



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: 12/8/2022
	CONTRACT NO: 23-DES-ITBPW-291
	CONTRACT TITLE: 15 TH STREET S AND S FERN STREET INTERSECTION UPGRADES

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-291, including any attachments or amendments thereto.

EFFECTIVE DATE: DECEMBER 1, 2022
EXPIRES: 230 CALENDAR DAYS FROM THE NOTICE TO PROCEED, ANTICIPATED AUGUST 27, 2023
RENEWALS: THERE ARE NO RENEWALS
COMMODITY CODE(S): 91327, 96882, 91347, 91350, 91319
LIVING WAGE: N

ATTACHMENTS:
AGREEMENT No. 23-DES-ITBPW-291

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

VENDOR CONTACT: ARDENT HOOSHANGI	VENDOR TEL. NO.: (703) 228-3250
EMAIL ADDRESS: ARASH@ARDENTCOMPANY.COM	
COUNTY CONTACT: JASNEET SINGH, DES, ENGINEERING	COUNTY TEL. NO.: (703) 228-3661
COUNTY CONTACT EMAIL: JSINGH@ARLINGTONVA.US	

PURCHASING DIVISION AUTHORIZATION

Kaylin Schreiber Title: Procurement Officer Date: 11/15/22



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

AGREEMENT NO. 23-DES-ITBPW-291

THIS AGREEMENT is made, on 12/8/2022, between Ardent Company, LLC, PO 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-291 and all modifications properly incorporated into the Agreement
- Exhibit A – Arlington County Invitation to Bid No. 23-DES-ITBPW-291 including DES General Conditions, incorporated by reference
- Exhibit B – Construction Drawings
- Exhibit C – Virginia Department Of Labor And Industry Wage Determination Decision
- Exhibit D – Price Bid of Contractor
- Exhibit E – Special Conditions
- Exhibit F – Materials Testing Specification Reference
- Exhibit G – Lane Closure Guidelines
- Exhibit H – State and Federal Roads in Arlington County, VA
- Exhibit I – Master Transportation Plan
- Exhibit J – County RFI Form Template
- Exhibit K – Contractor COVID-19 Vaccination Certification
- Exhibit L – Contractor COVID-19 Vaccination Quarterly Compliance Certification
- Exhibit M – Contractor's Performance Form

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

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

2. SCOPE OF WORK

The Contractor will furnish all labor, materials, and equipment for the construction of pedestrian safety improvements at the intersection of 15th Street S and S Fern Street. Project includes proposed curb extension at southwest corner, reconstructing marked crosswalks at the intersection, replacing existing curb ramps and curb & gutter at southeast corner, upgrading the traffic signal, and all other related and incidental work shown, described, and required by the Contract Documents (hereinafter “the Work”).

The Work shall be performed according to the standards established by the Contract Documents read together as a single specification. It shall be the Contractor's responsibility, at solely the Contractor's cost, to provide sufficient services to fulfill the purposes of the Work. Nothing in the Contract Documents shall be construed to limit the Contractor's responsibility to manage the details and execution of its Work.

3. PROJECT OFFICER

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

4. TIME FOR COMPLETION

Work under this Agreement shall achieve Substantial Completion no later than two hundred (200) 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 (200) 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 thirty (30) 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 Retainage and Payment Terms sections below and at the prices shown in Exhibit D, but not more than \$606,600 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 AND RETAINAGE

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

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

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. 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 and applicable fringe benefits using the Pay Scale Certification Form at <https://www.doli.virginia.gov/wp-content/uploads/2021/04/DOLI-Pay-Scale-Certification-for-Public-Works-Projects.pdf>. The certification must itemize the amount paid in wages and each applicable benefit and list the names and addresses of any third party fund, plan or program to which benefit payments will be made on behalf of employees.
- G. The Contractor shall indemnify and hold harmless the County from any fines, demands, claims, suits, and damages, including attorney's fees, resulting from the Contractor's or any subcontractor's failure to pay the Prevailing Wage.
- H. The Contractor and its subcontractors shall keep, maintain, and preserve (i) records relating to the wages paid to and hours worked by each individual performing the work of any mechanic, laborer, or worker; and (ii) a schedule of the occupation or work classification at which each individual performing the work of any mechanic, laborer, or worker on the construction project is employed each work day and week. The Contractor and its subcontractors shall make such records available to the Prevailing Wage Compliance Manager within 10 days of a request or per a regular schedule established in the Contract, and shall certify that records reflect the actual hours worked and the amount paid to its workers for whatever time period is requested. The Contractor and its subcontractors must preserve these records for a period of six (6) years after the expiration or earlier termination of the applicable contract.
- I. Any Contractor or subcontractor who pays any mechanic, laborer, or worker for services under this Contract less than the Prevailing Wage shall be liable to such individuals for the payment of all wages due, plus interest at an annual rate of eight percent (8%) from the dates wages were due; and shall be disqualified from bidding on public contracts with any public body until the Contractor or subcontractor has made full restitution. A willful violation of Article 4-104 is a Class I misdemeanor.
- J. For questions regarding Prevailing Wage, please email prevailingwage@arlingtonva.us.

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 \$1,758.00 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 \$1,758.00 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 \$1,758.00 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 \$1,758.00 per day for each and every day beyond the time for Final Completion until Final Completion is achieved.

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

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 work in place to be performed under the Contract. Prior to award, the Contractor must demonstrate to the Project Officer's satisfaction that both of these standards will be met during contract performance. Labor and work to be counted when determining whether the Contractor has met the self-performance requirement shall not include any work that the Contractor performs under the supervision of a subcontractor.

The self-performance percentage may be reduced by an Amendment to the Contract, if during performance of the Work, the Contractor requests a reduction and the Project Officer determines that the reduction would be to the advantage of the County.

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.

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 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 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. All County Contractors, entering County owned, controlled, or leased facilities or facilities operated by a contractor if the services provided at that location are exclusive to Arlington County Government or contractors with public facing responsibilities must adopt these policies for implementation with their employees and subcontractors working on County contracts.

Contractors are required to obtain and maintain the COVID-19 vaccine status of employees or subcontractors, require any unvaccinated or not fully vaccinated employees to follow a weekly testing protocol established by the Contractor to submit to weekly testing, and provide any accommodations as required by law. Contractor should submit the certification of compliance to the Purchasing Agent at the time of contract execution and within five working days of the end of each quarter (see Exhibits K and L). In addition, all Contractor and subcontractor employees subject to the requirements of this section must also comply with the County COVID-19 masking and social distancing protocols, as signed at each County location.

It is recognized that the COVID-19 pandemic is an ongoing health crisis. As such, requirements with respect to health and safety, including vaccines and face-coverings may change over time. Contractors are expected to adhere to the County requirements as they evolve in response to the crisis.

For questions, the Contractor may email contractorvaccineinfo@arlingtonva.us.

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.

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

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

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

1. Termination for Unsatisfactory Performance. If the County determines that the Contractor has failed to perform satisfactorily, then the County will give the Contractor written notice of such failure(s) and the opportunity to cure them within 15 days or any other period specified by the County ("Cure Period"). If the Contractor fails to cure within the Cure Period, the County may terminate the Contract for failure to provide satisfactory performance by providing written notice with a termination date. Upon such termination, the Contractor may apply for compensation for Contract services that the County previously accepted ("Termination Costs"), unless payment is otherwise barred by the Contract. The Contractor must submit any request for Termination Costs, with all supporting documentation, to the County Project Officer within 30 days after the expiration of the Cure Period. The County may accept or reject the request for Termination Costs, in whole or in part, and may notify the Contractor of its decision within a reasonable time.

In the event of termination by the County for failure to perform satisfactorily, the Contractor must continue to provide its services as previously scheduled through the

termination date, and the County must continue to pay all fees and charges incurred through the termination date.

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

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

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

B. TERMINATION FOR THE CONVENIENCE OF THE COUNTY

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

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

26. INDEMNIFICATION

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless and indemnify NVTA and its Bond Trustee and 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.

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, 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.

Whenever possible, proposals must comply with the following guidelines:

- printed double-sided on at least 30% recycled-content and/or tree-free paper
- recyclable and/or easily removable covers or binders made from recycled materials (proposals with glued bindings that meet all other requirements are acceptable)
- avoid use of plastic covers or dividers
- avoid unnecessary attachments or documents or superfluous use of paper (e.g. separate title sheets or chapter dividers)

38. AUDIT

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

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

39. ASSIGNMENT

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

40. AMENDMENTS

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

41. ARLINGTON COUNTY PURCHASING RESOLUTION AND COUNTY POLICIES

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

42. DISPUTE RESOLUTION

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

43. APPLICABLE LAW, FORUM, VENUE, AND JURISDICTION

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

44. ARBITRATION

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

45. NONEXCLUSIVITY OF REMEDIES

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

46. NO WAIVER

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

47. SEVERABILITY

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

48. ATTORNEY'S FEES

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

49. SURVIVAL OF TERMS

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

50. HEADINGS

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

51. AMBIGUITIES

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

52. NOTICES

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

TO THE CONTRACTOR:

Arash Hooshangi, Managing Director
Ardent Company, LLC
PO Box 879
McLean, Virginia 22101
Phone: (703) 228-3250
Email: arash@ardentcompany.com

TO THE COUNTY:

Jasneet Singh, Project Officer
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 813
Arlington Virginia, 22201
Phone: (703) 228-3661
Email: jsingh@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% 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.

57. COUNTERPARTS

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

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON
COUNTY, VIRGINIA

ARDENT COMPANY, LLC

AUTHORIZED

AUTHORIZED

DocuSigned by:
Kaylin Schreiber
2513E5602A3A4DE...

SIGNATURE: _____

NAME: Kaylin Schreiber

TITLE: Procurement Officer

DATE: 12/8/2022

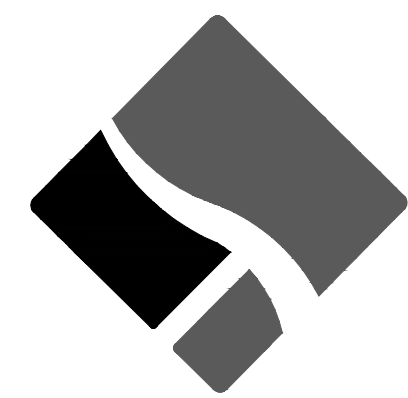
DocuSigned by:
Arash Hooshangi
12F5717989B040E...

SIGNATURE: _____

NAME: Arash Hooshangi

TITLE: Managing Director

DATE: 12/7/2022



ARLINGTON VIRGINIA

ENGINEER DEPARTMENT OF ENVIRONMENTAL SERVICES

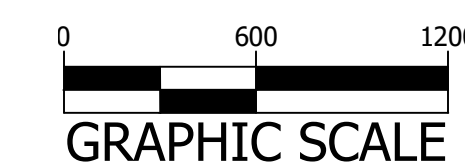
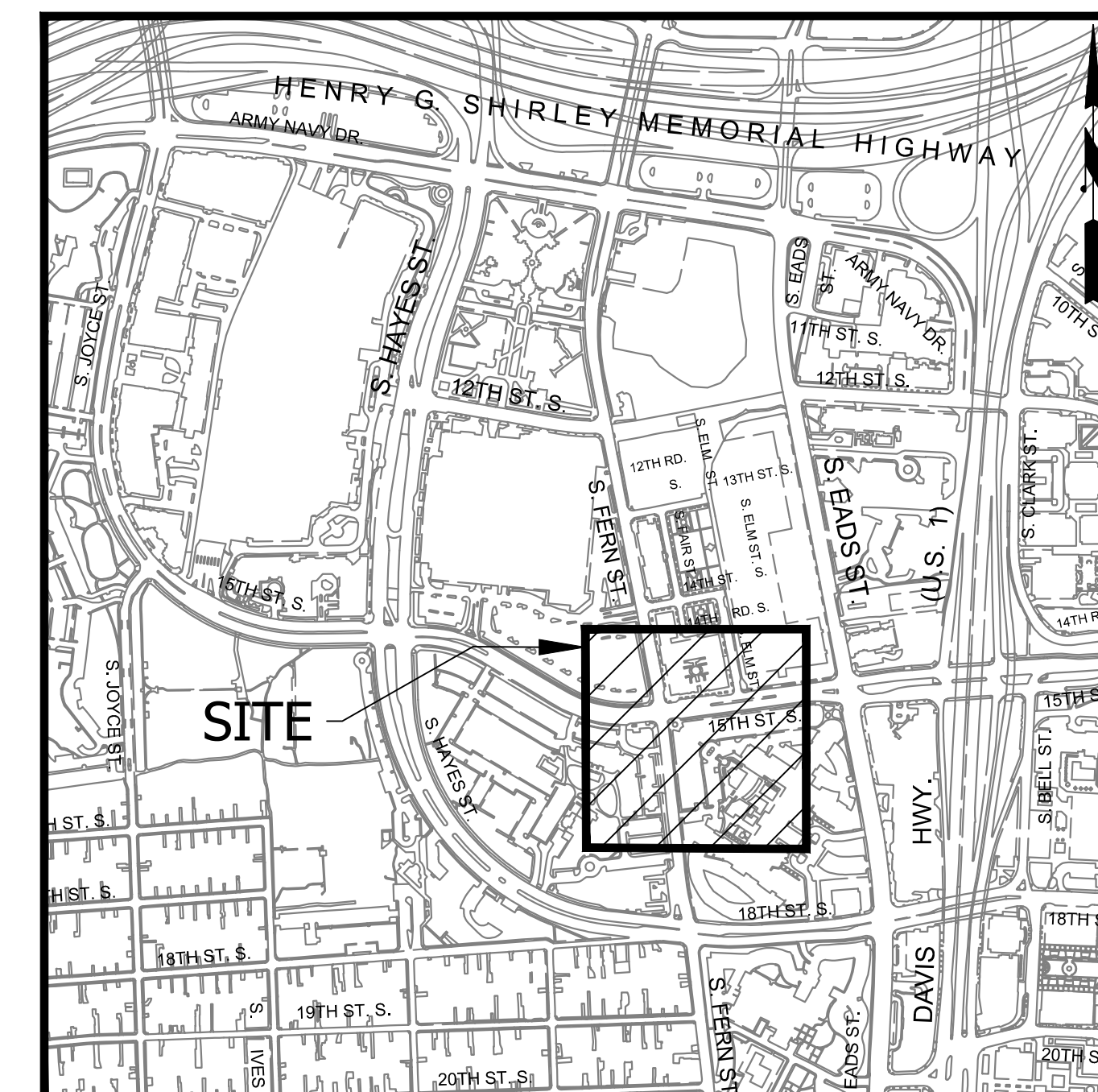
FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 WWW.ARLINGTONVA.US

EXHIBIT B

OWNER DES/DTD/PLAN

CONTRACTOR TO BE DETERMINED

LOCATION MAP



ARLINGTON VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606



Table with columns: APPROVALS, DATE. Includes signatures and dates for Quality Control Engineer, Construction Management Supervisor, Water/Sewer/Streets Bureau Chief, and Transportation Director.

Table with columns: REVISIONS, DATE. Includes a grid for tracking revisions.

CONSTRUCTION DRAWINGS FOR:

15TH ST S AND S FERN ST INTERSECTION

PROJECT NUMBER: CC21

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... 2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL... 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... 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... 6. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE... 7. EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY... 8. THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES... 9. ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

STORMWATER AND ENVIRONMENTAL PROTECTION

- 10. 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

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

TRAFFIC CONTROL

- 12. 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... 13. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED... 14. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 5 BUSINESS DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS... 15. WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL... 16. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS... 17. 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

- 18. UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES... 19. IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-6555 AND THE PROJECT OFFICER... 20. THE CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTOFFS, DISCONNECTS, AND/OR ABANDONMENT WITH UTILITY OWNER AND PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED INTERRUPTION.

FIRE DEPARTMENT NOTES:

- 21. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE... 22. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES... 23. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

Sheet List Table

Table with columns: Sheet Number, Sheet Title. Lists sheets from C000.1 (COVER SHEET) to C201.1 (SIGHT DISTANCE EXHIBIT).

SWM#

N/A

ADT

12,000 - 15TH ST S (FROM S HAYES ST TO US 1 RICHMOND HWY) - 2019 - VDOT 5,800 - S FERN ST (FROM 23RD ST S TO ARMY NAVY DR) - 2019 -VDOT

STREET CLASSIFICATION

15TH ST S - PRINCIPAL ARTERIAL S FERN ST - NEIGHBORHOOD PRINCIPAL

POSTED SPEED

15TH ST S - 30 MPH S FERN ST - 25 MPH

15TH ST S AND S FERN ST INTERSECTION

CC21

COVER SHEET

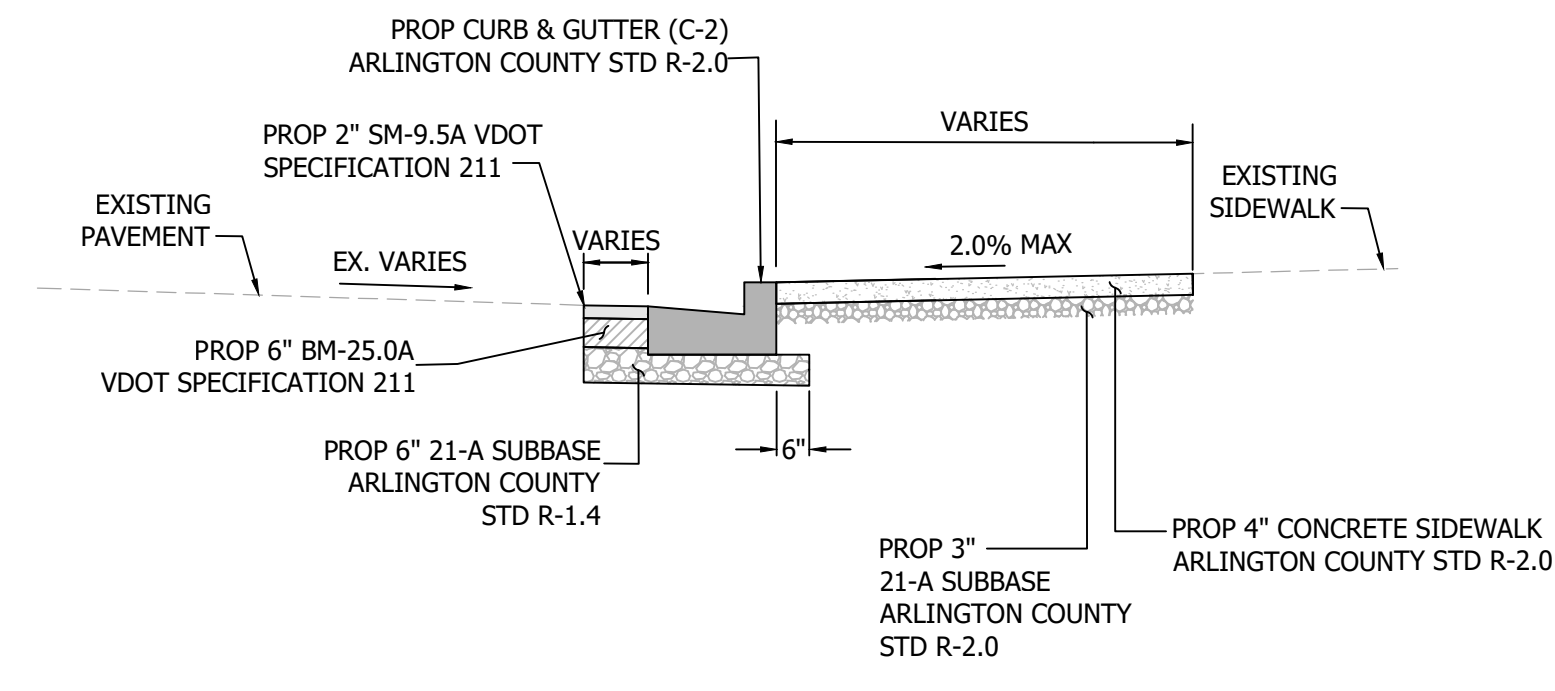
DESIGNED: V SHEPELEVA DRAWN: V SHEPELEVA CHECKED: J LIN

PLOTTED: JUNE 15 2022

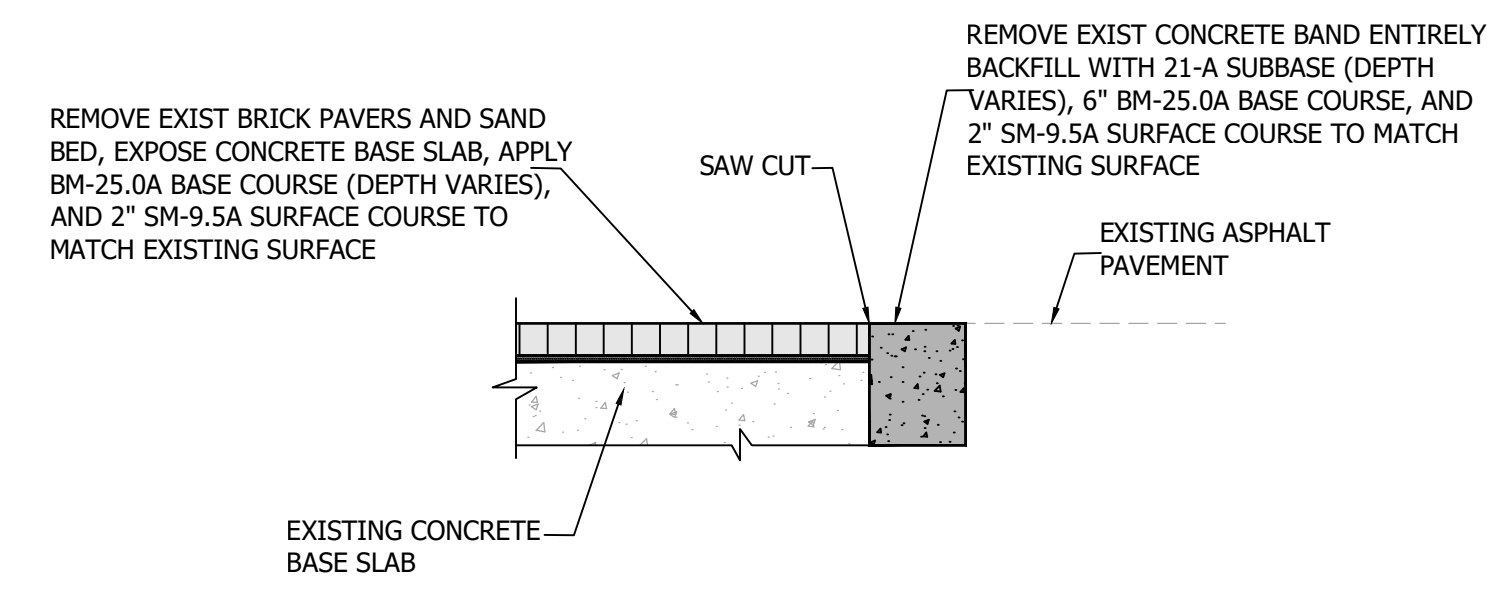
SCALE:

AS SHOWN

C000.1



TYPICAL SECTION - SIDEWALK



PAVER CROSSWALK REMOVAL AND ASPHALT RESTORATION DETAIL

ARLINGTON VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 FACILITIES & ENGINEERING DIVISION
 ENGINEERING BUREAU
 2100 CLARENDON BOULEVARD, SUITE 813
 ARLINGTON, VA 22201
 PHONE: 703.228.3629
 FAX: 703.228.3606

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APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Alan E. Sullivan</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	4/13/2022
<i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR	04/04/2022
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

15TH ST S AND S FERN ST INTERSECTION
 CC21
 TYPICAL SECTIONS

DESIGNED: V SHEPELEVA
 DRAWN: V SHEPELEVA
 CHECKED: J LIN
 PLOTTED: JUNE 9 2022

SCALE:

NOT TO SCALE

C004.1

LINETYPE LEGEND

FEATURE	EXISTING	PROPOSED
BUILDING	— — —	— — —
CENTERLINE / BASELINE	— — — — —	— — — — —
COMMUNICATIONS CABLE	— COM — COM —	— COM — COM —
CONTOURS - MAJOR, MINOR	— 250 — 250 —	— 250 —
CRITICAL ROOT ZONE	— CRZ — CRZ —	— CRZ — CRZ —
EASEMENT	— — — — —	— — — — —
ELECTRIC (UNDERGROUND)	— UGE — UGE —	— UGE — UGE —
FENCE (MATERIAL NOTED)	— — — — —	— X — X — X — X —
FIBER OPTIC	— FO — FO —	— FO — FO —
GAS LINE	— GAS — GAS —	— GAS — GAS —
X" GAS LINE (SIZE INCLUDED IF AVAILABLE)	— X" G — X" G — X" G —	— #" G — #" G —
GUARDRAIL	— o o o o o o o o —	— o o o o o o o o —
HARDSCAPE FEATURE (MATERIAL NOTED)	— — — — —	— — — — —
LIMITS OF DISTURBANCE	— LOD — LOD —	— LOD — LOD —
LIMITS OF WORK	— LOW — LOW —	— LOW — LOW —
OVERHEAD WIRES	— —	— —
PAVEMENT MINI SKIP LINE	— — — — —	— — — — —
PAVEMENT SKIP LINE	— — — — —	— — — — —
PROPERTY LINE	— — — — —	— — — — —
RIGHT-OF-WAY LINE	— — — — —	— — — — —
ROOT PRUNING	— RP — RP —	— RP — RP —
SANITARY SEWER	— SAN —	— SAN —
SANITARY SEWER UNDER 20" (SIZE INCLUDED IF AVAILABLE)	— #" s — #" s —	— — — — —
SANITARY SEWER OVER 20"	— — — — —	— — — — —
SILT FENCE	— X — X — X — X —	— X — X — X — X —
STORM (SIZE NOTED)	— STM — STM —	— — — — —
STREAM	— . . . —	— . . . —
STREET LIGHT CONDUIT	— SL — SL —	— SL — SL —
TELEPHONE (UNDERGROUND)	— UGT — UGT —	— UGT — UGT —
TREE LINE	— ~ ~ ~ ~ ~ —	— ~ ~ ~ ~ ~ —
TREE PROTECTION FENCE	— TP — TP —	— TP — TP —
WALL	— — — — —	— — — — —
WATERLINE UNDER 20" (SIZE INCLUDED IF AVAILABLE)	— #" w — #" w —	— — — — —
WATERLINE OVER 20"	— — — — —	— — — — —

SYMBOL LEGEND

EXISTING FEATURE	PROPOSED FEATURE
EX CABLE PEDESTAL	□
EX ELECTRIC BOX	Ⓛ
EX FIRE HYDRANT	⊕
EX GAS VALVE	●
EX GROUND LIGHT	⚡
EX GUY WIRES	Y
EX IRON PIPE OR PIN	●
EX LIGHT POLE	●
EX MAILBOX	✉
EX MONUMENT	⊠
EX PARKING METER	⊖
EX PAY STATION	Ⓜ
EX SANITARY MANHOLE	⊙
EX STORM BASIN	Ⓜ
EX STORM MANHOLE	Ⓜ
EX TELEPHONE PEDESTAL	Ⓛ
EX TRAFFIC CONTROL BOX	□
EX TRAFFIC SIGN	●
EX TRASH CAN	●
EX TRAVERSE	⚠
EX TREES, WOODED AREA	⊕
EX UTILITY MANHOLE (TYPE INDICATED ELEC, TELE, ETC)	⊙
EX UTILITY POLE	Ⓜ
EX WATER MANHOLE	⊙
EX WATER METER	⊕
EX WATER VALVE	⊗
EX YARD INLET	Ⓜ
EX BENCHMARK	Ⓜ
	CONSTRUCTION NOTES (LEADER TO AREA AFFECTED) ⚠
	DETAIL NUMBER (SEE NOTE) Ⓜ
	CURVE NUMBER (SEE CURVE TABLE) Ⓜ
	LINE NUMBER (SEE LINE TABLE) Ⓜ
	TEST HOLE ●
	NORTH ARROW ↑

LABEL LEGEND

EXISTING	PROPOSED
EXISTING SANITARY STRUCTURE NUMBER	XXXX
EXISTING STORM SEWER STRUCTURE NUMBER	XXXX
PROPOSED SANITARY SEWER STRUCTURE NUMBER	XXXX
PROPOSED STORM SEWER STRUCTURE NUMBER	XXXX

HATCH LEGEND

PROP MILL & OVERLAY (SEE TYPICAL SECTION FOR DETAILS)	[Hatch Pattern]
PROP FULL DEPTH ASPHALT (SEE TYPICAL SECTION FOR DETAILS)	[Hatch Pattern]
PROP CONCRETE	[Hatch Pattern]
REPLACE & MATCH EXISTING DRIVEWAY OR LEADWALK. (SEE CONSTRUCTION NOTES)	[Hatch Pattern]
DEMOLITION AREA	[Hatch Pattern]
TEMPORARY CONSTRUCTION EASEMENT	[Hatch Pattern]

ARLINGTON VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 FACILITIES & ENGINEERING DIVISION
 ENGINEERING BUREAU
 2100 CLARENDON BOULEVARD, SUITE 813
 ARLINGTON, VA 22201
 PHONE: 703.228.3629
 FAX: 703.228.3606

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SEAL
 COMMONWEALTH OF VIRGINIA
 JING LIN
 Lic. No. 0402051875
 03/31/2022
 PROFESSIONAL ENGINEER

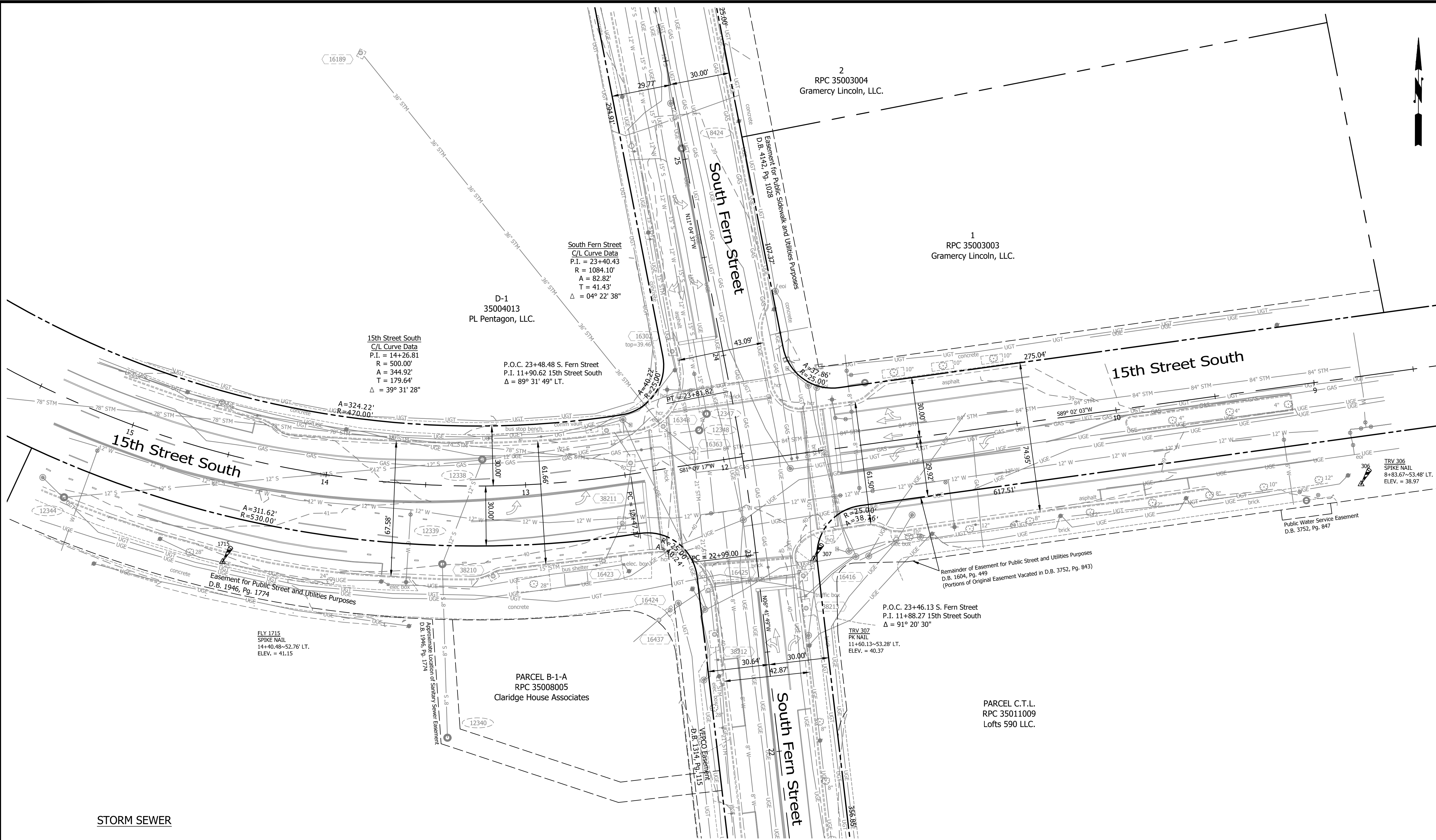
APPROVALS	DATE
<i>Amy Pflaum</i>	04/04/2022
QUALITY CONTROL ENGINEER	
<i>Alan E. Sullivan</i>	5/2/2022
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Alan</i>	4/13/2022
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	04/11/2022
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	3/31/2022
PROJECT MANAGER	

REVISIONS	DATE

15TH ST S AND S FERN ST INTERSECTION
 CC21
LEGEND

DESIGNED: V SHEPELEVA
 DRAWN: V SHEPELEVA
 CHECKED: J LIN
 PLOTTED: JUNE 9 2022

SCALE:
 N/A
C006.1



ARLINGTON VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 FACILITIES & ENGINEERING DIVISION
 ENGINEERING BUREAU
 2100 CLARENDON BOULEVARD, SUITE 813
 ARLINGTON, VA 22201
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SEAL

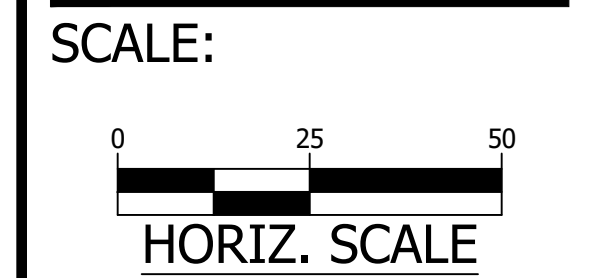
APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Chloe E. Sullivan</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	4/13/2022
<i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR	04/11/2022
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

15TH ST S AND S FERN ST INTERSECTION
CC21
EXISTING CONDITIONS PLAN

DESIGNED: V SHEPELEVA
 DRAWN: V SHEPELEVA
 CHECKED: J LIN

PLOTTED: JUNE 9 2022



C011.1

STORM SEWER

#16189 TOP = 37.91 36" RCP INV. OUT = 32.22 (16348)	#16416 TOP = 40.26 15" RCP INV. IN = 35.48 (38213) 18" RCP INV. OUT = 34.87 (16425)
#16302 TOP = 39.50 15" RCP INV. IN = 33.29 (16172) 18" RCP INV. OUT = 33.11 (16363)	#16423 TOP = 40.24 15" RCP INV. IN = 35.85 (38210) 18" RCP INV. OUT = 35.62 (38211)
#16332 TOP = 42.09 78" RCP INV. OUT = 24.68 (16369)	#16424 GRATE TOP = 40.64 C/L INV. = 35.59
#16346 TOP = 40.21 18" RCP INV. OUT = 34.14 (16369)	#16425 TOP = 40.43 C/L INV. = 33.83
#16348 TOP = 39.74 36" RCP INV. IN = 28.90 (16189) 36" RCP INV. OUT = 27.04 (16363)	#16437 TOP = 40.32 15" RCP INV. IN = 36.45 (16442) 15" RCP INV. OUT = 36.42 (16424)
#16363 TOP = 39.81 18" RCP INV. IN = 32.53 (16302) 21" RCP INV. IN = 32.96 (16425) 36" RCP INV. IN = 22.33 (16348) 78" RCP INV. IN = 22.20 (16369) 84" RCP INV. OUT = 22.03 (16309)	#38210 TOP = 40.14 15" RCP INV. OUT = 36.10 (16423)
#16369 TOP = 40.23 18" RCP INV. IN = 33.23 (38211) 18" RCP INV. IN (16346) Invert cannot be measured directly 78" RCP INV. IN = 22.68 (16332) 78" RCP INV. OUT = 22.30 (16363)	#38211 TOP = 40.07 C/L INV. = 34.12
	#38212 TOP = 40.32 21" RCP INV. IN = 34.10 (16674) 21" RCP INV. OUT = 33.94 (16425)
	#38213 TOP = 40.35 15" RCP INV. OUT = 36.92 (16416)

SANITARY SEWER

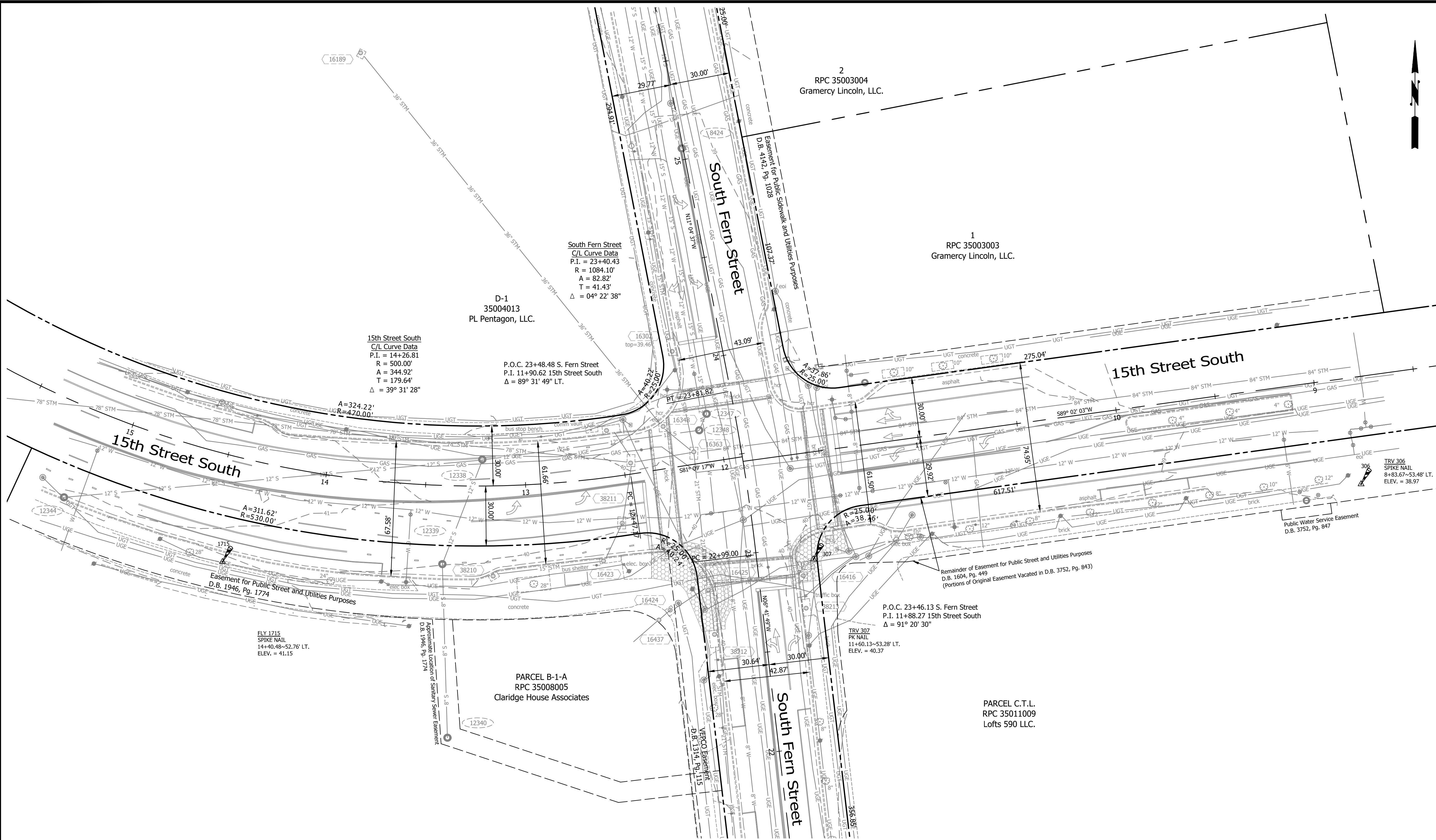
#8424 TOP = 39.32 C/L INV. = 31.92
#12338 TOP = 40.72 C/L INV. = 31.38
#12339 TOP = 40.12 C/L INV. = 31.82
#12340 TOP = 43.86 C/L INV. = 32.52
#12344 TOP = 41.04 C/L INV. = 32.08
#12347 TOP = 39.63 C/L INV. = 29.10
#12348 TOP = 39.67 C/L INV. = 29.63
#12353 TOP = 38.94 C/L INV. = 26.74

NOTES:

- CONTROL FOR THIS PROJECT WAS BASED ON ARLINGTON COUNTY PROJECT MA13.
- ALL OTHER CONTROL ESTABLISHED BY TRADITIONAL TRAVERSE AND DIFFERENTIAL LEVELING.
- UNDERGROUND UTILITIES WERE DESIGNATED BY MID-ATLANTIC UTILITY LOCATING (MAUL) ON 11/06/2020 AND LOCATED BY ARLINGTON COUNTY SURVEYORS ON 11/10/2020. "EOI" DENOTES "END OF INFORMATION"; AN AREA WHERE THE DESIGNATOR WAS NO LONGER ABLE TO TRACE A UTILITY LINE.
- WATERLINE AND SANITARY SEWER LINE SIZES ARE SHOWN PER ARLINGTON COUNTY RECORDS.

GENERAL SURVEY NOTES:

- THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM FROM 10/2020 TO 12/2020; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
- HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
- VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
- CONTOUR INTERVAL: 1'
- BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.



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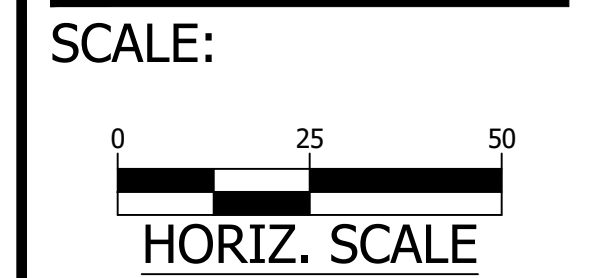


APPROVALS	DATE
<i>Amy Pflaum</i>	04/04/2022
QUALITY CONTROL ENGINEER	
<i>Chuan E. Salinas</i>	5/2/2022
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	4/13/2022
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	04/11/2022
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	3/31/2022
PROJECT MANAGER	

REVISIONS	DATE

15TH ST S AND S FERN ST INTERSECTION
 CC21
 DEMOLITION PLAN

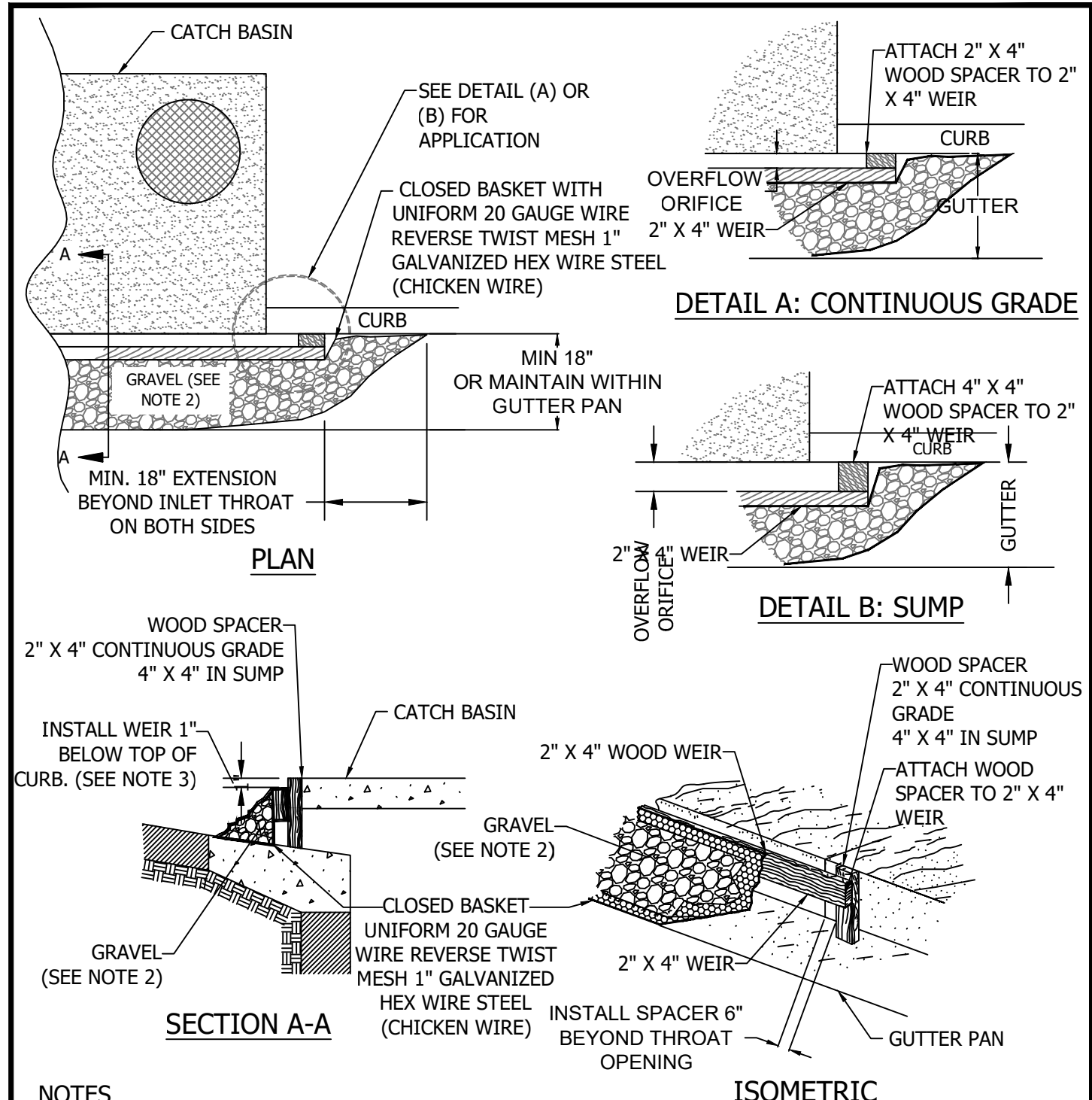
DESIGNED: V SHEPELEVA
 DRAWN: V SHEPELEVA
 CHECKED: J LIN
 PLOTTED: JUNE 9 2022



C021.1

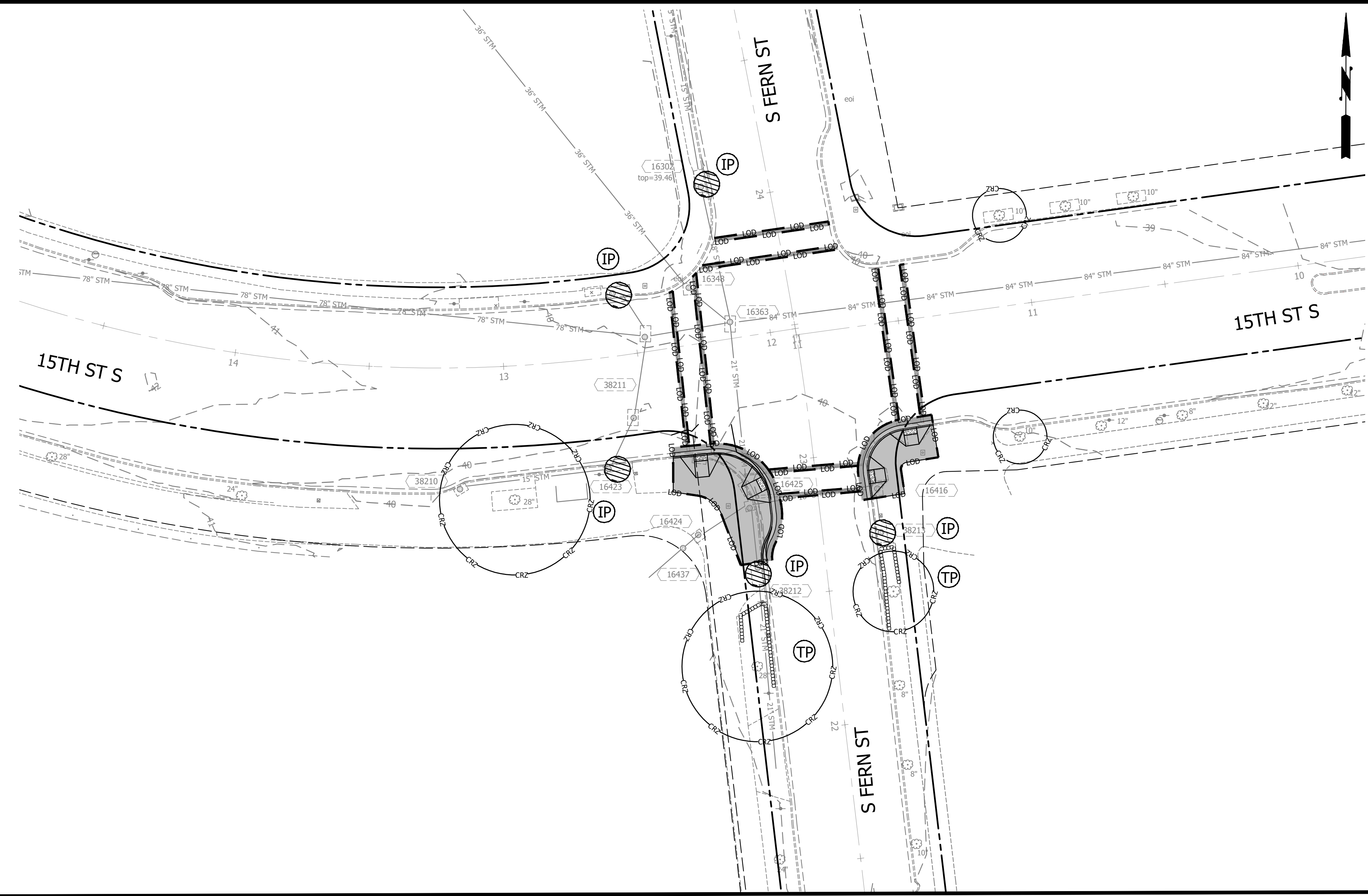
NOTE:

- WHERE EXISTING SIDEWALK IS TO BE REMOVED WITHIN THE CRITICAL ROOT ZONE OF A TREE, LEAVE PAVEMENT IN PLACE AS LONG AS POSSIBLE DURING CONSTRUCTION. REMOVE PAVEMENT WITH THE ROLLBACK TECHNIQUE, KEEP EQUIPMENT ON PAVING, AND LIMIT OVERDIG. ONCE PAVEMENT HAS BEEN REMOVED, VEHICULAR TRAFFIC IS STRICTLY PROHIBITED UNTIL PAVING IS REPLACED. REPLACED PAVING SHOULD BE A BRIDGED, TREE-FRIENDLY DETAIL WITH NO COMPACTION BEYOND 85%. COORDINATE WITH THE URBAN FORESTER WHEN PROCESS OR CONSTRUCTION DETAILS CAN'T FOLLOW THIS SPECIFICATION.



- NOTES**
1. DIMENSIONAL LUMBER SIZES SHOW.
 2. GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, # 357 OR #5.
 3. WEIR HEIGHT MAY BE ADJUSTED BY PROJECT OFFICER OR INSPECTOR IN FLOOD PRONE AREAS.
 4. PAINT 2"x4" WEIR, CLOSED BASKET, AND GUTTER WITH HIGH VISIBILITY INCANDESCENT ORANGE PAINT.
 5. REMOVE SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE PROTECTION.

CURB INLET PROTECTION	
ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	REVISION & DATE
DRAWING NO. 3.07-7 (ACG)	



ARLINGTON VIRGINIA
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SEAL

COMMONWEALTH OF VIRGINIA
JONG LIN
Lic. No. 0402051875
03/31/2022
PROFESSIONAL ENGINEER

APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Alan E. Sullivan</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>Alan E. Sullivan</i> CONSTRUCTION MANAGEMENT SUPERVISOR	4/13/2022
<i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR	04/10/2022
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

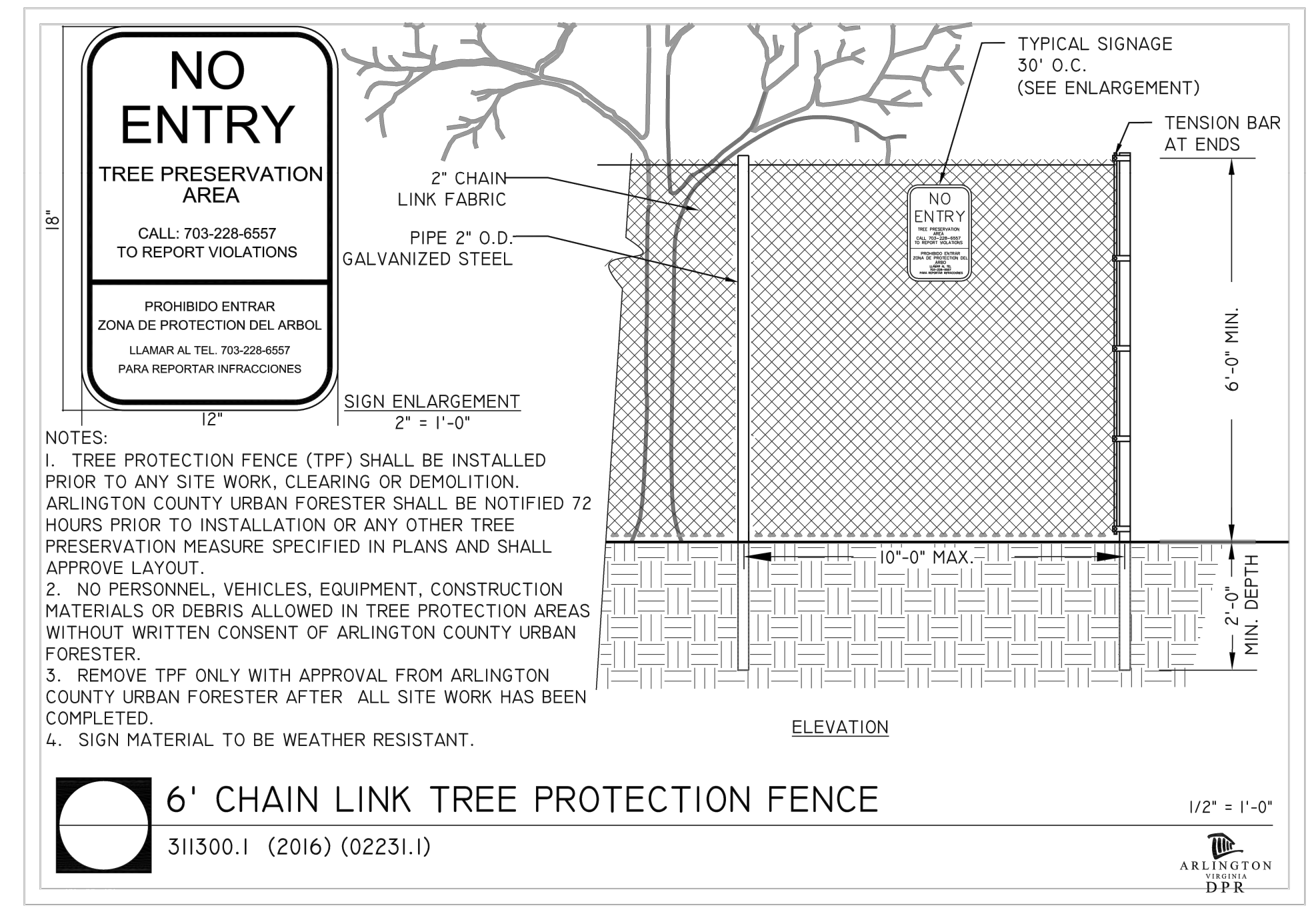
15TH ST S AND S FERN ST INTERSECTION
CC21
EROSION AND SEDIMENT CONTROL
PLAN PHASE I AND PHASE II

DESIGNED: V SHEPELEVA
DRAWN: V SHEPELEVA
CHECKED: J LIN
PLOTTED: JUNE 9 2022

SCALE:

0 25 50
GRAPHIC SCALE

C031.1



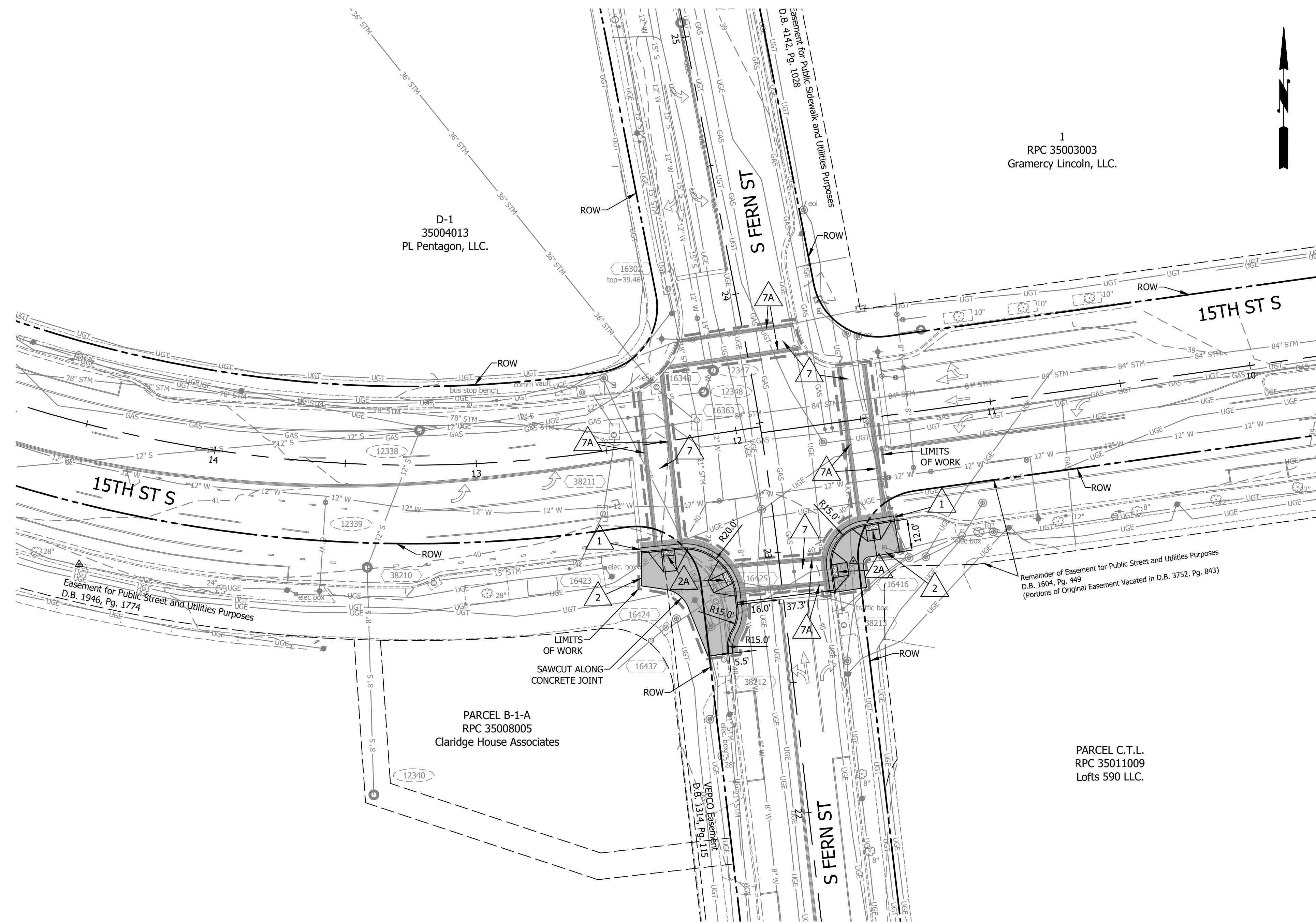
- NOTES:**
1. CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY FORESTER TO SCHEDULE A PRE-CONSTRUCTION INSPECTION OF TREE PROTECTION MEASURES BEFORE ANY WORK NEAR THE CRITICAL ROOT ZONES OF TREES. TO SCHEDULE THE PRE-CONSTRUCTION MEETING CALL 703-228-6557.
 2. CONTRACTOR SHALL PROTECT TREES PER THE PLAN ACCORDING TO THE ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 311300.1 (SEE SHEET C032.1 FOR DETAIL).
 3. CONTRACTOR SHALL ROOT PRUNE TREES PER THE PLAN ACCORDING TO THE ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 311300.5 (SEE SHEET C032.1 FOR DETAIL).
 4. CONTRACTOR SHALL PRUNE ANY TREE BRANCHES WHICH WOULD CONFLICT WITH CONSTRUCTION ACTIVITIES. PRUNING SHALL BE PERFORMED PRIOR TO CONSTRUCTION AND UNDER THE DIRECTION OF THE ARLINGTON COUNTY FORESTER.

EROSION AND SEDIMENT CONTROL LEGEND

3.07-2 (VESCH) 3.07-7 (ACG)	STORM DRAIN INLET PROTECTION	IP			PROTECT TREE PRIOR TO AND DURING CONSTRUCTION. CONTACT ARLINGTON COUNTY FORESTER PRIOR TO INSTALLATION OF TREE PROTECTION, OR BEGINNING ANY WORK ADJACENT TO TREE. ROOT PRUNING AND HAND DIGGING AS REQUIRED BY COUNTY FORESTER OR AS SHOWN ON PLAN.
311300.3	LIMITS OF DISTURBANCE	---	LOD	CRZ	
311300.3	CRITICAL ROOT ZONE	---	CRZ		
311300.1	TREE PROTECTION	TP			

ADDITIONAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE COUNTY PROJECT OFFICER.
2. THE CONTRACTOR TO ENSURE ROADWAYS AND SIDEWALKS REMAIN CLEAR OF MUD, GRAVEL, AND DEBRIS AT ALL TIMES.



CONSTRUCTION NOTES

- 1 PROP CURB AND GUTTER (C-2) ARL STD (R-2.0)
- 2 PROP SIDEWALK ARL STD (R-2.0)
- 2A PROP RAMP (CG-12A) VDOT ROAD & BRIDGE STANDARDS (204.02) SEE CURB RAMP DETAIL SHEET C042.1
- 7 REMOVE EXISTING PAVER CROSSWALK AND REPLACE WITH ASPHALT PAVEMENT. REMAIN THE CONCRETE SLAB UNDERNEATH. SEE SHEET C004.1 FOR DETAIL.
- 7A REMOVE CONCRETE BANDS ENTIRELY TO UNDISTURBED GROUND, REPLACE WITH FULL DEPTH PAVEMENT. SEE SHEET C004.1 FOR DETAILS.

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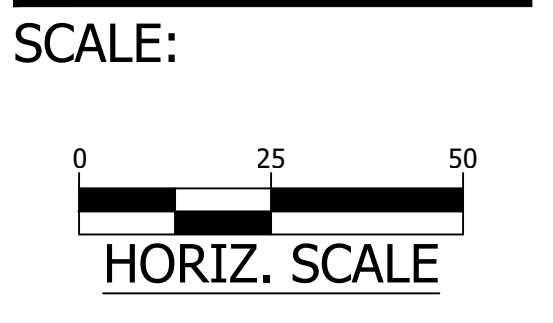
APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Chao E. Sullivan</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	4/13/2022
<i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR	04/10/2022
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

15TH ST S AND S FERN ST INTERSECTION
CC21

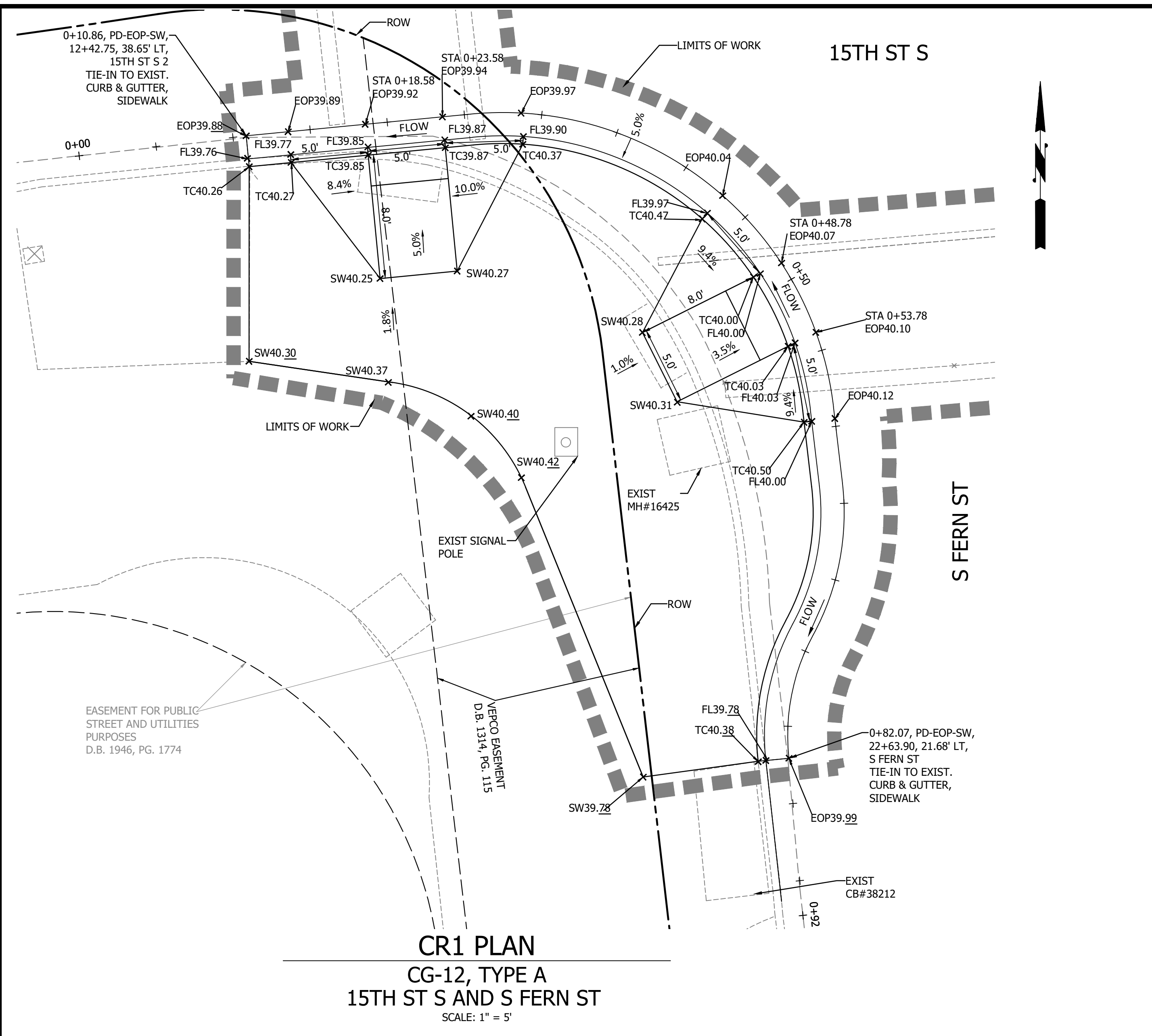
PLAN AND PROFILE

DESIGNED: V SHEPELEVA
 DRAWN: V SHEPELEVA
 CHECKED: J LIN
 PLOTTED: JUNE 9 2022

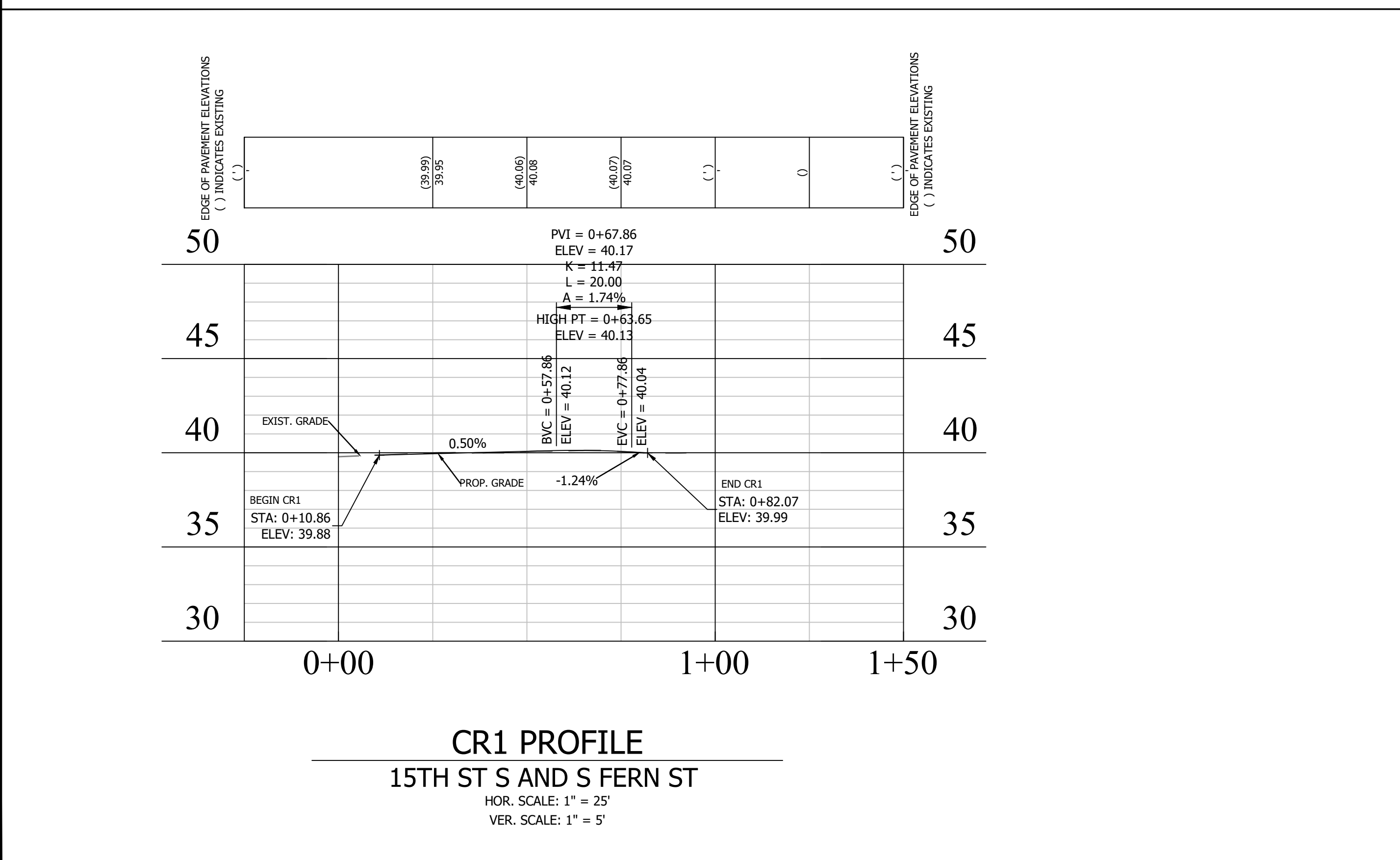


C041.1

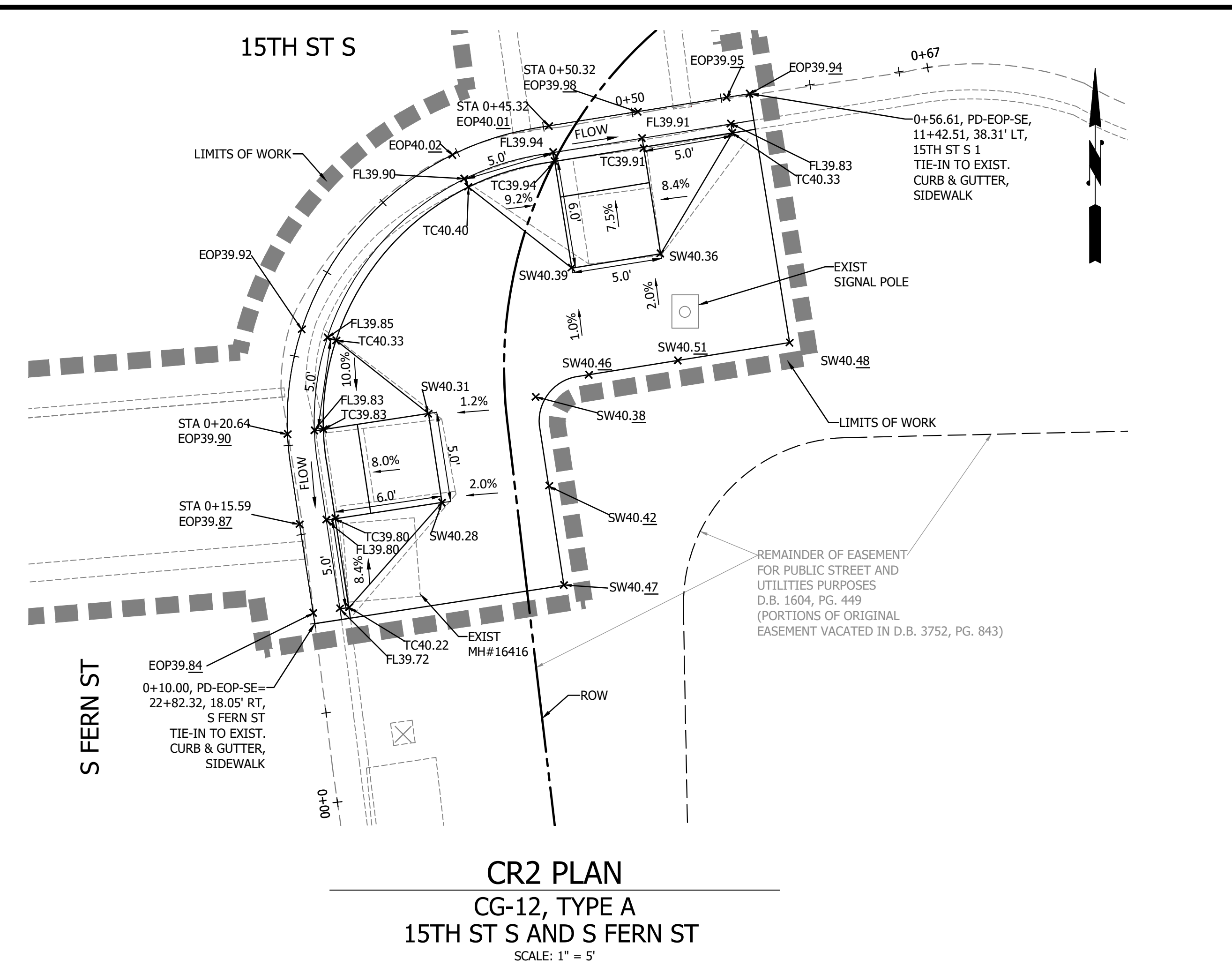
REVISED ON 1/24/2022



CR1 PLAN
CG-12, TYPE A
15TH ST S AND S FERN ST
SCALE: 1" = 5'



CR1 PROFILE
15TH ST S AND S FERN ST
HOR. SCALE: 1" = 25'
VER. SCALE: 1" = 5'



CR2 PLAN
CG-12, TYPE A
15TH ST S AND S FERN ST
SCALE: 1" = 5'

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COMMONWEALTH OF VIRGINIA
JONG LIN
Lic. No. 0402051875
03/31/2022
PROFESSIONAL ENGINEER

APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Alan E. Salway</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	4/13/2022
<i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR	04/10/2022
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

15TH ST S AND S FERN ST INTERSECTION
CC21
RAMP DETAILS

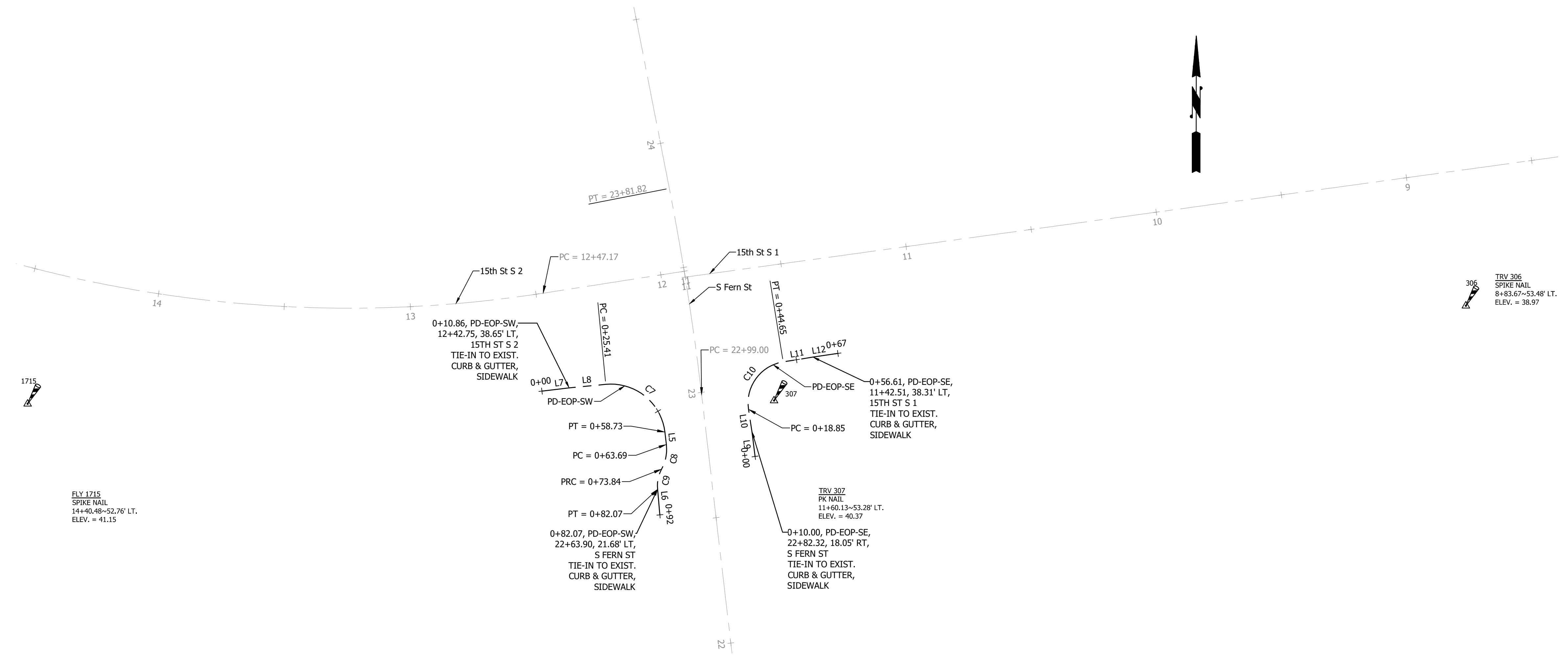
DESIGNED: V SHEPELEVA
DRAWN: V SHEPELEVA
CHECKED: J LIN
PLOTTED: JUNE 9 2022

SCALE:
AS SHOWN

LEGEND
XXX.XX: INDICATES EXISTING ELEVATION
XXX.XX: INDICATES PROPOSED ELEVATION
EOP: EDGE OF PAVEMENT
FL: FLOW LINE
TC: TOP OF CURB
SW: SIDEWALK

C042.1

REVISED ON 1/24/2022



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APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Adam E. Fulsom</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	4/13/2022
<i>Dennis W. Leach</i> TRANSPORTATION DIRECTOR	04/10/22
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

FILENAME: CC21-21G-GEOMETRIC_CONTROL_PLAN.DWG PATH: \\10.66.13.9\ENGINEERING_DATA\DATA\CC21\DESIGN\ACTIVE PLOTTED BY: VSHEPELEVA

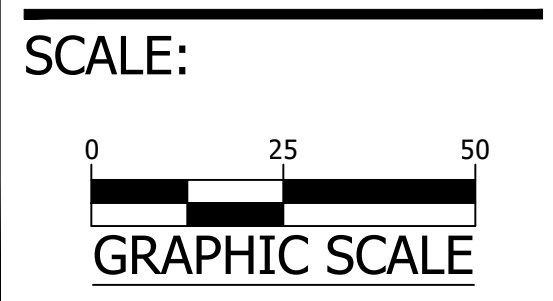
ALIGNMENT: PD-EOP-SW										
Curve/Line #	Length	Radius	Line/Chord Bearing	Chord Length	Delta (Δ)	Tangent	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
C7	33.32'	21.50'	S51° 06' 13.48"E	30.09'	88° 48' 30"	21.06	0+25.41	0+58.73	6999324.19, 11894030.42	6999305.30, 11894053.84
C8	10.15'	16.50'	S10° 55' 27.70"W	9.99'	35° 14' 53"	5.24	0+63.69	0+73.84	6999300.37, 11894054.42	6999290.56, 11894052.52
C9	8.23'	13.50'	S11° 05' 12.46"W	8.10'	34° 55' 23"	4.25	0+73.84	0+82.07	6999290.56, 11894052.52	6999282.61, 11894050.97
L5	4.96'		S6° 41' 58.61"E				0+58.73	0+63.69	6999305.30, 11894053.84	6999300.37, 11894054.42
L6	10.18'		S5° 04' 03.59"E				0+82.07	0+92.25	6999282.61, 11894050.97	6999272.47, 11894051.86
L7	10.86'		N83° 09' 36.53"E				0+00.00	0+10.86	6999321.50, 11894005.16	6999322.79, 11894015.94
L8	14.55'		N84° 29' 31.65"E				0+10.86	0+25.41	6999322.79, 11894015.94	6999324.19, 11894030.42

ALIGNMENT: PD-EOP-SE										
Curve/Line #	Length	Radius	Line/Chord Bearing	Chord Length	Delta (Δ)	Tangent	STA (Start)	STA (End)	Northing, Easting (Start)	Northing, Easting (End)
C10	25.80'	16.50'	N36° 04' 46.88"E	23.25'	89° 34' 29"	16.38	0+18.85	0+44.65	6999314.29, 11894086.95	6999333.08, 11894100.65
L9	10.00'		N7° 13' 12.69"W				0+00.00	0+10.00	6999295.62, 11894089.55	6999305.54, 11894088.29
L10	8.85'		N8° 42' 27.63"W				0+10.00	0+18.85	6999305.54, 11894088.29	6999314.29, 11894086.95
L11	11.96'		N80° 52' 01.39"E				0+44.65	0+56.61	6999333.08, 11894100.65	6999334.98, 11894112.45
L12	10.00'		N81° 39' 30.34"E				0+56.61	0+66.61	6999334.98, 11894112.45	6999336.43, 11894122.35

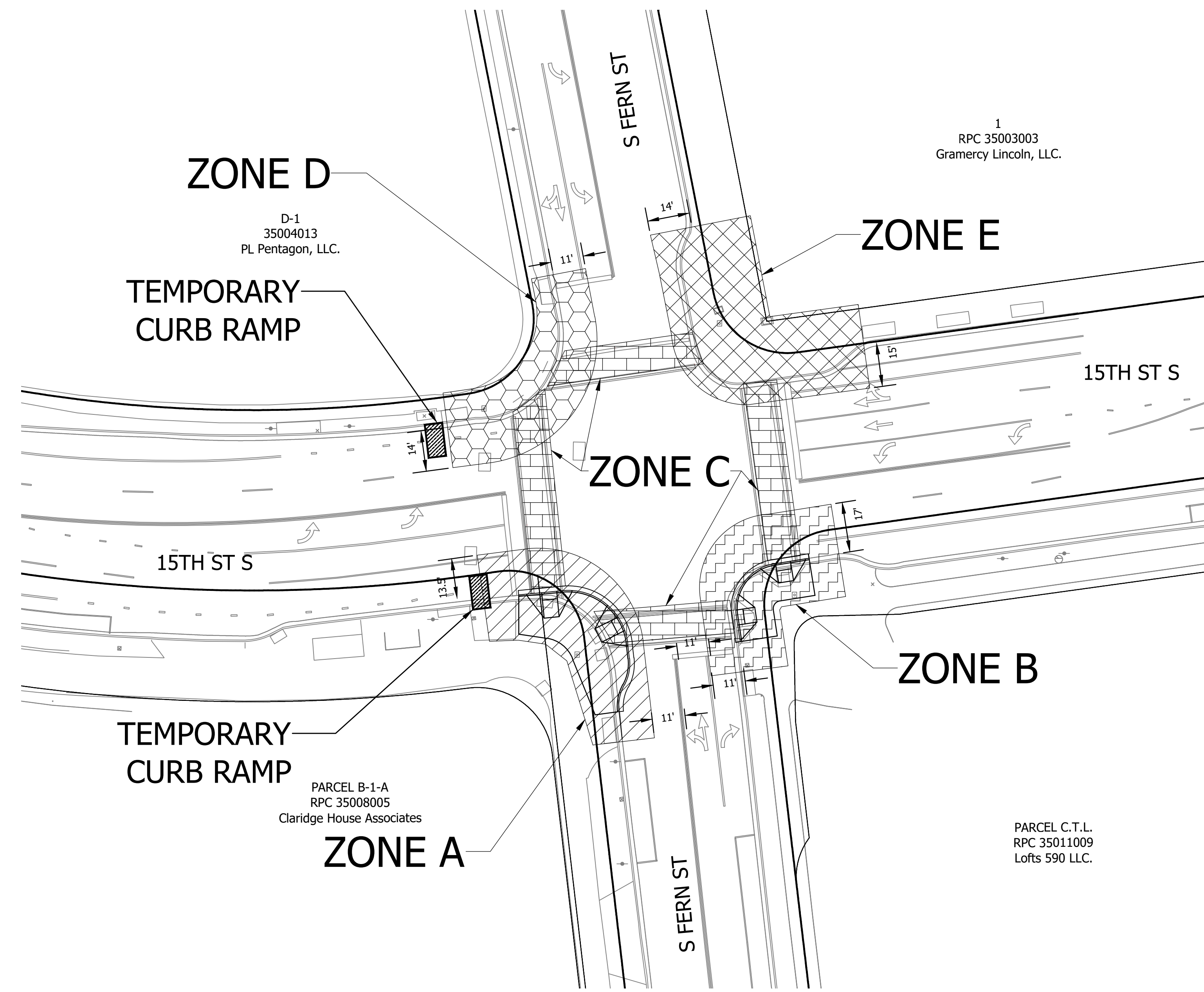
PT#	NORTHING	EASTING	ELEV.	DESCRIPTION
306	6999355.2956	11894370.9351	38.98	TRV 306
307	6999317.7426	11894097.0410	40.37	TRV 307
1715	6999316.4369	11893801.5191	41.15	FLY 1715

15TH ST S AND S FERN ST INTERSECTION
 CC21
 GEOMETRIC CONTROL PLAN

DESIGNED: V SHEPELEVA
 DRAWN: V SHEPELEVA
 CHECKED: J LIN
 PLOTTED: JUNE 9 2022



C045.1



1
RPC 35003003
Gramercy Lincoln, LLC.

D-1
35004013
PL Pentagon, LLC.

PARCEL B-1-A
RPC 35008005
Claridge House Associates

PARCEL C.T.L.
RPC 35011009
Lofts 590 LLC.

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APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Alan E. Sullivan</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>Alan</i> WATER, SEWER, STREETS BUREAU CHIEF	4/13/2022
<i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR	04/04/22
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

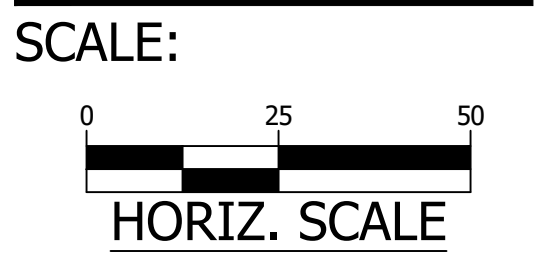
WORK ZONE TABLE			
ZONE	TTC #	COMMENTS	DURATION
S FERN ST AND 15TH ST S			
ZONE A	TTC - 26.2 TTC - 36.2	<ul style="list-style-type: none"> REFER TO TR08 PLAN FOR TRAFFIC SIGNAL CONSTRUCTION. BIKE LANE SHALL BE CLOSED DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN SAFE AND OPEN ACCESS TO THE BUS SHELTER AND BUS STOP, AND PROVIDE TEMPORARY RAMP FROM CURB TO TRAVEL LANE AT 6-INCH HIGH, SEE SHEET C122.1 FOR THE RAMP DETAIL. 	ONE WEEK TO ONE MONTH
ZONE B	TTC - 26.2 TTC - 36.2	<ul style="list-style-type: none"> REFER TO TR08 PLAN FOR TRAFFIC SIGNAL CONSTRUCTION. BIKE LANE SHALL BE CLOSED DURING CONSTRUCTION. 	ONE WEEK TO ONE MONTH
ZONE C	TTC - 26.2 TTC - 27.2 TTC - 29.2	<ul style="list-style-type: none"> PAVER CROSSWALK WORK. CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OPEN FOR EACH DIRECTION. 	ONE WEEK TO ONE MONTH
ZONE D	TTC - 27.2 TTC - 36.2	<ul style="list-style-type: none"> REFER TO TR08 PLAN FOR TRAFFIC SIGNAL CONSTRUCTION. BIKE LANE SHALL BE CLOSED DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN SAFE AND OPEN ACCESS TO THE BUS SHELTER AND BUS STOP, AND PROVIDE TEMPORARY RAMP FROM CURB TO TRAVEL LANE AT 6-INCH HIGH, SEE SHEET C122.1 FOR THE RAMP DETAIL. 	ONE WEEK TO ONE MONTH
ZONE E	TTC - 26.2 TTC - 36.2	<ul style="list-style-type: none"> REFER TO TR08 PLAN FOR TRAFFIC SIGNAL CONSTRUCTION. BIKE LANE SHALL BE CLOSED DURING CONSTRUCTION. 	ONE WEEK TO ONE MONTH

NOTE: THE DURATIONS SHOWN WERE DEVELOPED FOR PLANNING AND ESTIMATION PURPOSES ONLY. THE DURATIONS IN NO WAY ALTER THE CONTRACT TIME FOR COMPLETION, OR INFRINGE ON THE CONTRACTORS MEANS AND METHODS. THE CONTRACTOR'S SUBMITTED SCHEDULE SUPERSEDES THE ESTIMATED DURATIONS SHOWN.

- ADDITIONAL NOTES:**
- CONTRACTOR SHALL FOLLOW THE EXAMPLE OF A BICYCLE LANE CLOSURE DIAGRAM SHOWN ON SHEET C122.1 TO SET UP TRAFFIC CONTROL SIGNS AND DEVICES, WHILE THE BIKE LANE CLOSURE IS IN EFFECT DURING CONSTRUCTION.
 - TEMPORARY SIGNS AND BARRIERS SHALL NOT BE PLACED WHERE THEY WILL OBSTRUCT PEDESTRIAN TRAVEL ON SIDEWALKS, UNLESS SUCH SIGNS AND BARRIERS ARE INTENDED TO CLOSE THAT SEGMENT OF SIDEWALK.
 - CONTRACTOR SHALL CONSTRUCT NO MORE THAN ONE CORNER AT A TIME.

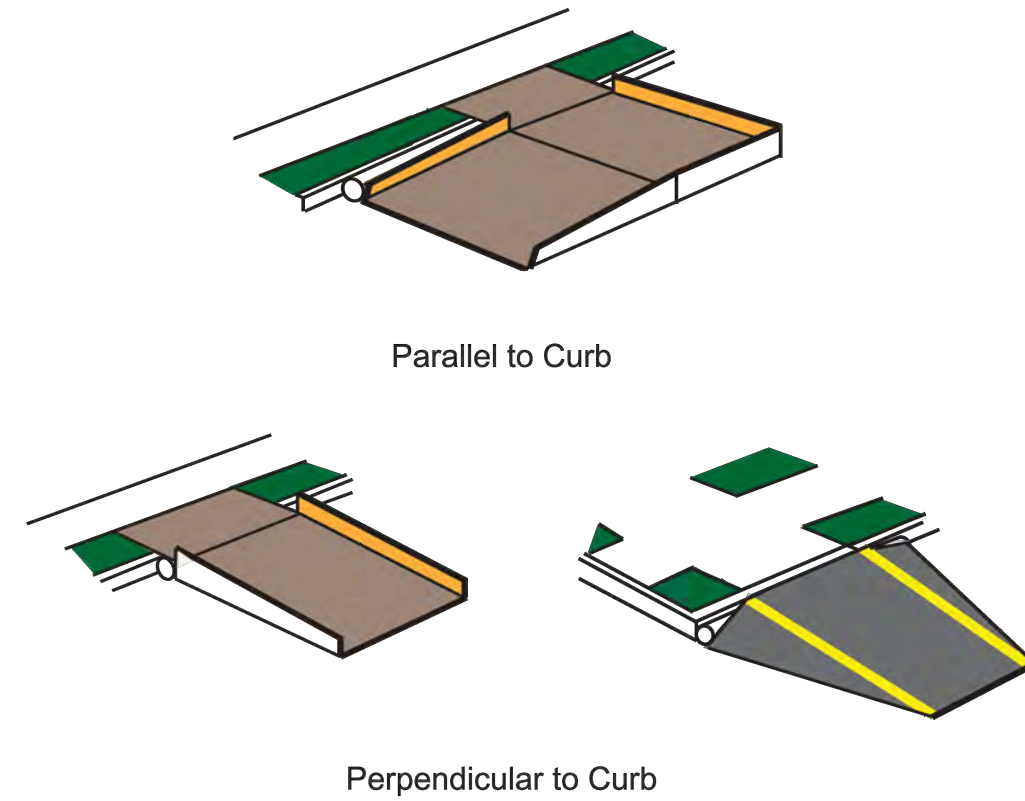
15TH ST S AND S FERN ST INTERSECTION
CC21
MAINTENANCE OF TRAFFIC PLAN

DESIGNED: V SHEPELEVA
DRAWN: V SHEPELEVA
CHECKED: J LIN
PLOTTED: JUNE 9 2022



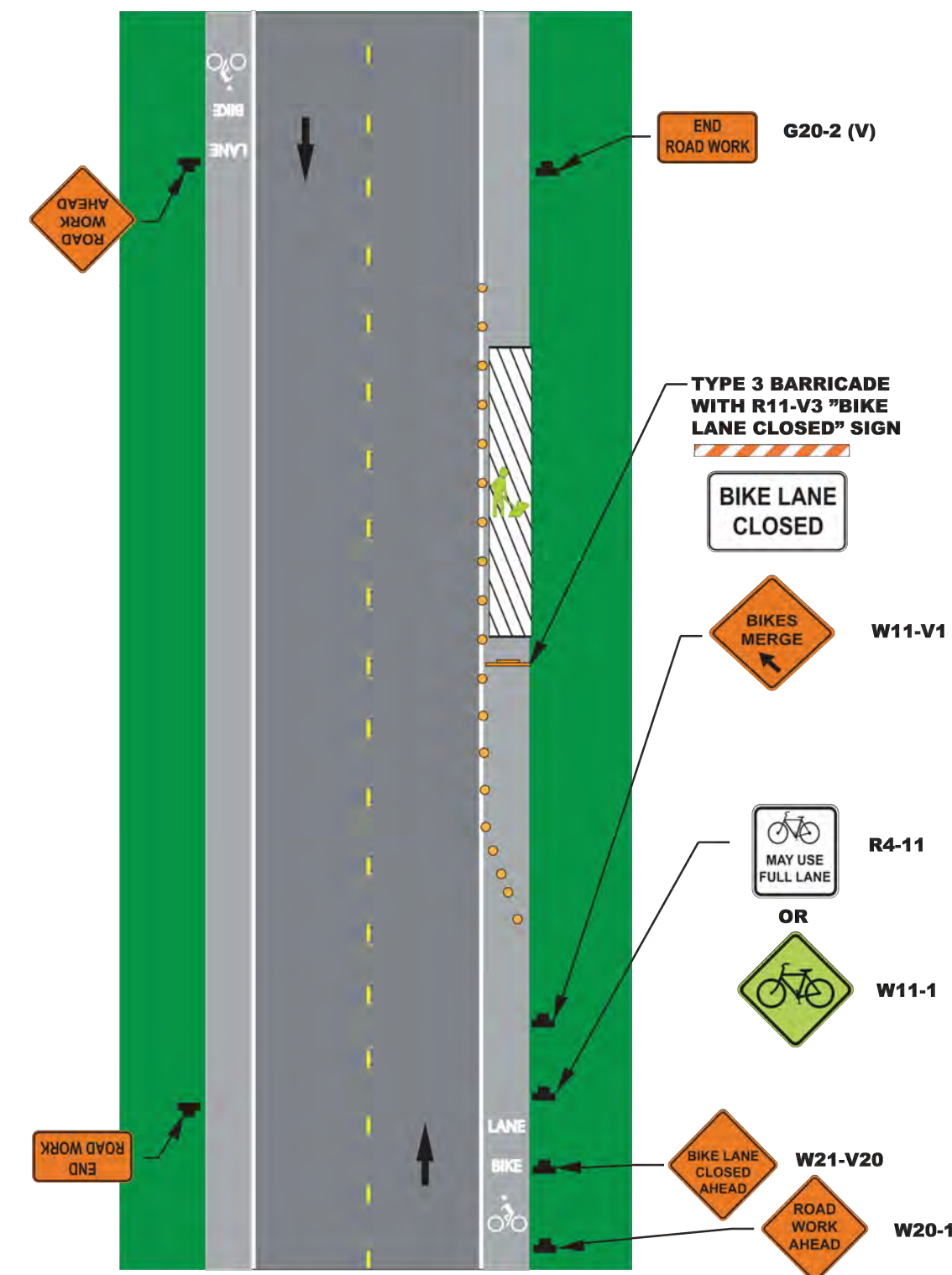
C121.1

Temporary Curb Ramps



- 1. Curb ramps should be a minimum of 48 inches in width for perpendicular ramps and 60 inches in width for parallel ramps, with a firm, stable non-slip surface.
2. Detectable edges for long canes shall be continuous and a minimum of 6 inches above the walkway surface and be a contrasting color with the ramp and landing surface.
3. Ramps shall have a slope not to exceed a maximum of an 12% (8:1).
4. Curb ramps and turning spaces should have a maximum of 2% (48:1) cross-slope.
5. A level clear space, 48 X 48 inch for perpendicular ramps and 60 X 60 inch for parallel ramps, should be provided above and below the ramp.
6. Curb ramps should be placed to have minimal restriction to water flow in the curb/gutter drainage system.
7. All joints and gaps between surfaces should be less than 0.5 inches.
8. Vertical changes between surface heights should not exceed 0.5 inches. Vertical edges can be vertical up to 0.25 inches. Vertical edges between 0.25 and 0.5 inches shall be beveled at 2:1.

(RESOURCE: VDOT WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE)



EXAMPLE OF A BICYCLE LANE CLOSURE

(RESOURCE: VDOT WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE)

Table 6H-2, Taper Length Criteria and Taper Length Chart

Table with 2 columns: Type of Taper and Taper Length (L). Rows include Merging, Shifting, Shoulder, Two-Way Traffic, and Downstream.

Table with 6 columns: Posted Speed Limit (mph), Width of Offset (Feet) (9, 10, 11, 12), and Remarks. Rows show speed limits from 25 to 70 mph.

* Limited Access highways shall use a 1000' merging taper regardless of the posted speed.
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 1/2 L should be used.

Table 6H-3, Length of the Longitudinal Buffer Space¹

Table with 2 columns: Posted Speed Limit (mph) and Distance (Feet). Rows show speed limits from 20 to 70 mph.

1: Revision 1 - 4/1/2015; Revision 2 - 9/1/2019

Table 6H-4, Channelizing Device Spacing

Table with 3 columns: Location, Posted Speed Limit (mph) (0-35, 36+), and Spacing (20', 40', 80', 120').

* For easier access by construction vehicles into the work area, spacing of devices may be increased to this distance, but shall not exceed one access per 0.25 mile unless approved by the engineer and documented.

Table 6H-5, Recommended Spacing of Advance Warning Signs¹

Table with 2 columns: Road Type and Spacing (Feet). Rows include Urban street with 25 mph or less posted speed, Urban street with 30 to 40 mph posted speed, All Other Roadways with 45 mph or less posted speed, All Other Roadways with greater than 45 mph posted speed, and Limited Access highways.

* Urban streets with greater than 40 mph posted speed limits fall into this category.
Note: For urban conditions, it is generally better to place all advanced warning signs within a one block area versus spreading out the signs over several blocks, however, motorist must have time to recognize and react to each warning sign - see Section 6G.11.

Table 6H-6, Barrier Flare Rate

Table with 6 columns: Speed Limit (mph), Flare Rate, Speed Limit (mph), Flare Rate, Speed Limit (mph), Flare Rate. Rows show speed limits from 70 to 60 mph.

Table 6H-7, Spacing of Portable Temporary Rumble Strip²

Table with 4 columns: Posted/Statutory Speed Limit, ≤ 40 mph, 41 - 55 mph, > 55 mph. Rows show PTRS Spacing (Center to Center) for 10, 15, and 20 feet.

Table 6H-8, Spacing of Long-term Transverse Temporary Rumble Strip²

Table with 4 columns: PTRS Spacing (Center to Center), Set 1 Spacing, Spacing Between Set 1 & 2, Set 2 Spacing. Rows show 5 strips at 6 feet, 90 feet, and 5 strips at 4'-6".

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

WORK HOURS:

- 1. IN ARLINGTON RIGHT-OF-WAY - 9 AM TO 3 PM (MON.-FRI.)
2. IN VDOT RIGHT-OF-WAY - 9:30 AM TO 3 PM (MON.-THUR.) AND 9:30 AM TO 2 PM (FRI.)
3. ALL LANES SHALL BE FULLY OPEN TO TRAFFIC OUTSIDE THE ABOVE HOURS UNLESS SPECIFIED OTHERWISE IN THE MAINTENANCE OF TRAFFIC PLANS.

ADDITIONAL NOTES:

- 1. SPACING OF ADVANCE WARNING SIGNS SHALL BE MINIMUM 100FT FOR POSTED SPEED LIMIT OF 25 MPH.
2. THE MINIMUM LANE WIDTH SHALL BE 10'. THIS APPLIES TO BOTH DURING CONSTRUCTION WORK HOURS, AND WHEN THE ROADWAY IS OPENED UP TO NORMAL TRAFFIC FLOW FOR ALL PHASES OF CONSTRUCTION.
3. MODIFICATIONS TO THE MAINTENANCE OF TRAFFIC PLAN OR CONSTRUCTION PHASING MAY BE MADE AT THE CONTRACTOR'S REQUEST WITH APPROVAL FROM THE COUNTY PROJECT OFFICER, OR AT THE DIRECTION OF THE COUNTY PROJECT OFFICER.

CONSTRUCTION NOTES

- 1. FOR ALL ARTERIAL STREETS, PORTABLE VARIABLE MESSAGE SIGNS WITH CLOSURE INFORMATION MUST BE INSTALLED AHEAD OF THE PROJECT SITE AT EACH VEHICULAR APPROACH 3 WEEKS PRIOR TO STREET CLOSURE IN LOCATIONS DIRECTED BY THE PROJECT OFFICER.
2. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.
3. CONTACT TRANSPORTATION ENGINEERING OPERATIONS AT 703-228-6598 OR 571-437-1077 AND THE PROJECT OFFICER TO APPROVE MARKING LAYOUT 48 HOURS PRIOR TO INSTALLATION OF MARKINGS.
4. ONE LANE CLOSURE IN EACH DIRECTION OF TRAFFIC WILL BE PERMITTED FOR FINAL PAVEMENT OVERLAY.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE FLOW OF TRAFFIC ON ANY INTERSECTION WITHIN THE WORK AREA.
6. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY PUBLIC SCHOOLS TWO WEEKS PRIOR TO STARTING CONSTRUCTION.
7. 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. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
8. WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.

MOT NOTES:

- 1. PARKING SHALL BE RESTRICTED BY THE COUNTY AS PART OF THE RIGHT OF WAY PERMIT. CONTACT DES-PERMITTING SECTION, 703-228-4798, AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF WORK.
2. ALL TEMPORARY BUS TRAVEL LANES MUST BE MINIMUM 11' WIDE.
3. THE CONTRACTOR SHALL MAINTAIN ADA ACCESSIBLE PARKING SPACES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT DES - PERMITTING, 703-228-4798, TO COORDINATE RELOCATION OF EXISTING ADA ACCESSIBLE PARKING SPACES OR TO INSTALL TEMPORARY SIGNAGE OUT OF AND ADJACENT TO THE WORK ZONE AS CONSTRUCTION PROGRESSES. MULTIPLE RELOCATIONS MAY BE NECESSARY DURING EACH PHASE.

PEDESTRIAN NOTE:

- 1. PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDDLEBLOCK WORK SITES.

LEGEND:

- ARROW PANEL
ARROW PANEL ON TRAILER
AREA UNDER CONSTRUCTION
AREA CONSTRUCTED IN PREVIOUS PHASE
SUB-PHASE OF AREA UNDER CONSTRUCTION
TRAFFIC FLOW
TRAFFIC DRUM
ARROW PANEL ON TRAILER
SIGN
TYPE III BARRICADE
FLAGGER



ARLINGTON VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606

SEAL COMMONWEALTH OF VIRGINIA JONG LIN Lic. No. 0402051875 03/31/2022 PROFESSIONAL ENGINEER

APPROVALS DATE Amy Pflaum 04/04/2022 QUALITY CONTROL ENGINEER Adam E. Sullivan 5/2/2022 CONSTRUCTION MANAGEMENT SUPERVISOR Dennis M. Leach 04/13/2022 WATER, SEWER, STREETS BUREAU CHIEF Dennis M. Leach 04/13/2022 TRANSPORTATION DIRECTOR Rose Harris 3/31/2022 PROJECT MANAGER

REVISIONS DATE

15TH ST S AND S FERN ST INTERSECTION

CC21

MAINTENANCE OF TRAFFIC NOTES AND DETAILS I

DESIGNED: V SHEPELEVA DRAWN: V SHEPELEVA CHECKED: J LIN PLOTTED: JUNE 9 2022

SCALE: N/A

C122.1

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:

Table with 4 columns: Speed Limit (mph), Lane Width (Feet), Taper Length L (ft), Remarks. Rows include speed limits from 25 to 45 mph and lane widths from 9 to 12 feet.

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 1/2 L should be used.

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

Table for Channelizing Device Spacing with columns for Location Spacing and Speed Limit (mph). Rows show spacing for 0-35, 36+, 40', and 80' 120'.

- 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 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: 10. PTRS may be used as shown in Figure TTC-17 and in accordance with Section 6F-99. 11. The supplemental PTRS may be eliminated.

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:

Table with 4 columns: Speed Limit (mph), Lane Width (Feet), Taper Length L (ft), Remarks. Rows include speed limits from 25 to 45 mph and lane widths from 9 to 12 feet.

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 1/2 L should be used.

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

Table for Channelizing Device Spacing with columns for Location Spacing and Speed Limit (mph). Rows show spacing for 0-35, 36+, 40', and 80' 120'.

- Guidance: 5. If room permits, a shadow vehicle with at least one amber rotating, oscillating, or high intensity flashing 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 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: 10. PTRS may be used as shown in Figure TTC-17 and in accordance with Section 6F-99. 11. The supplemental PTRS may be eliminated.

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.

- 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:

Table with 4 columns: Speed Limit (mph), Lane Width (Feet), Taper Length L (ft), Remarks. Rows include speed limits from 25 to 45 mph and lane widths from 9 to 12 feet.

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

Table for Buffer Spacing with columns for Posted Speed Limit (mph) and Distance (Feet). Rows show distances for speed limits from 25 to 45 mph.

- 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 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.

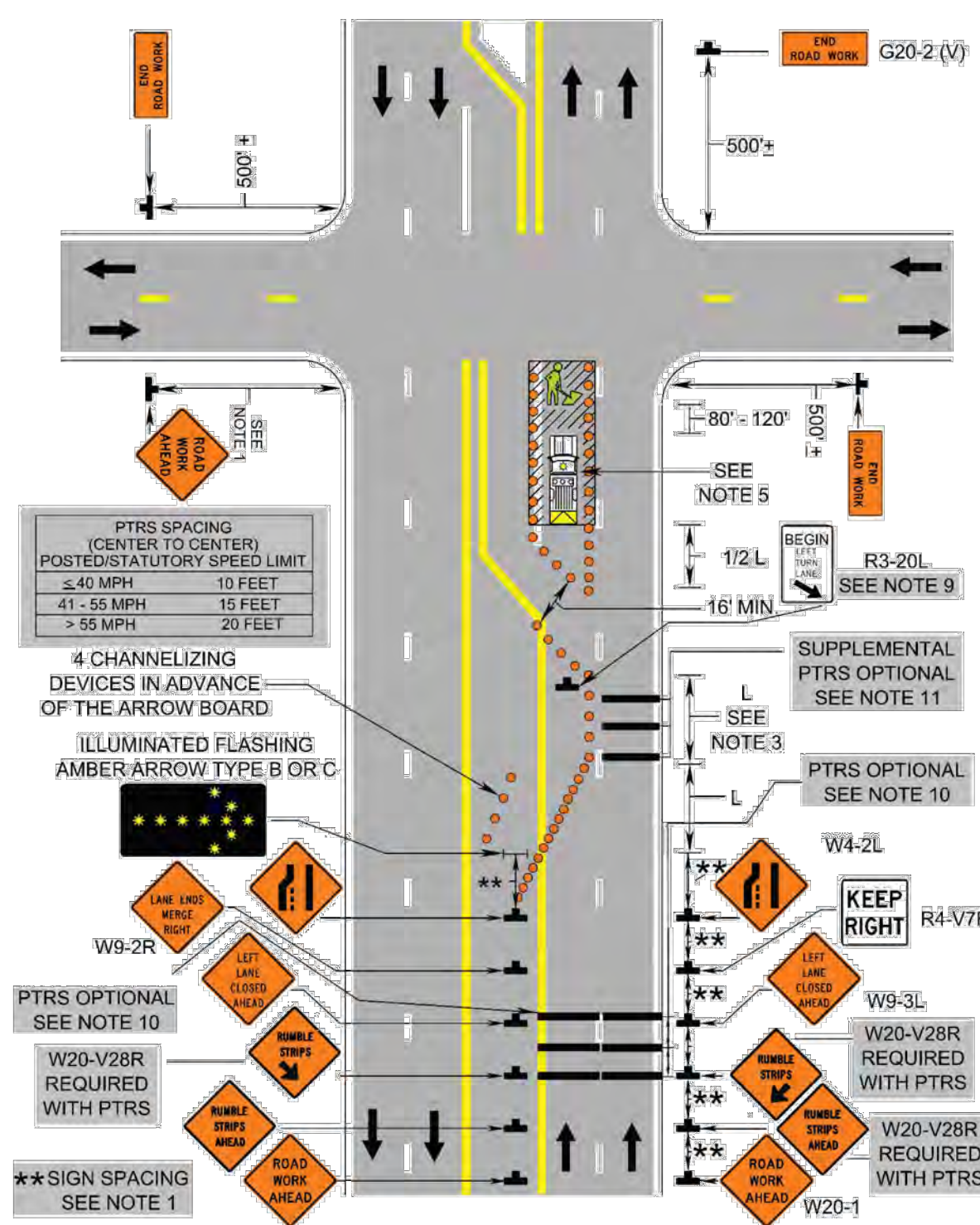
- 9. All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 Barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.

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

- Standard: 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.

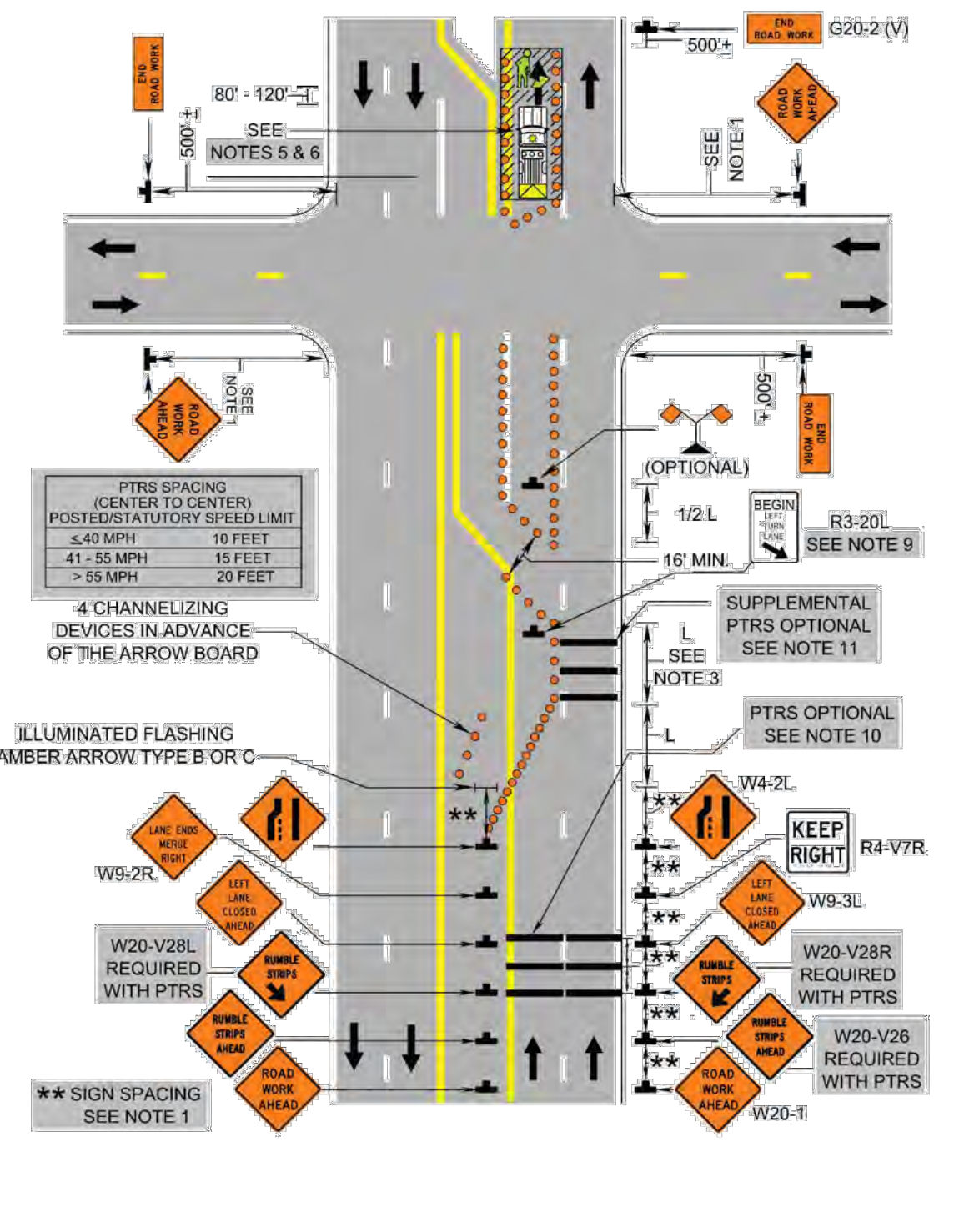
1: Revision 1 - 4/1/2015 2: Revision 2 - 9/1/2019

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



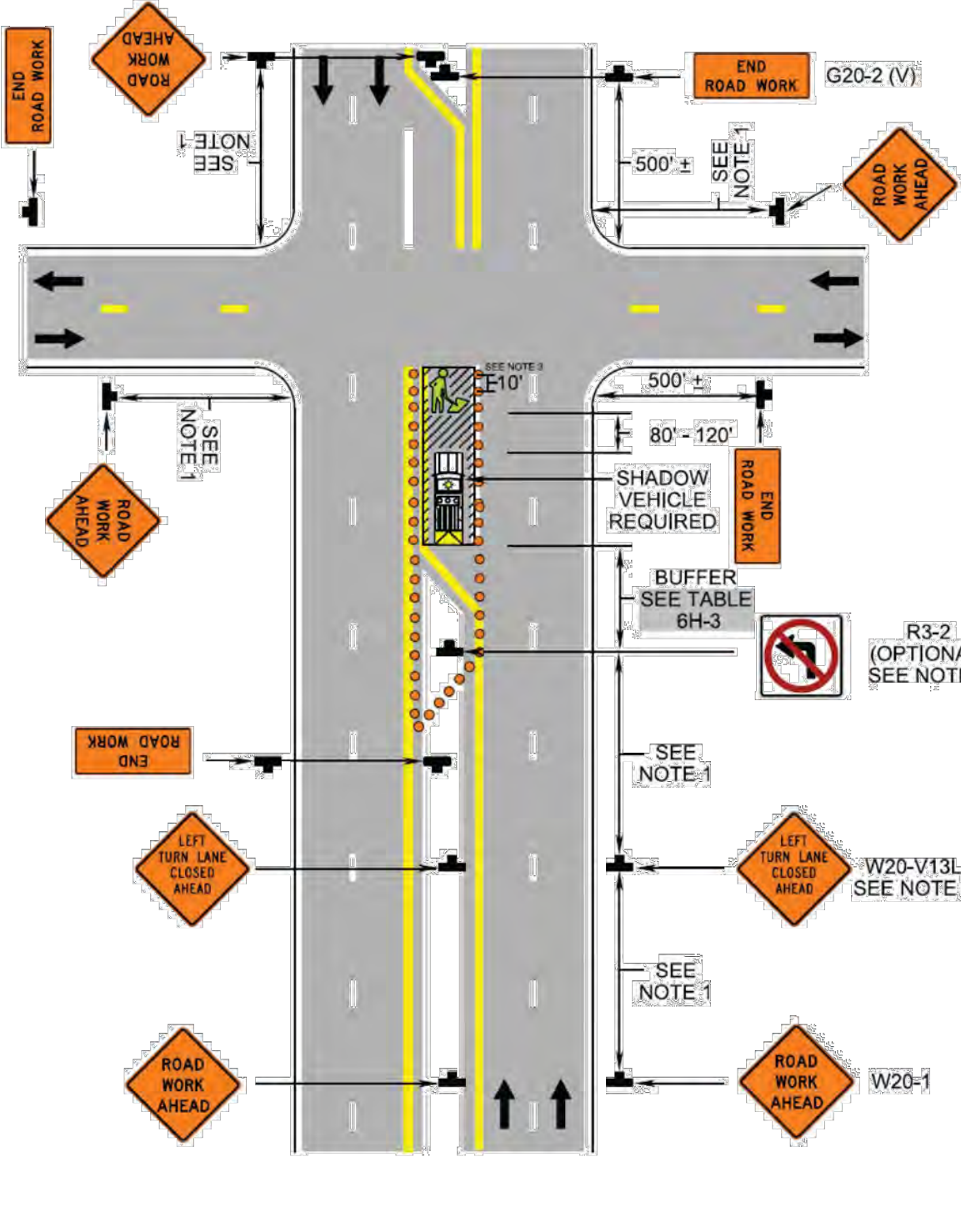
1: Revision 1 - 4/1/2015 2: Revision 2 - 9/1/2019

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



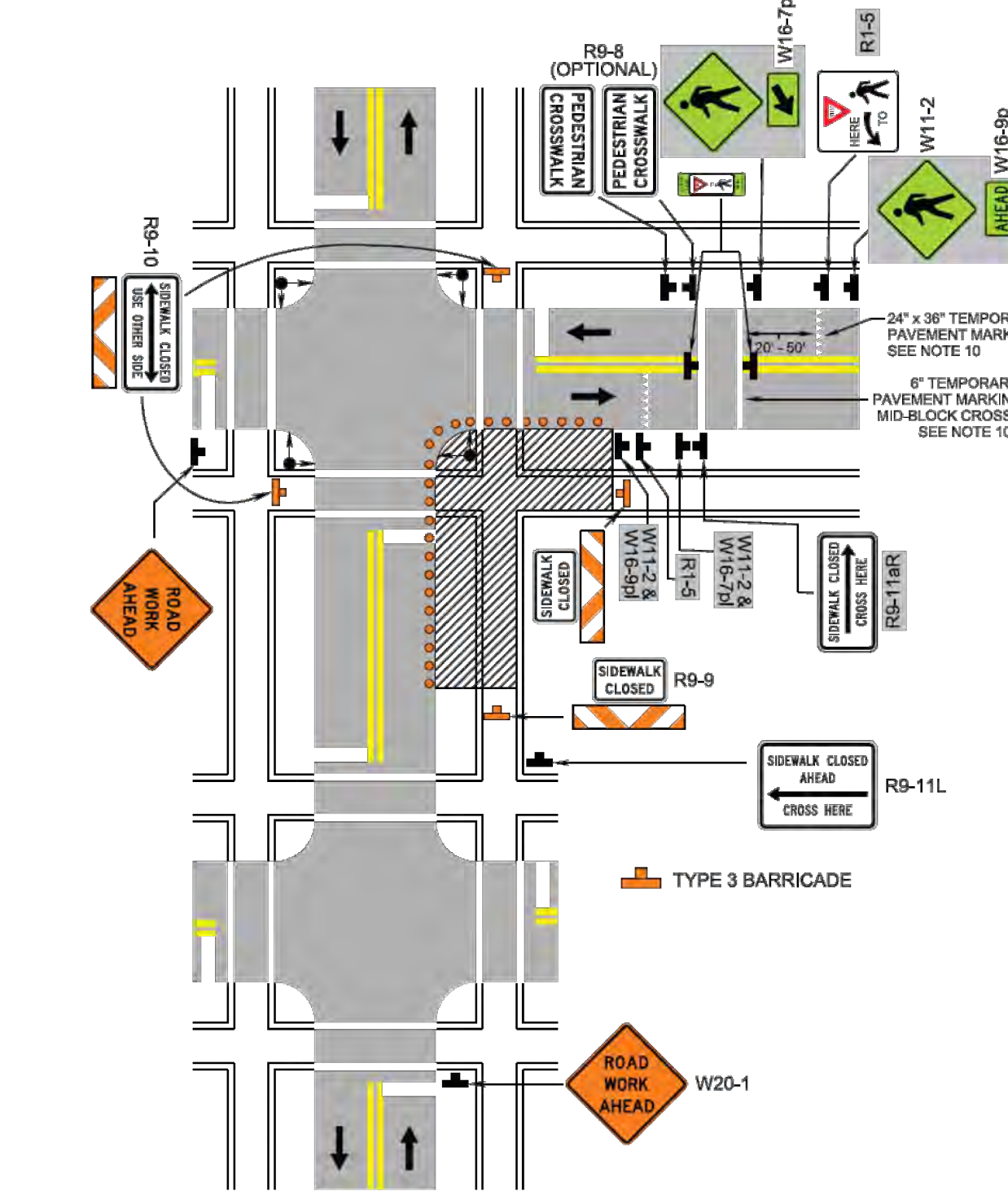
1: Revision 1 - 4/1/2015 2: Revision 2 - 9/1/2019

Turn Lane Closure Operation (Figure TTC-29.2)



2: Revision 2 - 9/1/2019

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



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

ARLINGTON VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606

SEAL COMMONWEALTH OF VIRGINIA JONG LIN Lic. No. 0402061875 03/31/2022 PROFESSIONAL ENGINEER

APPROVALS DATE Amy Pflaum 04/04/2022 QUALITY CONTROL ENGINEER Adam E. Ralway 5/2/2022 CONSTRUCTION MANAGEMENT SUPERVISOR Dennis M. Leach 04/13/2022 WATER, SEWER, STREETS BUREAU CHIEF Transportation Director Rose Harris 3/31/2022 PROJECT MANAGER

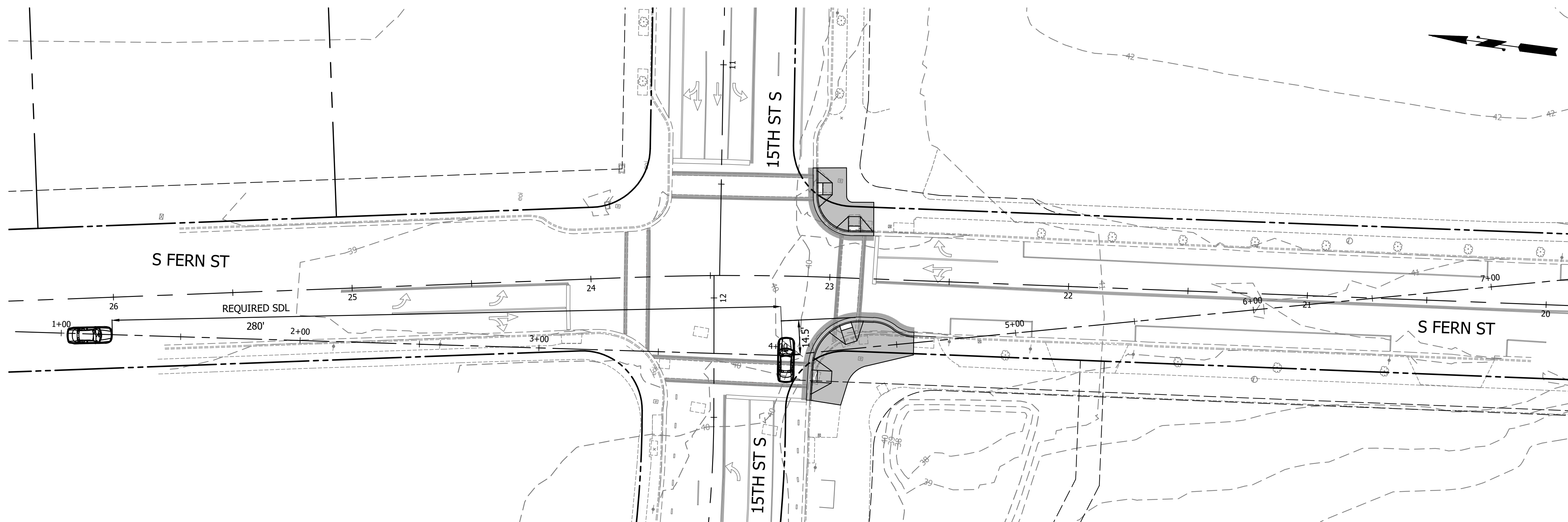
REVISIONS DATE

15TH ST S AND S FERN ST INTERSECTION CC21 MAINTENANCE OF TRAFFIC NOTES AND DETAILS II

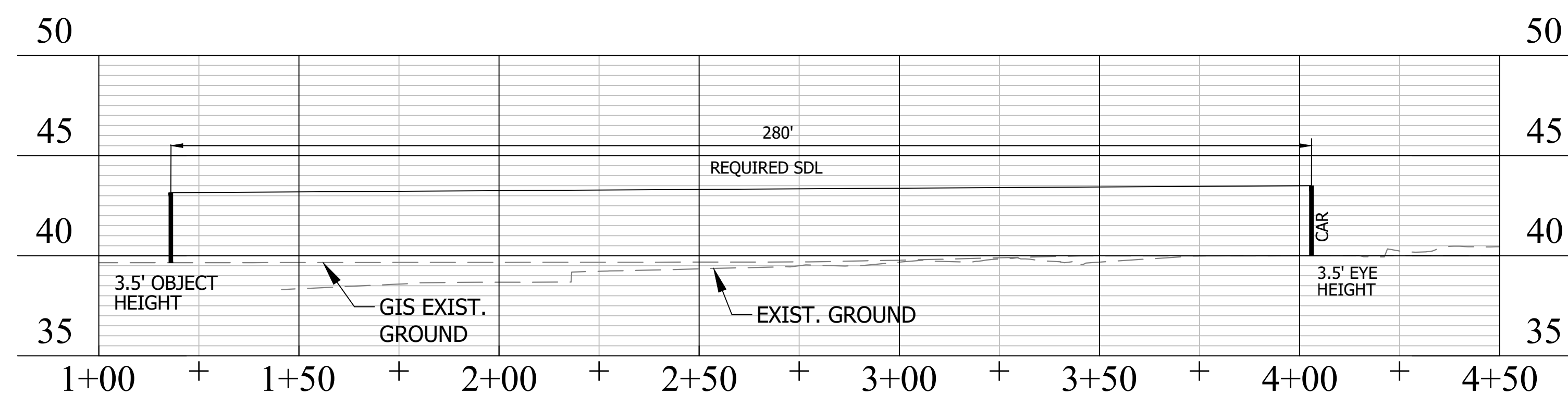
DESIGNED: V SHEPELEVA DRAWN: V SHEPELEVA CHECKED: J LIN PLOTTED: JUNE 9 2022

SCALE: N/A

C122.2



RIGHT TURN MOVEMENT FROM 15TH ST S



NOTE:
 GIS EXISTING GROUND IS SHOW ON THE SIGHT DISTANCE PLAN,
 DUE TO THE LIMITED EXISTING GROUND (SURVEY SURFACE DATA).

EXISTING CONDITION
 POSTED SPEED
 S FERN ST : 25MPH
 15TH ST S : 30MPH

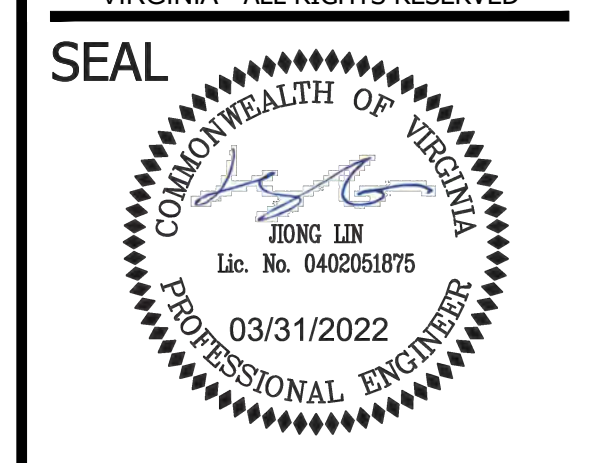
DESIGN SPEED
 S FERN ST : 25MPH
 15TH ST S : 30MPH

SDL FERN ST= SIGHT DISTANCE = 280'

REFERENCE:
 VDOT ROAD DESIGN MANUAL, APPENDIX F,
 TABLE 2-5

ARLINGTON VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 FACILITIES & ENGINEERING DIVISION
 ENGINEERING BUREAU
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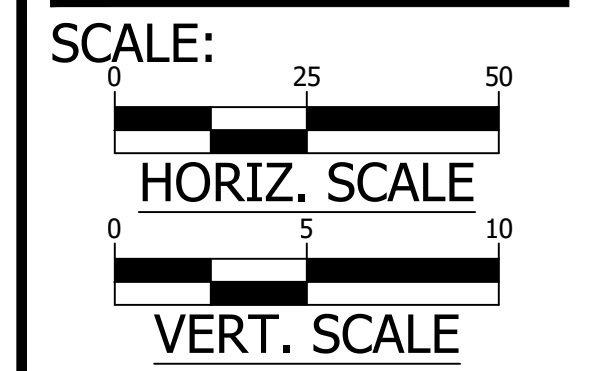


APPROVALS	DATE
<i>Amy Pflaum</i> QUALITY CONTROL ENGINEER	04/04/2022
<i>Chuan E. Salinas</i> CONSTRUCTION MANAGEMENT SUPERVISOR	5/2/2022
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	4/13/2022
<i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR	04/10/2022
<i>Rene Harris</i> PROJECT MANAGER	3/31/2022

REVISIONS	DATE

15TH ST S AND S FERN ST INTERSECTION
 CC21
 SIGHT DISTANCE EXHIBIT

DESIGNED: V SHEPELEVA
 DRAWN: V SHEPELEVA
 CHECKED: J LIN
 PLOTTED: JUNE 9 2022



C201.1

DATE: JUNE 2022

DESIGNED BY: RUMMEL, KLEPPER, & KAHL, LLP (703-246-0028) SURVEYED BY: ARLINGTON COUNTY GOV., DES. SUBSURFACE UTILITY BY: ARLINGTON COUNTY GOV., DES.

DATE: APRIL 2022

PROJECT MANAGER: JUSTIN MCCARTHY, PE (703-228-3734) SURVEYED BY: ARLINGTON COUNTY GOV., DES.

Table of Contents

- 1 TRAFFIC SIGNAL COVER SHEET AND NOTES
- 1A TRAFFIC SIGNAL PLAN
- 1B COMMUNICATION PLAN
- 2 PHOTOMETRIC PLAN

Signal Notes

A. POLES AND FOUNDATIONS

- MAST ARM LENGTH IS TO BE AS SHOWN ON PLAN AND ALL MAST ARMS ARE TO BE FIELD DRILLED ONLY.
- 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.
- MAST ARM POLE FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS AND SPECIFICATIONS. ALL POLES SHALL HAVE A MINIMUM 6-BOLT PATTERN.
- 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.
- SIGNAL POLES AND MAST ARMS SHALL BE NON-ORNAMENTAL. COBRA LIGHTING SHALL BE LED.
- 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.
- 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.

B. CONTROLLER AND FOUNDATION

- NEW CONTROLLER CABINETS SHALL INCLUDE BATTERY BACKUP PER ARLINGTON COUNTY REQUIREMENTS.
- CONTROLLER SHALL BE INTELIGHT X-3 AND SHALL BE INSTALLED AND SET AS FOLLOWS:
 - TO REST IN PHASE 2 & 6 GREEN INTERVAL
 - TO START/RESTART IN PHASE 2 & 6 YELLOW CHANGE INTERVAL
- THE CONTROLLER CABINET AND FOUNDATION SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS 66-01, 66-02, AND 70-01.
- 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

- ALL NEW VEHICULAR SIGNAL SECTIONS SHALL BE 12 INCHES IN DIAMETER CAST ALUMINUM WITH LED DISPLAYS.
- PEDESTRIAN SIGNAL HEAD SECTIONS SHALL BE CAST ALUMINUM WITH LED DISPLAYS (COUNTDOWN).
- ALL SIGNAL HEAD CASINGS SHALL BE YELLOW IN COLOR.
- ALL SIGNAL HEADS SHALL BE INSTALLED WITH RETROREFLECTIVE BACKPLATES PER VDOT STANDARDS AND SPECIFICATIONS.

D. DETECTORS

- 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.
- NEW OVERHEAD VIDEO DETECTION SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY REQUIREMENTS. CONTRACTOR TO COORDINATE THE VIDEO DETECTION TYPE WITH THE COUNTY.
- EMERGENCY VEHICLE PRE-EMPTION (EVP) EQUIPMENT (GIT MODEL M711 OR M721), OR APPROVED SUBSTITUTE, SHALL BE INSTALLED COMPLETE WITH DISCRIMINATOR CARDS, WIRING, ETC. IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS.
- EVP TO BE MOUNTED ON VEHICLE HEAD MOUNTING BRACKET OR AS APPROVED BY THE ENGINEER IN THE FIELD. EVP SHALL INCLUDE CONFIRMATION LIGHTS.

E. CONDUIT, CONDUCTORS, AND ELECTRICAL

- 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.
- 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.
- CONDUIT SYSTEM SHALL BE ADDED TO CONNECT EXISTING COMMUNICATION CABLE PLANT TO THE NEW CONTROLLER CABINET LOCATION AS DIRECTED BY THE COUNTY ENGINEER.
- 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.
- 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.
- CONTRACTOR IS TO VERIFY DEPTHS OF UTILITIES AT PROPOSED CONDUIT CROSSINGS PRIOR TO EXCAVATING CONDUIT TRENCHES OR BORING.
- 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.
- ALL EXISTING CONDUIT AND CABLES ARE BASED ON SURVEY AND 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.
- 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.
- CONTRACTOR TO VERIFY THE CONDUIT AND % FILL. IF THERE IS NOT ENOUGH CAPACITY IN CONDUIT, THEN THE CONTRACTOR SHALL INSTALL NEW CONDUIT.
- ALL PROPOSED CONDUIT SHALL HAVE #6 AWG (EGC) & TRACER WIRE FOR GROUNDING SYSTEM.
- REMOVE ALL EXISTING UNUSED RISERS, JUNCTION BOXES, AND CABLES.
- CONTRACTOR SHALL REPAIR ALL SIDEWALK PANELS THAT ARE IMPACTED BY TRENCHING FOR SIGNAL CONDUITS.

F. SIGNS

- 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.
- 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

- 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.
- ALL EXISTING SIGNAL POLE FOUNDATIONS SHALL BE DEMOLISHED IN ACCORDANCE WITH ARLINGTON COUNTY SPECIFICATIONS. ANY REQUIRED RESTORATION RESULTING FROM THE REMOVAL OF EXISTING SIGNAL INFRASTRUCTURE SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMEDY AND SHALL BE INCIDENTAL TO THE WORK.

H. COMMUNICATIONS

- 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.
- 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.
- CONTACT ARLINGTON COUNTY DTS FOR FIBER OPTIC CABLE REMOVAL OR INSTALLATION AT LEAST 10 BUSINESS DAYS IN ADVANCE.
- 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.
- 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.
- 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.
- DO NOT SPLICE TRACER WIRE.

I. INSPECTIONS

- THE CONTRACTOR SHALL CONTACT THE COUNTY CONSTRUCTION MANAGER FOR INSPECTIONS THROUGHOUT CONSTRUCTION AS REQUIRED BY THE CONSTRUCTION MANAGER.
- 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.
- 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.

J. ACCESSIBLE PEDESTRIAN SIGNAL (APS) MESSAGES

PUSHBUTTONS FOR CROSSINGS SHALL BE PROGRAMMED TO EMIT THE FOLLOWING INFORMATION SPEECH MESSAGES:

PUSHBUTTON	WAIT MESSAGE	WALK MESSAGE
PB-21, PB-22, PB-61, PB-62	WAIT TO CROSS FERN STREET AT 15TH STREET	PERCUSSIVE TONE
PB-41, PB-42, PB-81, PB-82	WAIT TO CROSS 15TH STREET AT FERN STREET	PERCUSSIVE TONE

PEDESTRIAN PUSHBUTTON SIGN SHALL BE MOUNTED ABOVE PEDESTRIAN PUSHBUTTON.

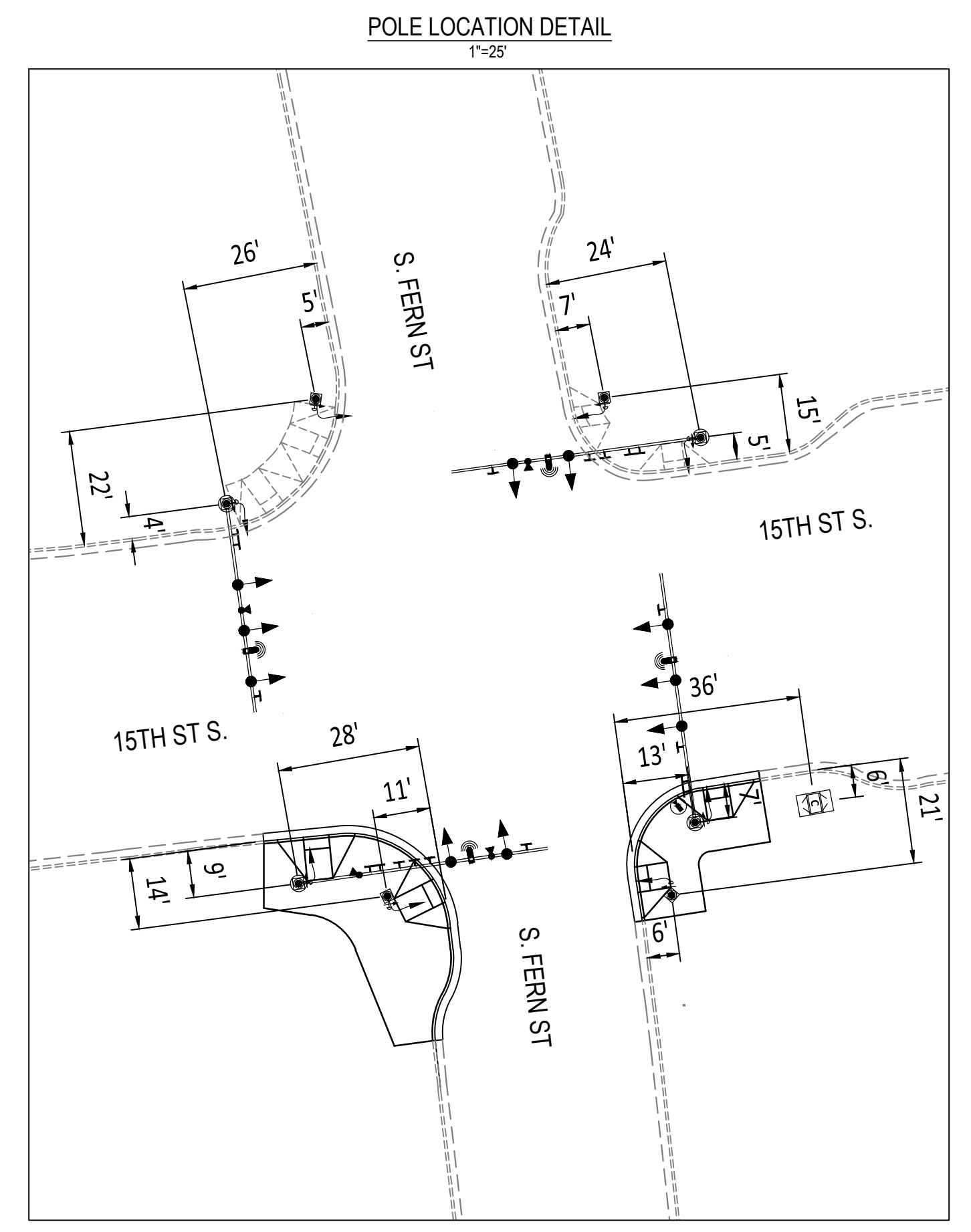
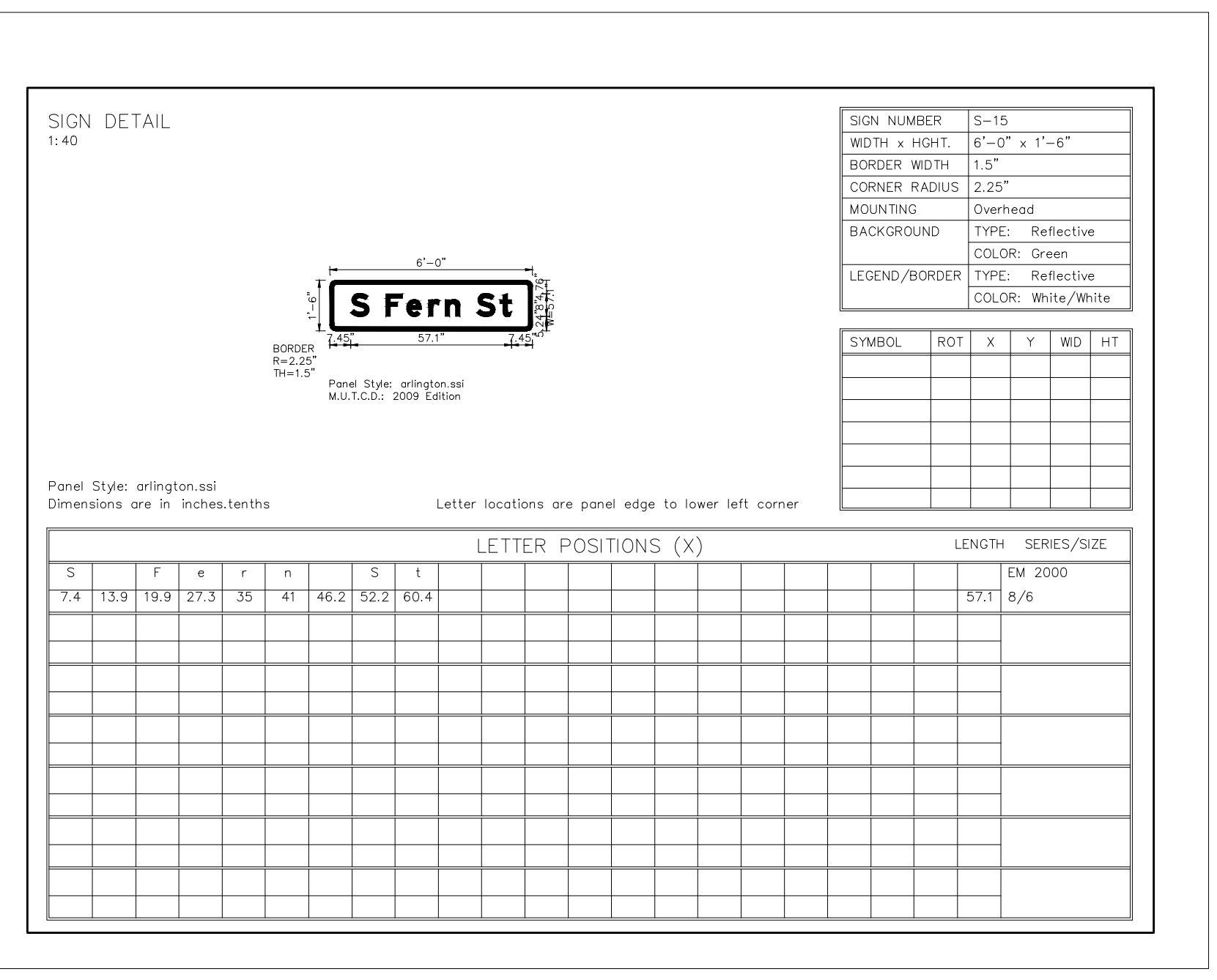
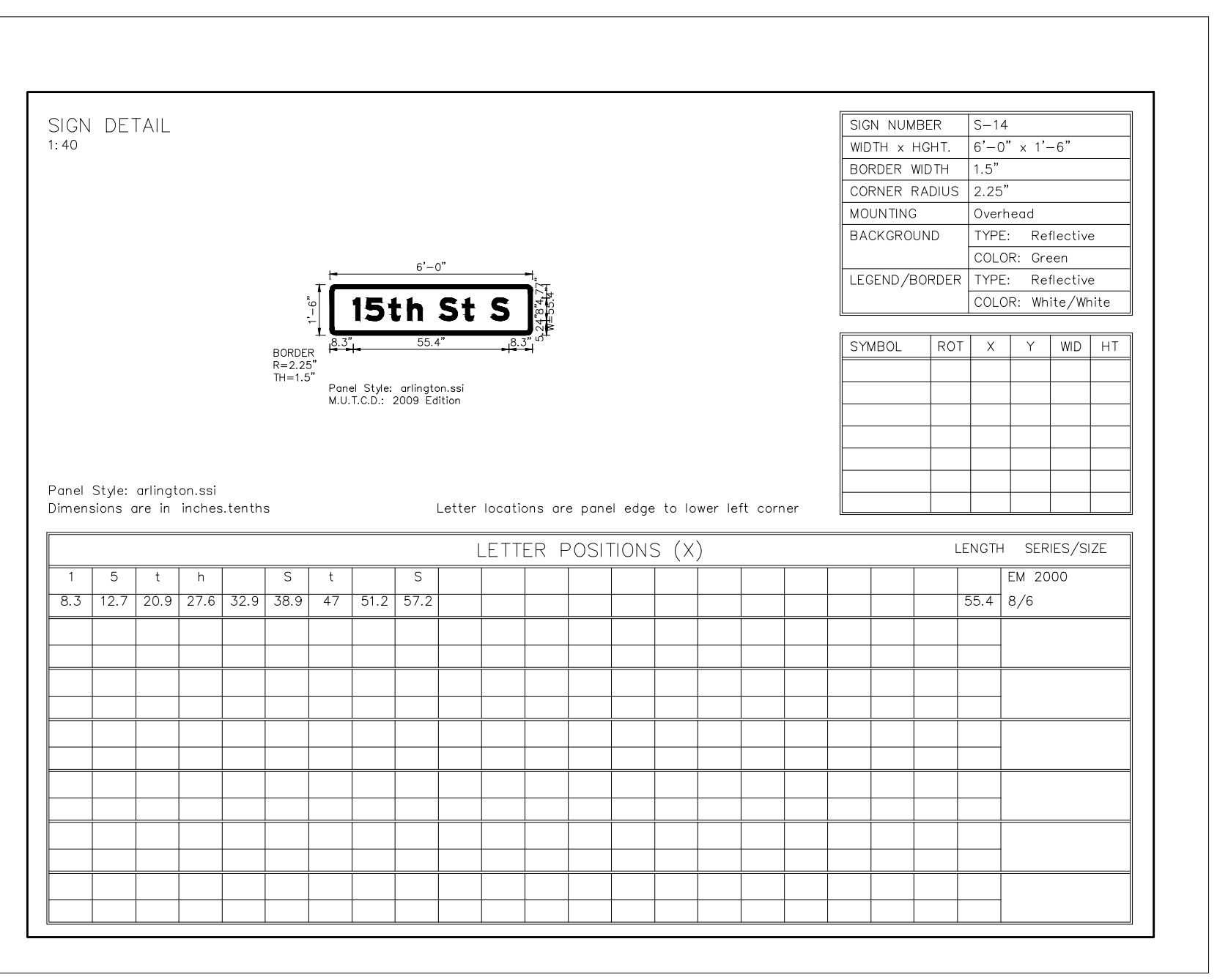
- PER MUTCD SECTION 4E.11, WHERE TWO ACCESSIBLE PEDESTRIAN SIGNALS ARE SEPARATED BY A DISTANCE OF 10 FEET OR MORE, THE AUDIBLE WALK INDICATION SHALL BE A PERCUSSIVE TONE THAT REPEATS AT 8 TO 10 TICKS PER SECOND.
- WHEN THE PEDESTRIAN PASSES THE PUSHBUTTON, THE WAIT MESSAGE SHALL BE REPEATED FOR THE COMPLETE DURATION OF THE "DON'T WALK" PHASE.
- WHEN THE WALK PHASE BEGINS, THE WALK MESSAGE SHALL BE REPEATED FOR THE COMPLETE DURATION OF THE "WALK" PHASE.

CLEARANCE INTERVAL CHART

PHASES	2	4	6	8	
CALCULATED MINIMUM	YELLOW	3.8	3.4	3.8	3.4
	RED	2.0	2.6	2.0	2.6
CONTROLLER INPUTS	YELLOW	3.8	3.4	3.8	3.4
	RED	2.0	2.6	2.0	2.6

NOTES:

- THE CALCULATED MINIMUMS SHOWN ON THE CLEARANCE INTERVAL CHART ARE THE CALCULATED MINIMUM INTERVALS USING VDOT MEMORANDUM TE-306. DO NOT INCLUDE PHASING OR OTHER CONSIDERATIONS, AND ARE NOT TO BE USED IN THE CONTROLLER.



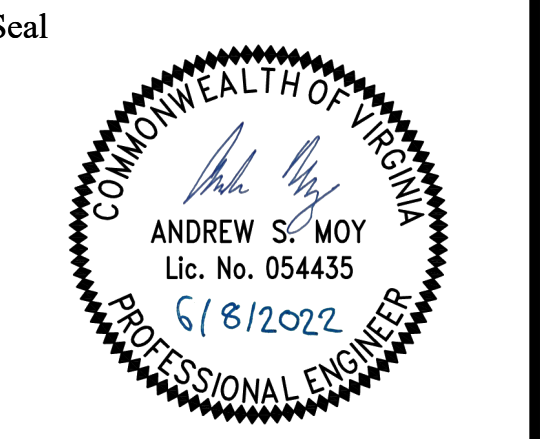
CONTROLLER TIMING CHART

PHASE	1	2	3	4	5	6	7	8
MOVEMENT	-	EB 15TH STREET SOUTH	-	SB SOUTH FERN STREET	-	WB 15TH STREET SOUTH	-	NB SOUTH FERN STREET
PHASE ON	-	X	-	X	-	X	-	X
PHASE OFF	X	-	X	-	X	-	X	-
INTERVAL	PHASE TIMINGS							
MIN GREEN	-	5.0	-	5.0	-	5.0	-	5.0
PASSAGE	-	-	-	2.0	-	-	-	2.0
YELLOW	-	3.8	-	3.4	-	3.8	-	3.4
RED	-	2.0	-	2.6	-	2.0	-	2.6
MAX 1	-	40.0	-	20.0	-	40.0	-	20.0
MAX 2	-	0.0	-	0.0	-	0.0	-	0.0
MIN GAP	-	-	-	2.0	-	-	-	2.0
TIME BEFORE REDUCTION	-	0.0	-	0.0	-	0.0	-	0.0
TIME TO REDUCE	-	0.0	-	0.0	-	0.0	-	0.0
LEADING PED WALK	-	0.0	-	0.0	-	0.0	-	0.0
PED WALK	-	7.0	-	7.0	-	7.0	-	7.0
PED CLEARANCE	-	12.0	-	19.0	-	15.0	-	18.0
MODE	-	MAX RECALL	-	NON-LOCK	-	MAX RECALL	-	NON-LOCK



DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3344
Fax: 703.228.3719



APPROVALS DATE

Andrew S. Nooy 6/9/2022
TRAFFIC SIGNAL ENGINEER

Dennis W. Leach 06/09/2022
ENGINEERING MANAGER

Dennis W. Leach 06/10/2022
TE&O BUREAU CHIEF

Dennis W. Leach 06/10/2022
TRANSPORTATION DIRECTOR

REVISIONS DATE

Traffic Signal Cover Sheet and Notes

TRAFFIC SIGNAL UPGRADE DESIGN DEVELOPMENT AT 15TH ST S. AND S. FERN ST

INTERSECTION ID#211

DESIGNED: ZDH
DRAWN: ZDH
CHECKED: ASM
MISS UTILITY TRANSMITTAL #: xxx

FILENAME: 1_Signal_Notes.dwg
PATH: Orders\TO_017_15thFern\CAD\Sheets

PLOTTED: June 07, 2022
PLOTTED BY: zhig

SCALE: N/A

NOTES:

- 1. ALL PEDESTAL POLE FOUNDATIONS WITHIN THE PEDESTRIAN WALKWAYS SHALL BE ADA-COMPLIANT AND SLIP RESISTANT.
2. ALL SIGNAL AND ELECTRICAL CONDUITS SHALL BE HDPE SCHEDULE 40. COMMUNICATIONS CONDUIT SHALL BE HDPE SCHEDULE 80.
3. ALL SIGNAL HEADS SHALL BE AT LEAST 8' APART, PER MUTCD REQUIREMENTS. ALL MAST-ARM-MOUNTED SIGNS SHALL BE AT LEAST 1' FROM THE NEAREST SIGNAL HEAD.
4. CABINET SHALL HAVE CONDUITS AS SHOWN ON STANDARD 66-01.
5. ALL PROPOSED PEDESTAL POLES, MAST ARMS, AND PEDESTRIAN PUSH BUTTON EXTENDERS SHALL BE POWDER-COATED BLACK.
6. CONTRACTOR TO COMPLETE CLEARING AND GRUBBING BEFORE INSTALLING PROPOSED SIGNAL EQUIPMENT.
7. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY EXISTING SIDEWALK THAT IS IMPACTED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
8. SEE SHEET 1 FOR APS PUSHBUTTON MESSAGES.
9. SIGNAL POLE FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH COUNTY SIGNAL POLE FOUNDATION STANDARDS, SPECIAL PROVISIONS, INCLUDING MAXIMUM LOADING CONDITIONS, AND BASED ON SOIL TEST BORE FINDINGS. ALL TRAFFIC SIGNAL POLE FOUNDATIONS SHALL BE SIGNED AND SEALED BY A VIRGINIA LICENSED PROFESSIONAL ENGINEER AND APPROVED BY THE COUNTY. THE TOP OF ALL SIGNAL POLE FOUNDATIONS SHOULD BE INSTALLED SUCH THAT MINIMUM AND MAXIMUM CLEARANCES TO SIGNAL HEADS AND MAST ARM EQUIPMENT ARE MAINTAINED IN ACCORDANCE WITH THE MAST ARM SIGNAL POLE STANDARD AND THE MUTCD.
10. ALL MAST ARM POLES SHALL BE NON-ORNAMENTAL IN ACCORDANCE WITH ARLINGTON COUNTY STANDARD 62-01.

DEMOLITION & CONSTRUCTION NOTES

- 1 REMOVE EXISTING CABINET & CONTROLLER. SALVAGED EXISTING EQUIPMENT TO BE RETURNED TO ARLINGTON PROPERTY YARD.
2 REMOVE EXISTING SIGNAL POLE, MAST ARM, SIGNAL HEADS, AND ASSOCIATED WIRING.
3 TIE IN TO SERVICE METER PEDESTAL TO REMAIN.
4 INSTALL TRAFFIC SIGNAL CABINET, 12" CABINET RISER, FOUNDATION, UPS, AND ASSOCIATED EQUIPMENT.
5 INSTALL NON-ORNAMENTAL TRAFFIC SIGNAL MAST ARM POLE & FOUNDATION WITH LUMINAIRE, SIGNALS, SIGNS, POLE IDENTIFICATION STICKER, AND EQUIPMENT AS SHOWN.
6 INSTALL 12" PEDESTAL POLE & FOUNDATION WITH PEDESTRIAN SIGNAL HEAD(S), PUSHBUTTON(S), POLE IDENTIFICATION STICKER, AND EQUIPMENT AS SHOWN.
7 REMOVE EXISTING TRAFFIC JUNCTION BOX.
8 ADJUST ALIGNMENT OF CONFLICTING UNDERGROUND ELECTRICAL CONDUIT FOR INSTALLATION OF PEDESTAL POLE.

PROPOSED MAST ARM DETAILS

- SIGNAL POLE 1: 48' MAST ARM, PROPOSED SIGNAL LOCATIONS: 18', 27', 38', PROPOSED SIGN LOCATIONS: 14', 17', 41', PROPOSED VDC LOCATION: 31', PROPOSED CCTV LOCATION: 0'.
SIGNAL POLE 2: 48' MAST ARM, PROPOSED SIGNAL LOCATIONS: 29', 40', PROPOSED SIGN LOCATIONS: 17', 22', 25', 44', PROPOSED VDC LOCATION: 33', PROPOSED EVP LOCATIONS: 11' (EB), 37' (SB).
SIGNAL POLE 3: 40' MAST ARM, PROPOSED SIGNAL LOCATIONS: 15', 24', 34', PROPOSED SIGN LOCATIONS: 6', 37', PROPOSED VDC LOCATION: 28', PROPOSED EVP LOCATION: 20'.
SIGNAL POLE 4: 48' MAST ARM, PROPOSED SIGNAL LOCATIONS: 25', 36', PROPOSED SIGN LOCATIONS: 12', 15', 21', 40', PROPOSED VDC LOCATION: 29', PROPOSED EVP LOCATION: 33'.
NOTE: ALL DIMENSIONS MEASURED FROM MAST ARM POLE.

TRAFFIC SIGNAL JUNCTION BOX SCHEDULE

Table with 3 columns: NO., TYPE, BASELINE, STATION, OFFSET. Lists junction boxes T-1 through T-6 with their respective locations and offsets.

COLOR SEQUENCE CHART

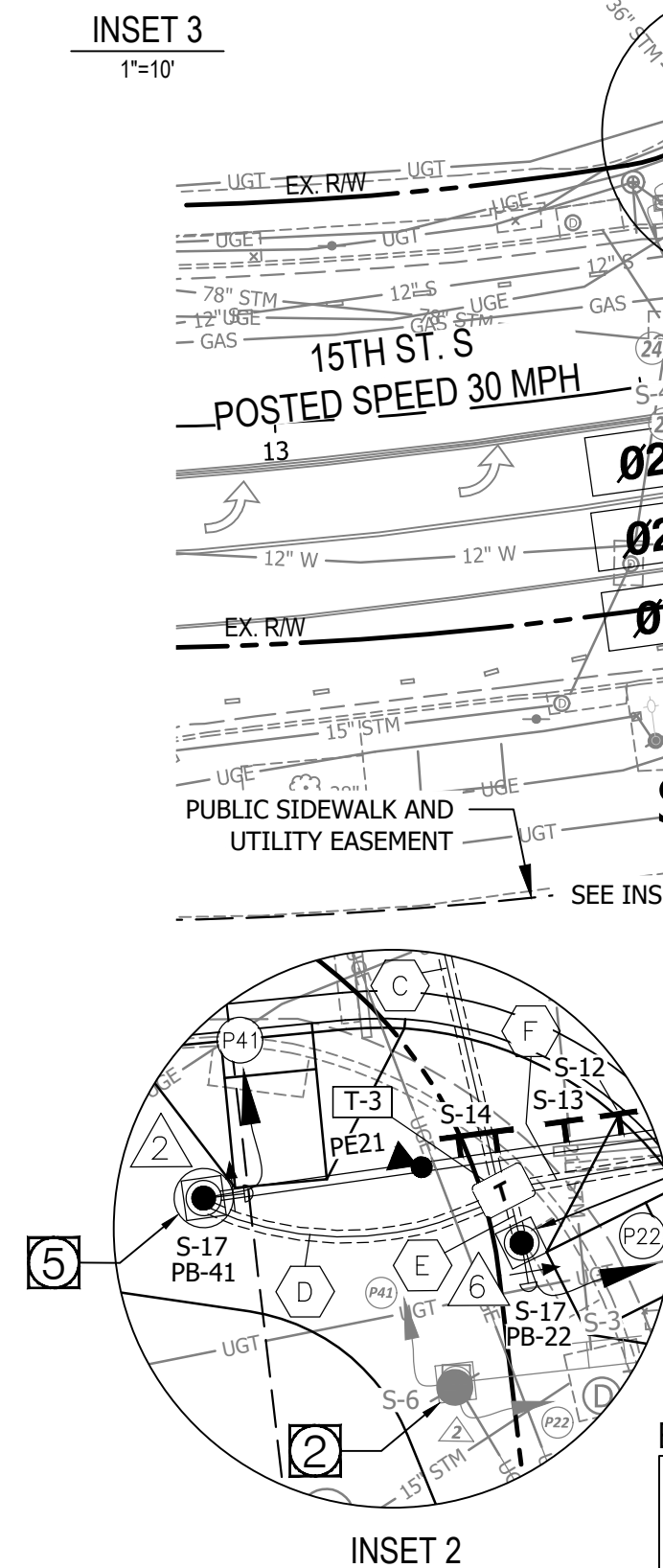
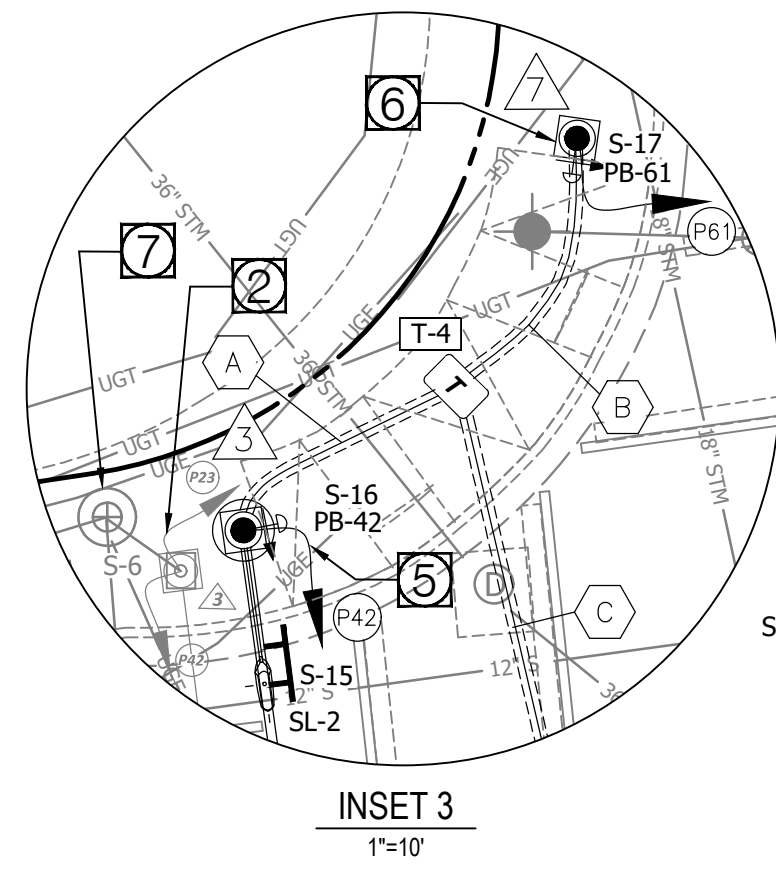
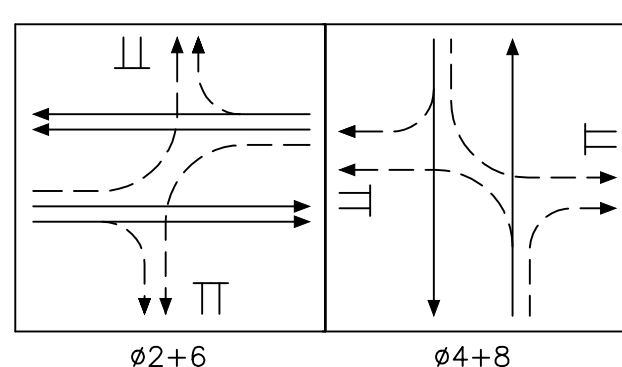
Table showing color sequence for phases 2, 4, 6, 8, 2+6, 4+8. Columns include SIGNAL, R/W, and FLASH indicators.

NOTE: BLANK SPACES DENOTE RED INDICATIONS. WALK INDICATION DISPLAYED AFTER PEDESTRIAN CALL SERVICED, OTHERWISE "DON'T WALK" WILL BE DISPLAYED.

EV PREEMPTION

Table with 3 columns: FUNCTION, EVP-1, EVP-2. Lists various signal functions and their corresponding EV-1 and EV-2 values.

*TIME DEFAULTS TO TIME USED FOR PHASE DURING NORMAL OPERATION.

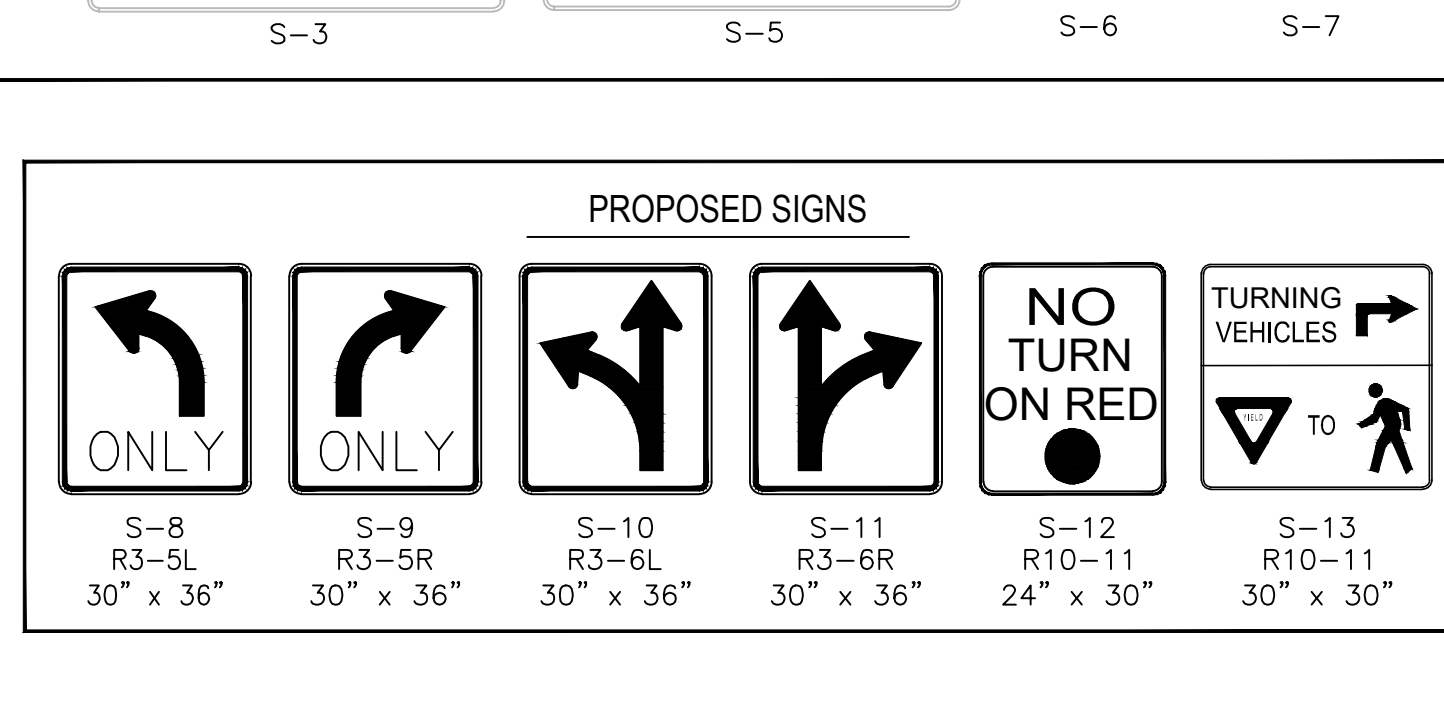
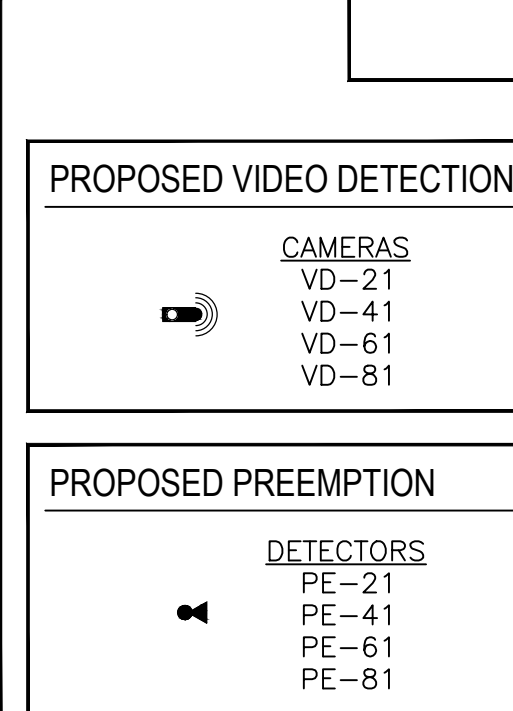
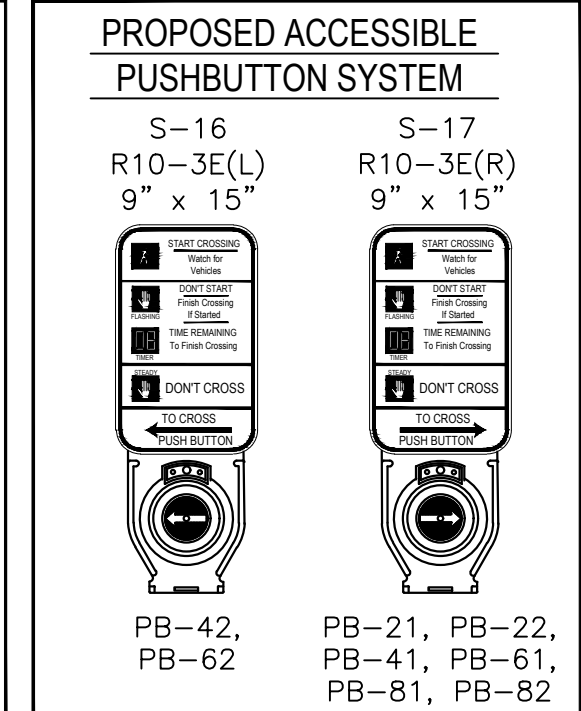
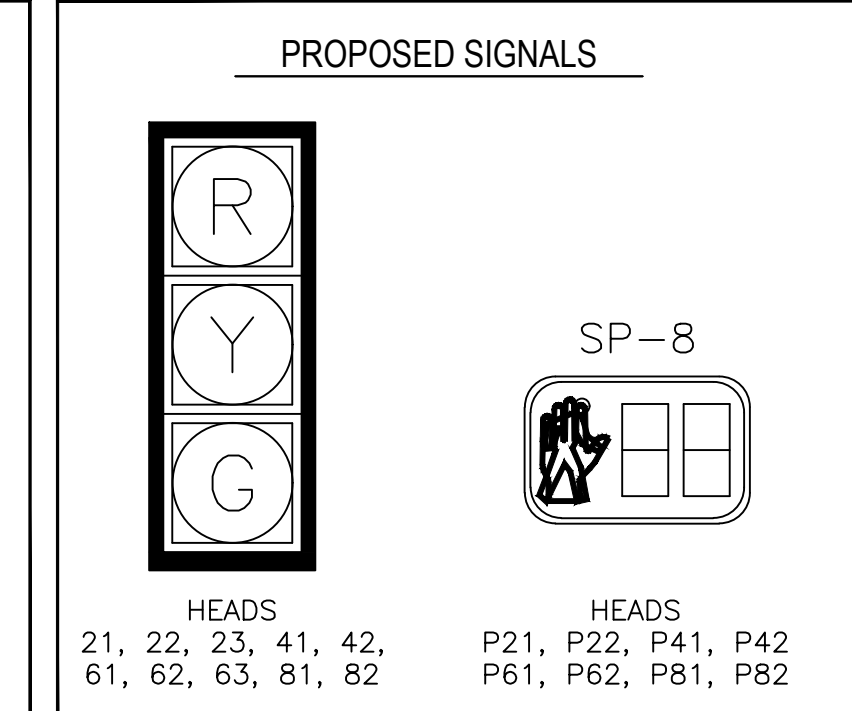
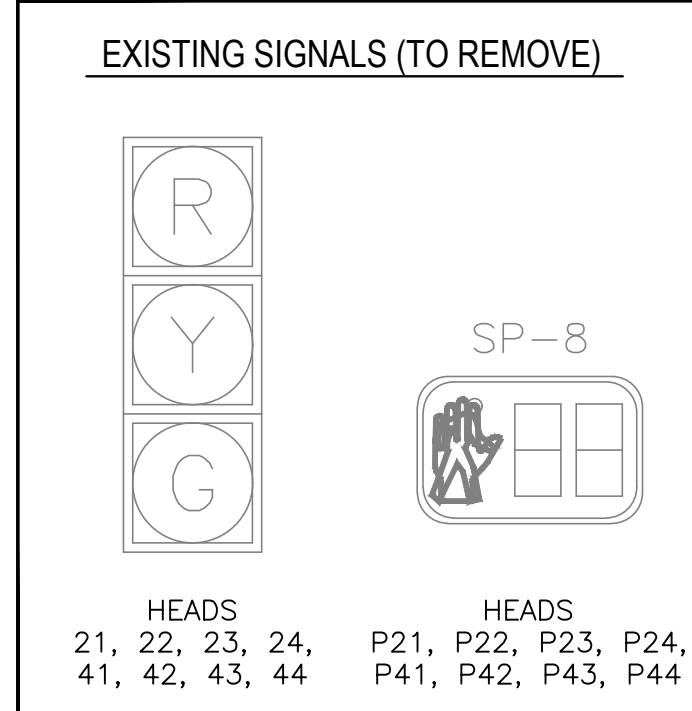
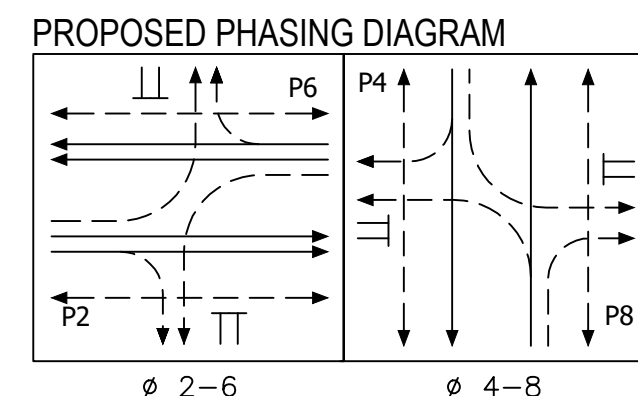
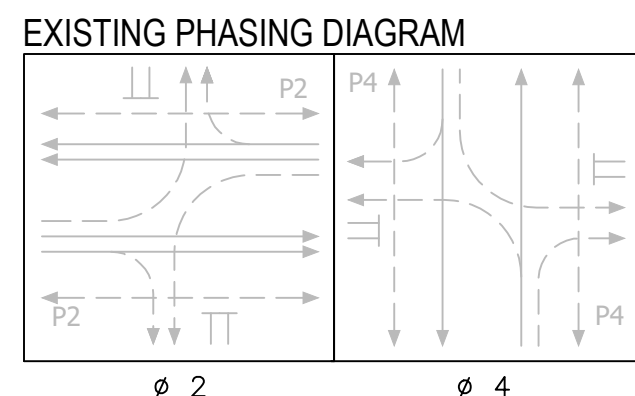


SEE INSET 3

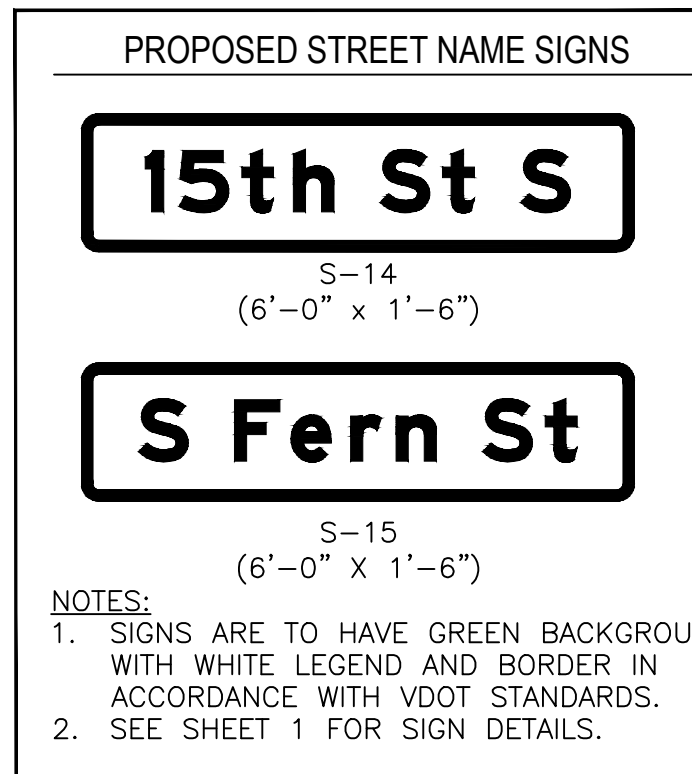
SEE INSET 4

SEE INSET 2

SEE INSET 1



TRAFFIC SIGNAL POLE DETAILS table with columns: NO., ID, TYPE, SIG M.A., FOUNDATION, LUMINAIRE, ORIENTATION, VEHICLE & PED HEADS, PED PUSH BUTTONS, SIGNS, VIDEO DETECTOR AND PREEMPTION, STREET NAME SIGN, BASELINE, STATION, OFFSET.



CABLE & CONDUIT RUNS

- 1-3" CONDUIT (TRENCH) 1-14/7C SIGNAL HEADS 61/62/63, 1-14/7C PEDESTRIAN SIGNAL P42, 1-14/3C PEDESTRIAN PUSHBUTTON PB-42, 1-RG-59 FOR VIDEO DETECTION VD61, 1-PREEMPTION CABLE PE61, 1-12/2C CABLE FOR SL-2, 1-#6 AWG (EGC).
1-3" CONDUIT (TRENCH) SPARE(S) FOR FUTURE USE.
1-3" CONDUIT (TRENCH) 1-14/7C PEDESTRIAN SIGNAL P61, 1-14/3C PEDESTRIAN PUSHBUTTON PB-61, 1-#6 AWG (EGC).
1-3" CONDUIT (DIRECT BORE) 1-14/7C SIGNAL HEADS 61/62/63, 2-14/7C PEDESTRIAN SIGNALS P42, P61, 2-14/3C PEDESTRIAN PUSHBUTTONS PB-42, PB-61, 1-RG-59 FOR VIDEO DETECTION VD61, 1-PREEMPTION CABLE PE61, 1-12/2C CABLE FOR SL-2, 1-#6 AWG (EGC).
1-3" CONDUIT (DIRECT BORE) SPARE(S) FOR FUTURE USE.
1-3" CONDUIT (TRENCH) 1-14/7C PEDESTRIAN SIGNAL P22, 1-14/3C PEDESTRIAN PUSHBUTTON PB-22, 1-#6 AWG (EGC).
1-3" CONDUIT (DIRECT BORE) 1-14/7C SIGNAL HEADS 41/42, 1-14/7C PEDESTRIAN SIGNAL P41, 1-14/3C PEDESTRIAN SIGNALS P22, P41, P42, P61, 4-14/3C PEDESTRIAN PUSHBUTTONS PB-22, PB-41, PB-42, PB-61, 2-RG-59 FOR VIDEO DETECTION VD41, VD61, 3-PREEMPTION CABLE PE21, PE41, PE61, 1-12/2C CABLE FOR SL-2, 1-#6 AWG (EGC).
1-3" CONDUIT (DIRECT BORE) SPARE(S) FOR FUTURE USE.
1-3" CONDUIT (TRENCH) 1-14/7C SIGNAL HEADS 21/22/23, 1-14/7C PEDESTRIAN SIGNAL P82, 1-14/3C PEDESTRIAN PUSHBUTTON PB-82, 1-RG-59 FOR VIDEO DETECTION VD21, 1-12/2C CABLE FOR SL-1, 1-CCTV LEAD-IN CABLE, 1-#6 AWG (EGC).
1-3" CONDUIT (TRENCH) SPARE(S) FOR FUTURE USE.
1-3" CONDUIT (TRENCH) 1-14/7C SIGNAL HEADS 81/82, 4-RG-59 FOR VIDEO DETECTION VD21, VD41, VD61, VD81, 1-#6 AWG (EGC).
1-3" CONDUIT (TRENCH) 1-14/7C SIGNAL HEADS 21/22/23, 41/42, 61/62/63, 81/82, 4-RG-59 FOR VIDEO DETECTION VD21, VD41, VD61, VD81, 1-#6 AWG (EGC).
1-3" CONDUIT (TRENCH) 1-14/7C PEDESTRIAN SIGNALS P21, P22, P41, P42, P61, P62, P81, P82, 8-14/3C PEDESTRIAN PUSHBUTTONS PB-21, PB-22, PB-41, PB-42, PB-61, PB-62, PB-81, PB-82, 1-#6 AWG (EGC).
1-3" CONDUIT (TRENCH) 4-PREEMPTION CABLES PE21, PE41, PE61, PE81, 1-CCTV LEAD-IN CABLE, 1-#6 AWG (EGC).
1-3" CONDUIT (TRENCH) SPARE(S) FOR FUTURE USE.
1-2" CONDUIT (TRENCH) 1-6/4C ELECTRICAL SERVICE CABLE, 1-#6 AWG (EGC).
1-2" CONDUIT (TRENCH) 3-12/2C FOR SL-1, SL-2, SL-3, 1-#6 AWG (EGC).



DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Engineering and Operations Bureau, 2100 Clarendon Boulevard, Suite 900, Arlington, VA 22201, Phone: 703.228.3344, Fax: 703.228.3719

Seal



APPROVALS DATE

Approval signatures and dates for Traffic Signal Engineer, Engineering Manager, and Transportation Director.

REVISIONS DATE

Table for tracking revisions with columns for revision number and date.

Traffic Signal Plan

TRAFFIC SIGNAL UPGRADE DESIGN DEVELOPMENT AT 15TH ST S. AND S. FERN ST

INTERSECTION ID#211

DESIGNED: ZDH, DRAWN: ZDH, CHECKED: ASM, MISS UTILITY TRANSMITTAL #: xxx, FILENAME: 1A_Signal_Plan.dwg, PATH: Orders\TO_017_15thFern\CAD\Sheets

PLOTTED: June 08, 2022

PLOTTED BY: zhig

SCALE: 1"=25'

SHEET 1A of 2

DESIGNED BY: RUMMEL, KLEPPER, & KAHL, LLP (703-246-0028), SUBSURFACE UTILITY BY: ARLINGTON COUNTY GOV., DES

PROJECT MANAGER: JUSTIN MCCARTHY, PE (703-228-3734), SURVEYED BY: ARLINGTON COUNTY GOV., DES

DATE: JUNE 2022

DATE: APRIL 2022

DATE: APRIL 2022

CONSTRUCTION NOTES

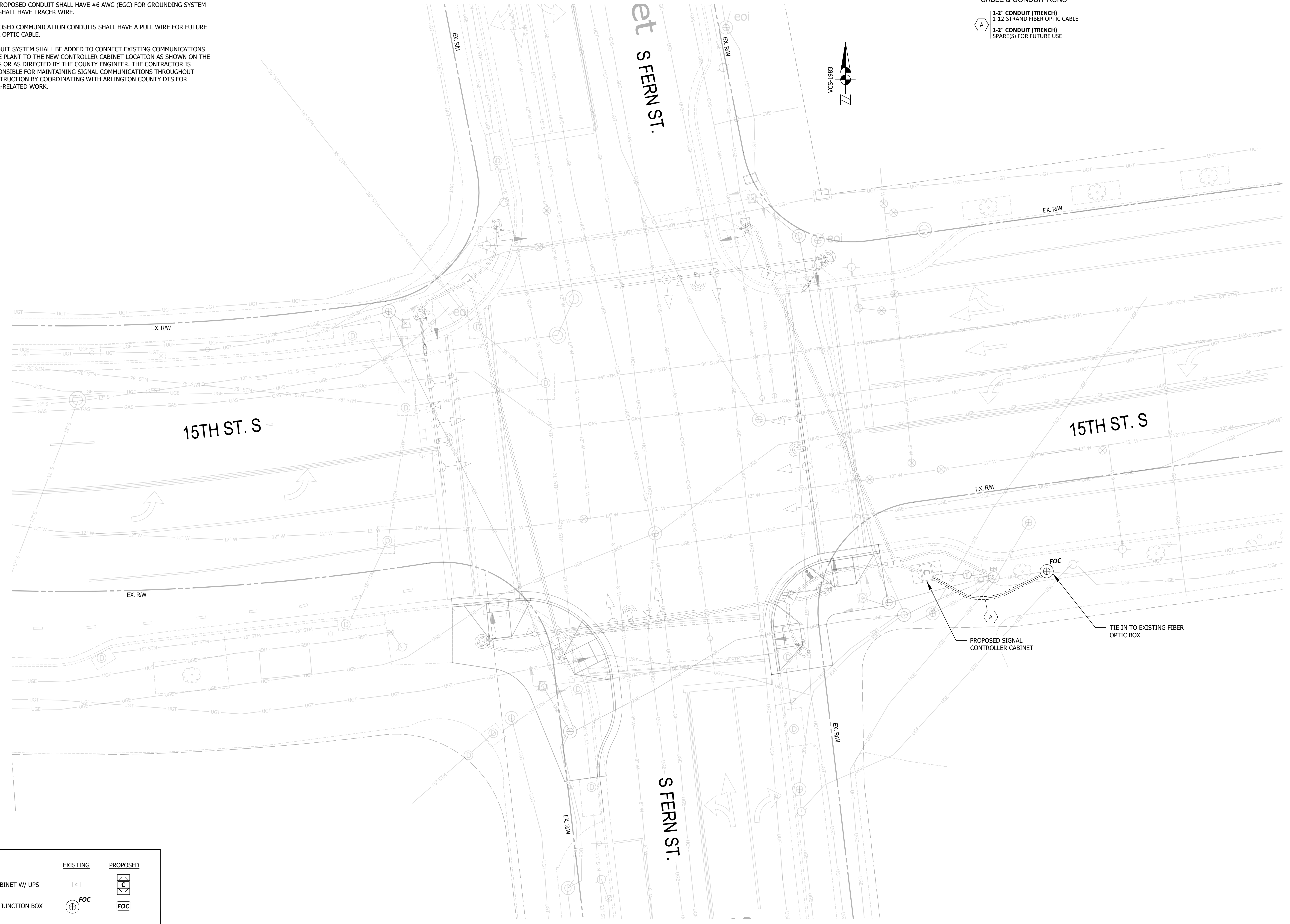
1. ALL PROPOSED CONDUITS SHOULD BE HDPE SCHEDULE 80.
2. ALL PROPOSED CONDUIT SHALL HAVE #6 AWG (EGC) FOR GROUNDING SYSTEM AND SHALL HAVE TRACER WIRE.
3. PROPOSED COMMUNICATION CONDUITS SHALL HAVE A PULL WIRE FOR FUTURE FIBER OPTIC CABLE.
4. CONDUIT SYSTEM SHALL BE ADDED TO CONNECT EXISTING COMMUNICATIONS CABLE PLANT TO THE NEW CONTROLLER CABINET LOCATION AS SHOWN ON THE PLANS OR AS DIRECTED BY THE COUNTY ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SIGNAL COMMUNICATIONS THROUGHOUT CONSTRUCTION BY COORDINATING WITH ARLINGTON COUNTY DTS FOR FIBER-RELATED WORK.

DESIGNED BY: RUMMEL, KLEPPER, & KAHL, LLP (703-246-0028)
SUBSURFACE UTILITY BY: ARLINGTON COUNTY GOV., DES. DATE: JUNE 2022

PROJECT MANAGER: JUSTIN MCCARTHY, PE (703-228-3734)
SURVEYED BY: ARLINGTON COUNTY GOV., DES. DATE: APRIL 2022

CABLE & CONDUIT RUNS

- 1-2" CONDUIT (TRENCH)
1-12-STRAND FIBER OPTIC CABLE
- 1-2" CONDUIT (TRENCH)
SPARE(S) FOR FUTURE USE



LEGEND	EXISTING	PROPOSED
CONTROL CABINET W/ UPS		
FIBER OPTIC JUNCTION BOX		
FIBER CONDUIT RUN		



DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Engineering and Operations Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3344
Fax: 703.228.3719

Seal



APPROVALS DATE

	6/9/2022
TRAFFIC SIGNAL ENGINEER	
	06/09/2022
TRAFFIC ENGINEERING MANAGER	
	06/10/2022
TE&O BUREAU CHIEF	
	06/10/2022
TRANSPORTATION DIRECTOR	

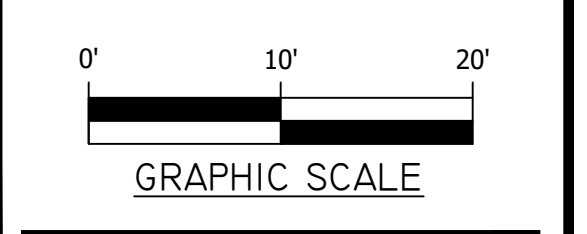
REVISIONS DATE

REVISIONS	DATE

Communications Plan
 TRAFFIC SIGNAL UPGRADE
 DESIGN DEVELOPMENT AT
 15TH ST S. AND S. FERN ST
 INTERSECTION ID#211

DESIGNED: ZDH
 DRAWN: ZDH
 CHECKED: ASM
 MISS UTILITY TRANSMITTAL #: xxx
 FILENAME: 1B Communication Plan.dwg
 PATH: Orders\TO_017_15thFern\CAD\Sheets
 PLOTTED: June 07, 2022
 PLOTTED BY: zhig

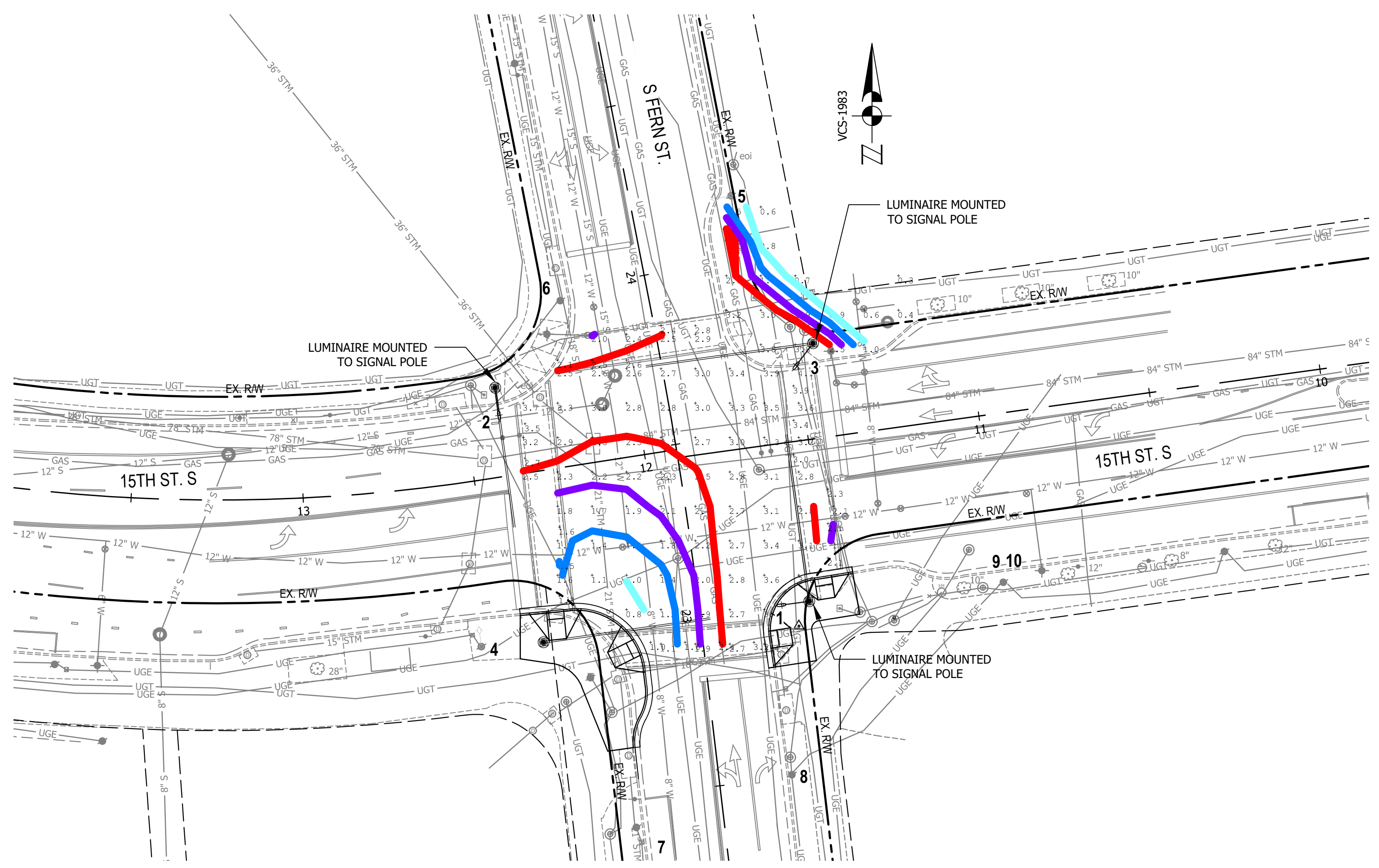
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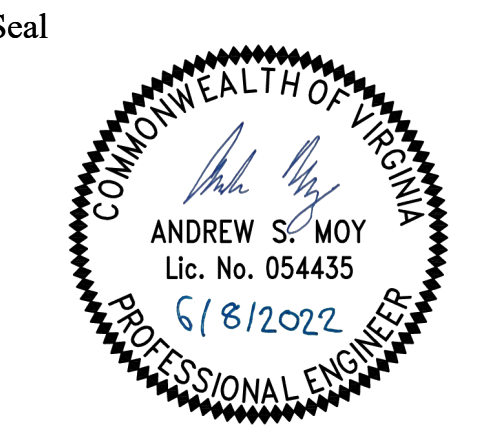
SHEET 1B of 2

DESIGNED BY: RUMMEL, KLEPPER, & KAHL, LLP (703-246-0028)
 SURVEYED BY: ARLINGTON COUNTY GOV., DES. DATE: JUNE 2022

PROJECT MANAGER: JUSTIN MCCARTHY, PE (703-228-3734)
 SURVEYED BY: ARLINGTON COUNTY GOV., DES. DATE: APRIL 2022



DEPARTMENT OF ENVIRONMENTAL SERVICES
 Transportation Engineering and Operations Bureau
 2100 Clarendon Boulevard, Suite 900
 Arlington, VA 22201
 Phone: 703.228.3344
 Fax: 703.228.3719

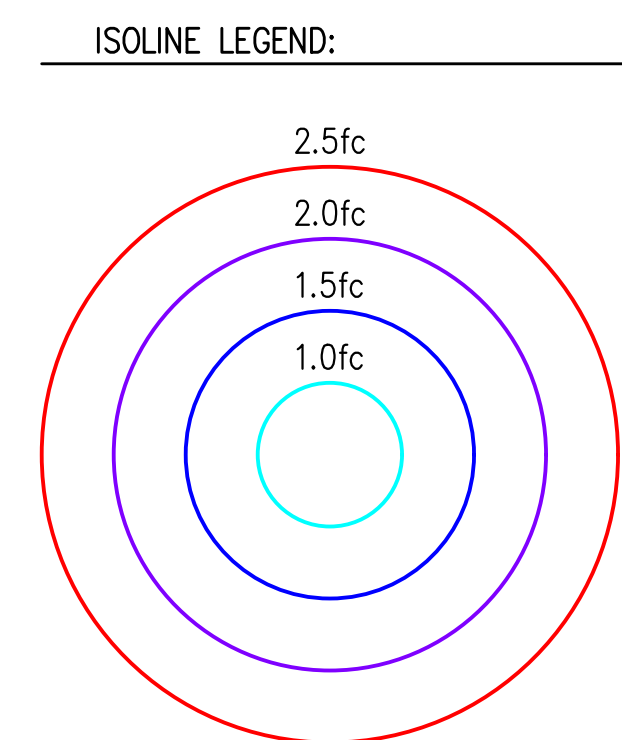
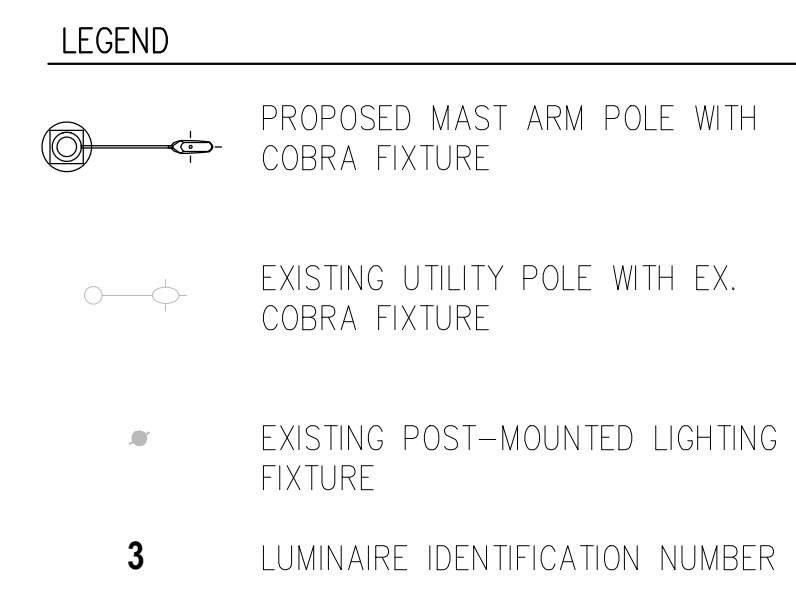


APPROVALS	DATE
<i>Andrew S. Moy</i> TRAFFIC SIGNAL ENGINEER	6/9/2022
<i>John P. ...</i> TRAFFIC ENGINEERING MANAGER	06/09/2022
<i>...</i> TE&O BUREAU CHIEF	06/10/2022
<i>Dennis W. Leach</i> TRANSPORTATION DIRECTOR	06/10/2022

REVISIONS	DATE

Luminaire Legend									
Luminaire ID Number	Pole Type	Luminaire Wattage/Type	Light Loss Factor (LLF)	Mounting Height	Color Temperature	Distribution	Initial Lumens	Finish	Baseline, Station, Offset
1	Arl. Co. Mast Arm Pole	145W Cobrahead LED	0.90	32'	4000K	Type III	16,046	Per Signal Plans	Per Signal Plans
2	Arl. Co. Mast Arm Pole	145W Cobrahead LED	0.90	32'	4000K	Type III	16,046	Per Signal Plans	Per Signal Plans
3*	Arl. Co. Mast Arm Pole	145W Cobrahead LED*	0.90	32'	4000K	Type III	16,046	Per Signal Plans	Per Signal Plans
4	Ex. Arl. Co. Pole (to remain)	76W Cobrahead LED	0.75	30.00	Not Spec'd	Type III	9,325	N/A	N/A
5	Ex. Arl. Co. Pole (to remain)	40W CUT LED	0.75	16.00	Not Spec'd	Type III	3,654	N/A	N/A
6	Ex. Arl. Co. Pole (to remain)	39W GX4 Carlyle LED	0.75	16.00	Not Spec'd	Type III	5,193	N/A	N/A
7	Ex. Dominion Energy Pole (to remain)	76W Cobrahead LED	0.75	30.00	Not Spec'd	Type III	9,325	N/A	N/A
8	Ex. Arl. Co. Pole (to remain)	39W GX4 Carlyle LED	0.75	16.00	Not Spec'd	Type III	5,193	N/A	N/A
9	Ex. Arl. Co. Pole (to remain)	39W GX4 Carlyle LED	0.75	16.00	Not Spec'd	Type III	5,193	N/A	N/A
10	Ex. Arl. Co. Pole (to remain)	39W GX4 Carlyle LED	0.75	16.00	Not Spec'd	Type III	5,193	N/A	N/A

NOTE: *Proposed Luminaire #3 shall be equipped with backlight shield.



15th Street South at South Fern St: Photometric Analysis Results					
	Avg.	Max.	Min.	Avg/Min ³	Max/Min ³
Intersection Criteria¹	2.50	-	-	4.00	-
Intersection	2.55	4.10	0.80	3.19	5.13
Crosswalk Criteria²	2.50	-	-	4.00	-
West Leg Crosswalk	2.12	3.50	1.30	1.63	2.69
North Leg Crosswalk	2.48	2.80	2.10	1.18	1.33
South Leg Crosswalk	2.05	3.20	1.00	2.05	3.20
East Leg Crosswalk	2.80	3.90	2.10	1.33	1.86

- NOTES:
- Horizontal criteria for roadway/intersection lighting based on design requirements of Arlington County Lighting Specification Section 14140.2, Table 9, for the intersection of one arterial and one collector with commercial and residential land use.
 - Horizontal crosswalk lighting designed to provide uniform lighting throughout intersection. Horizontal criteria for crosswalk lighting based on design requirements of Arlington County Lighting Specification Section 14140.2 for street lighting at the intersection of one arterial and one collector with commercial and residential land use.
 - Uniformities (Avg./Min. and Max./Min.) are "not-to-exceed" criteria.

DESIGNED: ZDH
 DRAWN: ZDH
 CHECKED: ASM
 MISS UTILITY TRANSMITTAL #: xxx
 FILENAME: 2 Photometric Plan.dwg
 PATH: Orders\TO_017_15thFern\CAD\Sheets
 PLOTTED: June 07, 2022
 PLOTTED BY: zhgh

SCALE: 1"=25'

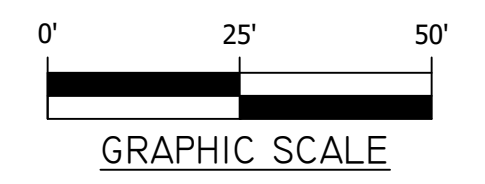


EXHIBIT C



COMMONWEALTH of VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

Gary G. Pan
COMMISSIONER

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

Virginia Department of Labor and Industry Wage Determination Decision

Project Name	15th & Fern Intersection Upgrades
County Project Code	23-DES-ITBPW-291
DOLI Project Number	ARLC-22-0011 UPDATE
County or Independent City	Arlington County
Publication Date	11/14/2022
Construction Type	Highway

Wage Determinations	Wage	Fringe
Carpenter, Includes Form Work	\$20.97	
Cement Mason/Concrete Finisher	\$20.70	\$8.03
Electrician, Includes Traffic Signalization	\$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

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

Additional Notes

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

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

Any additional classifications may be requested through the Additional Wage Classification form available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/Request-for-Additional-Wage-Classification.pdf>
Understand your duties as a contractor under Virginia law by referencing our Contractor Responsibilities information sheet available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/PREVAILING-WAGE-CONTRACTOR-RESPONSIBILITIES.pdf>

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

BID TAB**LAIDLIFT****ITB NO. XXX-XX
PROJECT NO. CC21****PREPARED BY:** _____

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).

CHECKED BY: _____

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	GENERAL EARTH WORK				
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02200-C1-00130	Aggregate, VDOT #21-A (Compacted in Place per VDOT standards & Specs)	70	CY	\$55.00	\$3,850.00
02200-SP-00010	Brick Paver and Concrete Band Removal per Details on Sheet C004.1	70	CY	\$50.00	\$3,500.00
				SUBTOTAL	\$7,350.00

C2 CONCRETE WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
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.	119	LF	\$45.00	\$5,355.00
02611-C2-00110	Concrete Sidewalk, 4" Thickness (Arlington County Detail R-2.0)	140	SY	\$75.00	\$10,500.00
02611-C2-00190	CG-12 Detectable Warning Surface - Truncated Domes	5	SY	\$350.00	\$1,750.00
				SUBTOTAL	\$17,605.00

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(ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: _____

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	GENERAL EARTH WORK				

C3 ASPHALT WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02600-C3-00030	Asphalt Concrete, Base Course (VDOT BM-25.0A)	65	TON	\$120.00	\$7,800.00
02600-C3-00060	Asphalt Concrete, Surface Course (VDOT SM-9.5A)	38	TON	\$120.00	\$4,560.00
				SUBTOTAL	\$12,360.00

C8 TRAFFIC SIGNAL WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
13160-C8-03000	Traffic Signal Upgrade	1	LS	\$515,137.81	\$515,137.81
				SUBTOTAL	\$515,137.81

C10 PAVEMENT MARKING AND SIGNAGE WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02900-C10-00040	Eighteen (18) Inch Transverse Markings	76	LF	\$6.75	\$513.00
02900-C10-00050	Twenty Four (24) Inch Transverse Markings, Note: Used For Continental (Ladder) Crosswalk	498	LF	\$8.80	\$4,382.40
02900-C10-00120	Six (6) Inch Longitudinal Solid Line	55	LF	\$2.00	\$110.00
02900-C10-00160	Six (6) Inch Longitudinal Skip Line (Two (2) Foot Line/ Four (4) Foot Spacing), Note: Twelve (12) LF Consists of Two (2) LF of Marking and Four (4) LF of Space	300	LF	\$1.50	\$450.00
02900-C10-00240	Single Arrows	1	EA	\$250.00	\$250.00
02900-C10-00300	Standard Bicycle Symbols (MUTCD, Chapter 9C, Figure 9C-9), "Shared Lane Marking"	4	EA	\$425.00	\$1,700.00
02900-C10-00350	Colorized Bike Lane Coatings (per Specification 02900)	50	SY	\$108.00	\$5,400.00
02619-C10-00410	Traffic Control Sign (Typical Stop, Yield, No Parking, Speed Limit, or Similar)	2	EA	\$300.00	\$600.00

BID TAB**ITB NO. XXX-XX
PROJECT NO. CC21****PREPARED BY:** _____

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(ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: _____

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1	GENERAL EARTH WORK				
				SUBTOTAL	\$13,405.40

CONTRACT TOTAL (EXCLUDING PERCENTAGE ITEMS) \$565,858.21**PCT****PERCENTAGE LINE ITEMS**

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
01500-C13-10000	Temporary Erosion and Sediment Controls	NA	%	0.10%	\$565.86
01000-C16-00010	Maintenance of Traffic (MOT)	NA	%	5.00%	\$28,292.91
01000-C16-00030	Mobilization and De-Mobilization	NA	%	2.00%	\$11,317.16
01500-SA-00200	SWPPP Administration	NA	%	0.10%	\$565.86
				PERCENTAGE LINE ITEMS SUBTOTAL	\$40,741.79

CONTRACT GRAND TOTAL \$606,600.00

EXHIBIT E

II. ARLINGTON COUNTY DES ENGINEERING SPECIAL CONDITIONS

TABLE OF CONTENTS

PROJECT SUMMARY.....	3
SUPPLEMENTS TO THE GENERAL CONDITIONS	4
ARTICLE B – DRAWINGS, SPECIFICATIONS AND RELATED DATA	4
SC-B.10 TESTS	4
SC-B.13 SURVEYS AND CONTROLS	4
ARTICLE C – COUNTY, COUNTY PROJECT OFFICER, AND CONTRACTOR RELATIONS.....	5
SC-C.4 INSPECTION OF WORK	5
SC-C.9 CONTRACTOR MANAGEMENT PERSONNEL.....	5
SC-C.13 PROTECTION OF WORK AND PROPERTY.....	6
ARTICLE E – LEGAL RESPONSIBILITY AND PUBLIC SAFETY	6
SC-E.1 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK	6
SC-E.2 PUBLIC CONVENIENCE	6
SC-E.10 SITE CLEAN-UP AND WASTE DISPOSAL	8
SC-E.11 STORMWATER POLLUTION PREVENTION PLAN (SWPPP).....	8
ARTICLE F – PROGRESS AND COMPLETION OF THE WORK.....	8
SC-F.2 TIME FOR COMPLETION	8
ARTICLE G – MEASUREMENT AND PAYMENT	9
SC-G.1 PAYMENTS TO CONTRACTOR.....	9
SPECIAL CONDITIONS.....	10
1. CONSTRUCTION STANDARDS.....	10
2. PERMITS	11
3. SPECIAL CONTRACTOR/SUBCONTRACTOR QUALIFICATIONS	11
4. STAKEOUT AND CUT-SHEETS	12
5. SCHEDULE, DURATION, AND PHASING REQUIREMENTS	12
6. WORK HOURS.....	12
7. GENERAL SITE SECURITY AND CONTROLS.....	13
8. SPECIAL TRAFFIC MAINTENANCE CONSIDERATIONS	13

9. TRAFFIC SIGNALS AND STREETLIGHTS 13

SUPPLEMENTS TO THE DES CONSTRUCTION STANDARDS AND SPECIFICATIONS..... 15

SECTION 01500 – TEMPORARY EROSION AND SEDIMENT CONTROL 15

 PART 3 - EXECUTION 15

 PARAGRAPH 3.1 Installation and Maintenance of Erosion and Sediment Controls..... 15

SECTION 02200 – EARTHWORK 15

 PART 3 - EXECUTION 15

 PARAGRAPH 3.5 Dewatering 15

SECTION 02500 – GRAVITY SEWERS AND APPURTENANCES..... 16

 PART 4 – MEASUREMENT AND PAYMENT 16

 PARAGRAPH 4.1 Sewer 16

SECTION 02600 - BITUMINOUS ROADWAY PAVEMENTS 16

 PART 4 – MEASUREMENT AND PAYMENT 16

SECTION 02900 - PAVEMENT MARKINGS 17

 PART 3 - EXECUTION 17

 PARAGRAPH 3.2 Provision for Temporary Markings 17

 PART 4 - MEASUREMENT AND PAYMENT..... 17

 PARAGRAPH 4.3 Colorized Asphalt Coating (to reconcile measurement in specification with Cost Est Template): 17

 PARAGRAPH 4.4 Removal/Eradication of Existing Pavement Markings..... 17

 PARAGRAPH 4.5 Pavement Message Marking 17

SECTION 329100 - PLANTING PREPARATION..... 18

 PART 4 - MEASUREMENT AND PAYMENT..... 18

SUPPLEMENTS TO THE 2020 LIGHTING SPECIFICATIONS 18

SECTION 14050 – LIGHTING CONDUCTORS 18

 PART 4 MEASUREMENT AND PAYMENT 18

PROJECT SUMMARY

CC21 intersection improvement project is to improve pedestrian safety at the intersection of 15th Street S and S Fern Street.

Project includes: proposed curb extension at southwest corner, reconstructing marked crosswalks at the intersection, replacing existing curb ramps and curb & gutter at southeast corner, traffic signal upgrade, and all other related and incidental work described and required in the contract documents.

The project construction work will be performed within the Arlington County Right-Of-Way and the public street easement.

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.

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.

SC-B.13 SURVEYS AND CONTROLS

Delete Paragraph B.13 in its entirety and insert the following in its place:

Unless otherwise stated, the County will provide horizontal and vertical reference points necessary for the Contractor to proceed with the Work. The Contractor shall carefully preserve all reference points, and in the case of destruction thereof by the Contractor or due to the negligence of the Contractor or of any subcontractor, the Contractor shall be

responsible for expense and damage resulting therefrom and shall be responsible for any mistakes or construction errors that may be caused by the loss or disturbance of such reference points. The Contractor shall be responsible for laying out the Work and shall retain a professional land surveyor licensed in the Commonwealth of Virginia to survey and provide all necessary construction layouts and to establish all control lines, grades, and elevations during construction.

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

SC-C.4 INSPECTION OF WORK

Add the following new language to Paragraph C.4:

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:

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.

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 work day and take down controls at the end of each work day 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 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. Sign posts 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 work day, 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).

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

Add the following new language to Section G.1:

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.

SPECIAL CONDITIONS

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

1. **CONSTRUCTION STANDARDS**

All work shall conform to project plans and specifications along with the current edition of 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
Arlington County Construction Standards and Specifications
External Agency Specifications

2. PERMITS

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

- **County Public Right-Of-Way (PROW) permit**
- **County Transportation Right-Of-Way(TROW) permits**
- **County Water Meter and Fire Hydrant permits**

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

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**

ITB No. 23-DES-ITBPW-291

- **Storm sewer pipes and inlets**
- **Wet Utilities**
- **Pavement markings and signage**
- **Electrical conduits**
- **Traffic signals and Street lighting**
- **Streetscapes and related site work**

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. SCHEDULE, DURATION, AND PHASING REQUIREMENTS

The Contractor shall provide a schedule for all work listed on plans including any additional work not specifically mentioned on plans but was agreed upon with the County prior to work commencing.

Work Duration per task order shall be calculated in accordance with Supplements to the General Condition "SC-F.2 TIME FOR COMPLETION". The Time for completion shall be used as the basis for the project schedule.

Contractor shall make sure that the submittals/shop drawings are reviewed and accepted and materials ordered and delivered on site as no additional time will be granted for this.

6. 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.

7. 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.

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

8. SPECIAL TRAFFIC MAINTENANCE CONSIDERATIONS

None identified at this time.

9. 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 for 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.

SUPPLEMENTS TO THE DES CONSTRUCTION STANDARDS AND SPECIFICATIONS

SECTION 01500 – TEMPORARY EROSION AND SEDIMENT CONTROL

PART 3 - EXECUTION

PARAGRAPH 3.1 Installation and Maintenance of Erosion and Sediment Controls

Delete

3.1.E 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

3.1.E 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.

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.

PART 4 - MEASUREMENT AND PAYMENT

PARAGRAPH 4.3 Colorized Asphalt Coating (to reconcile measurement in specification with Cost Est Template):

Delete

A. Measurement of colored asphalt coating shall be per square foot of area completed. Payment for colored asphalt coating shall be per square foot and shall include all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete the coating.

Add

A. Measurement of colored asphalt coating shall be per square yard of area completed. Payment for colored asphalt coating shall be per square foot and shall include all labor, materials, tools, equipment, transportation, supplies, and incidentals required to complete the coating.

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.

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.

ITB No. 23-DES-ITBPW-291

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

EXHIBIT F

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
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SOILS AND AGGREGATES				
1. Embankments				
(a) Density, Any Method	303.04(h)	One (1) test per 2500 yd ³ 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.

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
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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 Untreated) 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.

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
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)

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
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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.

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
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(d) Compressive Strength...	217	<p>For <u>miscellaneous concrete</u>, 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.</p> <p>For <u>structural concrete</u>, 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.</p>	At job site.	<p><u>Molding and Curing</u> 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°F to 80°F, and prevent loss of moisture.</p> <p><u>Testing</u> Except when high-early strength concrete is specified, compressive strength testing will be performed at 28 days.</p>
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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
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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

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
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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.).
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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.

EXHIBIT G



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

A handwritten signature in black ink, appearing to read "HSripathi".

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.

Lane Closure Guidelines

-For Northern Virginia-



**Virginia Department of Transportation
Northern Region Operations**

September 21, 2016

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.

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 preceding 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.

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	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
		9:00PM to 5:00AM			
Segment 2	Springfield Interchange to Rt.123	9:30AM to 3:30PM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
		9:00PM to 5:00AM			
Segment 3	Rt.123 to Prince William / Stafford County line	9:30AM to 3:30PM	10:00PM to 4:30AM	11:00PM to 4:00AM	12:00AM to 4:00AM
		9:00PM to 5:00AM			
Segment 4	Prince William / Stafford County line to Rt.3 Exit 130	9:30AM to 3:30PM	10:00PM to 4:30AM	n/a	12:00AM to 4:00AM
		9:00PM to 4:30AM			
Segment 5	Rt.3 Exit 130 to Caroline / Hanover County line	9:00AM to 3:30PM	10:00PM to 4:30AM	n/a	12:00AM to 4:00AM
		9:00PM to 5:30AM			
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	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
		9:30PM to 5:00AM			
Segment 2	Springfield Interchange to Rt.123	9:00AM to 2:00PM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
		9:30PM to 5:00AM			
Segment 3	Rt.123 to Prince William / Stafford County line	9:00AM to 2:00PM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 4:00AM
		9:30PM to 6:00AM			
Segment 4	Prince William / Stafford County line to Rt.3 Exit 130	9:00AM to 2:00PM	10:00PM to 5:30AM	n/a	12:00AM to 4:00AM
		9:30PM to 6:00AM			
Segment 5	Rt.3 Exit 130 to Caroline / Hanover County line	9:00AM to 3:00PM	10:00PM to 5:30AM	n/a	12:00AM to 4:00AM
		9:30PM to 6:00AM			
All lanes open at 11:00am on Friday					

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.

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	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
		9:30PM to 5:00AM			
Segment 2	Springfield Interchange to W.W. Bridge	10:00AM to 3:00PM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
		9:30PM 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	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
		9:30PM to 5:00AM			
Segment 2	Springfield Interchange to W.W. Bridge	10:00AM to 3:00PM	10:00PM to 5:00AM	11:00PM to 5:00AM	12:00AM to 5:00AM
		9:30PM to 5:00AM			
All lanes open at 12:00 noon on Friday					
WEEKEND		Inner/Outer Loop			Complete Road Closure
		Single-Lane Closures or Shoulder	Multiple-Lane Closures		
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.					

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	9:00PM to 5:00AM	10:00PM to 5:00AM	12:00AM to 4:00AM
		8:00PM to 5:00AM			
Segment 2	Route 286 to Beltway	11:00AM to 3:30PM	10:00PM to 5:00AM**	11:00PM to 5:00AM**	12:00AM to 4:00AM
		9:00PM to 5:00AM			
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	9:30PM to 6:00AM	10:30PM to 5:00AM	12:00AM to 4:00AM
		9:00PM to 6:00AM			
Segment 2	Route 286 to Beltway	9:00AM to 2:00PM*	10:00PM to 5:00AM**	11:00PM to 5:00AM**	12:00AM to 4:00AM
		9:30PM to 5:00AM			
Segment 3	Beltway to TR Bridge (Inside Beltway)	9:30AM to 2:00PM*	10:00PM to 5:00AM**	n/a	12:00AM to 4:00AM
		10:00PM to 5:00AM			
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

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

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	9:30AM to 2:00 PM	10:00PM to 9:00AM	10:00PM to 8:00AM	10:00PM to 5:00AM
	10:00PM to 5:00AM				
All Other Roadways	9:00AM to 3:30PM	9:00AM to 2:00 PM	10:00PM to 9:00AM	9:00PM to 9:00AM	10:00PM to 5:00AM
	9:00PM 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.

EXHIBIT H

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)

EXHIBIT I

Complete Streets

The street is where every element of transportation must be addressed and accommodated: pedestrians, transit, bicycles, passenger vehicles, trucks, and parking. It is also where many other aspects of public life take place including displaying civic pride, setting the tone for public activity and commerce, providing space for landscaping and accommodating storm water management and other public utilities.

The Streets Modal Element of the MTP provides guidance for achieving a greater balance among modes through the introduction of a new street typology depicted on this map and other policies that promote and enable Complete Streets. Complete Streets provide appropriate facilities to accommodate all expected transportation users and also take into account the scale and character of the streets' settings. Complete Streets do not necessarily entail dedicated facilities for each mode (e.g., transit track, bike lane, sidewalk), particularly on lower-volume streets. However, Complete Streets do ensure that travel by all modes is accommodated in a manner appropriate to the context of the street.

Complete Streets have three areas of activity: context, pedestrian space, and the travelway. The context of a street includes the buildings and sites adjacent to the street, or right-of-way. Land use, physical form and intensity shape the context zone. The pedestrian space is that which extends between the building face, or front of the private property, and the travelway. The travelway encompasses that portion of the public right-of-way between the curbs that is dedicated partially or exclusively to travel.

Street Typology

This map designates specific types of arterial streets. The proposed typology has been developed to shape decision-making about a given street section in terms of its planned land-use context and multi-modal function. This overlay is the principal guide for the rebalancing, redesigning and rebuilding of arterial streets to become Complete Streets that provide for all modes of travel as well as serve the adjacent land uses. More specific guidelines for improving the various designs of existing streets within each general type are set forth in the Streets Modal Element. Non-arterial (local) streets should also have designed features to complement their land-use context and function as illustrated in the table below. Arlington will also continue to use its Functional Classification of streets to guide operational and maintenance priorities. Typical elements and dimensions for each street type are illustrated in the table below. Factors such as existing and planned land-use types and intensities, right-of-way availability, travel demand, transit operations, neighborhood character, historic designations, presence of mature trees, topography, and community concerns should be considered in the development of the final dimensions and design of any street.

Arterial	Travel Lanes*	Median	Target Speed	Transit Service	Bike Accommodations	Restricted/Link/Driveway Access	On-Street Parking Priority	Pedestrian Way
Type A-Primarily Retail/Shared-Use	2 to 4 Turning	None	20-25	Frequent	Bike Lane / Shared Lane	Yes	High	10'-0" Sidewalk (6' Future Zone of Trade Pk)
Type B-Primarily Urban Mixed-Use	2 to 4 Turning	None/ Low	25-30	Frequent	Bike Lane / Shared Lane	Yes	High	10'-0" Sidewalk (6' Future Zone of Trade Pk)
Type C-Primarily Commercial	4 to 6 Turning	Medium	30	Frequent	Bike Lane	No	Low	6'-0" Sidewalk (4'-0" Green Strip w/ Bicycle)
Type D-Primarily Garden Apartments & Townhouse Neighborhoods	2 to 4 Turning	High	25-30	Moderate	Bike Lane	No	High	6'-0" Sidewalk (4'-0" Green Strip w/ Bicycle)
Type E-Primarily Single-Family Residential Neighborhoods	2 to 4	None/ Medium	25-30	Limited	Bike Lane / Shared Lane	No	Medium	6'-0" Sidewalk (4'-0" Green Strip w/ Bicycle)
Type F-Primarily Low-Density Single-Family Use	4 to 6	High	25-30	Limited	Dedicated Shared Use Path	Yes	None	6'-0" Sidewalk or 10'-0" Shared-Use Path (w/ 6' Green Strip)
Non-Arterial								
Urban Center Local (medium to high density)	2	Low	25	Limited/None	Bike Lane / Shared Lane	No	High	6'-0" Sidewalk (4'-0" Green Strip)
Neighborhood (low density)	1 to 2 (one-way)	Low/None	20-25	Limited/None	Shared Lane	No	High	4'-0" Sidewalk (2'-0" Green Strip)
Alley/Service	1 to 1 1/2 (one-way)	None	10	None	Shared Lane	No	Low	None/ 3'-0" Sidewalk (2'-0" Green Strip)
Transway	2	Low/None	Varies	Frequent	Shared-Use Path	Yes	None	Plank on each side (4'-0" Green Strip)

Note: The nomenclature of the typologies, found in the legend and table above, is designed to help users understand the typology assignments by indicating where such street types are most commonly found. Land uses in the GLUP, other land-use plans or existing zoning designations are not meant to be affected, changed or interpreted based upon the name of an abutting street type.



Adopted December 18, 2007
Updated December 2017
ARLINGTON VIRGINIA

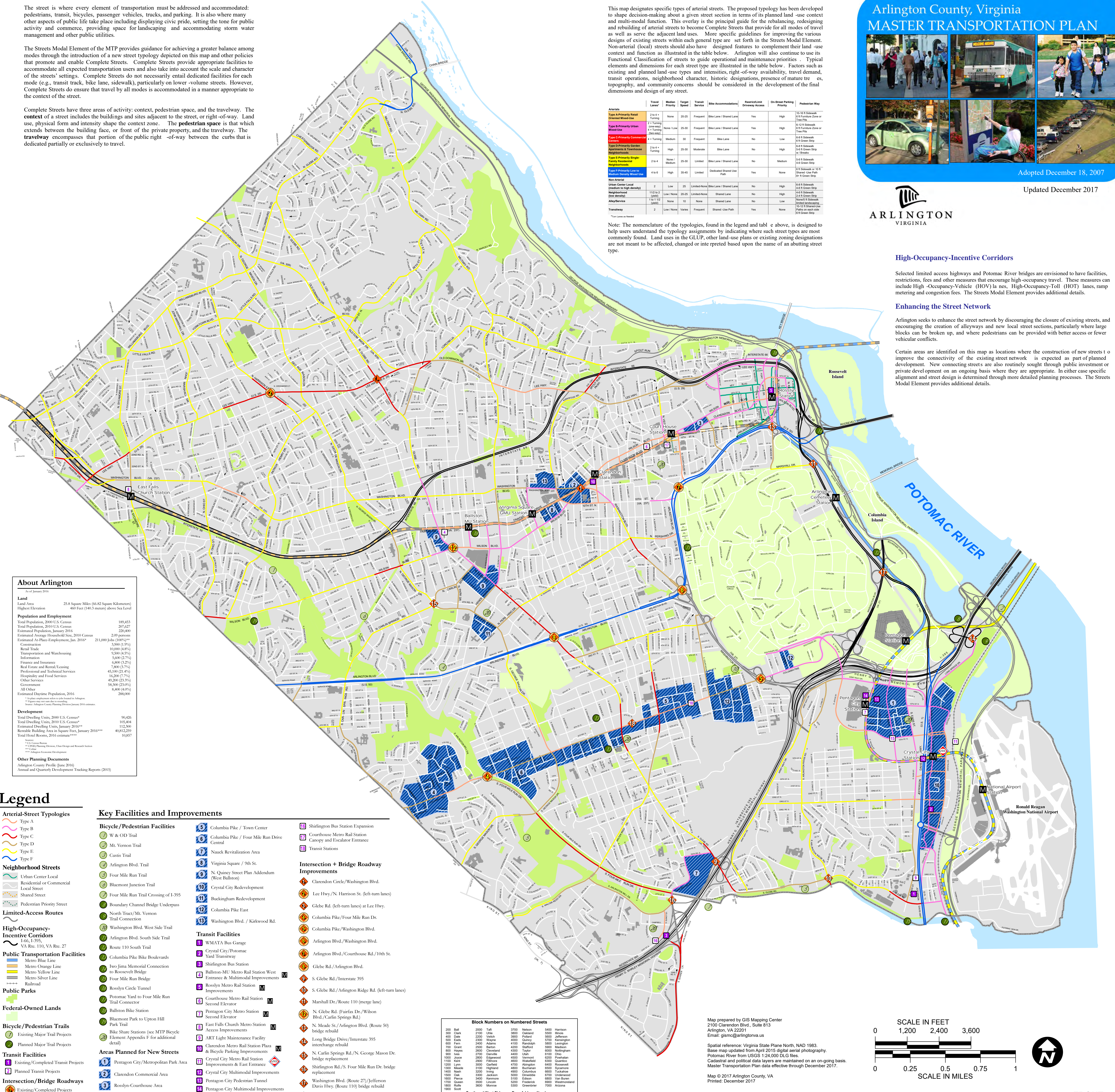
High-Occupancy-Incentive Corridors

Selected limited access highways and Potomac River bridges are envisioned to have facilities, restrictions, fees and other measures that encourage high-occupancy travel. These measures can include High-Occupancy-Vehicle (HOV) lanes, High-Occupancy-Toll (HOT) lanes, ramp metering and congestion fees. The Streets Modal Element provides additional details.

Enhancing the Street Network

Arlington seeks to enhance the street network by discouraging the closure of existing streets, and encouraging the creation of alleyways and new local street sections, particularly where large blocks can be broken up, and where pedestrians can be provided with better access or fewer vehicular conflicts.

Certain areas are identified on this map as locations where the construction of new streets to improve the connectivity of the existing street network is expected as part of planned development. New connecting streets are also routinely sought through public investment or private development on an ongoing basis where they are appropriate. In either case specific alignment and street design is determined through more detailed planning processes. The Streets Modal Element provides additional details.



About Arlington

As of January 2016

Land
Land Area: 25.8 Square Miles (66.82 Square Kilometers)
Highest Elevation: 469 Feet (144.3 meters) above Sea Level

Population and Employment
Total Population, 2010 U.S. Census: 189,453
Total Population, 2010 U.S. Census: 207,627
Estimated Population, January 2016: 223,800
Estimated Average Household Size, 2010 Census: 2.97 persons
Estimated At-Place Employment, Jan. 2016*: 211,000 Jobs (100%)**
Construction: 3,900 (1.9%)
Retail Trade: 19,000 (9.0%)
Transportation and Warehousing: 9,500 (4.5%)
Information: 5,600 (2.7%)
Finance and Insurance: 6,800 (3.2%)
Real Estate and Rental/Leasing: 7,800 (3.7%)
Professional and Technical Services: 45,900 (21.8%)
Hospitality and Food Services: 16,200 (7.7%)
Other Services: 49,200 (23.3%)
Government: 58,500 (27.9%)
All Other: 8,400 (4.0%)
Estimated Daytime Population, 2016: 288,000

Development
Total Dwelling Units, 2010 U.S. Census*: 90,426
Total Dwelling Units, 2010 U.S. Census*: 104,804
Estimated Dwelling Units, January 2016*: 112,900
Rentable Building Area in Square Feet, January 2016***: 4,082,259
Total Hotel Rooms, 2016 estimate****: 10,827

Other Planning Documents
Arlington County Profile (June 2016)
Annual and Quarterly Development Tracking Reports (2015)

Legend

Arterial-Street Typologies
Type A
Type B
Type C
Type D
Type E
Type F

Neighborhood Streets
Urban Center Local
Residential or Commercial Local Street
Shared Street
Pedestrian Priority Street

Limited-Access Routes

High-Occupancy-Incentive Corridors
I-495
VA Rte. 110, VA Rte. 27

Public Transportation Facilities
Metro Blue Line
Metro Orange Line
Metro Yellow Line
Metro Silver Line
Railroad

Public Parks

Federal-Owned Lands

Bicycle/Pedestrian Trails
Existing Major Trail Projects
Planned Major Trail Projects

Transit Facilities
Existing/Completed Transit Projects
Planned Transit Projects

Intersection/Bridge Roadways
Existing/Completed Projects
Planned Roadway Projects

Key Facilities and Improvements

Bicycle/Pedestrian Facilities
1 W & OD Trail
2 Mt. Vernon Trail
3 Custis Trail
4 Arlington Blvd. Trail
5 Four Mile Run Trail
6 Blumont Junction Trail
7 Four Mile Run Trail Crossing of I-395
8 Boundary Channel Bridge Underpass
9 North Tract/Mt. Vernon Trail Connection
10 Washington Blvd. West Side Trail
11 Arlington Blvd. South Side Trail
12 Route 110 South Trail
13 Columbia Pike Bike Boulevards
14 Two Jima Memorial Connection to Roosevelt Bridge
15 Four Mile Run Bridge
16 Rosslyn Circle Tunnel
17 Potomac Yard to Four Mile Run Trail Connector
18 Ballston Bike Station
19 Blumont Park to Upton Hill Park Trail
20 Bike Share Stations (see MTP Bicycle Element Appendix F for additional detail)

Areas Planned for New Streets
1 Pentagon City/Metropolitan Park Area
2 Clarendon-Commercial Area
3 Rosslyn-Courthouse Area
4 Columbia Pike West End

Transit Facilities
1 WMATA Bus Garage
2 Crystal City/Potomac Yard Transitway
3 Shirlington Bus Station
4 Ballston-MU Metro Rail Station West Entrance & Multimodal Improvements
5 Rosslyn Metro Rail Station Improvements
6 Courthouse Metro Rail Station Second Elevator
7 Pentagon City Metro Station Second Elevator
8 East Falls Church Metro Station Access Improvements
9 ART Light Maintenance Facility
10 Clarendon Metro Rail Station Plaza & Bicycle Parking Improvements
11 Crystal City Metro Rail Station Improvements & East Entrance
12 Crystal City Multimodal Improvements
13 Pentagon City Pedestrian Tunnel
14 Pentagon City Multimodal Improvements
15 Transitway Expansion to Pentagon City

Intersection + Bridge Roadway Improvements
1 Clarendon Circle/Washington Blvd.
2 Lee Hwy./N. Harrison St. (left-turn lanes)
3 Glebe Rd. (left-turn lanes) at Lee Hwy.
4 Columbia Pike/Four Mile Run Dr.
5 Columbia Pike/Washington Blvd.
6 Arlington Blvd./Washington Blvd.
7 Arlington Blvd./Courthouse Rd./10th St.
8 Glebe Rd./Arlington Blvd.
9 S. Glebe Rd./Interstate 395
10 S. Glebe Rd./Arlington Ridge Rd. (left-turn lanes)
11 Marshall Dr./Route 110 (merge lane)
12 N. Glebe Rd./Fairfax Dr./Wilson Blvd./Carlin Springs Rd.
13 N. Meade St./Arlington Blvd. (Route 50) bridge rebuild
14 Long Bridge Drive/Interstate 395 interchange rebuild
15 N. Carlin Springs Rd./N. George Mason Dr. bridge replacement
16 Shirlington Rd./S. Four Mile Run Dr. bridge replacement
17 Washington Blvd. (Route 27)/Jefferson Davis Hwy. (Route 110) bridge rebuild
18 Columbia Pike Multimodal

Block Numbers on Numbered Streets

Street	Block Numbers		
200 Ball	2000 Telf	3700 Nelson	5400 Harrison
300 Clark	2100 Linn	3800 Oakland	5500 Brown
400 Dale	2200 Welch	3900 Pulaski	5600 Jefferson
500 Eads	2300 Wayne	4000 Quincy	5700 Kensington
600 Fern	2400 Adams	4100 Randolph	5800 Lexington
700 Grant	2500 Barton	4200 Stafford	5900 Madison
800 Hayes	2600 Cleveland	4300 Taylor	6000 Kensington
900 Hill	2700 Curville	4400 Utah	6100 Ohio
1000 Joyce	2800 Eastman	4500 Vermont	6200 Quantico
1100 Kent	2900 Filmore	4600 Wakefield	6300 Quantico
1200 Lynn	3000 Garfield	4700 Arlington	6400 Rockwell
1300 Meade	3100 Highland	4800 Burhan	6500 Syracuse
1400 Nash	3200 Irving	4900 Cambridge	6600 Lakeside
1500 Oak	3300 Jackson	5000 Drwidale	6700 Underwood
1600 Pence	3400 Kearney	5100 Edison	6800 Van Buren
1700 Queen	3500 Lincoln	5200 Frederick	6900 Westoverland
1800 Rohr	3600 Monroe	5300 Greentree	7000 Winona
1900 South			

South and West Sides are Even Address Numbers

Map prepared by GIS Mapping Center
2100 Clarendon Blvd., Suite 813
Arlington, VA 22201
Email: gismc@arlingtonva.us

Spatial reference: Virginia State Plane North, NAD 1983.
Base map updated from April 2015 digital aerial photography.
Potomac River from USGS 1:24,000 DLG files.
Cadastral and political data layers are maintained on an on-going basis.
Master Transportation Plan data effective through December 2017.

Map © 2017 Arlington County, VA
Printed: December 2017

SCALE IN FEET
0 1,200 2,400 3,600

SCALE IN MILES
0 0.25 0.5 0.75 1

Master Transportation Plan

Introduction

This Arlington Master Transportation Plan (MTP) promotes effective travel and accessibility for the County's residents, workers, and visitors through the year 2030. It provides a framework to guide the development of projects and programs, advance the County's goals and objectives, and help direct investment. Its policies affect how people travel, however they travel. As Arlington continues to grow, the MTP plays an important part in determining how the County will accommodate that growth. The MTP is comprised of three major components: this map, a Goals and Policies document, and six detailed mode-specific documents.

About this Map

The focus of this map is to provide visual guidance on the planned Arlington street system and to geographically locate the major transportation facility investments identified in the plan including streets, transit and bicycle facilities. Greater detail about the background of the transportation system and plan goals, policies and objectives, is found in the other components of the MTP.

Specific maps for the Transit and Bikeways networks are included to illustrate how existing and proposed facilities will integrate to create enhanced networks. Additional details on facilities can be found in the Transit and Bicycle Modal Elements.

Facilities for pedestrians, parking, and transportation demand and systems management are not included on this map as they are difficult to illustrate on a map of this scale. The respective modal elements of the MTP provide additional details, policies and design standards.



Arlington County Transit Network

Legend

- | | |
|---|--|
| Limited-Access Routes | Transit Networks |
| High-Occupancy-Incentive Corridors | ● Transit Stations - Existing and Proposed |
| Neighborhood Streets | — Premium Transit Network |
| Other Streets | — Express Bus Corridor |
| Pedestrian Priority Streets | — Primary Transit Network |
| Flexible Transit Zones | — Secondary Transit Network |
| Planned | Public Transportation Facilities |
| Public Parks | Existing |
| Federal-Owned Lands | Planned |
| Potomac River | Virginia Railway Express |
| | Metro Station |
| | Metro Blue Line |
| | Metro Orange Line |
| | Metro Silver Line |
| | Metro Yellow Line |

Transit

A key aspect of the Master Transportation Plan is the implementation of a Premium Transit Network (PrTN) in Crystal City and along Columbia Pike. The PrTN is designed to add capacity and encourage investment in areas of the County where significant growth and development is planned. The PrTN features high frequency (every 10-12 minutes), branded, and easy to understand bus routes with passenger amenities such as real-time transit information and high quality transit stations.

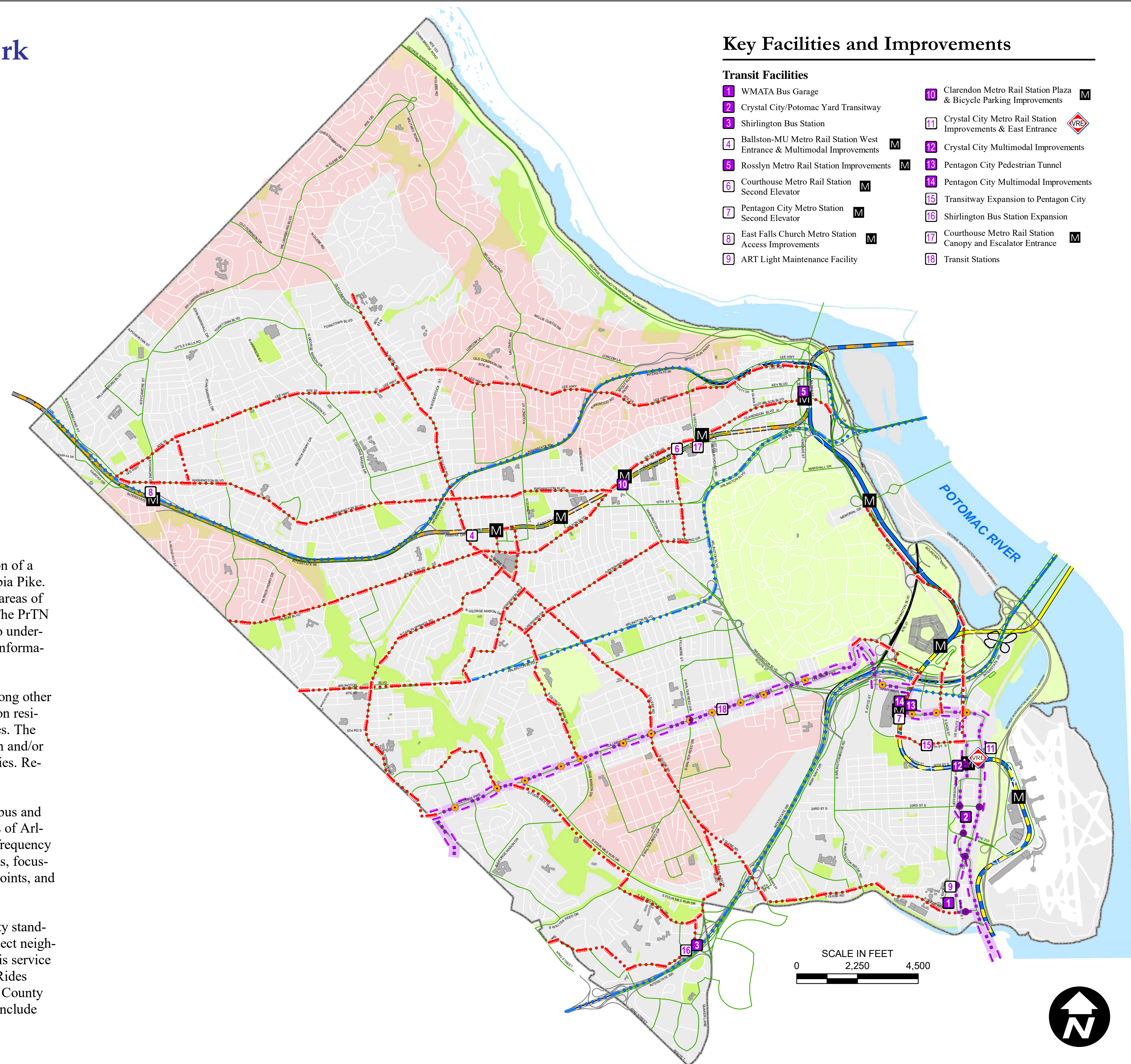
In addition, the expansion of the Primary Transit Network (PTN) along other primary development corridors will provide the majority of Arlington residents with all-day east-west and north-south access every 15 minutes. The PTN may be expanded further in future updates if parts of Arlington and/or adjacent communities are redeveloped at substantially higher densities. Regional express bus routes also complement PTN service.

The Secondary Transit Network (STN) offers more localized Metrobus and ART service. The STN serves the low- to moderate-density portions of Arlington and adjacent communities. The STN routes do not have the frequency or capacity of the PTN, but penetrate deeper into lower-density areas, focusing on bringing people to Metrorail stations, other service transfer points, and serving important neighborhood destinations.

In areas of the County where STN service does not meet productivity standards, the County will institute a flexible, on-demand service to connect neighborhoods with transit stations or key neighborhood destinations. This service will use smaller vehicles and could include a separate fare system. Rides would be grouped and provided on a demand-responsive basis. The County will pilot this service during off-peak periods but may expand it to include service during peak periods as well.

Key Facilities and Improvements

- | | |
|--|--|
| Transit Facilities | |
| 1 WMATA Bus Garage | 10 Clarendon Metro Rail Station Plaza & Bicycle Parking Improvements |
| 2 Crystal City/Potomac Yard Transitway | 11 Crystal City Metro Rail Station Improvements & East Entrance |
| 3 Shirlington Bus Station | 12 Crystal City Multimodal Improvements |
| 4 Ballston-MU Metro Rail Station West Entrance & Multimodal Improvements | 13 Pentagon City Pedestrian Tunnel |
| 5 Rosslyn Metro Rail Station Improvements | 14 Pentagon City Multimodal Improvements |
| 6 Courthouse Metro Rail Station Second Elevator | 15 Transitway Expansion to Pentagon City |
| 7 Pentagon City Metro Station Second Elevator | 16 Shirlington Bus Station Expansion |
| 8 East Falls Church Metro Station Access Improvements | 17 Courthouse Metro Rail Station Canopy and Escalator Entrance |
| 9 ART Light Maintenance Facility | 18 Transit Stations |



Arlington County Bike and Trail Network

Pedestrian Facilities

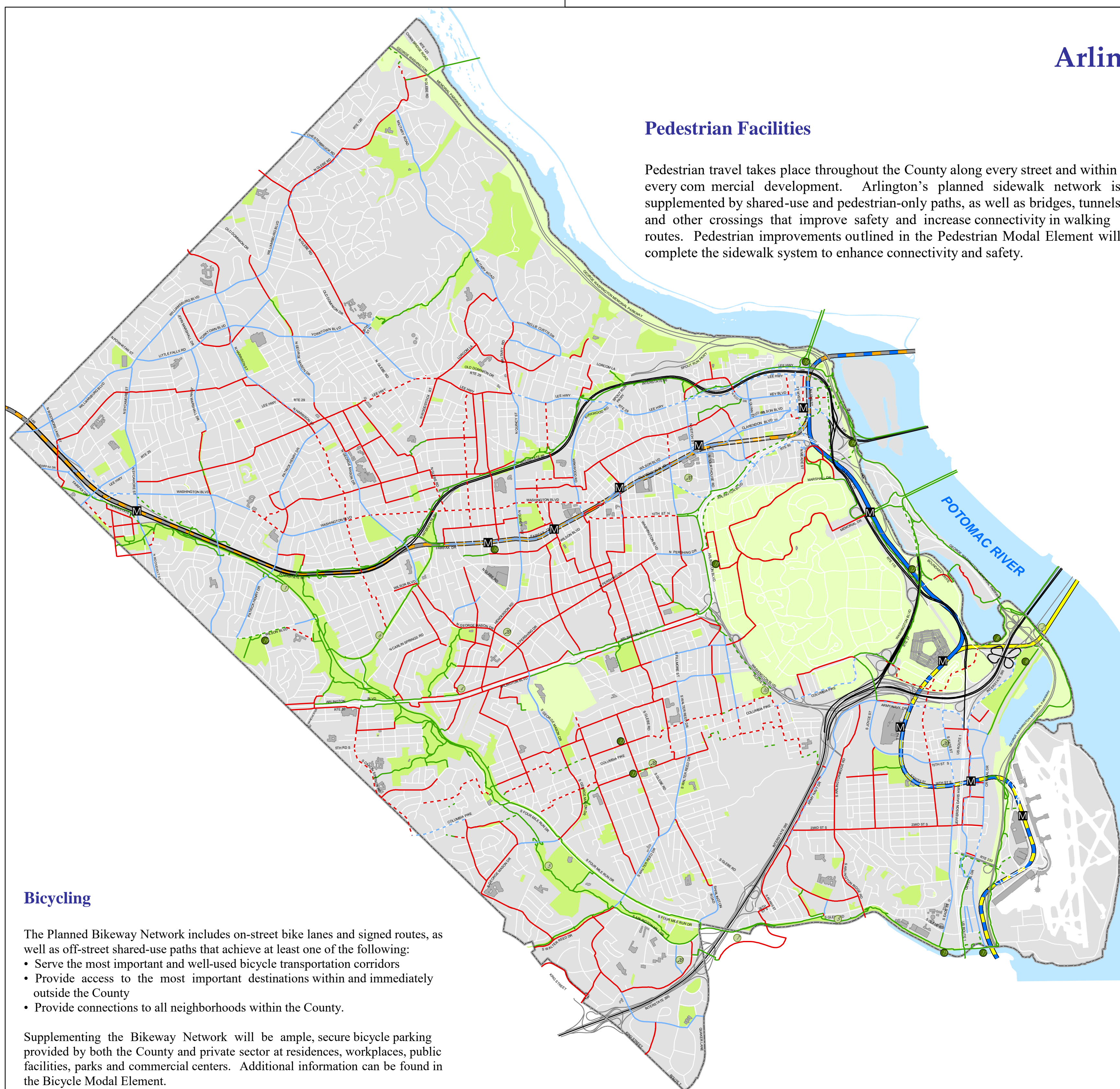
Pedestrian travel takes place throughout the County along every street and within every commercial development. Arlington's planned sidewalk network is supplemented by shared-use and pedestrian-only paths, as well as bridges, tunnels and other crossings that improve safety and increase connectivity in walking routes. Pedestrian improvements outlined in the Pedestrian Modal Element will complete the sidewalk system to enhance connectivity and safety.

Legend

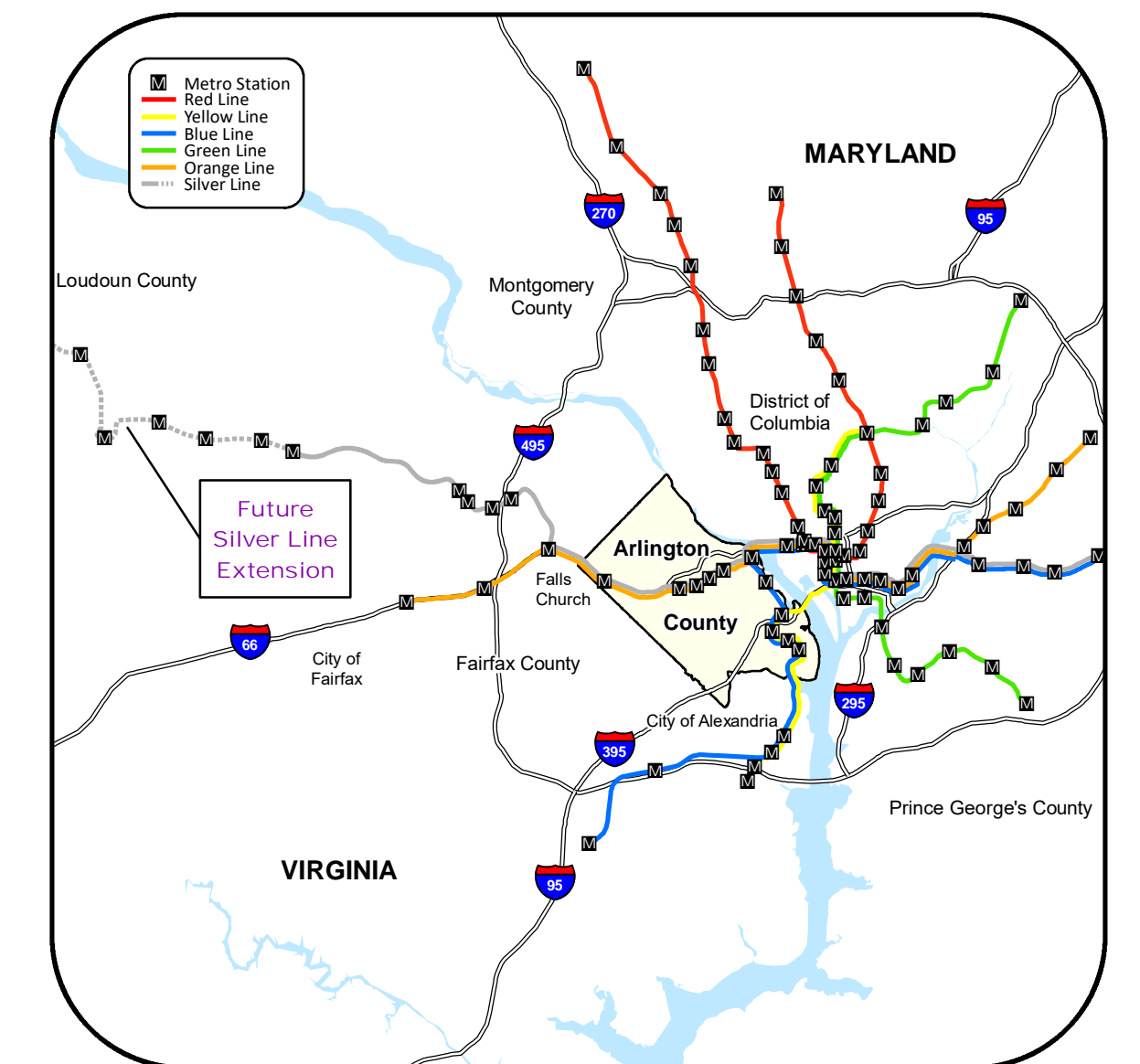
- | | |
|---|----------------------------------|
| Limited-Access Routes | On Street Bike Lanes |
| High-Occupancy-Incentive Corridors | Existing Bike Lanes |
| Neighborhood Streets | Planned Bike Lanes |
| Other Streets | On Street Bike Facilities |
| Pedestrian Priority Streets | Existing Bikeway |
| Public Transportation Facilities | Planned Bikeway |
| Metro Station | Off Street Trail Network |
| Metro Blue Line | Existing Trails |
| Metro Orange Line | Planned Trail Projects |
| Metro Silver Line | Public Parks |
| Metro Yellow Line | Federal-Owned Lands |
| Potomac River | |

Key Facilities and Improvements

- | | |
|--|---|
| Bicycle/Pedestrian Facilities | |
| Note: Trails shown on Columbia Island (D.C.) are for displaying connectivity | 27 Washington Blvd. West Side Trail |
| 1 W & OD Trail | 28 Arlington Blvd. South Side Trail |
| 2 Mt. Vernon Trail | 29 Route 110 South Trail |
| 3 Custis Trail | 30 Columbia Pike Bike Boulevards |
| 4 Arlington Blvd. Trail | 31 Joo Jima Memorial Connection to Roosevelt Bridge |
| 5 Four Mile Run Trail | 32 Four Mile Run Bridge |
| 6 Blacmont Junction Trail | 33 Rosslyn Circle Tunnel |
| 7 Four Mile Run Trail Crossing of I-395 | 34 Potomac Yard to Four Mile Run Trail Connector |
| 8 Boundary Channel Bridge Underpass | 35 Ballston Bike Station |
| 9 North Tract/Mt. Vernon Trail Connection | 36 Blacmont Park to Upton Hill Park Trail |
| | 37 Bike Share Stations (see MTP Bicycle Element Appendix F for additional detail) |



Map of Metrorail System



Bicycling

The Planned Bikeway Network includes on-street bike lanes and signed routes, as well as off-street shared-use paths that achieve at least one of the following:

- Serve the most important and well-used bicycle transportation corridors
- Provide access to the most important destinations within and immediately outside the County
- Provide connections to all neighborhoods within the County.

Supplementing the Bikeway Network will be ample, secure bicycle parking provided by both the County and private sector at residences, workplaces, public facilities, parks and commercial centers. Additional information can be found in the Bicycle Modal Element.



Map prepared by GIS Mapping Center
2100 Clarendon Blvd., Suite 813
Arlington, VA 22201
Email: gismo@arlingtonva.us

Spatial reference: Virginia State Plane North, NAD 1983.
Base map updated from April 2015 digital aerial photography.
Potomac River from USGS 1:24,000 DLG files.
Cadastral and political data layers are maintained on an on-going basis.
Master Transportation Plan data effective through December 2017.

Map © 2017 Arlington County, VA
Printed: December 2017

BACK

EXHIBIT J

ARLINGTON COUNTY, VA REQUEST FOR INFORMATION FORM

PROJECT: _____

RFI NUMBER: _____
PROJECT NO.: _____

FOR CONTRACTOR ROUTING:

Contractor: _____
Work Category: _____

Transmittal No.: _____
Date: _____

TO (County Project Officer)
 (Consultant)
 (Other)

Action Faxed to _____ Emailed Mailed Pages ____
 Action Faxed to _____ Emailed Mailed Pages ____
 Action Faxed to _____ Emailed Mailed 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: _____

BY: _____ **DATE:** _____ **Dist:** _____ File

EXHIBIT L

CONTRACTOR COVID-19 VACCINATION QUARTERLY COMPLIANCE CERTIFICATION

By Email: Please complete the report below and return it to: contractorvaccineinfo@arlingtonva.us.

I hereby certify that all Ardent Company, LLC employees and subcontractors working on Contract No. 23-DES-ITBPW-291 are fully vaccinated against COVID-19, or being tested on a weekly basis, or are exempt pursuant to a valid reasonable accommodation under state or federal law.

Please do not include any of your employees' medical documentation, including vaccination records or test results.

Date: _____

Signature: _____

Printed Name and Title: _____

Company Name: _____

Company Address: _____

EXHIBIT M

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

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 OSHA 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

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):

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).

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