposes shall be replaced with the same width and surface as the portion removed. Sidewalks shall have a minimum uniform thickness of 4-inches. The new work shall be neatly jointed to the existing concrete so that the surface of the new work shall form an even, unbroken plane with the existing surfaces.

- D. The subgrade shall be formed by excavating to a depth equal to the thickness of the concrete, plus 2-inches. Subgrade shall be of such width as to permit the proper installation and bracing of the forms. Subgrades shall be compacted by hand tamping or rolling. Soft, yielding or unstable material shall be removed and backfilled with satisfactory material. Place 2-inches of porous crushed stone under all sidewalks and curbs and compacted thoroughly, then finish to a smooth, unyielding surface at proper line, grade and cross section.
- E. Joint for Curbs
1. Joints shall be constructed as indicated on the Drawings and as specified. Construct joints true to line with their faces perpendicular to the surface of the structure and within 1/4-inch of their designated position.
 2. Thoroughly spade and compact the concrete at the faces of all joints filling all voids.
 3. Install expansion joint materials at the point of curve at all street returns. Install expansion joint material behind the curb at abutment to sidewalks and adjacent structures.
 4. Place contraction joints every 10 feet along the length of the curbs and gutters. Form contraction joints using steel templates or division plates, which conform to the cross section of the structure. Leave the templates in place until the concrete has set sufficiently to hold its shape, but remove them while the forms are still in place. Contraction joint templates or plates shall not extend below the top of the steel reinforcement or they shall be notched to permit the reinforcement to be continuous through the joint. Contraction joints shall be a minimum of 1-1/2-inches deep.
- F. Expansion joints shall be required to replace any removed expansion joints or in new construction wherever shown on the Drawings. Expansion joints shall be true and even, shall present a satisfactory appearance, and shall extend to within 1/2-inch of the top of finished concrete surface.
- G. Finishing
1. Strike off the surface with a template and finish the surface with a wood float using heavy pressure, after which, contraction joints shall be made and the surface finished with a wood float or steel trowel.
 2. Finish the face of the curbs at the top and bottom with an approved finishing tool.
 3. Finish edges with an approved finishing tool having a 1/4-inch radius.

4. Provide a final broom finish by lightly combing with a stiff broom after troweling is complete.
5. The finished surface shall not vary more than 1/8-inch in 10 feet from the established grade.

H. Driveway and Sidewalk Ramp Openings

1. Provide driveway openings of the widths and at the locations indicated on the Drawings and as directed by the Owner.
2. Provide sidewalk ramp openings as indicated on the Drawings, in conformance with the applicable regulations and as directed by the Owner.

- I. Concrete shall be suitably protected from freezing and excessive heat. It shall be kept covered with burlap or other suitable material and kept wet until cured. Provide necessary barricades to protect the work. All damage caused by people, vehicles, animals, rain, the Contractor's operations and the Contractor, at no additional expense to the Owner, shall repair the like.

3.04 MAINTENANCE

The Contractor shall maintain the surfaces of roadways built and pavements replaced until the acceptance of the Project. Maintenance shall include replacement, scraping, reshaping, wetting and rerolling as necessary to prevent raveling of the road material, the preservation of reasonably smooth surfaces and the repair of damaged or unsatisfactory surfaces, to the satisfaction of the Engineer. Maintenance shall include sprinkling as may be necessary to abate dust from the gravel surfaces.

3.05 SUPERVISION AND APPROVAL

- A. Pavement restoration shall meet the requirements of the regulatory agency responsible for the pavement. Obtain agency approval of pavement restorations before requesting final payment.
- B. Obtain the Engineer's approval of restoration of pavement, such as private roads and drives that are not the responsibility of a regulatory agency.
- C. Complete pavement restoration as soon as possible after backfilling.
- D. Failure of Pavement: Should any pavement restoration or repairs fail or settle during the life of the Contract, including the bonded period, promptly restore or repair defects.

3.06 CLEANING

The Contractor shall remove all surplus excavation materials and debris from the street surfaces and rights-of-way and shall restore street, roadway or sidewalk surfacing to its original condition.

END OF SECTION 02575

SECTION 02665

Water Lines & Accessories

PART 1 GENERAL

1.01 SCOPE

- A. This section describes products to be incorporated into the water lines 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. Supply all products and perform all work in accordance with applicable ASTM, AWWA, ANSI, or other standards. The latest revisions of all standards are applicable.
- C. All products shall be cast, fabricated and manufactured in the United States of America.

1.02 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

- A. Furnish equipment and facilities for transporting, unloading, handling, distributing, and storing pipe, fittings, valves, hydrants and accessories in accordance with manufacturer's written recommendations.
- B. The Owner will reject any mishandled product without further justification.

1.03 QUALITY ASSURANCE

The manufacturer shall provide written certification to the Owner that all products furnished comply with the specifications.

PART 2 PRODUCTS

2.01 PIPING AND ACCESSORIES

- A. Ductile Iron Pipe & Fittings
 - 1. AWWA C151, minimum Pressure Class 350 or Thickness Class 51 as shown in the Contract Documents or on the Drawings.
 - 2. AWWA C104, cement lining for all pipe and fittings
 - 3. AWWA C153 ductile iron fittings rated for 250 psi working pressure.

4. AWWA C111, push-on and mechanical joints; ANSI B16.1, Class 125 flange joints. Push-on fittings shall meet joint specification for ductile iron pipe.
5. Thrust collars shall be weld-on ductile iron body designed for thrust created by 250-psi internal pressure.
6. Restrained joints, where shown on the Drawings or specified, shall be push-on joints restrained by any of the following systems: American "Fast-Grip", "Flex-Ring" or "Lok-Ring", U S Pipe "Field-Lok", "T R Flex" or T R Flex Gripper Ring".
7. Mechanical joint fittings shall be restrained with "Mega-Lugs". Push-on joint fittings or valves shall be restrained with restrained joint gaskets or other restrained joint system.
8. Provide necessary bolts, nuts, gaskets, ductile iron glands and accessories to make joints.

B. MISCELLANEOUS PIPING

1. Steel casing pipe shall be minimum 0.25-inch wall, ASTM A 36; coating is not required. Casing spacers shall be stainless steel equal to Cascade or Advance.
2. Copper tubing shall be ASTM B 88, Type K. Fittings shall be compression type equal to Dresser Style 88.
3. PVC casing pipe shall be minimum ASTM D 2241, PR 160 SDR 26.
4. Miscellaneous small diameter adapters or nipples shall be bronze. Galvanized pipe will not be accepted.

C. VALVES

1. Gate valves for buried service in diameters 2 through 12-inch shall meet AWWA C 509 rated for 250 psi working pressure, resilient seat with 2-inch square operating nut, open left. 2-inch end connections shall be NPT, diameters larger than 2-inch shall be mechanical joint restrained with "Mega Lugs" or push-on restrained joint. Acceptable manufacturers are American Darling Valve, Mueller, U S Pipe and M&H Valve.
2. Butterfly valves shall meet AWWA C504 rated for minimum 150 psi working pressure. Valve shall be equipped with mechanical joints and 2-inch square operating nut, open left. Acceptable manufacturers are Mueller, M&H, Clow, Dezurik or Pratt.

3. Tapping sleeves for connection to iron lines shall be split-sleeve, mechanical joint ends. Tapping sleeves for connection to PVC water lines shall be stainless steel, clamp-on type manufactured by Ford, Rockwell or Clow.
4. Gate valves smaller than 2-inch shall be bronze, heavy duty, with threaded connections. Valves shall have hand wheel operator. Valves shall be equal to Mueller, Crane, Nibco or Milwaukee.
5. Corporation and curb stops shall be bronze, ASTM B 61 or 62, AWWA or NPT threads with compression fitting for connection to copper tubing. Stops shall be equal to those manufactured by Mueller, Ford, Jones or Hays.
6. Backflow preventer shall be residential dual check valve, 3/4-inch, Watts No. 7, Wilkins, Mueller or equal. Provide meter connection as shown on the drawings.
7. Tapping valves shall be AWWA C509 resilient seat gate valve rated for 250 psi with air vent plug on the bonnet. Acceptable manufacturers shall be equal to American Flow Control or Mueller.

D. FIRE HYDRANTS

1. AWWA C 502 with minimum valve opening of 53-inches.
2. Minimum depth of bury shall be 42-feet. Hydrant shall open left and be equipped with two 8-inch and one 6-inch NST connections. Hydrants shall be red.
3. Design shall be non-freezing, traffic type, and breakaway barrel.
4. Acceptable manufacturers shall be Mueller (Super Centurion), M&H (929), American Flow Control (B84-B), U.S. Pipe Metropolitan 250, Model 94(only).

E. ACCESSORIES

1. Valve boxes shall be ductile iron, 2-piece threaded, adjustable 6-inches up or down. Cover shall have "WATER VALVE" legend. Bottom flange of box shall be sized to rest well below operator nut of valve.

2. Valve markers shall be reinforced concrete with "WATER VALVE" legend. Bronze or aluminum insert shall be inscribed with distance to valve. Provide valve markers at all valves except at fire hydrants.
3. Cast-in place, reinforced concrete collars shall be formed and poured at each valve box.
4. Warning tape shall be buried 2-feet below finished grade over all water lines. Tape shall be mylar encased, aluminum foil, 3-inches wide color APWA blue with "BURIED WATER LINE" legend.
5. Meter Boxes shall equal to Brooks model 1914 with PVC bolt down cover and drilled for touch pad.
6. Water Meters shall be Sensus Technologies, SR II, with touch read pad. Register shall read and record in 1,000 gallon units.
7. Customer cut-off valve box shall be equal to DFW D-109 plastic turf box.

PART 3 EXECUTION

3.01 GENERAL

A. SOIL EROSION & SEDIMENT CONTROL

In general, temporary and permanent erosion and sediment control measures shall prevent soil erosion at the source, prevent silt and sediment from entering any waterway or causing property damage. The contractor shall install soil erosion and sediment control measures as required by Rockdale County.

Products used for erosion and sediment control shall conform to Georgia DOT specifications for same.

B. CLEARING WORK AREAS

1. Avoid cutting trees down if at all possible. Trim limbs as necessary. Carefully remove fencing, sod, shrubbery and landscaping features for later restoration. Water line location can be adjusted with verbal permission from Owner.

3.02 EXISTING UNDERGROUND UTILITIES AND OBSTRUCTIONS

- A. The Drawings shall indicate underground utilities or obstructions that are known to exist according to the best information available. The Contractor, as required

by Georgia law, shall call the Utilities Protection Center (UPC) (800-282-7411) and those utilities, agencies or departments that own and/or operate utilities in the vicinity of the construction work site to verify the location of, and possible interference with, the existing utilities, arrange for necessary suspension of service and make arrangements to locate and avoid interference with said utilities. Where these or unforeseen underground utilities are encountered, the location and alignment may be changed, upon approval of the Owner.

3.03 CONSTRUCTION ALONG HIGHWAYS, STREETS, AND ROADWAYS

Install water lines and appurtenances along highways, streets and roadways in accordance with the applicable regulations of and permits issued by the Georgia Department of Transportation, Rockdale County, City of Conyers with reference to construction operations, safety, traffic control, road maintenance and repair.

A. Traffic Control

1. The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient lights and other traffic control devices; shall provide qualified flag men where necessary to direct traffic; shall take all necessary precautions for the protection of the work and the safety of the public.
2. Construction traffic control devices and their installation shall be in accordance with the current Georgia "Manual of Uniform Traffic Control Devices for Streets and Highways".
3. Placement and removal of construction traffic control devices shall be coordinated with the Department of Transportation, Rockdale County and City of Conyers a minimum of 24 hours in advance.

Construction Operations: Perform all work along highways, streets and roadways to minimize interference with traffic.

1. 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.
2. 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.

3. Shaping: Reshape damaged slopes, side ditches, and ditch lines immediately after completing backfilling operations. Replace topsoil, sod and any other materials removed from shoulders.
- C. Excavated Materials: Do not place excavated material along highways, streets and roadways in a manner which obstructs traffic. Sweep all excavated material off of the pavement in a timely manner.
- D. Drainage Structures: Keep all side ditches, culverts, cross drains, and other drainage structures clear of excavated material and free to drain at all times.
- E. Maintaining Highways, Streets, Roadways and Driveways: Maintain streets, highways, roadways and driveways in suitable condition for movement of traffic.

During the time period between pavement removal and replacement, maintain highways, streets and roadways by the use of steel running plates. 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.

Furnish a front-end loader for maintaining highways, streets, and roadways. Make the front-end loader available at all times.

Repair all driveways that are cut or damaged immediately. Maintain them in a suitable condition for use until completion and final acceptance of the work.

3.04 LAYING WATER LINES

A. TRENCH EXCAVATION & BACKFILL

1. Lay water lines with Type 2 trench unless shown otherwise on the Drawings.
2. Lay water lines with 4-feet of cover below existing grade or edge of pavement, whichever is lower in elevation. Also, lay water lines with 3 feet of cover below ditch bottoms, whether parallel bar ditch or ditch crossings.
3. Bedding material shall be clean earth, free of rocks over 2-inches. Improved trenches shall utilize #57 crushed stone as bedding.
4. Trench rock is defined as any material which must be removed by drilling and blasting and occupies an original volume of at least 2 cubic yard.

5. When blasting near structures, the Contractor will employ an independent, blasting sub-consultant to monitor blasting by use of seismograph, identify areas where light charges must be used, conduct pre-blast and post-blast inspections of structures, including photos or videos, and maintain a written log.
6. Excavate buried utilities at least 500 feet in advance of pipe laying to determine exact horizontal and vertical location.
7. Trenches along right-of-ways shall be compacted to 90% maximum dry density; trenches under roadways shall be compacted to 98% maximum dry density.

B. LINE CONSTRUCTION

1. Lay pipe in the location shown or indicated on the drawings. Excavate, lay and backfill as closely together as possible. Backfill and compact the trench as soon as possible after laying and jointing. Plug end of open pipe overnight. Backfill all trenches at end of workday.
2. Excavate connection points to confirm size and configuration of new connection. Immediately report discrepancies to the Owner.
3. Connect to existing lines as shown on the drawings. The Owner shall inspect all aspects of connection. Disinfect and pressure test tapping sleeves and valves to 200 psi water pressure before attaching cutting equipment. Do not operate valves or remove plugs without specific authorization from the Owner.
4. Provide thrust restraint at all points where thrust may develop including tapping sleeves and reducers. Retainer glands, Mega-lugs and restrained joints shall be constructed in accordance with manufacturer's written instructions. Provide torque wrench to verify torque on set screws. Thrust rods shall be ASTM A 36, hot dip galvanized. Form and pour blocking and thrust collars as shown on the drawings. Thrust collars installed on existing lines shall be constructed with split Mega-lug glands torqued onto the existing pipe. New thrust collars shall be weld-on ring by pipe manufacturer.
5. All new work shall be pressure tested and disinfected in accordance with AWWA C 600 and C 651 respectively.
 - a. Test pressure shall be 200 psi measured at the lowest point for 2 hours. Provide temporary blocking, flanges, plugs or bulkheads to

ensure all new pipe, valves, and appurtenances will be pressure tested. Expel air from pipe while filling lines. Provide corporation stops at high points if hydrants or service lines are not nearby.

- b. Provide test pump, accurate pressure gage and water meter to measure pressure and leakage, if any.
- c. Maintain test pressure within 5 psi of 200 psi for 2 hours. Should pressure drop more than 5 psi at any time, restore to 200 psi including at the end of 2 hours. Leakage is defined as the cumulative amount of water registering on the water meter.
- d. Leakage cannot exceed amounts found in AWWA C 600. All visible leaks shall be repaired regardless of leakage test results. Tests shall be repeated until all sections of line pass.
- e. After successful pressure test results, apply chlorine solution to achieve a concentration of at least 25 mg/l free chlorine in new lines and services. Retain for 24 hours.
- f. Record concentration at every outlet along the line at beginning and end of 24 hour period. After 24 hours, all samples of water shall contain at least 10 mg/l free chlorine. Re-chlorinate if required results are not obtained on all samples.
- g. De-chlorinate waste water to less than 1 mg/l if flushing to surface waters or to less than 2 mg/l if discharged to ground. Treat water with SO₂ or other reducing chemicals to neutralize chlorine residual.
- h. After final flushing and before water main is placed in service, collect samples from the line and have tested for bacteriological quality in accordance with the rules of the Georgia Department of Natural Resources, EPD. A laboratory certified by the State of Georgia shall perform testing. Re-chlorinate lines until required results are obtained.

C. PROTECTION AND RESTORATION OF WORK AREA:

- 1. General: Return all items and all areas disturbed, directly or indirectly by the work under this contract, to their original condition or better, as quickly as possible after work is started.

- a. The Contractor shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a minimum.
 - b. Restoration shall follow within 1000 feet of pipe laying at all times.
 - c. Handwork, including raking and smoothing, is required to ensure removal of roots, sticks, rocks and other debris.
2. Man-Made Improvements: Protect, or remove and replace with the Owner's approval, all fences, piers, docks, walkways, mail boxes, pipe lines, drain culverts, utilities and other improvements that may be encountered in the work.
 3. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the Owner. Any such trees or shrubbery, which must be removed, shall be heeled in and replanted.
 4. 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 thirty (30) days to allow proper natural watering of the root system. Repair any damaged tree over 3-inches in diameter. All trees and brush that require removal shall be promptly and completely removed from the work site and disposed of by the Contractor. No stumps, wood piles, or trash piles will be permitted on the work site.
 5. Grassing: Replant grass removed or damaged in residential areas using the same variety of grass or sod and at the first appropriate season. Outside of residential areas, plant the entire area disturbed by the work in rye, fescue, Bermuda, clover or other suitable ground cover on completion of work in any area. In all areas, promptly establish successful stands of grass.
 6. Erosion Control: Plan excavation work to prevent erosion and the washing of soil into adjacent streams. Limit the amount of open excavation at any one time. Place spoil in the proper place and keep natural water routes open.
 7. Stream and Ditch Crossings: At all points where banks of streams or drainage ditches are disturbed by excavation or where natural vegetation is removed, carefully compact backfill and place rip rap to prevent subsequent settlement and erosion.

This requirement applies equally to construction along side a stream or drainage ditch as well as crossing stream or drainage ditch. Place rip rap a distance of not less than 10 feet upstream and 10 feet downstream from any disturbed area. Extend rip rap from 1 foot below streambed to top of bank. Place to conform with the natural slope of the stream bank.

- a. Type 3 Rip Rap: Rip Rap size shall conform to Georgia DOT Section 805.01 Stone Dumped Rip Rap, Type 3.

Embed stone rip rap by hand so as to form a compact layer at least 12-inches thick. Place rip rap in such a way that the smaller stones are not segregated but evenly distributed. Place chinking stones in the crevices between the larger stones so that a dense, well graded mass is produced.

- b. Filter Fabric: The filter fabric shall be a monofilament, polypropylene woven fabric meeting the Specifications as established by Task Force 25 for the Federal Highway Administration. The filter fabric shall have an equivalent opening size of 70 and shall be manufactured by Mirafi, Amoco, Exxon, or Nicolon.

Filter fabric shall be provided for stream and ditch crossings. The fabric shall be overlaid with sand, or crushed stone as necessary due to stream flow, to maximize the contact area between the soil and fabric. Rip rap as specified above shall be placed on top of this fabric and its covering.

8. Disposal of Rubbish: Dispose of all materials cleaned and grubbed during the construction of the project in accordance with the applicable codes and rules of the appropriate regulatory agencies, county, state and federal.

END OF SECTION 02665

ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF VENDOR

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He is _____ (owner, partner officer, representative, or agent) of _____, the Vendor that has submitted the attached RFP;

(2) He is fully informed respecting the preparation and contents of the attached RFP and of all pertinent circumstances respecting such RFP;

(3) Such RFP is genuine and is not a collusive or sham RFP;

(4) Neither the said Vendor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham RFP in connection with the Contract for which the attached RFP has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached RFP or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached RFP are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Vendor or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(Signed)

(Title)

Subscribed and Sworn to before me this _____ day of _____, 20

Name _____

Title _____

My commission expires (Date)

ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF SUB-CONTRACTOR

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He/She is _____ (owner, partner officer, representative, or agent) of _____, the sub-contractor that has submitted the attached ITB;

(2) He is fully informed respecting the preparation and contents of the attached ITB and of all pertinent circumstances respecting such ITB;

(3) Such ITB is genuine and is not a collusive or sham ITB;

(4) Neither the said sub-contractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham ITB in connection with the Contract for which the attached ITB has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached ITB or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached ITB are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the sub-contractor or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(Signed)

(Title)

Subscribed and Sworn to before me this _____ day of _____, 20 ____.

Name _____

Title _____

My commission expires (Date)

Contractor Affidavit under O.C.G.A. §13-10-91(b)(1)

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

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

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

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC
My Commission Expires:

Subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(3)

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

Federal Work Authorization User Identification Number

Date of Authorization

Name of Subcontractor

Name of Project

Name of Public Employer

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

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC
My Commission Expires:

Sub-subcontractor Affidavit under O.C.G.A. §13-10-91(b)(4)

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

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-Subcontractor

Name of Project

Name of Public Employer

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

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC
My Commission Expires:_____

**Affidavit Verifying Status
for County Public Benefit Application**

By executing this affidavit under oath, as an applicant for the award of a contract with Rockdale, County Georgia, I _____. [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity] am stating the following as required by O.C.G.A. Section 50-36-1:

1) _____ I am a United States citizen

OR

2) _____ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.*

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

Signature of Applicant:

Date

Printed Name:

* _____
Alien Registration number for non-citizens

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
_____ DAY OF _____, 20____.

Notary Public
My commission Expires:

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

**Attachment 2
REFERENCES**

Instructions: Type or clearly print all information.

Reference #1

Name of Project Owner: _____

Project Description and Location: _____

Contracted Dollar Amount: _____

Completed Dollar Amount: _____

Scheduled Completion Date: _____

Actual Completion Date: _____

Contact Person's Name: _____

Contact Phone: _____

Contact Fax: _____

Contact E-mail: _____

Reference #2

Name of Project Owner: _____

Project Description and Location: _____

Contracted Dollar Amount: _____

Completed Dollar Amount: _____

Scheduled Completion Date: _____

Actual Completion Date: _____

Contact Person's Name: _____

Contact Phone: _____

Contact Fax: _____

Contact E-mail: _____

Representative's Signature: _____ Date: _____

**Attachment 2
REFERENCES**

Instructions: Type or clearly print all information.

Reference #3

Name of Project Owner:

Project Description and Location:

Contracted Dollar Amount:

Completed Dollar Amount:

Scheduled Completion Date:

Actual Completion Date:

Contact Person's Name:

Contact Phone:

Contact Fax:

Contact E-mail:

Representative's Signature: _____ Date: _____

**Attachment 2
SUBCONTRACTORS**

Instructions: Type or clearly print all information.

NAME, ADDRESS, & PHONE NUMBER OF SUBCONTRACTOR	SUBCONTRACT WORK ITEM	DOLLAR VALUE OF SUBCONTRACT WORK
1.		
2.		
3.		
4.		
5.		
6.		

Representative's Signature: _____ Date: _____