

CONTRACT DOCUMENTS FOR:

**NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004**



ADVERTISEMENT FOR BID

**NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004**

Sealed proposals will be received by the City of Cartersville Gas System in the Gas System offices located at 155 Old Mill Road, Cartersville, Georgia 30120 until:

MONDAY, MARCH 14, 2022 AT 12:00 NOON, LOCAL TIME

for the furnishing of all materials, labor, tools, skill, equipment and incidentals unless noted otherwise for the construction of the project entitled:

**NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004**

at which time and place the proposal will be publicly opened and read aloud.

Proposals received after the designated time will not be considered.

The principal items of construction are:

35 L.F. – 2-3/8" O.D.-.154" W.T., F.B.E. Coated, ERW X42/X52 Steel Line Pipe
4,625 L.F. – 4" IPS-DR 11, P.E. 2708 Polyethylene Pipe
625 L.F. – 2" IPS-DR 11, P.E. 2708 Polyethylene Pipe
1 LS – 2" Regulating Station

Bidders shall be aware that all steel and polyethylene line pipe, valves, regulators and relief valve for the construction of this project will be furnished by the City of Cartersville as called for in the specifications.

All anticipated federal, state, or local permits and anticipated rights of way and easements required for the project have been obtained.

Bidders must subscribe to the Municipal Gas Authority of Georgia's Subscribed Regulatory Compliance Service (SRCS) and be a member in good standing with up to date Operator Qualification records in accordance with the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192 and Part 199. All covered tasks associated with the construction of this project shall be performed in accordance with the Operator Qualification Program subscribed to by the Bidder in accordance with the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192 and Part 199.

Bidders shall inform themselves of and comply with all conditions and specifications contained in the bid package, contract, related documents and State and Federal Law.

The successful bidder must comply with O.C.G.A. §36-84-1.

The successful bidder must also comply with O.C.G.A. §50-36-1 et. Seq. and O.C.G.A. §13-10-91 et. Seq. and DOL Rule 300-10-1-.02. Proposals received without a properly prepared and notarized affidavit specific to this project attesting to the requirements of the Laws and provided in the Contract Documents will not be considered.

Bidders shall inform themselves concerning Georgia Laws and comply with the same. Bidders shall hold a current utility contractor license issued by the State of Georgia Construction Industry Licensing Board and shall have in their employment on a full-time basis a person who holds a valid utility manager certificate issued by the Division of Utility Contractors.

Plans, specifications and contract documents are open to public inspection at the City of Cartersville Gas System offices located at 155 Old Mill Road, Cartersville, Georgia 30120. The Gas System offices may be contacted by telephone at 770.387.5642 or by mail at P.O. Box 1390, Cartersville, Georgia 30120.

Plans, specifications and contract documents may be obtained from the City of Cartersville Gas System upon deposit of \$100.00 per set. No refund will be made. Potential bidders may download a copy of the official plans, specifications and contract documents electronically in Acrobat PDF format at no charge by visiting the Document Center at the City of Cartersville's official website.

One Contract shall be awarded covering all work and the maximum time for completion shall not exceed 30 consecutive calendar days from the starting date specified in the Notice to Proceed. Bidders must agree to pay as liquidated damages the sum of \$200.00 per each consecutive calendar day thereafter. Due consideration will be given to delivery of materials in specifying starting date.

The successful bidder will be furnished, free of charge, three sets of plans and specifications.

Bids must be accompanied by a Certified Check or Bid Bond in an amount equal to not less than five percent (5%) of the bid to be considered.

No bid may be withdrawn after the scheduled closing time for receiving bids for a period of sixty (60) days.

The Owner reserves the right to accept or reject in whole or in part any or all bids and to waive formalities and re-advertise.

CITY OF CARTERSVILLE, GEORGIA

BY _____
Michael Dickson, Gas System Director



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SECTION 0100 – INFORMATION FOR BIDDERS

0101 RECEIPT AND OPENING OF BIDS

The CITY OF CARTERSVILLE, GEORGIA (*hereinafter called the Owner*), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at the NATURAL GAS SYSTEM OFFICES, 155 OLD MILL ROAD, CARTERSVILLE, GEORGIA 30120 until MONDAY, MARCH 14, 2022 AT 12:00 NOON, LOCAL TIME and then at said office publicly opened and read aloud. The envelope containing the bids must be sealed and designated as the bid for the construction of the project entitled:

NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities to reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual date of the opening thereof.

0102 PREPARATION OF BID

Each bid must be submitted on the prescribed form. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and numerals for unit prices and numerals only for total amounts. In case of discrepancies, words will take precedence over numerals and unit prices will take precedence over totals.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, their address, their utility contractor license number, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form. Any bid which is not properly prepared and accompanied by required certifications, plans and programs may be rejected by the Owner. Any bid not bearing the bidder's current utility contractor license number issued by the State of Georgia Construction Industry Licensing Board may not be considered by the Owner.

0100-1

0103 TELEGRAPHIC MODIFICATION

Any bidder may modify his bid by telegraphic communication at any time prior to the scheduled closing time for receipt of bids, provided such telegraphic communication is received by the Owner prior to the closing time, and, provided further, the Owner is satisfied that a written confirmation of the telegraphic modification over the signature of the bidder was mailed prior to the closing time. If written confirmation is not received within two days from the closing time, no consideration will be given to the telegraphic modification.

0104 QUALIFICATIONS OF BIDDERS

The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. By submission of his Bid, the Bidder acknowledges the right of the Owner to make such investigations, to contact references and utilize this information as a basis of determining award of the contract. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

Written information pertaining to the Bidder's qualifications may be requested by the Owner. Failure of the Bidder to provide such information within fifteen days of notification will be grounds for disqualification.

0105 BID SECURITY

Each bid must be accompanied by a certified check or bid bond prepared on the form of bid bond attached hereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of 5% of the bid. Such certified checks or bid bonds will be returned to all except the three lowest bidders within three days after the opening of bids, and the remaining certified checks or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contracts, or, if no award has been made within 60 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

0106 LIQUIDATED DAMAGES AND FAILURE TO ENTER INTO CONTRACT

The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such

failure or refusal, the security deposited with his bid.

0107 TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within 30 consecutive calendar days thereafter. Bidders must agree also to pay as liquidated damages the sum of \$200.00 per each consecutive calendar day thereafter.

0108 CONDITION OF WORK

Each bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

0109 ADDENDA AND INTERPRETATIONS

Oral interpretations of the meaning of plans, specifications or other contract documents shall not be binding over written material.

Every request for such interpretation should be in writing addressed to City of Cartersville Gas System, P.O. Box 1390, Cartersville, Georgia 30120 and to be given consideration must be received at least ten days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications, which, will be mailed to all prospective bidders. Failure of any bidder to receive any such addendum or interpretations shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

0110 SECURITY FOR FAITHFUL PERFORMANCE

Simultaneously with his delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of his contract and for the payment of all persons performing labor on the project under this contract, and furnishing materials in connection with his contract, as specified in the General Conditions included herein. 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.

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0111 POWER OF ATTORNEY

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

0112 NOTICE OF SPECIAL CONDITIONS

Attention is particularly called to those parts of the contract documents and specifications which are identified subsequently under Special Conditions.

0113 LAWS AND REGULATIONS

The bidders' attention is directed to the fact that all applicable federal and state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

0114 METHOD OF AWARD

If the Contract is awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the project. The Owner shall have complete discretion in making this determination and may consider factors such as, but not limited to the following:

- 0114.01 Unit bid prices of various items as they relate to total bid price.
- 0114.02 Proximity of the Bidder's permanent place of business as it may relate to Bidder's responsiveness in carrying out the contract.
- 0114.03 Litigation record of the Bidder.
- 0114.04 Satisfactory completion of similar projects.
- 0114.05 Resources pertaining to management, personnel and equipment.
- 0114.06 Financial history, credit rating and current resources.

0115 OBLIGATION OF BIDDER

At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (*including all addenda*). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect to his bid.

0116 CORRELATION AND INTENT OF DOCUMENTS

The contract documents are complementary, and what is called for by one shall be as binding as if called for by all.

The intent of the documents is to describe in detail all construction entailed in this project. The contractor will furnish all labor, materials, equipment, transportation, tools and appurtenances such as may be reasonably required under the terms of the contract to make each part of the work complete.

The drawings are intended to conform and agree with the specifications. If, however, discrepancies occur, the Owners will decide which shall govern. Special specifications stated on the drawings govern that particular piece of construction and have equal weight and importance as the printed specifications. In the event of any discrepancies between the drawings and the figures written thereon, the figures are to be taken as correct.

0117 CLAIMS

The Owner reserves the right to refuse to issue any voucher and to direct that no payment shall be made the contractor in the case they have reason to believe that said contractor has neglected or failed to pay any subcontractor, material dealer, worker or employee for work performed on or about the project including work as set forth in these specifications, until the Owner is satisfied that such subcontractors, material dealers, worker, or employees have been fully paid. However this provision shall not obligate the Owner to intervene in any claim.

0118 ORDER OF WORK

The work shall be started at such points as the Owner shall designate and shall be prosecuted in the order he directs. This applies to both location and items of construction.

0119 SUBCONTRACTS

If required by the Owner, the apparent Successful Bidder, and any other Bidder so requested, will within seven days after the day of the Bid opening submit to Owner a list of all Subcontractors and other persons and organizations (*including those who are to furnish the principal items of material and equipment*) proposed for those portions of the Work as to which such identification is so required. If the Owner, after due investigation, has reasonable objection to any proposed Subcontractor, other person or organization, may, before giving the Notice of Award, request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price. If the apparent Successful Bidder declines to make any such substitution, the contract shall not be awarded to such Bidder, but

his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor, other person or organization so listed and to whom the Owner does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner.

0120 TIMELY EXECUTION

When the Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by at least five unsigned counterparts of the Agreement and all other Contract Documents. Within ten days thereafter, the Contractor shall sign and deliver at least five counterparts of the Agreement to Owner with all other Contract Documents attached. Thereafter, the Owner will deliver two fully signed counterparts to Contractor.

0121 STATE LICENSING REQUIREMENTS

Bidder shall hold a current utility contractor license issued by the State of Georgia Construction Industry Licensing Board and shall bear the current license number on the outside of his bid envelope. Each bidder must also have in his employment on a full-time basis a person or persons who holds a valid utility manager certificate issued by the Division of Utility Contractors. Such utility manager shall oversee the utility contracting work of all the employees and shall be actually engaged in the performance of the business of the bidder. No portion of this contract may be constructed or erected unless a certified utility manager or certified utility foreman is present at the job site of such construction. No person may be employed as a utility foreman unless that person holds a valid utility foreman certificate issued by the Division of Utility Contractors.

Upon request of the Owner, the bidder must provide copies of his current utility contractor license and copies of the valid certification of his utility manager and, if present at the job site of such construction, utility foreman.

0122 EMPLOYEE ALCOHOL MISUSE PLAN

Bidder shall maintain and implement a written alcohol misuse plan meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 199 *Drug and alcohol testing*. A copy of the written alcohol misuse plan as called for in Section 0400 of the specifications must be submitted with the bid proposal. Proposals received without a copy of the bidder's written alcohol misuse plan will not be considered unless a copy of the bidder's current plan has been previously accepted by and is currently on file with the City of Cartersville Gas System.

0123 EMPLOYEE ANTI-DRUG PLAN

Bidder shall maintain and implement a written anti-drug plan meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 199 *Drug and alcohol testing*. A copy of the written anti-drug plan as called for in Section 0400 of the specifications must be submitted with the bid proposal. Proposals received without a copy of the bidder's written anti-drug plan will not be considered unless a copy of the bidder's current plan has been previously accepted by and is currently on file with the City of Cartersville Gas System.

0124 OPERATOR QUALIFICATION

Bidders must subscribe to the Municipal Gas Authority of Georgia's Subscribed Regulatory Compliance Service (SRCS) and be a member in good standing with up to date Operator Qualification records in accordance with the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192 and Part 199. All covered tasks associated with the construction of this project shall be performed in accordance with the Operator Qualification Program subscribed to by the Bidder in accordance with the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192 and Part 199.

0125 CONTRACTOR'S WORK AUTHORIZATION CERTIFICATION

Bidder's shall comply with O.C.G.A. 13-10-91 and DOL Rule 300-10-1-.02 whereas all qualifying contractors and sub-contractors performing work within the State of Georgia on a contract with a public employer must register and participate in a federal work authorization program. Proposals received without a properly prepared and notarized affidavit specific to this project attesting to these requirements and provided in the Contract Documents will not be considered.

0126 VERIFICATION OF LAWFUL PRESENCE WITHIN UNITED STATES

Bidders shall comply with O.C.G.A. 50-36-1 verifying the bidder's lawful presence in the United States. Proposals received without a properly prepared and notarized affidavit specific to this project attesting to this requirement and provided in the Contract Documents will not be considered.

..... END OF SECTION

SECTION 0200 – BID PROPOSAL

BID BOND
(Five Percent of Bid)

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____

of the City of _____ State of _____ and County of _____

as Principal and _____

as Surety, are hereby held and firmly bound unto the CITY OF CARTERSVILLE,
GEORGIA as Owner in the penal sum of _____

Dollars (\$_____) for the payment of which, well and truly to be made,

we hereby jointly and severally bind ourselves, our heirs, executors, administrators,
successors and assigns.

Signed this _____ day of _____, _____.

The condition of the above obligation is such that whereas the Principal has submitted to
the CITY OF CARTERSVILLE, GEORGIA a certain bid attached hereto and hereby made
a part hereof to enter into a contract in writing for the construction of the project entitled:

NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004

NOW, THEREFORE,

- (a) If said bid shall be rejected or in the alternate,
- (b) If said bid shall be accepted and the Principal shall execute and deliver a contract
in the Form of Contract attached hereto (*properly completed in accordance with
said bid*) and shall furnish a bond for his faithful performance of said contract and
for the payment of all persons performing labor or furnishing

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BID BOND
(Continued)

materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void; otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bids, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Witness As To Principal

Principal

By _____ SEAL

Witness As To Surety

Surety

Address

By _____ SEAL
Attorney-in-Fact

BID PROPOSAL

Place _____
Date _____

Proposal of _____ (*hereinafter called "Bidder"*) a contractor organized and existing under the laws of the City of _____ State of _____ and County of _____, * an individual, a corporation, or a partnership doing business as _____.

TO: CITY OF CARTERSVILLE, GEORGIA
(*Hereinafter called "Owner"*)

Gentlemen:

The Bidder in compliance with your invitation for bids for the construction of NATURAL GAS MAIN EXTENSION, TRANSWESTERN INDUSTRIAL, CARTERSVILLE PROJECT NO. SP-21-004 having examined the plans and specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the contract documents, within the time set forth herein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under this contract, of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within 30 consecutive calendar days thereafter as stipulated in the specifications. Bidder further agrees to pay as liquidated damages the sum of \$200.00 for each consecutive calendar day thereafter as hereinafter provided in the General Conditions under "Time of Completion and Liquidated Damages."

Bidder acknowledges receipt of the following addenda:

*Strike out inapplicable terms

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BID PROPOSAL

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>EST. QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
1.	2-3/8" O.D.-.154" W.T., F.B.E. Coated, ERW X42/X52 Steel Line Pipe	35	L.F.	\$ _____ Numerals	\$ _____ Numerals
<u>Words (Unit Price Only)</u>					
2.	4" IPS-DR 11, P.E. 2708 Polyethylene Pipe	4,625	L.F.	\$ _____ Numerals	\$ _____ Numerals
<u>Words (Unit Price Only)</u>					
3.	2" IPS-DR 11, P.E. 2708 Polyethylene Pipe	625	L.F.	\$ _____ Numerals	\$ _____ Numerals
<u>Words (Unit Price Only)</u>					
4.	2" Line Valve Assembly, ANSI Class 300, 740# W.P.	1	Ea.	\$ _____ Numerals	\$ _____ Numerals
<u>Words (Unit Price Only)</u>					
5.	4" Line Valve Assembly, 80# W.P.	2	Ea.	\$ _____ Numerals	\$ _____ Numerals
<u>Words (Unit Price Only)</u>					
6.	2" Line Valve Assembly, 80# W.P.	1	Ea.	\$ _____ Numerals	\$ _____ Numerals
<u>Words (Unit Price Only)</u>					

BID PROPOSAL

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>EST. QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
7.	2" Valve Tee, 700# W.P.	1	Ea.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
8.	Locate Station	3	Ea.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
9.	4"x2" Tapping Tee (PE)	1	Ea.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
10.	2" Regulating Station	1	LS	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
11.	4" Bore (Bore Only)	125	L.F.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
12.	Connection to Existing 2" Polyethylene	1	Ea.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					

BID PROPOSAL

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>EST. QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
13.	Construction Exit	1	Ea.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
14.	Silt Fence-Type B	2,560	L.F.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
15.	Removal of Silt & Erosion Control Devices	1	LS	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
16.	Temporary Grassing	9,000	S.Y.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
17.	Permanent Grassing	9,000	S.Y.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					
18.	Ashpalt Pavement Removed and Replaced	10	S.Y.	\$ _____ Numerals	\$ _____ Numerals
_____ <i>Words (Unit Price Only)</i>					

BID PROPOSAL

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>EST. QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
19.	Solid Rock Excavation	60	C.Y.	\$ _____ Numerals	\$ _____ Numerals

Words (*Unit Price Only*)

TOTAL BID PROPOSAL \$ _____
Numerals

Words

BID PROPOSAL
(Continued)

Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.

The above prices shall include all labor, materials, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

The undersigned further agrees that, in case of failure on his part to execute said contract and bond within ten (10) days after the award thereof, the check or bond accompanying his bid and the money payable thereon shall become the property of the Owner; otherwise, the check or bond accompanying this proposal shall be returned to the Bidder.

The Bidder declares that he understands that the quantities shown on the proposal are subject to adjustment by either increase or decrease, and that should the quantities of any of the items of work be increased, the undersigned proposes to do the additional work at the unit prices stated herein; and should the quantities be decreased, he also understands that payment will be made on actual quantities at the unit price bid and will make no claim for anticipated profits for any decrease in the quantities and that actual quantities will be determined upon completion of work, at which time adjustment will be made to the contract amount by direct increase or decrease.

Attached hereto is a bid bond or certified check on the _____ of _____ in the amount of _____ according to conditions under "Information For Bidders" and the provisions therein.

The full name and residence of persons or parties interested in the foregoing bids, as principals, are named as follows:

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BID PROPOSAL
(Continued)

Dated at:

The ____ day of _____, _____

Principal

By _____ *SEAL*

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City of Cartersville
G A S S Y S T E M

P.O. Box 1390 • 155 Old Mill Road • Cartersville, Georgia 30120
Telephone: 770-387-5642 • Fax: 770-387-5638 • www.cityofcartersville.org

CONTRACTOR AFFIDAVIT AND AGREEMENT

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

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

The undersigned Contractor is using and will continue to use the federal work authorization program throughout the contract period.

EEV/Basic Pilot Program* User Identification Number

BY: Authorized Officer or Agent
(Contractor Name)

Date

Title of Authorized Officer or Agent of Contractor

Printed Name of Authorized Officer or Agent

Personally appeared before the undersigned
who after being duly sworn, deposes and says that
the facts stated in the above affidavit are true.

This ____ day of _____, _____.

Notary Public: _____ SEAL

My Commission Expires: _____,

_____ County, Georgia

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

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SUBCONTRACTOR AFFIDAVIT AND AGREEMENT

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 City of Cartersville has registered with and is participating in federal work authorization program being* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned subcontractor is using and will continues to use the federal work authorization program throughout the contract period.

EEV/Basic Pilot Program* User Identification Number

BY: Authorized Officer or Agent
(Contractor Name)

Date

Title of Authorized Officer or Agent of Contractor

Printed Name of Authorized Officer or Agent

Personally appeared before the undersigned who after being duly sworn, deposes and says that the facts stated in the above affidavit are true.

This ____ day of _____, _____.

Notary Public: _____ SEAL

My Commission Expires: _____,

_____ County, Georgia

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

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**AFFIDAVIT VERIFYING STATUS FOR
CITY OF CARTERSVILLE BENEFIT APPLICATION**

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

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

[Name of business, corporation, partnership]

- 1) _____ I am a United States citizen
- 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

Personally appeared before the undersigned who after being duly sworn, deposes and says that the facts stated in the above affidavit are true.

Printed Name

* _____
Alien Registration number for non-citizens

This _____ day of _____, _____.

Notary Public: _____ SEAL

My Commission Expires: _____.

_____ County, Georgia

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

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AFFIDAVIT VERIFYING STATUS FOR CITY OF CARTERSVILLE BENEFIT APPLICATION FOR SUBCONTRACTOR

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

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

[Name of business, corporation, partnership]

- 1) _____ I am a United States citizen
- 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

Personally appeared before the undersigned who after being duly sworn, deposes and says that the facts stated in the above affidavit are true.

Printed Name

* _____
Alien Registration number for non-citizens

This _____ day of _____, _____.

Notary Public: _____ SEAL

My Commission Expires: _____.

_____ County, Georgia

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

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CONSTRUCTION PAYMENT BOND

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR *(Name and Address):*

OWNER *(Name and Address):*

CITY OF CARTERSVILLE
P.O. BOX 1390
CARTERSVILLE, GEORGIA 30120

CONSTRUCTION CONTRACT:

Date: _____

Amount: _____

Description *(Name and location):*

NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004

SURETY *(Name and Principal place of Business):*

BOND:

Date: _____

Amount: _____

Bond Number: _____

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner and for the use and protection of all subcontractors and persons supplying labor, materials, machinery, and

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CONSTRUCTION PAYMENT BOND
(Continued)

equipment in the prosecution of the Work involved in this Construction Contract.

2. With respect to the Owner, this obligation shall be null and void if the Contractor:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (*at the address described in Paragraph 11*) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
4. The Surety shall have no obligations to Claimant unless the Claimant has substantially complied with the requirements of O.C.G.A. 36-82-104 by giving the notices provided for therein. Each Claimant failing to substantially comply with said Code Section shall be deemed to have waived the protection of the payment bond. No Claimant shall file an action for payment against the Owner, Contractor or Surety, except in accordance with this section.
 - 4.1. Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (*at the address described in Paragraph 12*) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with the Contractor:
 1. Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed: and
 2. Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice

CONSTRUCTION PAYMENT BOND
(Continued)

to the Surety (*at the address described in Paragraph 12*) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5. If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.
6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 6.1. Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and that basis for challenging any amounts that are disputed.
 - 6.2. Pay or arrange for payment of any undisputed amounts.
7. The Surety's total obligation shall not exceed the amount of this Bond and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
8. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
9. The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
11. No suit or action on this bond shall be instituted by a Claimant after expiration of one (1) year from the completion of the contract and the acceptance of the work by the public entity responsible therefor.

CONSTRUCTION PAYMENT BOND
(Continued)

12. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on this Bond.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in the Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

- 15.1. Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.
- 15.2. Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 15.3. Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____

Company: _____

_____ (Corp. Seal)

_____ (Corp. Seal)

Signature: _____

Signature: _____

Name and Title: _____

Name and Title: _____

0200-14



City of Cartersville
G A S S Y S T E M

P.O. Box 1390 • 155 Old Mill Road • Cartersville, Georgia 30120
Telephone: 770-387-5642 • Fax: 770-387-5638 • www.cityofcartersville.org

CONSTRUCTION PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

OWNER (*Name and Address*):

CITY OF CARTERSVILLE
P.O. BOX 1390
CARTERSVILLE, GEORGIA 30120

CONSTRUCTION CONTRACT:

Date: _____

Amount: \$161,195.50

Description (*Name and location*):

NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004

SURETY (*Name and Principal place of Business*):

BOND:

Date: _____

Amount: _____

Bond number: _____

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as

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CONSTRUCTION PERFORMANCE BOND
(Continued)

provided in Subparagraph 3.1.

3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
 - 3.1. The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2. The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 4.1. Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or
 - 4.2. Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
 - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or
 - 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefore to the Owner; or

CONSTRUCTION PERFORMANCE BOND
(Continued)

2. Deny liability in whole or in part and notify the Owner citing reasons therefor.

5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6. After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:
 - 6.1. The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 6.2. Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
 - 6.3. Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

7. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, or successors.

8. The Surety hereby waives notice of any change, including changes of time to the Construction Contract or to related subcontracts, purchase orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform

CONSTRUCTION PERFORMANCE BOND
(Continued)

its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

- 12.1. Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
- 12.2. Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 12.3. Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.
- 12.4. Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____

Company: _____

_____ (Corp. Seal)

_____ (Corp. Seal)

Signature: _____

Signature: _____

Name and Title: _____

Name and Title: _____



CONTRACT

THIS AGREEMENT made this the _____ day of _____, _____, by and between the CITY OF CARTERSVILLE, GEORGIA, hereinafter called "Owner", and _____ a contractor doing business as an individual, a partnership, a corporation or a limited liability company* of the City of _____, County of _____, and State of _____ hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Owner, the Contractor hereby agrees to commence and complete the construction of the project entitled:

NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
CARTERSVILLE PROJECT NO. SP-21-004

hereinafter called the "Project", for the sum of _____ (\$0.00) and all extra work in connection therewith, under the terms as stated in the Contract Documents, and at his (*its or their*) own proper cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the proposal, the General Conditions of the Contract, the specifications and contract documents therefore as prepared by the Owner and as enumerated in Paragraph 2 of the General Conditions, all of which are made a part hereof and collectively constitute the Contract.

The Contractor hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within 30 consecutive calendar days thereafter as stipulated in the specifications. The Contractor further agrees to pay as liquidated damages the sum of \$200.00 for each consecutive calendar day thereafter as hereinafter provided in the General Conditions under "Time of Completion and Liquidated Damages."

*Strike out inapplicable terms.

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CONTRACT
(Continued)

The Contractor hereby further agrees to comply with the requirements of O.C.G.A. §50-36-1 et. Seq. and O.C.G.A. §13-10-91 et. Seq.

The Owner agrees to pay the Contractor in current funds for the performance of the contract, subject to additions and deductions as provided in the General Conditions of the Contract, and to make payments on account thereof as provided in "Payments to Contractor," of the General Conditions.

IN WITNESS WHEREOF, the parties to those presents have executed this contract in five (5) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

ATTEST:

CITY OF CARTERSVILLE, GEORGIA

City Clerk

By: _____ SEAL

Witness

Title

ATTEST:

CONTRACTOR

Secretary

By: _____ SEAL

Witness

Title

Secretary of Owner should attest. If Contractor is corporation, secretary should attest.

Give proper title of each person executing contract.

0200-21

CERTIFICATION OF OWNER'S ATTORNEY

I, the undersigned _____, the duly authorized and acting legal representative of the CITY OF CARTERSVILLE, GEORGIA, do hereby certify as follows:

I have examined the attached contract(s) and any applicable performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements appears on its face to have been duly executed by the proper parties thereto acting through their duly authorized representatives; that from such document said representatives appear to have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements appear to constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions, and provisions thereof.

Date: _____

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SECTION 0300 - GENERAL CONDITIONS

0301 CONTRACT AND CONTRACT DOCUMENTS

The Contract Documents as hereinafter enumerated in Paragraph 2 of the General Conditions, shall form this Contract and the provisions thereof shall be as binding upon the parties hereto as if they were fully set forth. The Table of Contents, Titles, Headings, Running Headlines and Marginal Notes contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way effect, limit or cast light on the interpretation of the provisions to which they refer.

0302 DEFINITIONS

The following terms as used in this contract are respectively defined as follows:

- 0302.01 Contractor - A person, firm or corporation with whom the contract is made by the Owner.
- 0302.02 Contract Documents - The Contract Documents are composed of the Advertisement for Bids; Instructions to Bidders; Form of Proposal, General Conditions, Supplementary Conditions, Detail Specifications, Form of Contract, Form of Bond(s), Addenda and the drawings including all changes incorporated herein before their execution.
- 0302.03 Project Representative - Refers to the authorized representative of the Owner, who is assigned to the site or any part thereof.
- 0302.04 Owner - The party of the First Part in the accompanying Contract, and meaning the CITY OF CARTERSVILLE, GEORGIA.
- 0302.05 Subcontractor - A person, firm or corporation supplying labor and materials or only labor for work at the site of the project for, and under separate contract or agreement with the contractor for performance of a part of the work at the site.
- 0302.06 Work on (at) the Project - Work to be performed at the location of the project, including the transportation of materials and supplies to or from the location of the project by employees of the Contractor and any Subcontractor.

0303 CORRELATION AND INTENT OF DOCUMENTS

The contract documents are complementary, and what is called for by any one shall be as binding as if called for by all.

0303.01 The intent of the documents is to describe all construction entailed in this project. The contractor will furnish all labor and materials, equipment, transportation, tools and appurtenances such as may be reasonably required under the terms of the contract to make each part of the work complete.

0303.02 The Drawings are intended to conform and agree with the Specifications; if, however, discrepancies occur, the Owner will decide which shall govern. Special specifications stated on the Drawings govern that particular piece of construction and have equal weight and importance as the printed specifications. In the event of any discrepancies between the Drawings and the figures written thereon, the figures are to be taken as correct.

0304 ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

0304.01 The Contractor will be furnished additional instructions and detail drawings as necessary to carry out the work included in the contract. The additional drawings and instructions thus supplied to the Contractor will coordinate with the Contract Documents and will be so prepared that they can be reasonably interpreted as part thereof. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions.

0304.02 The Contractor and the Owner will prepare jointly (a) a schedule, fixing the dates at which special detail drawings will be required, such drawings, if any, to be furnished by the Owner in accordance with said schedule, and (b) a schedule fixing the respective dates for the submission of shop drawings, the beginning of manufacture, testing and installation of materials, supplies, and equipment, and the completion of the various parts of the work; each such schedule to be subject to change from time to time in accordance with the progress of the work.

0305 SHOP OR SETTING DRAWINGS

The Contractor shall submit promptly to the Owner six (6) copies of each shop or setting drawing prepared in accordance with the schedule predetermined as aforesaid. After examination of such drawings by the Owner and the return thereof, the Contractor shall make such corrections to the drawings as have been indicated and shall furnish the Owner with two corrected copies. If requested by the Owner, the Contractor must furnish additional copies. Regardless of corrections made in or approval given to such drawings by the Owner, the Contractor shall nevertheless be responsible for the accuracy of such drawings and for their conformity to the Plans and Specifications at the time he furnishes such drawings.

0306 MATERIALS, SERVICES AND FACILITIES

0306.01 It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

0306.02 Any work necessary to be performed by the Contractor to complete the project on time after regular working hours, on Sundays or Legal Holidays, shall be performed without additional expense to the Owner.

0307 CONTRACTOR'S TITLE TO MATERIALS

No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies used by him in the work, free from all liens, claims and/or encumbrances.

0308 MATERIALS FURNISHED BY THE CONTRACTOR

All materials used in the work including equipment shall be new and unused materials of a reputable U.S. Manufacturer conforming to the applicable requirements of the Specifications, and no materials shall be used in the work until they have been approved by the Owner. The Contractor shall furnish all materials necessary except as otherwise specifically noted or specified.

0309 INSPECTION AND TESTING OF MATERIALS

All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The laboratory or inspection agency shall be selected by the Owner. Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with specifications and suitability for uses intended.

0310 "OR EQUAL" CLAUSE

Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturer's or vendor's names, trade names, catalogue numbers, etc., it is intended merely to establish a standard; and any material, article, or equipment of other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered

equally acceptable provided the material, article, or equipment so proposed, is in the opinion of the Owner, of equal substance and function. It shall not be purchased or installed by the Contractor without the Owner's written approval.

0311 PATENTS

- 0311.01 The Contractor shall hold and save the Owner and its officers, agents, servants, and employees harmless from liability of any nature or kind, including cost and expenses for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents.
- 0311.02 License and/or Royalty Fees for the use of a process which is authorized by the Owner of the project must be reasonable, and paid to the holder of the patent, or his authorized licensee, direct by the Owner and not by or through the Contractor.
- 0311.03 If the Contractor uses any design, device or materials covered by letters, patent or copyright, he shall provide for such use by suitable agreement with the Owner of such patented or copyrighted design, device or material. It is mutually agreed and understood, that, without exception, arising from the use of such design, device, or materials or in any way involved in the work, the Contractor and/or his Sureties shall indemnify and save harmless the Owner of the project from all claims for infringement by the reason of the use of such patented or copyrighted design, device or materials or any trademark or copyright in connection with work agreed to be performed under this contract and shall indemnify the Owner for any cost, expense or damage 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.

0312 SURVEYS, PERMITS AND REGULATIONS

- 0312.01 Unless otherwise expressly provided for in the Specifications, the Owner will furnish to the Contractor any control alignment and bench mark data from previous engineering surveys.
- 0312.02 The Contractor shall procure and pay all permits, licenses and approvals necessary for the execution of his contract. The Contractor shall comply with all laws, ordinances, rules, orders, and regulations relating to performance of the work, the protection of adjacent property, and the maintenance of passageways, guard fences or other protective facilities.

0313 LINES AND GRADES

- 0313.01 Bench marks and referenced horizontal control points will be shown on the plans.
- 0313.02 Construction staking will be done by the Contractor at no additional cost to the Owner.
- 0313.03 The Contractor shall furnish all necessary materials and competent personnel and shall be responsible for the adequacy and accuracy of construction staking.
- 0313.04 The Contractor shall furnish the Owner with an accurate record of the location of all underground pipes and other structures and any changes from plans during construction.

0314 CONTRACTOR'S OBLIGATIONS

- 0314.01 The Contractor shall and will, in good workmanlike manner do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required by this contract, within the time herein specified, in accordance with the plans and drawings covered by this contract, any and all supplemental plans and drawings and in accordance with the directions of the Owner as given from time to time during the progress of the work. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required. He alone shall be responsible for the safety, efficiency and adequacy of his plant, appliances, and methods, and for any damage which may result from their failure of their improper construction, maintenance or operation.
- 0314.02 The Contractor shall observe, comply with and be subject to all terms, conditions, requirements, and limitations of the Contract and specifications and shall do, carry on, and complete the entire work to the satisfaction of the Owner.

0315 CONTRACTOR'S RESPONSIBILITY

The Contractor shall be responsible for all material and work until they are finally accepted by the Owner and shall repair at his own expense any damage that they sustain before their final acceptance. The Contractor shall be responsible for all damages caused by him of whatever nature and must settle all claims arising from such damage without cost to the Owner; he shall act as defendant in, and bear the expense of each and every suit of any and every nature which may be brought

against him or the Owner, by reason of, or connected with the work under the Contract. Should any claim arise, the Owner may hold back sufficient money to meet said claims or until the Contractor has satisfied the Owner that all claims against him as the result of his work have been adjusted. He must also show that there are no claims or liens whatsoever outstanding at the completion of his contract before final payment is made.

0316 WEATHER CONDITIONS

In the event of temporary suspension of work, or during inclement weather, or whenever the Owner shall direct, the Contractor will, and will cause his subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Owner, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his subcontractors so to protect his work, such materials shall be removed and replaced at the expense of the Contractor.

0317 SAFETY PROVISIONS

0317.01 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 Sec.107 of the Contract Work Hours and Safety Standards Act (*PL 91-54*).

0317.02 The Contractor shall be responsible for the Safety, efficiency and adequacy of his plant, appliances and methods, and for any damage which may result from their failure of their improper construction, maintenance and operation.

0317.03 The Contractor shall employ, when necessary, watchmen on the work and shall, when necessary, erect and maintain such strong and suitable barriers and such light as will effectually prevent the happening of any accident to health, limb or property.

0318 USE OF EXPLOSIVES

When the use of explosives is necessary for the prosecution of the work, the contractor shall use the utmost care not to endanger life or property, and whenever directed or otherwise indicated, the number and size of the charges shall be reduced. The contractor shall notify the proper representatives of any public service corporation, any company, or any individual at least eight (8) hours in advance of any blasting which may endanger his or their property on, along, or adjacent to the site of the work. All explosives shall be stored in a secure manner and all storage places shall be marked clearly "DANGEROUS EXPLOSIVES", and shall be in care of competent watchmen at all times.

0319 SANITARY PROVISIONS

The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with the regulations of the State Board of Health and all local ordinances. No nuisance will be permitted.

0320 PUBLIC CONVENIENCE AND SAFETY

Materials stored at the site of the work shall be so placed and the work shall, at all times, be so conducted as to cause no greater obstruction to traffic than is considered permissible by the Owner. No roadway shall be closed or opened except by express permission of the Owner and the Contractor's proper notification of local fire and police departments. Precaution shall be exercised at all times for the protection of persons and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment and other hazards shall be guarded in accordance with the safety provisions of the manual of Accident Prevention in Construction, published by the Associated General Contractors of America to extent that such provisions are not in contravention of applicable laws.

0321 PROTECTION OF WORK AND PROPERTY - EMERGENCY

The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with this contract. He shall at all times safely guard and protect his own work, and that of adjacent property from damage. The Contractor shall replace or make good any such damage, loss or injury unless such be caused directly by errors contained in the contract or by the Owner, or his duly authorized representative.

0321.01 In case of an emergency which threatens loss or injury of property, and/or safety of life, the Contractor will be allowed to act, without previous instructions from the Owner in a diligent manner. He shall notify the Owner immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Owner for approval.

0321.02 Where the Contractor has not taken action but has notified the Owner of an emergency threatening injury to persons or damage to the work or any adjoining property, he shall act as instructed or authorized by the Owner.

0321.03 The amount of reimbursement claimed by the Contractor on account of any emergency action shall be determined in the manner provided in Paragraph 0327 of the General Conditions.

0322 INSPECTION

The authorized representatives and agents of the Owner shall be permitted to observe all work, materials, payrolls, records of personnel, invoices of materials and other relevant data and records.

0323 REPORTS, RECORDS AND DATA

The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed under this contract.

0324 SUPERINTENDENCE BY CONTRACTOR

At the site of the work, the Contractor shall employ a construction superintendent or foreman who shall have full authority to act for the Contractor. It is understood that such representative shall be acceptable to the Owner and shall be one who can be continued in that capacity for the particular job involved unless he ceases to be on the Contractor's payroll.

0325 COMPETENT LABOR

0325.01 The Contractor shall employ only competent and skilled workers on the project. The Contractor shall have a competent superintendent or foreman present at all times when the work is in progress and with authority to receive orders and execute the work.

0325.02 The Contractor shall, upon demand from the Owner, immediately remove any superintendent, foreman or worker whom the Owner may consider incompetent or undesirable.

0326 CONSTRUCTION EQUIPMENT

The Contractor shall provide all necessary equipment in good repair for the expeditious construction of the work. Any equipment not adapted for the work, in such repair as to be dangerous to the project or workers, shall not be used.

0327 CHANGES IN THE WORK

0327.01 Without invalidating the Agreement, the Owner may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by Change Orders. Upon receipt of a Change Order, the Contractor will proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any

Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Paragraph 0328. A Change Order signed by the Contractor indicates his agreement therewith.

- 0327.02 The Owner may authorize minor changes or alterations in the Work not involving extra cost and not inconsistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order. If the Contractor believes that any Field Order authorized by the Owner entitles him to an increase in the Contract Price or extension of Contract Time, he shall inform the Owner in writing of the amount of increased price or time associated with the Field Order, and he shall include reference to appropriate contract documents supporting the basis for the claim, and he shall not proceed with the work in question until a written decision has been rendered by the Owner.
- 0327.03 Any changes or additional work performed by the Contractor without authorization of a Change Order will not entitle him to an increase in the Contract Price or an extension of the Contract Time, except in the case of an emergency.
- 0327.04 It is the Contractor's responsibility to notify his surety of any changes affecting the general scope of the Work or change in the Contract Price and the amount of the applicable bonds shall be adjusted accordingly. The Contractor will furnish proof of such adjustment to the Owner.
- 0327.05 The term Change Order is defined as a written order to the Contractor signed by the Owner which authorizes a change in the work or the contract price or the contract time issued after execution of the Agreement.
- 0327.06 The Contract Price constitutes the total compensation payable to the Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by the Contractor shall be at his expense without changing the Contract Price, except where authorized by Change Order.

0328 CHANGE IN CONTRACT PRICE

- 0328.01 The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
- 0328.01.1 Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved.

-
- 0328.01.2 By mutual acceptance of a lump sum (*which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 0327.04.2.1*).
- 0328.01.3 On the basis of the Cost of the Work (*determined as provided in Paragraphs 0327.04 and 0327.05*) plus a Contractor's Fee for overhead and profit (*determined as provided in Paragraphs 0327.4 and 0327.05*).
- 0328.02 The term Cost of the Work means the sum of all costs necessarily incurred and paid by the Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in Paragraph 0327.03.
- 0328.02.1 Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing work after regular working hours, on Sunday or legal holidays shall be included in the above to the extent authorized by Owner.
- 0328.02.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and manufacturers' field services required in connection therewith.
- 0328.02.3 Payments made by Contractor to the Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from Subcontractors acceptable to him and shall deliver such Bids to Owner who will then determine which Bids will be accepted.
- 0328.02.4 Costs of special consultants (*including, but not limited to, engineers, architects, testing laboratories, surveyors, lawyers, and accountants*) employed for services specifically related to the Work.
- 0328.02.5 Supplemental costs including the following:
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- 0328.02.5.1 The proportion of necessary transportation, traveling and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
- 0328.02.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workmen, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of Contractor.
- 0328.02.5.3 Rentals of all construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner and the costs of transportation, loading, unloading, installation, dismantling and removal thereof - all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.
- 0328.02.5.4 Sales, use or similar taxes related to the Work, and for which Contractor is liable, imposed by any governmental authority.
- 0328.02.5.5 Deposits lost for causes other than Contractor's negligence, royalty payments and fees for permits and licenses. Costs for permits and licenses must be shown as a separate item.
- 0328.02.5.6 Losses, damages and expenses, not compensated by insurance or otherwise, sustained by Contractor in connection with the execution of, and to, the Work, provided they have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's Fee.
- 0328.02.5.7 The cost of utilities, fuel and sanitary facilities at the site.
- 0328.02.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.
- 0328.02.5.9 Cost of premiums for additional Bonds and Insurance required because of changes in the Work.
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0328.03 The term Cost of the Work shall not include any of the following:

- 0328.03.1 Payroll costs and other compensation of Contractor's officers, executives, principals (*of partnership and sole proprietorships*), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor whether at the site or in his principal or a branch office for general administration of the Work and not specifically included in the schedule referred to in subparagraph 0327.02.1 - all of which are to be considered administrative costs covered by the Contractor's Fee.
- 0328.03.2 Expenses of Contractor's principal and branch offices other than his office at the site.
- 0328.03.3 Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 0328.03.4 Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective work, disposal of materials or equipment wrongly supplied and making good any damage to property.
- 0328.03.5 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 0327.04.

0328.04 The Contractor's Fee which shall be allowed to Contractor for his overhead and profit shall be determined as follows:

- 0328.04.1 a mutually acceptable firm fixed price; or if none can be agreed upon.
- 0328.04.2 a fee based on the following percentages of the various portions of the Cost of the Work.
 - 0328.04.2.1 for costs incurred under paragraphs 0327.02.1 and 0328.02.2, the Contractor's Fee shall be fifteen percent.
 - 0328.04.2.2 for costs incurred under paragraph 0328.02.3, the Contractor's Fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a Fee, the maximum allowable to Contractor on account of overhead and profit of all Subcontractors shall be fifteen percent:

0328.04.2.3 no fee shall be payable on the basis of costs itemized under

paragraphs 0327.02.4, 0327.02.5, and 0327.03;

0328.04.2.4 the amount of credit to be allowed by Contractor to Owner for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in Contractor's Fee by an amount equal to ten percent of the net decrease; and

0328.04.2.5 when both additions and credits are involved in any one change, the adjustment in Contractor's Fee shall be computed on the basis of the net change in accordance with paragraphs 0327.04.2.1 through 0328.04.2.4, inclusive.

0328.05 Whenever the cost of any Work is to be determined pursuant to Paragraph 0327.02 or 0327.03. Contractor will submit in form acceptable to Owner an itemized cost breakdown together with supporting data.

0329 CHANGE OF THE CONTRACT TIME

The Contract Time may only be changed by a Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to Owner within ten days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five days of such occurrence unless Owner allows an additional period of time to ascertain more accurate data. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.

0329.01 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if he makes a claim therefor as provided in Paragraph 0327.01. Such delays shall include, but not be restricted to, acts or neglect by any separate contractor employed by Owner, fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.

0329.02 All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Paragraph 0328 shall not exclude recovery for damages (*including compensation for additional professional services*) for delay by either party.

0330 CORRECTION OF WORK

All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be at all times and places subject to the review of the Owner who shall be the final judge of the quality and suitability of the work, material, processes of manufacture and methods of construction for the purposed for which they are used. Should they fail too meet

his approval, they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Contractor at his own expense. Rejected material shall immediately be removed from the site. If, in the opinion of the Engineer, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract Documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount as in the judgment of the Engineer shall be equitable. It is not intended that the Engineer should be liable for the Contractor's performance of the work nor for safety during construction.

0331 EXISTING UNDERGROUND UTILITIES AND STRUCTURES

- 0331.01 The Owners and/or operators of private or public utilities shall have access to such utility at all times, for the installation, maintenance, adjustment, repair and operation of said utility. No extra compensation will be allowed because of the delay or interference caused by such work.
- 0331.02 In preparing the plan drawings there has not been an all-inclusive search for identifying existing underground utilities. Therefore any information pertaining to existing utilities is provided only for preliminary purposes and implies no guarantee as to accuracy or completeness. Prior to blasting or excavation the Contractor is responsible for contacting all utility owners in the area. Specifically, the Contractor shall contact the "one-call notification center" 72 hours in advance of blasting or excavation as required by Georgia Law.
- 0331.03 Wherever existing utilities are encountered which conflict in actual position and location with the proposed work, the Contractor shall promptly notify the Owner for resolution of the conflict.
- 0331.04 Temporary supports, beams or bridging for utilities shall be left in place during backfill operations unless otherwise directed by the Owner.
- 0331.05 All costs in connection with supporting, protecting, relocating, removal, repair of damage, restoration and other work on affected existing utilities and other existing underground structures whether or not they are shown on the plans, not borne by the Owner or Owners of the utilities, shall be borne by the Contractor. No separate payment will be made for any work performed as herein above specified unless otherwise stated in the proposal as a separate payment item. All costs in connection therewith shall be included in the contract price for the item to which the work pertains.
- 0331.06 The Contractor shall be solely and directly responsible to the Owner and/or other operator of such utility properties for any damage, injury, expense, loss, inconvenience or delay, or for any suits, actions, claims of any

character brought on account of any injuries or damages which may result from the carrying out of the work.

0332 SUBSURFACE CONDITIONS FOUND DIFFERENT

Should the Contractor encounter sub-surface and/or latent conditions at the site materially differing from those shown on the plans or indicated in the specifications, he shall immediately give notice to the Owner of such conditions before they are disturbed. The Owner will thereupon promptly investigate the conditions, and if he finds that they materially differ from those shown on the plans or indicated in the specifications, he will at once make such changes in the plans and/or specifications as he may find necessary, any increase or decrease of cost resulting from such changes to be adjusted in the manner provided in Paragraph 0326 of the General Conditions.

0333 CLAIMS FOR EXTRA WORK

No claim for extra work or cost shall be allowed unless the same was one in pursuance of a written order of the Owner and approved by the Owner, as aforesaid, and the claim presented with the first estimate after the changed or extra work is done. When work is performed under the terms of Subparagraph 0326 of the General Conditions, the Contractor shall furnish satisfactory bills, payrolls and vouchers covering all items of cost and when requested by the Owner, give the Owner access to accounts relating thereto.

0334 RIGHT OF THE OWNER TO TERMINATE CONTRACT

In the event that any of the provisions of this contract are violated by the Contractor or by any of his Subcontractors, the Owner may serve written notice upon the Contractor and the surety of its intention to terminate the contract, such notices to contain the reasons for such intention to terminate the contract, and unless within ten (10) days after the serving of such notice upon the Contractor such violation or delay shall cease and satisfactory arrangement of correction be made, the contract shall, upon the expiration of said ten (10) days, cease and terminate. In the event of any such termination the Owner shall immediately serve notice thereof upon the Surety and the Contractor and the Surety shall have the right to take over and perform the contract; provided, however, that if the Surety does not commence performance thereof within ten (10) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion by contract or by force account for the account and at the expense of the Contractor and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances and plant as may be on the site of the work and necessary therefor.

0335 CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES

Immediately after execution and delivery of the contract, and before the first partial payment is made, the Contractor shall deliver to the Owner an estimated 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 become due the Contractor in accordance with the progress schedule. The Contractor shall also furnish on forms to be supplied by the Owner, (a) a detailed estimate giving a complete breakdown of the contract price and (b) periodic itemized estimate of work done for the purpose of making partial payments thereon. The costs employed in making up any of these schedules will be used only for determining the basis of partial payments and will not be considered as fixing a basis for additions to or deductions from the contract price.

0336 PAYMENTS TO CONTRACTORS

0336.01 No later than thirty (30) days after submittal of a progress payment request the Owner shall make a progress payment to the Contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under this contract, but to insure the proper performance of this contract, the Owner shall retain ten percent (10%) of the amount of each estimate until final completion and acceptance of all work covered by this contract. Provided, that the Contractor shall submit his estimate not later than the first day of the month; provided, further, that the Owner at any time after fifty percent (50%) of the work has been completed, if it finds that satisfactory progress is being made, *may* reduce the retainage to 5%.

0336.02 Where a project is under the jurisdiction of a Force Account Agreement between the Owner and the Georgia Department of Transportation, the Contractor shall maintain a *daily* report of the amount of completed work as shown in the bid proposal. A copy of the accepted report appears in Appendix A at the end of this section and may be reproduced for use on this project. The Contractor's representative shall certify by signature that the report is accurate on behalf of the Contractor for the Owner (*shown as "Utility" on the report*). The Project Engineer representing the Georgia Department of Transportation shall certify by signature that the report is accurate for the "State". A copy of each days report properly certified as required by this part shall accompany each progress payment request by the Contractor. The quantity of work completed shown on the progress payment request *must* be supported by an equal quantity shown on the daily report for that progress payment period. Payment requested for quantities of work not supported by a properly certified daily report(s) may *not* be

recommended for payment by the Owner.

- 0336.03 In preparing estimates, the material delivered on the site and preparatory work done may be taken into consideration. Where a project is under the jurisdiction of a Force Account Agreement between the Owner and the Georgia Department of Transportation, however, material delivered on the site and preparatory work done may *not* be taken into consideration.
- 0336.04 All material and work covered by partial payments made shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Owner to require the fulfillment of all of the terms of the contract.
- 0336.05 The Contractor agrees that he will indemnify and save the Owner harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary incurred in the furtherance of the performance of this contract. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If the Contractor fails to do so, then the Owner may, after having served written notice on the said Contractor, either pay unpaid bills, of which the Owner has written notice, direct, or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of this contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor or his Surety. In paying any unpaid bills of the Contractor, the Owner shall be deemed the agent of the Contractor, and any payment so made by the Owner shall be considered as a payment made under the contract by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.
- 0336.06 If at any time the Owner shall determine that the amount of work completed at that time is lagging behind the expired contract time by more than 20 percent, the Owner may determine that the Contractor is not faithfully performing on the contract and therefore the Owner may elect to withhold all monies and refrain from making any additional payments to the Contractor until such time as the Owner determines the work to be progressing satisfactorily.

0337 ACCEPTANCE AND FINAL PAYMENT

When the project provided for under this contract shall have been completed by the Contractor, and all parts of the work have been approved by the Owner according to the contract, the Owner shall, within ten (10) days unless otherwise provided, make final inspection and advise the Contractor as to preparing a final estimate, showing the value of work as soon as the necessary measurements and computations can be made, all prior certificates or estimates upon which payments have been being made are approximately only, and subject to correction in the final payment. The amount of the final estimates, less any sums that may have been deducted or retained under the provisions of this contract, will be paid to the Contractor within sixty (60) days after approval by the Owner, provided that the contractor has properly maintained and operated the project as specified under these specifications, and provided, that he has furnished to the Owner a sworn affidavit to the effect that all bills are paid and no suits are pending in connection with the work done or labor and material furnished under this contract. A sample affidavit appears at the end of this section to be considered as an example of an acceptable affidavit.

0338 PAYMENTS BY CONTRACTORS

The Contractor shall pay (a) for all transportation and utility services not later than the 20th day of the calendar month following that in which such services are rendered, (b) for all materials, tools, and other expendable equipment to the extent of 90 percent of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools and equipment are delivered at the site of the project, and the balance of the cost thereof not later than the 30th day following the completion of that part of the work in or on which such materials, tools and equipment are incorporated or used, and (c) to each of his Subcontractors, not later than the 5th day following each payment to the Contractor, the respective amounts allowed the Contractor on account of the work performed by his Subcontractors to the extent of each Subcontractor's interest therein.

0339 CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

0339.01 The Contractor shall not commence work under this Contract until he has obtained all the insurance required under this paragraph and such insurance has been reviewed by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until the insurance has been so obtained and reviewed.

0339.01.1 Contractor's Liability Insurance: Contractor shall purchase and maintain such comprehensive general liability and other insurance as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the work and Contractor's

other obligations under the Contract Documents, whether such performance is indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

- 0339.01.1.1 Claims under workers' or workmen's compensation, disability benefits and other similar employees benefit acts;
- 0339.01.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
- 0339.01.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
- 0339.01.1.4 Claims for damages insured by personal injury liability coverage which are sustained (i) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or (ii) by any other person for any other reason.
- 0339.01.1.5 Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and
- 0339.01.1.6 Claims for damages because of bodily injury or death of any person or property damage arising out of the Ownership, maintenance or use of any motor vehicle.

The insurance required by this paragraph shall include the specific coverages and be written for not less than the limits of liability and coverages provided in these specifications, or required by law, whichever is greater. The comprehensive general liability insurance shall include completed operations insurance. All such insurance shall contain a provision that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to Owner and Engineer. All such insurance shall remain in effect until final payment and at all times thereafter when Contractor may be correcting, removing or replacing defective work. In addition, Contractor shall maintain such completed operations insurance for at least one year after final payment and furnish Owner with evidence of continuation of such insurance at final payment. Renewal certificates shall be sent to the Owner 30 days prior to the expiration date of any policy required herein.

0339.02 Contractual Liability Insurance: The comprehensive general liability insurance required by paragraph 0339.01.1 will include contractual liability

insurance applicable to Contractor's obligations under separate contract and subcontracting.

- 0339.03 Unless otherwise provided in these Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the work at the site to the full insurable value thereof (*subject to such deductible amounts as may be provided in these supplementary conditions or required by law*). This insurance shall include the interest of Owner, Contractor and Subcontractors in the work, shall provide "all risk" insurance for physical loss and damage including but not limited to fire, lightning, windstorms, hail, smoke, explosion, riot, aircraft, vehicles, falling objects, flood, earthquake, theft, vandalism, malicious mischief, collapse, water damage and other perils, and shall include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (*including fees and charges of engineers, architects, attorneys and other professionals*). If not covered under the "all risk" insurance or otherwise provided in these Supplementary Conditions, Contractor shall purchase and maintain similar property insurance on portions of the work stored on and off the site or in transit when such portions of the work are to be included in an Application for Payment. The policies of insurance required to be purchased and maintained by Contractor in accordance with paragraphs c and d shall contain a provision that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to the Owner.
- 0339.04 Contractor shall purchase and maintain such boiler and machinery insurance as may be required by these Supplementary Conditions or by law. This insurance shall include the interest of Owners, Contractor and Subcontractors in the work and shall provide coverage for all installed and functional mechanical equipment for the full replacement value of the equipment.
- 0339.05 Owner shall not be responsible for purchasing and maintaining any property insurance to protect the interests of Contractor or Subcontractors in the work to the extent of any deductible amounts that are provided in the supplemental conditions. If Contractor wishes property insurance coverage within the limits of such amounts, Contractor may purchase and maintain it at his own expense.
- 0339.06 If Owner has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by Contractor in accordance with paragraphs 0339.01.1. through 0339.01.1.4., Owner will notify Contractor thereof within ten days of the date of delivery of such certificates, to Owner. Contractor will provide to the Owner such additional

information in respect of insurance provided by him as Owner may reasonably request. The right of the Owner to review and comment on Certificates of Insurance is not intended to relieve the Contractor of his responsibility to provide insurance coverage as specified nor to relieve the Contractor of his liability for any claims which might arise.

0339.07 Partial Utilization - Property Insurance: If Owner finds it necessary to occupy or use a portion or portions of the work prior to Substantial Completion of all the work, such use or occupancy may be accomplished provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or lapse on account of any such partial use or occupancy.

0339.08 The Contractor shall carry and maintain Combined Excess Liability (*Umbrella*) Insurance for a limit of not less than the following:

Each Occurrence:	\$3,000,000
Aggregate:	\$3,000,000

0339.09 The limits of liability for the insurance required by paragraph 36.1.1. of the General Conditions shall provide coverage for not less than the following amounts or greater where required by law:

For claims under paragraph 0339.01.1.1. and 0339.01.1.2., Worker's Compensation:

State	Statutory
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Federal	Statutory
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Employer's Liability – Each Accident:	\$1,000,000
Employer's Liability – Disease – Each Employee:	\$1,000,000
Employer's Liability – Disease – Policy Limit:	\$1,000,000

If the Contractor chooses to maintain a policy with a maximum of the state mandated amounts of \$100,000 per accident, \$100,000 for disease per employee and a disease policy limit of \$500,000, the Contract required minimum of \$1,000,000 can be achieved by the excess liability policy required by paragraph 0338.08 above.

For claims under 0339.01.1.1. through 0339.01.1.5. (*General Liability*),

General Liability Provided Per Occurrence

Each Occurrence (Bodily and Property Damage Included): \$1,000,000

Fire Damage (*Any One Fire*): \$50,000

Medical Expense (*Any One Person*): \$5,000

Personal and Adv Injury, With Employment
Exclusion Deleted: \$1,000,000

General Aggregate (*Per Project*): \$2,000,000

Products and Completed Operations Aggregate: \$1,000,000

Notes: Property Damage Liability Insurance will provide explosion, collapse and underground hazard coverages where applicable. Each detonation of blasting shall be considered a single occurrence. General Liability shall include Contractual Liability as stipulated in Paragraph 0339.02. above.

For claims under 0339.01.1.6., Comprehensive Automobile Liability:

Combined Single Limit Per Occurrence, For Any and
All Autos, Including Bodily Injury and Property Damage: \$1,000,000

0339.10 Scope of Insurance and Special Hazards - The amounts stated in subparagraph 0338.09. above are minimum amounts of insurance to be carried. The Contractor shall carry such additional insurance as may be required to provide adequate protection of the Contractor and his Subcontractors, respectively, against any and all damage claims which may arise from operations under this Contract, whether such operations be by the insured or by anyone directly or indirectly employed by his and, also, against any of the special hazards which may be encountered in the performance of this Contract.

Where the scope of work involves crossing of a railway and/or railway rights-of-way, Contractor shall be required to furnish railway with a Railroad Protective Liability Insurance Policy naming railway as the named insured and issued to the Contractor with a combined single limit of \$2,000,000 for all damages arising out of bodily injury, death, property damage liability and physical damage to property liability per occurrence with an aggregate limit of \$6,000,000.

Where the scope of work involves work or construction within right-of-ways or easements of Georgia Power Company, Contractor shall be required to furnish Georgia Power Company liability insurance coverage naming

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Georgia Power Company as the name insured and issued to the Contractor with an amount of no less than \$2,000,000 per occurrence for bodily injury and property damage which arise out of or result from the Contractor's operations under this Contract.

0339.11 Certificate Holder should read:

CITY OF CARTERSVILLE
P.O. BOX 1390
CARTERSVILLE, GEORGIA 30120

0339.12 Insurance company must have an A.M. Best Rating of A-6 or higher. Insurance company must be licensed to do business by the Georgia Secretary of State. Insurance company must be authorized to do business in the State of Georgia by the Georgia Insurance Department.

0340 CONTRACT SECURITY

The Contractor shall furnish a Construction Performance Bond in an amount at least equal to one hundred percent (100%) of the contract prices as security for the faithful performance of this contract and also a Construction Payment Bond in an amount at least equal to one hundred percent (100%) of the contract price or in a penal sum not less than that prescribed by State, Territorial or local law, as security for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract. The performance bond and the payment bond may be in one or in separate instruments in accordance with local law.

0341 ADDITIONAL OR SUBSTITUTE BOND

If at any time the Owner for justifiable cause shall be or become dissatisfied with any Surety or Sureties, then upon the Construction Performance or Payment Bonds, the Contractor shall within five (5) 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 or Sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished such an acceptable bond to the Owner.

0342 LIEN

Neither the final payment nor any part of the retained percentage will become due until the Contractor, if required, shall furnish the Owner a complete release from any liens which may arise out of this contract, or receipts in full in lieu thereof, and if required in either case, an affidavit that insofar as he has knowledge or

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information, the release and receipts include all materials, for which a lien might be filed. The Contractor may, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner to indemnify it against any lien. If a lien shall remain unsatisfied after all payments are made, then the Contractor shall refund to the Owner all monies which the latter may be compelled to pay in discharging such lien, including all incidental costs and attorney's fees.

0343 ASSIGNMENTS

The Contractor shall not assign the whole or any part of this contract or any money due to or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or part of any money 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 assigned in and to any money 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 in this contract.

0344 MUTUAL RESPONSIBILITY OF CONTRACTORS

If through acts of neglect on the part of the Contractor, any other Contractor or subcontractor, shall suffer loss or damage on the work, the Contractor agrees to settle with such other Contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other Contractor or subcontractor shall assert any claim against the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

0345 COORDINATION WITH OTHER CONTRACTORS

The Contractor shall coordinate his operations with those of other contractors. Cooperation will be required in the arrangement for the storage of materials and in the detailed execution of the work. The Contractor, including his Subcontractors shall keep informed of the progress and the detail work of other Contractors and shall notify the Owner immediately of lack of progress or defective workmanship on the part of other contractors. Failure of a Contractor to keep informed of the work progressing on the site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by him of the status of the work as being satisfactory for proper coordination with his own work.

0346 SUBCONTRACTING

The Contractor shall utilize the service of specialty subcontractor on those parts of the work which, under normal contracting practices, are performed by specialty Subcontractors. Provided - that if the Owner shall determine that the specialty work

in question has been customarily performed by the Contractor's own organization and that such organization is presently competent to perform such work, the Contractor shall be permitted to do so. Provided, further - that if the Owner shall determine that the performance of any specialty work by specialty Subcontractors will result in materially increased costs or inordinate delays, the requirements of this paragraph shall not apply.

0346.01 The Contractor shall not be allowed to award work to any subcontractor prior to written approval of the Owner, which approval will not be given until the Contractor submits to the Owner, a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the Owner may require.

0346.02 The Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

0346.03 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.

0346.04 Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the Owner.

0347 USE OF PREMISES AND REMOVAL OF DEBRIS

The Contractor expressly undertakes at his own expense:

0347.01 To take every precaution against injuries to persons or damage to property;

0347.02 To store his apparatus, materials, supplies and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or the work of any other Contractors;

0347.03 To place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work.

0347.04 To clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the work shall present a neat, orderly and workmanlike appearance;

0347.05 Before final payment to remove all surplus material, false work, temporary structures, including foundations thereof, plant of any description and debris of every nature resulting from his operations, and to put the site in a neat orderly condition;

0347.06 To effect all cutting, fitting or patching of his work required to make the same to conform to the plans and specifications and, except with the consent of the Engineer, not to cut or otherwise alter the work of any other Contractor.

0348 QUANTITIES OF ESTIMATE

Wherever the estimated quantities of work to be done and materials to be furnished under this contract are shown in any of the documents including the proposal, they are given for use in comparing bids and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the work contemplated by this Contract, and such increase or diminution shall in no way vitiate this Contract, nor shall any such increase or diminution give cause for claims or liability for damages.

0349 RIGHTS-OF-WAY AND SUSPENSION OF WORK

The Owner shall furnish all land and rights-of-way necessary for the carrying out of this Contract and the completion of the work herein contemplated and will use due diligence in acquiring said land and rights-of-way as speedily as possible. But it is possible that all lands and rights-of-way may not be obtained as herein contemplated before construction begins, in which event the Contractor shall begin his work upon such land and rights-of-way as the Owner may have previously acquired, and no claim for damages whatsoever will be allowed by reason of the delay in obtaining the remaining lands and rights-of-way. Should the Owner be prevented or enjoined from proceeding with the work, or from authorizing its prosecution, either before or after the commencement, by reason of any litigation, or by reason of its inability to procure any lands or rights-of-way for the said work, the Contractor shall not be entitled to make or assert claim for damage by reason of said delay, or, to withdraw from the contract except by consent of the Owner, but time for completion of the work will be extended to such time as the Owner determines will compensate for the time lost by such delay, such determination to be set forth in writing.

0350 GUARANTY

0350.01 All structures erected under this contract shall be fully guaranteed by the Contractor for a period of one year from the date of final inspection and acceptance by the Owner. This guarantee shall cover any and all defects in workmanship or materials that may develop in this specified time, and any

failure in such workmanship or materials shall be repaired or replaced to the satisfaction of the Owner by the Contractor at his own expense.

0350.02 All equipment of whatever nature incorporated in the work covered by this contract shall carry the same guarantee as outlined above for construction. Failure of any equipment or part thereof within the specified time shall be corrected to the satisfaction of the Owner, at the Contractor's expense. This guarantee does not apply to manufacturing defects of equipment furnished by the Owner.

0350.03 It is the intent of these specifications that all pipe lines, both underground and above ground, together with all appurtenances attached thereto, under this contract, shall be classified as structures.

0350.04 Neither the final certificate of payment nor any provision in the contract documents nor partial or entire occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

0351 CONFLICTING CONDITIONS

Any provisions in any of the contract documents which may be in conflict or inconsistent with any of the paragraphs in these General Conditions shall be void to the extent of such conflict or inconsistency.

0352 NOTICE AND SERVICE THEREOF

Any notice to any Contractor from the Owner relative to any part of this contract shall be in writing and considered delivered and the service thereof completed, when said notice is posted, by certified or registered mail, to the said Contractor at his last given address, or delivered in person to the said Contractor or his authorized representative on the work.

0353 PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the contract shall forthwith be physically amended to make such insertion or correction.

0354 SUSPENSION OF WORK

Should the Owner be prevented or enjoined from proceeding with work either before or after the start of construction by reason of any litigation or other reason beyond the control of the Owner, the Contractor shall not be entitled to make or assert claim for damage by reason of said delay; but time for completion of the work will be extended to such reasonable time as the Owner may determine will compensate for time lost by such delay with such determination to be set forth in writing.

0355 MAINTENANCE OPERATIONS

The Contractor shall schedule and execute his work so as to avoid interruption of existing services or operations, public or private. The Contractor will use every precaution to prevent damage of any existing facility, and in the event of damage will, at no expense to the Owner, repair and otherwise make good any damage to facilities resulting from his operations in connection with the contract. The Contractor will take whatever measures necessary to accurately determine the exact location of existing underground facilities prior to commencing construction.

0356 MAINTENANCE

The Contractor will be required to maintain all work done by him in a first-class condition for sixty (60) days after the same has been completed as a whole, and the Owner has notified the Contractor in writing that the work has been finished to their satisfaction. The retained percentage will not be due or payable to the Contractor until the 60-day maintenance period is up.

0357 PROTECTION AND RESTORATION OF PROPERTY

0357.01 The Contractor shall not enter upon private property for any purpose without first obtaining permission, and he shall use every precaution necessary to prevent damage or injury to any public or private property, trees, fences, monuments, underground structures, etc., on and adjacent to the site of the work. He shall protect carefully, from disturbance or damage, all land monuments and property marks until an authorized agent has witnessed or otherwise referenced their location, and shall not remove them until directed.

0357.02 Except as specifically provided in the Contract Documents, the Contractor shall not do any work that would affect any railway track, pipeline, telephone, telegraph, or electric or transmission line, or other structure nor enter upon the right-of-way or other lands appurtenant thereto, until authority therefore has been secured from the proper parties. The Contractor shall not be entitled to any extension of time or any extra

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compensation on account of any postponement, interference, or delay resulting from his requirement, except as specifically provided in the contract.

0357.03 The Contractor shall be responsible for all damage or injury to property of any character resulting from any act, omission, neglect, or misconduct in his manner or method of executing said work, or due to his nonexecution of said work, or at any time due to defective work or materials, and he shall not be released from said responsibility until the work shall have been completed and accepted.

0357.04 When or where any direct or indirect damage or injury is done to public or private property by, or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof on the part of the Contractor, he shall restore at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring, as may be directed, or he shall make good such damage or injury in an acceptable manner.

0358 RESPONSIBILITY FOR DAMAGE CLAIMS

The Contractor shall be responsible for all injury or damage of any kind resulting from his work, to persons or property. The Contractor hereby assumes the obligation to indemnify and save harmless the Owner including associates, agents and representatives, from every expense, liability, or payment arising out of or through injury to any person or persons including death and loss of services, or damage to property, regardless of who may be the Owner of the property, suffered through any cause whatsoever in the construction work involved in the contract and to defend on their behalf any suit brought against them arising from any such cause.

0359 USE AND OCCUPANCY PRIOR TO ACCEPTANCE BY OWNER

0359.01 The Contractor agrees to the use and occupancy of a portion or unit of the project before formal acceptance by the Owner, provided the Owner:

0359.01.1 Secures written consent of the Contractor except in the event, in the opinion of the Owner, the Contractor is chargeable with unwarranted delay in completing the contract requirements;

0359.01.2 Secures consent of the Surety;

0359.01.3 Secures endorsement from the insurance carrier(s) permitting occupancy of the building or use of the project during the remaining period of construction; or

0359.01.4 When the project consists of more than one building, and one of the buildings is occupied, secures permanent fire and extended coverage insurance, including a permit from the insurance carrier to complete construction.

0360 INTEREST OF FEDERAL, STATE OR LOCAL OFFICIALS

No Federal, State or Local official shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

0361 OTHER PROHIBITED INTERESTS

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

0362 USE OF CHEMICALS

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either E.P.A., or U.S.D.A. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

0363 MAINTENANCE OF TRAFFIC

0363.01 Traffic is to be maintained on all roads and streets which must be crossed by lines. If the open-cut method is used, two separate cuts must be made leaving one lane open to traffic at all times.

0363.02 The Contractor shall notify the Owner and the appropriate department of transportation prior to performing any work which disrupts normal flow of traffic, and shall utilize appropriate warning signs, flagmen and other procedures necessary to ensure safety and minimize inconvenience to the public.

0364 SPECIAL HAZARDS

The Contractor's and his Subcontractor's Public Liability and Property Damage Insurance shall provide adequate protection against the following special hazards: Excavation, shoring, underpinning, blasting, and explosion to the extent to which such risks are present.

0365 OWNER'S DIRECTIONS REGARDING WORK PARTIALLY COMPLETED

The Owner may direct that any section or part of the project considered to be in serviceable condition be placed in use or operation, even though not entirely completed. Such use or operation shall not be held to be an acceptance of the work, or section thereof, so placed in operation, or a waiver of any of the provisions of the Contract Documents.

0366 OWNER'S EXAMINATION OF WORK COMPLETED

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

0367 EROSION AND SEDIMENT CONTROL

Care shall be exercised in grading operations to minimize erosion. Temporary sediment control structures will be erected at the Owner's direction where necessary. Also Contractor shall comply with the State of Georgia and any applicable local Regulations for erosion control.

0368 ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE

The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor for all things done or furnished in connection with this work and for every act and neglect of the Owner and others relating to or arising out of this work. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this contract or the Construction Performance and Payment Bond.

0369 OWNER'S RIGHT TO SUSPEND WORK

The Owner shall have the authority to suspend the work, wholly or in part as he may deem necessary because of conditions unsuitable for proper prosecution of the work or failure on the part of the Contractor to carry out the provisions or to meet the specified requirements. The Contractor shall not suspend operations without the Owner's permission.

0370 TIME FOR COMPLETION AND LIQUIDATED DAMAGES

0370.01 It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning and the time for completion as specified in the contract of the work to be done hereunder are ESSENTIAL CONDITIONS of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the "NOTICE TO PROCEED."

0370.02 The Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

0370.03 If the said Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the amount specified in the contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the contract for completing the work.

0370.04 The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount of damages which the Owner would sustain and said amount shall be retained from time to time by the Owner from current periodical estimates.

0370.05 It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where, under the contract, an additional time is allowed for the completion of any work,

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the new time limit fixed by such extension shall be of the essence of this contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the Owner determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the Owner; provided, further, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:

0370.05.1 To any preference, priority or allocation order duly issued by the Government;

0370.05.2 To unforeseeable cause 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 severe weather; and

0370.05.3 To any delays of Subcontractors or suppliers occasioned by any of the causes specified in subsections 0369.05.1 and 0369.05.2 of this article.

0370.06 Provided, further, that the Contractor shall, within ten (10) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the contract, notify the Owner, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay, and notify the Contractor within a reasonable time of its decision in this matter.

..... END OF SECTION

SECTION 0300: APPENDIX A

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City of Cartersville
G A S S Y S T E M

P.O. Box 1390 • 155 Old Mill Road • Cartersville, Georgia 30120
Telephone: 770-387-5642 • Fax: 770-387-5638 • www.cityofcartersville.org

AFFIDAVIT FOR FINAL PAYMENT AND RELEASE OF LIENS

STATE OF: _____

COUNTY OF: _____

FROM: _____ (Contractor)

TO: CITY OF CARTERSVILLE, GEORGIA (Owner)

RE: Contract entered into the ____ day of _____, _____ between the above mentioned parties for the construction of the project entitled NATURAL GAS MAIN EXTENSION, TRANSWESTERN INDUSTRIAL, CARTERSVILLE PROJECT NO. SP-21-004.

KNOW ALL MEN BY THESE PRESENTS:

1. The undersigned hereby certifies that all work required under the above Contract has been performed in accordance with the terms thereof, that all material-men, sub-contractors, mechanics, and laborers have been paid and satisfied in full and that there are not outstanding claims of any character arising out of the performance of the Contract which have been paid and satisfied in full.
2. The undersigned further certifies that to the best of their knowledge and belief there are not unsatisfied claims for damages resulting from injury or death to any employees, sub-contractors, or the public at large arising out of the performance of the Contract or any suits or claims for any other damage of any kind, nature or description on which might constitute a lien upon the property of the Owner.
3. The undersigned makes this final affidavit as provided by the Contract and agrees that acceptance of final payment shall constitute full settlement of all claims against the Owner arising under or by virtue of the Contract.
4. IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument this day of _____, _____.

SIGNED: _____ (SEAL)

BY: _____

TITLE: _____

Personally appeared before the undersigned who after being duly sworn, deposes and says that the facts stated in the above affidavit are true.

This ____ day of _____, _____.

Notary Public: _____ SEAL

My Commission Expires: _____,

_____ County, Georgia

SECTION 0400 – CERTIFICATION, LICENSE AND TEST REQUIREMENTS

0401 GENERAL

Materials furnished for all construction shall be new and unused and shall be subject to test at all times by the Owner. Any samples or specimens selected for test shall be furnished at no cost to the Owner and the costs of all such tests shall be borne by the Contractor. All tests shall be made by a recognized testing laboratory acceptable to the Owner. The following minimum requirements shall be furnished to the Owner prior to commencing any work associated with this project.

0402 WELDING PROCEDURES

All welding shall be completed in accordance with the Municipal Gas Authority of Georgia's Subscribed Regulatory Compliance Service's (SRCS's) detailed written procedure specification for each welding process or method of application implemented. A change in the variables requiring a separate procedure specification shall be in accordance with API Standard 1104 *Welding of Pipelines and Related Facilities*, Latest Edition incorporated by reference by the Code of Federal Regulations, Section 2.4 *Essential Variables*. Each procedure specification must be qualified to produce welds with suitable mechanical properties and soundness meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192.225 *Welding-General*. Each procedure must be prepared and qualified in accordance with API Standard 1104 *Welding of Pipelines and Related Facilities*, Latest Edition incorporated by reference of the Code of Federal Regulations, Section 5-*Qualification of Welding Procedures for Welds Containing Filler-Metal Additives*.

0403 QUALIFICATION OF WELDERS

All welding shall be performed by persons qualified in the welding of steel pipe in accordance with the Owner's written procedure specification. Each person engaged in welding steel pipe shall be qualified to produce welds with suitable mechanical properties and soundness meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192.225 *Welding-General* for each of the Owner's procedures implemented for this project. Each qualification shall be in accordance with the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192.227 *Qualification of welders* and the appendices thereof. All qualification tests shall be witnessed by the Owner at the Owner's facilities unless prior arrangements are agreed upon. Qualification tests shall be conducted by destructive testing by a recognized testing laboratory acceptable to the Owner. All costs associated with the qualification tests shall be borne by the Contractor. Persons performing welding of steel pipe will be qualified within the limits of the variables set forth in the Owner's written procedure specification.

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It shall be the prerogative of the Owner to require re-examination of any persons engaged in welding steel pipe whose workmanship appears to be inferior. All costs associated with re-examination shall be borne by the Contractor.

0404 FUSION PROCEDURES

All fusion shall be completed in accordance with the Owner's detailed written procedure. Each procedure is qualified to produce welds with suitable mechanical properties and soundness meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192.283 *Plastic pipe: qualifying joining procedures*.

0405 QUALIFICATION OF PERSONS PERFORMING FUSION

All fusion shall be performed by persons qualified in the fusion of polyethylene pipe and tubing in accordance with the procedures required above. Each person engaged in fusion shall be qualified to produce fusion joints with suitable mechanical properties and soundness meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192.285 *Plastic pipe: qualifying persons to make joints*. All qualification tests shall be witnessed by the Owner at the Owner's facilities unless prior arrangements are agreed upon. All qualification tests shall be in accordance with the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192.287 *Plastic pipe: inspection of joints*. Qualification tests shall be conducted by destructive testing by a recognized testing laboratory acceptable to the Owner. All costs associated with the qualification tests shall be borne by the Contractor.

It shall be the prerogative of the Owner to require re-examination of any persons engaged in fusion of polyethylene pipe whose workmanship appears to be inferior. All costs associated with re-examination shall be borne by the Contractor.

0406 EMPLOYEE ALCOHOL MISUSE PLAN

The Contractor shall maintain and implement a written alcohol misuse plan meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 199 *Drug and alcohol testing*. The alcohol misuse plan must contain methods and procedures for compliance with the requirements of this Part, including the employee assistance program.

Two (2) copies of the written alcohol misuse plan the Contractor and any Subcontractors being utilized on this project has in place meeting the requirements of this Section shall be provided to the Owner.

0407 EMPLOYEE ANTI-DRUG PLAN

The Contractor shall maintain and implement a written anti-drug plan meeting the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 199 *Drug and alcohol testing*. The anti-drug plan must contain the following minimum information.

- a. Methods and procedures for compliance with all the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 199 including the employee assistance program.
- b. The name and address of each laboratory that analyzes the specimens collected for drug testing.
- c. The name and address of the plan's Medical Review Officer and Substance Abuse Professional.
- d. Procedures for notifying employees of the coverage and provisions of the plan.

Two (2) copies of the written anti-drug plan the Contractor and any Subcontractors being utilized on this project has in place meeting the requirements of this Section shall be provided to the Owner. The Contractor shall provide proof that this program is being implemented.

0408 OPERATOR QUALIFICATION

The Contractor must subscribe to the Municipal Gas Authority of Georgia's Subscribed Regulatory Compliance Service (SRCS) and be a member in good standing with up to date Operator Qualification records in accordance with the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192 and Part 199. All covered tasks associated with the construction of this project shall be performed in accordance with the Operator Qualification Program subscribed to by the Bidder in accordance with the requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition, Part 192 and Part 199.

0409 STATE UTILITY CONTRACTOR LICENSE

The Contractor shall hold a current utility contractor license issued by the State of Georgia Construction Industry Licensing Board. The Contractor must also have in his employment on a full-time basis a person or persons who holds a valid utility manager certificate issued by the Division of Utility Contractors. Such utility manager shall oversee the utility contracting work of all the employees and shall be actually engaged in the performance of the business of the Contractor.

No portion of this contract may be constructed or erected unless a certified utility manager or certified utility foreman is present at the job site of such construction. No person may be employed as a utility foreman unless that person holds a valid

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utility foreman certificate issued by the Division of Utility Contractors. If construction will be overseen by a utility foreman and not the utility manager, a copy of the utility foreman's certification shall be provided to the Owner.

Two (2) copies *each* of the Contractor's current utility contractor license, valid utility manager certificate and, if construction will be overseen by a utility foreman and not the utility manager, a copy of the utility foreman's certification shall be provided to the Owner.

0410 GEORGIA EROSION & SEDIMENTATION CONTROL EDUCATION AND TRAINING CERTIFICATION

No portion of land disturbing activities associated with this project may be completed unless such activities are overseen by at least one person meeting the education and training certification requirements as administered and implemented by the E&SC Education and Certification Program of the Georgia Soil and Water Conservation Commission unless;

0410.01 the portion of land disturbing activities is under one acre and the land disturbance is more than 200 feet from State Waters unless;

0410.02 the portion of land disturbing activities is part of a larger "common development," then the education and training certification requirements shall apply for this project with less than one acre of land disturbance.

Two (2) copies of the certification issued by the E&SC Education and Certification Program of the Georgia Soil and Water Conservation Commission of such person meeting the education and training certification requirements shall be provided to the Owner.

The Owner may require tests or certifications in addition to the minimum tests listed, and if required, the cost of such tests will be borne by the Owner unless otherwise called for in the plans or specifications.

..... END OF SECTION

SECTION 0500 – MATERIAL SPECIFICATIONS

0501 SCOPE OF WORK

Unless specified otherwise, it is the intention of these specifications to require the Contractor to furnish all labor, tools, equipment, skills, materials and incidentals necessary and/or required to construct and complete the work at the locations shown in the plans, as shown on the details in the plans and as called for in these specifications entitled NATURAL GAS MAIN EXTENSION, TRANSWESTERN INDUSTRIAL CARTERSVILLE PROJECT NO. SP-21-004. All materials for incorporation into this project shall be new, unused and manufactured in the United States and shall meet the applicable requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition and any other applicable requirements and specifications listed in these specifications.

0502 GRASSING

0502.01 General

Materials for grassing shall meet the requirements of Section 890-SEEDS AND SOD of the State of Georgia Department of Transportation's Standard Specifications for Road and Bridge Construction, Latest Edition. Grassing of areas adjacent to residential or commercial lawns shall match the type of grassing of the adjacent areas.

0502.02 Seed

Seed shall be of the species specified on the detail in the plans for the applicable area of the state, type of required stabilization and dates of planting. Seed shall meet the requirements of the Georgia Seed Laws and Rules and Regulations. Each seed bag shall be provided with an analysis tag with the results of a test made within 9 months of planting. Seed quality shall meet the following properties:

Germination and hard seed (<i>Minimum</i>)	70%
Purity (<i>Minimum</i>)	90%
Weed seeds (<i>Maximum</i>)	2%
Noxious seeds (<i>Maximum</i>)	300 seeds per pound

0502.03 Fertilizer

Fertilizer shall be of the grades specified on the detail in the plans and shall meet the requirements of the Georgia Plant Food Act in effect at the date of the Advertisement For Bids. Fertilizer shall be uncaked and undamaged at the time of application.

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0502.04 Agriculture Lime

Agriculture lime shall be ground dolomitic limestone meeting the following properties:

<u>Requirements</u>	<u>Percent By Weight</u>
Total Carbonates (<i>Minimum</i>)	85
Elemental Magnesium derived from Magnesium Carbonate (<i>Minimum</i>)	6
Passing 10 mesh screen (<i>Minimum</i>)	90
Passing 100 mesh screen at least (<i>Minimum</i>)	25

0502.05 Mulch

Mulch shall be oat or wheat straw, threshed rye or Bermuda grass hay. Mulch shall be in good condition, dry enough to adhere to asphalt and free from excessive quantities of matured seeds of noxious weeds or other species constituting a menace to surrounding farmland.

0503 LINE VALVES

0503.01 Line Valve Assembly

Each line valve assembly shall be installed as shown on the details in the plans and shall consist of the following:

- One Ball Valve
- One 2" Square Wrench Head Adapter (*Provided by the Owner*)
- Two Valve Tees w/Nipples and Caps (*Steel Line Valves Only*)
- One Valve Box with Cast-in-Place Concrete Collar
- One Concrete Valve Marker

0503.02 Steel Line Valves (*Provided By Owner*)

0503.02.1 General

Steel line valves shall be maintenance free, full port ball valves with blowout proof stem. Steel line valves shall be suitable for buried service and shall be constructed of steel meeting the minimum requirements, or equivalent, of API 6D with weld end connections and fully welded body. The ball shall be nickel chrome plated steel finished to a quality to ensure maximum ease of operation with nylon ball seats.

0503.02.1 Four-Inch (4") and Smaller Steel Line Valves

Four-inch (4") and smaller steel line valves shall be of standard construction with floating ball and heavy-duty stops stopping the ball in the fully open and fully closed positions. Four-inch (4") and smaller steel line valves shall be full port and quarter-turn open-to-close with 2" square wrench head adapter for above ground operation with standard 2" valve wrench. Line valves shall have a working pressure of 285 psig, ANSI Class 150 or 740 psig, ANSI Class 300 as specified and shall be the Series "US" Weld x Weld End Ball Valve as manufactured by Balon Corporation of Oklahoma City, Oklahoma.

0503.03 Polyethylene Line Valves (Provided By Owner)

Polyethylene line valves shall be maintenance free, full port ball valves of standard construction. Polyethylene line valves shall be suitable for use with natural gas and buried service. Polyethylene line valves shall be constructed of polyethylene of the same manufacturer and meeting the same requirements as the polyethylene pipe provided for this project. See Polyethylene Pipe of these specifications. Polyethylene line valves shall meet or exceed the requirements of ASTM D-2513 and shall meet all applicable requirements and specifications incorporated by reference of the Code of Federal Regulations Part 192, Latest Edition. Polyethylene line valves shall be constructed with double stem seals and independent moisture seal ensuring leak-free operation. Polyethylene line valves shall be quarter-turn open-to-close with 2" square wrench head for above ground operation with standard 2" valve wrench. Polyethylene line valves shall be of the size specified and equal to the Poly-Gas valves as manufactured by Polyvalve of Kentwood, Michigan.

0504 LOCATE STATION (Provided By Owner)

0504.01 General

Each cathodic protection test station is an assembly consisting of a condulet, conduit, plastic cover, conduit straps and post.

0504.02 Condulet/Conduit/Straps

Conduit, condulet and conduit straps shall be rigid steel and shall be zinc-coated (*galvanized*). Conduit shall be 4 feet in length and 1" in diameter with one plain end and one end MPT threaded. Condulet shall be single tap and 1" size (E37) and equal to those as manufactured by Crouse-Hinds.

0504.03 Plastic Cover

Plastic cover shall be provided in the color “yellow” and constructed from polycarbonate plastic. Plastic cover shall be sized for 1” (E37) condulets with optional stainless steel hardware. Plastic cover shall be two binding post construction and shall be equal to the FINKPlate as manufactured by Cott Manufacturing Company of Los Angeles, California.

0504.04 Post

Post shall be pressure-treated yellow pine measuring 4”x4” (*nominal size*) and 6 feet in length.

0505 LOCATE WIRE

Locate wire shall be copper strand cable insulated with High Molecular Weight Polyethylene (HMW/PE) and shall be suitable to conductively locate buried utility facilities. Insulating jacket shall provide high resistance to mechanical abrasion, moisture, chemicals, oil, sunlight and most organic and inorganic substances. Locate wire shall be #12 AWG and insulation shall be yellow in color meeting the APWA color code standard for identification of buried utilities.

0506 MARKING PAINT

Marking paint shall be suitable for marking underground utility lines and shall withstand short-term outdoor weathering. Marking paint shall be water-based and specially formulated for use in the inverted position with non-clogging spray tip and spray-through cap. Marking paint shall be fast-drying providing one-coat coverage and shall produce bold, bright, vivid and highly visible markings on virtually any surface that are safe on grass and other plant life. Marking paint shall be provided in the color as specified meeting the APWA Color-Code standards for marking underground utility lines. Marking paint shall be provided in 20 oz. aerosol cans (17 oz. net weight) and shall be equal to Rust-Oleum Professional Inverted Marking Paint Spray as manufactured by Rust-Oleum Corporation of Vernon Hills, Illinois.

0507 MARKING TAPE

Marking tape shall be constructed of virgin polyethylene at a thickness of 6 mil with a width of 3” and shall meet or exceed all applicable ASTM specifications. Marking tape shall be suitable for prolonged buried use with the words “CAUTION: BURIED GAS LINE BELOW” or similar and shall meet the APWA Color-Coding of yellow. Marking tape shall be equal to Pro-Line Non-Detectable Marking Tape as manufactured by Pro-Line Safety Products Company of West Chicago Illinois.

0508 MATERIALS FOR CONCRETE

0508.01 Cement

All cement shall be standard Portland Cement, Class B.

0508.02 Fine Aggregate

The fine aggregate shall consist of clean, hard, durable uncoated particles of sand or stone. When incorporated in the concrete mixture, fine aggregate shall be free from frost, frozen lumps, injurious amounts of dust, mica, soft or flaky particles, shale, alkali, organic matter, loam or other deleterious substance.

Ninety-five percent (95%) of the fine aggregate shall pass a one-quarter inch (1/4") screen; not more than twenty-five percent (25%) shall pass a fifty (50) mesh sieve, and not more than five percent (5%) by weight shall pass a one hundred (100) mesh sieve.

In no case shall fine aggregate be accepted containing more than three percent (3%) by dry weight nor more than five percent (5%) by dry volume, nor more than seven percent (7%) by wet volume of clay, loam or silt. If any samples of fine aggregate show more than seven percent (7%) of clay, loam or silt, after twenty-four (24) hours settlement after shaking in an excess of water, the material represented by the samples will be rejected.

Fine aggregate shall be of such quality that mortar composed of Portland cement and the fine aggregate made into 2" x 4" cylinders in the same proportions as will be used in the concrete mixture shall show compressive strength at seven and twenty-eight days equal to or greater than the compressive strength of cylinders composed of mortar of the same proportions of Portland cement and the standard Ottawa sand. For proportioning test cylinder, Portland cement and fine aggregate and standard Ottawa sand shall be measured by weight, and the same Portland cement shall be used with the Ottawa sand as with the fine aggregate to be tested.

0508.03 Coarse Aggregate

Coarse aggregate shall be clean and washed gravel or crushed stone. The gravel or crushed stone shall be clean, hard, durable uncoated particles. It shall contain no vegetable or other deleterious matter, and shall be free from soft, thin, elongated, or laminated pieces.

0508.04 Water

Water for concrete work shall be fresh, clear and free from oil, acid, alkali, or organic matter.

0509 MULCH

Mulch shall be oat or wheat straw, threshed rye or Bermuda grass hay. Mulch shall be in good condition, dry enough to adhere to asphalt and free from excessive quantities of matured seeds of noxious weeds or other species constituting a menace to surrounding farmland.

0510 PIPE NIPPLES

Pipe nipples shall be seamless steel meeting the minimum requirements of ASTM A53 Grade B and ASTM A733 and shall be Standard Weight in accordance with ANSI B36.10. Pipe nipples shall be the specified combination of standard tapered pipe threads meeting the minimum requirements of ANSI B1.20.1 and beveled end for welding. Pipe nipples shall be provided in the sizes specified and equal to those as manufactured by Pennsylvania Machine Works, Inc. of Aston, Pennsylvania.

0511 POLYETHYLENE FITTINGS

Polyethylene fittings shall be constructed of polyethylene of the same manufacturer and meeting the same requirements as the polyethylene pipe and tubing. See Polyethylene Pipe and Tubing of these specifications. Polyethylene fittings shall meet all applicable requirements and specifications incorporated by reference of the Code of Federal Regulations Part 192, Latest Edition. Polyethylene fittings shall be IPS (Iron Pipe Size) unless otherwise called for and shall be of the size specified. Polyethylene fittings shall be DR 11 where applicable.

Polyethylene fittings 2" and smaller shall be of the socket fusion type as manufactured by Performance Pipe a division of Chevron Phillips Chemical Company LP of Plano, Texas.

Polyethylene fittings larger than 2" shall be of the butt fusion type as manufactured by Performance Pipe a division of Chevron Phillips Chemical Company LP of Plano, Texas.

0512 POLYETHYLENE PIPE AND TUBING

Polyethylene pipe and tubing shall be medium density polyethylene (MDPE) manufactured in the United States meeting the requirements of ASTM D-2513, Latest Edition and all other applicable requirements and specifications incorporated by reference of the Code of Federal Regulations Part 192, Latest

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Edition and shall be solid yellow in color meeting APWA/ULCC Color Code Standards. The resin shall meet the requirements of ASTM D1248 for Type II, Class B, Category 5, Grade P24 polyethylene and ASTM D-3350 for polyethylene with a cell classification of 234373E. Polyethylene pipe shall be approved by the Plastic Pipe Institute and shall be provided with the diameter and Dimension Ratio (DR) as specified. Polyethylene pipe shall be DriscoPlex 6500 PE PE2708 (PE2406) gas pipe and as manufactured by Performance Pipe a division of Chevron Phillips Chemical Company LP of Plano, Texas.

0513 REGULATING STATION

0513.01 Block Valves (Provided By Owner)

0513.01.1 General

Block valves shall be maintenance free, full port with blowout proof stem and shall be suitable for use with natural gas. Block valves shall be constructed of carbon steel meeting the minimum requirements, or equivalent, of API 6D. Valve ball shall be nickel chrome plated carbon steel finished to a quality to ensure maximum ease of operation with nylon ball seats. Block valves shall be of standard construction and suitable for above ground service. Block valves shall be quarter-turn open-to-close and designed to operate with a standard open-end wrench or gear operated with hand wheel according to size. Block valves shall not be provided with the optional handle in wrench operated configuration. Block valves shall have mechanical stops stopping the ball in the fully open and fully closed positions with standard locking plate.

0512.01.2 Weld X Flange Block Valves

Weld x flange block valves shall be seal welded and configured with one weld end connection and one flange end connection meeting the requirements of the ANSI Class 150 or 300 as specified. Weld x flange block valves shall have a working pressure of 285 psig or 740 psig as specified and shall be the Series "US" Weld x Carbon Steel Ball Valve as manufactured by Balon Corporation of Oklahoma City, Oklahoma.

0513.02 Concrete Slab

Concrete slab shall be cast-in-place or pre-cast 4,000 psi concrete cast in the dimensions shown in the plans. Concrete slab shall be cast with 3/4" chamfers on all exposed edges. Pre-cast concrete slab shall be equal to those cast by Bartow Precast of Cartersville, Georgia.

0513.03 Materials for Concrete

0513.03.1 Cement

All cement shall be standard Portland Cement, Class B.

0512.03.2 Fine Aggregate

The fine aggregate shall consist of clean, hard, durable uncoated particles of sand or stone. When incorporated in the concrete mixture, fine aggregate shall be free from frost, frozen lumps, injurious amounts of dust, mica, soft or flaky particles, shale, alkali, organic matter, loam or other deleterious substance.

Ninety-five percent (95%) of the fine aggregate shall pass a one-quarter inch (1/4") screen; not more than twenty-five percent (25%) shall pass a fifty (50) mesh sieve, and not more than five percent (5%) by weight shall pass a one hundred (100) mesh sieve.

In no case shall fine aggregate be accepted containing more than three percent (3%) by dry weight nor more than five percent (5%) by dry volume, nor more than seven percent (7%) by wet volume of clay, loam or silt. If any samples of fine aggregate show more than seven percent (7%) of clay, loam or silt, after twenty-four (24) hours settlement after shaking in an excess of water, the material represented by the samples will be rejected.

Fine aggregate shall be of such quality that mortar composed of Portland cement and the fine aggregate made into 2" x 4" cylinders in the same proportions as will be used in the concrete mixture shall show compressive strength at seven and twenty-eight days equal to or greater than the compressive strength of cylinders composed of mortar of the same proportions of Portland cement and the standard Ottawa sand. For proportioning test cylinder, Portland cement and fine aggregate and standard Ottawa sand shall be measured by weight, and the same Portland cement shall be used with the Ottawa sand as with the fine aggregate to be tested.

0512.03.3 Coarse Aggregate

Coarse aggregate shall be clean and washed gravel or crushed stone. The gravel or crushed stone shall be clean, hard, durable uncoated particles. It shall contain no vegetable or other deleterious matter, and shall be free from soft, thin, elongated, or laminated pieces.

0512.03.4 Water

Water for concrete work shall be fresh, clear and free from oil, acid, alkali, or organic matter.

0513.04 Flanges

Flanges shall be raised face or flat faced as specified and constructed of carbon steel meeting the requirements of ASTM A105 and ANSI B16.5. Flanges shall be of the type and ANSI Class as specified. Flanges shall be equal to those as manufactured by Ladish Company of Cudahy, Wisconsin.

0513.05 Flange Bolt Kit

Each flange bolt kit shall include hex head machine bolts, nuts and gasket. Flange bolt kit shall be rated for use with natural gas with flanges meeting the requirements of ASTM A105 and ASTM B16.5 for the flange sizes and Class rating as called for. The sizes and quantities of hex head machine bolts and nuts in each kit shall be as required for the flange sizes and Class ratings as called for.

Bolts shall be high strength carbon alloy steel meeting the minimum requirements of ASTM A193 Grade B7 and ANSI/ASME B18.2.1.

Nuts shall be carbon steel meeting the minimum requirements of ASTM A194 Grade 2H and ANSI/ASME B18.2.2.

Gaskets shall be ring style or full face style as called for and shall be provided cut to meet ANSI 16.5 requirements for the flange size and Class rating as called for. Gaskets shall be 1/16" in thickness and shall be Style NA1001 as manufactured by TEADIT of Pasadena Texas.

0513.06 Flange Wrap

Flange wrap shall keep water and debris from entering the space between above ground bolted flanges preventing bolt corrosion. Flange wrap shall be 1" in width and shall be resistant to the effects of outdoor weathering and sunlight exposure. Flange wrap shall be equal to Scotchwrap Brand 51 All-Weather Tape as manufactured by 3M Company of St. Paul, Minnesota.

0513.07 Paint

0513.07.1 Shop/Field Primer Coat & Field Intermediate Coat

Shop or field and intermediate primer coats shall be a polyamidoamine

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epoxy coating, Series N69 Hi-Build Epoxoline II as manufactured by Tnemec Company, Inc. of Kansas City, Missouri. Primer coat color shall be similar to finish coat color to assure maximum hiding and aesthetics.

0513.07.2 Field Finish Coat

Finish coats shall be an aliphatic acrylic polyurethane, Series 73U Endura-Shield as manufactured by Tnemec Company, Inc. of Kansas City, Missouri. Finish coat color shall be ASA 49 Gray.

Traffic barrier finish coat color shall be 02SF Lemon Yellow/Safety, Safety Yellow.

0513.08 Pipe and Swage Nipples

0513.08.1 Seamless Steel

Seamless steel pipe and swage nipples shall be seamless steel meeting the minimum requirements of ASTM A53 Grade B and ASTM A733 and shall be Standard Weight in accordance with ANSI B36.10. Seamless steel pipe and swage nipples shall be the specified combination of standard tapered pipe threads meeting the minimum requirements of ANSI B1.20.1 and beveled end for welding. Swage nipples shall be concentric. Seamless steel nipples shall be provided in the sizes specified and equal to those as manufactured by Pennsylvania Machine Works, Inc. of Aston, Pennsylvania.

0512.08.2 Stainless Steel

Stainless steel pipe nipples shall be Type 316 stainless steel meeting the minimum requirements of ASTM A530/A312 and ASTM A733 and shall Standard Weight in accordance with ANSI B36.10. Stainless steel pipe nipple ends shall be of standard tapered pipe threads meeting the minimum requirements of ANSI B1.20.1. Stainless steel nipples shall be equal to those as manufactured by Cudahy Forging of Cudahy, Wisconsin a division of Ladish Company.

0513.09 Pressure Gauges

Pressure gauges shall be compatible for use with natural gas with a minimum standard accuracy of $\pm 1\%$ of span meeting ASME B40.1 Grade 1A. Pressure gauges shall be dry with stainless steel case and weather tight meeting the minimum requirements of NEMA 4X. Pressure gauges shall be 1/4" stem (*bottom*) mounting with 4" dial face diameter. Pressure gauges

shall be white faced with black numbering, graduations and single black pointer.

0513.09.1 Low Pressure Gauges (0-15, 0-60 psig, 0-100 psig)

Low pressure gauges shall be solid-front safety case design and equal to the Type 232.30 Industrial Gauges as manufactured by Wika Instrument Corporation of Lawrenceville, Georgia.

0512.09.2 High Pressure Gauges (0-600 psig)

High pressure gauges shall be equal to the Type 212.53 Industrial Gauges as manufactured by Wika Instrument Corporation of Lawrenceville, Georgia.

0513.10 Purge Valves

Purge valves shall be of the non-lubricated, full-port, floating ball type and shall be suitable for use with natural gas. Purge valves shall be of two-piece, threaded design with blowout proof stem and shall be constructed of AISI 316 stainless steel meeting the minimum requirements, or equivalent, of API 6D. Valve ball shall be constructed of AISI 316 stainless steel finished to a quality to ensure maximum ease of operation with multi-seal nylon ball seats. Purge valves shall be lever operated with stops stopping the ball in the fully open and fully closed positions. Purge valves shall be provided with lever handle and locking plate. Purge valves shall have a minimum working pressure of 2000 psig and shall be the Series LS, Screwed End, Lever Operated Stainless Steel Ball Valve as manufactured by Balon Corporation of Oklahoma City, Oklahoma.

0513.11 Regulator (Provided by Owner)

0513.11.1 Type 627

Regulator shall be constructed of ductile iron with aluminum diaphragm case and 2" NPT body size with a body-spring case orientation of "Position 1" and a spring case vent location of "C". Regulator shall be suitable for natural gas service and shall be of standard construction and shall be provided with a plastic snap-on vent cover cap and adjustment screw cover. Regulator shall have a working pressure of 1,000 psig and shall be provided with a control spring range of 15-40 psig (*green spring*) with a set pressure of 30 psig and orifice size as called for. Regulator shall be the Type 627 direct-operated pressure reducing regulator as manufactured by Emerson Process Management Regulator Technologies, Inc. McKinney, Texas.

0513.12 Relief Valve (Provided by Owner)

0513.12.1 Type 289

Relief valve shall be self-operated and constructed of aluminum or cast iron with aluminum spring case as applicable with NPT connections and a working pressure of 100 psig in a 1" body size and a working pressure of 25 psig in a 2" body size. Relief valve shall be suitable for natural gas service and shall be of standard construction. Relief valve shall be provided with a control spring range of 15-50 psig (green spring) and a set pressure of 40 psig in a 1" body size or 4-10 psig (red stripe spring) and a set pressure of 7 psig in a 2" body size as called for. Relief valve shall be the Type 289H spring-loaded relief valve as manufactured by Emerson Process Management Regulator Technologies, Inc. McKinney, Texas.

0513.13 Steel Line Pipe (Provided by Owner)

See *Steel Line Pipe* of this section.

0513.14 Stone

Stone used in the regulating stations shall be Size No. 57, clean, hard and durable free from dirt. Not less than ninety-five percent (95%) by weight shall pass a one inch (1") screen, not more than sixty percent (60%) and not less than twenty five percent (25%) by weight shall pass a one-half inch (1/2") screen and not more than ten percent (10%) by weight shall pass a No. 4 sieve of the United States Standard Sieve Series.

0513.15 Threaded Fittings

0513.15.1 Steel Threaded Fittings

Steel threaded fittings shall be forged carbon steel meeting the minimum requirements of ASTM A105 and ANSI B16.11. Steel threaded fittings shall be minimum ANSI Class 2000 with threads meeting the minimum requirements of ANSI B1.20.1. Steel threaded fittings shall be of the size and style as specified and shall be equal to those as manufactured Cudahy Forging of Cudahy, Wisconsin a division of Ladish Company.

0512.15.2 Stainless Steel Threaded Fittings

Stainless steel threaded fittings shall be Type 316 stainless steel meeting the minimum requirements of ASTM A479 and ANSI B16.11.

Stainless steel threaded fittings shall be minimum ANSI Class 2000 with threads meeting the minimum requirements of ANSI B1.20.1. Stainless steel threaded fittings shall be of the size and style as specified and shall be equal to those as manufactured by Cudahy Forging of Cudahy, Wisconsin a division of Ladish Company.

0513.16 Thread-O-Lets

Thread-o-lets shall be forged carbon steel meeting the requirements of ASTM A105 and shall be flat, size on size or reducing size as specified. Thread-o-lets shall be contoured with a beveled end for welding and threaded branch meeting the minimum requirements of ANSI B1.20.1. Thread-o-lets shall be ANSI Class 3000, Standard Weight in accordance with ANSI B36.10 and shall be of the size as specified. Thread-o-lets shall be equal to the Thred-O-Let as manufactured by Bonney Forge Company, Inc.

0513.17 Weather Cap

Weather cap shall be constructed of cast aluminum and shall protect relief stack from entry of water, dirt and insects. Weather cap shall be provided in the size as specified and shall include an integrally mounted flag to indicate that potential exhaust has occurred and shall be equal to those as manufactured by Raincap Industries of Voorhies, Iowa.

0513.18 Welding Fittings

See *WELDING FITTINGS* of this section.

0514 ROCK SHIELD

Rock shield shall be a flexible, resilient membrane designed specifically for the protection of corrosion pipeline coatings when the pipeline is covered with a backfill material containing damaging rock and rock fragments preventing abrasion, impact and penetration of the corrosion pipeline coating. Rock shield shall consist of a 3/8" minimum closed cell polyethylene foam laminated to a minimum 25 mil thick backing. Rock shield shall readily conform to the pipe surface allowing easy application by spiral, longitudinal or cigarette wrapping. Rock shield shall be perforated allowing the cathodic protection system to maintain an uninhibited current flow or otherwise designed without the concern of blocking out the flow of cathodic protection. Rock shield shall be provided in the width and quantity as called for and shall be equal to TC 2025 Rockshield as manufactured by Chace Tapecoat of Evanston, Illinois.

0515 SILT AND EROSION CONTROL DEVICES

Material for silt and erosion control devices shall meet the requirements of the State of Georgia Department of Transportation's Standard Specifications for Road and Bridge Construction, Latest Edition. Products for silt and erosion control shall be listed in the Department's Qualified Products Manual and shall exceed the minimum requirements of this reference. Products removed from this listing will be prohibited from use on this project.

The Contractor shall provide a product submittal to the Owner prior to incorporating filter fabric into this project.

0516 STEEL LINE PIPE (Provided by the Owner)

Steel line pipe shall be Electric Resistance Weld (ERW), Grade X52 meeting the requirements of API Specification 5L, Specification for Line Pipe, Latest Edition incorporated by reference by the Code of Federal Regulations and shall be new and unused. Steel line pipe of higher or lower Grades than those listed by this specification will not be accepted. Steel line pipe shall be manufactured in the United States and shall bear the mark of the manufacturer. Steel line pipe shall be beveled for welding and shall be provided in diameters and wall thicknesses as specified. All steel line pipe shall be provided in double random (40' average) lengths.

0517 STEEL LINE PIPE COATINGS

0517.01 Plant Applied Coatings (Provided by the Owner)

0516.01.1 Buried Steel Line Pipe (Provided by the Owner)

Plant applied coating of buried steel line pipe shall be fusion bonded epoxy (F.B.E.) applied electrostatically to an average plant thickness of 14 mils with a minimum thickness at any point of 12 mils terminating three inches (3") from the ends of the pipe. Coating specifications, procedures and electrical inspection shall be in accordance with the National Association of Pipe Coating Applicators (NAPCA) Specifications and Plant Coating Guide, Latest Edition and as required by the coating manufacturer. Plant applied coating shall be equal to Scotchkote 206N epoxy coating as manufactured by 3M Electrical Products Division of St. Paul, Minnesota.

0516.01.2 Directionally Bored Steel Line Pipe (Provided by the Owner)

Plant applied coating of directionally bored steel line pipe shall be a dual coat, multi-layer combination of the same coating application as

specified above for buried steel line pipe plus an additional plant applied durable coating designed to be applied over fusion bonded epoxy coating for harsh to severe installation conditions. Additional coating shall be applied electrostatically to an average plant thickness of 20 mils with a minimum thickness at any point of 15 mils terminating three inches (3") from the ends of the pipe. Total multi-layer coating system shall be an average plant thickness of 34 mils with a minimum thickness at any point of 27 mils. Coating specifications, procedures and electrical inspection shall be in accordance with the National Association of Pipe Coating Applicators (NAPCA) Specifications and Plant Coating Guide, Latest Edition and as required by the coating manufacturer. Additional plant applied coating shall be equal to the Scotchkote 6352 Fusion Bonded Epoxy Dual Coating System as manufactured by 3M Electrical Products Division of St. Paul, Minnesota or the Pipe Clad 2040 (*Black*) system as manufactured by Lilly Industries, Inc. of North Kansas City, Missouri.

0516.01.3 Stenciling

The following minimum information shall be stenciled to the exterior of plant applied coatings.

Name of Coating Applier
Name of Pipe Manufacturer
Pipe O.D. in Inches
Pipe Wall Thickness in Inches
Type of Pipe Manufacture and Grade
Coating Specification Symbol

0517.02 Joint Wrap

0517.02.1 Joint Wrap Tape (*Buried*)

Joint wrap tape for the protection of buried weld joints, fittings and damaged areas of the coating shall be a minimum thickness of 35 mils. Joint wrap shall be compatible with plant applied fusion bonded epoxy coating. Joint wrap tape shall be compatible with cathodic protection and resistant to cathodic disbondment. Joint wrap tape shall be cold applied and provided in the width as specified and shall be Greenline Tape as manufactured by Royston, a division of Chase Corporation, of Pittsburg, Pennsylvania.

0516.02.1.1 Joint Wrap Tape Primer (*Buried*)

Joint wrap tape primer shall be elastomer-resin based and formulated to be used as a corrosion resistant adhesive specifically for adhering Royston Greenline Accessory Wrap to both metallic and non-metallic surfaces for underground service. Joint wrap tape primer shall be provided in the container form and size as specified and shall be Roybond 747 as manufactured by Royston, a division of Chase Corporation, of Pittsburg, Pennsylvania.

0516.02.2 Primerless Joint Wrap Tape

Primerless joint wrap tape for the protection of buried weld joints, fittings and damaged areas of the coating shall be a minimum thickness of 35 mils. Primerless joint wrap tape shall be compatible with plant applied fusion bonded epoxy coating. Primerless joint wrap tape shall be compatible with cathodic protection and resistant to cathodic disbondment. Primerless joint wrap tape shall be suitable for above and below ground use. Primerless joint wrap tape shall have an integrated primer impregnated into the adhesive suitable for use without a separate liquid primer. Primerless joint wrap tape shall be provided in the width as specified and shall be Tapecoat H35 Gray as manufactured by Tapecoat, Inc., a division of Chase Corporation, of Evanston, Indiana.

0516.02.3 Heat Shrink Sleeves (*Conventional Boring*)

Heat shrink sleeves subjected to pullback during conventional boring operations shall be a one-piece heat shrink sleeve specifically designed for such operations with durable protection against abrasion and wear. Heat shrink sleeves shall be 18" in length and shall be provided pre-cut for the pipe sizes as called for. Heat shrink sleeves shall have a minimum applied thickness of 60 ± 2 mils and shall be compatible with plant applied fusion bonded epoxy coating. Heat shrink sleeves shall be compatible with cathodic protection and resistant to cathodic disbondment. Heat shrink sleeves subjected to pullback during conventional boring operations shall be equal to the K-40 Wraparound sleeve as manufactured by Canusa, a division of ShawCor Industries Company of The Woodlands, Texas.

0516.02.4 Heat Shrink Sleeves (*Directional Boring*)

Heat shrink sleeves subjected to pullback during directional boring operations shall be a three-layer sleeve system specifically designed

for extreme conditions found in directional boring operations. Heat shrink sleeves shall be 18" in length and shall be provided pre-cut for the pipe sizes as called for. Heat shrink sleeves shall have a minimum applied thickness of 100 mils and shall be compatible with plant applied fusion bonded epoxy coating. Heat shrink sleeves shall be compatible with cathodic protection and resistant to cathodic disbondment. Heat shrink sleeves subjected to pullback during directional boring operations shall be equal to the DDX Directional Drilling Kit as manufactured by Canusa, a division of ShawCor Industries of The Woodlands, Texas.

0518 THREADED FITTINGS

0518.01 Forged Steel

Forged steel threaded fittings shall be forged carbon steel meeting the minimum requirements of ASTM A105 and ANSI B16.11. Forged steel threaded fittings shall be minimum ANSI Class 2000 with threads meeting the minimum requirements of ANSI B1.20.1. Forged steel threaded fittings shall be equal to those as manufactured Cudahy Forging of Cudahy, Wisconsin a division of Ladish Company.

0519 THREAD SEALANT

Thread sealant shall be suitable for use with natural gas on all metals including stainless steel and shall meet the minimum requirements of CSA 4-90 for natural gas. Thread sealant shall have slow drying, non-hardening and easy cleanup characteristics. Thread sealant shall be free of halogens and lead and shall be non-seizing, non-toxic and brushable when exposed to temperatures less than 0°F. Thread sealant shall be Gimmie The Green Stuff as manufactured by Jomar International of Warren, Michigan.

0520 TRANSITION FITTING

Transition fitting shall be rated for use with natural gas and shall have a polyethylene outlet of the same manufacturer and meeting the same requirements as the polyethylene pipe. See Polyethylene Pipe of these specifications. Transition fitting shall meet all applicable requirements and specifications incorporated by reference of the Code of Federal Regulations Part 192, Latest Edition. Transition fitting shall be provided in the sizes called for. The steel outlet shall be externally epoxy coated and beveled for welding and shall be supplied with the optional tracer wire connector. The longitudinal pull-out strength of the transition from steel to polyethylene shall exceed the yield factor of polyethylene pipe. Transition fittings shall be equal to those as manufactured by Elster Perfection of Madison, Ohio.

0521 VALVE BOXES

0521.01 General

Valve boxes shall be constructed of cast iron and shall be of the sliding adjustable roadway type. Valve boxes shall have a minimum inside diameter of 5-1/4" and a minimum bottom bell inside diameter of 8" and the length shall be adjustable. The minimum thickness of metal at any point shall not be less than 5/16". The top section shall have a flange at the bottom to prevent external loads from being supported by the valve or line. Valve boxes shall be provided in a combination of the following as specified. Valve boxes shall be painted inside and outside with a bitumastic paint and shall be equal to the 2-piece Sliding Type Adjustable Valve Box, Figure No. 4908 as manufactured by Bingham & Taylor of Culpeper, Virginia.

0521.02 Valve Box Covers

Valve box covers shall be constructed of cast iron and designed and manufactured for use with the valve box as called for above. Valve box covers for main line valves shall be cast with the letters "GAS" in the top.

0521.03 Valve Box Top Sections

Valve box top sections shall be constructed of cast iron and designed and manufactured for use with the valve box as called for above and shall be the Top Section No. 55-S.

0521.04 Valve Box Bottom Sections

Valve box bottom sections shall be constructed of cast iron and designed and manufactured for use with the valve box as called for above and shall be the Bottom Section No. 61-S (23"-29"), 62-S (27"-36"), 64-S (39"-48") as specified for use with valve box top section No. 55-S.

0522 VALVE MARKERS

Valve markers shall be constructed of pre-cast concrete with a compressive strength at 28 days of 3,000 psi. Valve markers shall be 4 foot in height and 4" by 4" square with 3/4" inch chamfered edges. Valve markers shall be cast with four 1/2 inch (#4) reinforced bar cast placed at each corner. Valve markers shall be cast with the letters "GAS DANGER" reading vertically on two opposing sides and shall not exceed 2 foot in height. Valve markers shall include an aluminum plate approximately 1/2" by 2" by 3/32" thick cast in the top of the marker to be suitable for stenciling. Aluminum plate shall be permanently affixed to the top of the valve marker with 2" long dowels cast into the top of the valve marker or other approved method.

0523 VALVE TEES

Valve tees shall be weld end and constructed of forged steel with a working pressure of 1,440 psig. Valve tees shall have a built-in valve assuring positive shut-off in the closed position. Valve tees shall be equal to No-Blo Capped Steel Valve, Catalog No. H-17656 as manufactured by Mueller Company, Gas Products Division of Decatur Illinois.

0524 WELDING FITTINGS

Welding fittings shall be butt weld, Grade B, seamless steel with a minimum yield strength of 35,000 psi meeting the minimum requirements of ASTM A106 and ANSI B16.9. Welding fittings shall be Extra Strong, Pipe Schedule Number 80 in accordance with ANSI B36.10 as specified in the plans and shall be equal to those as manufactured by Ladish Company of Cudahy, Wisconsin.

..... END OF SECTION

SECTION 0600 – CONSTRUCTION METHODS

0601 SCOPE OF WORK

The work includes furnishing all labor, tools, equipment, materials, skills, and incidentals necessary or required to construct and complete in place all of the work as shown on the plans and as called for in these specifications in accordance with the prices submitted in the bid proposal. All construction procedures and techniques used and employed by the Contractor shall meet the applicable requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition. All such procedures and techniques shall be conducted in accordance with safe and accepted pipeline construction practices. At no time shall project conditions impede the quality of work by the Contractor or the Owner's ability to ensure the quality of work by the Contractor in accordance with the plans and specifications including but not limited to precipitation, fog, wind and darkness.

0602 BACKFILLING

0602.01 General

After the pipe is lowered into the trench, selected backfill free from rocks and stones shall be uniformly compacted with approved mechanical tampers the full length of the pipe to a point one foot surrounding the pipe in layers not exceeding 6". The remainder of the trench shall be backfilled in 6" layers and compacted with approved mechanical tampers and shall not contain any stones weighing more than 50 pounds each.

0602.02 Compaction

0602.02.1 General

Unless otherwise called for in these specifications, soil compaction tests may be performed to confirm the level of compaction meets the required specification. The Contractor will be responsible for all costs incurred by the Owner associated with compaction tests yielding less than the specified percentage of compaction including re-testing as necessary to ensure the minimum compaction has been achieved.

0602.02.2 Trenches

The compaction of backfill in trenches shall not be less than 95% in accordance with AASHTO Designation T99. The top 12" shall be compacted to 100% of specified density. If additional water is necessary to obtain the optimum moisture content in the backfill, the Contractor shall add such water at no additional cost.

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0602.02.3 Bore Pits

The compaction of backfill in bore pits shall not be less than 100% of theoretical maximum density. If additional water is necessary to obtain the optimum moisture content in the backfill, the Contractor shall add such water at no additional cost. If special backfill material is necessary to achieve compaction of 100% of theoretical maximum density, the Contractor shall add such material at no additional cost.

0602.02.4 Rock Excavation

In rock excavation, the bottom of the trench to a point one foot surrounding the pipe shall be finely pulverized soil, free from rocks and stones. The remainder of the backfill shall not contain over 75% broken stones, and the maximum stone size placed in the trench shall not weigh more than 50 pounds each. Excess rock and fragments shall be disposed of in a satisfactory manner off of the project site. Where necessary or at the request of the Owner, rock shield shall be used to further protect the line pipe coating

At the discretion of the Owner and where necessary, backfill free from rocks or rock shield will be provided by the Owner.

0603 BARRICADES, WARNING SIGNS AND FLAGMEN

The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient warning lights, danger signals and signs, provide sufficient number of watchmen and take all necessary precautions for the protection of the work and the safety of the public. If lanes of traffic are to be closed, the Contractor shall provide necessary certified flagmen. Certification shall be obtained from the Georgia Department of Transportation. Traffic control devices and placement shall be in accordance with the Georgia Utilities Coordinating Committee Manual on Traffic Control Procedures for Utilities, Latest Edition as approved by the Georgia Department of Transportation.

0604 BENDING STEEL PIPE

As necessary, the bending of steel pipe shall be done cold. Wrinkle bending will not be acceptable. Each bend must not impair the serviceability of the pipe and must be free from buckling, cracks or any other mechanical damage. Bending of steel pipe shall be accomplished with only those tools made specifically for this purpose. The longitudinal weld must be as near as practical to the neutral axis of the bend. If the coating becomes disbonded during the bending process, the Contractor shall remove the affected areas of coating and prepare and wrap the area as required by the paragraph in this section entitled *Joint Wrap*.

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0605 BORING

0605.01 Conventional Boring

The conventional "free" bore method of installation shall be completed at the locations called for in the plans. The conventional "free" bore method constitutes boring and jacking with a rotating auger or rod and cutting head attachment without the use of casings or sleeves. The carrier pipe shall be pushed through the bore hole by "jacking" concurrently with the rotating auger or rod with cutting head attachment or the carrier pipe may be pulled through the bore hole as the rotating auger or rod is removed. Any other method must be approved by the Owner.

The leading edge of the carrier pipe shall be inspected for coating damage caused by rock or solid objects in the bore hole. If coating damage is evident, the damage shall promptly be reported to the Owner and, at the Owner's discretion, the bore shall be abandoned and an alternate site chosen.

0605.02 Directional Boring

The directional bore method of installation shall be completed at the locations shown in the plans in accordance with the directional drill plan and profile. The Contractor or subcontractor completing the directional drill installation shall demonstrate his ability to accurately complete the drill by documenting successful experience of drilling similar pipe sizes and lengths as that specified. The machine utilized for the drills shall be of sufficient size with adequate specifications to successfully complete the directional drill as designed. Any changes in the directional drill profile shall be submitted to the Owner in writing with accurate supporting drawings prior to any changes from that as shown in the plans. The manufacturer's recommended bend radius of the proposed pipe size and the anticipated stresses imposed on the drilled pipe shall be considered in any changes of arc radius and entrance and exit angles of the directional bore. No change in the drill profile shall be made without prior written approval of the Owner.

0605.02.1 Pilot Hole

A pilot hole shall be drilled through the soil at the predetermined angle from horizontal grade and continue along the design profile to the exit of the drill section. The directional control of the drill shall be provided by rotating the angle of a "bent stub" behind the rotating drill head.

0605.02.2 Preream/Ream

After the pilot hole is complete, the hole shall be enlarged to a suitable diameter for the proposed pipe. A reamer shall be attached to the drill pipe at the drill exit and pulled back through the pilot hole enlarging the pilot hole to the proper diameter. Prereaming, by pulling successively larger reamers through the pilot hole, may be necessary as soil conditions warrant. A slurry solution of Bentonite, or approved equal, pumped into the hole shall aid in holding the walls of the hole during the prereaming/reaming operation, provide lubrication of the proposed pipe and, once dry, shall serve as a dirt padding between the line pipe and the soil walls.

0605.02.3 Pullback

After enlarging the drilled hole, the prefabricated line pipe shall be attached to the reamer with a swivel preventing translation of the reamer's rotation to the line pipe. The drill machine shall begin the pullback operation by concurrently pulling and rotating the drill rod, pumping and circulating additional slurry solution and pulling the line pipe through the drilled hole until it exits at the location of the drill machine.

0605.02.4 Slurry Containment

The slurry mixture may circulate back to the surface and “break out” of the pilot hole. The Contractor shall make all necessary provisions to obtain a controlled “break out” with relief holes and containment of the slurry by utilizing a vacuum truck and holding tank or by other acceptable means. Areas outside the area of the controlled “break out” shall be immediately cleaned up and restored to as near original condition as possible. All slurry mixture not contained in the drill hole and becoming a permanent part of the installation shall be transported and disposed of by acceptable means off the project site.

0605.02.5 Entrance/Exit Tie-in Holes

After the pipeline tie-ins have been completed and weld joints properly wrapped at each end of the completed directional drill, the holes shall be backfilled as required by the paragraph in this section entitled, ***BACKFILLING***.

0605.02.6 Record Drawings

The Contractor shall submit accurate and detailed record drawings of the completed directional drill installation in plan and profile including entrance and exit locations. The drill profile shall be recorded in detail during the drill operation with capable locating equipment. Record drawings shall be submitted on the full-size contract plan drawings.

0606 CARE AND HANDLING OF OWNER PROVIDED MATERIAL

All materials for incorporation into this project will be furnished by the Contractor unless specified as provided by the Owner in these specifications. All materials provided by the Owner will be stored at the Owner's storage facilities and the Contractor will be responsible for the transportation of all materials to the project site at his expense. The Contractor shall inspect the condition of the materials prior to transportation to the project site and any damage or imperfections in the materials shall be promptly reported to the Owner and not transported to the project site. All materials removed from the Owner's storage facilities by the Contractor will become the sole responsibility of the Contractor. Any damage, loss or misplacement of any materials transported to the project site by the Contractor will be remedied or replaced by the Contractor at his expense. All materials provided by the Owner and transported to the project and not used in the final construction of this project shall be returned to the Owner's storage facilities by the Contractor at his own expense.

0607 CARE AND HANDLING OF OWNER PROVIDED COATED PIPE

The steel line pipe provided by the Owner will be stored at the Owner's storage facilities or the following locations along the project route and the Contractor will be responsible for the transportation of the pipe to project site at his expense. The Contractor shall inspect the condition of the pipe and coating prior to transportation to the project site and any damage or imperfections in the pipe and/or pipe coating shall be promptly reported to the Owner and not transported to the project site. All steel line pipe removed from the Owner's storage facilities becomes the sole responsibility of the Contractor. Any damage to the pipe and/or pipe coating transported to the project site whether caused by the Contractor during loading, transporting, unloading or handling of the pipe or was damaged prior to transportation will be remedied by the Contractor at his expense. Any pipe provided by the Owner and transported to the project and not used in the final construction of this project shall be returned to the Owner's storage facilities by the Contractor at his own expense.

0608 CLEAN-UP

After the work is completed, the project site/right-of-way and surrounding areas

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shall be cleaned of all rubbish and other debris and the premises left in a neat and presentable condition. Extra materials delivered to the project site/right-of-way by the Contractor and not actually used for the construction of the pipeline or appurtenances shall be removed by the Contractor and returned to the Owner's storage facilities at his own expense. Clean-up work shall follow closely behind and shall be considered a part of the normal operations. Clean-up work along the pipeline routes will not be permitted to lag behind the construction operations.

0609 CLEARING AND GRUBBING

Unless specified otherwise, the entire easement or right-of-way area for the pipeline or other appurtenances shall be cleared and grubbed and all of the debris, trees, brush and stumps shall be disposed of by burning on the right-of-way if permitted by local ordinance. If burning is not permitted, then disposal shall be by other acceptable methods off of the project site. Burying of the debris, trees, brush and stumps will *not* be acceptable. Care shall be taken not to damage the areas adjacent to the right-of-way nor shall debris, trees, brush and stumps be pushed outside the right-of-way. Any damage to areas outside the right-of-way or easement shall be immediately restored by the Contractor to as near original condition as possible and the Contractor shall be responsible for all necessary restitution.

0610 COMPLIANCE WITH THE BARTOW COUNTY ROAD DEPARTMENT

0610.01 General

Portions of the public right-of-way is under the jurisdiction of the Bartow County Road Department and all work shall be completed in accordance with the policies and standards, thereof. The Contractor shall comply with all provisions required by the Bartow County Road Department including traffic control, clean-up, silt and erosion control and work schedules. The Bartow County Road Department reserves the right to inspect all work required by this contract for compliance with these policies, standards and provisions.

Permit plans have been provided by the Owner and reviewed by the Bartow County Road Department. The Contractor shall provide and secure any and all encroachment permits required by the Bartow County Road Department by completing and filing the documents appearing in Appendix A of this Section with the Bartow County Road Department. Any and all fees and costs associated with the encroachment permit acquisition shall be the responsibility of the Contractor. The Bartow County Road Department may be contacted at the following location.

Bartow County Road Department

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10 Ladd's Mountain Road
Cartersville, Georgia 30120
Telephone: 770.387.5140
Fax: 770.387.5016

0610.02 Excavation Within Roadway

For areas within the jurisdiction of the Bartow County Road Department, the roadway shall be considered the area beginning at a point 4' outside the edge of pavement/back of curb to a point 4' outside the opposing edge of pavement /back of curb.

0610.02.1 Trenching

All line pipe constructed within the roadbed shall be installed by the trenching method of installation with installation by excavator not allowed. Areas within the roadbed such as bore pits and tie-in excavations where the trenching method is not possible require the use of a trench box, proper shoring or sheeting and bracing at all times. Sheeting shall be removed when the trench has been backfilled to at least one-half its depth, or when removal would not endanger the construction of adjacent structures.

0610.02.2 Compaction Tests

Soil compaction tests shall be provided by the Contractor to confirm the level of compaction meets the required specification in all trenches and bore pits within the roadway. See *BACKFILLING* of this section for compaction and other backfilling requirements. The Contractor shall perform any re-testing as necessary to ensure the minimum compaction has been achieved.

Compaction tests shall be performed at 250' intervals where the line pipe is installed within the roadbed. Compaction tests shall be conducted and recorded by a recognized geotechnical company approved by the Owner and experienced in conducting compaction tests. The Owner shall be provided a record of all compaction tests.

0610.02.3 Cleanup of Backfill Material

In areas that it is necessary for backfill material to be temporarily stockpiled on the pavement, the pavement shall be cleaned of all backfill material at the end of each day's work. This shall include mechanical sweeping or, if required at the discretion of the Owner, washing of the pavement, to ensure that no dirt or silt remains on the

pavement at the end of each day's work. It shall be the Contractor's responsibility to provide and transport water as necessary to meet this requirement.

0611 CONNECTIONS TO EXISTING FACILITIES

0611.01 Connections to Existing Piping

Connections to existing piping shall be completed at the locations called for in the plans after it has been determined that no unharnessed mechanical coupling exists at the connection location. If an unharnessed mechanical coupling exists, it shall be harnessed before the facility is disturbed. Connections to existing piping shall be completed with the flow of gas interrupted. The valve or service tee at the connection to the existing supply of gas shall be closed and the pressure in the existing piping shall be reduced to atmospheric. The connection to existing piping shall be completed by welding. Connections to existing piping while gas is being vented to the atmosphere is prohibited.

0612 CROSSINGS OF EXISTING WATER MAINS

Portions of this project call for the crossings of existing ductile and/or cast iron water mains. The existing water mains shall be carefully supported and protected from damage. If any such structures are damaged, they shall be restored to their original condition by or at the expense of the Contractor. A minimum clearance of 24" shall be maintained between the proposed pipeline and the existing water main. The existing water main shall be wrapped with a polyethylene film for a length of 10' in either direction of the crossing and adequately affixed with duct tape or equivalent. Only 10' of the existing water main shall be exposed at any time. Prior to backfilling, the Contractor shall have the crossing inspected and approved by the owner of the water main facility. The Contractor shall notify the owner of the water facility 48 hours prior to excavating the facility. All costs incurred in meeting this requirement, including extra depth, shall be included in the price bid per linear foot of pipe and there will be no additional compensation.

0613 EXTRA DEPTH DITCH

The Contractor shall install the proposed main at a depth greater than the minimum depth specified to avoid conflicts with proposed and existing structures (*See the paragraph in this section entitled INTERFERENCE WITH EXISTING STRUCTURES*), in those areas requiring roadway and shoulder cuts and as directed by the Owner. In these areas, the Contractor shall install the proposed steel main to a depth of 48" or the proposed polyethylene main to a depth of 36" below the proposed, finished grade. Extra depth may also be required to maintain a minimum clearance of 24" between the top of the proposed main and the bottom

of the proposed storm drain pipe. All changes in grade shall be made gradually.

0614 EXISTING FENCES

The Contractor shall take down fences on or crossing the right-of-way for such periods of time only as are necessary to prosecute the work of clearing, grubbing, trenching, pipe laying, backfilling and cleanup. Gaps made in fences shall be closed in a substantial manner at night and during any suspension of work. All existing fences shall be restored to as good condition as before disturbed. All costs incurred in the removal and replacement of fences shall be included in the price bid per lineal foot of pipe. There will be no additional compensation.

0615 GRASSING

0615.01 General

0615.01.1 Temporary Grassing

Temporary grassing consists of sowing grass seed on a temporary basis where a disturbed area will be re-disturbed sometime within the project time frame and temporary mulching will not be enough to prevent erosion and sedimentation. It includes applying mulch and water as herein specified.

0615.01.2 Permanent Grassing

Permanent grassing consists of sowing grass seed on a permanent basis. It includes the preparation of the ground, applying mulch, water and fertilizer as herein specified. The type and amount of seed, fertilizer and lime shall be as called on the detail in the plans at the time this work is done to suit soil, seasonal conditions and to match existing grass of adjacent areas.

Disturbed areas abutting lawns and yards shall be restored promptly and type of grassing shall match that of the lawns and yards. Finishing, dressing and grassing shall be completed immediately following backfilling as a continuous operation. Care shall be taken to provide positive drainage to avoid ponding. Restoration will not be permitted to lag behind construction operations.

Methods for grassing of public rights-of-way disturbed during construction shall meet the requirements of Section 700-GRASSING of the State of Georgia Department of Transportation's Standard Specifications for Road and Bridge Construction, Latest Edition. Where grassing is disturbed beyond public rights-of-way, the methods

for grassing shall meet the following minimum requirements.

0615.02 Stand of Grass Required

It is the intent of this specification to require the Contractor to deliver a satisfactory stand of perennial grass before final payment will be made for any of the items herein described. If it is necessary to repeat any or all of the work, including plowing, fertilizer, seeding, and watering the Contractor shall never-the-less repeat these operations until a satisfactory stand is obtained. For this purpose, a satisfactory stand of grass is here defined as a full cover, over the areas to be seeded, with grass that is alive and growing, leaving no bare spots larger than one foot square.

0615.03 Ground Preparation

After the area to be seeded has been brought to finish grade, lime (*if required*) shall be uniformly distributed at the prescribed rate over the seeding area, with a mechanical spreader. The ground shall be prepared by plowing, disking and harrowing to a depth of at least 4 inches until these areas are friable, well pulverized and the lime in the surface shall be smoothed out. All roots and stones larger than 3 inches in any dimension, and all other foreign material detrimental to final grading, maintenance and proper growth of the planting shall be removed.

0615.04 Application of Fertilizer

Commercial fertilizer, 10-10-10 shall be distributed uniformly at the rate of 1,000 pounds per acre and shall be uniformly mixed with the soil to a depth of at least two inches by disking, harrowing or by other methods acceptable to the Owner. Fertilizer shall not be applied when the wind makes it difficult to get satisfactory distribution.

0615.05 Seeding

Seed of the prescribed type, labeled in accordance with the Georgia seed laws, rules and regulations shall be evenly spread with a mechanical spreader at rate sufficient to obtain a full stand of grass, but in no case less than 100 pounds of seed per acre.

0615.06 Mulch

All areas to be seeded shall be uniformly mulched with a continuous blanket of wheat straw hay immediately after seeding. It is intended that mulch shall allow some sunlight to penetrate and air to circulate, at the same time shading the ground, reducing erosion and conserving soil moisture.

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0615.06.1 Areas Contained by Silt and Erosion Control Devices

The rate of mulch application shall correspond to a depth of at least three inches (3") according to the texture and moisture content of the mulch material within areas contained by silt and erosion devices.

0615.06.2 Areas Outside Silt and Erosion Control Devices

The rate of mulch application shall correspond to a depth of at least six inches (6") according to the texture and moisture content of the mulch material outside areas of silt and erosion devices.

0615.07 Watering

Immediately after seeding, the Contractor shall soak the soil with water and shall keep all seeded areas continuously moist thereafter as necessary to insure proper maintenance of the grass.

0615.08 Maintenance of Grass

The Contractor shall do all maintenance work necessary to keep all planted area in a satisfactory condition until the work is finally accepted. This shall include mowing, repairing washes that occur, reseeding, and watering as required to produce a healthy and growing stand of grass. Mowing will be required to remove tall and noxious weeds before they go to seed.

0616 GUARANTY

All workmanship and material shall be guaranteed by the Contractor for one year after final acceptance and any defective workmanship, material, or equipment detected during this one year period shall be replaced by the Contractor at no cost to the Owner. Final acceptance of the project will be made only after all work has been completed, the facility is placed into service by the Contractor and is operating in accordance with the plans and these specifications and the Owner has formally accepted all of the work by issuing final payment.

0617 INFORMATION CONCERNING CONDITIONS

The accuracy of information furnished by the Owner and/or the plans and specifications as to underground and surface structures, foundation conditions, character of soil, position and quantity of ground and subsoil water, etc., are not guaranteed by the Owner. Bidders must satisfy themselves by personal examination and by such other means as they desire with respect to actual conditions in the nature of the ground and subsoil water and in regard to the locations of existing underground or surface structures. Unforeseen conditions

shall not constitute a claim for increased compensation under the terms of the proposal nor constitute a basis for the cancellation thereof.

0618 INTERFERENCE WITH EXISTING STRUCTURES

All existing utilities, pipes, drains or other structures on, above or below ground shall be carefully supported and protected from damage. If any such structures are damaged, they shall be restored to their original condition by or at the expense of the Contractor. A minimum clearance of 24" shall be maintained between the proposed pipeline and any existing structure unless called for otherwise in the plans. All costs incurred in meeting this requirement, including extra depth, shall be included in the price bid per linear foot of pipe and there will be no additional compensation.

Insulation spacers shall be installed when the proposed steel line pipe is in close proximity to a metallic structure.

0619 INTERNAL CLEANING OF PIPE

Before placing the facility into operation, the Contractor shall ensure that all line pipe is internally free from welding icicles, rust, moisture, scale, dirt, mud and any foreign particles. The Contractor shall remove all such material by propelling cleaning pigs through all line pipe installed for this project with compressed air or inert gas. This shall be repeated as many times as necessary to ensure removal of any such defects. Wire brush type cleaning pigs and standard cleaning pigs in succession shall be used for steel line pipe and cleaning pigs specifically designed for use with polyethylene internal diameters shall be used for polyethylene pipe. Foam drying pigs shall be used to dry line pipe where significant amounts of moisture are present. In such cases, it may be necessary to introduce a drying agent into the line to completely remove any moisture.

Once the cleaning operation is complete, the Contractor shall notify the Owner of the final passing of a cleaning pig and the Owner shall confirm the pipe is absolutely clean and free from any obstructions. If for any reason, the pipe sections cannot be welded together following the final cleaning operation, the line pipe sections shall be capped by welding and filled with air or inert gas.

Where line valves will be included in the pressure testing of the facility, internal cleaning of all line pipe shall be completed prior to performing any pressure test. All line valves shall remain in the open position during all pressure testing and internal cleaning of all steel line pipe.

0620 JOINERS

0620.01 General

All joiners shall be competent and experienced in polyethylene joining. All joiners shall have a complete working knowledge of the joining equipment and the procedures and precautions necessary for completing acceptable joints with a maximum of safety. Only electrically heated joining tools shall be used when joining polyethylene pipe and tubing. Only socket fusion will be allowed when joining polyethylene pipe and tubing to polyethylene fittings less than 2" in diameter. Butt fusion will be allowed when joining pipe 2" in diameter and larger. *Mechanical couplings will not be permitted.* All joiners shall be qualified under the requirements set forth in Section 0400 of these specifications, *CERTIFICATION, LICENSE AND TEST REQUIREMENTS.*

0620.02 Re-qualification Requirements

Re-qualification tests shall be required if there is some specific reason to question a joiner's ability or if the joiner is not engaged in a given process of joining for a period of six months or more.

0620.03 Procedure - General

The joining procedure followed during the qualifying tests shall be recorded in detail and shall be adhered to during subsequent construction. Joining shall not be done when the quality of the completed joint is likely be impaired by the prevailing weather conditions including, but not limited to, airborne moisture, blowing sand, or high wind.

0620.04 Inspection

The Owner shall have the right to employ any reasonable means of determining the character of each joiner's work, and may from time to time require the Contractor to cut out coupons or test pieces for the purpose of determining whether the joining is satisfactory. The cost of repairs necessary to replace such test pieces shall be borne by the Contractor.

0620.05 Standard of Acceptability for Joining of Polyethylene Pipe, Tubing and Fittings

The applicable requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition shall be the standard of acceptability for joining of polyethylene pipe and fittings.

0621 LAYING PIPE

All pipe shall be laid in a workmanlike manner in accordance with the best modern pipeline practice. It is intended that laying, as used here, includes welding, bending, insertion of slack and lowering. The Owner may instruct the Contractor to leave "open ends" at various points during construction. Such open ends shall be connected at such time and in such manner as directed by the Owner, but previous to the final test of the pipe. The providing of these open ends, if required, will be at locations designated by the Owner and for the purpose of relieving strain from temperature changes which may develop after the line has been placed in the ditch and its temperature lowered.

0622 LOCATE WIRE /MARKING TAPE

0622.01 Buried Steel Line Pipe

Marking tape shall be placed in the ditch line over the centerline of all buried steel line pipe. Buried steel line pipe shall be backfilled in accordance with these specifications to a point 18" above the pipe and marking tape shall be installed in the ditch 18" above the centerline of the pipe.

0622.02 Polyethylene Pipe

0622.02.1 General

Polyethylene pipe installed shall be easily and readily located by detection equipment in a continuous manner with no breaks or loss of the locate signal. Locate wire and marking tape shall be placed concurrently with the proposed polyethylene pipe installation. All splices in the locate wire shall be watertight and suitable for burying. The Contractor shall verify with proper detection equipment that the installation of the locate wire is detectable. All costs associated with the installation of detect tape shall included in the price bid per lineal foot of pipe. There will be no additional compensation.

0622.02.2 Buried Polyethylene Pipe

Locate wire and marking tape shall be placed in the ditch line over the center line of all buried polyethylene pipe. Buried polyethylene pipe shall be backfilled in accordance with these specifications to a point 6" above the pipe and locate wire shall be installed in the ditch 6" above the center line of the pipe. An additional 12" of backfill shall be placed over the locate wire and marking tape shall be place in the ditch 18" above the centerline of the pipe.

0622.02.3 Bored/Drilled Polyethylene Pipe

Only locate wire shall be installed with bored/drilled polyethylene pipe. Locate wire shall be inserted within a 1/2" CTS polyethylene casing on all bored polyethylene crossings and pulled concurrently with the carrier pipe to provide separation of the locate wire from the carrier pipe in accordance with the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Part 192.321- *Installation of plastic pipe*, Latest Edition.

0623 LOCATION OF EXISTING UTILITIES

It shall be the Contractor's responsibility to comply with the Georgia Utility Facility Protection Act and cause to have all utilities located prior to excavating. The Contractor shall request the location of all utilities by calling the Utilities Protection Center at 1-800-282-7411 or other applicable telephone number. The Contractor shall be aware of and familiar with all local, State and Federal Laws governing utility protection and conduct all excavation practices in accordance therewith.

0624 MARKING FACILITIES

The Contractor shall be responsible for marking and maintaining the location of the facilities installed under this Contract with "locate flags" as called for in State and Local laws, rules and regulations. "Locate flags" will be provided by the Owner. All costs incurred by the marking of facilities shall be included in the price bid per lineal of pipe according to type of installation and size and there will be no additional compensation.

0625 ORDER SEQUENCE OF WORK

To insure completion within the allotted time, the Owner will designate the starting point or points for construction and the sequence in which the work shall be constructed, completed and placed in operation. The Contractor shall observe and comply with the detail plans and all instructions from the Owner pertaining to the sequence of work.

0626 PAVEMENT REMOVED AND REPLACED

Pavement removed and replaced shall be completed at the locations shown in the plans as shown on the details in the plans. Pavement removed and replaced shall be completed in a fashion where disruption of traffic will be minimal. The use of traffic bearing plates will be necessary to meet this requirement. All pavement replaced in accordance with these specifications shall meet the approval of the State of Georgia Department of Transportation and the requirements of the Standard Specifications for Road and Bridge Construction, Latest Edition and the

Utility Accommodation Policy and Standards, latest Edition, there of.

0626.01 General

Removing and replacing pavement shall consist of removing the pavement and base course and replacing it in accordance with the details in the plans. Existing pavement removed shall be sawed or cut to neat, straight lines.

0626.02 Sub-grade

The trench shall be backfilled as specified in *BACKFILLING* of this Section.

0626.03 Width

Unless otherwise directed by the Owner, all pavement shall be removed to a maximum width as shown on the details in the plans.

0626.04 Disposal

All pavement debris shall be disposed of off of the project site in an environmentally acceptable manner.

0627 PLACING FACILITY INTO OPERATION

After all fabrication, backfilling, and testing is completed and acceptable to the Owner, the Contractor shall purge the newly constructed facility. Purge tees shall be provided and installed by the Contractor at no expense to the Owner. Purge tees shall be located at locations to ensure all piping and appurtenances are purged of all air. The Owner shall be given 48 hours notice before the purging operation begins.

0628 PLACING VALVES AND FITTINGS

Valves and fittings shall be placed at the locations shown in the plans or as designated by the Owner. Before placing in the trench, all valves and fittings shall be carefully examined, valves thoroughly worked and any defects corrected. Welding fittings shall be coated and wrapped as described in this section, *Joint Wrap*. Odd shaped fittings such as stopper fittings and purge tees may either be coated and wrapped as described above or thoroughly and evenly coated with Roskote No. 612XM. Before backfilling, all valves shall be thoroughly worked and properly lubricated as necessary. Valves, valve boxes and appurtenances shall be set as shown in the detail on the plans. Steel line valves shall be thoroughly and evenly coated with Roskote No. 612XM. Roskote shall be allowed to set before backfilling.

0629 PRESSURE TESTING

0629.01 General

All piping, associated valves and fittings and appurtenances shall be pressure tested in sections chosen by the Owner unless specified otherwise by these specifications and as called for by the applicable requirements of the Pipeline Safety Regulations, Code of Federal Regulations, Title 49, Latest Edition. All tests shall be conducted in the presence of the Owner. The Owner shall be given 48 hours notice before any pressure testing is conducted. The Contractor shall furnish suitable testing plugs or caps for the pipe, necessary compressors, pipe connections, gauges and other equipment and labor required. All breaks, leaks or defects in the pipe, valves, fittings or appurtenances shall be repaired and made good by the Contractor at his own expense. Following any necessary repairs, the section shall be re-tested until the test requirements have been successfully fulfilled. The test medium shall be air or inert gas.

Where line valves will be included in the pressure testing of the facility in accordance with these specifications, internal cleaning of all pipe shall be completed prior to performing the pressure test. All line valves shall remain in the open position during all pressure testing and internal cleaning of all steel line pipe.

If, for any reason, any steel line pipe has been installed and backfilled and the Contractor will not return to that section of the project within the same calendar week of the installation, the steel line pipe shall be filled with air or inert gas to a pressure of 100 psig.

0629.02 Requirements

The following tests shall run continuously for 24 hours at the discretion of the Owner and each test shall be recorded on a chart recorder. The recording chart shall be 12" in diameter and shall not span more than 1.5 times the test pressure. The test pressure shall be verified by an accurate spring gauge and the recording chart shall show no drop in pressure during the test. If the recording chart shows a drop in pressure due to a temperature variation, the test shall exceed the 24 hours until the drop has recovered to the original test pressure. A test record shall be prepared by the Contractor for each completed test. A copy of the acceptable record appears in Appendix A at the end of this section and may be reproduced for use on this project. The test chart and a test record for each successful and unsuccessful test shall be provided to the Owner. The test chart and a test record shall be accepted by the Owner before the test pressure is purged from the pipe section under test. The test pressure shall remain on the pipe

section under test until the time the pipe section is placed into service.

After backfilling, the steel line pipe and associated valves and fittings designated as part of the "high pressure" distribution system, those facilities upstream of the proposed regulator station, shall be tested in sections chosen by the Owner to a pressure of 500 psig.

After backfilling, the steel line pipe and associated valves and fittings designated as part of the "low pressure" distribution system, those facilities downstream of the proposed regulator station, shall be tested in sections chosen by the Owner to a pressure of 100 psig.

0629.02.1 Regulating Station

After fabrication, the piping, associated valves and fittings upstream of the regulators in the regulating stations shall be tested to a pressure of 500 psig.

After fabrication, the piping, associated valves and fittings downstream of the regulators in the regulating stations shall be tested to a pressure of 100 psig.

After placing the regulating station into operation, all threaded and flanged connections shall be "soap tested" in the presence of the Owner at operating pressure to ensure there is no evidence of leakage. Any evidence of leakage shall promptly be repaired by the Contractor.

0630 PREVENTION OF ACCIDENTAL IGNITION

The Contractor shall take the necessary precautions to prevent the accidental ignition of natural gas when cutting into and/or removing a section of pipe. These precautions shall include, but not be limited to, grounding and bonding. The cutting into of a section of pipe shall not commence until that section is isolated and the pressure in the section has been reduced to atmospheric. Only mechanical cutters will be allowed when cutting into a pipe section.

0631 PROTECTION OF FINISHED WORK

The Contractor will be held responsible for all work installed and shall be required to replace or repair any work damaged by any source or cause whatsoever until final acceptance of the work done by the Owner.

0632 PROTECTION OF PAVEMENT AND CURBING

When working along streets or roads, the Contractor shall use rubber-tired or other equipment which will not damage the paving or curbing. If pavement or curbing is damaged through negligence or carelessness on the part of the Contractor during construction, it shall be replaced at no expense to the Owner. Mats shall be used to support tracked equipment while in use or while sitting on pavement. In no case shall a tracked vehicle be "walked" along a paved road or street from one section of work to another.

0633 PROTECTION OF TREES

The Contractor shall remove only such trees on or along the work as the Owner permits, and shall carefully protect all other trees adjacent to the work. He shall not permit excavating machinery or trucks to scrape the bark or tear the limbs from the trees, nor connect ropes or guy cables to them.

0634 PROTECTION OF PIPE SECTIONS

If it shall be necessary to stop work for any reason before the sections are welded together, suitable protection must be placed on the ends of the pipe so that they may be kept fully free from obstructions. These precautions must be carefully observed and at no time neglected as the line must be delivered to the Owner ready for operation entirely free from water, dirt or other obstruction, and the line, before its completion and acceptance, must be absolutely clean inside.

0635 RECORD DRAWINGS

The Contractor shall submit accurate and detailed record drawings of the completed installation in plan to the Owner. Record drawings shall accurately show any changes in the existing facilities that may differ from that as shown on the plans including locations, sizes and materials. Record drawings shall accurately show by detailed measurements the locations of all proposed appurtenances to the construction including regulating stations, farm tap assemblies, valves, cathodic protection test stations, fittings, etc. Record drawings shall show the as-built alignment of all line pipe installed referencing permanent structures or, if not available as in the case of roadway relocation, station numbers and offsets. Alignment shall be referenced at 100' intervals. Where the line pipe is installed at depths other than those proposed, the record drawings shall accurately show the locations and installation depths. Record drawings shall be submitted on the full-size contract plan drawings.

0636 REGULATING STATION

0636.01 Site Preparation

The site for the construction of the regulator station shall be cleared and grubbed in its entirety. See Clearing and Grubbing in this section of these specifications. The site shall also be leveled and sloped for proper drainage and any left over spoil shall be disposed of off the project site. Any spoil required to level the site shall be provided by the Contractor. There will be no additional compensation.

0636.02 Fabrication

The proposed regulating station shall be constructed as shown on the details in the plans. It shall be the Contractor's responsibility to insure the pipe is internally cleaned of all rust, weld splatter, foreign particles and moisture. All equipment shall be installed in accordance with the manufacturer's specifications and instructions.

0636.03 Painting

0636.03.1 Surface Preparation

All above ground piping, and appurtenances shall be mechanically cleaned by sandblasting to remove all rust and scale. Sandblasting shall conform to SSPC-SP6. Care shall be taken to mask all manufacturer and specification labels, vents, and concrete work. Gauges, electronic correctors and stainless steel tubing, valves and fittings shall *not* be installed until all painting has been completed. After blast cleaning, all surfaces shall be thoroughly and completely cleaned, free of all residue, moisture, old primer, or dust before applying new primer. All bare metal surfaces shall be primed the same day they are sand blasted.

0636.03.2 Painting Workmanship

All painting shall be done by skilled and competent painters by conventional air or airless spray. Each field coat shall carefully be applied in a manner that will provide uniform coverage with complete shading of the previous coat and shall be carefully worked around joints and other irregularities in the surface. Deficiencies in film thickness shall be corrected by the application of an additional coat(s) of paint. Each coat shall be allowed to dry properly before the next coat is applied. The day's painting should be completed well in advance of the probable time of day when condensation will occur, in

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order to permit the film an appreciable drying time prior to the formation of paint moisture.

0636.03.3 Dry Film Thickness

Shop or Field Primer Coat:	3.0-5.0 mils
Field Intermediate Coat:	4.0-6.0 mils
Field Finish Coat:	3.0-5.0 mils
Field Clear Coat:	<u>1.0-2.0 mils</u>

Total System: 11.0-18.0 mils

Dry film thickness shall be confirmed with a dry film gauge after each coat has been applied.

0636.03.4 Paint and Paint Products

All materials shall be brought to the job site in the original sealed and labeled containers of the paint manufacturer and shall be subject to inspection by the Owner on the job. Application shall be accordance with the manufacturer recommendations.

When thinning is necessary, only the products of the manufacturer furnishing the paint, and for the particular purpose, shall be allowed. All thinning shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge and approval of the Owner.

0636.04 Pressure Testing

The requirements of this section, *PRESSURE TESTING*, shall be met for the installation of the regulating station.

After placing the regulating station into operation, all threaded and flanged connections shall be "soap tested" in the presence of the Owner at operating pressure to ensure there is no evidence of leakage. Any evidence of leakage shall promptly be repaired by the Contractor.

0636.05 Placing Station Into Operation

After all fabrication, erection, painting, backfilling and testing is complete and acceptable to the Owner, the Contractor shall purge the newly constructed facility. Prior to purging the facility, the regulator and relief valve installation shall be inspected by the appropriate Owner's representative to determine that they have been installed and, once placed into service, are

performing in accordance with the manufacturer's instructions and specifications. The Owner shall be given 48 hours notice prior to the purging operation.

The Contractor shall have the Owner inspect the installations to determine that they have been installed and are performing in accordance with the manufacturer's instructions and specifications. The Contractor shall give ample notice to the Owner to perform their inspections as required above.

0636.06 Placing Stone

Once the station is completed, the Contractor shall treat the soil with an environmentally approved sterilizer to prevent plant growth inside the station prior to the placement of the polyethylene liner and stone.

0637 REMOVAL OF TEMPORARY SILT & EROSION CONTROL DEVICES

Once the Contractor has established the required stand of grass and silt and erosion is no longer evident, the Contractor shall remove all temporary silt & erosion control devices. All devices shall be disposed of off of the project site. All areas that are disturbed from this removal process shall be restored to as near as possible the condition before the removal process started. All costs incurred in this restoration process shall be at the expense of the Contractor.

0638 RIGHT-OF-WAY AND EASEMENTS

Unless called for otherwise by these specifications, the Owner will provide all necessary permits, easements and rights-of-way through and over private property and along and under the highways and railways.

0639 ROCK EXCAVATION

All material shall be considered solid rock which cannot be excavated except by drilling, blasting or wedging. It shall consist of undecomposed stone in solid ledges or of boulders of not less than 1/2 cubic yard volume. When rock is encountered, the area shall be cleared from the rock to a depth and width of 12" from all sides of the pipe and the Owner notified who shall then measure the rock for payment. Prior to pipe installation, the bottom of the trench shall be backfilled to the grade of the pipe with selected material free from rock and rock fragments and thoroughly compacted. Following pipe installation, the ditch shall be backfilled to a point 12" above the pipe with selected material free from rock and rock fragments and thoroughly compacted. At the discretion of the Owner, rock shield or clean fill will be provided by the Owner for installation by the Contractor prior to lowering the pipe into the ditch.

The remainder of the backfill shall not contain over 75% broken stones, and the maximum stone size placed in the trench shall not weigh more than 50 pounds each. Excess rock and fragments shall be disposed of in a satisfactory manner off of the project site.

Rock excavation by blasting shall be at least 100' in advance of pipe installation. The Contractor shall utilize procedures and techniques in accordance with safe and accepted blasting practices in accordance with all Local, State and Federal Laws, Codes and Regulations. The Contractor will be responsible for any and all damage associated with rock excavation by blasting.

0640 SILT AND EROSION CONTROL DEVICES

0640.01 General

The construction of this project requires Best Management Practices (*BMPs*) in the prevention of sedimentation and the control of erosion. All silt and erosion control devices installed, constructed and maintained on this project shall conform to the standards and specifications set forth by the "Manual for Erosion and Sediment Control in Georgia", latest edition and must withstand up to a 25-year rainfall event. The road construction contractor will be responsible for providing silt and erosion control permitting and the installation of silt and erosion control devices project wide.

The Contractor will be responsible for the prevention of sedimentation and erosion control in all areas outside the scope of the Developers' silt and erosion control limits until permanent grassing has been established in such areas disturbed by construction and sedimentation and erosion is no longer evident. Silt and erosion control devices will be paid for at the unit price bid according to device.

The Contractor will be responsible for the protection of existing silt and erosion control devices installed, constructed and maintained by others. If such devices are disturbed or damaged by the Contractor, all such devices shall be repaired or replaced at the Contractor's expense.

Best Management Practices (*BMP's*) shall be implemented by the Contractor to prevent or minimize erosion and control sedimentation with the installation and implementation of silt and erosion control devices before any land disturbing activity commences. Silt and erosion control devices shown on the details in the plans and at the locations shown in the plans shall be considered a minimum and additional measures deemed necessary shall be immediately implemented to effectively prevent or minimize erosion and control sedimentation. Silt and erosion control devices shall be effectively maintained and shall be removed once the

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erosion of the disturbed area has been permanently prevented and the area stabilized. Installation, maintenance and removal of silt and erosion control devices shall be in accordance with the minimum requirements of the following minimum standards.

- Manual for Erosion and Sediment Control in Georgia, Latest Edition
- State of Georgia Department of Transportation Standard Specifications, Construction of Roads and Bridges, Latest Edition
- National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges Associated With Construction Activity For Infrastructure Construction Projects, Permit No. GAR100002.

0640.02 Maintenance and Inspection

Silt and erosion control devices shall be inspected by the Contractor for effectiveness, damage and proper installation at the end of each working day not to exceed once every seven (7) calendar days and within 24 hours of the end of a rainfall event that is 0.5 inches or greater. Repair of damaged or improper installation shall be remedied by the Contractor within 24 hours of inspection. Improper effectiveness of any silt and erosion control device or combination thereof that has been properly installed and maintained shall be reported to the Owner within 24 hours of inspection. Silt and erosion control devices shall be cleaned of sediment as required for the specific device. Disposal of sediment shall be in a fashion that it will not re-enter the silt and erosion control devices. All damage or improper installation shall be promptly remedied by the Contractor.

All maintenance and inspection records shall be kept on the project site at all times during construction and shall be made available for review at any time. Copies of maintenance and inspection records shall be provided to the Owner at the close of each calendar week.

0640.03 Temporary Silt Fence

0640.03.1 General

Temporary silt fence shall be installed only in areas where sheet flow conditions exist. Drainage area for temporary silt fence shall not exceed one-quarter of an acre per 100 feet of non-reinforced fence or one-half acre per 100 feet of wire-reinforced silt fence. Temporary silt fence shall not be installed in waterways or areas of concentrated flow. Filter fabric shall be replaced when deteriorated or within six months whichever occurs first. Temporary silt fence shall be cleaned of sediment before reaching two-thirds full.

640.03.1.1 Non-Sensitive (Type "B")

Non-sensitive temporary silt fence shall be installed where life expectancy is greater than six months or slope gradient is steeper than 3:1 or otherwise directed. Non-sensitive temporary silt fence shall be installed as shown on the detail in the plans. Wood or steel posts shall begin at the center of the lowest point and shall be set 18" in the ground with a spacing of no more than 6 feet. Filter fabric shall be installed 6" deep with a height above ground of 30".

640.03.1.2 Sensitive (Type "C")

Sensitive temporary silt fence shall be installed where fill slopes exceed a vertical height of 20' and slope gradient is steeper than 3:1 or otherwise directed. Sensitive temporary silt fence shall be installed as shown on the detail in the plans. Steel posts shall begin at the center of the lowest point and shall be set 18" in the ground with a spacing of no more than 4 feet. Filter fabric shall be installed 6" deep with a height above ground of 30" and shall be woven wire supported.

0640.04 Construction Exits

Construction exits shall be located at all points where traffic exits the construction area to a public or private right-of-way, street, alley or parking area. Construction exit pad shall be constructed over a geotextile liner with National Stone Association R-2 or Department of Transportation No. 3 size coarse aggregate (1-1/2"-3-1/2"). Construction exit pad shall be a minimum of 20 feet wide by 50 feet in length and a minimum thickness of 6" and shall be excavated 3" below existing grade. Construction exits shall be maintained in such condition that will prevent tracking or the flow of mud onto public or private right-of-ways, streets, alleys or parking areas. Construction exits shall be periodically dressed with 1-1/2"-3-1/2" stone and any mud or debris tracked or spilled onto public or private right-of-ways, streets, alleys or parking areas shall be removed immediately.

0641 STEEL LINE PIPE COATING

0641.01 Plant Applied Coating

Steel line pipe coating procedures and electrical inspection shall be in accordance with the National Association of Pipe Coating Applicators (NAPCA) Specifications and Plant Coating Guide, Latest Edition and as required by the coating manufacturer.

0641.02 Joint Wrap

Joint wrap shall be applied in accordance with the wrap manufacturer's application procedures, instructions and recommendations. The Contractor shall have a copy of the application procedures available for inspection at the project site and the workmen shall be properly instructed by the wrap manufacturer of the application procedures. The following minimum procedures shall be followed in addition to the above.

0641.02.1 Surface Preparation

Surfaces should be dry and cleaned of all rust, scale, soil, mud, oil, grease and other contaminants by motor-assisted wire brushing or blasting to "white metal finish" (SIS-Sa 2 1/2). Burrs or other sharp points shall be removed by filing or peening. Grease or oil shall be removed by naphtha or other oil-removing solvent, and the joint wiped dry.

0641.02.2 Primer

Where applicable, primer shall be applied by brush or roller without thinning and brushed to a thin film not more than 1 1/2 mils dry thickness. Primer shall not be applied too thick. Pipe heated by welding shall be allowed to cool to 120°-140° F before applying primer. Primer shall not be applied to pipe where condensation has been allowed to form.

0641.02.3 Spiral Tape Wrap

Wrapping tape shall be applied with a half overlap under a tension of about five pounds per inch of width starting and finishing about two inches back from the edge of the coating. The start shall always be made at the rear end of the joint as determined by the direction in which pipe laying is proceeded. The first and last turns shall be wrapped one and one-third times squarely around the pipe. Intermediate turns across the joint shall be spirally overlapped. Angle changes shall be accommodated by increasing the tension on the appropriate tape edge. The last one-third turn shall be applied without tension, the tape end being merely pressed in position.

0641.03 Field Repair of Damaged Areas

Any damaged areas shall be repaired by trimming the frayed areas of the coating, applying a brush coat of tape primer and wrapping the entire circumference of the pipe with tape. "Patching" of the damaged areas will

not be acceptable.

0641.04 Field Test of Line Pipe Coating

Field tests of the line pipe coating shall be conducted immediately before the pipe is lowered into the trench. Field tests shall be conducted after the pipe has been welded and the joints prepared and wrapped in accordance with this section. Field tests shall be conducted by visual and electrical inspection. The coating and joint wrap shall be visually inspected for damage and promptly repaired before electrical inspection. Electrical inspection shall be conducted with a 10,000-volt electric holiday detector and the pipe shall be grounded by means sufficient to the operation of the holiday detector. The detector shall be equipped with a positive signaling device to indicate flaws, holes, breaks or conductive particles in the plant applied and field wrap coatings. Test voltages shall *not* be less than that used by the coating applicator in accordance with NAPCA Specification and Plant Coating Guide, Bulletins 1-65-87 through 15-83-87. All defects found by visual or electrical inspection shall be repaired in accordance with this section and the pipe again tested before lowering into the trench.

Before each day's pipe installation, the Contractor shall inspect the condition of the holiday detector and demonstrate that it is properly working with a voltmeter and a high voltage probe. The test voltage must be the voltage as measured grounding to the line pipe and not the measured voltage of the holiday detector output to an earth ground. If at anytime it is questionable that the detector is properly working, it shall be tested and demonstrated that the detector is properly working.

0642 TRENCH EXCAVATION

Pipe trenches shall be excavated on lines shown on the plans. The bottom of the trenches shall be hand dressed so that the pipe has even bearing on solid, undisturbed earth throughout its length. Trenches shall be of sufficient width to provide ample working space on each side of the pipe and for maintaining a straight line of pipe. The Owner shall have the right to limit the amount of trench open at any one time. All excavated material shall be so placed as not to interfere with public travel on the roadway along which the lines are laid.

Lines shall be constructed at depths as shown in the plans. Lines shall be placed at greater depths when shown on the plans or as directed by the Owner. All grade changes shall be made gradually. If necessary of at the direction of the Owner, bending of the pipe or welded fittings shall be implemented. In laying pipe across water courses or depressions of any kind, the minimum depth herein specified shall be maintained at the bottom of the depression.

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0643 WELDERS

0643.01 General

All welders shall be competent and experienced in pipeline welding. Only Shielded Metal-Arc Welding (*SMAW*) will be acceptable on pipe 2-3/8" O.D. and larger. Acetylene welding will be allowed on pipe smaller than 2-3/8" O.D. All welders shall have a complete working knowledge of the welding equipment and the procedures and precautions necessary for completing acceptable welds with a maximum of safety. All welders shall be qualified in accordance with Section 0400, *CERTIFICATION, LICENSE AND TEST REQUIREMENTS* of these specifications.

0643.02 Re-qualification Requirements

Re-qualification tests shall be required if there is some specific reason to question a welder's ability or if the welder is not engaged in a given process of welding (*i.e., arc or gas*) for a period of six months or more.

0643.03 Qualification Records

The Contractor shall maintain a record of the welders qualified to weld for this project including the date and results of tests.

0643.04 General Welding Procedure

All welding shall be completed in accordance with the Municipal Gas Authority of Georgia's Subscribed Regulatory Compliance Service's (*SRCS's*) detailed written procedure specification for each welding process or method of application implemented. The welding procedure followed during the qualifying tests shall be adhered to during subsequent construction. Welding shall not be done when the quality of the completion weld would be likely to be impaired by the prevailing weather conditions including, but not limited to, airborne moisture, blowing sand, or high wind. Wind shields shall be used when practical.

The steel line pipe will be welded by the conventional method of roll welding as many sections of pipe as practicable and later joining these roll welded sections by position welds over the ditch or by such methods as the Owner may approve. The Owner shall have the right to limit the number of sections of pipe welded ahead of the ditch at any one time.

0643.05 Welding Inspection

The Owner shall have the right to employ any reasonable means of

determining the character of each welder's work, and may from time to time require the Contractor to cut out coupons or test pieces for the purpose of determining whether the welding is satisfactory. The cost of repairs necessary to replace such test pieces shall be borne by the Contractor.

All coupons suspected of having welds that are unsatisfactory shall be tested in accordance with API Standard 1104 *Welding of Pipelines and Related Facilities*, Latest Edition incorporated by reference by the Code of Federal Regulations, Section 3.4-Visual Examination and Section 3.5-*Destructive Testing*. If the coupons fail to pass these requirements, the Contractor shall be responsible for the costs of testing. If the Owner, after reviewing the test data, determines that the character of the remaining welds is in question, all of these welds shall be non-destructively tested by radiographic examination. The Contractor shall be responsible for his pro rata share for the cost of radiographic examination. The Contractor's pro rata share shall be the total cost for radiographic examination multiplied by the ratio of the failures to the total examined. Radiographic examination shall meet the requirements of API Standard 1104 *Welding of Pipelines and Related Facilities*, Latest Edition incorporated by reference by the Code of Federal Regulations, Section 6-*Acceptance Standards for Non-destructive Testing*. All testing shall be conducted by a recognized laboratory and the test results shall be furnished to the Owner.

0643.06 Standards of Acceptability

All welding shall be completed in accordance with the requirements of API Standard 1104 *Welding of Pipelines and Related Facilities*, Latest Edition incorporated by reference by the Code of Federal Regulations.

..... END OF SECTION

SECTION 0600: APPENDIX A



NATURAL GAS MAIN EXTENSION
TRANSWESTERN INDUSTRIAL
PRESSURE TEST RECORD

Cartersville Project No.: SP-21-004

Test Medium (*check one*): Air Nitrogen Other (*specify*) _____

Test Length: _____ Hrs _____ Min Test Pressure: _____ Begin PSIG _____ End PSIG

Pressure Loss: _____ PSIG Reason for Loss: _____

Begin Date: _____, 20____ at _____ am / pm (*circle*) _____ Owner's Initials

End Date: _____, 20____ at _____ am / pm (*circle*) _____ Owner's Initials

Test Section Length: _____ L.F. Owner's Representative: _____

Test Section From: Sta. _____ Rt / Lt (*circle*), _____

(*location, type of fitting, etc.*)

Test Section To: Sta. _____ Rt / Lt (*circle*), _____

(*location, type of fitting, etc.*)

Contractor: _____, _____, _____ (*name, city, state*)

Contractor's Superintendent/Foreman: _____

Pipe Supplier: _____, _____, _____ (*name, city, state*)

Pipe Manufacturer: _____, _____, _____ (*name, city, state*)

Pipe Size: _____ " O.D. _____ " W.T./DR Grade: _____

_____ " O.D. _____ " W.T./DR Grade: _____

_____ " O.D. _____ " W.T./DR Grade: _____

_____ " O.D. _____ " W.T./DR Grade: _____

Joining Method: Shielded Metal Arc Welding (*SMAW*) Fusion (*check one*)

Preheat, Stress Relief: Yes No If yes; Temperature: _____ °F

Attach additional sheets as necessary.

BARTOW COUNTY UTILITY PERMIT REQUEST

DATE: _____ YOUR APPLICATION OR JOB NO. SP-21-004

COMPANY NAME AND ADDRESS: _____

REQUESTED BY: _____ TITLE: _____

PHONE: _____ BARTOW COUNTY BUSINESS LICENSE #: _____

FAX NO: _____ MOBILE NO: _____ EMAIL: _____

24 HOUR CONTACT _____ PHONE: _____

(Twenty-four hour contact person and at least one person on-site must be able to effectively communicate with Department)

FAX NO: _____ MOBILE NO: _____ EMAIL: _____

IF A CONTRACTOR IS TO BE USED

Company Name and Address of Contractor: _____

24 HOUR CONTACT _____ PHONE: _____

FAX NO: _____ MOBILE NO: _____ EMAIL: _____

REQUEST TO INSTALL _____ AERIAL _____ UNDERGROUND UTILITIES IN
THE COUNTY RIGHTS-OF-WAY FOR: (check all that apply)

Data Communications Co-axial cable Long Distance Cable Gas

Water Waste Water Power Trunk Communications

Other: _____

LENGTH (Miles to nearest .01 Rounding Up) _____

FROM: _____

TO: _____

LOCATION: _____

LAND LOT(S): _____ DISTRICT: _____

Applicant shall obtain a copy and be familiar with the Bartow County Utility Permitting Procedures and the current version of the Georgia Department of Transportation's "Utility Accommodation Policy and Standards". Applicant agrees that all permitted installations must strictly comply with these two policies, federal and state laws, as well as all Bartow County codes and regulatory directives issued by the Bartow County Road Department. Applicant agrees to abide by the requirements contained in this ordinance and all attachments thereto. In the event of a conflict between the Georgia Department of Transportation's Utility Policy and Standards and the requirement under this ordinance, the less restrictive regulation shall apply.

Applicant shall submit with this request the minimum information required for a utility permit application as shown on Attachment 1. Applicant shall submit the appropriate fee calculated according to the Attachment 2 Fee Worksheet. The proper attachments and supporting documents shall be attached to this Permit Request Form. The Bartow County Road Department will contact Applicant to arrange a pre-permit conference, if necessary. "Applicant", as used in this permit, includes contractor(s), their subcontractor(s), agents and assigns.

CALL BEFORE YOU DIG
1-800-282-7411

(FOR UTILITY PERMITTING DEPARTMENT ONLY)

AUTHORIZED BY: _____ DATE APPROVED: _____

DATE OF EXPIRATION: _____ FEE: _____

COMMENTS/CONDITIONS: _____

BARTOW COUNTY
RIGHT OF WAY PERMIT FEE WORKSHEET
ATTACHMENT II

Name of Applicant: _____ Permit # _____

Co-Applicants: _____

Project/Location: _____

PART I: SINGLE APPLICANT

Number of Miles of facilities to be installed (round up to nearest .01 mile)		
Multiply by the Variable Fee per mile	x	\$425.00
	=	
Add Application Fee (\$25.00)		\$25.00
Total Amount Due		

PART II: CO-LOCATING APPLICANTS¹ NAME: _____

Number of Miles of facilities to be <u>jointly</u> installed (round down to nearest .01 mile)		
Multiply by the Variable Fee per mile	x	\$318.00
A = Joint mileage fee	=	
Number of Miles facilities to be <u>separately</u> installed (round up to nearest .01 mile)		
Multiply by the Variable Fee per mile	x	\$425.00
B = Separate Mileage Fee	+	
C = Application Fee (\$25.00)	+	\$25.00
Total Amount Due (add A + B + C)		

¹ Each applicant must submit a separate worksheet. The Bartow County Road Department permitting staff must verify co-location application. To qualify for the co-location discount, the facilities must otherwise require at least two permits. Additionally, the drawings must show the co-located facilities with names of each owner of the facilities. The facilities must be installed in the same trench or boring during the same excavation. The objective of this discount is to encourage co-location such that the right of way is disrupted as few times for as short a time as possible, and ROW space is conserved.

CONTRACTOR'S SPECIAL ASSURANCES FOR
UTILITY CONTRACT WORK WITHIN BARTOW COUNTY'S RIGHTS-OF-WAY

Project Identification: _____ Permit # _____

Contract Identification/Location: _____

Contractor agrees that all work to be performed under this permit, whether performed by Contractor or any of its subcontractors, which is to be performed on Bartow County's rights-of-way under control and permit of the Bartow County Road Department ("the Department"), shall be done in compliance with the terms and conditions of the Department's permit and Ordinance 01-2 (incorporating the Georgia Department of Transportation's Utility Accommodation Policy and Standards). The Department shall have the right to inspect the work and to require any action necessary to correct all deviations from said terms and conditions.

Contractor agrees to indemnify and hold harmless Bartow County, its agents, departments and employees from and against any and all damages, claims, demands, actions, causes of action, costs and expenses of whatsoever nature which may result from any injury to, or the death of, any persons or from the loss of, or damages to property of any kind or nature, including the Bartow County roadway ("roadway") and facilities or structures which now or may hereafter occupy the rights-of-way of the said roadway, when such injury, death, loss or damages arise out of construction, installation, maintenance, repair, removal, relocation, operation or use of the pole line, buried cable or conduit, pipeline, or miscellaneous use of the utility facility covered by the permit or out of miscellaneous operations authorized by the permit.

Contractor agrees that the Bartow County Road Department shall not be held liable for any extra expenses or damages to the contractor, its subcontractors, or its obligees in reliance on any pre-permit conference discussions, or as a result of the requirement(s) for compliance with the Department's standards and specifications or any corrective action which the Department may order in enforcement thereof. Contractor also agrees that Contractor and any and all sub-contractors must comply with all rules and regulations or the permit may be suspended, cancelled or revoked by a Stop Work Order. Contractor also agrees to pay for any extraordinary inspections performed by Bartow County personnel as deemed necessary by Bartow County personnel to assure public safety, unless a specific agreement as to fees should supersede this agreement.

Contractor agrees that all limitations of liability as found in the State of Georgia Department of Transportation's Utility and Accommodation Policy and Standards shall also apply, and in the event of conflict, the least restrictive provision shall apply.

Signed, sealed and delivered this the _____ day of _____, 20_____.

Witness:

Contractor

Notary Public

Contractor's Authorized Representative

My commission expires:

(Print Name)

SECTION 0700 – MEASUREMENT AND PAYMENT

0701 GENERAL

The unit price or lump sum price bid for each item shall be for furnishing all materials, tools, labor, equipment, skills, tests and certifications, and incidentals necessary to complete the items as shown on the plans, as shown on the details in the plans and as called for in the specifications.

0702 BORES

0702.01 Measurement: Bores will be measured along the surface of the ground over the centerline of the bore successfully completed according to size and the lengths as specified in the plans. The measurement will be in linear feet.

0702.02 Payment: Bores will be paid for at the unit price bid per linear foot of bore successfully completed according to size and the lengths as specified in the plans. This unit price will be full compensation for furnishing all labor, equipment, tools and incidentals necessary to complete the bores at the locations shown in the plans and as called for in the specifications.

This unit price pertains to the bore only and the line pipe will be paid for at the price bid per linear foot of bore pipe according to size.

Only those bores called for at the locations in the plans will be paid for at the price bid for bores. At the discretion of the Contractor, any portion of the proposed polyethylene pipe may be installed by directional bore in accordance with the specifications. Polyethylene pipe installed by directional bore will be paid for the unit price bid for polyethylene pipe as if installed by direct bury including temporary and permanent grassing and silt fence. There will be no additional compensation.

0703 CONNECTION TO EXISTING PIPE

0703.01 Measurement: Connection to existing pipe will be measured by the actual count of each connection completed according to size and material.

0703.02 Payment: Connection to existing pipe will be paid for at the unit price bid per connection completed according to size and material. This unit price will be full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for connection at the locations shown in the plans and as called for in the specifications.

0704 CONSTRUCTION EXITS

0704.01 Measurement: Construction exits will be measured by the actual count of each construction exit constructed and properly functioning.

0704.02 Payment: Construction exits will be paid for at the unit price bid per construction exit constructed and properly functioning. This unit price will be full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the construction of construction exits at the locations shown in the plans, as shown on the detail in the plans and as called for in the specifications.

This unit price shall include silt cleanout as necessary and as required.

0705 GRASSING

0705.01 Measurement: Grassing will be measured by multiplying the width by the length of the area grassed according to type and dividing by 9. The measurement will be in square yards. The maximum width, however, shall not exceed 15 feet where the pipeline is adjacent to the roadway. Areas beyond 15 feet in width disturbed by the construction of this project shall be grassed as called for in the specifications at the expense of the Contractor.

0705.02 Payment: Grassing will be paid for at the unit price bid per square yard according to type. This unit price will be full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work as called for in the specifications.

0706 LINE VALVE ASSEMBLY

0706.01 Measurement: Line valve assembly will be measured by the actual count of each valve installed according to size, type and material.

0706.02 Payment: Line valve assembly will be paid for at the unit price bid per valve installed according to size, type and material. This unit price will be full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the installation of the line valve assembly at the locations shown in the plans, as shown on the detail in the plans and as called for in the specifications.

This unit price includes the construction of cast-in-place concrete collars and providing and installing valve markers as called for in the specifications and as shown in the details on the plans.

Line valves will be provided by the Owner.

0707 LOCATE STATION

0707.01 Measurement: Locate station will be measured by the actual count of each station installed.

0707.02 Payment: Locate station will be paid for at the unit price bid per station installed. This unit price will be full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the installation of the locate station at the locations shown in the plans, as shown on the detail in the plans and as called for in the specifications.

Locate station assembly will be provided by the Owner.

0708 PAVEMENT REMOVED AND REPLACED

0708.01 Measurement: Pavement removed and replaced will be measured by multiplying the length of paving removed and replaced according to type in feet, multiplying by the maximum width of 5 feet and dividing by 9. The measurement will be in square yards.

0708.02 Payment: Pavement removed and replaced with gravel will be paid for at the unit price bid per square yard removed and replaced according to type. This payment will be full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the removal and replacement of paving as shown on the detail in the plans and as called for in the specifications.

This unit price will also include disposal of all pavement debris and steel plating necessary to the flow of traffic until the replacement with gravel is completed.

0709 POLYETHYLENE PIPE

0709.01 Measurement: Polyethylene pipe will be measured along the surface of the ground over the centerline of the pipe installed and tested according to size. The measurement will be in linear feet and no deduction will be made for space occupied by valves or fittings. However, no separate payment will be made for fittings.

0709.02 Payment: Polyethylene pipe will be paid for at the unit price bid per linear foot of pipe installed and tested according to size. This unit price will be full compensation for furnishing all materials, fittings, labor, equipment, tools, incidentals, necessary to complete the installation at the locations shown on the plans and as called for in the specifications. This unit price will also include extra depth installation as shown in the plans, as called for in the

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specifications or as directed by the Owner.

Polyethylene pipe will be provided by the Owner.

0710 REGULATING STATION

0710.01 Measurement: Regulating station will be measured by the actual count of each station completed, tested and operational on a lump sum basis.

0710.02 Payment: Regulating station will be paid for at the unit price bid per station completed, tested and operational on a lump sum basis. This price will be full compensation for furnishing all labor, materials, tools, grading, clearing and grubbing, fill dirt, equipment and incidentals necessary to complete the installation at the locations shown in the plans, as shown on the details in the plans and as called for in the specifications. This unit price will also include the connections to the proposed line pipe upstream and downstream of the station. Bid limits for the regulating station shall extend to the limits of stone 1' beyond the proposed traffic barrier.

Block valves, steel line pipe, regulators and relief valve will be provided by the Owner.

0711 REMOVAL OF TEMPORARY SILT & EROSION CONTROL DEVICES

0711.01 Measurement: Removal of temporary silt & erosion control devices will be measured on a lump sum basis completed.

0711.02 Payment: Removal of temporary silt & erosion control devices will be paid for on a lump sum basis completed. This unit price will be full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the removal of silt & erosion control devices as called for in the specifications.

0712 SOLID ROCK EXCAVATION

0712.01 Measurement: Solid rock excavation will be determined by multiplying the average depth of rock excavated in feet, times the length in feet, times the width equal to the nominal diameter of the pipe plus 2 feet and divided by 27. The measurement will be in cubic yards.

0712.02 Payment: Solid rock excavation will be paid for at the unit price bid per cubic yard. This unit price will be full compensation for furnishing all materials including blasting materials, labor, tools, equipment and incidentals necessary to complete the work as called for in the specifications.

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0713 STEEL LINE PIPE

0713.01 Measurement: Steel line pipe will be measured along the surface of the ground over the centerline of the pipe installed and tested according to size and material. The measurement will be in linear feet and no deduction will be made for space occupied by valves or fittings. However, no separate payment will be made for fittings.

0713.02 Payment: Steel line pipe will be paid for at the unit price bid per linear foot of pipe installed and tested according to size. This unit price will be full compensation for furnishing all materials, fittings, labor, equipment, tools, incidentals, necessary to complete the installation at the locations shown on the plans and as called for in the specifications. This unit price will also include extra depth installation as shown in the plans, as called for in the specifications or as directed by the Owner.

Steel line pipe will be provided by the Owner.

0714 TEMPORARY SILT FENCE

0714.01 Measurement: Temporary silt fence will be measured by the actual amount installed according to type. The measurements will be in linear feet.

0714.02 Payment: Temporary silt fence will be paid for at the unit price bid per linear foot of fence installed according to type. This unit price will be full compensation for furnishing all materials, fittings, labor, equipment, tools and incidentals necessary to complete the installation as shown on the detail in the plans, at the locations shown on the plans, as called for in the specifications and as directed by the Owner.

This unit price shall include silt cleanout as necessary and as required.

..... END OF SECTION