

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

CONTRACT AWARD COVERPAGE

TO: SAGRES CONSTRUCTION CORPORATION 3680 WHEELER AVENUE, SUITE 300 ALEXANDRIA, VIRGINIA 22304	DATE ISSUED: CONTRACT NO: CONTRACT TITLE:	<u>FEBRUARY 8, 2021</u> <u>21-DES-ITB-417</u> <u>COLUMBIA PIKE SIDEWALK WIDENING AND BRIDGE REPAIR</u>
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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. 21-DES-ITB-417, including any attachments or amendments thereto.

EFFECTIVE DATE: FEBRUARY 8, 2021
EXPIRES: ANTICIPATED AUGUST 23, 2021
RENEWALS: THERE ARE NO RENEWALS
COMMODITY CODE(S): 91382, 91366
LIVING WAGE: N

ATTACHMENTS:
AGREEMENT NO. 21-DES-ITB-417

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

<u>VENDOR CONTACT:</u> DEJAN DRAGACEVAC	<u>VENDOR TEL. NO.:</u>	<u>(703) 924-7220</u>
<u>EMAIL ADDRESS:</u> DAN@SAGRESCONSTRUCTION.COM		
<u>COUNTY CONTACT:</u> ARJUN JOSHI, DES, ENGINEERING	<u>COUNTY TEL. NO.:</u>	<u>(703) 228-3629</u>
<u>COUNTY CONTACT EMAIL:</u> AJOSHI@ARLINGTONVA.US		

PURCHASING DIVISION AUTHORIZATION

Kaylin Schreiber Title: Procurement Officer Date: 1/25/2021

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

AGREEMENT NO. 21-DES-ITB-417

THIS AGREEMENT is made, on **February 8, 2021**, between **Sagres Construction Corporation**, 3680 Wheeler Avenue, Suite 300, Alexandria, Virginia 22304 (“Contractor”), a Virginia Stock Corporation authorized to do business in the Commonwealth of Virginia, and the **County Board of Arlington County, Virginia**. The County and the Contractor, for the consideration hereinafter specified, agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents consist of:

- Agreement No. 21-DES-ITB-417 and all modifications properly incorporated into the Agreement
- Exhibit A – Arlington County Invitation to Bid No. 21-DES-ITB-417 including DES General Conditions, Special Conditions and Supplemental Specifications, and Construction Standards and Specifications herein incorporated by reference
- Exhibit B – Specifications, Drawings, and Construction Notes
- Exhibit C – Bid Form and Price Bid of Contractor

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 the Columbia Pike sidewalk widening and bridge maintenance (the “Project”) and all other work shown, described, and required by the Contract Documents (hereinafter “the Work”).

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

3. PROJECT OFFICER

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

4. TIME FOR COMPLETION

Work under this Agreement shall achieve Substantial Completion no later than one hundred and fifty (150) 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 one hundred and fifty (150) 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 sixty (60) 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.

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 C, but not more than \$898,997.18 for the Contractor's completion of the Work (Base + Optional) 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. Each invoice must certify that the invoice submitted is a true and accurate accounting of the work performed and goods and/or services provided and must be signed and attested to by the Contractor or authorized designee. 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 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. 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.

10. 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 \$1,833 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 \$1,833 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 \$1,833 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 \$1,833 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.

11. PERFORMANCE OF WORK BY THE CONTRACTOR

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

12. 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.

13. 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.

14. 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.

15. 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, national origin, age or 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.

16. 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.

17. 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.

18. 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.

19. 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.

20. 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.

21. 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.

22. 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.

23. INDEMNIFICATION

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless and indemnify the County and all of its elected and appointed officials, officers, current and former employees, agents, departments, agencies, boards and commissions (collectively the "County Indemnitees") from and against any and all claims made by third parties for any and all losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability, demands or exposure resulting from, arising out of or in any way connected with the Contractor's acts or omissions, including the acts or omissions of its employees, vendors, delivery drivers and/or subcontractors, in performance or nonperformance of the Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

The Contractor agrees to defend, indemnify, and hold harmless County from any and all damages, costs, claims, expenses, suits, losses, liabilities, or obligations of any kind including without limitation, environmental assessments, evaluations, remediations, fines, penalties, and clean-up costs which may be asserted against or imposed upon, or incurred by County arising from Contractor's discharge or disposal of any hazardous or toxic materials, trash, debris, refuse, waste or other materials ("Materials") related in any way to contractor's operations herein.

24. 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.

25. 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.

26. 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.

27. 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.

28. 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.

29. 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.

30. 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.

31. 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.

32. 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.

33. 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.

34. REPORT STANDARDS

The Contractor must electronically 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.

35. AUDIT

The Contractor must provide to the County the complete findings and all components of an independent certified public accountant's audit of its finances and program operation within two months after the close of Contractor's fiscal year. If a management letter was not prepared with the audit, the Contractor must so certify in writing as part of the audit report to the County. The Contractor must allow the County to review its records as the County deems necessary for audit purposes within 15 calendar days of the County's receipt of the findings. All accounts of the Contractor are subject to audit.

The Contractor must retain all books, records and other documents related to this Contract for at least five years, 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 years after the final payment, 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.

36. 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.

37. AMENDMENTS

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

38. 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.

39. 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.

40. 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.

41. ARBITRATION

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

42. 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.

43. 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.

44. 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.

45. 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.

46. 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.

47. 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.

48. 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.

49. 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:

Dejan Dragacevac
Sagres Construction Corporation
3680 Wheeler Avenue, Suite 300
Alexandria, Virginia 22304
Email: dan@sagresconstruction.com
Phone: (703) 924-7220

TO THE COUNTY:

Arjun Joshi, Project Officer
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 813
Arlington, Virginia 22201
Email: ajoshi@arlingtonva.us
Phone: (703) 228-3639

AND

Sharon T. Lewis, LL.M, MPS, VCO, CPPB
Purchasing Agent
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 500
Arlington, Virginia 22201

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

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

50. NON-DISCRIMINATION NOTICE

Arlington County does not discriminate against faith-based organizations.

51. 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.

52. MATERIAL CHANGES

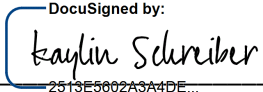
The Contractor shall notify Purchasing Agent within seven days of any material changes in its operation that relate to any matter attested regarding certifications on its bid form.

53. 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

AUTHORIZED SIGNATURE:  _____
2513E5602A3A4DE...

NAME: Kaylin Schreiber

TITLE: Procurement Officer

DATE: 2/1/2021

SAGRES CONSTRUCTION CORPORATION

AUTHORIZED SIGNATURE:  _____
817420F7C4FC427...

NAME: Dejan Dragacevac

TITLE: Vice President

DATE: 2/1/2021

EXHIBIT B - SPECIFICATIONS, DRAWINGS, AND CONSTRUCTION NOTES



ENGINEER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

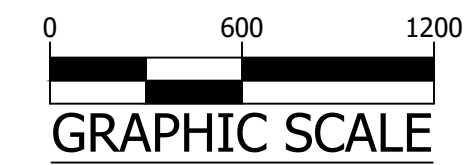
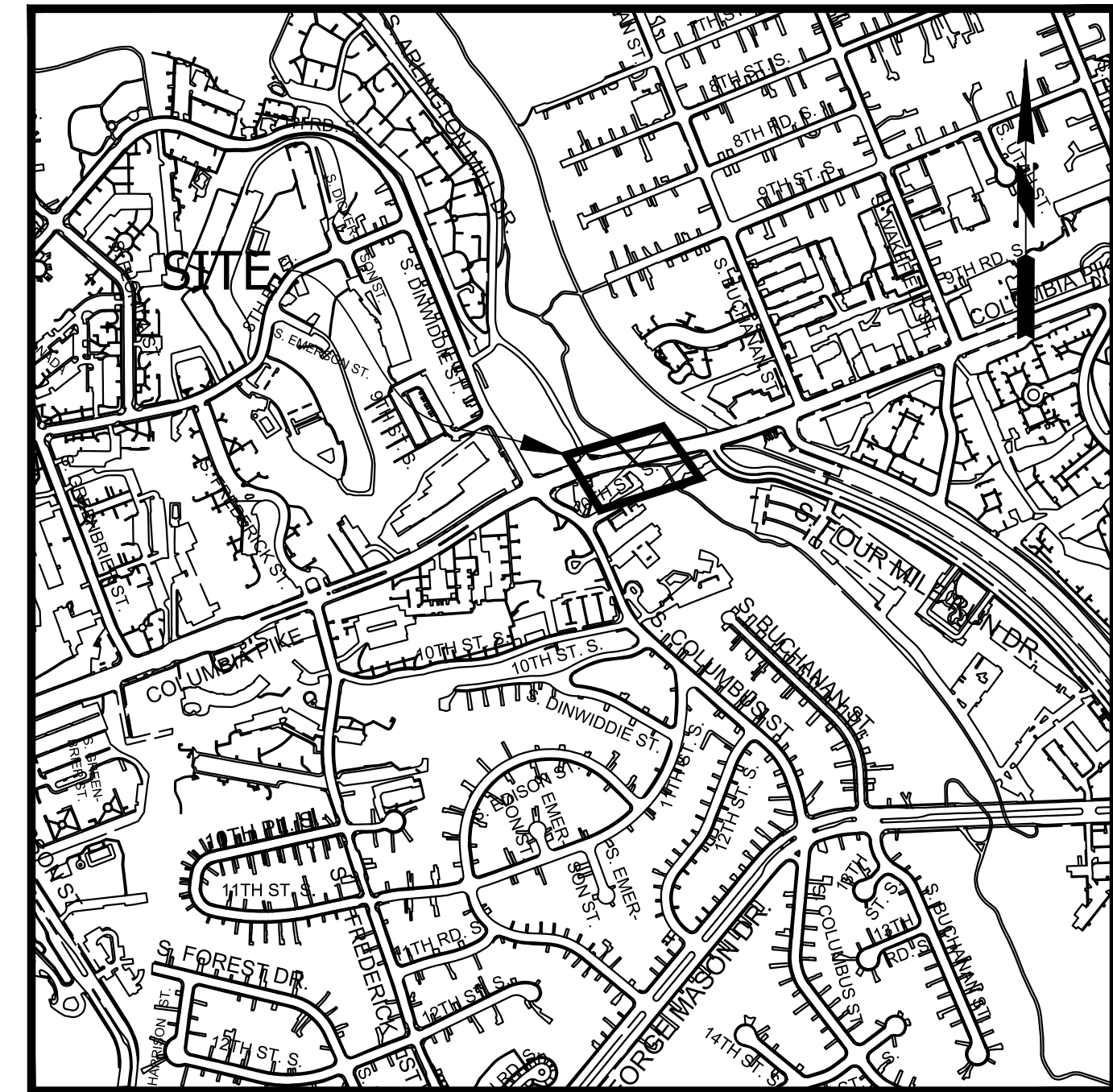
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629 FAX: 703.228.3606
WWW.ARLINGTONVA.US

OWNER
DES/DTD/PLAN

CONSULTANT
VOLKERT INC
6225 BRANDON AVENUE, SUITE 540
SPRINGFIELD, VA 22150
PHONE: 703.642.8100 FAX: 703.642.8106
WWW.VOLKERT.COM

CONTRACTOR
TO BE DETERMINED

LOCATION MAP



CONSTRUCTION DRAWINGS FOR: SIDEWALK WIDENING PROJECT COLUMBIA PIKE OVER FOUR MILE RUN PROJECT NUMBER: DS87

GENERAL NOTES:

GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
- ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
- THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
- EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
- 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

- 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

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

TRAFFIC CONTROL

- 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 PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS.
- 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. 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.
- 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.
- 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 SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
- 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

- UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED OPERATION.
- 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.
- 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:

- ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSERVED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- 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

Sheet Number	Sheet Title
C000.1	Cover Sheet
C006.1	Legend
C011.1	Existing Conditions
C031.1	Erosion and Sediment Control
C032.1	EROSION AND SEDIMENT CONTROL NOTES
C032.2	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
C035.1	STORMWATER POLLUTION PREVENTION PLAN
C035.2	STORMWATER POLLUTION PREVENTION PLAN
C035.3	WATER QUALITY SHEETS
C036.1	SOIL MAP
C040.1	Typical Sections
C041.1	Plan Profile
C044.1	Cross Sections Sheet - 1
C044.2	Cross Sections Sheet - 2
C045.1	GEOMETRIC CONTROL PLAN
C071.1	Storm Sewer Drainage Divides
C075.1	STORM COMPUTATIONS
C101.1	Signage and Striping
C111.1	Streetlight Plan
C111.2	Lights Photometric Data
C121.1	MAINTENANCE OF TRAFFIC PLAN -01
C121.2	MAINTENANCE OF TRAFFIC PLAN -02
C121.3	MAINTENANCE OF TRAFFIC PLAN -03
C121.4	MAINTENANCE OF TRAFFIC PLAN -04
C121.5	MAINTENANCE OF TRAFFIC NOTES
C121.6	MAINTENANCE OF TRAFFIC DETAILS
B001.1	BRIDGE PLAN
B001.2	BRIDGE TYPICAL SECTION
B001.3	SIDEWALK AND DECK DRAINAGE DETAILS
B001.4	JOINT REPAIR DETAILS
B001.5	PEDESTRIAN HANDRAIL
B001.6	WEST INLET
B001.7	EAST INLET
B001.8	BRIDGE LIGHTING DETAILS

BRIDGE GENERAL NOTES

- SPECIFICATIONS: VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, 2016.
- CONCRETE IN SIDEWALK SHALL BE LOW SHRINKAGE CLASS A4 MODIFIED IN ACCORDANCE WITH SECTION 217.12(A) OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS; IN INLETS AND PEDESTRIAN FENCE FOUNDATIONS, CLASS A3.
- ALL REINFORCING STEEL SHALL BE DEFORMED AND SHALL CONFORM TO ASTM A615 GRADE 60 EXCEPT FOR STEELS IN THE SIDEWALK ON THE BRIDGE DECK WHICH SHALL BE CORROSION RESISTANT REINFORCING (CRR) AND SHALL CONFORM TO SECTION 233 OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS. CRR STEELS SHALL CONFORM TO THE REQUIREMENTS OF CRR STEEL, CLASS 1.
- THE PRICE BID FOR HANDRAIL HR-1 TYPE II SHALL INCLUDE FURNISHING AND INSTALLING THE CONCRETE FOUNDATIONS. COST SHALL INCLUDE ALL CONCRETE, REINFORCING STEEL, ANCHOR BOLTS AND ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- THE PRICE BID FOR MODIFY EXISTING INLET SHALL INCLUDE REMOVAL OF THE EXISTING INLET TOP AND CONSTRUCTING THE NEW TOPS AND EXTENSIONS AS SHOWN IN THE PLANS. COST SHALL INCLUDE ALL CONCRETE, REINFORCING STEEL, BASE MATERIAL, INSTALLATION OF DOWELS, MANHOLE FRAME AND COVERS, AND ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- DECK DRAINAGE SYSTEM WILL BE PAID FOR AT THE LUMP SUM PRICE AND SHALL INCLUDE FORMING THE INLET OPENINGS, DRILLING HOLES FOR THE DRAIN PIPES, FURNISHING AND INSTALLING DRAIN PIPES AND ALL HARDWARE, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- APPROXIMATE CONCRETE REPAIR QUANTITIES ARE PROVIDED IN THE ESTIMATE AND ARE FOR INFORMATION ONLY. THE LOCATIONS OF CONCRETE REPAIRS SHALL BE DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO ANY CONCRETE REPAIRS SO THAT THE AREAS MAY BE SOUND. THE ACTUAL LIMITS OF THE REPAIR WILL BE DETERMINED BY THE ENGINEER BASED ON THE SOUNDING RESULTS.
- EPOXY OVERLAY SHALL BE IN ACCORDANCE WITH SECTION 431 OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS.
- CONCRETE SURFACE COLOR COATING SHALL BE IN ACCORDANCE WITH SECTION 412 OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS. COLOR SHALL CLOSELY MATCH THE COLOR OF THE EPOXY OVERLAY AND BE APPROVED BY THE COUNTY.
- REMOVE PORTION OF EXISTING STRUCTURE NUMBER 1008 WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE WHICH SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. WORK INCLUDES THE PARTIAL REMOVAL OF THE EXISTING SIDEWALK ON THE BRIDGE DECK AND APPROACH SLABS AS SHOWN IN THE PLANS AND REMOVAL OF THE ABANDONED DRAIN PIPES THAT EXTEND BELOW THE BRIDGE DECK. THE EXISTING REINFORCING STEEL THAT IS TO BE LEFT IN PLACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 412 OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS.
- ALL INFORMATION AND DIMENSIONS USED IN THE DEVELOPMENT OF THESE PLANS WERE TAKEN FROM EXISTING PLANS AND FIELD MEASUREMENTS. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DETAILS AND OTHER INFORMATION SHOWN IN THESE PLANS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ORDERING MATERIALS AND PERFORMING ANY WORK.
- BRIDGE NO. OF EXISTING BRIDGE IS 1008. PLAN NO. IS 080-23.

SWM#

SWM#

ADT

24,000 - COLUMBIA PIKE (FROM FAIRFAX COUNTY LINE TO GLEBE RD) - 2018 - VDOT

STREET CLASSIFICATION

COLUMBIA PIKE - URBAN PRINCIPAL ARTERIAL

POSTED SPEED

COLUMBIA PIKE - 30 MPH



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



APPROVALS DATE

<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Takah</i>	9.17.20
CONSTRUCTION SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS DATE

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
DS87

COLUMBIA PIKE OVER FOUR MILE RUN

COVER SHEET

DESIGNED: KM
DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 14 2020

SCALE:

C000.1

LINETYPE LEGEND

Table with 3 columns: FEATURE, EXISTING, PROPOSED. Lists various features like BUILDING, CENTERLINE / BASELINE, COMMUNICATIONS CABLE, etc., with their corresponding line styles.

SYMBOL LEGEND

Table with 2 columns: EXISTING FEATURE, PROPOSED FEATURE. Lists features like EX CABLE PEDESTAL, EX ELECTRIC BOX, EX FIRE HYDRANT, etc., with their corresponding symbols.

SYMBOL LEGEND

Table with 2 columns: EXISTING FEATURE, PROPOSED FEATURE. Lists features like EX STRIPING, EX BUS STOP with their corresponding symbols.

LABEL LEGEND

Table with 2 columns: EXISTING, PROPOSED. Lists labels for EXISTING SANITARY STRUCTURE NUMBER and EXISTING STORM SEWER STRUCTURE NUMBER.

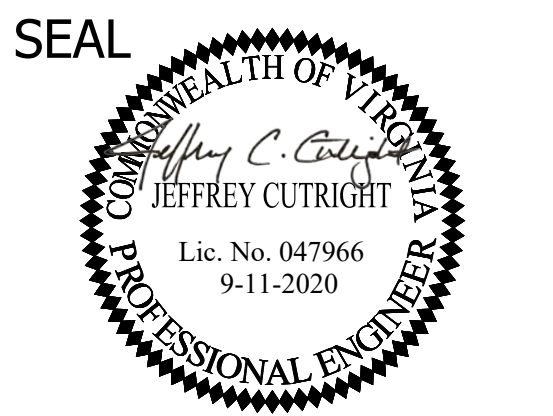
HATCH LEGEND

Table with 2 columns: EXISTING, PROPOSED. Lists hatching patterns for features like PROP MILL & OVERLAY, PROP FULL DEPTH ASPHALT, PROP CONCRETE, etc.



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 table with columns for NAME and DATE. Includes signatures and dates for Niles Narkare, Kamal Taktak, Dennis M. Leach, and Rene Harris.

REVISIONS table with columns for REVISIONS and DATE. Contains several empty rows for future revisions.

SIDEWALK WIDENING PROJECT DS87 COLUMBIA PIKE OVER FOUR MILE RUN LEGEND

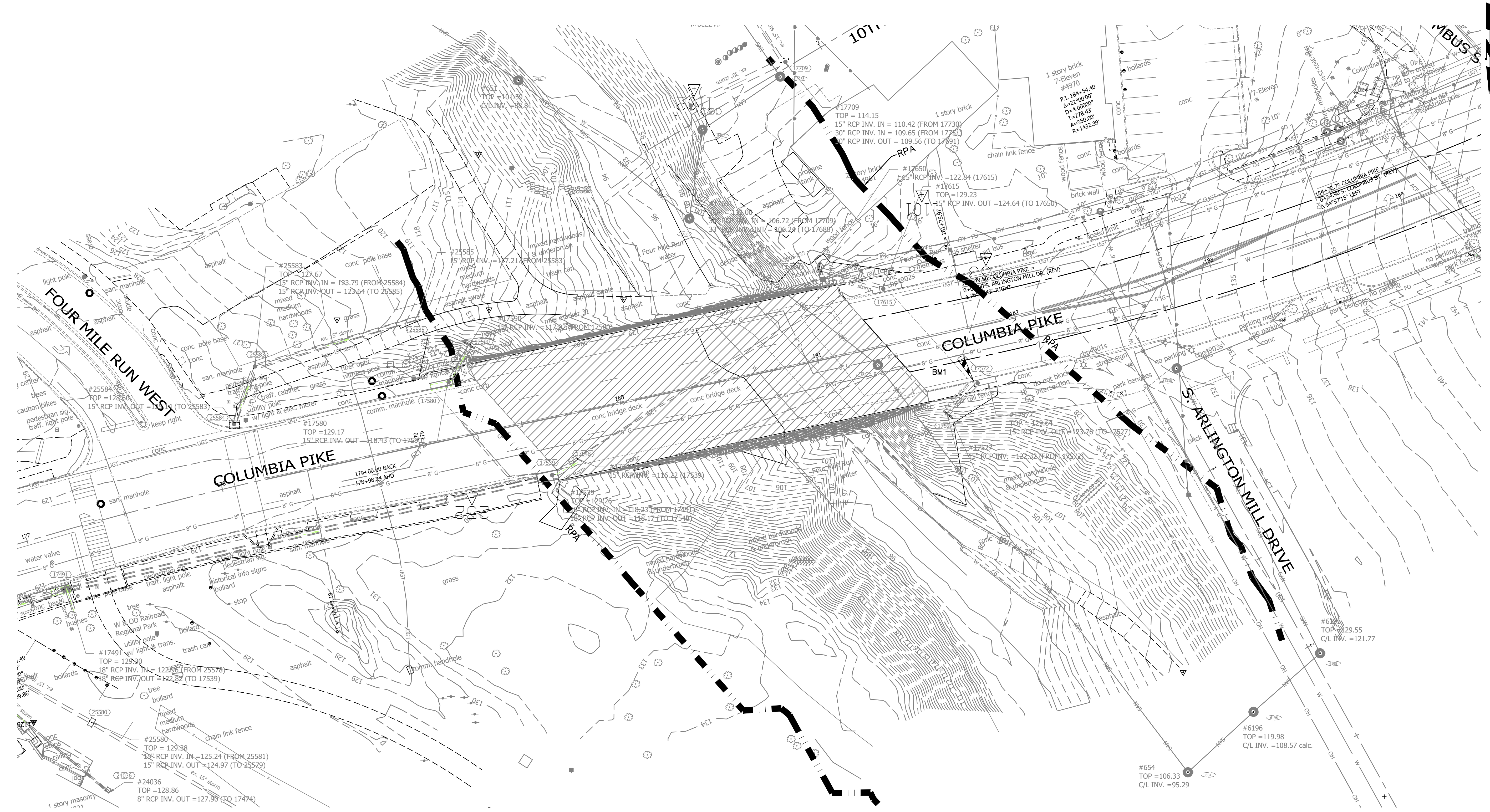
DESIGNED: KM DRAWN: KM CHECKED: BG PLOTTED: SEPTEMBER 11 2020

SCALE:

N/A

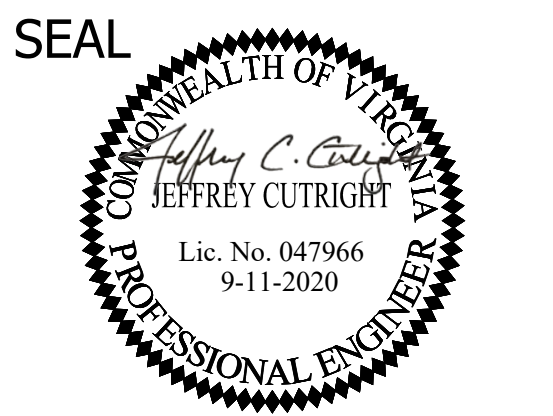
C006.1

REVISED ON 01/24/2020
FILENAME: D587-214-EXISTING_CONDITIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGNING\DWG PLOTTED BY: MATTHEW.WHITTAKER



DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
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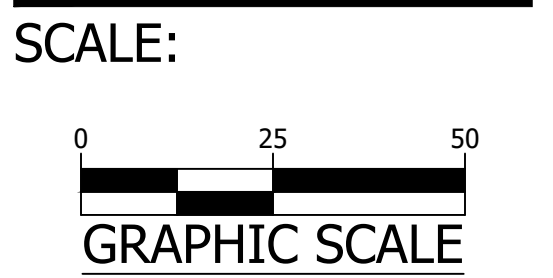
APPROVALS	DATE
<i>Nilesha Nairare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Jeffrey Cutright</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN
EXISTING CONDITIONS

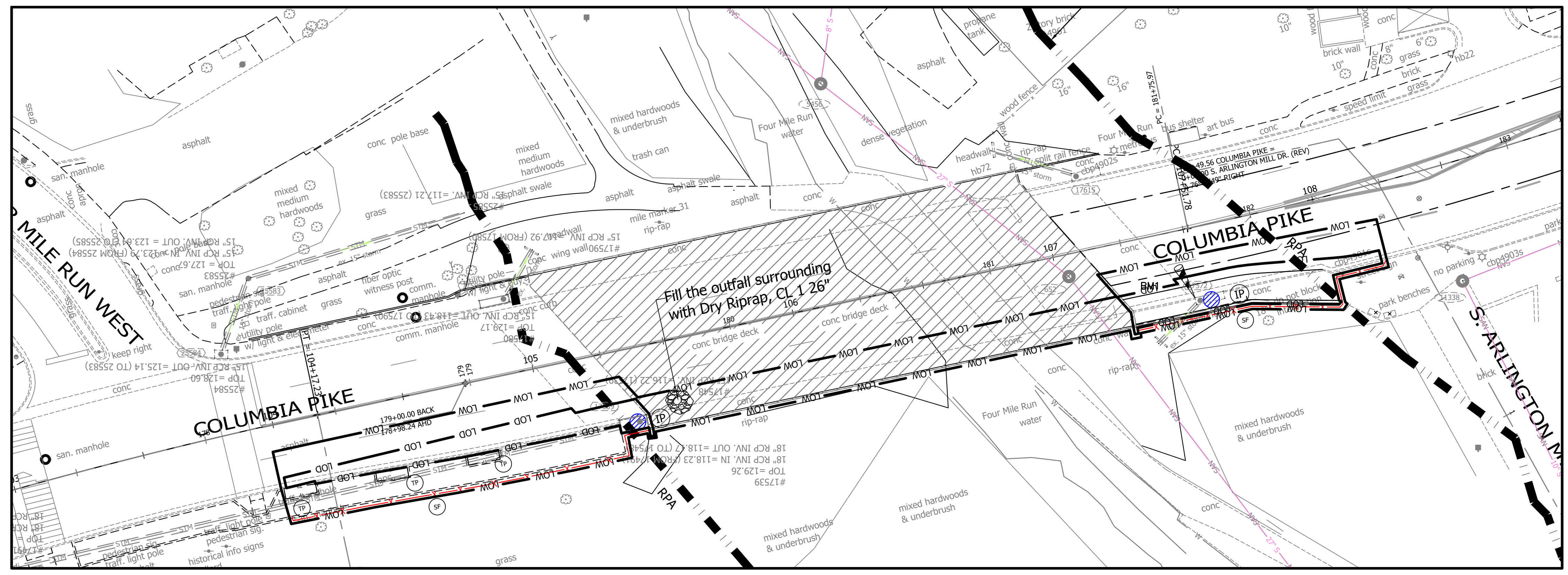
DESIGNED: KM
DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

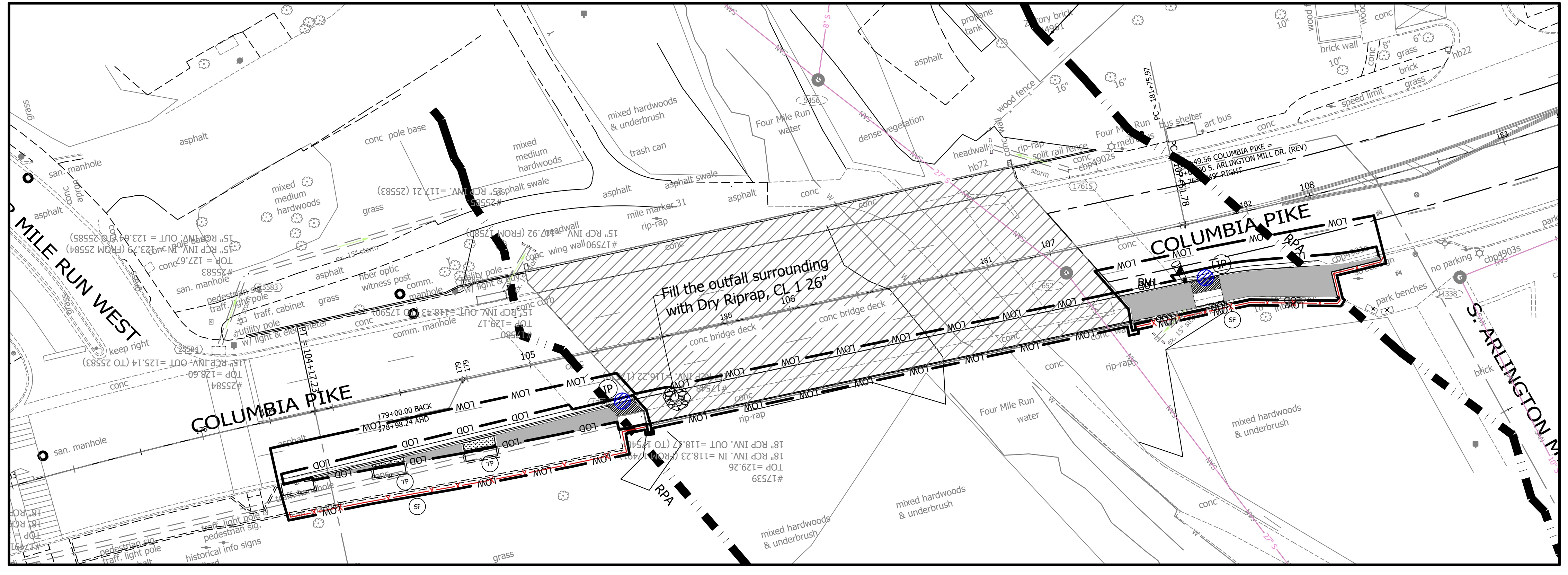


- GENERAL SURVEY NOTES:**
- HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
 - VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
 - CONTOUR INTERVAL: 1'
 - BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

REVISED ON 01/24/2020



EROSION AND SEDIMENT CONTROL PLAN - EXISTING CONDITION



EROSION AND SEDIMENT CONTROL PLAN - PROPOSED CONDITION

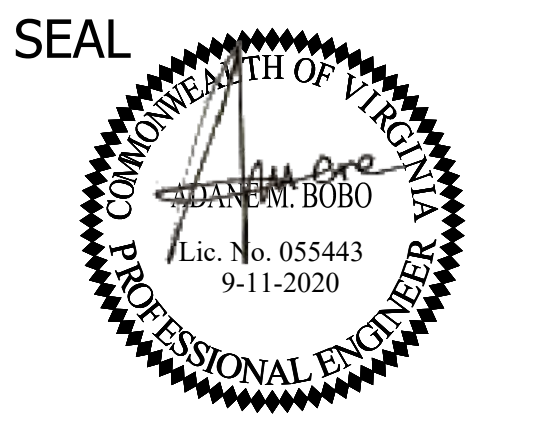
EROSION AND SEDIMENT CONTROL LEGEND

3.05	TEMPORARY SILT FENCE	SF	- X - X -
3.07	STORM DRAIN INLET PROTECTION	IP	(IP)
3.38	TREE PROTECTION	TP	- TP -
3.32	PERMANENT SEEDING	PS	(PS)
3.33	SODDING	SO	(SO)
LIMITS OF DISTURBANCE		- LOD -	
LIMITS OF WORK		- LOW -	



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 FACILITIES & ENGINEERING DIVISION
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 ARLINGTON, VA 22201
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 FAX: 703.228.3606

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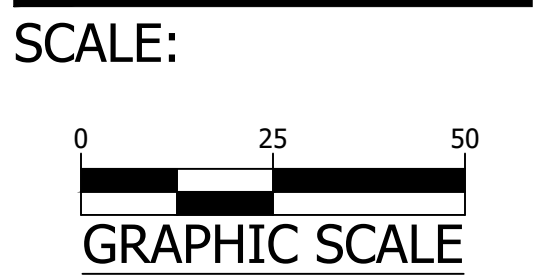
APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Takhat</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Dennis M. Leach</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Rene Harris</i>	9/25/20
TRANSPORTATION DIRECTOR	
	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DSR7
 COLUMBIA PIKE OVER FOUR MILE RUN
 EROSION AND SEDIMENT CONTROL

DESIGNED: KM
 DRAWN: KM
 CHECKED: BG

PLOTTED: SEPTEMBER 11 2020



FILENAME: DSR7-224-E_AND_S_PLAN.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER

REVISED ON 01/24/2020

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

THE COLUMBIA PIKE OVER FOUR MILE SIDEWALK EXTENSION PROJECT WILL WIDEN THE EXISTING SIDEWALK AND IMPROVE CURB AND GUTTER FOR THE SAFETY AND ACCESSIBILITY OF PEDESTRIAN TRAVEL. THE TOTAL PROJECT WORK AREA IS 9,105 SF (0.209 AC), WITH 2,377 SF (0.055 AC) SUBJECT TO LAND DISTURBING ACTIVITY. THE IMPERVIOUS AREA WILL NOT BE INCREASED BY THE PROPOSED IMPROVEMENT. THE CONSTRUCTION PERIOD IS EXPECTED TO TAKE PLACE FROM JANUARY 2021 THROUGH APRIL 2021. PROJECT WORK INCLUDES:

- REMOVING AND INSTALLING OF NEW CURB & GUTTER
- FULL DEPTH ASPHALT PAVEMENT
- REMOVING AND INSTALLING OF CONCRETE SIDEWALK
- SIGNING AND PAVEMENT MARKINGS. .

EXISTING SITE CONDITIONS:

THE PROJECT IS LOCATED AROUND WHERE THE COLUMBIA PIKE CROSSES OVER THE FOUR MILE RUN. THE ROADWAY IS A PRIMARY ROAD WITH THE CLASSIFICATION OF URBAN PRINCIPAL ARTERIAL. THE LOW POINT OF THE PROJECT IS LOCATED NEAR THE WEST APPROACH OF THE BRIDGE. THE SITE IS LOCATED WITH IN POTOMAC RIVER-FOUR MILE RUN SUB- WATERSHED WITH THE 8 DIGIT HYDROLOGIC UNIT CODE (HUC) OF 02070010 AND IT HAS HYDROLOGY SOIL GROUP OF MAINLY B/D. THE SOIL TYPE IS "URBAN LAND-UDORTHERNTS COMPLEX," THE SITE HAVE A SLOPES BETWEEN 2% AND 15%.

ADJACENT PROPERTIES:

THERE IS A SMALL PARK ON THE NORTH EAST SIDE OF THE PROJECT AND FOUR MILE RUN TRAIL ADJACENT TO THE BRIDGE. WHERE ADJACENT AREAS ARE AT A LOWER ELEVATION, SILT FENCE IS PROPOSED TO BE USED AS A PERIMETER CONTROL.

OFF-SITE AREAS:

A MINIMAL AMOUNT OF OFFSITE BORROW MAY BE REQUIRED FOR TOPSOIL IN PROJECT SITE. THE LOCATION AND ENSURING MAINTENANCE OF THE BORROW AREAS IS THE CONTRACTOR'S RESPONSIBILITY.

CRITICAL AREAS:

THERE IS DELINEATED FLOODPLAIN AND RESOURCE PROTECTION AREA WITHIN THE PROJECT LIMIT. DISTURBED AREAS SHALL BE MONITORED ROUTINELY FOR SIGNS OF EROSION, AND TEMPORARY STABILIZATION SHALL BE PUT IN PLACE AS NEEDED. PERIMETER CONTROLS, PARTICULARLY INLET PROTECTION, SHALL BE MONITORED FREQUENTLY AND CLEARED AS NEEDED. THE PROJECT AREA IS HIGHLY DEVELOPED AND WELL GRADED AND THE PROPOSED IMPROVEMENT WILL NOT INCREASE THE EXISTING IMPERVIOUS FOOT PRINT.

EROSION AND SEDIMENT CONTROL MEASURES:

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA SHALL INCLUDE PERIMETER CONTROLS SUCH AS SILT FENCE TO PREVENT SILTY WATER FROM LEAVING THE SITE, INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE EXISTING STORM SEWER SYSTEM, AND STABILIZATION WITH SOD, MULCH, OR SEEDING AND STRAW OR HAY. FOR SPECIFICS REGARDING INSTALLATION, MAINTENANCE, INSPECTION, AND REMOVAL, REFER TO OTHER SECTIONS OF THIS NARRATIVE AND THE PLANS.

PERMANENT STABILIZATION:

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH GRASS, MULCH OR SOD. SEE THE PROPOSED PLANS FOR ADDITIONAL INFORMATION.

STORMWATER RUNOFF CONSIDERATIONS:

NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LAND DISTURBANCE.....	= 2377 SF (0.055 ACRES)
PRE-IMPROVEMENT IMPERVIOUS AREA.....	= 2175 SF (0.050 ACRES)
PRE-IMPROVEMENT PERVIOUS AREA.....	= 202 SF (0.005 ACRES)
POST-IMPROVEMENT IMPERVIOUS AREA.....	= 2175 SF (0.050 ACRES)
PRE-IMPROVEMENT PERVIOUS AREA.....	= 202 SF (0.005 ACRES)
INCREASED IMPERVIOUS AREA.....	= 0 SF (0.00 ACRES)

SOILS INFORMATION:

THE FOLLOWING SOILS ARE FOUND ON SITE (SEE SOILS MAP ON SHEET C036.1 FOR LOCATION)

SOIL#:	SOIL NAME:	HYDROLOGIC GROUP:	ERODABILITY:
12	URBAN LAND-UDORTHERNTS	VARIES	N/A

FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):

THERE ARE FLOODPLAIN OR RESOURCE PROTECTION AREAS LOCATED WITHIN THIS PROJECT SITE

EROSION & SEDIMENT CONTROL PROJECT PHASING

1. EXISTING CONDITION:

- PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.
- INSTALL INLET PROTECTION (IP) AT STORM DRAIN INLETS.
- PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS SILT FENCE (SF) PER THE PHASE I PLAN.
- SEED AND MULCH ALL EARTHEN CONTROLS.
- CONTACT ARLINGTON COUNTY PROJECT OFFICER FOR A PERIMETER INSPECTION PRIOR TO CLEARING THE REMAINDER OF THE SITE IN ORDER TO OBTAIN PHASE II GRADING PERMIT.
- CLEAR THE SITE TO THE LIMITS AS SHOWN ON THE CONSTRUCTION PLANS.

2. PROPOSED CONDITION:

- BEGIN SITE GRADING
- INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.
- ONCE THE SITE IS BROUGHT TO NEAR FINAL GRADE, COMMENCE CONSTRUCTION OF CURB & GUTTER, STREET, SIDEWALKS, AND OTHER IMPROVEMENTS
- THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

RUNOFF SHALL BE TREATED WITH SILT FENCE AND INLET PROTECTION PRIOR TO ENTERING MAJOR STORM SEWER SYSTEMS.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE ARLINGTON COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE. THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

1. STRUCTURAL PRACTICES

- SILT FENCE - VESCH 3.05
 - SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.
 - SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 - CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.
 - SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
 - SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
 - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, THEN PREPARED AND SEEDED.
- STORM DRAIN INLET PROTECTION - VESCH 3.07
 - ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.
 - THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.
 - STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

2. VEGETATIVE PRACTICES

- TOPSOILING (STOCKPILE) - VESCH 3.30
 - TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS MAY HAVE TO BE LOCATED OFF-SITE AND ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND-DISTURBING ACTIVITIES, THE

CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN (IF THE STOCKPILE IS LOCATED OFF-SITE). THIS SUPPLEMENTAL PLAN WOULD HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY OFF-SITE ACTIVITY COMMENCES.

- TEMPORARY SEEDING - VESCH 3.31
 - ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.
 - SEE SHEET III-288 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) FOR ALLOWABLE PLANTING MATERIAL, SEEDING RATES, AND DATES. THE PLANTING REQUIREMENTS OF THE "SOILTYPE" SHALL BE FOLLOWED. LIMING SHALL BE BASED ON TABLE 3.31-A OF VESCH. FERTILIZERS SHALL BE APPLIED AS 600 LB/ACRE. THE FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2-4" OF SOIL. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.
 - EROSION CONTROL BLANKET AND MULCHING - VESCH 3.36 AND 3.35
 - EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN SEEDING OPERATION.
 - DUST CONTROL - VESCH 3.39
 - DUST SHALL BE CONTROLLED USING A VARIETY OF METHODS SUCH AS VEGETATIVE COVER, MULCH, TILLAGE, IRRIGATION, SPRAY-ON ADHESIVES, STONE BARRIERS, AND CALCIUM CHLORIDE. THE IMPLEMENTATION OF THE DUST CONTROL METHODS SHALL BE INSTALLED PER SECTION 3.39 OF VESCH
 - PERMANENT SEEDING - VESCH 3.32
 - SINCE THE SUBJECT SITE IS LOCATED WITHIN THE COASTAL PLAIN AREA OF VIRGINIA, SHEET III-304 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE FOLLOWED FOR FINAL SEEDING MATERIAL, SEEDING RATES, AND DATES OF APPLICATION.
 - SODDING - VESCH 3.33
 - SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR LIME AND FERTILIZER. PRIOR TO LAYING SOD, SOIL SURFACE SHALL BE CLEAR OF TRASH, DEBRIS AND LARGE OBJECTS. QUALITY OF SOD SHALL BE STATE CERTIFIED TO ENSURE GENETIC PURITY AND HIGH QUALITY. SOD SHALL NOT BE LAID ON FROZEN SOIL SURFACE, OR IN EXCESSIVELY WET OR DRY WEATHER. SOD SHALL BE DELIVERED AND INSTALLED WITHIN 36 HOURS, AND SHALL BE INSTALLED PER PAGE III-339 OF VESCH.

THE EROSION AND SEDIMENT CONTROL INSPECTOR SHALL HAVE THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS AS NEEDED IN THE FIELD. IN ADDITION, NO SEDIMENT TRAPS OR BASINS MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE INSPECTOR.

EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES

LANDSCAPE / TREE PRESERVATION NOTES

PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY ARBORIST TO SCHEDULE AN INSPECTION.

LAND CONSERVATION NOTES:

- NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
- ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 100 FEET ARE TO BE OPEN AT ANY ONE TIME.
- ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILLING.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION.
- ANY DISTURBED AREA NOT COVERED BY NOTE 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOV. 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE AND OVER-SEEDED BY APRIL 15.
- AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

EROSION & SEDIMENT CONTROL PROGRAM:

- THE EROSION CONTROL PLAN IS INTENDED TO ESTABLISH ENTRANCES AND PERIMETER CONTROL MEASURES WHICH INCLUDES SILT FENCE (SF), INLET PROTECTION (IP), AND OTHER CONTROLS SPECIFIED ON THE PLANS.
- WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL SHALL BE PLACED IN STREAMBEDS. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 7 DAYS SHALL BE SEEDED AND MULCHED. WHEN SPOIL IS PLACED ON THE DOWNHILL SIDE OF TRENCH, IT SHALL BE BACKSLOPED TO DRAIN TOWARD THE TRENCH. WHEN NECESSARY TO DEWATER THE TRENCH, THE PUMP DISCHARGE HOSE SHALL OUTLET IN A STABILIZED AREA OR A SEDIMENT TRAPPING DEVICE.
- ALL PRACTICES AND CONTROL DEVICES DESCRIBED HEREIN SHALL CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:
 - CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS, AND SHALL WORK THOSE AREAS TO MINIMIZE THE USE OF HEAVY EQUIPMENT. CONTRACTOR SHALL BRING DISTURBED AREAS TO GRADE (ROUGH OR FINISHED) AND STABILIZE THOSE AREAS WITH TEMPORARY OR PERMANENT VEGETATION. THESE DISTURBED AREAS SHALL BE STABILIZED PRIOR TO BEGINNING WORK IN ANOTHER AREA.
 - FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE KEPT ROUGH TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL RE-DIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZED OUTLETS.
 - CUT SLOPES SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS (ABOVE THE SLOPE) AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
- MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. THE INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND/OR THE APPROVAL OF THE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA AND CHAPTER 57 OF THE ARLINGTON COUNTY CODE.
- ALL AREAS, ON OR OFF-SITE, THAT ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS SEED MIXTURE OR SOD THAT IS INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ALL SLOPES 3:1 AND GREATER SHALL BE RECEIVE SOIL STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS.
- WHERE STREAM CROSSINGS ARE REQUIRED FOR EQUIPMENT, TEMPORARY CULVERTS SHALL BE PROVIDED.
- FOR FURTHER REQUIREMENTS AND DETAILS OF TREE PRESERVATION, PLANTING, EROSION AND SEDIMENT CONTROL, SEE COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
- THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

PRE-STORM EROSION & SEDIMENTATION CHECKLIST:

PER GENERAL EROSION AND SEDIMENT CONTROL NOTE 6, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL (ESC) MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE COUNTY. THESE SUPPLEMENTARY PRACTICES ARE IN ADDITION TO THOSE SHOWN IN AN EROSION AND SEDIMENT CONTROL PLAN. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MODIFIED AS NEEDED TO ENSURE ONLY CLEAR WATER IS DISCHARGED FROM THE SITE.

THE FOLLOWING ACTIONS SHALL BE TAKEN PRIOR TO STORM EVENTS WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL TO PREVENT SEDIMENT DISCHARGES FROM A CONSTRUCTION SITE. A TYPICAL SUMMER THUNDERSTORM IS AN EXAMPLE OF A STORM EVENT WITH PREDICTED HEAVY AND/OR

LARGE VOLUME RAINFALL.

1. PERIMETER CONTROLS

- SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WON. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (VESCH STD & SPEC 3.09).
- WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
- SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHALL BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
- HAY BALES OR A STONE BERM SHALL BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.

2. EXPOSED SLOPES AND SOIL

- EXPOSED SLOPES NOT AT THE FINAL STABILIZATION PHASE SHALL BE COVERED WITH TARPS, PLASTIC SHEETING, OR EROSION CONTROL MATTING. COVERING MATERIAL SHALL BE PROPERLY SECURED/ANCHORED.
- CONTROLS SHALL BE INSTALLED TO PREVENT CONCENTRATED FLOW DOWN AN EXPOSED SLOPE. BERMS OR DIVERSION DIKES SHALL BE INSTALLED AT THE TOP OF CUT/EXPOSED SLOPES TO DIRECT STORM FLOW AROUND THE DISTURBED AREA.
- EXPOSED SLOPES AT THE FINAL STABILIZATION PHASE SHALL BE STABILIZED USING SOLE STABILIZATION PRACTICES SUCH AS SOIL STABILIZATION BLANKETS OR MATTING AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH STD & SPEC 3.36). BLANKETS OR MATS MUST BE PROPERLY SECURED AND ANCHORED TO THE SLOPE USING STAPLES, PINS, OR STAKES.
- SEEDED AREAS SHALL BE CHECKED AND RESEEDED AS NECESSARY TO COVER EXPOSED SOIL. RECENTLY SEEDED AREAS SHALL BE PROTECTED BY STRAW OR SOIL STABILIZATION BLANKETS TO PREVENT SEEDING FROM BEING WASHED AWAY.

3. STOCKPILES

- STOCKPILED SOIL AND OTHER LOOSE MATERIALS THAT CAN BE WASHED AWAY SHALL BE COVERED WITH A TARP, PLASTIC SHEETING, OR OTHER STABILIZATION MATTING. THE COVER MUST BE PROPERLY SECURED/ANCHORED DOWN TO PREVENT IT FROM BEING BLOWN OFF AND EXPOSING MATERIALS TO RAIN. CONTROLS SUCH AS HAY BALES OR BOOMS SHALL BE PLACED ALONG THE PERIMETER OF THE STOCKPILE (DOWNHILL SIDE).

4. INLET PROTECTION

- INLET PROTECTION CONTROLS SHALL BE INSPECTED TO ENSURE THEY ARE FUNCTIONING PROPERLY AND FLOODING WILL NOT OCCUR. CLOGGED OR DAMAGED CONTROLS MUST BE REPLACED IMMEDIATELY. ENSURE CONTROLS ALLOW FOR OVERFLOW/BYPASS OF STORMWATER RUNOFF DURING SIGNIFICANT STORM EVENTS.

IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)

- ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MSA PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
 - WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIREFIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
- APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S M54 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
- PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

UTILITY INSTALLATION:

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

- NO MORE THAN 100 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
- ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
- AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

MAINTENANCE PROGRAM:

THE FOLLOWING IS A PROGRAM OF MAINTENANCE FOR THE MECHANICAL CONTROLS SPECIFIED IN THIS NARRATIVE AND ON THE PLAN:

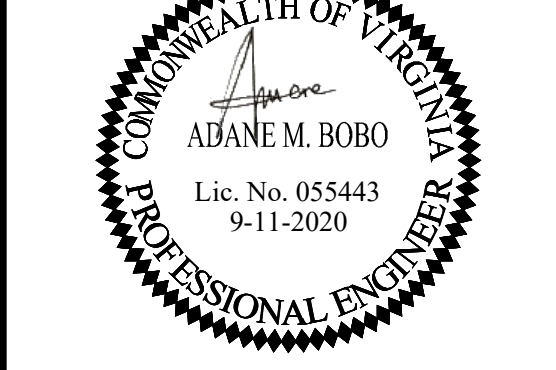
- THE SITE SUPERINTENDENT OR HIS/HER REPRESENTATIVE SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREA (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS, ESPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
- ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEARED OUT AT 50% TRAP CAPACITY AND THE SEDIMENT SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR IF NOT SUITABLE FOR FILL, HAULING AWAY AND DEPOSITING AT AN ACCEPTABLE DUMP SITE.
- THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PREVENT MUD AND/OR OTHER DEBRIS FROM BEING ENTERED ONTO EXISTING SWM/BMP FACILITIES OR DOWNSTREAM WATER WAYS. SHOULD OFF-SITE AREAS BECOME POLLUTED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE AFFECTED AREAS TO THE SATISFACTION OF THE INSPECTOR.
- AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ANY REMAINING DENUDED AREAS SHALL BE STABILIZED. CERTAIN DEVICES MAY BE REMOVED PRIOR TO CONSTRUCTION COMPLETION BUT ONLY WITH THE APPROVAL OF THE COUNTY INSPECTOR.
- AFTER CONSTRUCTION OPERATIONS HAVE ENDED, ALL DISTURBED AREAS SHALL BE STABILIZED. UPON APPROVAL OF THE COUNTY INSPECTOR, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND THE GROUND PERMANENTLY STABILIZED WITH VEGETATION WITHIN 30 DAYS.



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SEAL



APPROVALS DATE

<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Tabak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Jeffrey</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS DATE

SIDEWALK WIDENING PROJECT COLUMBIA PIKE OVER FOUR MILE RUN EROSION AND SEDIMENT CONTROL NOTES

DESIGNED: KM
DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

SCALE:

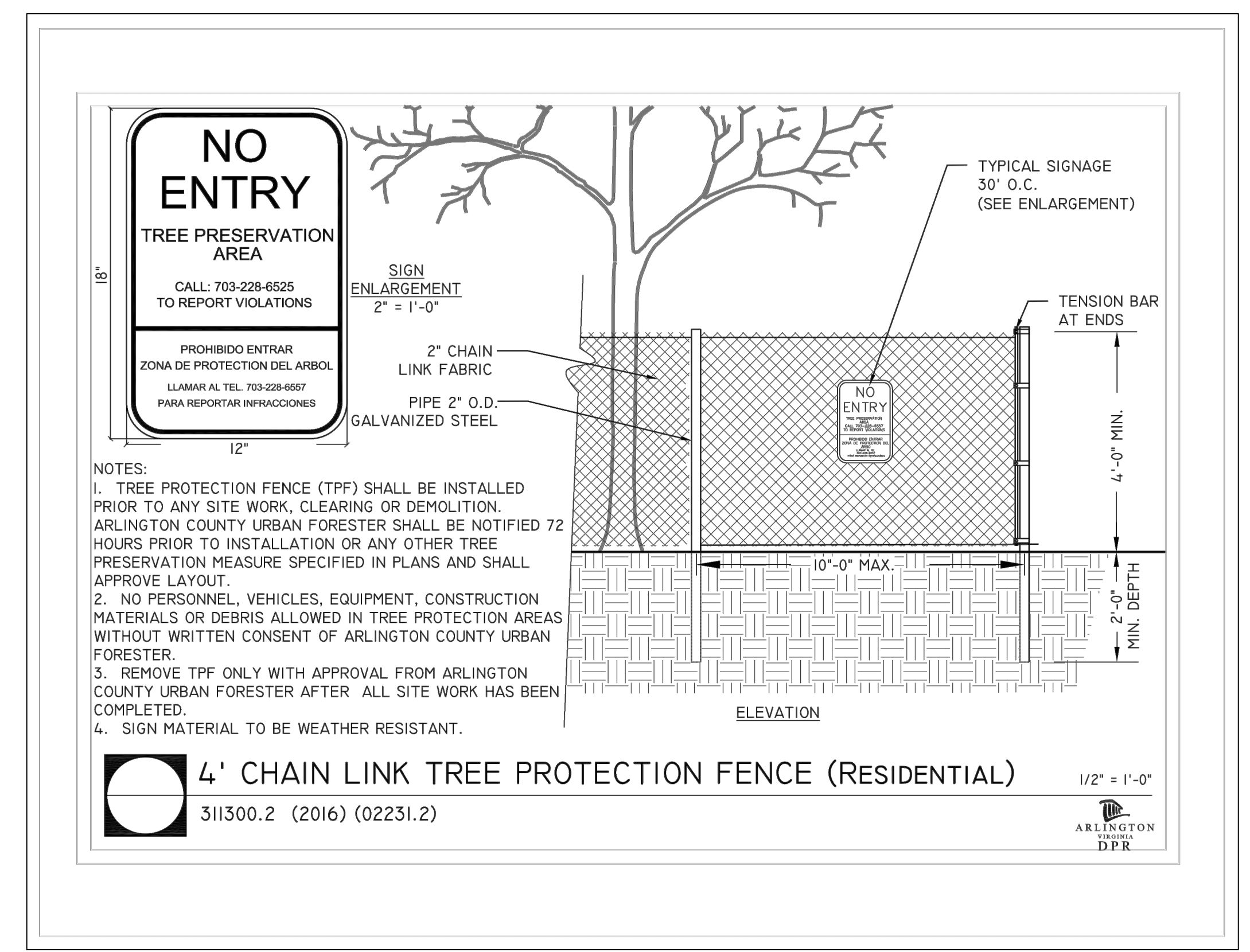
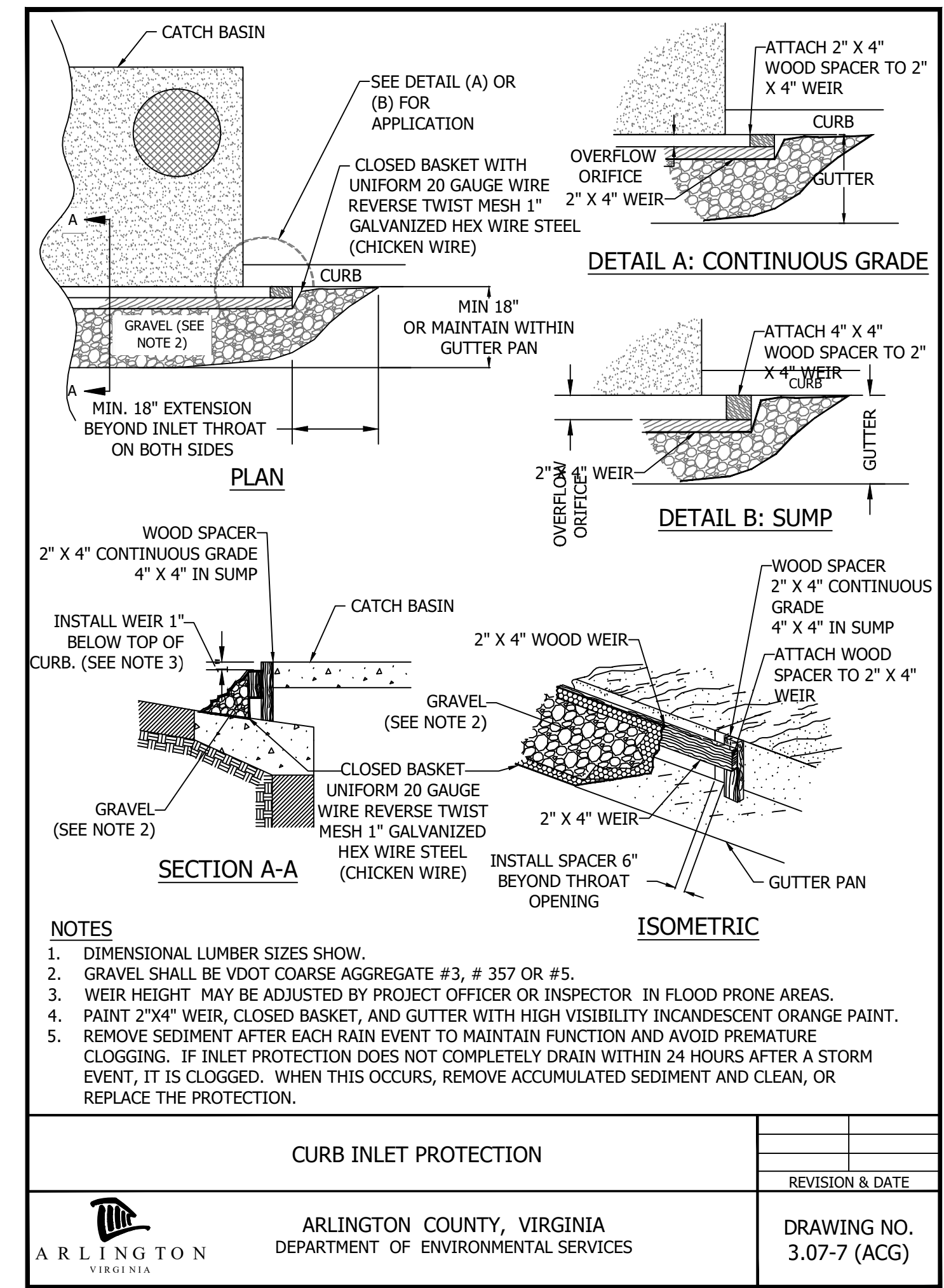
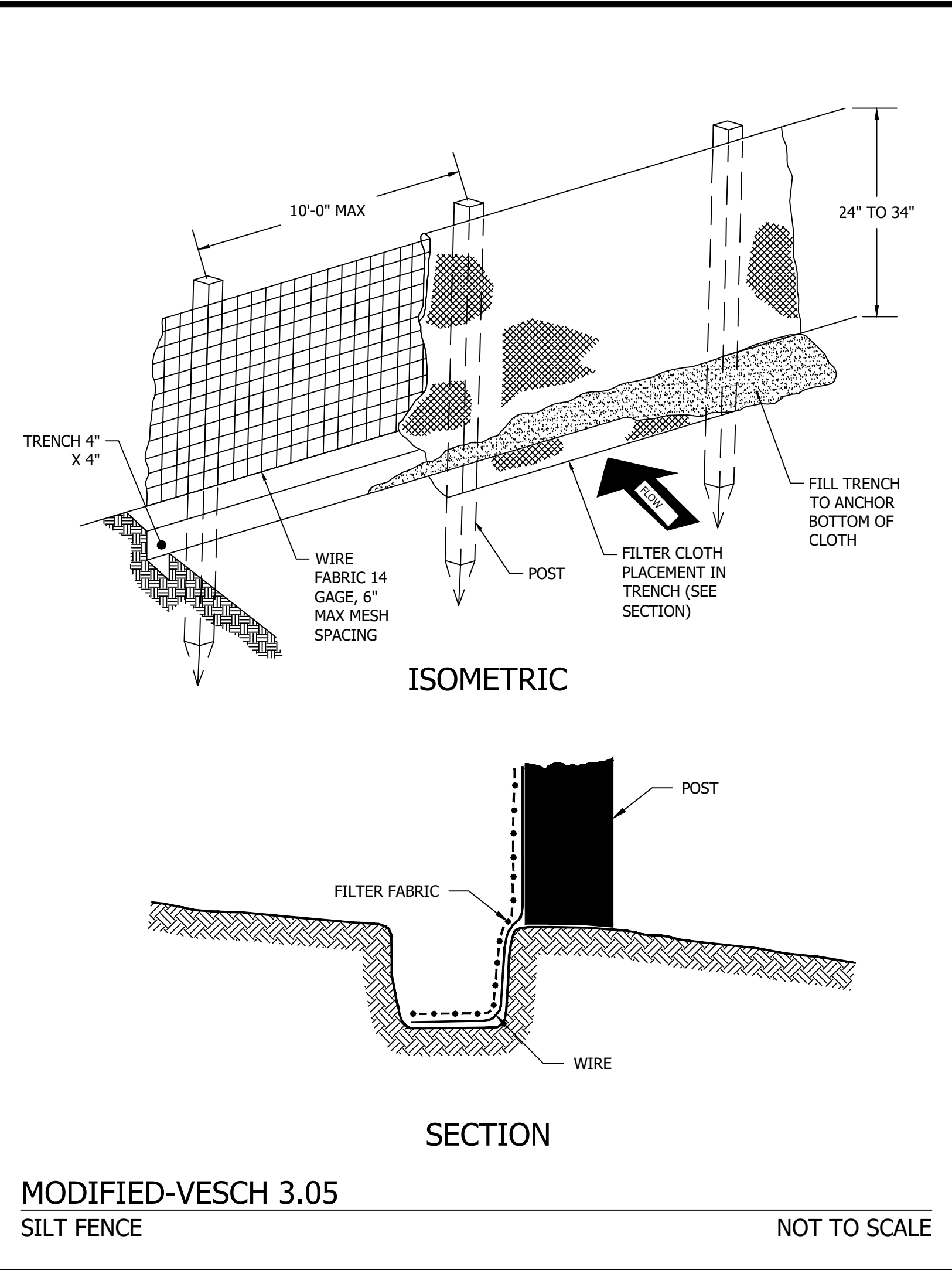
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C032.1

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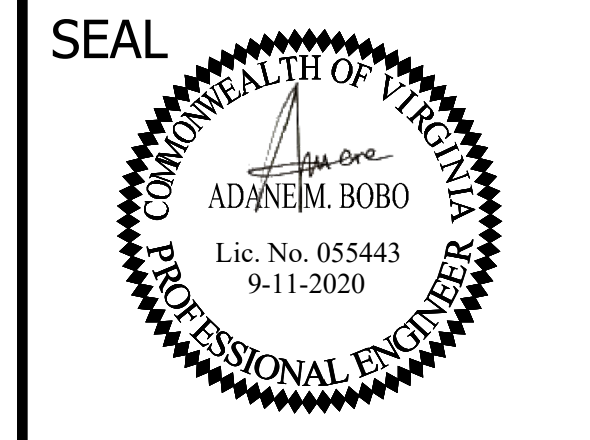
REVISED ON 01/24/2020

FILENAME: D587-220-E_AND_S_NOTES_SWPPP.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



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APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF <i>Donna M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN

EROSION AND SEDIMENT CONTROL
NOTES AND DETAILS

DESIGNED: KM
DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

SCALE:

AS SHOWN

C032.2

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) COVER PAGE

For Construction Activities At:

Columbia Pike Over Four Mile Run
Arlington, VA, 22204

Latitude: 38.856228 N (decimal degrees)

Longitude: -77.110832 W (decimal degrees)

Construction Activity Operator:

Insert Company/Organization Name
Insert Name
Insert Address
Insert City, State, Zip Code
Insert Telephone Number
Insert Email Address
Insert 24-hour Emergency Contact

SWPPP Preparation Date:

June, 02, 2020

CERTIFICATION

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Operator Name: Volkert

Title: Sr. Engineer

Signature:

Date: 06/02/2020

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

1.0 SWPPP Documents Located Onsite & Available for Review

Table with columns: SWPPP Document Type, Located Onsite & Available for Review? (Yes/No)

2.0 Authorized Non-Stormwater Discharges

Table with columns: Type of Authorized Non-Stormwater Discharge, Likely Present at Your Project Site? (Yes/No)

3.0 Pollution Prevention Awareness

Employees will be given a "walk through" of the site identifying areas of possible pollution and will be shown Erosion and Sediment Controls and Pollution Prevention Practices (identified in Sections 4.0 and 5.0 of this SWPPP) that are applicable to their assigned job duties. A refresher meeting and "walk through" will be conducted on an as needed basis.

4.0 Erosion & Sediment Controls

Table with columns: Select all that apply, Erosion & Sediment Control, Estimated Installation Date, Estimated Removal Date, Responsible Party

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

Table with columns: Storm Drain Inlet Protection, Dewatering, Turbidity Curtain, Tree Protection, Others [describe], Insert Date, Insert Date

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

5.0 Potential Sources of Pollution & Pollution Prevention Practices

Table with columns: Pollutant-Generating Activity, Likely Present at your Project Site?, Sediment, Nutrients, Heavy Metals, pH (acids and bases), Pesticides & Herbicides, Oil & Grease, Bacteria & Viruses, Trash, Debris, Solids, Other Toxic Chemicals, Pollution Prevention Practice, Responsible Party

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

Pollution Prevention Practices:

- (1) Clearing, grading, excavating and un-stabilized areas... (2) Paving operations... (3) Concrete washout and cement waste... (4) Structure construction, stucco, painting and cleaning... (5) Dewatering operations... (6) Material delivery and storage... (7) Material use during building process... (8) Solid waste disposal... (9) Sanitary waste... (10) Landscaping operations... (11) Others

6.0 Stormwater Management Controls

Table with columns: Select all that apply, Stormwater Management Control, Estimated Installation Date, Responsible Party

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

Table with columns: Select all that apply, Stormwater Management Control, Estimated Installation Date, Responsible Party

7.0 Spill Prevention & Response

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

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

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

Emergency Contacts:

Normal Working Hours

DEQ Northern Regional Office 703-583-3800

Nights, Holidays & Weekends

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

Local Contacts

Arlington County Fire & Police 703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency 703-228-8555
Washington Gas Emergency 703-750-1400

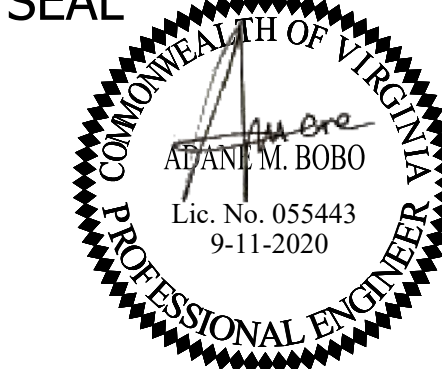
Arlington County – SWPPP 9/2016



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SEAL



APPROVALS DATE

Nilesh Naikare 9/17/2020

DESIGN TEAM ENGINEER SUPERVISOR 9.17.20

Kamal Taktak 09.17.2020

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

Donna M. Leach 9/25/20

TRANSPORTATION DIRECTOR

Rene Harris 9.24.2020

PROJECT MANAGER

REVISIONS DATE

Table with columns: Revisions, Date

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN
STORMWATER POLLUTION PREVENTION PLAN

DESIGNED: KM
DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

SCALE:

N/A

C035.1

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

8.0 Self Inspections Report & Corrective Action Log (make additional copies as necessary)

Qualified Inspector
Company/Organization:
Name:
Telephone Number:
Qualifications:

Inspection Schedule
Discharges to impaired waters, surface waters within a TMDL watershed, or exceptional waters:
Once every 4 business days.
Inspection Date:
Type of Inspection: Regular Pre-storm event During storm event Post-storm event
Phase of construction: Pre-Con DEMO Clearing Building Grading Final Stabilization
Is a copy of the SWPPP available on site? Yes No Is the SWPPP complete? Yes No
Are there any discharges at the time of this inspection? Yes No If yes, describe:
Have any discharge occurred since the last inspection? Yes No If yes, describe:

Table with 4 columns: Best Management Practices (BMPs), In Compliance with SWPPP?, Corrective Action Needed: Responsible Party & Notes, Date Corrective Action Taken. Rows include: Are all construction exits preventing sediment from being tracked onto the adjacent streets?, Are perimeter controls and sediment barriers adequately installed and maintained?, Are storm drain inlets properly protected? (on-site and adjacent), Are discharge points and receiving waters free of any sediment deposits?

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

9.0 Grading & Stabilization Activities Log

Table with 5 columns: Date Grading Activity Initiated, Description of the Grading Activity (including location), Date Grading Activity Ceased, Date Stabilization Measures Initiated, Description of the Stabilization Measure (including location).

10.0 SWPPP Modification & Update Log

Table with 3 columns: Modification Date, Description of the Modification / Update (name & title that request the modification), Modification Prepared By (name & title).

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Columbia Pike Over Four Mile Run

Table with 4 columns: Best Management Practices (BMPs), In Compliance with SWPPP?, Corrective Action Needed: Responsible Party & Notes, Date Corrective Action Taken. Rows include: Are all slopes and disturbed areas not actively being worked properly stabilized?, Are washout facilities (e.g., concrete, paint, stucco) available, clearly marked and maintained?, Is trash/litter from work areas collected and contained in dumpsters?, Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?, Are natural resources (e.g., streams, wetlands, mature trees) area protected with barriers or similar BMPs?, Are vehicle and equipment fueling, cleaning and maintenance areas free of spills, leaks, or other deleterious material?, Are materials that are potential stormwater contaminants stored inside or under cover?, Are disturbed areas stabilized within 7 days, if areas denuded will remain undisturbed for 14 days?

Non – Compliance
Describe any incidents of non-compliance not described above (use another page is necessary)

Certification

I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator or Assigned Qualified Personnel Name: _____

Signature: _____

Date: _____

Arlington County – SWPPP 9/2016

INSTRUCTIONS for COMPLETING the
SINGLE FAMILY RESIDENCE, COMMON PLAN of DEVELOPMENT or SALE
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

General
A Stormwater Pollution Prevention Plan (SWPPP) must be developed prior to obtaining locality (e.g., City, County, Town) authorization to commence land disturbance.
SWPPP Cover Page
For a construction activity, enter the project/site name and physical address (if available), including city (or town), state and zip code. Enter the latitude and longitude in decimal degrees of the construction activity.
Enter the Construction Activity Operator's company/organization name, the Operator's name and mailing address, including city (or town), state, and zip code, telephone number, email address (if available), and a 24-hour emergency contact.
Enter the SWPPP preparation date.
The Construction Activity Operator identified on the cover page of the SWPPP is responsible for certifying the information contained therein. Please sign the certification in INK. Please note that state statutes require the SWPPP to be signed as follows:
(1) For a corporation: by a responsible corporate officer;
(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
(3) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.
Section 1.0 SWPPP Documents Located Onsite & Available for Review
Utilize the provided checklist to ensure that the required SWPPP documents are located onsite and are available for review, if applicable.
Section 2.0 Authorized Non-Stormwater Discharges
Identify the authorized non-stormwater discharges likely to be present at the project site. If an unlisted authorized non-stormwater discharge is likely to be present at the project site, provide it here.
Section 3.0 Pollution Prevention Awareness
Provide employees with a "walk through" of the project site and identify areas of possible pollution, erosion and sediment controls, and pollution prevention practices which are applicable to their assigned job duties. Conduct refresher meetings and perform additional "walk throughs" on an as needed basis.
Section 4.0 Erosion & Sediment Controls
Identify the erosion and sediment controls to be implemented at the project site. For each erosion and sediment control, enter the estimated installation date and estimated removal date. If an unlisted erosion and sediment control will be implemented at the project site, provide the applicable information here.
Section 5.0 Potential Sources of Pollution & Pollution Prevention Practices
Identify the pollutant-generating activities likely to be present at the project site; implement and maintain the corresponding pollution prevention practices. If an unlisted pollutant-generating activity is likely to be present at the project site, describe it, identify the associated pollutant(s), and provide the corresponding pollution prevention practice(s) to be implemented and maintained.
Section 6.0 Stormwater Management Controls
Identify the stormwater management controls to be implemented at the project site, if applicable. For each stormwater management control, enter the estimated installation date. If an unlisted stormwater management control will be implemented at the project site, provide the applicable information here.
Section 7.0 Spill Prevention & Response
Most spills can be cleaned up following manufacturer specifications. The priority should be to protect all people, equipment, property, and the environment. Enter the telephone number of your local fire and police departments.
Section 8.0 Inspections & Corrective Action Log
Enter the qualified inspector's company/organization name, the inspector's name, telephone number, and qualifications. Select the applicable inspection type, enter the construction activity inspection date, and enter the date and rainfall amount of the last measurable storm event (if applicable). Identify if the implemented best management practices are in compliance with the SWPPP. Enter corrective actions needed; the party responsible for implementing the corrective actions, and the date corrective actions were taken, if applicable. Make additional copies of the inspection and corrective action log as necessary.
Section 9.0 Grading & Stabilization Activities Log
Enter the date grading activities were initiated, a description of the grading activities including location, the date grading activities ceased, the date stabilization measures were initiated, and a description of the stabilization measures including location.
Section 10.0 SWPPP Modification & Update Log
Enter the SWPPP modification date, description of the SWPPP modification/update, and the name and title of the SWPPP modification preparer, if applicable.

Arlington County – SWPPP 9/2016



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APPROVALS DATE
Nilesh Naikare 9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR
Kamal Taktak 9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR
Dennis M. Leach 09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF
TRANSPORTATION DIRECTOR
Rene Harris 9.24.2020
PROJECT MANAGER

REVISIONS DATE

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN
STORMWATER POLLUTION PREVENTION PLAN

DESIGNED: KM
DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

SCALE:

N/A

C035.2

Appendix C. Water Quality Impact Assessment Data Sheet

Project Address: Columbia Pike Bridge over Four Mile Run Date: August 14, 2020
Applicant Name/Affiliation: Arjun Joshi / Arlington County Applicant Contact Information (phone and email): 703-228-3639 and ajoshi@arlingtonva.us
Owner/Client Name: Arlington County/DES/DTD/PLAN Owner/Client Contact Information (phone and email):

Section 1: Type of activity proposed

Activity type (check all that apply):
New construction (residential, commercial, public, etc.)
Alteration of non-residential structure
Residential addition
Detached residential structure
Deck, patio, or retaining wall
Landscaping (includes tree removal)
Utility work
Fence
Other (please describe): Sidewalk widening on Columbia Pike Bridge

Section 2: Key details of the proposed activity

Table with 2 columns: Complete all that apply, Explanation. Rows include Total area of disturbance on parcel (sf) 2377, Area of disturbance within RPA (sf) 1200, Area of disturbance on slopes greater than or equal to 15 percent (sf) 0.

Table with 4 columns: Complete all fields, Existing condition, Proposed condition, Explanation. Rows include RPA encroachment (East, Middle, West), Total development footprint in RPA (sf) 1200, Impervious footprint in RPA (sf) 1200.

STAFF USE ONLY

Building/demolition/LDA/Fence permit number(s):
Major WQIA required? Yes No
Date WQIA/Exception request information complete:
Date Chesapeake Bay Preservation Ordinance and E/S ordinance (if applicable) approvals issued in Permits Plus:

Section 3: Plan and Narrative

Provide a plan showing the location of the proposed activity, along with the RPA boundary. Briefly describe the proposed project, including any potential water quality impacts and mitigation measures proposed.

The Columbia Pike over Four Mile Run Sidewalk Widening Project will widen existing sidewalk and improve curb and gutter for the safety and accessibility of pedestrian travel.

The total project work area and land disturbing activity is 2377 SF.

All erosion and sediment control elements such as, silt fence, inlet protection, and tree protection will be installed within the project area.

All proposed activities are shown on C041.1.

As all the activities are within the existing sidewalk, bridge deck and roadway pavement, there will not be any water quality impacts.

- 1. There are no any tree removal and vegetation impacts
2. There is no change in stormwater runoff due to sidewalk widening.
3. Required erosion and sediment control measures will be applied as shown on the sheet C031.1

Additional Water Quality Impact Assessment Information

The information supplied on this form satisfies the minimum requirements for a Minor Water Quality Impact Assessment. For projects that disturb over 2500 square feet, elements of a Major Water Quality Impact Assessment may also be required, depending on the nature and extent of the proposed RPA encroachment, as outlined in Section 61-12 of the ordinance.

Appendix D. Exception Request Form

Applicant: Project address:

Section 1: Brief description of exception request

Blank area for brief description of exception request.

Section 2: Parcel, structure, and ownership information

Date parcel ownership began: Date existing principal structure built: Will existing principal structure remain intact?
Date(s) of construction of any prior work by current owner (alterations, additions, decks, patios, etc.) - list individually:
1. Date Type of prior work
2.
3.
4.

STAFF USE ONLY

Allowable development in RPA (61-7.A)
Allowable modification in RPA (61-7.B)
Allowable encroachment in RPA (61-7.C)
Expansion of nonconforming structure or use in RPA (61-14) (exception request required)
New development in the RPA, redevelopment that increases impervious area in the RPA or encroaches further into the RPA, or any other proposed disturbance of any RPA component (exception request required)
Exempted activity in RPA (61-15)
Proposed development in RMA on 15 percent slopes adjacent to RPA
Other RMA activity

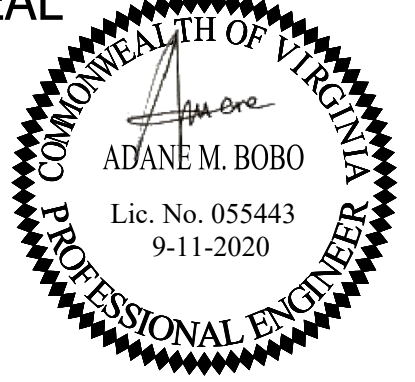
CBORC hearing required? Yes No
Date public notification sent certified mail:
Hearing date:
CBORC decision: Approved Not approved
Date of final approval letter:



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APPROVALS DATE

Table with 2 columns: Name, Date. Approvals include Nitesh Naikare (9/17/2020), Kamal Taktak (9.17.20), Dennis M. Leach (9/25/20), Rene Harris (9.24.2020).

REVISIONS DATE

Table with 2 columns: Description, Date. Multiple empty rows for revisions.

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN
WATER QUALITY SHEET

DESIGNED: KM
DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

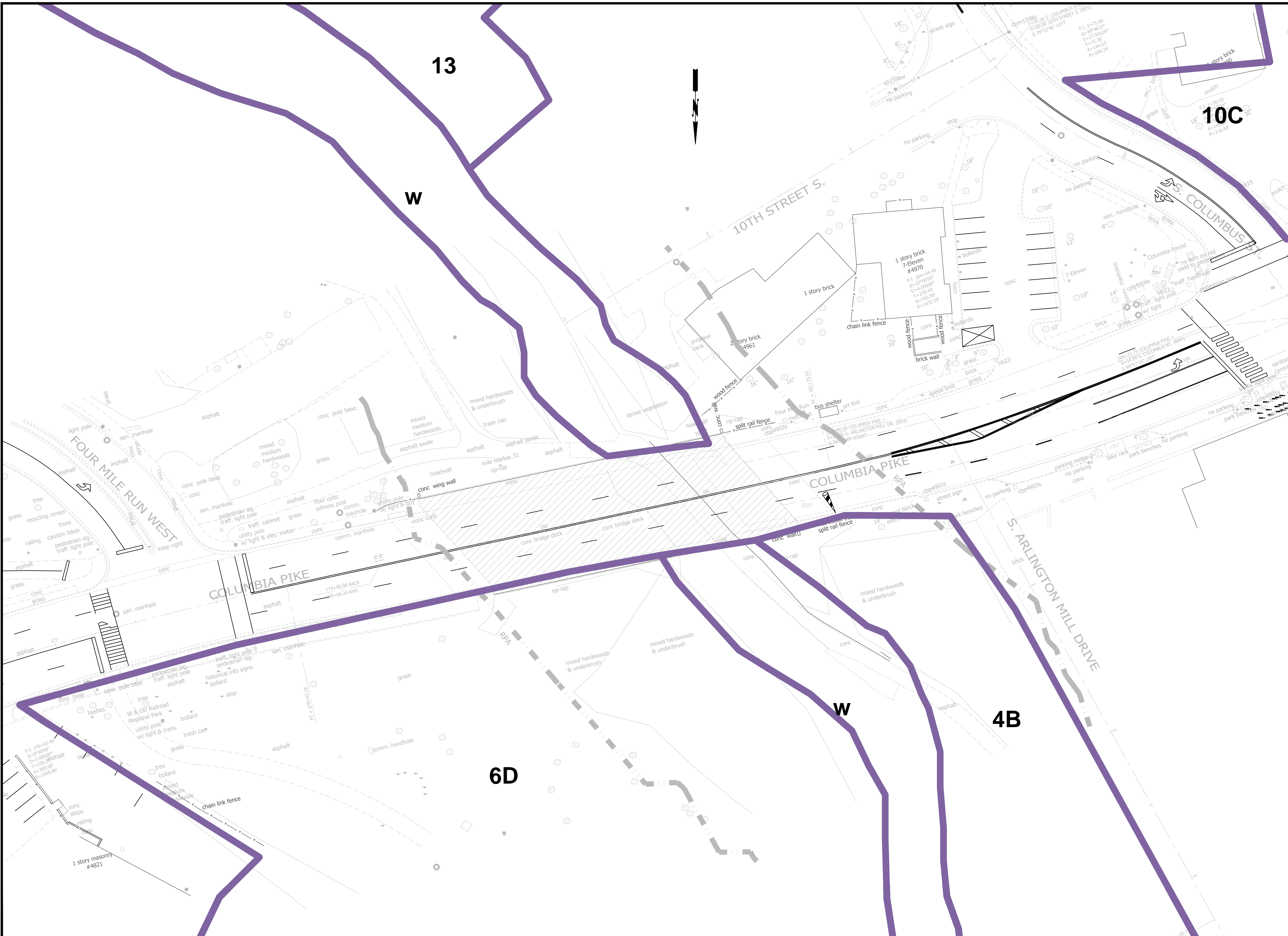
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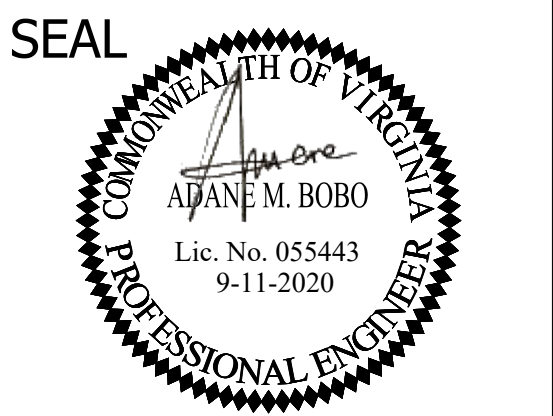
REVISED ON 01/24/2020

FILENAME: D587-204-SOIL_MAP.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK DESIGN\DWG PLOTTED BY: MATTHEW WILFANGER



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APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktab</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Julia</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

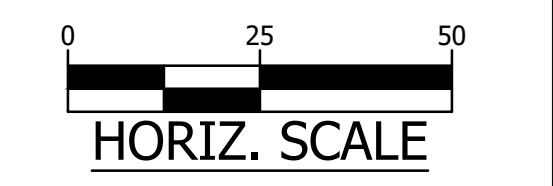
REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 D587
 COLUMBIA PIKE OVER FOUR MILE RUN
SOIL MAP

DESIGNED: AB
 DRAWN: AB
 CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

SCALE:

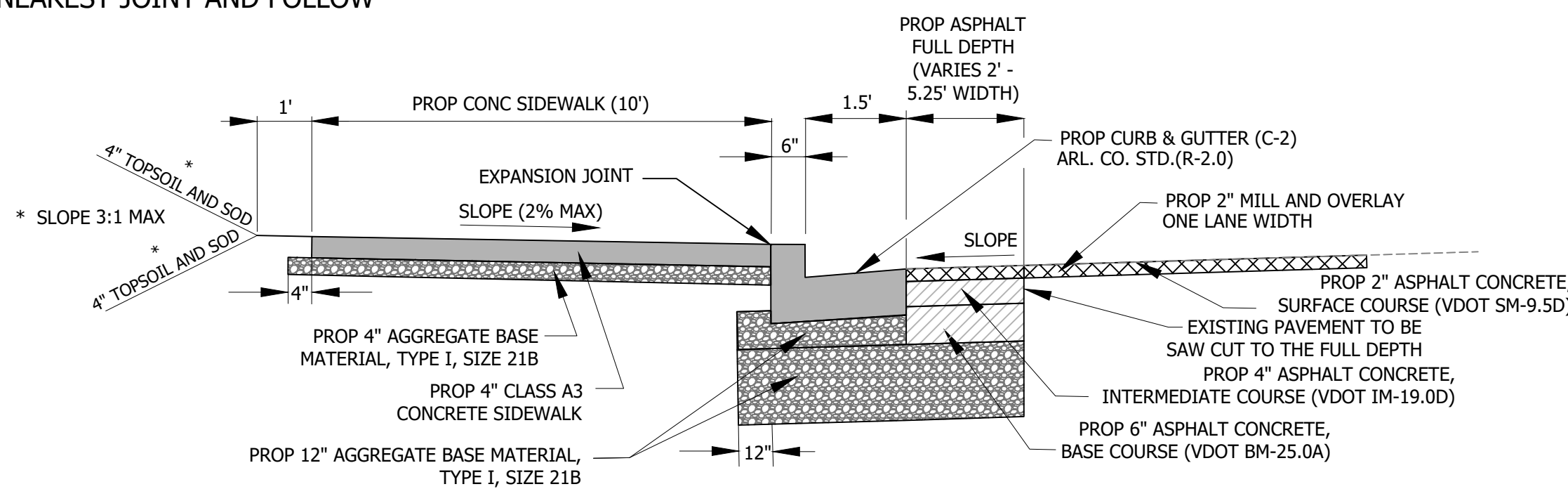


C-036.1

REVISED ON 01/24/2020
FILENAME: D587-210-TYPICAL_SECTIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITAKER

NOTE:

- FOR SIDEWALK NORTH OF BRIDGE SEE DETAILS 1 THRU 7.
- REMOVE AND REPLACE SIDEWALK TO THE NEAREST JOINT AND FOLLOW THE EXISTING SIDEWALK PATTERN



TYPICAL CURB AND SIDEWALK

SCALE: NTS

PERMIT REQUIREMENTS

THE FOLLOWING PERMITS WILL BE REQUIRED FOR THIS PROJECT.

- ARLINGTON COUNTY PUBLIC RIGHT-OF-WAY (PROW) PERMIT
- ARLINGTON COUNTY TRANSPORTATION RIGHT-OF-WAY (TROW) PERMIT
- RPA AND FLOODPLAIN

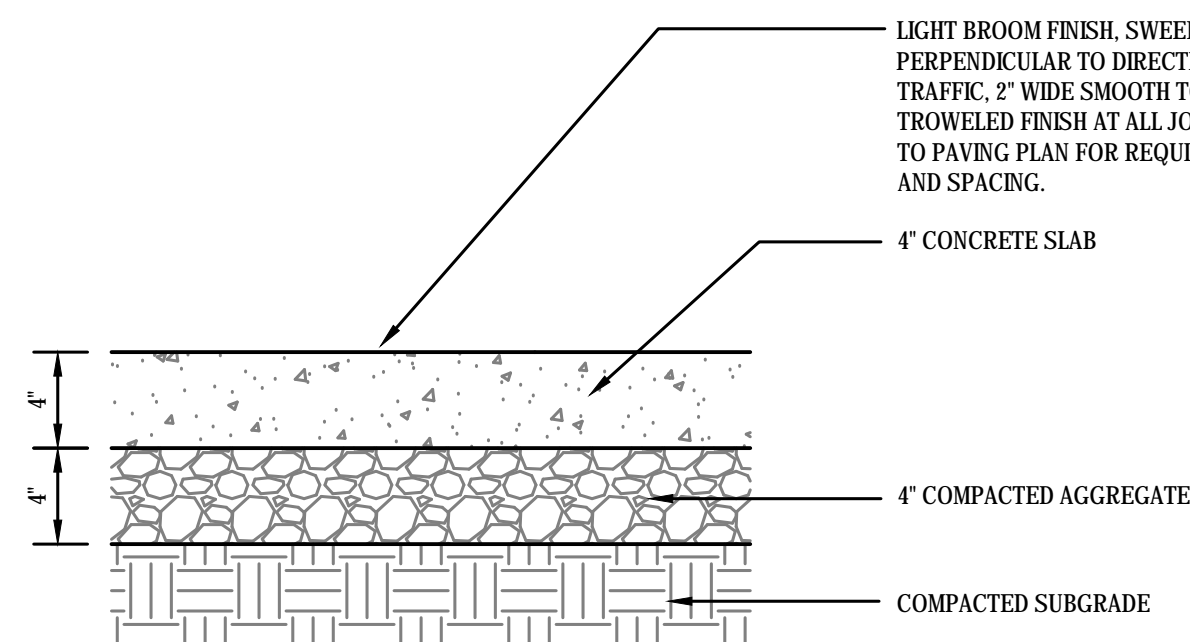
PAVEMENT SCHEDULE

PAVING MATERIALS LEGEND

KEY	TYPE	SIZE (NOMINAL)	COLOR	FINISH / TYPE	PATTERN	MANUFACTURER	DETAIL REF.
P1A	CONCRETE	--	--	LIGHT BROOM FINISH		--	
P2A	PAVERS - SOLDIER COURSE	4" X 8"	RED	REGIMENTAL RED	SOLDIER COURSE	BELDEN, OR APPROVED EQUAL	

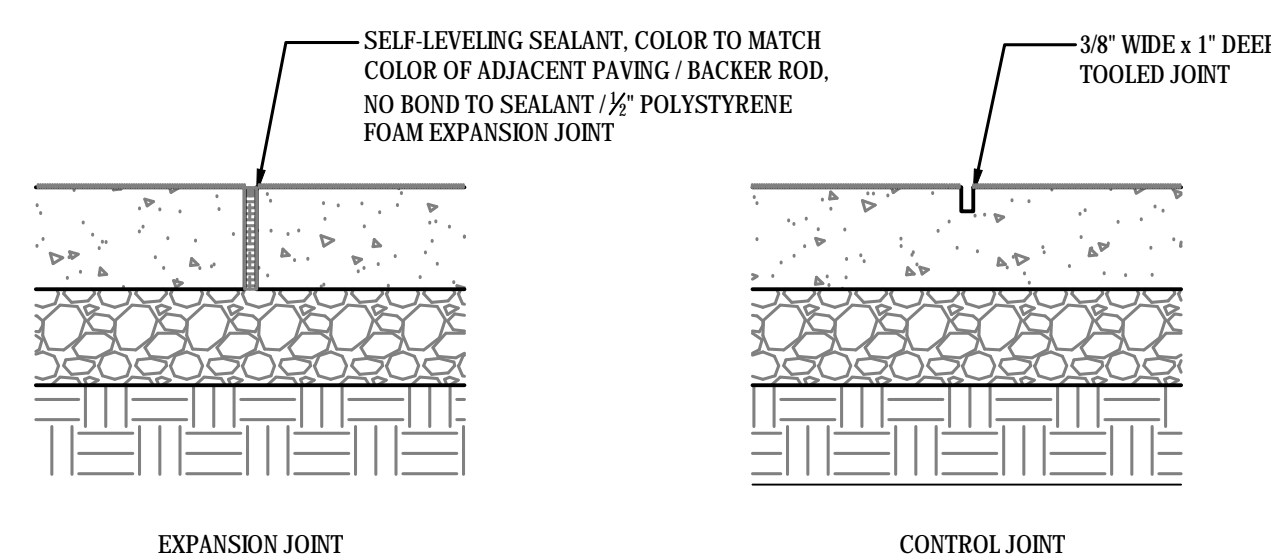
DETAIL PROPOSED UTILITY STRIP AND GRASS AREA

SEE SITE PLAN FOR LOCATION
SCALE: NTS



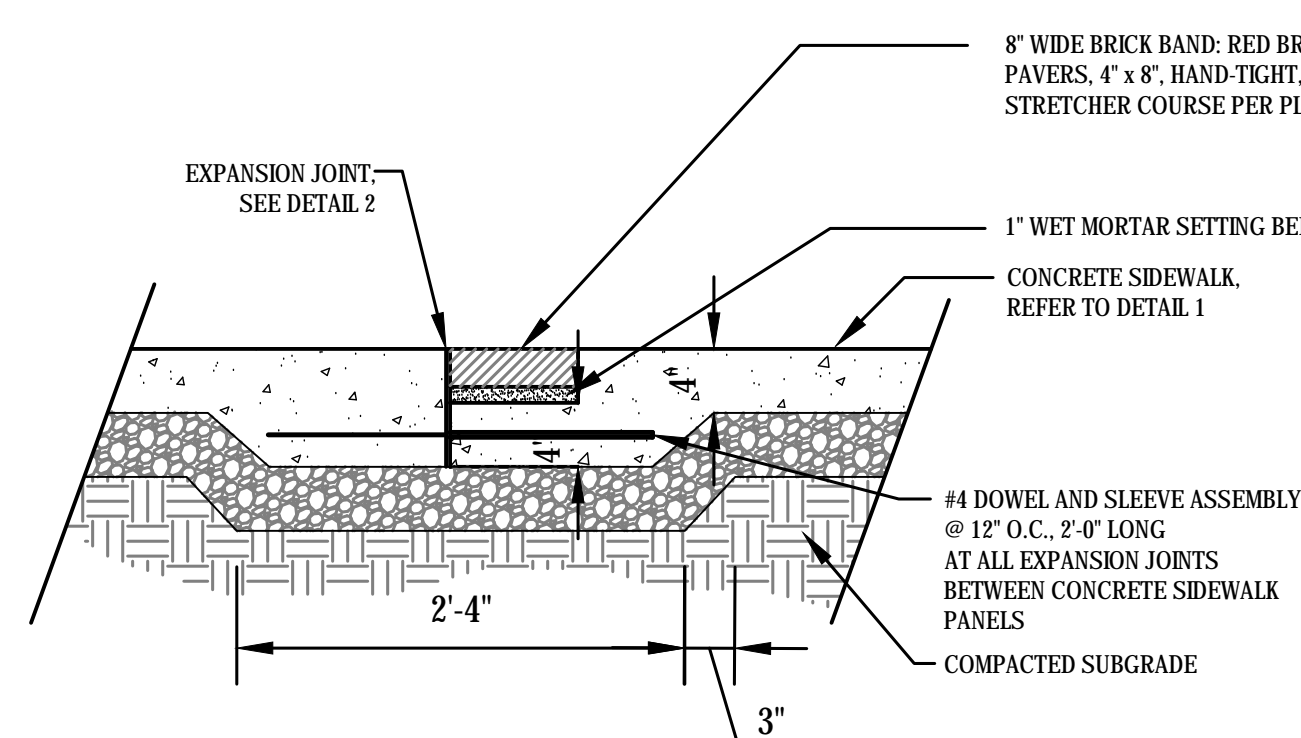
1 CONCRETE SIDEWALKS

Scale: NTS



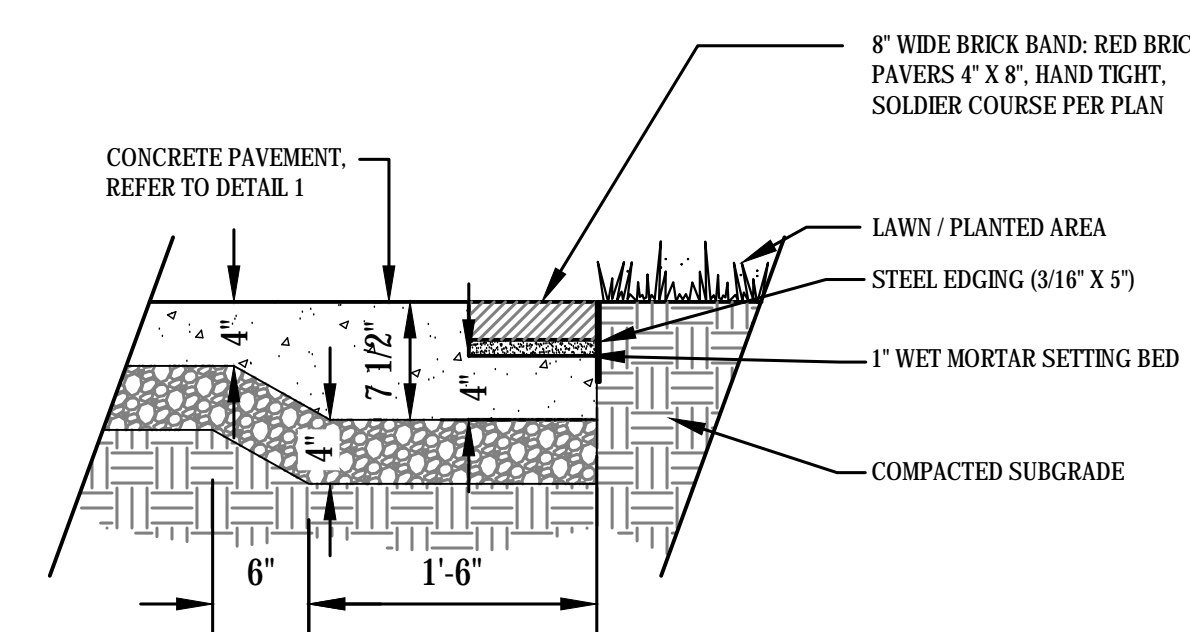
2 CONCRETE SIDEWALK JOINTS

Scale: NTS



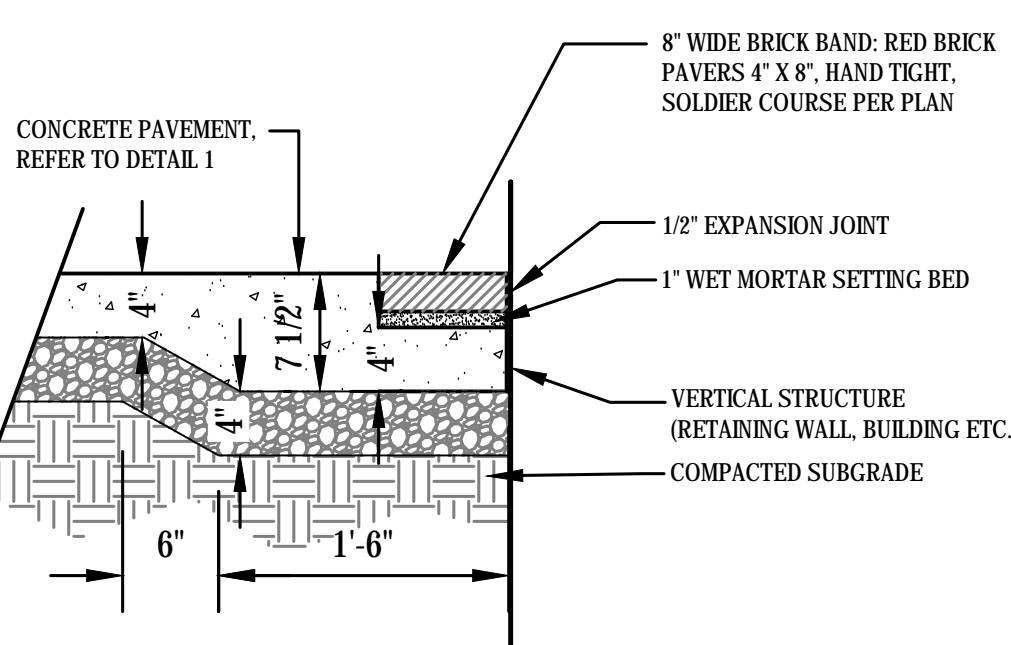
3 BRICK BAND SET IN CONCRETE

Scale: NTS



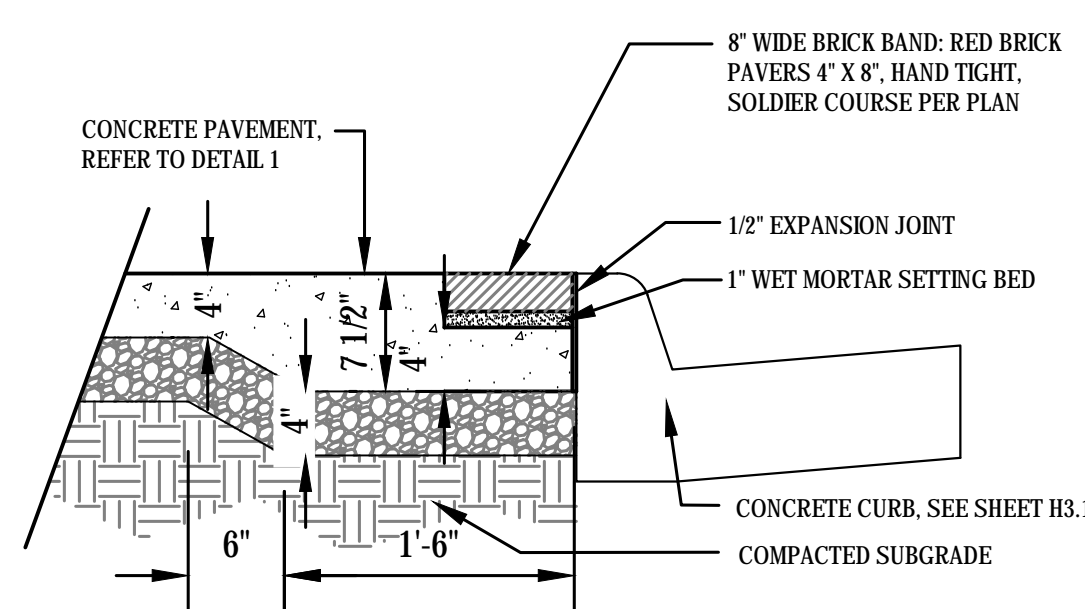
4 BRICK BAND AT LAWN

Scale: NTS



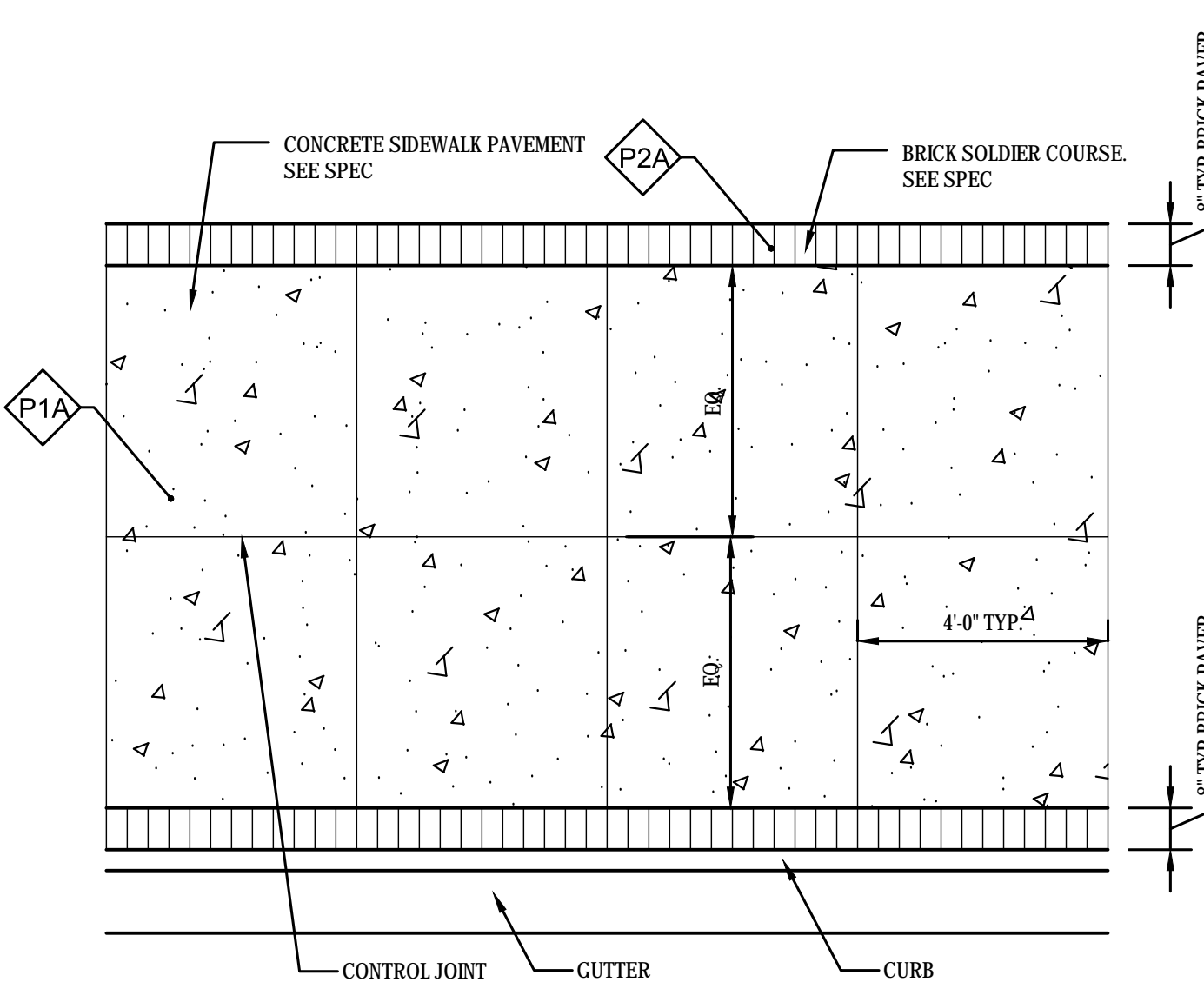
5 BRICK BAND AT VERTICAL STRUCTURE

Scale: NTS



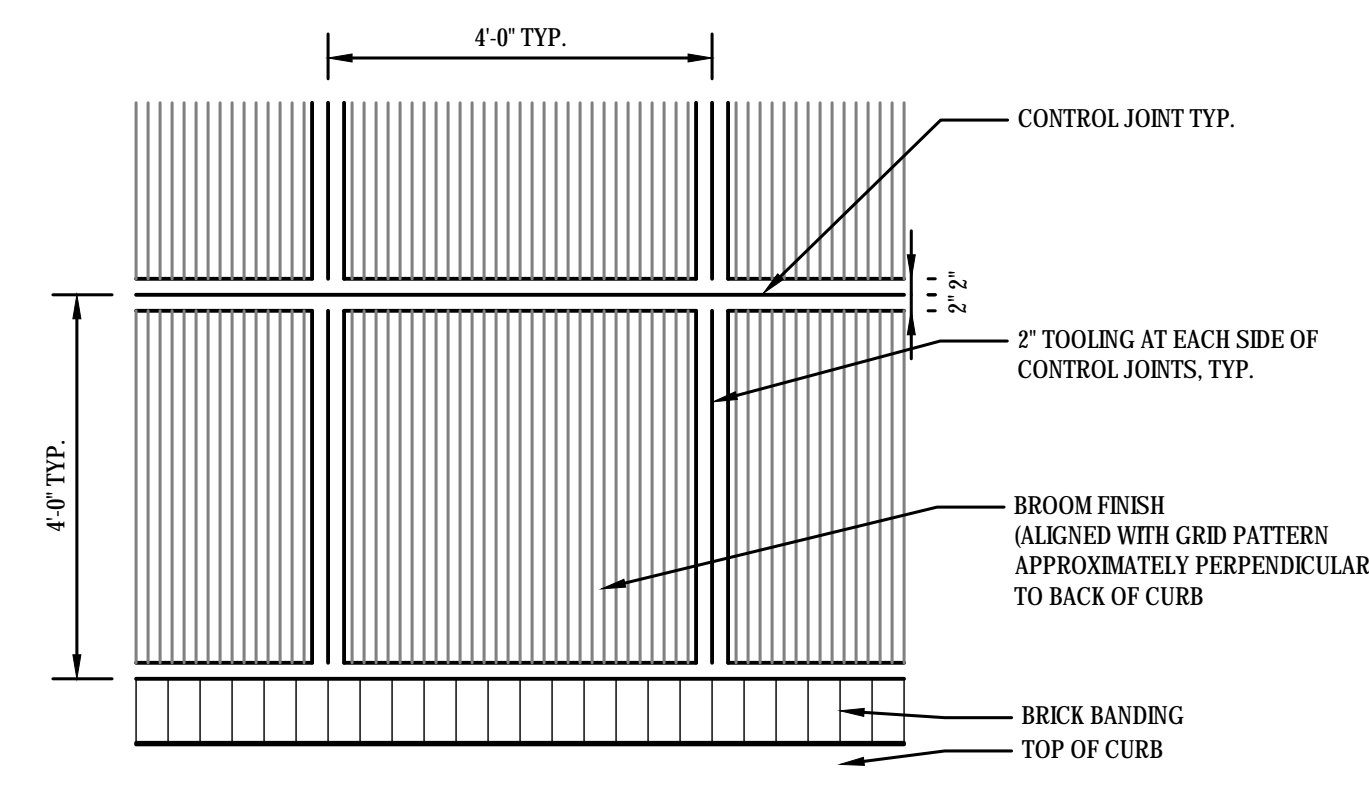
6 BRICK BAND AT CURB

Scale: NTS



7 SIDEWALK WITH BRICK BAND (TYP.)

Scale: NTS



8 TYPICAL TOOLING DETAIL

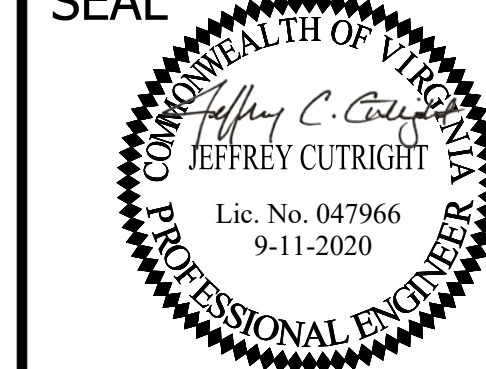
Scale: NTS



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SEAL



APPROVALS

APPROVALS	DATE
Nilesh Nairare	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
Kamal Taktak	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
[Signature]	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	9/25/20
TRANSPORTATION DIRECTOR	
Rene Harris	9.24.2020
PROJECT MANAGER	

REVISIONS

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN
TYPICAL SECTIONS

DESIGNED: KM
DRAWN: KM
CHECKED: BG

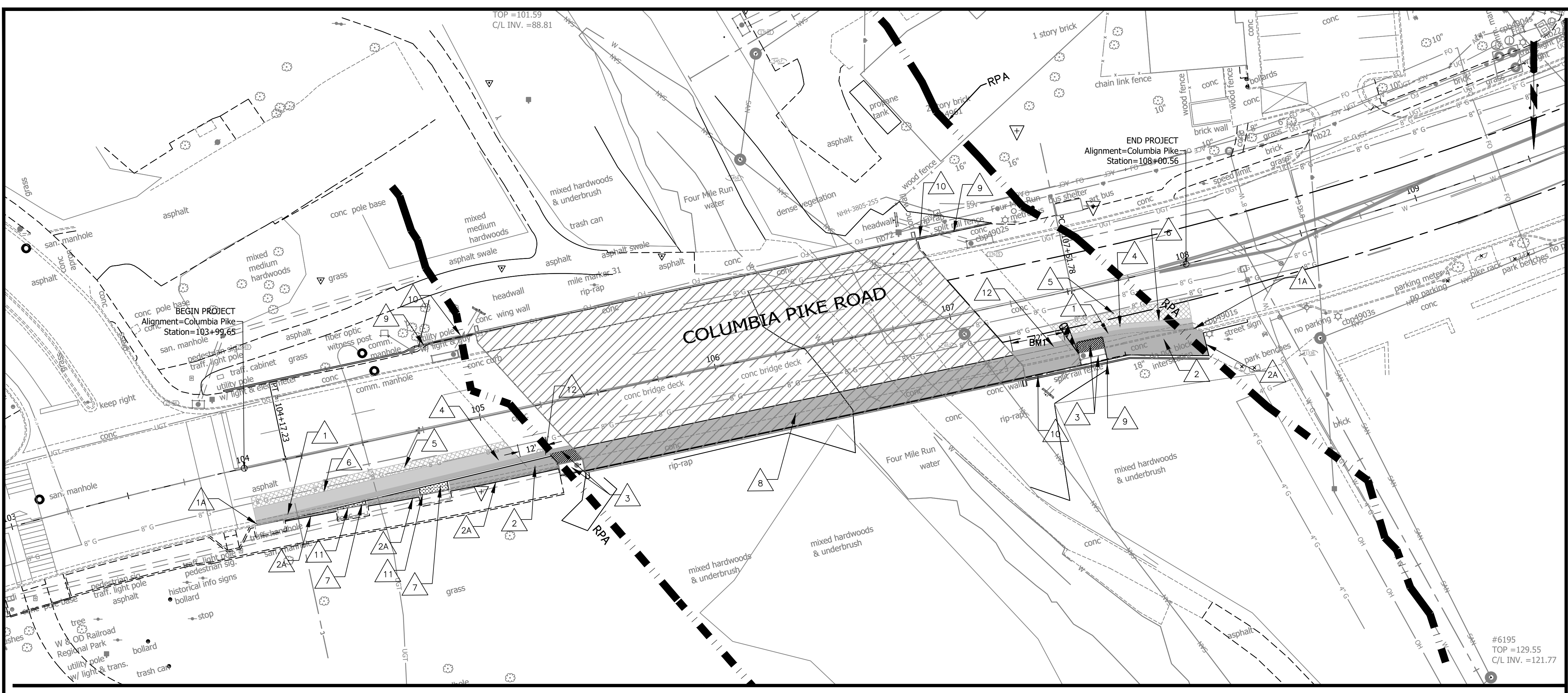
PLOTTED: SEPTEMBER 11 2020

SCALE:

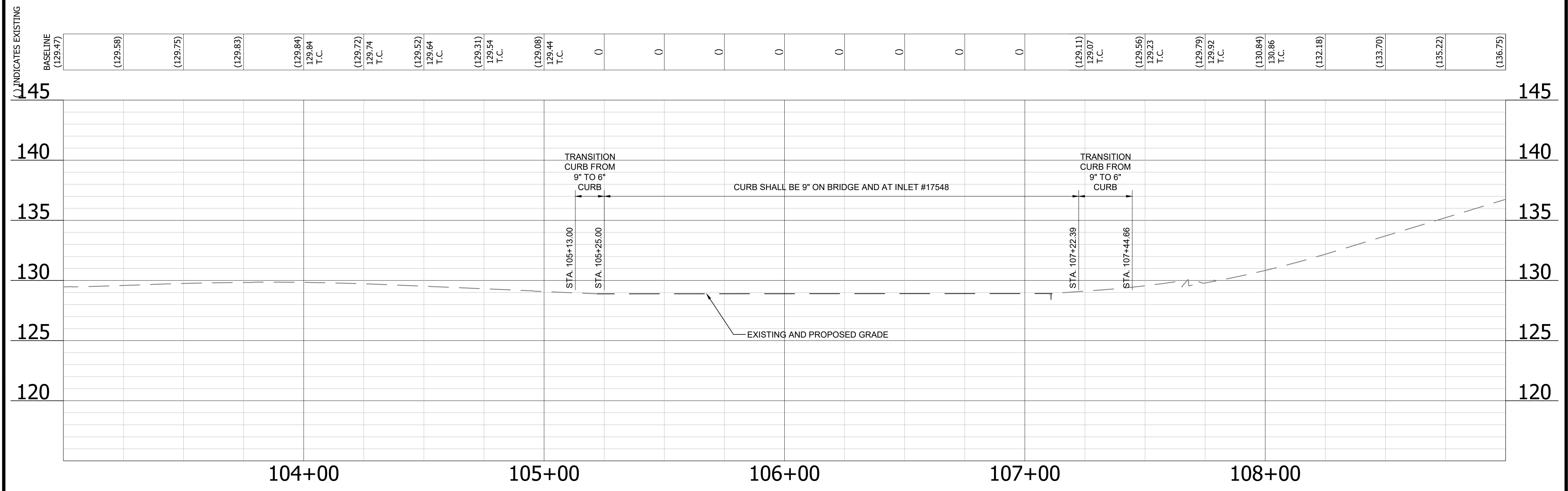
AS SHOWN

C040.1

REVISED ON 01/24/2020
FILENAME: D587-230-PLAN_PROFILE.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGNING\07 DESIGNED\07 PLOTTED BY: ENGINEER



COLUMBIA PIKE



CONSTRUCTION NOTES

- 1 PROP CURB & GUTTER (C-2) ARL STD (R-2.0)
- 1A MATCH EXIST CURB & GUTTER FLUSH AND ON GRADE
- 2 PROP SIDEWALK (SEE DETAIL ON SHEET C040.1)
- 2A REMOVE AND REPLACE SIDEWALK TO THE NEAREST JOINT WITH BRICKBAND TO MATCH THE EXISTING SIDEWALK PATTERN. PROVIDE DOWEL BARS BETWEEN OLD AND NEW CONCRETE SIDEWALK. SEE DETAILS ON SHEET C040.1
- 3 EXISTING CATCH BASIN STRUCTURE TOP, REMOVE & MODIFY PER DETAILS ON SHEET B001.6 AND B001.7
- 4 ASPHALT - FULL DEPTH REPLACEMENT (SEE TYPICAL ON SHEET C040.1 FOR ASPHALT SECTION)
- 5 ASPHALT MILL AND OVERLAY PER ARL STD (R-1.3)
- 6 SAWCUT EX. PAVEMENT
- 7 PROP. MULCH PER ARL. CO. DES SUPPLEMENTAL SPECS 329100 AND 329200
- 8 BRIDGE SIDEWALK IMPROVEMENT (SEE BRIDGE PLANS B001.1 AND B001.2)
- 9 PROP VDOT ST' D HR-1 TYPE II PEDESTRAIN RAILING (SEE DETAILS ON SHEET #B001.5)
- 10 EXISTING SPLIT RAIL FENCE TO BE REMOVED
- 11 PROPOSED EXPANSION OF TREE PIT AREA (SEE TYPICAL SECTION ON SHEET #C004.1)
- 12 TRANSITION PROP 6" CURB & GUTTER (C-2) TO 9" CURB ON BRIDGE



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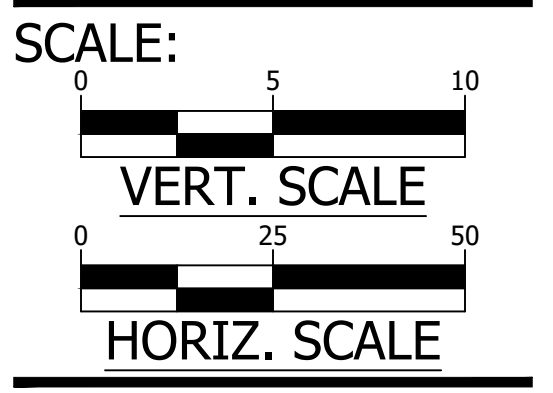
APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Jeffrey Cutright</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 D587
 COLUMBIA PIKE OVER FOUR MILE RUN
 PLAN PROFILE

DESIGNED: KM
DRAWN: KM
CHECKED: BG

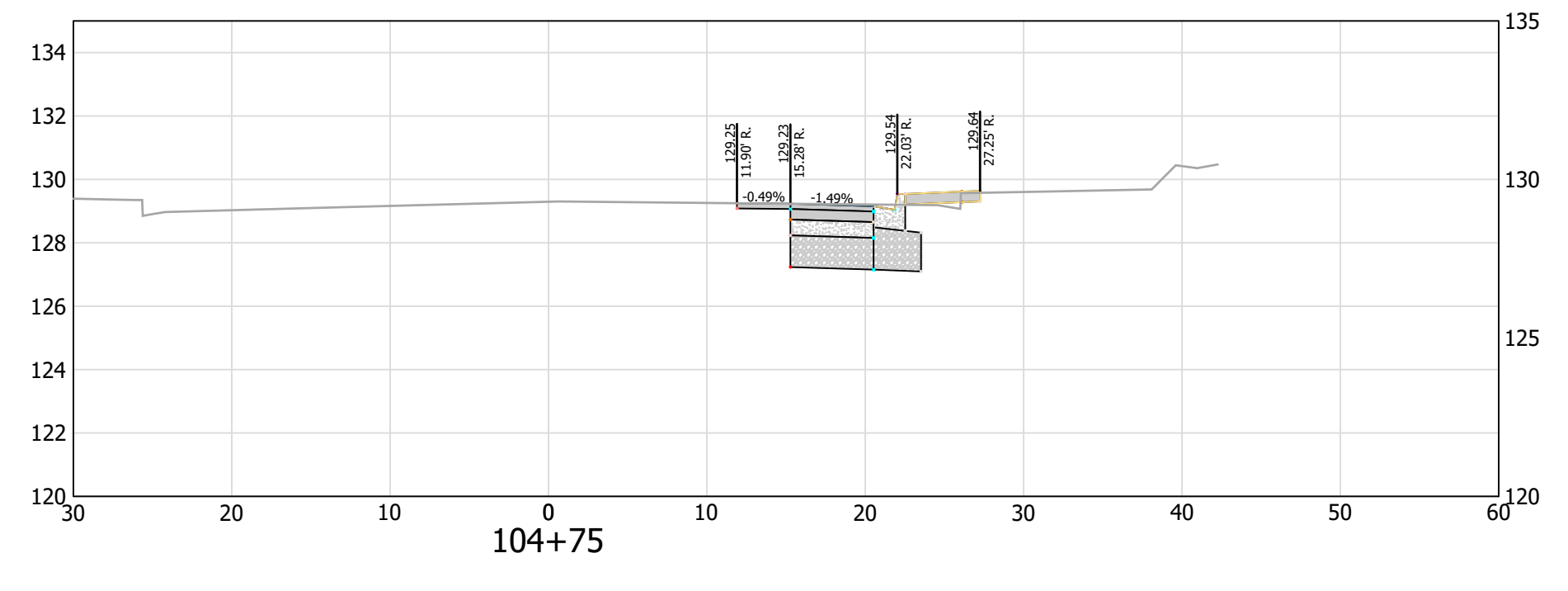
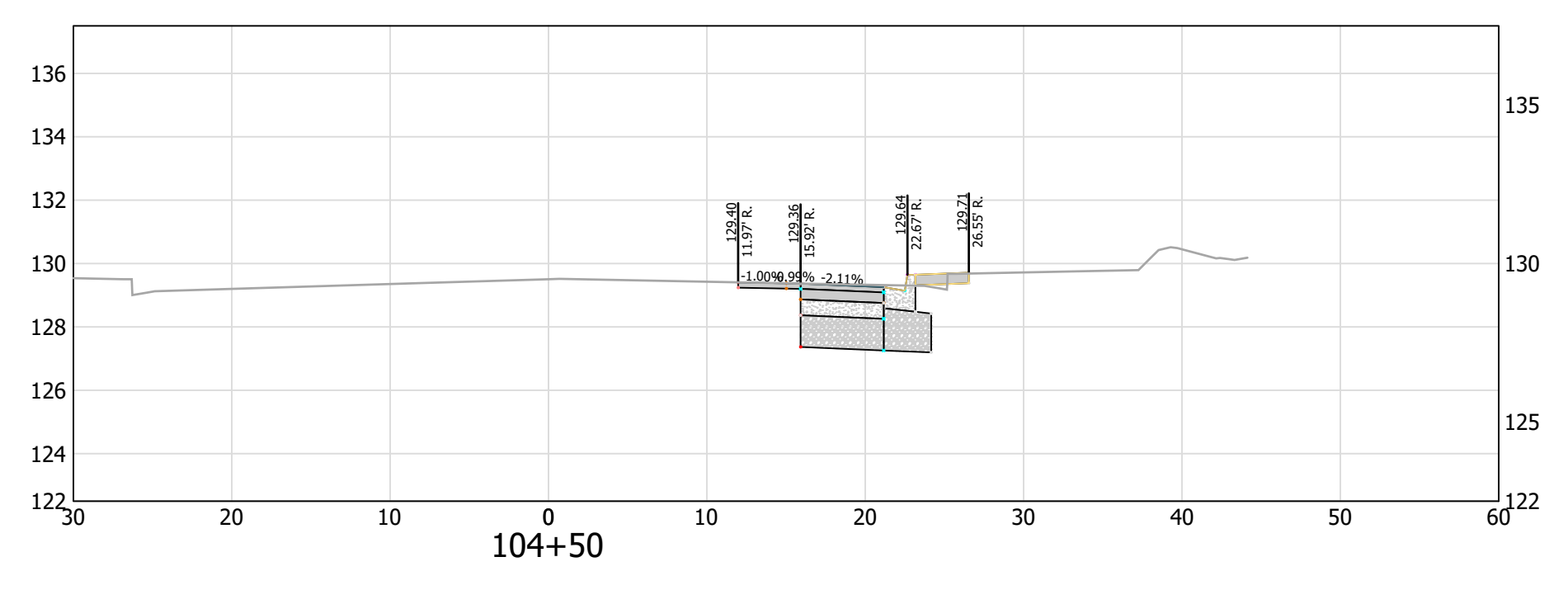
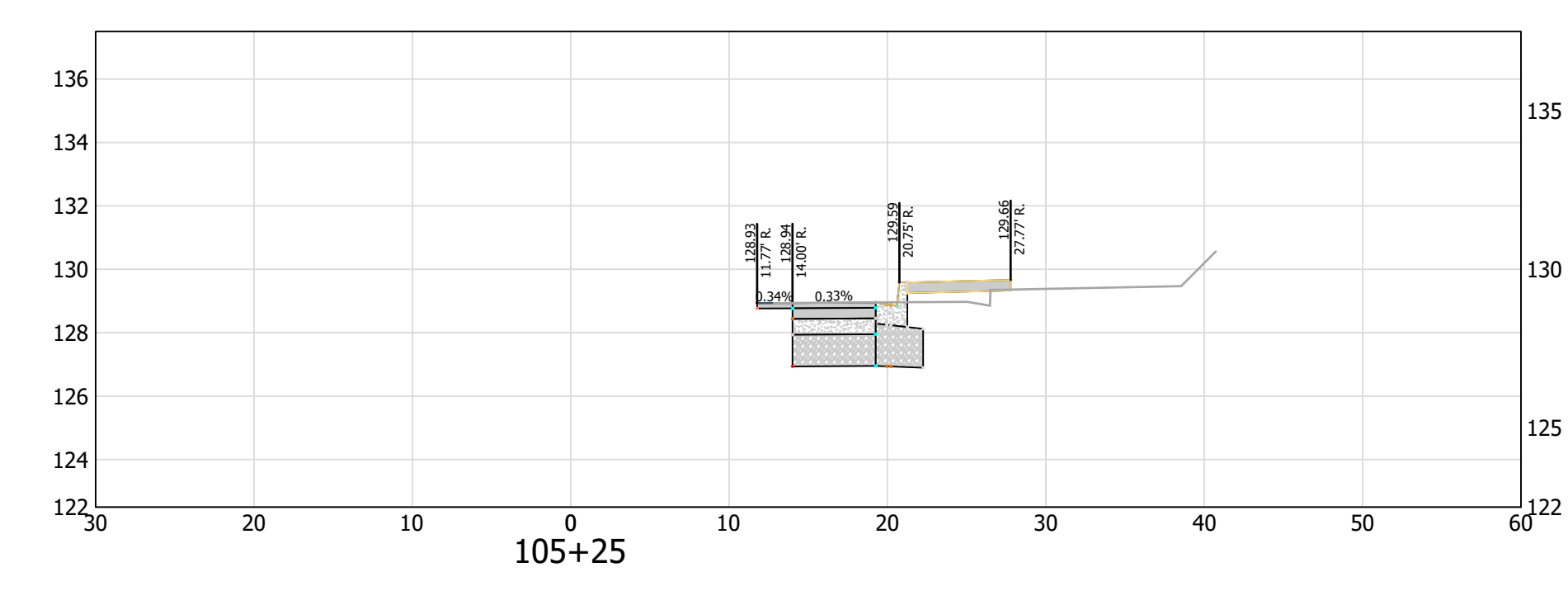
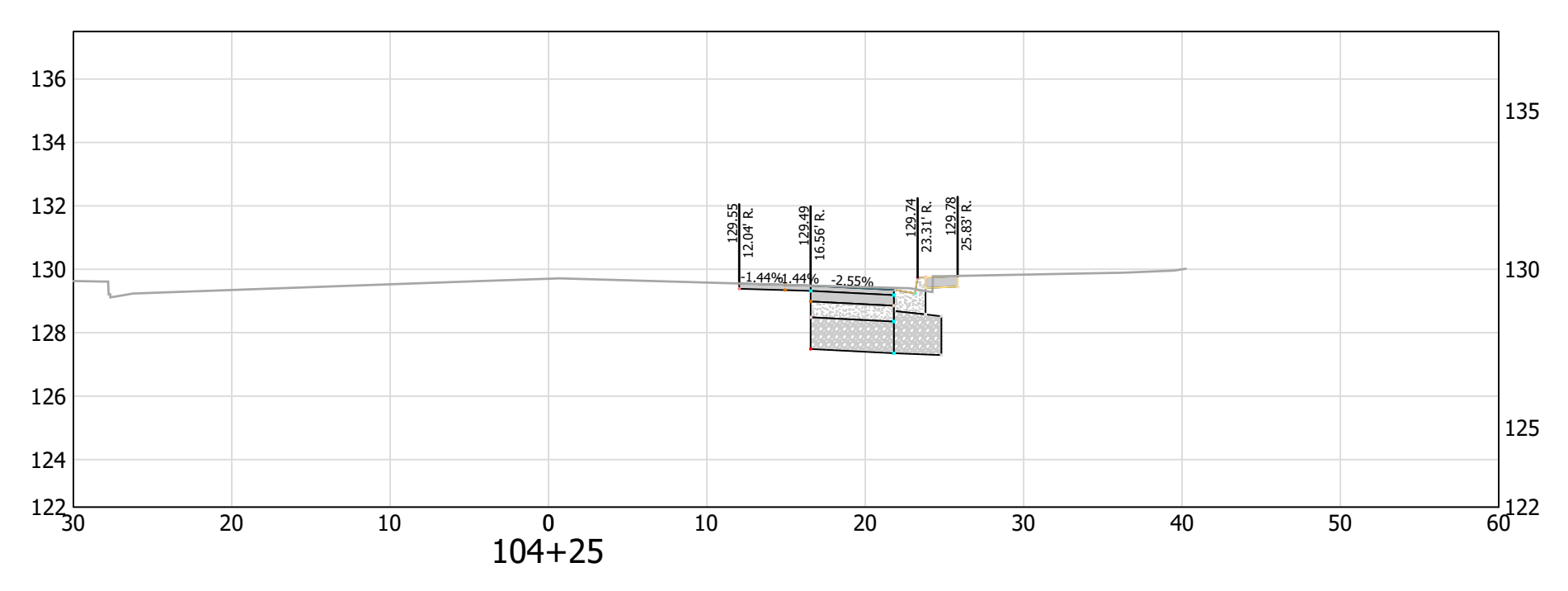
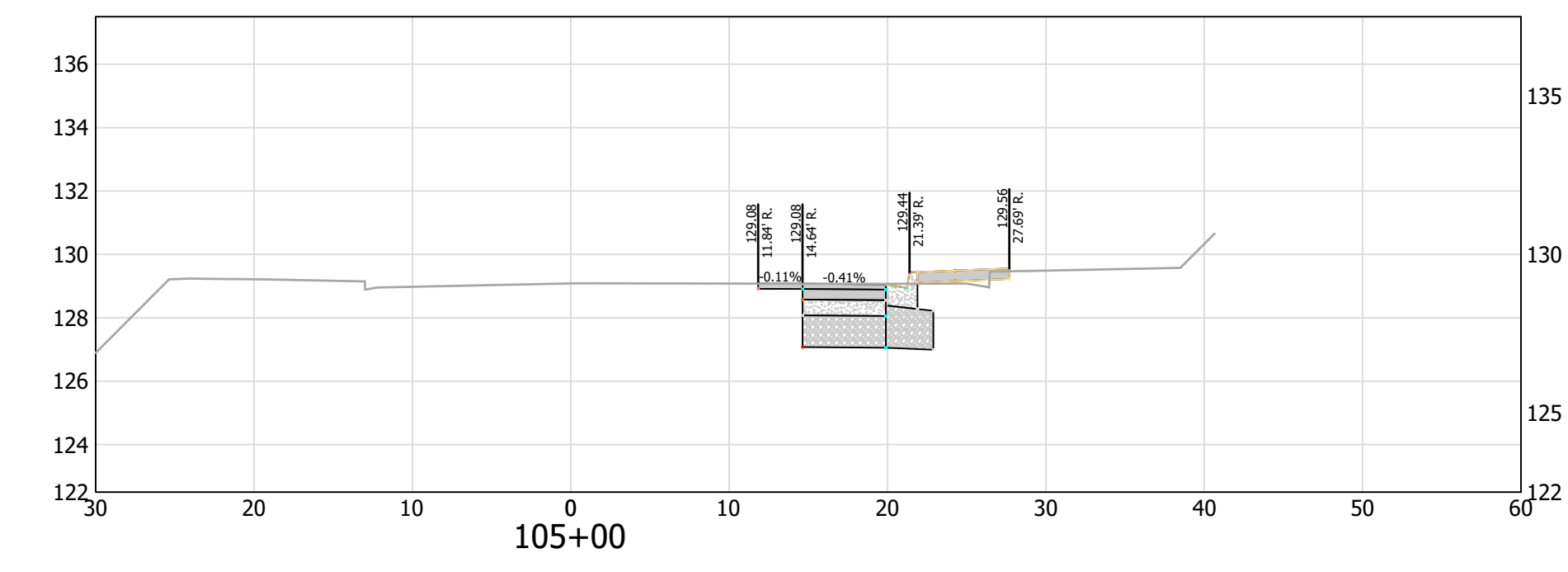
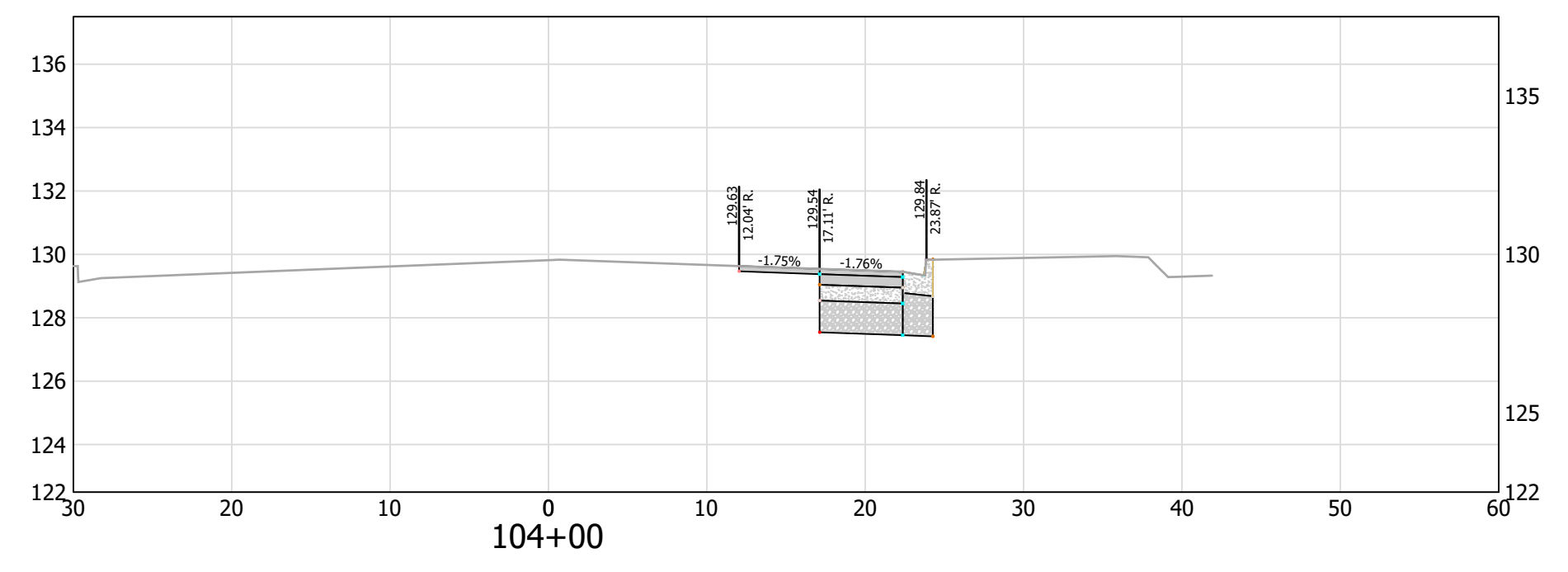
PLOTTED: SEPTEMBER 14 2020



C041.1

REVISED ON 01/24/2020

FILENAME: D987-234-CROSS_SECTIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGNING\DWG PLOTTED BY: MATTHEW.WHITTAKER



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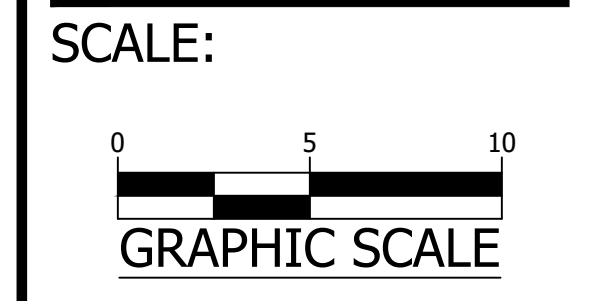
APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF <i>Donna M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 CROSS SECTIONS SHEET -1

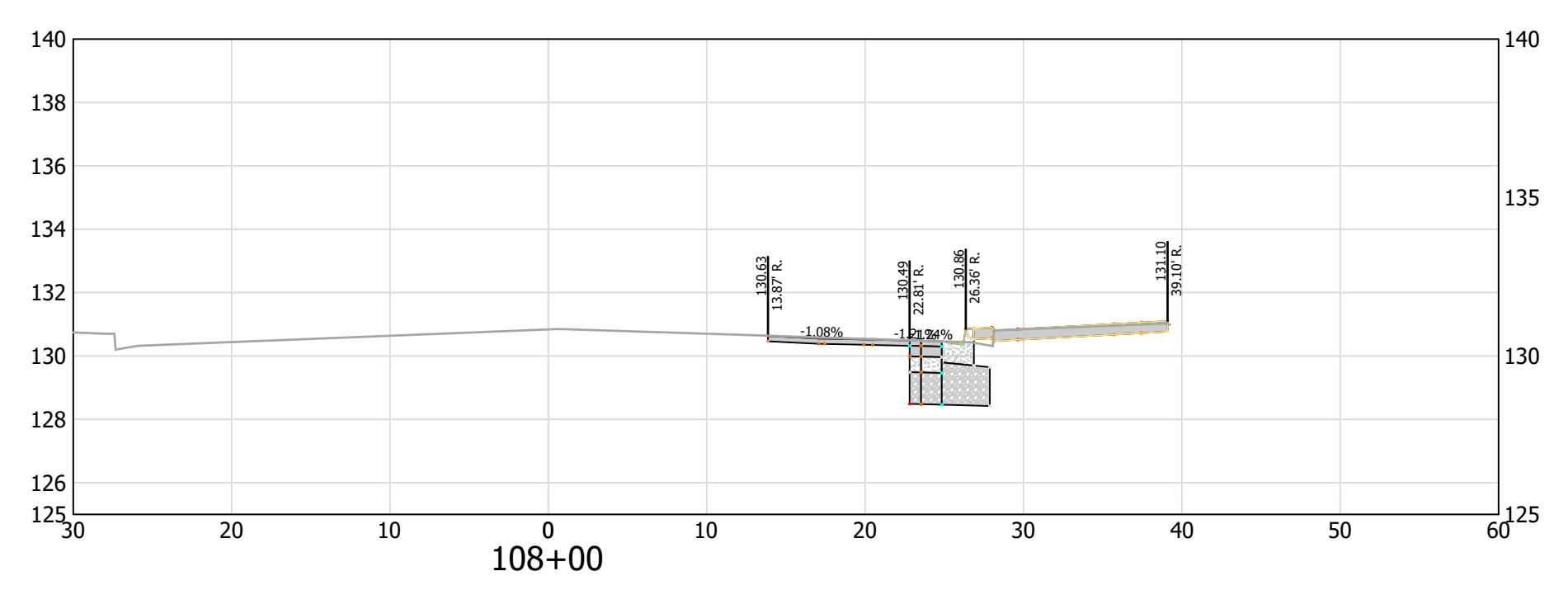
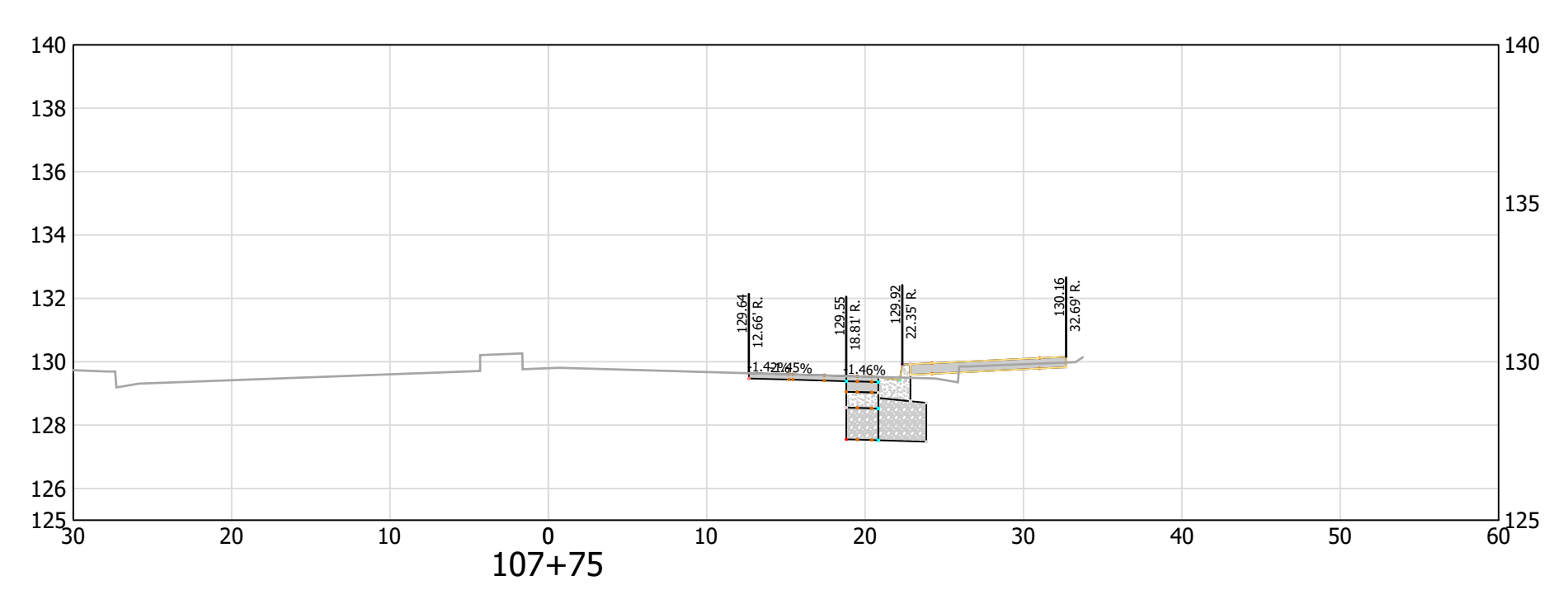
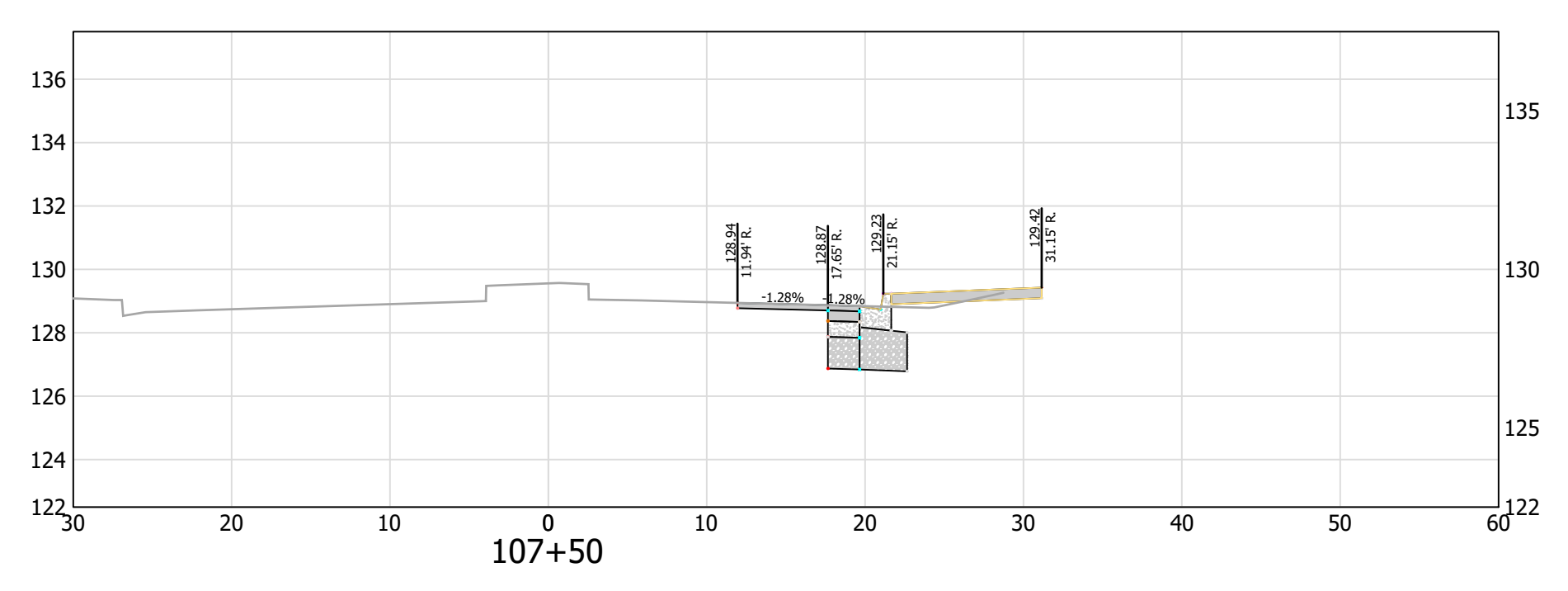
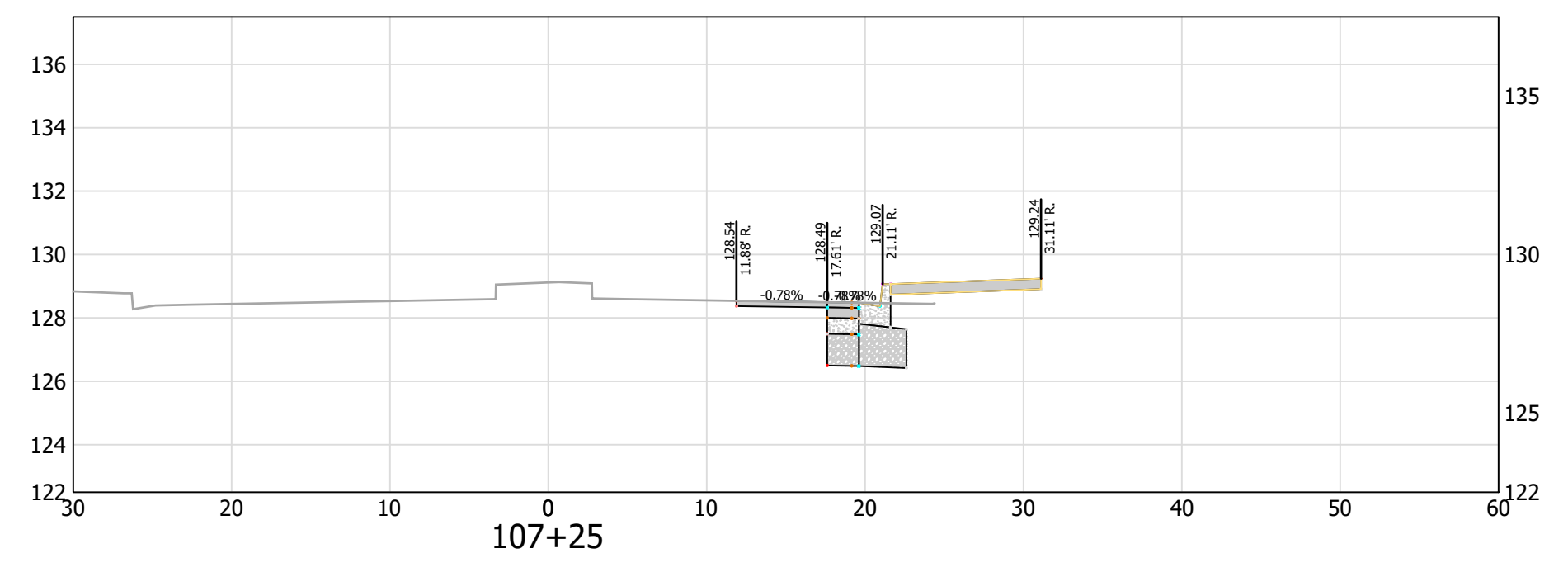
DESIGNED: KM
 DRAWN: KM
 CHECKED: BG

PLOTTED: SEPTEMBER 11 2020



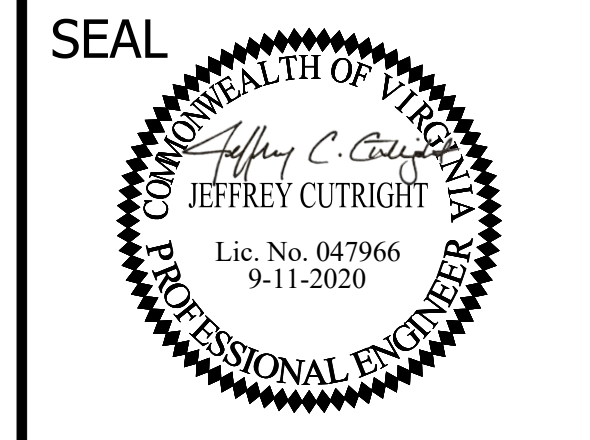
REVISED ON 01/24/2020

FILENAME: D987-234-CROSS_SECTIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW WHITTAKER



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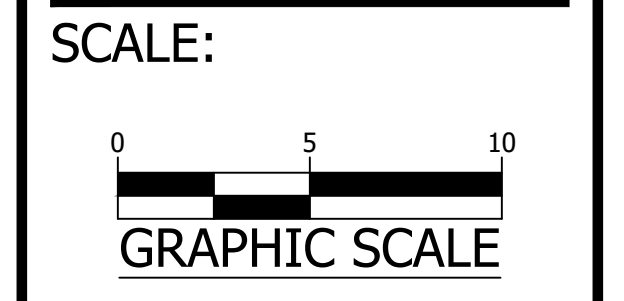


APPROVALS	DATE
<i>Nilesh Naikare</i> DESIGN TEAM ENGINEER SUPERVISOR	9/17/2020
<i>Kamal Taktak</i> CONSTRUCTION MANAGEMENT SUPERVISOR	9.17.20
<i>Jeffrey Cutright</i> WATER, SEWER, STREETS BUREAU CHIEF	09.17.2020
<i>Donna M. Leach</i> TRANSPORTATION DIRECTOR	9/25/20
<i>Rene Harris</i> PROJECT MANAGER	9.24.2020

REVISIONS	DATE

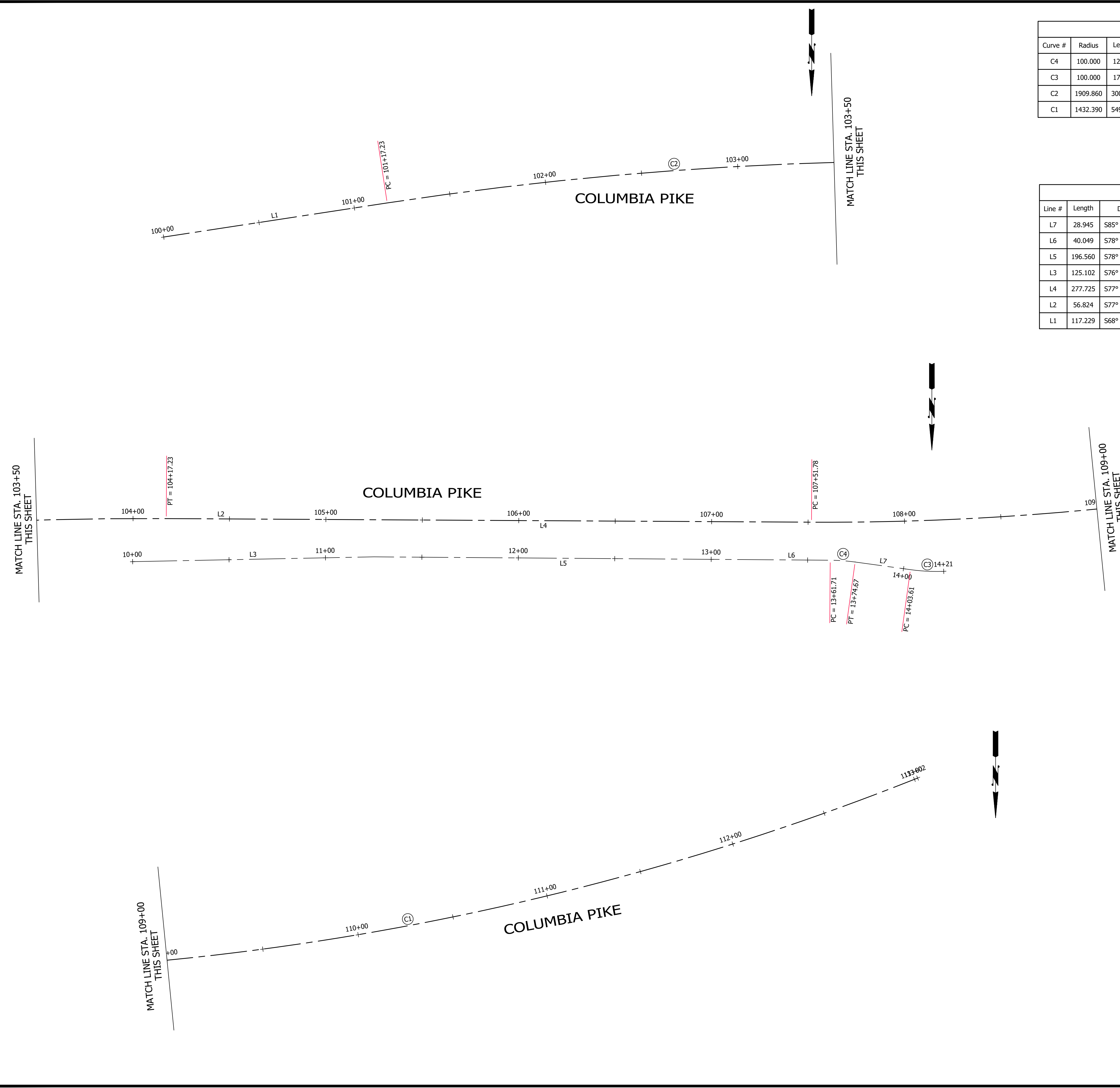
SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 CROSS SECTIONS SHEET - 2

DESIGNED: KM
 DRAWN: KM
 CHECKED: BG
 PLOTTED: SEPTEMBER 11 2020



REVISED ON 01/24/2020

FILENAME: D987-216-GEOMETRIC_CONTROL_PLAN.DWG PATH: 1:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGNINGW PLOTTED BY: MATTHEW.WHITTAKER



Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C4	100.000	12.959	S81° 43' 24.60"W	(11878380.8564,6997855.1305)	(11878368.0415,6997853.2664)
C3	100.000	17.301	S80° 28' 46.01"W	(11878339.1885,6997850.9631)	(11878322.1467,6997848.1050)
C2	1909.860	300.000	S73° 24' 30.25"W	(11879008.9121,6997993.6072)	(11878721.6981,6997908.0309)
C1	1432.390	549.998	S66° 54' 30.25"W	(11878394.5717,6997837.9512)	(11877891.7420,6997623.5633)

Line Table: Alignments					
Line #	Length	Direction	Start Point	End Point	
L7	28.945	S85° 26' 09.35"W	(11878368.0415,6997853.2664)	(11878339.1885,6997850.9631)	
L6	40.049	S78° 00' 39.85"W	(11878420.0322,6997863.4497)	(11878380.8564,6997855.1305)	
L5	196.560	S78° 00' 39.85"W	(11878612.3043,6997904.2795)	(11878420.0322,6997863.4497)	
L3	125.102	S76° 26' 29.61"W	(11878733.9203,6997933.6082)	(11878612.3043,6997904.2795)	
L4	277.725	S77° 54' 30.25"W	(11878666.1351,6997896.1277)	(11878394.5717,6997837.9512)	
L2	56.824	S77° 54' 30.25"W	(11878721.6981,6997908.0309)	(11878666.1351,6997896.1277)	
L1	117.229	S68° 54' 30.25"W	(11879118.2877,6998035.7933)	(11879008.9121,6997993.6072)	



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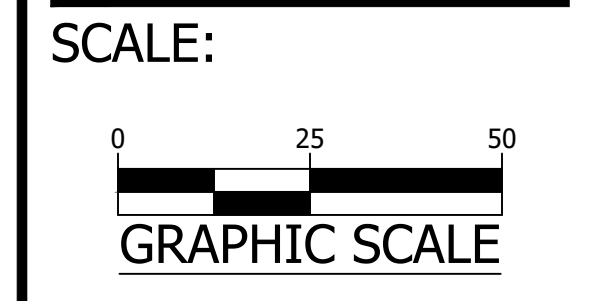
APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 GEOMETRIC CONTROL PLAN

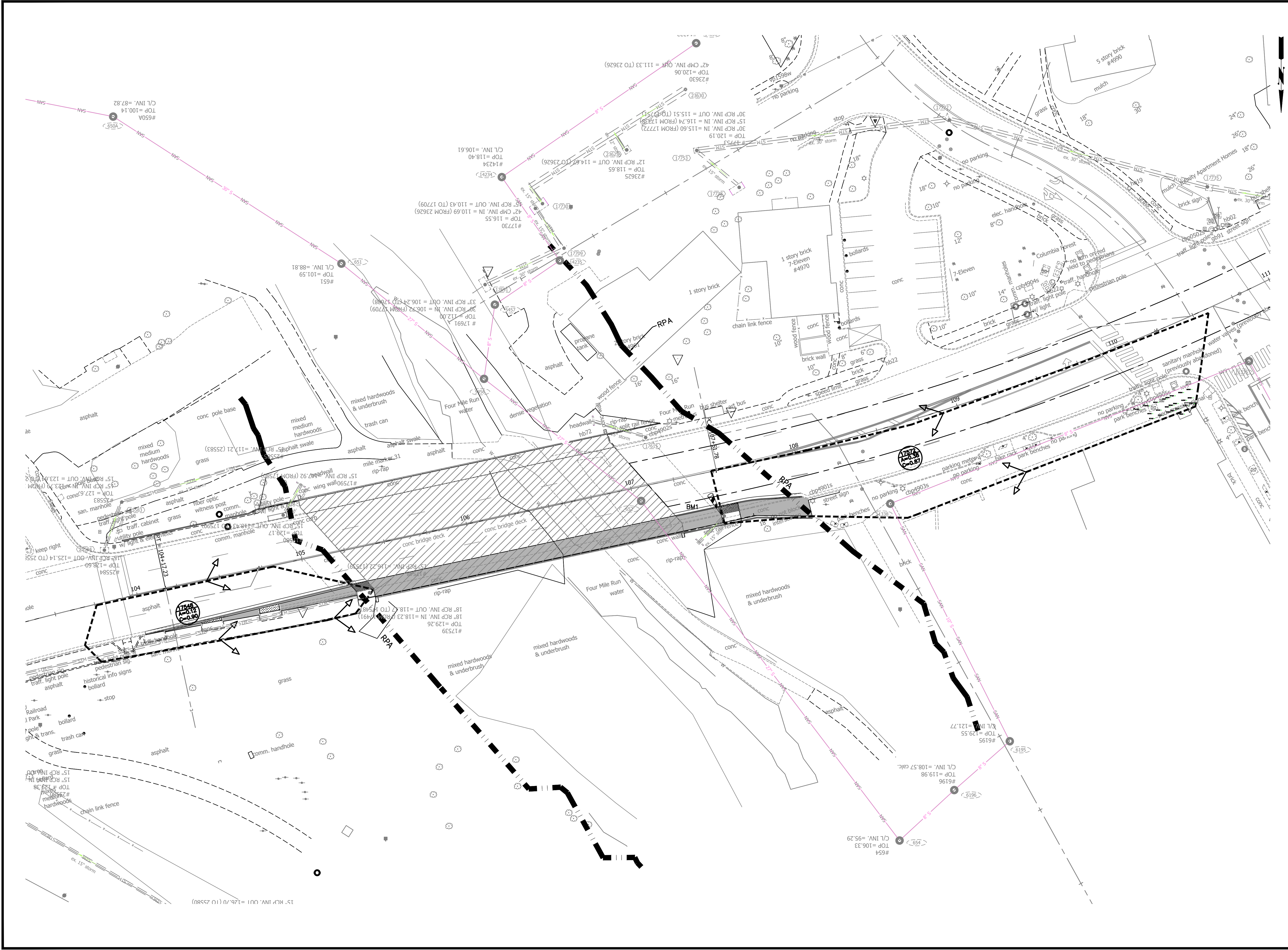
DESIGNED: KM
 DRAWN: KM
 CHECKED: BG

PLOTTED: SEPTEMBER 11 2020



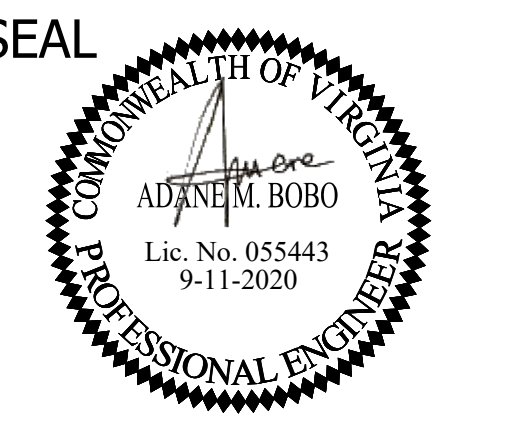
C045.1

REVISED ON 01/24/2020
FILENAME: D587-250-DRAINAGE_DIVIDES.DWG PATH: 1:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



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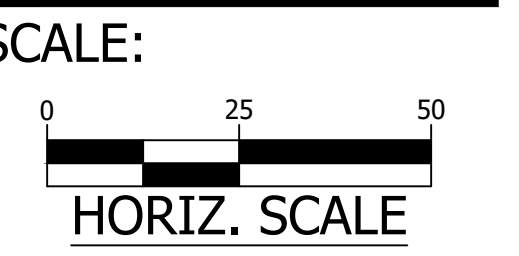
APPROVALS	DATE
Nilesh Naikare	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
Kamal Takak	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
Cliff	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	9/25/20
TRANSPORTATION DIRECTOR	
Rene Harris	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 STORM SEWER DRAINAGE DIVIDES

DESIGNED: KM
 DRAWN: KM
 CHECKED: BG

PLOTTED: SEPTEMBER 11 2020



C071.1

REVISED ON 01/24/2020

FILENAME: D987-250-DRAINAGE_DIVIDES.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER

STORM INLET COMPUTATIONS																														
Inlet				Flow							Curb Inlet										Operation			Sag Inlets Only						
Number	Type	Length (ft)	Station	Drainage Area (acres)	C	CA	i (in/hr)	Q Incr (ft ³ /s)	Q Carryover (ft ³ /s)	QT (ft ³ /s)	S Gutter Slope (ft/ft)	Sx Crossslope (ft/ft)	T Spread (ft)	W (ft)	W/T	Sw (ft/ft)	Sw/Sx	E0	a (in)	S'w	Se (ft/ft)	LT Computed Length (ft)	L/LT	E (%)	Qi Intercepted (ft ³ /s)	Qb Carryover (ft ³ /s)	d (ft)	h (ft)	d/h	T Spread @ Sag (ft)
17548	CB-2B	10.0000		0.12	0.90	0.110	4.00	0.44	0.00	0.439	0.01	0.02083	4.38	1.50	0.34	0.0833	4.00	0.827	4.13	0.23	0.21	2.90	3.45	100%	0.44	0.000				
17572	CB-2B	10.0000		0.38	0.87	0.331	4.00	1.32	0.00	1.322	0.03	0.02083	5.18	1.50	0.29	0.0833	4.00	0.753	4.13	0.23	0.19	7.85	1.27	91%	1.32	0.000				

STORM DRAIN DESIGN COMPUTATIONS																					
From Point	To Point	Drainage Area	Runoff Coefficient	CA			Inlet Time	Time of Conc.	Rainfall	Runoff Q	Invert Elevations		Length	Slope	Diameter	Capacity	Velocity	Flow Time	Remarks		
				Acres	C	Incr.					Piped In	Accum.								Upper End	Lower End
17548	17539	0.12	0.90	0.11	3.97	4.08	5.00	5.00	6.79	27.70	118.17	114.50	25.03	14.66%	18	40.22	24.54	0.02			
17572	17527	0.38	0.87	0.33	0.00	0.33	5.00	5.00	6.79	2.24	123.76	122.32	20.60	6.99%	15	17.08	9.64	0.04			

HYDRAULIC GRADE LINE COMPUTATIONS																						
Inlet Structure	Upstream Structure	Outlet Water Surface Elev. (ft)	Do (in)	Qo (cfs)	Lo (ft)	Sfo (%)	Hf (ft)	Junction Loss										Final H (ft)	Inlet Water Surface Elev. (ft)	Rim Elev. (ft)		
								Vo (ft/s)	Ho (ft)	Qi	Vi (ft/s)	Qivi	Vi2/2g (ft)	Hi (ft)	Angle (°)	H? (ft)	Ht (ft)				1.3 Ht (ft)	0.5 Ht (ft)
17539							18.00	Outlet Pipe Dia. =		Outlet Pipe Inv. =		114.50	0.8xDia + Pipe Inv. =		115.70	Outlet WSEL =		Starting WSEL =			115.70	
17548		115.70	18.0000	27.70	25.03	6.9532%	1.74	24.54	2.81							2.81	0.00			4.55	120.25	129.26
17527							15.00	Outlet Pipe Dia. =		Outlet Pipe Inv. =		122.32	0.8xDia + Pipe Inv. =		123.32	Outlet WSEL =		Starting WSEL =			123.32	
17572		123.32	15.0000	2.24	20.60	0.1207%	0.02	9.64	0.43							0.43	0.56			0.59	123.91	129.64



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APPROVALS DATE

Nilesh Naikare 9/17/2020
 DESIGN TEAM ENGINEER SUPERVISOR

Kamal Takah 9.17.20
 CONSTRUCTION MANAGEMENT SUPERVISOR

[Signature] 09.17.2020
 WATER, SEWER, STREETS BUREAU CHIEF

Dennis M. Leach 9/25/20
 TRANSPORTATION DIRECTOR

Rene Harris 9.24.2020
 PROJECT MANAGER

REVISIONS DATE

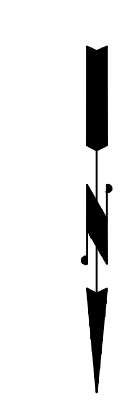
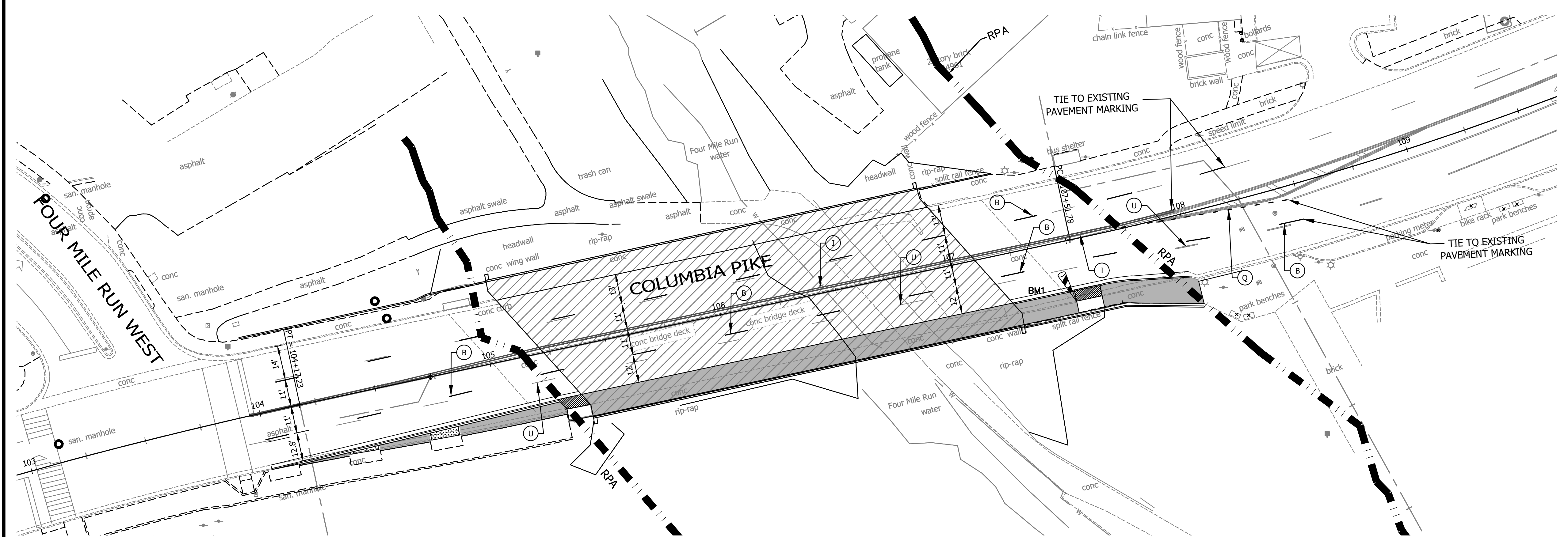
SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 STORM COMPUTATIONS

DESIGNED: KM
 DRAWN: KM
 CHECKED: BG
 PLOTTED: SEPTEMBER 11 2020

SCALE:
 N/A

C075.1

REVISED ON 01/24/2020
FILENAME: D587-280-SIGNAGE_AND_STRIPING.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



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APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF <i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
D587
COLUMBIA PIKE OVER FOUR MILE RUN
SIGNAGE AND STRIPING

PAVEMENT MARKING NOTES:

- STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING .
- CONTACT DES-TRANSPORTATION ENGINEERING & OPERATIONS CONSTRUCTION MANAGEMENT SPECIALIST OR HIS DESIGNEE AT 703-228-6598 OR 571-437-1077 TO APPROVE MARKING LAYOUT 48 HOURS PRIOR TO INSTALLATION OF MARKINGS.
- PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE FOLLOWING AND ANY REVISIONS HERE TO:
 - THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 - ARLINGTON COUNTY MARKING STANDARDS.
- ALL MARKINGS SHALL BE THERMOPLASTIC PER ARLINGTON COUNTY MARKING STANDARDS.
- STOP BARS SHALL BE A MINIMUM OF 4' IN ADVANCE OF A MARKED CROSSWALK. IF THERE IS NO MARKED CROSSWALK, STOP BAR SHALL BE NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTED TRAVELED WAY.
- CROSSWALKS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
- LEFT TURN ARROWS SHALL BE LOCATED 25' BACK FROM STOP BAR. FOR ADDITIONAL ARROWS FOLLOW COUNTY MARKING STANDARDS.
- ON-STREET PARKING LANE IS 7' WIDE (UNLESS OTHERWISE NOTED) AND MARKED WITH 4" WIDE WHITE LINES. BEGINNING AND END OF PARKING SHALL BE MARKED WITH AN END LINE PERPENDICULAR TO CURB EXCEPT AT NUBS OR WHERE OTHERWISE INDICATED.
- SHARED LANE MARKINGS SHALL BE PLACED IN CENTER OF LANE, 250' APART UNLESS OTHERWISE SPECIFIED.
- BIKE LANE SYMBOLS TO BE PLACED 330' APART UNLESS OTHERWISE SPECIFIED.
- EDGE LINES ARE ONLY REQUIRED WHERE SHOWN ON THE PLANS.
- FOR DETAILS SEE ARLINGTON COUNTY PAVEMENT MARKING SPECIFICATION, DETAILS MK-1 TO MK-12
- THE ERADICATION OF PAVEMENT MARKING SHALL BE PERFORMED BY GRINDING, BLASTING OR A COMBINATION THEREOF. GRINDING SHALL BE LIMITED TO REMOVAL OF MATERIAL ABOVE THE PAVEMENT SURFACE EXCEPT WHEN REMOVING THERMOPLASTIC AND PERFORMED TAPE MARKINGS, WHICH MAY BE REMOVED BY GRINDING ALONE. BLASTING SHALL BE USED ON THE BRIDGE DECK TO REMOVE ALL OTHER TYPES OF MARKINGS.

STANDARD PAVEMENT MARKING LEGEND

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

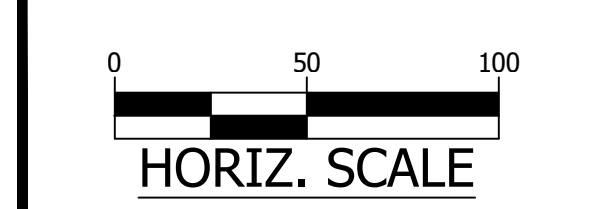
SIGN NOTES:

- FOR ALL SIGN POSTS PLACED IN CONCRETE USE 7 GAUGE HEAVY DUTY ANCHOR (30"x2.50") WITH HARDWARE FOR 2" POST. USE 3/8" CORNER BOLT WITH FLANGED NUT AND 3/8" DRIVER RIVET WITH WASHER.
- CONTACT TE&O CONSTRUCTION MANAGER OR HIS DESIGNEE AT 703-228-6598 OR 571-437-1077 48 HRS PRIOR TO POURING CONCRETE. ALTERNATIVE CONTACT AT 703-228-3788 OR 571-414-7497.

DESIGNED: KM
DRAWN: KM
CHECKED: BG

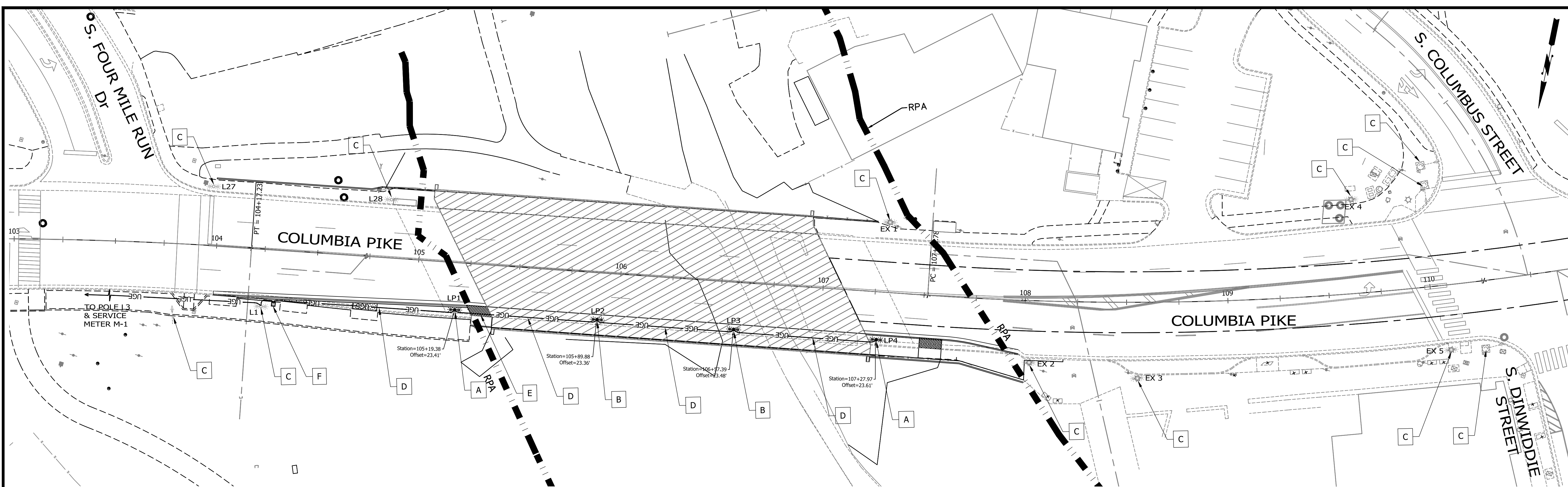
PLOTTED: SEPTEMBER 11 2020

SCALE:



HORIZ. SCALE
C101.1

REVISED ON 01/24/2020
FILENAME: DS87-270-STREETLIGHT_PLAN.DWG PATH: 1:637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK DESIGN\DWG PLOTTED BY: MATTHEW.WHITAKER



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APPROVALS	DATE
Nilesh Naikare	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
Kamal Takat	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
09.17.2020	
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	9/25/20
TRANSPORTATION DIRECTOR	
Rene Harris	9.24.2020
PROJECT MANAGER	
REVISIONS	DATE

STREET LIGHT VOLTAGE DROP CALCULATION
Proposed Light type: Philips Lumilock GX4, 120V, 39w (Light Pole # LP1 - LP4)
Amperes required per LED Light is 0.325A
For #6 AWG copper cable, effective impedance used in the calculation is 0.3951 Ω / 1000 ft

Existing Light type: Relume model UA2 XRE, 120V, 57w (Light Pole # L1 - L13) **

CIRCUIT # 1 - VOLTAGE DROP TO METER AND POLES									
CKT #	FROM	TO	CKT LENGTH	WIRE SIZE	QTY. OF LIGHTS ON POLE	TOTAL QTY. OF LIGHTS ON CKT	AMPERES THRU CABLE	VOLTAGE DROP IN THIS SECTION*	FIXTURE TYPE
PANEL FEED	TRANSF	METER	30	#6	N/A	34.00	22.10	0.26	Double Carlyle
CKT1-1	METER	L13	50	#6	2.00	18.00	11.70	0.23	Double Carlyle
CKT1-2	L13	L11	183	#6	2.00	16.00	10.40	0.75	Double Carlyle
CKT1-3	L11	L9	188	#6	2.00	14.00	9.10	0.68	Double Carlyle
CKT1-4	L9	L7	217	#6	2.00	12.00	7.80	0.67	Double Carlyle
CKT1-5	L7	L5	205	#6	2.00	10.00	6.50	0.53	Double Carlyle
CKT1-6	L5	L3	278	#6	2.00	8.00	5.20	0.57	Double Carlyle
CKT1-7	L3	L1	271	#6	2.00	6.00	3.90	0.42	Double Carlyle
*CKT1-8	L1	LP2	185	#6	2.00	4.00	2.60	0.19	Double Carlyle
*CKT1-9	LP2	LP4	148	#6	2.00	2.00	1.30	0.08	Double Carlyle
Total Voltage Drop of Circuit # 1 at last pole (V):								4.37	
Percent Voltage Drop for Circuit # 1 at last pole:								3.64%	

* Denotes new light poles and connections added to existing streetlight circuit.
** Denotes information as part of Route 244 between S. Four Mile Run Dr & S. Wakefield St project dated 12/13/2011.

CIRCUIT # 2 - VOLTAGE DROP TO METER AND POLES									
CKT #	FROM	TO	CKT LENGTH	WIRE SIZE	QTY. OF LIGHTS ON POLE	TOTAL QTY. OF LIGHTS ON CKT	AMPERES THRU CABLE	VOLTAGE DROP IN THIS SECTION	FIXTURE TYPE
PANEL FEED	TRANSF	METER	30	#6	N/A	34.00	22.10	0.26	Double Carlyle
CKT2-1	METER	L12	30	#6	2.00	16.00	10.40	0.12	Double Carlyle
CKT2-2	L12	L10	271	#6	2.00	14.00	9.10	0.97	Double Carlyle
CKT2-3	L10	L8	270	#6	2.00	12.00	7.80	0.83	Double Carlyle
CKT2-4	L8	L6	195	#6	2.00	10.00	6.50	0.50	Double Carlyle
CKT2-5	L6	L4	152	#6	2.00	8.00	5.20	0.31	Double Carlyle
CKT2-6	L4	L2	238	#6	2.00	6.00	3.90	0.37	Double Carlyle
*CKT2-7	L2	LP1	251	#6	2.00	4.00	2.60	0.26	Double Carlyle
*CKT2-8	LP1	LP3	147	#6	2.00	2.00	1.30	0.08	Double Carlyle
Total Voltage Drop of Circuit # 2 at last pole (V):								3.70	
Percent Voltage Drop for Circuit # 2 at last pole:								3.09%	

* Denotes new light poles and connections added to existing streetlight circuit.
** Denotes information as part of Route 244 between S. Four Mile Run Dr & S. Wakefield St project dated 12/13/2011.

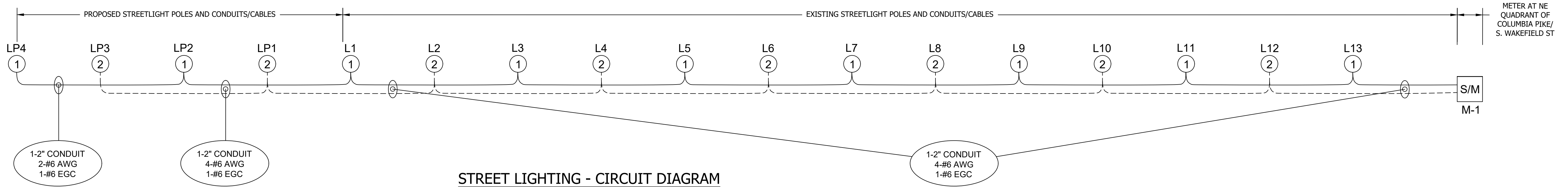
- STREETLIGHT KEY NOTES:**
- A CONTRACTOR SHALL FURNISH AND INSTALL LED DOUBLE GLOBE CARLYLE FIXTURE ON BLACK FINISH 16' POLE AND DUAL ARM WITH FOUNDATION PER ARL STD 14060-03, 14080-07, 14090-03, 14110-01, INCLUDING WIRING PER ARL STD 14050-01.
 - B CONTRACTOR SHALL FURNISH AND INSTALL LED DOUBLE GLOBE CARLYLE FIXTURE ON BLACK FINISH 16' POLE AND DUAL ARM PER ARL STD 14080-07, 14090-03, 14110-01, INCLUDING WIRING PER ARL STD 14050-01. POLE INSTALLATION ON BRIDGE DECK SHALL BE PER DETAILS SHOWN ON DRAWING NO. B001.8.
 - C EXISTING STREETLIGHT.
 - D CONTRACTOR SHALL FURNISH AND INSTALL 2" SCHEDULE 40 PVC (FOR OPEN TRENCH APPLICATION) ELECTRICAL CONDUIT PER ARL STD 14030-01.
 - E CONTRACTOR SHALL FURNISH AND INSTALL 2" SCHEDULE 40 PVC ELECTRICAL CONDUIT ACROSS THE EXISTING CATCH BASIN PER INLET MODIFICATION DETAILS SHOWN ON DRAWING NO. B001.7.
 - F CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION BOX-LARGE PER ARL STD 14040-02.

- ELECTRICAL GENERAL NOTES:**
- CONTRACTOR TO FIELD VERIFY (TEST PIT) EXACT LOCATION AND DEPTH OF PROPOSED UTILITY.
 - ALL ELECTRICAL UTILITIES INSTALLATION SHALL COMPLY WITH ARLINGTON COUNTY LIGHTING SPECIFICATIONS.
 - CONDUITS RUNS APPROXIMATE ONLY, FIELD LOCATE ALIGNMENT. BOX LOCATIONS APPROXIMATE ONLY, FIELD LOCATE PLACEMENT.
 - SIDEWALK PAVEMENT AND LANDSCAPING WITHIN PROPOSED AND REMOVED TRAFFIC SIGNAL STRUCTURES AND ELECTRICAL/COMMUNICATION UTILITY CUTS SHALL BE RESTORED TO COMPLY WITH EXISTING CONDITIONS OR PROPOSED PAVEMENT/LANDSCAPING.
 - CONTRACTOR SHALL COORDINATE SERVICE DISCONNECTS AND CONNECTIONS WITH DOMINION ENERGY VIRGINIA.
 - ARLINGTON COUNTY TO COORDINATE WITH DOMINION ENERGY VIRGINIA REGARDING SERVICE METER CONNECTION AND ASSOCIATED LOAD LETTER.

DS87 - SCHEDULE OF ELECTRICAL SERVICE

METER/CIRCUIT	STREET LIGHTS SERVED	CONNECTED LOAD		BRANCH CIRCUIT BREAKERS			REMARKS	
		KW	AMPS	PHASE AND VOLTS	NUMBER OF POLES	FRAME SIZE		TRIP SIZE
M-1	L1 - L13 (EX) LP1 - LP4 (PR)	1.10	9.17	1/120	17	100	20	CARLYLE FIXTURES DOUBLE GLOBE
TOTAL		1.10	9.17	PROPOSED CARLYLE FIXTURES DOUBLE GLOBE (LP1-LP4) - 68 WATTS EXISTING CARLYLE FIXTURES DOUBLE GLOBE (L1-L13) - 57 WATTS				

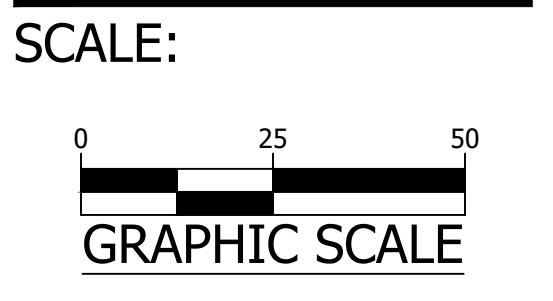
- Notes:**
- Existing light poles L1 - L13 connecting to the east of Columbia Pike (partially shown) are connected to service meter (M-1) and transformer located at NE quadrant of Columbia Pike/S Wakefield St intersection as part of Route 244 between S. Four Mile Run Dr & S. Wakefield St project dated 12/13/2011.
 - Existing light poles L14 - L28 connecting to the east of Columbia Pike (partially shown) are connected to service meter and transformer located at SW quadrant of Columbia Pike/S Buchanan St intersection as part of Route 244 between S. Four Mile Run Dr & S. Wakefield St project dated 12/13/2011 (for information only).
 - Existing light poles EX 1 - EX 5 connecting to the west of Columbia Pike were as part of Columbia Pike - Multimodal Street Improvements project dated 12/9/2016 (for information only).



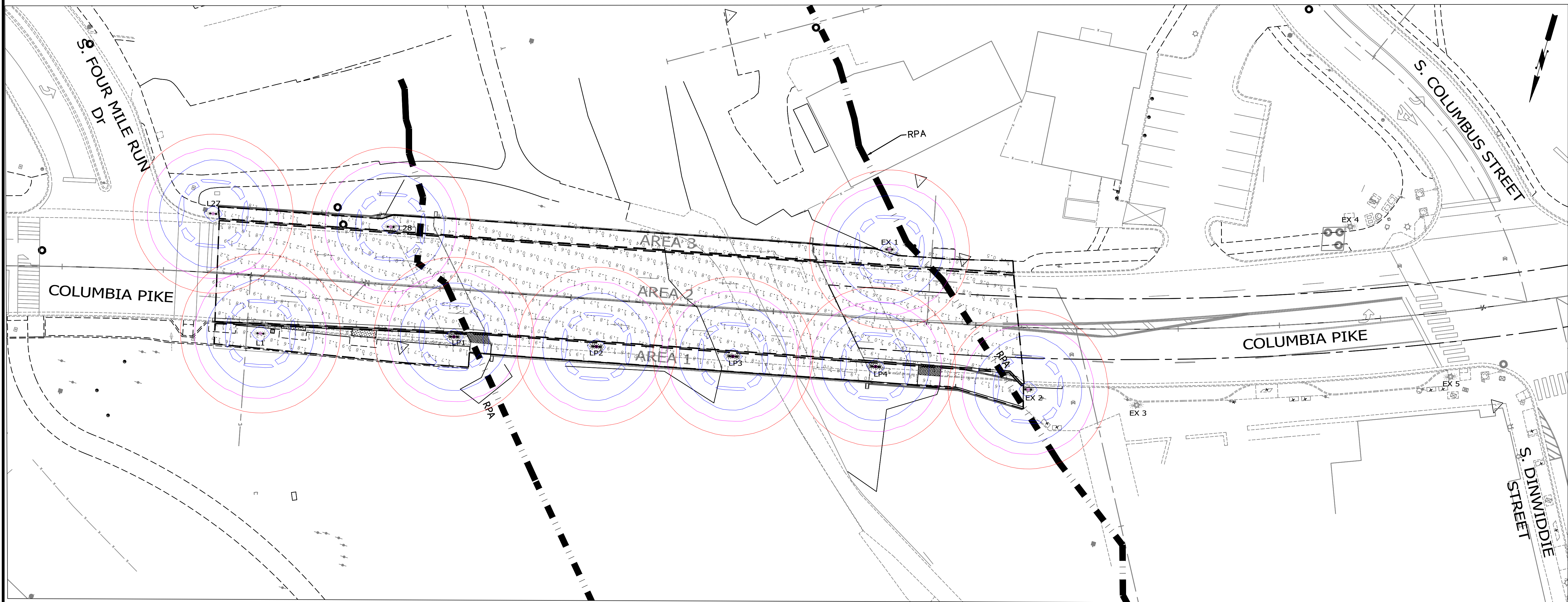
STREET LIGHTING - CIRCUIT DIAGRAM

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 STREETLIGHT PLAN

DESIGNED: JS
DRAWN: JS
CHECKED: HT
PLOTTED: SEPTEMBER 11 2020



REVISION ON 01/24/2020
 FILENAME: DS87-271-STREETLIGHT_PHOTO.CALC.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\7 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



DS87 - Photometric Lighting Statistics, Calculation Type - Illuminance
CARLYLE FIXTURES - Arrangement: Single & Back-Back (Arm-1.42'), Mounting Height - 16', LLF - 0.90
LRPL1330_RL54BANN1ASNNA3NNNSP1.IES

Area	Illuminance Level, fc		Max, fc	Min, fc	Uniformity Ratio		Uniformity Ratio	
	Target	Avg			Target	Avg/Min	Target	Max-Min
Columbia Pike N Sidewalks (Area 1)	2.2	1.7	2.1	0.8	3.0	2.1	20.0	2.6
Columbia Pike Roadway (Area 2)	1.4	1.5	2.6	0.4	4.0	3.8	20.0	6.5
Columbia Pike S Sidewalks (Area 3)	2.2	1.0	2.0	0.3	3.0	3.4	20.0	6.7

Existing lights - L1, L27, L28, EX1 & EX2 - DOUBLE GLOBE CARLYLE FIXTURES
 Proposed Lights - LP1, LP2, LP3 & LP4 - DOUBLE GLOBE CARLYLE FIXTURES



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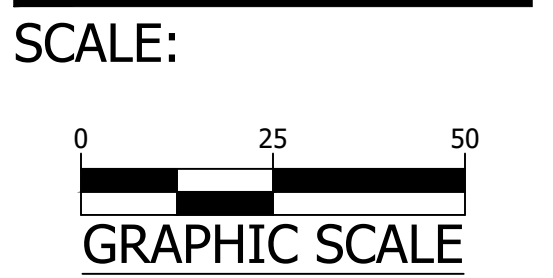
APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 LIGHTS PHOTOMETRIC DATA

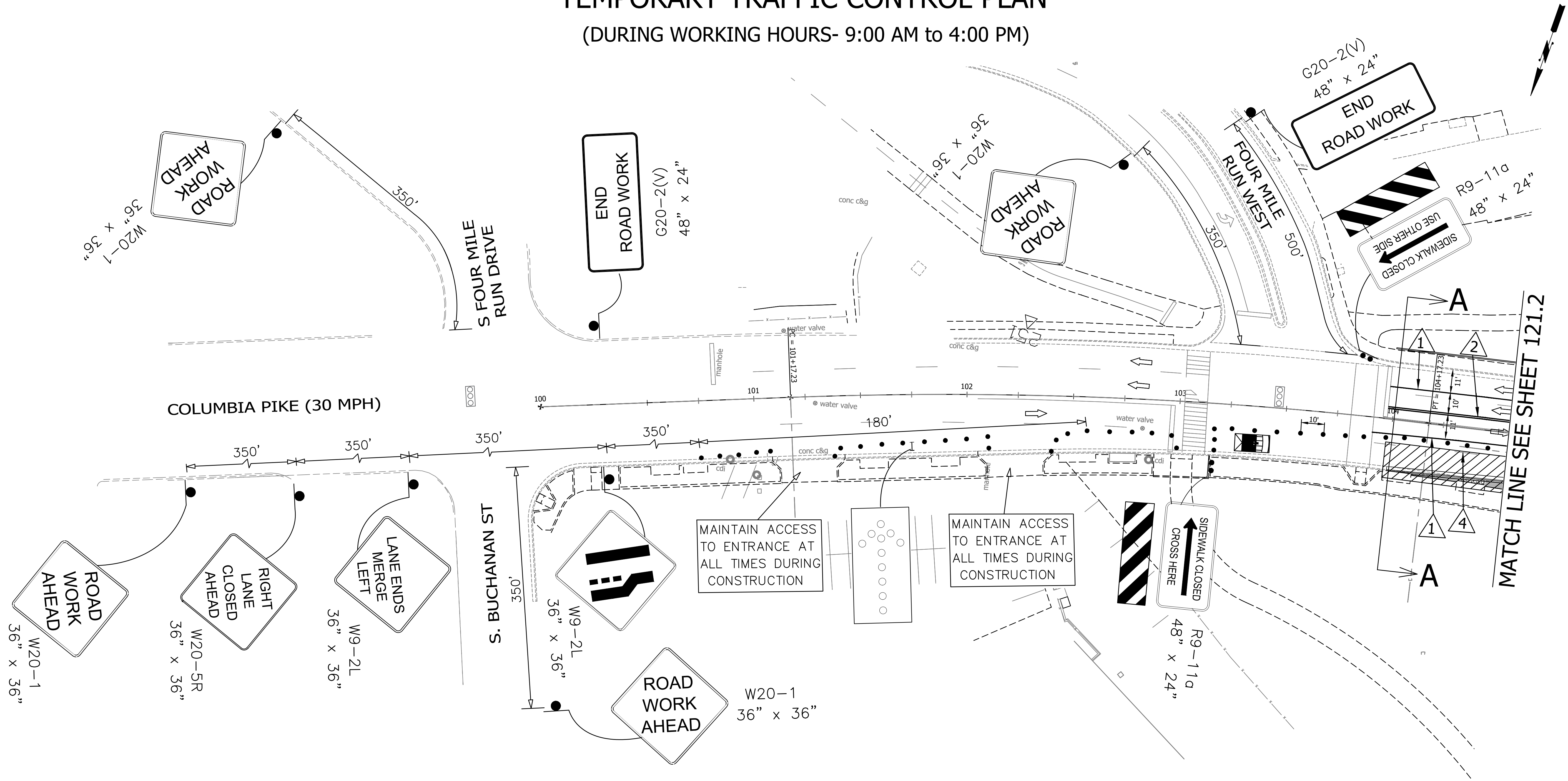
DESIGNED: JS
 DRAWN: JS
 CHECKED: HT

PLOTTED: SEPTEMBER 11 2020

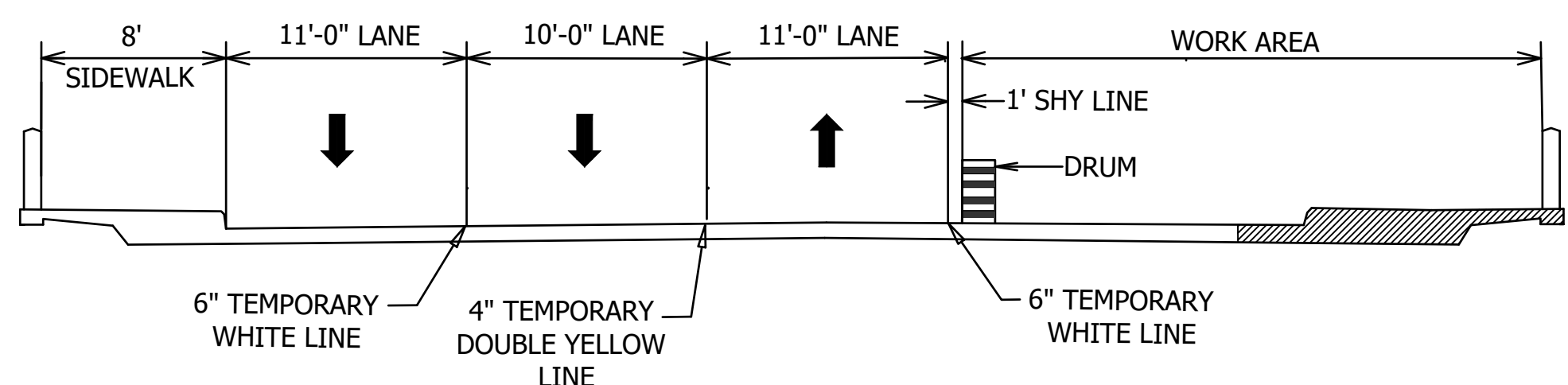


TEMPORARY TRAFFIC CONTROL PLAN

(DURING WORKING HOURS- 9:00 AM to 4:00 PM)



- CONSTRUCTION NOTES:**
1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL PROJECT LIMIT SIGNAGE IN ACCORDANCE WITH VA WAPM TTC-53.0. FOR THE DURATION OF THE CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THE SIGNAGE REMAINS IN COMPLIANCE IF THE PROJECT LIMITS CHANGE.
 2. CONTRACTOR SHALL ERADICATE THE EXISTING PAVEMENT MARKING PER VA WAPM TTC-55.1.
 3. CONTRACTOR SHALL PROVIDE TEMPORARY PAVEMENT MARKINGS PER VA WAPM TTC-60.0 AS SHOWN ON PLANS.
 4. CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC OPERATIONS DURING WEEKEND AND WEEKDAY NON-WORKING HOURS (4:00 PM TO 9:00 AM) AS SHOWN ON MOT PLAN SHEETS C121.3 AND C121.4.
 5. CONTRACTOR SHALL SETUP A TEMPORARY WORK ZONE BY CLOSING THE OUTSIDE LANE ALONG WB COLUMBIA PIKE AS SHOWN ON PLANS FOLLOWING STANDARDS IN VA WAPM TTC-16.2 DURING ALLOWABLE LANE CLOSURE HOURS TO CONSTRUCT CURBING AND NEW SIDEWALK.
 6. CONTRACTOR SHALL PROVIDE ALL APPLICABLE SIDEWALK AND CROSSWALK CLOSURE SIGNS AND BARRICADES SHOWN IN TTC-35.1 AND TTC-36.2 TO REDIRECT PEDESTRIANS DURING CONSTRUCTION.
 7. CONTRACTOR SHALL MAINTAIN ACCESS AT ALL DRIVEWAYS/ENTRANCES TO THE BARCROFT SHOPPING CENTER AT ALL TIMES.
 8. CONTRACTOR SHALL MAINTAIN ACCESS AT ALL BUS/TRANSIT STOPS.



TEMPORARY PAVEMENT MARKING LEGEND

1. TYPE D CLASS II TEMPORARY PAVEMENT MARKING 6" SOLID WHITE
2. TYPE D CLASS II TEMPORARY PAVEMENT MARKING 4" SOLID DOUBLE YELLOW
3. TYPE D CLASS II TEMPORARY PAVEMENT MARKING 6" WHITE 2' LINE 4' SPACE
4. ERADICATE EXISTING PAVEMENT MARKING

LEGEND

- ▨ WORK AREA
- GROUP 2 CHANNELIZING DEVICE
- ➔ DIRECTION OF TRAFFIC
- ⊥ TYPE A ARROW BOARD
- 🚦 EXISTING TRAFFIC SIGNAL
- 🚧 TYPE III BARRICADES
- 🚗 SHADOW VEHICLE



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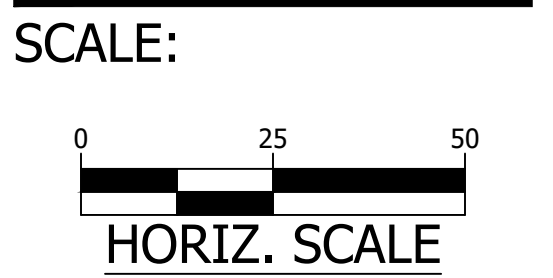


APPROVALS	DATE
Nilesh Nairare	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR Kamal Taktak	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR Dennis M. Leach	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	9/25/20
TRANSPORTATION DIRECTOR Rene Harris	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 MAINTENANCE OF TRAFFIC PLAN-01

DESIGNED: KM
 DRAWN: KM
 CHECKED: BG
 PLOTTED: SEPTEMBER 11 2020



TEMPORARY TRAFFIC CONTROL PLAN

(DURING WORKING HOURS- 9:00 AM to 4:00 PM)



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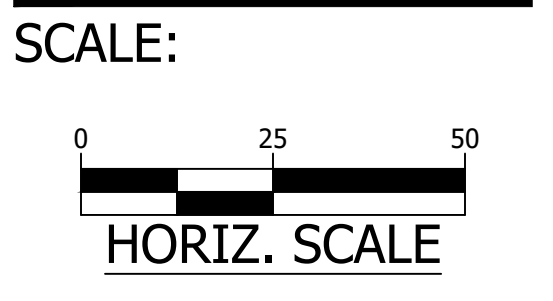
APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Takat</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>Quinn</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF <i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 MAINTENANCE OF TRAFFIC PLAN-02

DESIGNED: KM
 DRAWN: KM
 CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

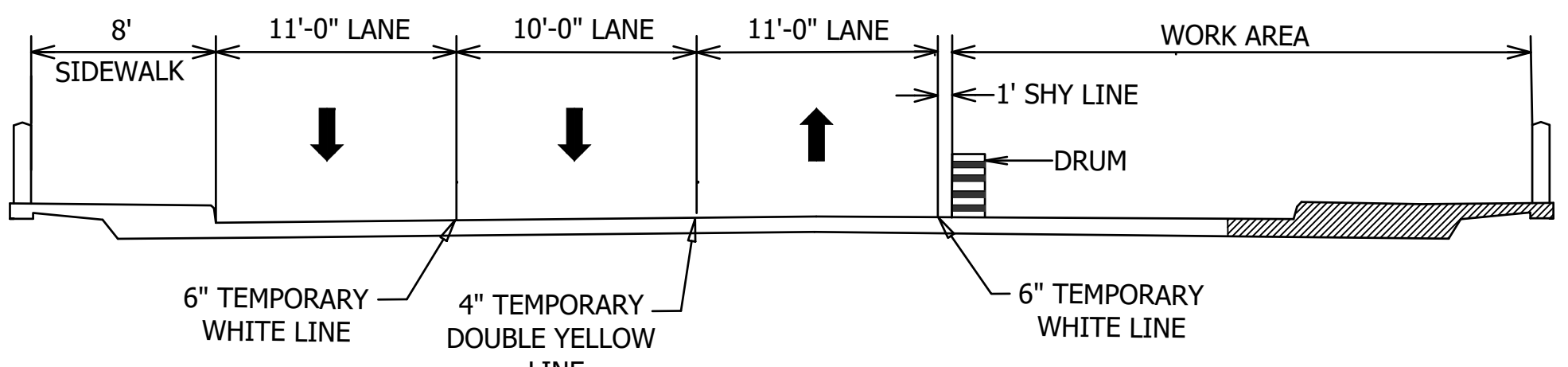


C121.2

MATCH LINE SEE SHEET 121.1

REVISIONS ON 01/24/2020
 FILENAME: DS87-286-MOT (1).DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW WHITTAKER

- CONSTRUCTION NOTES:
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL PROJECT LIMIT SIGNAGE IN ACCORDANCE WITH VA WAPM TTC-53.0. FOR THE DURATION OF THE CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THE SIGNAGE REMAINS IN COMPLIANCE IF THE PROJECT LIMITS CHANGE.
 - CONTRACTOR SHALL ERADICATE THE EXISTING PAVEMENT MARKING PER VA WAPM TTC-55.1.
 - CONTRACTOR SHALL PROVIDE TEMPORARY PAVEMENT MARKINGS PER VA WAPM TTC-60.0 AS SHOWN ON PLANS.
 - CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC OPERATIONS DURING WEEKEND AND WEEKDAY NON-WORKING HOURS (4:00 PM TO 9:00 AM) AS SHOWN ON MOT PLAN SHEETS C121.3 AND C121.4.
 - CONTRACTOR SHALL SETUP A TEMPORARY WORK ZONE BY CLOSING THE OUTSIDE LANE ALONG WB COLUMBIA PIKE AS SHOWN ON PLANS FOLLOWING STANDARDS IN VA WAPM TTC-16.2 DURING ALLOWABLE LANE CLOSURE HOURS TO CONSTRUCT CURBING AND NEW SIDEWALK.
 - CONTRACTOR SHALL PROVIDE ALL APPLICABLE SIDEWALK AND CROSSWALK CLOSURE SIGNS AND BARRICADES SHOWN IN TTC-35.1 AND TTC-36.2 TO REDIRECT PEDESTRIANS DURING CONSTRUCTION.
 - CONTRACTOR SHALL MAINTAIN ACCESS AT ALL DRIVEWAYS/ENTRANCES TO THE BARCROFT SHOPPING CENTER AT ALL TIMES.
 - CONTRACTOR SHALL MAINTAIN ACCESS AT ALL BUS/TRANSIT STOPS.



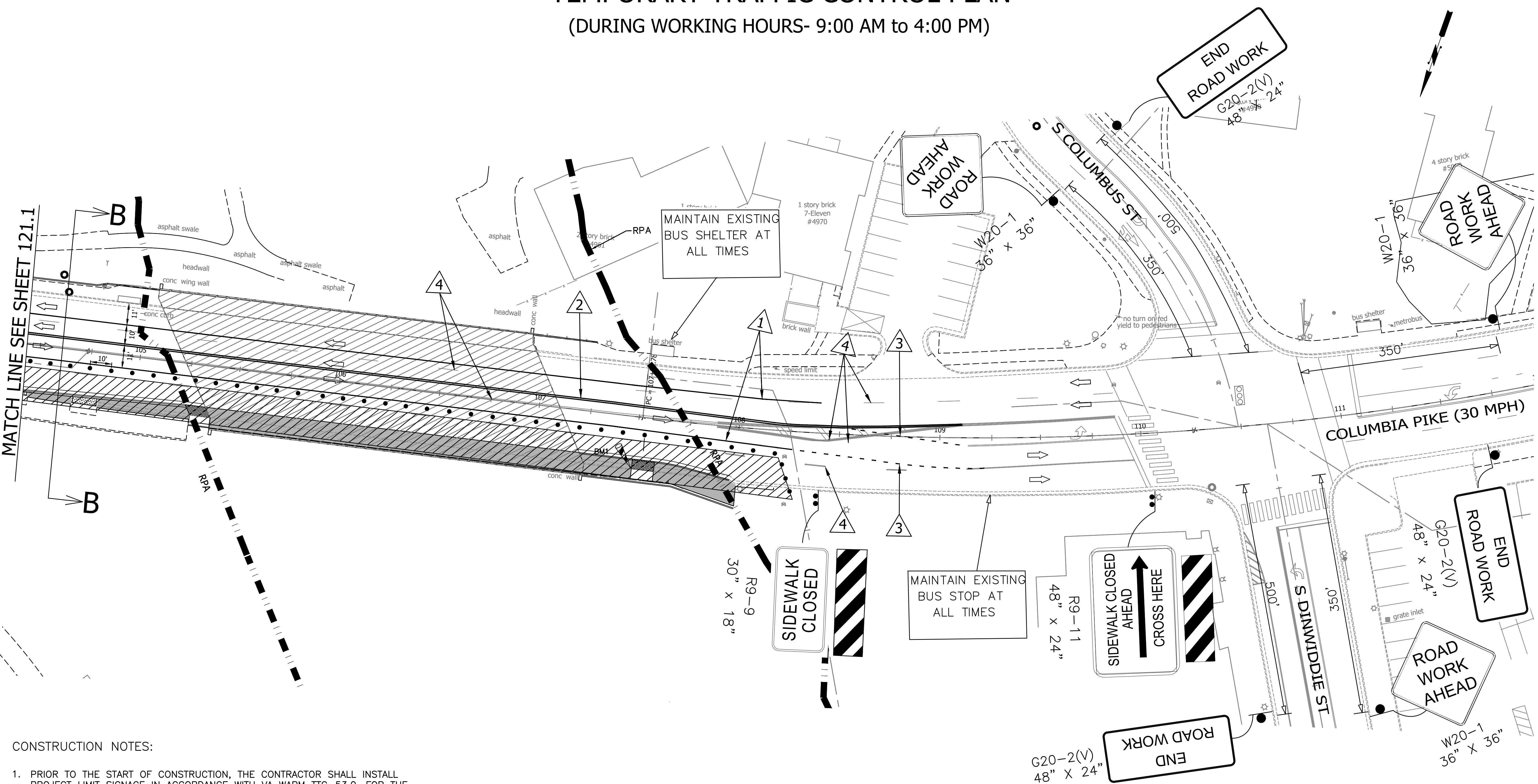
SECTION B-B
 NOT TO SCALE

TEMPORARY PAVEMENT MARKING LEGEND

- 1 TYPE D CLASS II TEMPORARY PAVEMENT MARKING 6" SOLID WHITE
- 2 TYPE D CLASS II TEMPORARY PAVEMENT MARKING 4" SOLID DOUBLE YELLOW
- 3 TYPE D CLASS II TEMPORARY PAVEMENT MARKING 6" WHITE 2' LINE 4' SPACE
- 4 ERADICATE EXISTING PAVEMENT MARKING

LEGEND

- WORK AREA
- GROUP 2 CHANNELIZING DEVICE
- DIRECTION OF TRAFFIC
- TYPE A ARROW BOARD
- EXISTING TRAFFIC SIGNAL
- TYPE III BARRICADES
- SHADOW VEHICLE



TEMPORARY TRAFFIC CONTROL PLAN

(DURING NON WORKING HOURS- 4:00 PM TO 9:00 AM)



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>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Takat</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF <i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 MAINTENANCE OF TRAFFIC PLAN-03

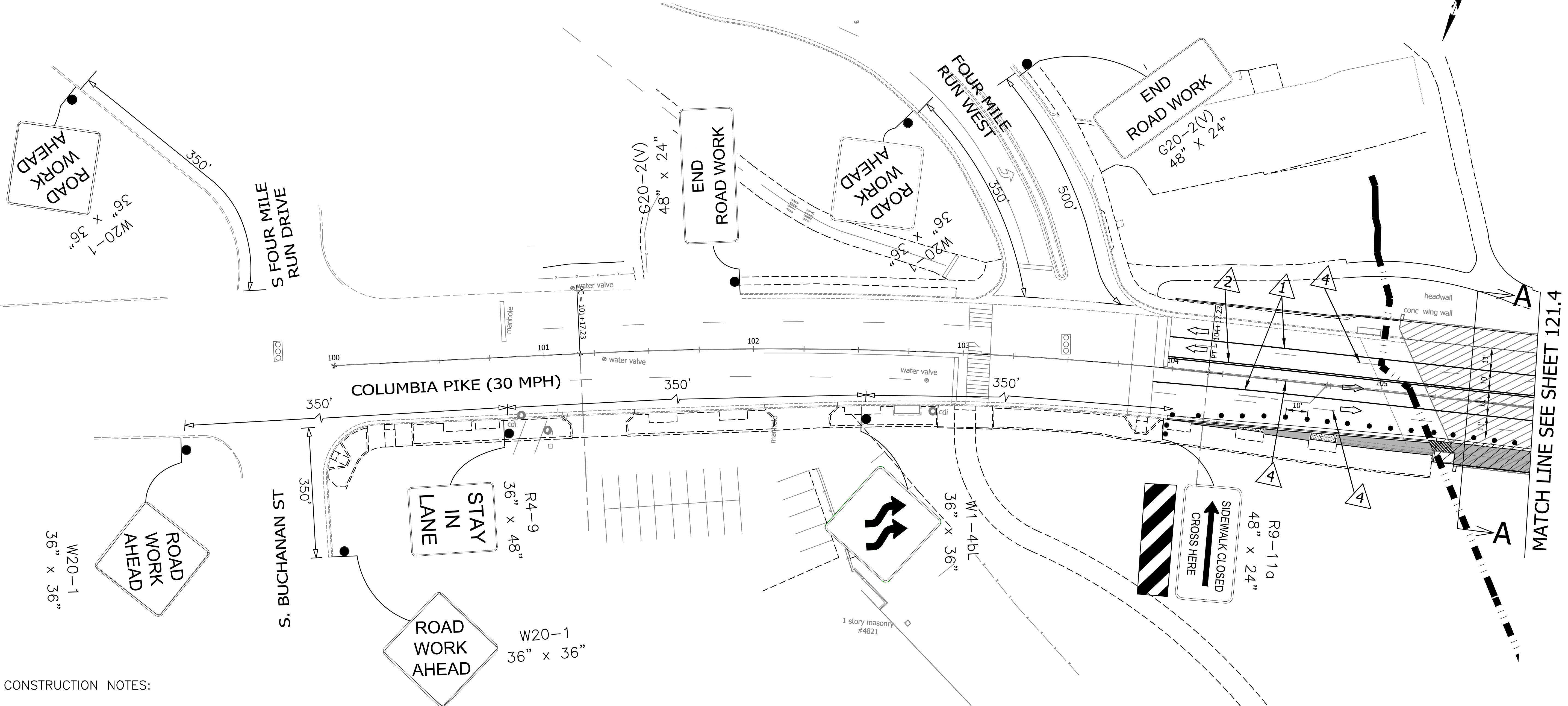
DESIGNED: KM
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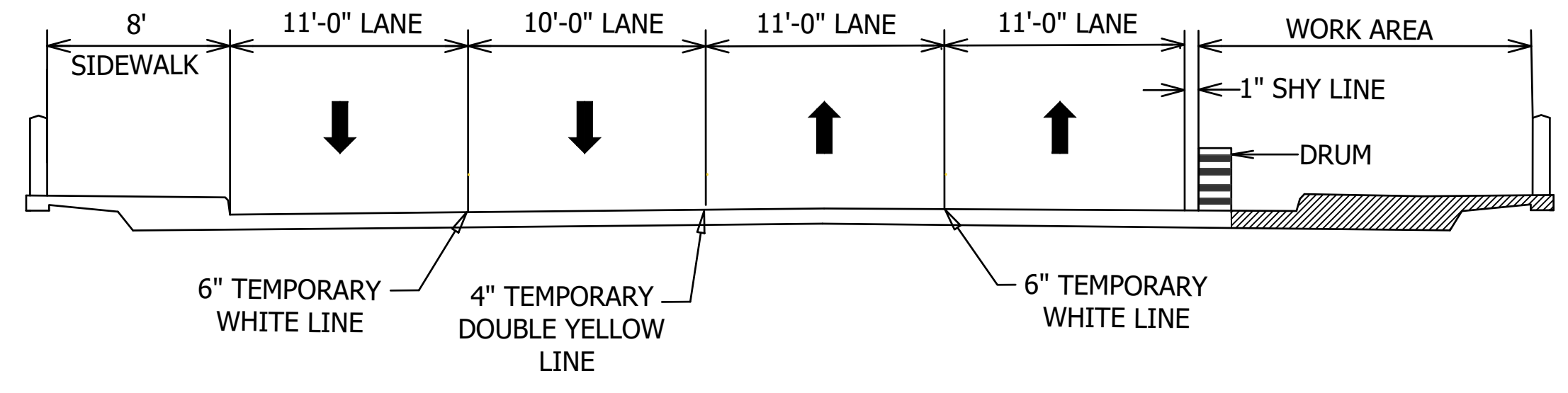
SCALE:

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C121.3



- CONSTRUCTION NOTES:
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 - CONTRACTOR SHALL PROVIDE TEMPORARY PAVEMENT MARKINGS PER VA WAPM TTC-60.0 AS SHOWN ON PLANS.
 - CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC OPERATIONS DURING WEEKEND AND WEEKDAY NON-WORKING HOURS (4:00 PM TO 9:00 AM) BY MAINTAINING ONE (1) 11-FOOT OUTSIDE LANE AND ONE (1) 10 FOOT INSIDE LANE IN EASTBOUND DIRECTION AND TWO (2)- 11 FOOT LANES IN THE WESTBOUND DIRECTION ACROSS THE BRIDGE STRUCTURE.
 - CONTRACTOR SHALL SETUP A TEMPORARY WORK ZONE BY CLOSING THE OUTSIDE LANE ALONG WB COLUMBIA PIKE AS SHOWN ON PLANS FOLLOWING STANDARDS IN VA WAPM TTC-16.2 DURING ALLOWABLE LANE CLOSURE HOURS TO CONSTRUCT CURBING AND NEW SIDEWALK.
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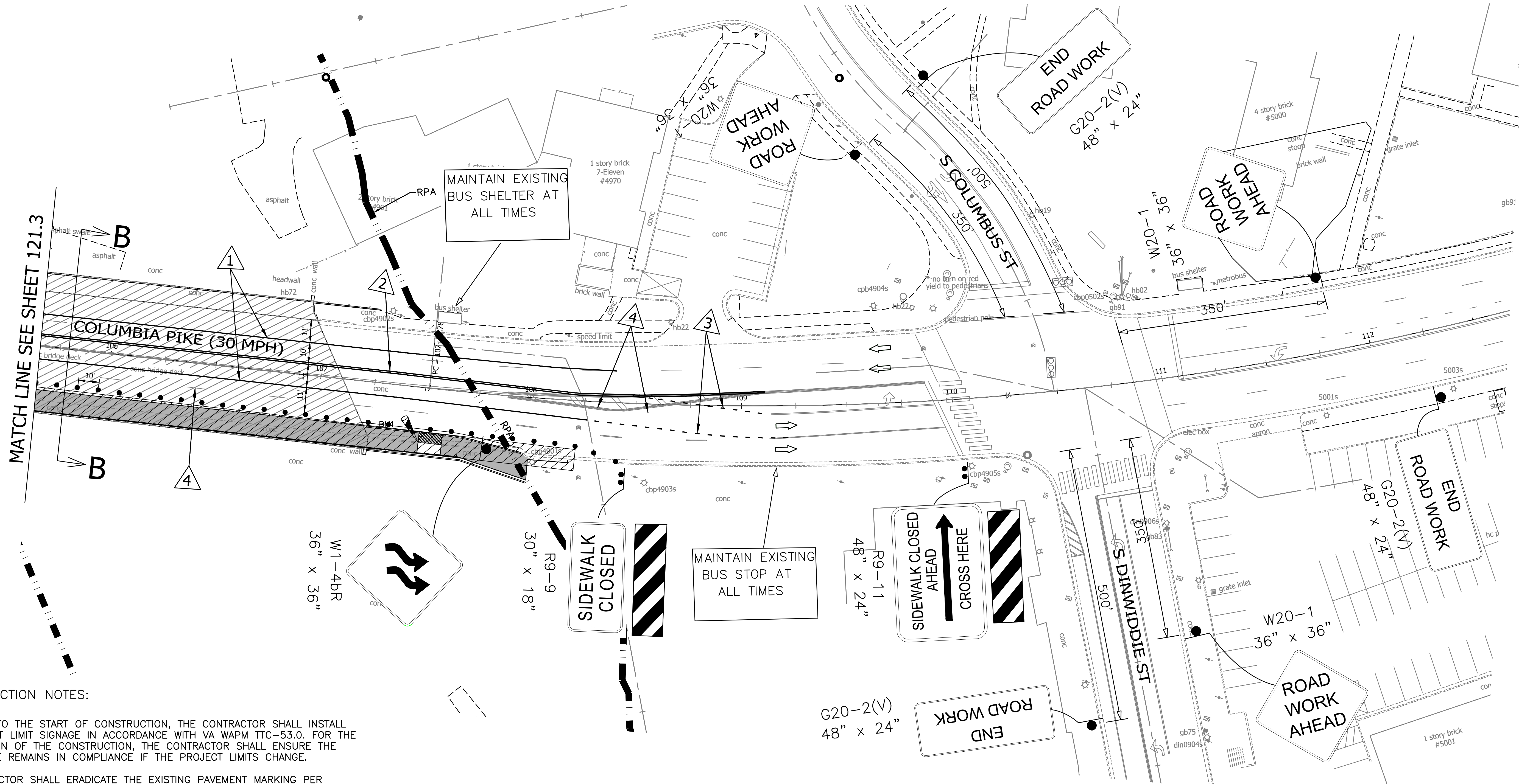
LEGEND

- WORK AREA
- GROUP 2 CHANNELIZING DEVICE
- DIRECTION OF TRAFFIC
- EXISTING TRAFFIC SIGNAL
- TYPE III BARRICADES
- SHADOW VEHICLE

REVISIONS ON 01/24/2020
 FILENAME: DS87-286-MOT (2).DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\7 DESIGN\DWG PLOTTED BY: MATTHEW.WHITAKER

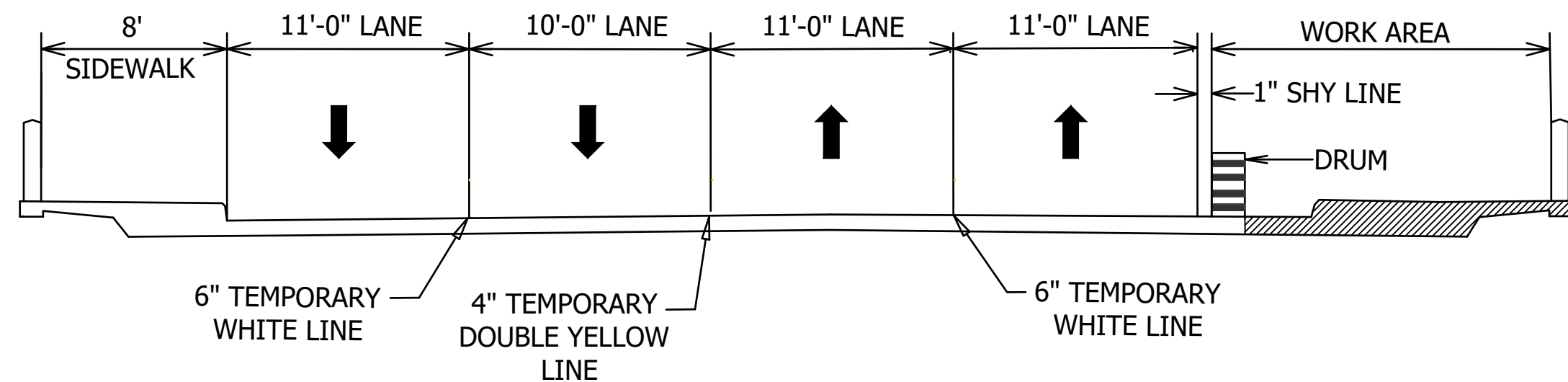
TEMPORARY TRAFFIC CONTROL PLAN

(DURING NON WORKING HOURS- 4:00 PM TO 9:00 AM)



CONSTRUCTION NOTES:

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL PROJECT LIMIT SIGNAGE IN ACCORDANCE WITH VA WAPM TTC-53.0. FOR THE DURATION OF THE CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THE SIGNAGE REMAINS IN COMPLIANCE IF THE PROJECT LIMITS CHANGE.
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TEMPORARY PAVEMENT MARKING LEGEND

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LEGEND

- WORK AREA
- GROUP 2 CHANNELIZING DEVICE
- DIRECTION OF TRAFFIC
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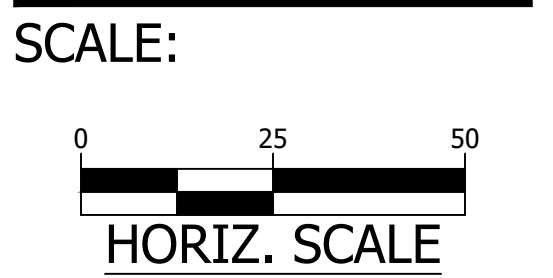
REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN

MAINTENANCE OF TRAFFIC PLAN-04

DESIGNED: KM
 DRAWN: KM
 CHECKED: BG

PLOTTED: SEPTEMBER 11 2020



TRAFFIC MANAGEMENT PLAN (TMP)

GENERAL NOTES:

- TMP TYPE A PROJECT INFORMATION:
 - IDENTIFY THE PROJECT'S TMP TYPE:
THIS PROJECT'S TMP PLAN HAS BEEN DESIGNED IN CONFORMANCE WITH TYPE A TMP PLAN.
 - IDENTIFY THE WORK ZONE LOCATION, LENGTH, AND WIDTH. THE PROJECT LOCATION AND WORK ZONE AREAS HAVE BEEN DELINEATED AS SHOWN ON THE MOT PLAN SHEETS C121.1, C121.2, C121.3 AND C121.4.
 - NOTE THE HOURS CONSTRUCTION AREAS WILL BE ACTIVE:
CONSTRUCTION AREAS SHALL BE CONSIDERED ACTIVE WHEN ANY IMPACT TO TRAFFIC OCCURS, (1ST CONE IN ROAD). CONSTRUCTION AREAS HOURS HAVE THE FOLLOWING LIMITATIONS:
 - ARLINGTON COUNTY R-O-W

LANE CLOSURE (MINOR ARTERIAL)			
	MON. TO FRI	SATURDAY	SUNDAY
DAY TIME	9:00 AM TO 4:00 PM	NOT ALLOWED WITHOUT WRITTEN PERMISSION	NOT ALLOWED
NIGHT TIME	NOT ALLOWED WITHOUT WRITTEN PERMISSION	NOT ALLOWED WITHOUT WRITTEN PERMISSION	NOT ALLOWED

NO LANE CLOSURES WILL BE ALLOWED FROM NOON ON THE DAY BEFORE A HOLIDAY UNTIL NOON ON THE WORKDAY FOLLOWING THE HOLIDAY. HOLIDAYS INCLUDE ALL STATE AND FEDERAL HOLIDAYS.

- THE TMP PLAN DURING CONSTRUCTION SHALL BE IN ACCORDANCE TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, DATED 2020, THE VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM) DATED 2011, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), DATED 2009 AND THE VIRGINIA SUPPLEMENT IN THE 2009 MUTCD, DATED 2011.
- ALL EXISTING ENTRANCES AND INTERSECTIONS ARE TO REMAIN OPEN AND FUNCTIONAL DURING CONSTRUCTION. ALL EXISTING PEDESTRIAN ACCESS/CROSSWALKS AT INTERSECTIONS ARE TO REMAIN OPEN DURING CONSTRUCTION TO INCLUDE THE WASHINGTON AND OLD DOMINION TRAIL.
- IDENTIFY THE MAJOR TYPES OF TRAVELERS:
THE TRAFFIC ON THE ROADWAY CONSISTS OF PASSENGER VEHICLES, BUSES AND COMMERCIAL/ DELIVERY TRUCKS. THE ADJACENT AREAS ARE ALL COMMERCIAL/BUSINESS.
- THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT AND WHICH SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT :

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

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

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

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

COORDINATE WITH ARLINGTON COUNTY POLICE DEPARTMENT AND ARLINGTON COUNTY FIRE/RESCUE DEPARTMENT FOR ALL LANE CLOSURES AND DETOURS OF ANY NATURE, AT NO ADDITIONAL COST TO THE PROJECT.

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

- THIS TMP/MOT/SOC PLAN IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IF THE CONTRACTOR IS TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
MAINTENANCE OF TRAFFIC (MOT) PLAN WHICH INCLUDE THE SEQUENCE OF CONSTRUCTION (SOC) WAS REVIEWED AND APPROVED BY ARLINGTON COUNTY TRANSPORTATION ENGINEERING AND OPERATION (TE&O). THE MOT PLAN CONTAINED TYPES OF SIGNAGES AND BARRICADES USED, AND RECOMMENDED PHASES AND SEQUENCES OF CONSTRUCTION.
- ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED UP TO EXISTING PAVEMENT OR NEWLY CONSTRUCTED PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC. ALL COSTS FOR PLACING, MAINTAINING AND REMOVING BACKFILLED MATERIALS SHALL BE INCLUDED IN THE PRICE BID FOR RELATED ITEMS IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.
- UNLESS SPECIFIED ON THE PLANS, ALL EXISTING TURN LANES SHALL BE MAINTAINED AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION.
- WHERE GROUP 2 CHANNELIZING DEVICES ARE USED TO SEPARATE THE CONSTRUCTION AREA AND TRAFFIC, A MINIMUM CLEAR ZONE AREAS AS DEFINED IN THE VWAPM IS TO BE MAINTAINED.

7. IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN

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

8. PUBLIC COMMUNICATION PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE FOR:

- NOTIFYING THE PROJECT CONSTRUCTION MANAGER AND THE ENGINEER TWO WEEKS IN ADVANCE OF ANY SCHEDULED WORK PLAN THAT MAY CAUSE TRAFFIC DELAYS.
- NOTIFYING THE PROJECT CONSTRUCTION MANAGER AND THE ENGINEER OF ANY UNSCHEDULED TRAFFIC DELAYS THAT MAY OCCUR.
- INSTALLING PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) WITH PROJECT START DATE INFORMATION APPROXIMATELY 500' BEFORE AND AFTER THE PROJECT SITE LIMIT THREE (3) WEEKS IN ADVANCE PRIOR TO START OF ANY ROADWORK AND LANE CLOSURE.

9. TRANSPORTATION OPERATIONS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:

- NOTIFYING THE VDOT REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) AND ARLINGTON TRAFFIC MANAGEMENT CENTER (TMC) 48 HOURS IN ADVANCE IN ORDER TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC.
- POST A LIST OF LOCAL EMERGENCY RESPONSE AGENCIES INSIDE THE PROJECT'S CONSTRUCTION OFFICE/TRAILER OR MADE READILY AVAILABLE AT THE WORK SITE AT ALL TIMES.
- IMMEDIATELY REPORT ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
- NOTIFY THE PROJECT'S CONSTRUCTION MANAGER AND THE ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC DELAYS.
- WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE IMPLEMENTED AND NECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE ACCIDENTS.

CONTACTS NUMBERS:

- KAMAL TAKTAK – CONSTRUCTION MANAGEMENT SUPERVISOR , DES – 703-228-7527
- SCOTT SEDWICK – DES OPERATION MANAGER, TE&O – 703-228-0650
- ADIL CHAUHAN – ASSISTANT BUREAU CHIEF, ENGINEERING BUREAU, DES – 703-228-7542
- DES R-O-W PERMITTING SECTION – 703-228-4798
- ARLINGTON COUNTY TRANSIT BUREAU – 703-228-3049
- ARLINGTON COUNTY WATER, SEWER AND STREET OPERATION – 703-228-6555
- ARLINGTON COUNTY POLICE – 703 -558-2222
- EMEGENCY CALL – 911
- VDOT FIELD ENGINEER – TBD

GENERAL CONSTRUCTION NOTE:

- THE CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENT DURING BOTH WORK AND NON-WORKING HOURS TO ENSURE THE PROTECTION AND SAFETY OF THE ADJACENT PROPERTY OWNERS, PEDESTRIANS, VEHICULAR TRAFFIC AND THE GENERAL PUBLIC FROM ANY CONSTRUCTION RELATED ACTIVITY, CONSTRUCTION EQUIPMENT AND THE CONSTRUCTION SITE ITSELF.

RECOMMENDED MOT TTC :

TTC #	COMMENTS	DURATION
TTC-13.2	CONSTRUCTION: ERADICATION FOR PAVEMENT MARKINGS, MULTI-LANE SHIFT INSTALL TEMPORARY PAVEMENT MARKINGS.	2- WEEKS
TTC-40.2		
TTC-53.0		
TTC-55.1		
TTC-60.0		
TTC-16.2	CONSTRUCTION: CURB & GUTTER, SIDEWALK, DRAINAGE, PARTIAL ASPHALT MILL AND OVERLAY	2- WEEKS
TTC-35.1	MOT: OUTSIDE LANE CLOSURE, SIDEWALK CLOSURE, PEDESTRIAN CROSSING CLOSURE, SIGNING FOR PROJECT LIMITS.	
TTC-36.2	MOT: OUTSIDE LANE CLOSURE, SIDEWALK CLOSURE, PEDESTRIAN CROSSING CLOSURE, SIGNING FOR PROJECT LIMITS.	

GENERAL MAINTENANCE OF TRAFFIC NOTE:

- TRAFFIC CONTROL DEVICES AND SAFETY MEASURES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT'S GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ARLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, AND/OR AS DIRECTED BY THE PROJECT OFFICER.
- THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE WHICH INDICATES START AND FINISH DATES FOR EACH SEGMENT OF THE WORK. THE SCHEDULE SHALL INDICATE THE DURATION OF ALL LANE OR SHOULDER CLOSURES. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF PROCEEDING TO THE NEXT WORK SEGMENT.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER OF PARKING RESTRICTION NEEDS A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK FOR EACH SEGMENT. COUNTY PROJECT OFFICER SHALL RESTRICT PARKING BY CONTACTING DES – PERMITTING SECTION, 703-228-4798.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES.
- THE CONTRACTOR SHALL MINIMIZE THE DURATION OF ANY BLOCKAGE TO PRIVATE ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF DRIVEWAY CLOSURE FOR APPROVAL BY THE PROJECT OFFICER. THE PROJECT OFFICER SHALL BE NOTIFIED A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF SUCH ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS TO THE PROPERTY. THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY.
- ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE PROJECT OFFICER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS APPROVED BY THE PROJECT OFFICER.
- PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING ACCESS TO BUS STOP SHELTERS, UNLESS OTHERWISE APPROVED IN THE PLANS.
- PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH MUTCD.
- ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
- WHEN NECESSARY, 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.
- PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
- ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBTSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- 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 FIRED 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.
- THE CONTRACTOR SHALL COORDINATE WITH ARLINGTON COUNTY TRANSIT BUREAU, 703-228-3049, A MINIMUM OF 4 WEEKS PRIOR TO COMMENCEMENT OF WORK IF TRANSIT IS AFFECTED OR IF THERE ARE ANY IMPACTS TO THE TRANSIT STOPS OR ROUTES. NOTE: ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE A MINIMUM OF 11' WIDE.
- AT SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICLE DETECTION AT ALL TIMES DURING THE PROJECT. TRAFFIC SENSORS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION STATE PRIOR TO THE COMPLETION OF THIS PROJECT.
- WORK HOURS ARE RESTRICTED TO 9 AM TO 4 PM (MON-FRI).
- CONTRACTOR SHALL COVER ANY EXISTING SIGNS WHICH ARE NOT APPLICABLE OR ARE IN CONFLICT WITH THIS MOT PLAN.
- CONTRACTOR SHALL ERADICATE AND RE-STRIPE AS NECESSARY ANY EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH OR DO NOT ALIGN WITH THE TEMPORARY PAVEMENT MARKINGS OR NEW TRAFFIC PATTERNS.
- CONTRACTOR SHALL ERADICATE ALL TEMPORARY PAVEMENT MARKING, INCLUDING TEMPORARY MARKED CROSSWALKS ONCE THE WORK AREA(S) ASSOCIATED WITH THE MARKINGS HAS BEEN COMPLETED.
- TEO SIGNAL CONSTRUCTION MANAGER SHALL BE INFORMED 1 WEEK PRIOR TO CHANGING ZONES/PHASES OF MOT.



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SEAL



APPROVALS DATE

<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>[Signature]</i>	09.17.2020
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TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS DATE

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SIDEWALK WIDENING PROJECT
DS87

COLUMBIA PIKE OVER FOUR MILE RUN

MAINTENANCE OF TRAFFIC NOTES

DESIGNED: KM
DRAWN: KM
CHECKED: BG
PLOTTED: SEPTEMBER 11 2020

SCALE:

N/A

TEMPORARY TRAFFIC CONTROL PLAN TTC DETAILS



DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
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PHONE: 703.228.3629
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APPROVALS	DATE
<i>Nilesh Nair</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Takat</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF <i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN
MAINTENANCE OF TRAFFIC DETAILS

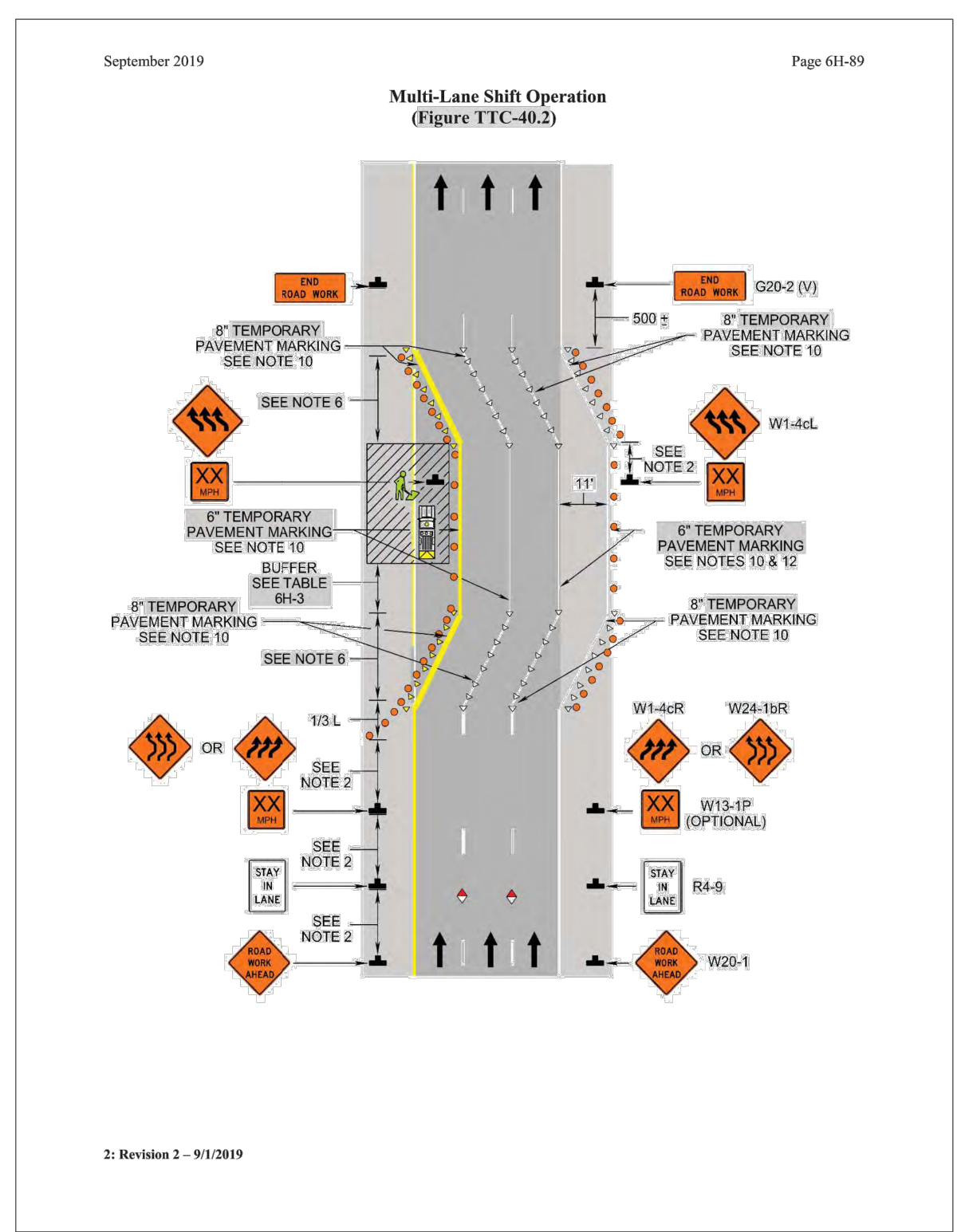
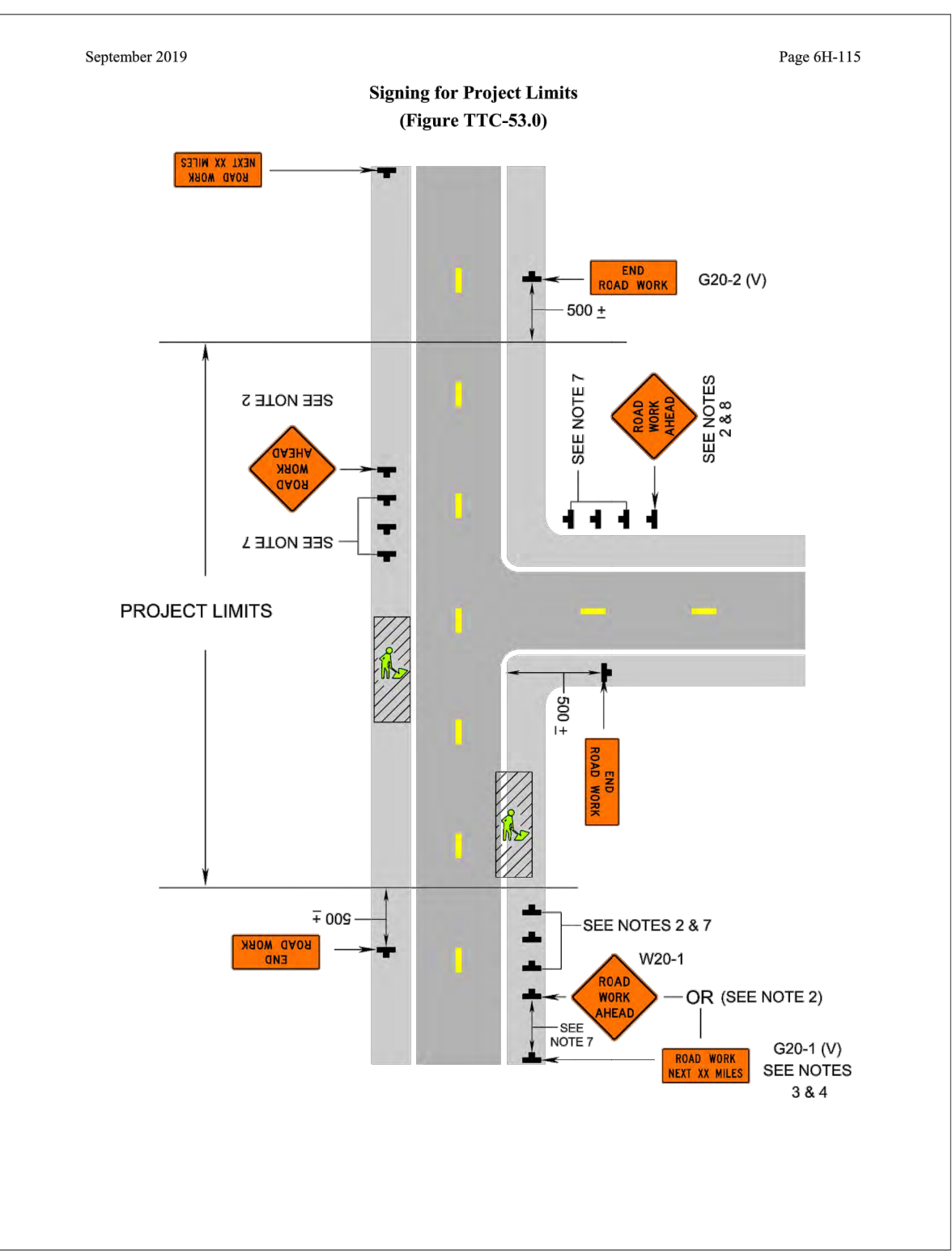
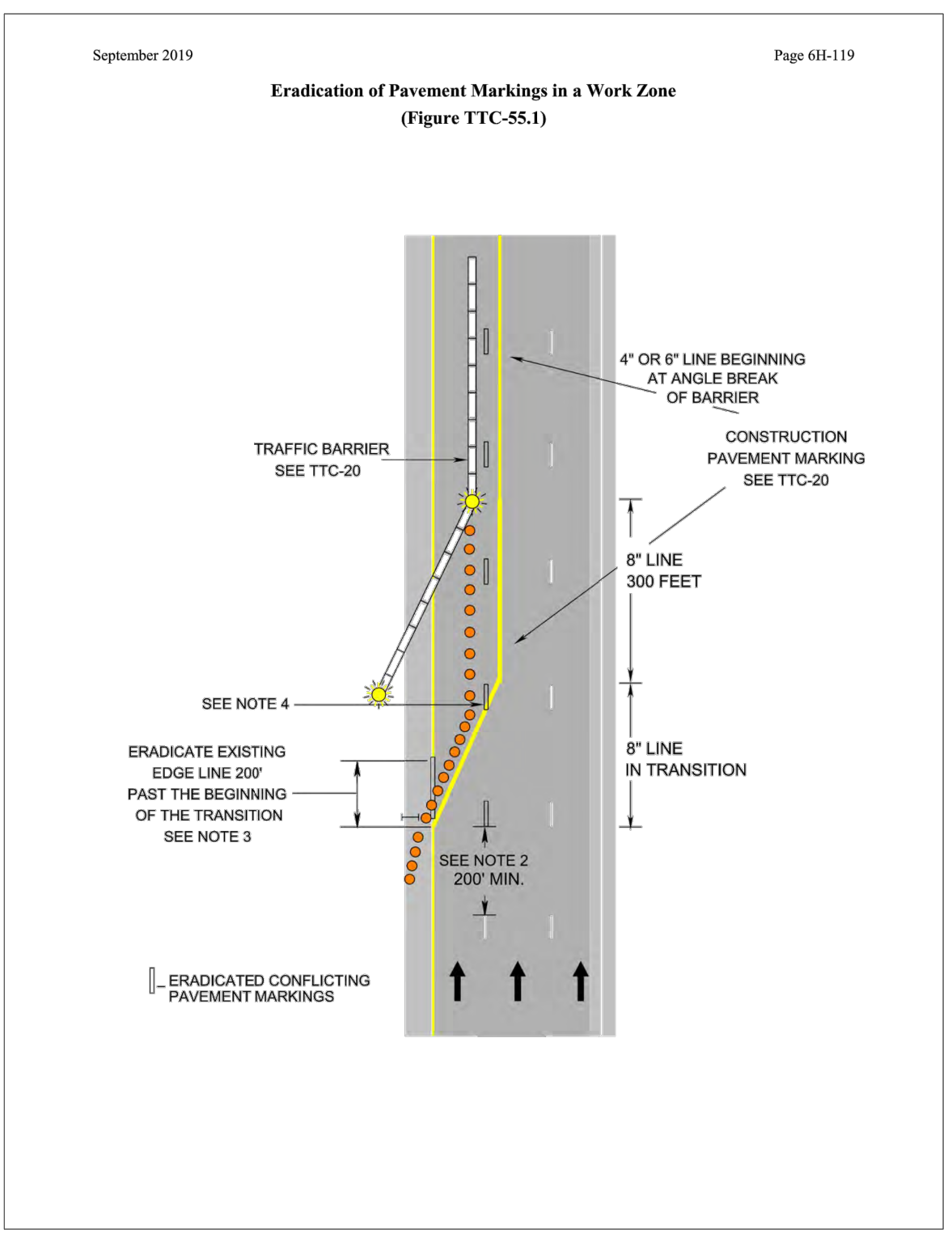
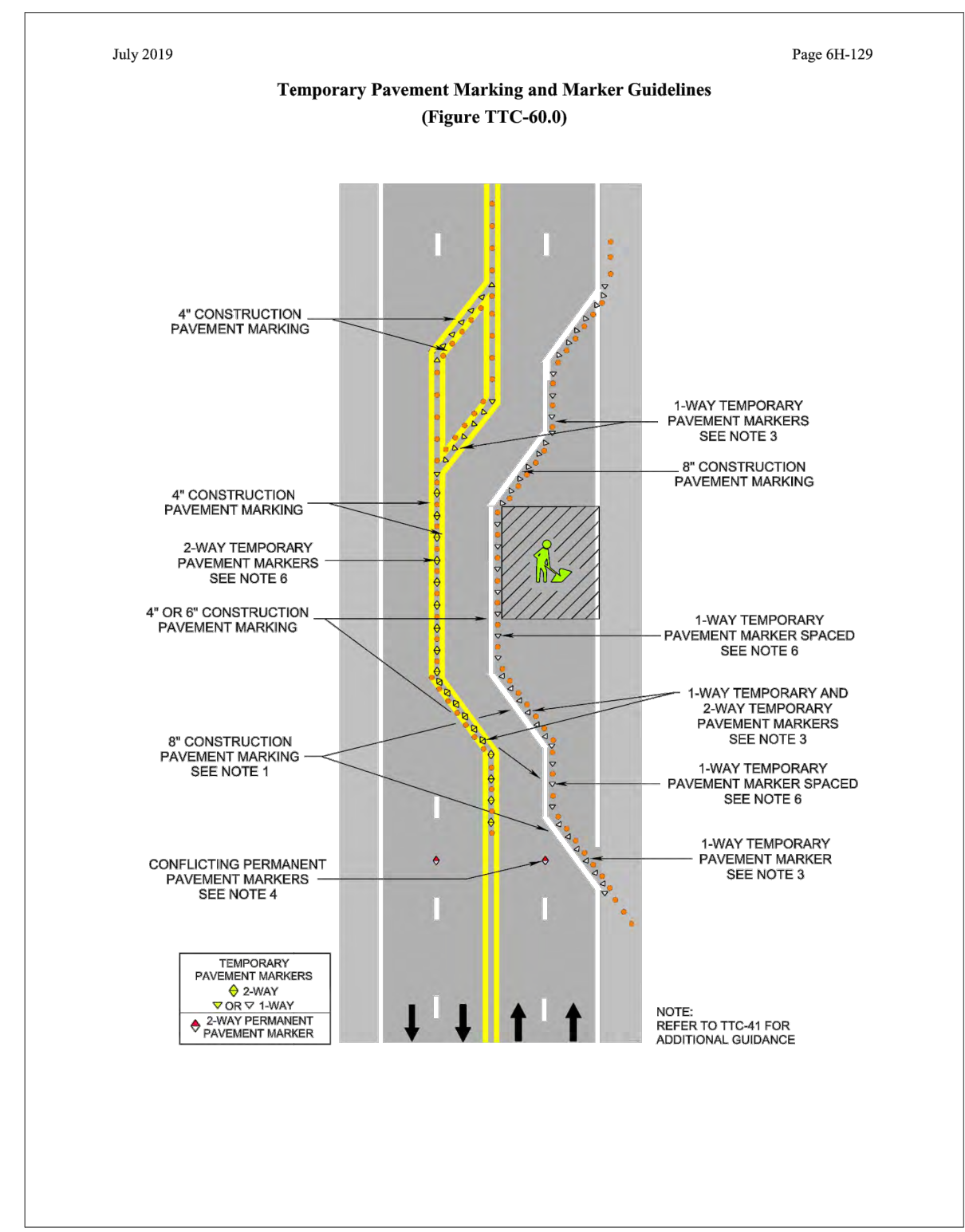
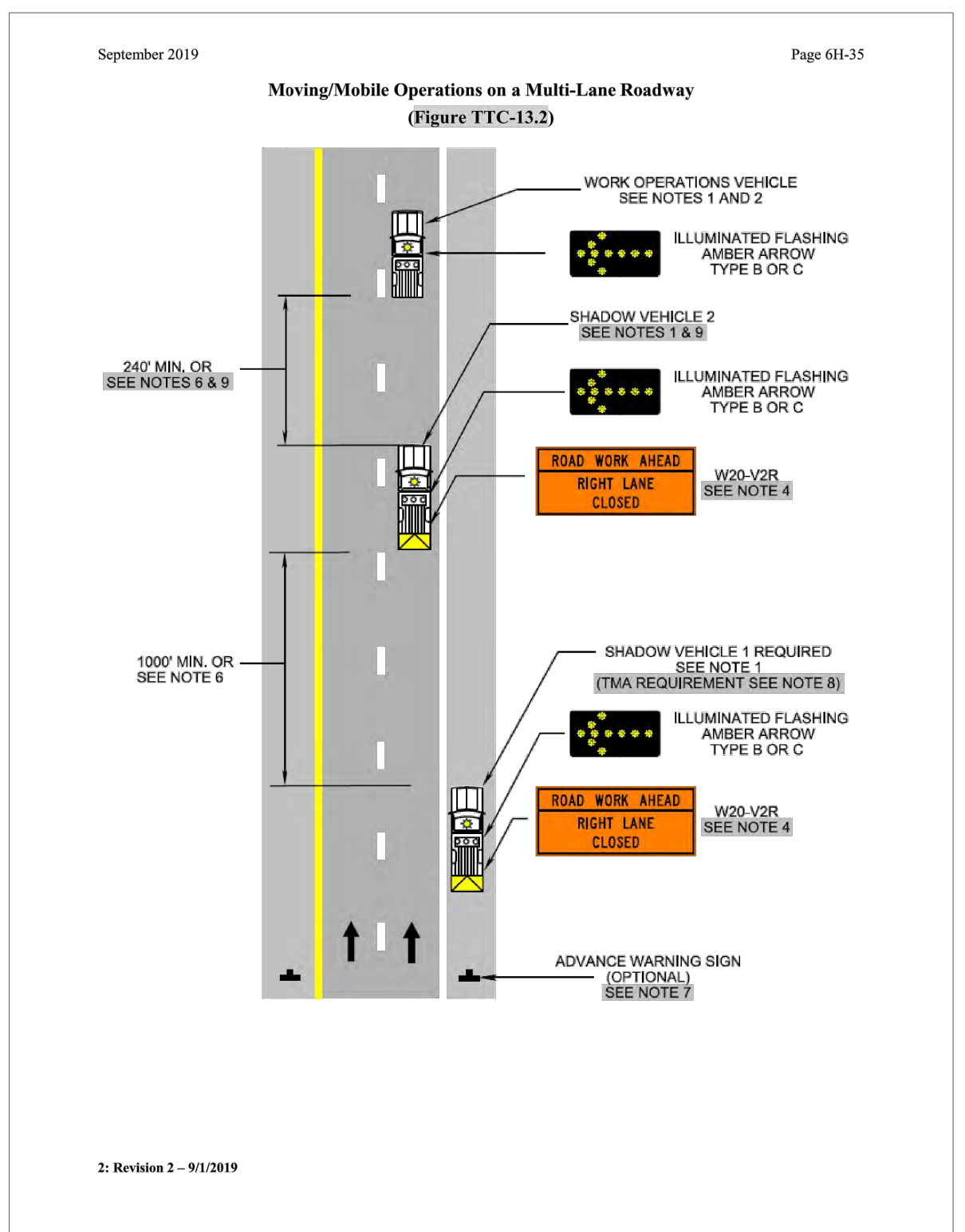
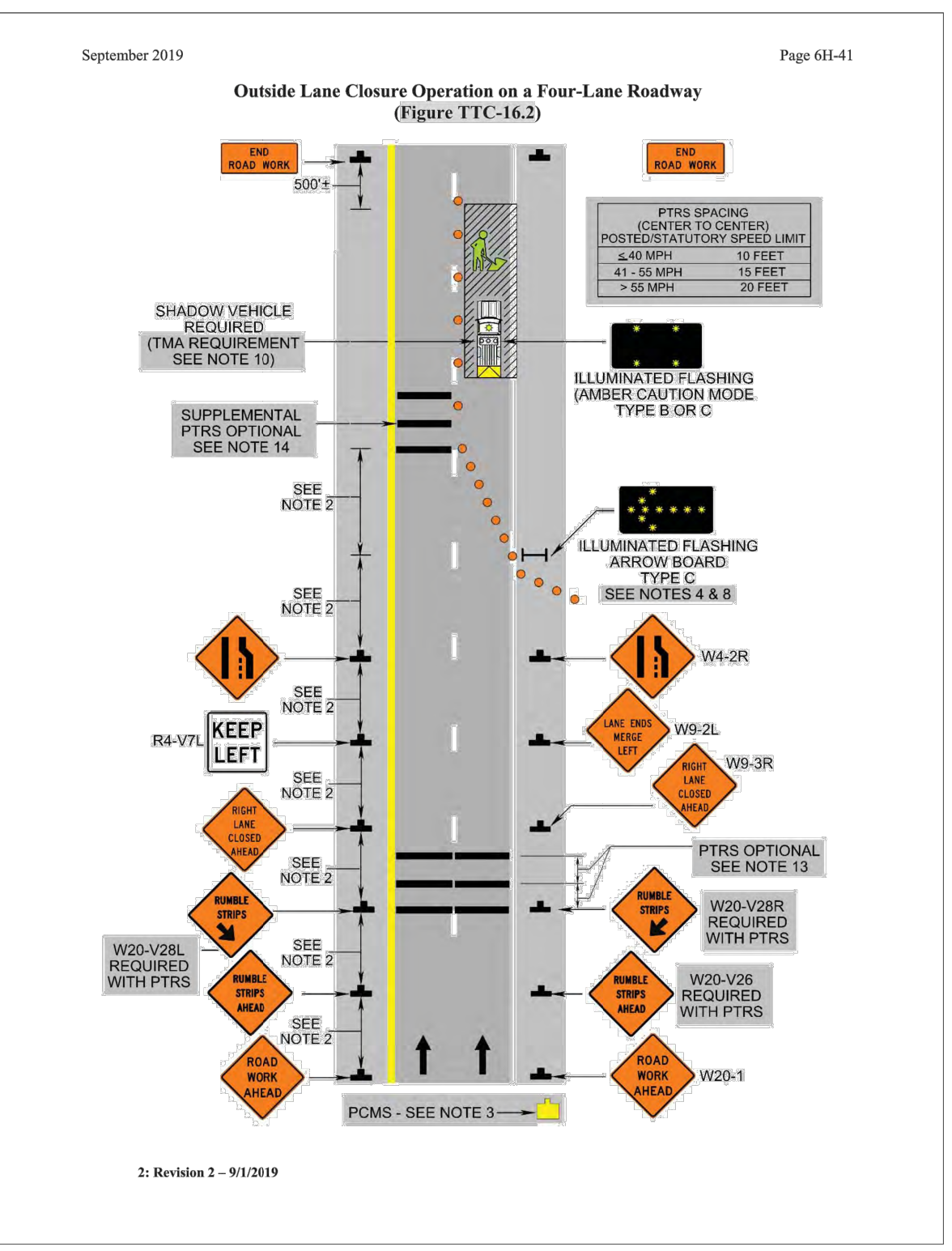
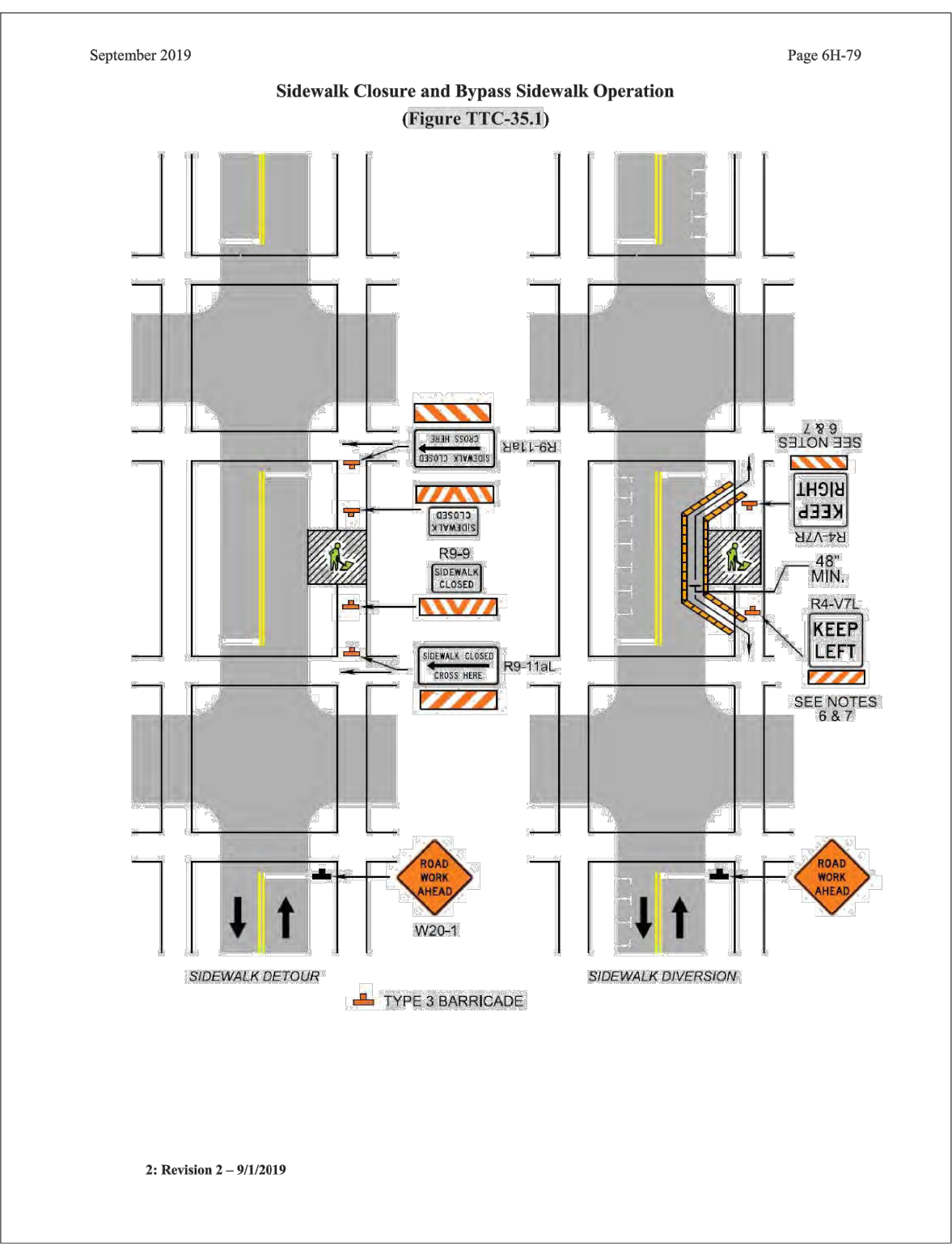
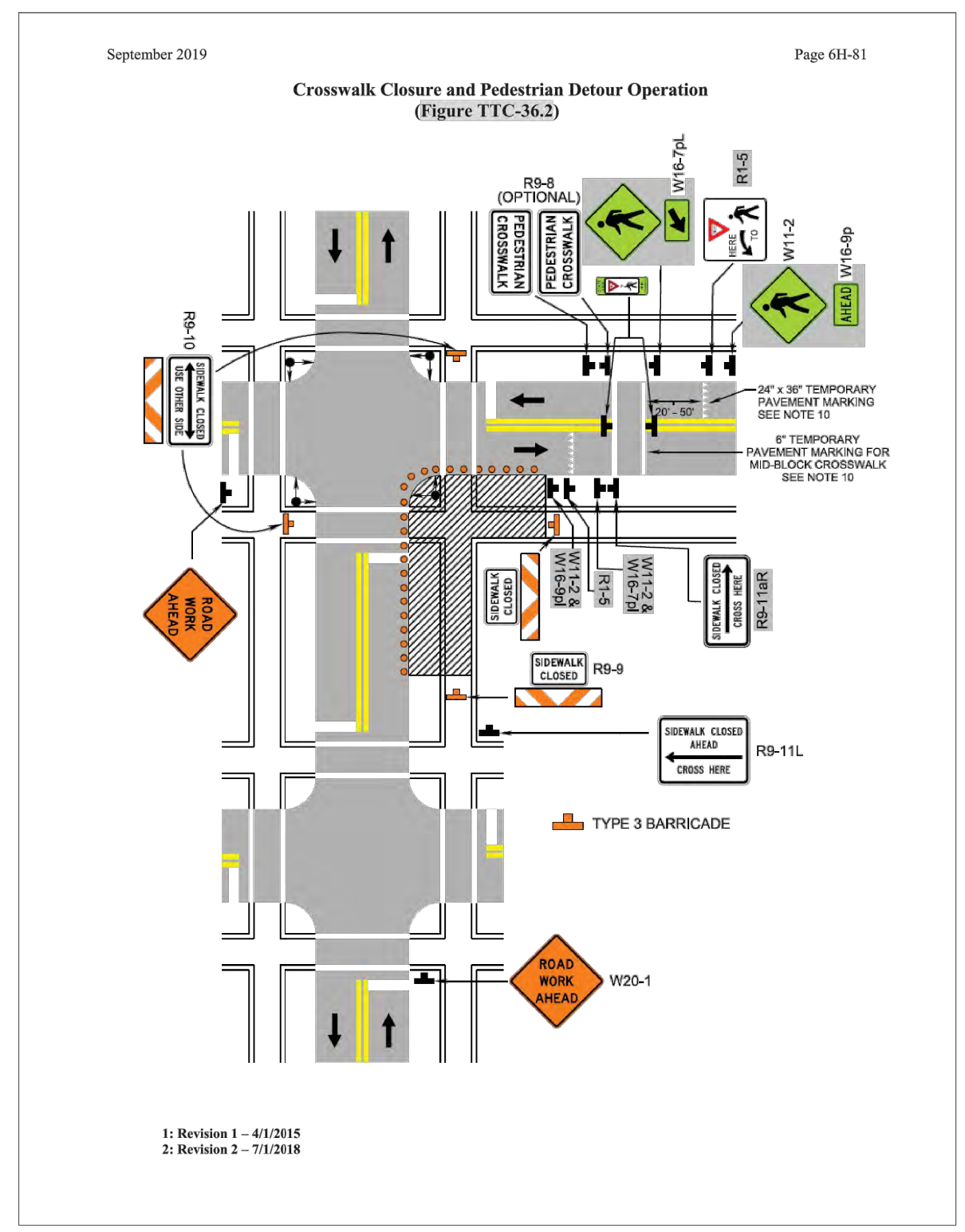
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DRAWN: KM
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

SCALE:

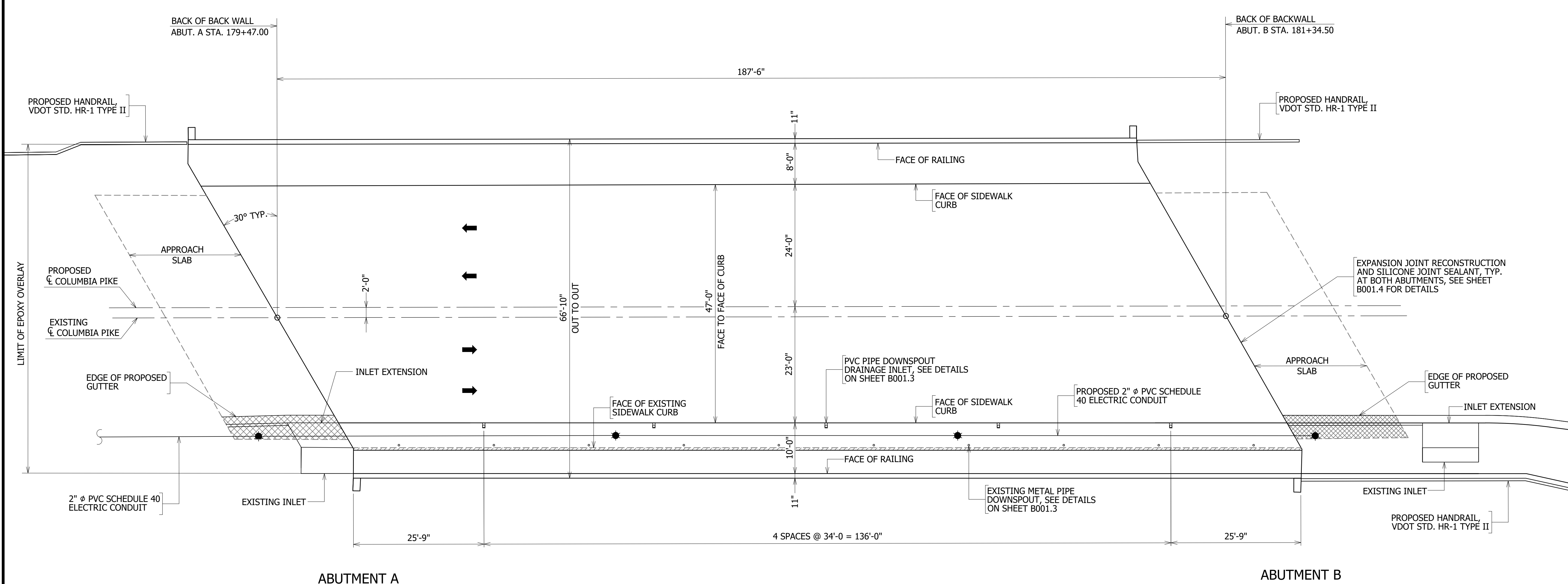
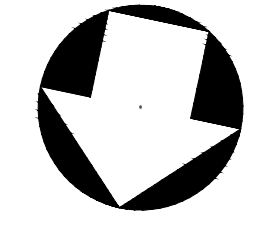
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C121.6






REVISION ON 01/24/2020
FILENAME: DS87-286-MOT (2).DWG PATH: 1:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\7 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER

REVISED ON 01/24/2020
FILENAME: D987-210-TYPICAL_SECTIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK DESIGN\DWG PLOTTED BY: MATTHEW WHITTAKER



BRIDGE PLAN
SCALE : 1" = 10'-0"

-  EXISTING SIDEWALK TO BE REMOVED
-  EXISTING APPROACH SLAB TO BE REMOVED
-  PROPOSED STREET LIGHT

- NOTES:
- ALL AREAS OF SPALLING AND DELAMINATION ON THE EXISTING BRIDGE DECK AND APPROACH SLABS SHALL BE REPAIRED USING H.E.S. PATCHING, TYPE B.
 - ALL AREAS OF SPALLING AND DELAMINATION ON THE EXISTING SIDEWALKS, CURBS, AND CONCRETE RAILINGS SHALL BE REPAIRED USING CONCRETE SUPERSTRUCTURE SURFACE REPAIR.
 - ALL CONCRETE REPAIRS SHALL BE IN ACCORDANCE WITH SECTION 412 OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS.
 - AFTER ALL CONCRETE REPAIRS ARE COMPLETE, APPLY EPOXY OVERLAY TO THE APPROACH SLABS, BRIDGE DECK, CURBS, AND SIDEWALKS.
 - FOR CONCRETE SURFACE COLOR COATING, SEE BRIDGE GENERAL NOTE 9 ON SHEET C.000.1.



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APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Cliff</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

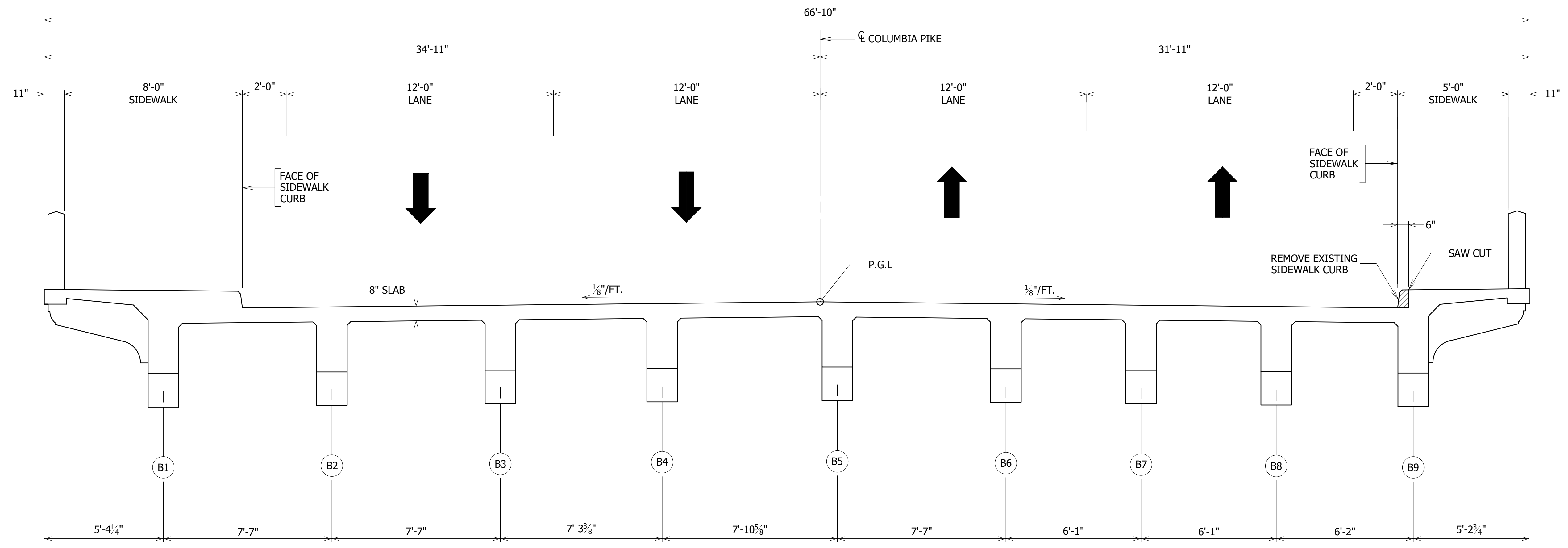
SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 BRIDGE PLAN

DESIGNED: DJ
 DRAWN: DJ
 CHECKED: AE
 PLOTTED: SEPTEMBER 11 2020

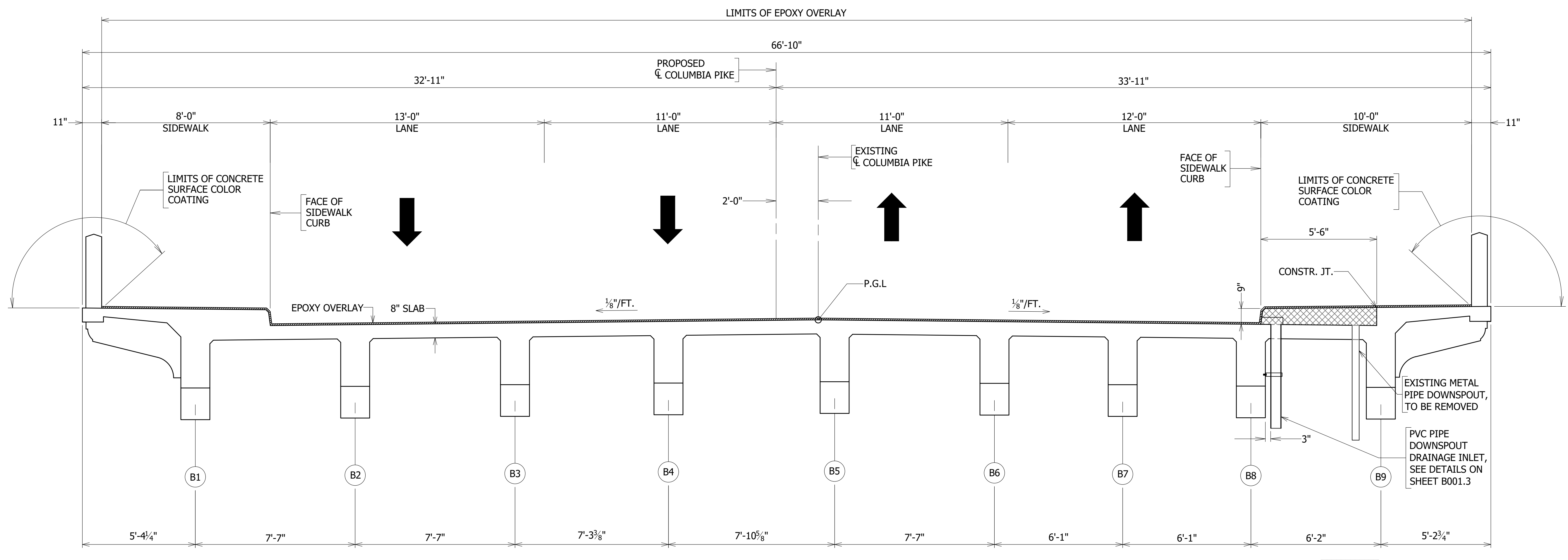
SCALE:
 1" = 10'-0"

REVISED ON 01/24/2020

FILENAME: D987-210-TYPICAL_SECTIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW WHITTAKER



EXISTING
SCALE: 3/8" = 1'-0"



PROPOSED
SCALE: 3/8" = 1'-0"

- EXISTING SIDEWALK CURB TO BE REMOVED
- PROPOSED SIDEWALK WIDENING



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APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 D987
 COLUMBIA PIKE OVER FOUR MILE RUN
 BRIDGE TYPICAL SECTION

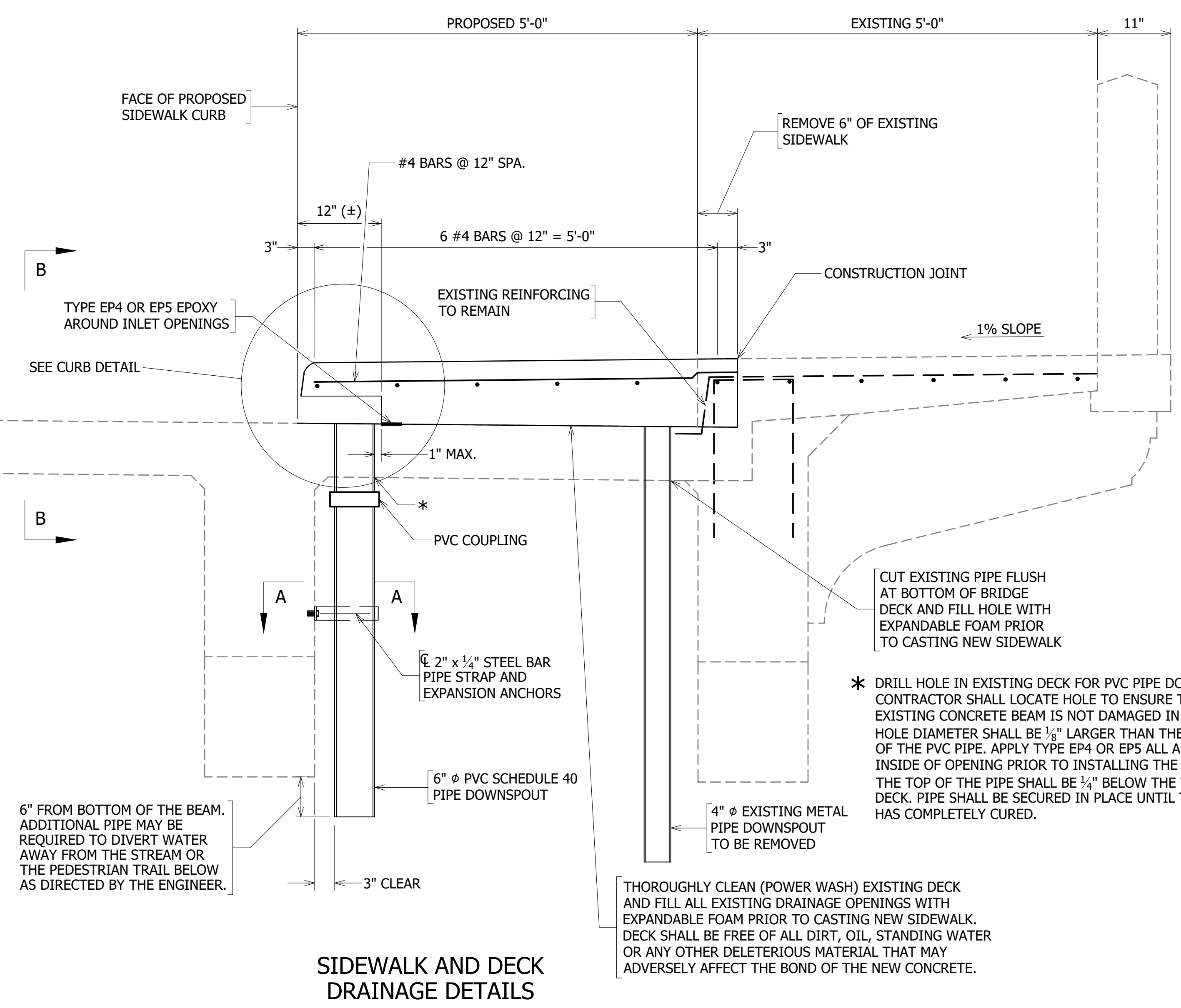
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DRAWN: DJ
CHECKED: AE
PLOTTED: SEPTEMBER 11 2020

SCALE:

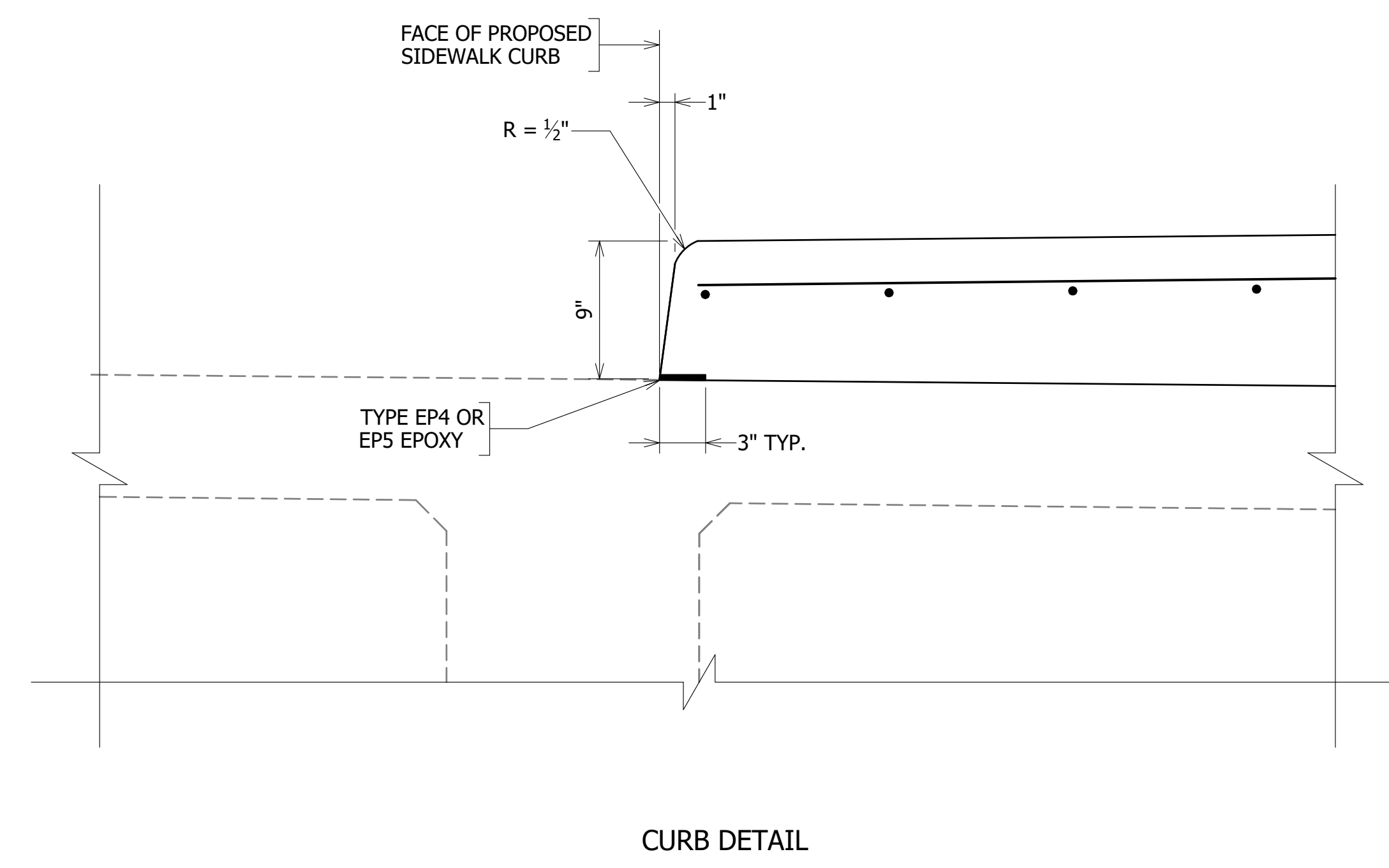
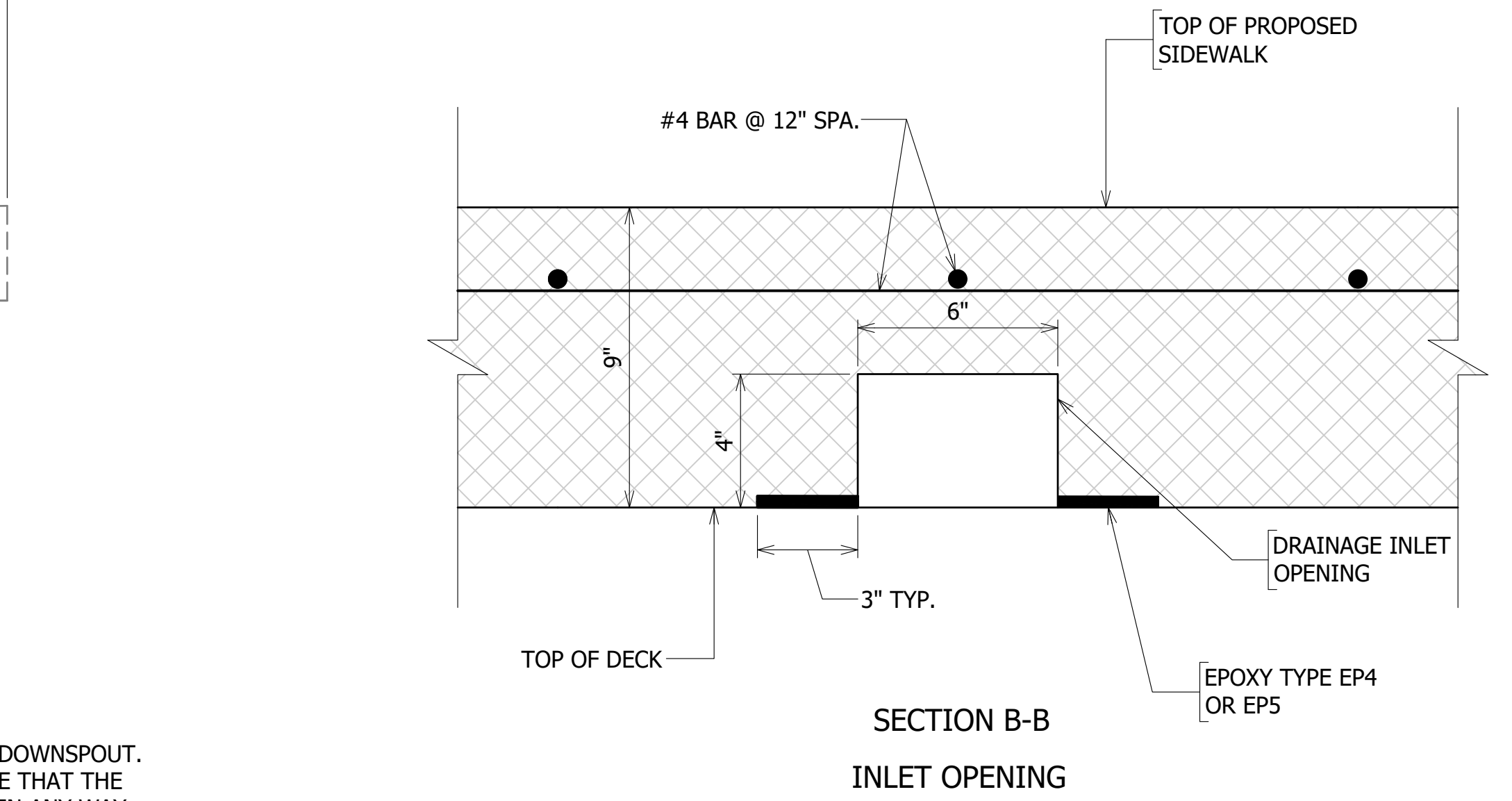
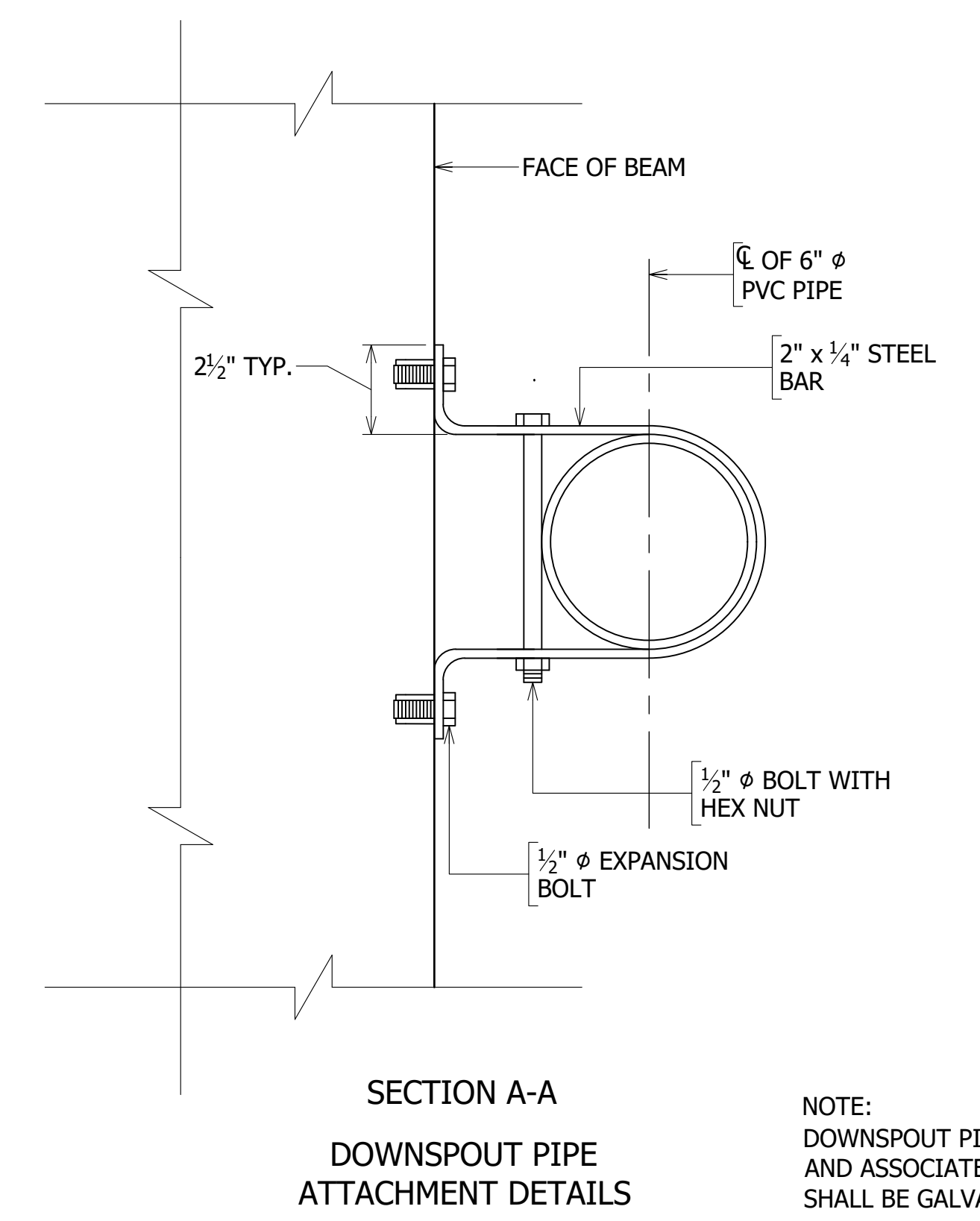
3/8" = 1'-0"

REVISED ON 01/24/2020

FILENAME: D987-210-TYPICAL_SECTIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



SIDEWALK AND DECK DRAINAGE DETAILS



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DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>Debra</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

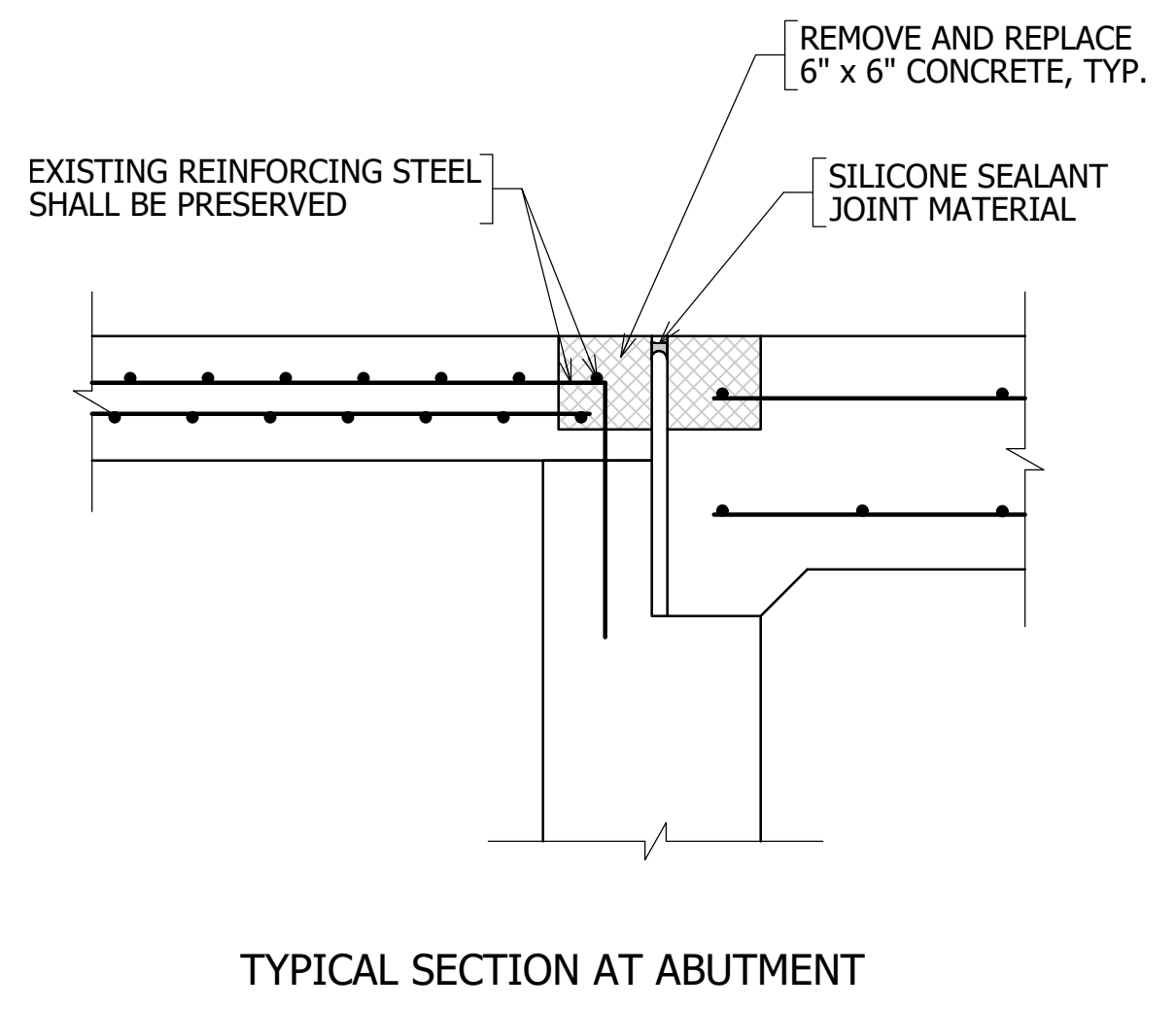
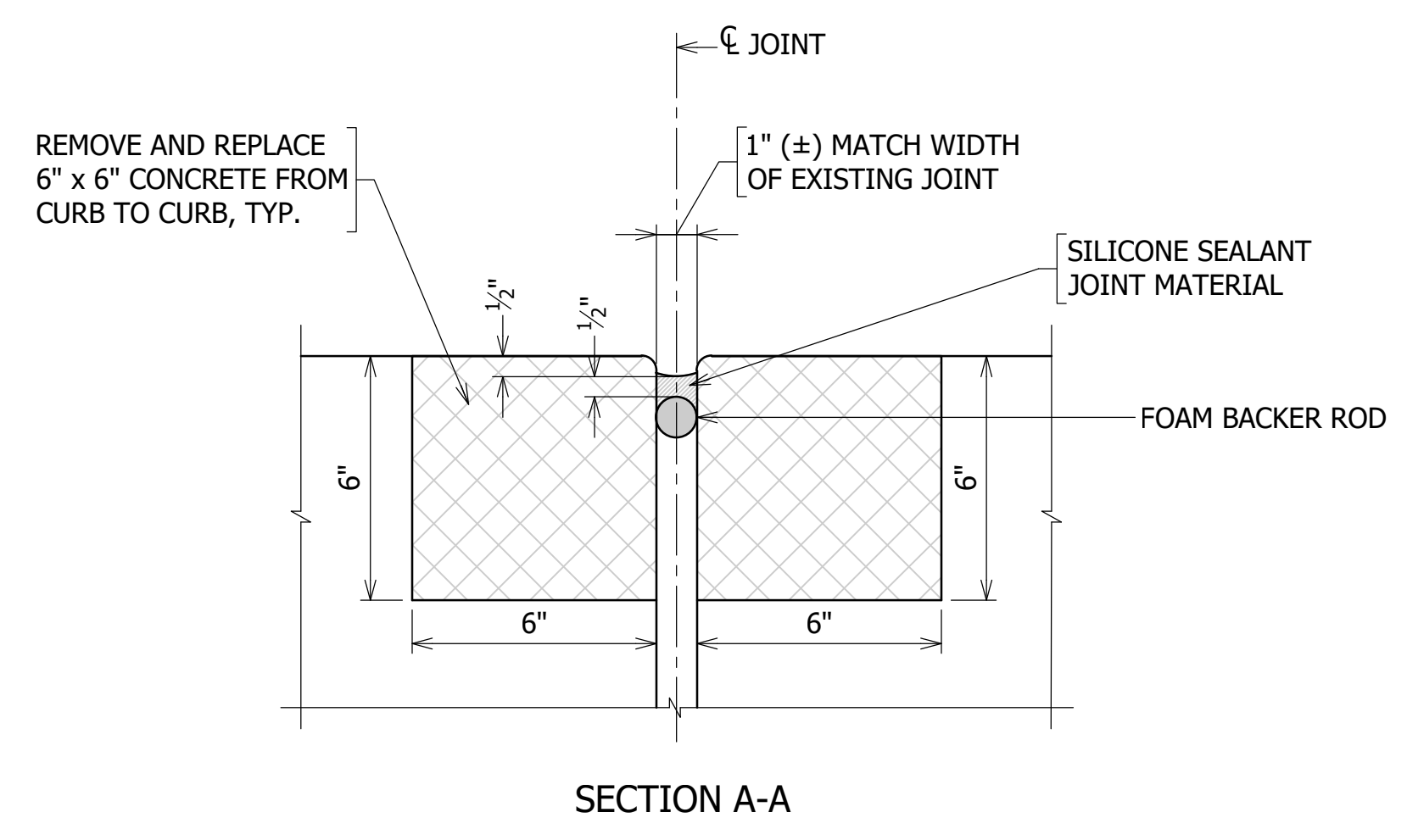
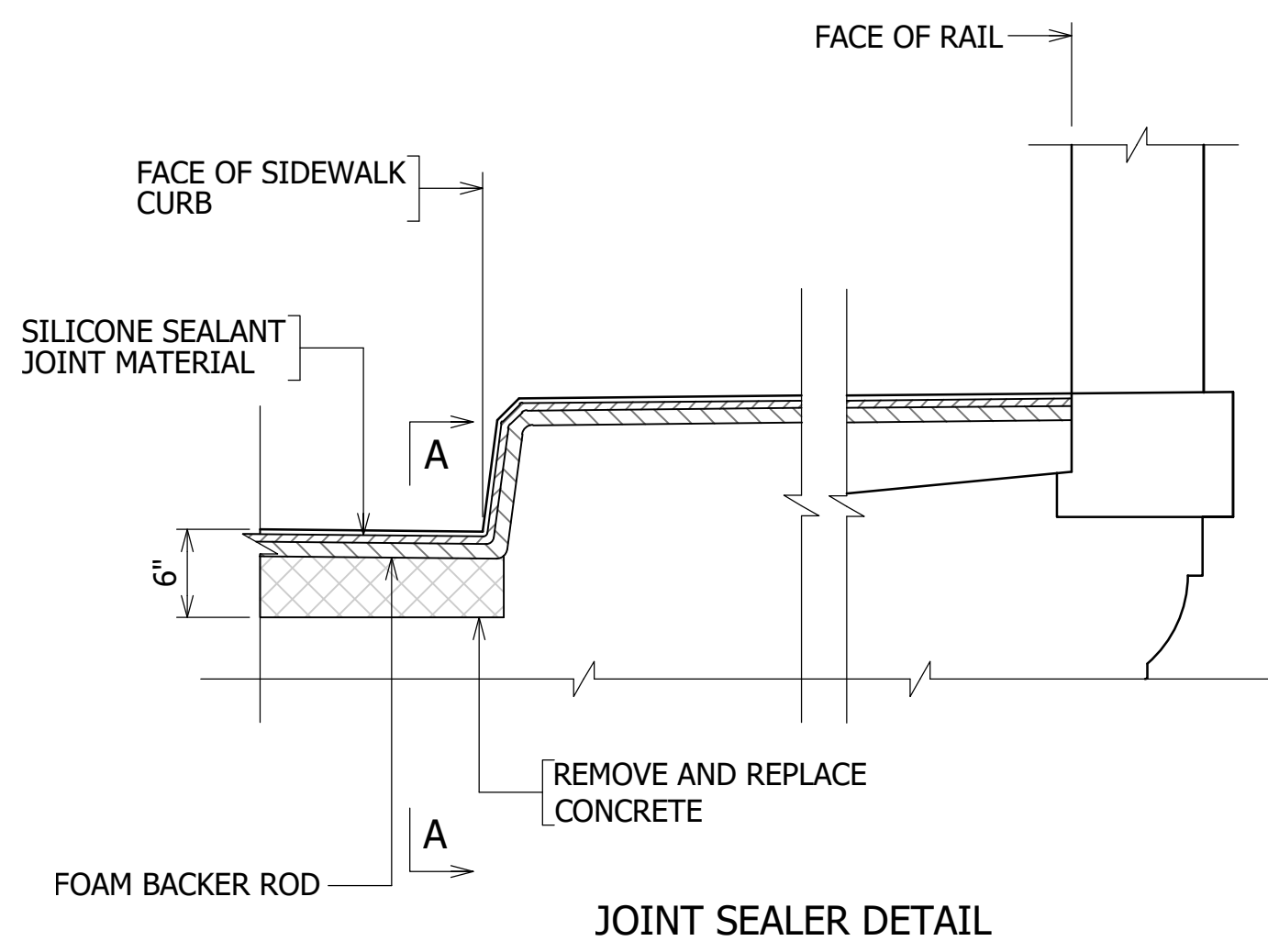
SIDEWALK WIDENING PROJECT
 D987
 COLUMBIA PIKE OVER FOUR MILE RUN
 SIDEWALK AND DECK DRAINAGE DETAILS

DESIGNED: DJ
 DRAWN: DJ
 CHECKED: AE
 PLOTTED: SEPTEMBER 11 2020

SCALE:
 NOT TO SCALE

REVISED ON 01/24/2020

FILENAME: D987-210-TYPICAL_SECTIONS.DWG PATH: I:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



SILICONE JOINT SEALANT (1") NOTES:

1. JOINT MATERIAL SHALL BE REPLACED WITH SILICONE JOINT SEALANT. SILICONE JOINT SEALANT SHALL BE IN ACCORDANCE WITH SECTION 427 OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS.
2. SILICONE JOINT MATERIAL SHALL BE UNBROKEN AND CONTINUOUS.
3. AS NEARLY AS POSSIBLE, SIDES OF JOINTS SHALL BE STRAIGHT, VERTICAL AND PARALLEL. THE AREA OF THE INSTALLATION SHALL BE FREE FROM CRACKS AND SPALLS.
4. EXPANSION JOINT RECONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 412 OF THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS.



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APPROVALS	DATE
<i>Nilash Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Takah</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 JOINT REPAIR DETAILS

DESIGNED: DJ
 DRAWN: DJ
 CHECKED: AE

PLOTTED: SEPTEMBER 11 2020

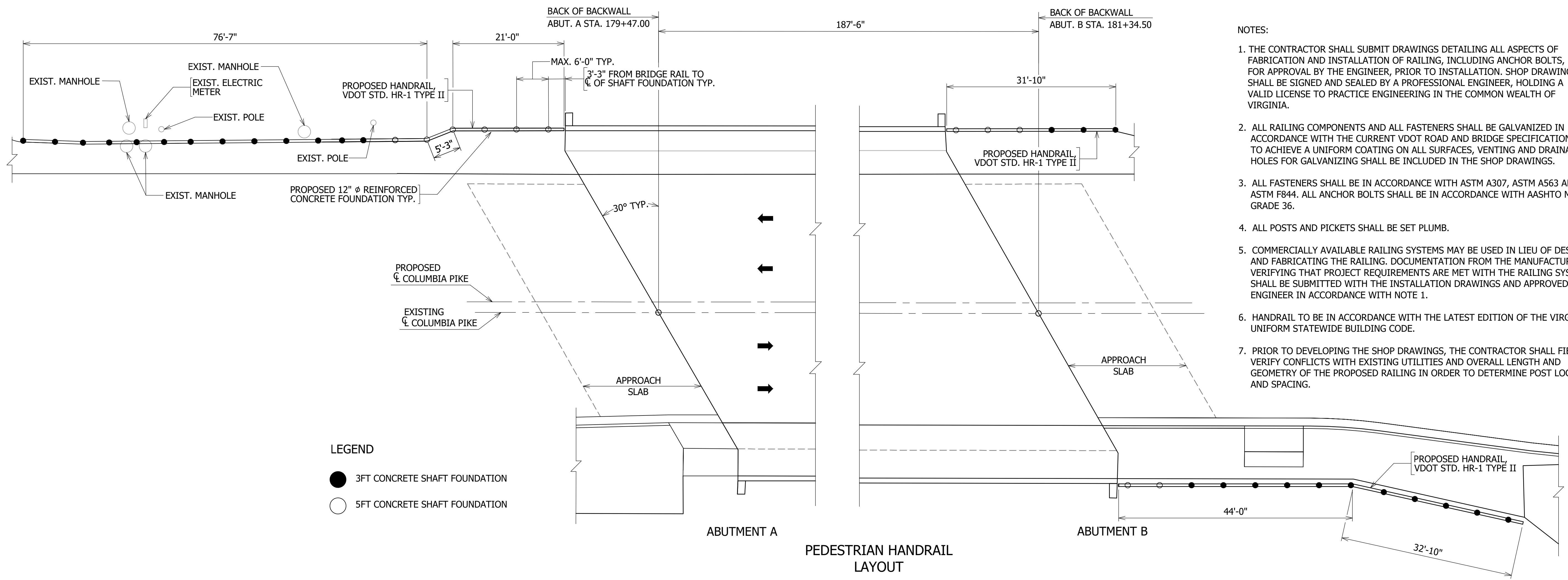
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B001.4

REVISED ON 01/24/2020

FILENAME: D587-210-TYPICAL_SECTIONS.DWG PATH: 1:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW WHITTAKER



- LEGEND**
- 3FT CONCRETE SHAFT FOUNDATION
 - 5FT CONCRETE SHAFT FOUNDATION

- NOTES:**
1. THE CONTRACTOR SHALL SUBMIT DRAWINGS DETAILING ALL ASPECTS OF FABRICATION AND INSTALLATION OF RAILING, INCLUDING ANCHOR BOLTS, FOR APPROVAL BY THE ENGINEER, PRIOR TO INSTALLATION. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, HOLDING A VALID LICENSE TO PRACTICE ENGINEERING IN THE COMMON WEALTH OF VIRGINIA.
 2. ALL RAILING COMPONENTS AND ALL FASTENERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE CURRENT VDOT ROAD AND BRIDGE SPECIFICATIONS TO ACHIEVE A UNIFORM COATING ON ALL SURFACES, VENTING AND DRAINAGE HOLES FOR GALVANIZING SHALL BE INCLUDED IN THE SHOP DRAWINGS.
 3. ALL FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A307, ASTM A563 AND ASTM F844. ALL ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH AASHTO M314, GRADE 36.
 4. ALL POSTS AND PICKETS SHALL BE SET PLUMB.
 5. COMMERCIALY AVAILABLE RAILING SYSTEMS MAY BE USED IN LIEU OF DESIGNING AND FABRICATING THE RAILING. DOCUMENTATION FROM THE MANUFACTURER VERIFYING THAT PROJECT REQUIREMENTS ARE MET WITH THE RAILING SYSTEM SHALL BE SUBMITTED WITH THE INSTALLATION DRAWINGS AND APPROVED BY THE ENGINEER IN ACCORDANCE WITH NOTE 1.
 6. HANDRAIL TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE.
 7. PRIOR TO DEVELOPING THE SHOP DRAWINGS, THE CONTRACTOR SHALL FIELD VERIFY CONFLICTS WITH EXISTING UTILITIES AND OVERALL LENGTH AND GEOMETRY OF THE PROPOSED RAILING IN ORDER TO DETERMINE POST LOCATIONS AND SPACING.

ARLINGTON VIRGINIA

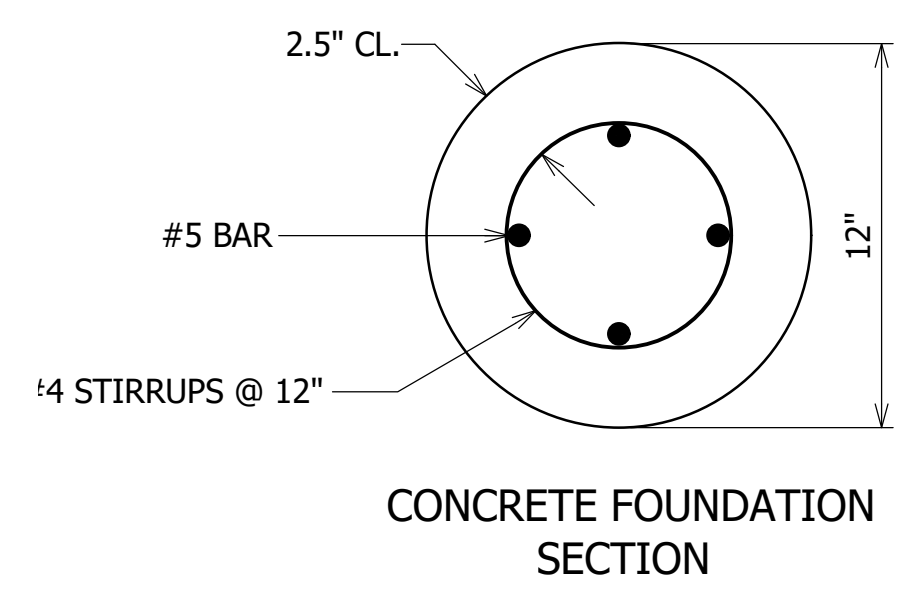
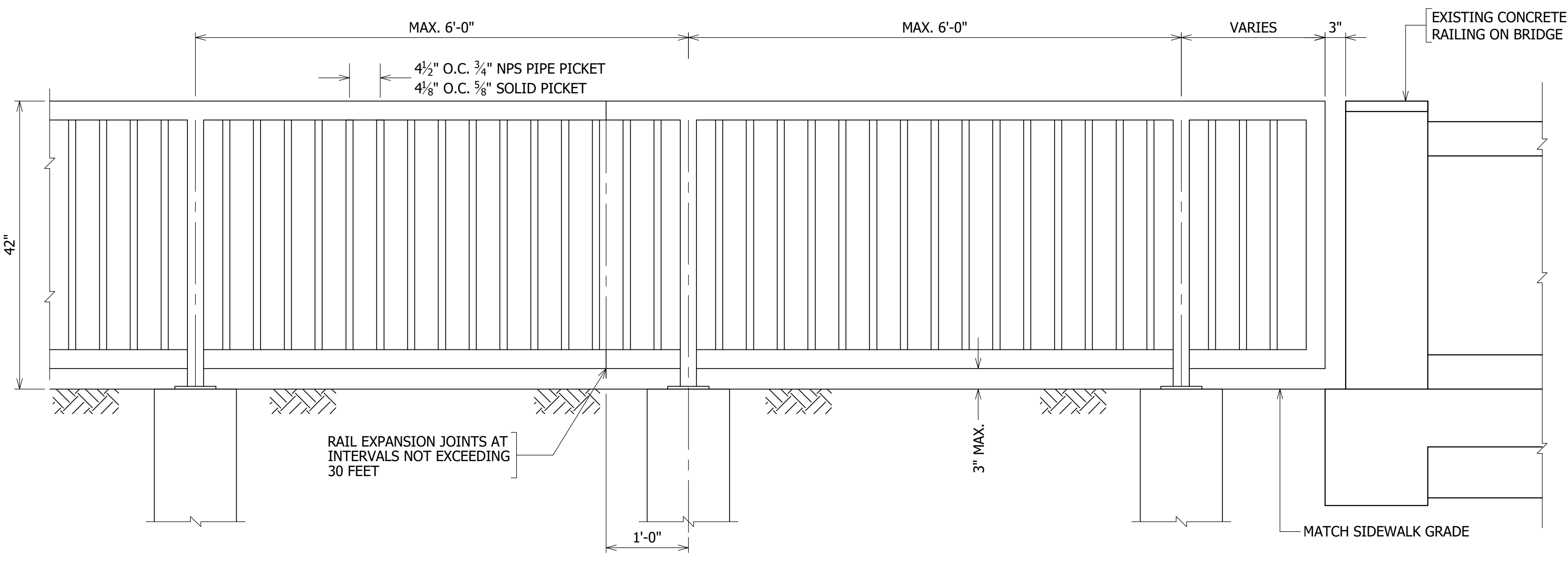
DEPARTMENT OF ENVIRONMENTAL SERVICES
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 ENGINEERING BUREAU
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 ARLINGTON, VA 22201
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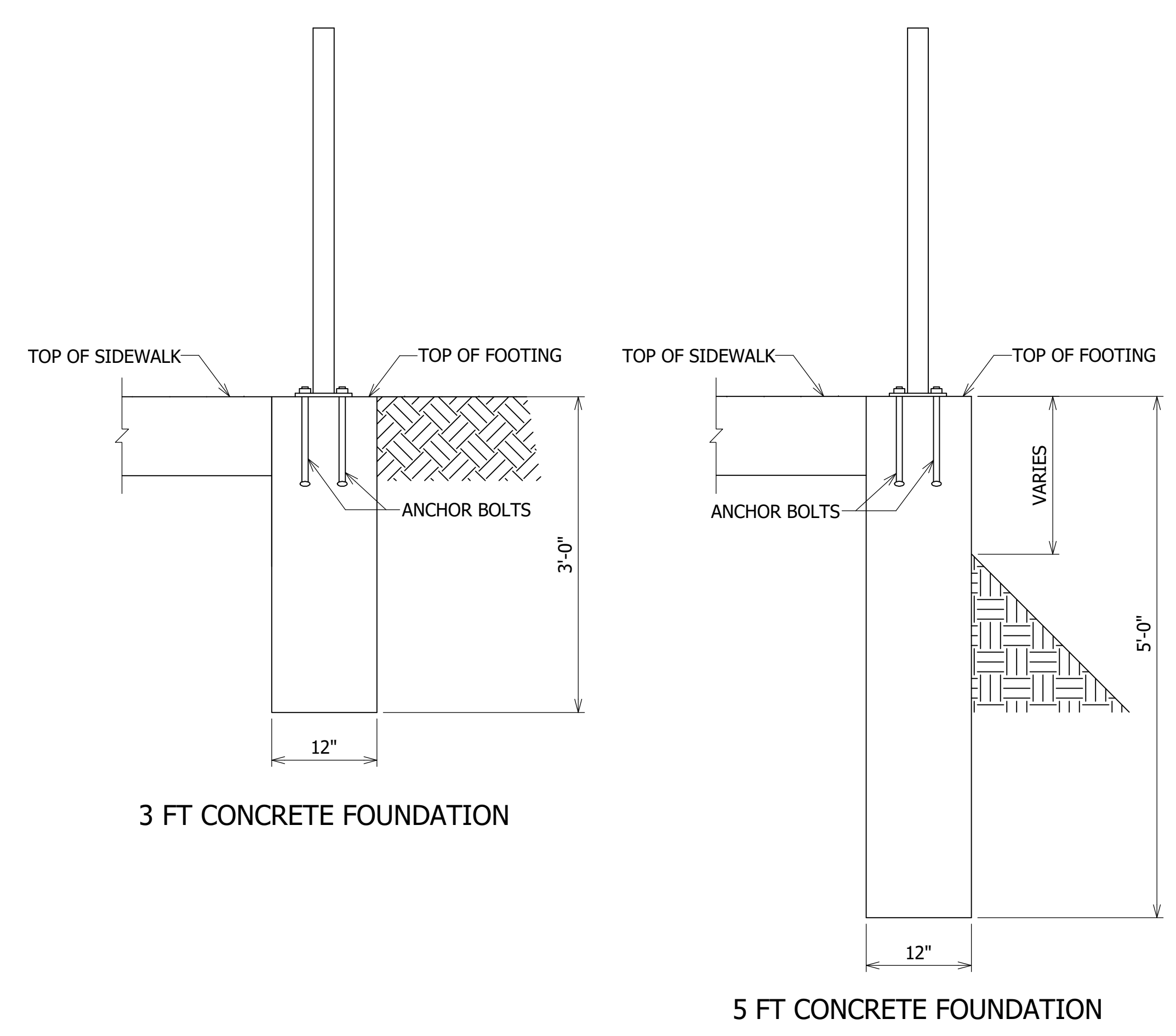


APPROVALS	DATE
<i>Nilesh Nairkare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE



POSTS: 2" MIN. NPS (2.375" O.D.) SCHEDULE 80 PIPE
 RAILS: 2" MIN. NPS (2.375" O.D.) SCHEDULE 40 PIPE
 PICKETS: 3/4" MIN. NPS (1.05" O.D.) SCHEDULE 40 PIPE
 OR 3/8" MIN. SOLID STEEL SMOOTH ROUND ROD



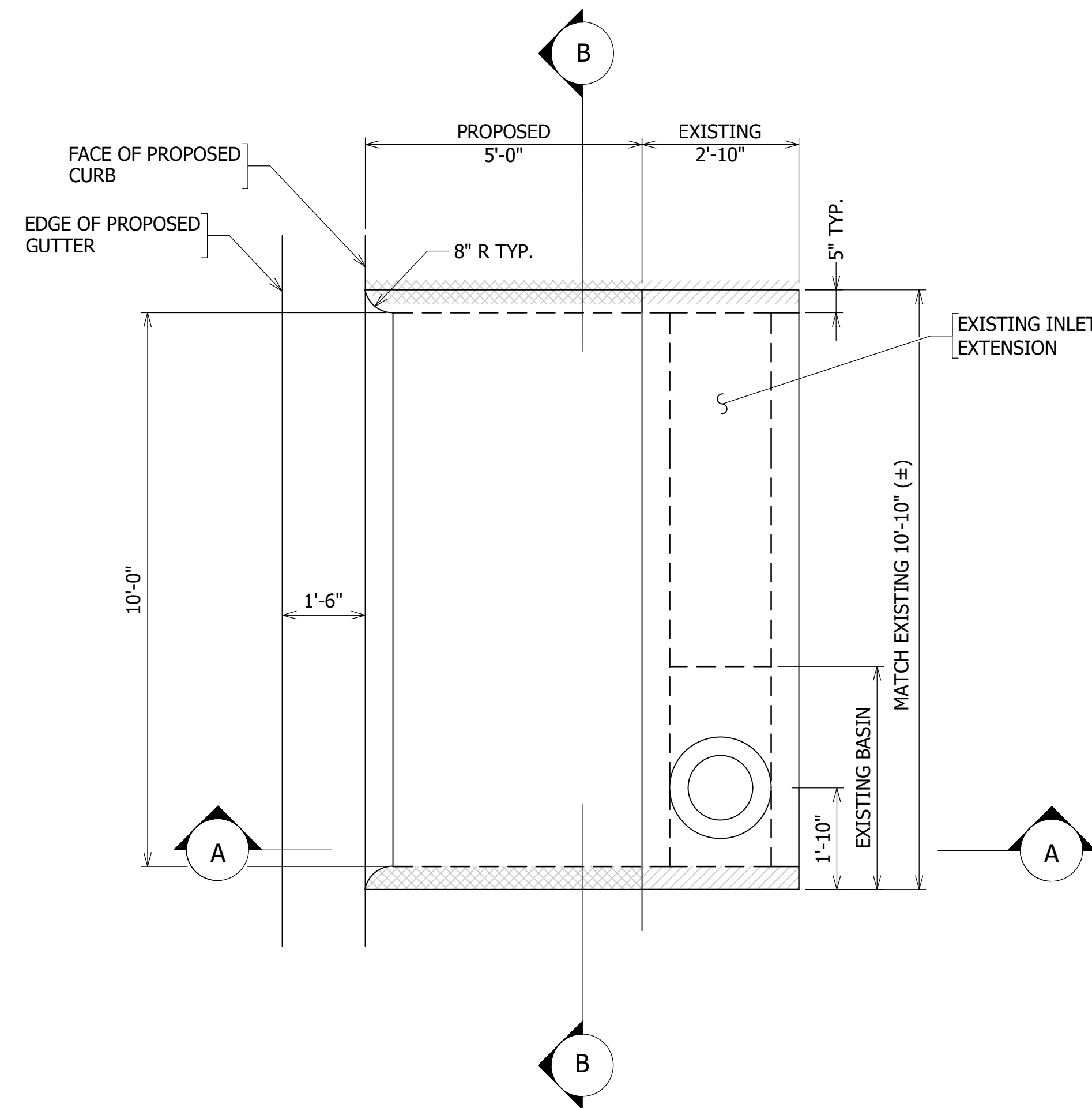
SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 PEDESTRIAN HANDRAIL

DESIGNED: DJ
 DRAWN: DJ
 CHECKED: AE
 PLOTTED: SEPTEMBER 11 2020

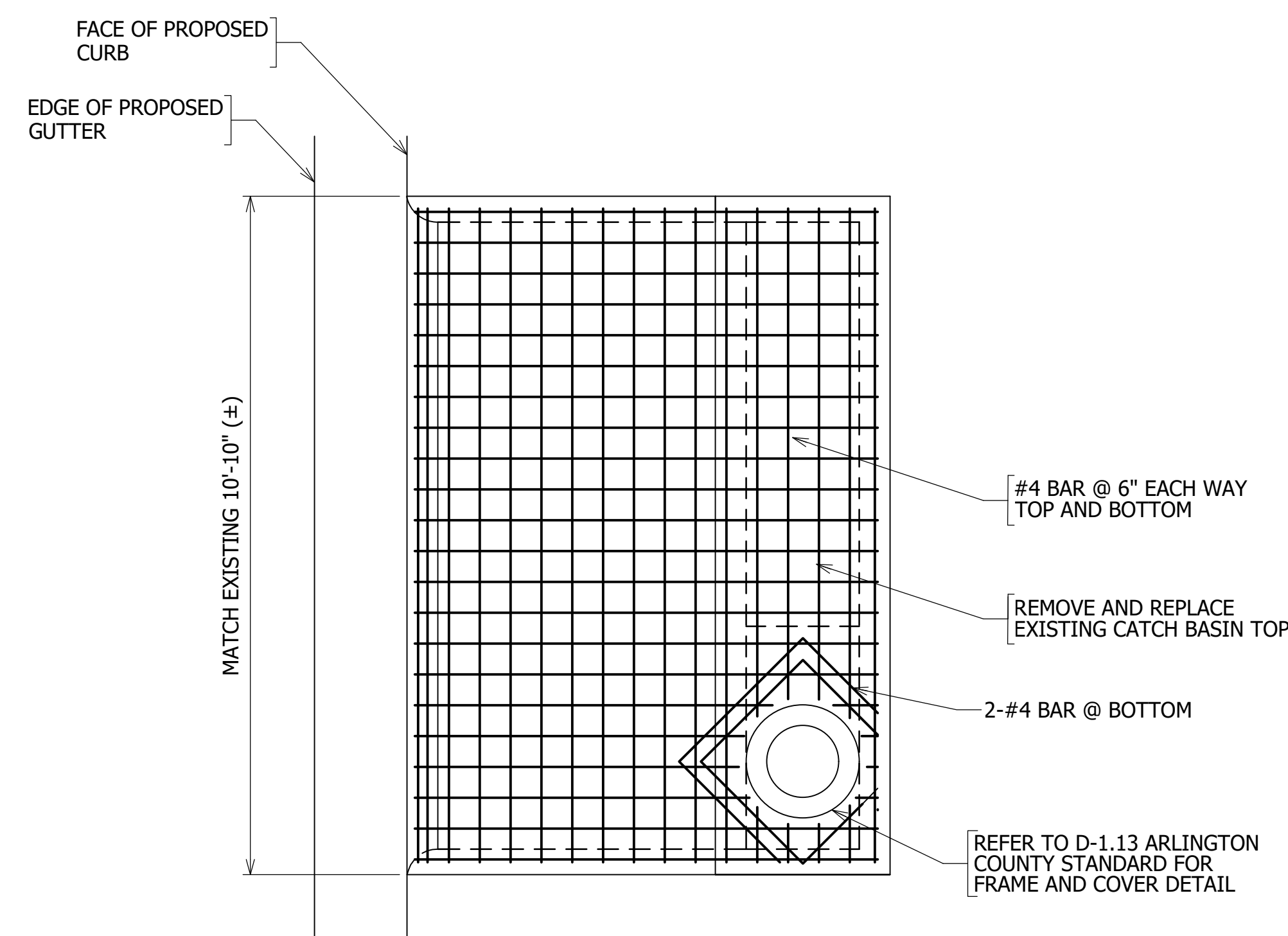
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REVISED ON 01/24/2020

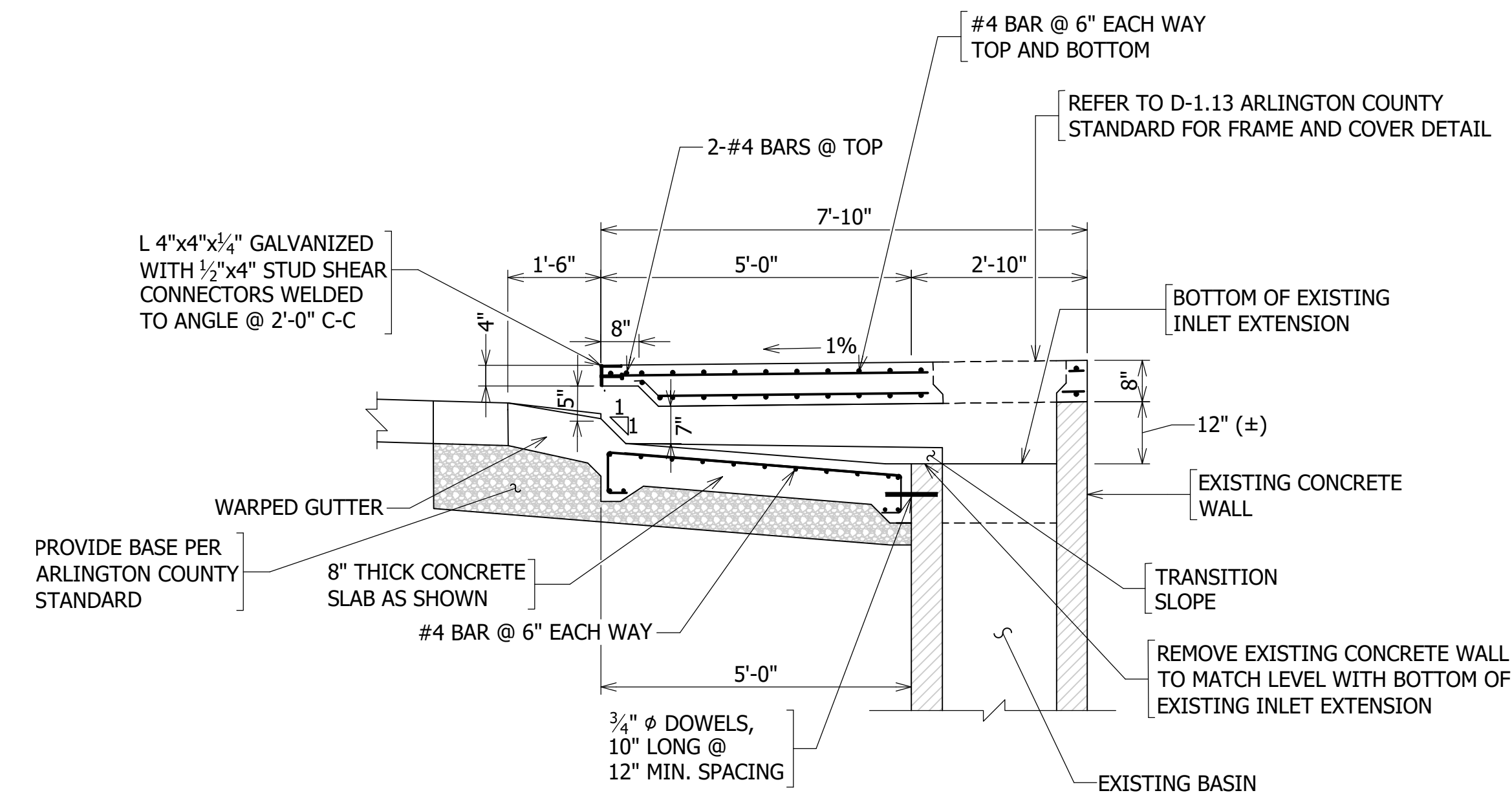
FILENAME: D987-210-TYPICAL_SECTIONS.DWG PATH: 1:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



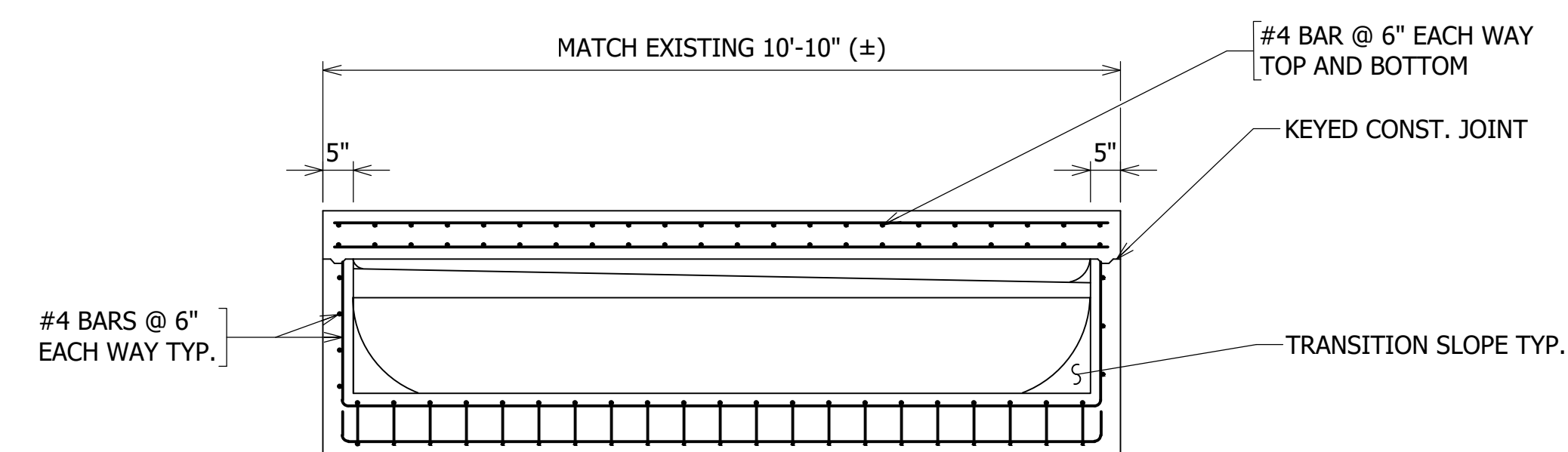
CATCH BASIN PLAN



CATCH BASIN COVER PLAN



SECTION A-A



SECTION B-B

NOTE:
CONTRACTOR SHALL FIELD
VERIFY ALL DIMENSIONS PRIOR
TO ORDERING MATERIALS



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APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
DS87
COLUMBIA PIKE OVER FOUR MILE RUN
WEST INLET (#17572)

DESIGNED: DJ
DRAWN: DJ
CHECKED: BG

PLOTTED: SEPTEMBER 11 2020

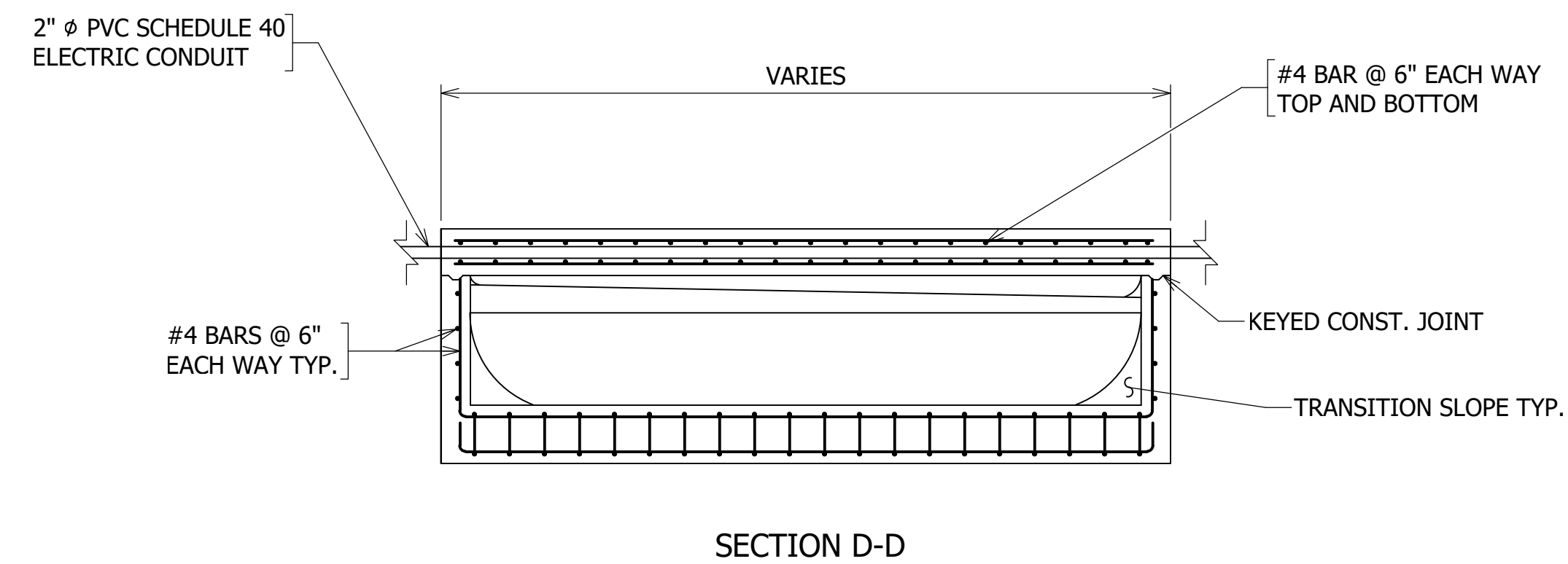
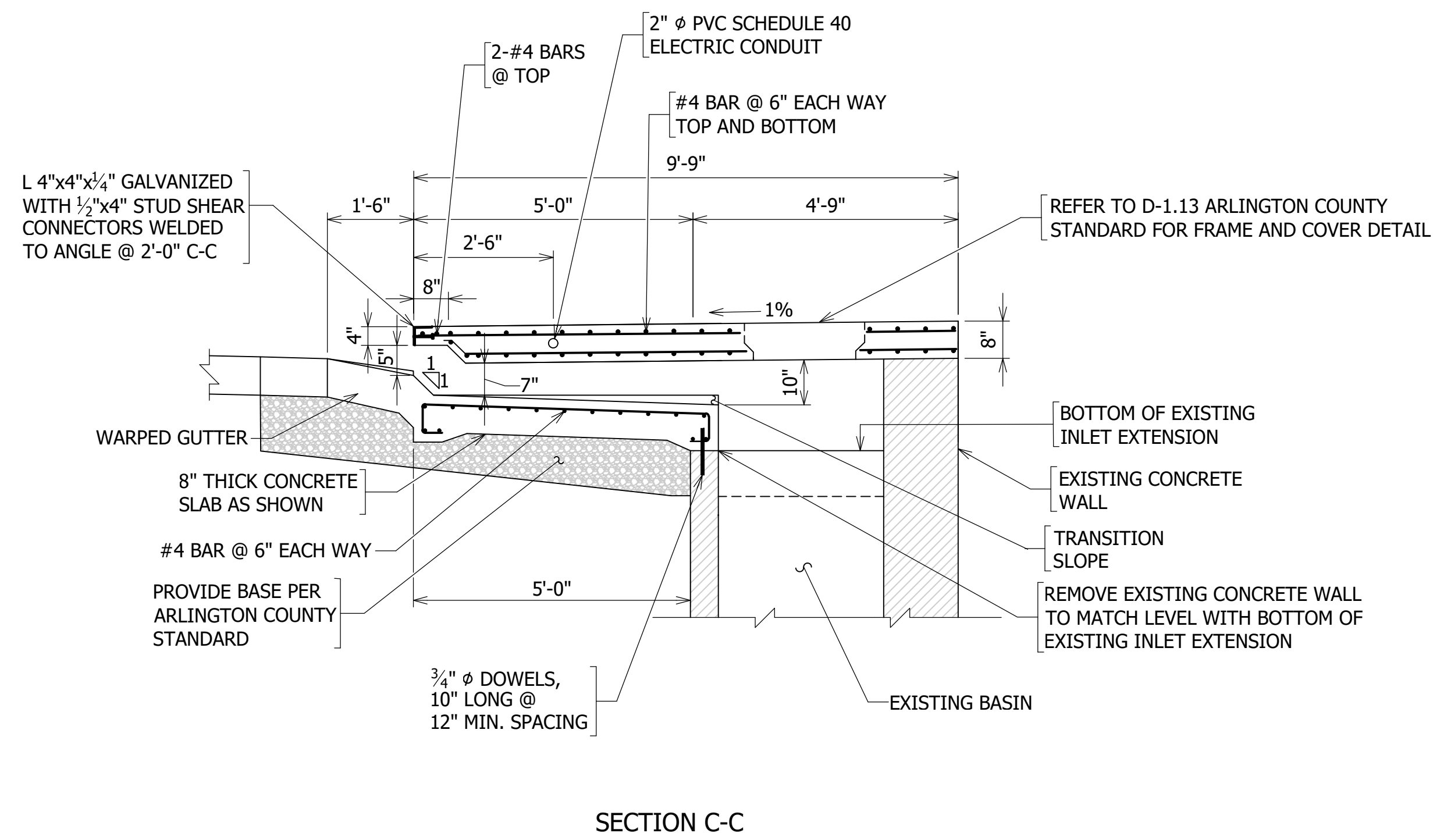
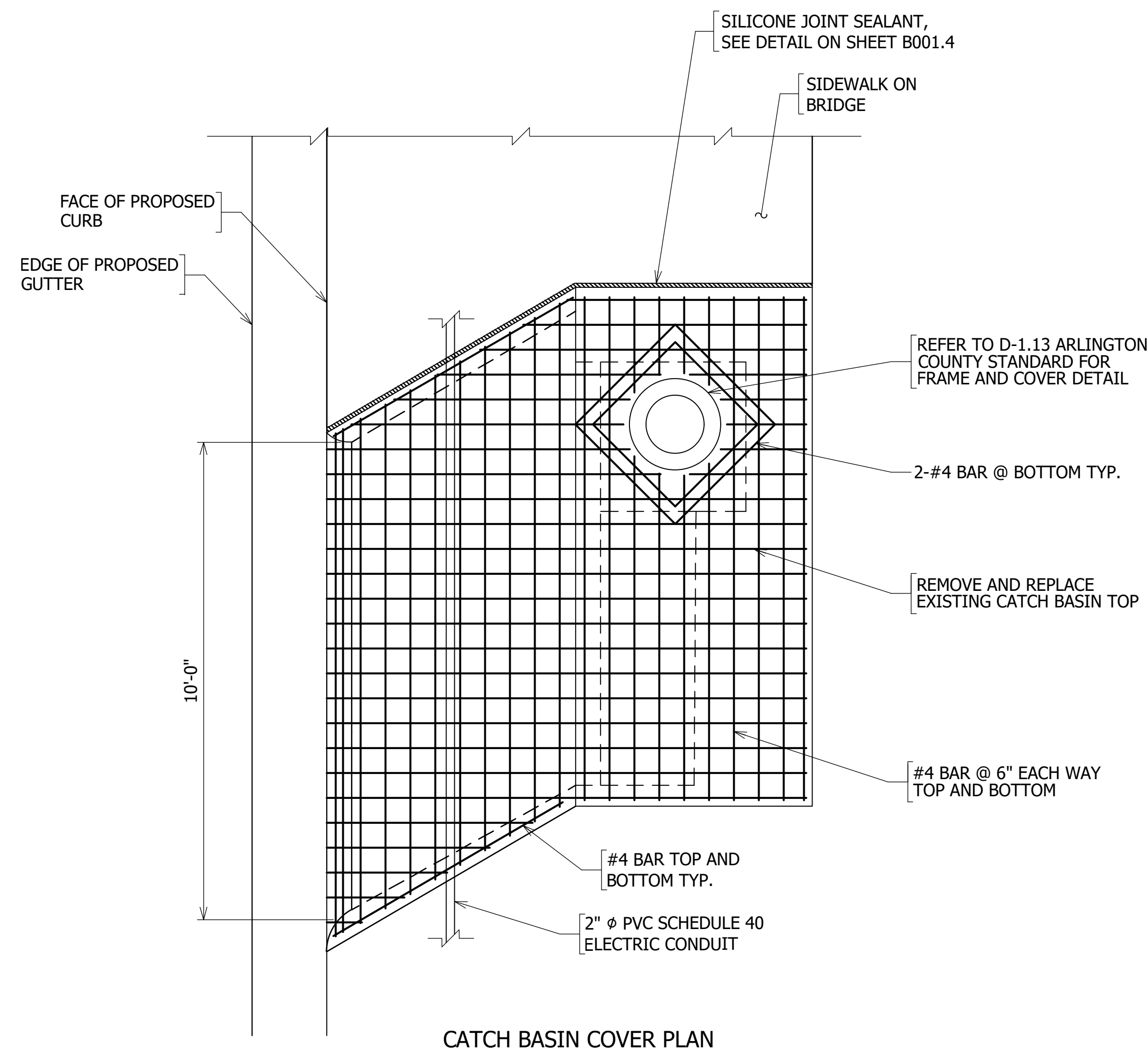
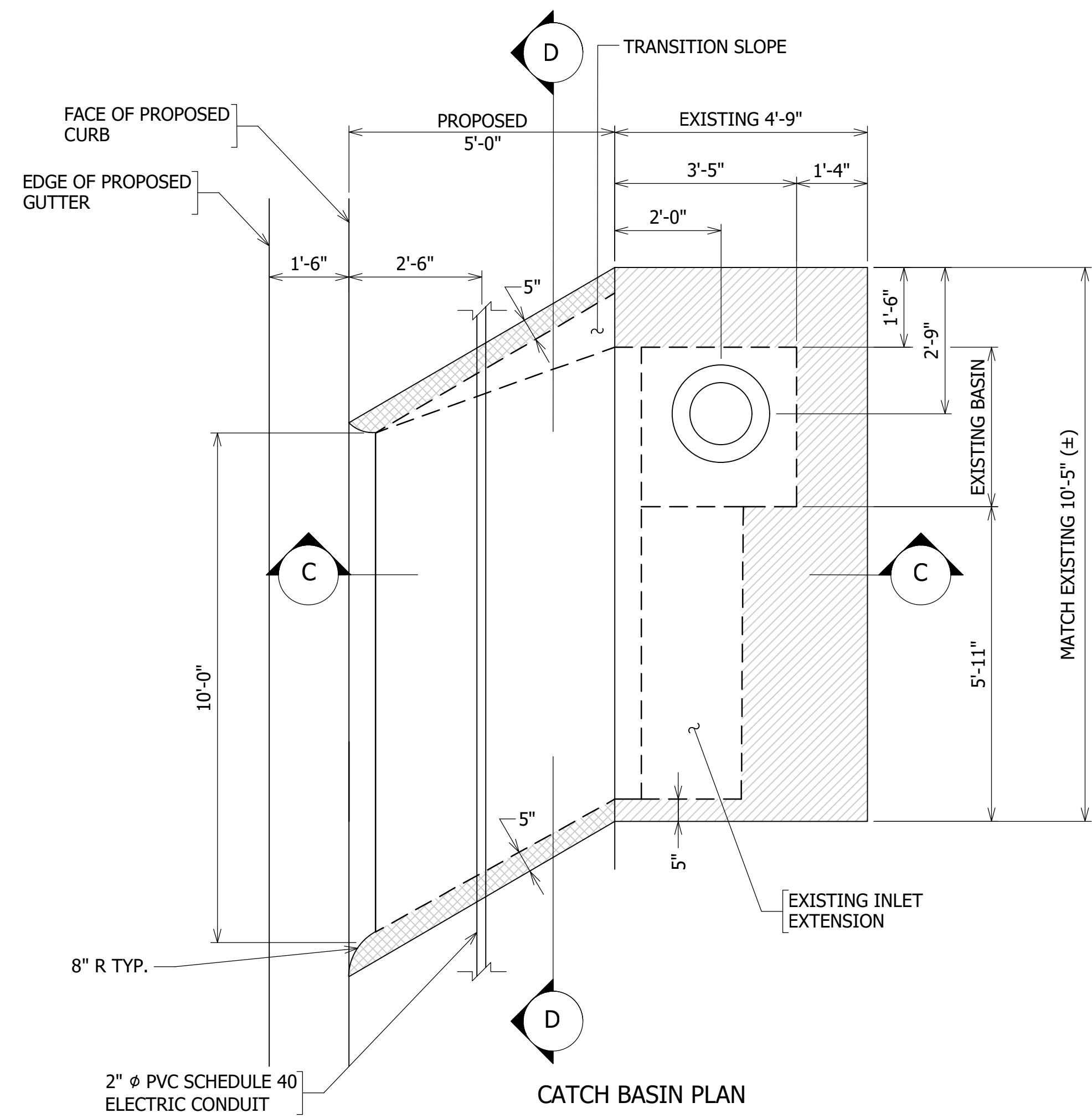
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B001.6

REVISED ON 01/24/2020

FILENAME: D987-210-TYPICAL_SECTIONS.DWG PATH: 1:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS.
2. FOR CONDUIT DETAILS, SEE SHEET B001.8.



DEPARTMENT OF ENVIRONMENTAL SERVICES
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SEAL



APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR	
<i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
<i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF	
<i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR	
<i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 EAST INLET (#17548)

DESIGNED: DJ
 DRAWN: DJ
 CHECKED: BG

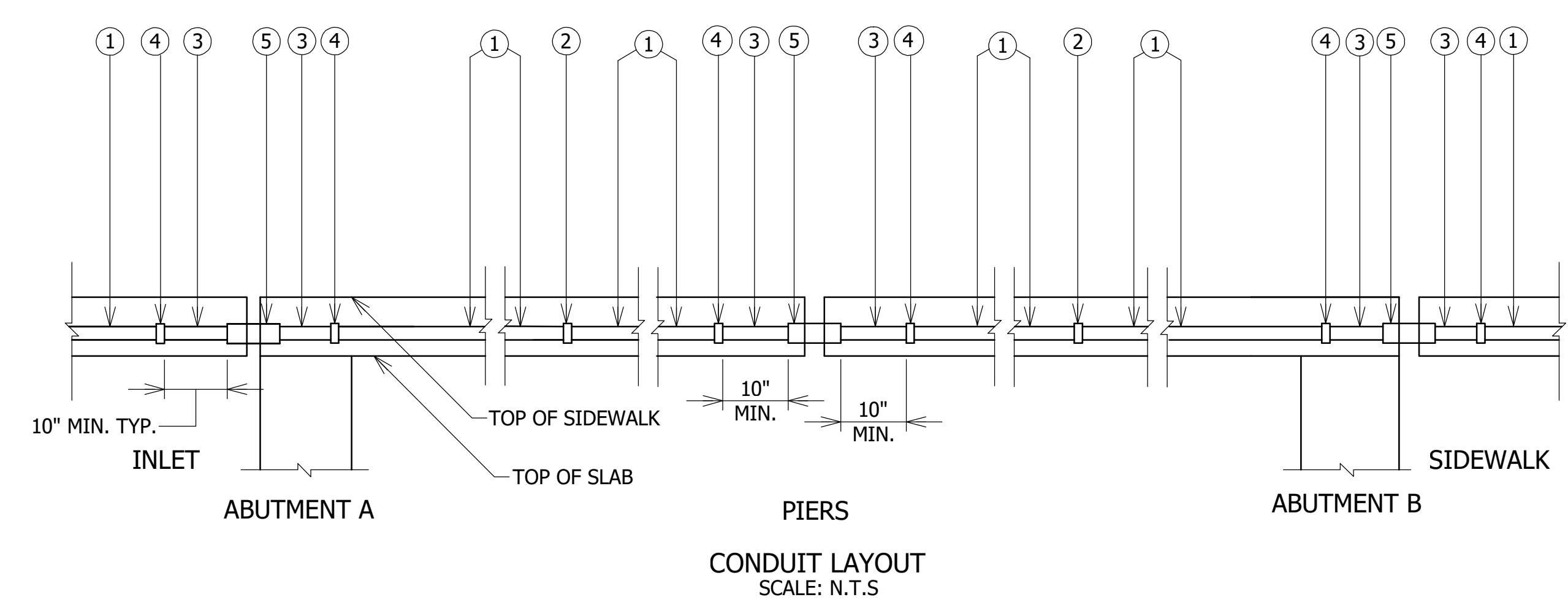
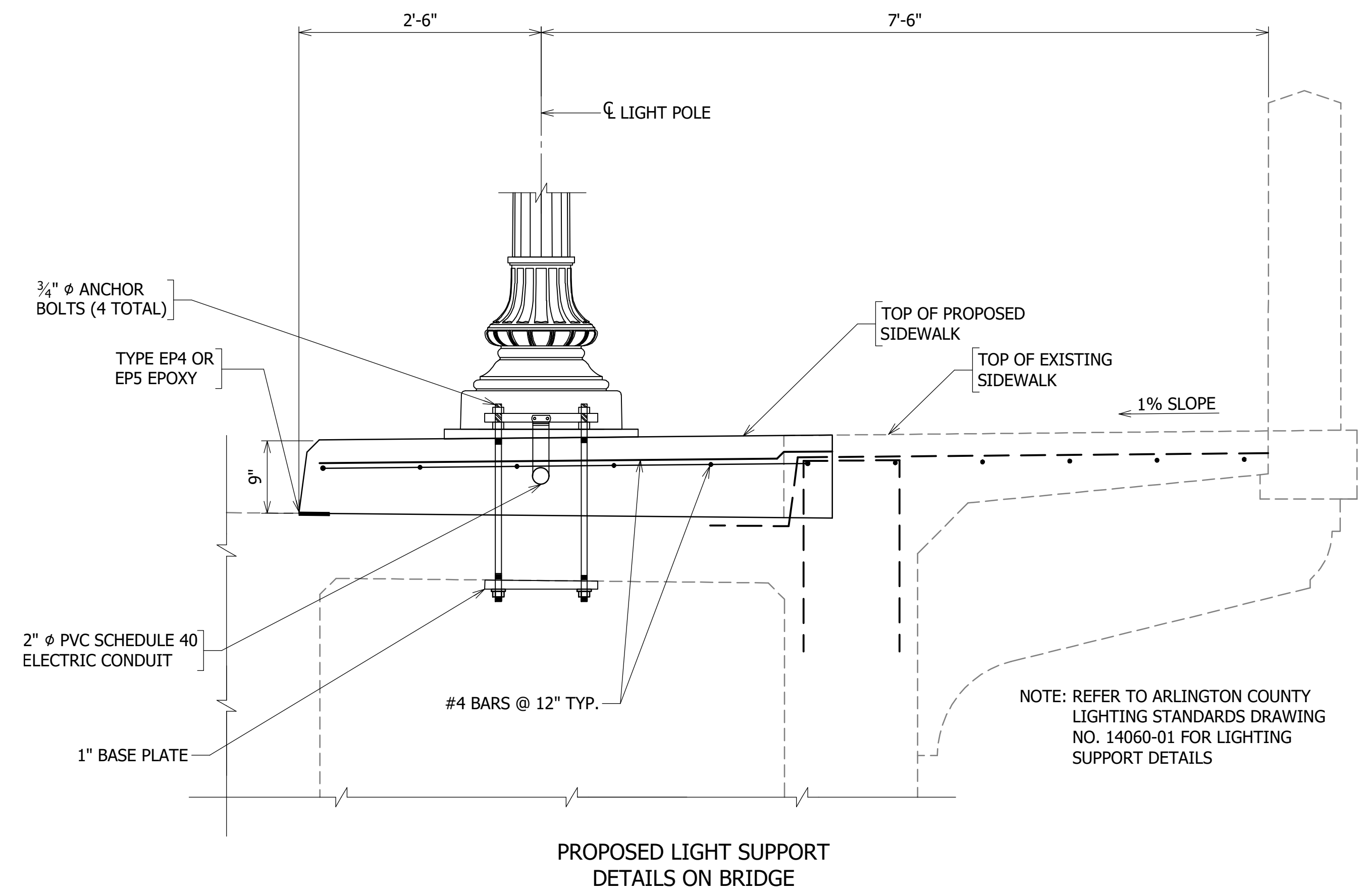
PLOTTED: SEPTEMBER 11 2020

SCALE:

NOT TO SCALE

REVISED ON 01/24/2020

FILENAME: D987-210-TYPICAL_SECTIONS.DWG PATH: 1:\637700 - MASTER - 2016 BRIDGE INSPECTIONS (ARLINGTON COUNTY)\637718 - COLUMBIA PIKE - FOUR MILE RUN SIDEWALK\07 DESIGN\DWG PLOTTED BY: MATTHEW.WHITTAKER



- ① 2" ϕ PVC SCHEDULE 40 CONDUIT
- ② NONMETALLIC COUPLING
- ③ 2" ϕ METAL CONDUIT
- ④ ADAPTER TO CONNECT NONMETALLIC CONDUIT TO METAL CONDUIT
- ⑤ METAL EXPANSION AND DEFLECTION FITTING



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APPROVALS	DATE
<i>Nilesh Naikare</i>	9/17/2020
DESIGN TEAM ENGINEER SUPERVISOR <i>Kamal Taktak</i>	9.17.20
CONSTRUCTION MANAGEMENT SUPERVISOR <i>[Signature]</i>	09.17.2020
WATER, SEWER, STREETS BUREAU CHIEF <i>Dennis M. Leach</i>	9/25/20
TRANSPORTATION DIRECTOR <i>Rene Harris</i>	9.24.2020
PROJECT MANAGER	

REVISIONS	DATE

SIDEWALK WIDENING PROJECT
 DS87
 COLUMBIA PIKE OVER FOUR MILE RUN
 BRIDGE LIGHTING DETAILS

DESIGNED: DJ
 DRAWN: DJ
 CHECKED: AE

PLOTTED: SEPTEMBER 11 2020

SCALE:

NOT TO SCALE

EXHIBIT C - BID FORM AND PRICE BID OF CONTRACTOR**ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT****INVITATION TO BID NO. 21-DES-ITB-417****B I D F O R M****ELECTRONIC BIDS WILL BE RECEIVED BY THE COUNTY VIA VENDOR REGISTRY NOT LATER THAN 4:00 P.M., DECEMBER 8, 2020.**

FOR PROVIDING COLUMBIA PIKE SIDEWALK WIDENING AND BRIDGE MAINTENANCE IDENTIFIED HEREIN IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, TERMS AND CONDITIONS OF THIS SOLICITATION

THE FULL LEGAL NAME OF THE ENTITY SUBMITTING THIS BID MUST BE WRITTEN IN THE SPACE BELOW. THIS BID FORM AND ALL OTHER DOCUMENTS THAT REQUIRE A SIGNATURE MUST BE FULLY AND ACCURATELY COMPLETED AND SIGNED BY A PERSON WHO IS AUTHORIZED TO BIND THE BIDDER, OR THE BID MAY BE REJECTED.**SUBMITTED BY:***(legal name of entity)*

Sagres Construction Corporation

AUTHORIZED SIGNATURE:**PRINT NAME AND TITLE:**

Dejan Dragacevac

ADDRESS:

3680 Wheeler Ave., Suite 300,

CITY/STATE/ZIP:

Alexandria, VA 22304

TELEPHONE NO.:

703-924-7220

E-MAIL**ADDRESS:**

dan@sagresconstruction.com

**THIS ENTITY IS INCORPORATED
IN:**

Virginia

THIS ENTITY IS A:*(check the applicable
option)*

CORPORATION



LIMITED PARTNERSHIP



GENERAL PARTNERSHIP



UNINCORPORATED ASSOCIATION



LIMITED LIABILITY COMPANY



SOLE PROPRIETORSHIP

**IS BIDDER AUTHORIZED TO TRANSACT BUSINESS IN THE
COMMONWEALTH OF VIRGINIA?**

YES



NO

**IDENTIFICATION NO. ISSUED TO THE ENTITY BY THE
SCC:**

05332796

*Any Bidder exempt from Virginia State Corporation Commission (SCC) authorization requirement must include a statement with its bid explaining why it is not required to be so authorized.***VIRGINIA CONTRACTOR'S LICENSE NUMBER:**

2705060249 Class A

ENTITY'S DUN & BRADSTREET D-U-N-S NUMBER: (if available) 093718786**HAS YOUR FIRM OR ANY OF ITS PRINCIPALS BEEN DEBARRED
FROM SUBMITTING BIDS TO ARLINGTON COUNTY,**

YES



NO



BID FORM, PAGE 2 OF 7**VIRGINIA, OR ANY OTHER STATE OR POLITICAL SUBDIVISION
WITHIN THE PAST THREE YEARS?****HAS YOUR FIRM DEFAULTED ON ANY PROJECT IN THE LAST
THREE YEARS?**YES NO **HAS YOUR FIRM HAD ANY TYPE OF BUSINESS, CONTRACTING OR
TRADE LICENSE, REGISTRATION OR CERTIFICATION REVOKED OR
SUSPENDED IN THE PAST THREE YEARS?**YES NO **HAS YOUR FIRM AND ITS PRINCIPALS/OWNERS BEEN
CONVICTED OF ANY CRIME RELATING TO ITS CONTRACTING
BUSINESS IN THE PAST TEN YEARS?**YES NO **HAS YOUR FIRM BEEN FOUND IN VIOLATION OF ANY LAW
APPLICABLE TO ITS CONTRACTING BUSINESS (LICENSING LAWS,
TAX LAWS, WAGE AND HOUR LAWS, PREVAILING WAGE LAWS,
ENVIRONMENTAL) WHERE THE RESULT OF SUCH VIOLATION
WAS THE PAYMENT OF A FINE, BACK PAY DAMAGES, OR ANY
OTHER PENALTY IN THE AMOUNT OF \$5000 OR MORE?**YES NO **BIDDER STATUS:** MINORITY OWNED: WOMAN OWNED: NEITHER:

The undersigned certifies that (Bidder Name) Sagres Construction Corporation
is currently registered with the Virginia State Board of Contractors as required by the Code of Virginia. Certificate Number
2705060249 for a Class A License was issued on the 31st day of January, 2001. The undersigned
further certifies that the registration fee and all renewal fees required under law have been paid.

TIME LIMIT FOR PROJECT: SUBSTANTIAL COMPLETION – 150 **CALENDAR DAYS**
FINAL COMPLETION – 60 **CALENDAR DAYS** FROM
SUBSTANTIAL COMPLETION

LIQUIDATED DAMAGES: SUBSTANTIAL COMPLETION - **\$1,833.00** PER DAY
FINAL COMPLETION - **\$1,833.00** PER DAY

MINIMUM BIDDER QUALIFICATIONS:**In a separate attachment, Bidders shall provide the following documentation:**

- Proof of three (3) continuous years of experience conducting public works infrastructure and street improvement projects in an urban environment. The experience shall be work of similar size and scope,
- List of at least five (5) similar projects recently completed projects that involving the same material, equal size, and comparable length. For each project, Bidders shall list the following information:
 - Project Name
 - Project description and Bidder's scope of work within the project
 - Project manager's name, telephone number and email address
 - Work start date, scheduled completion, and actual completion date
 - Initial contract cost and final contract cost
- Resumes of the proposed Emergency Contact, Site Supervisor, Safety Project Officer(s), OSHA Certified Employee(s), and Environmental Project Officer assigned to this work with their Bid, who shall have at least three

BID FORM, PAGE 3 OF 7

(3) years of experience in overseeing projects of similar type and size.

- Provide certification of VDOT Flagger Certification Program, the American Traffic Safety Services Association Flagger Certification Program or any other VDOT approved flagger program for the Safety Project Officer(s) with its bid submission
- Provide certification of VDOT Erosion & Sediment Control Contractor Certification training with its bid submission.
- Proof of (i) completion by the Bidder and any potential subcontractors of specified safety training programs established by the U.S. Department of Labor, Occupational Safety and Health Administration; (ii) participation by the bidder and any potential subcontractors in apprenticeship training programs approved by state agencies or the U.S. Department of Labor; or (iii) maintenance by the Bidder and any potential subcontractors of records of compliance with applicable local, state, and federal laws, if Bidder is not prequalified by the Virginia Department of Transportation.

COMPLETE THE PRICING SHEET PROVIDED WITH THE BID DOCUMENTS AS ATTACHMENT A TO ITB NO. 21-DES-ITB-417 AND SUBMIT IT WITH YOUR BID.

FAILURE TO SUBMIT THE PRICING SHEET WITH THE BID WILL DEEM THE BIDDER NONRESPONSIVE.

STIPULATED PRICE ITEM			
The Contractor agrees to perform related work for the following items at the stipulated prices shown:			
#	ITEM DESCRIPTION	UNIT	PRICE
1	CONCRETE PIER, CRADLE, OR ENCASEMENT	CY	\$200.00
2	ROCK EXCAVATION	CY	\$150.00
3	CRUSHER RUN VDOT #25 OR APPROVED EQUAL	CY	\$100.00
4	OVER EXCAVATION	CY	\$65.00
5	TEST PITS	EA	\$550.00
6	SELECT BORROW	CY	\$70.00

THE UNDERSIGNED UNDERSTANDS AND ACKNOWLEDGES THE FOLLOWING:

THE OFFICIAL COPY OF THE SOLICITATION DOCUMENTS, WHICH INCLUDES ANY ADDENDA, IS THE ELECTRONIC COPY THAT IS AVAILABLE FROM THE VENDOR REGISTRY WEBSITE AT:

<HTTPS://VRAPP.VENDORREGISTRY.COM/BIDS/VIEW/BIDSLIST?BUYERID=A596C7C4-0123-4202-BF15-3583300EE088>.

VENDORS ARE REQUIRED TO REGISTER ON [VENDOR REGISTRY](#) IN ORDER TO SUBMIT A RESPONSE TO THIS INVITATION TO BID. **NO RESPONSES WILL BE ACCEPTED AFTER THE BID DUE DATE AND TIME.**

POTENTIAL BIDDERS ARE RESPONSIBLE FOR DETERMINING THE ACCURACY AND COMPLETENESS OF ALL SOLICITATION DOCUMENTS THEY RECEIVE FROM ANY SOURCE, INCLUDING THE COUNTY.

The undersigned acknowledges receipt of the following Addenda:

ADDENDUM NO. 1

DATE: 11/6/2020 INITIAL: 

ADDENDUM NO. 2

DATE: _____ INITIAL: _____

BID FORM, PAGE 4 OF 7

ADDENDUM NO. 3

DATE: _____ INITIAL: _____

TRADE SECRETS OR PROPRIETARY INFORMATION:

Trade secrets or proprietary information submitted by a Bidder in connection with a procurement transaction will not be subject to public disclosure under the Virginia Freedom of Information Act. Pursuant to Section 4-111 of the Arlington County Purchasing Resolution, however, a Bidder seeking to protect submitted data or materials from disclosure must, before or upon submission of the data or materials, identify the data or materials to be protected and state the reasons why protection is necessary.

Please mark one:

No, the bid that I have submitted does not contain any trade secrets and/or proprietary information.

Yes, the bid that I have submitted does contain trade secrets and/or proprietary information.

If Yes, you must clearly identify below the exact data or materials to be protected and list all applicable page numbers, sections, and paragraphs of the bid that contain such data or materials:

State the specific reason(s) why protection is necessary and why the identified information constitutes a trade secret or is proprietary:

If you fail above to identify the data or materials to be protected or to state the reason(s) why protection is necessary, you will not have invoked the protection of Section 4-111 of the Purchasing Resolution. Accordingly, upon the award of a contract, the bid will be open for public inspection consistent with applicable law.

CERTIFICATION OF NON-COLLUSION: The undersigned certifies that this bid is not the result of or affected by (1) any act of collusion with another person engaged in the same line of business or commerce (as defined in Virginia Code §§ 59.1-68.6 *et seq.*) or (2) any act of fraud punishable under the Virginia Governmental Frauds Act (Virginia Code §§ 18.2-498.1 *et seq.*).

CONTACT PERSON AND MAILING ADDRESS FOR DELIVERY OF NOTICES

Provide the name and address of the person who is designated to receive notices and other communications regarding this solicitation. Refer to the "Notices" section in the draft Contract Terms and Conditions for information regarding delivery of notices.

NAME: Dejan Dragacevac

ADDRESS: 3680 Wheeler Ave., Suite 300, Alexandria, VA 22304

BID FORM, PAGE 5 OF 7

E-MAIL: dan@sagresconstruction.com**REFERENCES**

Bidders should provide at least five (5) references for similar goods that have been provided by the Bidder within the past three (3) years. The County reserves the right to evaluate the quality of Contractor's work through site visits with Contractor's references.

REFERENCE 1: Contact Name: Samuel EngidaOrganization: Fairfax CountyPhone Number: 703-324-2180E-mail Address: samuel.engida@fairfaxcounty.govContract/Project Name: Route 1 Virginia Lodge to Huntington AveContract/Project Dates (from-to): 7/15/2019 - 3/2/2020

Contract/Project Description: Project consists of pedestrian safety improvements along Route 1, between the Virginia Lodge Motel and Huntington Avenue. More specifically the project includes: • Approximately 1,320 LF of 5-foot concrete sidewalk and curb ramps, • 2 signal modifications, • Extension of a 6'x53.5' box culvert to a 6x6 box culvert, including repair cracks and spalled areas • 250 LF of guardrails and end treatments installation • Water main relocation

REFERENCE 2: Contact Name: Christina AlexanderOrganization: City of FairfaxPhone Number: 703-385-7810E-mail Address: Christina.Alexander@fairfaxva.govContract/Project Name: Rt. 123 - Chain Bridge Rd. Pedestrian and Drainage ImprovementsContract/Project Dates (from-to): 4/15/2019 - 8/1/2020

Contract/Project Description: Installation of erosion control devices, tree preservation and removal, excavation and grading, demolition of existing features, installation of storm sewer, drainage structures, and a SWM/BMP facility, watermain relocation, water and sanitary service relocation, curb, curb and gutter, placing aggregate, asphalt paving, brick and concrete sidewalk, curb ramps, concrete steps, handrail, retaining walls (masonry, gravity, and post-and-panel walls), brick fence, concrete safety barrier, decorative street lights, retaining wall lights, terrace up-lights, landscaping, installation of signage and pavement markings, restoration of existing features, and all measures required for the maintenance of traffic during construction including the implementation of detours

REFERENCE 3: Contact Name: Ravinder SinghOrganization: Arlington CountyPhone Number: 571-220-1882E-mail Address: rksingh@arlingtonva.usContract/Project Name: Wilson Blvd. Phase IIIContract/Project Dates (from-to): 4/1/2019 - 7/19/2019

Contract/Project Description: Capital Improvement Project work including streetscape improvements on Wilson Blvd from N. Monroe St. to N. Kenmore St. Work will include: • Removal and Installation of 1,360 LF of new curb and gutter • Full depth asphalt pavement of up to 1,625 SY • Removal and Installation of approximately 850 SY of concrete sidewalk, 180 SY of brick pavers and 350 SY of concrete driveways. • Installation of one curb inlet and converting one curb inlet to a manhole. • Removal and Reinstatement of approx. 270 SY of sod and planting 13 street trees. • Adjustment of existing utility appurtenances as required. • Signing, and Pavement Markings • Installation of new street lights.

BID FORM, PAGE 6 OF 7

REFERENCE 4: Contact Name: Mohammad (Mo) Ayyoubi

Organization: Prince William County

Phone Number: 703-792-7193

E-mail Address: mayyoubi@pwcgov.org

Contract/Project Name: Rt. 1 Utility Duct Bank and Water Main

Contract/Project Dates (from-to): 8/27/2018 - 11/18/2019

Contract/Project Description: Installation of water main and duct bank along southbound lanes of Rt. 1 in Woodbridge. Project required significant restoration of pavement, curb and gutter, sidewalk, driveway aprons and streetscape.

REFERENCE 5: Contact Name: Richard Gutridge

Organization: VDOT - Northern VA District

Phone Number: 703-366-1944

E-mail Address: richard.gutridge@vdot.virginia.gov

Contract/Project Name: Bridge Replacement on Route 727 Over Crooked Run

Contract/Project Dates (from-to): 4/19/2017 - 10-5-2017

Contract/Project Description: Replaced bridge in its entirety to include foundations and abutments.

Diverted water creating a dry end work area

REFERENCE 6: Contact Name: Mejrdad Naderi (Construction Mgr.)

Organization: VDOT - Northern VA District

Phone Number: 703-259-2217

E-mail Address: mehrdad.naderi@vdot.virginia.gov

Contract/Project Name: Rt. 234 - Dumfries Rd. Pedestrian Improvements

Contract/Project Dates (from-to): 4/22/2018 - 6/2/2018

Contract/Project Description: Construct a sidewalk between Four Seasons Drive and Fortuna Center Plaza, inclusive of streetscape including approx. 575 LF of curb and gutter, approx 60' of 12-15" storm pipe, stormwater appurtenances, and 440 LF of guardrail.

BIDDER NAME: Sagres Construction Corporation

INSURANCE CHECKLIST

CERTIFICATE OF INSURANCE MUST SHOW ALL COVERAGE AND ENDORSEMENTS MARKED "X".

COVERAGES REQUIRED

LIMITS (FIGURES DENOTE MINIMUMS)

- 1. Workers' Compensation..... Statutory limits of Virginia
- 2. Employer's Liability.....\$500,000/accident, \$500,000/disease, \$500,000/disease policy limit
- 3. Commercial General Liability.....\$2,000,000 CSL BI/PD each occurrence, \$4 Million annual aggregate
- 4. Premises/Operations.....\$500,000 CSL BI/PD each occurrence, \$ 1 Million annual aggregate
- 5. Automobile Liability\$1 Million BI/PD each accident, Uninsured Motorist
- 6. Owned/Hired/Non-Owned Vehicles..... \$1 Million BI/PD each accident, Uninsured Motorist
- 7. Independent Contractors.....\$1 Million CSL BI/PD each occurrence, \$1 Million annual aggregate
- 8. Products Liability.....\$1 Million CSL BI/PD each occurrence, \$1 Million annual aggregate
- 9. Completed Operations.....\$1 Million CSL BI/PD each occurrence, \$1 Million annual aggregate
- 10. Contractual Liability (Must be shown on Certificate).....\$1 Million CSL BI/PD each occurrence, \$ 1 Million annual aggregate
- 11. Personal and Advertising Injury Liability.....\$1 Million each offense, \$1 Million annual aggregate
- 12. Umbrella\Excess Liability.....\$1 Million Bodily Injury, Property Damage and Personal Injury
- 13. Per Project Aggregate
- 14. Professional Liability
 - a. Architects and Engineers\$1 Million per occurrence/claim
 - b. Asbestos Removal Liability\$2 Million per occurrence/claim
 - c. Medical Malpractice.....\$1 Million per occurrence/claim
 - d. Medical Professional Liability.....\$1 Million per occurrence/claim
- 15. Miscellaneous E&O/ Professional Liability No current coverage - Will obtain.....\$1 Million per occurrence/claim
- 16. Motor Carrier Act End. (MCS-90) \$1 Million BI/PD each accident, Uninsured Motorist
- 17. Motor Cargo Insurance
- 18. Garage Liability\$1 Million Bodily Injury, Property Damage per occurrence
- 19. Garagekeepers Liability.....\$500,000 Comprehensive, \$500,000 Collision
- 20. Inland Marine-Bailee's Insurance..... \$ _____
- 21. Moving and Rigging Floater Will Add..... Endorsement to CGL
- 22. Dishonesty Bond.....\$ _____
- 23. Builder's Risk.....Provide Coverage in the full amount of contract
- 24. XCU Coverage..... Endorsement to CGL
- 25. USL&H.....Federal Statutory Limits
- 26. Carrier Rating shall be Best's Rating of A-VII or better or its equivalent

- 27. Notice of Cancellation, nonrenewal or material change in coverage shall be provided to County at least thirty (30) days prior to action.
- 28. The County shall be named Additional Insured on all policies except Workers Compensation, Errors and Omissions/Professional Liability and Auto.
- 29. Certificate of Insurance shall show Bid Number and Bid Title.

Limit carried is \$5M CSL

- 30. Environmental Impairment Liability, including coverage of on-site clean up.....BI/PD \$3 Million per occurrence/\$6 Million Aggregate

a In addition to environmental impairment liability, if work requires clean up, remediation, and/or removal of bio-solids, bio-hazardous waste, and any hazardous or toxic material via transportation request:

Business Auto Liability.....\$2 Million per occurrence with MCS-90 and CA9948 (or equivalent endorsements specifically referenced in the certificate of insurance)

- 31. Cyber insurance.....\$2 Million per occurrence/Aggregate

32. OTHER INSURANCE REQUIRED: _____

INSURANCE AGENT'S STATEMENT:

I have reviewed the above requirements with the bidder named below and have advised the bidder of required coverages not provided through this agency. e-Signed by Claudia Lewis on 12-04-2020 16:05:21:21 GMT

AGENCY NAME: McGriff Insurance Services

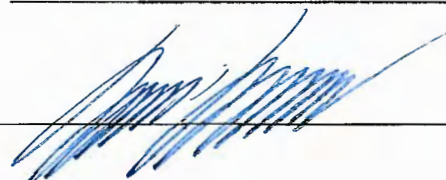
AUTH. SIGNATURE: _____

BIDDER'S STATEMENT:

If awarded the contract, I will comply with contract insurance requirements.

BIDDER NAME: Sagres Construction Corporation

AUTH. SIGNATURE: _____



BID TAB

ITB NO. 21-DES-ITB-417**PROJECT NO. DS87**

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) Sagres Construction Corporation IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER 2705060249 WAS ISSUED ON THE 31st DAY OF January, 2001. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
C1 GENERAL EARTH WORK					
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02200-C1-00140	Aggregate, VDOT #21-B (Compacted in Place per VDOT standards & Specs)	58	CY	\$95.00	\$5,510.00
				SUBTOTAL	\$5,510.00

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.	202	LF	\$95.00	\$19,190.00
02611-C2-00110	Concrete Sidewalk, 4" Thickness (As per details shown on sheet C040.1)	110	SY	\$100.00	\$11,000.00
02611-C2-XXXX	Brick Bands	20	LF	\$25.00	\$500.00
				SUBTOTAL	\$30,690.00

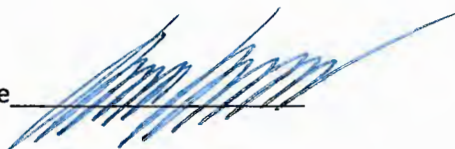
C3 ASPHALT WORK					
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02600-C3-00010	Asphalt Concrete, Planing or Milling (1/2" to 3" Depth)	87	SY	\$35.00	\$3,045.00
02600-C3-00030	Asphalt Concrete, Base Course (VDOT BM-25.0A)	29	TON	\$195.00	\$5,655.00
02600-C3-00040	Asphalt Concrete, Intermediate Course (VDOT IM-19.0A)	19	TON	\$195.00	\$3,705.00
02600-C3-00070	Asphalt Concrete, Surface Course (VDOT SM-9.5D)	20	TON	\$195.00	\$3,900.00
				SUBTOTAL	\$16,305.00

C9 STREET LIGHTING WORK					
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
14030-C9-00040	Furnish and Install 2 Inch Sch 40 PVC Conduit in Trench (Detail 14030-01)	358	LF	\$80.00	\$28,640.00
14040-C9-00180	Furnish and Install Junction Box and Lid LARGE (Detail 14040-02)	1	EA	\$1,950.00	\$1,950.00
14050-C9-00260	Furnish & Install # 6 TNNH Copper Cable	2048	LF	\$3.50	\$7,168.00
14050-C9-00270	Furnish & Install # 12 UF Cable with ground wire	240	LF	\$4.00	\$960.00
14060-C9-00300	Install Roadway Light Pole Foundation (Detail 14060-03)	2	EA	\$6,250.00	\$12,500.00

BIDDER

SAGRES CONSTR. CORP.

Signature



LIB NO. 21-DES-ITB-417**PROJECT NO. DS87**

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) Sagres Construction Corporation IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER 2705060249 WAS ISSUED ON THE 31st DAY OF January, 2001. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
14160-C9-00920	Decorative Post-Top Aluminum Streetlight Pole with Double Post Top Luminaires per Arlington Lighting Standard 14160-02	4	EA	\$13,000.00	\$52,000.00
XXXXX-C9-XXXXX	Install Roadway Light Pole On Bridge Deck	2	EA	\$8,500.00	\$17,000.00
				SUBTOTAL	\$120,218.00

C10 PAVEMENT MARKING AND SIGNAGE WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02900-C10-00070	Yellow Four (4) Inch Longitudinal Solid Line	850	LF	\$2.00	\$1,700.00
02900-C10-00080	White Four (4) Inch Longitudinal Skip Line (Ten (10) Foot Line/Thirty (30) Foot Spacing), Note: Forty (40) LF Consists of Ten (10) LF of Marking and Thirty (30) LF of Space	600	LF	\$2.00	\$1,200.00
02900-C10-00360	Removal of Existing Longitudinal Lines (Up To and Including Six (6) Inch Width), Note: Base Unit For Removal	400	LF	\$2.00	\$800.00
				SUBTOTAL	\$3,700.00

C11 LANDSCAPE AND HARDSCAPE RESTORATION WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02200-C11-00010	Imported Topsoil	1	CY	\$150.00	\$150.00
02801-C11-00060	Sod, Tall Fescue/Bluegrass Mixture	9	SY	\$30.00	\$270.00
				SUBTOTAL	\$420.00

C13 EROSION AND SEDIMENT CONTROL WORK

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
01500-C13-10000	Temporary Erosion and Sediment Controls	1	LS	\$10,000.00	\$10,000.00
				SUBTOTAL	\$10,000.00

C19 BRIDGE ITEMS**Base Bid Columbia Pike Street Improvements**

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
VDOT20-C19-SP001	Remove Portion of Existing Structure (Str. No. 1008) (VDOT Item 68900) See Bridge General Note #10 on Sheet C000.1	1	LS	\$20,000.00	\$20,000.00
VDOT20-C19-SP002	Remove and Dispose Existing Split Rail Fence	1	LS	\$500.00	\$500.00
VDOT20-C19-SP003	Deck Drainage System	1	LS	\$13,500.00	\$13,500.00
VDOT20-C19-SP004	4" Diameter PVC Pipe (Drain Pipe Extension as needed)	50	LF	\$75.00	\$3,750.00

BIDDER SAGRES CONST. CORP.Signature 

LIB NO. 21-DES-ITB-417**PROJECT NO. DS87**

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) Sagres Construction Corporation IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER 2705060249 WAS ISSUED ON THE 31st DAY OF January, 2001. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
VDOT20-C19-SP005	Dry Riprap Cl. I, 26" (VDOT item 69627)	17	TON	\$200.00	\$3,400.00
VDOT20-C19-SP006	Modify Existing Inlet	2	EA	\$5,000.00	\$10,000.00
VDOT20-C19-SP007	Handrail HR-1 Type II	212	LF	\$155.00	\$32,860.00
VDOT20-C19-SP008	Conc. Class A4 Mod. Low Shrinkage (VDOT Item 68043)	27.5	CY	\$1,650.00	\$45,375.00
VDOT20-C19-SP009	Corrosion Resistant Reinforcing Steel, Cl. I (VDOT Item 68091)	1,250	LBS	\$5.00	\$6,250.00
VDOT20-C19-SP010	Epoxy Overlay (VDOT Item 68675)	1,610	SY	\$55.00	\$88,550.00
				SUBTOTAL	\$224,185.00

TOTAL (EXCLUDING PERCENTAGE ITEMS) \$411,028.00

PCT	PERCENTAGE LINE ITEMS	QTY	UNIT	UNIT PRICE	TOTAL
01000-C16-00010	Maintenance of Traffic (MOT)	NA	%	10%	\$41,102.80
01000-C16-00030	Mobilization and De-Mobilization	NA	%	5%	\$20,551.40
01500-SA-00200	SWPPP Administration	NA	%	1%	\$4,110.28
				PERCENTAGE LINE ITEMS SUBTOTAL	\$65,764.48

GRAND TOTAL BID PRICE \$476,792.48

C20 BRIDGE ITEMS
OPTIONAL BID ITEM Bridge Maintenance

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
VDOT20-C20-SP001	H.E.S. Patching (Type B) (VDOT Item 68322)	10	SY	\$1,750.00	\$17,500.00
VDOT20-C20-SP002	Concrete Superstructure Surface Repair (VDOT Item 68600)	8	SY	\$1,500.00	\$12,000.00
VDOT20-C20-SP003	Concrete Surface Color Coating (VDOT Item 68190)	110	SY	\$150.00	\$16,500.00
VDOT20-C20-SP004	Expansion Joint Reconstruction (HES) (VDOT Item 68573)	155	LF	\$750.00	\$116,250.00
VDOT20-C20-SP005	Silicone Joint Sealant (1") (VDOT Item 68409)	155	LF	\$75.00	\$11,625.00
VDOT20-C20-SP006	Embedded Galvanic Anodes (VDOT Item 68180)	44	EA	\$75.00	\$3,300.00
VDOT20-C20-SP007	Beam End Repair (VDOT Item 68580)	24	EA	\$2,500.00	\$60,000.00
VDOT20-C20-SP008	Concrete Superstructure Surface Repair/ Beams (VDOT Item 68600)	17	SY	\$1,500.00	\$25,500.00

BIDDER SAGRES CONSTRUCTION CORP. Signature 

BID TAB

LIB NO. 21-DES-ITB-417**PROJECT NO. DS87**

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) Sagres Construction Corporation IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER 2705060249 WAS ISSUED ON THE 31st DAY OF January, 2001. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
VDOT20-C20-SP009	NS BR. Superstructure Wid./Repair Bridge Cleaning and Washing - Super Structure (VDOT Item 68910)	1,334	SY	\$20.00	\$26,680.00
VDOT20-C20-SP010	Concrete Substructure Surface Repair - Abutments and Piers (VDOT Item 69500)	60	SY	\$1,250.00	\$75,000.00
VDOT20-C20-SP011	Riprap (VDOT Item 69675)	30	TON	\$200.00	\$6,000.00
				SUBTOTAL	\$370,355.00

TOTAL (EXCLUDING PERCENTAGE ITEMS) \$370,355.00

PCT		PERCENTAGE LINE ITEMS			
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
01000-C16-00010	Maintenance of Traffic (MOT)	NA	%	10%	\$37,035.50
01000-C16-00030	Mobilization and De-Mobilization	NA	%	3%	\$11,110.65
01500-SA-00200	SWPPP Administration	NA	%	1%	\$3,703.55
PERCENTAGE LINE ITEMS SUBTOTAL					\$51,849.70

OPTIONAL BID ITEM TOTAL : \$422,204.70

BIDDER

SAGRES CONST. CO. L.P.A.

Signature