



ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
2100 CLARENDON BOULEVARD, SUITE 500
ARLINGTON, VIRGINIA 22201

CONTRACT AWARD COVERPAGE

TO: D.H.C CORPORATION	DATE ISSUED:	7/20/2022
5613 LEESBURG PIKE #27	CONTRACT NO:	22-DES-ITBPW-558
FALLS CHURCH, VIRGINIA 22041	CONTRACT TITLE:	WATER MAIN CLEANING & LINING

THIS IS A NOTICE OF AWARD OF CONTRACT AND NOT AN ORDER. NO WORK IS AUTHORIZED UNTIL THE VENDOR RECEIVES A VALID COUNTY PURCHASE ORDER ENCUMBERING CONTRACT FUNDS.

The contract documents consist of the terms and conditions of AGREEMENT No. 22-DES-ITBPW-558 including any attachments or amendments thereto.

EFFECTIVE DATE:

EXPIRES: 7/31/2023

RENEWALS: FOUR (4) ONE (1) YEAR RENEWALS REMAINING

LIVING WAGE: N

EMPLOYEES NOT TO BENEFIT:

NO COUNTY EMPLOYEE SHALL RECEIVE ANY SHARE OR BENEFIT OF THIS CONTRACT NOT AVAILABLE TO THE GENERAL PUBLIC.

VENDOR CONTACT: MARK ALRAD

VENDOR TEL. NO.: (703) 930-9200

EMAIL ADDRESS: DHCCORPORATION@GMAIL.COM

COUNTY CONTACT: CARLA ALAYON (DES-WSS)

COUNTY TEL. NO.: (703) 228-7608

COUNTY CONTACT EMAIL: CALAYON@ARLINGTONVA.US

PURCHASING DIVISION AUTHORIZATION

Name:	LUCAS ALEXANDER	Title	PROCUREMENT OFFICER	Date	7/20/2022
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**ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
SUITE 500, 2100 CLARENDON BOULEVARD
ARLINGTON, VA 22201**

AGREEMENT NO. 22-DES-ITBPW-558

THIS AGREEMENT is made, on the date of execution by the County, between D.H.C Corporation, 5613 Leesburg Pike #27, Falls Church, Virginia 22041 ("Contractor") a Virginia corporation authorized to do business in the Commonwealth of Virginia, and the County Board of Arlington County, Virginia ("County"). The County and the Contractor, for the consideration hereinafter specified, agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents consist of:

- Agreement No. **22-DES-ITBPW-558**, and all modifications properly incorporated into the Agreement
- Exhibit A – Arlington County Invitation to Bid No. 22-DES-ITBPW-558, including the General Conditions, and any Special Conditions and/or Supplementary Specifications
- Exhibit B – Price Bid of Contractor
- Exhibit C – Virginia Department of Labor and Industry Wage Determination Decision
- Exhibit D – Insurance Checklist

Where the terms and provisions of this Agreement vary from the terms and provisions of the other Contract Documents, the terms and provisions of this Agreement will prevail over the other Contract Documents, and the remaining Contract Documents will be complementary to each other. If there are any conflicts, the most stringent terms or provisions will prevail.

The Contract Documents set forth the entire agreement between the County and the Contractor. The County and the Contractor agree that no representative or agent of either party has made any representation or promise with respect to the parties' agreement that is not contained in the Contract Documents. The Contract Documents may be referred to below as the "Contract" or the "Agreement".

2. SCOPE OF WORK

The Contractor will furnish all labor, materials, and equipment for the construction of water main cleaning and lining (the "Project") and all other work shown, described, and required by the Contract Documents (hereinafter "the Work").

The Work shall be performed according to the standards established by the Contract Documents read together as a single specification. It shall be the Contractor's responsibility, at solely the Contractor's cost,

to provide sufficient services to fulfill the purposes of the Work. Nothing in the Contract Documents shall be construed to limit the Contractor's responsibility to manage the details and execution of its Work.

3. PROJECT OFFICER

The performance of the Contractor is subject to the review and approval of the County Project Officer identified in Section 53, Notices, unless the Contractor is otherwise notified in writing.

4. CONTRACT TERM

The term of this Agreement will commence on the date of execution by the County and shall be completed no later than July 31, 2023 ("Initial Contract Term"), subject to any written modifications as provided for in the Contract Documents. Upon completion of the Initial Term, County and Contractor may agree, through bilateral execution of a Notice of Renewal, continued operations of the Contractor for not more than four (4) additional twelve (12) month periods from August 1, 2023 until July 31, 2027 (each a "Subsequent Contract Term"). The Initial Contract Term and any Subsequent Contract Term(s) are together the "Contract Term".

5. TIME FOR COMPLETION

County will assign work under this contract through issuance of Task Orders. Prior to each Task Order being issued, County and Contractor will discuss the scope of the Task Order and determine a mutually agreeable Final Completion date for that Task Order. Project Officer will indicate such date in the Notice to Proceed. Contractor shall complete each Task Order by the Final Completion date. Work will not reach Final Completion until it meets the requirements set forth in the General Conditions. Completion will be determined by the inspection and acceptance of the Work by the Project Officer.

Unless otherwise provided, no claims for early completion are allowed.

6. CONTRACT AMOUNT

The County will pay the Contractor in accordance with the terms of the Progress Payments and Retainage and Payment Terms sections below and at the prices shown in Exhibit B. The Contractor will complete the Work for the total amount specified in this section ("Contract Amount") unless such amount is modified as provided in this Agreement. The Contract Amount includes all of the Contractor's costs and fees (profit) and is inclusive of all anticipated or known site conditions, anticipated or known materials, labor, and equipment costs, or any other costs which should reasonably have been expected by the Contractor Documents.

7. CONTRACT PRICE ADJUSTMENTS

The Contract Amount/unit price(s) will remain firm until August 1, 2023("Price Adjustment Date"). To request a price adjustment, the Contractor or the County must submit a written request to the other party not less than 90 days before the Price Adjustment Date. Adjustments to the Contract Amount/unit price(s) will not exceed the percentage of change in the U.S. Department of Labor Consumer Price Index, All Items, Unadjusted, Urban Areas ("CPI-U") for the 12 months of statistics available at the time of the Contract's renewal.

Any Contract Amount/unit price(s) that result from this provision will become effective the day after the Price Adjustment Date and will be binding for 12 months. The new Price Adjustment Date will be 12 months after the price adjustment.

If the Contractor and the County have not agreed on a requested adjustment by 30 days before the Price Adjustment Date, the County may not renew the Contract, whether or not the County has previously elected to renew the Contract's term.

8. PROGRESS PAYMENTS AND RETAINAGE

The County will make monthly progress payments to the Contractor upon written application by the Contractor, on the basis of a written estimate of the work performed during the preceding calendar month as approved by the Project Officer. However, 5% of each progress payment will be retained by the County until Final Completion and acceptance of all Work covered by the Agreement.

All material and work covered by partial payments will become the property solely of the County at the time the partial payment is made. However, the Contractor will have the sole responsibility, care and custody for all materials and work upon which payments have been made until Substantial Completion. When calculating payment for materials on-site, the County shall not pay for materials which are not scheduled for incorporation into the Work within sixty (60) days from the date of application for payment.

9. PAYMENT TERMS

The Contractor must submit invoices to the County's Project Officer, who will either approve the invoice or require corrections. The County will pay the Contractor 45 days after approval of an invoice for completed work which is reasonable and allocable to the Contract. The number of the County Purchase Order pursuant to work has been performed must appear on all invoices.

10. PAYMENT OF SUBCONTRACTORS

The Contractor is obligated to take one of the two following actions within seven days after receipt of payment by the County for work performed by any subcontractor under this Contract:

- a. Pay the subcontractor for the proportionate share of the total payment received from the County attributable to the work performed by the subcontractor under this Contract; or
- b. Notify the County and the subcontractor, in writing, of the Contractor's intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The Contractor is obligated to pay interest to the subcontractor on all amounts owed by the Contractor to the subcontractor that remain unpaid after seven days following receipt by the Contractor of payment from the County for work performed by the subcontractor under this Contract, except for amounts withheld as allowed in subsection b., above. Unless otherwise provided under the terms of this Contract, interest will accrue at the rate of 1% per month.

The Contractor must include in each of its subcontracts, if any are permitted, a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

The Contractor's obligation to pay an interest charge to a subcontractor pursuant to this section may not be construed to be an obligation of the County. A Contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

11. PREVAILING WAGE CONTRACT REQUIREMENTS

- A. Section 4-104 of the Arlington County Purchasing Resolution (regarding "Prevailing Wage") applies to this Contract. All employees of the Contractor and any subcontractors shall be paid wages, salaries, benefits, and other remuneration at or above the craft or trade category prevailing wage rate indicated by Virginia Commissioner of Labor and Industry (DOLI) and as listed in the contract.

In addition to applying the prevailing wage rates to its own employees, the Contractor shall include the provisions of this Article 4-104 in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor agrees to assume the obligation that the wage requirements will be observed in fulfilling the requirements of the Contract. The appropriate enforcement sanctions will be invoked against the Contractor and any such subcontractor in the event of such subcontractor's failure to comply with any of the provisions of this Article 4-104.

All wage rates to be used are listed in this Contract in Exhibit C. While DOLI maintains a list of wage determinations online for reference purposes, only the wage determinations made in an official Wage Determination Decision, sent by DOLI to Arlington County, can be used to ascertain the exact rates to be paid for this Contract.

All rates are determined by DOLI and any appeals of specific classification may be made through the Wage Determination Appeal form available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/Appeal-for-Wage-Determination-Clarification.pdf>.

- B. Upon award of the Contract, the Contractor shall certify, under oath, to the Virginia Commissioner of Labor and Industry and to the County Prevailing Wage Compliance Manager, the pay scale for each craft and trade to be employed for, or to provide labor for, in the Work by the Contractor and any subcontractors. The Contractor's certification shall include all information required by the Code of Virginia § 2.2-4321.3G.
- C. The Contractor shall ensure that each individual providing labor as a mechanic, laborer, worker or equivalent shall be accurately classified in confirmation with the Wage Determination.
- D. The Contractor shall post the prevailing wage rate for each craft and classification involved as determined by DOLI, including the effective date, in a prominent and easily accessible place at the work site during the time work is being performed. The posting must be in English and any other language that is primarily spoken by the individuals at the work site. Within 10 days of such posting the Contractor shall certify to the County Prevailing Wage Compliance Manager and DOLI its compliance with this subsection at https://www.doli.virginia.gov/wp-content/uploads/2021/04/PW_Posting_Compliance_Form.pdf;
- E. The Contractor must fully cooperate with the County Prevailing Wage Compliance Manager to ensure contract compliance requirements, including but not limited to site visits, wage rate signage, contractor employee interviews, and the submission of certified payroll records.
- F. The Contractor must submit to the County Prevailing Wage Compliance Manager and DOLI, within five (5) working days of the end of each month, certification for each craft or trade employed on the project, specifying the total hourly amount paid to employees, including wages

and applicable fringe benefits using the Pay Scale Certification Form at <https://www.doli.virginia.gov/wp-content/uploads/2021/04/DOLI-Pay-Scale-Certification-for-Public-Works-Projects.pdf>. The certification must itemize the amount paid in wages and each applicable benefit and list the names and addresses of any third party fund, plan or program to which benefit payments will be made on behalf of employees.

- G. The Contractor shall indemnify and hold harmless the County from any fines, demands, claims, suits, and damages, including attorney's fees, resulting from the Contractor's or any subcontractor's failure to pay the Prevailing Wage.
- H. The Contractor and its subcontractors shall keep, maintain, and preserve (i) records relating to the wages paid to and hours worked by each individual performing the work of any mechanic, laborer, or worker; and (ii) a schedule of the occupation or work classification at which each individual performing the work of any mechanic, laborer, or worker on the construction project is employed each work day and week. The Contractor and its subcontractors shall make such records available to the Prevailing Wage Compliance Manager within 10 days of a request or per a regular schedule established in the Contract, and shall certify that records reflect the actual hours worked and the amount paid to its workers for whatever time period is requested. The Contractor and its subcontractors must preserve these records for a period of six (6) years after the expiration or earlier termination of the applicable contract.
- I. Any Contractor or subcontractor who pays any mechanic, laborer, or worker for services under this Contract less than the Prevailing Wage shall be liable to such individuals for the payment of all wages due, plus interest at an annual rate of eight percent (8%) from the dates wages were due; and shall be disqualified from bidding on public contracts with any public body until the Contractor or subcontractor has made full restitution. A willful violation of Article 4-104 is a Class I misdemeanor.
- J. For questions regarding Prevailing Wage, please email prevailingwage@arlingtonva.us.

12. RELEASE AND REQUEST FOR FINAL PAYMENT

In order to receive final payment upon Final Completion of the Project and before Final Acceptance, the Contractor must submit to the Project Officer a signed original notarized copy of the Arlington County Release and Request for Final Payment form per the General Conditions.

13. LIQUIDATED DAMAGES

Time is of the essence under this Contract. Each Task Order must be completed within the Time for Completion. The County and the Contractor agree that damages for failure to achieve Final Completion of a Task by the date specified under Time for Completion are not susceptible to exact determination but that \$1000 per calendar day is in proportion to the actual loss that the County would suffer from such delay. Therefore, the Contractor will pay the County as liquidated damages \$1000 per day for each and every day beyond the time for Final Completion that the County determines Final Completion of a Task has not achieved.

The County will be entitled to deduct liquidated damages against any sums owed by the County to the Contractor under this Contract. The Contractor hereby waives any defense as to the validity of any liquidated damages on grounds that such liquidated damages are void as penalties or are not reasonably related to actual damages.

14. NON-APPROPRIATION

All payments by the County to the Contractor pursuant to this Contract are subject to the availability of an annual appropriation for this purpose by the County Board of Arlington County, Virginia ("Board"). In the event that the Board does not appropriate funds for the goods or services provided under this Contract, the County will terminate the Contract, without termination charge or other liability to the County, on the last day of the fiscal year or when the previous appropriation has been spent, whichever occurs first.

15. ESTIMATED QUANTITIES/NON-EXCLUSIVITY OF CONTRACTOR

This Contract does not obligate the County to purchase a specific quantity of items or services during Contract Term. Any quantities that are included in the Contract Documents are the present expectations of the County for the period of the Contract; and the County is under no obligation to buy that or any amount as a result of having provided this estimate or of having had any normal or otherwise measurable requirement in the past. The County may require more goods and/or services than the estimated annual quantities, and any such additional quantities will not give rise to any claim for compensation other than at the unit prices and/or rates in the Contract.

The County does not guarantee that the Contractor will be the exclusive provider of the goods or services covered by this Contract. The items or services covered by this Contract may be or become available under other County contract(s), and the County may determine that it is in its best interest to procure the items or services through those contract(s).

16. COUNTY PURCHASE ORDER REQUIREMENT

County purchases are authorized only if the County issues a Purchase Order in advance of the transaction, indicating that the ordering County agency has sufficient funds available to pay for the purchase. If the Contractor provides goods or services without a signed County Purchase Order, it does so at its own risk and expense. The County will not be liable for payment for any purchases made by its employees that are not authorized by the County Purchasing Agent.

17. LIEN

It is expressly agreed that after any payment has been made by the County either to the Contractor for work done, or labor or material supplied under the Contract, the County will have a lien upon all material delivered to the site either by the Contractor, or for the Contractor, which is to be used in the performance of the Contract.

18. EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED

During the performance of its work pursuant to this Contract:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, gender identity, national origin, age, disability or on any other basis prohibited by state law. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- B. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation will be deemed sufficient for meeting the requirements of this section.

- C. The Contractor will state in all solicitations or advertisements for employees that it places or causes to be placed that such Contractor is an Equal Opportunity Employer.
- D. The Contractor will comply with the provisions of the Americans with Disabilities Act of 1990 ("ADA"), which prohibits discrimination against individuals with disabilities in employment and mandates that disabled individuals be provided access to publicly and privately provided services and activities.
- E. The Contractor must include the provisions of the foregoing paragraphs in every subcontract or purchase order of more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

19. EMPLOYMENT OF UNAUTHORIZED ALIENS PROHIBITED

In accordance with §2.2-4311.1 of the Code of Virginia, as amended, the Contractor must not during the performance of this Contract knowingly employ an unauthorized alien, as that term is defined in the federal Immigration Reform and Control Act of 1986.

20. DRUG-FREE WORKPLACE TO BE MAINTAINED BY CONTRACTOR

During the performance of this Contract, the Contractor must: (i) provide a drug-free workplace for its 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 violating 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 more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "workplace" means the site(s) for the performance of the work required by this Contract.

21. SEXUAL HARASSMENT POLICY

If the Contractor employs more than five employees, the Contractor shall (i) provide annual training on the Contractor's sexual harassment policy to all supervisors and employees providing services in the Commonwealth, except such supervisors or employees that are required to complete sexual harassment training provided by the Department of Human Resource Management, and (ii) post the Contractor's sexual harassment policy in (a) a conspicuous public place in each building located in the Commonwealth that the Contractor owns or leases for business purposes and (b) the Contractor's employee handbook.

22. COVID-19 VACCINATION POLICY FOR CONTRACTORS

Due to the ongoing COVID-19 pandemic, the County has taken various steps to protect the welfare, health, safety, and comfort of the workforce and public at large. As part of these steps, the County has implemented various requirements with respect to health and safety including policies with respect to social distancing, the use of face-coverings and vaccine mandates. To protect the County's workforce and the public at large, all employees and subcontractors of the Contractor who are assigned to this Contract, should be fully vaccinated against COVID-19. Any contractor employee or subcontractor who is not fully vaccinated should be following a weekly testing protocol as established by the Contractor, unless exempt pursuant to a valid reasonable accommodation under state or federal law.

23. PROJECT STAFF

The County has the right to reasonably reject staff or subcontractors whom the Contractor assigns to the Project. The Contractor must then provide replacement staff or subcontractors satisfactory to the County in a timely manner and at no additional cost to the County. The day-to-day supervision and control of the Contractor's employees and its subcontractors is the sole responsibility of the Contractor.

24. FAILURE TO DELIVER

If the Contractor fails to deliver goods or services in accordance with the Contract terms and conditions, the County, after notice to the Contractor, may procure the goods or services from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. The County shall be entitled to offset such costs against any sums owed by the County to the Contractor. However, if public necessity requires the use of nonconforming materials or supplies, they may be accepted at a reduction in price to be determined solely by the County.

25. UNSATISFACTORY WORK

If any of the work done, or material, goods, or equipment provided by the Contractor, is unsatisfactory to the County the Contractor must, upon notice from the County, immediately remove at the Contractor's expense such unsatisfactory work, material, goods, or equipment and replace the same with work, material, goods, or equipment satisfactory to the County. If the Contractor fails to do so after fifteen (15) days the County shall have the right to remove or replace the rejected work, material, goods, or equipment at the expense of the Contractor and offset the expense and administrative costs against any sums owed to the Contractor. This provision applies during the Contract term and during any warranty or guarantee period. At the Project Officer's discretion, rather than correction or replacement of the work, an appropriate adjustment to the Contract Amount may be made.

26. TERMINATION

The County may terminate this Contract at any time as follows: (1) for cause, if, as determined by the County, the Contractor is in breach or default or has failed to perform the Work satisfactorily; or (2) for the convenience of the County.

Upon receipt of a notice of termination, the Contractor must not place any further orders or subcontracts for materials, services or facilities; must terminate all vendors and subcontracts, except as are necessary for the completion of any portion of the Work that the County did not terminate; and must immediately deliver all documents related to the terminated Work to the County.

Any purchases that the Contractor makes after the notice of termination will be the sole responsibility of the Contractor, unless the County has approved the purchases in writing as necessary for completion of any portion of the Work that the County did not terminate.

If any court of competent jurisdiction finds a termination for cause by the County to be improper, then the termination will be deemed a termination for convenience.

A. TERMINATION FOR CAUSE, INCLUDING BREACH AND DEFAULT; CURE

1. Termination for Unsatisfactory Performance. If the County determines that the Contractor has failed to perform satisfactorily, then the County will give the Contractor written notice of such failure(s) and the opportunity to cure them within 15 days or any other period specified by the County ("Cure Period"). If the Contractor fails to cure within the Cure Period, the County may terminate the Contract for failure to provide satisfactory performance by providing written notice with a termination date. Upon such termination,

the Contractor may apply for compensation for Contract services that the County previously accepted ("Termination Costs"), unless payment is otherwise barred by the Contract. The Contractor must submit any request for Termination Costs, with all supporting documentation, to the County Project Officer within 30 days after the expiration of the Cure Period. The County may accept or reject the request for Termination Costs, in whole or in part, and may notify the Contractor of its decision within a reasonable time.

In the event of termination by the County for failure to perform satisfactorily, the Contractor must continue to provide its services as previously scheduled through the termination date, and the County must continue to pay all fees and charges incurred through the termination date.

2. Termination for Breach or Default. If the County terminates the Contract for default or breach of any Contract provision or condition, then the termination will be immediate after notice of termination to the Contractor (unless the County provides for an opportunity to cure), and the Contractor will not be permitted to seek Termination Costs.

Upon any termination pursuant to this section, the Contractor will be liable to the County for costs that the County must expend to complete the Work, including costs resulting from any related delays and from unsatisfactory or non-compliant work performed by the Contractor or its subcontractors. The County will deduct such costs from any amount due to the Contractor; or if the County does not owe the Contractor, the Contractor must promptly pay the costs within 15 days of a demand by the County. This section does not limit the County's recovery of any other damages to which it is entitled by law.

Except as otherwise directed by the County, the Contractor must stop work on the date of receipt the notice of the termination.

B. TERMINATION FOR THE CONVENIENCE OF THE COUNTY

The County may terminate this Contract in whole or in part whenever the Purchasing Agent determines that termination is in the County's best interest. The County will give the Contractor at least 15 days' notice in writing. The notice must specify the extent to which the Contract is terminated and the effective termination date. The Contractor will be entitled to Termination Costs, as defined above, plus any other reasonable amounts that the parties might negotiate; but no amount will be allowed for anticipatory profits.

Except as otherwise directed by the County, the Contractor must stop work on the date of receipt of the notice of the termination.

27. INDEMNIFICATION

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless and indemnify the County and all of its elected and appointed officials, officers, current and former employees, agents, departments, agencies, boards and commissions (collectively the "County Indemnitees") from and against any and all claims made by third parties for any and all losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability, demands or exposure resulting from, arising out of or in any way connected with the Contractor's acts or omissions, including the acts or omissions of its employees, vendors, delivery drivers and/or subcontractors, in

performance or nonperformance of the Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

28. INTELLECTUAL PROPERTY INDEMNIFICATION

The Contractor warrants and guarantees that in providing services under this Contract neither the Contractor nor any subcontractor is infringing on the intellectual property rights (including, but not limited to, copyright, patent, mask and trademark) of third parties.

If the Contractor or any of its employees or subcontractors uses any design, device, work or material that is covered by patent or copyright, it is understood that the Contract Amount includes all royalties, licensing fees, and any other costs arising from such use in connection with the Work under this Contract.

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless, and indemnify the County Indemnitees, as defined above, from and against any and all claims, losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability or exposure for infringement of or on account of any trademark, copyright, patented or unpatented invention, process or article manufactured or used in the performance of this Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

29. COPYRIGHT

By this Contract, the Contractor irrevocably transfers, assigns, sets over and conveys to the County all rights, title and interest, including the sole exclusive and complete copyright interest, in any and all copyrightable works created pursuant to this Contract. The Contractor will execute any documents that the County requests to formalize such transfer or assignment.

The rights granted to the County by this section are irrevocable and may not be rescinded or modified, including in connection with or as a result of the termination of or a dispute concerning this Contract.

The Contractor may not use subcontractors or third parties to develop or provide input into any copyrightable materials produced pursuant to this Contract without the County's advance written approval and unless the Contractor includes this Copyright provision in any contract or agreement with such subcontractors or third parties related to this Contract.

30. OWNERSHIP AND RETURN OF RECORDS

This Contract does not confer on the Contractor any ownership rights or rights to use or disclose the County's data or inputs.

All drawings, specifications, blueprints, data, information, findings, memoranda, correspondence, documents or records of any type, whether written, oral or electronic, and all documents generated by the Contractor or its subcontractors as a result of this Contract (collectively "Records") are the exclusive property of the County and must be provided or returned to the County upon completion, termination,

or cancellation of this Contract. The Contractor will not use or willingly cause or allow such materials to be used for any purpose other than performance of this Contract without the written consent of the County.

The Records are confidential, and the Contractor will neither release the Records nor share their contents. The Contractor will refer all inquiries regarding the status of any Record to the Project Officer or to his or her designee. At the County's request, the Contractor will deliver all Records, including hard copies of electronic records, to the Project Officer and will destroy all electronic Records.

The Contractor agrees to include the provisions of this section as part of any contract or agreement related to this Contract into which it enters with subcontractors or other third parties.

The provisions of this section will survive any termination or cancellation of this Contract.

31. CONFIDENTIAL INFORMATION

The Contractor and its employees, agents and subcontractors will hold as confidential all County information obtained under this Contract. Confidential information includes, but is not limited to, nonpublic personal information; personal health information (PHI); social security numbers; addresses; dates of birth; other contact information or medical information about a person; and information pertaining to products, operations, systems, customers, prospective customers, techniques, intentions, processes, plans and expertise. The Contractor must take reasonable measures to ensure that all of its employees, agents and subcontractors are informed of and abide by this requirement.

32. ETHICS IN PUBLIC CONTRACTING

This Contract incorporates by reference Article 9 of the Arlington County Purchasing Resolution, as well as all state and federal laws related to ethics, conflicts of interest or bribery, including the State and Local Government Conflict of Interests Act (Code of Virginia § 2.2-3100 et seq.), the Virginia Governmental Frauds Act (Code of Virginia § 18.2-498.1 et seq.) and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Code of Virginia, as amended (§ 18.2-438 et seq.). The Contractor certifies that its bid was made without collusion or fraud; that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor; and that it has not conferred on any public employee having official responsibility for this procurement 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.

33. COUNTY EMPLOYEES

No Arlington County employee may share in any part of this Contract or receive any benefit from the Contract that is not available to the general public.

34. FORCE MAJEURE

Neither party will be held responsible for failure to perform the duties and responsibilities imposed by this Contract if such failure is due to a fire, riot, rebellion, natural disaster, war, act of terrorism or act of God that is beyond the control of the party and that makes performance impossible or illegal, unless otherwise specified in the Contract, provided that the affected party gives notice to the other party as soon as practicable after the force majeure event, including reasonable detail and the expected duration of the event's effect on the party.

35. AUTHORITY TO TRANSACT BUSINESS

The Contractor must, pursuant to Code of Virginia § 2.2-4311.2, be and remain authorized to transact business in the Commonwealth of Virginia during the entire term of this Contract. Otherwise, the Contract is voidable at the sole option of and with no expense to the County.

36. RELATION TO THE COUNTY

The Contractor is an independent contractor, and neither the Contractor nor its employees or subcontractors will be considered employees, servants or agents of the County. The County will not be responsible for any negligence or other wrongdoing by the Contractor or its employees, servants or agents. The County will not withhold payments to the Contractor for any federal or state unemployment taxes, federal or state income taxes or Social Security tax or for any other benefits. The County will not provide to the Contractor any insurance coverage or other benefits, including workers' compensation.

37. ANTITRUST

The Contractor conveys, sells, assigns and transfers to the County all rights, title and interest in and to all causes of action under state or federal antitrust laws that the Contractor may have relating to this Contract.

38. AUDIT

The Contractor must retain all books, records and other documents related to this Contract for at least five (5) years, unless otherwise specified in the Contract, or such period of time required by the County's funding partner(s), if any, whichever is greater, after the final payment and must allow the County or its authorized agents to examine the documents during this period and during the Contract Term. The Contractor must provide any requested documents to the County for examination within 15 days of the request, at the Contractor's expense. Should the County's examination reveal any overcharging by the Contractor, the Contractor must, within 30 days of County's request, reimburse the County for the overcharges and for the reasonable costs of the County's examination, including, but not limited to, the services of external audit firm and attorney's fees; or the County may deduct the overcharges and examination costs from any amount that the County owes to the Contractor. If the Contractor wishes to destroy or dispose of any records related to this Contract (including confidential records to which the County does not have ready access) within five (5) years after the final payment, unless otherwise specified in the Contract, or such period of time required by the County's funding partner(s), if any, whichever is greater, the Contractor must give the County at least 30 days' notice and must not dispose of the documents if the County objects.

The Purchasing Agent may require the Contractor to demonstrate that it has the necessary facilities, ability, and financial resources to comply with the Contract and furnish the service, material or goods specified herein in a satisfactory manner at any time during the term of this Contract.

39. ASSIGNMENT

The Contractor may not assign, transfer, convey or otherwise dispose of any award or any of its rights, obligations or interests under this Contract without the prior written consent of the County.

40. AMENDMENTS

This Contract may not be modified except by written amendment executed by persons duly authorized to bind the Contractor and the County.

41. ARLINGTON COUNTY PURCHASING RESOLUTION AND COUNTY POLICIES

Nothing in this Contract waives any provision of the Arlington County Purchasing Resolution, which is incorporated herein by reference, or any applicable County policy.

42. DISPUTE RESOLUTION

All disputes arising under this Agreement or concerning its interpretation, whether involving law or fact and including but not limited to claims for additional work, compensation or time, and all claims for alleged breach of contract must be submitted in writing to the Project Officer as soon as the basis for the claim arises. In accordance with the Arlington County Purchasing Resolution, claims denied by the Project Officer may be submitted to the County Manager in writing no later than 60 days after the final payment. The time limit for a final written decision by the County Manager is 30 days. Procedures concerning contractual claims, disputes, administrative appeals and protests are contained in the Arlington County Purchasing Resolution. The Contractor must continue to work as scheduled pending a decision of the Project Officer, County Manager, County Board or a court of law.

43. APPLICABLE LAW, FORUM, VENUE, AND JURISDICTION

This Contract is governed in all respects by the laws of the Commonwealth of Virginia; and the jurisdiction, forum and venue for any litigation concerning the Contract or the Work is in the Circuit Court for Arlington County, Virginia, and in no other court.

44. ARBITRATION

No claim arising under or related to this Contract may be subject to arbitration.

45. NONEXCLUSIVITY OF REMEDIES

All remedies available to the County under this Contract are cumulative, and no remedy will be exclusive of any other at law or in equity.

46. NO WAIVER

The failure to exercise a right provided for in this Contract will not be a subsequent waiver of the same right or of any other right.

47. SEVERABILITY

The sections, paragraphs, clauses, sentences, and phrases of this Contract are severable; and if any section, paragraph, clause, sentence or phrase of this Contract is declared invalid by a court of competent jurisdiction, the rest of the Contract will remain in effect.

48. ATTORNEY'S FEES

In the event that the County prevails in any legal action or proceeding brought by the County to enforce any provision of this Contract, the Contractor will pay the County's reasonable attorney's fees and expenses.

49. SURVIVAL OF TERMS

In addition to any statement that a specific term or paragraph survives the expiration or termination of this Contract, the following sections also survive: INDEMNIFICATION; INTELLECTUAL PROPERTY INDEMNIFICATION; RELATION TO COUNTY; OWNERSHIP AND RETURN OF RECORDS; AUDIT; COPYRIGHT; DISPUTE RESOLUTION; APPLICABLE LAW AND JURISDICTION; ATTORNEY'S FEES, AND CONFIDENTIAL INFORMATION.

50. HEADINGS

The section headings in this Contract are inserted only for convenience and do not affect the substance of the Contract or limit the sections' scope.

51. AMBIGUITIES

The parties and their counsel have participated fully in the drafting of this Agreement; and any rule that ambiguities are to be resolved against the drafting party does not apply. The language in this Agreement is to be interpreted as to its plain meaning and not strictly for or against any party.

52. NOTICES

Unless otherwise provided in writing, all legal notices and other formal communications required by this Contract are deemed to have been given when either (a) delivered in person; (b) delivered by an agent, such as a delivery service; or (c) deposited in the United States mail, postage prepaid, certified or registered and addressed as follows:

TO THE CONTRACTOR:

Mark Alrad, President
DHC Corporation
5613 Leesburg Pike #27
Falls Church, Virginia 22041
Phone: (703) 930-9200
Email: dhccorporation@gmail.com

TO THE COUNTY:

Carla Alayon, Project Officer
Arlington County Water Sewer Streets
4200 28th Street S
Arlington, Virginia 22206
Phone: (703) 228-7608
Email: calayon@arlingtonva.us

AND

Dr. Sharon T. Lewis, LL.M, MPS, VCO, CPPB
Purchasing Agent
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 500
Arlington, Virginia 22201
Phone: (703) 228-3294
Email: slewis1@arlingtonva.us

TO COUNTY MANAGER'S OFFICE (FOR PROJECT CLAIMS):

Mark Schwartz, County Manager
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 318
Arlington, Virginia 22201

53. NON-DISCRIMINATION NOTICE

Arlington County does not discriminate against faith-based organizations.

54. INSURANCE, PAYMENT AND PERFORMANCE BONDS

The Contractor shall maintain the required insurance coverage and payment and performance bonds as set forth in the Invitation to Bid through completion of the Contract, including all warranty and guarantee periods.

55. MATERIAL CHANGES

The Contractor shall notify Purchasing Agent within seven days of any material changes in its operation that relate to any matter attested regarding certifications on its bid form.

56. COUNTERPARTS

This Agreement may be executed in one or more counterparts and all of such counterparts shall together constitute one and the same instrument. Original signatures transmitted and received via facsimile or other electronic transmission (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall be effective as delivery of a manually executed original counterpart.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON
COUNTY, VIRGINIA

DocuSigned by:
AUTHORIZED SIGNATURE: Dr. Sharon T. Lewis
89B86B1AD301462...
NAME: Dr. Sharon T. Lewis
TITLE: Purchasing Agent
DATE: 7/19/2022

D.H.C. CORPORATION

DocuSigned by:
AUTHORIZED SIGNATURE: Muwaffaq Alradaideh
751S905E4D774BC...
NAME: Muwaffaq Alradaideh
TITLE: president
DATE: 7/20/2022

EXHIBIT A

SCOPE OF SERVICES, SPECIFICATIONS, MODIFICATIONS & ARLINGTON COUNTY CONSTRUCTION GENERAL CONDITIONS

The Contractor shall furnish all labor, materials, and equipment for cleaning and cement-mortar lining, installation, repair or replacement of water mains and associated appurtenances throughout Arlington County (the "Project"). The Work includes, but is not limited to, cleaning and cement-mortar lining of existing water mains; installation of new water mains and appurtenances; repair and/or replacement of existing water mains and appurtenances; provision of temporary bypass piping on an "as needed" basis; and restoration of each project site, with all associated Work as required in the Contract Documents (hereinafter "the Work").

The Work shall be performed according to the standards established by the Contract Documents read together as a single specification. It shall be the obligation of the Contractor to obtain clarification from the Project Officer concerning any questions about or conflicts in the specifications, drawings and construction notes in a timely way so as not to delay the progress of the Work.

The Contract Documents set forth the minimum Work estimated by the County and the Contractor to be necessary to complete the Work. It shall be the Contractor's responsibility, at solely the Contractor's cost, to provide sufficient services to fulfill the purposes of the Work. Nothing in the Contract Documents shall be construed to limit the Contractor's responsibility to manage the details and execution of its Work.

The Contractor will be assigned projects, referred to herein as " Exhibits," based on the needs of the County. Those projects, along with their drawings and specific requirements, will be communicated to the Contractor by County staff in the beginning of each year.

1. CONSTRUCTION STANDARDS

All Work shall conform to the current edition of the Arlington County Department of Environmental Services Construction Standards and Specifications, a copy of which may be downloaded at no charge on the internet at:

<http://topics.arlingtonva.us/building/construction-standards-specifications/>

2. MODIFICATIONS AND SPECIAL PROVISIONS

In addition to the Arlington County Department of Environmental Services Construction Standards and Specifications, all Work shall also conform to the modifications and special provisions to the Arlington County Construction Standards and Specifications as outlined below.

If there is any discrepancy between the modifications and special provisions outlined in this section and the terms and provisions of the Construction Standards and Specifications identified above, the requirements of the modifications and special provisions shall prevail over the other documents.

The Contractor shall have a copy of the Construction Standards and Specifications, and a copy of the modifications and special provisions outlined in this section readily available at the project site at all times. Please note these specific standards below:

DIVISION 2 – SITE WORK

SECTION 02200 – EARTHWORK

PART 3 – EXECUTION

15. **Trench Excavation**

g. The maximum length of open trench at any time, shall not exceed 150 linear feet.

17. **Storage, Handling and Disposal of Excavated Materials**

d. Note that due to the requirements of Standard Drawing NO. M-60, approximately 60% of trench excavation is surplus regardless of suitability. No excavated material is to be used in the top 31 vertical inches of a trench dug in pavement.

g. No excavated materials shall be placed on the pavement without permission of the project officer. When so permitted, protect the pavement with a 1" layer of 21-A, or approved substitute material, at no additional cost to Arlington County.

PART 4 – MEASUREMENT AND PAYMENT

27. **Over excavation**

For this contract, Over Excavation is considered any excavation over a depth of seven (7) feet.

SECTION 02550 – WATER MAINS & APPURTENANCES

PART 2 – MATERIALS

2.2 **Iron Pipe**

C. Note: Polyethylene encasement with a minimum thickness of 8-mils shall be applied to all underground ductile pipe installations and shall comply with the installation and material requirements of AWWA C-105 and ANSI A21.5. All pipes, fittings, valves, hydrants and branch connections shall be encased as shown on approved plans. All holes and openings of any size shall be repaired in accordance with the manufacturer's recommendations.

2.14 **Inserting Valves**

Inserting valves for installation on 6-inch through 12-inch water mains shall be Team Insert Valve™ as manufactured by Team Industrial Services, or approved equal.

PART 3 – EXECUTION

3.4 **Construction Standards**

B. Connecting to Existing Mains

3. Clean and swab or spray new pipe and fittings with minimum one percent (1%) solution of chlorine prior to installation and connection to existing water distribution mains.

- D. Thrust restraint shall require and include concrete thrust blocks in addition to megalugs, tie rods and accessories.
- L. Discharge of Chlorinated Water
 - 6. Note: Section 01300 requires the plan to be submitted a minimum of ten (10) business days prior to any planned discharge.
- 11. The Contractor shall submit a signed Dechlorination Policy Acknowledgement Form in accordance with Section 01300. This form is available at:
<http://topics.arlingtonva.us/building/discharging-chlorinated-water/>

PART 4 – MEASUREMENT AND PAYMENT

Pricing Sheet clarifications for some of the line items are discussed below.

Pricing Sheet I-III

In addition to the components listed under the applicable sub-sections of the County Specifications, unit prices shall also include:

- Mobilization,
- Submittals,
- Job site layout, safety and traffic maintenance,
- Excavation,
- Removal and disposal of all surplus and unsuitable material,
- Standard bedding,
- Backfill per Standard Drawing No. M-6.0 (**Note requirement of 18" of 21-A subbase**),
- Cutting,
- Pipe, valve, etc. material,
- Polyethylene encasement,
- Thrust restraint,
- Fittings,
- Laying of pipe,
- Cleaning and swabbing or spraying with a minimum one per cent (1%) solution of chlorine,
- Disinfection,
- Flushing,
- Erosion and sediment control,
- Support of existing utilities,
- Certification,
- Testing,
- De-Watering,
- Proper handling and disposal of chlorinated water,
- Site cleaning,
- Trench maintenance for One (1) year after Final Acceptance,
- As-built drawings,
- and all other Work incidental to providing a complete installation.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Pricing Sheet Section IV per Standard Section 02650.

Pricing Sheet **Section III: Water Services (3/4-Inch and 1-Inch)**

Items 1-5 **Service Taps/Retaps bid items shall not be paid for repair of damages caused by the Work. Nor shall these bid items be used to pay for Work required as part of cleaning and lining Work.**

Pricing Sheet **Section IV: Related Work - Including All Materials**

Items 1-2 **Pavement Restoration**

Per Standard Drawing M-6.0, price of pavement restoration includes saw cut of edges, 6-inches of 21-A aggregate stone sub base, 5"(min.) bituminous concrete base, 2-inch bituminous concrete surface and tack coat of edges.

Item 11 **VDOT #57 Stone**

VDOT #57 stone will be paid for by the ton for use in trench bedding were directed by the Project Officer.

Item 12 **Aggregate VDOT #21-A**

VDOT #21-A will be paid for by the ton when used as directed by the Project Officer for bike trails, stone shoulders, driveway stone or as needed.

Item 13 **Select Borrow**

Select borrow to be paid for by the cubic yard (YD³) in place and will be used for backfilling when existing material is deemed unsuitable by the Project Officer. Standard Drawing M-6.0 dictates upper limit of select borrow for actual measurement of quantity.

Items 21-24 **Temporary Bypass Piping and Connections**

This item shall be paid, as instructed by the Project Officer, whenever temporary water service is required for water main Work. It shall be paid for by the linear foot (LF) of each size bypass piping actually installed, regardless of the number of service connections or length of time in operation. Payment shall include mobilization, placement and connection of all pipes, fittings, and connections required to supply water services in the project area per Section 02678.3.03; Disinfection, Bacteriological Testing, and Chlorine Residual Sampling; maintenance of water supply; and any pavement restoration required by piping placement.

Pricing Sheet **Section V - Unlisted Work**

Work required under this contract that is not on an emergency basis and is not listed under Section I, II, III or IV of this Contract Pricing Sheet shall be covered under this section. All Work under this section shall require a written estimate from the Contractor using the bid hourly rates. Materials will be furnished by the County when available. When the Contractor supplies materials, the county shall reimburse the contractor for actual cost.

The Bidder shall submit pricing for unlisted Work that includes schedule of equipment and labor rates in the space provided in the Pricing Sheet.

Item 13 **Track Excavator with Operator**

Contractor is responsible for properly sizing equipment. Payment for this bid Item will be for any track excavator of 50,000 pounds or less.

Item 15 Tool Truck or Trailer

Tool truck or trailer is to be paid for by the hours used on the job. This pay item is to be the Contractor's compensation for necessary small tools and incidentals that are commonplace to water main installation and repairs. This pay item shall cover but not be limited to ladder, shovels, brooms, cables, slings, pipe saws, saw blades, pumps up to 3-inch, jumping jacks, plate compactors, hoses, dirt discharge bags, and small generators and necessary fuel. Necessary small tools will be considered any equipment which has a new cost value of \$3,000 or less.

SECTION 02650 – RESTORATION OF ROADWAYS**PART 3 - EXECUTION**

- 3.2 Note: Excavation in the pavement area shall require that pavement surfaces be saw-cut to provide a straight and smooth edge. Cut out pavement 24-inches (12-inches each side) wider than the trench width or excavation opening as shown on Construction Standard M-6.0.

PART 4 – MEASUREMENT AND PAYMENT

- 4.1 Non-linear pavement restoration, such as utility patches, shall be measured in square yards of the surface area actually restored. Restoration in such areas shall still conform to Standard Drawing M-6.0

SECTION 02678 - CLEANING AND LINING WATER MAINS**PART 1 - GENERAL****1.1 Description of Work**

Provide all plant, labor, supervision, materials, and equipment to clean and line existing water mains of various sizes as indicated in accordance with the Contract Documents and as described herein for a complete and operable water distribution system.

1.2 Related Work Specified Elsewhere

Section 02200 – Earth Work for Structures and Pipelines
Section 02550 – Water Mains & Appurtenances

1.3 Applicable Codes, Standards, and Specifications

- A. American National Standards Institute (ANSI)
- B. American Society for Testing and Materials (ASTM).
- C. American Water Works Association (AWWA).
- D. National Fire Protection Association (NFPA)
- E. Arlington County Fire Protection Code (Chapter 8 of the Arlington County Code)
- F. Arlington County Plumbing Code (Chapter 18 of the Arlington County Code).
- G. Arlington County Utilities Code (Chapter 26 of the Arlington County Code).
- H. American Water Works Association Standard for Cement-Mortar Lining of Water Pipelines In Place – 4 in. (100 mm) and Larger (ANSI/AWWA C602)

If there is any discrepancy between the specifications and modifications outlined in this section and the terms and provisions of the codes, standards and specifications identified above, the requirements of the specifications and modifications described herein shall prevail over the other documents.

1.4 **Applicable References**

- A. Erosion and Sediment Control Ordinance (Chapter 57 of the Arlington County Code)
- B. Virginia Department of Health (VDH) Water Works Regulations (12 VAC 5-590)

1.5 **Submittals**

Submit full descriptions and details of all pipes, valves, hydrants, and other appurtenances (including for by-pass piping system) proposed for the project Per Section 01330 Submittals.

Also include:

1. Work drawings and description that includes method of sheeting and shoring of access excavations, method of creating and closing access opening in the pipe, method of covering access excavations during non-Working periods, and proposed method for disposal of debris and water used for cleaning and lining.
2. Cement mortar lining mix data including dry weights of cement; sand; admixture name, type and quantity, if used; volume of water per mixing batch or cubic yard.
3. Certificate of compliance before delivery of sand and cement.

1.6 **Quality Assurance**

- A. The Project Officer has the authority to inspect all material and equipment at all stages of the construction. On-site Work will be subjected to continuous inspection. Such continuous inspection may follow the application of the cement-mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with the Standards and Specifications. Inspection by the Project Officer will not release the Contractor from responsibility or liability with respect to material or equipment.
- B. When specified inspections or tests are required by the Contract Documents, the Work involved shall not proceed beyond that point until such inspections or tests have been approved by the Project Officer. The Contractor shall inform the Project Officer on the progress of the Work and shall give the Project Officer a minimum of 48 hours' notice prior to specified inspections and tests. The Contractor shall provide all labor and materials, and necessary facilities at the site and ensure that the portion of Work to be inspected is safe, accessible, dry, ventilated and well lit.

PART 2 – MATERIALS

2.1 **Temporary Bypass Water Service System**

Temporary bypass and fire hydrant piping to maintain water service and fire protection shall be provided by the Contractor. Such piping shall be of adequate size as approved by the Project Officer and may be of any type pipe or hose material that will withstand the Working pressure at the location without leakage and is acceptable per AWWA and/or Virginia Department of Health regulations for drinking water.

2.2 **Cleaning and Lining**

- A. Material
 1. Sand shall conform to requirements of ASTM C144 and shall be kept clean and free of foreign materials during transportation and storage on the site.

2. Portland cement shall be Type II and in conformance with the requirements of ASTM C150. Cement-mortar, as tested using standard test cylinders, shall attain a minimum compressive strength of 4,500 psi in 28 days. Cement shipped to the construction site shall be contained in unopened sacks and stored so it is kept dry. Broken sacks of cement shall not be used for lining operations.
3. Proportions of cement and sand in the mortar for lining shall be one-part cement to one part sand (1:1).
4. Polyethylene encasement with a minimum thickness of 8-mils shall be applied to all underground ductile pipe installations and shall comply with the installation and material requirements of AWWA C-105 and ANSI A21.5. All pipes, fittings, valves, hydrants and branch connections shall be encased as shown on approved plans. All holes and openings of any size shall be repaired in accordance with the manufacturer's recommendations.
5. All pipes, bends, reducers, valves, tees, fittings, and other materials used for closure of access openings in main shall be new and conform to Arlington County Specification 02550.

B. Equipment

1. Cleaning equipment shall be drag and cable or hydraulic type. Knocker type will not be allowed.
2. Equipment for placing cement mortar lining shall have the following characteristics:
3. An applicator head that will, in one course, centrifugally project the mortar against the surface of all pipe sections and long radius bends, without injurious rebound, and with sufficient velocity to cause the mortar to be densely packed and to adhere in place. The rate of travel of the machine and the rate of discharge of mortar against the wall of the pipe shall be entirely mechanically controlled so as to produce a smooth, uniform thickness of lining throughout the interior of the pipe.
4. An attachment with rotating or drag steel trowels that will follow the applicator head and trowel the cement mortar lining to a smooth, hard surface of uniform thickness. Operation of the trowels shall be continuous during the application of cement mortar and forward movement of the applicator head.
5. The machine shall move ahead of the lining so that nothing will come in contact with the troweled surface until it has attained its final set. Control of the forward movement of the machine and of the mechanical placing of the mortar shall be provided to assure a uniform thickness of mortar lining as specified in AWWA C602.

PART 3 – EXECUTION

3.1 County Responsibility

- A. Furnish water required for the cleaning and lining, disinfection, flushing and testing of water mains to the Contractor from the existing water system at no charge to the Contractor.
- B. Operate existing and permanently installed valves and shutdown and reinstate water mains as required. No existing and permanently installed valves shall be operated by the contractor without prior approval. shutdowns and reinstatements will be made within

72 hours after request from Contractor. No claims resulting from delays shall be made by the contractor.

- C. Notify all property owners in advance of Work.
- D. Notify the Utility Billing Section when the Contractor is removing and installing meters for the temporary bypass system.
- E. Furnish field books and intersection drawings for the cleaning and lining areas that will be used to verify the location and quantity of access openings.

3.2 **Excavation**

The Contractor shall submit a detailed excavation plan at least ten (10) days prior to beginning any excavation Work to the County Project Officer for review and approval. The submitted plans shall show specific locations and extent of proposed excavation Work.

3.3 **Temporary Bypass Water System**

Before any section of water main is cleaned and lined, it will be taken out of service. The Contractor shall provide and maintain a temporary bypass piping system of adequate size to provide water service and fire protection to abutting properties at all times, as required herein and as directed by the Project Officer.

A. Weather Limitation

Temporary above-ground water service connections and bypass piping shall only be in place between March 15th and November 15th of each year. Bypass piping shall not be put in place during freezing weather. If already installed, it must be protected from freezing.

B. Bypass Design Criteria

- a. The Contractor shall be responsible for designing an adequate bypass system, conforming to AWWA C602 Section 4.6. A Temporary Bypass Water System Plan shall be submitted to the Project Officer at least ten (10) days prior to proposed date of bypass pipe placement. No bypass piping shall be placed or installed in the project area until the Contractor receives approval of the bypass plan from the Project Officer.
- b. Water for temporary bypass service shall be taken from the nearest appropriate fire hydrant. The Contractor shall not use fire hydrants outside of the given area's pressure zone for temporary bypass. When required, below ground taps shall be made where fire hydrants cannot be used. Install backflow preventers on temporary bypass piping connections. Make temporary bypass service attachments to fire hydrants in a manner that will permit removal, if required, so fire hydrants may be used for fire-fighting purposes with a minimum of effort.
- c. Contractor shall schedule water usage with the Project Officer to result in a minimum interference to water service throughout the existing water system.
- d. Unless otherwise directed by the Project Officer, no more than 3,000 feet of existing main will be removed from service within each project area at a time for the cleaning and lining operation.
- e. Temporary bypass piping for service connections 3-inch and larger diameter and for temporary fire protection shall be a minimum of 4-inch diameter.

- f. Temporary taps for removing air and flushing the main shall be provided by the Contractor as necessary.

C. Temporary Service Connections

- a. **Provide each dwelling, shop, place of business and building served by the main to be put out of service, whether occupied at the time or not, with a temporary service connection approved for potable water use.**

Connect temporary service by removing outside meter and making temporary connection to existing house connection; or provide temporary connection as directed by the Project Officer.

- b. The Project Officer shall be notified at least 48 hours before removing service meters. Contractor shall not handle meters unless Project Officer is present. Meters shall be capped at both ends when not in use and hung inside the meter pit to prevent damage, switching and misplacement. The County utilizes an Automatic Meter Reading (AMR) system with Encoder Receiver Transmitters (ERT) throughout the water distribution system. Special handling is required during the temporary removal of the meter. Meter covers with holes for insertion of temporary service "jumpers" will be provided by the County and shall be used at all locations. The contractor shall not leave any meter boxes ajar at any time and shall not replace any meter covers unless they can be secured as designed within the meter box frame so as to eliminate the possibility of a tripping hazard.
- c. **METER READING REQUIREMENTS: The contractor shall perform water meter readings during the transfer from permanent to temporary bypass water service. Additionally, the contractor shall take a photo of each meter, showing the reading, at the time of removal and furnish a report, in electronic spreadsheet format, for these readings to the County Project Officer.**

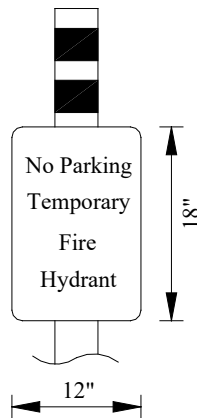
The data in this report shall include current reading at time of removal, address and date of the removal. The contractor shall furnish an updated report with the date of the re-installation of meter.

- d. If during any stage of the Contract Work, the Contractor finds it necessary to use water from a service, or run a house-to-house connection, the Project Officer shall be contacted so arrangements are made to have the meters replaced with straight pipe. Caution shall be exercised to prevent meters from being switched and meter settings from being damaged. The Project Officer shall be notified whenever additional bypass services are made and whenever problems develop with any meters or services.

D. Temporary Fire Hydrants

- a. Provide a temporary fire hydrant whenever a fire hydrant is removed from service. The location of the temporary hydrant shall be as close as field conditions permit to the hydrant removed from service. If spacing for fire hydrants exceeds 500 feet in residential areas or 300 feet in commercial and high-density areas, additional temporary fire hydrants may be required, as directed by the Project Officer.

- b. Install a 12-inch by 18-inch sign, as shown below, behind each temporary fire hydrant. This sign shall be mounted on a 4" X 4" wooden pole of sufficient length so the bottom of the sign is at least 44 inches above grade and visible to the pumper truck operator at nighttime. The wooden pole shall be extended 8 inches minimum beyond the top of the sign in order to apply two reflectorized bands, approximately 3 inches in width each, to the pole and above the sign.



E. Piping Placement

- a. **Maintain reasonable access to all driveways in the Work area at all times. The contractor shall use manufactured wedges/ramps to bridge and protect any temporary piping where piping interferes with driveway access.**

Access ramps for driveways shall not cause damages to vehicles using the driveway, whether it is against the ramp material, the street, or the concrete driveway apron. Bridging measures for temporary piping shall not create or contribute to endangerment of property by storm water nor damage or mark up private or public property. Alternate methods of bridging the temporary piping may be submitted to the Project Officer for consideration.

- b. Bypass lines shall be placed below grade whenever the bypass line crosses a street. The bypass line shall be backfilled with bituminous asphalt to provide a temporary patch contiguous with the surface of the street and safe for vehicles, pedestrians, and bicycles.
- c. **Whenever bypass lines cross handicap access ramps, the contractor shall utilize manufactured wedges/ramps to maintain suitable wheelchair access between the sidewalk and the street.**

An alternate method may be used if approved by the Project Officer. Such ramps shall meet all applicable sections of ANSI A117.1, including a maximum slope of 1:12.

Alternately, the contractor may place the temporary piping below the surface of the road at any ramp crossings and backfill with aggregate material as described above.

- d. The contractor shall ensure that all catch basins and other surface water drainage facilities are maintained free and clear of any obstructions or construction debris at all times. The contractor shall also ensure that the placement of temporary bypass piping or other construction debris does not obstruct the flow of storm water to existing or intended drainage structures.

3.4 **Cleaning and Lining**

Perform cleaning and lining in accordance with requirements of AWWA C602 as supplemented herein. **Clean and line all sections as indicated on contract drawings.**

Where cleaning and lining is impractical, such as at tees, crosses, valves, bends, fittings, and sections of pipe and other obstructions removed to access the water main, the contractor shall remove and replace these with new materials, unless otherwise directed by Project Officer.

- A. Access Openings in Water Main
 1. Access the water main at locations required to facilitate the Work as required herein and as approved by the Project Officer. Remove all in-line valves, bends, fittings, sections of pipe, and other obstructions preventing the passage of the cleaning and lining equipment as required to perform the Work.
 2. Excavate, provide sheeting and shoring, de-water and backfill in accordance with Arlington County Construction Standards and Specifications Sections 2100, 2200, 2202 and 2400. Provide Sediment Controls in accordance with Section 01500.
 3. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and Workers.
 4. Make access openings in pipe with ample space to admit and withdraw equipment with the least delay and without causing damage to existing pipe. Contractor shall be responsible for repairing any damage caused to existing pipe, including reconnecting service connections damaged in the execution of the Work at no additional cost to the owner.
 5. After the County completes shut-down, de-water pipeline and drain low spots. Provide measures as required to prevent water from entering the Work sections and maintain in a dry condition.
 6. Remove pipe at access points by cutting with power operated pipe cutting machines, capable of making fast, true and smooth cuts so valves or the pipe sections removed may be replaced in true alignment. Where difficulties due to utility conflicts or other local conditions make it impossible to use preceding method of cutting pipe, other methods may be used provided the same results are attained and with no additional cost to the County.

7. Measure the outside diameter of all cut pipe in order to properly determine the class of pipe in each cut. The class of pipe will determine the proper sized sleeves and/or couplings to be used in setting the cleaned and lined pipe back in place. Oversized couplings with adapter gaskets for smaller pipe are not acceptable. Exposed lead or poured joints shall be replaced with mechanical joint fittings or couplings as directed.

B. Cleaning

1. Clean the interior surfaces of the pipe to be lined by machine, where practicable, and by hand where access by machine is not possible. Clean the interior of all pipe and fittings to be lined. Remove loose scale, tuberculation, oil, grease, remains of old coating materials and accumulations of water on the bottom of the interior of the pipe.
2. All water from cleaning and other construction operations shall be disposed of in a manner that prevents or minimizes the amount of sediment or other pollutants which discharge to the County storm sewer system, which includes curb and gutter, or any open watercourse. Any discharge shall be properly filtered prior to being discharged and shall not create any erosion nor flooding.
3. **When the method of cleaning the pipe does not include the use of water, service laterals less than 2 in. in diameter shall be cleared after cleaning by backflushing with air or water.**

C. Lining

1. Place lining with machine in one course as specified herein.
2. Perform cement mortar lining of sharp bends, specials and areas closely adjacent to valves or other points where machine access is impossible or impractical, and the correcting of defective areas by hand. Hand mortar Work shall be equal in appearance to machine placed Work and the same materials shall be used. If necessary, moisten prior to placement of mortar. Use steel trowels except where curvature of bends prohibits their use. Complete hand Work in a section of the pipeline within 24 hours after the machine Work in that section is complete. Feather edges between newly lined areas and unlined areas.
3. **Service connections to the lined main shall not be left obstructed by the lining operations. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. and smaller in diameter shall be cleared by backflushing with air or water. The backflushing shall be performed in a manner that will not damage the freshly applied lining.**
4. All water from lining operations shall be disposed of in a manner that prevents or minimizes the amount of cement, sediment or other pollutants which discharge to the County storm sewer system, which includes curb and gutter, or any open watercourse. Any discharge shall be properly filtered and shall not create any erosion nor flooding.

5. Immediately, after completing the lining of a length of pipe between access openings or at the end of a day's run, close that section of pipe at each end and cover the access openings to prevent the circulation of air. As soon as practicable after the placing of the lining, introduce a sufficient amount of water into the section between bulkheads or gate valves to create a moist atmosphere and keep the lining damp.
6. Pipe lining shall cure for a minimum of 72 hours before proceeding with chlorination.
7. Lining Thickness

The thickness of the cement mortar lining shall be uniform and meet requirements of AWWA C602 Section 4.4.5. For cast iron and ductile iron pipe the required thickness of cement-mortar lining for 4- through 10-inch diameter pipe shall be 3/16 inch, for 11- through 23-inch shall be 1/4 inch, for 24- through 35-inch shall be 5/16 inch, and for 36- inch and larger shall be 5/16 inch. Tolerance for the lining thickness shall be plus 1/8 inch and minus 1/16 inch. Lining not within the specified tolerance shall be corrected as directed by the Project Officer.

C. **Cement-Mortar Strength Test**

Sets of standard test cylinders shall be made from cement-mortar lining, as required by the Project Officer, up to two per day. Cement-mortar test cylinders shall attain a minimum compressive strength of 4,500 psi in 28 days.

D. **Removal of Test Pipe Section**

When and where directed by the Project Officer, the Contractor shall excavate, cut and remove a test section of pipe not less than two nor more than three feet long for applied cement lining thickness verification and inspection. If the thickness is not within the requirements specified herein, the Contractor shall correct the lining thickness as directed by the Project Officer. After inspection, the Contractor shall restore the tested section using new pipe and sleeves, backfill excavation and provide pavement repair as required.

E. **Television Inspection**

The Contractor shall provide video recordings of television inspections of pipe segments when and where required by the Project Officer.

F. **Hydrostatic Test**

Prior to backfilling, the Contractor shall perform hydrostatic testing on the lined main sections in accordance with Section 2550.3.4.H. This test shall not be performed until at least 24 hours after completing the final lined section.

G. **Head Loss Test**

The Contractor shall guarantee to restore all cleaned and cement-mortar lined water mains to the following minimum Hazen-Williams C Factor (C_{hw}) based on nominal pipe diameters with proper allowances being made for bends and fittings in accordance with accepted practice:

NOMINAL PIPE
DIAMETER

GUARANTEED HAZEN -WILLIAMS
 C_{hw} FACTOR

4 inch and smaller	90
6 inch	100
8 inch	110
10 inch	115
12 inch	120
14 inch	125
16 inch	125
20 inch	125
Above 20 inch	130

The Contractor shall arrange for the services of an independent testing laboratory to perform such tests as required to determine the Hazen-Williams C Factor (C_{hw}).

H. **Disinfection, Bacteriological Testing, and Chlorine Residual Sampling**

The Contractor is responsible for disinfection, flushing and bacteriological testing of the cleaned and lined mains as well as the temporary bypass piping system in accordance with Section 2550.3.4 subsections G, I, J and K. Additionally, the contractor must also show that residual chlorine levels do not exceed 4 parts per million (ppm) prior to beginning service on cleaned and lined mains or temporary bypass lines.

I. **Discharge of Chlorinated Water**

The contractor shall handle, discharge, and dispose of all chlorinated water in accordance with Standard Section 02550.3.4.L as amended herein.

6. Note: Section 01330 requires the plan to be submitted a minimum of ten (10) business days prior to any planned discharge.

11. The Contractor shall submit a signed De-Chlorination Policy Acknowledgement Form in accordance with Section 01330. This form is available at:

<http://topics.arlingtonva.us/building/discharging-chlorinated-water/>

J. **Reinstating Services and Restoration**

After approval by the Project Officer, the Contractor shall perform the following:

1. Backfill excavated areas per Standard Drawing M-6.0.
2. Reactivate house connections and remove temporary bypass piping system. Reinstall removed meters at the same location from which they were removed with the water flow in the correct direction and using **new gaskets**. Meters that are found to be improperly installed by the Contractor will be removed and correctly installed by the County. A cost of \$100.00 per incident will be deducted from payment to the Contractor.
3. Bleed service lines to remove air prior to connection of meter. Upon bleeding services, contractor shall exercise appropriate caution necessary to prevent

“water hammer” damage to private plumbing. Any damages to private plumbing will be the sole responsibility of the contractor.

4. After permanent service is restored and temporary bypass piping is removed, restore disturbed areas and leave streets, sidewalks and adjacent properties in a neat and orderly condition as near as practical to the condition that existed prior to being disturbed.
5. Provide seeding and sodding as required to restore disturbed areas in accordance with Section 329200 within seven days after main is back in service.

3.5 **Minimum Requirements for As-Built Drawings**

The Contractor shall provide drawings, in pdf format or other format approved by the Project Officer, to portray as-built construction. The drawings shall be neatly and clearly drafted in conformance with Arlington County Construction Specifications Section 02550.3.A.1-7

All drafting performed on the as-built drawings shall conform to good drafting practice and shall include such supplementary notes, legends and details as may be necessary for legibility and clear portrayal of the as-built construction. The contractor shall keep and have a copy of the as-built drawings available for the term of the contract.

These drawings shall be submitted with every relevant payment request. At the completion of the Project and prior to request for Final Payment, the Contractor shall turn over to the Project Officer a complete set of As-Built drawings.

3.6 **Final Inspection/Test**

After the Contractor has shown that all equipment and systems function in accordance to the requirements set forth by the Contract Documents and the project Work is substantially completed for the project area in question, a final inspection/test shall be scheduled and conducted.

This inspection/test shall demonstrate that all elements of the project are ready to be placed in service and turned over to the County for operation, including successful completion of all required tests and certifications. During this final inspection/test, a retest and re-demonstration of equipment and systems that had to be corrected and/or adjusted during previous inspections/tests shall be conducted. A punch list of items that require completion and/or correction by the Contractor before Final Acceptance will be prepared.

3.7 **Final Acceptance Certificate**

After a successful final inspection/test, demobilization and clean-up operations shall proceed. The punch list items noted in the final inspection/test shall be corrected by the Contractor and checked by the Project Officer.

Final completion shall include a successful final inspection/test with punch list items corrected and checked by the Project Officer and completion of all Work as defined in the Contract Documents, demobilization, restoration Work, final clean up, acceptance of as-built drawings and other incidentals. After final completion of the Work for each Area, a certificate of Final Acceptance will be issued.

PART 4 - MEASUREMENT AND PAYMENT

4.1 CLEAN AND LINE WATER MAINS (Section I, Bid Items 1, 2 and 3)

- A. Cleaned and lined water mains shall be measured for payment by the linear foot of the various sizes of water main actually cleaned and lined, measured along the pipe centerline with no deduction made for fittings or valves. **Where cleaning and lining is impractical, such as at tees, crosses, valves, bends, fittings, short sections of pipe and other components of the water main removed for the cleaning and lining Work, payment to remove and replace these with new materials shall be included in the unit price per linear foot to clean and line water mains.**
- B. Payment shall include:
- Mobilization
 - Submittals
 - Job site layout, safety and traffic maintenance
 - Provision, maintenance and removal of temporary bypass piping system
 - Excavation (**including for making access openings in pipe**)
 - Standard bedding
 - Backfill per Section 02200 (**Note requirement of 18-inches of 21-A subbase per Standard Drawing M-6.0**)
 - Removal and disposal of all surplus and unsuitable material
 - Cutting
 - Furnishing and installing necessary fittings, mechanical couplings, pipe, valves, valve boxes, bends, service retaps and reducers including accessories
 - **Removal and replacement of all tees, crosses, valves, bends, fittings, short sections of pipe and other components of the water main where cleaning and lining is impractical**
 - Polyethylene encasement of all pipes, fittings, valves, hydrants and branch connections
 - Thrust restraint
 - Complete cleaning and lining procedure
 - Erosion and sediment control including inlet protection and other stormwater-related measures as required
 - Support of existing utilities
 - Certification,
 - Testing and sampling,
 - Disinfection,
 - Flushing,
 - Dewatering,
 - Proper handling and disposal of chlorinated water
 - Trench/patch maintenance for one (1) year after Final Acceptance
 - As-built drawings
 - All other Work incidental to providing a complete cleaning and lining operation.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Pricing Sheet Section IV per Standard Section 02650.

- C. **Payment will be made for 40 percent of the unit price per linear foot for each size of pipe as listed in the Bid Schedule to be cleaned and lined when temporary bypass piping system is complete and the existing main is taken out of service for the cleaning and lining procedure.**

The remaining 60 percent, adjusted for actual linear feet of water main cleaned and lined, of the unit price per linear foot as listed in the Bid Schedule covers the remainder of the Work under this bid item. Payment will be made after Final Acceptance is made for each Area.

- D. If in any tested section of cleaned and lined water main, the Hazen-Williams C Factor, as determined by the loss of head tests, fails to meet the guaranteed figure, the Contract price for payment will be described as follows:
1. For a drop of up to five points below the guaranteed C Factor, there will be a two percent (2%) reduction in the price.
 2. Between five and ten points below the guaranteed C Factor, the price shall be reduced one percent (1%) per point for that section failing the test.
 3. For a drop in excess of ten points below the guaranteed C Factor, the County shall have the option to make further reductions at a rate of one percent (1%) of the unit price for every two points of C Factor below the guaranteed C Factor or to order the Contractor to make the needed correction repairs to obtain a satisfactory lining at no additional cost to the County.

4.2 **OBSTRUCTIONS IN WATER MAIN (Section I, Bid Item 4)**

- A. Obstructions shall be defined per AWWA C602 Section 4.7 as obstructions in the pipeline that prohibit the passage of cleaning or lining equipment. These include, but are not limited to:
- a) Bends, reducers, valves, or other fittings **not shown** on maps or as-built field notes provided
 - b) Overpoured lead joints
 - c) Deformations in the pipe wall, out-of-round pipe, or defective pipe
 - d) Protruding lateral or service connections
 - e) Internal tie rods
 - f) Successive cocked joints
- C. Fittings not explicitly indicated on contract drawings, but which can be reasonably understood, such as tees at pipe intersections, shall be considered to have been shown for the purpose of this definition.
- B. Utility conflicts and other site conditions impacting the Work shall not be considered under this line item, but shall be considered incidental to the Work.
- C. Additional Work required by obstructions will be measured for payment by each access opening in the water main, regardless of length, required to clean and line the obstructed

portion of Work as directed by the Project Officer. Contractor shall receive authorization from the Project Officer prior to excavation to make additional access openings in the pipe.

- D. Payment shall include:
- Excavation
 - Standard bedding
 - Backfill per Section 02200 (**Note requirement of 18-inches of 21-A subbase per Standard Drawing M-6.0**)
 - Removal and disposal of all surplus and unsuitable material
 - Cutting
 - Furnishing and installing necessary fittings, mechanical couplings, pipe, valves, valve boxes, bends, service re taps and reducers including accessories
 - Polyethylene encasement of all pipes, fittings, valves, hydrants and branch connections
 - Thrust restraint
 - Erosion and sediment control including inlet protection and other stormwater-related measures as required
 - Support of existing utilities
 - Dewatering,
 - Trench/patch maintenance for one (1) year after Final Acceptance
 - And all other Work incidental to completing the Work.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Pricing Sheet Section IV per Standard Section 02650.

4.3 **PROVISION OF PIPE SECTIONS FOR LINING THICKNESS TEST (Section I, Bid Item 5)**

- A. Provision of test sections as directed by the Project Officer will be measured for payment by the each.
- B. Payment shall include:
- Excavation
 - Standard bedding
 - Backfill per Section 02200 (**Note requirement of 18-inches of 21-A subbase per Standard Drawing M-6.0**)
 - Removal and disposal of all surplus and unsuitable material
 - Cutting
 - Furnishing and installing necessary fittings, mechanical couplings, pipe, valves, valve boxes, bends, service retaps and reducers including accessories
 - Polyethylene encasement of all pipes, fittings, valves, hydrants and branch connections
 - Thrust restraint
 - Erosion and sediment control including inlet protection and other stormwater-related measures as required
 - Support of existing utilities
 - Dewatering,

- Trench/patch maintenance for one (1) year after Final Acceptance
- All other Work incidental to completing the Work.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Pricing Sheet Section IV per Standard Section 02650.

4.4 TELEVISION INSPECTION OF PIPELINE (Section I, Bid Item 6)

- A. Television inspection of cleaned and lined pipe sections shall be measured for payment by each section inspected, up to a maximum of 300 feet. Television inspections shall be conducted as directed by the Project Officer and inspection reports, including video, shall be submitted.
- B. Payment shall include:
 - All Work required to access and restore the pipe and excavated area
 - Complete television inspection procedure and report
 - All other Work incidental to completing the inspection

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Pricing Sheet Section IV per Standard Section

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A. INTRODUCTION TO TERMS

- 1) The term "Agreement" means the completed and signed Form of Contract Agreement.
- 2) The term "Award Date" means the date of execution of the Agreement by the Purchasing Agent.
- 3) The term "Business Day" shall refer to any day that the County is open for general business.
- 4) The term "Calendar Day" means any day of twenty-four hours measured from midnight to the next midnight. Included are weekends and holidays. When the term "Day" is used it shall be assumed to refer to a Calendar Day unless otherwise specified.
- 5) The term "Change Order" means a written order to the Contractor, signed by the Project Officer and the Contractor, which authorizes a change in the Work, and/or adjustment to the Contract Amount and/or an adjustment to the Time for Completion. A Change Order once signed by all the parties is incorporated into and becomes part of the Contract.
- 6) The term "Commencement Date" means the date on which the Time for Completion will commence for the Contractor to begin to perform his obligations under the Contract Documents as provided in the Notice to Proceed.
- 7) The term "Construction Change Directive" means a written order issued by the County directing a change in the Work prior to agreement on adjustment, if any, in the Contract Amount or Contract Time, or both.
- 8) The term "Contract Documents" means the Agreement and all the documents and Exhibits and/or Attachments identified therein which shall include the Drawings and the Specifications, and all modifications including amendments and subsequent Change Orders thereto properly incorporated in the Contract.
- 9) The terms "County" and "Contractor" shall mean the respective parties to the Contract. They shall be treated throughout the Contract Documents as though each were of the singular number and masculine gender. Only one Contractor is recognized as a party to this Contract.
- 10) The term "Critical Path Method or CPM" means a step-by-step project management technique for process planning that defines critical and non-critical tasks with the goal of preventing time-frame problems and process bottlenecks. An activity on the critical path cannot be started until its predecessor activity has been completed. is delayed then the entire project is delayed.
- 11) The term "Delay" means an event or condition that results in a work activity starting or being completed later than originally planned.

- 12) The term "Drawings" means all drawings pertaining to the Contract, including the Contract Drawings and Construction Notes which show and describe the locations, character, dimensions, and details of the Work to be performed under the contract.
- 13) The term "Field Order" is a written order to the Contractor, authorized by the Project Officer, which acknowledges a change in the Work that does not adjust the Contract Amount and does not adjust the Time for Completion.
- 14) The term "Final Acceptance" shall mean the date on which the County issues the final payment for the Work.
- 15) The term "Final Completion" shall mean the condition when the County agrees that all the Work has been fully completed in accordance with the Contract Documents and is acceptable. The date of the Final Completion of the Work under the Contract is the date on which Final Completion is accomplished.
- 16) The term "Float" shall represent the amount of time that a task in a project network or sequence can be delayed without causing a delay to: subsequent tasks ("free Float") or project completion date ("total Float"). Float shall belong to the County and shall be used for the successful completion of the Project within the Time for Completion.
- 17) The term "Limits of Disturbance (LOD)" shall represent the area within which land disturbing activities take place. Land disturbing activities include all actions that expose bare soil during construction.
- 18) The term "Limits of Work (LOW)" shall represent the area within which construction activities take place, including but not limited to the Limits of Disturbance area.
- 19) The term "Notice to Proceed" shall mean a written notice issued by the County to the Contractor stating the Commencement Date. The Notice to Proceed will specify the Time for Completion of the Contract.
- 20) The term "Project" means the entire proposed construction to be executed as stipulated in the Contract Documents
- 21) The term "Project Officer" means the County Project Officer assigned by the Director of the County Department responsible for the project, or the Director's designee. When a designee to act on behalf of the Project Officer is used by the County, the name of the designee and the duties and authority of such designee will be identified in the Contract Documents or in a written notice to the Contractor from the Project Officer responsible for the project. The designee may be a professional architect or engineer or other person employed by the County to perform construction services administration, design services, or project oversight.

- 22) The term "Punch List" means unfinished items of the construction of the Project, which unfinished items of construction are minor or insubstantial details of construction, mechanical adjustment or decoration remaining to be performed, the non-completion of which would not materially affect use of the Project, and which are capable of being completed within the time specified for Final Completion after Substantial Completion has been achieved.
- 23) The term "Request for Information" (RFI) means a request originated by the Contractor requesting clarification or additional information from the Project Officer and/or Architect/Engineer concerning information in the construction documents where the Contractor believes there is insufficient information or a conflict in the documents. RFI's shall be submitted by the Contractor sufficiently in advance of the Work to provide time for assessment and response without delay of the Work. Responses to RFI's shall not be construed as authorization for a Change Order.
- 24) The term "Schedule of Values" means a listing of the Contractor's total contract value by Construction Specifications Institute (CSI) divisions, including Division 1, Contractor's General Conditions.
- 25) The term "Site" refers to that portion of the property on which the Work is to be performed or which has otherwise been set aside for use by the Contractor.
- 26) The terms "Special Conditions" mean the written statements modifying or supplementing the Technical Specifications or General Conditions for requirements or conditions peculiar to the Contract.
- 27) The term "Specifications" means and shall include the Technical Specifications, the Special Conditions and all written agreements and instructions pertaining to the performance of the Work.
- 28) When used, the term "Stipulated Price Item" means and includes an item of Work, unanticipated or of unknown quantity at the time of issuance of the solicitation for a Bid and determined to be executed, based on the actual field conditions during the progress of Work under the Contract. The Unit Price for the "Stipulated Price Item", as identified in the "Stipulated Price Items" section of the Bid Form, is predetermined by the County as the current reasonably workable rate for the Item inclusive of all necessary labor, equipment, materials, overheads (provision and installation), and the contractor's profit.
- 29) The term "Subcontractor", shall include only those having a direct contract with the Contractor, and it shall include those who furnish material worked to a special design according to the plans and specifications for this Work but shall not include those who merely furnish material not so worked.

- 30) The term "Substantial Completion" shall mean the condition when the County agrees that the Work, or a specific portion thereof, is sufficiently complete, in accordance with the Contract Documents, so that it can be utilized by the County for the purposes for which it was intended. The date of Substantial Completion of the Work under the Contract is the milestone date on which Substantial Completion condition is accomplished.
- 31) The term "Technical Specifications" means that part of the Contract Documents that describe the quality of materials, method of installation, standard of workmanship, and the administrative and procedural requirements for the performance of the Work under the contract.
- 32) The term "Time for Completion" shall mean the time period set forth in the Agreement.
- 33) The term "Work" shall mean the services performed under this Contract including, but not limited to, furnishing labor, and furnishing and installing materials and equipment required to complete the Project specified in the Contract Documents.

B. DRAWINGS, SPECIFICATIONS, RELATED DATA AND RECORDS KEEPING

1. INTENT OF THE DRAWINGS AND SPECIFICATIONS

- a. It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, water haulage, light power, transportation, superintendence, temporary construction of all kinds, and other services and facilities of every nature whatsoever that are necessary to execute and deliver the Work, complete and usable within the scope of the Contract with all parts in working order, and all connections properly made.
- b. The general character and scope of the Work are illustrated by the Drawings and listed in the Specifications. Any additional drawings and or other instructions deemed necessary by the Project Officer or designee will be furnished to the Contractor when required for the Work and shall be incorporated into the Contract Documents.
- c. Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that direction, requirements, permission, or review of Project Officer or designee is intended unless stated otherwise. As used herein, "provide" shall be understood to mean "provide complete in place", that is, "furnish and install."
- d. Unless otherwise specifically noted, the word "similar" where it occurs in the Drawings, shall be interpreted in its general sense and not as meaning identical, and all details shall be worked out in relation to their locations and their connection with other parts of the Work.
- e. Materials or work described in words which, so applied, have a well-known technical, construction industry, or trade meaning, shall be held to refer to the recognized technical or trade meaning.
- f. The Contract Documents are complementary, and what is called for by any one document shall be as binding as if called for by all documents. In case of conflicting variance between the Contract Documents, the Order of Precedence stated in the Agreement shall govern. Figured dimensions on the plans shall be used; drawings shall not be scaled.
- g. Unless otherwise specifically noted, construction tolerances shall be to the numerical precision presented in the Contract Drawings.

2. DISCREPANCIES AND ERRORS

If the Contractor discovers any discrepancies between the Drawings and Specifications and the site conditions or any errors or omissions in the Drawings or Specifications, the Contractor shall at once, but in no event later than three calendar days after discovery of

the discrepancy or error, report them in writing to the Project Officer or designee. If the Contractor proceeds with any work that may be affected by such discrepancies, errors, or omissions, after their discovery, but before a clarification is provided, such work shall be at the Contractor's risk and expense. Issues affecting critical path activities shall be made known to the Project Officer or designee within one business day after discovery.

3. DIFFERING SITE CONDITIONS

The Contractor shall immediately, and before the conditions are further disturbed, give notice to the Project Officer of subsurface or latent physical conditions at the site which differ materially from those indicated in this Contract, or previously unknown physical conditions discovered at the site of an unusual nature and which differ materially from those ordinarily expected to be encountered at the site. Such notice shall be followed by a written notice provided within 48 hours of discovery.

The Project Officer will investigate the site conditions promptly after receiving the notice. If the conditions do materially differ to the extent that an increase or decrease would result in the Contractor's cost of the Work, or the time required for performing any part of the Work under the contract, an equitable adjustment may be made under this clause and the Contract modified in writing accordingly.

No request by the Contractor for an adjustment to the Contract under this clause shall be allowed, unless the Contractor has given the written notice required. If the Contractor proceeds with any work that may be affected by such differing site conditions before giving notice to the Project Officer as set forth herein, such work shall be at the Contractor's sole risk and expense.

No request by the Contractor for an adjustment to the contract for differing site conditions shall be allowed if made after Final Payment under the Contract.

4. COPIES FURNISHED

Except as provided for otherwise, copies of the Drawings and Specifications reasonably necessary for the execution of the Work will be furnished to the Contractor. One electronic copy of the Contract Drawings and Specifications will be provided by the Project Officer or designee to the Contractor.

5. USE OF CADD FILES

The Contractor may request Electronic CADD files related to the Work or the Project. The CADD files will be provided by the County only if the Contractor completes the Arlington County Electronic CADD Drawing Release Form, which form is then incorporated by reference into this Contract. Use of CADD files is at the Contractor's own risk and in no way alleviates Contractor's responsibility for the Work to conform to the Plans and Specifications.

6. DOCUMENTS ON THE JOBSITE

The Contractor shall keep on the site of the Project a copy of the Drawings and Specifications updated to include all authorized revisions and RFI responses, and shall at all times give the County and its authorized representatives access thereto. The Contractor shall mark up the Drawings on a daily basis in red. The As-Built Drawings shall be submitted to the County at Substantial Completion as the Final As-Built Drawings.

7. OWNERSHIP OF DRAWINGS AND SPECIFICATIONS

All Drawings and Specifications and copies thereof furnished by the County are the property of the County and shall not be used on other projects. All copies of the Drawings and Specifications except the signed Contract sets shall be returned to the Project Officer or designee at Final Completion.

8. SUBMITTALS

- a. The term "submittals", as used herein, shall include fabrications, erection and setting drawings, manufacturers' standard drawings, schedules, descriptive literature, catalogs, brochures, performance and test data, wiring and control diagrams, and other descriptive data pertaining to the materials and equipment as required to demonstrate compliance with the Contract requirements.
- b. Unless other specified in the Specifications the Contractor shall submit for the review of the Project Officer or designee a listing of all submittals required by the Specifications or requested by the Project Officer or designee within fifteen (15) calendar days after receipt of the Notice to Proceed. This listing shall include due dates for each required submittal, coordinated with the project schedule such that adequate time is allotted for review and potential resubmittals, fabrication and delivery without causing delay. The Contractor bears all risk for delay associated with submittals not received in a timely manner.
- c. Submittals shall be submitted in such number of copies as established in the Specifications. Each submission shall be accompanied by a letter of transmittal, listing the contents of the submission and identifying each item by reference to specification section or drawing. All submittals shall be clearly labeled with the name of the project and such information as may be necessary to enable their complete review by the Project Officer or designee. Catalog plates and other similar material that cannot be so labeled conveniently shall be bound in suitable covers bearing the identifying data.
- d. Submittals shall be accompanied by all required certifications and other such supporting material, and shall be submitted in sequence or groups that all related items can be checked together. When submittals cannot

be checked because a submission is not complete, or because submittals on related items have not been received by the Project Officer or designee, then such submittals will be returned without action or will be held, not checked, until the missing material is received. Incomplete or defective submittals shall not be considered to have been submitted. Failure to deliver submittals within the specified time will not be grounds for additional time or compensation.

- e. Submittals shall have been reviewed by the Contractor and coordinated with all other related or affected work before they are submitted for review and acceptance and shall bear the Contractor's certification that the Contractor has checked and approved them as complying with all relevant information in the Contract Documents. Submittals submitted without such certification and coordination will be returned to the Contractor without action and will not be considered as a formal submission.
- f. If shop drawings show variations from the Drawings and Specifications because of standard shop practice or other reasons, the Contractor shall make specific mention of such variation in the Contractor's letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the Drawings and Specifications even though shop drawings have been accepted.
- g. The Project Officer or designee shall review the shop drawings with reasonable promptness. Review and/or acceptance of shop drawings will be general for conformance with the design concept of the Project and compliance with the information given in the Contract Documents, and will not include quantities, detailed dimensions, nor adjustments of dimensions to actual field conditions. Acceptance shall not be construed as permitting any departure from Contract requirements, as authorization of any increase in price nor as relieving the Contractor of the responsibility for any error in details, dimensions or otherwise that may exist. Review is not intended to relieve the contractor of full responsibility for the accuracy and completeness of the plans and calculations, or for the complete compliance with the contract documents. Contractor is solely responsible for the means and methods of the construction, including temporary items proposed for use.

9. SAMPLES

The Contractor shall submit to the Project Officer or designee, all samples required by the Specifications or requested by the Project Officer or designee. Samples shall be submitted in single units only, unless the Contractor desires additional units for the Contractor's own use. Each sample shall bear a label indicating what the material represented, the name of the producer and the title of the Project. Acceptance of a sample shall be only for conformance with the design concept of the Project and compliance with the information given in

the Contract Documents, and only for the characteristics or use named in such acceptance. Such acceptance shall not be construed to change or modify any Contract requirements or the Contract Price. Materials and equipment incorporated in the Work shall match the accepted samples. The Contractor shall be responsible for researching the availability of the specified product in the dimensions and colors specified at no additional cost to the County. Failure of the Contractor to identify specified products that are not commercially produced within the time required for submittal transmittal in order to meet the project schedule shall not be entitled to additional time or compensation.

10. TESTS

Any specified tests of materials and finished articles shall be made by bureaus, laboratories or agencies approved by the Project Officer or designee and the certified reports of such tests shall be submitted to the Project Officer or designee. All tests shall be in compliance with the Specifications. All costs in connection with the testing and test failures shall be borne by the Contractor. Failure of any material to pass the specified tests or any test performed by the Project Officer or designee, will be sufficient cause for refusal to consider, under this Contract, any further materials of the same brand or make of that material. Samples of various materials delivered on the site or in place may be taken by the Project Officer or designee for testing. Samples failing to meet the Contract requirements will automatically void previous acceptance of the items tested. The Contractor will not be compensated for additional time and/or cost incurred in finding an acceptable replacement or the removal and replacement of the defective item.

11. MATERIALS AND EQUIPMENT LIST

- a. Unless otherwise specified in the Specifications, within thirty (30) days of the Commencement Date the Contractor shall submit to the Project Officer or designee a complete list of materials and equipment proposed for use in connection with the Project. Partial lists submitted from time to time will not be considered unless specifically approved by the Project Officer or designee.
- b. After any material or piece of equipment has been approved through submittal process, no change in brand or make will be permitted unless satisfactory written evidence is presented to prove that the manufacturer cannot make scheduled delivery of the accepted material, or that material delivered has been rejected and the substitution of a suitable material is an urgent necessity, or that other conditions have become apparent which indicate that acceptance of such other material is in the best interest of the County. The Contractor is solely responsible for the cost and time required to obtain and install a suitable replacement.

12. STANDARDS, SUBSTITUTIONS

- a. Any material specified by reference to the number, symbol or title of a specific standard, such as a Commercial Standard, a Federal Specification, a Trade Association Standard, or other similar standard, shall comply with the requirements in the latest revision of the standards or specification and any amendment or supplement, except as limited to type, class or grade, or as modified in such reference. The standard referred to, except as modified in the Specifications, shall have full force and effect as though printed in the Specifications.
- b. Reference in the Specifications or on the Drawings to any article, device, product, material, fixture, form or type of construction by name, make or catalog number shall be interpreted as establishing a standard of quality and shall not be construed as eliminating from competition other products of equal or better quality by other approved manufacturers. Otherwise, applications for acceptance of substitutions for the specified items will be considered only upon request of the Contractor, not of individuals, trades or suppliers, and only for a specific purpose; no blanket acceptance will be granted. No acceptance of a substitution shall be valid unless it is in written form and signed by the Project Officer or designee.
- c. If any proposed substitution will affect a correlated function, adjacent construction or the work of other contractors, then the necessary changes and modifications to the affected work shall be considered as an essential part of the proposed substitution, to be accomplished by the Contractor without additional expense to the County or an extension of the contract time, if and when accepted. Detail drawings and other information necessary to show and explain the proposed modifications shall be submitted with the request for acceptance of the substitution.

13. SURVEYS AND CONTROLS

Unless otherwise specified, the Contractor shall establish all baselines for the location of the principal component parts of the Work, establish a suitable number of benchmarks adjacent to the Work, and develop all detail surveys necessary for construction by a professional land surveyor licensed in the Commonwealth of Virginia. The Contractor shall carefully preserve benchmarks, reference points and stakes, and in the case of destruction thereof by the Contractor or due to the Contractor's negligence or the negligence of any subcontractor or supplier, the Contractor shall be responsible for expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the loss or disturbance of such benchmarks, reference points and stakes. The Contractor shall within 30 days of NTP perform a full site survey to verify all control points shown on the drawings against existing conditions within the site limits. Any discrepancies found during this effort shall be made known immediately to the Project Officer. Failure to perform this survey and

provide proof and acceptance of Project datum, control points, and existing benchmarks will not give rise to any extensions to contract time or amount. The cost of all necessary surveying services shall be considered incidental to the work and, unless otherwise specified, shall be included in the cost of the Work.

14. AS-BUILT DRAWINGS

As-Built Drawings shall be the responsibility of the Contractor. The Contractor shall maintain and mark up one set of prints of the applicable Contract Drawings to portray as-built construction. The prints shall be neatly and clearly marked in red to show all variations between the Work actually provided and that indicated on the Contract Drawings, and all utilities encountered in the Work. All drafting shall conform to good drafting practice and shall include such supplementary notes, legends and details as may be necessary for legibility and clear portrayal of the as-built construction. These drawings shall be marked promptly upon any approved change to the Work or discovery of any undocumented utility or obstruction and shall be submitted to the Project Officer or designee in sufficient time to be approved no later than thirty (30) calendar days after the Substantial Completion Date. The final As-Built Drawings approved by the Project Officer or designee shall be submitted in paper copy and .pdf format electronic files prior to Final Completion. Unless otherwise required under the Contract Documents, incorporation of red-lined changes into CADD format shall be the responsibility of the Architect and/or Engineer of Record, with the exception being any documents prepared by the Contractor in CADD, the record version of which shall also be provided to the County in CADD format by the Contractor. Final payments will be held until the complete set of red-line drawings are submitted to and approved by the Project Officer.

15. WEB BASED RECORDS DOCUMENTATION

Unless instructed otherwise, the Contractor shall use the web based construction management tool, e-Builder for, but not limited to, submittals, record keeping and document storage of all construction files including, invoices, pay applications, RFIs, approved shop drawings, change orders, construction progress meeting minutes, warranties, equipment specifications and brochures, record drawings, automated alerts and reminders for all functions, and Operation and Maintenance (O&M) Manuals.

C. COUNTY, COUNTY PROJECT OFFICER, AND CONTRACTOR RELATIONS

1. STATUS OF COUNTY PROJECT OFFICER OR DESIGNEE

The Project Officer or designee shall be the County's representative during the construction period. All Contractor instructions or requests shall be issued from or submitted through the Project Officer or designee. The Project Officer or designee shall have authority to suspend the Work whenever such suspension may be necessary in the responsible opinion of the Project Officer or designee to ensure the proper execution of the Contract. The Project Officer or designee shall also have authority to reject all work and materials that do not conform to the Contract and to decide questions that arise in the execution of the Work. The County Project Officer or designee will, within a reasonable time, make decisions on all matters relating to the execution and progress of the Work.

2. LIMITATION ON COUNTY'S RESPONSIBILITIES

The County shall not supervise, direct, or have control or authority over, nor be responsible for: The Contractor's means, methods, techniques, sequences or procedures of construction; the safety precautions and programs related to safety, or the Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

3. DISPUTES

- a. All disputes or claims arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of Contract shall be submitted in writing to the Project Officer or designee as set forth in these General Conditions. Such claims must set forth in detail the amount of the claim, and shall state the facts surrounding it in sufficient detail to identify it together with its character and scope.
- b. Claims denied by the Project Officer shall be processed in accordance with the procedures outlined in Sections 7-107, Contractual Disputes and 7-108, Legal Actions of the Arlington County Purchasing Resolution and the Dispute Resolution paragraph in the Agreement.
- c. The Contractor shall not cause a delay in the work pending a decision of the Project Officer or designee, County Manager, County Board, or court, except by prior written approval of the Project Officer or designee.

4. INSPECTION OF WORK

The Project Officer or designee and representatives of any public authority having jurisdiction shall, at all times, have access to the Work while in progress. The Contractor shall provide suitable facilities for such access and for proper observation of the Work and shall conduct all special tests required by the Specifications, the Project Officer or designee's instructions, and any laws, ordinances or the regulations of any public

authority applicable to the work. Nothing in this section shall abrogate or otherwise limits or relieves the Contractor's independent duty to inspect the Work.

5. INSPECTION OF MATERIALS

All articles, materials, and supplies purchased by the Contractor for the Work are subject to inspection upon delivery to the site and during manufacturing or fabrication. The County reserves the right to return for full credit, at the risk and expense of the Contractor, all or part of the articles, materials, or supplies furnished contrary to Specifications and instructions. Nothing in this section shall abrogate or otherwise limit or relieve the Contractor's independent duty to inspect materials.

6. EXAMINATION OF COMPLETED WORK

If the Project Officer or designee requests it, the Contractor, at any time before acceptance of the Work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the Specifications. Should the work thus exposed or examined prove acceptable, then the uncovering or removing, and the replacing of the covering or making good of the parts removed shall be paid for as extra work, but should the work so exposed or examined prove unacceptable, then the uncovering, removing and replacing shall be at the Contractor's expense.

7. RIGHT TO SUSPEND WORK

The County shall have the authority to suspend the Work, in whole or in part, for such periods and such reasons as the County may deem necessary or desirable. Any such suspension shall be in writing to the Contractor and the Contractor shall obey such order immediately and not resume the Work until so ordered in writing by the County. No such suspension of the Work shall be the basis for a claim by the Contractor for any increase in the Contract Amount provided that the suspension is for a reasonable time under the circumstances then existing. If the suspension of Work is caused by the County's belief that non-conforming work is being installed, and subsequent investigation proves that the Work was non-conforming, the Contractor shall not be awarded additional time or costs.

8. RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a 10-day period after receipt of written notice from the County or such shorter time as may be reasonable under the circumstances, to commence and continue correction of such default or neglect with diligence and promptness, the County may, without prejudice to other remedies the County may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including the County's expenses, and any additional architect or engineering costs necessary by Contractor's default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the County upon demand.

9. CONTRACTOR MANAGEMENT PERSONNEL

The Contractor shall keep a competent superintendent and any necessary assistants on the Site at all times during progress of the Work and such persons shall be satisfactory to the Project Officer or designee. The superintendent or project manager shall not be changed except with the Project Officer or designee's consent. If the Project Officer determines that the superintendent or project manager is no longer satisfactory, then the superintendent or project manager must be replaced within 15 days of the Project Officer's written notice with a replacement superintendent or project manager with equal or superior qualifications and subject to Project Officer approval.

The superintendent and project manager shall represent the Contractor and all directions given to such persons shall be as binding as if given to the Contractor. The Contractor shall at all times enforce strict discipline and good order among the workers performing under this Contract, and shall not employ on the Work any person not reasonably proficient in the Work assigned. Persons permitted to perform Work under Contractor, or any subcontractor, or sub-subcontractor, shall meet all employment eligibility, safety training, security or drug/alcohol testing requirements required by law or by the County. Any person not complying with all such requirements shall be immediately removed from the Site.

The Contractor shall have a qualified and experienced person who can clearly communicate technical matters regarding the subject project. This person shall be available via phone to respond to emergency situations on the project 24 hours a day.

10. DRUG-FREE POLICY

The Contractor is responsible for ensuring that the Site remains a drug-free site. Contractor will require that employees undergo random drug/alcohol screening on a quarterly interval. Any employee who fails the test must be removed from the Site immediately. Random screening shall be performed by a third party licensed to do so in the Commonwealth of Virginia. The Contractor shall provide its random testing policy and schedule to the Project Officer within 30 days of Notice to Proceed. The Contractor will include this provision in every subcontract relating to this Contract. Any infraction by an employee of the Drug-Free policy shall be reported to the Project Officer within 24 hours.

11. LANDS BY COUNTY

The County shall provide access to the lands shown on the Drawings upon which the Work under the Contract is to be performed and to be used for rights of way and for access. In case all the lands, rights-of-way or easements have not been obtained as herein contemplated before construction begins, then the Contractor shall begin its work on such lands and rights-of-way that the County has acquired access to. No additional time or compensation shall be awarded to the Contractor for modifying work location and sequence provided other locations are available for work.

Contractor shall verify the acquisition of all off-site easements and Rights-of-Way prior to the start of off-site construction. Restore all off-site easements to the conditions existing prior to the start of work.

The Contractor shall confine all activities at the site associated with construction activities, to include storage of equipment and or materials, access to the work, formwork, etc. to within the designated Limits of Disturbance (LOD).

12. LANDS BY CONTRACTOR

If the Contractor requires additional land or lands for temporary construction facilities and for storage of materials and equipment other than the areas available on the site or right-of-way, or as otherwise furnished by the County, then the Contractor shall provide such other lands and access thereto entirely at the Contractor's own expense and without liability to the County. The Contractor shall not enter upon private property for any purpose without prior written permission of all of the persons and entities who own the property. The Contractor shall provide copies of all agreements to the County and shall include language in the agreement indemnifying and holding the County harmless for any damages, repairs, restoration or fees associated with the use of the property. Upon termination of the agreement, the Contractor shall provide to the County a fully executed release from the property owner.

13. PROTECTION OF WORK AND PROPERTY

- a. The Contractor shall continuously maintain and protect all of its Work from damage and shall protect the County's property from damage or loss arising in connection with this Contract until Substantial Completion. After Substantial Completion, the maintenance or protection of any incomplete or remedial Work identified on the punch list that requires maintenance or protection in order to allow for the final completion and acceptance of such Work shall be the responsibility of the Contractor until Final Completion. The Contractor shall make good any such damage or loss, except such as may be caused by agents or employees of the County. Failure to adequately protect the Work shall not be grounds for additional compensation for any maintenance and/or repairs to such Work.
- b. The Contractor shall not place upon the Work, or any part thereof, any loads which are not consistent with the design strength of that portion of the Work.
- c. The Contractor shall be responsible for the preservation of all public and private property, trees, monuments, etc., along and adjacent to the street and/or right-of-way, and shall use every precaution to prevent damage to pipes, conduits and other underground structures, curbs, pavements, etc., except those to be removed or abandoned in place and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise

referenced their location and shall not remove them until directed. Any damage which occurs by reason of the operations under this Contract, whether shown or not on the approved construction plans, shall be completely repaired or replaced to the County's satisfaction by the Contractor at the Contractor's expense. The Contractor shall be responsible for all damages caused by their construction activities.

- d. Prior to commencing construction activity at the Site, the Contractor shall videotape the Site and an additional fifty (50) feet outside the perimeter of the Site. Contractor shall submit a copy of high resolution digital recording on a DVD or flash drive to the County. The recording shall be stable, continuous, and contain all items within the limits of Work. Submission of the DVD to the County shall be a condition precedent to any obligation of the County to consider an Application for Payment. The DVD shall be the property of the County, and the County shall be permitted to reproduce such DVD's and use the same for any purpose without limitation or claim of ownership or compensation from any party. Contractor shall incorporate the cost of the preconstruction survey in the bid amount or the unit prices of the bid items, as applicable. No additional payment will be made by the County.
- e. The Contractor shall shore, brace, underpin, secure, and protect, as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site that may be affected in any way by excavations or other operations connected with the work required under this Contract. The Contractor shall be responsible for giving any and all required notices to owners or occupants of any adjoining or adjacent property or other relevant parties before commencement of any work. Contractor shall provide all engineering (signed and sealed) for items listed in this section per the Specifications. The Contractor shall indemnify and hold the County harmless from any damages on account of settlements or loss of all damages for which the County may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- f. In an emergency affecting the safety of life or of the Work, or of adjoining property, the Contractor, without special instruction or authorization from the Project Officer or designee, or the County, is hereby permitted to act, at the Contractor's discretion, to prevent such threatened loss or injury, and the Contractor shall so act without appeal, if so instructed or authorized.
- g. The Contractor shall contact "Miss Utility" at 811 for marking the locations of existing underground utilities (i.e. Water, sewer, gas, telephone, electric, and cable tv) at least 72 hours prior to any excavation or construction. The Contractor is required to identify and protect all other utility lines found in the work site area belonging to

other owners that are not members of "Miss Utility". Private water and/or sewer laterals will not be marked by "Miss Utility" or the County. The Contractor shall locate and protect these services during construction.

14. SEPARATE CONTRACTS

- a. The County reserves the right to let other contracts in connection with this Project. The Contractor shall afford other contractors reasonable access to the Project including storage of their materials and the execution of their work, and shall properly connect and coordinate its work with the work of other such contractors.
- b. If any part of the Contractor's work depends, for proper execution or results, upon the work of any other contractor, the Contractor shall inspect and promptly report to the Project Officer or designee any defects in such work that renders it unsuitable for such proper execution and results. The Contractor's failure to so inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of the Contractor's work, except as to defects which may develop in other contractor's work after its execution.
- c. If the Contractor or any of the Contractor's subcontractors or employees cause loss or damage to any separate contractor on the Work, the Contractor agrees to settle or make every effort to settle or compromise with such separate contractor. If such separate contractor sues the County on account of any loss so sustained, the County shall notify the Contractor, who shall indemnify and save the County harmless against any expense, claim or judgment arising therefrom, including reasonable attorney's fees.
- d. In case of a dispute arising between two or more separate contractors engaged on adjacent work as to the respective rights of each under their respective contracts, the Project Officer shall determine the rights of the parties.

15. SUBCONTRACTS

- a. Unless otherwise specified, the Contractor shall, within fifteen (15) calendar days after the execution of the Contract by the County, provide to the Project Officer or designee, in writing, the names of all subcontractors proposed for the principal parts of the Work and for such others as requested by the Project Officer or designee, and shall not employ any subcontractors that the Project Officer or designee may object to as incompetent or unfit after an appropriate determination of the subcontractor's ability. No proposed subcontractor will be disapproved except for cause.

- b. The Contractor shall make no substitutions for any subcontractor previously selected/approved unless first submitted to the County for approval.
- c. The Contractor shall be as fully responsible to the County for the acts and omissions of the Contractor's subcontractors as the Contractor is for the acts and omissions of persons directly employed by the Contractor.
- d. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind subcontractors to the Contractor by the terms of the General Conditions of the Contract, Special Provisions and other Contract Documents comprising the Contract insofar as such documents are applicable to the work of subcontractors.
- e. Nothing contained in the Contract shall be construed to create any contractual relation between any subcontractor and the County, nor shall it establish any obligation on the part of the County to pay to, or see to the payment of any sums to any subcontractor. The County will not discuss, negotiate or otherwise engage in any contractual disputes with any subcontractor.
- f. If requested by the County, the Contractor shall replace any subcontractor at no cost to the County within 30 days of the Project Officers written notice or as otherwise specified. No additional time or compensation will be provided in the event a subcontractor is removed due to non-compliance of the requirements outlined within the Contract.

16. ELIMINATED ITEMS

If any item(s) in the Contract are determined to be unnecessary for the proper completion of the Work contracted, the Project Officer or designee may, upon written notice to the Contractor, eliminate such item(s) from the Contract. Payment will not be made for such item(s) so eliminated; except that the Contractor will be compensated for the actual cost of any work performed and the net cost of materials purchased before the item(s) was eliminated from the Contract, including freight and tax costs, as evidenced by invoice. No additional compensation will be made for overhead or anticipated profit. The County will receive the full unit price credit for work eliminated prior to production or installation.

17. COUNTY ORDINANCES

The Contractor shall comply with all applicable County ordinances, including but not limited to: the *Noise Control*, *Erosion & Sediment Control*, *Storm Water Management*, and *Chesapeake Bay Preservation ordinances (Chapters 15, 57, 60, and 61 of the County Code)*.

D. MATERIALS AND WORKMANSHIP

1. MATERIALS FURNISHED BY THE CONTRACTOR

Unless otherwise specified, all materials and equipment incorporated in the Work under the Contract shall be new. All work shall be accomplished by persons qualified in the respective trades.

2. IBC AND VUSBC REQUIREMENTS

The Contractor certifies that all material supplied or used under this Contract meets all current International Building Code (IBC) requirements and the requirements of the Virginia Uniform Statewide Building Code (VUSBC); and further certifies that, if the material delivered or used in the performance of the work is found to be deficient in any of the applicable state or national code requirements, all costs necessary to bring the material into compliance with the requirements shall be borne by the Contractor. The County shall be entitled to offset such costs against any sums owed by the County to the Contractor under this Contract.

3. ADA COMPLIANCE

The Contractor shall ensure that all Work performed under this Agreement is completed in accordance with the Contract Documents, including Work intended to meet the accessibility requirements of the Americans with Disabilities Act (ADA).

The Contractor is not required to ascertain whether the Contract Documents meet ADA design standards and guidelines. However, should the Contractor discover any non-conformity with such requirements, the Contractor shall immediately inform the County and its design consultant, if applicable, to allow for corrective action.

The Contractor shall defend and hold the County harmless from any expense or liability arising from the Contractor's non-compliance in meeting its obligations herein. The Contractor shall be responsible for all costs related to permitting delays, redesign, corrective Work, and litigation relating to such non-compliance.

4. MANUFACTURER'S DIRECTIONS

Manufactured articles, material, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the manufacturer's directions as accepted by the Project Officer or designee, unless herein specified to the contrary.

5. WARRANTY

All material provided to the County shall be fully guaranteed by the Contractor against manufacturing defects within the period of the manufacturer's standard warranty. Such defects shall be corrected by the Contractor at no expense to the County. The Contractor shall provide all manufacturers' warranties to the Project Officer by the date of Final Completion.

All Work is guaranteed by the Contractor against defects resulting from the use of inferior or faulty materials. The Contractor warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects or inferior or faulty workmanship, or work not in accordance with the Contract Documents for one (1) year from the date of Substantial Completion or as set forth in the Specifications of the work by the County in addition to and irrespective of any manufacturer's or supplier's warranty.

No date other than Substantial Completion or as set forth in the Specifications shall govern the effective date of the Warranty, unless that date is agreed upon by the County and the Contractor in advance and in a signed writing.

The Contractor shall promptly correct any defective work or materials after receipt of a written notice from the County to do so. If the Contractor fails to proceed promptly or use its best efforts and due diligence to complete such compliance as quickly as possible, the County may have the materials or work corrected and the Contractor and its Sureties shall be liable for all expenses and costs incurred by the County.

Nothing contained in this section shall be construed to establish a period of limitations with respect to other obligations the Contractor may have under this Contract.

6. INSPECTION AND ACCEPTANCE OF MATERIALS

Inspection and acceptance by the County will be at the work site in Arlington County, Virginia and within ten (10) calendar days of delivery unless otherwise provided for in the Contract Documents. The County will not inspect, accept, or pay for any materials stored or delivered off-site by the Contractor, except as provided by the Payment for Stored Materials clause of these General Conditions and other requirements of the Contract Documents. The County's right of inspection shall not be deemed to relieve the Contractor of its obligation to ensure that all articles, materials and supplies are consistent with Specifications and instructions and are fit for their intended use. The County reserves the right to conduct any tests or inspections it may deem appropriate before acceptance. The Contractor shall be responsible for maintaining all materials and supplies in the condition in which they were accepted until they are used in the work.

The Contractor is to coordinate its work and request inspections in such a manner as to minimize the cost to the County without impacting the overall schedule of the Project within reason. All costs associated with re-inspection shall be borne by the Contractor.

7. CONTRACTOR'S TITLE TO MATERIALS

No materials or supplies for the work shall be purchased by the Contractor or any subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that it has good title to, and that it will require all subcontractors to warrant that they have good title to, all materials and supplies for which the Contractor invoices for payment. The County may request proof of title or payment prior to acceptance of the Contractor's invoice.

8. TITLE TO MATERIALS AND WORK COVERED BY PARTIAL PAYMENTS

All material and work covered by partial payments made by the County will become the property solely of the County at the time the partial payment is made. However, risk of loss or damage to all items shall be the responsibility of the Contractor until Final Acceptance by the County. This provision will not be construed as relieving the Contractor from having sole responsibility for all materials and work upon which payments have been made and for the restoration of any damaged work or replacement or repair at the County's option of any damaged materials. This provision will not be construed as a waiver of the County's right to require fulfillment of all terms of the Agreement, including full rights under the terms of the Warranty provisions of the Agreement, nor shall payment indicate acceptance of the materials or work.

9. CONNECTING WORK

The Contractor shall do all cutting, patching, or digging of the Contractor's work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors as shown upon or reasonably implied by the Drawings and Specifications for the completed Project and shall make good after them as the Project Officer or designee may direct. This work will be performed in a workmanlike manner utilizing proper care and equipment to achieve proper line and grade. The Contractor shall not endanger any work by cutting, patching, or digging, or otherwise, and shall not cut or alter the work of any other contract except with the prior written consent of the Project Officer or designee.

10. REJECTED WORK AND MATERIALS

- a. Any of the Work or materials, goods, or equipment which do not conform to the requirements of the Contract Documents, or are not equal to samples accepted by the Project Officer or designee, or are in any way unsatisfactory or unsuited to the purpose for which they are intended, shall be rejected and replaced immediately so as not to cause delay to the Project or work by others. Any defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, shall be removed and the work shall be re-executed by the Contractor at the Contractor's expense. The fact that the Project Officer or designee may have previously overlooked such defective work shall not constitute acceptance of any part of it.
- b. If the Contractor fails to proceed at once with the replacement of rejected material and/or the correction of defective workmanship when notified to do so by the Project Officer or designee, the County may, by contract or otherwise, replace such material or correct such workmanship and charge the cost to the Contractor. This clause applies during the Contract and during any warranty or guarantee period.
- c. The Contractor shall be responsible for managing, addressing within a timely manner, and formally closing out all notices of non-compliance issued by the inspector of record, Arlington County Inspection Services, or the Design Team. The Contractor shall be solely liable for any costs or time associated with the

corrective action to address any notices of non-compliance. The Contractor must work directly with the entity issuing the notice of non-compliance.

- d. If the Project Officer or designee deems it expedient not to require correction of work which has been damaged or not done in accordance with the Contract, an appropriate adjustment to the Contract Price may be made.

11. PROHIBITION AGAINST ASBESTOS CONTAINING MATERIALS

No goods or equipment provided to the County or construction material installed shall contain asbestos. If a Contractor or supplier provides or installs any goods, equipment, supplies, or materials that contain asbestos in violation of this prohibition, the Contractor shall be responsible for all costs related to the immediate removal and legal disposal of the goods, equipment or materials containing asbestos and replacement with County-approved alternate. The Contractor shall be responsible for all goods, equipment, supplies or materials installed or provided by any of its employees, agents or subcontractors in connection with the work under this contract. The Contractor shall also reimburse to the County all costs of such goods, equipment, supplies or materials installed if not corrected by the Contractor.

E. LEGAL RESPONSIBILITY AND PUBLIC SAFETY

1. SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and locations of the work of the Contract, and that it has investigated and satisfied itself as to the general and local conditions and factors which can affect the Work or its cost, including but not limited to:

- a. conditions bearing upon transportation, disposal, handling, and storage of materials;
- b. the availability of labor, water, electric power, and roads;
- c. uncertainties of weather, river stages, tides, or similar physical conditions at the site;
- d. the information and conditions of the ground; and
- e. the character of equipment and facilities needed before and during work performance.

The Contractor, by executing the Contract, represents that it has reviewed and understands the Contract Documents and has notified the County of and obtained clarification of any discrepancies which have become apparent during the bidding period. During the Contract, the Contractor must promptly notify the County in writing of any apparent errors, inconsistencies, omissions, ambiguities, construction impracticalities or code violations discovered as a result of the Contractor's review of the Contract Documents including any differences between actual and indicated dimensions, locations and descriptions, and must give the County timely notice in writing of same and of any corrections, clarifications, additional Drawings or Specifications, or other information required to define the Work in greater detail or to permit the proper progress of the Work. The Contractor must provide similar notice

with respect to any variance between its review of the Site and physical data and Site conditions observed. If the Contractor performs any Work involving an apparent error, inconsistency, ambiguity, construction impracticality, omission or code violation in the Contract Documents of which the Contractor is aware, or which could reasonably have been discovered, without prompt written notice to the County and request for correction, clarification or additional information, as appropriate, the Contractor does so at its own risk and expense and all related claims are specifically waived.

The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the County, as well as from the Drawings and Specifications made a part of this Contract. Unless otherwise specified, all existing structures, materials and obstructions that interfere with the new construction shall be removed and disposed of as part of this Contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the Work without additional expense to the County.

The locations of existing utilities, including underground utilities, which may affect the Work, are indicated on the Drawings or in the Specifications insofar as their existence and location were known at the time of preparation of the drawings. However, nothing in these Drawings or Specifications shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist, or that other utilities are not within the area of the operations. The Contractor shall make all necessary investigations to determine the existence and locations of such utilities. Should uncharted or incorrectly charted utilities be encountered during performance of the Work, notify the Project Officer or designee immediately for instructions. The Contractor will be held responsible for any damage to and maintenance and protection of existing utilities and structures, of both public and private ownership. However, if it is determined that such existing utility lines or structures require relocation or reconstruction or any other work beyond normal protection, then such additional work will be ordered under the terms of the clause entitled "Changes in Work." At all times, cooperate with the County and utility companies to keep utility services and facilities in operation.

The County assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the County. The County assumes no responsibility for any understanding reached or representation made concerning conditions which can affect the Work by any of its officers or agents before the execution of this Contract, unless that understanding or representation is expressly stated in this Contract.

2. PUBLIC CONVENIENCE

The Contractor shall at all times so conduct its Work as to ensure the least possible obstruction to traffic (vehicular, bicycle and pedestrian) and inconvenience to the general public, County employees, and the residents in the vicinity of the Work. Traffic shall be maintained in accordance with the approved Maintenance of Traffic (MOT) plan. No road, street or sidewalk shall be closed to the public except with the permission

of the Project Officer or designee and or proper governmental authority. Fire hydrants on or adjacent to the Work shall be kept accessible to firefighting equipment at all times. Temporary provisions shall be made by the Contractor and included in the cost of the Work to ensure the use of sidewalks, trails, and transit facilities compliant with all applicable ADA and other regulations, as well as the proper functioning of all gutters, drainage inlets, drainage ditches, and irrigation ditches, which shall not be obstructed except as approved by the Project Officer or designee.

The Contractor is responsible for securing its work area for safety and security. The Contractor shall confine its construction and presence to the Limits of Work, unless otherwise approved by the County Project Officer.

3. SAFETY AND ACCIDENT PREVENTION

The Contractor shall comply with, and ensure that the Contractor's employees and subcontractors comply with, all current applicable local, state and federal policies, regulations and standards relating to safety and health, including, by way of illustration and not limitation, the U.S. Department of Labor's Occupational Safety and Hazard Administration (OSHA) Construction Industry Regulations, the standards of the Virginia Occupational Safety and Health program of the Department of Labor and Industry for General Industry and for the Construction Industry, the Federal Environmental Protection Agency Standards and the applicable standards of the Virginia Department of Environmental Quality.

The Contractor shall provide, or cause to be provided, all technical expertise, qualified personnel, equipment, tools and material to safely accomplish the Work specified to be performed by the Contractor and subcontractor(s).

The Contractor shall identify to the County Project Officer at least one on-site person who is the Contractor's competent, qualified, and authorized safety officer on the worksite and who is, by training or experience, familiar with and trained in policies, regulations and standards applicable to the work being performed. The competent, qualified and authorized person must be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, shall be capable of ensuring that applicable safety regulations are complied with, and shall have the authority and responsibility to take prompt corrective measures, which may include removal of the Contractor's personnel from the work site.

The Contractor shall provide to the County, within 7 days of issuance of the Notice to Proceed, a copy of the Contractor's written safety policies and safety procedures applicable to the scope of work. Failure to provide this information within may result in cancellation of the Contract.

The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all injury to persons and damage to property either on or off the site, which occur as a result of the Contractor's prosecution of the Work.

The Contractor shall take or cause to be taken such additional safety and health measures as the County may determine to be reasonably necessary. Machinery, equipment, and all hazards shall be guarded in accordance with the safety provisions of the current version of "Manual of Accident Prevention" published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws. The Contractor is directed to the "Rules and Regulations Governing Construction, Demolition and All Excavation" and adopted by the Safety Codes Commission of Virginia, 1966, or latest edition, covering requirements for shoring, bracing, and sheet piling of trench excavations.

4. HAZARDOUS MATERIALS

Arlington County is subject to the Hazard Communication Standard, 29 CFR §1910.1200 (Standard). The Contractor agrees that it will provide or cause to be provided Safety Data Sheets (SDS) required under the Standard for all hazardous materials supplied to the County or used in the performance of the work. Such SDS shall be delivered to the County no later than the time of actual delivery of any hazardous materials to the County or use of such material in the performance of work under the Contract by the Contractor or its subcontractors, whichever occurs first. Container labeling meeting the requirements of the Standard shall be appropriately affixed to the shipping or internal containers. The County reserves the right to refuse shipments of hazardous materials not appropriately labeled, or when SDS have not been received prior to or at the time of receipt of the shipment for use by the County or for use by the Contractor in the performance of the Contract, or whenever the material is delivered in a manner inconsistent with any applicable law or regulation. Any expenses incurred due to the refusal or rejection of SDS are the responsibility of the Contractor. The Contractor shall comply with all federal, state, and local laws governing the storage, transportation, and use of toxic and hazardous materials. The Contractor shall maintain onsite an up to date SDS binder for all material used and delivered to the Project. The County Project Officer or his designee shall be allowed access to the SDS book at all times.

5. HAZARDOUS WASTE

Hazardous Waste Generator/Hazardous Waste Disposal: The County Board of Arlington County, Virginia and the Contractor shall be listed as Co-generators. The Contractor shall assume all the duties pertaining to the Waste Generator, including signing the Waste Shipment Record ("WSR") and manifest. The Contractor shall supply the County Project Officer with the executed original Owner's Copy of the WSR, as required by applicable regulatory agencies within 35 days from the time the waste was accepted by the initial waste transporter, and prior to request for final payment. A separate WSR shall be submitted for each shipment to the disposal site.

Delayed Waste Shipment Records: The Contractor shall report in writing to the EPA Region III office within 45 days if an executed copy of the WSR is not received from the operator of the disposal site. The report to the EPA regional office shall include a copy of the original WSR and a cover letter signed by the Contractor stating the efforts taken to locate the hazardous waste shipment and the results of those efforts.

Temporary Hazardous Waste Storage Prohibited: The Contractor shall not temporarily store hazardous waste unless pre-approved by the County in writing. If so approved,

hazardous waste stored off-site in a temporary facility shall be monitored and records shall be kept on the number of containers, size, and weight. The Contractor shall inform the County when the hazardous waste is to be transported to the final disposal site. The County has the right to inspect the temporary site at any time. The Contractor shall submit copies of all relevant manifests, Waste Shipment Record(s), and landfill receipts to the County Project Officer prior to the request for final payment. All paperwork shall be signed by the Contractor and disposal site operator as required.

6. ASBESTOS

Whenever and wherever during the course of performing any work under this Contract the Contractor discovers the presence of asbestos or suspects that asbestos is present, the Contractor shall stop work immediately, secure the area, notify the County Project Officer immediately and await positive identification of the suspect material. During the downtime in such a case, the Contractor shall not disturb any surrounding surfaces but shall protect the area with suitable dust covers. Work shall not proceed without an Asbestos-Related Work Authorization executed by the County Asbestos Program Manager.

7. CROSSING UTILITIES

When construction crosses highways, railroads, streets, waterways, or utilities under the jurisdiction of State, County, City, or other public agency, public utility, or private entity, the Contractor shall secure written permission where necessary from the proper authority before executing such new construction. A copy of such written permission must be filed with the County before any work is started. The Contractor shall be required to furnish a release from the proper authority before Final Acceptance of the Work.

8. OVERHEAD HIGH VOLTAGE LINES SAFETY ACT

If any work required herein will be performed within ten feet of an overhead high voltage line, the provisions of Virginia Statute 59.1-406, et. seq., "Overhead High Voltage Line Safety Act" (Act) shall apply. The "person or contractor responsible for the work to be done", as that term is used in the Act, will be interpreted to mean the Contractor. The Contractor shall notify the owner or operator of the high voltage line in the manner prescribed in Section 59.1-411 of the Act in sufficient time prior to the time work is to be commenced to avoid any delays in the work. The County will not pay for lost time, profits, or permit any extension of the work for any delays caused by the failure of the Contractor to make such arrangements in a timely manner. All costs for the work shall be paid by the Contractor. The County shall reimburse the Contractor for the actual reasonable cost paid to the owner or operator of the high voltage line by the Contractor on presentation to the County by the Contractor of original invoices from the owner or operator of the high voltage line in the same manner as for other Contractor invoices submitted for work performed. Retention, if applicable to the Contract, shall not be withheld from the payment to the Contractor by the County for this work. No processing, administrative, or other charges above the actual amount charged by the owner or operator of the high voltage line shall be paid to the Contractor by the County.

9. SANITARY PROVISIONS

The Contractor shall provide and maintain such sanitary accommodations for the use of the Contractor's employees and those of its subcontractors as may be necessary to comply with the requirements and regulations of OSHA and of the local and State departments of health.

10. SITE CLEAN-UP AND WASTE DISPOSAL

The Contractor shall frequently remove and properly dispose of all refuse, rubbish, scrap materials, and debris from the site resulting from the Contractor's operations during the performance of this contract. The Contractor shall ensure the work site presents a neat and orderly appearance at all times. The Contractor shall isolate any and all dumpsters, trash cans and recycling bins provided for the Project from public use until Final Acceptance.

Unless otherwise stated, the Contract Amount and any unit prices shall include all costs and fees for removal and disposal of all waste and debris, whether disposed of at a County site or at any other location.

The Contractor shall remove all surplus material, false work, temporary structures including foundations thereof, and debris resulting from the Contractor's operations at work completion and before Final Acceptance. The County shall reserve the right to remove the surplus material, false work, temporary structures including foundations and debris. The County will restore the site to a neat, orderly condition if the Contractor fails to do so. The County shall be entitled to offset such cost against any sums owed by the County to the Contractor under this Contract.

11. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

When the Project includes an approved SWPPP, the Contractor shall strictly abide by this plan which includes: a Pollution Prevention (P2) Plan, an Erosion and Sediment Control (E&S) Plan, and a Stormwater Management Plan. If the Contractor proposes to deviate from this approved plan, it shall be the Contractor's responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes.

No separate payment shall be made by the County for SWPPP implementation, with the exception of E&S items as specified on the E&S plans or listed as pay items. The Contractor shall not be entitled to any additional payment for changes to the SWPPP which are the result of the Contractor's work schedule or resource allocation, weather delays, or other factors not controlled by the County.

F. PROGRESS AND COMPLETION OF THE WORK

1. NOTICE TO PROCEED

The Contractor shall be given written Notice to Proceed with the Work. Such Notice to Proceed shall state the date on which the Work is to be commenced, and every calendar day thereafter shall be counted in computing the actual Time for Completion.

2. TIME FOR COMPLETION

It is hereby understood and mutually agreed by and between the Contractor and the County that the Commencement Date, the rate of progress, and the Time for Completion of the Work to be done hereunder are essential conditions of the Contract. The Contractor agrees that the Work shall be started promptly upon receipt of a written Notice to Proceed in accordance with the accepted schedule. The Work shall be prosecuted regularly, diligently, and uninterruptedly at a rate of progress that will ensure full completion of the Project within the Time for Completion specified in the Contract Documents.

3. SCHEDULE OF COMPLETION

Unless otherwise specified, the Contractor shall within 10 business days after the Award Date, or prior to the pre-construction meeting, whichever occurs first, submit schedules which show the order in which the Contractor proposes to carry on the Work, with dates for starting and completing the various activities of the Work. The Contractor shall submit an updated schedule monthly with the request for partial payment. Review and acceptance by the County of the Contractor's schedule of completion shall in no way relieve the Contractor of its responsibility to complete the Work within the contract time. If the Work falls behind the schedule, the County may require the Contractor to prepare and submit, at no extra cost to the County, a recovery schedule indicating by what means the Contractor intends to regain compliance with the schedule. The recovery schedule must be submitted to the County for review by the date indicated in the County's written demand.

4. CONDITIONS FOR COMPLETION

- a. **SUBSTANTIAL COMPLETION:** The Work will be considered Substantially Complete when all of the following conditions have been met and accepted by the Project Officer, and a Certificate of Substantial Completion has been issued:
1. The Contractor has provided formal notice that the Work is substantially complete, and the Project Officer has agreed that the condition of the Work warrants a Substantial Completion inspection;
 2. The Contractor has provided a Punch List and that list has been reviewed and approved by the Project Officer. Failure to include an item on the Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents;
 3. Final test reports as required by the Contract and certificates of inspection and approval required for use and occupancy;
 4. Fire Marshal's report, if applicable;
 5. Approval forms and transfer documents for all utilities;
 6. All life safety systems, including fire alarms, visual and audios alarms, fire detectors and fire alarm annunciator system, sprinkler systems, and

all mechanical and electrical systems are complete and working in an automatic mode, and the County has been adequately trained in the operation of the systems;

7. The HVAC system Testing and Balancing Report and build air quality test results as required for LEED certification have been accepted by the Project Officer;
 8. Operation and Maintenance Manuals have been submitted for review;
 9. All documents and verification of training required in accordance with any Commissioning Plan;
 10. Mark-ups of construction drawings showing the As-Built or "Record" condition have been submitted for review and approval by the Project Officer;
 12. Entrances and egress pathways have been constructed and can remain clear of construction activities;
 13. A Certificate of Occupancy has been issued for the space by the County's Inspection Services Division;
 14. All Commissioning has performed and completed to the satisfaction of the Project Officer; and
 15. Schedule to complete the Punch List and value of Work not yet complete.
- b. Upon the Contractor providing notice that the Work is substantially complete, the Project Officer or designee will invite all relevant parties to perform an inspection of the Work, and any noted deficiencies or incomplete items not indicated on the Contractor's punch list will be added. All punch list items, whether generated by the Contractor or any other party on behalf of the County, shall be completed within thirty (30) days of the date of Substantial Completion, unless otherwise agreed to by the County due to seasonal or other extenuating circumstances.
- c. **FINAL COMPLETION:** The Work will be considered Finally Complete when all of the following conditions have been met and accepted and a Final Completion Notice has been issued by the Project Officer:
1. The Contractor has provided formal notice that the Work is complete, and the Project Officer has agreed that the condition of the Work warrants a Final Completion inspection;
 2. All construction deficiencies and punch list items have been closed and all construction deficiencies corrected and accepted by the Project Officer;

3. All spare parts and attic stock have been delivered, stored in an orderly manner in a space designated by the Project Officer and a complete inventory list has been verified and accepted by the Project Officer;
4. All warranties and manufacturer certificates and contact information for parties providing warranties have been delivered and accepted by the Project Officer;
5. All final Operating and Maintenance manuals have been delivered and approved and accepted by the Project Officer;
6. All final As-Built Drawings in .pdf format on a CD delivered and accepted by the Project Officer;
7. All commissioning has been completed and any open construction items in the commissioning agent's report have been closed and accepted by the Project Officer; and
8. All LEED documents and submittals, if applicable, to be provided by the Contractor or sub-contractors have been submitted and accepted by the Project Officer.

5. USE OF COMPLETED PORTIONS

The County shall have the right to take possession of and use any completed or partially completed portions of the Work, notwithstanding that the time for completing the entire Work or such portions may not have expired; but taking such possession and use shall not be deemed an acceptance of any work not done in accordance with the Contract Documents. If the Contractor claims that such prior use increases the cost or delays, the completion of remaining work, or causes refinishing of completed work, the Contractor may submit a claim for compensation or extension of time, or both.

G. MEASUREMENT AND PAYMENT

1. PAYMENTS TO CONTRACTOR

The County will make partial payments, less retainage, to the Contractor monthly on the basis of the Contractor's written estimate of the work performed during the preceding calendar month as approved by the Project Officer or designee.

The Contractor's application for payment shall indicate the amount of work completed to date in a format consistent with the accepted bid and as indicated below:

- a. Lump Sum: For lump sum contracts, the Contractor shall provide to the Project Officer a Schedule of Values, and the application for payment will reflect the Schedule of Values and the amount of work completed in those units.

For contracts that include multiple lump sum line items, the application for payment shall reflect the percentage of work completed for each lump sum

item. If requested by the Project Officer, the Contractor shall provide a Schedule of Values for each lump sum line item in the contract.

- b. Unit Price: The schedule of unit prices in the accepted bid shall be used as the basis for preparing the estimates, and each partial payment shall represent the total value of all units of work completed, computed at the unit prices stated in the Contract, less the aggregate of previous payments.

At the discretion of the Project Officer, payments may alternatively be based on actual quantities and site measurements taken in the field by County staff using the Contract Unit Prices.

If Stipulated Price Items are included in the contract, Work on such Stipulated Price Items shall be carried out only upon written order by the Project Officer. The payment for a Stipulated Price Item shall be made by the County to the Contractor at the related unit price specified in the 'Stipulated Price Items' section of the Bid Form on the same basis as the payment for any other regular Bid Item.

In addition to the amount of work completed to date, the application for payment shall indicate the aggregate of all previous payments for each line item, the retainage previously withheld, and the total payment requested this period.

The Contractor's application for payment will not be reviewed or processed unless an updated schedule is attached. The pay application shall also contain a certification by the Contractor that due and payable amounts have been paid by the Contractor, including payments to subcontractors, for work which previous payment was received by the Contractor from the County.

5. PAYMENT FOR STORED MATERIALS

When requested in writing by the Contractor, payment allowances may be made for material secured for use on the Project and secured at the project site. Such payments will only be made for materials scheduled for incorporation into the work within sixty (60) days.

Payment for materials stored offsite may be considered at the discretion of the Project Officer. Any such request shall be made in writing, and the Contractor shall provide photographs of materials stored offsite, bills of sale, and proof of insurance on the premises at which off-site materials are stored with the application for payment. Payment for stored materials may also be subject to additional requirements contained elsewhere in the Contract Documents.

3. PAYMENTS WITHHELD

The Project Officer or designee may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate for payment to the extent necessary to protect the County from loss on account of defective work not remedied or

withhold payment for violation of any contract term or condition not remedied after sufficient notice given to the Contractor.

Any such withholding shall not result in any liability to the Contractor for damages.

4. COUNTY ORDERED CHANGES IN WORK

The County, without invalidating the Contract, may order extra Work or make changes by addition, deletion or revision in the Work, with the total Contract Amount being adjusted accordingly if applicable. All such work shall be executed under the conditions of the original Contract, except that modification of the Time for Completion caused thereby shall be made at the time of approving such change.

- a. Changes in the Work which do not involve extra cost and are not inconsistent with the purpose of the Project can be directed by means of a Field Order. Otherwise, except in an emergency endangering life or property, no extra Work or change shall be made unless in pursuance of a written Construction Change Directive or Change Order and no claim for an addition to the Contract Amount or Contract Time shall be valid unless so ordered.
- b. The Contractor shall review any County requested or directed change and shall respond in writing within 14 days after receipt of the proposed change stating the effect of the proposed change upon Contractor's work, including any increase or decrease in Contract time and price. The Contractor shall furnish the County an itemized breakdown of the quantities and prices used in computing the proposed change. The Contractor shall also furnish any sketches, drawings, and or pictures to properly explain the change or impact to the Project Officer. It is the sole responsibility of the Contractor to provide adequate change order backup to satisfy the Project Officer.
- c. The value of any such extra work or change shall be proposed by the Contractor in one or more of the following ways: (a) by estimate in a lump sum; (b) by cost and fixed fee; (c) by unit price additions or deletions of quantities stated in the unit price contract; or (d) by any other method permitted under the Arlington County Purchasing Resolution. The Project Officer will determine the method appropriate based on the nature of the changes.
- d. If none of the aforementioned methods is agreed upon the Contractor shall proceed with the work without delay under force account, provided the Contractor receives a Construction Change Directive. In such case, the Contractor shall keep and present in such form as the Project Officer or designee may direct, a correct account of the cost, together with vouchers. The Project Officer or designee shall be permitted to verify such records on a daily basis and may require such additional records as are necessary to determine the cost of the change to the Work. The Project Officer or designee shall certify to the amount due to the Contractor, including a reasonable lump sum allowance for overhead and profit. A complete accounting of the extra cost shall be made within 14 days after completion of the work involved in the claim. Refer to

Paragraph G.5, *Force Account Work*, below for a description of allowable costs when work is performed under force account.

- e. A cost proposal for a change in the Work shall provide a complete breakdown itemizing the estimated quantities and costs of labor, materials, and equipment (base cost) required in addition to any markup used. The allowable percentage markups for overhead and profit for a non-force account change to the Work performed by the Contractor's own forces or performed by the Subcontractor shall be negotiated based on the nature, size, and complexity of the Work involved but shall not exceed the percentages for each category listed below.
 - 1) Subcontractor's markup for overhead and profit for the work it performs in a change to the Work shall be a maximum of fifteen (15%).
 - 2) Contractor's markup for overhead and profit on the Subcontractor's base cost in a change to the Work shall be a maximum of ten percent (10%).
 - 3) Contractor's markup for overhead and profit (including bonds and insurance) for work it performs in a change to the Work shall be a maximum of fifteen percent 15%.
 - 4) The markup for overhead and profit of a sub-subcontractor at any tier on a change to the Work it performs shall be a maximum of fifteen percent (15%). The Contractor and all intervening tiers of subcontractors' markup on such sub-subcontractor's base cost in the change to the Work shall not exceed a total of ten percent (10%).
- f. Base Cost is defined as the total of labor, material, and equipment costs, it does not include markup for overhead and profit. The labor costs include only the costs of employees directly constructing or installing the change in the Work and exclude the costs of employees coordinating or managing the work.
- g. The allowable percentage markups for overhead and profit stated above shall compensate the Contractor, subcontractor, and sub-subcontractor for all other costs associated with or relating to the change to the Work including by way of illustration and not limitation, general conditions, supervision, field engineering, coordination, insurance, bond(s), use of small tools, incidental job costs, and all other general and administrative home and field office expenses.
- h. Allowable costs for changes in the Work shall not include home office expenses including payroll costs for the Contractor's officers, executives, administrators, project managers, estimators, clerks timekeepers, and other administrative personnel employed by the Contractor, whether at the Site or in the Contractor's principal or branch office for general administration of the Work. These costs are deemed overhead included in the percentage markups in Subsection (e) above.

- i. If the change to the Work also changes the Time for Completion by adding days to perform the Work, an itemized accounting of the following Site direct overhead expenses for the change to the time may be considered as allowable costs for compensation in addition to the base cost indicated above:

- 1) site superintendent's pro-rata salary
- 2) temporary site office trailer expense
- 3) temporary site utilities including basic telephone service, electricity, heat, water, and sanitary/toilet facilities.

All other direct and indirect overhead expenses are considered covered by and included in Subsection (e) markups above. In no case shall subcontractor extended overhead be submitted or considered. The County does not have a direct contractual relationship with any subcontractor or supplier and therefore will not direct, discuss or negotiate with subcontractors employed by the Contractor.

- j. If Contractor requests an extension to the Time for Completion due to changes in the Work it must provide to the Project Officer adequate documentation substantiating its entitlement for the time extension. The documentation must demonstrate an anticipated actual increase in the time required to complete the Work beyond that allowed by the Contract as adjusted by prior changes to the Work, not just an increase or decrease in the time needed to complete a portion of the total Work. In the event a Critical Path Method (CPM) schedule is required by the Contract, no extension to the Time for Completion shall be granted unless the additional or change to the Work increases the length of the critical path beyond the Time for Completion as demonstrated on the approved CPM schedule or bar chart schedule. Any Float belongs to Arlington County. A written statement in addition to a CPM analysis shall be prepared explaining how no other sequence of work activities could have been performed to decrease the impact or eliminate the impact altogether. If requested by the Project Officer the Contractor must provide alternate documentation detailing the claim to the County's satisfaction.

- k. Any change that will increase the Contract Amount more than 10% will require notice to sureties and require that Performance and Payment Bonds be increased by the Contractor. The increased Performance and Payment Bonds must be sent to the County's Office of the Purchasing Agent within 15 calendar days of the County's approval of such change.

5. FORCE ACCOUNT WORK

A Force Account may be used at the County's discretion and only when either 1) agreement on the valuation of a change cannot be made using the methods described in the preceding paragraph, *County Ordered Changes in the Work*, or 2) the County cannot firmly establish an applicable and acceptable estimate for the cost of the work because the level of effort necessary to perform and complete the work cannot be reasonably estimated or anticipated but can only be determined by performing the work. Because of the significant burden on the County to monitor and control the work, Force Account

work is not a preferred method, and it shall be the responsibility of the Contractor to provide all necessary documentation and justification of costs. The rates for labor, equipment and materials to be used in cases of work performed on a force account basis will be compensated as documented below. No costs other than those explicitly listed below shall be allowed:

- a. Labor: Before any Force Account work begins, the Contractor shall submit for approval to the Project Officer the proposed hourly rates and associated labor costs (benefits and payroll burden) for all laborers and forepersons to be engaged in the work. The number of laborers and forepersons engaged in the work will be subject to regulation by the Project Officer and shall not exceed the number that the Project officer deems most practical and economical for the work. For all labor and forepersons in direct charge of the force account work, excluding general superintendence, compensation will be as follows:
 - 1) Certified Pay Rate: The Contractor will receive the actual rate of wage or scale as set forth in his most recent payroll for each classification of laborers, and forepersons who are in direct charge of the specific operation. The time allowed for payment will be the number of hours such workers are actually engaged in the work. If overtime work is authorized by the County, payment will be at the normal overtime rate set forth in the Contractor's most recent payroll.
 - 2) Benefits: The Contractor will be entitled to receive the actual cost for any fringe benefits that are regularly provided to the classes of laborers and forepersons engaged in the work and that are not included in the certified pay rate.
 - 3) Payroll Burden: The Contractor will be entitled to receive the actual cost for all costs associated with required payroll taxes and payroll benefits not covered in 2) above, including:
 - Social Security Tax
 - Medicare Tax
 - Unemployment Tax
 - Worker's Compensation Insurance
 - Contractor's Public Liability Insurance
 - Contractor's Property Damage Liability Insurance
 - 4) If the Contractor is unable to provide the necessary documentation for Benefits and Payroll Burden as identified above, the Contractor will be entitled to an additive of 20% of the Certified Hourly Pay Rate as full and final compensation for Benefits and Payroll Burdens
 - 5) Overhead and Profit: The Contractor will be entitled to an additive of 10% on all properly documented and approved costs established in paragraphs 1), 2), 3), and 4) above for all administrative, overhead, and profit associated with labor costs.

- 6) Subsistence and lodging allowances may be allowed by the Project Officer at the actual and documented costs for lodging and meals if the following conditions are met and the applicable rates and authorization for such costs are established prior to beginning the work. No additives for overhead, administrative, profit, or any other costs will be permitted for subsistence and lodging.
 - i. The specific Force Account work is outside the scope of the original contract, requires mobilization of a separate crew not intended to be used on the original contract, and the Contractor's base location is more than 50 miles from the work site, or
 - ii. Forces which have been working on the Contract will be used for the Force Account work and have been routinely staying overnight during the life of the Project, and the Force Account Work will warrant an extension of the contract time, and the distance from the Contractor's base location to the work site is more than 50 miles
- b. Materials: The Contractor will receive the actual cost of materials accepted by the Project Officer that are delivered and used for the work including taxes, transportation, and handling charges paid by the Contractor, not including labor and equipment rentals as herein set forth, to which 15 percent (15%) of the cost will be added for administration and profit. The Contractor shall make every reasonable effort to take advantage of trade discounts offered by material suppliers. Any discount received shall pass through to the County. Salvageable temporary construction materials will be retained by the County, or their appropriate salvage value shall be credited to the County, at the County's discretion.
- c. Equipment: For all equipment other than small tools, the Contractor will be entitled to rental rates as established herein, and agreed to in writing before the work is begun. Transportation costs directly attributable to Force Account work will be as stated below. Small tools will be considered any equipment which has a new cost of \$1000 or less, and will not be eligible for any compensation. The Contractor shall provide the Project Officer a list of all equipment to be used in the work. For each piece of equipment, the list shall include the serial number; date of manufacture; location from which equipment will be transported; and, for rental equipment, the rental rate and name of the company from which it is rented. The number and types of equipment engaged in the work will be subject to regulation by the Project Officer as deemed to be the most practical and economical for the work. No compensation will be allowed for equipment which is inoperable due to mechanical failure. Compensation for equipment shall be as follows:
 - 1) Hourly Base Equipment Rental Rates (Owned Equipment) – For equipment authorized for use in the Force Account work that is owned by the Contractor, the Contractor shall be entitled to an Hourly Base

Rental Rate as detailed in the following paragraphs. The Hourly Base Rental Rate for Contractor owned equipment will not exceed 1/176 of the monthly rates of the schedule shown in the *Rental Rate Blue Book* modified in accordance with the *Rental Rate Blue Book* rate adjustment tables that are current at the time the force account is authorized. The rates for equipment not listed in the *Rental Rate Blue Book* schedule shall not exceed the hourly rate being paid for such equipment by the Contractor at the time of the force account authorization. In the absence of such rates, prevailing rates being paid in the area where the authorized work is to be performed shall be used.

- 2) Hourly Base Equipment Rental Rates (Rented Equipment) – If the Contractor does not possess or have readily available equipment necessary for performing the force account work and such equipment is rented from a source other than a company that is an affiliate of the Contractor, payment will be based on actual invoice rates when the rates are reasonably in line with established rental rates for the equipment in question and are approved by the Project Officer.
- 3) Hourly Operating Rates – Hourly Operating Rates shall be as established in the Blue Book estimated operating cost per hour. This operating cost will be full compensation for fuel, lubricants, repairs, servicing (greasing, fueling, and oiling), small tools, and any and all incidentals. If rental rates for the equipment being used in the work are not listed in the Blue Book or otherwise readily available, the Hourly Operating Cost will be 15% of the established Hourly Base Rental Rate. If invoices for Rental Equipment include the furnishing of fuel, lubricants, repair, and servicing, then the Contractor will not be entitled to any Hourly Operating costs for that equipment.
- 4) Equipment Usage - Equipment usage will be measured by time in hours of actual time engaged in the performance of the work. The Contractor shall be entitled to the applicable Hourly Base Equipment Rental Rate and Hourly Operating Rate for all approved Equipment Usage.
- 5) Equipment Standby – Standby time is defined as the period of time equipment authorized for Force Account work by the Project Officer is available on-site for the work but is idle for reasons not the fault of the Contractor or normally associated with the efficient and necessary use of that equipment in the overall operation of the work at hand. Hourly rates for Contractor owned equipment on standby, will be at 50 percent (50%) of the rate paid for equipment performing work. Operating costs will not be allowed for equipment on Standby. When equipment is performing work less than 40 hours for any given week and is on standby, payment for standby time will be allowed for up to 40 hours, minus hours performing work. Payment for Standby will be allowed only for working days. Payment for Standby will not be made for the time

that equipment is on the Project in excess of 24 hours prior to its actual performance in the force account work.

- 6) **Transporting Costs** – When it is necessary to obtain equipment exclusively for Force Account work from sources beyond the Project limits and the Project Officer authorizes the transporting of such equipment to the Project site, the cost of transporting the equipment will be allowed as an expense. Where the transport requires the use for a hauling unit, the allowable expense will consist only of the actual cost incurred for the use of the hauling equipment, or the applicable Blue Book cost, whichever is less. When equipment is transferred under its own power, the allowable Transporting cost shall be 50% of the Hourly Base Equipment Rental Rate.
- 7) **Overhead and Profit** – The Contractor shall be entitled to an additive of 10% on all appropriate and approved Equipment Rental, Operating, and Transporting costs as defined above.
- d. **Subcontracting:** The Contractor shall receive the cost of work performed by a subcontractor as determined in (a), (b), and (c) above. In addition, the Contractor will be allowed an allowance per the schedule below for administrative costs and profit.

Total Cost of Subcontract Work: Rate Schedule

\$0 - \$10,000	10%
> \$10,000	\$1,000 + 5 % above \$10,000

- e. **Other Costs:** The Contractor shall not be entitled to any costs associated with Force Account Work other than those specifically identified in this section.
- f. **Statements:** Payments will not be made for work performed on a force account basis until the Contractor has furnished the Project Officer duplicate itemized statements of all costs of such work detailed as follows:
 - 1. Payroll indicating name, classification, date, daily hours, total hours, rate, and extension of each laborer, foreperson
 - 2. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of equipment
 - 3. Quantities of materials, prices, and extensions
 - 4. Transportation of materials
 - 5. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the Force Account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his stock; that the quantity claimed was actually used; and that the price, transportation, and handling claimed represented his actual cost.

6. CLAIMS FOR EXTRA COST

If the Contractor claims that any event will give rise to a claim for an increase in the Contract Amount or that any instructions from the Project Officer, by drawings or otherwise, will incur him extra cost under the Contract, then, except in emergencies endangering life or property, it shall give the Project Officer written notice thereof no later than three (3) days of the event or instruction. The Contractor thereafter must provide to the Project Officer a full cost proposal within 14 days detailing the amount of additional compensation claimed, together with the basis therefore and documentation supporting the claimed amount. No such claims shall be valid unless so made. If the Project Officer agrees that such event or instructions involve extra cost to the Contractor, any additional compensation will be determined by one of the methods provided in the Changes in Work paragraph of these General Conditions as selected by the Project Officer. All pricing and supporting documentation requirements of the Changes in the Work clause shall apply to claims for extra cost deemed valid under this paragraph.

7. DAMAGES FOR DELAY; EXTENSION OF TIME OTHER THAN FOR WEATHER

a. Excusable Non-Compensable Delays: If and to the extent that the Contractor is delayed at any time in the progress of the Work by a Force Majeure event or other causes outside of the County's control or the Contractor's control and which the Contractor could not have reasonably foreseen, the Contractor may request an extension of the Time for Completion. To be considered for an extension of the Time for Completion, the Contractor shall give the Project Officer timely written notice at the inception of the delay. The Contractor thereafter must provide to the Project Officer a full claim within 14 calendar days of the cessation of the delay and demonstrate that the delay affected the critical path of the accepted schedule and any Float has been consumed. If the Project Officer agrees with the existence and impact of the delays, the Project Officer shall extend the Time for Completion for the length of time that the Time for Completion was actually delayed thereby. The Contractor shall not be due compensation or damages of any kind as a result of such delay. Delays caused by weather are addressed in Section G.8.

b. Excusable Compensable Delays: If and to the extent that the Contractor is unreasonably delayed at any time in the progress of the Work by any act or omission of the County, its agents or employees, due to causes within the County's control, the Contractor may request an extension of the Time for Completion and/or additional compensation. The Contractor shall give notice to the Project Officer immediately at the time of the occurrence giving rise to the delay and shall give written notice no later than five (5) calendar days after the inception of the delay. The Contractor's written notice shall specify the nature of the delay claimed, the cause of the delay, and the impact of the delay on the Contractor's schedule. Thereafter the Contractor shall provide to the Project Officer a full claim within 14 calendar days of the cessation of the delay. The claim must detail the amount of additional contract time or compensation claimed, together with the basis therefor along with itemized documentation supporting the claim. The itemized documentation must demonstrate that the claimed delay directly affected the critical path of the accepted schedule and any Float has been consumed and the time

and/or costs incurred by the Contractor are directly attributable to the delay in the work claimed. The Contractor shall be entitled to additional compensation only if the delay was caused solely by acts or omission of the County, its agents or employees, or due to causes within their control.

If the Contractor is entitled to compensation, an itemized accounting of the following direct site overhead expenses will be considered as allowable costs to be used in determining the compensation due the Contractor: the site superintendent(s) (as identified at the inception of the work) pro rata salary, temporary site facilities, temporary site office expense, and temporary site utilities including basic telephone service, electricity, heat, water, and sanitary/toilets. A fifteen percent (15%) markup of these expenses will be allowed to compensate the Contractor for home office and other direct or indirect overhead.

Furthermore, compensation for the delay shall be calculated from the contractual Time for Completion, as adjusted by Change Order, and shall not be calculated based on any early completion planned or scheduled by the Contractor

c. Non-Excusable Non-Compensable Delays: The Contractor shall not be entitled to an extension of the Time for Completion or to any additional compensation for delays if and to the extent they are caused by acts, omissions, fault, or negligence of the Contractor or its subcontractors, agents, or employees or due to foreseeable causes within their control, including, but not limited to, delays resulting from defective work, including workmanship and/or materials, from rejected work which must be corrected before dependent work can proceed, from defective work or rejected work for which corrective action must be determined before like work can proceed, from incomplete, incorrect, or unacceptable Submittals or samples, or from the failure to furnish enough properly skilled workers, proper materials or necessary equipment to diligently perform the work in a timely manner in accordance with the Project schedule.

d. No extension of time or additional compensation shall be given for a delay if the Contractor failed to give notice in the manner and within the time prescribed herein. Furthermore, no extension of time or additional compensation shall be given for any delay unless a full claim is made to the Project Offer within 14 days of the end of the delay. Failure to give written notice or failure to present a timely claim shall constitute a waiver of any claim for extension or additional compensation based upon that cause.

e. If the Contractor submits a claim for damages pursuant to this Section, the Contractor shall be liable to the County for a percentage of all costs incurred by the County in investigating, analyzing, negotiating and litigating the claim, which percentage shall be equal to the percentage of the Contractor's total delay claim that is determined through litigation to be false or to have no basis in law or fact (Virginia Code §2.2-4335).

f. Any change in the Time for Completion or additional compensation shall be accomplished only by the issuance of a Change Order.

8. TIME EXTENSIONS FOR WEATHER

The Contractor's sole relief on any claims for delay which is caused by abnormal weather shall be an extension of the Time for Completion provided the Contractor gave the Project Officer written notice no later than five (5) calendar days after the onset of such delay and provided the weather affected the Critical Path. A fully-documented claim for a time extension under this Section must be submitted no later than thirty (30) calendar days after the cessation of the delay. It shall be the Contractor's responsibility to provide the necessary documentation to satisfy the Project Officer that the weather conditions claimed were encountered, which may include daily reports by the Contractor, copies of notification of weather days to the Project Officer, NOAA backup, and pictures from each day claimed.

The Time for Completion will not be extended due to inclement weather conditions which are normal, as defined below, for Arlington County. The Time for Completion includes an allowance for workdays (based on five (5) day workweek) which according to historical data may not be suitable for construction work. The Contractor may request extension to the Time for Completion if it can demonstrate unusual and disruptive weather conditions per the requirements below:

- a. That one or more of the Weather Conditions listed below was encountered; and,
- b. The occurrence of the Weather Condition(s) resulted in an inability to prosecute work which would have otherwise been performed on the day(s) the Weather Condition(s) occurred; and,
- c. The work which was not able to be completed was on the Critical Path and could not be completed **only** due to the Weather Condition(s) claimed.

The Project Officer will determine the Contractor's entitlement to an extension of the Time for Completion. A time extension of no more than one (1) day will be granted for one (1) day of lost work which satisfies the requirements above, regardless of the number of Weather Conditions encountered. The Contractor's sole relief shall be an extension of the Time for Completion and no claim for an increase in Contract Amount will be allowed.

The Weather Conditions listed below will be the only basis for consideration by the County, based upon the requirements listed above, as an extension of the Time for Completion due to inclement weather or weather-related site conditions.

Weather Condition #1: Unusually Heavy Precipitation - Figure 1 illustrates the anticipated monthly inclement weather due to precipitation (Rain Days). If the number of days with precipitation in excess of 0.10", as recorded at Washington Reagan National Airport, exceeds the anticipated Rain Days, the Contractor will be entitled to an extension of one (1) day on the Time for Completion for every day in excess of the Rain Days illustrated in Figure 1. The anticipated value of Rain Days for partial months at the beginning and end of the Contract shall be evaluated on a pro-rated basis.

FIGURE 1

Average days with precipitation of 0.1" or more

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
7	6	7	6	8	6	7	6	6	5	6	6

Weather days are not exclusive to the individual months that they represent in Figure 1. If weather days are not used in a previous month(s) they can be used to offset weather delays in subsequent months. This will be reviewed on a case by case basis and is subject to reconciliation at the end of the Project.

Condition #2: Temperature – The Contractor may be entitled to an additional day for every day that the recorded high temperature at Washington Reagan National Airport is 32 degrees Fahrenheit or less, that has not already been incurred under Weather Condition #1 above. This condition does not apply to vertical construction as defined by the Arlington County Vertical Construction Standards.

9. RELEASE OF LIENS

The County, before making final payment, shall require the Contractor to furnish a complete release of all liens arising out of this Contract. The Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the County, to indemnify him against any lien. If any lien remains unsatisfied after all payments have been made, the Contractor shall refund to the County all money that the latter may be compelled to pay in discharging such lien. However, the County may make payments in part or in full to the Contractor without requiring the releases or receipts, and the payments so made shall not impair the obligations of any Surety or Sureties on any bond or bonds furnished under this Contract.

10. FINAL PAYMENT

After the Contractor has completed all work and corrections to the satisfaction of the Project Officer or designee and delivered all maintenance and operating instructions, schedules, quantities, bonds, certificates of inspection, maintenance records, As-Built Drawings, and other items required as final payment submittal documents, the Contractor may make application for final payment following the procedure for progress payments. The Final Application for Payment shall be accompanied by all documents required in the Contract, including a complete and signed and notarized copy of the Final Payment Release Form as follows:

RELEASE AND REQUEST FOR FINAL PAYMENT

CONTRACT NUMBER: _____ CONTRACTOR NAME: _____

FINAL PAYMENT AMOUNT: _____

The Contractor hereby requests final payment in the amount indicated on the above referenced Contract. The Contractor agrees that its acceptance of final payment releases and forever discharges Arlington County and its officers, employees, servants and agents from any and all actions, claims, demands and liability of whatever nature now existing or which may hereafter arise as a result of or in connection with the above referenced Contract.

The Contractor certifies that all of the debts for labor, materials, and equipment incurred in connection with the above referenced Contract have been fully paid.

AUTHORIZED SIGNATURE DATE: _____

The date of Final Acceptance is the date on which the County issues the final payment for the work performed.

COMMONWEALTH OF VIRGINIA

COUNTY OF ARLINGTON

On this the ____ day of _____, 20____, before me, personally appeared _____, who acknowledged himself/herself to be _____ in the above instrument, and that he/she, as such _____, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing his/her name by himself/herself as _____.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public

My Commission Expires: _____

ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
INVITATION TO BID NO.

SUBMIT AN ORIGINAL SIGNED BID FORM AND ONE COPY

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) DHC CORPORATION
IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA.
CERTIFICATE NUMBER A2705037788 WAS ISSUED ON THE 31ST DAY OF MARCH, 2021. THE
UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN
PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY
TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES
TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE
PROVISION AND INSTALLATION).

BIDDERS SHALL PROVIDE THEIR BID PRICES IN THE CELLS HIGHLIGHTED IN BLUE BELOW. BIDDERS SHALL INCLUDE A BID PRICE FOR ALL ITEMS. FAILURE TO PROVIDE A PRICE FOR ALL ITEMS, OR ANY MODIFICATIONS OR ADDITIONS TO THE BID FORM MAY RESULT IN BID REJECTION. LOW BID DETERMINATION WILL BE MADE BASED ON THE SUM OF THE "BASE CONTRACT WORK"

CONSTRUCTION COST ESTIMATE
Water Main Cleaning & Cement-Mortar Lining

MASTER ID#	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
I. CLEANING AND LINING WORK (INCLUDING ALL MATERIALS)					
1	CLEAN AND LINE 6" WATER MAIN	LF	26,500	\$44.00	\$1,166,000.00
2	CLEAN AND LINE 8" WATER MAIN	LF	10,000	\$45.00	\$450,000.00
3	CLEAN AND LINE 12" WATER MAIN	LF	5,000	\$62.00	\$310,000.00
4	REMOVE AND REPLACE OBSTRUCTION IN WATER MAIN	EA	15	\$4,750.00	\$71,250.00
5	PROVISION OF PIPE SECTION FOR LINING THICKNESS TEST, AS DIRECTED BY PROJECT OFFICER	EA	5	\$2,500.00	\$12,500.00
6	TELEVISION INSPECTION OF PIPELINE, UP TO 300 LF, AS DIRECTED BY PROJECT OFFICER	EA	1	\$2,000.00	\$2,000.00

SUBTOTAL \$2,011,750.00

II. WATER MAIN WORK (INCLUDING ALL MATERIALS)					
1	8-INCH WATER MAIN, DIP CL-52	LF	250	\$150.00	\$37,500.00
2	6-INCH WATER MAIN, DIP CL-53	LF	440	\$148.00	\$65,120.00
3	REMOVE & REPLACE 8-INCH WATER MAIN	LF	1,300	\$150.00	\$195,000.00
4	REMOVE & REPLACE 6-INCH WATER MAIN	LF	100	\$148.00	\$14,800.00
5	12-INCH GATE VALVE & VALVE BOX	EA	1	\$7,400.00	\$7,400.00
6	8-INCH GATE VALVE & VALVE BOX	EA	10	\$5,500.00	\$55,000.00
7	6-INCH GATE VALVE & VALVE BOX	EA	50	\$4,500.00	\$225,000.00
8	CONNECT TO EXISTING 10-INCH to 16-INCH WATER MAIN	EA	1	\$6,500.00	\$6,500.00
9	CONNECT TO EXISTING 4-INCH to 8-INCH WATER MAIN	EA	20	\$3,500.00	\$70,000.00
10	2-INCH BLOWOFF VALVE ASSEMBLY & BOX	EA	6	\$4,000.00	\$24,000.00
11	ABANDON/REMOVE EXISTING FIRE HYDRANT	EA	5	\$500.00	\$2,500.00
12	REMOVE AND REPLACE EXISTING FIRE HYDRANT	EA	15	\$1,000.00	\$15,000.00
13	INSTALL NEW FIRE HYDRANT	EA	10	\$1,750.00	\$17,500.00
14	FIRE HYDRANT VERTICAL EXTENSION	VF	1	\$750.00	\$750.00
15	CUT & CAP 4-INCH - 8-INCH WATER MAIN	EA	1	\$3,000.00	\$3,000.00
16	REMOVE EXISTING VALVE BOXES	EA	3	\$500.00	\$1,500.00
17	12" x 8" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$500.00	\$500.00
18	12" x 6" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$500.00	\$500.00
19	8" x 8" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$500.00	\$500.00
20	8" x 6" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$500.00	\$500.00
21	6" x 6" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$500.00	\$500.00
22	2" TEMPORARY BLOW-OFF	EA	1	\$500.00	\$500.00
23	4-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$500.00	\$500.00
24	6-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$500.00	\$500.00

Bidders Name DHC CORPORATION

Bidders Initials MR

25	8-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$500.00	\$500.00
26	12-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$500.00	\$500.00

SUBTOTAL \$ 745,570.00

III. WATER SERVICES

DIRECT LABOR RATES ONLY (PRICES FOR ¾ INCH AND 1 INCH WATER SERVICES, METERS ARE SUPPLIED BY THE COUNTY)

1	SERVICE TAPS (TAP MAIN, INSTALL COPPER TUBING, INSTALL ANGLE VALVES, CORPORATION COCK, METER BOX AND METER YOKE/METER, CONNECT TO EXISTING PRIVATE SERVICE LINE, BACKFILL AND EXCAVATION)--UP TO 10 FT.	EA	5	\$2,500.00	\$12,500.00
2	SERVICE TAPS PER ADDITIONAL LINEAR FOOT OVER 10 FT.	LF	20	\$50.00	\$1,000.00
3	SERVICE RE-TAPS (TAP MAIN, INSTALL COPPER TUBING, CONNECT TO EXISTING SERVICE LINE, ABANDON CORPORATION COCK FROM EXISTING SERVICE LINE, BACKFILL AND EXCAVATION)--UP TO 10 FT.	EA	30	\$2,500.00	\$75,000.00
4	SERVICE RE-TAPS PER ADDITIONAL LINEAR FT. OVER 10 FT.	LF	100	\$50.00	\$5,000.00
5	WATER METER RELOCATIONS.(INSTALL COPPER TUBING, CONNECT TO EXISTING COUNTY AND PRIVATE SERVICE LINES, PROVIDE NEW ANGLE VALVES, RELOCATE METER HOUSING AND METER YOKE, BACKFILL AND EXCAVATION)--UP TO 10 FT.	EA	5	\$2,500.00	\$12,500.00
6	SERVICE RELOCATIONS PER ADDITIONAL LINEAR FOOT OVER 10 FT.	LF	20	\$50.00	\$1,000.00

SUBTOTAL \$ 107,000.00

IV. RELATED WORK, INCLUDING ALL MATERIALS

1	PAVEMENT RESTORATION PER SPECS. DRAWING No. M-6.0 (PRICE INCLUDES 2-INCH SM-2A BITUMINOUS CONCRETE SURFACE, 5-INCH (MIN) BM-2 BITUMINOUS CONCRETE BASE, 6" 21-A AGGREGATE BASE AND 12" SAW CUT BENCH ON EACH SIDE OF TRENCH)	SY	3000	\$95.00	\$285,000.00
2	PAVEMENT RESTORATION, 8" BASE ASPHALT FLUSH WITH STREET (PRICE INCLUDES 8-INCH (MIN) BM-2 BITUMINOUS CONCRETE BASE, 6" 21-A AGGREGATE BASE AND 12" SAW CUT BENCH ON EACH SIDE OF TRENCH)	SY	100	\$95.00	\$9,500.00
3	PAVEMENT RESTORATION, 2" TEMPORARY HOT MIX FLUSH WITH STREET(ONLY TO BE PAID AS A SEPARATE ITEM WHEN DIRECTED BY THE PROJECT OFFICER)	SY	100	\$50.00	\$5,000.00
4	REMOVE & REPLACE 4" CONCRETE SIDEWALK	SY	50	\$55.00	\$2,750.00
5	REMOVE & REPLACE PAVERS SIDEWALK	SY	25	\$150.00	\$3,750.00
6	REMOVE & REPLACE CONCRETE CURB & GUTTER	LF	150	\$40.00	\$6,000.00
7	REMOVE & REPLACE CONCRETE HEADER CURB	LF	25	\$35.00	\$875.00
8	ROCK EXCAVATION	CY	25	\$50.00	\$1,250.00
9	CONCRETE PIER, CRADLE OR ENCASEMENT	CY	25	\$100.00	\$2,500.00
10	SHEETING & BRACING WHEN LEFT IN PLACE	MFBM	1	\$100.00	\$100.00
11	VDOT #57 STONE	TON	100	\$90.00	\$9,000.00
12	AGGREGATE, VDOT #21A FOR DRIVEWAY, SHOULDER, TRAILS AS DIRECTED BY PROJECT OFFICER	TON	100	\$80.00	\$8,000.00
13	SELECT BORROW	CY	100	\$25.00	\$2,500.00
14	OVER EXCAVATION	CY	100	\$10.00	\$1,000.00
15	SEEDING AND SODDING	SY	50	\$25.00	\$1,250.00
16	REMOVE 8" to 10" REINFORCED CONCRETE PAVING	SY	50	\$50.00	\$2,500.00
17	REMOVE & REPLACE 8" to 10" REINFORCED CONCRETE PAVING	SY	50	\$200.00	\$10,000.00
18	TEST PIT	EA	5	\$2,500.00	\$12,500.00
19	REMOVE & REPLACE 6" CONCRETE DRIVEWAY ENTRANCE	SY	20	\$180.00	\$3,600.00
20	REMOVE & REPLACE 9" CONCRETE DRIVEWAY ENTRANCE	SY	20	\$220.00	\$4,400.00
21	2" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	500	\$22.00	\$11,000.00
22	3" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	100	\$10.00	\$1,000.00
23	4" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	1000	\$28.00	\$28,000.00
24	6" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	100	\$10.00	\$1,000.00

SUBTOTAL \$ 412,475.00

Bidders Name DHC CORPORATION

Bidders Initials MP

**V. UNLISTED WORK EQUIPMENT AND LABOR RATES – ALL
LABOR RATES MUST BE FULLY-LOADED HOURLY RATES**

1	FOREMAN W/PICKUP TRUCK	HOURLY	8	\$125.00	\$1,000.00
2	BACKHOE W/OPERATOR	HOURLY	8	\$195.00	\$1,560.00
3	TANDEM/TRI-AXLE DUMP TRUCK W/DRIVER	HOURLY	8	\$200.00	\$1,600.00
4	SINGLE AXLE DUMP TRUCK W/DRIVER	HOURLY	8	\$180.00	\$1,440.00
5	LABOR-PIPE LAYER	HOURLY	8	\$85.00	\$680.00
6	LABOR-SKILLED	HOURLY	8	\$75.00	\$600.00
7	LABOR-UNSKILLED	HOURLY	8	\$65.00	\$520.00
8	FLAGMAN	HOURLY	8	\$65.00	\$520.00
9	BOOM TRUCK WITH DRIVER/OPERATOR	HOURLY	8	\$150.00	\$1,200.00
10	TRACTOR TRAILER W/DRIVER	HOURLY	8	\$200.00	\$1,600.00
11	RUBBER TIRE LOADER W/OPERATOR	HOURLY	8	\$200.00	\$1,600.00
12	SKID STEER LOADER W/OPERATOR	HOURLY	8	\$150.00	\$1,200.00
13	TRACK EXCAVATOR W/OPERATOR (50,000 POUNDS OR LESS)(SEE	HOURLY	8	\$200.00	\$1,600.00
14	AIR COMPRESSOR WITH TOOLS	HOURLY	8	\$75.00	\$600.00
15	TOOL TRUCK OR TRAILER WITH TOOLS INCIDENTAL TO WORK (SEE	HOURLY	8	\$200.00	\$1,600.00
16	TRENCH COMPACTOR/ASPHALT ROLLER	HOURLY	8	\$150.00	\$1,200.00
17	PAVEMENT BREAKER	HOURLY	8	\$125.00	\$1,000.00
18	TAP MACHINE ¾-INCH – 2-INCH	DAILY	1	\$400.00	\$400.00
19	LIGHTING WITH GENERATOR	HOURLY	8	\$85.00	\$680.00
20	ROADWAY STEEL PLATES - EA	DAILY	1	\$300.00	\$300.00
21	EXCAVATION TRENCH BOX – EA	DAILY	1	\$1,000.00	\$1,000.00
22	ELECTRONIC ARROW BOARD	HOURLY	8	\$25.00	\$200.00
23	4-INCH TO 6-INCH DEWATERING PUMP	HOURLY	8	\$50.00	\$400.00

SUBTOTAL \$22,500.00

TOTAL BID PRICE (SUM OF TOTALS FOR SECTIONS I THROUGH V ABOVE) \$ 3,299,295.00

Bidders Name DHC CORPORATION

Bidders Initials MR

EXHIBIT C



COMMONWEALTH of VIRGINIA
DEPARTMENT OF LABOR AND INDUSTRY

Gary G. Pan
 COMMISSIONER

Main Street Centre
 600 East Main Street, Suite 207
 Richmond, Virginia 23219
 PHONE (804) 371-2327
 FAX (804) 371-6524

Virginia Department of Labor and Industry Wage Determination Decision

Project Name	Water Main Cleaning & Lining
County Project Code	22-DES-ITB-558
DOLI Project Number	ARLC-22-0005 UPDATE
County or Independent City	Arlington County
Publication Date	06/29/2022
Construction Type	Highway

Wage Determinations	Wage	Fringe
Carpenter, Includes Form Work	\$20.97	
Cement Mason/Concrete Finisher	\$20.70	\$8.03
Electrician, Includes Traffic Signalization	\$28.35	15.95% + \$7.00
Fence Erector	\$15.28	
Ironworker, Reinforcing	\$34.18	
Ironworker, Structural	\$34.18	
Laborer: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	\$19.06	\$1.75
Laborer: Common or General	\$20.90	\$7.90
Laborer: Grade Checker	\$14.88	
Laborer: Pipelayer	\$20.48	
Laborer: Power Tool Operator	\$15.69	
Operator: Asphalt Spreader and Distributor	\$20.58	\$2.31

Wage Determinations	Wage	Fringe
Operator: Backhoe/Excavator/Trackhoe	\$23.93	
Operator: Bobcat/Skid Steer/Skid Loader	\$19.00	\$3.49
Operator: Broom/Sweeper	\$17.40	\$2.01
Operator: Bulldozer, Including Utility	\$20.64	
Operator: Crane	\$29.46	
Operator: Drill	\$24.89	
Operator: Gradall	\$19.26	
Operator: Grader/Blade	\$23.21	
Operator: Hydroseeder	\$16.64	
Operator: Loader	\$18.92	
Operator: Mechanic	\$22.84	
Operator: Milling Machine	\$23.19	\$2.94
Operator: Pavement Planer	\$21.14	
Operator: Pavement Planer Groundsmen	\$19.75	
Operator: Paver (Asphalt, Aggregate, and Concrete)	\$20.33	\$2.81
Operator: Piledriver	\$21.83	\$4.08
Operator: Roller	\$18.92	
Operator: Roller (Finishing)	\$18.73	\$3.23
Operator: Screed	\$22.13	\$4.89
Pavement Marking Operator	\$22.16	
Pavement Marking Truck Driver	\$18.78	
Traffic Control: Flagger	\$13.64	
Truck Driver: 1/Single Axle Truck	\$19.35	
Truck Driver: Fuel and Lubricant Service	\$18.25	
Truck Driver: Heavy 7CY & Under	\$15.53	
Truck Driver: Heavy Over 7CY	\$18.05	
Truck Driver: Multi Axle	\$20.34	\$2.89

Additional Notes

All wage rates to be used on a contract will be set at the time the contract is awarded. While DOLI maintains a list of wage determinations online for reference purposes, only the wage determinations made in an official Wage Determination Decision, sent by DOLI to the contracting agency, can be used to ascertain the exact rates to be paid for a specific contract.

All rates are determined by DOLI and any appeals of specific classifications may be made through the Wage Determination Appeal form available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/Appeal-for-Wage-Determination-Clarification.pdf>

Any additional classifications may be requested through the Additional Wage Classification form available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/Request-for-Additional-Wage-Classification.pdf>

Understand your duties as a contractor under Virginia law by referencing our Contractor Responsibilities information sheet available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/PREVAILING-WAGE-CONTRACTOR-RESPONSIBILITIES.pdf>

Your employees have specific rights, which can be found on our List of Employee Rights information sheet available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/PREVAILING-WAGE-EMPLOYEE-RIGHTS.pdf>

Any further questions should be directed to PrevailingWage@doli.virginia.gov

EXHIBIT D - INSURANCE CHECKLIST**CERTIFICATE OF INSURANCE MUST SHOW ALL COVERAGE AND ENDORSEMENTS MARKED "X".****COVERAGES REQUIRED****LIMITS (FIGURES DENOTE MINIMUMS)**

- X 1. Workers' Compensation..... Statutory limits of Virginia
- X 2. Employer's Liability.....\$500,000/accident, \$500,000/disease, \$500,000/disease policy limit
- X 3. Commercial General Liability.....\$1,000,000 CSL BI/PD each occurrence, \$1 Million annual aggregate
- X 4. Premises/Operations.....\$500,000 CSL BI/PD each occurrence, \$ 1 Million annual aggregate
- X 5. Automobile Liability.....\$1 Million BI/PD each accident, Uninsured Motorist
- X 6. Owned/Hired/Non-Owned Vehicles.....\$1 Million BI/PD each accident, Uninsured Motorist
- X 7. Independent Contractors.....\$1 Million CSL BI/PD each occurrence, \$1 Million annual aggregate
- X 8. Products Liability.....\$1 Million CSL BI/PD each occurrence, \$1 Million annual aggregate
- X 9. Completed Operations.....\$1 Million CSL BI/PD each occurrence, \$1 Million annual aggregate
- X 10. Contractual Liability (Must be shown on Certificate).....\$1 Million CSL BI/PD each occurrence, \$ 1 Million annual aggregate
11. Personal and Advertising Injury Liability.....\$1 Million each offense, \$1 Million annual aggregate
- X 12. Umbrella/Excess Liability.....\$1 Million Bodily Injury, Property Damage and Personal Injury
13. Per Project Aggregate
14. Professional Liability
- a. Architects and Engineers.....\$1 Million per occurrence/claim
- b. Asbestos Removal Liability\$2 Million per occurrence/claim
- c. Medical Malpractice.....\$1 Million per occurrence/claim
- d. Medical Professional Liability.....\$1 Million per occurrence/claim
15. Miscellaneous E&O/ Professional Liability\$1 Million per occurrence/claim
16. Motor Carrier Act End. (MCS-90) \$1 Million BI/PD each accident, Uninsured Motorist
17. Motor Cargo Insurance
18. Garage Liability.....\$1 Million Bodily Injury, Property Damage per occurrence
19. Garagekeepers Liability.....\$500,000 Comprehensive, \$500,000 Collision
20. Inland Marine-Bailee's Insurance..... \$ _____
21. Moving and Rigging Floater..... Endorsement to CGL
22. Dishonesty Bond.....\$ _____
23. Builder's Risk..... Provide Coverage in the full amount of contract
24. XCU Coverage..... Endorsement to CGL
25. USL&H..... Federal Statutory Limits
- X 26. Carrier Rating shall be Best's Rating of A-VII or better or its equivalent
- X 27. Notice of Cancellation, nonrenewal or material change in coverage shall be provided to County at least thirty (30) days prior to action.
- X 28. The County shall be named Additional Insured on all policies except Workers Compensation, Errors and Omissions/Professional Liability and Auto.
- X 29. Certificate of Insurance shall show Bid Number and Bid Title.
30. Environmental Impairment Liability, including coverage of on-site clean up.....BI/PD \$3 Million per occurrence/\$6 Million Aggregate
- a In addition to environmental impairment liability, if work requires clean up, remediation, and/or removal of bio-solids, bio-hazardous waste, and any hazardous or toxic material via transportation request:
- Business Auto Liability\$2 Million per occurrence with MCS-90 and CA 9948 (or equivalent endorsements specifically referenced in the certificate of insurance)
31. Cyber insurance.....\$2 Million per occurrence/Aggregate
32. OTHER INSURANCE REQUIRED: _____