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

CONTRACT AWARD COVERPAGE

TO: Ardent Company, LLC
PO Box 879
McLean, Virginia 22101

DATE ISSUED: January 21, 2023
CONTRACT NO: 23-DES-ITBPW-335
CONTRACT TITLE: Washington Blvd. & N. Sycamore St. Traffic Upgrade Project

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. 23-DES-ITBPW-335 including any attachments or amendments thereto.

EFFECTIVE DATE: 1/24/2023
EXPIRES: 225 calendar day period for Substantial Completion after NTP and 45 calendar days after Substantial Completion
COMMODITY CODE(S): 96882
LIVING WAGE: N

ATTACHMENTS:
AGREEMENT No. 23-DES-ITBPW-335

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

VENDOR CONTACT: Arash Hooshangi
VENDOR TEL. NO.: (703) 288-3250
EMAIL ADDRESS: arash@ardentcompany.com
COUNTY CONTACT: Anup Kafle, DES – TE&O
COUNTY TEL. NO.: (703) 228-7050
COUNTY CONTACT EMAIL: akafle@arlingtonva.us

PURCHASING DIVISION AUTHORIZATION

DocuSigned by:
Jomeka D. Price **Title** Procurement Officer **Date** 1/24/2023
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ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
SUITE 500, 2100 CLARENDON BOULEVARD
ARLINGTON, VA 22201

AGREEMENT NO. 23-DES-ITBPW-335

THIS AGREEMENT is made, on January 21, 2023, between Ardent Company, LLC, P.O. Box 879, McLean, Virginia 22101 ("Contractor") a Virginia *limited liability company* 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. 23-DES-ITBPW-335, and all modifications properly incorporated into the Agreement
- Exhibit A – DES General Conditions, Special Conditions, and Supplementary Specifications
- Exhibit B – Drawings and Construction Notes, including Addendum No. 1 to Construction Drawings
- Exhibit C – Virginia Department of Labor And Industry Wage Determination Decision
- Exhibit D – Price Bid of Contractor
- Exhibit E – Land Closure Guidelines
- Exhibit F – State and Federal Roads in Arlington
- Exhibit G – Material Testing Reference
- Exhibit H – Request for Information (RFI) Form
- Exhibit I – Contractor Performance Form
- Arlington County Invitation to Bid No. 22-DES-ITBPW-335 is incorporated by reference.

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 services of Washington Blvd. & N. Sycamore Street Traffic Signal Upgrade project. The project will consist of streetscape and

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signal improvements at the intersection of Washington Blvd. & N. Sycamore Street. The project will upgrade the traffic signals from the span wire to mast arms. Additional improvements include ADA accessible ramps, sidewalks, pavement marking and signage, landscaping, asphalt pavement, utility work, and all other incidental work described and required in the contract documents (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 unless the Contractor is otherwise notified in writing.

4. TIME FOR COMPLETION

Work under this Agreement shall achieve Substantial Completion no later than two hundred twenty-five (225) consecutive calendar days after the commencement date given in a Notice to Proceed provided by the County to the Contractor, subject to any modifications made as provided for in the Contract Documents. This two hundred twenty-five (225) day period shall be the Period of Performance for Substantial Completion. No Work shall be deemed Substantially Complete until it meets the requirements of Substantial Completion set forth in the General Conditions. Final Completion of the Work shall be completed no later than forty-five (45) calendar days after the date of acceptance of Substantial Completion by the County Project Officer. Work will not reach Final Completion until it meets the requirements set forth in the General Conditions. Unless otherwise provided, no claims for early completion are allowed.

5. CONTRACT AMOUNT

The County will pay the Contractor in accordance with the terms of the Progress Payments and Payment Terms sections below and at the prices shown in Exhibit D, but not more than $788,700 for the Contractor's completion of the Work as required by the Contract Documents provided the Work is performed to the satisfaction of and is accepted by the Project Officer. 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 Contract Documents.

6. PROGRESS PAYMENTS

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.

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.

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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.

7. 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. All payments will be made from the County to the Contractor via ACH. The number of the County Purchase Order pursuant to work has been performed must appear on all invoices.

8. PAYMENT OF SUBCONTRACTORS

The Contractor is wholly responsible for the entire amount owed to any subcontractor with which the Contractor contracts in the performance of this Agreement, regardless of whether the Contractor has received payment from the County. The Contractor is not liable for amounts that are not owed as a result of the subcontractor's breach of its agreement with the Contractor, in which case the Contractor must notify the subcontractor in writing of its intention to withhold payment, in full or in part, and the reason for doing so.

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.

9. 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.

The Contractor and its subcontractors shall submit all certified payrolls and statements of compliance weekly through the eComply website. If the Contractor or any subcontractor does not have an eComply profile, a one-time registration process immediately following the Notice of Award or Notice of Intent to Award and training on system functionality are required for each non-registered entity. The Contractor shall also be responsible for reviewing subcontractor payrolls and ensuring that contract requirements are met.

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

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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 workday 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.

10. 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.

11. LIQUIDATED DAMAGES

Time is of the essence under this Contract. The Work must be completed within the Time for Completion. The County and the Contractor agree that damages for failure to achieve Substantial Completion of the Work by the date specified under Time for Completion are not susceptible to exact determination but that $1,113.00 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 $1,113.00 per day for each and every day beyond the time for Substantial Completion that the County determines Substantial Completion has not achieved. The County and the Contractor also agree that damages for failure to achieve Final Completion of the Work by the date specified under Time for Completion are not susceptible to exact determination but that $1,113.00 per calendar day is in proportion to the actual loss the County would suffer from such delay. Therefore, the Contractor will pay the County as liquidated damages $1,113.00 er day for each and every day beyond the time for Final Completion until Final Completion is achieved.

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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.

12. PERFORMANCE OF WORK BY THE CONTRACTOR

The Contractor shall perform on site, and with its own organization, at least fifty percent (50%) of the total direct labor and at least fifty percent (50%) of the total work in place to be performed under the Contract.

13. 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.

14. 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).

15. 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.

16. 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.

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17. 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.

18. 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.

19. 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.

20. 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

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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.

21. 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.

22. 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.

23. 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.

24. 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.

25. 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.

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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

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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.

26. 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.

27. 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.

28. 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.

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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.

29. 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.

30. 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.

31. 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,

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services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

32. 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.

33. 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.

34. 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.

35. 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.

36. 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.

37. REPORT STANDARDS

The Contractor must submit all written reports required by this Contract for advance review in a format approved by the Project Officer. Reports must be accurate and grammatically correct and should not contain spelling errors. The Contractor will bear the cost of correcting grammatical or spelling errors and inaccurate report data and of other revisions that are required to bring the report(s) into compliance with this section.

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

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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.

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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:
Arash Hooshangi, Managing Director
Ardent Company, LLC
PO Box 879
McLean, VA 22101
Phone: (703) 288-3250
Email: arash@ardentcompany.com

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TO THE COUNTY:
Anup Kafle, Project Officer
DES – TE&O
2100 Clarendon Boulevard, Suite 900
Arlington, Virginia 22201
Phone: (703) 228-7050
Email: akafle@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. CONTRACTOR PERFORMANCE EVALUATION

Arlington County will perform written evaluations of the Contractor's performance at 50% of contract completion and Sixty (60) calendar days prior to the Final Payment to the Contractor or upon contract termination, whichever occurs sooner. The evaluations will address, at a minimum, the Contractor's work/performance, quality, cost controls, schedule, timeliness and sub-contractor management. The Project Officer shall be responsible for completing the evaluations and providing a copy to the Contractor and County Procurement Officer.

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WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON COUNTY, VIRGINIA

AUTHORIZED SIGNATURE: DocuSigned by: Tomeka D. Price 5950D4E0ACC0472...

NAME: TOMEKA D. PRICE

TITLE: PROCUREMENT OFFICER

DATE: 1/24/2023

ARDENT COMPANY, LLC

AUTHORIZED SIGNATURE: DocuSigned by: Arash Hashangi 12F5717989B046E...

NAME: Arash Hashangi

TITLE: Managing Director

DATE: 1/23/2023

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EXHIBIT A

ARLINGTON COUNTY CONSTRUCTION GENERAL CONDITIONS

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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.

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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. Reponses to RFI’s shall not be construed as authorization for a Change Order.

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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.

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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.

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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.

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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

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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

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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.

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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

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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.

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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

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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

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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. <u>SEPARATE CONTRACTS</u>

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

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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.

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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.

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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.

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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 Contractors 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.

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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.

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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

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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

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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.

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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:

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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

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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 be 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, 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.

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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, 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.

2. 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.

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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.

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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.

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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. <u>FORCE ACCOUNT WORK</u>

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:

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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

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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.

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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

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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.

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Thereafter the Contactor 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).

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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

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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:

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RELEASE AND REQUEST FOR FINAL PAYMENT

CONTRACT NUMBER: 23-DES-ITBPW-335 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: _____

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ARLINGTON COUNTY DES ENGINEERING
SPECIAL CONDITIONS

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PROJECT SUMMARY

TE15 – WASHINGTON BLVD. & N. SYCAMORE ST. TRAFFIC SIGNAL UPGRADE PROJECT WILL CONSIST OF STREETSCAPE AND SIGNAL IMPROVEMENTS AT THE INTERSECTION OF WASHINGTON BLVD. & N. SYCAMORE ST. THE PROJECT WILL UPGRADE THE TRAFFIC SIGNALS FROM THE SPAN WIRE TO MAST ARMS. ADDITIONAL IMPROVEMENTS INCLUDE: ADA ACCESSIBLE RAMPS, SIDEWALKS, PAVEMENT MARKING AND SIGNAGE, LANDSCAPING, ASPHALT PAVEMENT, UTILITY WORK, AND ALL OTHER INCIDENTAL WORK DESCRIBED AND REQUIRED IN THE CONTRACT DOCUMENTS.

The Contractor shall provide all resources to successfully perform the terms of this contract in accordance with project plans, and in compliance with Arlington County and VDOT Standards and Specifications. The Contractor shall perform the work complete, in place, tested, and ready for continuous service.

All work within the VDOT Right-Of-Way shall be performed in accordance with the VDOT Standards and Specifications, unless otherwise noted. All work within the County Right-Of-Way shall be in accordance with the Arlington County Standards and Specifications, unless otherwise noted.

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SUPPLEMENTS TO THE GENERAL CONDITIONS

These Conditions modify the Arlington County Construction General Conditions. All provisions that are not modified or deleted by these Supplemental Conditions shall remain in full force and effect.

The address system used in these Supplemental Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE B – DRAWINGS, SPECIFICATIONS AND RELATED DATA

SC-B.10 TESTS

Add the following new language to Paragraph B.10:

All materials testing shall be in compliance with the Arlington County Materials Testing Specification Reference. This document specifies the method and frequency of testing for Arlington County projects. A copy of this document is included in the bid documents. This shall be incidental to the work and no separate payment will be made.

The Contractor shall engage the services of a geotechnical company, acceptable to both the County and VDOT, to conduct all materials testing per the County and VDOT Specifications.

If it is observed that samples for testing are being improperly taken or that samples are being taken from an area that is not fully representative of all project conditions, then Contractor shall take and test additional samples at the County Project Officer's request from areas designated by the County Project Officer and at the Contractor's expense.

In addition, the Contractor shall provide the County with unfettered site access as needed for VDOT/County personnel or VDOT/County consultants to enter the site, inspect, and perform any additional testing for any and all materials (including soil, concrete, asphalt, etc.).

Compaction results must meet VDOT Specifications and be certified by a Geotechnical Engineer licensed in Virginia. This work shall be at no cost to the County.

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ARTICLE C – COUNTY, COUNTY PROJECT OFFICER, AND CONTRACTOR RELATIONS

SC-C.1 STATUS OF COUNTY PROJECT OFFICER OR DESIGNEE

Add the following new language to Paragraph C.1:

The County Project Officer will coordinate and consult with the VDOT Field Inspector as appropriate when working within the VDOT Right-Of-Way.

SC-C.4 INSPECTION OF WORK

Add the following new language to Paragraph C.4:

The contractor shall notify the Project Officer at least 3 working days prior to disturbing any existing, or installing any new, traffic signs, signals, or other traffic control devices. The Contractor shall allow 3 working days for the inspection and approval of the premarkings prior to placing the permanent markings.

SC-C.9 CONTRACTOR MANAGEMENT PERSONNEL

Add the following new language to Paragraph C.9:

Site Supervisor:

The Contractor shall have a qualified and experienced site supervisor who can clearly communicate technical matters on-site at all times when construction activity is occurring or when the site is not in a secure state.

Safety Project Officer:

The Contractor shall have at least one (1) employee certified by VDOT in Basic Work Zone Traffic Control on-site at all times that work is occurring and be responsible for the following:

- Placement, maintenance, and removal of work zone traffic control devices,
- Compliance with permit requirements and conditions, approved plans and specifications, the Virginia Work Area Protection Manual, and the Manual of Uniform Traffic Control Devices.

The flagger shall be certified in accordance with the VDOT Flagger Certification Program, the American Traffic Safety Services Association Flagger Certification Program or any other VDOT approved flagger program. The flagger shall have his/her certification card with them at all times while performing flagging activities.

The Contractor shall have at least one (1) employee certified in OSHA 10 on-site at all times that work is occurring. The employee shall have served as a Project Safety Officer on at least three (3) prior projects. If the contractor has multiple employees with these requirements, the Contractor shall clearly identify which employee shall serve as the Project Safety Officer.

Environmental Project Officer:

For each task order, the Contractor shall have at least one (1) employee that has successfully completed the VDOT Erosion & Sediment Control Contractor Certification training. The contractor employee shall be on-site during all land disturbance activities. The Contractor shall be responsible for ensuring compliance with all applicable local, State, and Federal erosion and sediment control regulations and permits during land disturbance activities.

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If the Contractor proposes to deviate from the approved Erosion and Sediment Control Plan, it shall be the Contractor's responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes.

SC-C.13 PROTECTION OF WORK AND PROPERTY

Add the following new language to Subparagraph C.13.c:

The Contractor shall be responsible for all damages caused by their construction activities. The Contractor shall perform or provide repairs, replacements, and restoration to all property that has been damaged resulting from construction operations performed by the Contractor, and shall meet the following requirements:

1. Restore all areas to conditions that existed prior to construction. Remove and Replace damaged items with items equal to or better than the damaged items.

ARTICLE E – LEGAL RESPONSIBILITY AND PUBLIC SAFETY
SC-E.1 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

Add the following new language at the end of E.1:

When construction activity reaches in proximity to existing utilities, the trench(es) shall be opened a sufficient distance ahead of the work or test pits shall be made to verify the exact location and inverts of the utility to allow for possible changes in the line or grade as directed by the Project Officer. This shall be incidental to the work and no separate payment shall be made.

SC-E.2 PUBLIC CONVENIENCE

Add the following new language to Paragraph E.2:

The Contractor shall set up controls at the beginning of each workday and take down controls at the end of each workday for the duration of the project. At all times the Contractor shall maintain safe two-way vehicular traffic, and safe accessible pedestrian traffic in conformance with County and VDOT standards. At all times the Contractor shall use the personnel and traffic control signs and devices necessary to comply with the Virginia Work Area Protection Manual and Part VI of the "National Manual on Uniform Traffic Control Devices." The Contractor has sole responsibility for ensuring that its operations are conducted in a safe manner and notwithstanding any other provision to the contrary, shall fully indemnify Arlington County, its officers, agents and employees for any damage or injury related to traffic operations which is caused by negligent or otherwise improper or deficient performance under the Contract or nonperformance of the terms of the Contract. All personnel, signs, barricades and any other items necessary for the maintenance of traffic and safety shall be provided by the Contractor.

When conditions warrant due to traffic volumes, patterns, or special events, the County may suspend or otherwise direct the Contractor's activities to protect the public and or the County's transportation network.

When the project includes a VDOT and/or County approved MOT Plan (or Plans), the Contractor shall strictly abide by this plan. If the Contractor proposes to deviate from the approved MOT Plan for a County

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Road, it shall be the Contractor's responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes. If the Contractor proposes to deviate from the approved MOT Plan for a VDOT road, it shall be the Contractor's responsibility to coordinate and obtain approval directly from VDOT prior to implementing any changes.

Prior to any lane closures within the VDOT Right-of-Way, the County Project Officer and VDOT Field Inspector must be notified in advance of such lane closure in accordance with VDOT requirements.

The Contractor shall not be entitled to any additional payment for changes to MOT which are the result of the Contractor's work schedule or resource allocation, weather delays, or other factors not controlled by the County.

Failure of the Contractor to correct any MOT deficiency immediately upon notification may result in the project being shut down until the deficiency is corrected, and a reduction from the amount of payment due in the amount of $1,000.00 per violation. Repeated violations of this provision may result in contract termination.

The Contractor shall install project information signs (size - 36"x48") at least two (2) different locations for each site. Signs will be supplied by the County. Signposts and incidentals necessary for a complete installation of the signs shall be furnished by the Contractor. Signs shall be installed at least two (2) weeks prior to the start of the construction. The Contractor shall coordinate the location of the signs with the Project Officer. After the project has been completed the Contractor shall remove and return the signs to the County Project Officer. The cost for this work shall be considered incidental to other items within the Contract and no separate payment will be made.

At the close of each workday, the area of work shall be confined to the smallest area possible, but in no event larger than the area designated in the Construction Documents, so that the maximum use of the street and sidewalk shall be restored and the hazard to traffic reduced to the minimum.

The Contractor shall preserve all bus stops, including maintaining adequate accessibility through and adjacent to the construction for buses and their passengers. The Contractor shall not close, relocate, or otherwise modify a bus stop without prior request of the Project Officer. Any relocation or closure of a bus stop will require at least four weeks advance notice for coordination with the county's bus stop coordinator.

SC-E.10 SITE CLEAN-UP AND WASTE DISPOSAL

Add the following new language to Paragraph E.10:

The County's Earth Products Recycling Yard (located at 4300 29th Street South, Arlington, VA) shall **not** be used on an as-needed basis for unspecified quantities of waste (due in part to the limited size of the Yard). Although atypical, the Yard **may** be considered, on a case-by-case basis, for disposal of specific types/quantities of waste from County construction projects. In such cases disposal arrangements must be approved by the County Project Officer, be made in advance, depend on available space and the type/quantity of waste, and comply with certain requirements (for example, concrete shall be broken into pieces no longer than 24" in any dimension, contain less than 20% soil content, and be free of rebar).

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SC-E.11 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

Delete Paragraph 2.

ARTICLE F– PROGRESS AND COMPLETION OF THE WORK
SC-F.2 TIME FOR COMPLETION

Delete Paragraph F.2 and replace with the following language:

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. Additional time shall not be allowed for holidays or weather delays except as allowed in the contract.

ARTICLE G– MEASUREMENT AND PAYMENT
SC-G.1 PAYMENTS TO CONTRACTOR

Delete Section G.1 and replace with the following language:

The County will make partial payments 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.

   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 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

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amounts have been paid by the Contractor, including payments to subcontractors, for work which previous payment was received by the Contractor from the County.

Payments will be based on actual quantities and site measurements of the approved work taken in the field by the County Project Officer using the Contract Unit Prices. Any Work that is not shown on the approved plans that has not been previously authorized in writing by the Project Officer shall be at the Contractor's expense, and at no cost to the County.

No additional payment for any incidentals will be made unless specifically requested through, and authorized by, the County Project Officer prior to the work. Such determination of additional payment will be at the sole discretion of the County Project Officer and will be based upon the determination that there exist exceptional conditions which will necessitate significant expenditures of material and/or labor above and beyond the typical installation conditions which could be anticipated in Arlington County.

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SPECIAL CONDITIONS

These Special Conditions include any project-specific requirements in addition to the General Condition, Supplementary Specifications, and the County Standards Referenced herein.

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1. CONSTRUCTION STANDARDS

All work shall conform to project plans and specifications along with the current edition of the following County and VDOT construction standards and specifications:

- **The Arlington County Department of Environmental Services (DES) Bike Parking Standards**, a copy of which may be downloaded at no charge from the internet at: https://info.arlingtontransportationpartners.com/arlington-county-bike-parking-standards
- **The Arlington County Department of Environmental Services (DES) Construction Standards and Specifications,** a copy of which may be downloaded at no charge from the internet at: http://topics.arlingtonva.us/building/construction-standards-specifications/
- **The Arlington County Department of Environmental Services (DES) Traffic Signal Specifications**, a copy of which may be downloaded at no charge from the internet at: https://transportation.arlingtonva.us/traffic-signal-specification-updates/
- **The Arlington County Department of Environmental Services (DES) Streetlight Specifications**, a copy of which may be downloaded at no charge from the internet at: https://transportation.arlingtonva.us/streets/street-lights/lighting-standards-specifications-updates/
- **The Arlington County Department of Environmental Services (DES) Pavement Marking Specifications**, a copy of which may be downloaded at no charge from the internet at: http://transportation.arlingtonva.us/streets/traffic-signals/
- **The Arlington County Department of Parks and Recreation (DPR) Specifications**, a copy of which may be downloaded at no charge from the internet at: https://www.arlingtonva.us/Government/Departments/Parks-Recreation/About/Design-Standards
- **The Virginia Department of Transportation (VDOT) Road and Bridge Standards and Specifications**, a copy of which may be downloaded at no charge from the internet at: http://www.virginiadot.org/business/const/spec-default.asp
- **The Virginia Work Area Protection Manual (WAPM),** a copy of which may be downloaded at no charge from the internet at: https://www.virginiadot.org/business/trafficeng-WZS.asp
- **Manual on Uniform Traffic Control Devices(MUTCD),** a copy of which may be downloaded at no charge from the internet at: http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf_index.htm
- **The Arlington County Department of Environmental Services (DES) Dechlorination and Disposal Procedures**, a copy of which may be downloaded at no charge from the internet at: https://www.arlingtonva.us/Government/Programs/Water-Utilities/Discharging-Chlorinated-Water
- **The Supplementary Specifications listed within the Contract**.

In case of a discrepancy, the following order of priority will apply, with the highest governing item appearing first and the least governing item appearing last:
The Contract Bid Items
Special Conditions
Contract Drawings
Supplemental Specifications

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2. PERMITS

Permits required for the project include, but are not limited to:

- **County Land Disturbing Activities (LDA) permit**
- **County Public Right-Of-Way (PROW) permit**
- **County Transportation Right-Of-Way (TROW) permits**
- **VDOT Land Use permit**

All fees for County permits will be waived by Arlington County, and fees for non-County permits will be paid by Arlington County.

The County will obtain the County LDA permit, the County RPA permit, VDOT Land Use permit, VDOT Open Cut permit, VSMP Permit and then NVRPA permits prior to the start of work. The Contractor shall transfer the County LDA permit, VDOT Land Use Permit, VDOT Open Cut permit and the VSMP Permit in the Contractors name as the permittee and/or responsible party prior to the start of Work. The Contractor shall complete and sign the VDOT forms and submit them to the County Project Officer for submission to VDOT two weeks prior to the start of Work within VDOT ROW.

The Contractor shall provide a Responsible Land Disturber (RLD) that meets all the required qualifications of the permits. The Contractor shall complete and sign the RLD certificate and submit it to the County Project Officer prior to the start of Work.

The Contractor shall obtain the County PROW permit, the County TROW permits, and the County Water Meter and Fire Hydrant permits. The Contractor is responsible for investigating and satisfying all permit requirements for the above-mentioned permits.

3. SPECIAL CONTRACTOR/SUBCONTRACTOR QUALIFICATIONS

The Contractor shall have three (3) continuous years of construction contract experience conducting public works infrastructure and street improvement projects in an urban environment. The experience shall be work of similar size and scope, construction, re-construction, and maintenance.

The Contractor obtained project experience shall consist of the following:

- **State and County streets**
- **Curbs and gutters**
- **Sidewalks and walkways**
- **Driveway aprons**
- **Storm sewer pipes and inlets**
- **Wet Utilities**
- **Pavement markings and signage**
- **Electrical conduits**
- **Traffic signals and Street lighting**
- **Streetscapes and related site work**
- **Low Impact Development including Biofilters and Bioretention**

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The Contractor shall provide a complete list of projects completed within the last five (5) years with reference contact information for each project for Bidder qualification verification. Failure to qualify according to the foregoing requirements will result in bid rejection by the Arlington County Purchasing Office. The County will randomly contact at least five (5) of the references provided.

4. STAKEOUT AND CUT-SHEETS

The Contractor shall be responsible for laying out the work and shall retain a professional land surveyor licensed in the Commonwealth of Virginia to provide all necessary construction layouts and establish all control lines, grades, and elevation during construction. The Contractor shall submit a copy of all cut-sheets for review, per the Arlington County Specifications. All cut-sheets for layout and construction shall be provided as submittals at least seven (7) calendar days prior to construction of the work included on that cut-sheet. The cost of all necessary surveying services shall be considered incidental to the work and no separate payment shall be made.

5. WORK HOURS

The Contractor shall comply with **normal daytime working hours** as defined in the County Noise Control Ordinance unless otherwise defined by the project plans and specifications or approved by the Project Officer.

The Contractor shall comply with **restricted working hours** of 9:00 am to 3:00 pm when working in Arlington County arterial streets unless otherwise indicated on the Maintenance of Traffic Plans for each project.

The Contractor shall comply with **restricted working hours** as defined by VDOT and as noted on the approved VDOT permit when working within the VDOT Right-Of-Way. For restricted work hours in VDOT ROW, see attached "Lane Closure Guidelines in NOVA District". The Contractor is responsible for satisfying all VDOT Permit requirements found at: http://www.virginiadot.org/business/fairfax-permits-main.asp.

In addition, the County reserves the right to restrict working days and hours to accommodate special site conditions as required.

6. GENERAL SITE SECURITY AND CONTROLS

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.

The Contractor shall provide, erect, and maintain barricades, fences, and/or signage as required to protect the general public, workers, and adjoining properties at no additional cost to the County. Before leaving the site at the end of each day, the Contractor shall replace any and all sections of the security fence or barricade moved or removed during work hours.

The Contractor shall maintain clear vehicular access to existing driveways and entrances at all times unless such access is otherwise addressed on County-approved project plans, precluding concrete pouring and curing of such access points, unless otherwise directed by the County Project Officer.

Homeowners shall be notified by the Contractor a minimum of fourteen (14) calendar days in advance of any driveway closure, and driveways can only be closed for a maximum of five (5) calendar days.

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The Contractor shall monitor parking of construction personnel's private vehicles and ensure that the public has unobstructed access to and through parking areas.

7. TRAFFIC SIGNALS AND STREETLIGHTS

Materials and construction of the communications conduit, streetlights, and traffic signals shall abide by the latest versions of the 'Arlington County Traffic Signal Specifications and Standards' and 'Arlington County Lighting Specifications and Standards. All materials for these areas shall be approved by Arlington County Transportation Engineering and Operations Bureau. The County Project Officer will facilitate the material specification submissions for review by the Transportation Engineering and Operations Bureau. Prior to removal of the existing signal equipment and materials, the Contractor shall meet with the Project Officer to verify which equipment will be returned to the County, when and where the returned equipment will be delivered, and which equipment will be disposed. All costs associated with this shall be incidental to other items in the Contract.

Installation of the proposed traffic signal equipment and intersection lighting will be measured and paid as a lump sum item. The "Traffic Signal Upgrade" lump sum item shall include all labor, materials, and equipment necessary to furnish and install the traffic signal infrastructure as shown in the associated Traffic Signal Plans and as identified in the Traffic Signal Standards and Specifications.

Installation of electrical service for temporary services such as signals, streetlights, signal cabinets, construction trailers, or for equipment use are incidental to the contract.

Intercepting existing streetlight conduits and splicing into existing cables are incidental to the contract. References to a CCTV camera shall mean to both furnish and install the CCTV camera, unless specifically excluded.

As part of the luminaire installation, Contractor shall install house-side shields in each fixture. These shields will be provided by the County. If requested, the County will demonstrate how to install the shields. The Contractor shall contact the Streetlights Operations Team Manager at (703) 228-6531 to obtain the shields prior to ordering any streetlight materials to ensure they will be available at the time of construction, and to request a demonstration on how to install the shields. Failure to do so will be at the Contractor's expense for time if construction is stopped because the shields are not available. The installation of the shields is considered incidental to the contract and no additional payments shall be made for this work.

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<u>SUPPLEMENTS TO THE DES CONSTRUCTION STANDARDS AND SPECIFICATIONS</u>

SECTION 01500 – TEMPORARY EROSION AND SEDIMENT CONTROL
PART 3 - EXECUTION

PARAGRAPH 3.1 Installation and Maintenance of Erosion and Sediment Controls

Delete
3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations must be included as part of the erosion and sediment control plan.

Add
3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations shall be prepared by the Contractor.

SECTION 02200 – EARTHWORK
PART 3 - EXECUTION

PARAGRAPH 3.5 Dewatering

Delete
3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations must be included as part of the erosion and sediment control plan.

Add
3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations shall be prepared by the Contractor.

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SECTION 02500 – GRAVITY SEWERS AND APPURTENANCES
PART 4 – MEASUREMENT AND PAYMENT

PARAGRAPH 4.1 Sewer

Delete
4.1.A Sewer pipe for the various materials, classes, and sizes shown on the plans shall be measured in linear feet along the center line of the pipe and shall be measured from inside wall of structure to inside wall of structures. Payment shall include the furnishing of all pipe and fittings, all necessary tests, excavation, removal and disposal of existing pipes, removal and disposal of unsuitable or surplus material, placement of bedding and backfill as shown in Standard M-3.0, restoration of roadways as shown in Standard M-6.1, all other restoration, and all other work required to providing a complete sewer installation in compliance with the Construction Documents.

Add
4.1.A Sewer pipe for the various materials, classes, and sizes shown on the plans shall be measured in linear feet along the center line of the pipe and shall be measured from inside wall of structure to inside wall of structures. Payment shall include the furnishing of all pipe and fittings, all necessary tests, excavation, abandonment and/or removal and disposal of existing pipes, removal and disposal of unsuitable or surplus material, placement of bedding and backfill as shown in Standard M-3.0, restoration of roadways as shown in Standard M-6.1, all other restoration, and all other work required to providing a complete sewer installation in compliance with the Construction Documents.

SECTION 02600 - BITUMINOUS ROADWAY PAVEMENTS
PART 4 – MEASUREMENT AND PAYMENT

Delete
4.2 Subbase shall be measured to the width and depths shown on the approved plans as verified in the field by the Project Officer or his designee. Payment shall be in cubic yards of material.

Add
4.2 Subbase shall be measured to the width and depths shown on the approved plans as verified in the field by the Project Officer or his designee. Payment shall be in cubic yards of material and shall include demolition, excavation, and the necessary preparation of the sub grade surface.

SECTION 02900 - PAVEMENT MARKINGS
PART 3 - EXECUTION

PARAGRAPH 3.2 Provision for Temporary Markings

Add
B. All Type D pavement markings shall conform to the latest VDOT requirements.

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PART 4 - MEASUREMENT AND PAYMENT
PARAGRAPH 4.4 Removal/Eradication of Existing Pavement Markings

Delete
A. Payment for pavement line markings (type, class, width) removal and/or eradication shall be paid by actual work performed as listed in the contract and shall include all labor, materials, tools, equipment, transportation, supplies, and incidentals required to remove and/or eradicate the line markings as specified.

Add
A. Payment for pavement line markings (type, class, width) removal and/or eradication shall be incidental to the work and no separate payment shall be made.

Add
PARAGRAPH 4.5 Pavement Message Marking
A. Measurement of pavement message markings (type, class, size) shall be in units of each furnished and installed.

B. Payment for pavement message markings (type, class, size) shall be in units of each and shall include all labor, materials, tools, equipment, transportation, supplies, and incidentals required to furnish and install the message markings as specified.

SECTION 329100 - PLANTING PREPARATION
PART 4 - MEASUREMENT AND PAYMENT

Add
4.10 The measurement of CONTINUOUS SOIL PANEL to be paid for shall be per CUBIC YARD of the amended soil in accordance with the plans, specifications and to the satisfaction of the Project Officer.

4.11 The unit price for CONTINUOUS SOIL PANEL shall include the cost of furnishing all labor, materials, equipment and incidental expenses, including but not limited to imported topsoil, vapor barrier, 4" UD-4 underdrain (per VDOT specification), bedding material per Continuous Soil Panel and Tree Pit Drainage Details, and connection to storm sewer system.

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SUPPLEMENTS TO THE 2020 LIGHTING SPECIFICATIONS
Modify the listed sections as follows:

SECTION 14050 – LIGHTING CONDUCTORS
PART 4 MEASUREMENT AND PAYMENT

Delete

(a) Furnish Conductor shall be measured and paid for on a linear foot basis.
(b) Install Conductor will be measured and paid for on a linear foot basis. Several conductors pulled into a single conduit at the shall be measured by the length of the pull rather than the total length of the conductors installed. Cost for pulling conductors shall include all connectors, splice enclosures, or other appurtenances required for making the electrical connections.

1. The cost of installing or replacing pull rope shall be incidental to the cost of pulling conductor.

Add

(a) Furnishing and installing all conductor(s) and/or cable(s) for streetlights is included in a single price paid per linear foot measured by the length of conduit installed. The Unit Price shall include the cost of all conductors, fittings, connections, slack, securing terminals and other incidentals necessary for the Work as detailed in the County Lighting Specifications.

1. The size, number and/or required slack length of the conductor(s) and/or cable(s) will not be assessed independently for payment.
2. The cost of installing or replacing pull rope shall be incidental to the cost of the conductor(s).

(b) THIS LINE INTENTIONALLY LEFT BLANK

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ADDENDUM TO CONSTRUCTION DRAWINGS

C-0000 "SIGNAL NOTES"

The following updates are made to Sheet C-0000, "Signal Notes" section of Construction Drawings for Washington Boulevard and N. Sycamore Street.

Delete A.6. and replace with following notes:

6. FOUNDATIONS FOR SIGNAL POLES AND PEDESTAL POLES SHALL BE FINISHED FLUSH WITH FINAL GRADE. WHEN SIGNAL POLE OR PEDESTAL POLE IS INSTALLED IN THE SIDEWALK, THE ENTIRE SIDEWALK PANEL SHALL BE REPLACED AROUND THE FOUNDATION.

7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING POLE FOUNDATION DESIGNS FOR ANY MAST ARM POLES. THE CONTRACTOR SHALL SUBMIT REQUIRED STRUCTURAL DRAWINGS AND CALCULATIONS FOR REVIEW PRIOR TO STARTING WORK FOR THE FOUNDATIONS.

Delete B.1. and replace with following notes:

1. NEW CONTROLLER CABINETS SHALL BE ATC PER LATEST TRAFFIC SIGNAL STANDARDS & SPECIFICATIONS.

Delete B.2. and replace with following notes:

2. CONTROLLER SHALL BE INTELIGHT X-N AND SHALL BE INSTALLED AND SET AS FOLLOWS:
   2.1 TO REST IN PHASE 2 & 6 GREEN INTERVAL

   2.2 TO START/RESTART IN PHASE 2 & 6 YELLOW CHANGE INTERVAL

Add the following note to C:

4. ALL SIGNAL HEADS SHALL BE INSTALLED WITH RETROREFLECTIVE BACKPLATES PER VDOT STANDARDS AND SPECIFICATIONS.

Delete D.1. and replace with following notes:

1. ALL NEW PEDESTRIAN PUSH BUTTON STATIONS SHALL CONFORM TO ARLINGTON COUNTY'S SPECIFICATIONS FOR ACCESSIBLE SIGNAL DESIGN AND SHALL USE POLARA VIBRO-TACTILE/AUDIO PUSH BUTTON ASSEMBLIES UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL PROVIDE EXTENDER BRACKETS IF NEEDED TO MAKE PUSHBUTTONS ADA ACCESSIBLE. THE PUSHBUTTON ASSEMBLY SHALL CONTAIN A MOUNTING BRACKET TO ALLOW THE R10-3E SIGN TO BE MOUNTED DIRECTLY TO THE PUSHBUTTON.

Delete D.2. and replace with following notes:

2. NEW OVERHEAD VIDEO DETECTION SHALL BE ECONOLITE VISION WITH EXTENDED WARRANTY AND SHALL BE INSTALLED IN ACCORDANCE WITH LATEST TRAFFIC SIGNAL STANDARDS & SPECIFICATIONS.

Delete D.4. and replace with following notes:

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4. EVP TO BE MOUNTED ON VEHICLE HEAD MOUNTING BRACKET OR AS APPROVED BY THE ENGINEER IN THE FIELD. EVP SHALL INCLUDE CONFIRMATION LIGHTS.

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REVISED: MARCH 03, 2020

ARLINGTON VIRGINIA

OWNER
DEPARTMENT OF ENVIRONMENTAL SERVICES
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900, Arlington, VA 22201
Phone: 703.228.3629 Fax: 703.228.3606 www.arlingtonva.us
Email: AKafle@arlingtonva.us

ENGINEER
Kimley-Horn & Associates, Inc.
11400 Commerce Park Drive, Suite 400, Reston VA 20191
Phone: 703.674.1300 Fax: 703.674.3500
Email: Andy.Smith@kimley-horn.com

Construction Drawings For:

Washington Boulevard and N. Sycamore Street

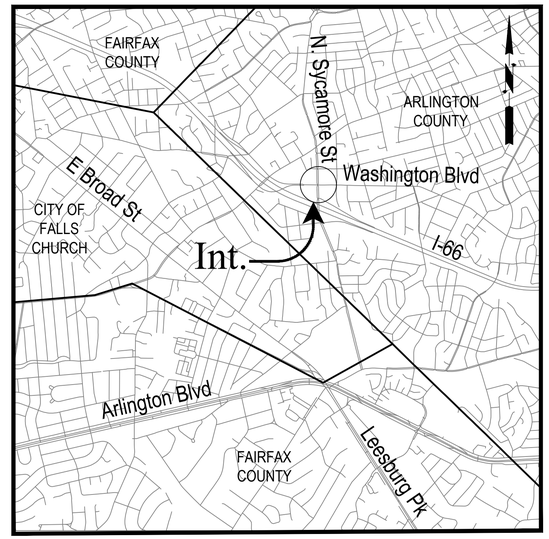
THIS PROJECT CONSISTS OF TRAFFIC SIGNAL MODIFICATIONS AT THE INTERSECTION OF WASHINGTON BOULEVARD WITH N. SYCAMORE STREET. THE SIGNAL MODIFICATIONS INCLUDE REMOVING ALL EXISTING EQUIPMENT AND REPLACING WITH NEW EQUIPMENT, ACCESSIBLE PEDESTRIAN SIGNAL DEVICES, AND LIMITED SIDEWALK AND CURB AND GUTTER MODIFICATIONS. ALL WORK TO BE PERFORMED WITHIN EXISTING RIGHT OF WAY OR EASEMENTS.

VDOT PROJECT NO. 9999-000-R75
VDOT UPC NO. 113252
STORM WATER MANAGEMENT # SWM 20-0197

Location Map

Vicinity

GRAPHIC SCALE IN FEET
0 1000 2000 4000



CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.

Table of Contents:

C-0000	Cover Sheet
C-0001	Legend and Survey Data
C-0002 - C-0006	General Notes and Details
C-0100	Existing Conditions Plan and Profile
C-0200	Geometric Control Plan
C-0300	Phase 1 Erosion Control Plan & Demolition Plan
C-0310	Phase 2 Erosion Control Plan
C-0400	Proposed Plan
C-0500	Ramp Details
C-0600 - C-0601	Curb Return Profiles
C-0700	Pre Development Drainage Divides
C-0710	Post Development Drainage Divides
C-0720	Drainage Calculations
C-0800	Pavement Marking & Signing Plan
C-0900 - C-0901	Transportation Management Plan Notes & Details
C-0902	Maintenance of Traffic
C-1000 - C-1001	Traffic Signal Notes & Details
C-1100	Traffic Signal Plan
C-1200	Communication Plan
EXHIBIT A	Streetlight Photometrics Exhibit
EXHIBIT B	AutoTURN Exhibit
EXHIBIT C	SWPPP Exhibit

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
WASHINGTON BOULEVARD - MINOR ARTERIAL - SPEED LIMIT 30 MPH	
	WASHINGTON BOULEVARD (RTE 237)
AADT (2019)	12,000 VPD
AADT (DESIGN YR)	N/A
V DESIGN (mph)	30

ALL TRAFFIC SIGNALS ARE OWNED, MAINTAINED AND OPERATED BY ARLINGTON COUNTY. TRAFFIC SIGNAL DESIGN SHALL BE IN ACCORDANCE WITH LATEST ARLINGTON COUNTY TRAFFIC SIGNAL STANDARDS AND SPECIFICATIONS.

I CERTIFY THAT THIS PROJECT WAS BUILT IN SUBSTANTIAL CONFORMANCE WITH THIS PLAN, UNLESS DULY NOTED IN THE ABOVE REVISION BLOCK.

PROJECT MANAGER _____ **DATE** _____

CONSTRUCTION MANAGER _____ **DATE** _____

Signal Notes

A. POLES AND FOUNDATIONS

1. MAST ARM LENGTH IS TO BE AS SHOWN ON PLAN AND ALL MAST ARMS ARE TO BE FIELD DRILLED ONLY.
2. MAST ARM POLES SHALL BE DESIGNED TO THE PROPER HEIGHT TO ACCOMMODATE A STREET LIGHT LUMINAIRE AND INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS.
3. MAST ARM POLE FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS AND SPECIFICATIONS. ALL POLES SHALL HAVE A 6-BOLT PATTERN.
4. AT THE COUNTY'S REQUEST, THE CONTRACTOR SHALL DIG TEST PITS TO VERIFY THAT SIGNAL POLE FOUNDATIONS WILL NOT CONFLICT WITH UNDERGROUND UTILITIES AND THAT FOUNDATIONS WILL FIT WITHIN THE EXISTING RIGHT-OF-WAY.
5. SIGNAL POLES AND MAST ARMS SHALL BE NON-ORNAMENTAL. COBRA LIGHTING SHALL BE LED.
6. COBRA LIGHTING SHALL BE LED TYPE RFL-145W64LED4K-T-R2M-UNIV-DMG-PH8-RCD7-[USA-003]-BK. DECORATIVE POST-TOP LIGHTING SHALL BE HADCO DECORATIVE POST-TOP LUMINAIRE WITH RELUME LED KIT (UAZ XRE LED 57.69W).

B. CONTROLLER AND FOUNDATION

1. NEW CONTROLLER CABINETS SHALL BE TS2, P TYPE WITH BATTERY BACKUP PER ARLINGTON COUNTY REQUIREMENTS.
2. CONTROLLER SHALL BE INTELIGHT X-3 AND SHALL BE INSTALLED AND SET AS FOLLOWS:
   2.1 TO REST IN PHASE 2 & 6 GREEN INTERVAL
   2.2 TO START/RESTART IN PHASE 2 & 6 YELLOW CHANGE INTERVAL
3. THE CONTROLLER CABINET AND FOUNDATION SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS 66-01. 66-02, AND 70-01.
4. THE COUNTY WILL PROVIDE SIGNAL TIMINGS TO THE CONTRACTOR FOR THE CONTROLLER WHEN THE INTERSECTION IS TOTALLY PREPARED FOR OPERATION. THE CONTRACTOR SHALL NOTIFY THE COUNTY IN WRITING 10 DAYS IN ADVANCE OF REQUIRING FINAL TIMINGS.

C. TRAFFIC SIGNAL HEADS

1. ALL NEW VEHICULAR SIGNAL SECTIONS SHALL BE 12 INCHES IN DIAMETER CAST ALUMINUM WITH LED DISPLAYS.
2. PEDESTRIAN SIGNAL HEAD SECTIONS SHALL BE CAST ALUMINUM WITH LED DISPLAYS (COUNTDOWN).
3. ALL SIGNAL HEADS SHALL BE YELLOW IN COLOR.

D. DETECTORS

1. ALL NEW PEDESTRIAN PUSH BUTTON STATIONS SHALL CONFORM TO ARLINGTON COUNTY'S SPECIFICATIONS FOR ACCESSIBLE SIGNAL DESIGN AND SHALL USE POLARA NAVIGATOR VIBRO-TACTILE/AUDIO PUSH BUTTON ASSEMBLIES UNLESS OTHERWISE SPECIFIED.
2. NEW OVERHEAD VIDEO DETECTION SHALL BE FLIR CAMERAS AND SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY REQUIREMENTS.
3. EMERGENCY VEHICLE PRE-EMPTION (EVP) EQUIPMENT (GTT MODEL M711 OR M721), OR APPROVED SUBSTITUTE, SHALL BE INSTALLED COMPLETE WITH DISCRIMINATOR CARDS, WIRING, ETC. IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS.
4. EVP TO BE MOUNTED ON VEHICLE HEAD MOUNTING BRACKET OR AS APPROVED BY THE ENGINEER IN THE FIELD.

E. CONDUIT, CONDUCTORS, AND ELECTRICAL

1. ALL JUNCTION BOXES SHALL HAVE THE WORDS "ARLINGTON COUNTY TRANSPORTATION" CAST IN THE LID. ALL JUNCTION BOXES SHALL BE INSTALLED PER STANDARDS 61-01, 61-02, 61-03, AND 61-04.
2. METER PEDESTAL SHALL BE INSTALLED PER COUNTY STANDARDS. UNDERGROUND SERVICE SHALL BE OBTAINED FROM THE NEAREST UTILITY POLE OR SERVICE POINT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVAL AND COORDINATING WITH POWER SERVICE COMPANY FOR CONNECTION.
3. CONDUIT SYSTEM SHALL BE ADDED TO CONNECT EXISTING COMMUNICATION CABLE PLANT TO THE NEW CONTROLLER CABINET LOCATION AS DIRECTED BY THE COUNTY ENGINEER.
4. ALL CONDUIT ENTERING INTO JUNCTION BOXES SHALL NOT EXTEND OVER 3" MAXIMUM NOR 2" MINIMUM INSIDE THE JUNCTION BOXES, AND SHALL BE FITTED WITH BELL ENDS OR BUSHING.
5. ALL JUNCTION BOXES SHALL HAVE A GROUND ROD INSTALLED. ALL JUNCTION BOXES SHALL BE PROPERLY CONNECTED TO THE INTERSECTION GROUNDING SYSTEM. METAL LIDS SHALL BE BONDED TO THE GROUNDING SYSTEM.
6. CONTRACTOR IS TO VERIFY DEPTHS OF UTILITIES AT PROPOSED CONDUIT CROSSINGS PRIOR TO EXCAVATING CONDUIT TRENCHES OR BORING.
7. ALL CONDUITS BENEATH ROADWAYS SHALL BE DIRECTIONAL DRILLED UNLESS DIRECTED OTHERWISE BY THE COUNTY CONSTRUCTION MANAGER. WHERE DIRECTED ON THE PLANS OR BY THE CONSTRUCTION MANAGER, THE CONTRACTOR SHALL INSTALL SPARE CONDUITS WITH PULL TAPE AND TRACER WIRE FOR ROAD CROSSINGS.
8. ALL EXISTING CONDUIT AND CABLES ARE BASED ON RECORD DRAWINGS OR WERE ESTIMATED. CONTRACTOR SHALL VERIFY CONDUIT FILL CAPACITY IN EXISTING CONDUITS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY IF CONDUIT CAPACITY IS NOT AVAILABLE IN EXISTING CONDUIT FOR NEW CABLES.
9. NEW CCTV CAMERAS SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY REQUIREMENTS. CONTRACTOR SHALL CONFIRM MOUNTING LOCATION OF CCTV CAMERA WITH COUNTY PRIOR TO INSTALLATION.
10. CONTRACTOR TO VERIFY THE CONDUIT AND % FILL. IF THERE IS NOT ENOUGH CAPACITY IN CONDUIT, THEN THE CONTRACTOR SHALL INSTALL NEW CONDUIT.
11. ALL PROPOSED CONDUIT SHALL HAVE #6 AWG (EGC) & TRACER WIRE FOR GROUNDING SYSTEM.
12. REMOVE ALL EXISTING UNUSED RISERS, JUNCTION BOXES, AND CABLES.

F. SIGNS

1. ALL MAST ARM SIGNS SHALL BE MOUNTED IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS. SIGNS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE.
2. STREET NAME SIGNS SHALL HAVE A WHITE LEGEND ON GREEN BACKGROUND. CONTRACTOR SHALL SUBMIT SIGN DETAILS TO COUNTY TO REVIEW. THE DIMENSIONS PROVIDED ON PLANS ARE ESTIMATED.

G. DEMOLITION/SALVAGE

1. ALL EXISTING SIGNAL EQUIPMENT IS TO BE REMOVED & RETURNED TO ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES LOCATED AT 4300 29TH ST S., ARLINGTON, VA 22206.
2. ALL EXISTING SIGNAL POLE FOUNDATIONS SHALL BE DEMOLISHED IN ACCORDANCE WITH ARLINGTON COUNTY SPECIFICATIONS.

H. COMMUNICATIONS

1. EXISTING COUNTY FIBER JUNCTION BOXES AND CONDUITS CONTAIN LIVE FIBER OPTIC CABLES. THE CONTRACTOR SHALL NOT CUT OR DAMAGE THE COUNTY'S EXISTING FIBER CABLES.
2. ALL FIBER OPTIC CABLE INSTALLATION, REMOVAL, SPLICING, AND TESTING SHALL BE PERFORMED BY THE COUNTY AT THE CONTRACTOR'S EXPENSE. CONTRACTOR MAY CONTRACT DIRECTLY WITH THE COUNTY'S FIBER CONTRACTORS. UPON REQUEST 703-228-7726, THE COUNTY WILL PROVIDE THE CONTACT INFORMATION FOR CURRENT QUALIFIED COUNTY FIBER CONTRACTORS.
3. CONTACT ARLINGTON COUNTY DTS FOR FIBER OPTIC CABLE REMOVAL OR INSTALLATION AT LEAST 10 BUSINESS DAYS IN ADVANCE.
4. CONTRACTOR SHALL FURNISH FIBER PATCH PANEL FOR INSTALLATION BY THE COUNTY. FIBER PIGTAIL SHALL BE APPROPRIATE LENGTH TO ALLOW FOR 50 FEET OF SLACK IN EACH INTERMEDIATE JUNCTION BOX. CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PATCH PANEL (INDICATING THE TAIL LENGTH) FOR COUNTY REVIEW PRIOR TO ORDERING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF PROPOSED JUNCTION BOXES AND CONDUITS INCLUDING ALL APPURTENANCES SUCH AS GROUND RODS, TRACER WIRE, PULL TAPE, ETC.
6. ALL NEW CONDUITS SHALL HAVE PULL TAPE INSTALLED BETWEEN JUNCTION BOXES AND TRACER WIRE INSTALLED WITHIN OR BESIDE AT LEAST ONE OF THE CONDUITS. TRACER WIRE SHALL BE CONNECTED TO THE GROUND RODS INSTALLED IN THE ADJACENT JUNCTION BOXES.
7. DO NOT SPLICE TRACER WIRE.

I. INSPECTIONS

1. THE CONTRACTOR SHALL CONTACT THE COUNTY CONSTRUCTION MANAGER FOR INSPECTIONS THROUGHOUT CONSTRUCTION AS REQUIRED BY THE CONSTRUCTION MANAGER.
2. THE COUNTY SHALL VERIFY POLE LOCATIONS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL NOTIFY MR. SHAHID MOHIUDDIN, 703-228-7555 TO SCHEDULE INSPECTION PRIOR TO EXCAVATION, AND AGAIN PRIOR TO POURING CONCRETE. STAKEOUT IS THE RESPONSIBILITY OF THE CONTRACTOR UNLESS DIRECTED OTHERWISE.
3. THE CONTRACTOR SHALL CONTACT THE COUNTY CONSTRUCTION MANAGER WITHIN 7 BUSINESS DAYS OF SIGNAL ACTIVATION. ALL POWER AND COMMUNICATIONS SHALL BE IN OPERATION AT THE TIME OF ACTIVATION UNLESS APPROVED BY THE COUNTY CONSTRUCTION MANAGER.

Prepared By:

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ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL
COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
T&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR (Dennis M. Leach)	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
COVER SHEET
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0000

Filename: C-0000 COVER SHEET.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

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REVISED: MARCH 03, 2020

LEGEND AND SURVEY DATA

Symbols

Existing		Proposed
1001	Storm Str. #	ST1
	Catch Basin	
	Sanitary Manhole	
2001	Sanitary Str. #	SA1
	Fire Hydrant	
	Watermain Reducer	
	Water – Valve	
	Blowoff Valve	
	Water – Cross	
	Water – Tee	
	Water – Typical Bend	
	Water Meter	
	Water Cap	
	Water – Manhole Cover	
	Siamese Connection	
	CableTV Pedestal	
	Electrical Box	
	Telephone Pedestal	
	Cobrahead Light	
	Carlyle Light	
	Ground Light	
	Light Pole	
	Utility Pole	
	Guy Wire	
	Utility Cover	
	Gas Valve	
	Gas Line Marker	
	Test Hole	
	Bollard	
	Mailbox	
	Parking Meter	
	Sign	
	Traffic Mast Arm Pole	
	Traffic Pedestrian Pole	
	Traffic Control Box	
	Traffic Electrical Box	
	Traffic Junction Box	
	Traffic Service Meter	
	Coniferous Tree	
	Deciduous Tree	
	Bush/Hedge/Shrub	
	Construction Notes	
	Benchmark	
	Monument (GPS)	
	Monument	
	Iron Rod Found	
	Iron Pipe Found	
	Rebar Rod Found	
	P.K. Nail Found	
	Traverse	
	North Arrow	
C-2	C-2R Curb Transition	

SANITARY SEWER TABULATION

#EX 4216
TOP = 280.48
C/L INV. = 275.72

#EX 4217
TOP = 280.45
C/L INV. = 275.56

#1995
TOP = 280.57
C/L INV. = 276.10

#1996
TOP = 287.04
C/L INV. = NO ACCESS

#1997
TOP = 287.08
C/L INV. = 281.46

#5392
TOP = 286.99
C/L INV. = 280.78

#5393
TOP = 293.00
C/L INV. = 282.51

#5394
TOP = 293.14
C/L INV. = 282.86

#6208
TOP = 287.13
C/L INV. = 281.29

#6210
TOP = 312.48
C/L INV. = 305.99

#6471
TOP = 313.72
C/L INV. = 299.71

#6500
TOP = 293.00
C/L INV. = 282.48

#6519
TOP = 306.34
C/L INV. = 296.68

#8079
TOP = 292.40
C/L INV. = 283.40

#8080
TOP = 289.18
C/L INV. = 283.89

#11203
TOP = 285.87
C/L INV. = 279.49

#11204
TOP = 288.88
C/L INV. = 280.74

#11811
TOP = 275.49
C/L INV. = 272.63

#12478
TOP = 306.28
C/L INV. = 296.66

#12479
TOP =279.32
C/L INV. =274.92

#12480
TOP = 278.20
C/L INV. = 274.27

#15222
TOP = 295.91
C/L INV. = 286.87

#15224
TOP = 287.79
C/L INV. = 283.54

STORM SEWER TABULATION

#7777
TOP = 290.44
INV. OUT = N/A 84" RCP (23844)
C/L INV. = 277.54

#8055
TOP = 287.45
INV. IN = N/A 84" RCP (23844) (NO ACCESS
INV. IN = N/A 18" RCP (8076) (NO ACCESS)
INV. OUT = N/A 84" RCP (8097) (NO ACCESS)
C/L INV. = 274.20

#8076
TOP = 287.33
INV. IN = 284.73 15" RCP (8093)
INV. IN = 284.80 18" RCP (23847)
INV. OUT = 284.23 18" RCP (8055)

#8088
TOP = 287.81
INV. OUT = 283.26 15" RCP (8097)

#8093
TOP = 286.85
INV. OUT = 284.95 15" RCP (8076)

#8097
TOP = 287.29
INV. IN = N/A 84" RCP (8055) (NO ACCESS)
INV. IN = N/A 15" RCP (8101) (NO ACCESS)
INV. IN = N/A 15" RCP (8088) (NO ACCESS)
INV. IN = N/A 15" RCP (6333) (NO ACCESS)
INV. OUT = N/A 96" RCP (8272) (NO ACCESS)
C/L INV. = 271.66

#8097A
TOP = 287.16
INV. IN = 279.15 15" RCP (8097B)
INV. OUT = 279.08 15" RCP (8097)

#8097B
TOP = 289.71
INV. OUT = 284.76 15" RCP (8097A)

#8101
TOP = 287.22
INV. OUT = 283.57 15" RCP (8097)

#8179
TOP = 288.72
INV. OUT = 284.97 15" RCP (#8192)

#8184
TOP = 302.82
INV. OUT= 295.40 15" RCP (8200)

#8192
TOP = 287.22
INV. IN = 284.19 15" RCP (8179)
INV. OUT = 284.04 15" RCP (8272)

#8194
TOP = 287.32
INV. IN = 284.57 15" RCP (8200)
INV. OUT = 284.39 15" RCP (8272)

#8200
TOP = 295.14
INV. IN = 288.16 15" RCP (8184) INV. OUT= 287.91 15" RCP (8194)

STORM SEWER TABULATION

#8272
TOP = 285.38
INV. IN = N/A 15" RCP (8194) (NO ACCESS)
INV. IN = N/A 15" RCP (8290) (NO ACCESS)
INV. IN = N/A 15" RCP (8192) (NO ACCESS)
INV. IN = N/A 15" RCP (8282) (NO ACCESS)
INV. IN = N/A 96" RCP (8097) (NO ACCESS)
INV. OUT = N/A 96" RCP (8478) (NO ACCESS)
C/L INV. = 269.65

#8282
TOP = 285.42
INV. OUT = 281.82 15" RCP (8272)

#8290
TOP = 284.71
INV. OUT = 281.76 15" RCP (8272)

#8312
TOP = 294.03
15" RCP INV. IN = 287.72 (8310)
15" RCP INV. OUT = 287.60 (8361)

#8334
TOP = 286.29
15" RCP INV. OUT = 279.05 (8334)

#8361
TOP = 291.27
15" RCP INV. IN = 283.62 (8312)
21" RCP INV. IN = 281.85 (8431)
15" INV. IN = 282.38 (24044)
21" RCP INV. OUT = 281.83 (8379)

#8369
TOP = 284.51
15" RCP INV. IN = 279.40 (8334)
15" RCP INV. OUT = 278.76 (8418)

#8379 TOP=287.73
21" RCP INV. IN = 279.20 (8361)
24" RCP INV. OUT = 279.23 (8418)

#8418
TOP = 284.66
24" RCP INV. IN = 277.35 (8379)
15" RCP INV. IN = 277.58 (8369)
24" RCP INV. OUT = 277.33 (8472)

#8431
TOP = 291.68
18" RCP INV. IN = 283.99 (8445)
121" RCP INV. OUT = 283.80 (8361)

#8445
TOP = 292.12
15" RCP INV. IN = 285.12
18" RCP INV. OUT = 284.84 (8431)

#8472
TOP = 282.05
INV. IN = 275.40 24" RCP (8418)
INV. IN = 277.07 15" RCP (6412)
INV. IN = 275.95 15" RCP (8475)
INV. IN = 276.25 15"RCP (8515)
INV. OUT = 275.27 24"RCP (8484)

#8475
TOP = 283.49
15" RCP INV. IN = 276.80 (8505)
15" RCP INV. OUT = 276.96 (8472)

#8478
TOP = 281.59
INV. IN = N/A 96" RCP (8272) (NO ACCESS)
INV. IN =N/A 30" RCP (8484) (NO ACCESS)
INV. OUT = N/A 96" RCP (8593) (NO ACCESS)

#8505
TOP = 283.12
15" RCP INV. OUT = 277.46 (8475)

STORM SEWER TABULATION

#8484
TOP = 281.69
INV. IN = 274.32 24" RCP (8472)
INV. IN = 273.93 18" RCP (8554)
INV. OUT = 273.09 30" RCP (8478)

#8515
TOP = 282.17
INV. OUT = 277.29 15" RCP (8472)

#8537
TOP = 277.78
INV. IN = 274.86 18" RCP (NORTH)
INV. IN = 274.68 15" RCP (8704)
INV. OUT = 274.36 24" RCP (8566)

#8554
TOP = 279.95
INV. IN = 276.42 21"RCP (8568)
INV. IN = 276.28 15" RCP (8554A)
INV. OUT = 276.12 18" RCP (8484)

#8554A
TOP = 279.72
INV. OUT = 276.62 15" RCP (8554)

#8566
TOP = 278.75
INV. IN = 273.70 24" RCP (8537)
INV. OUT = 273.55 33" RCP (8593)

#8568
TOP = 280.54
INV. IN = 277.48 24"RCP (8636)
INV. IN = 278.13 15" RCP (8573)
INV. OUT = 277.23 21" RCP (8554)

#8584
TOP = 279.95
INV. OUT = 274.60 15" RCP (8593)

#8593
STRUCTURE NOT FOUND.
SHOWN PER VDOT RECORDS.

#23843
TOP = 288.13
INV. OUT = 280.18 18" RCP (23844)

#23844
TOP = 287.64
INV. IN = N/A 18" RCP (23843) (NO ACCESS)
INV. IN = N/A 84" RCP (7777) (NO ACCESS)
INV. OUT = N/A 84" RCP (8055) (NO ACCESS)
C/L INV. = 274.51

#23847
TOP = 287.79
INV. OUT= 286.00 18" RCP (8076)

#24042
TOP = 283.14
INV. OUT = 276.97 15" RCP (8472)

#24043
TOP = 289.52
15: RCP INV. OUT = 283.71 (24044)

#24044
TOP = 288.78
15" RCP INV. IN = 283.00 (24043)
15" RCP INV. OUT = 282.76 (8361)

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
Dennis M. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

LEGEND AND SURVEY DATA

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0001

Filename: C-0001 LEGEND AND SURVEY DATA.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020

GENERAL NOTES

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
4. 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 OUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
6. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
7. EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
8. THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.

STORMWATER AND ENVIRONMENTAL PROTECTION

1. 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).

TREE PROTECTION

1. TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD.

TRAFFIC CONTROL

1. CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
2. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS.
3. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING"RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS.
4. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. TYPICALLY ANY RELOCATION OR CLOSURE OF A BUS STOP WILL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR – 703–228–3049
5. WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

WATER DISTRIBUTION, STORM, AND SANITARY SEWER SYSTEMS

1. UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS IN ADVANCE OF THE REQUIRED OPERATION.
2. IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703–228–5555 AND THE PROJECT OFFICER.

MAPPING

1. EXISTING CONDITIONS MAPPING PROVIDED BY ARLINGTON COUNTY. BASIS FOR MAPPING IS FIELD SURVEY AND AS–BUILT INFORMATION.

GENERAL REQUIREMENTS

1. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND LICENSES AND KEEP COPIES OF THE SAME ON SITE DURING CONSTRUCTION, EXCEPT AS PROVIDED BY ARLINGTON COUNTY.
2. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK SITE, FREE FROM TRASH AND DEBRIS.
3. THE CONTRACTOR SHALL KEEP AND MAINTAIN A SET OF APPROVED PROJECT PLANS AND SPECIFICATIONS ON SITE AT ALL TIMES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, PAVEMENT MARKINGS, ETC. THAT MUST BE CUT OR REMOVED, OR THAT ARE DAMAGED DURING CONSTRUCTION.

COORDINATION

1. CONSTRUCTION WILL TAKE PLACE ADJACENT TO ONGOING TRAFFIC OPERATIONS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ARLINGTON COUNTY (AC).
2. THE CONTRACTOR SHALL SUBMIT A SCHEDULE FOR CONSTRUCTION TO AC IN ACCORDANCE WITH ARLINGTON COUNTY D.E.S. REQUIREMENTS.
3. PER THE CONTRACT DOCUMENTS, PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ARRANGE A MEETING WITH AC TO DISCUSS COORDINATION OF CONSTRUCTION ACTIVITIES AND RELATED PROJECTS. THE CONTRACTOR SHALL PARTICIPATE IN A CONTRACTOR LED BIWEEKLY PROGRESS MEETINGS WITH THE COUNTY AND SHALL SUBMIT SCHEDULE UPDATES AT THESE MEETINGS.

CLEARING AND GRUBBING/DEMOLITION

1. THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS AND AS DIRECTED BY ARLINGTON COUNTY (AC).
2. INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.
3. DEMOLITION DETAILS AND NOTES ARE INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK AND ARE NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH AC AND APPROPRIATE UTILITY COMPANIES PRIOR TO WORK.
4. THE CONTRACTOR SHALL REMOVE OR ABANDON, AS SPECIFIED, EXISTING UTILITIES SUCH AS STORM DRAINAGE, SANITARY SEWER, WATER, GAS, ELECTRIC, AND TELEPHONE OR AS DIRECTED BY AC. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH UTILITY COMPANY AND AC TO COORDINATE ABANDONMENT OR REMOVAL OF ALL UTILITIES AND FOR DETERMINING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO COMMENCING WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
6. ALL MATERIALS REMOVED UNDER CLEARING WORK, NOT TO BE RELOCATED OR TO BE TURNED OVER TO THE OWNER, SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID UNNECESSARY DAMAGE TO EXISTING ROAD SURFACES.
8. ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE EXPENSE OF THE CONTRACTOR.

UTILITIES

1. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE, NONEXISTENCE, SIZE, TYPE, LOCATION, ALIGNMENT, OR DEPTH OF ANY UNDERGROUND UTILITIES OR OTHER FACILITIES. WHERE SURFACE FEATURES (MANHOLES, CATCH BASINS, VALVES, ETC.) ARE UNAVAILABLE OR INCONCLUSIVE, INFORMATION SHOWN MAY BE FROM UTILITY OWNER'S RECORDS AND/OR ELECTRONIC LINE TRACING, THE RELIABILITY OF WHICH IS UNCERTAIN. THE CONTRACTOR SHALL PERFORM TEST EXCAVATIONS OR OTHER REINVESTIGATIONS AS NECESSARY TO VERIFY LOCATION AND CLEARANCES.
2. UNLESS OTHERWISE NOTED, UTILITIES LIDS, INCLUDING WATER VALVE LIDS, ARE TO BE ADJUSTED BY THE CONTRACTOR TO MATCH FINAL GRADE AND SLOPE.
3. STATE LAW MANDATES THE NOTIFICATION OF UTILITY OWNERS 48 HOURS IN ADVANCE OF EXCAVATION. FOR LOCATION OF UTILITIES CALL:

UTILITY OWNERS	TELEPHONE
DOMINION VIRGINIA POWER (DVP)	888–667–3000
VERIZON COMMUNICATIONS	888–826–2355
COMCAST	888–683–1000
JONES FIBER	540–891–5545
WASHINGTON GAS	703–750–1000

4. CONTRACTOR SHALL CONFORM TO THE OVERHEAD HIGH VOLTAGE LINE SAFETY ACT (EFFECTIVE JULY 1, 2003) AND SHALL CONTACT THE NECESSARY AUTHORITIES PRIOR TO START OF CONSTRUCTION.
5. ARLINGTON COUNTY'S UTILITY DEPARTMENT INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENT PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. SITE INSPECTOR OR AREA SUPERVISOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING COMPACTION TESTS.
6. STABLE SUBGRADE SHALL COMPRISE SOLID, WELL DRAINED, UNDISTURBED EARTH CAPABLE OF SUPPORTING STREET LOADING WITHOUT RESULTING IN ANY DAMAGING SETTLEMENT AS DETERMINED BY THE ENGINEER.
7. WHERE UNSUITABLE SUBGRADE, AS DETERMINED BY THE ENGINEER, IS ENCOUNTERED, IT SHALL BE MADE STABLE BY DRAINING, COMPACTING, AND/OR REPLACING AS REQUIRED, TO THE SATIFACTION OF THE ENGINEER.
8. ALL CONCRETE SHALL BE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) CLASS A4 FOR PRECAST STRUCTURES AND VDOT CLASS A3 FOR ALL OTHERS USES, UNLESS OTHERWISE SPECIFIED.
9. ALL ASPHALT PAVEMENT COURSES SHALL BE IN CONFORMANCE WITH VDOT SPECIFICATIONS.
10. EXISTING FIRE HYDRANTS MUST REMAIN ACTIVE UNTIL NEW HYDRANTS ARE AVAILABLE FOR PUBLIC USE. CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS AND FIRE DEPARTMENT WHEN SERVICES TO PROPERTIES ARE INTERRUPTED.

DRAINAGE

1. THE LOCATIONS OF ALL DRAINAGE STRUCTURES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY, WITH THE EXCEPTION OF STRUCTURES SHOWING SPECIFIC STATIONS. THE HEIGHT (H") DIMENSIONS SHOWN ON THE PLANS FOR DROP INLETS AND JUNCTION BOXES AND THE LINEAR FOOT (LF) DIMENSIONS SHOWN FOR MANHOLES ARE APPROXIMATE.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY DRAINAGE STRUCTURES AND CONVEYANCE MEASURES TO PREVENT DAMAGE TO PRIVATE PROPERTY AND PUBLIC STREETS, OR AS DIRECTED BY ARLINGTON COUNTY.
3. IF PRECAST DRAINAGE STRUCTURES ARE USED, SHOP DRAWINGS MUST BE SUBMITTED.
4. ALL PROPOSED STORM DRAINAGE STRUCTURES SHALL UTILIZE INLET SHAPING WITH PAVED INVERTS, UNLESS OTHERWISE NOTED ON THE PLANS, FOR EACH STRUCTURE.
5. ALL PIPE CULVERTS (WATER, SEWER, AND STORM SEWER), LOCATED WITHIN RIGHT–OF–WAY EXCAVATION AREAS THAT ARE SUBJECT TO TRAFFIC LOADS SHALL BE BACKFILLED WITH A SELECT OR GRANULAR MATERIAL AND PLACED IN SIX (6) INCH LAYERS AND COMPACTED TO 95 PERCENT THEORETICAL AASHTO DENSITY IN ACCORDANCE WITH SECTION 302.03 OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS (CURRENT EDITION).
6. RIPRAP MUST BE PROVIDED AT ALL ENDWALLS AND FLARED END SECTIONS AS REQUIRED BY ARLINGTON COUNTY INSPECTOR.
7. THE CONTRACTOR SHALL MAINTAIN ALL DRAINAGE, STORMWATER MANAGEMENT, AND BEST MANAGEMENT PRACTICES FACILITIES AND SYSTEMS TO ENSURE THAT THEY FUNCTION PROPERLY DURING CONSTRUCTION.
8. A WATERTIGHT CONNECTION SHALL BE MADE AT ALL PIPES ENTERING DRAINAGE STRUCTURES. IN ADDITION, WATERTIGHT CONNECTIONS SHALL BE MADE BETWEEN EACH SECTIONS OF PIPE.
9. LENGTHS OF PIPE SHOWN ON THE DRAWINGS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
10. TOP OF STRUCTURES SHALL BE SET TO MATCH CURB AND GUTTER, SIDEWALK AND/OR DITCH CONSTRUCTION.
11. ENGINEER MAY APPROVE A MODIFICATION TO DESIGN TO FACILITATE PROPER DRAINAGE. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

CONSTRUCTION

1. SUBMITTALS ON MATERIALS FOR THIS PROJECT SHALL BE PROVIDED TO AC FOR APPROVAL PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
2. EXISTING VEGETATION SURROUNDING THE CONSTRUCTION AREA SHALL REMAIN IN A NATURAL STATE. TREES NEAR THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH TREE PROTECTION DETAILS, PLANS, AND NOTES AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
3. THE CONTRACTOR SHALL STRIP TOPSOIL AND ANY ORGANIC LADEN SOIL AND STORE FOR USE IN BACKFILLING AND LANDSCAPING FOR SITE RESTORATION. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY EXCESS SOIL AFTER RESTORATION OF THE SITE.
4. WHEN MATERIALS WHICH ARE UNSUITABLE FOR FOUNDATIONS, SUBGRADES, OR ROADWAY PURPOSES OCCUR WITHIN THE LIMITS OF CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE SUCH MATERIAL BELOW THE GRADE SHOWN ON THE PLANS. THE AREAS SO EXCAVATED SHALL BE BACKFILLED WITH APPROVED SUITABLE SELECT FILL MATERIAL.
5. ANY NECESSARY FILL UNDER PAVED AREAS SHALL BE PLACED IN 6–INCH LIFTS. ALL FILL SHALL BE COMPACTED 95% MDD STANDARD PROCTOR. SUBGRADE SHALL BE PROOF–ROLLED PER THE DIRECTION OF AC. AREAS THAT RUT SHALL BE UNDERCUT AND REPLACED WITH CONTROLLED FILL.
6. ALL UNPAVED SURFACES SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM PAVED AREAS AND TOWARD DRAINAGE STRUCTURES.
7. FOLLOWING FINAL COMPLETION, ALL DISTURBED GRASS AREAS SHALL BE PREPARED AND SODDED.
8. DISTURBED GRASS AREAS WITHIN THE PROJECT LIMITS THAT WILL REMAIN INACTIVE FOR A PERIOD OF 7 CALENDAR DAYS OR LONGER SHALL BE TEMPORARILY STABILIZED WITH SEED AND STRAW, MULCH, OR OTHER ACCEPTABLE GROUNDCOVER.
9. THE CONTRACTOR IS REQUIRED TO NOTIFY AC THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION AND SPECIFICALLY REQUEST INSPECTION BEFORE BEGINNING ANY OF THE FOLLOWING ACTIVITIES:
   A. INSTALLATION OF SILTATION AND EROSION CONTROL MEASURES
   B. CLEARING AND GRUBBING
   C. EARTHWORK
   D. BACKFILL OF ANY STORM DRAINAGE PIPE, CULVERTS, INLET, AND OTHER UTILITIES
   E. INSTALLATION OF ANY UNDERGROUND UTILITY, INCLUDING STORM PIPES, CULVERT, INLETS, DUCT BANKS, MANHOLE, ETC.
   F. PLACING SUBBASE, BASE OR PAVING SURFACE
   G. INSTALLATION OF ANY FORMS
   H. PLACING OF ANY CONCRETE
   I. BACKFILL OF ANY FOUNDATIONS OR WALLS
   J. INSTALLATION OF LANDSCAPING
   K. INSTALLATION MARKINGS OF LIGHTING
   L. STRIPING AND APPLICATION OF PAVEMENT MARKINGS
   M. ALTERATIONS TO BUS STOPS STRUCTURES AND SIGNAGE
10. CONTRACTOR TO MAINTAIN ALL PUBLIC AND PRIVATE ACCESS AT ALL TIMES.
11. CONTRACTOR TO MATCH ALL EXISTING STEPS, SIDEWALKS, RAMPS, ETC. IN ORDER TO MAINTAIN SAFE PEDESTRIAN AND ADA ACCESS.

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
Dennis W. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

GENERAL NOTES AND DETAILS

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0002

Filename: C-0002 GENERAL NOTES AND DETAILS.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

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REVISED: MARCH 03, 2020

EROSION AND SEDIMENT CONTROL

1. TEMPORARY SILT FENCE SHALL BE CONSTRUCTED FOR SHEET RUNOFF AS SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.

2. WHEN WIRE SUPPORT IS USED, STANDARD STRENGTH FILTER CLOTH MAY BE USED. POSTS FOR THIS TYPE OF INSTALLATION SHALL BE PLACED A MAXIMUM OF 10 FEET APART. THE WIRE MESH FENCE MUST BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF TWO INCHES AND SHALL NOT EXTEND MORE THAN 34 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

3. WHEN WIRE SUPPORT IS NOT USED, EXTRA STRENGTH FILTER CLOTH SHALL BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 6 FEET APART. THE FILTER FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING ONE INCH LONG (MINIMUM) HEAVY DUTY WIRE STAPLES OR TIE WIRES AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH.

4. WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 14 GAUGE AND SHALL HAVE A MAXIMUM MESH SPACING OF 6 INCHES. POSTS SHALL BE EITHER STEEL POSTS OR WOODEN STAKES AND HAVE A MINIMUM LENGTH OF 5 FEET.

5. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS NOTED IN TABLE 3.05-B OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION. THE SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0°F TO 120°F.

6. SILT FENCES SHALL BE INSPECTED AND CLEANED ON A WEEKLY BASIS AND ON A DAILY BASIS IMMEDIATELY FOLLOWING EACH RAIN STORM. ALL NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.

14. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION (1992) AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

15. THE TEMPORARY EROSION AND SILTATION (E&S) CONTROL ITEMS SHOWN ON THE E&S CONTROL PLAN ARE INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SILTATION WITHIN THE PROJECT LIMITS. THE E&S CONTROL PLAN IS BASED ON FIELD CONDITIONS AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR, IN CONJUNCTION WITH THE AC PROJECT MANAGER AND/OR RLD, SHALL ADJUST THE LOCATION, QUANTITY AND TYPE OF EROSION AND SILTATION CONTROL ITEMS REQUIRED BASED ON THE ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE SELECTED SEQUENCE OF CONSTRUCTION.

16. THE AREAS BEYOND THE PROJECT'S CONSTRUCTION AREA ARE TO BE PROTECTED FROM SILTATION. PERIMETER CONTROLS SUCH AS FILTER BARRIER, SILT FENCE, ETC. SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OPERATIONS.

17. SILT REMOVAL AND SEDIMENT CLEAN-OUT FROM EROSION AND SILTATION CONTROL ITEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING:
    A. TEMPORARY SEDIMENT BASINS AND SEDIMENT TRAPS – WHEN THE "WET" STORAGE VOLUME (PERMANENT POOL) HAS BEEN REDUCED BY 50%.
    B. DEWATERING BASINS – WHEN THE EXCAVATED VOLUME HAS BEEN REDUCED BY 50%.
    C. ALL OTHER EROSION AND SILTATION CONTROL ITEMS – WHEN THE CAPACITY, HEIGHT, OR DEPTH HAS BEEN REDUCED BY 50%.

18. EXCEPT WHERE NOTED HEREON, TO THE BEST OF THE DESIGNER'S KNOWLEDGE, THE PROPOSED DEVELOPMENT OF THE SUBJECT PROPERTY CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS.

19. LAND CONSERVATION NOTES – MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. HOWEVER, THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY ARLINGTON COUNTY.

20. ADDITIONAL SILTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS DIRECTED BY ARLINGTON COUNTY INSPECTOR DURING FIELD REVIEW; COSTS ASSOCIATED WITH ADDITIONAL MEASURES SHALL BE ASSUMED BY THE CONTRACTOR.

21. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION.

22. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

23. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

24. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

25. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

26. EROSION CONTROL MEASURES ARE TO BE REMOVED BY CONTRACTOR AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.

27. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
    A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
    C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED (EXAMPLE WOULD BE A SILT BAG) OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE (EXAMPLE WOULD BE A SEDIMENT TRAP) OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
    E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH STANDARDS 3.31 AND 3.32.
    F. ALL TRENCHING SHALL BE IN ACCORDANCE WITH APPLICABLE SAFETY STANDARDS.

MINIMUM STANDARDS REVIEW

MS-1 TEMPORARY AND PERMANENT STABILIZATION HAS BEEN ADDRESSED.

MS-2 THERE ARE NO STOCKPILES PROPOSED WITH THIS PLAN.

MS-3 MAINTENANCE OF PERMANENT STABILIZATION HAS BEEN ADDRESSED, SEE PERMANENT STABILIZATION.

MS-4 SEDIMENT TRAPPING FACILITIES ARE TO BE INSTALLED AS THE FIRST STEP IN LAND DISTURBING ACTIVATES. MAINTENANCE OF FACILITIES ARE DETAILED UNDER THE EROSION AND SEDIMENT CONTROL NOTES.

MS-5 THERE ARE NO EARTHEN STRUCTURE PROPOSED WITH THIS PROJECT.

MS-6 THERE ARE NO SEDIMENT BASINS PROPOSED WITH THIS PROJECT.

MS-7 THERE ARE NO CUT AND FILL SLOPES PROPOSED WITH THIS PROJECT.

MS-8 THERE ARE NO PAVED FLUMES, CHANNELS, OR SLOPE DRAINS PROPOSED WITH THIS PROJECT.

MS-9 THERE ARE NO WATER SEEPS ANTICIPATED WITH THIS PROJECT.

MS-10 INLET PROTECTION IS PROVIDED ON INLETS DOWN GRADIENT FROM DISTURBED AREAS.

MS-11 ADEQUATE OUTLET PROTECTION EXIST AT ALL EXISTING OUTLETS. THERE ARE NO NEW OUTLETS PROPOSED.

MS-12 THERE ARE NO IN-STREAM CONSTRUCTION MEASURES PROPOSED WITH THIS PROJECT.

MS-13 THERE ARE NO STREAM CROSSINGS PROPOSED WITH THIS PROJECT.

MS-14 THERE ARE NO WATERCOURSES BEING CROSSED WITH THIS PROJECT.

MS-15 THERE ARE NO IMPACTS TO WATERCOURSES PROPOSED WITH THIS PROJECT

MS-16 UTILITY TRENCHING HAS BEEN ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.

MS-17 PREVENTING SOIL FROM BEING TRACKED ON THE STREETS IS ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.

MS-18 THE REMOVAL OF TEMPORARY PRACTICES HAS BEEN ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.

MS-19 THIS PROJECT DOES NOT SIGNIFICANTLY INCREASE THE IMPERVIOUS AREA OR THE RUNOFF FROM THE SITE AREA.

MS4 NOTES

1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS: WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIRE FIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.

2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (EG., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.

3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATER, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

GENERAL LAND CONSERVATION NOTES

1. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.

2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.

3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ANY ONE TIME.

4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS OF BACKFILL.

5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.

6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.

7. ANY DISTURBED AREA NOT COVERED BY NOTE # 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.

8. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION:
THIS PROJECT RECONSTRUCTS THE TRAFFIC SIGNAL AT THE INTERSECTION OF WASHINGTON BOULEVARD AT N. SYCAMORE STREET. THIS PROJECT ALSO INCLUDES SIDEWALK AND CURB AND GUTTER MODIFICATIONS. ALL CONSTRUCTION WORK WILL BE FOR THE DURATION OF 110 TOTAL CALENDAR (80 WORK DAYS). WORK DAYS NOT TO INCLUDE ARLINGTON COUNTY PUBLIC HOLIDAYS. APPROXIMATELY 2,948 SF (0.067 AC) OF LAND WILL BE DISTURBED WITH THIS PROJECT.

EXISTING CONDITIONS:
WASHINGTON BOULEVARD IS A TWO-LANE ROAD EAST OF N. SYCAMORE STREET AND IS A FOUR-LANE ROAD WEST OF N. SYCAMORE STREET. OVERHEAD UTILITIES ARE LOCATED ALONG THE NORTHERN SIDE OF THE ROAD WITHIN IN THE VICINITY OF N. SYCAMORE STREET. THE RIGHT OF WAY INCLUDES TREES, STORM DRAINAGE STRUCTURES AND PIPES, SANITARY SEWER MAINS, WATER MAINS, ELECTRIC LINES, COMMUNICATIONS LINES AND MASS TRANSIT STOP LOCATIONS. MINIMAL CHANGES TO THE EXISTING TOPOGRAPHY ARE PROPOSED. MOST OF THE EXISTING VEGETATION WITHIN THE PROJECT LIMITS SHALL BE REPLACED.

ADJACENT AREAS:
AT N. SYCAMORE STREET, WASHINGTON BOULEVARD IS BOUND ON BOTH SIDES BY RESIDENTIAL DEVELOPMENTS OF VARIABLE DENSITY AND WMATA PROPERTY. THE CONTRACTOR SHALL PROVIDE TO THE ARLINGTON COUNTY INSPECTOR PHOTOGRAPHS OF IMMEDIATE ADJACENT AREAS TO DOCUMENT ADJACENT OFFSITE CONDITIONS PRIOR TO INSTALLING PERIMETER EROSION CONTROLS.

OFF-SITE AREAS:
THERE ARE NO OFF-SITE AREAS OR STOCKPILES ASSOCIATED WITH THIS PROJECT. OFFSITE AREAS DAMAGED BY THE CONTRACTOR OR ITS LACK OF EROSION CONTROLS SHALL BE REPAIRED BY THE CONTRACTOR, AT ITS EXPENSE, IN A TIMELY MANOR.

SOILS:
THE SOILS IN THE PROJECT AREA HAVE BEEN MAPPED AS URBAN LAND-SASSAFRAS-NEABSCO COMPLEX. URBAN LAND-GLENELG COMPLEX, AND URBAN LAND-UDORTHENTS COMPLEX.

CRITICAL AREAS:
THERE ARE NO CRITICAL AREAS ASSOCIATED WITH THIS PROJECT. DISTURBANCE SHALL BE LIMITED TO SMALL AREAS AND THE CONTRACTOR SHALL PROTECT THOSE AREAS AS TO NOT CAUSE OR ALLOW FOR EROSION OF SOILS OUT OF THE PROJECT AREA.

EROSION AND SEDIMENT CONTROL MEASURES:
THE FOLLOWING EROSION CONTROLS SHALL BE USED DURING THIS PROJECT:.

1. STD. 3.05 SILT FENCE – SILT FENCE AND SUPER SILT FENCE SHALL BE USED IN ACCORDANCE WITH THIS STANDARD AND AS SPECIFIED BY ARLINGTON COUNTY. SEE DETAIL THIS SHEET. SILT FENCE OR SUPER SILT FENCE SHALL BE USED DOWN GRADIENT FROM DISTURBED AREAS AS SHOWN ON THE PLANS AND AS NEEDED TO PREVENT THE TRANSPORTATION OF SEDIMENT BEYOND THE PROJECT LIMITS. IT SHALL BE INSTALLED PRIOR TO STARTING LAND DISTURBANCE AND SHALL BE REMOVED AFTER THE DISTURBED AREA HAS HAD TEMPORARY OR PERMANENT STABILIZATION ESTABLISHED. COORDINATE REMOVAL WITH THE ARLINGTON COUNTY INSPECTOR.
2. STD. 3.07 STORM DRAIN INLET PROTECTION – STORM DRAINAGE INLETS SHALL BE PROTECTED IN ACCORDANCE WITH THIS STANDARD. INLETS DOWN GRADIENT FROM LAND DISTURBING ACTIVITIES SHALL HAVE INLET PROTECTION INSTALLED PRIOR TO STARTING LAND DISTURBANCE. CARE SHALL BE TAKEN AS TO NOT INTERFERE WITH TRAFFIC ON ROADWAY WHEN SELECTING THE TYPE OF INLET PROTECTION TO BE USED. THE CONTRACTOR IS TO REMOVE SILT BUILDUP PROMPTLY SO THAT SILT IS NOT TRACKED ALONG THE ROAD. REMOVAL OF THE INLET PROTECTION SHALL OCCUR ONCE DISTURBED AREA UP GRADIENT OF THE INLET HAVE BEEN STABILIZED AND IN COORDINATION WITH THE ARLINGTON COUNTY INSPECTOR.
3. STD. 3.26 DEWATERING STRUCTURE – ALL DISCHARGES FROM DEWATERING OPERATIONS SHALL BE IN ACCORDANCE WITH THIS STANDARD. DEWATERING CONTROLS SHALL BE USED AT ALL DEWATERING DISCHARGES. THE CONTRACTOR IS TO NOTIFY THE ARLINGTON COUNTY INSPECTOR PRIOR TO DISCHARGING DEWATERING EFFLUENT OF THE LOCATION AND TYPE OF FILTER OR CONTROL THAT IS TO BE USED AND FOR HOW LONG IT WILL BE USED.
4. STD. 3.31 TEMPORARY SEEDING – TEMPORARY SEEDING SHALL BE APPLIED IN ACCORDANCE WITH THIS STANDARD. TEMPORARY STABILIZATION IS REQUIRED WHEN AN AREA IS NOT TO BE WORKED WITHIN A 7 DAY PERIOD. THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE IN ORDER TO ESTABLISH A SURFACE PROTECTION TO EROSION. TEMPORARY SEEDING SHALL BE CARED FOR AS NECESSARY IN ORDER TO GENERATE A DENSE, HEALTHY STAND OF VEGETATION THAT WILL RESIST EROSION.
5. THE CONTRACTOR SHALL USE APPROPRIATE METHODS TO ESTABLISH PERMANENT STABILIZATION THAT ARE SIMILAR TO THE CONDITION THAT WAS PRESENT PRIOR TO STARTING LAND DISTURBANCE ACTIVITIES.
6. STD. 3.33 SODDING – ALL SODDING SHALL BE IN ACCORDANCE WITH THIS STANDARD. SODDED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE SOD HAS BEEN ESTABLISHED AND HAD TWO MOWING CYCLES. THE CONTRACTOR SHALL COORDINATE THE RELEASE OF MAINTENANCE OF SODDED AREAS WITH THE ARLINGTON COUNTY INSPECTOR AND THE LAND OWNER.
7. STD. 3.38 TREE PRESERVATION AND PROTECTION – TREE PROTECTION FENCING SHALL BE IN ACCORDANCE WITH THIS STANDARD AND ARLINGTON COUNTY'S TREE PROTECTION FENCE, PLAN. SEE THIS SHEET FOR DETAIL. TREE PROTECTION SHALL BE USED ALONG THE LIMITS OF DISTURBANCE WHERE AN OFFSITE TREE OR LANDSCAPED AREA MAY HAVE A CRITICAL ROOT ZONE THAT EXTENDS INTO THE LIMITS OF THIS PROJECT. THE ARLINGTON COUNTY URBAN FORESTER MAY REQUIRE ADDITIONAL TREE PRESERVATION AND PROTECTION BE INSTALLED PRIOR TO STARTING LAND DISTURBING ACTIVITIES. TREE PRESERVATION AND PROTECTION SHALL ONLY BE REMOVED WITH THE APPROVAL OF THE ARLINGTON COUNTY URBAN FORESTER.

PERMANENT STABILIZATION:
ALL DISTURBED AREAS BY THIS PROJECT SHALL BE STABILIZED WITH PERMANENT GROUND COVER UTILIZING STD. 3.33. PERMANENT SODDING SHALL BE UTILIZED IN DISTURBED AREAS ADJACENT TO CURB RAMP MODIFICATIONS. SEEDING SHALL BE UTILIZED IN ALL OTHER DISTURBED AREAS WITHIN RIGHT-OF-WAY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL DISTURBED ARES UNTIL FINAL ACCEPTANCE BY ARLINGTON COUNTY AND/OR LAND OWNER. THIS SHALL INCLUDE CUTTING THE GRASS TO MAINTAIN THE SAME APPEARANCE AS THE ADJOINING PROPERTY. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF ACHIEVING FINAL STABILIZATION OR WHEN THE MEASURES ARE NO LONGER NEEDED.

CALCULATIONS:
DETAILED CALCULATIONS SHOWING PRE AND POST DEVELOPMENT DRAINAGE AREAS, INLET COMPUTATIONS, PIPE CAPACITIES AND FLOWS ARE INCLUDED IN THIS SET OF PLANS IN ADDITION TO THE DRAINAGE AND STORMWATER MANAGEMENT REPORT / ANALYSIS.

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
IT&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISIONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

GENERAL NOTES AND DETAILS

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet
C-0003

Filename: C-0002 GENERAL NOTES AND DETAILS.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020

GENERAL DETAILS

05/26/2021
date

Qianqian Li, P.E.
ESC Program Administrator
Department of Environmental Sevices
2100 Clarendon Boulevard, Suite 813
Arlington, Virginia 22201

Re: Erosion and Sediment Control Permit Application for:

Washington Boulevard and North Sycamore Street
street address

lot, block, section subdivision

LDA-16725
permit number

Dear Mrs. Li:

I hereby certify that I accept the responsibilities of Responsible Land Disturber for the above referenced project. I understand that these responsibilities include:

1. Reviewing the erosion and sedimentation (E&S) plan for the project.
2. Walking the site prior to construction to identify critical areas.
3. Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of clearing and the required E&S controls and tree protection measures to be installed. Call 703-228-0760 to schedule pre-construction meeting.
4. Regularily inspecting the site during construction to ensure that all E&S controls are functioning and are adequate to address erosion and sedimentation. Inspect the site 48 hours after a runoff-generating storm, and provide a copy of the inspection findings to the county.
5. Reporting to the owner the presence inadequate or non functioning E&S controls when they are observed.
6. Ensuring that temporary soil stabilization is applied within 7 days to areas denuded that will remain undisturbed for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
7. Calling (703) 228-0760 at least 80 hours before demolishing any structure.

I may be reached at 703-228-7050 with questions about this plan or my execution of the duties of
telephone number
Responsible Land Disturber.

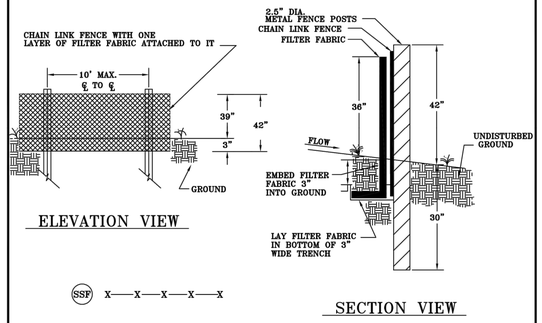
Sincerely,

signed

Anup Kafle
name printed

PE and 0402056432
professional registration (type and number)

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



SUPER SILT FENCE
NO SCALE

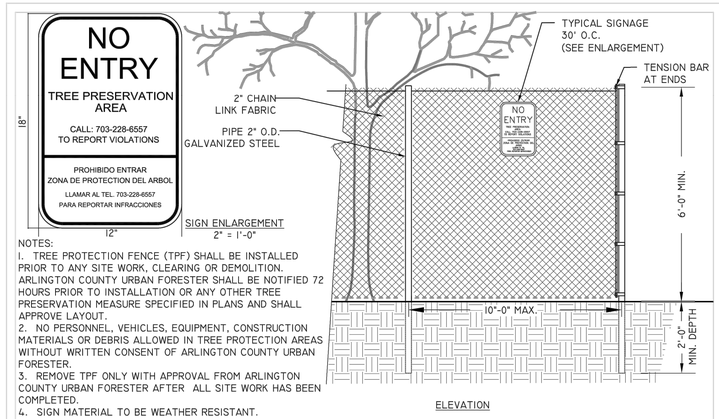
FENCING

Chain link fence must be 39" above grade with 3" embedded for a total fabric width of 42". The post must be 42" above grade with 30" placed below grade (without concrete) for a total length of 72".

NOTES

1. Chain link fence must be fastened securely to fence posts with wire ties.
2. Filter fabric must be fastened securely to chain link fence with ties spaced horizontally 24" at the top and midsection.
3. Physical properties of the filter fabric must conform to the latest edition of THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK.
4. When two sections of filter fabric adjoin each other, they must be overlapped by 6".
5. Maintenance must be performed as needed and material must be removed when sediment build-up reaches 50% of the height of the super silt fence.

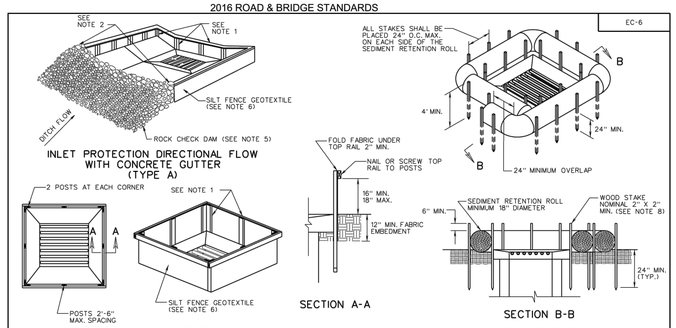
Ref. Sec. 11-0106.2, 11-0106.2A Rev. 1-00, 2011 Reprint, 2018 Reprint	SUPER SILT FENCE NO SCALE	PLATE NO.	STD. NO.
		5-11	



NOTES:
1. TREE PROTECTION FENCE (TPF) SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION. ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO INSTALLATION OR ANY OTHER TREE PRESERVATION MEASURE SPECIFIED IN PLANS AND SHALL APPROVE LAYOUT.
2. NO PERSONNEL, VEHICLES, EQUIPMENT, CONSTRUCTION MATERIALS OR DEBRIS ALLOWED IN TREE PROTECTION AREAS WITHOUT WRITTEN CONSENT OF ARLINGTON COUNTY URBAN FORESTER.
3. REMOVE TPF ONLY WITH APPROVAL FROM ARLINGTON COUNTY URBAN FORESTER AFTER ALL SITE WORK HAS BEEN COMPLETED.
4. SIGN MATERIAL TO BE WEATHER RESISTANT.

6' CHAIN LINK TREE PROTECTION FENCE
311300.1 (2016) (02231.1)
1/2" = 1'-0"
ARLINGTON VIRGINIA DPR

2016 ROAD & BRIDGE STANDARDS



NOTES

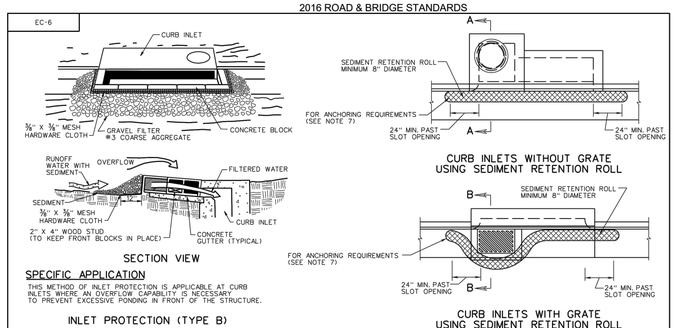
1. POSTS AND TOP RAIL SHALL BE A NOMINAL 2" X 4" NO. 2 SOUTHERN PINE, AND POSTS SHALL BE DRIVEN 24" MINIMUM IN THE GROUND.
2. END OF FILTER BARRIER TO BE EMBEDDED INTO AGGREGATE.
3. IF A DROP INLET IS LOCATED IN A SAG IN THE DITCH GRADE, A CHECK DAM IS REQUIRED FOR EACH SIDE OF THE INLET THAT RECEIVES DITCH FLOW.
4. WHERE DRAINAGE AREAS EXCEED ONE ACRE OR DITCH GRADE EXCEEDS 3%, A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED IN ACCORDANCE WITH THE EC-4 STANDARD.
5. WHEN REQUIRED SEE STANDARD EC-4 FOR DETAILS OF ROCK CHECK DAM AND SEDIMENT FORBAY.
6. SILT FENCE GEOTEXTILE IN ACCORDANCE WITH SECTION 245 OF THE ROAD AND BRIDGE SPECIFICATIONS.
7. ONLY SEDIMENT RETENTION ROLL PRODUCTS WITH A MINIMUM 18" DIAMETER LISTED ON THE VDOT APPROVED PRODUCTS LIST MAY BE USED FOR TYPE A INLET PROTECTION.
8. ALL STAKES SHALL BE DRIVEN 24" MIN. INTO THE GROUND AND SHALL EXTEND 6" ABOVE THE SEDIMENT RETENTION ROLL. WOODEN STAKES SHALL BE OAK AND HAVE NOMINAL DIMENSIONS OF 2" BY 2". STEEL STAKES SHALL HAVE A MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT.
9. SEDIMENT SHALL BE REMOVED FROM INLET PROTECTION WHEN IT HAS ACCUMULATED TO ONE-HALF THE EXPOSED HEIGHT OF THE STRUCTURE AND PAID FOR AS SEDIMENT REMOVAL PER CUBIC YARD.
10. STACKING SEDIMENT RETENTION ROLLS TO MEET THE REQUIRED INLET PROTECTION HEIGHT IS NOT PERMITTED.
11. SEDIMENT RETENTION ROLLS SHALL BE EMBEDDED INTO THE DITCH 2" EXCEPT WHEN PLACED OVER STANDARD EC-2 OR EC-3 LINED DITCH.
12. SEDIMENT RETENTION ROLLS AND STAKES USED FOR INLET PROTECTION APPLICATIONS SHALL BE REMOVED AFTER STABILIZATION IS COMPLETE.
13. GEOTEXTILE PRODUCTS DESIGNED TO BE INSERTED INTO OR ANCHORED TO THE TOP OF GRATE INLETS, AND ARE FOUND ON VDOT'S EC-6 APPROVED PRODUCT LIST, MAY BE SUBSTITUTED FOR THE DROP INLET PROTECTION DEVICES DETAILED IN THIS STANDARD.

INLET PROTECTION (TYPE A), ITEM CODE 27451 EACH

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	VDOT ROAD AND BRIDGE STANDARDS	
107 245 242 303 244	INLET PROTECTION (TYPE A) VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE 04/19	SHEET 1 OF 3 113.09

2016 ROAD & BRIDGE STANDARDS

2016 ROAD & BRIDGE STANDARDS



NOTES:

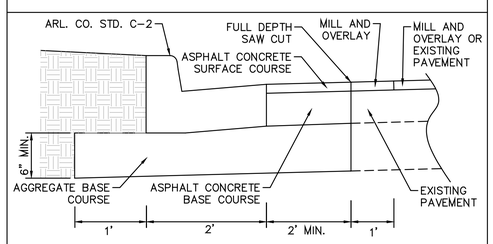
1. INLET PROTECTION USING SEDIMENT RETENTION ROLLS SHALL BE CONSTRUCTED WITH COMPOST FILTER SOCKS OR SEDIMENT TUBES.
2. ONLY SEDIMENT RETENTION ROLL PRODUCTS WITH A MINIMUM 8" DIAMETER LISTED ON THE VDOT APPROVED PRODUCTS LIST MAY BE USED FOR TYPE B INLET PROTECTION.
3. SEDIMENT SHALL BE REMOVED FROM INLET PROTECTION WHEN IT HAS ACCUMULATED TO ONE-HALF THE EXPOSED HEIGHT OF THE STRUCTURE AND PAID FOR AS SEDIMENT REMOVAL PER CUBIC YARD.
4. STACKING SEDIMENT RETENTION ROLLS TO MEET THE REQUIRED INLET PROTECTION HEIGHT IS NOT PERMITTED.
5. SEDIMENT RETENTION ROLLS AND STAKES USED FOR INLET PROTECTION APPLICATIONS SHALL BE REMOVED AFTER STABILIZATION IS COMPLETE.
6. GEOTEXTILE PRODUCTS DESIGNED TO BE INSERTED INTO OR ANCHORED TO GRATES OR SLOTS OF CURB INLETS, AND ARE FOUND ON VDOT'S EC-6 APPROVED PRODUCTS LIST, MAY BE SUBSTITUTED FOR THE DROP INLET PROTECTION DEVICES DETAILED IN THIS STANDARD.
7. SEDIMENT RETENTION ROLL WILL BE ANCHORED WITH A 50 POUND SANDBAG ON EACH END OR IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

INLET PROTECTION (TYPE B), ITEM CODE 27461 EACH

VDOT ROAD AND BRIDGE STANDARDS		A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	SPECIFICATION REFERENCE
SHEET 2 OF 3	REVISION DATE	INLET PROTECTION (TYPE B) VIRGINIA DEPARTMENT OF TRANSPORTATION	107 242 244 303
113.10	04/19		

2016 ROAD & BRIDGE STANDARDS

CURB AND PAVEMENT SAW CUT DETAIL



NOTE:

1. ALL PAVEMENT WIDENING SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD WP-2.
2. CURB AND/OR GUTTER SHALL FOLLOW ARLINGTON COUNTY STANDARD C-2 CURB AND GUTTER.
3. NEW PAVEMENT AREAS SHALL BE THE GREATER OF EXISTING PAVEMENT DEPTHS OR 2" SURFACE COURSE ASPHALT CONCRETE, TYPE SM-9.5D, 6" BASE COURSE ASPHALT CONCRETE, TYPE BM-25.0A, AND MIN. 6" AGGREGATE BASE MATERIAL, TYPE I, SIZE NO. 21B OR EXTENDED TO THE BOTTOM OF EXISTING AGGREGATE, WHICHEVER IS GREATER.
4. MILL AND OVERLAY OF THE EXISTING PAVEMENT SHALL BE 2" OF SURFACE COURSE ASPHALT CONCRETE, TYPE SM-9.5D.

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

GENERAL NOTES AND DETAILS

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet
C-0004

Filename: C-0002 GENERAL NOTES AND DETAILS.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

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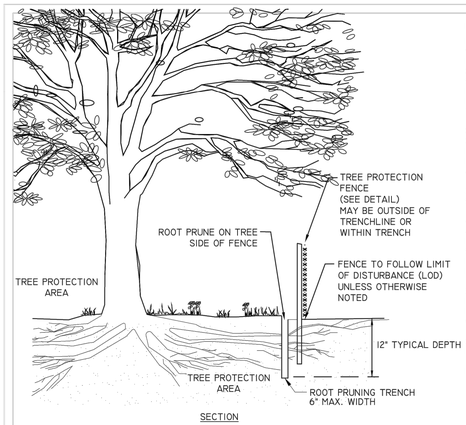
REVISED: MARCH 03, 2020

GENERAL DETAILS



SECTION

NOTES

1. ROOT PRUNING SHALL BE DONE WITH A TRENCHER OR VIBRATORY PLOW TO A DEPTH OF 12". ROOTS OVER 1.5" IN DIAMETER SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON THE SURFACE OF THE ROOT, WHICH IS STILL ATTACHED TO THE TREE. DO NOT BREAK OR CHOP. DO NOT PAINT THE CUT ROOT END. IF EXCAVATION IS FOR INSTALLATION OF UNDERGROUND UTILITIES, LEAVE THE ROOT INTACT AND THREAD THE LINES UNDERNEATH.

2. ROOT PRUNING SHALL TAKE PLACE PRIOR TO ANY CLEARING AND GRADING. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING AND SHALL BE APPROVED BY ARLINGTON COUNTY URBAN FORESTER.

3. ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF AN ISA CERTIFIED ARBORIST.

4. BACKFILL THE ROOT-PRUNING TRENCH WITH APPROVED LOOSE TOPSOIL MIX AND TOP WITH 3-4" BARK MULCH AND MARK LOCATION FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS THE TRENCH IS NOT OPEN FOR LONGER THAN 48 HOURS WITHOUT WATERING.

5. ROOT PRUNING WORK SHALL NOT BE DONE WHEN MORE THAN THE TOP 1 INCH OF SOIL IS FROZEN. ROOT PRUNING SHALL NOT BE UNDERTAKEN WHEN THE SOIL IS WET AND CONDITIONS ARE MUDDY.

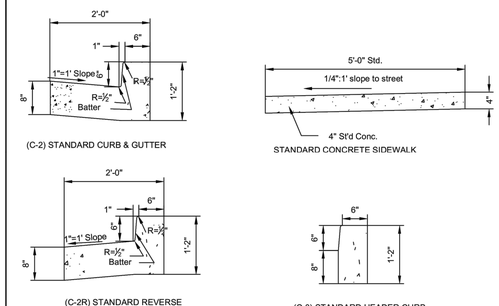
6. THE ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO TRENCHING AND WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

ROOT PRUNING

3I1300.5 (2019)

N.T.S.

ARLINGTON COUNTY DPR



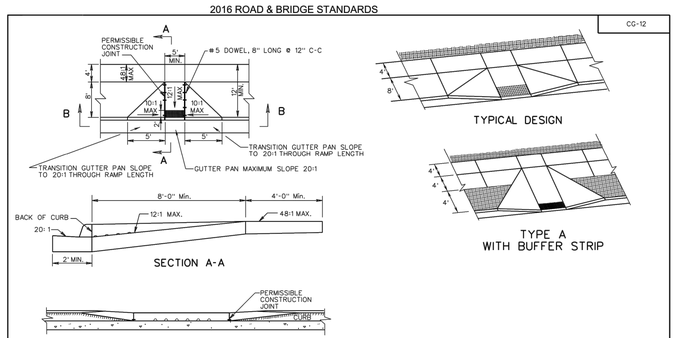
NOTES:

1. SECTION C-3 IS TO BE USED ONLY WITH RIGID TYPE PAVEMENT UNLESS OTHERWISE DIRECTED IN WRITING OR WHEN SHOWN ON APPROVED PLANS.
2. EXPANSION JOINTS IN HEADER CURB AND STANDARD CURB AND GUTTERSHALL BE 40' APART OR AT EXPANSION JOINTS IN CONCRETE PAVEMENT.
3. EXPANSION JOINTS MAY BE OMITTED IF 1/8" JOINTS ARE PLACED EVERY 10' OF LESS
4. EXPANSION JOINTS IN THE SIDEWALK SHALL BE 40' APART. IF ADJACENT TO CONCRETE CURB, EXPANSION JOINTS SHALL MATCH JOINT OF CURB. AN EXPANSION JOINT SHALL BE PLACED BETWEEN CURB AND SIDEWALK.
5. SEE DRAWING R-2.2 FOR DETAIL OF SIDEWALK STRESS COLUMN TO BE PLACED UNDER SIDEWALK WHEN PLACED ADJACENT TO BACK OF CURB.
6. SEE ARLINGTON COUNTY SPECIFICATION SECTIONS 02611 AND 03100 FOR MATERIAL SPECS.
7. PROVIDE 6" MINIMUM AGGREGATE BASE HAVING CBR-30 UNDER CURB AND GUTTER.
8. PROVIDE 3" MINIMUM AGGREGATE BASE HAVING CBR-30 UNDER SIDEWALK

CONCRETE CURB & GUTTER AND SIDEWALK	Rev. Sidewalk Dim	07/11/2013
	REVISION & DATE	
ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES	DRAWING NO. R-2.0	

2016 ROAD & BRIDGE STANDARDS

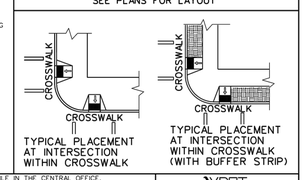
CG-12



NOTES:

1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. THIS DESIGN TO BE USED FOR CONSTRUCTION THAT INCORPORATES WIDER SIDEWALK. LANDING (4' WIDE) REQUIRED AT TOP OF CURB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR NEW CONSTRUCTION.
3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
4. DIAGONAL PLACEMENT IS NOT PERMITTED.

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT



TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK

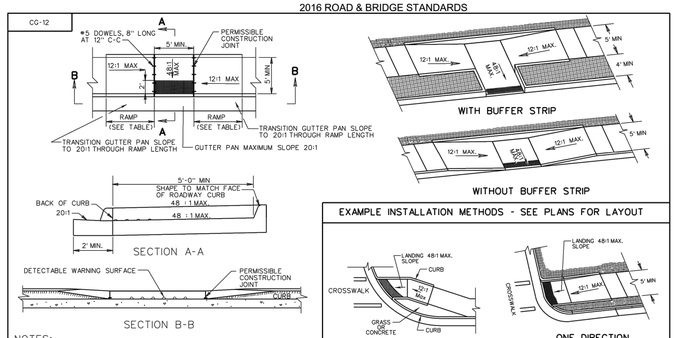
TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK (WITH BUFFER STRIP)

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE TYPE A (PERPENDICULAR) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105 502 504		REVISION DATE 04/19	SHEET 2 OF 5 204.02

2016 ROAD & BRIDGE STANDARDS

2016 ROAD & BRIDGE STANDARDS

CG-12



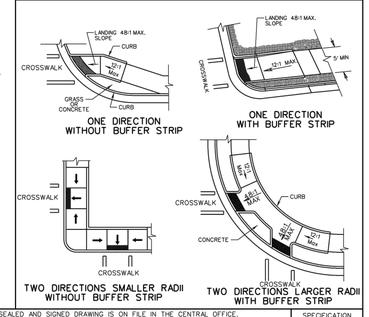
NOTES:

1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.
3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
4. DIAGONAL PLACEMENT IS NOT PERMITTED.

TYPE B PARALLEL APPLICATION

ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT



VDOT ROAD AND BRIDGE STANDARDS	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 3 OF 5 204.03	REVISION DATE 04/19	105 502 504

2016 ROAD & BRIDGE STANDARDS

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA — ANDREW T. SMITH — Lic. No. 0402053042 — 10/22/21 — PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
Dennis M. Leach — TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location: Washington Boulevard and N. Sycamore Street

GENERAL NOTES AND DETAILS

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale: HOR. 1" = 25' VERT. N/A

Sheet C-0005

Filename: C-0002 GENERAL NOTES AND DETAILS.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

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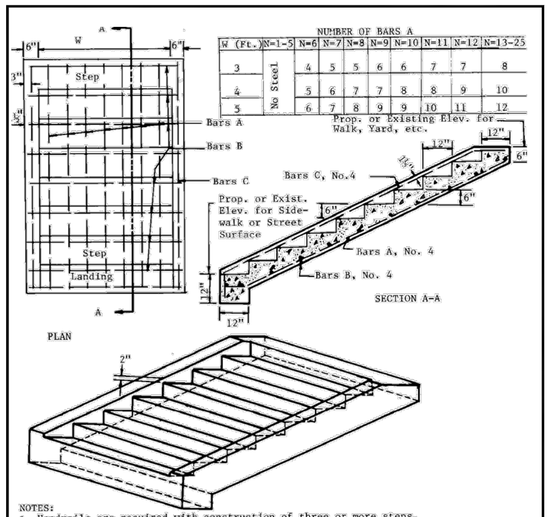
REVISED: MARCH 03, 2020

GENERAL DETAILS



NUMBER OF BARS A

W (Ft.)	N=1-5	N=6	N=7	N=8	N=9	N=10	N=11	N=12	N=13-25
3	No Steel	4	5	5	6	6	7	7	8
4		5	6	7	7	8	8	9	10
5		6	7	8	9	9	10	11	12

NOTES:
1. Handrails are required with construction of three or more steps.
2. These steps shall be used only in cuts or against undisturbed earth.
3. Reinforcing bars shall be used in installation of 6 or more steps.
4. W-indicates clear width of steps in feet between sidewalls.
5. N-indicates number of steps in installation exclusive of landing.
6. LA-indicates length of Bars A, in inches. LA = 13.416N + 8".
7. LB-indicates length of Bars B, in inches. LB = 12W + 9".
8. LC-indicates length of Bars C, in inches. LC = 13.038N + 18".
9. Spacing of Bars A, in inches = 80/N where N is the number of steps.
10. Spacing of Bars B-one under each step and two under landing as shown.
11. Details of steps to be placed on slopes other than 2:1 will be as shown on Eng.Pla

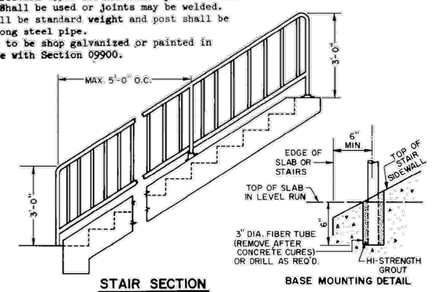
CONCRETE STEPS ON 2:1 SLOPE

REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

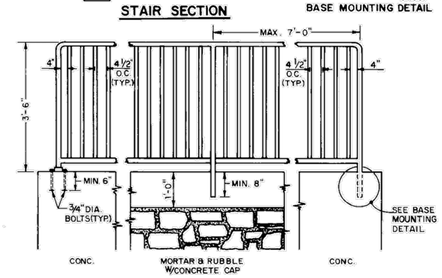
DRAWING NO. R-3.0

Notes:
1. Refer to Section 05500 for Handrail Specifications.
2. Fittings shall be used or joints may be welded.
3. Rails shall be standard weight and post shall be extra strong steel pipe.
4. Handrails to be shop galvanized or painted in accordance with Section 09900.



STAIR SECTION

BASE MOUNTING DETAIL



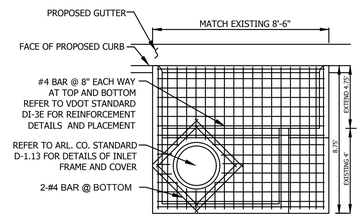
SLAB OR LANDING SECTION

PIPE HANDRAIL

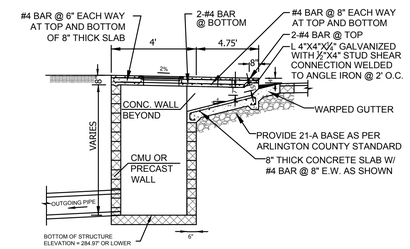
REVISION & DATE

ARLINGTON VIRGINIA — ARLINGTON COUNTY, VIRGINIA, DEPARTMENT OF ENVIRONMENTAL SERVICES

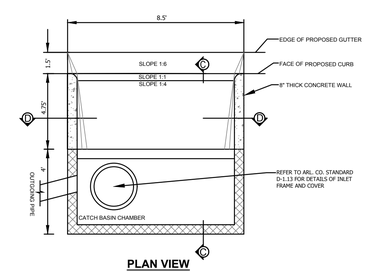
DRAWING NO. R-3.1



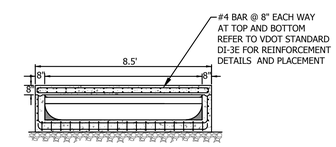
CATCH BASIN COVER PLAN



SECTION C-C



PLAN VIEW



SECTION D-D

PROPOSED MODIFIED CATCH BASIN (8179) WITH EXTEND THROAT DETAIL
(NOT TO SCALE)

ARLINGTON VIRGINIA

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Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA — ANDREW T. SMITH — Lic. No. 0402053042 — 10/22/21 — PROFESSIONAL ENGINEER

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TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

GENERAL NOTES AND DETAILS

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0006

Filename: C-0002 GENERAL NOTES AND DETAILS.dwg
Path: K:\NVA_TPTO\106140\02 - Washington Blvd and Sycamore\CAD\PlanSheets

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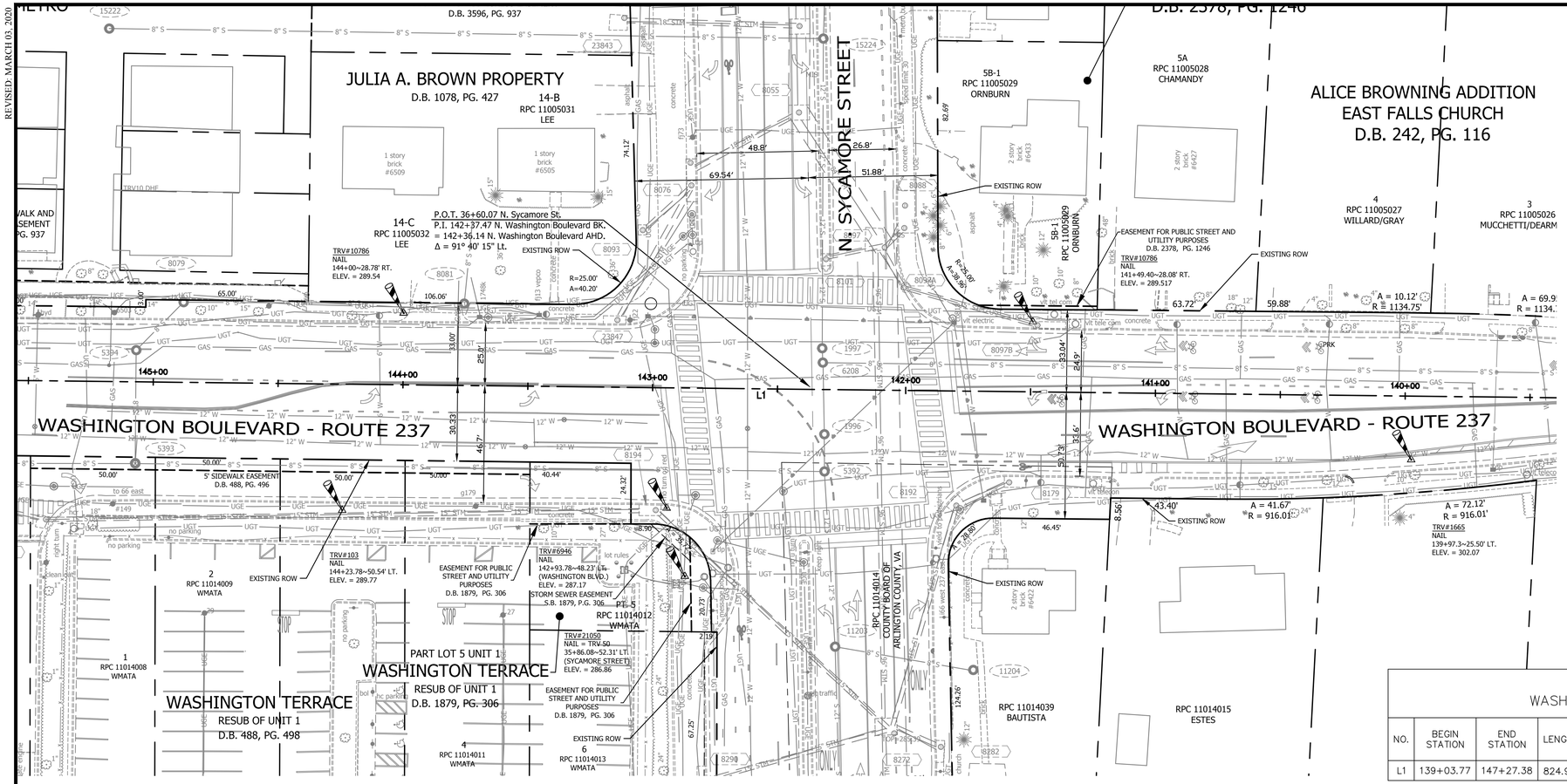
REVISED: MARCH 03, 2020



NOTE:

1. S.U.E. UTILITIES WERE DESIGNATED BY MID-ATLANTIC UTILITY LOCATING ON 10/11/18 & 8/16/19 AND LOCATED BY ARLINGTON COUNTY SURVEYORS ON 10/26/18 & 8/21/19.
2. DIAMETER OF WATER LINES & SANITARY SEWER ARE SHOWN PER ARLINGTON COUNTY RECORDS.

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF ROBERT L. FRANCA, L.S. FROM AN ACTUAL GROUND SURVEY MADE UNDER HIS SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2010 TO 09/2013 AND UPDATED FROM 10/2018 TO 11/2018 AND FROM 07/2019 TO 08/2019 ; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

GRAPHIC SCALE IN FEET
0 12.5 25 50

CONTROL DATA:

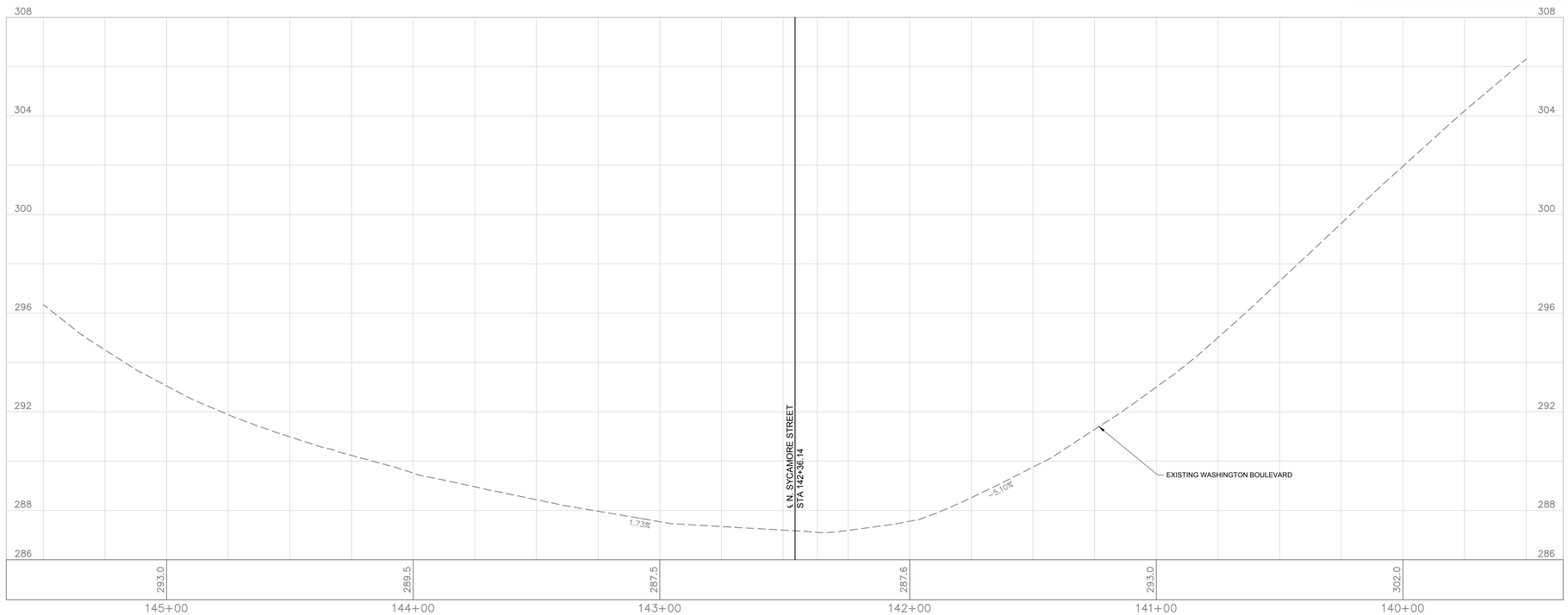
PROJECT CONTROL TAKEN FROM PROJECT S17D AND TRAFFIC PROJECT T15S.

PROJECT CONTROL

POINT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
10786	7009098.0243	11865211.4910	289.53	NAIL
103	7009018.9964	11865186.8428	289.76	NAIL
6946	7009019.8494	11865316.8595	287.17	NAIL

ALIGNMENT TABLE
WASHINGTON BLVD (ROUTE 237)

NO.	BEGIN STATION	END STATION	LENGTH	COORDINATES NORTHING (START)	COORDINATES EASTING (START)	COORDINATES NORTHING (END)	COORDINATES EASTING (END)
L1	139+03.77	147+27.38	824.93'	7009063.6813	11865708.7152	7009072.9384	11864883.8346



GRAPHIC SCALE IN FEET
0 12.5 25 50
HORIZONTAL

0 1.25 2.5 5
VERTICAL

HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983 - NORTH ZONE.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988.

BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

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Fax: 703.228.3606

SEAL
COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
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TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
Dennis W. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
EXISTING CONDITIONS
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. 1" = 2.5

Sheet C-0100

Filename: C-0100 EXISTING CONDITIONS.dwg
Path: K:\NVA_TPTO\110014002 - Washington Blvd and Sycamore\CAD\PlanSheets

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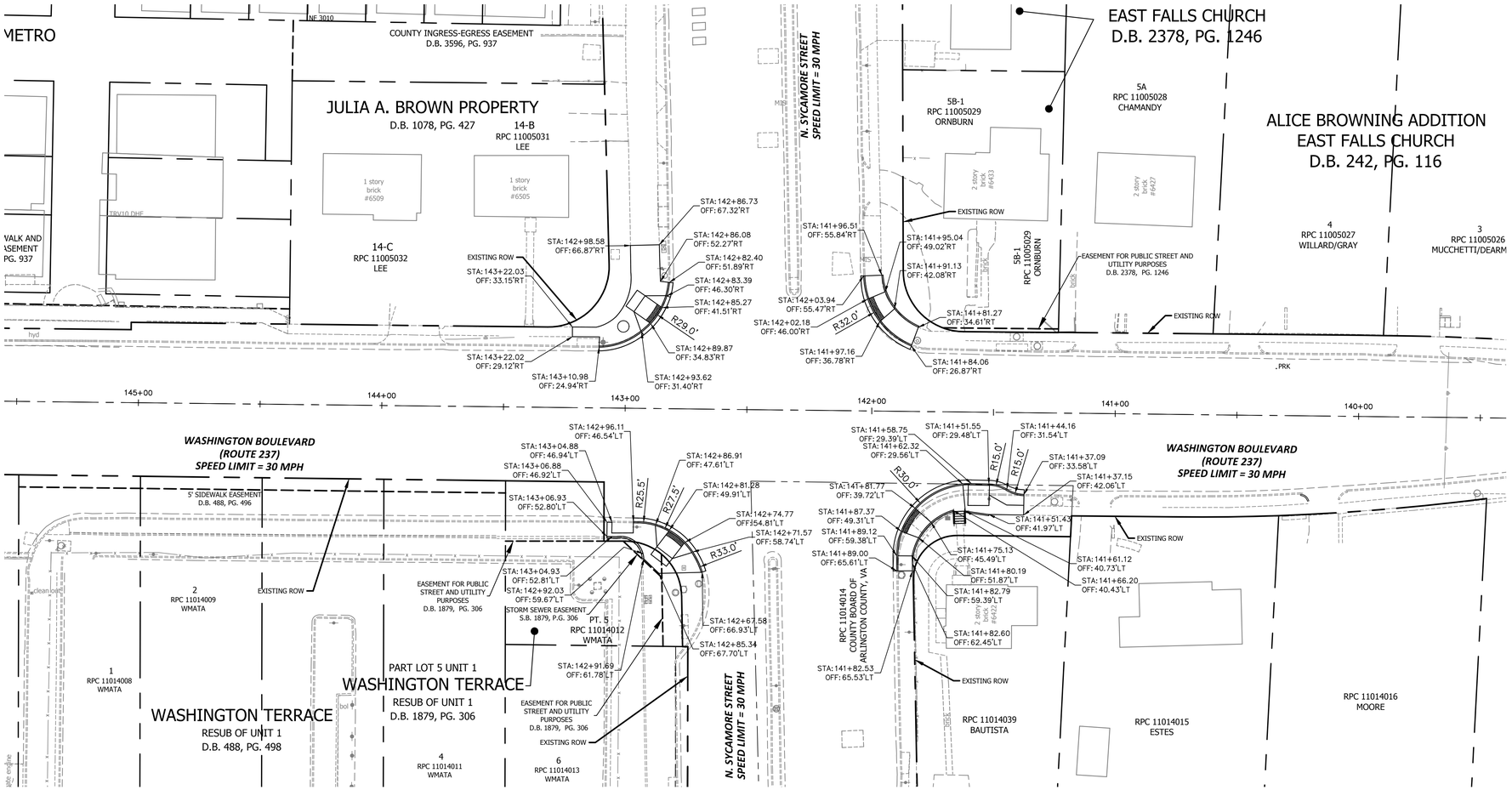
REVISED: MARCH 03, 2020



GRAPHIC SCALE IN FEET
0 12.5 25 50

NOTES:

1. ALL LABELS AT FACE OF CURB UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL PERFORM FULL DEPTH SAWCUT 2' FROM THE FACE OF THE PROPOSED CURB AND GUTTER. REFER TO SHEET C-0300 FOR EXTENT OF DEMOLITION WORK.

ARLINGTON
VIRGINIA

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TE&O BUREAU CHIEF	11/05/2021
Dennis M. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

GEOMETRIC CONTROL PLAN

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0200

Filename: C-0200 GEOMETRIC CONTROL PLAN.dwg
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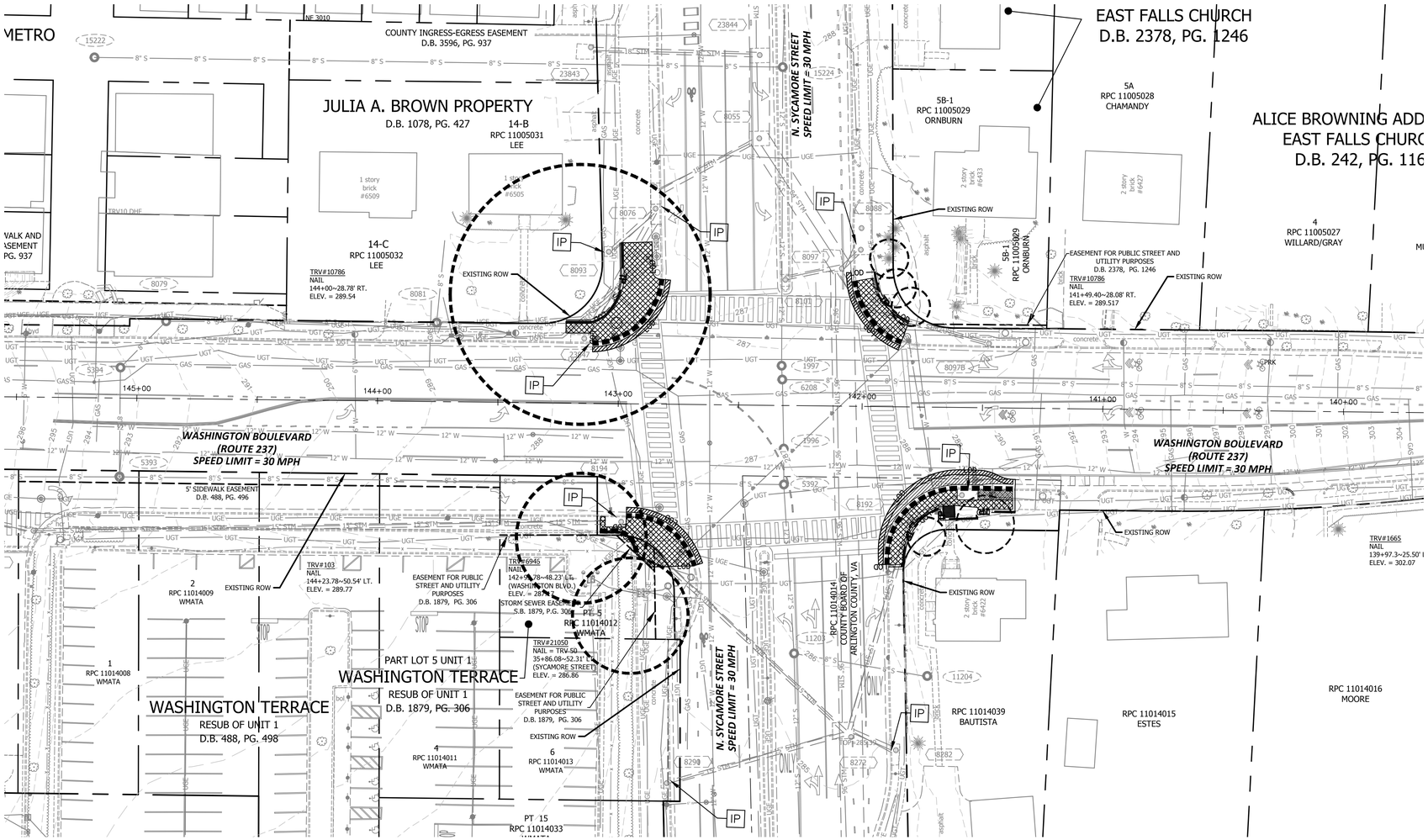
REVISED: MARCH 03, 2020



GRAPHIC SCALE IN FEET
0 12.5 25 50

LEGEND

- REMOVE FULL DEPTH BITUMINOUS SURFACE
- REMOVE CONCRETE RAMP
- REMOVE LANDSCAPED AREA
- REMOVE CONCRETE STAIRS
- REMOVE CONCRETE CURB AND GUTTER OR CURB
- IP — STORM SEWER STRUCTURE INLET PROTECTION TYPE A OR B
- SF — EROSION CONTROL FENCE (SILT FENCE)
- TP — TREE PROTECTION
- LOD — LIMITS OF DISTURBANCE
- CRITICAL ROOT ZONE

NOTES:

1. EROSION AND SEDIMENT PROTECTION MEASURES SHOULD BE INSTALLED ONLY WHEN NEEDED FOR THE CONSTRUCTION ZONE. IF A PROTECTION MEASURE IS NOT IMPACTED BY THE CONSTRUCTION THEN IT SHOULD BE REMOVED UPON CONCURRENCE FROM COUNTY E&S/SWPPP INSPECTOR.
2. SEE TRAFFIC SIGNALS PLAN FOR DEMOLITION OF TRAFFIC SIGNALS.
3. SEE SIGNING AND MARKING PLAN FOR LOCATIONS OF SIGNS TO BE REMOVED OR RELOCATED. COORDINATE RELOCATIONS WITH MOT AND CONSTRUCTION ACTIVITIES.
4. CONTRACTOR SHALL PROTECT AND RETAIN ALL EXISTING MANHOLE LIDS, VALVES, AND JUNCTION BOXES.
5. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESS THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. TYPICALLY ANY RELOCATION OR CLOSURE OF A BUS STOP WILL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR AT 703-228-3049. ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11' WIDE.
6. TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING, OR DEMOLITION. CONTACT THE COUNTY URBAN FORESTER AT 703-228-1863, 72 HOURS BEFORE THE START OF CONSTRUCTION, TO COORDINATE AND INSPECT TREE PROTECTION.
7. NO TREES ARE PROPOSED TO BE ADDED OR REMOVED AS PART OF THIS PLAN. TREE PROTECTION TABLE NOT INCLUDED.
8. CONTRACTOR TO COORDINATE WITH DRY UTILITY COMPANIES TO PROTECT EXISTING UTILITY POLES.
9. WITHIN CRITICAL ROOT ZONE, CONTRACTOR TO PERFORM EXCAVATION BY HAND BELOW STONE WORK.

TOTAL LOD (SF)	TOTAL LOD (AC)	PRE DEVELOPMENT IMPERVIOUS AREA WITHIN LOD (SF)	PRE DEVELOPMENT % OF IMPERVIOUS AREA WITHIN LOD
2948	0.0677	2697	91%

POTOMAC RIVER-FOUR MILE RUN WATERSHED (HUC12: 020700100301, VAHU6: PL25)

ARLINGTON VIRGINIA

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SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
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WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
PHASE 1 EROSION CONTROLS & DEMO PLAN
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0300

Filename: C-0300 PHASE 1 EROSION CONTROL & DEMO PLAN.DWG
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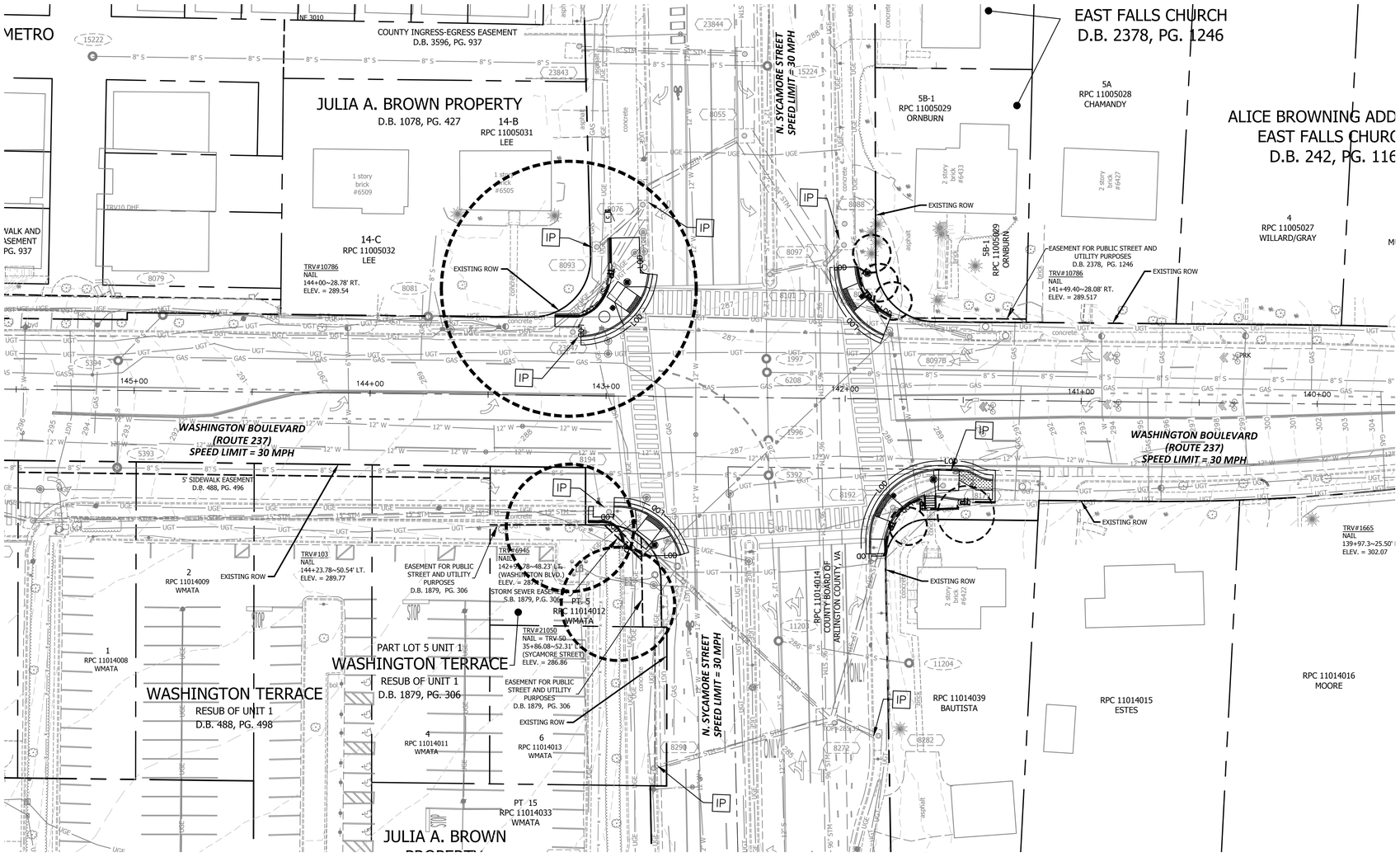

GRAPHIC SCALE IN FEET
0 12.5 25 50

LEGEND

	SODDING
IP	STORM SEWER STRUCTURE INLET PROTECTION TYPE A OR B
SF	EROSION CONTROL FENCE (SILT FENCE)
TP TP TP	TREE PROTECTION
LOD	LIMITS OF DISTURBANCE
	CRITICAL ROOT ZONE

TOTAL LOD (SF)	TOTAL LOD (AC)	POST DEVELOPMENT IMPERVIOUS AREA WITHIN LOD (SF)	POST DEVELOPMENT % OF IMPERVIOUS AREA WITHIN LOD
2948	0.0677	2707	92%

POTOMAC RIVER-FOUR MILE RUN WATERSHED (HUC12: 020700100301, VAHU6: PL25)

ARLINGTON VIRGINIA

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SEAL

COMMONWEALTH OF VIRGINIA
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10/22/21
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TE&O BUREAU CHIEF	11/05/2021
Dennis W. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
PHASE 2 EROSION CONTROLS
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet
C-0310

Filename: C-0300 PHASE 1 EROSION CONTROL & DEMO PLAN.DWG
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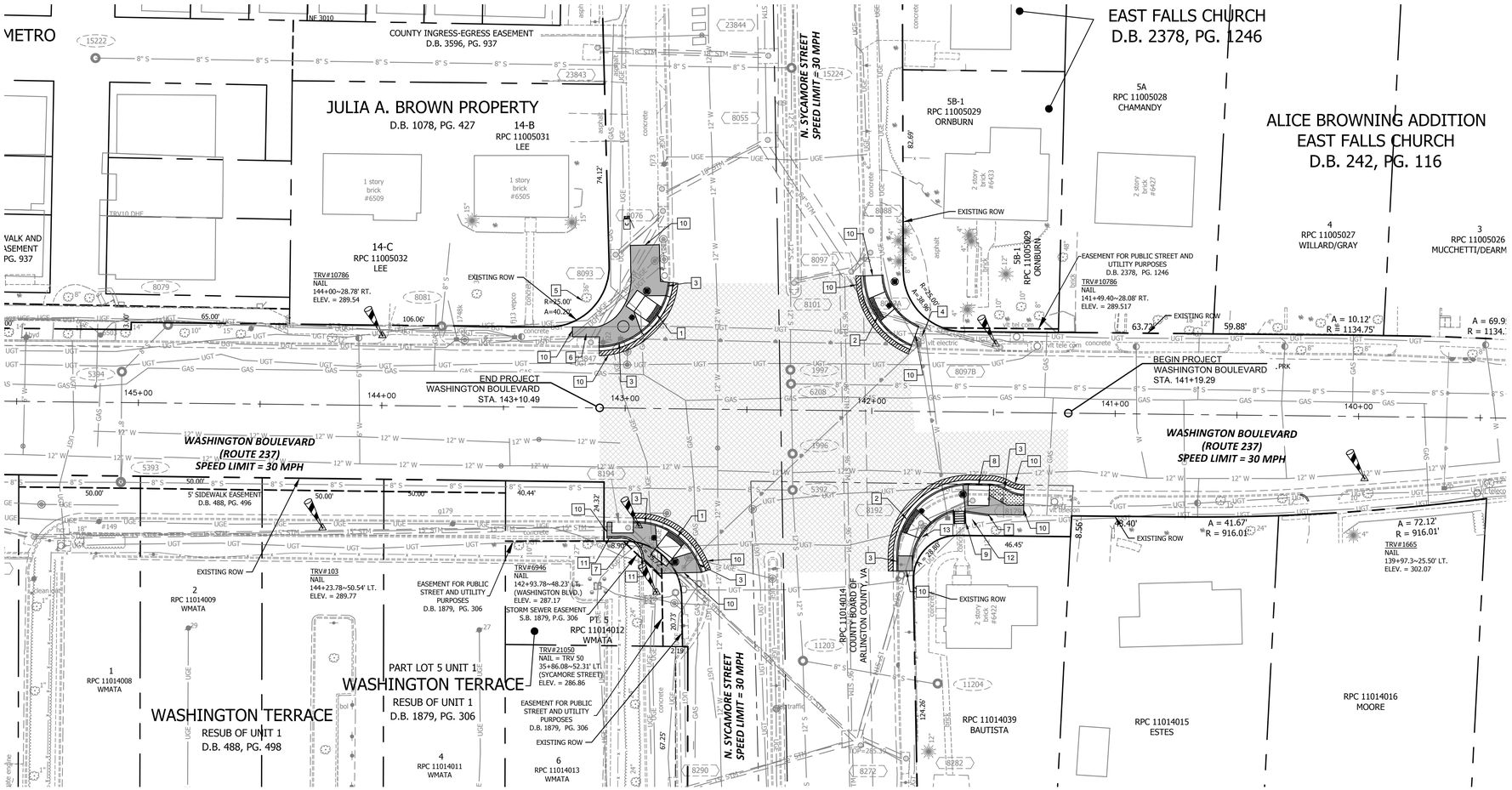

GRAPHIC SCALE IN FEET
0 12.5 25 50

LEGEND

1. VDOT CG-12 TYPE A PEDESTRIAN CURB RAMP
2. VDOT CG-12 TYPE B PEDESTRIAN CURB RAMP
3. ARL. CO. STD. C-2 CURB AND GUTTER
4. TRIM EXISTING VEGETATION OVERHANGING SIDEWALK WITHIN RIGHT-OF-WAY
5. TRIM EXISTING BRANCH OVERHANG CONFLICTING WITH PROPOSED WESTBOUND MAST ARM
6. ROOT PRUNE EXISTING TREE DURING SIDEWALK RECONSTRUCTION
7. ARL. CO. STD. C-3 HEADER CURB
8. MODIFY EXISTING CATCH BASIN WITH THROAT EXTENSION. SEE DETAIL ON SHEET C-0006
9. ARL. CO. STD. CONCRETE STEPS ON 2:1 SLOPE AND ARL. CO. STD. PIPE HANDRAIL ON EACH SIDE
10. FULL DEPTH SAWCUT
11. TRANSITION FROM EXISTING CURB TO ARL. CO. STD. C-3 HEADER CURB (2-FOOT TRANSITION)
12. GRADE BACK EXISTING SLOPE AT 3:1 TO MEET EXISTING GROUND
13. EXISTING RETAINING WALL TO REMAIN IN PLACE. HEADER CURB TO BE BUILT IN FRONT OF RETAINING WALL.

MILL & OVERLAY
ARL. CO. STD. CONCRETE SIDEWALK
FULL DEPTH ASPHALT PAVEMENT
LANDSCAPE AREA

STORM DRAINAGE DESCRIPTIONS

8192 Adjust Existing Manhole
Adjust To Grade, Lower 0.35'
1 Std. MH-1 Frame & Cover Req.
Proposed Top Elev = 286.89'

8179 Adjust Existing Catch Basin
Adjust to Grade, Raise 0.12'
See Detail on Sheet C-0006 for New Top
Proposed Top Elev = 288.89

NOTE:

1. CONTRACTOR TO ADJUST ALL EXISTING UTILITIES TO PROPOSED GRADE UNLESS NOTED ON THE PLANS. THE COST TO COMPLETE ADJUSTMENTS IS TO BE INCLUDED IN OTHER PAY ITEMS.
2. CONTRACTOR TO ROOT PRUNE UPON ENCOUNTERING ROOTS. CONTRACTOR TO ROOT PRUNE BY HAND.

ARLINGTON VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES
Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL
COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
Dennis M. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
PROPOSED PLAN
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0400

Filename: C-0400 PROPOSED PLAN AND PROFILE.dwg
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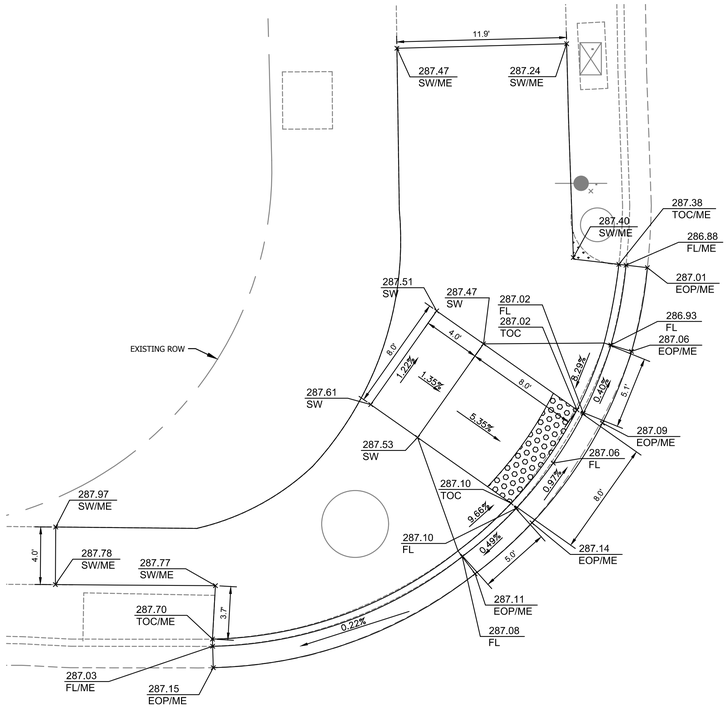
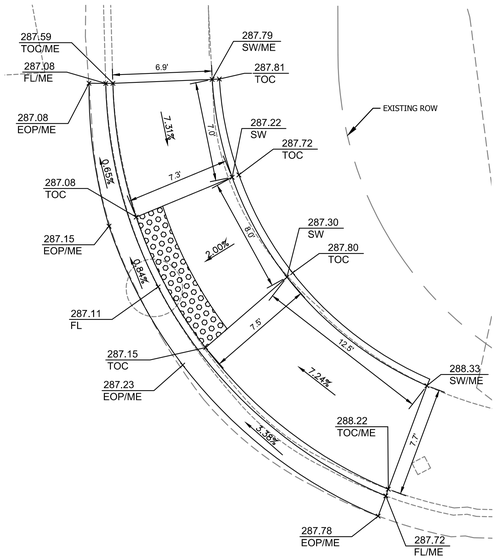
DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020

GRADING DETAIL - NW CORNER (CG-12 TYPE A)



GRADING DETAIL - NE CORNER (CG-12 TYPE B)



GRAPHIC SCALE IN FEET
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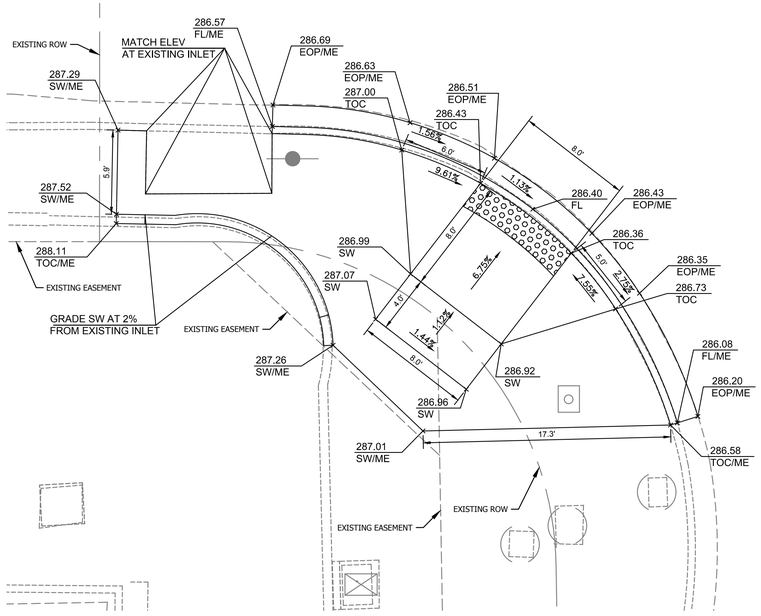
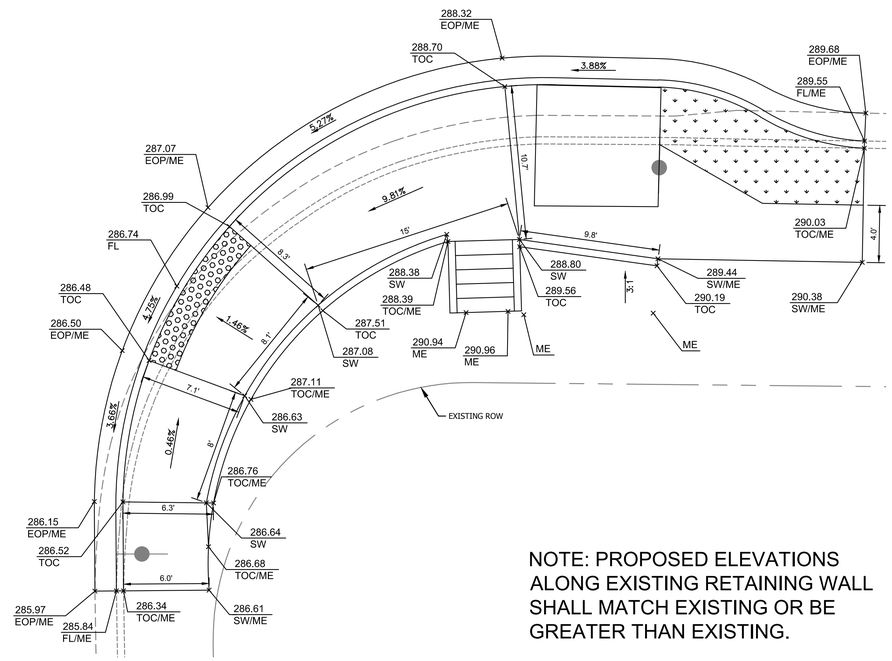
GRADING DETAIL - SW CORNER (CG-12 TYPE A)



GRADING DETAIL - SE CORNER (CG-12 TYPE B)



NOTE: PROPOSED ELEVATIONS ALONG EXISTING RETAINING WALL SHALL MATCH EXISTING OR BE GREATER THAN EXISTING.

GRADING LEGEND

ME = MATCH EXISTING

TOC = TOP OF CURB

EOP = EDGE OF PAVEMENT

SW = SIDEWALK

FL = FLOW LINE

ARLINGTON VIRGINIA

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SEAL

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ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
RAMP DETAILS
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 5' VERT. N/A

Sheet C-0500

Filename: C-0500 RAMP DETAILS.dwg
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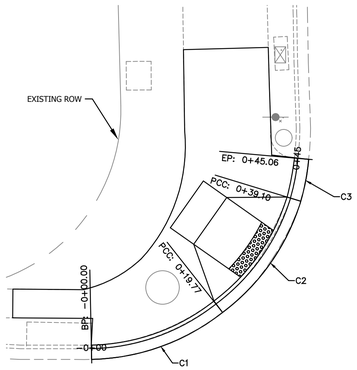
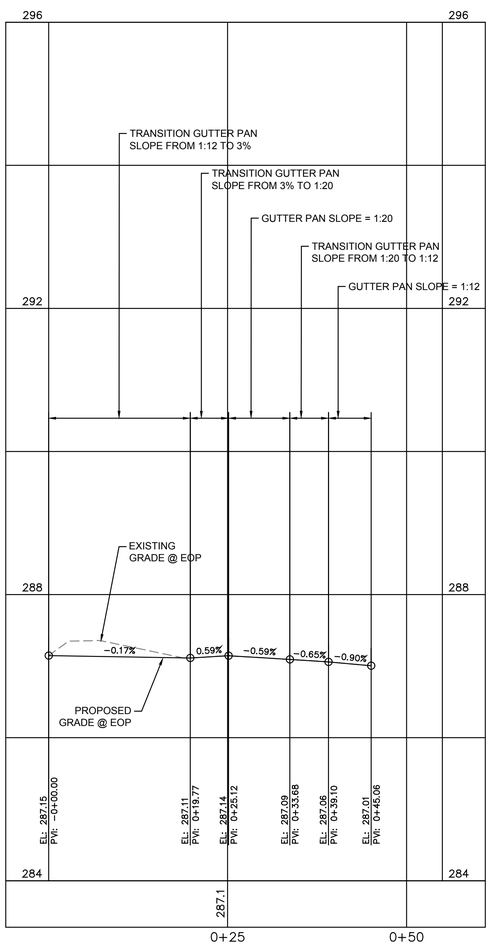
REVISED: MARCH 03, 2020

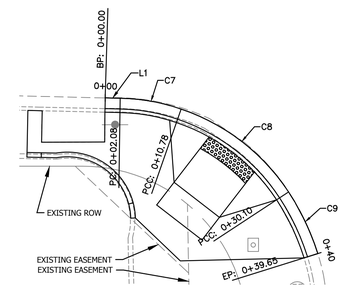
N. SYCAMORE ST NW CORNER



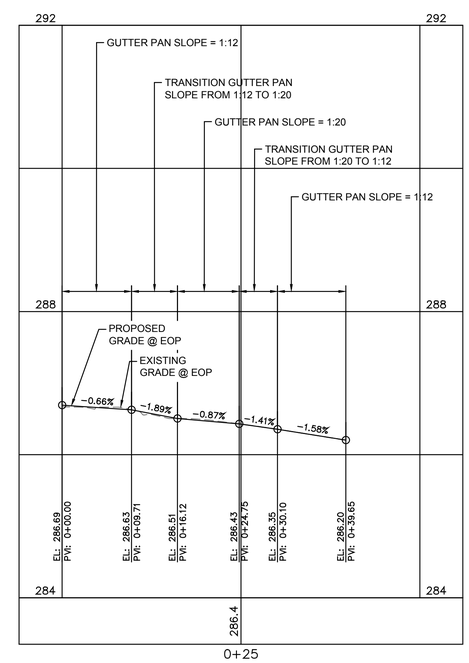
N Sycamore St NW						
NO.	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA OR BRG	TANGENT
C1	30.5'	19.77'	N70° 15' 55.03"E	19.43	Δ=37° 08' 38"	10.25
C2	30.5'	19.32'	N35° 06' 18.04"E	19.00	Δ=36° 18' 04"	10.00
C3	30.5'	5.96'	N10° 44' 31.12"E	5.95	Δ=11° 12' 16"	2.99

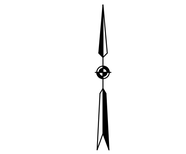


N. SYCAMORE ST SW CORNER



N Sycamore St SW						
NO.	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA OR BRG	TANGENT
C7	27.0'	8.69'	S79° 57' 33.23"E	8.66	Δ=18° 27' 04"	4.39
C8	29.0'	19.32'	S52° 20' 35.23"E	18.96	Δ=38° 10' 17"	10.03
C9	34.5'	9.55'	S25° 19' 26.95"E	9.52	Δ=15° 51' 59"	4.81
L1		2.08'			S 88°18'15" E	





GRAPHIC SCALE IN FEET
0 5 10 20

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Signal Systems and ITS
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SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
CURB RETURN PROFILES
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 10' VERT. 1" = 5'

Sheet C-0600

Filename: C-0600 CURB RETURN PROFILES.dwg
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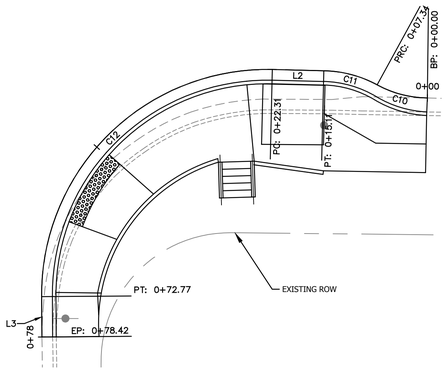
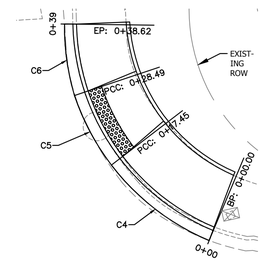
REVISED: MARCH 03, 2020

N. SYCAMORE ST SE CORNER

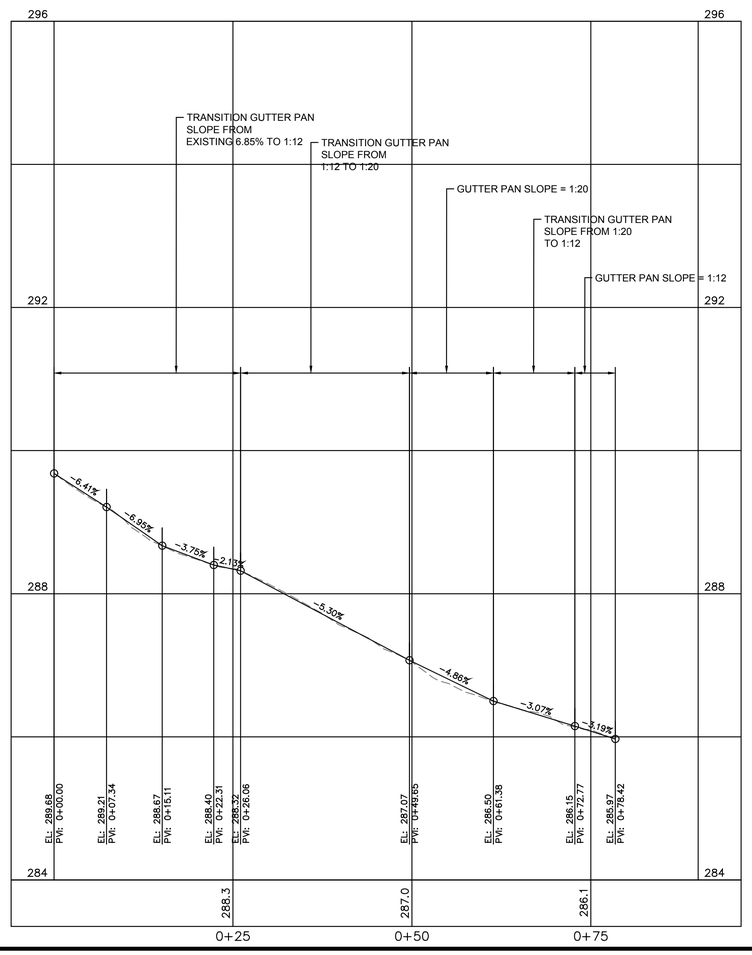


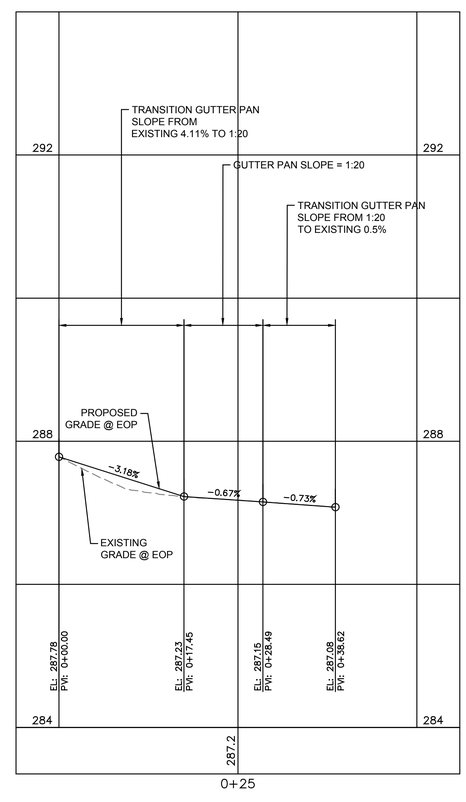
N Sycamore St SE						
NO.	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA OR BRG	TANGENT
C10	15.0'	7.34'	N75° 20' 11.55"W	7.26	Δ=28° 01' 07"	3.74
C11	16.5'	7.77'	N75° 09' 37.52"W	7.70	Δ=26° 59' 50"	3.96
C12	31.5'	50.46'	S45° 26' 45.66"W	45.24	Δ=91° 47' 24"	32.50
L2		7.20'			N 88°39'32" W	
L3		5.64'			S 0°26'56" E	

N. SYCAMORE ST NE CORNER



N Sycamore St NE						
NO.	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA OR BRG	TANGENT
C4	33.5'	17.45'	N52° 18' 17.86"W	17.26	Δ=29° 51' 13"	8.93
C5	33.5'	11.04'	N27° 57' 07.98"W	10.99	Δ=18° 52' 44"	5.57
C6	33.5'	10.12'	N7° 57' 11.36"W	10.09	Δ=17° 18' 52"	5.10





GRAPHIC SCALE IN FEET
0 5 10 20

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
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SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
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TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and
N. Sycamore Street

CURB RETURN PROFILES

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 10' VERT. 1" = 5'

Sheet C-0601

Filename: C-0600 CURB RETURN PROFILES.dwg
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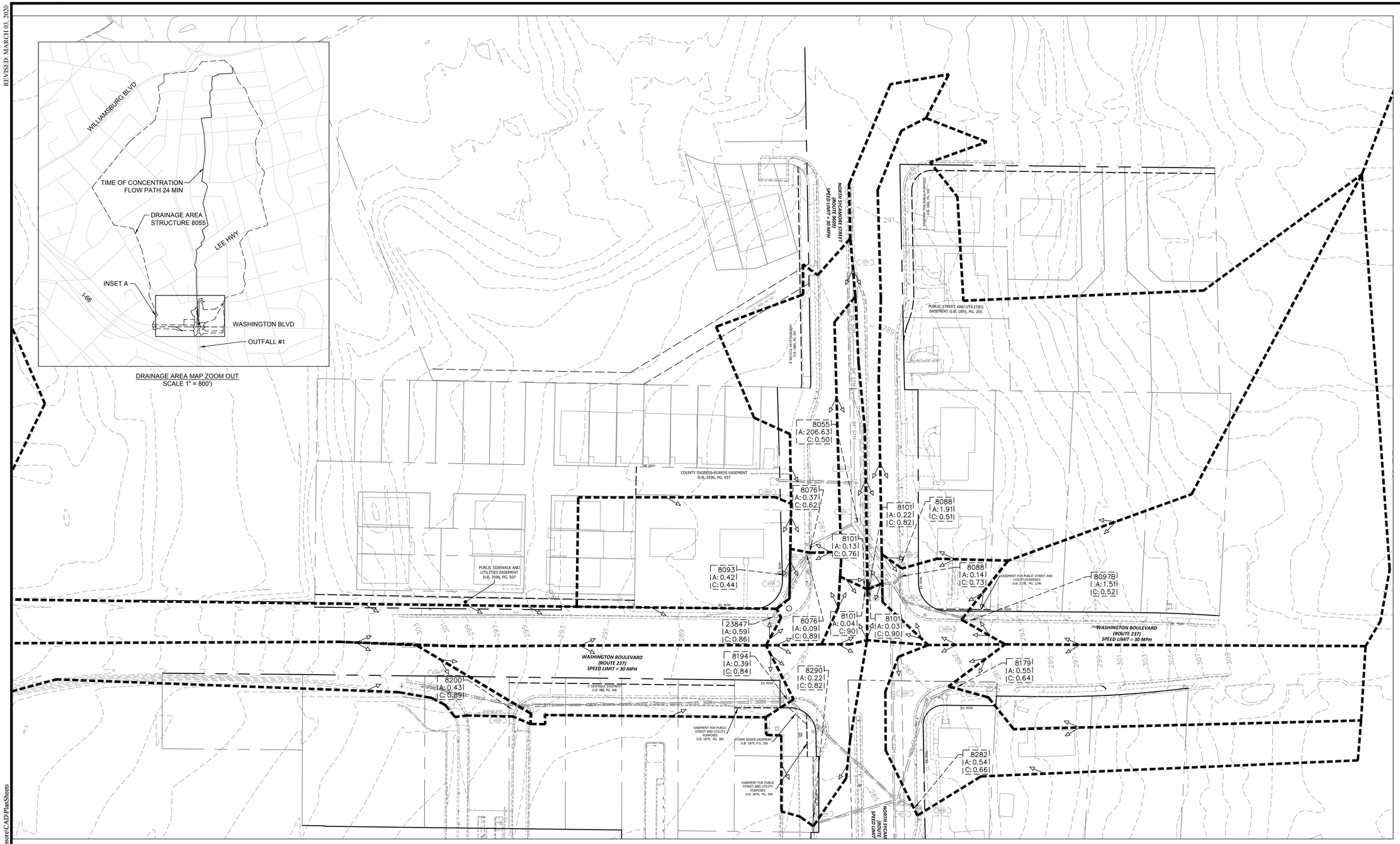
REVISED: MARCH 03, 2020

DRAINAGE AREA MAP ZOOM OUT
SCALE 1" = 800')



INSET A - DRAINAGE MAP ZOOM IN

LEGEND

DRAINAGE AREA BOUNDARY

FLOW PATH

STRUCTURE
AREA (AC)
RUNOFF COEFFICIENT — DRAINAGE AREA LABEL

GRAPHIC SCALE IN FEET
0 20 40 80

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
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ANDREW T. SMITH
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10/22/21
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TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and
N. Sycamore Street
PRE DEVELOPMENT DRAINAGE DIVIDES

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: DD
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 40' VERT. N/A

Sheet
C-0700

Filename: C-0700 STORMWATER.dwg
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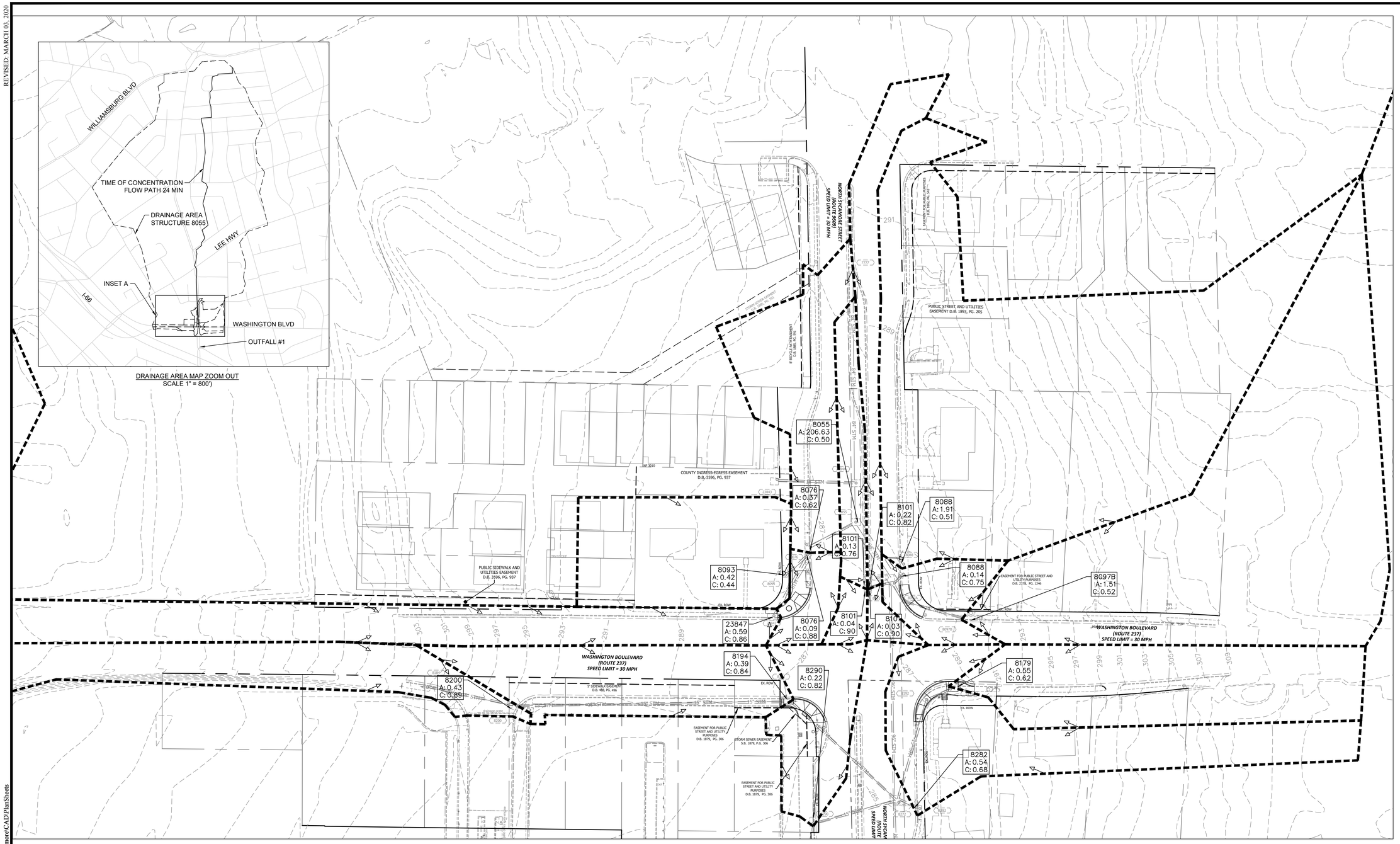
REVISED: MARCH 03, 2020

DRAINAGE AREA MAP ZOOM OUT
SCALE 1" = 800')



INSET A - DRAINAGE MAP ZOOM IN

LEGEND

DRAINAGE AREA BOUNDARY

FLOW PATH

STRUCTURE
AREA (AC)
RUNOFF COEFFICIENT — DRAINAGE AREA LABEL

GRAPHIC SCALE IN FEET
0 20 40 80

ARLINGTON
VIRGINIA

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TE&O BUREAU CHIEF	11/05/2021
Dennis M. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and
N. Sycamore Street
POST DEVELOPMENT DRAINAGE
DIVIDES
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: DD
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 40' VERT. N/A

Sheet
C-0710

Filename: C-0700 STORMWATER.dwg
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REVISED: MARCH 03, 2020

Project: Washington Boulevard S at N. Sycamore Street
Locality: Arlington County
Date: 4/10/2020
Project No.: 110614002
Designed By/Checked: Nicole McVey / Derik Doughty, P.E.

Pre-development Storm Drain Design Calculations
VDOT LD-229

FROM POINT	TO POINT	DRAINAGE AREA	RUNOFF COEFFICIENT	CA inlet	CA accum	INLET TIME	RAINFALL	RUNOFF	INVERT ELEVATIONS upper end	INVERT ELEVATIONS lower end	LENGTH	SLOPE	SIZE	PIPE CAPACITY	Q / Qf	VELOCITY	FLOW TIME incr	FLOW TIME accum
		acres	C			min	in/hr	cfs	ft	ft	ft	%	in	cfs	%	fps	min	
8290	8272	0.22	0.82	0.18	0.18	5.00	6.79	1.23	281.76	277.82	79	5.00%	15	14.43	9%	7.18	0.18	5.00
8282	8272	0.54	0.66	0.36	0.36	5.00	6.79	2.44	281.82	280.85	19	5.00%	15	14.43	17%	8.75	0.04	5.00
8097B	8097A	1.51	0.52	0.79	0.79	5.00	6.79	5.37	284.76	279.15	56	10.00%	15	20.46	26%	14.05	0.07	5.00
8097A	8097	(N/A)	(N/A)	0.00	0.79	0.00	6.77	5.36	279.08	278.19	18	5.00%	15	14.43	37%	10.89	0.03	5.07
8101	8097	0.42	(N/A)	0.00	0.34	5.00	6.79	2.34	283.57	282.34	25	5.00%	15	14.43	16%	8.65	0.05	5.00
8093	8076	0.42	0.44	0.18	0.19	5.00	6.79	1.26	284.95	284.73	27	0.80%	18	9.52	13%	3.74	0.12	5.00
23847	8076	0.59	0.86	0.51	0.51	5.00	6.79	3.47	286.00	284.80	62	1.90%	18	14.65	24%	6.79	0.15	5.00
8076	8055	0.46	(N/A)	0.00	1.00	5.00	6.74	6.80	284.23	281.65	52	5.00%	18	23.47	29%	11.50	0.08	5.15
8055	8097	206.63	0.50	103.32	104.32	24.00	3.69	387.88	274.20	271.66	64	4.00%	84	1271.76	30%	29.02	0.04	24.00
8088	8097	2.05	(N/A)	0.00	1.08	5.00	6.79	7.37	283.26	282.71	11	5.00%	15	14.43	51%	11.83	0.02	5.00
8097	8272	(N/A)	(N/A)	0.00	106.52	0.00	3.69	395.75	271.66	269.65	195	1.00%	96	926.62	43%	17.71	0.18	24.04
8179	8192	0.55	0.64	0.35	0.35	5.00	6.79	2.41	284.97	284.19	23	3.40%	15	11.86	20%	7.58	0.05	5.00
8192	8272	(N/A)	(N/A)	0.00	0.35	0.00	6.77	2.40	284.04	279.31	95	5.00%	15	14.43	17%	8.72	0.18	5.05
8200	8194	0.43	0.89	0.38	0.38	5.00	6.79	2.62	287.91	284.57	246	1.40%	15	7.53	35%	5.58	0.73	5.00
8194	8272	0.39	0.84	0.33	0.71	5.00	6.55	4.69	284.39	277.85	131	5.00%	15	14.43	33%	10.51	0.21	5.73
8272	8478	(N/A)	(N/A)	0.00	108.12	0.00	3.67	400.11	269.65	267.50	215	1.00%	96	912.01	44%	17.55	0.20	24.22

Project: Washington Boulevard S at N. Sycamore Street
Locality: Arlington County
Date: 4/30/2020
Project No.: 110614002
Designed By/Checked: Nicole McVey / Derik Doughty, P.E.

Post-development Storm Drain Design Calculations
VDOT LD-229

FROM POINT	TO POINT	DRAINAGE AREA	RUNOFF COEFFICIENT	CA inlet	CA accum	INLET TIME	RAINFALL	RUNOFF	INVERT ELEVATIONS upper end	INVERT ELEVATIONS lower end	LENGTH	SLOPE	SIZE	PIPE CAPACITY	Q / Qf	VELOCITY	FLOW TIME incr	FLOW TIME accum
		acres	C			min	in/hr	cfs	ft	ft	ft	%	in	cfs	%	fps	min	
8290	8272	0.22	0.82	0.18	0.18	5.00	6.79	1.23	281.76	277.82	79	5.00%	15	14.43	9%	7.18	0.18	5.00
8282	8272	0.54	0.68	0.37	0.37	5.00	6.79	2.51	281.82	280.85	19	5.00%	15	14.43	17%	8.83	0.04	5.00
8097B	8097A	1.51	0.52	0.79	0.79	5.00	6.79	5.37	284.76	279.15	56	10.00%	15	20.46	26%	14.05	0.07	5.00
8097A	8097	(N/A)	(N/A)	0.00	0.79	0.00	6.77	5.36	279.08	278.19	18	5.00%	15	14.43	37%	10.89	0.03	5.07
8101	8097	0.42	(N/A)	0.00	0.34	5.00	6.79	2.34	283.57	282.34	25	5.00%	15	14.43	16%	8.65	0.05	5.00
8093	8076	0.42	0.44	0.18	0.19	5.00	6.79	1.26	284.95	284.73	27	0.80%	18	9.52	13%	3.74	0.12	5.00
23847	8076	0.59	0.86	0.51	0.51	5.00	6.79	3.47	286.00	284.80	62	1.90%	18	14.65	24%	6.79	0.15	5.00
8076	8055	0.46	(N/A)	0.00	1.00	5.00	6.74	6.80	284.23	281.65	52	5.00%	18	23.47	29%	11.50	0.08	5.15
8055	8097	206.63	0.50	103.32	104.32	24.00	3.69	387.87	274.20	271.66	64	4.00%	84	1271.76	30%	29.02	0.04	24.00
8088	8097	2.05	(N/A)	0.00	1.08	5.00	6.79	7.38	283.26	282.71	11	5.00%	15	14.43	51%	11.83	0.02	5.00
8097	8272	(N/A)	(N/A)	0.00	106.52	0.00	3.69	395.76	271.66	269.65	195	1.00%	96	926.62	43%	17.71	0.18	24.04
8179	8192	0.55	0.62	0.34	0.34	5.00	6.79	2.33	284.97	284.19	23	3.40%	15	11.86	20%	7.51	0.05	5.00
8192	8272	(N/A)	(N/A)	0.00	0.34	0.00	6.77	2.33	284.04	279.31	95	5.00%	15	14.43	16%	8.64	0.18	5.05
8200	8194	0.43	0.89	0.38	0.38	5.00	6.79	2.62	287.91	284.57	246	1.40%	15	7.53	35%	5.58	0.73	5.00
8194	8272	0.39	0.84	0.33	0.71	5.00	6.55	4.69	284.39	277.85	131	5.00%	15	14.43	33%	10.51	0.21	5.73
8272	8478	(N/A)	(N/A)	0.00	108.12	0.00	3.67	400.12	269.65	267.50	215	1.00%	96	912.01	44%	17.55	0.20	24.22

Time of Concentration

Project: Washington Boulevard at Sycamore	By: NLM	Date:	5/12/20
Location: Arlington County	Checked: DCD	Date:	5/12/20
Scenario: X Pre-development	X Post-development	Basin:	EX 8055
Check One: X Tc	Tt through subarea		

Segment ID		SF-1			Total
1. Surface description (table 3-1)		Grass			
2. Mannings roughness coefficient, n (table 3-1)		0.2			
3. Flow Length, L (total L ≤ 100 ft)	ft	100			
4. Two-year 24-hour rainfall, P_2	in	3.18			
5. Land Slope,	ft/ft	0.02			
6. $T_t = \frac{0.007\,(nL)^{0.8}}{P_2^{0.5}\,S^{0.4}}$ Compute T_t	hr	0.206			0.21

Segment ID		SCF-1			Total
7. Surface description (paved or unpaved)		Paved			
8. Flow length, L	ft	261			
9. Watercourse slope, s	ft/ft	0.023			
10. Average velocity, V (figure 3-1)	ft/s	3			
11. $T_t = \frac{L}{3600\,V}$ Compute T_t	hr	0.02			0.02

Segment ID		CF-1	CF-2	CF-3	Total
12. Cross sectional flow area, a	ft^2	1.23	7.07	19.63	
13. Wetted perimeter, pw	ft	3.93	9.42	15.71	
14. Hydraulic radius, r = a / pw Compute r	ft	0.313	0.751	1.249	
15. Channel slope, s	ft/ft	0.01	0.01	0.01	
16. Manning's roughness coefficient, n		0.013	0.013	0.013	
17. $V = \frac{1.49\ r\ 2/3\ s\ 1/2}{n}$ Compute V	ft/s	5.28	9.47	13.29	
18. Flow length, L	ft	1620	1620	1620	
19. $T_t = \frac{L}{3600\,V}$ Compute T_t	hr	0.09	0.05	0.03	0.17
20. Watershed or subarea T_c or T_t (add T_t in steps 6,11, and 19)				Hr.	0.40
				Min.	23.82
				Design (min.)	24

Project: Washington Boulevard at N. Sycamore Street
Locality: Arlington County
Date: 5/12/2020
Project #: 110614002
Designed By/Checked: Nicole McVey / Derik Doughty, P.E.

Pre-development Hydraulic Grade Line Calculations
VDOT LD-347

INLET (1)	0.8D + INV (OUT)	ACTUAL OUTLET WSE	DESIGN OUTLET WSE (2)	D_o (3)	Q_o (4)	L_o (5)	S_{fo} (6)	H_f (7)	V_o (8)	H_o (9)	Q_i (10)	V_i (11)	Q_iV_i (12)	$\frac{V_i^2}{2g}$	H_i (13)	Angle (14)	H_Δ (15)	H_t (16)	1.3 H_t (17)	0.5 H_t (18)	FINAL H (19)	INLET WSE (20)	RIM ELEV (21)	AVAILABLE FREEBOARD (22)
8272	273.90	273.90	273.90	96	400.11	215	0.008	1.72	17.55	1.20	395.75	10.42	4123.72	1.69	0.59	0.2	0.01	1.79	1.79	0.90	2.62	276.52	285.38	8.86
8097	276.05	276.52	276.52	96	395.75	195	0.010	1.95	17.71	1.22	387.88	10.08	3909.83	1.58	0.55	155.5	1.52	3.29	3.29	1.64	3.59	280.11	287.29	7.18
8055	277.26	280.11	280.11	84	387.88	64	0.026	1.67	29.02	3.27	6.80	3.85	26.18	0.23	0.08	91.99	0.16	3.51	4.57	2.28	3.95	284.06	287.45	3.39
8076	282.85	284.06	284.06	18	6.80	52	0.031	1.60	11.50	0.51	3.47	4.66	16.17	0.34	0.12	26.59	0.11	0.74	0.96	0.48	2.08	286.14	287.33	1.19
23847	286.00	286.14	286.14	18	3.47	62	0.016	0.99	6.79	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.28	0.14	1.13	287.26	289.38	2.12
8282	281.85	276.52	281.85	15	2.44	19	0.025	0.49	8.75	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.46	0.23	0.72	282.57	285.42	2.85
8290	278.82	276.52	278.82	15	1.23	79	0.044	3.48	7.18	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.31	0.16	3.63	282.45	284.86	2.41
8192	280.31	276.52	280.31	15	2.40	95	0.043	4.07	8.72	0.30	2.41	4.05	9.76	0.25	0.09	51.18	0.13	0.51	0.51	0.26	4.33	284.64	287.37	2.73
8179	285.19	284.64	285.19	15	2.41	23	0.020	0.46	7.58	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.35	0.17	0.64	285.83	288.72	2.89
8194	278.85	276.52	278.85	15	4.69	131	0.043	5.63	10.51	0.43	2.62	3.00	7.86	0.14	0.05	44.05	0.06	0.54	0.70	0.35	5.99	284.84	287.32	2.48
8200	285.57	284.84	285.57	15	2.62	246	0.013	3.19	5.58	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.19	0.09	3.29	288.86	295.14	6.28
8097A	279.19	280.11	280.11	15	5.36	18	0.022	0.39	10.89	0.46	5.37	4.79	25.72	0.36	0.12	48.62	0.18	0.76	0.76	0.38	0.77	280.88	287.16	6.28
8097B	280.15	280.88	280.88	15	5.37	56	0.100	5.59	14.05	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.20	0.60	6.19	287.07	289.71	2.64
8088	283.71	280.11	283.71	15	7.37	11	0.020	0.22	11.83	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.85	0.42	0.65	284.36	287.81	3.45
8101	283.34	280.11	283.34	15	2.34	25	0.028	0.69	8.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.45	0.23	0.92	284.26	287.22	2.96
8093	285.93	286.14	286.14	18	1.26	27	0.001	0.03	3.74	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.08	0.04	0.07	286.21	286.85	0.64

(Columns (8) through (18) are grouped under JUNCTION LOSS.)

Project: Washington Boulevard at N. Sycamore Street
Locality: Arlington County
Date: 5/12/2020
Project #: 110614002
Designed By/Checked: Nicole McVey / Derik Doughty, P.E.

Post-development Hydraulic Grade Line Calculations
VDOT LD-347

INLET (1)	0.8D + INV (OUT)	ACTUAL OUTLET WSE	DESIGN OUTLET WSE (2)	D_o (3)	Q_o (4)	L_o (5)	S_{fo} (6)	H_f (7)	V_o (8)	H_o (9)	Q_i (10)	V_i (11)	Q_iV_i (12)	$\frac{V_i^2}{2g}$	H_i (13)	Angle (14)	H_Δ (15)	H_t (16)	1.3 H_t (17)	0.5 H_t (18)	FINAL H (19)	INLET WSE (20)	RIM ELEV (21)	AVAILABLE FREEBOARD (22)
8272	273.90	273.90	273.90	96	400.12	215	0.008	1.72	17.55	1.20	395.76	10.42	4123.82	1.69	0.59	0.2	0.01	1.79	1.79	0.90	2.62	276.52	285.38	8.86
8097	276.05	276.52	276.52	96	395.76	195	0.010	1.95	17.71	1.22	387.87	10.08	3909.73	1.58	0.55	155.5	1.52	3.29	3.29	1.64	3.59	280.11	287.29	7.18
8055	277.26	280.11	280.11	84	387.87	64	0.026	1.67	29.02	3.27	6.80	3.85	26.18	0.23	0.08	91.99	0.16	3.51	4.57	2.28	3.95	284.06	287.45	3.39
8076	282.85	284.06	284.06	18	6.80	52	0.031	1.60	11.50	0.51	3.47	4.66	16.17	0.34	0.12	26.59	0.11	0.74	0.96	0.48	2.08	286.14	287.33	1.19
23847	286.00	286.14	286.14	18	3.47	62	0.016	0.99	6.79	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.28	0.14	1.13	287.26	289.38	2.12
8282	281.85	276.52	281.85	15	2.51	19	0.025	0.49	8.83	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.47	0.24	0.72	282.57	285.42	2.85
8290	278.82	276.52	278.82	15	1.23	79	0.044	3.48	7.18	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.31	0.16	3.63	282.45	284.86	2.41
8192	280.31	276.52	280.31	15	2.33	95	0.043	4.07	8.64	0.29	2.33	4.03	9.39	0.25	0.09	51.18	0.13	0.51	0.51	0.25	4.33	284.64	287.37	2.73
8179	285.19	284.64	285.19	15	2.33	23	0.020	0.46	7.51	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.34	0.17	0.63	285.82	288.72	2.90
8194	278.85	276.52	278.85	15	4.69	131	0.043	5.63	10.51	0.43	2.62	3.00	7.86	0.14	0.05	44.05	0.06	0.54	0.70	0.35	5.99	284.84	287.32	2.48
8200	285.57	284.84	285.57	15	2.62	246	0.013	3.19	5.58	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.19	0.09	3.29	288.86	295.14	6.28
8097A	279.19	280.11	280.11	15	5.36	18	0.022	0.39	10.89	0.46	5.37	4.79	25.72	0.36	0.12	48.62	0.18	0.76	0.76	0.38	0.77	280.88	287.16	6.28
8097B	280.15	280.88	280.88	15	5.37	56	0.100	5.59	14.05	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.20	0.60	6.19	287.07	289.71	2.64
8088	283.71	280.11	283.71	15	7.38	11	0.020	0.22	11.83	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.85	0.42	0.65	284.36	287.81	3.45
8101	283.34	280.11	283.34	15	2.34	25	0.028	0.69	8.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.45	0.23	0.92	284.26	287.22	2.96
8093	285.93	286.14	286.14	18	1.26	27	0.001	0.03	3.74	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.08	0.04	0.07	286.21	286.85	0.64

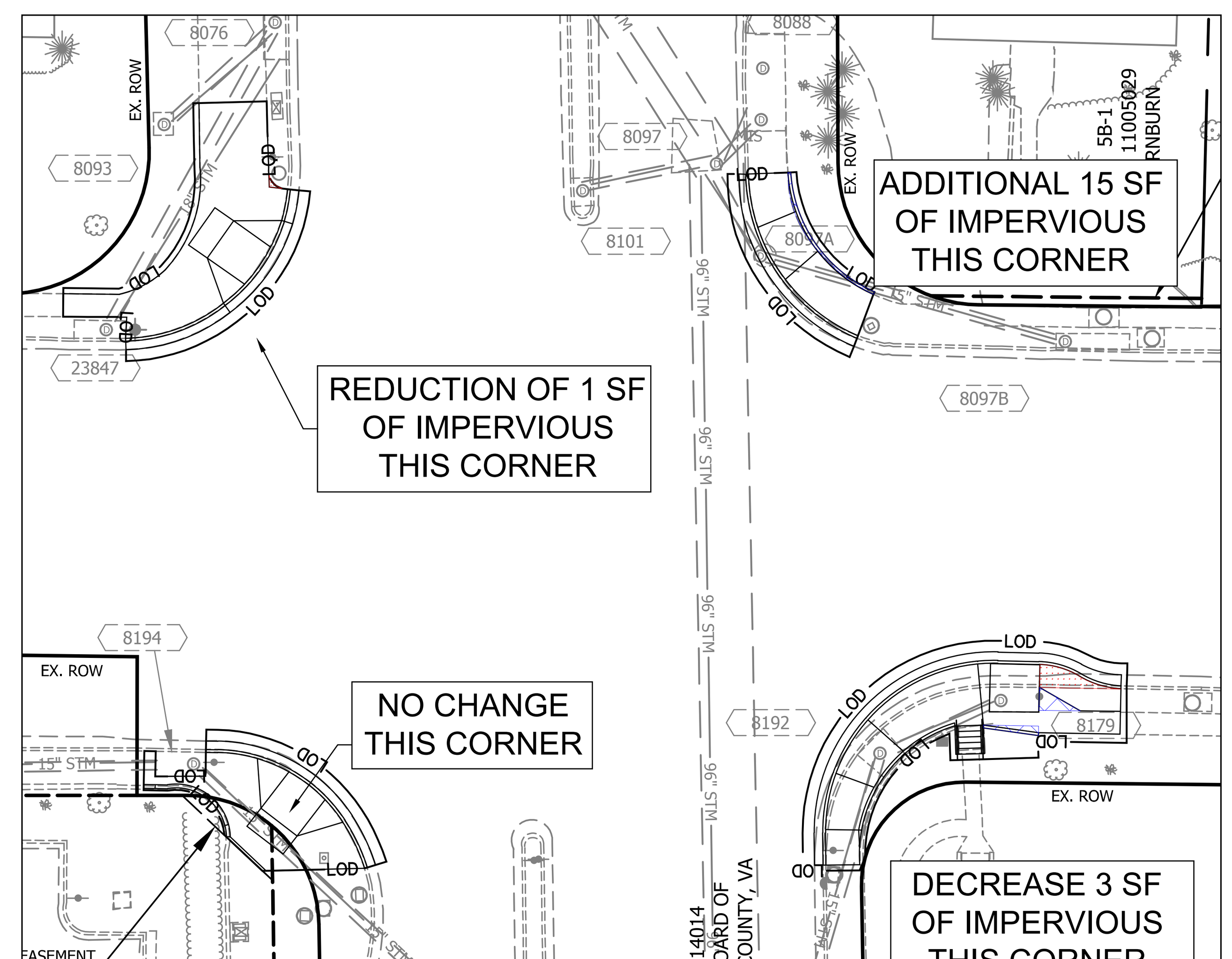
(Columns (8) through (18) are grouped under JUNCTION LOSS.)

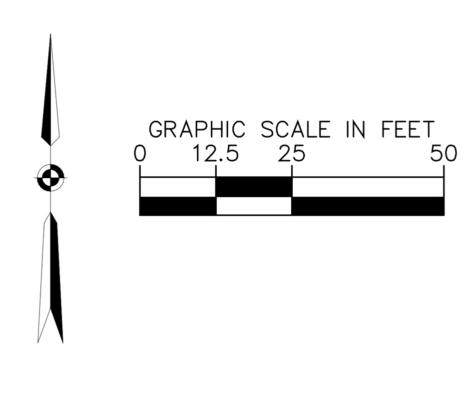
LD-204 Stormwater Inlet Computations

LD-204
Rev. 6-85
PROJ # 110614002 PROJ Washington Boulevard at N. Sycamore Street DATE May 26, 2021 SHEET 1 OF 1
DESIGNED/CHECKED Nicole McVey/Derik Doughty, P.E

INLET NUMBER (1)	INLET TYPE (2)	LENGTH (FT) (3)	STATION (4)	DRAINAGE AREA (AC) (5)	C (6)	CA (7)	sum CA (8)	I (IN/HR) (9)	Q INCR (CFS) (10)	Q_b, CARRYOVER (CFS) (11)	Q_T, GUTTER FLOW (CFS) (12)	S, GUTTER SLOPE (FT/FT) (13)	S_X, CROSS SLOPE (FT/FT) (14)	T, SPREAD (FT) (15)	W (FT) (16)	W/T (17)	S_W, (FT/FT) (18)	S_W/S_X (19)	E_0 (20)	$a = 12W(S_W - S_X)$+Local Depression (21)	$S'_W = a/(12w)$ (22)	$S_e = S_X + S'_W(E_0)$, (FT/FT) (23)	COMPUTED LENGTH, L_T, (FT) (24)	L, SPECIFIED LENGTH (FT) (25)	L/L_T (26)	E (27)	Q_i, INTERCEPTED (CFS) (28)	Q_b, CARRYOVER (CFS) (29)	d (FT) (30)	h (FT) (31)	d/h (32)	T, SPREAD @ SAG (FT) (33)
EXISTING - ON GRADE																																
23847	EXISTING CB	8	143+16	0.59	0.86	0.507	0.507	4.0	2.030	0.000	2.030	0.0050	0.0420	6.27	2	0.24	0.0833	1.98	0.57	2.74	0.152	0.129	7	8	1.14	1.00	2.03	0.000	0.325			
8194	EXISTING CB	8	143+00	0.39	0.84	0.328	0.328	4.0	1.310	0.000	1.310	0.0100	0.0380	4.76	2	0.32	0.0833	2.19	0.71	2.82	0.156	0.149	7	8	1.14	1.00	1.31	0.000	0.249			
8290	EXISTING CB	8	142+77	0.22	0.82	0.180	0.180	4.0	0.722	0.000	0.722	0.0040	0.0250	5.67	2	0.26	0.0833	3.33	0.68	3.05	0.169	0.141	5	8	1.60	1.00	0.72	0.000	0.229			
8282	EXISTING CB	8	141+86	0.54	0.66	0.356	0.356	4.0	1.426	0.053	1.479	0.0370	0.0500	3.24	2	0.46	0.0833	1.67	0.85	2.60	0.144	0.173	10	8	0.80	0.94	1.40	0.082	0.212			
8179	EXISTING CB	8	141+56	0.55	0.64	0.352	0.352	4.0	1.408	0.000	1.408	0.0350	0.0670	2.82	2	0.53	0.0833	1.24	0.88	2.29	0.127	0.180	9	8	0.89	0.98	1.38	0.027	0.214			
8097B	EXISTING CB	12	141+42	1.51	0.52	0.785	0.785	4.0	3.141	0.000	3.141	0.0680	0.0310	5.13	2	0.29	0.0833	2.69	0.70	2.94	0.163	0.146	18	12	0.67	0.86	2.71	0.435	0.238			
PROPOSED - ON GRADE																																
23847	EXISTING CB	8	143+16	0.59	0.86	0.507	0.507	4.0	2.030	0.000	2.030	0.0050	0.0420	6.27	2	0.24	0.0833	1.98	0.57	2.74	0.152	0.129	7	8	1.14	1.00	2.03	0.000	0.325			
8194	EXISTING CB	8	143+00	0.39	0.84	0.328	0.328	4.0	1.310	0.000	1.310	0.0100	0.0380	4.76	2	0.32	0.0833	2.19	0.71	2.82	0.156	0.149	7	8	1.14	1.00	1.31	0.000	0.249			
8290	EXISTING CB	8	142+77	0.22	0.82	0.180	0.180	4.0	0.722	0.000	0.722	0.0040	0.0250	5.67	2	0.26	0.0833	3.33	0.68	3.05	0.169	0.141	5	8	1.60	1.00	0.72	0.000	0.229			
8282	EXISTING CB	8	141+86	0.54	0.68	0.367	0.367	4.0	1.469	0.053	1.522	0.0370	0.0500	3.29	2	0.46	0.0833	1.67	0.85	2.60	0.144	0.173	10	8	0.80	0.94	1.44	0.084	0.214			
8179	PROPOSED CB	8	141+56	0.55	0.62	0.341	0.341	4.0	1.364	0.000	1.364	0.0390	0.0670	2.72	2	0.55	0.0833	1.24	0.90	2.29	0.127	0.181	9	8	0.89	0.98	1.34	0.026	0.207			
8097B	EXISTING CB	12	141+42	1.51	0.52	0.785	0.785	4.0	3.141	0.000	3.141	0.0680	0.0310	5.13	2	0.29	0.0833	2.69	0.70	2.94	0.163	0.146	18	12	0.67	0.86	2.71	0.435	0.238			
EXISTING - IN SAG																																
8088	EXISTING CB	16	142+04	0.14	0.73	0.102	0.102	4.0	0.409	0.869	1.278	0.0010	0.0640	8.63	1.5	0.17	0.0833	1.30	0.58	2.35	0.130	0.140	5.50	16	2.91	1.00	1.28	0.000	0.244	0.420	0.580	3.808
8088	EXISTING CB	16	142+04	1.91	0.51	0.974	0.974	4.0	3.896	0.000	3.896	0.0010	0.0640	8.63	1.5	0.17	0.0833	1.30	0.41	2.35	0.130	0.118	7.68	16	2.08	1.00	3.90	0.000				
8076	EXISTING CB	16	142+83	0.37	0.62	0.229	0.229	4.0	0.918	0.000	0.918	0.0010	0.0670	4.83	1.5	0.31	0.0833	1.24	0.65	2.29	0.127	0.149	3.63	16	4.41	1.00	0.92	0.000	0.094	0.420	0.224	1.402
8076	EXISTING CB	16	142+83	0.09	0.89	0.080	0.080	4.0	0.320	0.000	0.320	0.0010	0.0670	4.83	1.5	0.31	0.0833	1.24	0.83	2.29	0.127	0.173	2.28	16	7.02	1.00	0.32	0.000				
8101E	EXISTING CB	4	142+32	0.03	0.90	0.027	0.027	4.0	0.108	0.000	0.108	0.0010	0.0470	5.35	1.5	0.28	0.0833	1.77	0.97	2.65	0.147	0.190	1.26	4	3.17	1.00	0.11	0.000	0.143	0.420	0.339	3.034
8101E	EXISTING CB	4	142+32	0.22	0.82	0.180	0.180	4.0	0.722	0.000	0.722	0.0010	0.0470	5.35	1.5	0.28	0.0833	1.77	0.63	2.65	0.147	0.140	3.46	4	1.16	1.00	0.72	0.000				
8101W	EXISTING CB	4	142+32	0.04	0.90	0.036	0.036	4.0	0.144	0.000	0.144	0.0010	0.0250	5.92	1.5	0.25	0.0833	3.33	0.90	3.05	0.169	0.177	1.54	4	2.59	1.00	0.14	0.000	0.107	0.420	0.255	4.279
8101W	EXISTING CB	4	142+32	0.13	0.76	0.099	0.099	4.0	0.395	0.000	0.395	0.0010	0.0250	5.92	1.5	0.25	0.0833	3.33	0.66	3.05	0.169	0.137	2.79	4	1.43	1.00	0.40	0.000				
PROPOSED - IN SAG																																
8088	EXISTING CB	16	142+04	0.14	0.75	0.105	0.105	4.0	0.420	0.869	1.289	0.0010	0.0640	8.63	1.5	0.17	0.0833	1.30	0.58	2.35	0.130	0.140	5.51	16	2.90	1.00	1.29	0.000	0.244	0.420	0.581	3.813
8088	EXISTING CB	16	142+04	1.91	0.51	0.974	0.974	4.0	3.896	0.000	3.896	0.0010	0.0640	8.63	1.5	0.17	0.0833	1.30	0.41	2.35	0.130	0.118	7.68	16	2.08	1.00	3.90	0.000				
8076	EXISTING CB	16	142+83	0.37	0.62	0.229	0.229	4.0	0.918	0.000	0.918	0.0010	0.0670	4.83	1.5	0.31	0.0833	1.24	0.65	2.29	0.127	0.149	3.63	16	4.41	1.00	0.92	0.000	0.094	0.420	0.223	1.399
8076	EXISTING CB	16	142+83	0.09	0.88	0.079	0.079	4.0	0.317	0.000	0.317	0.0010	0.0670	4.83	1.5	0.31	0.0833	1.24	0.84	2.29	0.127	0.174	2.27	16	7.06	1.00	0.32	0.000				
8101E	EXISTING CB	4	142+32	0.03	0.90	0.027	0.027	4.0	0.108	0.000	0.108	0.0010	0.0470	5.35	1.5	0.28	0.0833	1.77	0.97	2.65	0.147	0.190	1.26	4	3.17	1.00	0.11	0.000	0.143	0.420	0.339	3.034
8101E	EXISTING CB	4	142+32	0.22	0.82	0.180	0.180	4.0	0.722	0.000	0.722	0.0010	0.0470	5.35	1.5	0.28	0.0833	1.77	0.63	2.65	0.147	0.140	3.46	4	1.16	1.00	0.72	0.000				
8101W	EXISTING CB	4	142+32	0.04	0.90	0.036	0.036	4.0	0.144	0.000	0.144	0.0010	0.0250	5.92	1.5	0.25	0.0833	3.33	0.90	3.05	0.169	0.177	1.54	4	2.59	1.00	0.14	0.000	0.107	0.420	0.255	4.279
8101W	EXISTING CB	4	142+32	0.13	0.76	0.099	0.099	4.0	0.395	0.000	0.395	0.0010	0.0250	5.92	1.5	0.25	0.0833	3.33	0.66	3.05	0.169	0.137	2.79	4	1.43	1.00	0.40	0.000				

(Columns (31)–(33): Sag Inlets Only.)





LEGEND

EXISTING PERVIOUS AREA

PROPOSED PERVIOUS AREA

LIMITS OF DISTURBANCE

TABLE OF AREAS				
INTERSECTION	TOTAL DISTURBED AREA (FOR ESC REQUIREMENTS)	TOTAL DISTURBED AREA (FOR SWM REQUIREMENTS)	EXISTING IMPERVIOUS	PROPOSED IMPERVIOUS
WASHINGTON BLVD AT N. SYCAMORE ST	2948 SF	70 SF	2697 SF	2707 SF

DRAINAGE NARRATIVE:

EXISTING INLET STRUCTURE 8179 WILL BE EXTENDED AT THE SOUTHEAST CORNER OF THE WASHINGTON BOULEVARD AT NORTH SYCAMORE STREET INTERSECTION TO ACCOMMODATE THE PROPOSED CURB BUMP OUT. THIS MODIFIED STRUCTURE WILL MAINTAIN THE CONNECTION TO THE EXISTING 15" CONCRETE PIPE. NO OTHER DRAINAGE MODIFICATIONS ARE PROPOSED WITH THIS PROJECT.

STORMWATER MANAGEMENT ANALYSIS:
TOTAL DISTURBED AREA (FOR ESC REQUIREMENTS): 2,948 SQUARE FEET (0.067 AC)

TOTAL DISTURBED AREA (FOR SWM REQUIREMENTS): 70 SQUARE FEET

ROUTINE MAINTENANCE AREA: 2,878 SQUARE FEET

THIS PROJECT IS EXEMPT FROM THE STORMWATER MANAGEMENT REQUIREMENTS AS NOTED IN ARLINGTON COUNTY CODE CHAPTER 60-5. MOST OF THIS PROJECT IS CONSIDERED ROUTINE MAINTENANCE AS IT WILL REPLACE EXISTING ASPHALT OR CONCRETE PAVEMENT WITH NEW CONCRETE PAVEMENT. THE TOTAL DISTURBED AREA OUTSIDE OF THE ROUTINE MAINTENANCE AREA IS LESS THAN 2,500 SQUARE FEET.

THIS PROJECT DOES NOT FALL WITHIN A FLOODPLAIN OR RESOURCE PROTECTION AREA (RPA).

STORMDRAIN SYSTEM:
THE STORMDRAIN SYSTEM WAS MODELED FOR BOTH EXISTING AND PROPOSED CONDITIONS. THE SYSTEM WAS ANALYZED USING THE 10-YEAR DESIGN STORM. EXISTING CURB INLETS WERE ANALYZED USING A RUNOFF INTENSITY OF 4IN/HR TO DETERMINE ADEQUATE SIZING BASED ON ALLOWABLE SPREADS OF HALF THE TRAVEL LANE WIDTH (MAXIMUM OF 10'). A DESIGN SPEED OF 30 MPH. THERE ARE NO KNOWN WATER ELEVATIONS, SO THE TAILWATER ELEVATION WAS ASSUMED TO BE 0.8 TIMES THE DIAMETER OF THE OUTLET PIPE. THE ALLOWABLE PONDING DEPTH IS 5 INCHES AS THE EXISTING AND PROPOSED CURBING IS 6 INCHES TALL. THE HEIGHT OF THE THROAT OPENING USED IN THE ANALYSIS WAS WAS ASSUMED TO BE 5" TO MATCH THE ARLINGTON COUNTY CB-2 AND PCB-2 STANDARD. FIELD OBSERVATIONS DETERMINED THE EXISTING STRUCTURES WERE LIKELY CONSTRUCTED USING THIS STANDARD.

OUTFALL ANALYSIS:
THE EXISTING AND PROPOSED STORMDRAIN SYSTEMS WERE ANALYZED TO DETERMINE THE ADEQUACY. THE LIMITS OF ANALYSIS WERE DETERMINED TO BE THE POINT DOWNSTREAM WHERE THE PROJECT CONTRIBUTING DRAINAGE AREA IS 1% OF THE TOTAL DRAINAGE AREA FOR THE OUTFALL. THE OUTFALL FOR THIS PROJECT DRAINS TO THE EXISTING STORMDRAIN SYSTEM AND WAS ANALYZED USING A 10-YEAR DESIGN STORM.

OUTFALL #1 IS LOCATED SOUTH OF WASHINGTON BOULEVARD AT NORTH SYCAMORE STREET INTERSECTION AND DRAINS TO EXISTING STRUCTURE 8478. THE EXISTING DOWNSTREAM STORMDRAIN SYSTEM WAS DETERMINED TO BE ADEQUATE. TO EVALUATE THE PROPOSED CONDITIONS WERE COMPARED TO THE EXISTING CONDITIONS. THE CALCULATIONS DEMONSTRATE THE PROPOSED CONDITIONS HAVE NO SIGNIFICANT IMPACT ON THE EXISTING STORMDRAIN SYSTEM.

NOTES:
CONTRACTOR SHALL FLUSH ANY DEBRIS FROM EXISTING DRAINAGE STRUCTURES WITHIN PROJECT AREA AFTER CONSTRUCTION IS COMPLETE.

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
Dennis M. Leach — TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

DRAINAGE CALCULATIONS

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: DD
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. N/A VERT. N/A

Sheet C-0720

Filename: C-0700 STORMWATER.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

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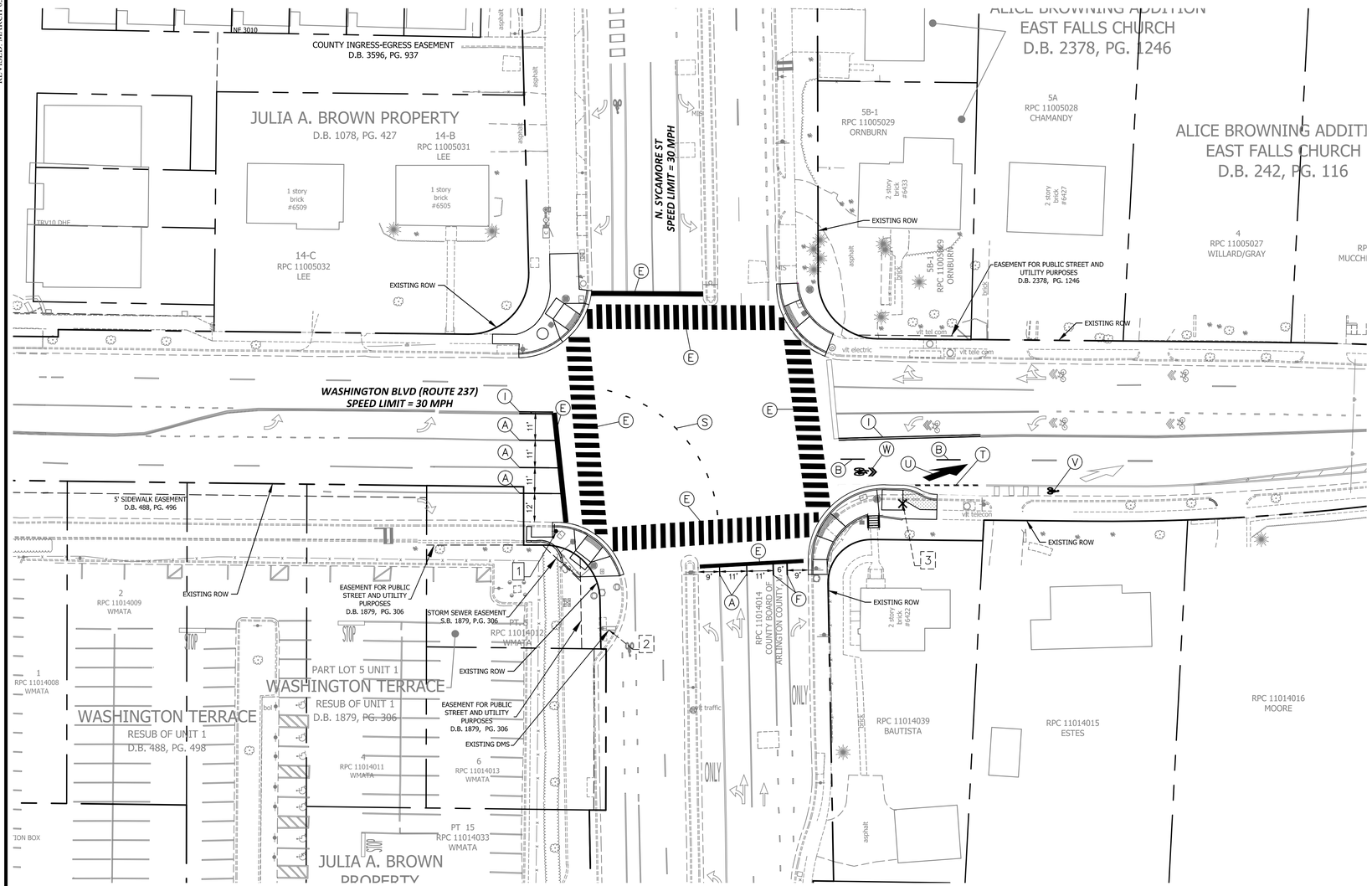
REVISED: MARCH 03, 2020

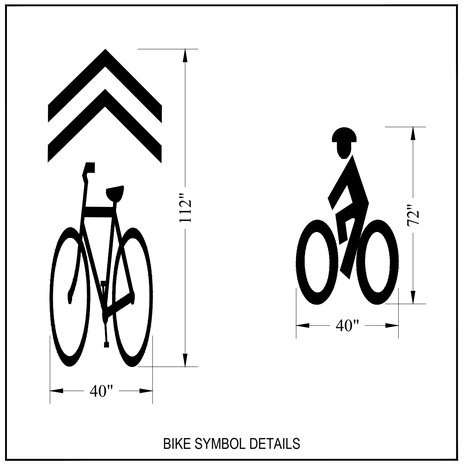


GRAPHIC SCALE IN FEET
0 12.5 25 50

SIGN AND PAVEMENT MARKING NOTES:

1. STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING .
2. CONTACT DENNIS HOWELL OR HIS DESIGNEE AT 703-228-6598 OR (571) 437-1077 TO APPROVE MARKING LAYOUT 48 HRS. PRIOR TO INSTALLATION OF MARKINGS.
3. PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE FOLLOWING AND ANY REVISIONS HERE TO:
   A) THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   B) ARLINGTON COUNTY MARKING STANDARDS.
   C) VDOT ROAD AND BRIDGE CONSTRUCTION STANDARDS
4. ALL MARKINGS SHALL BE THERMOPLASTIC PER ARLINGTON COUNTY MARKING STANDARDS.
5. STOP BARS SHALL BE A MINIMUM OF 4' IN ADVANCE OF A MARKED CROSSWALK. IF THERE IS NO MARKED CROSSWALK, STOP BAR SHALL BE NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTED TRAVELED WAY.
6. CROSSWALKS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
7. LEFT TURN ARROWS SHALL BE LOCATED 25' BACK FROM STOP BAR. FOR ADDITIONAL ARROWS FOLLOW COUNTY MARKING STANDARDS.

HIGH VISIBILITY CROSSWALK



BIKE SYMBOL DETAILS

STANDARD PAVEMENT MARKING LEGEND:

Ⓐ TYPE B CLASS 1.....WHITE 4" WIDTH	PARKING LANES, EDGE LINES, LANE LINES, TURN LANES
Ⓑ TYPE B CLASS 1.....WHITE 4" WIDTH, 10' LONG, 30' SPACING	DASHED LANE LINES
Ⓒ TYPE B CLASS 1.....WHITE 4" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
Ⓓ TYPE B CLASS 1.....WHITE 18" WIDTH	STOP BARS
Ⓔ TYPE B CLASS 1.....WHITE 24" WIDTH	HIGH VISIBILITY CROSS WALKS, VDOT STOP BARS
Ⓕ TYPE B CLASS 1.....WHITE 6" WIDTH	TURN LANES,TRANSVERSE CROSSWALKS, BIKE LANES
Ⓖ TYPE B CLASS 1.....YELLOW 4" WIDTH, 10' LONG, 30' SPACING	DIVIDED TRAFFIC, TWO WAY TURN LANES
Ⓗ TYPE B CLASS 1.....YELLOW 4" WIDTH	EDGE LINES
Ⓘ TYPE B CLASS 1.....YELLOW 4" WIDTH, DOUBLE LINE, 4" SPACING	CENTERLINES
Ⓙ TYPE B CLASS 1.....WHITE 6" WIDTH, 10' SPACING @45 DEGREE	HATCH LINES, SAFETY ZONES
Ⓚ TYPE B CLASS 1.....WHITE SINGLE ARROW	TURN LANES
Ⓛ TYPE B CLASS 1.....WHITE COMBINATION ARROW	TURN LANES
Ⓜ TYPE B CLASS 1.....WHITE 8' LETTERS	PAVEMENT LETTERS (STOP, YIELD, BUS, ONLY etc.)
Ⓝ TYPE B CLASS 1.....WHITE 6" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
Ⓞ TYPE B CLASS 1.....WHITE 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
Ⓟ TYPE B CLASS 1.....YELLOW 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
Ⓠ TYPE B CLASS 1.....WHITE 6" WIDTH, 2' LONG, 4' SPACING	LANE TRANSITIONS
Ⓡ TYPE B CLASS 1.....WHITE 8" WIDTH, 3' LONG, 9' SPACING	TURN LANES
Ⓢ TYPE B CLASS 1.....WHITE 4" WIDTH, 2' LONG, 6' SPACING	TURN LANE SKIPS
Ⓣ TYPE B CLASS 1.....WHITE 6" WIDTH, 2' LONG, 6' SPACING	BIKE LANE STRIPING
Ⓤ TYPE B CLASS 1.....WHITE LANE REDUCTION ARROW	
Ⓥ TYPE B CLASS 1.....WHITE HELMETED BICYCLIST SYMBOL	
Ⓦ TYPE B CLASS 1.....WHITE SHARED LANE SYMBOL	

SIGN SCHEDULE

SIGN NUMBER	1	2	3
SIGN	NO TURN ON RED WHEN PEDESTRIANS ARE PRESENT		
NO.	R10-11a (MOD)	EXISTING DMS FOR I-66 EASTBOUND	EXISTING W4-2
DIMENSION	30" x 48"		

SIGNING AND MARKING LEGEND

EXISTING		PROPOSED
	BUS STOP	
	FIRE HYDRANT	
	SIGN	
	GANTRY	
Ⓐ	MARKING	Ⓐ

SIGN REMOVAL AND RELOCATION LEGEND

EXISTING SIGN TO REMAIN OR TO BE RELOCATED

EXISTING SIGN TO BE REMOVED

SIGN LABELS

PROPOSED SIGN — 3 — NEW LOCATION

EXISTING SIGN TO BE RELOCATED — 3 — NEW LOCATION / EXISTING LOCATION

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

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Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
PAVEMENT MARKING AND SIGNING PLAN
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: LL
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0800

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REVISED: MARCH 03, 2020

TRANSPORTATION MANAGEMENT PLAN AND SEQUENCE OF CONSTRUCTION (TMP/SOC)

TEMPORARY TRAFFIC CONTROL PLAN

1. TMP/SOC TYPE A PROJECT INFORMATION:

   A. IDENTIFY THE PROJECT'S TMP TYPE:
   THIS PROJECT'S TMP/SOC PLAN HAS BEEN DESIGNED IN CONFORMANCE WITH A TYPE A TMP/SOC PLAN,

   B. IDENTIFY THE WORK ZONE LOCATION, LENGTH, AND WIDTHS:
   THE PROJECT LOCATION IS SHOWN ON THE TITLE SHEET.
   THE WORK ZONE AREAS HAVE BEEN DELINEATED AS SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS.
   THE WORK ZONE LENGTHS AND WIDTHS VARY BY LOCATION AS SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS.

   C. NOTE THE HOURS THE CONSTRUCTION AREA WILL BE ACTIVE:
   CONSTRUCTION AREA SHALL BE CONSIDERED ACTIVE WHEN ANY IMPACT TO TRAFFIC OCCURS (1ST CONE IN ROAD)
   CONSTRUCTION AREA HOURS HAVE THE FOLLOWING LIMITATIONS:

	LANE CLOSURES (NON MAJOR ARTERIAL)			
	MONDAY TO THURSDAY	FRIDAY	SATURDAY	SUNDAY
DAY TIME	9:30AM to 3:00PM	9:30AM to 2:00PM	*NOT ALLOWED	*NOT ALLOWED
NIGHT TIME	*NOT ALLOWED	*NOT ALLOWED	*NOT ALLOWED	*NOT ALLOWED

   * NIGHT TIME AND WEEKEND WORK SHALL NOT BE ALLOWED UNLESS APPROVED BY VDOT.
   NO LANE CLOSURES WILL BE ALLOWED FROM NOON ON THE DAY BEFORE A HOLIDAY UNTIL NOON ON THE WORKDAY FOLLOWING THE HOLIDAY. HOLIDAYS INCLUDE ALL STATE AND FEDERAL HOLIDAYS.

   DESIGNATION OF PEAK HOUR TIMES:
   PEAK HOURS ARE 6:00AM THROUGH 9:00AM AND 3:30PM THROUGH 6:30PM.

   D. THE CONSTRUCTION ZONE HAS BEEN SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS FOR POTENTIAL LOCATIONS FOR CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE WITHIN THE RIGHT OF WAY. THE CONTRACTOR IS TO PROVIDE ADEQUATE PROTECTION FOR CONSTRUCTION ELEMENTS WITHIN THE CLEAR ZONE.

   E. THE TMP/SOC PLAN, DURING CONSTRUCTION, SHALL BE IN ACCORDANCE WT1H SECTIONS 512, 701, 703 & 704 OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, DATED 2016; THE VIRGINIA WORK AREA PROTECTION MANUAL DATED AUGUST 2011 AND UPDATED APRIL 2015; THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), DATED 2009; THE VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, DATED 2011; AND IIM-LD-241.7 OF THE INSTRUCTIONAL AND INFORMATIONAL MEMORANDA.

   F. NOTE ANY EXISTING ENTRANCES, EXISTING INTERSECTIONS, OR EXISTING PEDESTRIAN ACCESS POINTS THAT WILL BE AFFECTED BY THE CONSTRUCTION AREA OR BY THE TRAFFIC CONTROL DEVICES:

   EXISTING ENTRANCES:
   THERE ARE TWELVE (12) EXISTING ENTRANCES WITHIN THE PROJECT LIMITS. ALL ENTRANCES ARE TO REMAIN OPEN AND FUNCTIONAL DURING CONSTRUCTION. IF DRIVEWAY RECONSTRUCTION IS NECESSARY, THE CONTRACTOR IS TO WORK WITH THE PROPERTY OWNER TO ESTABLISH A MUTUALLY AGREEABLE SCHEDULE TO CLOSE THE ENTRANCE.

   EXISTING INTERSECTIONS:
   THE N. SYCAMORE ST. AND WASHINGTON BOULEVARD (ROUTE 27) INTERSECTION IS AT APPROXIMATE WASHINGTON BOULEVARD STATION 142+40. ALL EXISTING INTERSECTIONS ARE TO REMAIN OPEN AND FUNCTIONAL DURING CONSTRUCTION.

   EXISTING PEDESTRIAN ACCESS POINTS:
   THERE ARE FOUR (4) EXISTING PEDESTRIAN ACCESS POINTS WITHIN THE PROJECT LIMITS. THESE INCLUDE THE NORTHWEST, SOUTHWEST, NORTHEAST, AND SOUTHEAST CORNERS OF THE N. SYCAMORE STREET AND WASHINGTON BOULEVARD (ROUTE 27) INTERSECTION. PEDESTRIANS ARE TO BE DIVERTED AWAY FROM THE CONSTRUCTION ZONE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PEDESTRIAN CIRCULATION AT ALL TIMES. SEE CONSTRUCTION NARRATIVE FOR DETAILS.

   EXISTING BUS STOPS:
   THERE ARE TWO EXISTING BUS STOPS WITHIN THE PROJECT LIMITS LOCATED ALONG WASHINGTON BOULEVARD, ONE WEST OF THE INTERSECTION WITH N. SYCAMORE ST. AND ONE EAST OF IT. THESE BUS STOPS ARE TO REMAIN OPEN AND FUNCTIONAL DURING CONSTRUCTION

   G. IDENTIFY THE MAJOR TYPES OF TRAVELERS:
   THE TRAFFIC ON THE ROADWAY CONSISTS PRIMARILY OF COMMUTER TRAFFIC WITH TRANSIT BUSES, BIKES, AND PEDESTRIANS. THE SURROUNDING AREA IS MOSTLY RESIDENTIAL WITH A METRO STATION IMMEDIATELY SOUTHWEST OF THE PROJECT AREA.

   H. THE CONTRACTOR SHALL:

   DESIGNATE A PERSON ASSIGNED TO THE PROJECT WHO WILL HAVE THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TMP/SOC AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PERMIT WORK. THIS PERSON SHALL COORDINATE WITH THE ARLINGTON COUNTY CONSTRUCTION INSPECTOR FOR THE DURATION OF CONSTRUCTION.

   ENSURE THAT PERSONNEL ASSIGNED TO THE PROJECT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITIES IN ACCORDANCE WITH VDOT'S WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.

   INFORM THE ENGINEER OF ANY WORK REQUIRING LANE SHIFTS, LANE CLOSURES, AND/OR PHASE CHANGES A MINIMUM OF TWO WORKING DAYS PRIOR TO IMPLEMENTING THIS ACTIVITY.

   PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS AT REGULARLY SCHEDULED INTERVALS AT THE DIRECTION OF THE ENGINEER. CONTRACTOR SHALL MAINTAIN AN APPROVED COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.

   COORDINATE WITH ARLINGTON COUNTY POLICE DEPARTMENT AND ARLINGTON COUNTY COUNTY FIRE/RESCUE DEPORTMENT FOR ANY LANE CLOSURES AND ANY DETOURS OF ANY NATURE.

   SCHEDULE ALL PHASES OF CONSTRUCTION IN SUCH A MANNER THAT WATER, SANITARY SEWER, CABLE, FIBER CABLE/OPTIC CABLE, ANY OVERHANGING UTILITIES, AND ANY UNDERGROUND UTILITIES SERVICES WILL NOT BE INTERRUPTED.

2. THIS TMP/SOC PLAN IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IF THE CONTRACTOR TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

3. CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION OF THIS PROJECT AND PROVIDE A MINIMUM OF 11 FOOT WIDE LANES AT ALL TIMES DURING CONSTRUCTION, UNLESS APPROVED BY THE ENGINEER.

4. ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6:1 WEDGE AGAINST THE EXISTING PAVEMENT OR NEWLY CONSTRUCTED PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC.

5. EACH PHASE OF CONSTRUCTION SHALL BE COMPLETED TO THE INSTALLATION OF INTERMEDIATE COURSE ASPHALT PRIOR TO THE START OF THE NEXT PHASE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

6. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION. THE COST SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

7. UNLESS SPECIFIED ON THE PLANS, ALL EXISTING TURN LANES SHALL BE MAINTAINED AT ALL TIMES FOR THE DURATION OF CONSTRUCTION.

8. WHERE GROUP 2 CHANNELIZING DEVICES ARE USED TO SEPARATE THE CONSTRUCTION AREA AND TRAFFIC, A MINIMUM CLEAR ZONE AREA AS DEFINED IN THE VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM) IS TO BE MAINTAINED.

9. THE CONTRACTOR IS TO COORDINATE WITH ARLINGTON COUNTY FOR LOCATION(S) OF THE CONSTRUCTION STAGING AREA. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AS NECESSARY.

10. IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN
DURING THE FIRST DAY OF THE NEW WORK ZONE TRAFFIC PATTERN, THE PROJECT CONSTRUCTION MANAGER AND PROJECT CONSTRUCTION INSPECTOR SHALL INSPECT THE WORK ZONE TO ENSURE COMPLIANCE WITH THE TMP. ON THE THIRD TO FIFTH DAY OF IMPLEMENTATION OF THE TMP'S NEW WORK ZONE TRAFFIC PATTERN, THE CONSTRUCTION INSPECTOR SHALL CONDUCT AN ON-SITE REVIEW OF THE WORK ZONE'S PERFORMANCE IN COORDINATION WITH VDOT AND RECOMMEND TO THE CONTRACTOR ANY REQUIRED CHANGES TO THE TMP TO ENHANCE THE WORK ZONE'S SAFETY AND MOBILITY. ALL SUCH CHANGES SHALL BE DOCUMENTED. AN ON-SITE REVIEW OF THE PROJECT'S WORK ZONE TRAFFIC CONTROL BY THE COUNTY'S CONSTRUCTION INSPECTOR AND THE CONTRACTOR SHALL BE CONDUCTED (WITH COORDINATION FROM VDOT) WITHIN 48 HOURS OF ANY FATAL ACCIDENT/CRASH WITHIN THE WORK ZONE.

11. EVALUATION OF THE TRANSPORTATION MANAGEMENT PLAN
A PERFORMANCE ASSESSMENT OF THE TMP INCLUDING AREA-WIDE IMPACTS ON ADJACENT ROADWAYS SHALL BE PERFORMED BY ARLINGTON COUNTY WITH COORDINATION FROM THE ENGINEER DURING CONSTRUCTION. AS CIRCUMSTANCES DICTATE, A REVIEW OF THE OVERALL EFFECTIVENESS OF THE PROJECT'S TMP SHALL BE COMPLETED DURING THE POST CONSTRUCTION MEETING AND INCLUDED WITH THE POST CONSTRUCTION REPORT. A COPY OF THE SPECIFIC INFORMATION ON THE EFFECTIVENESS OF THE TMP WILL BE FORWARDED TO ARLINGTON COUNTY FOR REVIEW. A COPY OF THE TMP INTERIM/POST CONSTRUCTION REPORT FORM CAN BE OBTAINED FROM ARLINGTON COUNTY.

12. PUBLIC COMMUNICATIONS PLAN
THE CONTRACTOR SHALL BE RESPONSIBLE FOR:

   A. NOTIFYING THE PROJECT MANAGER AND CONSTRUCTION INSPECTOR TWO WEEKS IN ADVANCE OF ANY SCHEDULED WORK PLANS AND TRAFFIC DELAYS.

   B. NOTIFYING THE PROJECT MANAGER, CONSTRUCTION INSPECTOR, AND CORRESPONDING ENGINEER OF ANY UNSCHEDULED TRAFFIC DELAYS

14. TRANSPORTATION OPERATIONS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:

   A. NOTIFY THE REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) ONE WEEK IN ADVANCE TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC.

   B. POST A LIST OF LOCAL EMERGENCY RESPONSE AGENCIES INSIDE THE PROJECT'S CONSTRUCTION OFFICE/TRAILER.

   C. IMMEDIATELY REPORT ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.

   D. NOTIFY THE PROJECT CONSTRUCTION INSPECTOR AND CORRESPONDING ENGINEER OF ANY NEW INCIDENTS AND EXPECTED TRAFFIC DELAYS.

   E. WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE COMPLETED AND NECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE INCIDENTS.

CONTACT NUMBERS:

COUNTY PROJECT MANAGER	ANUP KAFLE (703) 228-7050
COUNTY CONSTRUCTION MANAGER	TBD
COUNTY CONSTRUCTION INSPECTOR	TBD
EMERGENCY CALL	911
NON-EMERCENCY NUMBERS:	
ARLINGTON COUNTY POLICE	(703) 558-2222
ARLINGTON COUNTY FIRE & RESCUE	(703) 558-3362

GENERAL CONSTRUCTION NOTES AND SEQUENCE OF CONSTRUCTION

1. THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS DURING BOTH WORK AND NON-WORK HOURS TO ENSURE THE PROTECTION AND SAFETY OF THE ADJACENT PROPERTY OWNERS, PEDESTRIANS, VEHICULAR TRAFFIC, AND THE GENERAL PUBLIC FROM ANY CONSTRUCTION RELATED ACTIVITY, CONSTRUCTION EQUIPMENT, AND THE CONSTRUCTION SITE ITSELF.
2. TEMPORARY CLOSURES OF PEDESTRIAN ACCESS SHALL BE LIMITED AND ADMINISTERED AS DIRECTED BY THE ENGINEER.
3. NO LANE CLOSURES WILL BE ALLOWED OUTSIDE OF THE CONSTRUCTION AREA HOURS, UNLESS APPROVED BY THE ENGINEER.
4. BUFFER SPACES SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS ARE NOT TO SCALE. SEE THE VIRGINIA WORK AREA PROTECTION MANUAL FOR BUFFER PLACEMENT.
5. CONTRACTOR SHALL COORDINATE ALL BUS STOP MODIFICATIONS WITH ARLINGTON COUNTY BEFORE CONSTRUCTION.

UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL PLAN AND PROSECUTE THE WORK IN ACCORDANCE WITH THE FOLLOWING SEQUENCE OF CONSTRUCTION:

PHASE 1:
1. INSTALL TEMPORARY TRAFFIC CONTROL SIGNS AND DEVISES IN ACCORDANCE WITH TTC-53.0.
2. CONSTRUCT PROPOSED IMPROVEMENTS WITHIN THE CONSTRUCTION ZONE SHOWN ON SHEET C-0902 IN ACCORDANCE WITH TTC-26.2, TTC-27.2, TTC-29.2, TTC-35.1, AND TTC-36.2.
3. CONSTRUCTION SHOULD BE PHASED ON THE FOUR CORNERS OF THE INTERSECTION TO ALLOW ADEQUATE PEDESTRIAN ACCESS IN ACCORDANCE WITH TTC-35.0 AND TTC-36.1. PEDESTRIANS SHOULD BE DIVERTED AROUND THE CONSTRUCTION ZONE AT THE NEAREST CROSSING LOCATION. AN ADEQUATE PEDESTRIAN DIVERSION SHOULD BE IMPLEMENTED WHERE A DETOUR IS NOT FEASIBLE AT THE CONCLUSION OF WORK EACH DAY. CONSTRUCTION ACTIVITIES SHALL NOT CLOSE MORE THAN ONE CROSSWALK AT ANY TIME.
4. CONTRACTOR SHALL PROVIDE BICYCLE DETOUR WHEN BIKE LANES ARE CLOSED IN ACCORDANCE WITH VDOT WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (MAY 1, 2016) FOR FURTHER INFORMATION. ALL SIGNAGE RELATED TO THIS DETOUR TO BE INSTALLED PER VAWAPM TTC-53.0.
5. CONSTRUCTION ACTIVITIES IN THIS PHASE INCLUDE: SAW CUT EXISTING PAVEMENT, CONSTRUCTION OF PROPOSED CURB AND GUTTER AND CURB RAMPS ON THE CORNERS, CONSTRUCTION OF SIDEWALK, GRADING, MODIFICATION OF STORM STRUCTURES, INSTALLATION OF TRAFFIC AND PEDESTRIAN SIGNALS.
6. THE PROPOSED SIGNAL SHALL BE FULLY CONSTRUCTED AND OPERATIONAL BEFORE CONSTRUCTION OF PHASE 2.

PHASE 2 (NOT SHOWN):
1. MILL AND OVERLAY AREAS SHOWN ON THE PLANS IN ACCORDANCE WITH TTC-57.1.
2. INSTALL ALL PERMANENT PAVEMENT MARKINGS AND SIGNS AS SHOWN ON THE SIGNING AND STRIPING PLAN.
3. REMOVE ALL TRAFFIC CONTROL SIGNS AND DEVICES.

NOTE:

THE DESIGNER, DERIK DOUGHTY, P.E. HAS COMPLETED THE VDOT ADVANCED WORK ZONE TRAINING ON 3/16/2018. VERIFICATION NUMBER 031618777. EXPIRATION DATE 3/31/2022.

Commonwealth of Virginia
Virginia Department of Transportation
VDOT
VERIFICATION OF COMPLETION OF
ADVANCE WORK ZONE TRAFFIC CONTROL TRAINING
This is to verify that Derik C. Doughty has successfully completed training and an examination by the Department on the proper practices and methods for the installation, maintenance and removal of temporary traffic control devices.
Date: 3/16/2018
State Traffic Engineer
Verification No.: 031618777
Expiration Date: 3/31/2022

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL
COMMONWEALTH OF VIRGINIA
DERIK DOUGHTY
Lic. No. 0402055074
01/05/2022
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
TRANSPORTATION MANAGEMENT PLAN NOTES
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: DCD
Drawn: TEC
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-0900

Filename: C-910 TMP.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020

Typical Traffic Control
Lane Closure Operation – Near Side of an Intersection
(Figure TTC-26.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **Taper length (L) shall be at the following:**

Taper Length L					
Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60
30	135	150	165	180	L=S*W/60
35	185	205	225	245	L=S*W/60
40	240	270	295	320	L=S*W/60
45	405	450	495	540	L=S/W

Taper Length L					
Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
50	450	500	550	600	L=S/W
55	495	550	605	660	L= SW
60	540	600	660	720	L=S/W
65	585	650	715	780	L=S/W
70	630	700	770	840	L=S/W

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ¾ L should be used.

Shoulder Taper = ⅓ L Minimum

4. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing					
Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Traveway	40'	80'
			*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

Guidance:

5. *If room permits, a shadow vehicle with at least one rotating, oscillating, or amber strobe light should be parked 80'-120' in advance of the first work crew.*

Standard:

6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or two high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Standard:

9. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.**

Option:[2]

10. PTRS may be used as shown in Figure TTC-17 and in accordances with Section 6F-99.[3]
11. The supplemental PTRS may be eliminated.[4]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Lane Closure Operation – Far Side of an Intersection
(Figure TTC-27.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **Taper length (L) shall be at the following:**

Taper Length L					
Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60
30	135	150	165	180	L=S*W/60
35	185	205	225	245	L=S*W/60
40	240	270	295	320	L=S*W/60
45	405	450	495	540	L=S/W

Taper Length L					
Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
50	450	500	550	600	L=S/W
55	495	550	605	660	L= SW
60	540	600	660	720	L=S/W
65	585	650	715	780	L=S/W
70	630	700	770	840	L=S/W

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ¾ L should be used.

Shoulder Taper = ⅓ L Minimum

4. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing					
Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Traveway	40'	80'
			*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

Guidance:

5. *If room permits, a shadow vehicle with at least one amber[1] rotating, oscillating, or high intensity flashing[1] light should be parked 80'-120' in advance of the first work crew.*

Standard:

6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Standard:

9. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.**[1]

Option:[2]

10. PTRS may be used as shown in Figure TTC-17 and in accordances with Section 6F-99.[3]
11. The supplemental PTRS may be eliminated.[4]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Turn Lane Closure Operation
(Figure TTC-29.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **To prevent accidental intrusion into the work area, channelizing device spacing shall not exceed 10' on centers or as directed by the Engineer.**[1]

Option:

4. This layout may be used for either right or left turn lane closures.
5. For a high volume of turning movements, additional traffic control devices, such as signs (graphic NO LEFT TURN (R3-2) or LEFT LANE MUST TURN LEFT (R3-7L)), channelizing devices and vehicles may be used.

Standard:

6. **Taper length (L) shall be at the following:**

Taper Length L					
Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60
30	135	150	165	180	L=S*W/60
35	185	205	225	245	L=S*W/60
40	240	270	295	320	L=S*W/60
45	405	450	495	540	L=S/W

Taper Length L					
Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
50	450	500	550	600	L=S/W
55	495	550	605	660	L= SW
60	540	600	660	720	L=S/W
65	585	650	715	780	L=S/W
70	630	700	770	840	L=S/W

Shoulder Taper = ⅓ L Minimum

7. **Length of the Longitudinal Buffer spacing shall be at the following:**

Posted Speed Limit (mph)	Distance (Feet)	Posted Speed Limit (mph)	Distance (Feet)
≤ 20	115 – 120	50	425 – 445
25	155 – 165	55	500 – 530
30	200 – 210	60	570 – 600
35	250 – 260	65	645 – 675
40	305 – 325	70	730 – 760
45	360 – 380		

Guidance:

8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**

Guidance:

2. *Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.*
3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:

5. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
6. For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks.
7. Signs, such as KEEP RIGHT (R4-V7R) and KEEP LEFT (R4-V7L), may be placed along a temporary sidewalk to guide or direct pedestrians.

Standard:

8. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.**[1]

2: Revision 2 – 9/1/2019

Typical Traffic Control
Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.2)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**
2. **Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk.**

Guidance:

3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.*
5. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:

6. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
7. For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.

Standard:

8. **In order to maintain the systematic use of the fluorescent yellow-green background for school warning signs in a jurisdiction, the fluorescent yellow-green background for school warning signs shall be used in TTC zones.**[1]
9. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 Barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.**[1]

Support:

10. Refer to Sections 3B-16 through 3B-18 of the 2009 MUTCD and the Virginia Supplement to the MUTCD[1] for crosswalk' lines, yield lines and other related TTC devices that may be used to control vehicular traffic at midblock crosswalks.

Standard:[1]

11. **The YIELD HERE TO PEDESTRIANS (R1-5) sign shall be placed at the Yield Line.**
12. **Fluorescent yellow-green PEDESTRIAN TRAFFIC (W11-2) symbol sign, AHEAD (W16-9p) plaque and ARROW (W16-7p) plaque shall be used to identify the work zone crosswalk.**

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Signing for Project Limits
(Figure TTC-53.0)
NOTES

Support:

1. This layout depicts signing requirements for notifying motorist when they are entering and exiting a potential construction/maintenance area with a duration equal to or greater than 60 days.

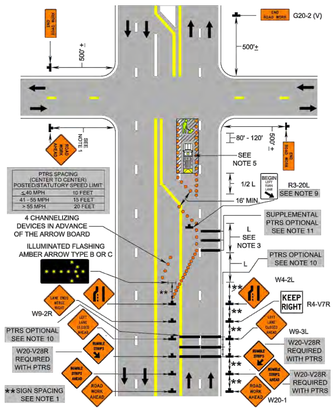
Standard:

2. **The ROAD WORK AHEAD (W20-1) sign or the ROAD WORK NEXT XX MILES (G20-1 (V)) sign shall be placed far enough in advance of the project limits so that other warning signs in a series may be adequately placed prior to the condition they are warning about.**
3. **The ROAD WORK NEXT XX MILES sign shall be used for projects with activity areas greater than 2 miles in length, or when multiple work activities (such as pavement patching, guardrail installations, shoulder restoration, etc.) occur along a highway.**
4. **The distance displayed on the ROAD WORK NEXT XX MILES sign shall be stated to the nearest whole mile from the point of installation to the END ROAD WORK (G20-2 (V)) sign.**
5. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**

Guidance:

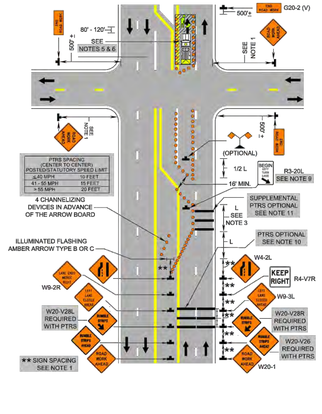
6. *For projects with activity areas 2 miles or less in length, the ROAD WORK AHEAD sign should be the first sign motorist encounter.*
7. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
8. *All connections within the project limits should be identified with signs indicating to motorist they are entering or exiting a potential construction/maintenance area.*

Lane Closure Operation - Near Side of an Intersection
(Figure TTC-26.2)



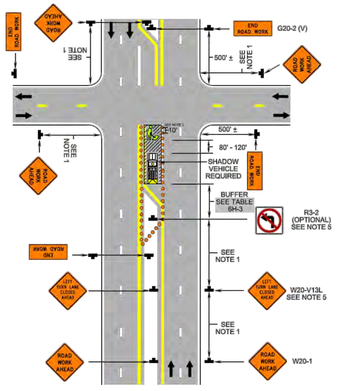
1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure Operation - Far Side of an Intersection
(Figure TTC-27.2)



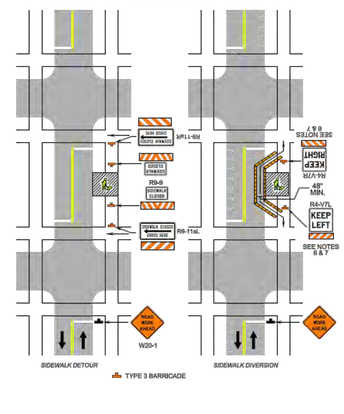
1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Turn Lane Closure Operation
(Figure TTC-29.2)



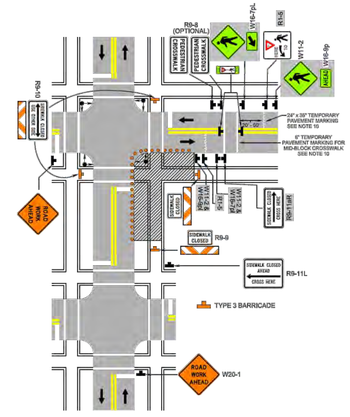
2: Revision 2 – 9/1/2019

Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)



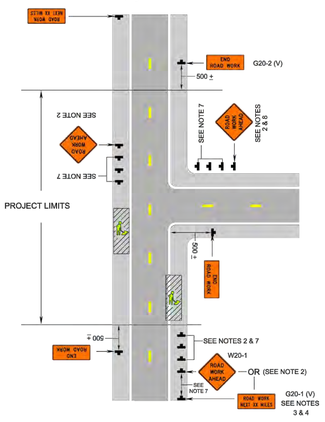
2: Revision 2 – 9/1/2019

Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 7/1/2018

Signing for Project Limits
(Figure TTC-53.0)



ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
DERIK DOUGHTY
Lic. No. 0402055074
01/05/2022
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
TRANSPORTATION MANAGEMENT PLAN DETAILS
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: DCD
Drawn: TEC
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet
C-0901

Filename: C-900 MAINTENANCE OF TRAFFIC.dwg
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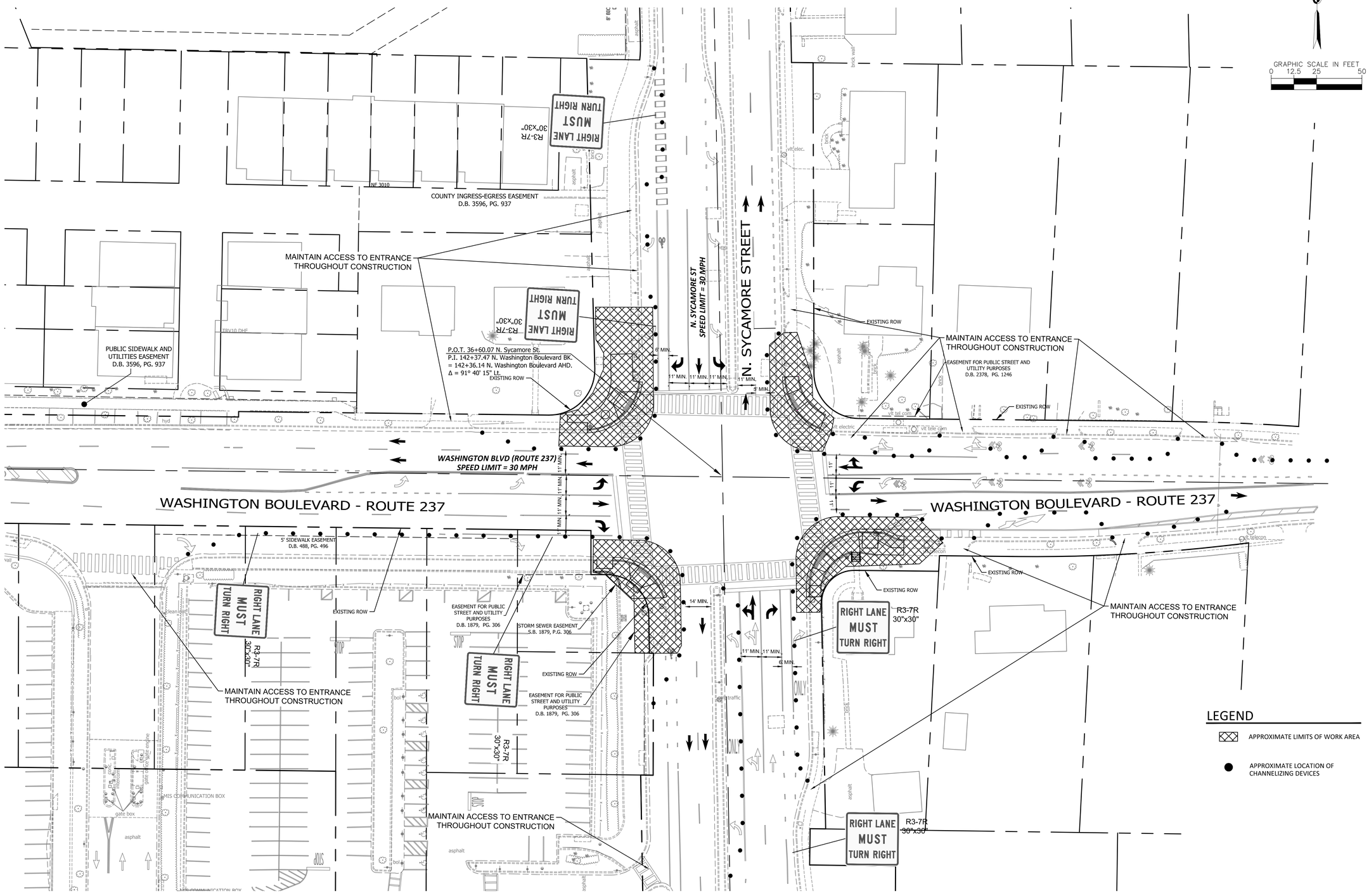
DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020



LEGEND

- APPROXIMATE LIMITS OF WORK AREA
- APPROXIMATE LOCATION OF CHANNELIZING DEVICES

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
DERIK DOUGHTY
Lic. No. 0402055074
01/05/2022
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and
N. Sycamore Street
MAINTENANCE OF TRAFFIC
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: DCD
Drawn: TC
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet
C-0902

Filename: C-900 MAINTENANCE OF TRAFFIC.dwg
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DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020

General Signal Notes

1. ALL WORK FOR TRAFFIC SIGNALS, TRAFFIC SIGNS, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE LATEST EDITION OF THE ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS, 2016 VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, 2016 VDOT ROAD AND BRIDGE STANDARDS, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2019 VIRGINIA WORK AREA PRODUCTION MANUAL, AND SPECIAL PROVISIONS IN EFFECT AT THE TIME OF ADVERTISEMENT.

2. FIVE WORKING DAYS PRIOR TO COMMENCING SIGNAL INSTALLATION/MODIFICATION WORK AT ANY LOCATION IN ARLINGTON COUNTY, VIRGINIA, SIGNAL CONTRACTORS MUST NOTIFY THE COUNTY ENGINEER IN WRITING WITH THE NAME, DAYTIME PHONE NUMBER, AND EMERGENCY PHONE NUMBERS OF THE CONTRACTOR.THIS NOTIFICATION IS TO INCLUDE LOCATION, ROUTE NUMBERS, TYPE, AND DETAILS OF CONSTRUCTION AND SCHEDULE OF WORK.

3. THE TRAFFIC SIGNAL CONSTRUCTION SHALL NOT BEGIN WITHOUT PRIOR NOTIFICATION AND APPROVAL FROM ARLINGTON COUNTY.

4. THE COUNTY ENGINEER, PRIOR TO CONSTRUCTION, SHALL VERIFY POLE(S) AND CONTROLLER CABINET LOCATIONS.

5. ALL CATALOG CUTS, POLE CALCULATIONS, FOUNDATION DESIGNS, SHOP DRAWINGS, ETC., SHALL BE SUBMITTED TO, AND APPROVED BY, ARLINGTON COUNTY PRIOR TO CONSTRUCTION.

6. OPERATION OF THE SIGNALIZED INTERSECTION IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE TRAFFIC SIGNAL IS ACCEPTED BY ARLINGTON COUNTY.

7. ANY NOTES NOT MENTIONED IN THE NOTES SECTION OF THIS SIGNAL PLAN WILL REVERT TO THE ARLINGTON COUNTY STANDARDS.

8. CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL COMMUNICATION THROUGHOUT THE PROJECT.

9. ALL NEW CONTROLLER CABINETS MUST BE FURNISHED WITH A BACKUP POWER BATTERY.

10. 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 UTILITY LATERALS ARE NOT LOCATED. CONTRACTOR SHALL VERIFY THE LOCATION OF UTILITY LATERALS AND IS RESPONSIBLE FOR ANY DAMAGE TO PRIVATE UTILITY LATERALS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE COUNTY PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, SIDEWALK, ETC. THAT ARE DAMAGED DURING CONSTRUCTION .

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE SIGNING, DELINEATION, PAVEMENT MARKINGS AND ANY OTHER TRAFFIC CONTROL DEVICES NECESSARY TO PERFORM THE WORK IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL TEMPORARY DEVICES.

13. THE CONTRACTOR SHALL SUBMIT "AS-BUILT" DRAWINGS TO ARLINGTON COUNTY UPON JOB COMPLETION AND FINAL INSPECTION .

14. EXISTING CONTROLLER AND CABINETS SPECIFIED TO BE REMOVED SHALL BE RETURNED TO ARLINGTON COUNTY.

15. CCTV LOCATIONS AND QUANTITIES ARE FOR PLANNING PURPOSES ONLY. THE FINAL LOCATIONS SHALL BE FIELD LOCATED.

16. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON ADJUSTMENT OF OVERHEAD CABLES TO INSTALL MAST ARM SIGNAL POLES.

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
T&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

SIGNAL NOTES

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: LL
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. N/A VERT. N/A

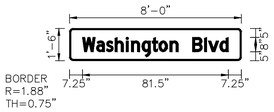
Sheet C-1000

Filename: C-1000 SIGNAL NOTES SHEET.dwg
Path: K:\NVA_TPTO\106\4002 - Washington Blvd and Sycamore\CAD\PlanSheets

DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020

SIGN DETAIL



SIGN NUMBER	Washington Blvd
WIDTH x HGHT.	8'-0" x 1'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	1.88"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

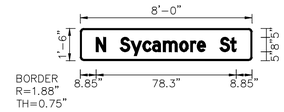
Panel Style: Arlington Street Name.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

W	a	s	h	i	n	g	t	o	n		B	l	v	d	LENGTH	SERIES/SIZE
7.2	15	20.6	25.4	31.6	34.5	40.4	46.1	49.9	56	60.8	68.8	75.4	77.6	84	81.5	D 2000 8/6

SIGN DETAIL



SIGN NUMBER	N Sycamore St
WIDTH x HGHT.	8'-0" x 1'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	1.88"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

Panel Style: Arlington Street Name.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

N		S	y	c	a	m	o	r	e		S	t	LENGTH	SERIES/SIZE
8.8	14.3	22.3	28.3	34.9	40.3	46.4	55.5	61.6	65.3	70	78	84	78.3	D 2000 8/6

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
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Arlington, VA 22201
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SEAL

COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
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Project Name and Location
Washington Boulevard and N. Sycamore Street

SIGN DETAILS

ID #107
ARLINGTON COUNTY, VIRGINIA

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Sheet
C-1001

Filename: C-0007 SIGN DETAILS.dwg
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REVISED: MARCH 03, 2020

CONDUIT & CABLE RUNS

(A)
- 2-3" CONDUIT (TRENCHED) PVC
- 1-14/7c SIGNAL HEADS 31, 32, 33, 34
- 1-14/7c PEDESTRIAN SIGNAL P32
- 1-14/3c PEDESTRIAN PUSH BUTTON PB32
- 1-THERMAL DETECTION LEAD-IN CABLE VD3
- 1-12/2c CABLE FOR LUMINAIRE SL4
- 2-#6 BARE COPPER GROUNDING WIRE

- 1-2" CONDUIT (TRENCHED) PVC
- 1-OPTICOM CABLE PE3
- 1-#6 BARE COPPER GROUNDING WIRE

(B)
- 1-3" CONDUIT (TRENCHED) PVC
- 1-14/7c PEDESTRIAN SIGNAL P21
- 1-14/3c PEDESTRIAN PUSH BUTTON PB21
- 1-#6 BARE COPPER GROUNDING WIRE

(C)
- 1-4" CONDUIT (BORED) HDPE
- 1-14/7c SIGNAL HEADS 31, 32, 33, 34
- 2-14/7c PEDESTRIAN SIGNALS P21, P32
- 2-14/3c PEDESTRIAN PUSH BUTTONS PB21, PB32
- 1-THERMAL DETECTION LEAD-IN CABLE VD3
- 1-12/2c CABLE FOR LUMINAIRE SL4
- 1-#6 BARE COPPER GROUNDING WIRE

- 1-2" CONDUIT (BORED) HDPE
- 1-OPTICOM CABLE PE3
- 1-#6 BARE COPPER GROUNDING WIRE

(D)
- 1-3" CONDUIT (TRENCHED) PVC
- 1-14/7c PEDESTRIAN SIGNAL P62
- 1-14/3c PEDESTRIAN PUSH BUTTON PB62
- 1-#6 BARE COPPER GROUNDING WIRE

(E)
- 2-3" CONDUIT (TRENCHED) PVC
- 2-14/7c SIGNAL HEADS 11, 61, 62
- 1-14/7c PEDESTRIAN SIGNAL P31
- 1-14/3c PEDESTRIAN PUSH BUTTON PB31
- 1-THERMAL DETECTION LEAD-IN CABLE VD6
- 1-12/2c CABLE FOR LUMINAIRE SL1
- 1-CCTV LEAD-IN CABLE
- 2-#6 BARE COPPER GROUNDING WIRE

- 1-2" CONDUIT (TRENCHED) PVC
- 1-OPTICOM CABLE PE6
- 1-#6 BARE COPPER GROUNDING WIRE

(F)
- 1-3" CONDUIT (TRENCHED) PVC
- 2-14/7c PEDESTRIAN SIGNALS P22, P41
- 2-14/3c PEDESTRIAN PUSH BUTTONS PB22, PB41
- 1-#6 BARE COPPER GROUNDING WIRE

(G)
- 2-3" CONDUIT (TRENCHED) PVC
- 2-14/7c SIGNAL HEADS 21, 22, 23
- 1-THERMAL DETECTION LEAD-IN CABLE VD2
- 1-12/2c CABLE FOR LUMINAIRE SL3
- 2-#6 BARE COPPER GROUNDING WIRE

- 1-2" CONDUIT (TRENCHED) PVC
- 1-OPTICOM CABLE PE2
- 1-#6 BARE COPPER GROUNDING WIRE

(H)
- 1-4" CONDUIT (BORED) HDPE
- 2-14/7c SIGNAL HEADS 21, 22, 23
- 2-14/7c PEDESTRIAN SIGNALS P22, P41
- 2-14/3c PEDESTRIAN PUSH BUTTONS PB22, PB41
- 1-THERMAL DETECTION LEAD-IN CABLE VD2
- 1-12/2c CABLE FOR LUMINAIRE SL3
- 1-#6 BARE COPPER GROUNDING WIRE

- 1-2" CONDUIT (BORED) HDPE
- 1-OPTICOM CABLE PE2
- 1-#6 BARE COPPER GROUNDING WIRE

(I)
- 1-3" CONDUIT (TRENCHED) PVC
- 2-14/7c PEDESTRIAN SIGNALS P42, P61
- 2-14/3c PEDESTRIAN PUSH BUTTONS PB42, PB61
- 1-#6 BARE COPPER GROUNDING WIRE

(J)
- 2-3" CONDUIT (TRENCHED) PVC
- 1-14/7c SIGNAL HEADS 41, 42, 43, 44
- 1-THERMAL DETECTION LEAD-IN CABLE VD4
- 1-12/2c CABLE FOR LUMINAIRE SL2
- 2-#6 BARE COPPER GROUNDING WIRE

- 1-2" CONDUIT (TRENCHED) PVC
- 1-OPTICOM CABLE PE4
- 1-#6 BARE COPPER GROUNDING WIRE

(K)
- 1-4" CONDUIT (BORED) HDPE
- 3-14/7c SIGNAL HEADS 21, 22, 23, 41, 42, 43, 44
- 4-14/7c PEDESTRIAN SIGNALS P22, P41, P42, P61
- 4-14/3c PEDESTRIAN PUSH BUTTONS PB22, PB41, PB42, PB61
- 2-THERMAL DETECTION LEAD-IN CABLES VD2, VD4
- 2-12/2c CABLE FOR LUMINAIRES SL2, SL3
- 1-#6 BARE COPPER GROUNDING WIRE

- 1-2" CONDUIT (BORED) HDPE
- 2-OPTICOM CABLES PE2, PE4
- 1-#6 BARE COPPER GROUNDING WIRE

(L)
- 3-3" CONDUIT (TRENCHED) PVC
- 6-14/7c SIGNAL HEADS 11, 21, 22, 23, 31, 32, 33, 34, 41, 42, 43, 44, 61, 62
- 8-14/7c PEDESTRIAN SIGNALS P21, P22, P31, P32, P41, P42, P61, P62
- 8-14/3c PEDESTRIAN PUSH BUTTONS PB21, PB22, PB31, PB32, PB41, PB42, PB61, PB62
- 4-THERMAL DETECTION LEAD-IN CABLES VD2, VD3, VD4, VD6
- 1-CCTV LEAD-IN CABLE
- 3-#6 BARE COPPER GROUNDING WIRE

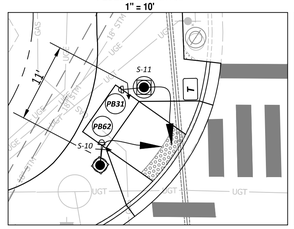
- 1-3" CONDUIT (TRENCHED) PVC
- 4-OPTICOM CABLES PE2, PE3, PE4,PE6
- 1-#6 BARE COPPER GROUNDING WIRE

(M)
- 1-2" CONDUIT (TRENCHED) METAL
- 1-#6/4C AWG FOR ELECTRICAL SERVICE
- 2-12/2C CABLES

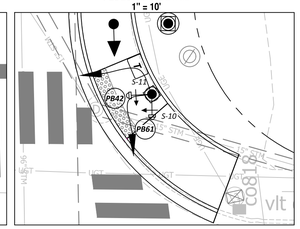
(N)
- 1-2" CONDUIT (TRENCHED) METAL
- 1-#6/4C AWG FOR ELECTRICAL SERVICE
- 2-12/2C CABLES

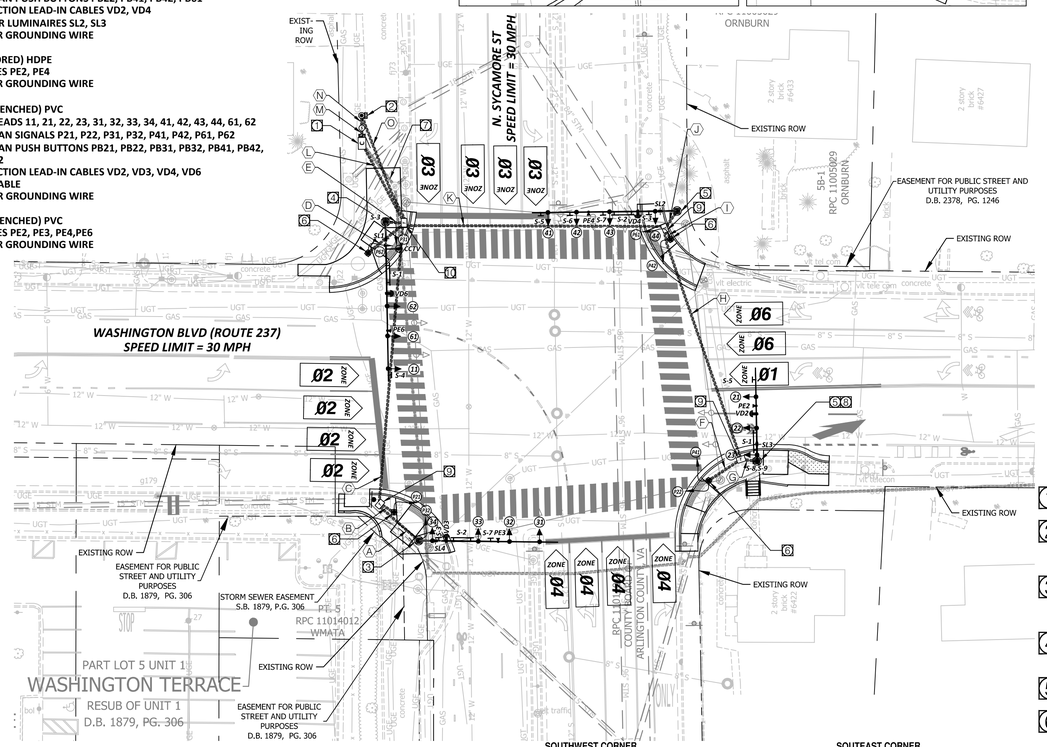
(O)
- 1-3" CONDUIT (TRENCHED) PVC
- 4-12/2c CABLE FOR LUMINAIRES SL1,SL2,SL3,SL4
- 1-#6 BARE COPPER GROUNDING WIRE

NORTHWEST CORNER PEDESTRIAN DETAIL
1" = 10'



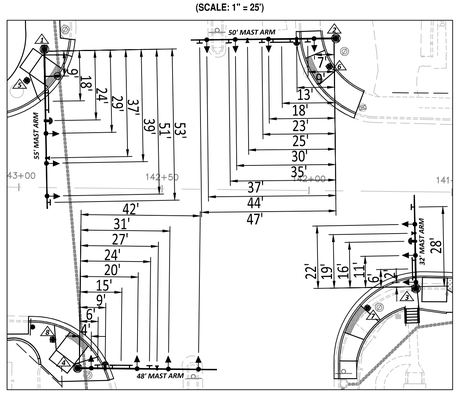
NORTHEAST CORNER PEDESTRIAN DETAIL
1" = 10'



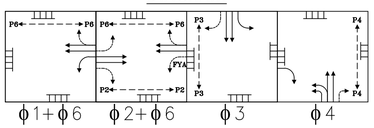


POLE LOCATION DETAIL

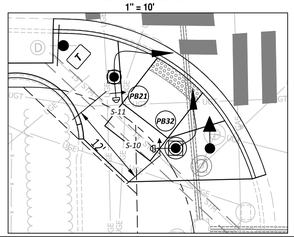
(SCALE: 1" = 25')



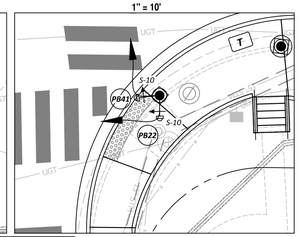
EXISTING/PROPOSED PHASING DIAGRAM



SOUTHWEST CORNER PEDESTRIAN DETAIL
1" = 10'



SOUTEAST CORNER PEDESTRIAN DETAIL
1" = 10'



COLOR SEQUENCE CHART

PHASE	1	2	3	4	6	1+6	2+6	FLASH
SIGNAL	R/W	R/W	R/W	R/W	R/W	R/W	R/W	
11	~~G~~					~~G~~	~~FY~~	~~R~~
21, 22		G					G	Y
23		G		~~G~~			G	Y
31			~~G~~					~~R~~
32, 33, 34			G					R
41				~~G~~				~~R~~
42				~~G/G~~				R
43, 44				G				R
61, 62					G	G	G	Y
P21, P22		W*					W*	DARK
P31, P32			W*					DARK
P41, P42				W*				DARK
P61, P62					W*	W*	W*	DARK

NOTE: BLANK SPACES IN THIS CHART REPRESENT A "RED" SIGNAL INDICATION.
*WALK INDICATION IS DISPLAYED WHEN PEDESTRIAN CALL IS SERVICED; WALK INDICATION IS DISPLAYED UNTIL IT IS TIMED OUT. OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.

INITIAL TIMING CHART

PHASE	1	2	3	4	5	6	7	8
MOVEMENT	WB WASH BLVD LEFT	EB WASH BLVD THRU	SB SYCAMORE THRU	NB SYCAMORE THRU		WB WASH BLVD THRU		
PHASE ON	X	X	X	X		X		
PHASE OFF					X		X	X
PHASE TIMINGS								
MIN GR	5.0	5.0	5.0	5.0	NOT USED	5.0	NOT USED	NOT USED
PASSAGE	0.0	0.0	0.0	0.0		0.0		
YELLOW	4.5	4.5	3.8	3.6		4.5		
RED	3.1	3.1	3.3	3.4		3.1		
MAX 1	10.0	32.0	33.0	35.0		32.0		
MAX 2	0.0	0.0	0.0	0.0		0.0		
MIN GAP	0.0	0.0	0.0	0.0		0.0		
TIME BEFORE REDUCTION	0.0	0.0	0.0	0.0		0.0		
TIME TO REDUCE	0.0	0.0	0.0	0.0		0.0		
PED WALK	0.0	5.0	5.0	5.0		5.0		
PED CLEARANCE	0.0	27.0	26.0	25.0		26.0		
MODE	NON-LOCK	MIN RECALL	NON-LOCK	NON-LOCK		MIN RECALL		

PROPOSED SIGNALS

HEAD 11 — HEADS 21,22,32,33,34, 43,44,61,62 — HEAD 23 — HEADS 31,41

HEAD 42 — HEADS P21,P22,P31,P32 P41,P42,P61,P62

GRAPHIC SCALE IN FEET
0 12.5 25 50

PROPOSED STREET NAME SIGNS

N Sycamore St
S-1
D3-1
96"X18"

Washington Blvd
S-2
D3-1
96"X18"

PROPOSED SIGNS

S-3 R10-15 30"X30" — S-4 R10-V1 36"X42" — S-5 R3-5 30"X36"

S-6 R3-6(L) 30"X36" — S-7 R10-7 24"X30" — S-8 R10-11b (MOD) 36"X48" — S-9 W4-2R 36"X36"

PROPOSED ACCESSIBLE PEDESTRIAN PUSHBUTTON

S-10 R10-3E(L) 9"X15" — S-11 R10-3E(R) 9"X15"

PB22, PB32▼ PB41, PB61, PB62 — PB21, PB31▼ PB42

PUSHBUTTON	WALK MESSAGE
PB21, PB22 PB61, PB62	"SYCAMORE STREET, WALK SIGN IS ON TO CROSS SYCAMORE STREET."
PB31, PB32 PB41, PB42	"WASHINGTON BLVD, WALK SIGN IS ON TO CROSS WASHINGTON BLVD."

▼ PEDESTRIAN PUSHBUTTON SIGN SHALL BE MOUNTED ABOVE PEDESTRIAN PUSHBUTTON.

* **ACCESSIBLE PUSHBUTTON SYSTEM SHALL BE POLARA SYSTEM CONFORMING TO ARLINGTON COUNTY SPECIFICATIONS AND SHALL INCLUDE A POLARA CENTRAL CONTROL UNIT.**

CONSTRUCTION NOTES

EXISTING CONTROLLER AND CABINET TO BE REPLACED WITH NEW CONTROLLER AND CABINET ON A NEW FOUNDATION. ALL OTHER EXISTING EQUIPMENT TO BE REMOVED INCLUDING UNUSED WIRING, CONDUIT, AND JUNCTION BOXES, UNLESS OTHERWISE SPECIFIED. EXISTING CONTROLLER AND CABINET SHALL BE RETURNED TO ARLINGTON COUNTY.

1. INSTALL SIGNAL CONTROLLER CABINET WITH UPS. CABINET SHALL BE ORIENTED TO PROVIDE TECHNICIAN VIEW OF SIGNAL DISPLAYS.
2. INSTALL UNDERGROUND ELECTRIC SERVICE WITH PEDESTAL METERPAN. PROPOSED CONDUIT SHOWN TO THE APPROXIMATE LOCATION OF POWER SOURCE. TO BE FINALIZED BASED UPON ONGOING DVP COORDINATION.
3. INSTALL NON-ORNAMENTAL MAST ARM SIGNAL POLE **WITH MAST ARM MOUNTED AT 19' HEIGHT**, POLE IDENTIFICATION STICKER, LUMINAIRE, PEDESTRIAN SIGNAL HEAD(S), AND POLARA PEDESTRIAN EQUIPMENT.
4. INSTALL NON-ORNAMENTAL MAST ARM SIGNAL POLE WITH POLE IDENTIFICATION STICKER, LUMINAIRE, PEDESTRIAN SIGNAL HEAD(S), AND POLARA PEDESTRIAN EQUIPMENT.
5. INSTALL NON-ORNAMENTAL MAST ARM SIGNAL POLE WITH POLE IDENTIFICATION STICKER AND LUMINAIRE.
6. INSTALL PEDESTAL POLE WITH POLE IDENTIFICATION STICKER, PEDESTRIAN SIGNAL(S), POLARA PEDESTRIAN EQUIPMENT, AND SIGN(S).
7. SEE COMMUNICATION PLAN ON SHEET C-1200 FOR COMMUNICATION CONNECTION DETAILS.
8. CONTRACTOR SHALL MOUNT S-9 SIGN AT 7' HEIGHT (MEASURED TO THE BOTTOM OF THE SIGN) AND S-8 SIGN AT 11.5' HEIGHT (MEASURED TO THE BOTTOM OF THE SIGN).
9. INSTALL 61-04 TYPE 3 JUNCTION BOX.
10. INSTALL 61-04 TYPE 5 JUNCTION BOX.

LEGEND

	EXISTING	PROPOSED
Controller Cabinet		
Signal Junction Box (61-02)		
Signal Junction Box (61-04)		
Comm. Junction Box		
Service Junction Box		
Mast Arm Pole & Foundation	PM	PM
Pedestrian Pedestal Pole & Foundation		
Carlyle Lighting Pole & Foundation		
Service Meter		
Battery Backup (UPS)		
Vehicle Signal Head (LED)	HH	HH
Pedestrian Push Button	PB#	PB#
FLIR Video Detection	VD#	VD#
Emergency Vehicle Preemption	PE#	PE#
CCTV Vehicle Camera	CCTV	CCTV
Overhead Light (LED)	SL#	SL#
Conduit Run		

POLE SCHEDULE

No.	POLE IDENTIFICATION	STATION	OFFSET	STANDARD TYPE	STANDARD SIG. M.A. ORIENT.	STANDARD SIG. M.A.	STANDARD LUM. M.A. ORIENT.	STANDARD LUM. M.A. (TYPE)	LUM. LED (4)	POLE SIGNAL MOUNTING VEHICLE & PED. HEADS	POLE SIGNAL MOUNTING PED. PUSH BUTTONS	POLE SIGNAL MOUNTING SIGNS	POLE SIGNAL MOUNTING VIDEO DETECTOR PREEMPTION & CCTV	STREET NAME SIGN
1	107-MA-01-NW	142+91.63	48.25'RT	MAST ARM POLE 30'	180°	55'	180°	6' (STANDARD)	145W	11,61,62,P31	PB31	S-3,S-4,S-11	VD6,PE6,CCTV	S-1
2	107-MA-01-NE	141+91.19	53.24'RT	MAST ARM POLE 30'	180°	50'	180°	6' (STANDARD)	145W	41,42,43,44	-	S-3,S-5,S-6,S-7	VD4,PE4	S-2
3	107-MA-01-SE	141+62.24	33.82'LT	MAST ARM POLE 30'	180°	32'	180°	6' (STANDARD)	145W	21,22,23	-	S-5,S-8,S-9	VD2,PE2	S-1
4	107-MA-01-SW	142+78.80	62.93'LT	MAST ARM POLE 30'	180°	48' *	180°	6' (STANDARD)	145W	31,32,33,34,P32	PB32	S-3,S-7,S-10	VD3,PE3	S-2
5	107-PP-01-NW	142+97.63	37.30'RT	PEDESTAL POLE 12'	-	-	-	-	-	P62	PB62	S-10	-	
6	107-PP-01-NE	141+93.36	43.34'RT	PEDESTAL POLE 12'	-	-	-	-	-	P42,P61	PB42,PB61	S-10,S-11	-	
7	107-PP-01-SE	141+79.13	40.86'LT	PEDESTAL POLE 12'	-	-	-	-	-	P22,P41	PB22,PB41	S-10,S-10	-	
8	107-PP-01-SW	142+87.51	53.11'LT	PEDESTAL POLE 12'	-	-	-	-	-	P21	PB21	S-11	-	

* MAST ARM MOUNTED AT 19' HEIGHT.

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Signal Systems and ITS
Traffic Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL
COMMONWEALTH OF VIRGINIA
ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	10/28/21
TRAFFIC ENGINEERING MANAGER	11/05/2021
WATER, SEWER, STREETS BUREAU CHIEF	12.23.2021
TE&O BUREAU CHIEF	11/05/2021
Dennis W. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISIONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

TRAFFIC SIGNAL PLAN

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: LL
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-1100

Filename: C-1100 TRAFFIC SIGNAL PLAN.dwg
Path: K:\NVA_TPTO\110614002 - Washington Blvd and Sycamore\CAD\PlanSheets

DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

REVISED: MARCH 03, 2020

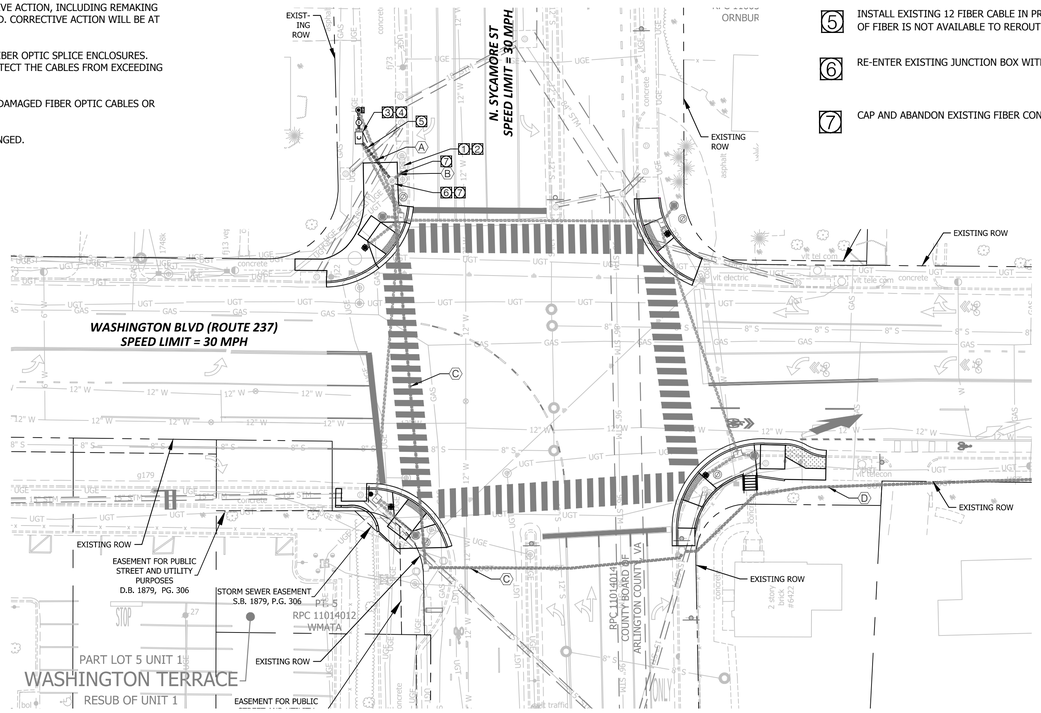
GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT SPLICE ENCLOSURES FOR ENGINEER APPROVAL.
2. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO CUTTING OR DISCONNECTING ANY FIBER CABLE. CONTRACTOR SHALL NOT PROCEED WITH FIBER CUTTING UNLESS ENGINEER IS ON-SITE.
3. CONTRACTOR SHALL RE-SPLICE ALL FIBERS TO LIKE COLORED FIBERS AND SHALL MATCH LIKE COLORED BUFFER TUBES WITH LIKE COLORED BUFFER TUBES.
4. CONTRACTOR SHALL PERFORM BI-DIRECTIONAL OTDR TESTING ON ALL OF THE 144 FIBER OPTIC CABLES AND THE 12 FIBER CABLE FROM THEIR TERMINATION POINTS. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO GAIN ACCESS TO THE NEAREST FIBER TERMINATION POINTS FOR THE ITS AND DTS 144 FIBER OPTIC CABLES TO PERFORM TESTING.
5. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH BI-DIRECTIONAL OTDR TEST RESULTS IN PDF FORMAT FOR APPROVAL. NO WORK SHALL BE ACCEPTED IF THE FOLLOWING REQUIREMENTS ARE NOT MET:
   - EACH FUSION SPLICE LOSS DOES NOT EXCEED 0.05 DB, BI-DIRECTIONALLY AVERAGED
   - CABLE ATTENUATION MAY NOT EXCEED 0.30 DB/KM AT 1550 NM AND 0.40 DB/KM AT 1310 NM.

   IF ANY OF THE ABOVE CONDITIONS ARE NOT MET, THEN TAKE APPROVED CORRECTIVE ACTION, INCLUDING REMAKING SPLICES OR REPLACING COMPLETE SEGMENTS OF FIBER OPTIC CABLE, AS REQUIRED. CORRECTIVE ACTION WILL BE AT NO ADDITIONAL COST TO THE COUNTY.
6. THE CONTRACTOR SHALL NOT CUT OR DAMAGE EXISTING FIBER OPTIC CABLES OR FIBER OPTIC SPLICE ENCLOSURES. WHEN HANDLING THE EXISTING FIBER OPTIC CABLES, THE CONTRACTOR SHALL PROTECT THE CABLES FROM EXCEEDING THE MINIMUM BEND RADIUS OF 14 INCHES.
7. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIR AND COSTS ASSOCIATED WITH DAMAGED FIBER OPTIC CABLES OR SPLICE ENCLOSURES DUE TO CONSTRUCTION ACTIVITIES.
8. ALL CABLING AND SPLICE ENCLOSURES IN JUNCTION BOXES SHALL BE NEATLY ARRANGED.

CONDUIT & CABLE RUNS

- (A) **2-2" CONDUIT PVC (NEW)**
  1-12 FIBER CABLE (EXISTING, RELOCATED)
- (B) 1-2" CONDUIT PVC (EXISTING)
  1-12 FIBER CABLE (TO BE RELOCATED)
- (C) 1-2" CONDUIT PVC (EXISTING)
  1-12 FIBER CABLE (EXISTING)
- (D) 4-2" CONDUIT PVC (EXISTING)
  2-144 FIBER CABLE (EXISTING)



CONSTRUCTION NOTES

1. CONTRACTOR SHALL REMOVE ALL COMMUNICATION EQUIPMENT TO INCLUDE: 12 FIBER PATCH PANEL AND FIBER CABLE, ETHERNET SWITCH AND JUMPER CABLES FROM EXISTING CONTROLLER CABINET. 12 FIBER PATCH PANEL AND FIBER CABLE, ETHERNET SWITCH, AND JUMPER CABLES SHALL BE RELOCATED TO PROPOSED CONTROLLER CABINET.
2. EXISTING CONTROLLER LOCATION.
3. PROPOSED CONTROLLER LOCATION.
4. CONTRACTOR SHALL INSTALL RELOCATED 12 PATCH PANEL AND FIBER CABLE, ETHERNET SWITCH, AND JUMPER CABLES IN PROPOSED CONTROLLER CABINET.
5. INSTALL EXISTING 12 FIBER CABLE IN PROPOSED CONDUIT. CONTRACTOR SHALL NOTIFY COUNTY IF A SUFFICIENT LENGTH OF FIBER IS NOT AVAILABLE TO REROUTE TO NEW CONTROLLER.
6. RE-ENTER EXISTING JUNCTION BOX WITH NEW CONDUIT.
7. CAP AND ABANDON EXISTING FIBER CONDUIT.

GRAPHIC SCALE IN FEET
0 12.5 25 50

LEGEND

	EXISTING	PROPOSED
Controller Cabinet		
Signal Junction Box (61-02)		
Signal Junction Box (61-04)		
Comm. Junction Box		
Service Junction Box		
Battery Backup (UPS)		
Conduit Run		

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ANDREW T. SMITH
Lic. No. 0402053042
10/22/21
PROFESSIONAL ENGINEER

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TE&O BUREAU CHIEF	11/05/2021
Dennis M. Leach TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
COMMUNICATIONS PLAN
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: LL
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
HOR. 1" = 25' VERT. N/A

Sheet C-1200

Filename: C-1200 COMMUNICATIONS PLAN.dwg
Path: K:\NVA_TP\107-19014002 - Washington Blvd and Sycamore\CAD\PlanSheets

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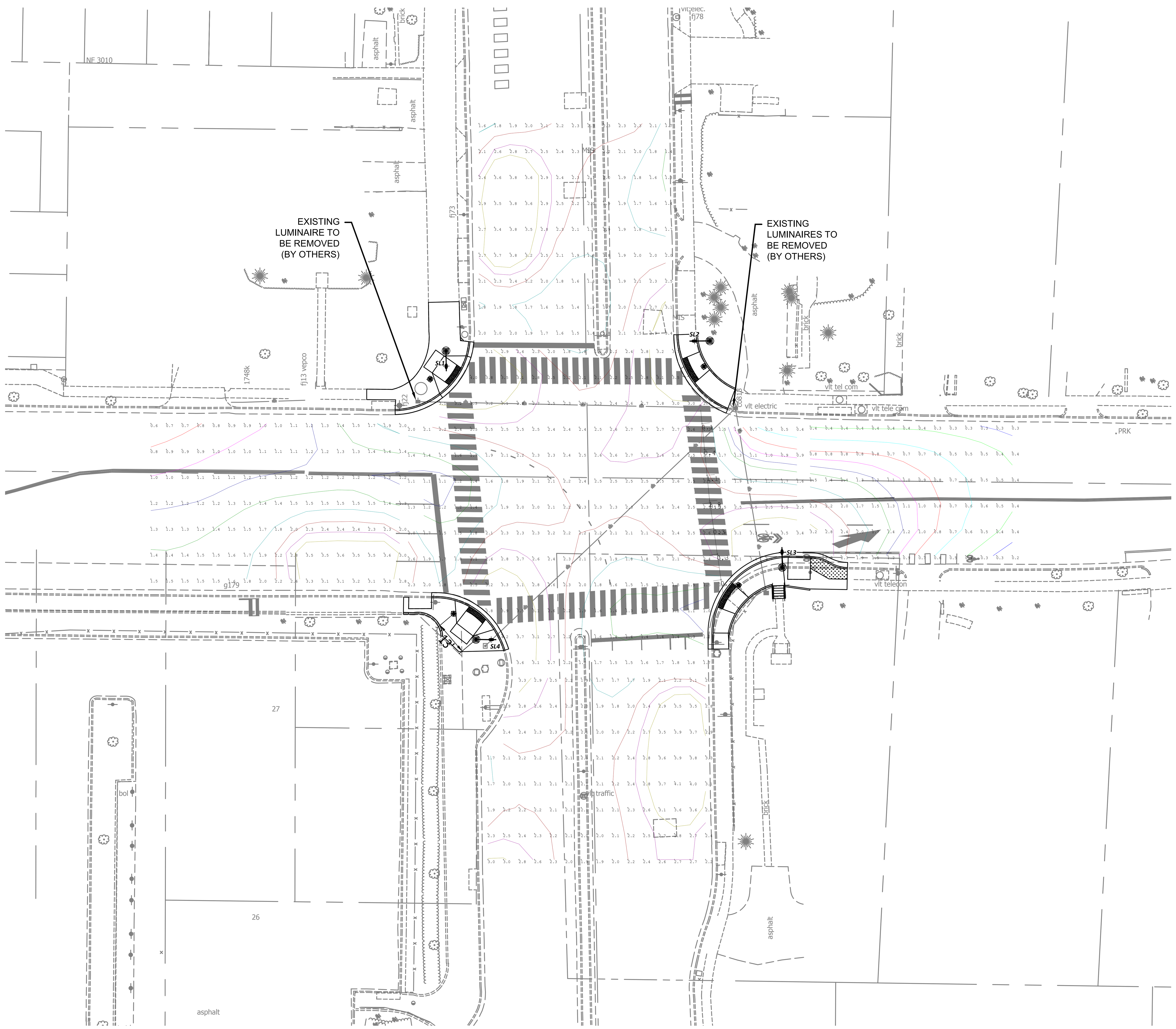
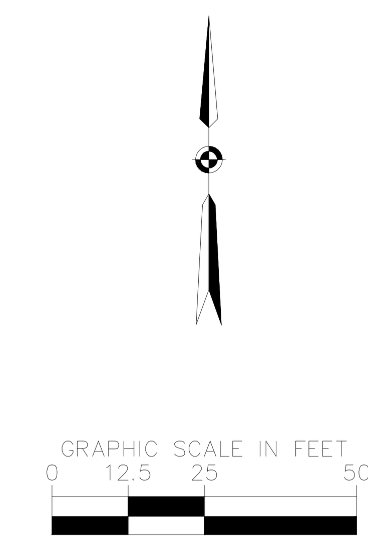
REVISED: MARCH 03, 2020





PHOTOMETRIC LEGEND

VALUE (FC)	COLOR	VALUE (FC)	COLOR
0.2	Black	1.2	Indigo
0.3	Blue	1.4	Green
0.4	Light green	1.8	Teal
0.6	Cyan	2.2	Crimson
0.8	Red	2.6	Purple
1.0	Magenta	3.0	Olive

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Dennis M. Leach — TRANSPORTATION DIRECTOR	12/23/21

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Project Name and Location
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PHOTOMETRICS EXHIBIT

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ARLINGTON COUNTY, VIRGINIA

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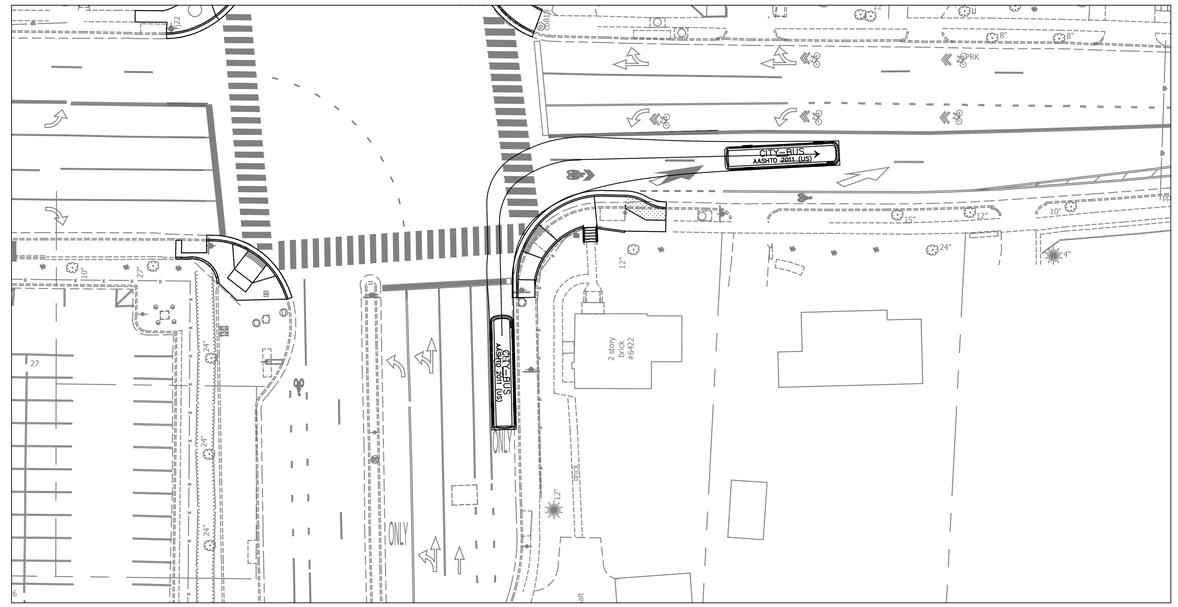
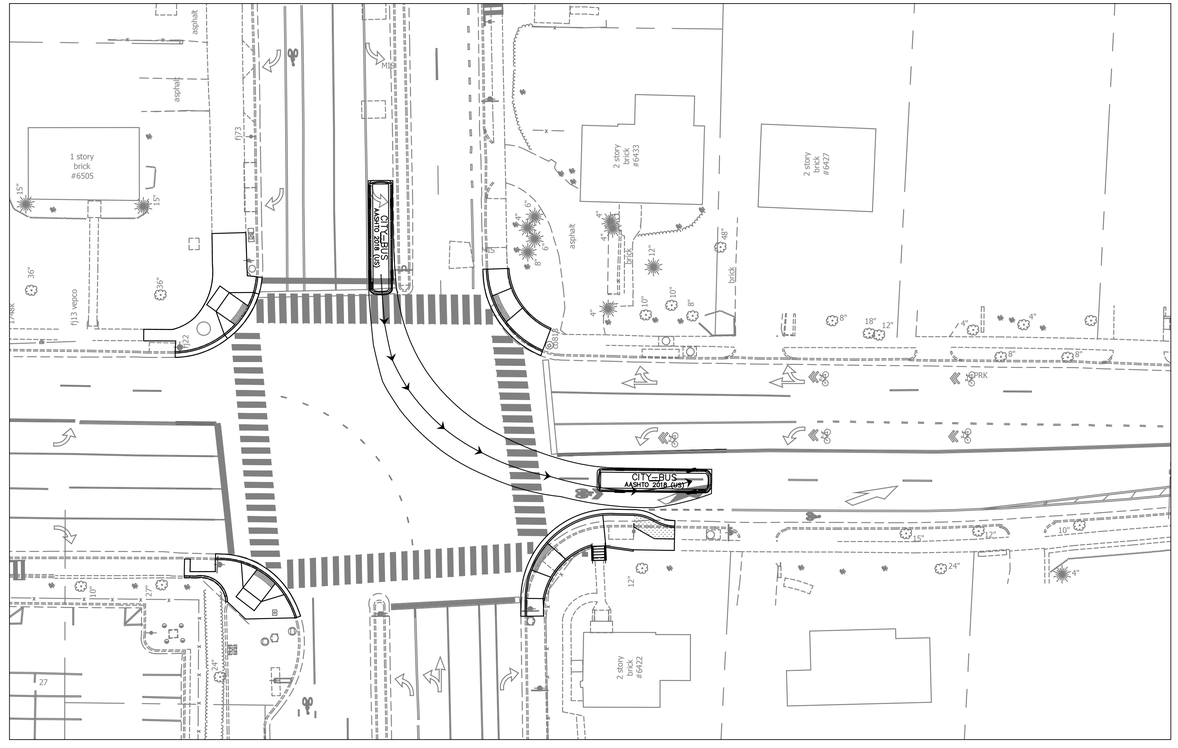
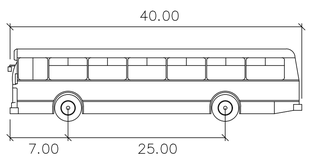


NORTHBOUND RIGHT TURN



SOUTHBOUND LEFT TURN

DESIGN VEHICLE



CITY-BUS
feet

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 41.4

GRAPHIC SCALE IN FEET
0 12.5 25 50

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TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street

AUTOTURN EXHIBIT

ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
Plotted by: Nicole.McVey

Scale:
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Sheet
EXHIBIT B

Filename: AUTOTURN EXHIBIT.dwg
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Washington Boulevard and N. Sycamore Street

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REVISED: MARCH 03, 2020

2.4 POLLUTION PREVENTION PLAN:

1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS: WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIRE FIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.

2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (EG., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.

3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

2.0 Authorized Non-Stormwater Discharges

Type of Authorized Non-Stormwater Discharge	Likely Present at Your Project Site?	
External buildings wash down	☐ Yes	☒ No
Uncontaminated foundation or footing drains	☐ Yes	☒ No
Uncontaminated excavation dewatering	☐ Yes	☒ No
Landscape irrigation	☐ Yes	☒ No
Others [describe]	☐ Yes	☒ No

5.0 Potential Sources of Pollution & Pollution Prevention Practices

Pollutant-Generating Activity	Likely Present at your Project Site?	Pollutants: Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Toxic Chemicals	Pollution Prevention Practice	Responsible Party
Clearing, grading, excavating, and un-stabilized areas	☒ Yes ☐ No	X							X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving operations	☒ Yes ☐ No	X					X		X		(2)	
Concrete washout and cement waste	☐ Yes ☒ No			X	X				X		(3)	
Structure construction, stucco, painting, and cleaning	☐ Yes ☒ No			X	X				X	X	(4)	
Dewatering operations	☒ Yes ☐ No	X	X						X		(5)	
Material delivery and storage	☐ Yes ☒ No	X	X	X	X		X		X	X	(6)	
Material use during building process	☐ Yes ☒ No		X	X	X		X		X	X	(7)	
Solid waste disposal	☒ Yes ☐ No								X	X	(8)	
Sanitary waste	☐ Yes ☒ No		X		X			X			(9)	
Landscaping operations	☒ Yes ☐ No	X	X			X			X	X	(10)	
Others [describe]	☐ Yes ☒ No	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	(11)	

Pollution Prevention Practices:

(1) **Clearing, grading, excavating and un-stabilized areas** – Utilize erosion and sediment controls to prevent sediment laden or turbid runoff from leaving the construction site. Dispose of clearing debris at acceptable disposal sites. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities.

(2) **Paving operations** – Cover storm drain inlets during paving operations and utilize pollution prevention materials such as drip pans and absorbent/oil dry for all paving machines to limit leaks and spills of paving materials and fluids.

(3) **Concrete washout and cement waste** – Direct concrete wash water into a leak-proof container or leak-proof settling basin that is designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes.

(4) **Structure construction, stucco, painting and cleaning** – Enclose, cover or berm building material storage areas if susceptible to contaminated stormwater runoff. Conduct painting operations consistent with local air quality and OSHA regulations. Mix paint indoors, in a containment area or in a flat unpaved area. Prevent the discharge of soaps, solvents, detergents and wash water from construction materials, including the clean-up of stucco paint, form release oils and curing compounds.

(5) **Dewatering operations** – Construction site dewatering from building footings or other sources may not be discharged without treatment. Sediment laden or turbid water shall be filtered, settled or similarly treated prior to discharge.

(6) **Material delivery and storage** – Designate areas of the construction site for material delivery and storage. Place near construction entrances, away from waterways, and avoid transport near drainage paths or waterways.

(7) **Material use during building process** – Use materials only where and when needed to complete the construction activity. Follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability and mixing of chemicals.

(8) **Solid waste disposal** – Designate a waste collection area on the construction site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterway. Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible. Schedule waste collection to prevent the containers from overfilling.

(9) **Sanitary waste** – Prevent the discharge of sanitary waste by providing convenient and well-maintained portable sanitary facilities. Locate sanitary facilities in a convenient location away from waterways.

(10) **Landscaping operations** – Maintain as much existing vegetation as practicable. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities. Apply nutrients in accordance with manufacturer's recommendations and not during rainfall events.

7.0 Spill Prevention & Response

Most spills can be cleaned up following manufacturer specifications. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at this location.

1st Priority: Protect all people
2nd Priority: Protect equipment and property
3rd Priority: Protect the environment

1. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
2. Make Sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from entering drains (use absorbent or other material as necessary).
6. Stop spill from spreading (use absorbent or other material)
7. If spilled material has entered a storm sewer; contact locality's storm water department.
8. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
9. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Normal Working Hours

DEQ Northern Regional Office 703-583-3800

Nights, Holidays & Weekends

VA Dept. of Emergency Management 804-674-2400
24 Hour Reporting Service

Local Contacts

Arlington County Fire & Police 703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency 703-228-6555
Washington Gas Emergency 703-750-1400

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10/22/21
PROFESSIONAL ENGINEER

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TE&O BUREAU CHIEF	11/05/2021
TRANSPORTATION DIRECTOR	12/23/21

REVISONS	DATE

Project Name and Location
Washington Boulevard and N. Sycamore Street
SWPPP
ID #107
ARLINGTON COUNTY, VIRGINIA

Designed: AS
Drawn: NM
Checked: GG
Miss Utility Transmittal #:

Plotted: January 05, 2022
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Scale:
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EXHIBIT C

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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	Washington Blvd. & N. Sycamore St. Traffic Signal Project
County Project Code	23-DES-ITBPW-335
DOLI Project Number	ARLC-22-0016 UPDATE
County or Independent City	Arlington County
Publication Date	01/23/2023
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	$30.55	$11.51
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	$21.41	$8.11
Laborer: Grade Checker	$14.88	
Laborer: Pipelayer	$20.48	
Laborer: Power Tool Operator	$15.69	
Operator: Asphalt Spreader and Distributor	$20.58	$2.31

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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.

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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

BID TAB

ITB NO. 23-DES-ITBPW-335
PROJECT NO. TE15

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) _Ardent Company, LLC_
IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER _2705 0822 86A_____ WAS ISSUED ON THE _28___DAY OF ___Feb_____, 2022. 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).

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	**GENERAL EARTHWORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNIT PRICE**	**TOTAL**
02200-C1-00010	General Excavation, only when not included in other pay items	20	CY	$50.00	$1,000.00
02200-C1-00050	Select Borrow (VDOT Section 207 - Select Material, Type I)	5	CY	$30.00	$150.00
				SUBTOTAL	**$1,150.00**

C2	**CONCRETE WORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNIT PRICE**	**TOTAL**
02750-C2-00020	Concrete Curb, Standard Header Curb C-3 (Arlington County Detail R-2.0), includes curb for aprons, ramps, etc.	90	LF	$40.00	$3,600.00
02750-C2-00060	Concrete Curb & Gutter, Standard C-2 and C-2R (Arlington County Detail R-2.0), includes curb & gutter for aprons, ramps, etc.	220	LF	$40.00	$8,800.00
02611-C2-00110	Concrete Sidewalk, 4" Thickness (Arlington County Detail R-2.0)	200	SY	$75.00	$15,000.00
02611-C2-00190	CG-12 Detectable Warning Surface - Truncated Domes	9	SY	$350.00	$3,150.00
03100-C2-00200	Concrete Steps Each (Arlington County Detail R-3.0, including all reinforcing bars as shown in detail)	5	LF-W	$200.00	$1,000.00
				SUBTOTAL	**$31,550.00**

C3	**ASPHALT WORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNITPRICE**	**TOTAL**
02600-C3-00010	Asphalt Concrete, Planing or Milling (1/2" to 3" Depth)	1800	SY	$3.00	$5,400.00
02600-C3-00030	Asphalt Concrete, Base Course (VDOT BM-25.0A)	16	TON	$160.00	$2,560.00
02600-C3-00060	Asphalt Concrete, Surface Course (VDOT SM-9.5A)	215	TON	$150.00	$32,250.00
				SUBTOTAL	**$40,210.00**

C4	**STORM SEWER UTILITY WORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNITPRICE**	**TOTAL**

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MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	**GENERAL EARTHWORK**				
02505-C4-00470	Catch Basin Structure Top, Remove & Replace with Modified Extended Throat	1	EA	$4,021.50	$4,021.50
				SUBTOTAL	**$4,021.50**

C8	**TRAFFIC SIGNAL WORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNITPRICE**	**TOTAL**
13160-C8-03000	Traffic Signal Upgrade of Washington Blvd. & N. Sycamore St. as outlined in Construction Plans	1	LS	$590,000.00	$590,000.00
				SUBTOTAL	**$590,000.00**

C10	**PAVEMENT MARKING AND SIGNAGE WORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNITPRICE**	**TOTAL**
02900-C10-00050	Twenty Four (24) Inch Transverse Markings, Note: Used For Continental (Ladder) Crosswalk	1000	LF	$10.22	$10,220.00
02900-C10-00070	Four (4) Inch Longitudinal Solid Line	70	LF	$2.10	$147.00
02900-C10-00080	Four (4) Inch Longitudinal Skip Line (Ten (10) Foot Line/Thirty (30) Foot Spacing), Note: Forty (40) LF Consists of Ten (10) LF of Marking and Thirty (30) LF of Space	50	LF	$2.10	$105.00
02900-C10-00100	Four (4) Inch Longitudinal Skip Line (Two (2) Foot Line/Six (6) Foot Spacing), Note: Eight (8) LF Consists of Two (2) LF of Marking and Six (6) LF of Space, **Turn Lane Skips**	75	LF	$2.10	$157.50
02900-C10-00120	Six (6) Inch Longitudinal Solid Line	10	LF	$2.10	$21.00
02900-C10-00150	Six (6) Inch Longitudinal Skip Line (Two (2) Foot Line/Six (6) Foot Spacing), Note: Eight (8) LF Consists of Two (2) LF of Marking and Six (6) LF of Space	30	LF	$2.10	$63.00
02900-C10-00170	Twelve (12) Inch Yellow Longitudinal Centerline, Two - Four (4) Inch Yellow Lines with Four (4) Inch Separation	75	LF	$4.20	$315.00
02900-C10-00240	Single Arrows	1	EA	$210.00	$210.00
02900-C10-00290	Standard Bicycle Symbols (MUTCD, Chapter 9C, Figure 9C-3), "Bike Symbol", "Helmeted Bicyclist Symbol"	1	EA	$420.00	$420.00
02900-C10-00300	Standard Bicycle Symbols (MUTCD, Chapter 9C, Figure 9C-9), "Shared Lane Marking"	1	EA	$420.00	$420.00

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MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	**GENERAL EARTHWORK**				
02619-C10-00410	Traffic Control Sign (Typical Stop, Yield, No Parking, Speed Limit, or Similar)	1	EA	$300.00	$300.00
				SUBTOTAL	**$12,378.50**

C11	**LANDSCAPE & HARDSCAPE RESTORATION WORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNITPRICE**	**TOTAL**
02200-C11-00010	Imported Topsoil	1.6	CY	$50.00	$80.00
02801-C11-00070	Sod, Zoysia	13	SY	$20.00	$260.00
05500-C11-00140	Handrail (Arlington County Detail R-3.1)	15	LF	$150.00	$2,250.00
02800-C11-00200	Chain Link Fence, Height Less Than or Equal to 6'	170	LF	$40.00	$6,800.00
				SUBTOTAL	**$9,390.00**

C16	**E&SC, MOT & MOBILIZATION WORK**				
MASTER ITEM #	**DESCRIPTION**	**QTY**	**UNIT**	**UNITPRICE**	**TOTAL**
	Temporary Erosion and Sediment Controls (E&SC)	1	LS	$10,000.00	$10,000.00
	Maintenance of Traffic (MOT)	1	LS	$55,000.00	$55,000.00
	Mobilization and De-Mobilization	1	LS	$35,000.00	$35,000.00
				SUBTOTAL	**$100,000.00**

CONTRACT TOTAL:	**$788,700.00**

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MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	**GENERAL EARTHWORK**				

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COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

September 29, 2016

MEMORANDUM

TO: NOVA District Staff

FROM: Hari Sripathi, P.E.
Regional Operations Director

SUBJECT: Lane Closures in Nova District

As a follow up to the Lane Closures in Nova District memorandum dated April 27, 2012, enclosed are the updated guidelines for lane closures.

These updated guidelines will be effective immediately. All existing and previously approved projects are encouraged to review their respective contract documents and make adjustments if possible.

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Lane Closure Guidelines

-For Northern Virginia-

Virginia Department of Transportation
Northern Region Operations

September 21, 2016

DocuSign Envelope ID: 406E7B4C-51CC-4953-972C-7360549C3D84

Instruction

The purpose of this memorandum is to present guidelines for lane closure hours for construction, maintenance, permits, and special events in Northern Virginia.

The first version of the lane closure guidelines was issued in April 2012. In the past four years, there have been completed and on-going roadway construction projects in the NoVA District, such as I-495 and I-95 express lanes and the I-66 spot improvements. As these guidelines are applied and implemented, modifications and updates to these guidelines have become necessary. Same as the previous version, the modifications were made based on traffic volume; roadway characteristics; comments from staff; and considering the public tolerance for the lane closure during certain time periods of the day.

It should be noted that these guidelines must be used as a starting point for discussion at the project level. On large scale projects with robust community outreach and a Traffic Management Plan, these hours could be extended. If project staff would like to modify these hours for interstate or major arterials, they must work with NRO Traffic Operations staff for recommendations and obtain final approval from their functional Assistant District Administrator (ADA).

Please review the existing contracts and discuss the deviations from these hours with your functional ADA.

Restriction of Operations:

In addition to the allowable lane closure hours specified in the tables, the restrictions listed below shall be followed.

1. **Peak Hours Lane Closures**
   Any lane reductions (temporary or permanent) during the peak periods (Monday to Friday, 6:00AM to 9:00AM and 3:30PM to 6:30PM) on roads with an AADT above or equal to 10,000 vehicles requires consultation with the Regional Operations Director (ROD) and Public Affairs Manager.

2. **Complete Roadway Closures**

   If there are complete road closures on any road for construction or maintenance work, the ROD and Public Affairs Manager must be consulted.

   Complete Roadway Closures shall be limited to 20 to 30 minutes intermittent stoppage for some specific work activities.

   If the closure duration is above 30 minutes, it shall be approved separately with full Maintenance of Traffic and Traffic Management Plans.

3. **Construction in Residential Subdivisions**

   Road work within residential subdivisions and/or cul-de-sac streets should be conducted during daytime hours to avoid night time noise issues.

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4. **Express Lanes (I-95 & I-495)**

   All I-95 and I-495 Express Lane closures shall be coordinated with the Express Lanes Operations Center at least 5 business days in advance using their Authorization to Work form (available from the Express Lanes Operations Center at (571) 419-6046. Complete road closures on the I-95 Express Lanes and I-495 Express Lanes will be limited to 30 minutes or less

5. **Holiday**

   In addition to the Sunday or Holiday work limitations, mobile, short duration, short-term stationary or intermediate-term stationary temporary traffic control zone lane closures on mainline lanes, shoulders or ramps shall not be performed during the following Holiday time periods without the written permission of the Engineer. Additionally, long-term stationary temporary traffic control zones shall not be initially put in place, adjusted, or removed during the following Holiday time periods without the written permission of the Engineer (VDOT 2016 Standard Specifications, updated 7/2016):

- **January 1:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Martin Luther King, Jr. Day and Lee Jackson Day*:** From Noon on the preceding Thursday to Noon on the following Tuesday.
- **Presidents Day*:** As indicated below.
- **Easter*:** As indicated below.
- **Memorial Day:** As indicated below.
- **July 4:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Labor Day:** As indicated below.
- **Columbus Day*:** As indicated below.
- **Veterans Day*:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Thanksgiving Day:** From Noon on the Wednesday proceeding Thanksgiving Day until Noon on the Monday following Thanksgiving Day.
- **Christmas Day:** From Noon on the preceding day until Noon on the following day, except as indicated below.

If the Holiday occurs on a Friday or Saturday: From Noon on the preceding Thursday to Noon on the following Monday.
If the Holiday occurs on a Sunday or Monday: From Noon on the preceding Friday to Noon on the following Tuesday.

***Note:**

For low volume roadways (minor arterial), lane closures will not be allowed during the holidays; however, there will be no restriction to the preceding day and the following day.

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INTERSTATE 395 & INTERSTATE 95

WEEKDAY		Northbound			
		Single-Lane Closures or Shoulder	Two-Lane Closures	Multiple-Lane Closures	Complete Road Closure
Segment 1	14th St. Bridge to Springfield Interchange	10:00AM to 3:00PM 9:00PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 2	Springfield Interchange to Rt.123	9:30AM to 3:30PM 9:00PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 3	Rt.123 to Prince William / Stafford County line	9:30AM to 3:30PM 9:00PM to 5:00AM	10:00PM to 4:30AM	11:00PM to 4:00AM	12:00AM to 4:00AM
Segment 4	Prince William / Stafford County line to Rt.3 Exit 130	9:30AM to 3:30PM 9:00PM to 4:30AM	10:00PM to 4:30AM	n/a	12:00AM to 4:00AM
Segment 5	Rt.3 Exit 130 to Caroline / Hanover County line	9:00AM to 3:30PM 9:00PM to 5:30AM	10:00PM to 4:30AM	n/a	12:00AM to 4:00AM
All lanes open at 12:00 noon on Friday					

WEEKDAY		Southbound			
		Single-Lane Closures or Shoulder	Two-Lane Closures	Multiple-Lane Closures	Complete Road Closure
Segment 1	14th St. Bridge to Springfield Interchange	10:00AM to 2:30PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 2	Springfield Interchange to Rt.123	9:00AM to 2:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 3	Rt.123 to Prince William / Stafford County line	9:00AM to 2:00PM 9:30PM to 6:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
Segment 4	Prince William / Stafford County line to Rt.3 Exit 130	9:00AM to 2:00PM 9:30PM to 6:00AM	10:00PM to 5:30AM	n/a	12:00AM to 4:00AM
Segment 5	Rt.3 Exit 130 to Caroline / Hanover County line	9:00AM to 3:00PM 9:30PM to 6:00AM	10:00PM to 5:30AM	n/a	12:00AM to 4:00AM
All lanes open at 11:00am on Friday					

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INTERSTATE 395 & INTERSTATE 95			
WEEKEND	**Northbound/Southbound***		
	Single-Lane Closures or Shoulder	**Multiple-Lane Closures**	**Complete Road Closure**
Friday to Saturday	10:00PM to 7:00AM	11:00PM to 6:00AM	12:00AM to 5:00AM
Saturday to Sunday	10:00PM to 7:00AM	11:00PM to 6:00AM	12:00AM to 5:00AM
Sunday to Monday	10:00PM to 5:00AM	11:00PM to 4:00AM	12:00AM to 4:00AM
* For special operations, depending on time of year, additional hours may be allowed with proper ADA/ROD approval.			

	REVERSIBLE LANES (HOV & EXPRESS LANES)*	
	Single-Lane Closures or Shoulder	**Complete Road Closure****
WEEKDAY	9:30PM (Sunday to Thursday) to 4:00AM (Monday to Friday)	11:00PM to 4:00AM
WEEKEND	11:00PM (Friday to Saturday) to 9:00AM (Saturday to Sunday)	11:00PM to 4:00AM
* Direction of traffic control for all lane closures in reversible lanes will need to be adjusted as necessary to face direction of traffic. ** Complete Road Closure on Express Lanes limited to 30 minutes or less.		

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INTERSTATE 495 (BELTWAY)

WEEKDAY		Inner Loop			
		Single-Lane Closures or Shoulder	Two-Lane Closures	Multiple-Lane Closures	Complete Road Closure
Segment 1	A. L. Bridge to Springfield Interchange	10:00AM to 3:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
Segment 2	Springfield Interchange to W.W. Bridge	10:00AM to 3:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
All lanes open at 12:00 noon on Friday					
WEEKDAY		Outer Loop			
		Single-Lane Closures or Shoulder	Two-Lane Closures	Multiple-Lane Closures	Complete Road Closure
Segment 1	A. L. Bridge to Springfield Interchange	9:30AM to 2:30PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
Segment 2	Springfield Interchange to W.W. Bridge	10:00AM to 3:00PM 9:30PM to 5:00AM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
All lanes open at 12:00 noon on Friday					

WEEKEND	Inner/Outer Loop		
	Single-Lane Closures or Shoulder	Multiple-Lane Closures	Complete Road Closure
Friday to Saturday	10:00PM to 8:00AM	11:00PM to 7:00AM	12:00AM to 5:00AM
Saturday to Sunday	10:00PM to 9:00AM	11:00PM to 8:00AM	12:00AM to 5:00AM
Sunday to Monday	9:30PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM

	EXPRESS LANES	
	Single-Lane Closures or Shoulder	Complete Road Closure**
WEEKDAY	9:30PM (Sunday to Thursday) to 4:00AM (Monday to Friday)	11:00PM to 4:00AM
WEEKEND	11:00PM (Friday to Saturday) to 9:00AM (Saturday to Sunday)	11:00PM to 4:00AM
** Complete Road Closure on Express Lanes limited to 30 minutes or less.		

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INTERSTATE 66

WEEKDAY		Eastbound			
		Single-Lane Closures or Shoulder	Two-Lane Closures	Multiple-Lane Closures	Complete Road Closure
Segment 1	Prince William County line to Route 286	10:00AM to 3:30PM 8:00PM to 5:00AM	9:00PM to 5:00AM	10:00PM to 5:00AM	12:00AM to 4:00AM
Segment 2	Route 286 to Beltway	11:00AM to 3:30PM 9:00PM to 5:00AM	10:00PM to 5:00AM**	11:00PM to 5:00AM**	12:00AM to 4:00AM
Segment 3	Beltway to TR Bridge (Inside Beltway)	9:30PM to 5:00AM	n/a	n/a	12:00AM to 4:00AM
All lanes open at 12:00 noon on Friday					

WEEKDAY		Westbound			
		Single-Lane Closures or Shoulder	Two-Lane Closures	Multiple-Lane Closures	Complete Road Closure
Segment 1	Prince William County line to Route 286	9:00AM to 2:30PM 9:00PM to 6:00AM	9:30PM to 6:00AM	10:30PM to 5:00AM	12:00AM to 4:00AM
Segment 2	Route 286 to Beltway	9:00AM to 2:00PM* 9:30PM to 5:00AM	10:00PM to 5:00AM**	11:00PM to 5:00AM**	12:00AM to 4:00AM
Segment 3	Beltway to TR Bridge (Inside Beltway)	9:30AM to 2:00PM* 10:00PM to 5:00AM	10:00PM to 5:00AM**	n/a	12:00AM to 4:00AM
All lanes open at 12:00 noon on Friday					

**** Only be considered for three lane segment.***
*** Consider opening shoulder lane, where Applicable.*

WEEKEND	Eastbound/Westbound		
Outside Beltway	**Single-Lane Closures or Shoulder**	**Multiple-Lane Closures**	**Complete Road Closure**
Friday to Saturday	9:00PM to 9:00AM	10:00PM to 6:00AM	12:00AM to 5:00AM
Saturday to Sunday	9:00PM to 9:00AM	10:00PM to 6:00AM	12:00AM to 5:00AM
Sunday to Monday	8:00PM to 5:00AM	9:00PM to 5:00AM	12:00AM to 4:00AM
Inside Beltway	**Single-Lane Closures or Shoulder**	**Multiple-Lane Closures**	**Complete Road Closure**
Friday to Saturday	10:00PM to 6:00AM	n/a	12:00AM to 5:00AM
Saturday to Sunday	10:00PM to 6:00AM	n/a	12:00AM to 5:00AM
Sunday to Monday	9:30PM to 5:00AM	n/a	12:00AM to 4:00AM

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ROUTE 267 CONNECTOR				
WEEKDAY	**Eastbound**		**Westbound**	
	Single-Lane Closures or Shoulder	**Complete Road Closure**	**Single-Lane Closures or Shoulder**	**Complete Road Closure**
Monday to Friday	11:00AM to 3:00PM	12:00AM to 4:00AM	9:30AM to 3:00PM	12:00AM to 4:00AM
	9:30PM to 5:00AM		9:00PM to 5:00AM	
All lanes open at 12:00 noon on Friday				

WEEKEND	**Eastbound/Westbound**	
	Single-Lane Closures or Shoulder	**Complete Road Closure**
Friday to Saturday	10:00PM to 8:00AM	12:00AM to 5:00AM
Saturday to Sunday	11:00PM to 8:00AM	12:00AM to 5:00AM
Sunday to Monday	9:00PM to 5:00AM	12:00AM to 4:00AM

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Single-Lane Closures* or Shoulder					
ARTERIAL	**WEEKDAY**		**WEEKEND**		
	Monday to Thursday	Friday	Friday to Saturday	Saturday to Sunday	Sunday to Monday
Major Arterials**	9:30AM to 3:00PM 10:00PM to 5:00AM	9:30AM to 2:00 PM	10:00PM to 9:00AM	10:00PM to 8:00AM	10:00PM to 5:00AM
All Other Roadways	9:00AM to 3:30PM 9:00PM to 5:00AM	9:00AM to 2:00 PM	10:00PM to 9:00AM	9:00PM to 9:00AM	10:00PM to 5:00AM

Multiple-Lane Closures					
ARTERIAL	**WEEKDAY**		**WEEKEND**		
	Monday to Thursday	Friday	Friday to Saturday	Saturday to Sunday	Sunday to Monday
Major Arterials**	10:00PM to 5:00AM	Not allowed until 11:00PM	11:00PM to 5:00AM	11:00PM to 6:00AM	11:00PM to 5:00AM
All Other Roadways	9:00PM to 5:00AM	Not allowed until 10:00PM	10:00PM to 6:00AM	10:00PM to 6:00AM	10:00PM to 5:00AM

**Single-lane closures only permitted for multiple-lane roadways.*
***Major Arterials defined as Primary Roads, high volume Secondary Roads, and all other routes that connect directly to Interstates.*

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State & Federal Roads in Arlington County, VA

State Routes

- Interstate 66: Custis Memorial Parkway
- Interstate 395: Henry G. Shirley Memorial Highway
- U.S. Route 1: Jefferson Davis Highway
- State Route 27: Washington Boulevard (Memorial Bridge to U.S. Route 50)
- U.S. Route 29: Lee Highway
- U.S. Route 50: Arlington Boulevard
- State Route 110: Jefferson Davis Highway (Rosslyn to Crystal City)
- State Route 120: Glebe Road
- State Route 123: Chain Bridge Road
- State Route 124: Spout Run Parkway (Lee Highway to Lorcom Lane)
- State Route 233: Airport Viaduct
- State Route 237: Washington Boulevard (North Glebe Road to Lee Highway)
- State Route 237: Fairfax Drive (Kirkwood Road to North Glebe Road)
- State Route 237: 10th Street North (U.S. Route 50 to Kirkwood Road)
- State Route 309: Old Dominion Drive

Federal Routes

- Arlington Hall Street
- Boundary Channel Drive
- George Washington Memorial Parkway
- Fort Myer streets, including Arlington National Cemetery
- Marshall Drive (North Meade Street to U.S. Route 110)
- Memorial Avenue
- Pentagon Street
- Spout Run Parkway (Lorcom Lane to George Washington Memorial Parkway)

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Arlington County, VA Materials Testing Specification Reference (September 2020)

MATERIAL AND TEST (*REF. - VDOT TEST METHODS MANUAL*)	VDOT ROAD AND BRIDGE SPECIFICATION 2002 (*Or Latest Version)*	MINIMUM RATE OF SAMPLING (*REF. - VDOT MANUAL OF INSTRUCTIONS)*	LOCATION OF SAMPLING	REMARKS
SOILS AND AGGREGATES				
1. Embankments				
(a) Density, Any Method	303.04(h)	One (1) test per 2500 yd3 or less plus: (a) for fills less than 500 ft. length one (1) test on every other 6-in. layer bottom to top of fill starting with the second lift; (b) for fills from 500-2000 ft. length, two (2) tests per 6-in. layer within top five (5) ft. of fill; (c) for fills greater than 2000 ft length, break into equal segments not to exceed 2000 ft. and use same frequency for each section as for fills 500 to 2000 ft. in length.	Roadway	When tests are not run due to gravel, muck, rock, etc. give station and depth on report in lieu of test, with reason. For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
2. Finished Sub-grade (Both Cut and Fill Sections)				
(a) Density, Any Method	305.03	One (1) test per 2000 continuous linear ft. of roadway and one test minimum per intersection per construction location	Roadway (24 ft.)	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.

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(b) Density, Any Method	305.03	One (1) test per continuous section/block/or intersection	Curb, Comb. Curb and Gutter	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
(c) Density, Any Method	305.03	One (1) test per continuous section/block/or intersection	Sidewalk	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
3. Central Mix Aggregate (Treated or Un-treated) Base, Subbase, and Select Material				
(a) Density, Any Method	305.03, 308.03, & 309.05,	One (1) test per 1/2 mile or less per continuous lane application width per layer. If testing by nuclear method, each test shall consist of average of five (5) readings.	Roadway. Location of five (5) nuclear readings at randomly selected sites.	For nuclear tests, use Backscatter, Control Strip Method, VTM-10. With nuclear method, set up roller pattern and control strip for each layer or lift placed. See Notes 1 and 2.
(b) Density, Any Method	305.03, 308.03, & 309.05,	One (1) test per continuous section/block/or intersection	Curb, Comb. Curb and Gutter	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.
(c) Density, Any Method	305.03, 308.03, & 309.05,	One (1) test per continuous section/block/or intersection	Sidewalk	For nuclear test, use Direct Transmission Method, VTM-10. See Notes 1 and 2.

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4. Backfill for Pipes and Box Culverts	302.03, 303.04(g), 401.03(i)	Minimum one test per lift on alternating sides of pipe for each 300 feet of pipe or portion thereof. Test pattern is to begin after first 4" compacted layer above the structures bedding and continue to 1' above top of pipe or box culvert structure. For rate of testing greater than 1' above top of pipe refer to contract documents and Rate of Sampling for embankments.	Alternating sides of structure	For nuclear test, use Direct Transmission Methods, VTM-10. See Notes 1 and 2. Backfill lifts shall be compacted in horizontal layers not more than 6 inches in thickness, loose measurement. (Or as Specified by the Contract Documents)
5. Backfill for Drop Inlets	302.03, 303.04(g)	Minimum one test every other lift around the perimeter beginning after the first 4" compacted layer above the bedding and continue to top of the structure. Stagger tests to ensure consistent compaction effort has been achieved.	Perimeter of structure	To include drop inlets, junction boxes, etc. For nuclear test, use Direct Transmission Methods, VTM-10. See Notes 1 and 2. Backfill lifts shall be compacted in horizontal layers not more than 6 inches in thickness, loose measurement. (Or as Specified by the Contract Documents)
6. Backfill for Manholes	302.03, 303.04(g)		Perimeter of structure	For nuclear test, use Direct Transmission Methods, VTM-10. See Notes 1 and 2. Backfill lifts shall be compacted in horizontal layers not more than 6 inches in thickness, loose measurement. (Or as Specified by the Contract Documents)

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Arlington County, VA Materials Testing Specification Reference (September 2020)

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HYDRAULIC CEMENT CONCRETE				
1. Sidewalk, Curb, Comb. Curb and Gutter				
(a) Temperature Measurements	217	One test per batch (truck), and when making compressive specimens.	At job site, and prior to placing concrete in forms.	If test on any batch fails, recheck batch immediately before rejecting. Enter results of tests in project records.
(b) Air Content	217	One test per batch (truck), and when making compressive specimens	At job site, and prior to placing concrete in forms	Any of 3 approved methods may be used for this test. However, with any test method used, with readings indicating concrete to be outside of specification must be confirmed first with test by Pressure Method before rejection of concrete. Enter results in project records.
(c) Consistency (Slump Test).	217	One test per batch (truck), and when making compressive specimens.	At job site, and prior to placing concrete in forms.	If test on any batch fails, recheck batch immediately before rejecting. Enter results in project records.

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Arlington County, VA Materials Testing Specification Reference (September 2020)

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(d) Compressive Strength...	217	For miscellaneous concrete, one set of 3 cylinders shall be made for each 250 cubic yards, with a minimum of one set of 3 per day. Any one set to be made from same batch. For structural concrete, one set of 3 cylinders shall be made for each 100 cubic yards of concrete placed, with a minimum of 2 sets of 3 cylinders each per structure per class of concrete. Any one set to be made from same batch.	At job site.	Molding and Curing Molds shall be placed on a rigid horizontal surface free from vibration and other disturbances during the first 24 hours, all test specimens shall be stored under conditions that maintain the temperature immediately adjacent to the specimens in the range of 60℉ to 80℉, and prevent loss of moisture. Testing Except when high-early strength concrete is specified, compressive strength testing will be performed at 28 days.

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MATERIAL AND TEST (***REF. - VDOT TEST METHODS MANUAL)***	**VDOT ROAD AND BRIDGE SPECIFICATION 2002** (***Or Latest Version)***	**MINIMUM RATE OF SAMPLING** (***REF. - VDOT MANUAL OF INSTRUCTIONS)***	**LOCATION OF SAMPLING**	**REMARKS**
ASPHALT PAVEMENT				
(a) In-Place Pavement Density by Nuclear Method (Roller Pattern)/ (Control Strip) (Asphalt Pavement)	Roads and Bridges Section 315.05 VTM-76 AASHTO T-166	Establish Roller pattern and Control Strip according to VTM-76. Ten (10) stratified random sample to establish target density. Verify minimum density achieved with cores per VTM-76. **QC technician shall be certified and pass State proficiency**	Field	Contractor/Asphalt Producer shall provide Certified Asphalt Paving Technician for density testing
(b) In-place Pavement Density by Nuclear Method and/or VDOT cores Test Section) (Asphalt Pavement)	Roads and Bridges Section 315.05 VTM-76 AASHTO T-166	Test Section- Lot Size: 5000 ft. per Lane width. Ten (10) stratified random samples per lot for nuclear gauge and/or five(5) stratified random plug/cores per lot **QC technician shall be certified and pass State proficiency**	Field	Contractor/Asphalt Producer shall provide Certified Asphalt Paving Technician for density testing
(c) Temperature Measurements	Roads and Bridges 211.08	One temperature measurement initially on first and fifth loads, each type mix each production day, and thereafter minimum of one per hour of production time for each mix type, by Producer's Certified Asphalt	QC - Processing or mixing plant from back of truck **QA – Field**	The Contractor should take and record temperature measurements of the asphalt concrete at the beginning of paving operations and thereafter at a rate of not less than one measurement every hour. The

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		Concrete Technician. If any test outside of tolerance, minimum of 3 additional tests made in different points of the load, and 4 tests averaged and average used as temperature of load or batch.		Project Officer may increase the frequency of temperature measurements at any time. The temperature should be checked using an appropriate heat-sensing device (i.e. probe thermometer, infrared thermometer, etc.).

Note 1. Density tests are reported on Forms TL-53, TL-54, TL-55, TL-124, TL-125 (Sand Cone Method), and TL-125A (One-Point Proctor Method).

Note 2. If there is a breakdown in the nuclear testing equipment, then density testing shall continue using other approved methods.

ARLINGTON COUNTY, VA
REQUEST FOR INFORMATION FORM

PROJECT: **TE15 – Washington Blvd. & N. Sycamore St. Traffic Signal Upgrade Project**

RFI NUMBER: _____

PROJECT NO.: **TE15**

FOR CONTRACTOR ROUTING:
Contractor: _____ Transmittal No.: _____
Work Category: Date:

TO
☐ **(County Project Officer)** ☐ Action ☐ Faxed to _____ ☐ Emailed ☐ Mailed Pages ___
☐ **(Consultant)** ☐ Action ☐ Faxed to _____ ☐ Emailed ☐ Mailed Pages ___
☐ **(Other)** ☐ Action ☐ Faxed to _____ ☐ Emailed Pages ___

REGARDING: _____
SPEC. SECTION: _____ **DWG. NO.:** _____

EXPLANATION OF ISSUE: (Provide complete description of request with sketches or photos if necessary, and present status of work)

RECOMMENDATION / SUGGESTED SOLUTION:

RESPONSE PRIORITY: ☐ EARLIEST CONVENIENCE ☐ RUSH (WORK IN PROGRESS)
REASON FOR REQUEST: ☐ Existing Condition ☐ Non-conformance ☐ Clarification / Interpretation ☐ Agency Generated ☐ Other

CONTRACTOR
: _____
BY: _____ **DATE**: _____ Dist: _____

ARCHITECT'S/ENGINEER'S ROUTING: (for A/E use only)
To: _____ Date: _____ Return to: _____ Date _____

TO: **(contractor)** ☐ Faxed to _____ ☐ Emailed ☐ Mailed ☐ Hand delivered

RESPONSE:

☐ The above is considered a change. The following document will be used for processing: _____
☐ The above is consistent with the intent of and reasonably inferable from Contract Documents, or makes minor changes in the Work without change in Contract Sum or Contract Time. If Contractor does not agree, submit written notice within twenty (20) days substantiating claim in accordance with Contract Documents for approval.
☐ This RFI is returned without response for the following reason: ☐ Incomplete or lack of detailed information. ☐ Related to "means & methods". ☐ Lack of adequate Coordination Drawings. ☐ Is a "Substitution Request". ☐ Response required by others.

FROM: _____
_____ **DATE:** _____ Dist: ☐ _____ ☐ File

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ARLINGTON COUNTY GOVERNMENT

Contractor Performance Evaluation Form

Contractor Name:_____ Contract No.: _____

Date:_____ Project/Contract Name: _____

Interim Evaluation ☐ Final Evaluation ☐

Scope of Work/Services Provided:

_____

_____

_____

_____

_____

Contract Start Date: _____/_____/____ Contract End Date: ___/____/____ Actual Completion Date: ___/___/_____

Please rate the effectiveness of the Contractor's performance on the Contract/Project across the following dimensions:

Evaluation Criteria: Unacceptable Poor Satisfactory Excellent

Written comments to explain assigned ratings are required for any performance ratings below "satisfactory" or an "excellent" in any category.

Evaluation Questions

1. Quality of Workmanship

Rate the quality of the Contractor's workmanship. Were there quality-related or workmanship problems on the Contract? Was the Contractor responsive to remedial work required?

☐ Unacceptable ☐ Poor ☐ Satisfactory ☐ Excellent ☐ N/A

2. Problem Solving and Decision Making

Rate the Contractor's ability to provide effective and creative problem solving, coordination and fair decision making on Contract/Project.

☐ Unacceptable ☐ Poor ☐ Satisfactory ☐ Excellent ☐ N/A

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3. Project Schedule

   Rate the Contractor's performance with regard to adhering to contract schedules. Did the Contractor meet the contract schedule, or the schedule as revised by approved change orders? If not was the delay attributable to the Contractor?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

4. Subcontractor Management

   Rate the Contractor's ability, effort and success in managing and coordinating subcontractors (if no subcontractors rate the Contractor's overall project management). Was the Contractor able to effectively resolve problems?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

5. Safety

   Rate the Contractor's safety procedures on this Contract/Project? Were there any OHSA violations or serious safety accidents?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

6. Environmental Compliance

   Did the Contractor comply with local, state, and federal environmental standards in the performance of the Contract? Did the Contractor comply in good faith with local erosion and sedimentation control requirements and/or any Stormwater Pollution Prevention Plan?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

7. Change Orders

   Did the Contractor unreasonably claim change orders or extras? Were the Contractor's prices on change orders and extra work reasonable?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

8. Paperwork Processing

   Rate this Contractor's performance in completing and submitting required project paperwork (i.e. change orders, submittal, drawings, invoices, workforce reports, etc.) Did the Contractor submit the required paperwork promptly and in proper form?

   ____ Unacceptable ____ Poor ____ Satisfactory ____ Excellent ____ N/A

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9. Supervisory Personnel

   Rate the general performance of this Contractor's supervisory personnel. Did they have the knowledge, management skills and experience to run a project of this size and scope?

   ☐ Unacceptable ☐ Poor ☐ Satisfactory ☐ Excellent ☐ N/A

10. Expertise, Knowledge and Experience

    Rate this Contractor's personnel. Were they dedicated, experienced and qualified for the duration of project.

    ☐ Unacceptable ☐ Poor ☐ Satisfactory ☐ Excellent ☐ N/A

11. Project/Contract Closeout

    Rate the Contractor's performance on timeliness and quality of closeout deliverables such as As-Built Drawings, Operation and Maintenance Manuals, and training. Did the Contractor complete the tasks or Project on schedule; was the punch list completed within the allotted time?

    ☐ Unacceptable ☐ Poor ☐ Satisfactory ☐ Excellent ☐ N/A

12. Level of Overall Performance

    ☐ Unacceptable ☐ Poor ☐ Satisfactory ☐ Excellent ☐ N/A

Based on these comments, would you recommend this Contractor for comparable work in the future?

☐ Yes ☐ No

Please provide any comments regarding the Contractor's performance or the quality of its work. The Contractor can also provide any comments or clarification on the evaluation in the box below.

(Project Officer or Contractor, use additional sheets, if Necessary):

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Signatures and Certifications:

1. The information contained in this evaluation form represents, to the best of my knowledge, a true and accurate analysis of the Contractor's performance record on this Contract; and,
2. The contents on the evaluation form and the ratings were not negotiated with the Contractor or its representative for any reason.

Evaluator's/Project Officer (PjO) Signature:_____Date: _____

Evaluator's (PjO) Printed Name_____Evaluator's Title: _____

Contractor's signature below acknowledges receipt and the opportunity to respond:

Contractor Signature:_____ Date: _____

Contractor Printed Name:_____Title_____

EVALUATION RATINGS DEFINITIONS

Rating	Definition	Notes
Excellent	Performance meets contractual requirements and exceeds many to the County's benefit. The contractual performance of the element or sub-element being evaluated was accomplished with few minor problems for which corrective actions taken by the contractor were highly effective.	To justify an Exceptional rating, identify multiple significant events and state how they were of benefit to the County. A singular benefit, however, could be of such magnitude that it alone constitutes an Exceptional rating. Also, there should have been NO significant weaknesses identified.
Satisfactory	Performance meets contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.	To justify a Satisfactory rating, there should have been only minor problems, or major problems the contractor recovered from without impact to the contract/order. There should have been NO significant weaknesses identified. A fundamental principle of assigning ratings is that contractors will not be evaluated with a rating lower than Satisfactory solely for not performing beyond the requirements of the contract/order.
Poor	Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being evaluated reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.	To justify poor performance, identify a significant event in each category that the contractor had trouble overcoming and state how it impacted the County. A poor rating should be supported by referencing the management tool that notified the contractor of the contractual deficiency (e.g., management, quality, safety, or environmental deficiency report or letter).

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Unacceptable	Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains a serious problem(s) for which the contractor's corrective actions appear or were ineffective.	To justify an Unsatisfactory rating, identify multiple significant events in each category that the contractor had trouble overcoming and state how it impacted the County. A singular problem, however, could be of such serious magnitude that it alone constitutes an unsatisfactory rating. An Unsatisfactory rating should be supported by referencing the management tools used to notify the contractor of the contractual deficiencies (e.g., management, quality, safety, or environmental deficiency reports, or letters).
Not Applicable (N/A)	N/A (not applicable) should be used if the ratings are not going to be applied to a particular area for evaluation.	

END