COUNTY OF SPOTSYLVANIA, VIRGINIA
INVITATION FOR BID (IFB) #20-14-TV
OLDE GREENWICH CIRCLE SANITARY SEWER REPLACEMENT PHASE 4
March 12, 2020

Name of Soliciting Public Body:
County of Spotsylvania, Procurement Division
P.O. Box 215
8800 Courthouse Road, 2nd Floor Room 414
Spotsylvania, VA 22553

Sealed Bids Will Be Received until April 1, 2020 at 2:00 PM for Furnishing the Services Described Herein.

A non-mandatory pre-bid meeting will be held March 17, 2020 @ 10:00 AM, at the Spotsylvania County Utilities Department located at 600 Hudgins Road, Fredericksburg, VA 22408.

Questions from Bidders must be received by the Spotsylvania County Procurement Division by March 19, 2020 at noon. Questions must be emailed to Toni Vaughan, Senior Procurement Officer at tvaughan@spotsylvania.va.us.

Other Inquiries for Information Should Be Directed to Toni Vaughan, Senior Procurement Officer at Phone: 540-507-7524

Bids Shall Be Mailed Or Hand Delivered To:
Spotsylvania County Procurement Division
P.O. Box 215
8800 Courthouse Road, 2nd Floor Room 414
Spotsylvania, VA 22553

All Inquiries For Information Should Be Directed To:
Toni Vaughan, Senior Procurement Officer
Phone: (540) 507-7524
Email: tvaughan@spotsylvania.va.us

All updates are posted on the Spotsylvania County web site at: http://www.spotsylvania.va.us/374/Solicitations
It is the responsibility of the vendor to check back for updates.
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ATTACHMENT A – SPOTSylvANIA COUNTY SPECIFICATIONS

ATTACHMENT B – SPOTSylvANIA COUNTY PLANS

ATTACHMENT C – BID FORMS
I. PURPOSE

The County of Spotsylvania, VA is seeking bids from qualified Contractors to provide construction services and materials for replacement of sanitary sewer lines in the Olde Greenwich development in Spotsylvania County, VA. Phase 4 of the project consists of furnishing and installing approximately 600 linear feet of 8” diameter sanitary sewer line, and all necessary appurtenances. The successful Contractor shall perform all construction activities and provide all construction management, necessary tools, equipment, materials, fuel, insurance, personnel, and supervision to complete the Project as described herein. The successful Contractor shall fulfill the obligations of any Contract resulting from this IFB at the direction of the County and follow accordingly all federal, state and local regulations.

II. BASIS OF AWARD

The award of a contract resulting from this Invitation for Bid shall be based on the following criteria submitted from the lowest responsive and responsible bidder:

**Price** - The bids will be evaluated and contract award will be made to the lowest responsive and responsible bidder according to Spotsylvania County Procurement Policy. Contract award will be based on the Total Lump Sum Bid Price, as stated on Attachment C, Bid Form. In case of arithmetic errors, the unit price will govern.

The County reserves the right to reject any and all bids in whole or in part and to waive any informality prior to making an award.

III. INSTRUCTIONS TO BIDDERS

A. This competitive sealed bidding procurement shall be conducted in accordance with the Spotsylvania County Procurement Policy. The Procurement Policy is available at [http://www.spotsylvania.va.us/377/Spotsylvania-County-Policies](http://www.spotsylvania.va.us/377/Spotsylvania-County-Policies)

B. Bids may be withdrawn at any time before the bid opening. A Bidder wishing to withdraw the bid after bid opening may do so in accordance with Spotsylvania Procurement Policy Section 2-24.

C. Bids must be made by utilizing, initialing and signing Attachment C, Bid Form. The Bid Form (all pages) of this IFB must be completed and returned for a bidder to be considered responsive. Specifications incorporated into this Invitation to Bid shall be followed accordingly.

The Response Statement of the Bid Form must be completed in a sufficient manner to allow for a detailed comparison of the IFB Specifications and the bidder’s proposed construction work to ascertain adherence to the Specifications. The bidder must explain in the Response Statement any deviations from the Specifications.

D. All inquiries for information regarding bid submission requirements or procurement procedures shall be directed to:
   Toni Vaughan, Senior Procurement Officer
Questions or requests for clarification shall be e-mailed to Toni Vaughan, Senior Procurement Officer at tvbaughan@spotsylvania.va.us. All responses to inquiries will be in writing in the form of an Addendum and will be posted on the Procurement Division website at: http://www.spotsylvania.va.us/374/Solicitations. Questions from Bidders must be received by the Spotsylvania County Procurement Division by the date identified on the front of this solicitation in order to ensure that the answers can be sent and received by the prospective Bidders for their consideration prior to the date bids are due. The County is not responsible for verbal clarification of information provided by parties other than staff of the Procurement Division.

E. Bidders are responsible for familiarizing themselves with all of the requirements stated herein.

F. All bids must be in a sealed envelope and clearly marked in the lower left hand corner:

   Business/Contractor Name
   Sealed Bid, Spotsylvania County IFB #20-14-TV, Olde Greenwich Circle Sanitary Sewer Replacement Phase 4
   Bid Opening: 2:00 PM, April 1, 2020
   DO NOT OPEN

G. Bids will be accepted until the time stated on Page 1 of this IFB. Bids will be opened at the Spotsylvania County Procurement Division, 8800 Courthouse Road (the Marshall Center), 2nd Floor Room 414, Spotsylvania, VA 22553.

   The Bidder has the sole responsibility to have their bid received by the Spotsylvania County Procurement Division at the above address and by the above stated time and date. **Please note that Federal Express and other overnight delivery services do not guarantee morning delivery to Spotsylvania, Virginia. Next day delivery usually arrives in mid-to-late afternoon. Also, please note that USPS deliveries require additional days from the post office to the Procurement Office.** If you will be using one of these services for delivery of your bid, please take this information into consideration.

H. Late Bids shall not be considered and will be returned to bidder unopened if received by special carrier or not accepted if hand delivered by bidder. The time of receipt shall be determined by the time clock stamp in the Procurement Division, Room 414.

   Inclement weather: In the event that Spotsylvania County is closed during the scheduled times for a pre-bid (pre-proposal) conference or bid opening; the pre-bid conference or bid opening will occur in the next business day that Spotsylvania County is open at the appropriate times as stated in the IFB. No exceptions will be made in this situation. Please contact the procurement officer as stated in the IFB for information pertaining to this procurement.

I. Specifications incorporated into this Invitation to Bid should be followed accordingly. Bids must be made by utilizing and signing the Bid Forms. The bid form must include the total lump sum
bid price, warranty details and exceptions to the specification (if any), to be considered responsive. The Bid Form in its entirety must be completed and returned for a bidder to be considered responsive.

J. All warranties shall commence from the date of Spotsylvania County’s acceptance of the completed work. The contractor warrants that, unless otherwise specified, all materials and equipment incorporated in the work under the contract shall be new, first class condition, and in accordance with the contract documents. The contractor further warrants that all workmanship shall be of the highest quality and in accordance with contract documents and shall be performed by persons qualified at their respective trades. Work not conforming to these warranties shall be considered defective. This warranty of materials and workmanship separate and independent from and in addition to any of the contractor’s other guarantees or obligations in this contract.

The minimum warranty/maintenance period for the construction and related accessories shall be at least two years unless otherwise specified in the Specifications incorporated herein and made part of this IFB and shall start from the date of Spotsylvania County’s acceptance of the completed work.

K. **BID BOND:** All bids shall be accompanied by a Bid Bond from a surety company selected by the Bidder, which is legally authorized to do business in Virginia in the amount of five percent (5%) of the amount of the bid if the bid price is in an amount of or over $100,000. If the bid price is less than $100,000 the County may ask for a bid bond after the opening of the IFB and performance and payment bonds before work commences. In lieu of a Bid Bond, a Bidder may furnish a certified check or cash escrow in the face amount required for the bond. Such bid guarantee shall be submitted with the understanding of the following: It shall guarantee that the Bidder will not withdraw his bid during the period of 150 days following the opening of bids; if his bid is accepted, he will enter into a formal Contract with Spotsylvania County in accordance with the County Agreement or Purchase Order included as a part of the Contract Documents; and the Standard Performance Bond and the Standard Labor and Material Payment Bond shall be given. And further, in the event of the withdrawal of the said bid within said period, or failure to enter into said Contract and give said Bonds within ten (10) days after he has received Notice of Award, the Bidder shall be liable to the Spotsylvania County Board of Supervisors for the lesser of (i) the difference between the Bid for which the Bond was written and the next low Bid, or (ii) the face amount of the Bid Bond. This amount represents the damage to the Spotsylvania County Board of Supervisors on account of the default of the Bidder in any particular hereof.

L. As a guideline, Spotsylvania County anticipates the following timetable for selection of a Contractor.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity/Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 12, 2020</td>
<td>Invitation for Bid Issued</td>
</tr>
<tr>
<td>March 17, 2020</td>
<td>Non-mandatory pre-bid meeting 10:00 AM</td>
</tr>
<tr>
<td>March 19, 2020</td>
<td>Deadline for Questions is Noon</td>
</tr>
</tbody>
</table>
April 1, 2020

Bids Due by 2:00 p.m. Deadline

M. Bid price will include freight to the specified delivery location in Spotsylvania County, Virginia, and associated insurance. It shall be the responsibility of the contractor to make all arrangements for delivery, unloading, receiving and storing materials. The County will not assume any responsibility for receiving these shipments. Contractor shall check with owner and make necessary arrangements for security and storage.

N. Failure to manually sign the bid may disqualify it. The person signing bid shall show title or authority to bind his firm in a Contract.

O. Any quantities indicated in this IFB are for informational purposes only and are not guaranteed to be purchased.

P. The prices quoted on the Bid Form shall be firm for 150 days. Prices shall be submitted in the unit of measurement specified on the Bid Form. No separate line item charges shall be permitted for either bidding or invoicing purposes on the items appearing on the Bid Form, which would include but are not limited to equipment rental, detention, demurrage, drop ship charges, local freight, or any other extraneous charges. Insertion of delivery costs, disclaimers, or limitations of liability, and the like which are not expressly allowed in this IFB will be cause for rejection of the bid.

Q. Payment for the work included in this section will be in accordance with the unit prices set forth in the bid for the quantity of worked performed.

R. To perform public work in the Commonwealth of Virginia, the successful Bidder (Contractor) and any Subcontractor working for the Contractor shall hold a Contractor’s and Business License as required by state law and local ordinances. Bidders are required to be licensed Contractors in the Commonwealth of Virginia in compliance with Title 54.1 of the Virginia Code. The bidder shall show evidence of compliance with these licensing requirements as a condition of the Bid being considered. The Bidder’s Virginia Contractor’s License Number shall be listed on the Bid Form of this Invitation for Bid.

The successful Bidder (Contractor) shall have been engaged in sanitary sewer replacement work for a length of time sufficient to establish his competence for providing the required management, work, and expertise. A list of 3 References for which the Contractor has provided similar work over the last 5 years similar in Scope to that which is described herein shall be provided with the Bid Package. Spotsylvania County cannot be listed as a reference.

S. Any vendor transacting business with Spotsylvania County may be asked to provide proof of registration with the State Corporation Commission (SCC), as required by Sections 13.1 or Title 50 of the Code of Virginia.
IV. SCOPE OF WORK

Bids will be received from qualified contractors to provide construction services and materials for replacement of sanitary sewer lines in the Olde Greenwich development in Spotsylvania County, VA. Phase 4 of the project consists of furnishing and installing approximately 600 linear feet of 8” diameter sanitary sewer line, and all necessary appurtenances. The Olde Greenwich Circle sewer replacement project is described in the specification titled “Spotsylvania County Specifications for Olde Greenwich Circle Sanitary Sewer Line Replacement – Phase 4” dated October 2019 and drawings titled “Olde Greenwich Circle Sanitary Sewer Replacement Phase 4”, dated November 5, 2019 which are found in Attachments A and B of the Invitation for Bid (IFB). All bid documents are available on the County’s website at: [http://www.spotsylvania.va.us/374/Solicitations](http://www.spotsylvania.va.us/374/Solicitations).

Drawings titled “Olde Greenwich Circle Sanitary Sewer Replacement Phase 4” dated November 5, 2019, are available for $35.00 per set (plus shipping), as non-refundable, from Rummel, Klepper & Kahl (RK&K), Attn: Michael Klevenz, P.E., 12600 Fair Lakes Circle, Suite 300, Fairfax, VA 22033, Phone 703-259-3743.

V. CONTRACT PERFORMANCE

A. Performance, Payment Bonds

Upon the award of a public construction Contract resulting from this IFB which exceeds $100,000 awarded to the successful Bidder(s) (Contractor(s), the Contractor shall furnish to Spotsylvania County Performance and Payment bonds. If a contract is under $100,000 the County may request the bonds in accordance with the Spotsylvania County Procurement Policy. The following bonds shall be furnished to Spotsylvania County:

1. A Performance Bond in the penal sum of 100 percent of the dollar value of the contract conditioned upon the faithful performance of the Contract in strict conformity with the Plans, Specifications, and Terms and Conditions of the Contract. Said bond for the faithful performance of the Contract shall remain in existence for the duration of the Contract performance time period until final acceptance of the project by Spotsylvania County.

2. Payment Bond in the sum of the Contract amount. Such bond shall be for the protection of Claimants who have and fulfill contracts to supply labor or materials to the Contractor to whom the Contract resulting from this IFB was awarded or to any Subcontractors, in the prosecution of the Work provided for in such Contract, and shall be conditioned upon the prompt payment for all such material furnished or labor supplied or performed in the prosecution of the Work. Labor or materials shall include public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the Work Site.

3. Each of the above bonds shall be executed by one or more surety companies, selected by the Contractor, which are legally authorized to do business in Virginia. Bonds shall be payable to Spotsylvania County. The Contractor shall present the Performance Bond and Payment Bond to the Spotsylvania County Procurement Division within 15 days after
receipt of a fully executed Contract and prior to any Site Work. The Performance Bond shall remain in existence for the duration of the Contract performance time period, and the Payment Bond shall remain in existence for one year after final acceptance of the Work by Spotsylvania County. In lieu of payment or Performance Bonds, the Contractors may furnish a certified check or cash escrow in the face amount required for each of the bonds and which will be held for the statutory period as applicable for each bond.

B. Delivery and Installation Address

The Olde Greenwich Circle Sanitary Sewer Replacement Phase 4 project shall be performed at the Olde Greenwich Development in Spotsylvania County, VA as described in the Scope of Work of this IFB.

C. Notice to Proceed

A written “Notice to Proceed” shall be issued by Spotsylvania County to the Contractor fixing the date on which the Contract time will commence to run and on which the Contractor shall be authorized to begin the Work.

D. Pre-Construction Meeting

Before construction services have started, a representative of the Contractor shall confer with representatives of the Spotsylvania County Utilities Department and shall provide such planning, measurements, schedules etc., as are required to ensure that the planned construction activities meet the requirements of the County. At this meeting, Limits of Authority, changes, and General Procedures shall be explained.

E. Period of Contract Performance and Completion Date

The Olde Greenwich Circle Sanitary Sewer Replacement Phase 4 work shall be completed by the Contractor within 150 calendar days as measured from the date of the Notice to Proceed. The date which is 120 calendar days past the Notice to Proceed shall be the Contract Substantial Completion date.

The Contractor, in submitting his bid, acknowledges that he has taken into consideration normal weather conditions. Normal weather does not mean statistically average weather, but rather means a range of weather patterns which might be anticipated based on weather data for the past ten (10) years, (i.e., conditions which are not extremely unusual). Normal weather conditions shall be determined from the public historical records available, including the U. S. Department of Commerce, Local Climatological Data Sheets, National Oceanic and Atmospheric Administration/Environmental Data and Information services, National Climatic Center and National Weather Service. The data sheets to be used shall be those for the locality closest to the site of the work.

F. Liquidated Damages
Should the contractor fail to complete the work and/or installation or any part thereof, in the time specified in the Contract Documents, the contractor shall reimburse Spotsylvania County for the additional expense and damage for each calendar day that substantial and final completion has not been achieved. The amount of such additional expense and damage incurred by reason of failure to achieve substantial completion is the per diem rate of $250. The amount of such additional expense and damage incurred by reason of failure to achieve final completion is the per diem rate of $500. Such liquidated damages are in addition to any other ascertainable damage allowable by law, which Spotsylvania County sustains for the contractor’s breach of the contract. Spotsylvania County shall have the right to deduct liquidated damages or other such damages from any amount due, or that may become due the contractor, or the amount of such damages shall be due and collectable from the contractor or his surety. It is understood and agreed by the Contractor that any liquidated damages payable in accordance with this Agreement are not a penalty and that such sums are reasonable under the circumstances existing as of the date of execution and delivery of this Agreement. The Contractor further acknowledges and agrees that liquidated damages may be owed even though no default has occurred or been declared.

G. Work Site Damages:

Any damage to existing utilities, equipment or finished surfaces resulting from the performance of this contract shall be repaired to Spotsylvania County’s satisfaction at the contractor’s expense.

H. Permits

The Contractor shall be responsible for obtaining all permits as indicated in the Specifications detailed in the IFB, and Construction Drawings of this IFB.

The Contractor must provide all contractors licensing information as detailed in Section V, Paragraph I below.

I. Contractor and Sub-Contractor Licenses

Spotsylvania County requires a general contractor to provide copies of all its construction and business licenses to the County Code Compliance Department.

Upon award of a contract, and prior to work, the successful bidder (contractor) shall be responsible for providing the County’s Code Compliance Department with the names of all contractors and sub-contractors involved with the project and copies of their Virginia Contractor’s Licenses, Virginia Tradesman Certificates and Spotsylvania County Business Licenses, where applicable.

In addition, the contractor shall complete a sub-contractor roster. This must be returned to the County Business License Office prior to final inspection of the completed work.

J. Inspection

a. All material and workmanship shall be subject to inspection, examination, and test by the owner
and its project inspector at any and all times during construction. The project inspector shall have authority to reject defective material and workmanship and require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be satisfactorily replaced with proper material without charge therefore, and the contractor shall promptly segregate and remove the rejected material from the premises. If the contractor fails to proceed at once with replacement of rejected material and/or the correction of defective workmanship, the owner may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost to the contractor, or may terminate the right of the contractor to proceed, the contractor and surety being liable for any damages.

b. Job-site inspections, tests conducted on site or tests of materials gathered on site, which the contract requires to be performed by independent testing entities, shall be contracted and paid for by the owner. Examples of such tests are the testing of cast in-place concrete, foundation materials, soil compaction, pile installations, caisson bearings, and steel framing connections. Although conducted by independent testing entities, the County will not contract and pay for tests or certifications of materials, manufactured products, or assemblies which the contract, codes, standards, etc. require to be tested and/or certified for compliance with industry standards such as Underwriters Laboratories, Factory Mutual, or ASTM. If there are any fees to be paid for such tests and certifications, they will be paid by the contractor. The contractor shall also pay for all inspections, tests, and certifications which the contract specifically requires him to perform or pay, together with any inspections and tests which he chooses to perform for his own quality control purposes. The contractor shall promptly furnish, without additional charge, all reasonable facilities, labor, and materials necessary and convenient for making such tests. Except as provided in (c) below, whenever such examination and testing finds defective materials, equipment, or workmanship, the contractor shall reimburse the owner for the cost of re-examination and retesting.

c. Should it be considered necessary or advisable by the County at any time before final acceptance of the entire work to make an examination of any part of the work already completed, by removing or tearing out portions of the work, the contractor shall on request promptly furnish all necessary facilities, labor and material to expose the work to be tested to the extent required. If such work is found to be defective in any respect, due to the fault of the contractor or his subcontractors, he shall defray all the expenses of uncovering the work, of examination and testing, and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the actual cost of the contractor’s labor and material necessarily involved in uncovering the work, the cost of examination and testing, and contractor’s cost of material and labor necessary for replacement shall be paid to the contractor and he shall, in addition, if completion of the work has been delayed thereby, be granted a suitable extension of time.

d. The contractor project inspector will recommend to the County that the work be suspended when in his judgment the drawings and specifications are not being followed. Any such suspension shall be continued only until the matter in question is resolved to the satisfaction of the owner. The cost of any such work stoppage shall be borne by the contractor unless it is later determined that no fault existed in the contractor’s work.

e. The Contractor’s Project Inspector has no authority to and shall not:
(1) Authorize deviations from the contract documents;

(2) Enter into the area of responsibility of the contractor’s superintendent;

(3) Issue directions relative to any aspect of construction means, methods, techniques, sequences or procedures, or in regard to safety precautions and programs in connection with the work;

(4) Authorize or suggest that the owner occupy the project, in whole or in part;

(5) Issue a certificate for payment.

K. 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 security interest, installment or sales contract or any other agreement or lien by which an interest is retained by the seller or is given to a secured party. The contractor warrants that he has clear title to all materials and supplies which he uses in the work or for which he accepts payment in whole or in part.

L. Pipeline Locations and Miss Utility

The contractor shall be responsible for calling Miss Utility of Virginia at (800) 552-7001 prior to digging at the work site.

M. Modification of a Contract

Change orders shall be reviewed by the project manager, Engineer, if required, and state agency, if required, for accuracy. Change orders will require signature of all parties and a detailed summary of the change in scope of work. Once review is complete change order will be submitted to the Procurement Division for review and a modification to the contract amount, if needed, will be prepared and approved by the Procurement Manager.

N. Retainage

Retainage will be held in the amount of 5% of the contract price until final completion of project and is accepted by the County. Any payment made by the County to the Contractor shall be less a Five Percent (5%) retainage to assure faithful performance of the Work required under the Contract. All amounts retained under this provision shall be included in the Final Payment upon Final Completion.

VII. TERMS AND CONDITIONS: (Effective March 4, 2019)

A. Acceptance, Invoicing and Payment
Spotsylvania County will make payment to the Contractor, Net 30 days or in accordance with discount terms, if offered, after receipt of an acceptable invoice for services or goods rendered resulting from this IFB.

Pursuant to Virginia Code § 2.2-4354, (1950, as amended), the CONTRACTOR covenants and agrees to:

1. Within seven (7) days after receipt of any amounts paid to the CONTRACTOR under the Agreement, (i) pay any subcontractor for its proportionate share of the total payment received from the COUNTY attributable to the work under the Contract performed by such subcontractor, or (ii) notify the COUNTY and the subcontractor, in writing, of its intention to withhold all or part of the subcontractor’s payment and the reason therefore;
2. Provide its federal employer identification number or social security number, as applicable, before any payment is made to the CONTRACTOR under the Agreement;
3. Pay interest at the legal rate or such other rate as may be agreed to in writing by the subcontractor and the CONTRACTOR on all amounts owed by the CONTRACTOR that remain unpaid after seven (7) days following receipt by the CONTRACTOR of payment from the COUNTY for work performed by the subcontractor under the Agreement; and
4. Include in its contracts with any and all subcontractors the requirements of 1, 2, and 3 above.

B. Attorney’s Fees

In the event of any action brought by either party against the other to enforce any of the obligations hereunder or arising out of any dispute concerning the terms and conditions hereby created, each party shall pay their own attorney’s fees, costs and expenses, except in a case of default by the Contractor, the Contractor shall be responsible for any resulting additional purchase and administrative costs including, but not limited to fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs.

C. Audit

Contractor shall keep and require each of its Subcontractor, if any, to keep, at no additional cost to County, full and detailed accounts of costs chargeable to County, during the project, and for five (5) years following completion. County shall be afforded full access to accounts, records, and supporting documents for review, audit, copy (such copies will be the property of County), and verification of costs. Audit access to Contractor’s records in lump sum or unit price areas when applicable shall be sufficient to satisfy County that all quantities meet the payments to its subcontractor and suppliers, Contractor shall remit promptly to County the amount of any adjustment resulting from audit.

D. Availability of Funds

It is understood and agreed between the parties herein that the County shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.
E. Binding Effect

The terms, provisions, covenants and conditions contained in any resulting contract shall apply to, insure to the benefit of, and be binding upon the parties hereto and upon their respective heirs, legal representatives, successors, and permitted assigns except as otherwise expressly provided.

F. Compliance of Law

The Contractor providing materials and services to the County under any contract resulting from this IFB represents and warrants to the County that it is:

3. Complying with federal, state and local laws and regulation applicable to the performance of the services procured; and
4. In full compliance with the Virginia Conflict of Interest Act.

G. Contract Award

Spotsylvania County reserves the right to accept or reject any and/or all bids, and to waive informalities. Spotsylvania County reserves the right to award any contract resulting from this IFB to the lowest priced responsive and responsible bidder, resulting in a contract that is most advantageous and in the best interest of Spotsylvania County. Spotsylvania County shall be the sole judge of the bids and the resulting contract that best serves the public interest, and Spotsylvania County’s decision shall be final.

Negotiation with the Lowest Bidder:   Unless all bids are cancelled or rejected, the County reserves the right granted by Virginia Code § 2.2-4318 to negotiate with the lowest responsive, responsible bidder to obtain a contract price within the funds available to the agency whenever such low bid exceeds the agency’s available funds. For the purpose of determining when such negotiations may take place, the term “available funds” shall mean those funds which were budgeted by the agency for this contract prior to the issuance of the written Invitation for Bids. Negotiations with the low bidder may include both modifications of the bid price and the Scope of Work/Specifications to be performed. The agency shall initiate such negotiations by notice to the lowest responsive, responsible bidder that its bid exceeds the available funds and that the agency wishes to negotiate a lower contract price. The times, places, and manner of negotiating shall be agreed to by the agency and the lowest responsive, responsible bidder.

H. Contract Changes

No verbal agreement or conversation with any officer, agent or employee of Spotsylvania County either before or after execution of the contract resulting from this Invitation for Bid (IFB), IFB Addendum or follow-on negotiations, shall effect or modify any of the terms or obligations contained in the contract. No alterations to the terms and conditions of the contract shall be valid or binding upon Spotsylvania County unless made in writing and where Board approval is not required, by the county Administrator or his designee.
Contract Extension: This contract may be extended during the term of the existing contract for services allowed to complete any work undertaken but not completed during the original term of the contract.

I. Contract Documents

The contract entered into by Spotsylvania County and the Contractor shall consist of this Invitation For Bid, the Specification, any Addendum issued, the signed Bid Forms submitted by the Contractor, Spotsylvania County’s Standard Form Agreement, Purchase Order and any approved change orders issued, all of which shall be referred to collectively as the Contract Documents. Additional documents which the parties agree to include as contract documents may be set forth in the final contract.

J. Definitions:

1. Contractor:
The successful bidder who enters into a contract with Spotsylvania County to provide the goods or services as specified herein.

2. County/Owner:
Wherever the word "County or Owner" appears, it shall be understood to mean the Spotsylvania County Government.

3. Bidder:
One who submits a competitively priced offer in response to an Invitation for Bids (IFB).

4. Informality:
A minor defect of variation in a bid or proposal from the exact requirements of the Invitation to Bid, or the Request for Proposal, which does not affect the price, quality, quantity or delivery schedule for the goods, services or construction being procured.

K. Drug-Free Workplace

During the performance of this contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor’s employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor’s workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, “drug-free workplace” means any site at which the performance of work is done in connection with this contract awarded to the Contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.
L. Ethics in Public Contracting

The Contractor hereby certifies that it has familiarized itself with Article 6 of Title 2.2 of the Virginia Public Procurement Act, Section 2.2-4367 through 2.2-4377, Virginia Code Annotated, and that all amounts received by it, pursuant to a Contract resulting from this IFB, are proper and in accordance herewith. By submitting a response to this solicitation, bidder certifies that their bid is made without collusion or fraud that they have not offered or received any kickbacks or inducements from any other bidder, supplier, manufacturer or subcontractor in connection with their bid, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

M. Examination of Records

The Contractor agrees that Spotsylvania County or any duly authorized representative shall have access to and the right to examine any and copy any directly pertinent books, documents, papers and records of the Contractor involving transactions related to any Contract resulting from this IFB. The period of access provided in this paragraph for records, books, documents, and papers and software which may be related to any arbitration, litigation, or the settlement of claims arising out of the performance of any subsequent contract or any subsequent Contracts with vendors shall continue until disposition of any appeals, arbitration, litigation, or claims. Contractors agrees to keep all records in accordance with the state and local retention laws including but not limited to Virginia Code § 55-525.27.

N. Faith-Based Organizations

Pursuant to Section 2.2-4343.1 of the Code of Virginia of 1950, in all invitations to bid, requests for proposals, contracts, and purchase orders, the COUNTY does not discriminate against faith-based organizations.

“Faith-based Organization” means a religious organization that is or applies to be a contractor to provide goods or services for programs funded by the block grant provided pursuant to the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, P.L. 104-193.

If CONTRACTOR is a faith-based organization, then Contractor shall give to each individual who applies for or receives goods, services, or disbursements provided pursuant to this Agreement the following notice:

NOTICE

Pursuant to Section 2.2-4343.1 of the Code of Virginia of 1950, as an applicant for or recipient of goods, services, or disbursements provided pursuant to a contract between the COUNTY and a faith-based organization, you are hereby notified as follows:

Neither the COUNTY’S selection of a charitable or faith-based provider of services nor the expenditure of funds under this contract is an endorsement of the provider’s charitable or religious character, practices, or expression. No provider of services may discriminate against you on the basis of religion, a religious
belief, or your refusal to actively participate in a religious practice. If you object to a particular provider because of its religious character, you may request assignment to a different provider. If you believe that your rights have been violated, please discuss the complaint with your provider or notify the COUNTY Administrator.

O. Federal-Aid Provisions

When the U. S. government pays all or any portion of the cost of a project, the Contractor shall observe all federal laws, rules, and regulations made pursuant to such laws. The work shall be subject to inspection by the appropriate federal agency. Such inspection shall in no sense make the federal government a party of the contract and will in no way interfere with the rights of either party. Contractor shall require all subcontractors to observe all federal laws, rules, and regulations made pursuant to such laws. Reporting requirements that is part of the regulation shall be followed in accordance with the federal law, rules and/or regulation made pursuant to such laws. A Duns number will be provided by the Contractor and registration with the Central Contractor Registration (CCR) shall be followed according to the federal aid provisions.

P. Force Majeure

In any contract resulting from this IFB, neither party shall be liable hereunder by reason of any failure or delay in the performance of its obligations hereunder (except for the payment of money) on account of strikes, industry wide material shortages, riots, insurrection, fires, flood, storm, explosions, earthquakes, pandemic flu, acts of God, war, governmental action, and labor conditions. In the case of an industry wide material shortage the Contractors shall provide to the County within 24 hours of Contractor’s determination that there exists an industry wide material shortage, the following: 1) a written description of the specific material alleged to be in short supply; 2) a written list of all manufacturers, wholesalers, suppliers and/or retailers from which Contractor has attempted to obtain, and/or contracted to obtain, said material; 3) a written description detailing all actions taken by Contractor to obtain said materials; 4) a written statement, signed by an authorized representative of Contractor, that Contractor has used due diligence to secure said materials in the most expeditious manner; 5) a written time frame in which Contractor anticipates that it will obtain said materials and; 6) the County, or its authorized representative, concurs that there is an industry wide shortage of the specific material so identified by contractor.

Q. Freedom of Information

All information submitted to the County in response to this IFB will constitute public information and pursuant to the Virginia Freedom of Information Act will be available to the public for inspection upon request. Pursuant to Virginia Code § 2.2-4342 and County Procurement Policy § 3-27, a Bidder may request an exception to disclosure for trade secrets or proprietary information as such is defined under Virginia Code § 59.1-336, part of the Uniform Trade Secrets Act. In order to claim this exemption, a Bidder must: (1) Submit a request in writing referencing their desire to invoke the protections of Virginia Code § 2.2-4342; (2) Specifically identify which data or materials they wish to have protected; and (3) Articulate the rationale for why protection is necessary for the particular data or materials, to the satisfaction of the County. Failure to meet these requirements will result in the data or materials being open for inspection in response to a valid inquiry under the Virginia Freedom of Information Act and serve to waive any right of the Bidder to assert a claim against the County for disclosure of trade secrets or proprietary information.
R. Governing Law

In any contract resulting from this IFB, the parties agree that this agreement is governed by and shall be interpreted in accordance with the Spotsylvania County Procurement Policy and the laws of the Commonwealth of Virginia, including the Spotsylvania County Procurement Policy, and that proper venue, in the event of litigation concerning this matter, shall be in the Circuit Court of Spotsylvania County, Virginia. The parties agree that any litigation involving this Agreement shall be brought only in such court.

S. Grant Funds Provision

When a project is funded in part or all by grant funds, the Contractor shall observe all rules and regulations according to the grant fund award documentation. Contractor has the responsibility to comply with all grant fund reporting requirements and any or all award documentation terms and conditions.

T. Headings

Headings in the IFB and any resulting contract are informational only and the substance of each numbered or lettered provision shall prevail in the event of any ambiguity or inconsistency between a heading and its content.

U. IFB and Bid Clarification

Spotsylvania County reserves the right to request clarification of information submitted and to request additional information of one or more bidders. Each bidder shall examine the IFB and shall judge all matters relating to the adequacy and accuracy of such IFB. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the IFB shall be submitted in writing to the Spotsylvania County Procurement contact listed on the first page of this IFB. Spotsylvania County shall not be responsible for oral interpretations given by an employee, representative, agent, or others. The issuance of a written IFB Addendum issued by the Spotsylvania County Procurement Division is the only official method whereby interpretation, clarification, or additional information can be issued.

V. Insurance

During the performance of any contract resulting from this IFB, the Contractor shall have and keep current insurance whichever is greater in scope or amount as follows:

(1) Worker’s Compensation Insurance in compliance with all states in which the Contractor does business, including coverage B Employer’s Liability in not less that the following amounts:
   a. i Bodily Injury by accident, $100,000 for each accident;
   b. ii Bodily Injury by disease, $500,000 policy limit;
   c. iii Bodily Injury by disease, $100,000 for each employee;
(2) General Liability Insurance in amount not less than $1,000,000 for any occurrence involving bodily injury, and not less than $1,000,000 for any occurrence involving property damage. This coverage shall include contractual liability, broad form property damage, independent contractors, and personal injury;

(3) Automobile Liability Insurance in an amount not less than $1,000,000 combined single limit bodily injury and property damage. This coverage shall include liability for the use of hired and non-owned vehicle.

The General Liability and Automobile Liability insurance policies specified herein shall name Spotsylvania County as additional insured with regard to work performed under any contract resulting from this IFB. The Contractor shall provide Spotsylvania County with copies of certificates of insurance coverage and proof of payment of all premiums. These certificates shall have provisions for notifying Spotsylvania County if there is any change in liability insurance.

The insurance required shall have been issued by a company rated “A” as reported in the current edition of Best’s Key Rating Guide, published by Alfred M. Best Company, Inc.

W. Interpretation

Words of any gender used in a resulting contract shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, and vice versa, unless the context otherwise requires.

X. Non-Collusion

The party submitting the foregoing IFB hereby certifies that such IFB is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person to fix the bid price or affiant or of any bidder, or to fix any overhead, profit or cost element of said IFB price, or of that of any other bidder, or to secure any advantage against the County or any person interested in the proposed contract; and that all statements in said IFB are true.

Y. Non-Discrimination

Any contract resulting from this IFB and every contract, sub-contract, or purchase order there under shall include the following provisions according to 2.2-4311Code of Virginia:

During the performance of a contract, the Contractor agrees as follows:

i. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin, except where religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicant for employment, notices setting forth non-discrimination clause.
ii. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such contractor is an equal opportunity employer.

iii. Notices, advertisements, and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirement.

The Contractor will include the provisions in the foregoing paragraphs a, b, and c in every contract, subcontract, or purchase order of over $10,000, so that the provisions will be binding upon each subcontractor or vendor associated with Spotsylvania County.

Z. Partial Invalidity

In the event any one or more of the provisions of a contract resulting from this IFB are found by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions of the contract shall remain in full force and effect.

AA. Release and Ownership of Information

Spotsylvania County shall make a good faith effort to identify and make available to the Contractor all non-confidential technical and administrative data in Spotsylvania County’s possession which Spotsylvania County may lawfully release including, but not limited to contract specifications, drawings, correspondence, and other information specified and required by the Contractor and relating to its work under this Contract. Spotsylvania County reserves its rights of ownership to all material given to the Contractor by Spotsylvania County and to all background information, documents, and computer software and documentation developed by the Contractor in performing any Contract resulting from this IFB.

No reports, information or data given to or prepared by the Contractor under the resulting Contract shall be made available to any individual or organization by the Contractor without the prior written approval of Spotsylvania County, which approval Spotsylvania County shall be under no obligation to grant.

As may be allowed by law, any information, ideas, or concepts that the County receives during the procurement process from any bidder’s IFB response, any discussion or interview with the bidder or as a result of any portion of the procurement process for the services described in this Invitation for Bid shall become the property of Spotsylvania County. Spotsylvania County may use this information for any purpose without compensation to the bidder from whom the information was received.

BB. Rights and Responsibilities of Contractor

The Contractor shall indemnify, defend and hold harmless the County and its representatives from any and all claims, suits and actions for injury or damage sustained by any person or property from any act or omission by Contractor and/or its Contractors or employees, or anyone else for who Contractor is or may be responsible. This section shall survive the termination this agreement.

The Contractor in any contract resulting from this IFB shall pay all royalties and license fees necessary for performance of the contract. The Contractor shall defend all suits or claims for infringement of any patent rights or any other proprietary rights arising from or related to performance of the resulting contract.
and shall save Spotsylvania County harmless from any and all loss, including reasonable attorneys' fees, on account thereof.

CC. Subcontractor and Assignments

The Contractor shall not sublet or assign or transfer any interest in this Contract or any portion thereof without the prior written consent of Spotsylvania County of which Spotsylvania County shall be under no obligation to grant. In seeking consent for any subcontract or assignment, the Contractor shall furnish all information required by Spotsylvania County to permit Spotsylvania County to ascertain the qualifications of the proposed Subcontractor to perform the work, and the Contractor shall submit a copy of the subcontract to Spotsylvania County for approval. The subcontractor shall incorporate by reference all provisions and conditions of the contract resulting from this solicitation.

Spotsylvania County’s approval of a Subcontractor shall not relieve the Contractor of any of its responsibilities, duties or liabilities hereunder. The Contractor shall continue to be responsible to Spotsylvania County for performance of the Subcontractor and the Subcontractor, for all purposes, shall be deemed to be an agent or employee of the Contractor. Nothing in the Contract resulting from this RFP or any subcontract shall create any contractual relationship between any Subcontractor and Spotsylvania County.

DD. Tax Exemption

The County of Spotsylvania as a public body politic and corporate of the Commonwealth of Virginia, is exempt from any Federal excise tax and Virginia sales and use tax for purchases made by the County.

EE. Termination

Spotsylvania County shall have the right to terminate at Spotsylvania County’s convenience, with or without cause, any contract resulting from this IFB by specifying the date of termination in a written notice. In this event, the Contractor shall be entitled to just and equitable compensation for any authorized satisfactory work done or any items/materials accepted by Spotsylvania County.

GG. Testing and Inspection

Spotsylvania County reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications prior to award.

HH. Transportation and Packaging

By submitting their bid, all bidders certify and warrant that the price offered for FOB destination includes only the actual freight rate costs at the lowest and best rate and is based upon the actual weight of the goods to be shipped.
ATTACHMENT A

SPOTSYLVANIA COUNTY SPECIFICATIONS

OLDE GREENWICH CIRCLE SANITARY SEWER REPLACEMENT – PHASE 4

INVITATION FOR BID (IFB #20-14-TV)

October 2019
I. SUMMARY

The project consists of furnishing and installing approximately 600 linear feet of 8-inch diameter sanitary sewer line, and all necessary appurtenances in the Olde Greenwich development in Spotsylvania County, VA.

II. WORK COVERED BY THE CONTRACT DOCUMENTS

A. Work under this contract includes furnishing and installing sewer line associated appurtenances as follows:

i. Furnish, erect, maintain and remove erosion and sediment control measures including silt fencing, construction entrances, and other items as required.

ii. Clear and grub the area of construction of the new sewer lines.

iii. Furnish and install 8-inch diameter sewer main, manholes, and service lateral connections at locations and grades shown on the plans.

iv. Furnish and install all other appurtenances shown or required to complete the work.

B. Contingent Items – If contingent items are included in the project, they shall not be performed without written direction and authorization by ENGINEER, if agreed to by the OWNER.

C. Work consists of providing labor, materials, equipment, services and administration required in conjunction with or properly incidental to construction of the project. All work shall be performed in accordance with Federal, State and Local regulations and OSHA requirements.

III. SPOTSYLVANIA COUNTY SPECIFICATIONS – General information

B. Use attached Specifications entitled “Olde Greenwich Circle Sanitary Sewer Replacement – Phase 4”

C. All excavation is considered Unclassified. Spotsylvania County has not conducted an underground investigation of the site.

D. County will provide initial stakeout of sewer line project. Any stakeout after the initial one will be the responsibility of the contractor.

E. E&S permits and VDOT permits to be obtained by the Contractor.
## TECHNICAL SPECIFICATIONS – TABLE OF CONTENTS

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SECTION 01130 – MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 GENERAL

A. The Contractor shall receive and accept the compensation provided in the Proposal and the Contract as full payment for furnishing all labor, materials, tools, equipment and services for performing all operations necessary to complete the work under the Contract, and also in full payment for all loss or damages arising from the nature of the work, or from any discrepancy between the actual quantities of work and the quantities herein estimated by the Engineer, or from action of the elements or from any unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the Owner.

B. The lump sum price stated in the Proposal include all costs and expenses for taxes, labor, equipment, materials, commissions, transportation, patent fees and royalties, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the work as shown on the Contract Drawings and specified herein. The basis of monthly payment of said lump shall be broken down and detailed in the Schedule of Values in accordance with the description of that item in this section.

C. The Contractor’s attention is called to the fact that the quotations for the various items of the work are intended to establish a total price for completing the work in its entirety. Should the Contractor feel that the cost for any item of work has not been defined by a Bid Form, he shall include the cost for that work in some other applicable bid item, so that his proposal for the work reflects his total price for completing the work in its entirety.

D. Items listed as CONTINGENT UNIT PRICE ITEMS in the proposal are to be used and will be paid for only at the written direction and authorization of the Engineer, if agreed to by the Owner. Payment under this section will be made for materials furnished and placed in addition to those shown or beyond the limits indicated or reasonably inferred by the Contract Documents. Measurement and payment will be in accordance with the proposal and will include, but not necessarily be limited to, furnishing, hauling, placing and installing of materials and the furnishing of such manpower and equipment as required to accomplish the work as directed in writing by the Engineer.

E. Alterations

1. The Owner reserves the right to change the alignment, grade, form, length, dimensions or material of the work under the contract, whenever conditions or obstructions are met that render the changes desirable or necessary. All such alterations shall be paid for under the total lump sum bid or at a unit price bid for these items of work, except as follows:

   a. In the case that such alterations make the work less expensive to the Contractor, a proper deduction shall be made from the contract prices and the Contractor shall have no claim on this account for damages or for anticipated profits on the work that may be dispensed with.
b. In the case such alterations make the work more expensive to the Contractor, a proper addition shall be made to the contract prices.

c. Any additions or subtractions to the contract prices shall be proposed by the Contractor and then reviewed by the Engineer and approved by the Owner.

d. In case the quantity of work in individual unit price items of work increases or decreases greater than 25% of the bid quantity, unit prices may be renegotiated.

F. Engineer May Increase or Decrease Quantities

1. The Engineer reserves the right to increase or decrease the quantity of material to be furnished or work to be done under the Contract whenever he deems it advisable or necessary. Such increase or decrease shall in no way violate or invalidate the Contract.

2. For the unit price items included in the bid, the Contractor will be paid for the actual amount of the authorized work done or material furnished under each item of the proposal, at the unit price bid for that item. In case the quantity of any item is increased, the Contractor shall not be entitled to compensation over and above the unit bid for each item. In case the quantity is decreased, the Contractor shall have no claim for damages on account of loss of anticipated profits because of such decrease.

3. For the contingency items, the Contractor shall be paid for actual quantities installed, on written order of the Engineer.

G. Except as modified herein, measurement and payment shall be in accordance with the GENERAL CONDITIONS, Article 10 – Cost of the Work, Allowances, Unit Price Work and Article 15 – Payments and Completion.

1.2 MEASUREMENT

A. The quantities for payment under this Contract shall be determined by actual measurement of the completed items, in place and accepted by the Owner, in accordance with the General Conditions. A representative of the Contractor shall witness all field measurements.

1.3 PAYMENT

A. Payments during the course of the work will be made on the basis of actual amount of the work item installed at the end of the pay period. Determination of the amount of the work item installed shall be made by the Contractor and reviewed and approve by the Engineer. Payments during the course of the work for lump sum items will be made on the basis of percentage of completion of the work items listed in the Schedule of Values for each lump sum item. The Schedule of Values shall be prepared by the Contractor and submitted to the Engineer within 15 days of the execution of the contract and shall serve as a breakdown of the lump sum bid for the purpose of arriving at a basis for the monthly estimate. The Schedule of Values shall be broken down into categories and each category further broken down into each applicable specification section. The schedule shall add up to 100% of the Lump Sum Bid.
1.4 ITEMS

A. Item 1: Mobilization
1. Payment for mobilization shall be made at the lump sum provided in the Schedule of Values, in three (3) installments. The first payment of 50% of the lump sum price will be made at commencement of the project. The second payment of 40% of the lump sum price will be made during construction, and the final payment of 10% of the lump sum price will be made after substantial completion of the project has been reached.
2. No measurement will be made for this item.
3. The lump sum price provided for mobilization includes all items related to construction preparatory operations, including, but not limited to, clearing the project corridor, surveying and construction stakeout, movement of personnel and equipment to the project site, payment of performance and payment bond and other insurance premiums, payment of permit fees, and establishment of the Contractor’s offices and other facilities necessary to begin the work.

B. Items 2 and 3: 8” Diameter Circular SDR-35 PVC Gravity Sewer (Various Depths)
1. Payment for furnishing and installing, at all depths of unclassified excavation, the 8-inch diameter SDR 35 PVC gravity sewer at the depth range listed shall be made at the unit price provided in the Schedule of Values per linear foot for the lengths of pipe actually installed, complete in place.
2. Measurement of lengths will be made horizontally, along the centerline of the pipe. No deductions will be made in the measured length for manholes and wyes.
3. The unit price provided per linear foot shall include all labor, materials, tools, equipment and services for furnishing and installing the 8-inch diameter PVC gravity sewer including, but not limited to; traffic control, pavement removal, excavation including rock if required, all temporary bypass pumping operations, laying of the pipe, including pipe bedding (No. 57 stone per County Utilities Manual Standards), trench support, dewatering, making of joint connections, temporary blocking, cleanup, removal and disposal of all unsuitable and excess material, backfill and surface materials, and all restoration required to restore disturbed areas to a condition equal to or better than pre-construction conditions, and other incidental items required for the proper operation of the gravity sewer.

C. Items 4 and 5: 4’ Diameter Pre-Cast Concrete Sanitary Sewer Manhole with Vandalproof Frame and Cover (Various Depths)
1. Payment for 4-foot diameter pre-cast concrete manholes of the specified depth with vandalproof frame and cover shall be made at the unit price provided in the Schedule of Values per manhole, actually installed, compete in place.
2. No measurement shall be made for this item.
3. The unit price provided per each manhole shall include all labor, materials, tools, equipment and services for furnishing and installing the specified diameter Pre-cast
concrete manholes of the specified depth including, but not limited to; traffic control, unclassified excavation and pavement removal, excavation including rock if required, trench support, dewatering, handling and placing of manhole sections, vandalproof frames and covers, outside coating, flexible pipe connections, steps, making connections, temporary blocking, stone bedding (No. 57 stone per County Utilities Manual Standards), testing, cleanup, removal and disposal of all unsuitable and excess material, backfill and surface materials, all restoration required to restore disturbed areas to a condition equal to or better than pre-construction conditions, and other incidental items required for the proper operation of the manholes.

D. Item 6: Abandon Existing Manhole

1. Payment for in-place abandonment of existing manholes shall be made at the unit price provided in the Schedule of Values per manhole.

2. No measurement shall be made for this item.

3. The unit price bid shall include all labor, materials, tools, equipment and services for manhole abandonment per detail and notes on plans, including but not limited to: removal and disposal of manhole frame and cover, adjustment rings, and cone, punching holes in the base of the manhole, filling structure with sand and granular fill, cutting and plugging of all existing pipe connections, any necessary backfilling with suitable fill, and any other items that are incidental to the proper abandonment of the manhole.

E. Item 7: Remove Existing Manhole

1. Payment for removal of existing manholes shall be made at the unit price provided in the Schedule of Values per manhole.

2. No measurement shall be made for this item.

3. The unit price bid for removal of existing manholes shall include all labor, materials, tools, equipment, and services for completing the removal of specified manholes, including but not limited to: capping and sealing of connections per County standards, removal and disposal of manhole frame and cover, adjustment rings, cone, walls, and base section, backfill of all manhole sections permitted to remain as detailed or directed by the Engineer, site restoration, and other incidental items required for the proper operation of the sanitary sewer system.

F. Item 8: Install New 6” Diameter PVC Sanitary Sewer Lateral Pipe

1. Payment for furnishing and installing, at all depths of unclassified excavation, the 6-inch diameter PVC sewer lateral pipe at all depths shall be made at the unit price provided in the Schedule of Values per linear foot for the length of pipe actually installed, complete in place.

2. Measurement of lengths will be made horizontally, along the centerline of the pipe. No deductions will be made in the measured length for manholes, cleanouts, and wyes.

3. The unit price provided per linear foot shall include all labor, materials, tools, equipment and services for furnishing and installing the 6-inch diameter PVC sewer lateral
including, but not limited to; traffic control, pavement removal, excavation including rock if required, all temporary bypass pumping operations, laying of the pipe, including pipe bedding, trench support, dewatering, making of joint connections, all labor and materials required for connecting to the sanitary sewer main pipe, cleanup, removal and disposal of all unsuitable and excess material, backfill and surface materials, and all restoration required to restore disturbed areas to a condition equal to or better than pre-construction conditions, and other incidental items required for the proper operation of the sewer system.

G. Item 9: Install New Sanitary Sewer Cleanout

1. Payment for furnishing and installing 4-inch diameter cleanouts and cleanout covers shall be made at the unit price provided in the Schedule of Values per cleanout, actually installed, compete in place.

2. No measurement shall be made for this item.

3. The unit price provided per each cleanout shall include all labor, materials, tools, equipment and services for furnishing and installing the cleanout including, but not limited to; traffic control, unclassified excavation and pavement removal, excavation including rock if required, trench support, dewatering, outside coating, flexible pipe connections, all labor and materials required for connecting to the sanitary sewer lateral, bedding, cleanup, removal and disposal of all unsuitable and excess material, backfill and surface materials, all restoration required to restore disturbed areas to a condition equal to or better than pre-construction conditions, and other incidental items required for the proper operation of the cleanouts.

H. Item 10: Bypass Pumping

1. Payment for bypass pumping of sewer flow shall be made as a lump sum item.

2. No measurement shall be made for this item.

3. The lump sum price provided shall include all labor, materials, tools, equipment and services for sewer bypass pumping including, but not limited to; piping, pump, wet well, spare pump, and enclosure, as well as fuel, as required in Specification Section 332960.

I. Item 11: Soil Erosion & Sediment Controls

1. Payment for furnishing, installing, maintaining and removing construction entrance, silt fencing, tree protection, culvert inlet and outlet protection and other erosion and sediment controls shall be made as a lump sum item.

2. No measurement shall be made for this item. Payment shall not be made until the construction entrance, all silt fence, and tree protection measures are in place; payment will be at 90% of the lump sum price provided, the remainder of the unit price (10%) will be paid upon removal and proper disposal of the soil erosion and sediment controls and soil stabilization is in place and accepted.
3. The lump sum price shall include all labor, materials, tools, equipment, and services for furnishing, installing, maintaining, and removal of the soil erosion and sediment control measures including, all incidental items required for its proper operation.

J. Item 12: Site Clearing and Demolition

1. Payment for site clearing and demolition shall be made as a lump sum item.

2. No measurement shall be made for this item.

3. The lump sum price provided shall include all labor, materials, tools, equipment and services for clearing the site in preparation for the proposed improvements including, but not limited to: traffic control, unclassified excavation and pavement removal, excavation including rock if required, grubbing stumps, dewatering, handling and relocating existing dumpsters removal and disposal of all unsuitable and excess material, and other incidental items required for the proper operation of the sanitary sewer system.

K. Item 13: Site Restoration / Topsoil, Fertilize, & Seeding

1. Payment for site restoration, topsoil, fertilizing, and seeding shall be made as a lump sum item.

2. No measurement will be made for this item.

3. The lump sum price provided for site restoration / Topsoil, Fertilize, & Seeding shall include all labor, materials, tools, equipment, and services for furnishing and installing the site restoration and landscaping including, but not limited to: handling and placing of topsoil, fine grading, handling and placing of permanent seed, temporary seeding as required to stabilize disturbed areas, handling and placing of mulch, handling and placing of fertilizer and lime, watering, testing and any other incidental items required for proper growth in the seeded area, lawn and landscape maintenance, and other incidental items required for proper site restoration and landscaping.

L. Item 14: Remove and Replace Chain Link Fences

1. Payment for furnishing and installing chain link fences shall be made at the unit price provided in the Schedule of Values per linear foot for the lengths of fence actually installed, complete in place.

2. Measurement of lengths will be made horizontally, along the centerline of fence. The actual length of fence installed will be paid upon removal and proper disposal of the existing fence and replacement with new fence.

3. The unit price bid per linear foot shall include all labor materials, tools, equipment, and services for furnishing and installing chain link fences including, but not limited to: removal and disposal of existing fences, installation of temporary fencing (if required), installation of posts, installation of fence mesh, concrete, unclassified excavation, storage and reuse of excavated materials, and any other incidental items required for proper removal and replacement of chain link fences.

M. Item 15: Remove and Replace Wood Fences
1. Payment for furnishing and installing wooden fences shall be made at the unit price provided in the Schedule of Values per linear foot for the lengths of fence actually installed, complete in place.

2. Measurement of lengths will be made horizontally, along the centerline of fence. The actual length of fence installed will be paid upon removal and proper disposal of the existing fence and replacement with new fence.

3. The unit price bid per linear foot shall include all labor materials, tools, equipment, and services for furnishing and installing wood fences including, but not limited to: removal and disposal of existing fences, installation of temporary fencing (if required), installation of new rails and posts, concrete, unclassified excavation, storage and reuse of excavated materials, and any other incidental items required for proper removal and replacement of chain link fences.

1.5 CONTINGENCY ITEMS OF WORK

A. Contingency Item 16: Locate Private Utility Lines and Services

1. Payment for field locating and marking existing underground private utility lines shall be made up to the $5,000 allowance for field locating and marking actually performed.

2. No measurement shall be made for this item.

3. The allowance for locating private utility lines and services performed shall include all labor, materials, tools, equipment and services for providing subsurface utility engineering services in order to mark and locate all private utility lines in the vicinity of the proposed work prior to commencing any excavation.

B. Contingency Item 17: Remove and Replace Chain Link Fences

1. Payment for furnishing and installing chain link fences shall be made at the unit price provided in the Schedule of Values per linear foot for the lengths of fence actually installed, complete in place.

2. Measurement of lengths will be made horizontally, along the centerline of fence. The actual length of fence installed will be paid upon removal and proper disposal of the existing fence and replacement with new fence.

3. The unit price bid per linear foot shall include all labor materials, tools, equipment, and services for furnishing and installing chain link fences including, but not limited to: removal and disposal of existing fences, installation of temporary fencing (if required), installation of posts, installation of fence mesh, concrete, unclassified excavation, storage and reuse of excavated materials, and any other incidental items required for proper removal and replacement of chain link fences.

C. Contingency Item 18: Remove and Replace Wood Fences
1. Payment for furnishing and installing wooden fences shall be made at the unit price provided in the Schedule of Values per linear foot for the lengths of fence actually installed, complete in place.

2. Measurement of lengths will be made horizontally, along the centerline of fence. The actual length of fence installed will be paid upon removal and proper disposal of the existing fence and replacement with new fence.

3. The unit price bid per linear foot shall include all labor materials, tools, equipment, and services for furnishing and installing wood fences including, but not limited to: removal and disposal of existing fences, installation of temporary fencing (if required), installation of new rails and posts, concrete, unclassified excavation, storage and reuse of excavated materials, and any other incidental items required for proper removal and replacement of chain link fences.

D. Contingency Item 19: Over-Excavation of Unsuitable Subgrade, Furnish/Install Additional Gravel Bedding for Sanitary Sewer in Excess of Normal Requirements

1. Payment for over-excavating and disposal of unsuitable material below the trench subgrade and furnishing and backfilling with 12 inches of VDOT No. 57 stone wrapped in geotextile (obtained offsite) will be made at the unit price bid per cubic yard. Measurement shall be made for compacted material, in-place where ordered in writing by the Engineer or County, actually installed, complete in place.

2. Measurement will be made in the field and witnessed by the Engineer; unwitnessed measurements will not be compensated.

3. The unit price bid per cubic yard shall include all labor, materials, tools, equipment and services for furnishing and placing select borrow material including, but not limited to, disposal of unsuitable material, transportation, trench support, placing of select material, compaction, dewatering, and any other incidental item required for proper function and maintenance of the sewer line.

4. Payment will not be made for select borrow material placed beyond the limits directed by the Engineer or County.

E. Contingency Item 20: Allowance for Third Party Testing and Lab Testing Services

1. Payment for testing and lab testing services shall be made up to the $10,000 allowance for testing and lab testing actually performed.

2. No measurement shall be made for this item.

3. The allowance for testing and lab testing performed shall include all labor, materials, tools, equipment and services for performing field compaction test and associated lab testing including, but not limited to; testing, cleanup, removal and disposal of all unsuitable material, and other incidental items required for the proper function and maintenance of the waterline.
1.6 PAYMENT FOR MATERIALS NOT INCORPORATED INTO THE WORK

A. Storage of Materials

1. Payment for equipment and materials stored on the site, or elsewhere as specified in the GENERAL CONDITIONS, and not actually incorporated in the work will be made on the basis of 90% of the amount of paid invoices submitted to the Engineer for incorporation in the monthly estimate.

B. Authorization for Payment

1. Payment will be authorized after the delivery to the construction site or other approved location and after being certified by the Engineer as being stored in conformation with the manufacturer’s recommendations and satisfactory evidence is provided that the items are as specified.

2. Title to all items of equipment and materials upon which payment has been made shall rest with the Owner and documents transferring title shall be executed by the Contractor. Transfer of ownership shall not relieve the Contractor of continuing insurance coverage and of protecting stored items against damage, deterioration, theft or loss of any kind.

3. Should materials or equipment become damage or be stored improperly or contrary to the manufacturer’s recommendations, being therefore subject to later damage, then the Engineer will reduce the next following monthly payment by an amount sufficient to repair or replace such units.

4. To initiate a request for partial payment the Contractor shall submit his request in writing to the Engineer with all necessary evidence.

5. Items of material or equipment to which partial payment applies includes and is limited to the following:

   a. Gravity Sewer Pipe
   b. Sanitary Sewer Manholes
   c. Allowances as determined and directed by the engineer

END OF SECTION 01130
SECTION 01710 – CLEANING UP

PART 1 - GENERAL

1.1 GENERAL

A. During the construction duration, the work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.

B. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, structures, work done under this contract, or elsewhere during the course of the Contractor’s operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work. Ditches, channels, drains, pipes, structures and work, etc., shall, upon completion of the work, be left in a clean and neat condition.

C. On or before the completion of the work, the Contractor shall, unless otherwise directed and permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools and machinery or other construction equipment furnished by him; shall remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under and around privies, houses and other buildings used by him; shall remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations in a neat and satisfactory condition.

D. The Contractor shall thoroughly clean all materials and equipment installed by him and his subcontractors, and on completion of the work shall deliver it undamaged and in fresh and new-appearing condition.

E. The Contractor shall restore or replace, when and as directed, any public or private property damaged by his 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 street, alley, walk, and landscaping work. Suitable materials, equipment and methods shall be used for such restoration. The restoration of existing property or structures shall be done as promptly as practicable as work progresses and shall not be left until the end of the Contract Period.

END OF SECTION 01710
SECTION 02300 - EARTHWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Preparing subgrades for slabs-on-grade walks, pavements, and lawns and grasses.
2. Excavating and backfilling for structures.
3. Subbase and base course for asphalt paving.
4. Excavating and backfilling for utility trenches.
5. Excavating and backfilling for buried utility structures.

1.3 DEFINITIONS

A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
   1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
   2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Base Course: Course placed between the subbase course and hot-mix asphalt paving.

C. Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
   1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for unit prices.
   2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
   3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.

F. Fill: Soil materials used to raise existing grades.
G. Rock excavation shall be defined as: Rock excavation for trenches and pits includes removal and disposal of materials and obstructions encountered that cannot be excavated with a track-mounted power excavator, equivalent to a Caterpillar Model No. 215C LC, rated not less than 115 HP flywheel power and 32,000-pound drawbar pull equipped with a short stick and a 42-inch wide, short tip radius rock bucket rated at 0.81 cubic yard (heaped) capacity. Trenches in excess of 10 feet in width and pits in excess of 30 feet in either length or width are classified as open excavation. Rock excavation in open excavation includes removal and disposal of materials and obstructions that cannot be dislodged and excavated with modern, track-mounted, heavy-duty excavating equipment without drilling or blasting. Rock excavating equipment is defined as Caterpillar Model No. 973 or equivalent track-mounted loader, rated at not less than 210 flywheel power and developing minimum of 45,000-pound breakout force (measured in accordance with SAE J732). Typical materials classified as rock are boulders 1 cubic yard or more in volume, solid rock, rock in ledges, and rock-hard cementious deposits. Intermittent drilling or blasting to increase production and not necessary to permit excavation of material encountered will be classified as unclassified excavation.

H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, or other man-made stationary features constructed above or below the ground surface.

I. Subbase Course: Course placed between the subgrade and base course for hot-mix asphalt pavement, or course placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

J. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

K. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 SUBMITTALS

A. Product Data: For the following:

1. Each type of plastic warning tape.
2. Geotextile.
3. Controlled low-strength material, including design mixture.

B. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:

1. Classification according to ASTM D 2487 of each on-site soil material proposed for fill and backfill.

1.5 QUALITY ASSURANCE

A. Standard Specification and Details: Reference in this Section to STANDARD SPECIFICATIONS or STANDARD DETAILS shall mean the following, and are hereby made part of this specification:
1. Virginia Department of Transportation “Road and Bridge Specifications” Latest Edition, and “Road and Bridge Standards” Latest Edition with the latest incorporated revisions.

B. Codes and Standards: The following American Association of State Highway and Transportation Officials (AASHTO) Standards in effect on the date bids are received form a part of this Specification to the extent indicated by the following references:

- M6 Fine Aggregate for Portland Cement Concrete
- M43 Standard Sizes of Coarse Aggregate for Highway Construction
- M145 Classification of Soils and Soil-Aggregate Mixtures
- T89 Determining the Liquid Limit of Soils
- T90 Determining the Plastic Limit and Plasticity Index of Soils
- T119 Slump of Portland Cement Concrete
- T180 Moisture-Density Relations of Soils Using a 10-lb. Ram and 18-inch Drop
- T191 Density of Soil In-Place by the Sand-Cone Method
- T206 Penetration Test and Split-Barrel Sampling of Soils
- T238 Density of Soils and Soil-Aggregate In Place by Nuclear Methods
- T239 Moisture Content of Soil-Aggregate In Place by Nuclear Methods
- T265 Laboratory Determination of Moisture Contents of Soils

All work shall comply with Occupational Safety and Health Regulations for Construction of the Code of Federal Regulations.

C. Supervision and Field Compaction Testing:

1. Construction of controlled fills shall be done under continuous supervision of the Engineer. No controlled fills shall be constructed unless the Engineer or its qualified representative is on the site. The Contractor shall allow safe access for the Engineer to all parts of the project at all times. The Contractor shall keep the Engineer informed of all construction activity of the project and the Contractor’s anticipated daily schedules.

2. Field compaction tests of the density and moisture content of fill will be performed by the Engineer, or its qualified testing consultant, paid for by the County. Upon completion of each layer of fill in a designated area, the Contractor shall be required to allow time for the Engineer to perform the tests. When the tests indicate that the density or moisture of any layer of fill or portion thereof is below the specified dry density or outside the specified moisture range, the particular layer or portion shall be reworked by rolling or by scarifying, wetting or drying, and rerolling as required until the required dry density and moisture content have been obtained.

3. Where sheepfoot rollers are used, the soil may be disturbed to a depth of several inches. Density tests will be taken in the compacted material below the disturbed surface. In this case the Contractor shall be required to use his equipment (such as a bulldozer blade) to cut out a smooth surfaced spot at any point requested by the Engineer on which to perform the test.

D. Laboratory Testing: All materials to be used in the work shall be tested by a certified laboratory paid for by the Contractor prior to use to show conformance with the requirements of these specifications. Test reports or material certifications shall be submitted to the Engineer prior to use of any material in the work. Any change in the source or material shall require the Contractor to retest and resubmit for approval.
1.6 JOB CONDITIONS

A. Subsurface Investigations:

1. No subsurface soil borings have been performed for this project.
2. The Contractor shall determine to its satisfaction the ground water conditions and the character and type of soil, decomposed rock, rock and other material to be encountered in the work to be done under this Contract.
3. The Bidder may make its own investigation and tests, at a time acceptable to the Owner. Bidder should contact the County Engineer, Mr. Scott Powell, at 540-507-7330 to coordinate dates and times.
4. As a condition of submitting a bid, the Bidder acknowledges that the Owner has not provided any subsurface soil data and further acknowledges that a claim for changed conditions will not be allowed as a consideration for additional compensation.

B. Existing Utilities:

1. The existing utilities shown on the Drawings are from available records and field surveys. The Contractor shall verify all information to its own satisfaction, and shall notify the Engineer of any impact to the work. The Contractor shall test pit existing utilities which impact construction. These test pits shall be performed two weeks in advance of excavation.
2. Should uncharted piping or other utilities be encountered during excavation, the Contractor shall cooperate with the Engineer and the utility owners in keeping services and facilities in operation.
3. Utilities designated to remain in place or which serve adjacent structures are to be protected and maintained at all times during construction. Active utility lines damaged in the course of construction operations shall be repaired or replaced immediately at no cost to the County, the Engineer, or utility owner.
4. The Contractor shall demolish and completely remove from the site existing underground utilities which are designated to be removed. Where existing utilities interfere with placement of the work, the Contractor shall relocate utilities as a part of the work, as directed by the Engineer.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.

B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM, or a combination of these groups; free of rock or gravel larger than 2 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.

1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
2. Soil that is too wet to permit proper compaction as determined by inspector or not appropriate for the use intended as defined in these specifications.

D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No. 4 sieve.

H. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D 448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No. 4 sieve.

I. Sand: ASTM C 33; fine aggregate, natural, or manufactured sand.

J. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

2.2 ACCESSORIES

A. Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep, tape shall be Catalog No. 2 WAT as manufactured by Seton Name Plat Corporation or approved equal; colored as follows:

2. Yellow: Gas, oil, steam, and dangerous materials.
3. Orange: Telephone and other communications.
4. Blue: Water systems.
5. Green: Sewer systems.

B. Wire Connectors

1. One connector, set screw pressure type for use with No. 10 stranded wire size. Holub Industries MA-2, Ideal Industries Model 30-222, or equal.
2. Two connector, C-Tap for two way splicing of tracer wire, for use with No. 10 stranded wire size. T&B #54705 or equal.
3. Three connector, split bolts, three wire type for splicing of tracer wire, for use with No. 10 stranded wire size. ILSCO Catalog #SEL-2S or equal.
C. Test Station Box: Plastic box for corrosion protection. Plastic shaft a minimum of 3” long with cast iron lid and collar. Collar shall be a minimum of 2” deep. Lid shall be bolted to collar with brass bolts. Lid shall be imprinted with the wording “TEST”. Lid shall be color coded blue for water and green for sewer.

D. Electric Tape: Vinyl electric tape.

E. Electrical Coating: Scotchkote 3M electrical coating Part No. 054007

F. Wire nut: non-conductive for No. 10 stranded wire size. Test Wire

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

B. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Section "Site Clearing."

C. Protect and maintain erosion and sedimentation controls, which are specified in Section Site Clearing during earthwork operations.

D. Provide protective insulating materials to protect subgrades and foundation soils against freezing temperatures or frost.

3.2 DEWATERING

A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.

B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.

C. The Contractor shall provide and continuously operate and maintain all temporary dewatering, drainage and pumping systems required to satisfactorily perform all work under the Contract. Water shall be controlled to such an extent as may be necessary to keep excavations free from water during construction and to maintain a minimum of 12 inches below the bottom of pipes and structures. The Contractor will not necessarily be permitted to use any particular type of dewatering system it selects. The Contractor shall be entirely responsible for the design and adequacy of the dewatering system.

D. Should soil, ground water or local conditions require dewatering systems other than ditches, sumps, and pumps, such systems shall be provided, operated and maintained by the Contractor at no additional expense to the County.
E. The Contractor shall exercise every precaution to prevent flotation of any of the work constructed under this Contract, and the Contractor shall be responsible for all damage due to flotation.

F. Such grading shall be done as necessary to prevent surface water from flowing into trenches or other utility excavations, and any water accumulating therein shall be continuously removed and properly filtered to remove sediment.

G. The method of water disposal shall be in compliance with erosion and sediment control regulations and all other regulatory agencies.

H. Methods of dewatering excavations shall be at the Contractor’s discretion. Continuous investigations and checks shall be made by the Contractor to assure that the dewatering system employed is functioning properly, not causing damage or settlement to adjacent surfaces or structures. Temporary pipes or flumes shall be used to carry surface water across open and/or unstabilized construction areas. The system shall be modified as required and repairs for damage caused by the system shall be the responsibility of the Contractor.

I. Should the Contractor’s dewatering operations affect any existing private water supply well used as a potable water source, the Contractor shall, at no additional cost to the County, take whatever steps are necessary to provide uninterrupted water service, including the installation of temporary water lines or the installation of permanent wells with treatment systems, if required. Bottled water shall be provided immediately to residents whose private wells are damaged during construction.

3.3 EXPLOSIVES

A. Explosives: Do not use explosives.

3.4 EXCAVATION, GENERAL

A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.

1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.5 EXCAVATION FOR STRUCTURES

A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
3.6 EXCAVATION FOR WALKS AND PAVEMENTS
   A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.7 EXCAVATION FOR UTILITY TRENCHES
   A. Excavate trenches to indicated gradients, lines, depths, and elevations in accordance with County standards.
   B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
      1. Clearance: 12 inches each side of pipe or conduit.
   C. Trench Bottoms: Excavate trenches 4 inches deeper than bottom of pipe elevation to allow for bedding course. Hand excavate for bell of pipe.
      1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.
      2. Excavate trenches 2 inches deeper if pipe is 16 inches diameter or greater.

3.8 SUBGRADE INSPECTION
   A. Notify Engineer when excavations have reached required subgrade.
   B. If Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
   C. Proof-roll subgrade with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
      1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction.
      2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Engineer, and replace with compacted backfill or fill as directed at no additional expense to County.
   D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Engineer, without additional compensation.

3.9 STORAGE OF SOIL MATERIALS
   A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water.
      1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.
2. Stabilize soil stockpiles with temporary seeping as required.

B. Dispose of excess soil material and waste material.

3.10 BACKFILL

A. Place and compact backfill in excavations promptly, but not before completing the following:

1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
2. Surveying locations of underground utilities for Record Documents.
3. Testing and inspecting underground utilities.
4. Removing concrete formwork.
5. Removing trash and debris.
6. Removing temporary shoring and bracing, and sheeting.
7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.11 UTILITY TRENCH BACKFILL

A. After the installation of the pipe has been field inspected, the trenches shall be backfilled per County standards. Place backfill on subgrades free of mud, frost, snow, or ice.

B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Pipe shall have minimum bedding per County standards.

C. Place and compact initial backfill of satisfactory soil, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the utility pipe or conduit. The initial backfill shall be compacted by hand or pneumatic tamping methods.

1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
2. After the initial backfill has been placed, the remainder of the backfill may be done by hand or with mechanical equipment in lifts no greater than 8”.

D. Backfill voids with satisfactory soil while installing and removing shoring and bracing. Where, in opinion of the Engineer, damage is liable to result from withdrawal of shoring, it shall be left in place.

E. Place and compact final backfill of satisfactory soil to final subgrade elevation. Where settlement occurs, the trench shall be refilled and compacted to conform to the surface of the ground.

F. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.
3.12 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:

1. Under grass and planted areas, use satisfactory soil material.
2. Under walks and pavements, use satisfactory soil material.
3. Under steps and ramps, use engineered fill.
4. Under building slabs, use engineered fill.
5. Under footings and foundations, use engineered fill.

C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.13 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.14 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698:

1. Under structures, building slabs, steps, pavements, and road shoulders, compact each layer of backfill or fill soil material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
3. Under lawn or unpaved areas, compact each layer of backfill or fill soil material at 85 percent.
4. For utility trenches, under existing roadways and pavement and within VDOT right of way, trenches shall be compacted in accordance with the requirements specified or, if more stringent, the requirements of VDOT.
3.15 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
   1. Provide a smooth transition between adjacent existing grades and new grades.
   2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
   1. Lawn or Unpaved Areas: Plus or minus 1 inch.
   2. Walks: Plus or minus 1 inch.
   3. Pavements: Plus or minus 1/2 inch.

C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.16 FIELD QUALITY CONTROL

A. Testing Agency: Contractor will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.

B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.

C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Engineer.

D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable.

E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

3.17 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
1. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.18 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

END OF SECTION 02300
SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Protecting existing vegetation to remain.
   2. Removing existing vegetation.
   3. Clearing and grubbing.
   4. Stripping and stockpiling topsoil.
   5. Removing above- and below-grade site improvements.
   6. Disconnecting, capping, or sealing site utilities.
   7. Temporary erosion and sedimentation control.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at project site.

1.3 MATERIAL OWNERSHIP

A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.4 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
   2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.

B. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.

C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.

D. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.

E. Tree- and Plant-Protection Zones: Protect according to requirements in Section 015639 "Temporary Tree and Plant Protection."
PART 2 - PRODUCTS

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 312000 "Earth Moving."

1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.

B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed according to requirements in Section 015639 "Temporary Tree and Plant Protection."

C. Protect existing site improvements to remain from damage during construction.

1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.

B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

D. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

A. Protect trees and plants remaining on-site according to requirements in Section 015639 "Temporary Tree and Plant Protection."
B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.4 EXISTING UTILITIES

A. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
   1. Arrange with utility companies to shut off indicated utilities.

B. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
   1. Notify Architect not less than two days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without Architect's written permission.

3.5 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
   1. Grind down stumps and remove roots larger than 3 inches (75 mm) in diameter, obstructions, and debris to a depth of 18 inches (450 mm) below exposed subgrade.
   2. Use only hand methods or air spade for grubbing within protection zones.

B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
   1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches (200 mm), and compact each layer to a density equal to adjacent original ground.

3.6 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.

B. Strip topsoil to depth of 6 inches (150 mm) in a manner to prevent intermingling with underlying subsoil or other waste materials.

C. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

3.7 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.
3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property. The County will not charge tipping/disposal fees for disposal at the Livingston Landfill, 6241 Massey Road, Spotsylvania, VA.

END OF SECTION 311000
SECTION 02530 - SANITARY SEWERAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 1 Specification Sections, and Spotsylvania County Standards and Specifications apply to this Section.

1.2 SUMMARY
   A. This Section includes gravity-flow, nonpressure sanitary sewerage.

1.3 DEFINITIONS
   A. PVC: Polyvinyl chloride plastic.
   B. PVCO: Molecularly oriented polyvinyl chloride
   C. DI: Ductile iron
   D. AWWA: American Water Works Association
   E. ASTM: American Society for Testing Materials
   F. ANSI: American National Standards Institute
   G. VDOT: Virginia Department of Transportation

1.4 SUBMITTALS
   A. Shop Drawings: For the following:
      1. Manholes: Include plans, elevations, sections, details, and frames and covers.
   B. Coordination Drawings: Show pipe sizes, locations, and elevations. Show other piping in same trench and clearances from sewerage system piping. Indicate interface and spatial relationship between manholes, piping, and proximate structures.

1.5 DELIVERY, STORAGE, AND HANDLING
   A. Do not store plastic manholes, pipe, and fittings in direct sunlight.
   B. Protect pipe, pipe fittings, and seals from dirt and damage.
C. Handle manholes according to manufacturer's written rigging instructions.

1.6 PROJECT CONDITIONS
A. The existing sanitary sewer service will be abandoned and replaced within the project area.
B. Manholes shall have watertight covers.
C. Clay dams shall be utilized in the trench wherever the possibility exists that groundwater will follow the sewer trench.

PART 2 - PRODUCTS

2.1 DUCTILE-IRON PRESSURE PIPE AND FITTINGS
A. Pipe: AWWA C151, for push-on joints.
B. Standard Fittings: AWWA C110, ductile or gray iron, for push-on joints.
C. Compact Fittings: AWWA C153, for push-on joints.
D. Gaskets: AWWA C111, rubber.
E. Pipe shall be pressure Class 350 and have lining and coating specifically designed for sanitary sewer services.

2.2 PVC PIPE AND FITTINGS
A. PVC (non-pressure) Sewer Pipe and Fittings, 15” and Smaller: ASTM D 3034, Type PSM, SDR-35, with bell-and-spigot ends for gasketed joints with ASTM F 477, elastomeric seals.
B. 8” Dia.5DR-35 PVC Gravity Sewer

2.3 CLEANOUTS
A. PVC Cleanouts: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping. Cleanout Cap #4 COH BV general engineering or equal.
B. Cleanouts shall be in accordance with Spotsylvania County standards and requirements.

2.4 MANHOLES
A. Standard Precast Concrete Manholes: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
   1. Diameter: 48 inches minimum, unless otherwise indicated.
2. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.

3. Base Section: 8-inch minimum thickness for floor slab and 5-inch minimum thickness for walls and base riser section, and having separate base slab or base section with integral floor.

4. Riser Sections: 5-inch minimum thickness, and of length to provide depth indicated.

5. Top Section: Eccentric-cone type, unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.

6. Joints: Provide tongue and groove joints in manhole sections with a performed groove in the tongue for placement of an O-ring type round, rubber gasket or approved alternate. Gasket shall comply with requirements of ASTM C361. Gasket shall provide the sole element in sealing the joint from either internal or external hydrostatic pressure.

7. Resilient Pipe Connectors: Provide flexible pipe connections to manholes for pipes 21” in diameter and smaller in size. Materials shall consist of EPDM and elastomers designed to be resistant to water, sewage, acids, ozone, weathering and aging. Use neoprene conforming to ASTM C443 and ASTM C923 and all stainless steel elements of the connector shall be totally non-magnetic Series 304 Stainless, excluding the worm screw for tightening the steel band around the pipe which shall be Series 305 Stainless. The worm screw for tightening the steel band shall be torqued by a break-away torque wrench available from the precast manhole supplier, and set for 60-70 inch/lbs.

8. Steps: Manhole steps shall be corrosion-resistant and shall be one-half grade 60 steel reinforcing rod encapsulated in a copolymer polypropylene. The steps shall conform with ASTM C478 paragraph 11 and to the dimensions shown on the Standard Details, wide enough to allow worker to place both feet on 1 step and designed to prevent lateral slippage off of step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 48 inches.

9. Adjusting Rings: Interlocking rings with level or sloped edge in thickness and diameter matching manhole frame and cover. Include sealant recommended by ring manufacturer.

10. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, to match diameter of manhole frame and cover.

11. Protective Coating: Plant-applied minimum thickness applied to exterior surfaces. All manholes shall be coated on the outside with bitumen material Koppers Bistumastic No. 300-M applied 2 coats mim. 16 dry mills.

12. Manhole Frames and Covers: riser with 4-inch minimum width flange and 26-inch-diameter cover conforming to ASTM A48, Class 30. Include indented top design with lettering cast into cover, using wording equivalent to "SANITARY SEWER." Minimum weight 500 lbs. For manholes in streets and 340 lbs. For outside streets.

a. Material: ASTM A 48/A 48M, Class 30 gray iron, unless otherwise indicated.

b. Protective Coating: Foundry-applied, SSPC-Paint 16, coal-tar, epoxy-polyamide paint; 15-mil minimum thickness applied to all surfaces, unless otherwise indicated.

c. Sealant for manhole frames shall be a one-component polyurethane sealant similar to Sika “Sikaflex” type 430. Sealant for flexible pipe connections shall be a two-component polysulfide sealant similar to Sika “Sikaflex” type 412 with primer type 419.

d. Manhole frames shall be secured to the manhole with Heat Shrink Seal, Rapid Seal or equal.
B. Manhole Cover Inserts: Manufactured, plastic form, of size to fit between manhole frame and cover and designed to prevent stormwater inflow. Include handle for removal and gasket for gastight sealing.

2.5 CONCRETE

A. General: Cast-in-place concrete according to ACI 318/318R, ACI 350R, and the following:

1. Cement: ASTM C 150, Type II.

B. Portland Cement Design Mix: 4000 psi minimum, with 0.45 maximum water/cementitious materials ratio.

2. Reinforcement Bars: ASTM A 615/A 615M, Grade 60, deformed steel.

C. Manhole Channels and Benches: Factory or field formed from concrete. Portland cement design mix, 4000 psi minimum, with 0.45 maximum water/cementitious materials ratio. Include channels and benches in manholes.

1. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth, uniform radius and slope.

2. Benches: Concrete, sloped to drain into channel.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Excavating, trenching, and backfilling are specified in Division 2 Section "Earthwork."

3.2 PIPING APPLICATIONS

A. Pipe couplings and special pipe fittings with pressure ratings at least equal to piping rating may be used in applications below, unless otherwise indicated.

1. Use nonpressure-type flexible couplings where required to join gravity-flow, nonpressure sewer piping, unless otherwise indicated.

2. Use pressure-type pipe couplings for force-main joints.

B. Special Pipe Fittings: Use for pipe expansion and deflection. Pipe couplings and special pipe fittings with pressure ratings at least equal to piping rating may be used in applications below, unless otherwise indicated.
3.3 PIPING INSTALLATION

A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground sanitary sewerage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.

B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for using lubricants, cements, and other installation requirements.

C. Install manholes for changes in direction, unless fittings are indicated. Use fittings for branch connections, unless direct tap into existing sewer is indicated.

D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.

E. Tunneling: Install pipe under streets or other obstructions that cannot be disturbed by tunneling, jacking, or combination of both.

F. Install gravity-flow, nonpressure, sanitary sewer according to the following:

1. Laying a sewer pipe shall be accomplished to line and grade as indicated on the County approved plans and in the trench only after it has been dewatered and the foundation and/or bedding has been prepared. Mud, silt, gravel, and other foreign material shall be kept out of the pipe and off the jointing surfaces.

2. All pipe laid shall be retained in position so as to maintain alignment and joint closure until sufficient backfill has been completed to adequately hold the pipe in place. All pipe shall be laid to conform to the prescribed line and grade shown on the drawings. After completion the pipe shall exhibit a full circle of light at one manhole when viewed from the next.

3. The sewer pipe shall be laid upgrade from point of connection to the existing sewer or from a designated starting point. If the starting point is at an existing stub, it shall be removed and a full length of pipe installed. The sewer pipe shall be installed with the bell end forward or upgrade. When pipe laying is not in progress, the forward end of the pipe shall be kept tightly closed with a water tight plug or cap. When the upstream end of a sewer does not terminate at a manhole, it shall be plugged and its location marked in a manner approved by the Inspector.

4. The pipe shall be fitted and matched so that when installed it will form a smooth, uniform invert.

5. Prior to joining the pipe, all surfaces of the pipe to be joined and the surfaces of factory made jointing materials shall be clean and dry. Lubricants, primers, adhesives, etc., shall be applied and the pipes joined as recommended by the manufacturer’s specifications. Sufficient pressure shall be applied in making the joint to assure that the pipe is “home”. The interior of the pipe shall be cleaned of all foreign material as the work progresses. At the end of the workday, the last pipe shall be blocked to prevent creep, and closed with a water tight plug or cap.

6. Joining Pipe:
   a. Ductile iron pipe is to be joined in accordance with the requirements of AWWA Standard C600 and the manufacturer’s recommendations.
b. Polyvinyl chloride (PVC) pipe shall be joined in accordance with ASTM Standard D-2321 and the manufacturer’s recommendations.

c. Other type pipe shall be joined in accordance with the manufacturer’s recommendations and the requirements of the County approved plans and specifications.

7. All visible leaks shall be corrected prior to testing.

3.4 MANHOLE INSTALLATION

A. General: Install manholes complete with appurtenances and accessories indicated.

B. Install precast concrete manhole sections with sealants according to ASTM C 891.

C. Set manhole base section on bed of #57 stone with a minimum depth of 8”. Stone shall be thoroughly compacted and carefully leveled to the excavated earth wall.

D. Join all manhole risers, cone top sections, and any other sections by the use of rubber gaskets.

E. Install pipe stubs in manholes where called for on the plans. All stubs shall extend beyond the manhole as reflected on the plans and shall be sealed with a watertight plug or cap.

F. Install flexible manhole connections for all pipes sizes 6” to 24”, inclusive and apply sealant to completely fill joint between manhole barrel and flexible connection for the full thickness of the manhole barrel.

G. Plug lift holes from the outside with non-shrink grout and repair any defects in manhole.

H. Set adjusting rings in 301-Mastic Manhole frames shall be set to 1/4" bed of Ram Nek, Pioneer 310 Mastic, or approved joint sealer.

I. In paved roadways or walkways, adjusting rings shall permit upward or downward adjustment of manhole frame. Maximum height of rings shall not exceed 12”.

J. Construct bench of concrete.

1. Elevation of bench at the channel shall be at the spring line of the lowest incoming pipe and the outgoing pipe.
2. Bench shall slope from the wall to the channel such that the bench at the channel is three inches lower than at the manhole wall.
3. Where stubs are provided for future pipe connections, bench and invert shall be so formed.
4. Use sulfide resistant cement for concrete or mortar on all acid-resistant manholes.
5. Where sealant is used, bench shall not be in contact with pipe or flexible pipe connection.
6. All inverts shall be formed, smooth and allow for smooth deflections. Where multiple inlets exist, form multiple inverts consistent with the diameter and position of each inlet. Smoothly transition the invert through the manhole to accommodate varying pipe sizes.
7. In drop manholes, bench to the invert of the drop pipe and transition the flow smoothly into the channel invert.

K. All visible and known leaks shall be corrected prior to testing.
L. Form continuous concrete channels and benches between inlets and outlet.
M. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches above finished surface elsewhere, unless otherwise indicated.

3.5 CONCRETE PLACEMENT
A. Place cast-in-place concrete according to ACI 318/318R.

3.6 CLEANOUT INSTALLATION
A. Install cleanouts and riser extensions from sewer pipes to cleanouts at grade. Install piping so cleanouts open in direction of flow in sewer pipe.
   1. Use light-duty, top-loading classification cleanouts in earth or unpaved foot-traffic areas.
   2. Use medium-duty, top-loading classification cleanouts in paved foot-traffic areas.
   3. Use heavy-duty, top-loading classification cleanouts in vehicle-traffic service areas.
B. Set cleanout frames and covers in concrete pavement with tops flush with pavement surface.

3.7 CONNECTIONS
A. Service Connections: Place a wye or Tee-wye SCH 40 fitting with 4” outlet in the sewer where service connection is to be constructed. Lay 4” SCH 40 PVC or ductile iron pipe from the connection to the property line or easement boundary on a grade of not less than 1/4 in. per foot unless otherwise shown on plans. Pipe shall bedded in stone 4” under pipe and covering pipe 4”. Where connections are laid out of manholes, Contractor shall use a laser beam. Terminate service connection at the property line or easement boundary with an approved glue on cap, and mark the end with 2” x 4” CCS pressure treated board installed plumb from bottom of 4 inch cap to 2 feet above ground. Service connection shall be of same type of pipe as sewer unless otherwise approved by County. When making a service connection to an existing sewer, the Contractor shall use a mechanical hole cutter and approved saddle or other approved fitting.
B. Existing Manhole Tie-In: Core drilling and a flexible pipe-to-manhole connector shall be used in the connection of the sewer pipe to precast manholes, where stubs or bricked up opening do not exist. The connector shall be Kore-N-Seal assembly or approved equal. The connector shall be installed in the manhole wall by activating the expanding mechanism in strict accordance with the recommendation of the connector manufacturer. The connector shall be of a size specifically designed for the pipe material and size being utilized on the project. All materials must conform to the approved products reflected in these standards.

3.8 FIELD QUALITY CONTROL
A. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed.
   1. Place plug in end of incomplete piping at end of day and when work stops.
2. Flush piping between manholes and other structures to remove collected debris, if required by authorities having jurisdiction.

B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.

1. Submit separate report for each system inspection.
2. Defects requiring correction include the following:
   a. Alignment: Less than full diameter of inside of pipe is visible between structures.
   b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
   c. Crushed, broken, cracked, or otherwise damaged piping.
   d. Infiltration: Water leakage into piping.
   e. Exfiltration: Water leakage from or around piping.

3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
4. Reinspect and repeat procedure until results are satisfactory.

C. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects in accordance with Spotsylvania County requirements.

1. Do not enclose, cover, or put into service before inspection and approval.
2. Test completed piping systems according to requirements of authorities having jurisdiction.
3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
4. Submit separate report for each test.

D. Testing technique for sanitary sewer system (non-pressure): Sanitary sewer lines 42” in diameter and smaller shall be tested after backfill using a low-pressure air test in accordance with ASTM F1417, latest edition. Sewer lines larger than 42” in diameter shall be tested by infiltration/exfiltration test. All manholes shall be vacuum tested. All testing shall be conducted in the presence of the County’s Inspector. All labor, materials, tools, and equipment necessary to make the tests shall be provided by the Contractor. All equipment and methods used shall be acceptable to the County. All monitoring gauges shall be subject to calibration, if deemed necessary.

E. Manhole Test: All manholes will be tested using the negative air pressure test (vacuum) in accordance with ASTM C 1244, latest edition for water tightness. Manholes will be visually inspected after backfilling. Contractor may backfill before testing with the understanding that any repairs will be made from the exterior of the manhole. Manholes shall be vacuum tested and shall have 10” of mercury applied to the manhole and the time measured for the vacuum to drop from 10” to 9” of mercury. Minimum allowable test times for manhole acceptance at the specified vacuum drop.

F. Closed Circuit Television Color (CCTV) Inspection is required for all new sewer mains and laterals. Laterals shall be installed and inspected by the Contractor who installs the sewer main from the main to either the cleanout at the served structure if service is provided concurrently with construction of the new main, or to the cleanout at the property line or easement boundary.
if service will be provided at a later date. Inspection shall be in accordance with Spotsylvania County testing requirements.

1. Video files must be turned over to and reviewed by the Inspector prior to acceptance. Inspectors must be notified when CCTV inspections are being conducted and may require their attendance.

2. Documentation of the television results shall include:

   a. Television Inspection Logs: Printed location records shall be kept by the Contractor and will clearly show the location in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other points of significance such as locations of lateral sewers, unusual conditions, and other discernible features will be recorded and a copy of such records will be supplied to the County.

   b. Video Recordings: The purpose of video recording shall be to supply a visual and audio record of problem areas of the lines that may be replayed. Videotape recording playback shall be at the same speed that it was recorded. Slow motion or stop-motion playback features may be supplied at the option of the Contractor. The Contractor shall have all video and necessary playback equipment readily accessible for review by the County during the project. All recorded video of the initial and any re-inspections shall be supplied to and will become the property of the County on acceptance of the main, although the contractor may maintain a separate copy for his records.

G. Leaks and loss in test pressure constitute defects that must be repaired.

H. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.9 CLEAN-UP

A. Upon the completion of the installation of the sanitary sewer system and prior to the County acceptance, sediment and debris shall be removed from the system. The work area shall be restored to a condition equal to or better than its condition prior to construction and pavement replaced to the satisfaction of VDOT and/or the County. All trash and debris shall be removed and properly disposed of. Areas not otherwise stabilized shall be seeded and mulched and a good stand of grass established.

END OF SECTION 02530
SECTION 332960 – BYPASS PUMPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Furnish all plans, labor, equipment, permits, materials and incidentals necessary to implement a temporary pumping system for the purpose of diverting existing sewer flow around a work area for the duration of the project.

B. During various phases of the Work, it will be necessary to construct and maintain temporary bypass sewers to maintain continuous and reliable wastewater flow in all pipes, including individual service connections. Various phases of the Work that shall require the implementation of temporary bypass sewers may include, but are not limited to:
   1. Connections of new sewers to existing sewers
   2. Trenchless rehabilitation of existing sewers
   3. Pipeline rehabilitation and inspection
   4. Upstream pump station be placed out of service

C. Contractor shall construct and maintain all temporary bypass sewers and be responsible for all bypass pumping of sewage that may be required to prevent backing up of sewage and allow appropriate conditions for proper inspection, rehabilitation, testing or drainage during force main rehabilitation, replacement or reconnections to existing sewers.

D. Contractor shall provide a redundant bypass pump, intake and discharge conduit, and other equipment necessary to provide continuous wastewater flow and prevent the backing up of sewage in the case of emergencies at all times.

E. Primary bypass pumps shall be critically silences when used in residential settings or areas where excessive noise levels would create a disturbance. Redundant bypass pumping does not have to be critically silenced.

1.2 SUBMITTALS

A. Contractor shall submit to Spotsylvania County Utilities a schedule to complete the Work. It will include the sequencing and coordination of connections to existing sewers, pipeline inspection, trenchless rehabilitation and testing of existing sewers, and the handling of wastewater flow during construction.

B. The design, installation and operation of the temporary pumping system shall be the Contractor’s responsibility.
   1. Contractor shall take care to prevent damage to existing structures.
   2. Discharge piping to gravity sewer systems shall be designed in such a manner as to prevent discharge from contracting manhole walls or benching and full discharge shall go into downstream pipe as minimal turbulence as possible.
C. Contractor shall prepare a specific, detailed description of the proposed pumping system (Bypass Pumping Plan).

D. Contractor shall submit to Spotsylvania County Utilities bypass pumping monitoring person’s qualifications and contact information (in case of emergency).

PART 2 - EXECUTION

2.1 EXAMINATION

A. Site Verification of Conditions: Contractor shall field verify bypass pumping flow and sizing requirements prior to submission of shop drawings.

B. Flows from private, commercial, and industrial users shall be handled by the Contractor during the Work without interruption.

2.2 BYPASS PUMPING PLAN

A. Contractor shall prepare a specific, detailed description of the proposed pumping system (Bypass Pumping Plan). The Bypass Pumping Plan shall be submitted for review and comments by Spotsylvania County Utilities prior to the mobilization of any of the equipment included in the Bypass Pumping Plan. The plan shall include but not limited to the following:

1. Must handle existing wastewater flows including peak flows
2. Schedules, locations, elevations, capacities of equipment and material
3. Staging areas for pumps
4. Sewer plugging method and types of plugs
5. Size and location of manholes or access points for suction and discharge hose or piping
6. Size of pipeline or conveyance system to be bypassed
7. Number, size, material, location and method of installation of suction piping
8. Number, size, material, location and method of installation of discharge piping
9. Bypass pump sizes, capacities, and number of each size to be provided onsite including all primary, secondary and spare pumping units
10. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump, operating range shall be included).
11. Calculations for selection of bypass pumping pipe size
12. Downstream Discharge Plan
13. Method of protecting discharge manholes or structures from erosion and damage
14. Thrust and restraint block sizes and locations
15. Provide details to demonstrate the integrity of all suction and discharge piping including piping and fittings associated with all primary and secondary pumping units.
16. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill
17. Methods of noise control for each pump and any additional equipment in the BPP.
18. Any temporary pipe supports and anchoring requirements
19. Access plans to all bypass pumping locations
20. Schedule for installation of and maintenance of bypass pumping lines
21. Plan showing bypass pumping pipe locations
22. Provide Road Crossing Plan. Use road ramp to maintain driveway access at all times for medium to heavy truck and trailer traffic. Provide driveway re-routing plan as required to maintain ingress/egress to homeowners and businesses.

23. Emergency plans for adverse weather and flooding for the various phases of the Work.

2.3 TESTING

A. Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to the actual operations.

B. The pressure and leakage test shall be conducted at one-and-a-half times the maximum pressure the system will experience based on the Bypass Pumping Plan for a period of two (2) hours.

C. No leakage is permitted during the test.

D. In addition, Contractor shall demonstrate that the pumping system is in good working order and is sufficiently sized to successfully handle flows by performing a test run for a period of 24-hours prior to beginning the Work.

E. Spotsylvania County Utilities shall be given 48 hours notice prior to testing.

2.4 OPERATIONS

A. Bypass system shall provide provisions for maintaining vehicular and pedestrian access, avoiding damage to public and private property, preventing leakage from hoses and minimizing noise from pumps.

B. Contractor shall immediately remove and dispose of all offensive matter spilled during the bypass pumping at his own expense.

C. Contractor is responsible for paying any fines imposed as a result of spills or overflows that occur as a result of the bypass pumping operations.

D. Contractor shall be required to repair, at his own expense, any damage to public or private property caused by his operations.

E. Contractor is responsible for any damage to manholes. It may be necessary to remove the manhole cone to provide sufficient space for the bypass piping. If this is required, the Contractor shall be responsible for any damage to existing manhole components.

F. Should damage of any kind occur to the existing sewers, the Contractor shall, at his own expense make repairs to the satisfaction of Spotsylvania County Utilities.

G. Contractor shall immediately notify Spotsylvania County Utilities should a sanitary sewer overflow (SSO) occur and take the necessary action to clean up and disinfect the spillage to the satisfaction of Spotsylvania County Utilities and/or other governmental agencies. If sewage is spilled onto public or private property, the Contractor shall wash down, clean up, and disinfect the spillage to the satisfaction of the property owner, Spotsylvania County Utilities, and/or other governmental agencies.
H. Contractor shall not be permitted to overflow, bypass, pump or by any other means convey drainage to any land, street, storm drain or water course.

I. Contractor shall provide on-site manual oversight of all bypass pumping operations 24 hours per day, 7 days per week when the bypass pumping system is in operation.

J. Contractor shall cease bypass pumping operations and return flows to the new and/or existing sewer when directed by Spotsylvania County Utilities.

K. When bypass operations are complete, all bypass piping shall be flushed with fresh water and drained into the wastewater system prior to disassembly.

2.5 MONITORING

A. Contractor shall provide continuous monitoring of the bypass pumping operation.

B. Contractor shall submit to Spotsylvania County Utilities the monitoring persons’ qualifications.

C. Monitoring staff shall be properly trained, experienced, and mechanically qualified such that they can quickly and effectively address any potential emergency and non-emergency situations associated with the pumps and bypass pumping system that must remain in operation for an extended period.

2.6 ESTIMATED FLOWS

A. Contractor shall establish adequate bypass pumping adherent to the conditions stated herein and anticipate severe weather conditions and increases in peak flows during rain events.

B. The Peak Flow for this project is estimated to be approximately 50,000 gallons per day (0.05 MGD).

END OF SECTION 332960
ATTACHMENT B

PLANS/DRAWINGS

OLDE GREENWICH CIRCLE SANITARY SEWER REPLACEMENT – PHASE 4

INVITATION FOR BID (IFB #20-14-TV)

November 5, 2019
INSTALL NEW MH WITH VANDALPROOF F&C SAN. MH #5
TOP = 190.06
INV. IN = 183.65 (LATERAL)
INV. OUT = 182.76
INSTALL 100 LF OF 8" PVC @ 1.65%

INSTALL NEW MH WITH VANDALPROOF F&C SAN. MH #4
TOP = 188.00
INV. IN = 181.10
INV. IN = 182.20 (LATERALS)
INV. OUT = 181.00
INSTALL 182 LF OF 8" PVC @ 2.65%

INSTALL NEW MH WITH VANDALPROOF F&C SAN. MH #3
TOP = 185.05
INV. IN = 176.17
INV. IN = 176.90 (LATERALS)
INV. OUT = 176.07
INSTALL 81 LF OF 8" PVC @ 8.01%

INSTALL NEW MH WITH VANDALPROOF F&C SAN. MH #2
TOP = 179.83
INV. IN = 169.58 (W)
INV. IN = 170.58 (SW)
INV. OUT = 169.48
INSTALL NEW MH WITH VANDALPROOF F&C SAN. MH #2A
TOP = 190.06
INV. OUT = 181.75
INSTALL 124 LF OF 8" PVC @ 9.00%

REMOVE EX. SAN. SEWER AND INSTALL 128 LF OF 8" PVC @ 3.12%

REMOVE & REPLACE EXISTING FENCES AS NECESSARY TO INSTALL NEW SEWER (TYP.)

NOTE:
SEE SHEETS 2 & 3 FOR PROFILES OF NEW SANITARY SEWER.
EXISTING SITE CONDITIONS:

PROJECT DESCRIPTION:

This project involves the installation of approximately 616 linear feet of sewer main and approximately 6 new manholes.

SITE:

A parcel along Olde Greenwich Drive, approximately 230 feet northwest of Olde Greenwich Circle.

OFF-SITE AREAS:

This project is located within a residential neighborhood (townhouses) on one side and streets (future development) on the other with the townhouse buildings along Olde Greenwich Circle.

THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES ARE PROPOSED ON THIS PROJECT. THERE WILL BE NO CHANGE IN IMPERVIOUS AREAS.

PERMANENT SEEDING

- TEMPORARY SEEDING

- CONSTRUCTION ENTRANCE

- SILT FENCE

- CONSTRUCTION ENTRANCE

- PERMANENT SEEDING

- TEMPORARY SEEDING

- CONSTRUCTION ENTRANCE

- SILT FENCE

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- SILT FENCE
ATTACHMENT C
Bid Form
IFB #20-14-TV
Olde Greenwich Circle Sanitary Sewer Replacement Phase 4

In compliance with this Invitation for Bid, Addenda and to all the Terms and Conditions imposed therein and hereby incorporated by reference, the authorized undersigned offers and agrees to furnish the goods/services at the price(s) indicated on the Bid Form, in accordance with this Signed Bid Form.

The signer of this bid form must be an authorized officer of the company.
(Please include any documentation of authority. For example, resolution of the board of directors, articles of incorporation, etc.)

Name and Address of Firm:
___________________________________________
Date: _________________________________________
___________________________________________
By: ____________________________________________________________________________
(Signature In Ink)
___________________________________________
Name: __________________________________________________________________________
(Please Print)
___________________________________________
Title: __________________________________________________________________________

EIN: _________________________________________
E-mail: _______________________________________

Phone: (___)_________________________ Fax: (___)_________________________

If Corporation or LLC, list State of Incorporation or Corporation: __________________________
Contractors License Number: __________________________
Commonwealth of Virginia State Corporation Commission Number: __________________________

(ATTACH A COPY OF YOUR STATE CORPORATION COMMISSION CERTIFICATE AND A LIST OF OFFICERS)

D-U-N-S Number: __________________________

The named party hereby submits a bid in response to this Spotsylvania County IFB to furnish construction services and materials as described in the Specification and bid form to this IFB. The entire Bid form, including Response Statement, license certifications, and any supplemental materials required to be provided by the bidder pursuant to the terms and conditions of the IFB, constitute the entire bid submission.

The party hereby certifies that such bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion or communication or conference, with any person to fix the bid price or affiant or any bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against Spotsylvania County or any person interested in the proposed contract.

The party submitting the forgoing bid acknowledges the provisions, terms and conditions of this IFB including all attachments and addenda, and agrees to be bound by those provisions, terms and conditions. Further, the party certifies that all information submitted in response to this IFB is correct and true.

Receipt of the following Addenda are acknowledged:

Addendum No. __________, dated __________ ________
Addendum No. __________, dated __________ ________
Addendum No. __________, dated __________ ________
Addendum No. __________, dated __________ ________
Addendum No. __________, dated __________ ________
Addendum No. __________, dated __________ ________

(RETURN THIS FORM)
Response Statement

This Response Form is to be completed by the Bidder to more specifically describe and define the proposed services. Any deviations from the IFB specifications shall be stated on this form or attached to this form.

1. **Item Description**

   Olde Greenwich Circle Sanitary Sewer Replacement Phase 4

2. **Deviations from IFB Specifications**

Sign here to confirm accuracy of Bid Form and conformity with provisions of IFB #20-14-TV

Signature: ___________________________ Name of Firm: ____________________________

(RETURN THIS FORM)
Bid Form
IFB #20-14-TV
Olde Greenwich Circle Sanitary Sewer Replacement Phase 4

A list of 3 References for which the Contractor has provided similar work over the last 5 years similar in Scope to that which is described herein shall be provided with the Bid Package. **Spotsylvania County cannot be listed as a reference.**

Please list references below:

Company Name: __________________________
Address: __________________________
Phone Number: __________________________
Email Contact: __________________________
Project Name: __________________________
Location Address: ________________________
Additional Information: __________________

Company Name: __________________________
Address: __________________________
Phone Number: __________________________
Email Contact: __________________________
Project Name: __________________________
Location Address: ________________________
Additional Information: __________________

Company Name: __________________________
Address: __________________________
Phone Number: __________________________
Email Contact: __________________________
Project Name: __________________________
Location Address: ________________________
Additional Information: __________________

Sign here to confirm accuracy of Bid Form and conformity with provisions of IFB #20-14-TV

Signature: __________________________
Name of Firm: __________________________

(RETURN THIS FORM)
Provide construction services and materials to complete the Olde Greenwich Circle Sanitary Sewer Replacement Phase 4 project as described in the Spotsylvania County IFB #20-14-TV, Specifications, and Construction Drawings.

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<th>ITEM</th>
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<th>UNIT</th>
<th>QTY</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
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<td>8” Diameter Circular SDR 35 PVC Gravity Sewer (less than 15’ deep)</td>
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**TOTAL LUMP SUM BID PRICE – Items 1 – 20**

This project has the following schedule for completion after the Notice to Proceed has been issued:

**Substantial Completion – 120 days**  **Final Completion – 150 days**

Sign here to confirm accuracy of Bid Form and conformity with provisions of IFB #20-14-TV

Signature: ___________________________ Name of Firm: ___________________________

(RETURN THIS FORM)