

CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA

# PROJECT MANUAL

FOR

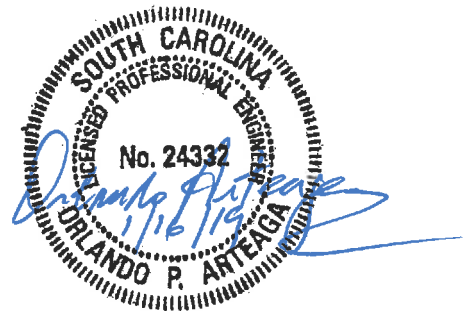
CANNON STREET SEWER IMPROVEMENTS  
COG PROJECT # 1814  
WATER UTILITIES DEPARTMENT  
CITY OF GEORGETOWN  
SOUTH CAROLINA

DATE OF ISSUE: JANUARY 16, 2019

REV	DATE	DESCRIPTION	BY	CHK	APR

## BID DOCUMENTS

CITY OF GEORGETOWN  
1134 North Fraser Street  
GEORGETOWN SC 29440  
(843) 545-4000



COVER PAGE

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00005  
TABLE OF CONTENTS**

**DIVISION 00 - BIDDING AND CONTRACT REQUIREMENTS**

00001	Cover Page
00005	Table of Contents
00010	Enumeration of the Documents
00015	References
00020	Advertisement for Bids
00100	Information for Bidders
00110	Insurance Requirements
00311	Bid Form – Unit Price
00350	Bid Bond
00500	Contract
00600.1	Performance Bond
00601.1	Payment Bond
00601.2	Notice of Intent to Award
00602.4	Notice of Award
00604	Employment Eligibility Verification Requirements
00606	Notice to Proceed
00610	Application for Payment
00620	Contractor’s Affidavit
00630	Contract Change Order
00700	General Conditions
00800	Supplementary Conditions
00900	Drawings
01000	Local Vendor Preference Option – Mandatory Submittal Form

**DIVISION 01 - GENERAL REQUIREMENTS**

01046	Control of Work and Materials
01050	Field Engineering
01060	Regulatory Requirements
01061	Permits and Rights of Way
01090	Referenced Standards
01200	Contractor/Subcontractor Qualifications
01210	Preconstruction Conference
01220	Project Meetings
01270	Measurement and Payment
01310	Construction Schedules
01340	Shop Drawings, Product Data, and Samples
01400	Quality Requirements
01500	Temporary Facilities
01530	Tree and Plant Protection

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

01640	Product Handling
01700	Contract Closeout
01710	Cleaning Up
01720	Project Record Documents

**DIVISION 02 – SITE CONSTRUCTION**

02221	Trenching Backfilling for Utilities
02260	Erosion and Sediment Control
02513	Asphaltic Concrete Paving
02615	Removing and Replacing Pavements
02722	Sewers: Sanitary, Gravity

**DIVISION 11 - EQUIPMENT**

11307	Temporary Bypass Pumping System
-------	---------------------------------

**APPENDICES**

**A. SCDOT PERMITS**

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00010  
ENUMERATION OF THE DOCUMENTS**

The drawings, specifications and addenda, which form a part of this contract as set forth in Paragraph 1 of the General Conditions, Contract and Contract Documents are enumerated in Section 00005 - Table of Contents.

The order of precedence when conflicts in the documents occur is as follows:

1. Permits from other Agencies as may be required by law
2. Change Orders and/or supplemental agreements according to the latest date
3. Contract Agreement
4. Addenda
5. Bid Forms or Contractor's Proposal Response
6. Invitation to Bid or Request for Proposals
7. Instruction to Bidders or Request for Qualifications
8. Approved Shop Drawings and Working Drawings
9. Supplementary Special Provisions
10. Technical Specifications
11. Plan Set
12. Standard Drawings and Details
13. City's Standard Specifications, Amendments and Supplements
14. State's Standard Specifications
15. Referenced Specifications: NFPA, ASTM

The figured dimensions shown on the Drawings and in the Specifications may not, in every case agree with the scale dimension. Figured dimensions take precedence over scaled dimensions and finer scaled drawings take precedence of coarser scaled drawings, i.e. one inch equals twenty feet drawings takes precedence over one inch equals fifty feet drawings.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00015  
REFERENCES**

The following reference shall be used hereinafter:

<u>Owner:</u> City of Georgetown, SC 1134 North Fraser Street Georgetown, SC 29440	The City of Georgetown hereinafter will be referred to as the "Owner" and/or the "City".
<u>City Administrator:</u> Mr. Carey Smith 1134 North Fraser Street Georgetown, SC 29440	Mr. Carey Smith hereinafter will be referred to as the "City Administrator".
<u>Risk Manager:</u> Ms. Suzanne Anderson 1134 North Fraser Street Georgetown, SC 29440	Ms. Suzanne Anderson hereinafter will be referred to as the "Risk Manager".
<u>Procurement Agent:</u> Mrs. Daniella Howard 1134 North Fraser Street Georgetown, SC 29440	Mrs. Daniella Howard hereinafter will be referred to as the "Procurement Agent".
<u>Project Manager:</u> Mr. Will Cook Water Utilities Manager 2377 Anthuan Maybank Drive Georgetown, SC 29440	Mr. Cook hereinafter will be referred to as the "Project Manager".
<u>Engineer</u> Mr. Orlando Arteaga, P.E. 2377 Anthuan Maybank Drive Georgetown, SC 29440	Mr. Arteaga hereinafter will be referred to as the "Engineer".

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA  
00020  
ADVERTISEMENT FOR BIDS**

The City of Georgetown is soliciting sealed responses for the following items or services:

**Cannon Street Sewer Improvements Project #1814 – Request for Bid (RFB)**

The City of Georgetown, requests sealed bids from qualified contractors for the above referenced project.

Bids will be publicly opened at 2:00 pm (EST), February 6, 2019, and read aloud at the Water Utilities and Engineering Dept. Building, 2377 Anthuan Maybank Drive, Georgetown, SC 29440.

There is no mandatory pre-bid meeting.

The work to be done consists of furnishing all materials, equipment and labor necessary to replace existing 8-inch sewer, consisting of the following approximate quantities:

1,350 LF of sewer replacement by open-cut, and asphalt pavement restoration.

The Information for Bidders, Bid Form, Contract, Plans, Specifications, Bid Bond, Performance Bond and Payment Bond, and other contract documents may be examined at the following locations:

Owner: City of Georgetown-Water Utilities Department.

Any prospective bidder, offeror, contractor or subcontractor who is aggrieved in connection with the solicitation of this contract may protest to Engineer (or) Owner in accordance with Section 11-35-4210 of the SC Code of Laws, within 15 days of the date of issuance of the Notice of Intent to Award.

No bid will be considered unless the bidder is legally qualified under the provisions of the South Carolina Contractor's Licensing Law (South Carolina Code of Laws as amended on April 1, 1999, Chapter 11, Sections 40-11-10 through 40-11-428).

Contractors shall have a classification of General Contractors-Water and Sewer Lines.

No bidder may withdraw the bid within ninety (90) days after the actual date of the opening and thereof.

Bid documents will be modified only by written addenda. It is the responsibility of the Bidder to obtain information regarding projects directly from the City's website, [www.cogsc.com](http://www.cogsc.com), under "Bids". Bids received after the due date and specified time will not be considered for any reason and will remain unopened. City will not accept bids by fax or electronic mail.

When the Procurement Division is closed due to force majeure, bid openings will be postponed to the same time on the next official business day.

**(END OF SECTION)**

ADVERTISEMENT FOR BIDS  
00020-1

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**00100  
INFORMATION FOR BIDDERS**

1. PROJECT DETAIL

Furnish all labor, material and equipment to remove and replace approximately 1,304 LF of open-cut sewer.

The scope of the work in general includes the following:

1. Mobilization.
2. Tree Protection.
3. Install traffic control.
4. Open-cut excavation for sewer line replacement.
5. Install temporary by-pass pumping and piping.
6. Reinstate sewer service laterals.
7. Remove temporary by-pass pumping and piping.
8. Remove traffic control.
9. Asphalt pavement overlays as required.

2. RECEIPT AND OPENING OF BIDS

The City of Georgetown (hereinafter called the “Owner”) invites bids on the form (s) attached hereto, all blanks of which must be appropriately filled in. Sealed bids must be received by the Owner at the Water Utilities Department office at 2377 Anthuan Maybank Drive no later than **2:00 pm EST** (local time), Wednesday **February 6, 2019**, at which time said bids will be publicly opened and read aloud. The envelopes containing the bids and bid bonds must be sealed and addressed to:

City of Georgetown  
Attn: Procurement Agent  
Cannon Street Sewer Improvements Project #1814  
2377 Anthuan Maybank Drive  
Georgetown, S.C. 29440

and designated as Bid for “CANNON STREET SEWER IMPROVEMENTS PROJECT NUMBER 1814”.

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the 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 ninety (90) days after the actual date of the opening thereof.

3. PREPARATION OF BID

Each bid must be submitted on the prescribed form. All blank spaces for bid prices must be filled in with ink or typewritten.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Bids which are incomplete, unbalanced, conditional or obscure, or which contain additions not called for, erasures, alterations, or irregularities of any kind, or which do not comply with the Information for Bidders, may be rejected at the option of the Owner.

The correct total amount bid for the completed work is defined as the correct sum total of the amounts bid for the individual items in the proposal. The correct amount bid for each unit price item is defined as the correct product of the quantity listed for the item by the unit price bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, Bidder's address, Contractor's license number, Bidder's 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 above.

4. SUBCONTRACTS

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.

5. TELEGRAPHIC MODIFICATION

Any bidder may modify its bid by telegraphic or facsimile communication at any time prior to the scheduled time for receipt of bids, provided such telegraphic or facsimile communication is received by the Owner prior to closing time, and provided further the Owner is satisfied that a written confirmation of the telegraphic or facsimile modification over the signature of the bidder was mailed prior to the closing time.

The telegraphic or facsimile communication should not reveal the bid price, but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened. If written confirmation is not received within two (2) days from the closing time, no consideration will be given to the telegraphic or facsimile modification.

6. QUALIFICATION OF BIDDER

The Owner may make such investigations as is deemed 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.

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 acceptable.

7. BID SECURITY

Each bid must be accompanied by cash, certified check of the bidder, or a bid bond



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

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 five percent (5%) of the bid. Cash or checks will be returned to all except the three (3) lowest bidders within three (3) days after the opening of bids, and the remaining cash or checks will be returned promptly after the Owner and the accepted bidder have executed the contract, or, if no award has been made within ninety (90) days after the date of the opening of the bids, upon demand of the bidder at any time thereafter so long as bidder has not been notified of the acceptance of its bid.

8. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful bidder, upon failure or refusal to execute and deliver the contract and bonds required within ten (10) business days after they have received notice of award of their bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with the bid.

9. 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 the number of consecutive calendar days thereafter as indicated on the Bid Form. Bidder must agree also to pay as liquidated damages the sum indicated on the Bid Form for each consecutive calendar day thereafter as hereinafter provided in General Conditions.

10. CONDITIONS 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 the obligation to furnish all material and labor necessary to carry out the provisions of the contract.

Insofar as possible, the Contractor in carrying out the work must employ such methods and means as will not cause any interruption of, or interference with, the work of any other contractor.

11. ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the plans, specifications, or other pre-bid documents will be made to any bidder orally. Each request for such interpretation should be in writing and addressed to the Project Manager. To be given consideration, the request must be received at least five (5) 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 which, if issued, will be posted in the Project listing that is located at the City of Georgetown website <http://www.cogsc.com> no later than three (3) days prior to the date fixed for the opening of bids. It shall be the bidder's responsibility to check for addenda before issuing its bid. Failure of any bidder to receive any addendum shall not relieve the bidder from any obligation under its bid as submitted. All addenda so issued

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

shall become part of the contract documents.

12. PAYMENT AND PERFORMANCE BONDS

Simultaneously with bidder's delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as secured for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract, as specified in General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company, bond shall be countersigned by an agent residing in South Carolina, and the said surety shall be satisfactory to the Owner. The Performance Bond shall be in the amount of one-hundred and ten percent (110%) of the bid and the Payment Bond shall be in the amount of one-hundred percent (100%) of the bid.

13. POWER OF ATTORNEY

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

14. NOTICE OF SPECIAL CONDITIONS

Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

- A. Inspection and testing of materials
- B. Insurance requirements
- C. Stated allowances
- D. Permits and Rights-of-way
- E. Hazardous Gas Safety (Section 01060)

15. LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable 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.

16. METHOD OF AWARD - LOWEST QUALIFIED BIDDER

If at the time this contract is to be awarded, the lowest base bid or alternate bid submitted by a responsible bidder does not exceed the amount of funds then estimated by the Owner as available to finance the contract, the contract will be awarded on the base bid or alternate bid. If such bid exceeds such amount, the Owner may reject all bids or may award the contract on the base bid combined with such deductible alternates applied in numerical order in which they are listed in the Form of Bid, as produces a net amount which is within the available funds.

The Owner will decide which the lowest qualified bidder is, and in determining such bidder, the following elements will be considered for each bidder:

- Maintains a permanent place of business.
- Has successfully completed other work with the City

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- Has adequate plant equipment and personnel to perform the Work properly and expeditiously.
- Has suitable financial status to meet obligations incident to the work.
- Has appropriate technical experience with a minimum of five (5) years of practice.

17. **RIGHT TO INCREASE OR DECREASE THE AMOUNT OF WORK**

The work comprises approximately the quantities shown in the bid form which will be used as a basis for comparison of Bids and not for final estimate. The Owner does not, by expression or by implication, agree that the actual amount of work shall correspond with the estimated quantities. The Owner reserves the right to increase or decrease the amount of work under the Contract of the work contemplated, at the unit prices quoted in the Bid.

18. **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 be thoroughly familiar with the plans and contract documents, including all addenda. If a site visit is required, contact the Project Manager to schedule a date and time. 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 its bid.

19. **COORDINATION OF OTHER DIVISIONS**

At the time of bid, submit "Certification Regarding Site Visit Prior to Bid". See certification form at end of the Section.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**CERTIFICATION REGARDING SITE VISIT PRIOR TO BID**

PROJECT: Cannon Street Sewer Improvements

COG Project No. 1814

\_\_\_\_\_, representing the bidding contractor, visited the project (Name of Representative) site on \_\_\_\_\_, 2019 and became fully aware of all site conditions pertaining to site access and working conditions associated with the work to be performed on this project. This site condition information has been conveyed to all necessary personnel and sub-contractors preparing the bid for work on this project.

I certify that the bid for this work includes all cost associated with the site conditions, including but not limited to access, by-pass pumping, flow control and restoration for a complete project.

Submitted by: \_\_\_\_\_  
Signature

\_\_\_\_\_

Printed Name

\_\_\_\_\_

Title

\_\_\_\_\_

Company

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00110  
CONTRACTOR'S AND SUBCONTRACTOR'S  
INSURANCE REQUIREMENTS**

1. As required under Paragraph 29 of the General Conditions, 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 approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his Subcontract until all similar insurance required of the Subcontractor has been so obtained and approved.
2. Unless otherwise specified in this Contract, the Contractor shall, at its sole expense, maintain in effect at all times, during the performance of work, insurance coverage with limits not less than those set forth below with insurers and under forms of policies satisfactory to Owner.
3. The Contractor shall deliver Certificates of Insurance to the Engineer no later than ten (10) days after award of the Contract but in any event, prior to execution of the Contract by the Owner and prior to commencing work on the site as evidence that policies providing such coverage and limits of insurance are in full force and effect.
  - A. Certificates shall provide not less than thirty (30) days advance notice will be given in writing to the Owner prior to cancellation, termination, or material alteration of said policies of insurance.
  - B. Certificates shall identify on their faces the project name "**CANNON STREET SEWER IMPROVEMENTS**" and the "**PROJECT NUMBER 1814**".
4. Additional Insured: The Commercial General Liability, Auto Liability, and Excess Liability (Umbrella) insurance policies shall be endorsed to include the Owner as additional insured.
5. The Owner is not maintaining any insurance on behalf of the Contractor covering against loss or damage to the work or to any other property of the Contractor unless otherwise specifically stated herein and as may be described by appendix hereto. In the event the Contractor maintains insurance against physical loss or damage to the Contractor's construction equipment and tools, such insurance shall include an insurer's waiver of rights of subrogation in favor of Owner.
6. The Contractor shall indemnify the Owner and the Engineer as stated in Part 47 of The General Conditions.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

7. Insurance Requirements:

- A. Commercial General Liability Insurance: The Contractor shall take out and maintain during the life of the Contract such commercial general liability insurance as shall protect him from claims for damage for bodily injury, including accidental death, as well as from claims for property damage, which may arise from operations under this contract whether such operations are by himself or by any Subcontractor or by anyone directly or indirectly employed by either of them. The amount of such insurance shall not be less than the following:

General Aggregate	\$2,000,000.00
Products - Complete/Operations Aggregate	\$2,000,000.00
Personal and Advertising Injury	\$1,000,000.00
Each Occurrence	\$1,000,000.00
Fire Damage (any one fire)	\$50,000.00
Medical Expenses (any one person)	\$5,000.00

1. The General Aggregate listed above shall be for this project only.
2. Special Hazards: The Contractor's and his Subcontractors General Liability Insurance shall provide adequate protection against use of explosives, collapse, and underground hazards. Each detonation of blasting shall be considered a single occurrence.

B. Comprehensive Automobile Liability Insurance:

1. Includes coverage for all owned, hired, and non-owned automobiles
2. The combined single limit of liability shall not be less than the following:

Any One Accident or Loss	\$1,000,000.00
--------------------------	----------------

C. Excess Liability (Umbrella) Insurance:

1. Contractor shall carry and maintain Combined Excess Liability (Umbrella) insurance for a limit not less than the following:

Each Occurrence	\$2,000,000.00
-----------------	----------------

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Aggregate	\$2,000,000.00
-----------	----------------

D. Worker's Compensation: The insurance required by this section shall be written for not less than the following or greater if required by law:

1. Statutory benefits as provided by South Carolina Law
2. Employers' Liability:

Each Accident	\$500,000.00
Disease - Policy Limit	\$500,000.00
Disease - Each Employee	\$500,000.00

E. Builders Risk Insurance: Not applicable.

F. Flood Insurance: Not applicable.

G. Owner's Protective Liability Insurance: The Contractor shall purchase and maintain an Owner's Protective Liability policy issued in the name of the Owners with a combined single limit of liability of not less than the following:

Each Occurrence	\$2,000,000.00
Aggregate	\$2,000,000.00

(END OF SECTION)

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00311  
BID FORM**

CANNON STREET SEWER IMPROVEMENTS  
FOR THE CITY OF GEORGETOWN, SC  
PROJECT #1814

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

PROPOSAL OF \_\_\_\_\_

(hereinafter called "Bidder"), a \_\_\_\_\_ (State)

corporation/partnership/individual (Strike out inapplicable terms) doing business as

\_\_\_\_\_  
TO: City of Georgetown, SC

The Bidder, in compliance with your request for bids for the CANNON STREET SEWER IMPROVEMENTS, PROJECT #1814 having examined the drawings 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 therein, for the Lump Sum of:

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

The lump sum price indicated above shall include all labor, materials, equipment, overhead, profit, insurance, taxes, business license and construction permit fees, etc., to cover all expenses incurred in performing the work required under the Contract Documents, 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 written "Notice to Proceed" of the Owner and to fully complete the project within **NINETY (90)** consecutive calendar days after specified date on Notice to Proceed.

The specifications and addenda are complementary of each other. What is called for by one shall be as binding as if called for by all. If a conflict between any of the above is discovered by the contractor, the problem shall be referred to the Owner as soon as possible for resolution by the Owner. Should a conflict occur which is not resolved before bid time and/or is necessary to comply with mandatory requirements (i.e., codes, ordinances, etc.), it shall be the contractor's responsibility to price and bid the more expensive method.



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Bidder acknowledges receipt of the following addendum:

No.:\_\_Dated: \_\_\_\_\_

No.:\_\_Dated: \_\_\_\_\_

No.:\_\_Dated: \_\_\_\_\_

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

The Bidder agrees that this Bid shall be good and may not be withdrawn for a period of sixty (60) Calendar days after the scheduled closed time for receiving bids.

The undersigned declares that his firm is (delete those not applicable): A corporation organized and existing under the laws of the State of \_\_\_\_\_

A partnership consisting of:

The undersigned declares that the person or persons signing this proposal is fully authorized to sign the proposal on behalf of the firm listed and to fully bind the firm listed to all the conditions and provisions thereof.

It is agreed that no person or persons or company other than the firm listed below or as otherwise indicated hereinafter has any interest whatsoever in this proposal or the contract that may be entered into as a result thereof, and that in all respects the proposal is legal and fair, submitted in good faith, without collusion or fraud.

Respectfully Submitted:

Contractor

(SEAL – if bid is by a Corporation)

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

(Type/Print Name)

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

\_\_\_\_\_ (Street Address)

\_\_\_\_\_ (City, State, Zip Code)

\_\_\_\_\_ (Telephone)

S.C. General Contractor’s License No. \_\_\_\_\_

FID No.: \_\_\_\_\_and/or SSN \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SCHEDULE OF TASKS**

Item no.	Task	Qty.	Unit	Unit Price (\$)	Total (\$)
1	Mobilization (not to exceed 3% of the total bid)	1	LS		
2	Tree Protection. Sediment and Erosion Control.	1	LS		
3	Remove and Replace 8-in. SDR 35 Sewer Main (6'-8' Deep)	1,085	LF		
4	Remove and Replace 8-in. SDR 35 Sewer Main (3'-4' Deep)	265	LF		
5	Sawcut and Remove Asphalt	1,350	LF		
6	Milling and 2" Asphalt Surface Course, SCDOT Type C	4,100	SY		
7	Traffic Control and Pedestrian Protection	1	LS		
	<b>Additional Items</b>				
1	Service Laterals by Open Cut (including Cleanouts & Wyes)	270	LF		
2	Manhole Replacement (6'-8')	1	EA		
	<b>Total Bid</b>				

Notes:

1. Gravity sewer line work includes unclassified excavation, trench shoring, service connections, locate existing underground utilities, pipe bedding, temporary bypass pumping, backfilling, base material, compaction and testing)
2. Verify invert elevations of existing manholes and pipe slope. Install new sewer lines to match existing slope.
3. Minimize width of asphalt pavement cuts.
4. The above task prices shall include all labor, material, equipment, overhead, profit, insurance, taxes, business license and construction permit fees, etc. to cover the Work called for.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00350  
BID BOND**

**KNOW ALL MEN BY THESE PRESENT:**

That we, the undersigned \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are hereby held and firmly bound unto the **City of Georgetown, South Carolina**, as Owner, in the penal sum of (5% of total bid) \_\_\_\_\_ Dollars \_\_\_\_\_ Cents (\$ \_\_\_\_\_), for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

The condition of the above obligation is such that:

**WHEREAS**, the Principal has submitted to \_\_\_\_\_ a certain Bid, attached hereby and by reference made a part hereof, to enter into a contract in writing for the **WEST END SEWER REHABILITATION**.

**NOW, THEREFORE,**

- (A) If said Bid shall be rejected, or
- (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 faithful performance of said contract, and for the payment of all persons performing labor furnishing 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 an extension of the time within which the Owner may accept such Bid, and said Surety does hereby waive notice of any such extension.

**IN WITNESS WHEREOF**, the Principal and 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.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

\_\_\_\_\_  
Principal

(Corporate Seal)

By : \_\_\_\_\_ ( L.S)

\_\_\_\_\_  
Surety

(Corporate Seal)

By : \_\_\_\_\_ ( L.S)

Important: 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.

Note: Bond must be countersigned by a South Carolina resident agent.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00500  
CONTRACT**

**STATE OF SOUTH CAROLINA**

**COUNTY OF GEORGETOWN**

**THIS AGREEMENT**, entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ and effective immediately by and between \_\_\_\_\_, doing business as a (individual/partnership/corporation), with its principal office in the City of \_\_\_\_\_, \_\_\_\_\_ County, \_\_\_\_\_ State,(hereinafter called the "Contractor") and the City of Georgetown, a duly organized and validly existing body politic of the State of South Carolina (hereinafter called "City"),

**WITNESSETH THAT WHEREAS**, The City desires to engage the services of a professional contractor for the purpose of **Cannon Street Sewer Improvements**, hereinafter referred to as "Project"; and,

**WHEREAS**, The City has solicited bids for same by that certain Request for Bids for Construction Services, hereinafter referred to as "RFB", a copy of which is attached hereto for all purposes as **EXHIBIT "1"**; and,

**WHEREAS**, The Contractor has represented to City that it has the qualifications, experience, expertise, training, and personnel to timely perform the Project for City; and,

**WHEREAS**, The Contractor has expressed its desire to do so by their bid opened \_\_\_\_\_, 20\_\_\_\_, hereinafter referred to as "Bid", a copy of which is attached hereto for all purposes as **EXHIBIT "2"**;and,

**WHEREAS**, the parties desire to enter in an agreement for the Contractor to perform the Project for City per all the terms and conditions more particularly set out herein below;

**NOW, THEREFORE**, for and in consideration of the foregoing, and of other good and valuable consideration, the adequacy of which is hereby acknowledged, the parties hereto agree as follows:

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

(1) **SCOPE OF SERVICES:**

- a. Contractor hereby agrees to perform a project for the **Cannon Street Sewer Improvements** as outlined in the Project Manual, incorporated into this Agreement as **ATTACHMENT "A"** and hereinafter referred to as "Work";
- b. Contractor further agrees to commence and complete any and all extra work in connection therewith, under the terms as stated in the General and Special Conditions of the Contract; and at his/hers (it's or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendents, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal and the General Conditions, Supplemental General Conditions, and Special Provisions of the Contract, the plans, including all maps, plats, blueprints, and other drawings and printed or written explanatory matters thereof, the specifications and contract documents therefore as prepared by the Engineer, and as enumerated in Paragraph 1 of the General Conditions, all of which are made a part hereof and collectively evidence and constitute the Contract.
- c. City may, from time to time require changes in the Work of the Contractor to be performed hereunder. Such changes, which are mutually agreed upon by and between City and the Contractor, shall be incorporated by written amendment to this Agreement.

(2) **COMPENSATION:**

- a. City agrees to pay Contractor a sum not to exceed \_\_\_\_\_ dollars (\$\_\_\_\_\_.\_\_\_\_) in accordance with the Schedule of Values, incorporated into this Agreement as **ATTACHMENT "B"** and hereinafter referred to as "Compensation";
- b. In the event funds are not appropriated or become non-appropriated for an included fiscal year by City, it is agreed by the parties that this Agreement will become null and void and the City's obligations cannot extend beyond the date of non-appropriation.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

(3) **PERIOD OF SERVICES:**

- a. the Work to be performed hereunder by the Contractor shall begin upon the date outlined to the City's Notice to Proceed letter to the Contractor, incorporated into this Agreement as ATTACHMENT "C" and hereinafter referred to as "NTP"
- b. The Work shall be completed in accordance with the Schedule, incorporated into this Agreement as ATTACHMENT "D" and hereinafter referred to as "Schedule".
- c. Modifications to the Schedule may be required. Such modifications, which are mutually agreed upon by and between City and the Contractor shall be incorporated by written amendment to this Agreement

(4) **FORCE MAJEURE:**

- a. Force majeure includes acts of God, acts of other branches of government in either their sovereign or contractual capacities, or any similar cause beyond the reasonable control of the parties.
- b. Any delays in or failure of performance by either party that are caused by a Force Majeure shall not constitute breach of this Agreement.
- c. In the event that any event of force majeure, as herein defined occurs, both parties shall be entitled to a reasonable extension of time for performance of its WORK.

(5) **NOTICES:**

- a. Any notices, bills, invoices, or reports required by this Agreement shall be sufficient if sent by the parties in the United States mail, postage paid, to the addresses of the Project Manager (See Section 00015)

(6) **RECORDS AND INSPECTIONS:**

- a. Contractor shall maintain full and accurate records with respect to all matters covered under this Agreement for a period of one year after the completion of the project.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- b. City shall have free access at all proper times to such records, and the right to examine and audit the same and to make transcripts there from, and to inspect all program data, documents, proceedings, and activities.

(7) **COMPLETENESS OF AGREEMENT:**

- a. This Agreement and any additional or supplementary document or documents incorporated herein by specific reference contain all the terms and conditions agreed upon by the parties hereto, and no other agreements, oral or otherwise, regarding the subject matter of this Agreement or any part thereof shall have any validity or bind any of the parties hereto
- b. This Agreement is entered into with full understanding and awareness of such requirement.
- c. City shall be allowed to rely upon the representations of Contractor as set out in the Proposal.
- d. With the exception of the foregoing, this Agreement constitutes the entire agreement between the parties hereto and may not be modified or amended except in writing signed by both parties hereto.

(8) **CONFLICTS:**

- a. In the case of any conflict between the terms and conditions of this Agreement and the terms of any other agreement between the parties hereto, the terms of this Agreement shall control
- b. If there is a conflict between the City's Request for Bids and this Agreement, then this Agreement shall control.
- c. If there is a conflict between the City's Request for Bids and the Contractor's Proposal, the City's Request for Bids shall control.
- d. Both parties agree that all conflicts arising under this Agreement that cannot be settled between the parties shall be resolved in the Georgetown County Court of Common Pleas (Non-Jury)



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

(9) **SEVERABILITY:**

- a. If any part or provision of this Agreement is held invalid or unenforceable under applicable law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining parts and provisions of this Agreement.

(10) **NONWAIVER:**

- a. The waiver by City or Contractor of a breach of this Agreement shall not operate as a waiver of any subsequent breach, and no delay in acting with regard to any breach of this Agreement shall be construed to be a waiver of the breach.
- b. In no event shall the making of any payment by City to the Contractor constitute or be construed as a waiver by City of any breach of covenant, or any default which may exist on the part of the Contractor.
- c. The making of any such payment by City while any such breach or default shall exist in no way impairs or prejudices any right or remedy available to City in respect to such breach or default.

(11) **GOVERNING LAW:**

- a. This Agreement and the rights, obligations and remedies of the parties hereto, shall in all respects be governed by and construed in accordance with the laws of the State of South Carolina.

(12) **RESPONSIBILITY:**

- a. Each party shall be responsible for its own acts as provided under the law of South Carolina and will be responsible for all damages, costs, fees and expenses which arise out of the performance of this Agreement which are due to that party's own negligence, tortious acts and other unlawful conduct and the negligence, tortious action and other unlawful conduct of its respective agents, officers and employees.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

(13) **FREEDOM OF INFORMATION ACT (FOIA)**

- a. The parties acknowledge that all documents are subject to release under the South Carolina Freedom of Information Act (FOIA) and will be released to the public unless exempt from disclosure under the FOIA.
- b. If the Contractor contends a document is exempt from disclosure under the FOIA, it shall mark any such documents plainly, and seek protection from disclosure by filing an appropriate action in Circuit Court and shall bear the cost of the action and any monetary or attorney's fees awarded to the person or entity making the FOIA request.
- c. If the Contractor objects to release and litigation is commenced against the City under the FOIA, the City agrees to promptly notify the Contractor, who shall move in intervene as a party. The Contractor agrees to hold the City harmless from and indemnify for all costs (including plaintiff's attorney's fees if awarded by the Court) incurred by the City in defending the lawsuit and the funds necessary to satisfy any judgment and all costs on appeal, if any.

(14) **THIRD PARTY OBLIGATIONS:**

- a. Neither party shall be obligated or liable hereunder to any party other than the second party to this Agreement.

(15) **RESTRICTIONS ON LOBBYING:**

- a. Contractor shall comply with all requirements of Section 1352, Title 31 of the U.S. Code, which prohibits all recipients of federal funds from using appropriated monies for lobbying activities.

(16) **SUCCESSORS AND ASSIGNS:**

- a. The rights and obligations herein shall inure to and be binding upon the successors and assigns of the parties hereto.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**IN WITNESS WHEREOF**, City and the Contractor have executed this agreement as of the date first written above.

CITY OF GEORGETOWN, SOUTH CAROLINA  
(OWNER)

\_\_\_\_\_  
(SIGNATURE)

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

(SEAL)

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

\_\_\_\_\_  
(CONTRACTOR)

\_\_\_\_\_  
(SIGNATURE)

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

(CORPORATE SEAL)

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

Attest:

\_\_\_\_\_  
It's Secretary

\_\_\_\_\_  
Witness

**(END OF SECTION)**

CONTRACT  
00500-7

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00600.1  
PERFORMANCE BOND**

**KNOW ALL MEN BY THESE PRESENTS THAT**

---

(NAME OF CONTRACTOR)

---

(ADDRESS OF CONTRACTOR)

A Corporation Partnership, hereinafter called Principal, and

---

(NAME OF SURETY)

---

(ADDRESS OF SURETY)

Hereinafter called Surety, are held and firmly bound unto

THE CITY OF GEORGETOWN, SOUTH CAROLINA  
(NAME OF OWNER)

1134 North Fraser Street, GEORGETOWN, SC 29440  
(ADDRESS OF OWNER)

hereinafter called Owner, in the penal sum of (110% of total bid)  
\_\_\_\_\_ Dollars \_\_\_\_\_ Cents (\$ \_\_\_\_\_ ),  
in lawful money of the United States, for the payment of which sum well and truly to be made,  
we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally,  
firmly by these present.

**THE CONDITION OF THIS OBLIGATION** is such that whereas the Principal entered into a certain Contract with the Owner dated the \_\_\_\_\_ day of \_\_\_\_\_, 2018, a copy of which is hereto attached and made part hereof for WEST END SEWER REHABILITATION.

**NOW, THEREFORE**, if the Principal shall well, truly, and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract and fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PERFORMANCE BOND  
00600.1-1

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**PROVIDED FURTHER**, that the said Surety, for value received hereby stipulates and agrees that no change, extensions of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

**PROVIDED FURTHER**, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

**IN WITNESS WHEREOF**, this instrument is executed in four (4) counterparts, each one of which shall be deemed an original, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
(PRINCIPAL - CONTRACTOR)

\_\_\_\_\_  
(SIGNATURE)

As to Principal  
By: \_\_\_\_\_

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

\_\_\_\_\_  
(SURETY)

\_\_\_\_\_  
(SIGNATURE)

As to Surety  
By: \_\_\_\_\_  
ATTORNEY-IN-FACT  
(Power of Attorney to be attached)

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

By: \_\_\_\_\_  
(RESIDENT AGENT)

\_\_\_\_\_  
(RESIDENT AGENT COMPANY NAME)

\_\_\_\_\_  
(RESIDENT AGENT COMPANY ADDRESS)

\_\_\_\_\_  
(RESIDENT AGENT ADDRESS)

**NOTES:**

1. Date of Bond must not be prior to date of Contract.
2. If Contractor is a Partnership, all partners should execute Bond.
3. Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00601.1  
PAYMENT BOND**

**KNOW ALL MEN BY THESE PRESENTS THAT**

---

(NAME OF CONTRACTOR)

---

(ADDRESS OF CONTRACTOR)

A Corporation Partnership, hereinafter called Principal, and

---

(NAME OF SURETY)

---

(ADDRESS OF SURETY)

Hereinafter called Surety, are held and firmly bound unto

THE CITY OF GEORGETOWN, SOUTH CAROLINA  
(NAME OF OWNER)

1134 North Fraser Street, GEORGETOWN, SC 29440  
(ADDRESS OF OWNER)

hereinafter called Owner, in the penal sum of (100% of total bid)  
\_\_\_\_\_ Dollars \_\_\_\_\_ Cents (\$ \_\_\_\_\_ ),  
in lawful money of the United States, for the payment of which sum well and truly to be made,  
we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally,  
firmly by these present.

**THE CONDITION OF THIS OBLIGATION** is such that whereas the Principal entered into a certain Contract with the Owner dated the \_\_\_\_\_ day of \_\_\_\_\_, 2018, a copy of which is hereto attached and made part hereof for WEST END SEWER REHABILITATON.

**NOW, THEREFORE**, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension of modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force

**PAYMENT BOND**  
00601.1-1

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

and effect.

**PROVIDED FURTHER**, that the said Surety, for value received hereby stipulates and agrees that no change, extensions of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

**PROVIDED FURTHER**, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

**IN WITNESS WHEREOF**, this instrument is executed in four (4) counterparts, each one of which shall be deemed an original, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
(PRINCIPAL - CONTRACTOR)

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
As to Principal

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

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

\_\_\_\_\_  
(SURETY)

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
As to Surety

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

ATTORNEY-IN-FACT  
(Power of Attorney to be attached)



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

By: \_\_\_\_\_  
(RESIDENT AGENT)

\_\_\_\_\_  
(RESIDENT AGENT COMPANY NAME)

\_\_\_\_\_  
(RESIDENT AGENT COMPANY ADDRESS)

\_\_\_\_\_  
(RESIDENT AGENT ADDRESS)

**NOTES:**

1. Date of Bond must not be prior to date of Contract.
2. If Contractor is a Partnership, all partners should execute Bond.
3. Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00601.2**

**NOTICE OF INTENT TO AWARD**

OWNER: City of Georgetown  
2377 Anthuan Maybank Drive  
Georgetown, SC 29440

COG No. 1814

PROJECT DESCRIPTION: Cannon Street Sewer Improvements

**TO ALL BIDDERS:**

**This is to notify all bidders that it is the intent of the Owner to award a contract as follows:**

NAME OF BIDDER: \_\_\_\_\_

DATE BIDS WERE RECEIVED: \_\_\_\_\_

AMOUNT OF BASE BID: \$ \_\_\_\_\_

ALTERNATE(S) ACCEPTED: # \$ \_\_\_\_\_

TOTAL AMOUNT OF BASE BID WITH ALTERNATE(S): \$ \_\_\_\_\_

**The Owner has determined that the above named Bidder is responsible and has submitted the lowest responsive bid. The Owner may enter into a contract with this Bidder subject to the contract review and approval by City Council.**

\_\_\_\_\_  
(Print or Type Name)

\_\_\_\_\_  
(Award Authority Title)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date Posted)

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00602.4  
NOTICE OF AWARD**

TO: \_\_\_\_\_

PROJECT DESCRIPTION: **Cannon Street Sewer Improvements**

The City of Georgetown (Owner) has considered the bid dated \_\_\_\_\_, 20\_\_\_\_, submitted by you for the above described work in response to its Advertisement for Bids and its Information for Bidders.

You are hereby notified that your bid has been accepted for items in the amount of \$\_\_\_\_\_.

You are required by the Information for Bidders to execute the Agreement and furnish the required Contractor's W-9 form, City's business license, performance bond, payment bond, and certificates of insurance within ten (10) business days from the date of this notice to you. If you fail to execute said agreement and to furnish said bonds within ten (10) days from the date of this notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your bid as abandoned and as a forfeiture of your bid bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

CITY OF GEORGETOWN, SOUTH CAROLINA

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

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

Acceptance of Notice

Receipt of the above Notice of Award is hereby acknowledged this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
(Signature)

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

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

**(END OF SECTION)**

NOTICE OF AWARD  
00602.4

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00604  
EMPLOYMENT ELIGIBILITY VERIFICATION REQUIREMENT**

- A. Contractor is required to comply with all applicable State and Federal employment eligibility verification requirements including but not limited to the following:
1. By signing its bid or proposal, Contractor certifies that it will comply with the applicable requirements of Title 41, Chapter 8 of the South Carolina Code of Laws and agrees to provide to the City of Georgetown upon request any documentation required to establish either: (a) that Title 41, Chapter 8 is inapplicable both to Contractor and its subcontractors or sub-subcontractors are in compliance with Title 41, Chapter 8. Pursuant to Section 41-8-70, "In addition to other penalties provided by law, a person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both. "Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirement of Title 41, Chapter 8, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 41, Chapter 8.
- B. Contractor is required to complete and submit the attached affidavit along with the executed contract documents.
- C. E-Verify.
1. In addition to completing and maintaining the federal employment eligibility verification form (Form I-9), Contractor must, within three (3) business days after employing a new employee, verify the employee's work authorization through the E-Verify federal work authorization program administered by the U.S. Department of Homeland Security. Employers may no longer confirm a new employee's employment authorization with a driver's license or state identification card.
  2. Contractor shall enroll in E-Verify at [www.dhs.gov/e-verify](http://www.dhs.gov/e-verify).

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**CONTRACTOR AFFIDAVIT**

**SOUTH CAROLINA ILLEGAL IMMIGRATION REFORM ACT (Amended)**

In accordance with the requirements of the South Carolina Illegal Immigration Reform Act, Contractor hereby certifies that it is currently in compliance with the requirements of Title 40, Chapter 8 of the S.C. Code Annotated and will remain in compliance with such requirements throughout the term of its contract with the Owner.

The Contractor hereby acknowledges that in order to comply with requirements of S.C. Code Annotated Section 41-8-20:

- (A) All private employers in South Carolina shall be imputed a South Carolina employment license, which permits a private employer to employ a person in this State. A private employer may not employ a person unless the private employer's South Carolina employment license and any other applicable licenses as defined in Section 41-8-10 are in effect and are not suspended or revoked. A private employer's employment license shall remain in effect provided the private employer complies with the provisions of this chapter.
- (B) All private employers who are required by federal law to complete and maintain federal employment eligibility verification forms or documents must register and participate in the E-Verify federal work authorization program, or its successor, to verify the work authorization of every new employee within three business days after employing a new employee. A private employer who does not comply with the requirements of this subsection violates the private employer's licenses.
- (C) The South Carolina Department of Employment and Workforce shall provide private employers with technical advice and electronic access to the E-Verify federal work authorization program's website for the sole purpose of registering and participating in the program.
- (D) Private employers shall employ provisionally a new employee until the new employee's work authorization has been verified pursuant to this section. A private employer shall submit a new employee's name and information for verification even if the new employee's employment is terminated less than three business days after becoming employed. If a new employee's work authorization is not verified by the federal work authorization program, a private employer must not employ, continue to employ, or reemploy the new employee.
- (E) To assist private employers in understanding the requirements of this chapter, the

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

director shall send written notice of the requirements of this section to all South Carolina employers, and shall publish the information contained in the notice on its website. Nothing in this section shall create a legal requirement that any private employer receive actual notice of the requirements of this chapter through written notice from the director, nor create any legal defense for failure to receive notice.

- (F) If a private employer is a contractor, the private employer shall maintain the contact phone numbers of all subcontractors and sub-subcontractors performing services for the private employer. The private employer shall provide the contact phone numbers or a contact phone number, as applicable, to the director pursuant to an audit or investigation within seventy-two hours of the director's request.

The Contractor agrees to provide to the Owner upon request any documentation required to establish the applicability of the South Carolina Illegal Immigration Reform Act (Amended) to the contractor, subcontractor or sub-subcontractor. The Contractor further agrees that it will upon request provide the Owner with any documentation required to establish that the Contractor and any subcontractors or sub-subcontractors are in compliance with the requirements of Title 41, Chapter 8 of the S.C. Code Annotated.

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

\_\_\_\_\_  
(Signature)

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

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

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00606  
NOTICE TO PROCEED**

TO: \_\_\_\_\_

PROJECT DESCRIPTION: **CANNON STREET SEWER IMPROVEMENTS**

OWNER: City of Georgetown, South Carolina

PROJECT NUMBER: **1814**

This is your Notice to Proceed with the Work, on the above-mentioned Project, in accordance with  
The Agreement dated \_\_\_\_\_, 20\_\_\_\_. You are authorized to commence  
Work on \_\_\_\_\_, 20\_\_\_\_, and you are required to complete the Work  
within **Ninety (90)** consecutive calendar days thereafter.

The date of final completion for all Work is therefore: \_\_\_\_\_ 20\_\_\_\_\_.

You are required to return an acknowledged copy of this Notice to Proceed to the Owner.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

CITY OF GEORGETOWN, SOUTH CAROLINA

\_\_\_\_\_  
(Signature)

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

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

Acceptance of Notice

Receipt of the above Notice to Proceed is hereby acknowledged this the \_\_\_\_\_ day of  
\_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
(Signature)

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

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

**(END OF SECTION)**

**NOTICE TO PROCEED  
00606-1**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA  
SECTION 00610  
APPLICATION FOR PAYMENT**

**Contractor may submit other Pay Request form for Engineer's approval in lieu of the following:**

Owner: City of Georgetown Contractor: \_\_\_\_\_ Contract No. \_\_\_\_\_  
 Pay Estimate No. \_\_\_\_\_  
 Period of Estimate: From \_\_\_\_\_ to \_\_\_\_\_

CONTRACT CHANGE ORDER SUMMARY				ESTIMATE	
No.	Approval Date	Additions	Deductions		\$
				1. Original Contract .....	\$
				2. Change Orders .....	\$
				3. Revised Contract (1+2) ...	\$
				4. Work Completed* .....	\$
				5. Stored Materials* .....	\$
				6. Subtotal (4+5) .....	\$
				7. Retainage .....	\$
				8. Previous Payments .....	\$
				9. Amount Due (6-7-8) .....	\$
Totals:					
Net Change:					

\* Detailed breakdown attached

**CONTRACT TIME**

Original (days): \_\_\_\_\_ On Schedule: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Revised: \_\_\_\_\_ Starting Date: \_\_\_\_\_  
 Remaining: \_\_\_\_\_ Projected Completion: \_\_\_\_\_

**Contractor's Certification:**

The undersigned certifies that to the best of their knowledge, information and belief the work covered by this payment estimate has been completed in accordance with the contract documents, that all amounts due subcontractors and suppliers have been paid by the Contractor for work for which previous payment estimates were issued and payments received from the Owner, and that the current payment shown herein is now due.

**Engineer's Certification:**

The undersigned certifies that to the best of their knowledge and belief, the quantities shown in this estimate are correct and the work has been performed in accordance with the contract documents. Based on periodic but less than full time field representation, to the best of our information the quantities, items and schedule of values, work completed and material and equipment delivered are accurate as indicated on this request for payment. Some defects or problems with construction items may not be determined until final testing and operation of the system is performed. The Engineer cannot be held liable for approval for partial payments for the installation of these items from which the evidence of defects or problems were not determined until after the request for payment was approved.

(Signature): \_\_\_\_\_  
 By: \_\_\_\_\_  
 Date: \_\_\_\_\_

(Signature): \_\_\_\_\_  
 By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Approved by Owner: (Signature): \_\_\_\_\_  
 By: \_\_\_\_\_  
 Date: \_\_\_\_\_



PAY ESTIMATE NO. \_\_\_\_\_ DATE \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

PROJECT: Cannon Street Sewer Improvements

COG PROJECT NUMBER: 1814

Item No.	Contract Qty.	Unit	Description	Unit Price	ACTUAL QUANTITIES			Extension
					Current	Previous	Total	
						PAGE SUB-TOTAL:		
<b>TOTAL:</b>								

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00620  
CONTRACTOR'S AFFIDAVIT**

The State of \_\_\_\_\_ Date: \_\_\_\_\_  
The County of \_\_\_\_\_ The City of \_\_\_\_\_  
\_\_\_\_\_ of \_\_\_\_\_  
(Officer's Name) (Officer's Title) (Contractor's Name)

being duly sworn, deposed and says that \_\_\_\_\_ has furnished  
(Contractor's Name)  
labor and materials entering into the **Cannon Street Sewer Improvements** dated  
\_\_\_\_\_ with the City of Georgetown, South Carolina.

\_\_\_\_\_ states further that this officer has full knowledge of all  
(Contractor's Name)  
obligations for such labor and materials which have entered into and become part of that certain  
project known and designated above, and that this officer further deposes and says that all debts and  
other obligations for such labor and materials have been fully and completely paid for in good and  
lawful money of the United States of America and that there are no suits for damages against them  
proceeding, prospective and/or that there are no suits for damages against them proceeding,  
prospective, or otherwise, in consequence of their operations on the above said project.

The said \_\_\_\_\_ will hold the Owner, the City of Georgetown  
(Contractor's Name)  
South Carolina, blameless of any and all mechanic's liens that may be hereafter entered or filed  
for record, so as to constitute charge against said premises for work or labor done or  
materials furnished by them.

IN WITNESS HEREOF, this officer has heretofore put his hand and seal:

\_\_\_\_\_  
(Officer's Name)

I, \_\_\_\_\_, Notary Public in and for the above named County and  
State do hereby certify that \_\_\_\_\_ personally know to me to be the  
(Officer's Name)  
affiant in the foregoing Affidavit, personally appeared before me this day and, having been duly  
sworn, deposed and says the facts set forth in the above Affidavit are true and correct.

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public for the State of \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00630  
CONTRACT CHANGE ORDER**

DATE: \_\_\_\_\_ PROJECT: Cannon Street Sewer Improvements  
CHANGE ORDER #: \_\_\_\_\_ PROJECT #: 1814

Description of and Reason for Change: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Itemization of Proposed Change and Basis for Payment

Original Contract Price . . . . . \$ \_\_\_\_\_  
Previous Change Orders . . . . . \$ \_\_\_\_\_  
This Change, (An Addition) (A Deduction) of . . . . . \$ \_\_\_\_\_  
Proposed Revised Contract Price . . . . . \$ \_\_\_\_\_

Additional funds shall be provided in the following manner: \_\_\_\_\_  
\_\_\_\_\_

Extension of Contract Time Required: \_\_\_\_\_ days.

Revised Contract Completion Date: \_\_\_\_\_

Accepted by the Contractor:

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

Recommended by the Engineer:

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

Approved by the Owner:

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

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00700  
GENERAL CONDITIONS**

1. CONTRACT AND CONTRACT DOCUMENTS. The plans, specifications and addenda, hereinafter enumerated in Paragraph 1 of Supplemental General Conditions, shall form part of this contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The table of contents titles, heading, 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 affect, limit or cast light on the interpretations of the provisions to which they refer.

Contents

1.	Contract and Contract Documents	24.	Construction Schedule and Periodic Estimates
2.	Definitions	25.	Payments to Contractor
3.	Additional Instructions and Detail Drawings	26.	Acceptance of Work and Final Payment
4.	Shop Drawings and Samples	27.	Acceptance of Final Payment as Release
5.	Materials, Services & Facilities	28.	Payments by Contractor
6.	Contractor's Title to Materials	29.	Insurance
7.	Inspection and Testing of Materials	30.	Contract Security
8.	"Or Equal" Clause	31.	Assignments
9.	Patents	32.	Mutual Responsibility of Contractors
10.	Surveys, Laws and Regulations	33.	Separate Contracts
11.	Contractor's Obligations	34.	Subcontracting
12.	Weather Conditions	35.	Engineer's Authority
13.	Protection of Work and Property, Emergency Interpretations	36.	Stated Allowances
14.	Interpretations	37.	Use of Premises and Removal of Debris
15.	Reports, Records and Data	38.	Quantities of Estimate
16.	Superintendence by Contractor	39.	Rights-of-Way and Suspension of Work
17.	Changes in Work	40.	Warranty for One Year After Completion of Contract
18.	Extras	41.	Notice and Service Thereof
19.	Time for Completion and Liquidated Damages	42.	Required Provisions Deemed Inserted
20.	Correction of Work	43.	Protection of Lives and Health
21.	Subsurface Conditions Found Different	44.	Wages and Overtime Compensation
22.	Claims for Extra Cost	45.	Prohibited Interests
23.	Right of Owner to Terminate Contract	46.	Conflicting Conditions
		47.	Indemnification

2. DEFINITIONS. The following terms as used in this contract are respectively defined as follows:
  - (a) Contractor. A person, firm or corporation with whom the contract is made by the Owner.
  - (b) 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.
  - (c) Work on or 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.
3. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS. 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 on the work in accordance with the additional detail drawings and instructions. The Contractor and the Engineer 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 Engineer 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.
4. SHOP DRAWINGS AND SAMPLES. Submit to the Engineer for approval, in accordance with the requirement of Section 01340.
  - 4.1 Samples. Contractor shall also submit to the Engineer for approval, all samples required by Section 01340. All samples will have been checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended.
  - 4.2 Deviations. At the time of each submission, Contractor shall in writing call the Engineer's attention to any deviations that the Shop Drawings or samples may have from the requirements of the Contract Document.
  - 4.3 Engineer's Review. Engineer will review and approve with reasonable promptness Shop Drawings and samples, but his review and approval shall be only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents. The approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make any corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and resubmit new samples until approved. Contractor shall direct specific attention in writing or on

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

resubmitted Shop Drawings to revisions other than the corrections called for by Engineer on previous submissions. Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to Owner and Engineer that Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers and similar data or he assumes full responsibility for doing so, and that he has reviewed or coordinated each Shop Drawing or sample with the requirements of the work and Contract Documents.

- 4.4 Contractor's Records. Where a Shop Drawing or sample submission is required by the Specifications, no related work shall be commenced until the submission has been approved by Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by Contractor at the site and shall be available to Engineer.
- 4.5 Contractor's Responsibility. Engineer's approval of Shop Drawings or sample shall not relieve Contractor from his responsibility for any deviations from the requirements of the Contract Documents unless Contractor has in writing called the Engineer's attention to such deviation at the time of submission and Engineer has given written approval to the specific deviation, nor shall any approval by Engineer relieve Contractor from responsibility for errors or omissions in the Shop Drawings.
5. MATERIALS, SERVICES AND FACILITIES shall be furnished by the Contractor.
- (a) 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, gas lights, power, transportation, superintendence, taxes, insurance, 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.
- (b) Any work necessary to be performed after regular working hours, on Sundays, or legal holidays, shall be performed without additional expense to the Owner.
6. 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 or encumbrances.
7. INSPECTION AND TESTING OF MATERIALS. Unless otherwise specifically provided for in the specifications, the inspection and testing of material and finished articles to be incorporated in the work at the site shall be made by bureaus, laboratories, or agencies approved by the Owner. The cost of such inspection and testing shall be paid by the Contractor.
- 7.1 Certification by Contractor. Where the detailed specifications call for certified copies of mill or shop tests to establish conformance of certain materials with the specifications, it shall be the responsibility of the Contractor to assure delivery of such certifications to the Owner. No materials or finished articles shall be incorporated in the work until such materials and finished articles have passed the required tests. The

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Contractor shall promptly segregate and remove rejected material and finished articles from the site of the work.

- 7.2 Guaranty. The testing and approval of materials by the laboratory, or laboratories, shall not relieve the Contractor of any of his obligations to fulfill his contract and guarantee of workmanship and materials as called for in paragraph entitled "General Warranty for One Year After Completion of Contract" herein. The Contractor may, at his option and at his own expense, cause such other tests to be conducted as he may deem necessary to assure suitability, strength and durability of any material or finished article.
8. "OR EQUAL" CLAUSE. The phrase "or equal" shall be construed to mean that material or equipment will be acceptable only when, in the judgment of the Engineer, they are composed of parts of equal quality, or equal workmanship and finish, designed and constructed to perform or accomplish the desired result as efficiently as the indicated brand, pattern, grade, class, make or model. Written approval will be obtained from the Engineer prior to installation.
9. PATENTS. 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. If the Contractor uses any design, device or material covered by letter, 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, with exception, the contract prices shall include all royalties or costs arising from the use of such design, device or materials, in any way involved in the work. The Contractor and/or his sureties shall indemnify and save harmless the Owner of the project from any and all claims for infringements by 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.
10. SURVEYS, LAWS AND REGULATIONS. The Contractor shall comply with the following:
- 10.1 Construction staking shall be in accordance with the requirements of Section 01050 entitled "Field Engineering".
- 10.2 Laws and Regulations. The Contractor shall keep himself fully informed of all laws, ordinances and regulations of State, City and County in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in this contract, or in the drawings or specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same in writing to the Owner. He shall, at all times, himself observe and comply with all such existing and future laws, ordinances and regulations (to the extent that such requirements do not conflict with Federal laws or regulations) and shall protect and indemnify the Owner and its agents against any claims or liability arising from or based on the violation

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

of any such law, ordinance, regulation, order or decree, whether by himself or by his employees.

11. CONTRACTOR'S OBLIGATIONS. The Contractor shall, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and 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 provisions of this contract and said specifications, and in accordance with the plans and drawings covered by this contract and any and all supplemental plans and drawings and in accordance with the directions of the Engineer 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. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements and limitation of the contract and specifications, and shall do, carry on and complete the entire work to the satisfaction of the Engineer and the Owner.
12. WEATHER CONDITIONS. In the event of temporary suspension of work or during inclement weather, or whenever the Engineer 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 Engineer, 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 to so protect its work, such materials shall be removed and replaced at the expense of the Contractor.
13. 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 by his duly authorized representatives. In case of 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 Engineer, in a diligent manner. He shall notify the Engineer immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Engineer for approval. Where the Contractor has not taken action but has notified the Engineer of an emergency threatening injury to persons or damage to the work of any adjoining property, he shall act as instructed or authorized by the Engineer. The amount of reimbursement claimed by the Contractor on account of any emergency action shall be determined in the manner provided in paragraph entitled "Changes in Work" of these specifications.
14. INTERPRETATIONS. If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of these proposed contract documents, he may submit to the Engineer a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt and actual delivery. Any interpretation of such documents will be made only by addendum duly issued, and a copy of such addendum will be mailed or delivered to each person receiving a set of such documents. The Owner will not be responsible for any other explanation or interpretation of such documents which anyone presumes to make on behalf of the Owner before expiration of the ultimate time set for the receipt of bids.
15. REPORTS RECORDS AND DATA. The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls, reports,



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

estimates, records and other data as the Owner may request concerning work performed or to be performed under this contract.

16. SUPERINTENDENCE BY CONTRACTOR. The Contractor shall employ only competent and skilled men on the work. The Contractor shall have competent Superintendent or Foreman present at all times when the work is in progress, who shall have full authority to act for the Contractor. It is understood that such representative shall be acceptable to the Engineer 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. The Contractor shall, upon demand from the Engineer, immediately remove any superintendent, foreman or workman whom the Engineer may consider incompetent or undesirable.
17. CHANGES IN WORK. No changes in the work covered by the approved contract documents shall be made without having prior written approval of the Owner. Charges or credits for the work covered by the approved change shall be determined by one or more, or a combination of, the following methods:
- (a) Unit bid prices previously approved.
  - (b) An agreed lump sum.
  - (c) The actual cost of:
    - 1. Labor, including foremen.
    - 2. Materials entering permanently into the work.
    - 3. The ownership or rental cost of construction plant and equipment during the time of use on the extra work.
    - 4. Power and consumable supplies for the operation of power equipment.
    - 5. Insurance.
    - 6. Social security and unemployment contributions.

To the cost under (c) there shall be added a fixed fee to be agreed upon but not to exceed 15 percent of the estimated cost of the work. The fee shall be compensation to cover the cost of supervision, overhead, bond, profit and any other general expenses.

18. EXTRAS. Without invalidating the contract, the Owner may order extra work or make changes by altering, adding to or deducting from the work, the contract sum being adjusted accordingly, and the consent of the surety being first obtained where necessary or desirable. All the work of the kind bid upon shall be paid for at the price stipulated in the proposal, and no claims for any extra work or materials shall be allowed unless the work is ordered in writing by the Owner, or the Engineer acting officially for the Owner, and the price is stated in such order. Extra work shall be performed only upon the execution of authorized change orders as set forth in the preceding paragraph.
19. TIME FOR COMPLETION AND LIQUIDATED DAMAGES. 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.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- 19.1 Regular Prosecution of Work. 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 completion of the work described herein is a reasonable time for completion of same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.
- 19.2 Liquidated Damages. If the Contractor shall neglect, fail, or refuse to complete the work within the time herein specified, or any proper extensions 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. The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticality 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.
- 19.3 Extensions of Time for Completion. 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 contractor an additional time is allowed for the completion of any work, 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 delay in completion of the work is due:
- (a) To any preference, priority or allocation order duly issued by the Government.
  - (b) To unforeseeable cause beyond the control and without the fault or negligence of the Contractor including, but not restricted to, acts 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, hurricanes, tornadoes; and
  - (c) To any delays of subcontractors or suppliers occasioned by any of the causes specified in subsections (a) and (b) of this article.

Provided, further that the Contractor shall, within seven (7) 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 delay, who shall ascertain the facts and extent of delay and notify the Contractor within a reasonable time of its decision in the matter, and grant such extension of time as the Owner shall deem suitable and just.

Normal weather conditions for the project area are taken into consideration in the time for completion of the contract; therefore, no extension of time will

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

be extended for normal weather conditions, with the exception of hurricanes and tornadoes.

20. CORRECTION OF WORK. All work, all materials, whether incorporated in the work or not, all processes of manufacturer, and all methods of construction, shall be at all times and places subject to the inspection of the Engineer, who shall be the final judge of the quality and suitability of the work, materials, processes of manufacture, and methods of construction of the purposes for which they are used. Should they fail to 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.
21. SUBSURFACE CONDITIONS FOUND DIFFERENT. Should the Contractor encounter subsurface 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 Engineer of such conditions before they are disturbed. The Engineer 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 17 of these specifications.
  - (a) Where no specific subsurface conditions are indicated or specified, no increase in cost will be considered in regards to subsurface conditions encountered.
22. CLAIMS FOR EXTRA COSTS. No claim for extra work or cost shall be allowed unless the same was done in pursuance of a written order of the Engineer, as aforesaid, and the claim presented with the first estimate after the changes or extra work is done. When work is performed under the terms of subparagraph 17(c) of these specifications, 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.
23. RIGHT OF 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 10 days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement or correction be made, the contract shall, upon the expiration of said 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 10 days from the date of the mailing to such surety of notice of termination, the Owner may take over the work and prosecute same to completion by the 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 thereby, and in such event the Owner may take

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

possession of and utilize in completion the work such materials, appliances and plant as may be on the site of the work and necessary therefore. If the Contractor should die, be declared incompetent, be declared bankrupt or insolvent, make an assignment for the benefit of creditors during the term of his contract, the Owner may terminate the contract in the manner and under the procedure set forth above with the exception that no notices to the Contractor shall be required, but in lieu thereof the Owner must make a reasonable effort to notify the estate of the Contractor, his guardian, assignee, or legal representative of the intention to terminate and fact of termination, if there is any such guardian, assignee, or legal representative at the time the Owner desires to terminate.

24. 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.

24.1 Contractor's Estimate. The Contractor shall also furnish:

- (a) A detailed estimate, giving a complete breakdown of the contract price; and
- (b) Periodic itemized estimates 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 addition to or deductions from the contract price.

24.2 Equipment Delivery Schedule. The Contractor shall also prepare a schedule of anticipated shipping dates for materials and equipment. It is intended that equipment and materials be so scheduled as to arrive at the job site just prior to time for installation to prevent excessive materials on hand for inventory and the necessity for extensive storage facilities at the job site.

25. PAYMENTS TO CONTRACTOR shall be made according to the following:

- (a) Payments to the Contractor will be made within thirty (30) days upon receipt of a duly certified 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 will retain a portion of each estimate until final completion and acceptance of all work covered by this contract in accordance with the following:
  - 1) Retention of up to 10% of payment claimed until construction is complete, or as follows;
  - 2) After construction is 50% complete, 10% of the 50% completion portion will be retained and no additional retainage will be withheld, provided that the contractor is making satisfactory progress and there is no specific cause for greater withholding.
  - 3) When the project is substantially complete (operational or beneficial occupancy), the retained amount may be further reduced to only that amount necessary to assure completion.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- 4) The Owner will accept a cash bond or irrevocable letter of credit if offered in lieu of cash retainage under (2), and will accept a cash bond or irrevocable letter of credit if offered in lieu of cash retainage under (3).
  - 5) The Owner may reinstate up to ten (10) percent retainage if the Owner determines, at its discretion, that the contractor is not making satisfactory progress or there is other specific cause for such retainage.
- (b) In preparing estimates, the material delivered on the site and preparatory work done may be taken into consideration.
  - (c) All material and work covered by partial payments 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 the terms of the contract.
- 25.1 Owner's Right to Withhold Certain Amounts and Make Application Thereof. 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, materialmen, 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 so to do, then the Owner may, after having served written notice on the 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 payment made in good faith.
26. ACCEPTANCE OF WORK AND FINAL PAYMENT. Before final acceptance of the work and payment to the Contractor of the percentage retained by the Owner, the following requirements shall be complied with:
- (a) Final Inspection. Upon notice from the Contractor that his work is completed, the Engineer will make a final inspection of the work and shall notify the Contractor of all instances where his work fails to comply with the contract drawings and specifications, as well as any defects he may discover. The Contractor shall immediately make such alterations as are necessary to make the work comply with the contract drawings and specifications, and to the satisfaction of the Engineer.
  - (b) Operating Test. After the alterations for compliance with the contract drawings and specifications have been made, and before acceptance of the

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

whole or any part of the work, it shall be subjected to test to determine that it is in accordance with the contract drawings and specifications. The Contractor shall maintain all work in first class condition for a thirty (30) day operating period after the work has been completed as a whole, the final inspection has been made, and the Engineer has notified the Contractor in writing that the work has been finished to his satisfaction. The retained percentage as provided herein will not become due or payable to the Contractor until after the thirty (30) day operating period has expired.

- (c) Cleaning Up. Before the work is considered as complete, all rubbish and unused material due to or connected with the construction must be removed and the premises left in a condition satisfactory to the Owner. Streets, curbs, crosswalks, pavements, sidewalks, fences and other public and private property disturbed or damaged should be restored to their former condition. Final acceptance will be withheld until such work is finished.
  - (d) Liens. Final acceptance of the work will not be granted and the retained percentage will not be due or payable until the Contractor has furnished the Owner proper and satisfactory evidence under oath that all claims for labor and material employed or used in the construction of the work under this contract have been settled, and that no legal claims can be filed against the Owner for such labor or material.
  - (e) Final Estimate. Upon completion of all cleaning up, alterations and repairs required by the final inspection or operating test, the satisfactory completion of the operating test, and upon submitting proper and satisfactory evidence to the Owner that all claims have been settled, the Contractor shall then prepare his final estimate. After review and approval of the final estimate by the Engineer and the Owner, the payment shall then become due.
27. ACCEPTANCE OF FINAL PAYMENT AS 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, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this Contract or his sureties from any obligations under this contract or the performance and payment bond.
28. PAYMENTS BY CONTRACTOR. 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 services are rendered;
  - (b) For all materials, tools, and other expendable equipment to the extent of ninety (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 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.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

29. INSURANCE. The Contractor shall procure and shall maintain during the life of this contract, whether such operation be by himself or by a subcontractor or anyone directly or indirectly employed by either of them, such insurance as required by statute and/or ordinance to adequately protect the Owner from any claims or damages, including bodily injury or death, which may arise from them during operations under this contract.
- 29.1 Limits of Liability. Insurance shall be obtained for not less than the limits of liability as specified in Section 00800 entitled Supplemental General Conditions.
- 29.2 Certificates of Insurance. The Contractor shall furnish the Owner, if requested, certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of the policies. Such certificates shall contain substantially the following statement: "The insurance covered by this certificate will not be cancelled or materially altered except after 30 days written notice has been received by the Owner".
30. CONTRACT SECURITY. The Contractor shall furnish a 110 percent performance bond and a 100 percent payment bond as security for the faithful performance of this contract, 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 payment bond shall be in separate instruments. Before the final acceptance, each bond must be approved by the Owner.
31. ASSIGNMENTS. The Contractor shall not assign the whole or any part of this contract or any moneys due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or any part of any moneys due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that is agreed that the right of the assignee in and to any moneys due or to become due to the Contractor shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the work called for in this contract.
32. MUTUAL RESPONSIBILITY OF CONTRACTORS. If through acts of neglect on the part of the Contractor, any other contractor or any 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 shall assert any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.
33. SEPARATE CONTRACTS. 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 subcontractor, shall keep informed of the progress and the detail work of other contractors and shall notify the Engineer 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.
34. SUBCONTRACTING shall comply with the following:

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- (a) The Contractor may utilize the services of specialty contractors on those parts of the work that under normal contracting practices are performed by specialty subcontractors.
  - (b) The Contractor shall not award any work to any subcontractor without prior 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.
  - (c) 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 employed by him.
  - (d) The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other contract documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contract under any provisions of the contract documents.
  - (e) Nothing contained in this contract shall create any contractual relation between any subcontractor and the Owner.
35. ENGINEER'S AUTHORITY. The Engineer shall determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under this contract and shall decide all questions which may arise in relation to said work and the construction thereof. The Engineer's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said contract or specifications, the determination or decision of the Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this contract affected in any manner or to any extent by such question.
- 35.1 Interpretation of Drawings and Specifications. The Engineer shall decide the meaning and intent of any portion of the specifications and of any plans or drawings where the same may be found obscure or be in dispute. Any differences or conflicts in regard to their work that may arise between the Contractor under this contract and other contractors performing work for the Owner shall be adjusted and determined by the Engineer.
36. STATED ALLOWANCES. N/A.
37. USE OF PREMISES AND REMOVAL OF DEBRIS. The Contractor expressly undertakes at his own expense:
- (a) To take every precaution against injuries to persons or damage to property.
  - (b) 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.



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- (c) To place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work.
  - (d) 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.
  - (e) 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.
  - (f) To effect all cutting, fitting or patching of his work required to make the same 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.
38. QUANTITIES OF ESTIMATE. The estimated quantities of work to be done and materials to be furnished under this contract, shown in any of the documents, including the proposal, 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.
39. RIGHT-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 ability to procure any lands or rights-of-way for 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.
40. GENERAL WARRANTY FOR ONE YEAR AFTER COMPLETION OF CONTRACT. For a period of at least one year after the completion of the contract, the Contractor warrants the fitness and soundness of all work done and materials and equipment put in place under the contract, and 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. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting there from, which shall appear within a period of one year from the date of final acceptance of the work, unless a longer period is specified. The Owner will give notice of observed defects with reasonable

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

promptness. This warranty period shall be extended as necessary to include a **Two-Year warranty** period required by SCDOT for all surface work.

41. 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 registered mail to said Contractor or his authorized representative on the work, or is deposited in the regular United States Mail in a sealed, postage prepaid envelope and the receipt thereof is acknowledged by the Contractor.
  - 41.1 Owner's Notice. All papers required to be delivered to the Owner shall be delivered as indicated in Section 00800 entitled Supplemental General Conditions.
42. REQUIRED PROVISIONS 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.
43. PROTECTION OF LIVES AND HEALTH. In order to protect the lives and health of his employees under the contract, the Contractor shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the contract. The Contractor alone shall be responsible for the safety, efficiency and adequacy of his plant, appliances and methods, and for any damage that may result from their failure or their improper construction, maintenance or operation.
44. WAGES AND OVERTIME COMPENSATION. The Contractor and each of his subcontractors shall comply with all applicable State and local laws or ordinances with respect to the hours worked by laborers and mechanics engaged in work on the project and with respect to compensation for overtime.
45. 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 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 hereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.
46. 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.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

47. INDEMNIFICATION

- 47.1 The CONTRACTOR will indemnify and hold harmless the OWNER, the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting there from; and is caused in whole or in part by any negligent or willful act of omission of the CONTRACTOR and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.
- 47.2 In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by an employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts, disability benefit acts or other employee benefits acts.
- 47.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, its agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, design or specifications.

**END OF SECTION**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00800  
SUPPLEMENTARY CONDITIONS**

1. **WORKING HOURS**

The Contractor is allowed to work during normal working hours from 7:00 AM to 6:00 PM unless warranted due to emergency conditions.

If the Contractor is to work outside normal working hours, then it is the Contractor's responsibility to contact all residents within the project limit and give them a notice of work being performed at least twenty four (24) hours prior to the start of work. All efforts must be made by the contractor to notify the residents verbally. If all efforts of verbal notifications fail, then the Contractor may use a door hanger to notify the resident. A copy of the door hanger must be sent to the City Engineer for approval.

2. **TRAFFIC CONTROL AND PEDESTRIAN PROTECTION**

The Contractor must provide pedestrian protection and traffic control in accordance with MUTC and SCDOT standard specifications.

3. **BUSINESS LICENSE AND PERMITS**

The selected contractor shall be required to obtain all applicable City of Georgetown permits and business licenses. Contact Jestin Gilliard, Revenues Manager, 843-545-4041, to obtain a City business license. Contractor shall obtain a construction permit from the City of Georgetown. These expenses shall be included in the total bid unit price.

**SUPPLEMENTARY CONDITIONS**

**00800-1**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

4. **PROJECT SCHEDULE OF EVENTS**

The following is the schedule of events listed in the order of occurrence, showing the major milestones from issuance of the RFB to the contract award:

<b>MILESTONE EVENT</b>	<b>DATE</b>	<b>TIME EST (LOCAL TIME)</b>
1. Request for Bid (RFB) issued	Wednesday, January 16, 2019	
2. Mandatory Pre-Bid meeting	N/A	
3. Deadline for questions - emailed to: oarteaga@cogsc.com	Monday, January 28, 2019	4:00 pm
4. Deadline for addenda to be posted to the City's website, www.cogsc.com, under "Bids"	Thursday, January 31, 2019	5:00 pm
<b>5. Bid due date</b>	<b>Wednesday, February 6, 2019</b>	<b>On or before 2:00 pm</b>
6. Approval of contract by City Council (tentative)	Thursday, February 21, 2019	
7. Notice to Proceed (NTP) issued (tentative)	Wednesday, March 20, 2019	
8. Completion date - 90 days after NTP issued (tentative)	Thursday, June 20, 2019	

**SUPPLEMENTARY CONDITIONS**

**00800-2**

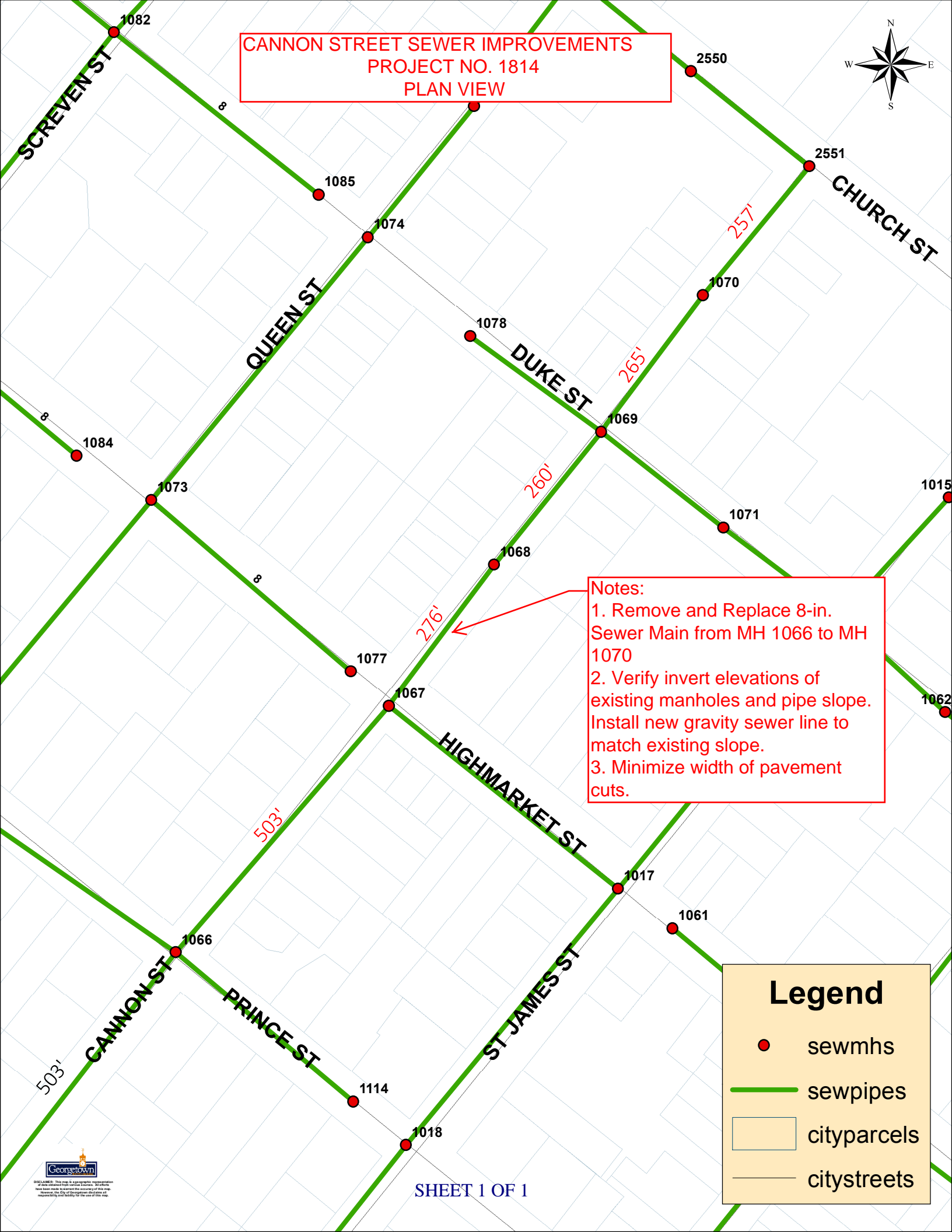
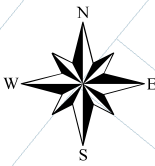
**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 00900  
DRAWINGS**

<u>TITLE</u>	<u>SHEET NO.</u>
PLAN VIEW	1 OF 1
DETAILS	3 OF 3

***(END OF SECTION)***  
**DRAWINGS**  
**00900-1**

**CANNON STREET SEWER IMPROVEMENTS  
PROJECT NO. 1814  
PLAN VIEW**



**Notes:**

1. Remove and Replace 8-in. Sewer Main from MH 1066 to MH 1070
2. Verify invert elevations of existing manholes and pipe slope. Install new gravity sewer line to match existing slope.
3. Minimize width of pavement cuts.

**Legend**

- sewmhs
- sewpipes
- cityparcels
- citystreets

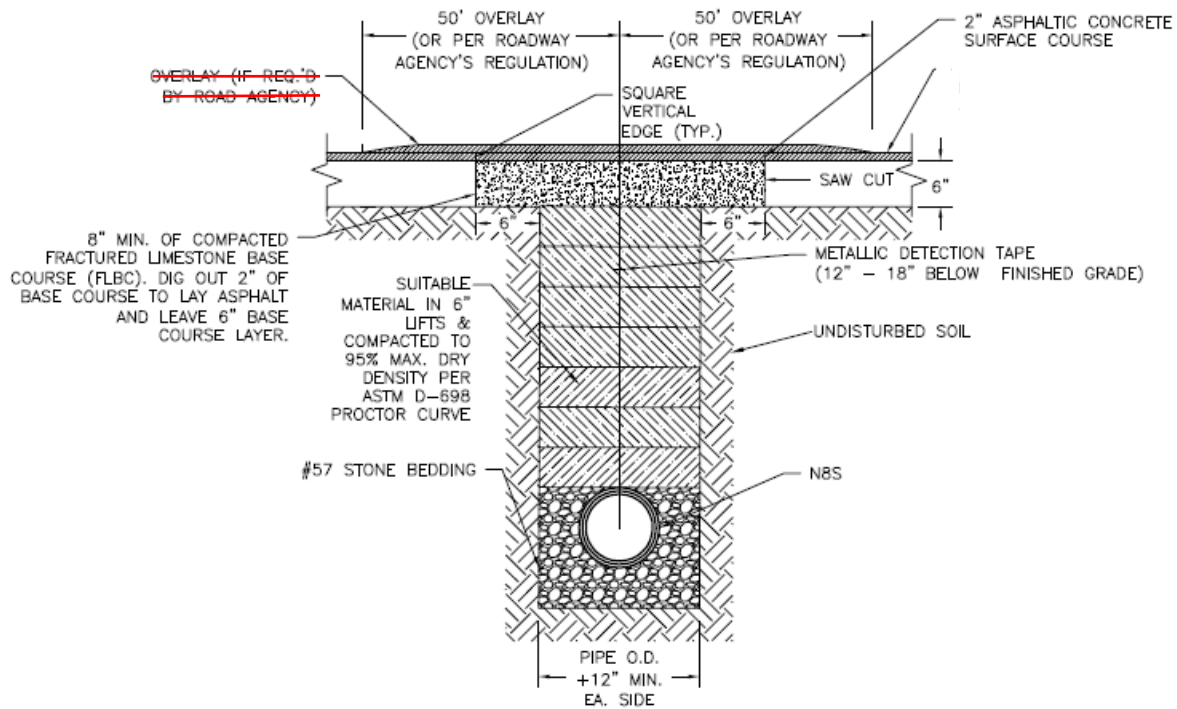


DISCLAIMER: This map is a geographic representation of data obtained from various sources. No warranty has been made to ensure the accuracy of this map. However, the City of Georgetown disclaims all responsibility and liability for the use of this map.

**CANNON STREET SEWER IMPROVEMENTS  
PROJECT NO. 1814  
DETAILS**

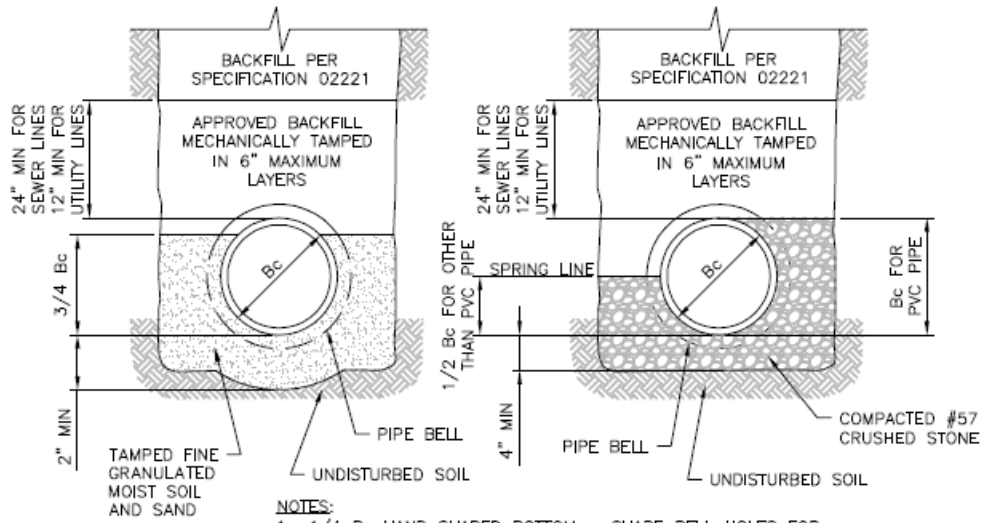
**NOTES:**

1. SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2007 EDITION. PRIME COAT APPLICATION SECTION 305.4.6 PAGE 165.
2. REFER TO HIGHWAY DEPARTMENT PERMITS FOR ADDITIONAL REQUIREMENTS.
3. PAVEMENT CUT TO EXTEND 6" BEYOND EDGES OF TRENCH AS SHOWN. PAVEMENT SHALL BE CUT TO TRUE LINE AND REMOVED BEFORE TRENCH IS CUT. ALL PAVEMENT REPAIRS TO BE IN ACCORDANCE WITH ROAD AGENCY SPECS.
4. ROAD AGENCY MAY REQUIRE A CUT & PATCH OF TRENCH AREA AND AN OVERLAY OF ENTIRE APRON OR ENTRANCE FROM THE EDGE OF THE MAIN ROAD TO THE EDGE OF THE ROAD RIGHT-OF-WAY (SEE ENCROACHMENT PERMIT)
5. WHERE EXISTING PAVEMENT IS INSUFFICIENT THICKNESS TO DEVELOP TIGHT SEAL WITH NEW SURFACE, NEW PAVEMENT SHALL LAP EXISTING SURFACE WITH AT LEAST 10' OVERLAP ON BOTH SIDES FOR SMOOTH TRANSITION OR AS PER SPEC.'S OF ROAD AGENCY.



**DETAIL  
PAVEMENT REPLACEMENT  
& RESURFACING (LOW VOLUME)  
NOT TO SCALE**

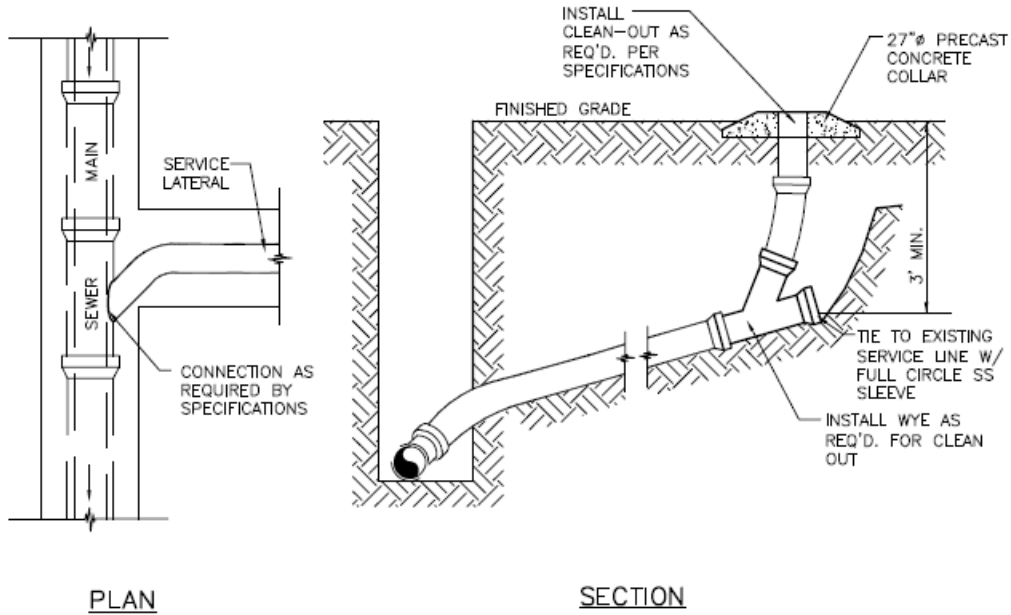




TYPE 1

TYPE 2

DETAIL  
CLASS "B" BEDDING  
NOT TO SCALE



DETAIL  
**SEWER SERVICE CONNECTION**  
 NOT TO SCALE

**BID DOCUMENTS**  
 THESE DOCUMENTS ARE FOR THE  
 PURPOSE OF SOLICITATION OF BIDS AND  
 ARE NOT FOR USE FOR CONSTRUCTION

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01000  
LOCAL VENDOR PREFERENCE OPTION –  
MANDATORY VENDOR SUBMITTAL FORM**

Local Vendor Preference Option

1. A vendor shall be deemed a Local Georgetown City/County vendor for the purposes of this Section if such vendor is an individual, partnership, association or corporation that is authorized to transact business within the State, maintains an office in Georgetown County, and maintains a representative inventory or commodities within the City/County on which the bid is submitted, and has paid all taxes and business license fees duly assessed.
2. This option allows the lowest local bidder whose bid is within five-percent (5%) of the lowest non-local Bidder to match the bid submitted by the non-local Bidder and thereby be awarded the contract. This preference shall apply only when (a) the total dollar purchase is \$10,000 or more; (b) the vendor has a physical business address located and operating within the limits of Georgetown County and has been doing business in the City/County for a period of twelve (12) months or more; and (c) the vendor provides proof of payment of all applicable Georgetown City/County taxes, business license and fees if so requested.
3. Should the lowest responsible and responsive Georgetown City/County bidder not exercise its right to match the bid as granted herein, the next lowest qualified Georgetown City/County bidder shall have that right and so on. The right to match the non-Georgetown City/County bidder's bid shall be exercised within 24 hours of notification.
4. In order to qualify for the local preference authorized by this Section, the vendor seeking same shall be required to submit with its bid a statement containing relevant information which demonstrates compliance with the provisions of this Section. This statement shall be on the "MANDATORY VENDOR SUBMITTAL" form included in this bid document. Failure to provide such affidavit at the time the bidder submits its bid shall constitute a waiver of any claim for preference.
5. For all contracts for architecture, professional engineering, or other professional services governed by Section 2-187, Professional and Construction Services, the City shall include the local business status of a firm among the factors considered when selecting which firms are "most highly qualified." In determining which firm is the "most qualified" for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.
6. Local preference shall not apply to the following categories of contracts:
  - (a) Goods or services provided under a cooperative Procurement agreement or similar "piggyback" contract;
  - (b) Contracts for professional services except as provided for in Section 2-187 above;

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

(c) Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference;

(d) Purchases or contracts made pursuant to a noncompetitive award process, unless otherwise provided by this section; or

(e) Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either

City Council or City Administrator, or where such suspension is, in the opinion of the City Attorney, required by law.

CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA



**MANDATORY VENDOR SUBMITTAL FORM**

AN ORDINANCE TO AMEND

CHAPTER 2 ADMINISTRATION - ARTICLE IV

PROCUREMENT – JANUARY 19, 2017

SECTION 2-185 COMPETITIVE SEALED QUOTES LOCAL VENDOR PREFERENCE

ARTICLE IV.

PROCUREMENT

DIVISION 2. ETHICS IN CITY CONTRACTING

I certify that [Company Name] \_\_\_\_\_  
is a **Resident Bidder** of Georgetown City/County as defined in the City of Georgetown  
Ordinance Chapter 2 Administration, Article IV Procurement, Section 2-185, and our principal  
place of business is \_\_\_\_\_ [City and State].

I certify that [Company Name] \_\_\_\_\_  
is a **Non-Resident Bidder** of Georgetown City/County as defined in the City of Georgetown  
Ordinance Chapter 2 Administration, Article IV Procurement, Section 2-185, and our principal  
place of business is \_\_\_\_\_ [City and State].

(X) \_\_\_\_\_

Signature of Company Officer

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01046  
CONTROL OF WORK AND MATERIALS**

**PART 1 – GENERAL (NOT APPLICABLE)**

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION**

**3.01 HAULING, HANDLING AND STORAGE OF MATERIALS:**

- A. The Contractor shall, at its own expense, handle and haul all materials furnished by it and shall remove any of its surplus materials at the completion of the work.
- B. The Contractor shall provide suitable and adequate storage for equipment and materials furnished by it that are liable to injury and shall be responsible for any loss of or damage to any equipment or materials by theft, breakage, or otherwise.
- C. All excavated materials and equipment to be incorporated in the Work shall be placed so as not to injure any part of the Work or existing facilities and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the work. Materials and equipment shall be kept neatly piled and compactly stored in such location as will cause a minimum of inconvenience to public travel and adjoining owners, tenants and occupants.
- D. The Contractor shall be responsible for all damages to the work under construction during its progress and until final completion and acceptance even though partial payments have been made under the Contract.

**3.02 EASEMENTS AND ENCROACHMENTS:**

- A. As indicated on the drawings, the work is located in encroachments obtained by the Owner. The Contractor has no rights outside of the encroachments unless they are obtained from the adjacent property owner(s).
- B. Contractor shall schedule work so that it will cause minimum inconvenience and nuisance to abutting property owners, over the shortest possible time.
- C. Encroachments shall be kept clean; no rubbish or discarded construction materials shall be allowed to accumulate. Storage of excess construction materials, including soil, ledge, equipment, or machinery on encroachments will not be allowed.
- D. Restoration of fences, shrubs, trees and grass shall be completed promptly following completion of the work in an encroachment(s), to minimize disruption and inconvenience to property owners.

**3.03 OPEN EXCAVATIONS:**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at its own expense, provide suitable and safe means for completely covering all open excavations and for accommodating travel when work is not in progress.
- B. Bridges provided for access to private property during construction shall be removed when no longer required.
- C. The length of open trench will be controlled by the particular surrounding conditions but shall always be confined to the limits prescribed by the Engineer.
- D. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, then special construction procedures shall be taken, such as limiting the length of trench and prohibiting stocking excavated material in the street.
- E. All street excavations shall be completely closed at the end of each work day. Backfilling or use of steel plates of adequate strength to carry traffic shall be used.

**3.04 MAINTENANCE OF TRAFFIC:**

- A. Unless permission to close the street is received in writing from the proper authority, all excavated materials and equipment shall be placed so that vehicular and pedestrian traffic may be safely maintained at all times.
- B. The Contractor shall at its own expense provide and erect acceptable barricades, barrier fences, traffic signs, and all other traffic devices not specifically covered in a bid item, to protect the work from traffic, pedestrians, and animals. The Contractor shall provide sufficient temporary lighting such as lanterns/flashers (electric battery operated) or other approved illuminated traffic signs and devices to afford adequate protection to the traveling public, at no additional cost to the Owner.
- C. Nothing contained herein shall be construed as relieving the Contractor of any of its responsibilities for protection of persons and property under the terms of the Contract.

**3.05 CARE AND PROTECTION OF PROPERTY:**

The Contractor shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be promptly restored by the Contractor, at its expense, to a condition similar or equal to that existing before the damage was done, to the satisfaction of the Engineer.

**3.06 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES:**

- A. All existing buildings, utilities, pipes, poles, wires fences, curbing, property line markers and other structures which the Engineer decides must be preserved in place without

**CONTROL OF WORK AND MATERIALS**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

being temporarily or permanently relocated, shall be carefully supported and protected from damage by the contractor. Should such property be damaged, it shall be restored by the Contractor, at no additional cost to the Owner.

- B. The Contractor shall determine the location of all underground structures and utilities (including existing water services, drain lines, electrical lines, and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by Contractor.
- C. When fences interfere with the Contractor's operations, it shall remove and (unless otherwise specified) promptly restore them to a condition similar or equal to that existing before removal was done, to the satisfaction of the engineer.
- D. On paved surfaces the Contractor shall not use or operate tractors, bulldozers, or other power-operated equipment with treads or wheels which are shaped so as to cut or otherwise damage such surfaces.
- E. All property damaged by the Contractor's operations shall be restored to a condition at least equal to that in which it was found immediately before work was begun. Suitable materials and methods shall be used for such restoration.
- F. Restoration of existing property and structures shall be carried out as promptly as practicable and shall not be left until the end of the construction period.

**3.07 MAINTENANCE OF FLOW:**

- A. The Contractor shall at its own cost, provide for the flow of sewers and drains interrupted during the progress of the work, and shall immediately cart away and dispose of all offensive matter. The entire procedure of maintaining existing flow shall be fully discussed with the Engineer well in advance of the interruption of any flow.
- B. All existing drainage facilities including, but not limited to; brooks, streams, canals, channels, ditches, culverts, catch basins and drainage piping shall be adequately safeguarded so as not to impede drainage or to cause siltation of downstream areas in any manner whatsoever. If the Contractor damages or impairs any of the aforesaid drainage facilities, it shall repair the same within the same day.
- C. At the conclusion of the work, the Contractor shall remove all silt in drainage structures caused by its operations as described in Section 01710, CLEANING UP.

**3.08 REJECTED MATERIALS AND DEFECTIVE WORK:**

- A. Materials furnished by the Contractor and condemned by the Engineer as unsuitable or not in conformity with the specifications shall forthwith be removed from the work by the Contractor, and shall not be made use of elsewhere in the work.
- B. Any errors, defects or omissions in the execution of the work or in the materials furnished

**CONTROL OF WORK AND MATERIALS**



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

by the Contractor, even though they may have been passed or overlooked or have appeared after the completion of the work, discovered at any time before the final payment is made hereunder, shall be forthwith rectified and made good by and at the expense of the Contractor and in a manner satisfactory to the Engineer.

- C. The Contractor shall reimburse the Owner for any expense, losses or damages incurred in consequence of any defect, error, omission or act of the Contractor or his employees, as determined by the Engineer, occurring previous to the final payment.

**3.09 SANITARY REGULATIONS:**

Sanitary conveniences for the use of all persons employed on the work, properly screened from public observation, shall be provided in sufficient numbers in such manner and at such locations as may be approved. The contents shall be removed and disposed of in a satisfactory manner as the occasion requires. The Contractor shall rigorously prohibit the committing of nuisances within, on or about the work. Any employees found violating these provisions shall be discharged and not again employed on the work without the written consent of the Engineer. The sanitary conveniences specified above shall be the obligation and responsibility of the Contractor.

**3.10 SITE INVESTIGATION:**

The Contractor acknowledges that it has satisfied itself as to the conditions existing at the site of the work, the type of equipment required to perform this work, the quality and quantity of the materials furnished insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the drawings and specifications made a part of this contract. Any failure of the Contractor to acquaint itself with available information will not relieve it from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusion or interpretation made by the Contractor on the basis of the information made available by the Owner.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01050  
FIELD ENGINEERING**

**PART 1 – GENERAL**

1.1 DESCRIPTION

- A. Work included: Provide such field engineering services as are required for proper completion of the Work including, but not necessarily limited to:
  - 1. Provide all staking required to construct the facility from coordinates established by the Engineer.
  - 2. Establish the proper line and levels for installation of utilities.
  - 3. Establish the proper grades and elevations for earthwork.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
  - 2. Additional requirements for field engineering also may be described in other Sections of these Specifications. These include but are not limited to the following:
- C. Work by others:
  - 1. Not less than one (1) benchmark elevations will be provided.

1.2 QUALITY ASSURANCE

- A. Provide a competent survey party and surveying instruments for staking the work.
- B. Exercise proper precautions to verify the figures shown on the Drawings prior to laying out any part of the Work.
  - 1. The Contractor will be held responsible for any errors therein that otherwise might have been avoided.
  - 2. Promptly inform the Engineer of any error or discrepancies discovered in the Drawings or Specifications in order that proper corrections may be made.

1.3 PROCEDURES:

- A. Locate and protect control points before starting work on the site.
- B. Preserve permanent reference points during progress of the Work.
- C. Do not change or relocate reference points or items of the Work without specific approval from the Engineer.
- D. Promptly advise the Engineer when a reference point is lost or destroyed, or requires relocation because of other changes in the Work.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

1.4 CONSTRUCTION LAYOUT:

- A. Perform calculations, and the set of marks and stakes necessary to ensure that the work conforms to the required lines, grades, and dimensions.
- B. Relate such layout to the coordinate grid system, elevation datum, and related survey control monuments and bench marks identified on the drawings or elsewhere in the contract documents.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01060  
REGULATORY REQUIREMENTS**

The following requirements of Regulatory Agencies having an interest in this project are hereby made a part of this Contract.

- 1.1 The construction of the project, including the letting of the contracts in connection therewith, shall conform to the applicable requirements of State, territorial and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.
- 1.2 South Carolina Sales Tax: All applicable South Carolina sales tax shall be to the account of the Contractors.
- 1.3 Use of chemicals: All chemicals used during the project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.
- 1.4 Safety and Health Regulations: The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54)
- 1.5 The Contractor shall comply with Part V of the South Carolina Manual on Uniform Traffic Control Devices for Streets and Highways.
- 1.6 Inspection by Agencies: The representatives of the South Carolina Department of Health and Environmental Control, USDA Rural Development, Environmental Protection Agency, Department of Natural Resources and the Corps of Engineers shall have access to the work wherever it is, in preparation or in progress, and the Contractor shall provide proper facilities for such access and inspection.
- 1.7 Withholding for non-residents shall comply with the following:
  - A. Attention of non-residents Contractors is invited to Code Sections 12-8-540 and 12-8-550 as amended effective July 1, 1994, Section 49, Appropriations Bill, Part II.
  - B. If a non-resident Contractor is the successful bidder on this project, he/she shall be required to provide the Owner with an Affidavit (Form I-312, Nonresident Taxpayer Registration Affidavit Income Tax Withholding) affirming registration with the South Carolina Department of Revenue or the South Carolina Secretary of State's office. (Refer to attached form)
  - C. Forms to register for all taxes administered by the South Carolina Department of Revenue may be obtained by calling the License and Registration Section at (803) 737-4872 or writing to South Carolina Department of Revenue, Registration Unit, Columbia, South Carolina 29214-0140.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- D. In the absence of an Affidavit being provided, withholding in the amount of two (2) percent of the contract price will be made by the Owner.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01061  
PERMITS AND RIGHTS-OF-WAY**

**PART 1 – GENERAL**

1.1 DESCRIPTION

- A. Work Included: This section established requirements pertaining to the securing and paying for licenses, building permits, right-of-way, etc. necessary for the construction of the project.
- B. Work Not Include: Owner will obtain and provide to the Contractor, as required, copies of the following:
  - 1. South Carolina Department of Transportation Encroachment Permit for work in the State Right-of-Way
  - 2. South Carolina Department of Health and Environmental Control - Permit to Construct Water/Wastewater Facilities
- C. Office of Ocean and Coastal Resource Management Certification
- D. Related Work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
  - 2. Additional requirements for field engineering also may be described in other Sections of these Specifications. These include but are not limited to the following:
    - a) None

1.2 SUBMITTALS

- A. Submit to the Engineer satisfactory evidence that all necessary licenses, building permits, etc., have been secured prior to commencing the work.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION**

2.1 BUSINESS LICENSE

- A. Determine licenses necessary to perform the work at project location.
- B. Obtain all necessary licenses at no permits required, whether of temporary or permanent nature.

2.2 BUILDING PERMITS

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- A. Secure and pay for all building permits required, whether temporary or permanent nature.

**2.3 RIGHT-OF-WAY, EASEMENTS**

- A. Owner will provide necessary rights-of-way or easements for construction of utility lines, roads and sidewalks whether on privately or publicly owned property
- B. The Contractor shall confine their activities to the provided rights-of way and/or easements
- C. The Owner will provide no other rights-of way and/or easements over the property.

**2.4 LAND**

- A. Owner will provide necessary land for construction of treatment facilities, lift stations, pump stations, parks and buildings, whether on privately or publicly owned property

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01090  
REFERENCED STANDARDS**

**PART 1 – GENERAL**

1.1 DESCRIPTION

A. Throughout the Project Documents, reference is made to specifications and standards issued by nationally recognized professional and/or trade organizations:

1. These referenced standards are generally identified by abbreviating the name of the organization following with the specification/standard number.
2. Unless specifically indicated otherwise, all references to standards refer to the latest edition available at the time of the bidding.

1.2 ABBREVIATIONS

A. Wherever the following abbreviations are used in these Project Documents, they are to be construed the same as the respective expressions represented:

AASHTO American Association of State Highway and Transportation Officials

ACI American Concrete Institute

AISC American Institute of Steel Construction

ALS American Lumber Standards

ANSI American National Standards Institute, Inc

ASTM American Society for Testing and Materials

AWWA American Water Works Association

AWPA American Wood Preservers Association

AWS American Welding Society

FSS Federal Specifications and Standards

GSA General Services Administration

IBC International Building Code

NACE National Association of Corrosion Engineers

NFPA National Fire Protection Association

NSF Formerly: National Sanitary Foundation

OSHA Occupational Safety and Health Administration

SPIB Southern Pine Inspection Bureau

SSPC Steel Structures Painting Council

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**(END OF SECTION)**

**REFERENCED STANDARDS**

**01090-1**



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01200  
CONTRACTOR/SUBCONTRACTOR QUALIFICATION**

**PART 1 – GENERAL**

The following information and completed forms may be requested by the Owner of the three lowest bidders. The request will be made within five (5) days following the bid opening. Requested data to be received by the Owner within five (5) days of the request. Failure to provide the data in this section, upon request, will subject bidder to disqualification.

**1.1 DESCRIPTION**

- A. Information submitted will be used by the Owner to determine the competency and ability of the Contractor/Subcontractor to perform the scheduled work in a manner deemed satisfactory to the Owner. The Owner’s decision shall be final.
- B. Any Subcontractor used by the General Contractor whose portion of this project exceeds 10% of the total bid shall be required to provide the same information as the General Contractor.
- C. The Contractor/Subcontractor shall include with this section a detailed financial statement indicating the Contractor’s/Subcontractor’s financial resources. The information on that statement shall be certified by a Certified Public Accountant and shall be submitted on the Associated General Contractors of America form “Standard Questionnaires and Financial Statement for Bidders.”
- D. The Contractor/Subcontractor shall certify by attaching his signature to this Section as provided that all information contained herein is complete and all statements and answers are accurate and true. Providing misinformation, incomplete information, inaccurate information, or failure to certify the information, will subject bidder to disqualification.

**1.2 QUALIFICATIONS**

- A. Complete the following (attach additional sheets as required):
  - 1. Name: \_\_\_\_\_
  - 2. Address: \_\_\_\_\_
  - 3. City, State, Zip: \_\_\_\_\_
  - 4. Principal: \_\_\_\_\_
- B. Number of years your firm has been in business: \_\_\_\_\_
- C. List and describe a minimum of five (5) previous projects of similar size and nature completed in the last five (5) years. (Attach additional sheets, if necessary):
  - 1. \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- ---

2. 

---

---

---

---
- 3. 

---

---

---

---
- 4. 

---

---

---

---
- 5. 

---

---

---

---

D. List Owner, contact and telephone number for each of the five (5) projects referenced above. (Attach additional sheets, if necessary):

- 1. 

---

---

---

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

E. For the projects listed in Item C, list the original bid price, final construction costs, specified completion time, actual completion time and explanations for differences in costs and times as required. (Attach additional sheets, if necessary):

1. Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

---

---

---

2. Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_

---

---

---

3. Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_

---

---

---

4. Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

**CONTRACTOR/SUBCONTRACTOR QUALIFICATIONS**

**01200-4**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. List the names, addresses and work of any portion of this project which will be subcontracted (more than 10% of the bid price). (Attach additional sheets, if necessary):

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

3. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

G. List equipment owned that is available for this project:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

H. List equipment to be purchased, leased or rented to perform this work:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**CONTRACTOR/SUBCONTRACTOR QUALIFICATIONS**

**01200-6**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- I. List superintendent(s), foreman or others in charge who will be assigned to this project. Provide resumes and qualifications (insert sheets as required):

---

---

---

---

---

- J. List and describe current projects, current statuses of job and estimate schedule of completion. (Attach additional sheets, if necessary):

1. 

---

---

---

2. 

---

---

---

3. 

---

---

---

4. 

---

---

---

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

5. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

K. List past projects completed with Owner of project proposed in last five (5) years.  
(Attach additional sheets, if necessary):

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

L. List past projects bid on with Owner of project proposed in last five (5) years.  
(Attach additional sheets, if necessary):



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

M. List all past projects completed with Engineer in past five (5) years (Attach additional sheets, if necessary):

1. Project Name: \_\_\_\_\_  
  
Project Manager: (Engineer's): \_\_\_\_\_  
  
Original contract price: \_\_\_\_\_  
  
Final construction price: \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Project Name: \_\_\_\_\_

Project Manager: (Engineer's): \_\_\_\_\_

Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Project Name: \_\_\_\_\_

Project Manager: (Engineer's): \_\_\_\_\_

Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Project Name: \_\_\_\_\_

Project Manager: (Engineer's): \_\_\_\_\_

Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Project Name: \_\_\_\_\_

Project Manager: (Engineer's): \_\_\_\_\_

Original contract price: \_\_\_\_\_

Final construction price: \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Specified completion time: \_\_\_\_\_

Actual completion time: \_\_\_\_\_

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

N. List all projects involving litigation, arbitration and/or mediation in past five (5) years (Attach additional sheets, if necessary):

1. Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Engineer: \_\_\_\_\_

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

Explanation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Result: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Engineer: \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

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

Explanation: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Result: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Engineer: \_\_\_\_\_

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

Explanation: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Result: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

Engineer: \_\_\_\_\_

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

Explanation: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Result: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Engineer: \_\_\_\_\_

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

Explanation: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Result: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

O. Attach rate schedule for equipment, labor, overhead and profit.

**CONTRACTOR/SUBCONTRACTOR QUALIFICATIONS**

**01200-14**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

P. Additional information:

---

---

---

---

---

I hereby certify that as a duly authorized representative of \_\_\_\_\_  
(bidder), the information provided is to the best of my knowledge accurate and that failure to  
provide accurate information will result in disqualification of my bid

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (Print)

(Seal)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

Notary Public of \_\_\_\_\_ (State)

My commission expires: \_\_\_\_\_

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01210  
PRECONSTRUCTION CONFERENCE**

**PART 1 – GENERAL**

**1.1 DESCRIPTION**

- A. Work included: To help clarify construction contract administration procedures, the Engineer will conduct a Preconstruction Conference prior to start of the Work. Provide attendance by the designated personnel.
- B. Related work: Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

**1.2 QUALITY ASSURANCE**

- A. For those persons designated by the Contractor, his Subcontractors, and suppliers to attend the Preconstruction Conference, provide required authority to commit the entities they represent to solutions agreed upon in the Conference.

**1.3 SUBMITTALS**

- A. To the maximum extent practicable, advise the Engineer at least 24 hours in advance of the Conference as to items to be added to the agenda.
- B. The Engineer will compile minutes of the Conference, and will furnish one copy of the minutes to the Contractor and required copies to the Owner. The Contractor may make and distribute such other copies as he/she wishes.

**1.4 PRECONSTRUCTION CONFERENCE**

- A. The Conference is not required but is recommended and will be scheduled to be held within 30 working days after the Owner has determined the low bidder and may be held prior to issuance of the Notice to Proceed when required by regulatory agencies having jurisdiction. In any event, the Conference will be held prior to actual start of the work.
- B. Attendance:
  - 1. Provide attendance by authorized representatives of the Contractor and major subcontractors. The Engineer will advise other interested parties, including the Owner, and request their attendance.
- C. Minimum agenda: Data will be distributed and discussed on:
  - 1. Organizational arrangement of Contractor's forces and personnel and those of subcontractors, materials suppliers, and the Engineer.
  - 2. Channels and procedures for communication.
  - 3. Construction schedule, including sequence of critical work.
  - 4. Contract Documents, including distribution of required copies of Drawings and revisions.

**PRECONSTRUCTION CONFERENCE**

**01210-1**



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

5. Processing of Shop Drawings and other data submitted to the Engineer for review.
6. Processing of field decisions and Change Orders.
7. Rules and regulations governing performance of Work.
8. Procedures for security, quality control, housekeeping, and related matters.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01220  
PROJECT MEETINGS**

**PART 1 – GENERAL**

1.1 DESCRIPTION

- A. Work included: To enable orderly review during progress of the Project, and to provide for systematic discussion of problems, the Owner will conduct project meetings throughout the construction period.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
  - 2. The Contractor's relations with his subcontractors and materials suppliers, and discussions relative thereto, are the Contractor's responsibility and normally are not part of the project meetings content.

1.2 QUALITY ASSURANCE

- A. For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the meetings.

1.3 SUBMITTALS

- A. Agenda items: To the maximum extent practicable, advise the Owner at least 48 hours in advance of project meetings regarding items to be added to the agenda.
- B. Minutes:
  - 1. The Owner will compile Minutes of each project meeting, and will furnish three copies to the Contractor and required copies to Engineer.
  - 2. Recipients of copies may make and distribute such other copies as they wish.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION**

3.1 MEETING SCHEDULE

- A. Project meetings will be held monthly.
- B. Coordinate as necessary to establish mutually acceptable schedule for meetings.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**3.2 MEETING LOCATION**

- A. The meeting will be held at the City of Georgetown – Water Utilities and Engineering Department.

2377 Anthuan Maybank Drive  
Georgetown, SC 29440

**3.3 PROJECT MEETINGS**

- A. Attendance:

1. To the maximum extent practicable, assign the same person or persons to represent the Contractor at project meetings throughout progress of the Work.
2. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved.

- B. Minimum agenda:

1. Review, revise as necessary, and approve Minutes of previous meetings.
2. Review Safety Plan and any incidents since last meeting.
3. Review progress of the Work since last meeting, including status of submittals for approval.
4. Identify problems that impede planned progress.
5. Develop corrective measures and procedures to regain planned schedule.
6. Complete other current business.

**3.4 Revision to Minutes:**

- A. Unless published Minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
- B. Persons challenging published Minutes shall reproduce and distribute copies of the challenged to all Minutes.
- C. Challenge to Minutes shall be settled as priority portion of “old business” at the next regularly scheduled meeting.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01270  
MEASUREMENT AND PAYMENT**

**PART 1 – GENERAL**

1.1 GENERAL

- A. The following subsections describe the measurement of and payment for the work to be done under the items listed in Section 00311-3, BID FORM.
- B. All work performed as described in these contract documents shall be paid for under one or more of the items listed in Section 00311-3, BID FORM. All other activities required in connection with performance of the work, including all work required under Division 1, GENERAL REQUIREMENTS, whether described in the contract documents or mandated by applicable codes, permits and laws, will not be separately paid for unless specifically provided for in the BID FORM, but will be considered incidental to performance of the overall project.
- C. Each unit or lump sum price stated in the Section 00311-3, BID FORM shall constitute full compensation as herein specified for each item of work completed in accordance with the drawings and specifications.
- D. The payment items listed herein and in Section 00311-3, BID FORM are intended to provide full payment for the work shown on the drawings and specified herein. Any work called for or implied in the documents but not listed as a payment item shall be considered incidental to the overall project.
- E. Unless otherwise noted, all earthwork shall be included under any item requiring excavation. Unless otherwise noted, each item specified or shown on the drawings shall be furnished and installed in accordance with the technical section whether a specific applicable payment item exists or not.
- F. The prices for those items which involve excavation shall include compensation for disposal of surplus excavated material, and installation of all necessary sheeting and bracing.
- G. In all items involving excavation, the price shall be included under any item requiring the excavation.
- H. The price for all pipe items for sewer main and service connections shall constitute full compensation for earth excavation, sheeting, shoring, dewatering, bedding, furnishing, laying, jointing, soil compaction testing, bypass pump, tracer tape (if required), backfilling, sidewalk replacement, ~~pavement replacement~~, curbing replacement, locate and repair of aboveground and underground utilities and/or service connections, ~~traffic control, pedestrian safety plan~~, loaming and seeding, and cleaning up of site.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**1.2 MEASUREMENT AND PAYMENT**

**A. Mobilization:**

1. The lump sum price bid for mobilization shall include all costs for bonds, insurance, permits, establishing field offices, moving construction equipment to the site, and other necessary but "nonscheduled" work. Mobilization shall not exceed 3% of the Total Bid less the cost for "Contingency Allowance" and "Cash Allowance for Materials Testing".

**B. Tree Protection:**

1. Tree Protection cost shall be measured as a lump sum per complete installation of those items that pertain to tree protection required by contract documents and plans.
2. The price for tree protection shall include all costs for tree protection that is described or shown on the plans. The Contractor shall include the cost of all materials and labor required to install, maintain, and remove all tree protection as specified, shown on the Plans and Details, and required by any local or state ordinance.
3. This includes but is not limited to fencing and fence posts.

**C. Sediment and Erosion Control:**

1. Sediment and Erosion Control cost shall be measured as a lump sum per complete installation of those items that pertain to sediment and erosion control, as required by contract documents and plans.
2. The Contractor shall include in the lump sum price for erosion control measures the cost of all materials and labor required to install, maintain, and remove all erosion control devices as specified, shown on the Plans and Details, and required by S.C. Erosion Control Regulations, which are not included in other bid items.
3. This includes, but is not limited to, temporary diversion ditches, temporary stream crossings, rock pile inlets, fabric drop inlets, and sediment pits. This also includes silt fencing and the cost of furnishing, installing and maintaining the silt fence as shown on the details, approved by the Engineer prior to construction, or required by S.C. Erosion Control Regulations.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01310  
CONSTRUCTION SCHEDULES**

**PART 1 – GENERAL**

**1.1 DISCRPTION**

- A. Work included: To assure adequate planning and execution of the Work so that the Work is completed within the number of calendar days allowed in the Contract, and to assist the Engineer in appraising the reasonableness of the proposed schedule and in evaluating progress of Work, prepare and maintain the schedules and reports described in this Section.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
  - 2. Requirements for progress schedule: General Conditions.
  - 3. Construction period: Form of Agreement
- C. Definitions: “Day”, as used throughout the Contract unless otherwise stated, means calendar day.

**1.2 QUALITY ASSURANCE**

- A. Employ a scheduler who is thoroughly trained and experienced in compiling construction schedule data, and in preparing and issuing periodic reports as required below.
- B. Perform data preparation, analysis, charting, and updating in accordance with standards approved by the Engineer.
- C. Reliance upon the approved schedule:
  - 1. The construction schedule as approved by the Engineer will be an integral part of the Contract and will establish interim completion dates for the various activities under the Contract.
  - 2. Should any activity not be completed within 15 days after the stated scheduled date, the Owner shall have the right to require the Contract to expedite completion of the activity by whatever means the Owner deems appropriate and necessary, without additional compensation to the Contractor.
  - 3. Should any activity be 30 days or more behind schedule, the Owner shall have the right to perform the activity or have the activity performed by whatever method the Owner deems appropriate.
  - 4. Costs incurred by the Owner and by the Engineer in connection with expediting construction activity shall be reimbursed by the Contractor.
  - 5. It is expressly understood and agreed that failure by the Owner to exercise the option either to order the Contractor to expedite and activity or to expedite the

**CONSTRUCTION SCHEDULES**

**01310-1**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

activity by other means shall not be considered to set a precedent for any other activities.

**1.3 SUBMITTALS**

- A. Comply with pertinent provisions of Section 01340.
- B. Preliminary analysis: Within 10 calendar days after the Contractor has received the Notice to Proceed, submit one reproducible copy and four prints of a preliminary construction schedule prepared in accordance with Part 3 of this Section.
- C. Construction schedule: Within 10 calendar days after the Contractor has received the Engineer's approval to revisions of a preliminary construction schedule, submit one reproducible copy and four prints of a construction schedule prepared in accordance with Part 3 of this Section.
- D. Periodic reports: On the first working day of each month following the submittal described in Paragraph 1.3.C above, submit four prints of the construction schedule updated as described in Part 3 of this Section.

**PART 2 – PRODUCTS**

**2.1 CONSTRUCTION ANALYSIS**

- A. Graphically show by bar chart the order and interdependence of all activities necessary to complete the work, and the sequence in which each activity is to be accomplished, as planned by the Contractor and his project field superintendent in coordination with all subcontractors whose work is shown on the diagram.
  - 1. Provide two line bar chart; one for planned activity and one for actual completion.
- B. Include, but do not necessarily limit indicated activities to:
  - 1. Project mobilization.
  - 2. Submittal and approval of shop drawings and samples.
  - 3. Procurement of equipment and critical materials.
  - 4. Fabrication of special material and equipment, and its installation and testing.
  - 5. Final cleanup.
  - 6. Final inspecting and testing.
  - 7. All activities by the Engineer that affect progress, required dates for completion, or both, for all and each part of the Work.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**PART 3 – EXECUTION**

**3.1 PRELIMINARY ANALYSIS**

A. Contents:

1. Show all activities of the Contractor under this Work for the period between receipt of Notice to Proceed and submittal of construction schedule.
2. Show the Contractor's general approach to remainder of the Work.
3. Show cost of all activities scheduled for performance before submittal and approval of the construction schedule.

**3.2 CONSTRUCTION SCHEDULE**

- A. Provide a construction schedule incorporating all revisions from review of the preliminary analysis.

**3.3 PERIODIC REPORTS**

- A. Provide monthly updates of the approved construction schedule.

1. Indicate "actual" progress for each activity on the bar chart.
2. Provide written narrative summary of revisions causing delay in the program, and an explanation of correct actions taken or proposed.

**3.4 REVISIONS**

- A. Make periodic revisions to the schedule to incorporate delays, early completion, etc.
- B. Make only those revisions to approved construction schedule as are approved in advance by the engineer.

**(END OF SECTION)**



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01340  
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

**PART 1 – GENERAL**

**1.1 DESCRIPTION**

- A. Work included: Make submittals required by the Contract Documents and revise and resubmit as necessary to establish compliance with the specified requirements.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to General Conditions, Supplementary Conditions and Sections in Division 1 of these specifications.
  - 2. Individual requirements for submittals also may be described in pertinent sections of these specifications.
- C. Work not included:
  - 1. Un-required submittals will not be reviewed by the Engineer.
  - 2. The Contractor may require his subcontractors to provide drawings, setting diagrams, and similar information to help coordinate the work, but such data shall remain between the Contractor and his subcontractors and will not be reviewed by the Engineer.

**1.2 QUALITY ASSURANCE**

- A. Coordination of submittals:
  - 1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
  - 2. Verify that each item and the submittal for it conform in all respects with the specified requirements.
  - 3. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.
  - 4. Review and coordinate each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
- B. Completeness of submittal:
  - 1. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes.

**SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

**01340-1**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

2. Determine and verify all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- C. "Or equal":
  1. Where the phrase "or equal" occurs in the Contract Documents, do not assume that the materials, equipment or methods will be considered as equal unless the item has been specifically so approved for this Work by the Engineer.
  2. The decision of the Engineer shall be final.
- D. The Engineer shall assume that no shop drawing or related submittal comprises a variation unless the Contractor advises the Engineer otherwise in writing.

### 1.3 SUBMITTALS

- A. Within 10 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
  1. Schedule for submittals including specification section, type or submittal and submittal date.
  2. Construction schedule.
  3. Schedule of partial payment request.
- B. Make submittals of shop drawings, samples, substitution requests and other items in accordance with the provisions of this Section.

## **PART 2 – PRODUCTS**

### 2.1 SHOP DRAWINGS

- A. Scale and measurements: Make shop drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.
- B. Large prints (11" x 17" or larger):
  1. Submit shop drawings in the form of white copies.
  2. Blueprints will not be acceptable.
- C. Manufacturer's literature:
  1. Where contents of submitted literature from manufacturers include data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review.
  2. Cross out or strikethrough all data not pertinent to the submittal.
- D. Number of copies:
  1. Product data: submit the number of copies which are required to be returned, plus three copies which will be retained by the Engineer.

### **SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

2. Shop drawings: submit the number of copies which are required to be returned, plus four copies which will be retained by the Engineer.
- E. Do not begin fabrication of equipment or materials prior to Engineer's approval of shop drawings.

**2.2 VARIATIONS**

- A. With each submittal, provide specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.
- B. Provide an explanation of why the item(s) submitted are considered to be equal to the item(s) specified.
- C. Failure to submit a written notice will result in rejection of the submittal.

**2.3 SAMPLES**

- A. Provide sample or samples identical to the precise article proposed to be provided. Identify as described under "Identification of submittals" below.
  1. Unless otherwise specified, submit samples in the quantity which is required to be returned, plus one which will be retained by the Engineer.
  2. By prearrangement in specific cases, a single sample may be submitted for review and, when approved, when installed in the work at a location agreed upon by the Engineer.

**2.4 COLORS AND PATTERNS**

- A. Unless the precise color and pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available to the specified products, submit accurate color and pattern charts to the Engineer for selection.

**PART 3 – EXECUTION**

**3.1 CONTRACTOR'S REVIEW OF SUBMITTALS**

- A. Before submitting a shop drawing or any related material, Contractor shall:
  1. Determine and verify all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto.
  2. Determine and verify the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the work.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

3. Review each such submission for conformance with the means, methods, techniques, sequences, and operations of construction, and safety precautions and programs incidental thereto, all of which are the sole responsibility of Contractor.
  4. Approve each such submission before submitting it.
  5. Stamp and sign each such submission before submitting it.
- B. Shop drawings and related materials shall be returned with comments provided that each submission has been specified and is stamped by the Contractor.
- C. Shop drawings or material not specified or which have not been approved by the Contractor shall be returned without comment.
- D. Contractor is to utilize the following stamp on all shop drawing submittals:

This shop drawing has been reviewed by (Contractor) and approved with respect to the means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incidental thereto. (Contractor) also warrants that this shop drawing complies with contract documents and comprises no variations thereto.

By:

Date:

- E. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of the General Conditions and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of the General Conditions.

### 3.2 IDENTIFICATION OF SUBMITTALS

- A. Consecutively number all submittals
1. When material is resubmitted for any reason, transmit under a new letter of transmittal and with a new transmittal number.
  2. On re-submittals, cite the original submittal number for reference.
- B. Accompany each submittal with a letter of transmittal showing all information required for identification and checking.
- C. On at least the first page of each submittal, and elsewhere as required for positive identification, show the submittal number in which the item was included.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- D. Maintain an accurate submittal log for the duration of the work, showing current status of all submittals at all times. Make the submittal log available to the Engineer for his review upon request.
- 3.3 GROUPING OF SUBMITTALS
- A. Unless otherwise specified, make submittals in groups containing all associated items to assure that information is available for checking each item when it is received.
    - 1. Partial submittals may be rejected as not complying with the provisions of the Contract.
    - 2. The Contractor may be held liable for delays so occasioned.
- 3.4 TIMING OF SUBMITTALS
- A. Make submittals far enough in advance of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and re-submittals, and for placing orders and securing delivery.
  - B. In scheduling, allow at least twenty (20) days for review by the Engineer following his receipt of the submittal.
- 3.5 RESUBMITTAL SCHEDULE
- A. For submittals marked “Revise and Re-Submit”, “Submit Specified Item”, or “Rejected”, re-submittal shall be within ten (10) days of the review data shown on the Engineer’s shop drawing review stamp.
- 3.6 ENGINEER’S REVIEW
- A. Review by the Engineer does not relieve the Contractor from responsibility for errors which may exist in the submitted data.
  - B. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer.
  - C. Engineer’s review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given to the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
  - D. Engineer’s review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto.
  - E. The review and approval of a separate item as such will not indicate approval of the assembly in which the items functions.
  - F. Revisions:

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

1. Make revisions required by the Engineer.
  2. If the Contractor considers any required revision to be a change, he/she shall so notify the Engineer as provided for in the General Conditions.
  3. Make only those revisions directed or approved by the Engineer.
- G. Submittals which have been reviewed and returned to the Contractor marked “Revise and Re-submit” or “Rejected” and which are re-submitted and not in an approvable state, will not be reviewed a third time unless payment for the third and any subsequent review is by the Contractor. The engineering costs for review shall be equal to the Engineer’s charges to the Owner under the terms of the Engineering Agreement with the owner.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01400  
QUALITY REQUIREMENTS**

**PART 1 – GENERAL**

**1.1 DESCRIPTION**

- A. Work included: Provide workforce and equipment as are required for proper completion of the Work including, but not necessarily limited to:
  - 1. All work described in the Project Manual and Plans
  - 2. Additional work mutually agreed upon by the Owner and the Contractor
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
  - 2. Additional requirements for quality requirements also may be described in other Sections of these Specifications. These include but are not limited to the following:
- C. Work by others:
  - 1. An inspection and testing agency, approved by the Owner, shall be retained by the Contractor to perform tests required by SCDOT as specified on plans and SCDOT Standard Specifications.
  - 2. The performance or lack of performance of such tests and inspections shall not be construed as granting relief from the requirements of these specifications or the other contract documents

**1.2 QUALITY ASSURANCE**

- A. The Contractor shall have a written Quality Control Program and Inspection Procedures document that shall provide details of how compliance with the requirements of these specifications and the shop and placement drawings shall be achieved.
- B. The Contractor shall use an adequate number of skilled personnel, who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specification requirements and the methods needed for the proper performance of the work of this Specification.
- C. The Contractor shall utilize equipment adequate in type, number, size and capacity to accomplish the work of this Specification in a safe and timely manner.
- D. The Owner reserves the right to make inspections at any time at the source of supply of materials, at the place of preparation of materials, and during execution of all work.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**1.3 SUBMITTALS**

- A. When required, an excavation Safety Plan shall be submitted for review and approval by the Engineer no less than 5 days before the scheduled date for start of excavation operations. The plan shall indicate the systems, methods, and techniques to be used to ensure that excavation sidewalls will be properly guarded to protect personnel, and existing facilities and structures in the vicinity of the work.
- B. When required, a Water Control Plan shall be submitted for review and approval no less than 5 days before the scheduled date for the start of earthwork operations. The plan shall indicate the methods and techniques to be used for control of water (both surface runoff and ground water) during Work.

**1.4 EXISTING SITE CONDITIONS**

- A. Before starting work the Contractor shall thoroughly examine the site to ascertain conditions under which the work must be performed.
- B. The Contractor is responsible for familiarizing himself with the existing site conditions and be prepared to adequately care for and safeguard himself, his workers, and the Owner from damage.
- C. Existing Geotechnical Conditions if available, a copy of the report is included in the contract documents. The information contained in the report shall not be construed as a guarantee of the depth, extent, or character of materials actually present.
- D. Existing Utilities
  - 1. There now may exist in the construction area potable and non-potable water distribution systems, wastewater and stormwater collection systems, natural gas and electrical power distribution systems, telecommunication systems and other utilities.
  - 2. These utilities are both underground and overhead and their location, as shown on the plans, is approximate and is for information purposes only. In addition other utilities not shown on the plans may exist.
  - 3. The South Carolina Underground Utility Damage Prevention Act (S.C. Ann Code, 58-35-10, CT-SEQ, Supp. 1978) requires persons to ascertain the location of underground utilities, prior to excavation and demolition. The Act also requires such persons to give timely notice of intent to excavate or demolish prior to commencing such operations.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION**

**3.1 PRE-CONSTRUCTION EXAMINATION**

**QUALITY REQUIREMENTS**

**01400-2**



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- A. General
  - B. Before starting work the Contractor shall thoroughly examine the site to ascertain conditions under which the work must be performed.
  - C. Existing Facilities to Remain
  - D. Take measures to protect existing facilities within the work area that are not designated for removal from being damaged by the work.
  - E. Survey Monuments
    - 1. Locate and protect from damage any survey monuments within the work area. Properly relocate or witness any monument that must be disturbed by the work. After completion of the work, restore monument witnesses.
  - F. Immediately notify Engineer of any discrepancies between the plans and the actual site conditions, or of any obstruction that will prevent or adversely affect the contractor's ability to complete the Work.
- 3.2 EXISTING OR COMPLETED UTILITIES
- A. Unless shown to be removed protect active utility lines shown on the drawings or otherwise made known to the Contractor.
  - B. Use care in moving machinery and equipment over existing or newly installed pipes and utilities during construction so as not to cause damage to completed work.
  - C. Do not use power-driven equipment to excavate closer than 2 feet from any existing utility or structure. For work immediately adjacent to, or for excavation exposing an existing utility or other structure, use manual or light equipment excavation methods until the obstruction is cleared.
  - D. Support uncovered pipes and other existing work affected by the excavation until they are properly supported by backfill.
  - E. Take the necessary precautions to maintain services provided by all active utility lines in the construction area. If service is interrupted as a result of the Work, immediately restore service by repairing the damaged utility.
  - F. If during construction active utility lines not shown on the drawings or otherwise made known to the Contractor are encountered or if active utility lines will interfere with the work, immediately notify the Engineer

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01500  
TEMPORARY FACILITIES**

**PART 1 – GENERAL**

1.1 DESCRIPTION

A. Work included: Provide temporary facilities needed for the work including, but not necessarily limited to:

1. Temporary utilities such as heat, water and electricity.
2. Field office for the Contractor's personnel.
3. Sanitary facilities.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to General Conditions, Supplementary Conditions and Sections in Division 1 of these specifications.
2. Permanent installation and hookup of the various utility lines are described in other Sections.

1.2 PRODUCT HANDLING

A. Maintain temporary facilities in proper and safe condition throughout progress of the work.

**PART 2 – PRODUCTS**

2.1 UTILITIES

A. Water:

1. Provide necessary temporary piping and water supply and, upon completion of the work, remove such temporary facilities.
2. The Owner shall provide water used in construction. The Contractor shall obtain a construction meter from the Owner.

B. Electricity:

1. Provide necessary temporary wiring and, upon completion of the work remove such temporary facility.
2. Provide and pay for electricity used in construction.

C. Heating: Provide and maintain heat necessary for proper conduction of operations needed in the work.

2.2 FACILITIES

A. Sanitary facilities:

**TEMPORARY FACILITIES**

**01500-1**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

1. Provide temporary sanitary facilities in the quantity required for use by all personnel.
2. Maintain in a sanitary condition at all times.

B. Strictly enforce their use.

**2.3 PROJECT SIGNS**

A. If required provide and maintain a project information sign with following information

1. Project Name
2. Project Cost
3. Anticipated Completion date
4. Contractor
5. Engineer
6. Owner
7. Members of City Council

B. EMPLOYMENT SIGN

C. SAFETY SIGN

**PART 3 – EXECUTION**

**3.1 MAINTENANCE AND REMOVAL**

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the work.
- B. Remove such temporary facilities and controls as rapidly as progress of the work will permit, or as directed by the Engineer.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01530  
TREE AND PLANT PROTECTION**

**PART 1 – GENERAL**

**1.1 SUMMARY**

A. Section includes:

1. All protected trees (as defined by City of Georgetown’s Article XII: Tree Protection Regulations) shall be protected unless indicated otherwise.
2. Protection of trees to remain; all trees which are not specifically indicated to be removed shall be protected and shall not be removed.
3. Repair of trees damaged during construction operations as specified or directed.
4. Penalties and mitigation for trees removed or damaged beyond repair.

**1.2 QUALITY ASSURANCE**

- A. Qualifications: Repair of tree damage shall be done by or under the supervision of a certified arborist who shall be a member in good standing of the International Society of Arboriculture.
- B. Pre-Construction Conference: Review extent of tree protection and measures to be employed with the Engineer and Owner.
  1. Trees to remain and applicable protection measures.
  2. Trees to receive temporary fence enclosures.

**PART 2 – PRODUCTS**

**2.1 MATERIALS**

- A. Acceptable Temporary Tree Protection Fencing Material (subject to local code requirements):
  1. Posts: Durable metal “T” or equivalent. Post shall be set to two feet below ground surface.
  2. Synthetic Fencing: Four foot high orange polyethylene laminar sheeting, specifically manufactured in bright, contrasting colors for temporary barricade use.

**PART 3 – EXECUTION**

**3.1 PROTECTION OF EXISTING TREES TO REMAIN**

- A. Protect existing trees to remain against injury or damage. Protect roots out to the drip line. Protect against:
  1. Unauthorized cutting or breaking of roots or limbs.
  2. Unnecessary skinning of roots, trunks, or branches.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

3. Smothering or compacting by stockpiling construction materials or excavation materials within drip lines.
  4. Excess equipment or vehicular traffic within drip line.
- B. Temporary Fence Enclosures:
1. All construction shall be prohibited within tree protection fence areas. Unauthorized personnel are to keep out of these areas. All clean up, grading, and grassing in the areas are by landscape contractor. Coordinate access to drainage structure construction with landscape architect.
  2. Maintain temporary fencing during full construction period. Remove fencing when no longer needed or when acceptable to Landscape Architect.

**3.2 REPAIR OF TREES INJURED DURING CONSTRUCTION**

- A. Repair damaged trees promptly to prevent progressive deterioration caused by damage.
- B. Repairs to trees damaged during construction shall be at Contractor's expense.
- C. Repair trees injured during construction according to standard arboricultural techniques recognized by International Society of Arboriculture.
- D. Remove trees damaged beyond satisfactory repair as determined by Engineer and Owner. Refer to PENALTIES AND MITIGATION in this section for loss of trees to remain.
- E. Temporarily cover roots exposed during construction with wet burlap to prevent roots from drying out. Cover roots with earth as soon as possible.
- F. Roots cut during construction: coat roots 1-1/2 inches diameter or larger with antiseptic paint.

**3.3 PENALTIES AND MITIGATION**

- A. Penalty values and mitigation shall be determined by Engineer based on each tree's species, preconstruction condition, and site importance.
- B. Trees designated to remain that are removed or damaged beyond repair shall be mitigated in accordance with City of Georgetown's Zoning Ordinance, Article XII.
- C. Species Substitution: Obtain Engineer's approval prior to substitution of tree species.
- D. Plant trees at location indicated by Engineer. Plant the trees according to methods recommended in writing by the International Society of Arboriculture for the applicable species and size to be planted; methods shall be submitted to and approved by the Engineer before planting will be authorized.
- E. Contractor shall notify Engineer of any protected tree(s) located within ten (10) feet of proposed excavation limits. If so authorized in writing by Engineer, unavoidable damage to such designated trees will be exempt from specified penalties and mitigation indicated in Subsection 3.3B above. All reasonable measures and precautions shall be exerted to preserve these trees including top pruning, nutrient injection or other applicable methods by an approved arborist; such work shall be considered to construction and not compensatory.

**(END OF SECTION)**

**TREE AND PLANT PROTECTION**

**01530-2**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01640  
PRODUCT HANDLING**

**PART 1 – GENERAL**

**1.1 DESCRIPTION**

- A. Work included: Protect products scheduled for use in the work by means including, but not necessarily limited to, those described in this Section.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to General Conditions, Supplementary Conditions and Sections in Division 1 of these specifications.
  - 2. Additional procedures also may be prescribed in other Sections of these specifications.

**1.2 QUALITY ASSURANCE**

- A. Include within the Contractor's quality assurance program such procedures as are required to assure full protection of work and materials.

**1.3 MANUFACTURE'S RECOMMENDATIONS**

- A. Except as otherwise approved by the Engineer, determine and comply with manufacture's recommendations on product handling, storage and protection.

**1.4 PACKAGING**

- A. Deliver products to the job site in their manufacturer's original container, with labels intact and legible.
  - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
  - 2. Promptly remove damaged material and unsuitable items from the job site and promptly replace with material meeting the specified requirements, at no additional cost to the Owner.
- B. The Engineer may reject as non-complying such material and products that do not bear identification satisfactory to the Engineer as to manufacture, grade, quality and other pertinent information.

**1.5 PROTECTION OF MATERIAL AND WORK**

- A. General:
  - 1. Carefully and properly protect all materials of every description, both before and after being used in the Work in accordance with manufacturer's recommendations.
  - 2. Provide any enclosing or special protection from weather deemed necessary by the Engineer at no additional cost to the Owner.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- B. Partial payments under the Contract will not relieve the Contractor from responsibility.
  - 1. When materials and work at the site that have been partially paid for are not adequately protected by the Contractor, such materials will be protected by the Owner at the expense of the Contractor and no further partial payment thereon will be made.
  - 2. Maintain finished surfaces clean, unmarred, and suitably protected until accepted by the Owner.

**1.6 STORAGE**

- A. Store all items of equipment, component parts, etc., in accordance with the manufacturer's recommendations or as may otherwise be necessary to prevent damage or deterioration of any sort.
- B. Electrical and control equipment:
  - 1. Store in a dry area protected from dust and humidity.
  - 2. Equipment can be protected by a weatherproof cover if shipped to the site no more than two (2) weeks prior to installation and energization.

**1.7 REPAIRS AND REPLACEMENTS**

- A. In the event of damage, promptly make replacements and repairs to the approval of the Engineer and at no additional cost to the Owner.
- B. Additional time required to secure replacements and to make repairs will not be considered by the Engineer to justify an extension in the contract time or completion.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01700  
CONTRACT CLOSEOUT**

**PART 1 – GENERAL**

**1.1 DESCRIPTION**

- A. Work included shall be providing compliance with the requirements of the General Conditions of these Specifications for administrative procedures in closing out the project work.
- B. Related work:
  - 1. Documents affecting work of this section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
  - 2. Other requirements for technical services are stated in other sections of these Specifications.
  - 3. Section 00620 – Contractors Affidavit.
  - 4. Section 01720 – Project Record Documents

**1.2 SUBSTANTIAL COMPLETION**

- A. The Contractor shall notify the Engineer that, in his/her opinion, the project is substantially complete. A written statement listing items complete shall be submitted.
- B. Upon receipt of the Contractor's notice, the Engineer shall make an observation to determine if substantial completion is provided.
- C. If, in the Engineer's opinion, the project is not substantially complete, a written notice to the Contractor shall follow outlining reasons and deficiencies in work that comprised the Engineer's decision. The Engineer's decision shall be final.

**1.3 FINAL OBSERVATION**

- A. The Engineer will make a final observation for the Contractor after all items noted in the substantial completion observation have been corrected. The Contractor shall notify the Engineer in writing when a final observation is needed. Incomplete and/or defective work shall be given to the Contractor by written notice.

**1.4 RE-OBSERVATION**

- A. Re-observation required due to failure by the Contractor to make previously noted corrections will be performed by the Engineer.
- B. Cost for such observations will be due to and payable by the Contractor at a rate equal to charges to the Owner for similar work.
- C. Re-observations will continue until the work is acceptable to the Engineer.

**1.5 COMPLETION BY CONTRACTOR**



**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

- A. When the Engineer finds the Contractor's work acceptable, the Contractor shall be given such notice and should proceed with closeout submittals.
- B. Closeout submittals shall contain at least the following:
  - 1. Project record documents.
  - 2. Equipment operation and maintenance manuals and copies of start-up reports.
  - 3. Warranties and bonds.
  - 4. Spare parts and manuals.
  - 5. Evidence of payment and release to liens per General Conditions.
  - 6. Contractors Affidavit.

**1.6 FINAL PAYMENT**

- A. Final payment to the Contractor will be made upon completion of previous items and others required by these specifications. A final statement shall be forwarded to the Engineer. The statement shall address:
  - 1. Previous change orders.
  - 2. Unit Prices.
  - 3. Deductions for uncorrected work.
  - 4. Deductions for liquidated damages.
  - 5. Deductions for re-testing work.
  - 6. Deductions for re-observation.
  - 7. Deductions for shop drawing review.
  - 8. Adjusted contract sum.
  - 9. Previous payments.
  - 10. Amount Due.
- B. When required, the Engineer will prepare a contract change order for adjustments not previously made.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01710  
CLEANING UP**

**PART 1 – GENERAL**

1.1 DESCRIPTION

The Contractor must employ at all times during the progress of its work adequate cleanup measures and safety precautions to prevent injuries to persons or damage to property. The Contractor shall immediately, upon request by the Engineer provide adequate material, equipment and labor to cleanup and make safe any and all areas deemed necessary by the Engineer.

1.2 RELATED WORK

A. Section 00700 GENERAL CONDITIONS

B. Section 01046 CONTROL OF WORK AND MATERIALS

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION**

3.01 DAILY CLEANUP:

A. The Contractor shall clean up, at least daily, all refuse, rubbish, scrap and surplus material, debris and unneeded construction equipment resulting from the construction operations and sweep the area. The site of the work and the adjacent areas affected thereby shall at all times present a neat, orderly and workmanlike appearance.

B. Upon written notification by the Engineer, the Contractor shall within 24 hours clean up those areas, which in the Engineer's opinion are in violation of this section and the above referenced sections of the specifications.

C. If in the opinion of the Engineer, the referenced areas are not satisfactorily cleaned up, all other work on the project shall stop until the cleanup is satisfactory.

3.02 MATERIAL OR DEBRIS IN DRAINAGE FACILITIES:

A. Where material or debris has washed or flowed into or has been placed in existing watercourses, ditches, gutters, drains, pipes, structures, such material or debris shall be entirely removed and satisfactorily disposed of during progress of the work, and the ditches, channels, drains, pipes, structures, and work shall, upon completion of the work, be left in a clean and neat condition.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**3.03 REMOVAL OF TEMPORARY BUILDINGS, STRUCTURES AND EQUIPMENT:**

A. On or before completion of the work, the Contractor shall, unless otherwise specifically required or permitted in writing, tear down and remove all temporary buildings and structures it built; shall remove all temporary works, tools and machinery or other construction equipment it furnished; shall remove all rubbish from any grounds which it has occupied; shall remove silt fences and hay bales used for trapping sediment; and shall leave the roads and all parts of the property and adjacent property affected by its operations in a neat and satisfactory condition.

**3.04 RESTORATION OF DAMAGED PROPERTY:**

A. The Contractor shall restore or replace, when and as required, any property damaged by its work, equipment or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk and landscaping work. Materials, equipment, and methods for such restoration shall be as approved by the Engineer.

**3.05 FINAL CLEANUP:**

A. Before acceptance by the Owner, the Contractor shall perform a final cleanup to bring the construction site to its original or specified condition. This cleanup shall include removing all trash and debris off of the premises. Before acceptance, the Engineer shall approve the condition of the site.

**(END OF SECTION)**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

**SECTION 01720  
PROJECT RECORD DOCUMENTS**

**PART 1 – GENERAL**

**1.1 DESCRIPTION**

**A. Work included:**

1. Throughout progress of the Work, maintain an accurate record of changes in the Contract Documents, as described in Article 3.1 below.
2. Upon completion of the Work, deliver the recorded changes to the Engineer

**B. Related work:**

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
2. Additional requirements for field engineering also may be described in other Sections of these Specifications. These include but are not limited to the following:

**1.2 QUALITY ASSURANCE**

- A. Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the Engineer.
- B. Accuracy of records shall be such that future search for items shown on the Project Record Documents may rely reasonably on the information provided under this Section of the Work

**1.3 SUBMITTALS**

- A. The Engineer's approval of the current status of Project Record Documents may be a prerequisite to the Engineer's approval of requests for progress payment and request for final payment under the Contract.
- B. Prior to submitting each request for progress payment, secure the Engineer's approval of the current status of the Project Record Documents.
- C. Prior to submitting request for final payment, submit the final Project Record Documents to the Engineer and secure his approval.

**1.4 PRODUCT HANDLING**

- A. Maintain the job set of Record Documents completely protected from deterioration and from loss and damage until completion of the Work and transfer to the Engineer.
- B. In the event of loss of recorded data, use all means necessary to again secure the data to the Engineer's approval
  1. Such means shall include, if necessary in the opinion of the Engineer, removal and replacement of concealing materials.

**PROJECT RECORD DOCUMENTS**

**01720-1**

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

2. In such case, provide replacements to the standards originally required by the Contract Documents

**PART 2 - PRODUCTS**

2.1 JOB SET DOCUMENTS

- A. Promptly following receipt of the Owner's Notice to Proceed, secure from the Engineer, at no charge to the Contractor, one complete set of all Documents comprising the Contract

**PART 3 - EXECUTION**

3.1 MAINTENANCE JOB SET DOCUMENTS

- A. Immediately upon receipt of the job set described in above paragraph titled "JOB SET DOCUMENTS", identify each of the Documents with the title, "RECORD DOCUMENTS- JOB SET".
- B. Preservation:
  1. Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Engineer.
  2. Do not use the job set for any purpose except entry of new data and for review by the Engineer.
  3. Maintain the job set at the site of Work as that site is designated by the Engineer.
- C. Field work and making entries on Job Set Drawings:
  1. Use erasable colored pencil, preferably red (not ink or indelible pencil) to delineate changes.
  2. Show by station number location of all fittings, manholes, valves, wyes locations, etc.
  3. Reference all fittings and valves at least to two aboveground items reasonably safe from being relocated and indicate such references on the drawings.
  4. Reference all pipelines from the center of the parallel roadway at least every 100 feet or where changes occur in the direction of the pipeline.
  5. Reference all bores from the center of the roadway to the beginning and end of the casing and ductile iron pipe. Depths of bury must also be provided.

**CANNON STREET SEWER IMPROVEMENTS  
CITY OF GEORGETOWN  
SOUTH CAROLINA**

6. Reference all stream crossings and their distance from the center of the parallel roadway and the bridge or other obstruction. A profile of the stream crossing shall also be provided to show the depth of the pipeline under the stream.
  7. Field measure and reference all fittings and valves to two aboveground items reasonably safe from being relocated and indicate such references on the drawings.
  8. Show location of electrical conduit, pull boxes, etc.
  9. Gravity sewers and storm sewers
    - a) Provide survey grade state plane Geographic Information System (G.I.S.) electronic data horizontal coordinates for each structure location.
    - b) Provide ground elevation, top elevation and invert elevations for each structure.
    - c) Comply with Section 01050.1
- D. Submittals:
1. Submit “marked-up” set of drawings to the Engineer
  2. Make any necessary additions as required by the Engineer

**(END OF SECTION)**

## SECTION 02221

### TRENCHING, BACKFILLING FOR UTILITIES

#### PART 1 - GENERAL

##### 1.1 DESCRIPTION

- A. Work included: Trench, backfill, and compact as specified herein and as needed for installation of underground utilities associated with the Work.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions and Sections in Division 1 of these Specifications.
  - 2. Section 02722 - Sewers: Sanitary, Gravity.
  - 3. Section 02729 – Rehabilitation of Existing Sewer Utilizing Cured-in-Place Pipe.
  - 4. Section 02730 – Rehabilitation of Existing Manholes.

##### 1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Use equipment adequate in size, capacity, and numbers to accomplish the work in a timely manner.

##### 1.3 JOB CONDITIONS

- A. Existing utilities:
  - 1. There now exists in the construction areas, waterworks, storm drainage, sanitary sewers, street paving, gas mains and other utilities.
  - 2. Location of certain underground lines and structures are not shown on the plans.
  - 3. Locate these and other possible unknown utility lines using electronic pipe finder, or other approved means.
  - 4. Locate, excavate and expose all existing underground lines in advance of trenching operations.
  - 5. The Contractor will be held responsible for the workmanlike repair of any damage done to any of these utilities in the execution of his work under this Section.
  - 6. The Contractor shall familiarize himself with the existing conditions and be prepared to adequately care for and safeguard himself and the Owner from damage.
- B. Notification of intent to excavate:
  - 1. South Carolina Underground Utility Damage Prevention Act (S.C. Code Ann, 58-35-10, CT-SEQ, Supp. 1978) requires persons to ascertain the location of underground public utility property prior to excavation or demolition in certain situations. The Act also requires such persons to give timely notice of intent to excavate or demolish prior to commencing such operations. Failure to comply could subject the violator to a civil

- penalty of up to one thousand dollars (\$1,000) for each violation of the Act.
2. Notification of intent to excavate may be given by calling this toll free number: 1-888-721-7877.
- C. Protecting trees, shrubbery and lawns:
1. Trees and shrubbery in developed areas and along the trench line shall not be disturbed unless absolutely necessary, and subject to the approval of the Engineer.
    - a. Any such trees and shrubbery necessary to be removed shall be heeled in and replanted.
  2. Where trenches cross private property through established lawns, sod shall be cut, removed, stacked and maintained in suitable condition until replacement is approved by the Engineer.
    - a. Topsoil underlying lawn areas shall be removed and kept separate from general excavated materials.
- D. Removing and resetting fences:
1. Where existing fences must be removed to permit construction of utilities:
    - a. Remove such fences and, as the Work progresses, reset the fences in their original location and condition.
    - b. Provide temporary fencing or other safeguards as required to prevent stock and cattle from wandering to other lands.
- E. Restoration of disturbed areas:
1. Restore all areas disturbed by, during or as a result of construction activities to their existing or better condition.
    - a. For existing areas with sod type grasses, replace with new sod. Existing sod may be reused where properly removed and stored.
  2. Do not interpret this as requiring replacement of trees and undergrowth in undeveloped sections of the rights-of-way.

## PART 2 - PRODUCTS

### 2.1 EXCAVATED MATERIALS

- A. Perform all excavation of every description and of whatever substances encountered to depths indicated or specified.
- B. Pile material suitable for backfilling in an orderly manner at safe distance from banks or trenches to avoid overloading and to prevent slides or cave-ins.
- C. Remove and deposit unsuitable or excess materials as directed by the Engineer.

### 2.2 BACKFILL MATERIALS

- A. Provide from materials excavated for installation of utility.
  1. Select soil material free from organic matter and deleterious substances, containing no rocks or lumps over 2" in greatest dimension for backfill up to 12" above top of utility being covered.
  2. Do not permit rocks larger than 2" in greatest dimension in top 6" of backfill.



## 2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.
- B. Should the quantity of suitable on-site material be insufficient to complete the work, provide suitable borrow material as approved by the Engineer at no additional expense to the Owner.
- C. Provide select materials from on-site if acceptable material as approved by the Engineer is available on-site. Otherwise, provide approved select material from an off-site source.

## PART 3 - EXECUTION

### 3.1 PROCEDURES

- A. Existing utilities:
  - 1. Unless shown to be removed, protect active utility lines shown on the drawings or otherwise made known to the Contractor prior to trenching. If damaged, repair or replace at no additional cost to the Owner.
  - 2. If active utility lines are encountered and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted.
  - 3. If service is interrupted as a result of work under this Section, immediately restore service by repairing the damaged utility at no additional cost to the Owner.
  - 4. If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Engineer and secure his instructions.
  - 5. Do not proceed with permanent relocation of utilities until written instructions are received from the Engineer.
- B. Locations within streets or highways:
  - 1. Comply with South Carolina Department of Transportation's (SCDOT) "Encroachment Permit" issued for the Work, and the South Carolina Department of Transportation's (SCDOT) "*A Policy for Accommodating Utilities on Highway Rights-of-Way*".
  - 2. Take all precautions and comply with all requirements as may be necessary to protect the improvements, including barricades for protection of traffic.
  - 3. Keep minimum of one lane open to traffic at all times where utility crosses street or highway.
- C. Protection of persons and property:
  - 1. Barricade open holes and depressions occurring as part of the Work, and post warning lights on property adjacent to or with public access.
  - 2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
  - 3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, washout and other hazards created by operations under this Section.

D. Dewatering:

1. Remove all surface and subsurface waters from excavations and maintain the excavation in a dry condition during construction operations.
2. Maintain the ground water level a minimum of 3-feet below the trench bottom during excavation, installation and backfilling.
  - a. Material disturbed below the invert elevation due to improper dewatering shall be removed and replaced with crushed stone or lean concrete at no expense to the Owner.
  - b. Use sumps, pumps, drains, trenching, wells, vacuum or well point system as necessary to maintain the ground water level a minimum of 3-feet below the trench bottom and maintain a dry excavation.
  - c. Dewatering by trench pumping will not be permitted if migration of fine grained natural material (running sand) from bottom, side walls or bedding material will occur.
  - d. Provide monitoring wells sufficient in size, location, number and depth to monitor the ground water level in the construction area during excavation and backfill operations.
  - e. Maintain dewatering operations until backfilling and compaction operations are complete.
3. Water pumped or drained from trenches must be treated by an appropriately sized sediment and erosion control device prior to leaving the site. Discharging untreated or contaminated dewatering effluent is prohibited.
  - a. Contractor is responsible for acquiring all permits required to discharge the water and shall protect waterways from turbidity during the operation.
  - b. Prevent flooding of streets, roadways, or private property.
  - c. Prevent onsite erosion that can be caused by concentrated discharges related to dewatering pumping, drains, or trenching.
  - d. Provide engines driving dewatering pumps with residential type mufflers.

E. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.

F. Maintain access to adjacent areas at all times.

3.2 TRENCH EXCAVATION (Unclassified)

- A. Provide sloping, sheeting, shoring, and bracing for excavations conforming with 29CFR1926 Subpart P-Excavations and the Contract Documents.
- B. Remove all materials of whatever substance encountered.
- C. Where trenching occurs in existing lawns, remove turf in sections and keep damp. Replace turf upon completion of the backfilling.
- D. Open cut:
  1. Excavate for utilities by open cut.
  2. If conditions at the site prevent such open cut, and if approved by the Engineer, tunneling may be used.
  3. Short sections of a trench may be tunneled if, in the opinion of the Engineer, the conductor can be installed safely and backfill can be compacted properly into such tunnel.
  4. Remove boulders and other interfering objects, and backfill voids left by such removals, at no additional cost to the Owner.

5. Remove wet or otherwise unstable soil incapable of properly supporting the utility, as determined by the Engineer, to depth required and backfill to proper grade with stone bedding material, at no additional cost to the Owner.
6. Excavating for appurtenances:
  - a. Excavate for manholes and similar structures to a distance sufficient to leave at least 12" clear between outer surfaces and the embankment or shoring that may be used to hold and protect the banks.
  - b. Overdepth excavation beyond such appurtenances that has not been directed will be considered unauthorized. Fill with sand, gravel, or lean concrete as directed by the Engineer, and at no additional cost to the Owner.
- E. Trench to the minimum width necessary for proper installation of the utility, with sides as nearly vertical as possible. Accurately grade the bottom to provide uniform bearing for the utility.
- F. Provide sheeting and shoring necessary for protection of the Work and for the safety of personnel.
  1. Remove in units when level of backfilling has reached the elevation necessary to protect the utility work and adjacent property.
  2. Sheeting at the bottom of trenches over 10' deep for sewers 15" and larger in size, shall remain in place and be cut off no less than 2" above top of pipe, at no additional cost to the Owner.
- G. Depressions:
  1. Dig bell holes and depressions for joints after the trench has been graded. Provide uniform bearing for the pipe on prepared bottom of the trench.
  2. Except where rock is encountered, do not excavate below the depth indicated or specified.
  3. Where rock is encountered, excavate rock to a minimum overdepth of 4" below the trench depth indicated or specified, and to provide 6" clearance in any horizontal direction from all parts of the utility and appurtenances.
- H. Special requirements relating to excavation for specific types of utilities shall comply with the following:
  1. Sanitary sewer lines:
    - a. Comply with requirements of Section 02722.
    - b. Do not excavate trench more than 200' ahead of pipe laying, unless permitted by Engineer.
    - c. Maintain trench sides vertical to point not less than 2' above top of pipe.
    - d. Upper portion of trench may be sloped to any width which will not cause damage to adjoining structures, utilities, pavements or private property.
- I. Comply with pertinent OSHA regulations in regards to the excavation of utilities.

### 3.3 BACKFILLING

#### A. General:

1. Backfill trenches and excavations immediately after the pipes are laid, unless other protection is directed or indicated.

2. Select and deposit backfill materials with special reference to the future safety of the pipes.
  3. Reopen trenches which have been improperly backfilled, to a depth as required for proper compaction. Refill and compact as specified, or otherwise correct to the approval of the Engineer.
  4. Surplus material shall be disposed of as directed by the Engineer.
  5. Original surface shall be restored to the approval of the Engineer.
  6. Maintain proper dewatering during backfill and compaction operations.
- B. Lower portion of trench:
1. Deposit approved backfill and bedding material in layers of 6" maximum thickness, and compact with suitable tampers to the density of the adjacent soil until there is a cover of not less than 24" over sewers and 12" over other utility lines.
  2. Take special care in backfilling and bedding operations not to damage pipe and pipe coatings.
- C. Remainder of trench:
1. Except for special materials for pavements, backfill the remainder of the trench with material free from stones larger than 6" or 1/2 the layered thickness, whichever is smaller, in any dimension.
  2. Deposit backfill material in layers not exceeding the thickness specified, and compact each layer to the minimum density directed by the soil engineer.
- D. Adjacent to buildings: Mechanically compact backfill in 6" layers within ten (10') feet of buildings.
- E. Under roads, streets and other paved areas:
1. Mechanically tamp in 6" layers using heavy duty pneumatic tampers or equal.
  2. Tamp each layer to a density equivalent of not less than 95% of an ASTM D 698 Proctor Curve.
  3. Provide additional compaction by leaving the backfilled trench open to traffic while maintaining the surface with crushed stone.
  4. Refill any settlement with crushed stone and continue such maintenance until replacement of pavement is authorized by the Engineer.
- F. Undeveloped areas:
1. Backfill in wooded, swampy or undeveloped areas shall be as specified hereinbefore, except that tamping of the backfill above a level 2' over the top of the pipe will not be required.
  2. Mound excavated material neatly over the ditch to provide for future settlements.

### 3.4 MEASUREMENT AND PAYMENT

- A. Unclassified excavation for trenching:
1. No measurement or direct payment will be made for the Work under this Section and all costs for same shall be included in the price bid for the utility line to which it pertains.

END OF SECTION

TRENCHING, BACKFILLING FOR UTILITIES  
02221-6

60555165

## SECTION 02260

### EROSION AND SEDIMENT CONTROL

#### PART 1 - GENERAL

##### 1.1 DESCRIPTION

- A. Work included: Provide protection of the environment during the construction of this project to reduce soil erosion and siltation to the lowest reasonably achievable level.

##### 1.2 GENERAL

- A. Exercise every reasonable precaution, throughout the life of the project, to prevent the eroding of soil and the silting of rivers, streams, lakes, reservoirs, other water impoundments, ground or roadway surfaces, or other property. Erosion control practices to be used for this project are shown on the drawings and are to conform to South Carolina Department of Health and Environmental Control regulations.

#### PART 2 - PRODUCTS

##### 2.1 CRUSHED STONE

- A. Provide No. 1 aggregate (ASTM C 33) as defined in Section 815 of the SCDOT Standard Specifications for Highway Construction, Latest Edition, for the stabilized construction entrance and exit.
- B. Provide #57 crushed stone for temporary sediment barriers around inlets and for temporary stone check dams.

##### 2.2 GRASSING

- A. Comply with Section 02930 - Grassing.

##### 2.3 SILT FENCE

- A. All posts to be self-fastener angle steel, 5' in length.
  - 1. Wooden posts are not acceptable.
- B. Woven wire shall conform to the requirements of ASTM A 116, Class I zinc coating for wire. Each woven square shall measure 6" x 6". The top and bottom wires shall be 10 gauge. All other wires shall be 12-1/2 gauge.
  - 1. Securely attach woven wire to posts with wire ties.
- C. Provide filter fabric meeting the requirements of the South Carolina Department of Health and Environmental Control (SCDHEC), complying with the most current edition of the SCDOT Standard Specifications for Highway Construction and appearing on the SCDOT Approved Materials Sheet #34.
  - 1. Limit splices in filter fabric using continuous rolls whenever possible.
  - 2. Whenever splices are necessary a minimum overlap of 6" is required and all splices must occur at a post so that the integrity of the fence is not compromised.
  - 3. Securely attach filter fabric to top of woven wire and at posts with wire ties.

- D. Silt fences should be continuous and transverse to the flow. The silt fence should follow the contours of the site as closely as possible. Place the fence such that the water cannot runoff around the end of the fence.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Construct and maintain all erosion control measures until the substantial completion of the project.

### 3.2 TEMPORARY CONSTRUCTION ENTRANCE/EXIT

- A. Construct a gravel area or pad at points where vehicles enter and leave a construction site.
- B. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade and place gravel to the grade and dimensions shown on the plans.
- C. Construct drainage channels to carry water to a sediment trap or other suitable outlet.
- D. Use geotextile fabrics to improve stability of the foundation in locations subject to seepage or high water table.
- E. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site by periodic top dressing with two inches of stone.
- F. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary.
- G. Immediately remove objectionable materials spilled, washed, or tracked onto public roadways.

### 3.3 TEMPORARY GRASSING

- A. Provide a temporary cover for erosion control on disturbed areas that will remain unstabilized for a period of more than 30 days in accordance with Section 02930.
- B. This practice applies to cleared areas, diversions, dams, temporary sediment basins, temporary road banks, and topsoil stockpiles where vegetation is needed for less than 1 year.
- C. Provide grassing on slope 5% or greater within 14 days of disturbance. Comply with Section 02930.

### 3.4 SILT FENCE

- A. Provide silt fence barrier where shown on the plans and on utility construction parallel to the disturbed trench where perpendicular sheet flow runoff occurs on disturbed areas with slopes greater than 4%.
- B. Place at the extreme limits of the area to be disturbed as shown.
- C. Construct temporary sediment barriers of filter fabric, buried at the bottom, stretched and supported by posts and install below small disturbed areas as indicated on the drawings to retain sediment by reducing the flow velocity to allow sediment deposition.

- D. Space posts 10'-0" on center, maximum or as indicated on the drawings.
- E. Remove sediment deposits prior to reaching one-third height of the fence.
- F. Monitor site frequently and place additional silt fencing should evidence indicate that erosion is about to occur at locations other than those shown on plan.

### 3.5 INLET PROTECTION

- A. Construct temporary sediment barriers around storm drain curb inlets using block and gravel as directed by Engineer or City of Georgetown's field representative.
- B. Construct metal frame barriers around grate and frame of drop inlets as indicated on the drawings.
- C. Inspect structure after each rainfall and repair as required.
- D. Remove sediment when trap reaches one-half capacity.
- E. Remove structure when protected areas have been stabilized.

### 3.6 MAINTENANCE

- A. Place all erosion control devices or measures prior to any land disturbing activity within the drainage area they are located.
- B. Inspect erosion control devices and clean or otherwise remove silt buildup as necessary once a week or 24-hours following a rain event of  $\geq 0.1"$ .

### 3.7 REMOVAL

- A. Remove temporary structures after protected areas have been stabilized.

### 3.8 MEASUREMENT AND PAYMENT

- A. All work under this Section will be measured and paid for as specified hereinafter.
- B. No measurement or direct payment will be made for temporary construction entrance/exit.
- C. No measurement or direct payment will be made for temporary grassing.
- D. ~~Silt fencing will be measured and paid for at the unit price per linear foot as stated in the Bid Form and shall include the costs for excavation, materials, installation, maintenance, removal and backfill.~~ Silt fencing included in lump sum price.
- E. ~~Inlet protection will be measured and paid for at the unit price per linear foot as stated in the Bid Form and shall include the cost for materials, installation, maintenance, and removal~~ Inlet protection included in lump sum price.
- F. Maintenance costs and log book records for the erosion control devices utilized shall be included in the unit price bid for the item to which it pertains.

END OF SECTION

SECTION 02513  
ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide asphaltic concrete paving where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data: Within 30 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
  - 1. Materials list of items proposed to be provided under this Section.
  - 2. Certificates, signed by the materials producer and the asphalt paving Subcontractor, stating that materials meet or exceed the specified requirements.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01640.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All materials and products used shall comply with pertinent sections of the South Carolina Department of Transportation's (SCDOT) "Standard Specifications for Highway Construction" and latest revisions and supplements.

2.2 ASPHALTIC CONCRETE MIXTURE (BINDER COURSE)

- A. Materials and composition of mixture shall comply with Section 402 of the SCDOT's "Standard Specifications for Type 1 Mix" and latest revisions and supplements.
- B. Provide hot plant mixed asphaltic concrete paving materials.



1. Temperature leaving the plant: 290°F minimum, 320°F maximum.
2. Temperature at time of placing: 280°F minimum.

## 2.3 ASPHALTIC CONCRETE MIXTURE (SURFACE COURSE)

- A. Materials and composition of mixture shall comply with Section 403 of the SCDOT's "Standard Specifications for Type 1 Mix" and latest revisions and supplements.
- B. Provide hot plant mixed asphaltic concrete paving materials.
  1. Temperature leaving the plant: 290°F minimum, 320°F maximum.
  2. Temperature at time of placing: 280°F minimum.

## 2.4 EQUIPMENT

- A. Comply with requirements of Section 401 of SCDOT's "Standard Specifications" and latest revisions and supplements.

## PART 3 - EXECUTION

### 3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
  1. Sweep primed surfaces if needed.
  2. Adjust frames and covers if needed.

### 3.2 WEATHER RESTRICTIONS

- A. Do not apply asphalt mixtures to a wet or frozen surface or when air temperature is below 40°F in the shade and falling, or below 35°F in the shade and rising.

### 3.3 SPREADING AND FINISHING

- A. On arrival at point of use, dump directly into mechanical spreader.
- B. Immediately spread and strike off true to the line, grade and cross section indicated, to such loose depth that when work is completed, the indicated thickness or weight per square yard will be secured.
- C. Correct irregularities while the mixture is still hot.
- D. At locations not readily accessible to mechanical spreaders, acceptable hand spreading methods may be used.
- E. Finished surfaces placed adjacent to curbs, gutters, manholes, etc., shall be approximately 1/4" above the edges of these structures.

### 3.4 COMPACTION

- A. Perform initial rolling with 3-wheel steel roller or a steel wheel 2-axle tandem roller.
- B. Follow initial rolling with at least four complete coverages by a pneumatic tired roller.

- C. Complete rolling with steel wheel 2-axle tandem roller.
- D. Rolling shall start longitudinally at the sides and proceed gradually toward the center of the pavement, overlapping on successive trips approximately 1/2 the width of the roller.
- E. Use hand or mechanical tampers in areas not accessible to powered rollers.
- F. Surface mixture after compaction shall be smooth and true to the established crown and grade.
- G. Finished paving smoothness tolerance:
  - 1. Free from birdbaths.
  - 2. No deviations greater than 1/8" in 6'.

### 3.5 PROTECTION OF SURFACE

- A. Allow no traffic on surface until the mixture has hardened sufficiently to prevent distortion.

### 3.6 FLOOD TEST

- A. Flood the entire asphaltic concrete paved area with water by use of a tank truck or hoses.
- B. If a depression is found where water ponds to a depth of more than 1/8" in 6', fill or otherwise correct to provide proper drainage.
- C. Feather and smooth the edges of fill so that the joint between fill and original surface is invisible.

### 3.7 MEASUREMENT AND PAYMENT

- A. Measurement of length and width of paved areas will be made.
- B. Payment will be made at the unit price per square yard as stated in the Bid Form. The unit price shall include all labor, materials, thermoplastic striping, cleanup, testing, etc. for complete installation.
- C. No extra payment will be made for repair of deficient or unacceptable work.

END OF SECTION

SECTION 02615  
REMOVING AND REPLACING PAVEMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Removal and replacement of existing pavements for installation of utility lines, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these specifications.
  - 2. Section 02221 - Trenching, Backfilling for Utilities.
  - 3. Section 02722 - Sewers: Sanitary, Gravity.
  - 4. Section 02729 – Rehabilitation of Existing Sewers Utilizing Cured-in-Place Pipe.
  - 5. Section 02730 – Rehabilitation of Existing Manholes.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods for proper performance of the work of this Section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01640.

1.5 WARRANTY

- A. All remove and replace pavement work within the South Carolina Department of Transportation (SCDOT) rights-of-way shall be warranted for two years beginning on the date of acceptance by the SCDOT.

PART 2 - PRODUCTS

2.1 CONCRETE

- A. Comply with Section 03300, using strength specified herein.

2.2 ASPHALTIC CONCRETE

- A. Use Types 1 and 2 complying with South Carolina Department of Transportation Standard Specifications, Section 403 and latest revisions and supplements.

## 2.3 AGGREGATE BASE COURSE WITH PRIME

- A. Comply with applicable portions of South Carolina Department of Transportation Standard Specifications, Section 305, Macadam Base Course, and latest revisions and supplements.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Remove to neat lines and dispose of as directed.
- B. Replace with bases and pavements similar to type removed, unless otherwise indicated.

### 3.2 CUTTING

- A. Concrete pavement or base:
  - 1. Cut on straight and true lines, to a minimum depth of 2", using powered concrete saw.
  - 2. Shear off remaining depth with pneumatic tools.
- B. Concrete sidewalks shall be removed back to the nearest joint on each side of the crossing.
- C. Asphaltic concrete pavements: Cut to straight and true lines with powered concrete saw.

### 3.3 REPLACEMENT

- A. Concrete pavements:
  - 1. Use 4000 psi concrete.
  - 2. Replace to 6" below existing slab and undercut each edge 6" to form shelf.
  - 3. Finish surface to match existing surface.
- B. Concrete sidewalks:
  - 1. Replace with 4000 psi concrete.
  - 2. Depth shall be equal to existing section removed, but not less than 4".
  - 3. Finish surface to match existing sidewalk.
- C. Flexible pavements (Ditch Line) – Secondary and Primary Roads:
  - 1. Backfill in accordance with Section 02225 with 2" depression and details shown on the plans.
  - 2. Top with 2" of asphaltic concrete.
- D. Flexible pavements (Ditch Line) - Driveways:
  - 1. Compact subgrade thoroughly.
  - 2. Place 8" deep aggregate base course with prime.
  - 3. Top with 2" of asphaltic concrete.

E. Flexible pavements (Resurfacing):

1. In some instances where utilities are installed within existing pavements, resurfacing of the entire width of the original pavement will be required.
2. Replace pavement in ditch line as specified above.
3. Prime and resurface with 2" of asphaltic concrete.
4. Taper resurfacing to existing pavement evenly.
5. Comply with Section 02513.

3.4 MEASUREMENT AND PAYMENT

A. Concrete Sidewalk Replacement:

1. Measurement for payment for concrete sidewalk replacement shall be the actual number of linear feet (LF) of concrete sidewalk replaced. Included in the unit price bid item shall be saw cutting, removal, haul, subgrade preparation to match existing, grading, forms, concrete testing and other incidental work to replace concrete sidewalk to original condition.

B. Concrete Driveway Replacement:

1. Measurement for payment for driveway replacement shall be the actual number of linear feet (LF) of driveway replaced. Included in the unit price bid item shall be saw cutting, removal, haul, excavation, subgrade preparation to match existing, grading, forms, concrete testing, and other incidental work to replace curb and gutter to original condition, including culvert replacement.

C. Pavement Replacement:

1. The measurement for payment for pavement replacement shall be the actual quantity of pavement replaced at the locations, based on the total linear footage of the pavement at grade based on the roadway open cut or roadway replacement details. Units of measurement for all pavement replacement shall be linear foot.
2. The unit price shall include base course (including installation and removal of steel plates), screenings, compaction testing, binder, primer, tack coat, furnishing, placing and installing asphalt or concrete pavement to original grade.
3. No extra payment will be made for repair of deficient or unacceptable work.

D. Traffic Control:

1. The measurement for payment for Traffic Control shall be the lump sum price stated in the Bid Schedule. The lump sum price shall include all necessary signage, Jersey barriers, flagmen, detours, traffic control plans and other related requirements of the SCDOT and City of Georgetown.

2. Payment shall be divided into equal monthly amounts based on price bid and scheduled duration (time) of project.
- E. Materials Testing:
1. No measurement or direct payment will be made for testing and all cost shall be included in the Price Bid to which it pertains.

END OF SECTION

SECTION 02722  
SEWERS: SANITARY, GRAVITY

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide gravity sanitary sewer as shown on the drawings, specified herein, and needed for a complete and proper installation.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these specifications.
  - 2. Section 02221 – Trenching, Backfilling for Utilities.
  - 3. Section 02615 – Removing and Replacing Pavements.
  - 4. Section 02729 – Rehabilitation of Existing Sewers Utilizing Cured-in-Place Pipe.
  - 5. Section 02730 – Rehabilitation of Existing Manholes.
  - 6. Section 02930 – Grassing.
  - 7. Section 11307 – Temporary Bypass Piping.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. All materials in this Section are to be manufactured in the United States.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data: Within 15 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
  - 1. Materials list of items proposed to be provided under this Section.
  - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01640.
- B. Storage of PVC pipe:
  - 1. Store in unit packages as received from manufacturer until just prior to use.
  - 2. Stack units in such a manner as to prevent deformation to pipe barrel and bells.
  - 3. Protect from direct sunlight by covering with opaque material if storage period will exceed six weeks.
- C. Avoid severe impact blows, gouging or cutting by metal surfaces or rocks.

## 1.5 ORDER AND ACCEPTANCE OF WORK

- A. Engineer shall direct on what line or street the Contractor shall work and the order thereof.
  - 1. Generally, Work shall commence with outfalls, to mains, thence to laterals.
- B. Owner reserves right to accept and use any portion of Work whenever it is considered to be in the public interests to do so.

## 1.6 PROTECTION OF OTHER UTILITIES

- A. Location:
  - 1. Approximate location of certain known underground lines is shown.
  - 2. Existing small lines not shown.
  - 3. Locate small and other possible utility lines using electronic pipe finder, or other approved method.
  - 4. Excavate and expose existing underground utilities ahead of trenching operations.
- B. Repair or replace any damaged utility line or structure at no additional cost to Owner.

## 1.7 JOB CONDITIONS

- A. Work under this Section may require construction or work in a confined space, defined as any space having one or more of the following characteristics:
  - 1. Limited openings for entry and exit.
  - 2. Unfavorable natural ventilation.
  - 3. Not designed for continuous worker occupancy.
- B. The Contractor shall have on the job site at all times the following minimum safety equipment:
  - 1. Gas monitor capable of testing and detecting for combustible gas, oxygen deficiency and hydrogen sulfide.
  - 2. Confined space access and retrieval winch system.
  - 3. Ventilating fan with large diameter ventilating hose.
  - 4. Supplied air respirator, MISHA/NIOSH approved type.
  - 5. Safety harness and lifelines.

This equipment to be available for use by the Contractor, Engineer and Owner for the duration of the project.

- C. All entries into or work within confined spaces to be conducted in accordance with the U.S. Department of Health and Human Services/National Institute for Occupational Safety and Health [DHHS (NIOSH)] Publication No. 87-113, A Guide to Safety in Confined Spaces.

## PART 2 - PRODUCTS

### 2.1 GENERAL

- A. Pipe shall be subject to Engineer's observation, at plant, trench or other point of delivery, for culling and rejecting pipe, independent of laboratory tests, not conforming to specifications.



- B. Rejected pipe will be marked by the Engineer and Contractor shall remove it from project site.

## 2.2 PIPE AND FITTINGS

- A. Use any pipe material specified herein, except where use of a particular pipe material is indicated on the Contract Drawings.
- B. Ductile-iron pipe and fittings (DIP) (for depths 14' or greater):
  - 1. Comply with ANSI/AWWA C151/21.51, latest revision.
  - 2. Wall thickness in accordance with Table 51.1 of ANSI/AWWA C151/A21.51 with working pressure of 150 psi, depth of cover indicated and Type 3 bedding conditions, minimum Class 52.
  - 3. Use mechanical or push-on joints complying with ANSI/AWWA C111/A21.11 as modified by ANSI/AWWA C151/A21.51.
  - 4. Use rubber gaskets and lubricant complying with ANSI/AWWA C111/A21.10.
  - 5. Use wall thickness in accordance with table included herein for depth and bedding conditions.
  - 6. Provide 250 psi rated ductile iron fittings or specials unless otherwise indicated, complying with ANSI/AWWA C110/A21.10 and in accordance with ANSI/AWWA C111/A21.11.
  - 7. Clearly cast the manufacturer's mark, country where cast, year in which the fitting was produced, and the letters "DI" or "Ductile" on the fitting."
  - 8. Use lining complying with the following:
    - a. Amine cured Novalac Epoxy polymeric lining, 40 mils nominal thickness. The standards of quality are based on Protecto 401 by Vulcan Painters, Birmingham, Alabama or Corrosion-Clad Polymer Lining No. 210 by Sauereisen Cements, Pittsburgh, Pennsylvania, or approved equal.
  - 9. Polyethylene encasement:
    - a. Provide polyethylene encasement of pipe on all ductile iron pipes.
    - b. Minimum nominal thickness of 8 mils.±10%.
- C. Polyvinyl chloride pipe (PVC):
  - 1. Use integral wall bell and spigot, minimum of SDR35, complying with ASTM 3034.
  - 2. Use elastomeric gasket joints, providing watertight seal.
  - 3. Furnish pipe in 12.5 or 20-foot lengths.
- D. Transition couplings:
  - a. For transition between ductile iron pipe and PVC pipe use ductile iron adapter with Protecto 401 lining by Romac Industries, Inc. Model 501 Transition Coupling, full circle SS Sleeve JCM 101, or approved equal.
  - b. Fasteners to be Type 304 stainless steel.

## 2.3 MANHOLES

- A. Use precast manholes:
  - 1. Provide reinforced precast concrete ring and eccentric cone sections complying with ASTM C 478 and the following.
  - 2. Use portland cement complying with ASTM C 150, Type II.
  - 3. Cast base slab monolithically with walls.
  - 4. Design flat slab top sections for HS-20 traffic loadings.

5. Provide tongue and groove with vulcanized butyl rubber sealant or O-ring rubber gasketed joints.
  6. Cast or factory cut pipe opening in manholes:
    - a. Provide flexible pipe boot conforming to ASTM C923M.
    - b. Attach boot to piping with dual stainless steel straps.
    - c. All other hardware to be stainless steel.
    - d. Provide Kor-N-Seal or equal.
  7. Size lift holes and inserts for a precision fit with the lift devices.
    - a. Holes shall not penetrate through the manhole wall.
    - b. Comply with OSHA Standard 1926.704.
  8. Provide flat slab tops where manhole depth is less than 4'0".
  9. Provide manhole sealant using the inorganic copolymer water proofing admixture "Ipanex" by IPA Systems in accordance with the manufacturer's dosage and mixing instruction or an approved equal method.
- B. Steps:
1. Manhole steps are not required.
- C. Exterior joint collar:
1. Install an exterior joint collar on all manhole joints.
  2. Provide a 12" wide band.
    - a. Provide an outer layer of polyethylene with an under layer of rubberized mastic reinforced with a woven polypropylene fabric.
    - b. Provide a peelable protective paper against the mastic that is removed when the collar is applied to the joint.
    - c. Design the collar so that when it is applied around the joint the ends overlap at least 6".
  3. Provide SealWrap Exterior Joint Sealer as manufactured by Mar-Mac Manufacturing Company or an approved equal.
- D. Frames and covers:
1. Provide gray iron castings, complying with ASTM A 48, Class 35B iron and AASHTO M-306.
  2. Provide a minimum recycled material content of 75 consisting of post-consumer material.
  3. Castings shall be of uniform quality, free from sand holes, gas holes, shrinkage, cracks and other surface defects ground smooth and clean by shot blasting.
  4. Cast or machine bearing surfaces between rings and covers with such precision to prevent rocking.
  5. Casting dimensional tolerances shall be +/- 1/16" per foot.
  6. Conduct a first article proof load test and make the results of that proof load available upon request.
    - a. Conduct in accordance with the method and procedure outlined in AASHTO M-306.
    - b. Test casting on a suitable and calibrated load testing machine. Casting shall hold a 40,000 pound proof load for one minute without experiencing any cracks or detrimental permanent deformation.
    - c. Maintain test results for each lot of castings by the foundry for a minimum of seven years. Make available upon request.
  7. Provide inspections in accordance with AASHTO M-306 and furnish results of these tests upon request.
  8. Furnish a foundry certification stating that samples representing each lot have been tested, inspected, and are in accordance with this specification.

9. Each casting shall be identifiable and show, at a minimum, the following: name of the producing foundry, country of manufacturer, ASTM material designation, recycle symbol, individual part number, cast or heat date.
10. Provide frame weighing not less than 155 lbs. with inside opening between 21.8" and 24".
11. Provide circular cover with two "pick" holes, one 1" diameter vent hole, and weighing not less than 130 lbs.
12. Covers to have the words "CITY OF GEORGETOWN" and "WASTEWATER" cast in the metal.
13. Coat frames and covers with two (2) shop coats of water based bitumastic paint, MC4 MPFC by Molecular Coating Specialist of Cedar Hill, Texas or approved equal.
14. Provide non corrosive polymer coating where indicated on the plans
  - a. Heat castings in a furnace with temperatures ranging from 800° - 1200° F.
  - b. Induce gases into the furnace that will diffuse into the porous layer of the iron to create a corrosion-resistant layer on the casting surface.
  - c. Cool the casting to 200° and dip into a polymer mix.
  - d. Provide Ultrawear Plus process or approved equal
15. Provide East Jordan Iron Works, Inc. Catalogue Number 1020921022 frames and 10204 covers or approved equal.

E. Precast grade rings:

1. Use Precast Grade Rings to adjust ring and covers to finished grade.
2. No more than 8 vertical inches of grade rings will be allowed per manhole.
3. Conform to ASTM C 478
4. Provide no less than 4" in height.
5. Use cement brick for adjustments less than 4".

F. Precast inverts:

1. Provide precast inverts.
  - a. Pipe openings shall provide clearance for pipe projecting a minimum of 2" inside the manhole.
  - b. The height of the transition from the pipe opening to the invert trough shall be equal to one-half of the Opening ID minus Pipe ID,  $\pm 1/4"$ .
2. The crown of small I.D. pipe shall be no lower than the crown of the outlet pipe.
  - a. When the fall between the inlet and the outlet holes is greater than 4", the inlet end of the trough shall be below the inlet pipe invert and aligned horizontally within 1".
  - b. Form and finish troughs to provide a consistent slope from the pipe outlet to the inlets up to 4" fall.
    - 1) Minimum fall-1".
    - 2) Minimum bending radius of the trough centerline-1.5 times the pipe I.D.
    - 3) Provide a 1/2" radius at the intersection of 2 or more channels.
    - 4) The minimum concrete thickness from the bottom of the trough to the bottom of the base shall be 7".
  - c. Float finish benches to provide a uniform 2-1/2" slope,  $\pm 1"$ , from the high point at the manhole wall to the low point at invert trough.
    - 1) Provide a 1/4" radius at the edge of the bench and trough.
  - d. Fill, depressions, high spots, voids, chips, or fractures over 1/4" in diameter or depth with a sand cement paste and finish to a texture reasonably consistent with the formed surface.

## 2.4 CLEANOUTS

- A. Provide cleanouts on each separate service line.
  - 1. Locate within the Owner's right-of-way.
  - 2. For cleanouts located in roadway or driveway:
    - a. Provide J. R. Smith, Josam or equal.
    - b. Provide Smith #4253S-G (taper thread - bronze plug, cast iron top) or Josam #58860-22-5 or equal.
    - c. Coat with 2 shop coats of bitumastic paint.
  - 3. For cleanouts located in grassy area:
    - a. Provide Sched 40 PVC.
  - 4. Provide cleanouts of the same diameter as lines in which they are installed up to 4", and not less than 4" for larger pipe diameters.
  - 5. Comply with the latest adopted version of the International Plumbing Code or local codes where applicable.
  - 6. Provide concrete protection pad set at grade.

## 2.5 SERVICE PIPE FITTINGS

- A. Provide PVC fittings in conformance with the requirements of ASTM D-3034 with minimum wall thickness of SDR35.
- B. Provide PVC material with cell classification of 12454-B or C as defined in ASTM D-1784.
- C. Gaskets will have a minimum cross-sectional area of 0.20 square inches and conform to ASTM F-477.
- D. Provide fittings with socket depths not less than the minimum depths shown in Table 2 of ASTM D-3034 latest revision.

## 2.6 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.

## PART 3 - EXECUTION

### 3.1 LAYING OUT WORK

- A. Provide all materials, labor, instruments, etc. required to lay out Work.
- B. Prepare "cut sheets" under direct supervision of the Engineer.
- C. Exercise proper precaution to verify figures on the drawings prior to laying out Work. Contractor will be held responsible for any errors therein that otherwise might have been avoided.
- D. Promptly inform Engineer of errors or discrepancies found, in order that proper corrections may be made.
- E. **The Contractor shall be responsible for locating all utilities within the excavation limits. The Contractor is responsible for any damaged caused to existing utilities during point repair and other excavation activities.**

### 3.2 LOCATION

- A. Sewer lines in relation to water lines must conform to South Carolina Standards for Wastewater Facility Construction R.61-67 section 67-300 paragraph A.14.
- B. Where the sewer location is not located clearly by dimensions on the drawings, locate the sewer:
  - 1. Not closer than 10' horizontally from a water supply main or service line. The distance shall be measured edge to edge.
  - 2. Where it is not practical to maintain a 10' horizontal separation, the sewer pipe may be installed closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so the bottom of the water main is at least 18" above the top of the sewer.
  - 3. Where sewers are crossing a water main, either above or below, provide a minimum vertical distance of 18" between the outside of the water main and the outside of the sewer.
  - 4. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints.
  - 5. Where a water main crosses under a sewer, fully encase the sewer pipe for a distance of 10' on each side of the crossing; or
  - 6. Use acceptable pressure pipe with no joint closer horizontally than 3' feet from the crossing. This pipe will be pressure tested to assure watertightness prior to backfilling.
  - 7. Where concrete encasement is used, provide not less than 4" thickness including that on pipe joints.

### 3.3 INSTALLATION

- A. Trench, backfill and compact for the work of this Section in strict accordance with pertinent provisions of Section 02221 and Section 02615 of these specifications, and the following requirements:
  - 1. Maximum trench widths, depths and bedding methods.
    - a. Install all sewers complying with tables for depths of cut and class of bedding included hereinafter.
    - b. Where trenches are excavated beyond specified widths, or trench walls collapse, lay sewer complying with requirements of the next better class of bedding at no additional cost to the Owner.
    - c. Include cost of special bedding and tamping in unit prices bid for sewer.
  - 2. Ductile-iron pipe:

MAXIMUM DEPTHS IN FEET						
			CLASS OF BEDDING			
			D	C	B	A
PIPE SIZE	MAX. TRENCH WIDTH	CLASS OF PIPE	FLAT BOTTOM TRENCH	TYPE 1 OR TYPE 2	TYPE 1 OR TYPE 2	SPECIAL CONCRETE BEDDING
8"	2'2"	50	24	28	32	35
10"	2'4"	50	15	24	32	35
10"	2'4"	51	24	32	35	35
12"	2'6"	50	16	20	32	35
12"	2'6"	51	20	24	35	35
12"	2'6"	52	28	32	35	35

3. Polyvinyl chloride pipe (SDR35):

MAXIMUM DEPTHS IN FEET					
		CLASS OF BEDDING			
		D	C	B	A
PIPE SIZE	MAX. TRENCH WIDTH	FLAT BOTTOM TRENCH	TYPE 1 OR TYPE 2	TYPE 2* ONLY	SPECIAL CONCRETE BEDDING
4"	2'0"	**	**	30	30
8"	2'2"	**	**	30	30
10"	2'4"	**	**	30	30
12"	2'6"	**	**	30	30
15"	2'10"	**	**	30	30
*		Class B Bedding (Type 2) shall extend to the top of the pipe.			
**		Do not use this Class of bedding for this pipe size and trench width.			

4. Bedding and tamping requirements for the various classes of bedding shall comply with the following specifications:
- a. Class A Bedding - Excavate trench to one-fourth of nominal pipe diameter below pipe grade; lay pipe to grade on concrete blocking; place 2500 psi concrete around pipe for full width of trench up to one-fourth nominal pipe diameter above the invert.
  - b. Class B (Type 1) Bedding - Shape bottom of trench to a level 2" below bottom of pipe; bring bed to proper level by spreading and thoroughly tamping fine granulated moist earth and sand to conform accurately to one-fourth circumference of pipe barrel; provide suitable material if not available from trench excavation; lay pipe, backfill and hand tamp in thin layers to height three-fourths of pipe diameter, using material same as bedding material; complete trench backfill complying with Section 02221.
    - 1) Trenches excavated to excess depths shall be brought to grade with stone or gravel bedding at the Contractor's expense.
    - 2) Exercise care to avoid disturbing pipe grade, alignment or joints at all times.
    - 3) In lieu of this class bedding, Contractor may elect to use Class B (Type 2) bedding.
  - c. Class B (Type 2) Bedding - Undercut 4" below pipe barrel, full width of trench; bring to grade with approved backfill and compacted crushed stone complying with SCDOT Aggregate No. 5; except for PVC sewers, use SCDOT Aggregate No. 57, then:
    - 1) For pipe other than PVC, place stone in six-inch layers to mid-point of pipe, compacting by slicing with shovel.
    - 2) For PVC pipe, place stone (Aggregate No. 57) in six-inch layers to the top of the pipe, compacting by slicing with shovel.
    - 3) Complete trench backfill complying with Section 02221.
  - d. Class C (Type 1) bedding - Shape trench bottom by hand to conform accurately to bottom one-quarter of pipe barrel circumference.
    - 1) Use Class C (Type 2) bedding if unable to properly shape trench bottom.
    - 2) If shaping is not performed accurately, the Contractor will be required to use Class C (Type 2) bedding.
  - e. Class C (Type 2) Bedding - Undercut 4" below bottom of pipe barrel; full width of trench; bring to grade with approved backfill and compacted crushed stone complying with SCDOT Aggregate No. 5;

lay pipe; place stone in 6" layers to quarter-point of pipe, compacting by slicing with shovel; complete backfill complying with Section 02221.

- f. Class D Bedding - Excavate bell holes in flat-bottomed trench; lay pipe; backfill complying with Section 02221.

B. Pipe laying:

1. General:
  - a. Protect pipe during handling against shocks and free fall. Remove extraneous material from the pipe interior.
  - b. Lay pipe by proceeding upgrade with the spigot ends of bell-and-spigot pipe pointing in direction of flow.
  - c. Lay each pipe accurately to the indicated line and grade, aligning so the sewer has a uniform invert.
  - d. Continually clear interior of the pipe free from foreign material.
  - e. Before making pipe joints, clean and dry all surfaces of the pipe to be joined.
  - f. Use gasket lubricants as recommended by the pipe manufacturer.
  - g. Place, fit, join and adjust the joints to obtain the degree of water tightness required.
2. Polyvinyl chloride pipe:
  - a. Select proper bedding class from preceding table as determined by pipe size and depth of cut.
    - 1) Class B (Type 2) or better bedding shall be used for all PVC and CCRRPMP sewers.
  - b. Comply with ASTM D2321, except as otherwise specified herein.
3. Ductile-iron pipe:
  - a. Select proper bedding class from preceding table as determined by pipe size and depth of cut.
    - 1) Class D bedding limited to maximum pipe size of 24", Class 52 at 14' foot depth.
  - b. Comply with ANSI/AWWA C600, except as otherwise specified herein.
4. Remove defective pipe and replace with sound pipe, at no cost to the Owner.

### 3.4 INSTALLATION OF MANHOLES

- A. Set bases level so that walls will be plumb.
- B. Clean bells and spigots.
- C. Apply joint sealer, or ring gasket to wall section(s), set firmly in place to assure watertight joints.
- D. Set risers and cones so steps align.
- E. Tightly connect pipe boot to piping with dual stainless steel straps.
- F. Grout lift holes from the outside using non-shrink grout.
- G. Install exterior joint collar.
  1. Follow manufacturer's recommendations.
  2. Clean surface.
  3. Remove the protective paper and place the band around the manhole, mastic side to the manhole and spanning the joint.
  4. Cover exposed strap with the closing flap.

H. Install manhole to grade utilizing precast grade rings.

### 3.5 SERVICE LINES

- A. Connect to street sewers using wye branches and ells as indicated on the plans.
- B. Do not stack service lines vertically over the sewer main.
- C. Provide sufficient fittings to route piping without bending the pipe sections.
- D. The Contractor is responsible for coordinating with the property owner and the utility owner's representative to determine the depth and location of both the sewer line connection and clean out to best provide a sewer service connection point for the property being served.
- E. The Contractor is responsible for locating service lines to avoid conflicts with existing utilities and exposure of line in ditches.

### 3.6 CLEANOUTS

- A. Secure the Engineer's approval of locations for cleanouts in finished areas prior to installation.
- B. Pour 4" concrete protection pad around cleanout.

### 3.7 INSPECTIONS AND TESTING

- A. General:
  - 1. All sewers will be visually inspected, tested and gauged for infiltration and/or exfiltration.
  - 2. All visible leaks shall be repaired even if infiltration is within allowable limits.
  - 3. Broken or cracked pipe, mislaid pipe and other defects shall be corrected.
  - 4. All repairs, relaying of sewers, etc., required to bring the sewers to specified status shall be made at no additional cost to the Owner.
  - 5. Expense of all testing will be borne by the Contractor.
- B. Construction observation:
  - 1. Clean and prepare for observation each block or section of sewer upon completion, or at such other time as the Engineer may direct.
  - 2. Each section between manholes shall show a full circle of light when viewed from either end.
- C. Deflection tests:
  - 1. Perform deflection tests on all PVC pipe in the presence of the Engineer.
  - 2. No pipe to exceed a deflection of 5%.
  - 3. Conduct deflection testing after the final backfill, and compaction thereof, has been in place at least thirty (30) days and prior to placing the sewer lines into operation.
  - 4. Conduct the deflection tests using a rigid ball or mandrel having a diameter equal to 95% of the inside diameter of the pipe.
  - 5. Do not use mechanical pulling devices for the deflection tests.



- D. Air testing:
1. Where sewers are installed above the groundwater table, conduct air tests complying with ASTM C 828 for ductile iron and concrete pipe and ASTM F 1417 for PVC pipe.
- E. Vacuum Test of Manholes:
1. Vacuum test manholes in accordance with ASTM C-1244.
  2. Typical Field Test Procedure.
    - a. The test head gauge shall be placed at the top of the manhole or in accordance with the manufacturer's recommendations.
    - b. A vacuum of 10 in. of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. The time shall be measured for the vacuum to drop to 9 in. of mercury.
    - c. The manhole shall pass if the time for the vacuum reading to drop from 10 in. of mercury to 9 in. of mercury meets or exceeds the values indicated in the Table 1 below.
    - d. If the manhole fails the initial test, necessary repairs shall be made. The manhole shall then be retested until a satisfactory test is obtained.
  3. Minimum test times for various diameter manholes.

**TABLE 1**

<u>Depth of Manhole (feet)</u>	<u>Diameter of manhole (feet)</u>		
	4'	5' <u>Time (Sec.)</u>	6'
To - 8	20	26	33
8 - 10	25	33	41
10 - 12	30	39	49
12 - 14	35	46	57

- F. Point Repairs:
1. Testing of pipelines installed for point repairs shall be based on a visual review of the results of the post-construction television inspection. If excessive infiltration or leakage at the joints with the existing pipes or manholes is present, or noticeable deflection in the pipe is observed, the Contractor shall make all necessary repairs at no additional cost of the Owner.

### 3.11 MEASUREMENT AND PAYMENT

- A. All work under this Section will be measured and paid for as specified hereinafter.
- B. Sewer pipe will be measured from center to center of manholes and depth of cut from invert to original ground at centerline. Payment will be made at the unit prices per linear foot as stated in the Bid Form, and shall include cost of excavation, materials, removal of existing sewer pipe and proper disposal, bedding, dewatering, temporary bypass pumping system, trench box and sheeting (if necessary), metallic detection tape, backfilling, compaction, cleanup, testing, etc. for complete installation.

- C. Manholes will be measured from the lowest invert elevation to the top rim of the frame and paid for at the unit price each as stated in the Bid Form, which shall include all costs of excavation, dewatering, backfilling, materials, grade rings, stone base, standard frame and cover, trench box and sheeting (if necessary), testing, clean-up, etc. for complete installation.
- D. Sewer Service Laterals (by open-cut) will be measured along the top of the pipe from bell of the wye branch to stoppered end and payment made at the unit cost per linear foot as stated in the Bid Form. Payment will include all cost of excavation, dewatering, backfilling, materials, fittings, metallic detection tape, bedding, testing, clean-up, restoration, etc. for complete installation
- E. Cleanouts – ~~Payment will be made at the unit price stated for each in the Bid Form.~~ Payment shall include cost of piping to the cleanout and plug. *Payment included in Item D above.*
- F. Wyes – ~~Payment will be made at the unit price stated for each in the Bid Form.~~ Payment shall include cost of all materials, proper bedding, etc. for complete installation. *Payment included in Item D above.*
- G. ~~Point Repairs (up to 10 LF): Payment will be made at the unit price per each as stated in the Bid Form and shall include up to 10 LF of new sewer pipe (to match existing pipe size diameter), coupling, removal of existing pipe, excavation, dewatering, temporary bypass pumping, proper bedding, trench box and/or sheeting (if necessary), backfilling, grassing, etc. for complete installation. Pavement replacement will be paid for at the unit price as stated in the Bid Form.~~
- H. ~~Point Repairs (greater than 10 LF): Payment will be made at the unit price per linear foot as stated in the Bid Form. Payment will include removal of existing pipe, new sewer pipe (to match existing pipe size diameter), coupling, excavations, dewatering, temporary bypass pumping, proper bedding, trench box and/or sheeting (if necessary), backfilling, cleanup, grassing, etc. for complete installation. Pavement replacement will be paid for at the unit price as stated in the Bid Form.~~

END OF SECTION

## SECTION 11307

### TEMPORARY BYPASS PUMPING SYSTEM

#### PART 1 - GENERAL

##### 1.1 SCOPE

- A. Work included: Provide all materials, labor, equipment, power, maintenance, etc. to implement a temporary pumping system for the purpose of diverting the existing flow around work areas for the duration of the interruption to normal operation of the facilities.
- B. Provide complete design, installation and operation of the temporary pumping system.
- C. Provide a complete and operable system, fully self-sufficient, requiring no external power.
- D. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
  - 2. Section 02722 – Sewers: Sanitary, Gravity.
  - 3. Section 02729 – Rehabilitation of Existing Sewers Utilizing Cured-in-Place Pipe.
  - 4. Section 09811 – Epoxy Lining for Manhole Interiors

##### 1.2 QUALITY ASSURANCE

- A. Referenced provider of temporary bypass pumping system is Godwin Pumps of America, and is named to establish standards of quality. Products by other suppliers conforming to this specification and conforming to the Bid Form may be provided upon approval by the Engineer.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- C. Provide a minimum of five (5) references of projects similar in size, complexity and nature performed by the system supplier within the past three years and where reliable 24 hour service can be demonstrated.
- D. Comply with the requirements of all codes and regulatory agencies having jurisdiction.
- E. The bypass system is an integrated system and to be furnished by a single manufacturer or system supplier who shall provide all the equipment and appurtenances necessary to achieve a fully integrated and operational system and be responsible to the Contractor for operation of the entire system.
  - 1. System supplier to be certified by the pump manufacturer to install and service the equipment.
- F. Maintain water flow around the work area in a manner that will not cause surcharging of gravity systems or damage to facilities, and that will protect public

and private property from damage.

- G. Protect water resources, wetlands, and other natural resources.
- H. If required, obtain approval from the South Carolina Department of Health and Environmental Control.

### 1.3 SUBMITTALS

- A. Submit bypass pumping and/or diversion plans for review at least 30 working days prior to the work.
- B. Submit plans and descriptions outlining all provisions and precautions to be taken regarding the handling of existing flows. The plan to include but not be limited to details of the following:
  - 1. Staging areas for pumps.
  - 2. Pipe plugging method and types of plugs.
  - 3. Number, size, material, location and method of installation of suction piping.
  - 4. Number, size, material, method of installation and location of installation of discharge piping.
  - 5. Bypass pump sizes, capacity, number of each size to be on site and power requirements.
  - 6. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted).
  - 7. Method of protecting discharge structures from erosion and damage.
  - 8. Restraint system for all piping.
  - 9. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill.
  - 10. Method of noise control for each pump and/or generator to ensure all local noise ordinances are met. Provide enclosure where specified or required by local regulations or ordinances.
  - 11. Any temporary pipe supports and anchoring required.
  - 12. Design plans and computation for access to bypass pumping locations indicated on the drawings.
  - 13. Calculations for selection of bypass pumping pipe size.
  - 14. Schedule for installation of and maintenance of bypass pumping lines.
  - 15. Plan indicating selection location of bypass pumping line locations.
  - 16. Plan must include proper protection of the bypassing facilities.
  - 17. Bypass pumping plan must include an emergency response plan to be followed in the event of a failure of the bypass pumping system.
  - 18. Emergency contact number, providing 1 hour response time, 24 hours a day, 7 days a week.
  - 19. Safety and security plan to protect and minimize risk to public and to prevent vandalism.
- C. Notify Engineer 48 hours prior to commencing with the bypass pumping operation.

### 1.4 JOB CONDITIONS

- A. Provide safety equipment per OSHA Regulation.
- B. Access to some parts of the project is challenging. The contractor is to visit the site and consider all issues and include cost of access and working in the existing conditions into the price bid for the work to be performed.
- C. Provide on the job site at all times the following minimum safety equipment:

1. Gas monitor capable of testing and detecting for combustible gas, oxygen deficiency and hydrogen sulfide.
2. Confined space access and retrieval winch system.
3. Ventilating fan with large diameter ventilating hose.
4. Supplied air respirator, MSHA/NIOSH approved type.
5. Safety harness and life lines.
6. This equipment to be available for use by the Contractor, Engineer and Owner for the duration of the project.
7. All entries into or work within confined spaces to be conducted in accordance with the U.S. Department of Health and Human Services/National Institute for Occupational Safety and Health [DHHS (NIOSH)] Publication No. 87-113, A Guide to Safety in Confined Spaces.

## PART 2 – PRODUCTS

### 2.1 GENERAL

- A. Provide only reliable, clean equipment and materials in accordance with these specification and applicable regulatory requirements.
- B. Provide fully automatic units.
- C. Provide one of the following:
  1. Self-priming pump units that do not require the use of foot-valves or vacuum pumps in the priming system and are constructed to allow dry running for long periods of time to accommodate the cyclical nature of flows.
  2. Submersible units where an electrical connection is available.
- D. Provide one stand-by pump of each size to be maintained on site.
  1. Installed back-up pumps to be on-line and isolated from the primary system by a valve.
  2. System to meet design conditions with the largest pump out of service.
- E. Provide 24 hour per day monitoring of the by-pass operation and 24-hour per day emergency response to any pump failure or other by-pass pumping system problems.
- F. Provide sound attenuated enclosure.

### 2.2 PERFORMANCE

- A. Provide bypassing operation for the locations and flows shown below.
- B. Submit bypass system design information in accordance with this specification for each individual required pumping operation.

Location	Min Flow (gpm)	Max Flow (gpm)	Static Head (FT)
Existing Manholes	As Needed	As Needed	As Needed

- C. Fuel:
  - 1. Provide all fuel necessary to perform bypass operations specified under this project.

## 2.3 PUMPS

- A. Provide fully automatic units.

## 2.4 PIPING

- A. Temporarily construct all discharge systems of rigid pipe with positive, restrained joints or welded HDPE pipe in order to prevent the accidental spillage of flows.
- B. Discharge hose will only be allowed in short sections and by specific permission from the Engineer.
- C. Provide all necessary air release valves for proper operation of the pumping system.
- D. Aluminum "irrigation" type piping or glued PVC pipe will not be allowed.

## 2.5 ENGINE/PUMP CONTROL SPECIFICATIONS

- A. Start, stop, and control the engine by a high performance state of the art digital controller.
  - 1. Supply by the pump manufacturer.
  - 2. Provide weather proof enclosure.
  - 3. Provide an external weatherproof 12-position keypad accessible without the need to remove or open any protective cover or enclosure.
  - 4. Design to start/stop the engine at a signal supplied by high and low level floats or a 4-20 mA transducer.
  - 5. Provide the specified functions without modification, factory recalibration, or change of chips or boards, by simply accessing the keypad.
- B. Keypad:
  - 1. Provide a capacitive touch sensing system.
  - 2. Mechanical switches will not be acceptable.
  - 3. Capable of operating in extreme temperatures, with gloves, through ice, snow, mud, grease, etc. and maintain complete weather-tight sealing of the PrimeGuard controller.
- C. In automatic mode, the unit shall conserve energy and go to "sleep".
- D. Controller to function interchangeably from float switches, pressure switch, or transducer, as well as manual start/stop by selection at the keypad.
  - 1. No other equipment or hardware changes are required.
- E. Provide automatic throttle control, capable of varying the engine speed to maintain a constant level in a process without a change to the controller other than via the keypad.
- F. Provide programmable start function for three separate functions each day for seven days (i.e. a start, warm up, exercise cycle on two separate days at different times and for a varying length of time all via the keypad).

- G. Provide Manual-Automatic Button:
  - 1. In Manual Mode, manual "Start" button starts engine and runs until "Stop" button is depressed or an emergency shutdown occurs.
  - 2. In Automatic Mode, start/stop sequencing is initiated by either two normally-open narrow angler float switches, pressure switch, transducer, or a signal from a digital input.
- H. Controller to integrate the engine safety shut-off for low and high oil temperature, and provide over-speed protection.
- I. Controller to include standard, field-adjustable parameters for engine cycle crank timer, shutdown time delay, warm-up time delay, and cool-down time delay.
- J. Controller to have only one circuit board with eight built-in relays. Each relay can be named to provide any function, all via the keyplay without changing relays, chips, printed circuits, or any hardware or software.
- K. Standard components to consist of (24) digital inputs, (7) analog inputs, (1) magnetic pick-up input, (8) 20-amp form "C" relays, (1) RS232 port, (1) RS485 port, (1) RS232/RS485 port, (1) J1939 port, and (1) 64X128 pixel full graphic LCD display with backlight.
- L. Controller to withstand Vibration of 3 g, 3 axis, frequency swept 10-1000 Hz, in an operating temperature Range of 4° to 176°F (-20° to 80°C) and an operating humidity range of 0-95% Non-Condensing.
- M. Provide level control device, float switches, transducer, etc., suitable for the bypassing operation.

## 2.6 SOUND ATTENUATED ENCLOSURE

- A. Reduce pump and engine noise to (68) sixty-eight dBA or less at a distance of thirty feet.
- B. The engine and pump to be completely enclosed with fourteen-gauge sheet metal panels backed with one-inch and two-inch layers of poly-damp acoustical sound-deadening material.
- C. Provide removable panels for easy access to the engine / pump for maintenance and repair.
- D. Provide a locking access door for visual inspection to the engine control panel.
- E. For maintenance and service needs to the pump discharge side of the trailer, provide a hinged door for quick access to the engine oil fill, fuel fill port, oil dipstick, and filters.

## PART 3 - EXECUTION

### 3.1 FIELD QUALITY CONTROL AND MAINTENANCE

- A. Testing:
  - 1. Perform leakage and pressure tests at 150% of design pressure of the bypass pumping discharge piping using clean water prior to actual operation.
  - 2. Notify the Engineer 48 hours prior to testing.

- B. Inspect bypass pumping system as required for fueling and maintenance to ensure that the system is working correctly and provides continuous operation.
- C. Insure that the temporary pumping system is properly maintained and a responsible operator will be on hand at all times when pumps are operating.
- D. Extra Materials:
  - 1. Keep spare parts for pumps and piping on site.
  - 2. Maintain on the site adequate hoisting equipment for each pump and accessories.

### 3.2 PREPARATION

#### A. Precautions

- 1. Locate any existing utilities in the area the Contractor selects to locate the bypass pipelines.
- 2. Locate bypass pipelines to minimize any disturbance to existing utilities and obtain approval of the pipeline locations from the Engineer.
- 3. Protect the Owner's facilities and private property from damage inflicted by bypassing operation.

### 3.3 INSTALLATION AND REMOVAL

- A. Make connections to the existing facilities and construct temporary bypass pumping system only at the access location indicated on the approved submittal drawings.
- B. Sterilize the entire bypass pumping system in accordance with Section 02751 - Plant Piping, Valves and Appurtenances and perform coliform bacteria testing.
- C. Dechlorinate contents of bypass pumping system in accordance with Section 02751 - Plant Piping, Valves and Appurtenances and discharge as indicated in the approved submittals.
- D. Incorporate primary and secondary plugging device on the plugging or blocking of flows.
  - 1. When plugging or blocking is no longer needed for performance and acceptance or work, remove in a manner that permits the flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- E. Exercise caution and comply with OSHA requirements when working in the presence of sewer gases, combustible oxygen-deficient atmospheres, and confined spaces.
- F. The installation of the bypass pipelines is prohibited in all salt marsh/wetland areas.
  - 1. Locate off streets sidewalks and on shoulders of the roads.
- G. In the event that the bypass pipeline crosses local streets or private driveways, place the bypass pipelines in trenches and cover with temporary pavement. Obtain all approvals for placement of the temporary pipeline within public ways.
- H. System to remain in place and operation until the completion of the initial start up



period.

- I. Upon completion of the bypass pumping operations, and after the receipt of written permission from the Engineer, the Contractor will remove all the piping, restore all property to pre-construction condition and restore all pavement.

### 3.8 MEASUREMENT AND PAYMENT

- A. No separate measurement or direct payment will be made for the work under this Section and all costs for same shall be included in the price bid for the item to which it pertains.

END OF SECTION