# Location Map Scale: 1"=2000'

Vicinity

# ARLINGTON COUNTY Solution Site FAIREAX COUNTY Golumbia Pike

### ARLINGTON BOULEVARD AT NORTH MONTAGUE STREET SIGNAL UPGRADES

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**AUTOTURN EXHIBIT** 

LIMITS OF DISTURBANCE

**SWPPP EXHIBIT** 

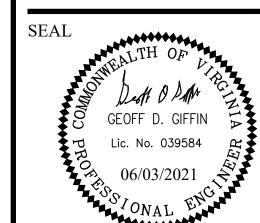
**EXHIBIT A** 

EXHIBIT C



DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Division
Transportation Planning Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606



APPROVALS

6/2/2021

FRAFFIC SIGNAL ENGINEER

106/02/21

FRAFFIC ENGINEERING MANAGER

06.03.2021

WATER, SEWER, STREETS BUREAU CHIEF

106/02/202

TE&O BUREAU CHIEF

106/02/202

TEANSPORTATION DIRECTOR

06/03/21

REVISONS DA

Montague Street nal Upgrades

North Monta Signal Up

Designed: KF
Drawn: KF
Checked: GG
Miss Utility Transmittal #:

Plotted: June 03, 2021 Plotted by: Miguel.Tyshing

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

© 2021 KIMLEY-HORN AND ASSOCIATES, I 11400 Commerce Park Drive, Suite 4 Reston Virginia 20191 Phone: 703-674-1300 Fax: 703-674-1350

Sheet 0000

DEPARTMENT OF ENVIRONMENTAL SERVICES

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

# Construction Drawings For: Arlington Boulevard Signal Upgrades

Signalized Pedestrian Crossing Of:

• Arlington Boulevard At North Montague Street

ID #34

THIS PROJECT CONSISTS OF TRAFFIC SIGNAL MODIFICATIONS AT THE PEDESTRIAN CROSSING OF ARLINGTON BOULEVARD AT NORTH MONTAGUE STREET. THE SIGNAL MODIFICATIONS INCLUDE REMOVING ALL EXISTING EQUIPMENT AND REPLACING WITH NEW EQUIPMENT, ACCESSIBLE PEDESTRIAN SIGNAL DEVICES, BUS STOP IMPROVEMENTS, AND LIMITED SIDEWALK AND CURB AND GUTTER MODIFICATIONS

SWM 20-0188

### **GENERAL CONSTRUCTION NOTES**

- 1. ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
- 2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
- 3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED DI ANIS
- 4. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES 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.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- 6. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
- 7. EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- 3. 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.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR THE PICK-UP AND DELIVERY OF THE BUS STOP SHELTER UNITS AND SITE FURNISHINGS FROM THE ARLINGTON COUNTY'S BUS SHELTER STORAGE WAREHOUSE LOCATED AT 2900 s. EADS STREET, ARLINGTON VA 22202. CONTRACTOR SHALL COORDINATE THE PICK-UP WITH ASSIGNED COUNTY STAFF AT LEAST FORTY EIGHT (48) HOURS PRIOR TO THE DELIVERY.

### STORMWATER AND ENVIRONMENTAL PROTECTION

10. THE CONTRACTOR SHALL CONFINE <u>ALL</u> ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).

### TREE PROTECTION

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

### TRAFFIC CONTROL

AND THE PROJECT OFFICER

- 12. CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
- 13. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. 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.
- 14. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS.
- 15. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. TYPICALLY ANY RELOCATION OR CLOSURE OF A BUS STOP WILL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR 703-228-3049. ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11' WIDE.
- 16. 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

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

FL	FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA											
ARLINGTON BOULEVARD - PRINCIPAL ARTERIAL - SPEED LIMIT 45 MPH												
	ARLINGTON BOULEVARD (RTE 50)											
AADT (2019)	AADT (2019) 60,000 VPD											
AADT (DESIGN YR) N/A												
V DESIGN (mph) 45												

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

PROJECT MANAGER	DATE
CONSTRUCTION MANAGER	DATE

CALL 48 HOURS
BEFORE YOU DIG

IT'S THE LAW!
DIAL 811

Know what's below.
Call before you dig.

Symbols

Sanitary Manhole

Watermain Reducer 🔺

Water — Valve

Blowoff Valve

Water — Cross

Water — Tee

Water Meter

Water Cap

Water - Manhole Cover

∀ Siamese Connection ¥

Electrical Box

Telephone Pedestal

Carlyle Light

Ground Light

Utility Pole

Guy Wire

Utility Cover

Bollard

Mailbox

Cobrahead Light 🕂 🛨 🖜

CableTV Pedestal

Water — Typical Bend 🛏

(2001) Sanitary Str. #

**Proposed** 

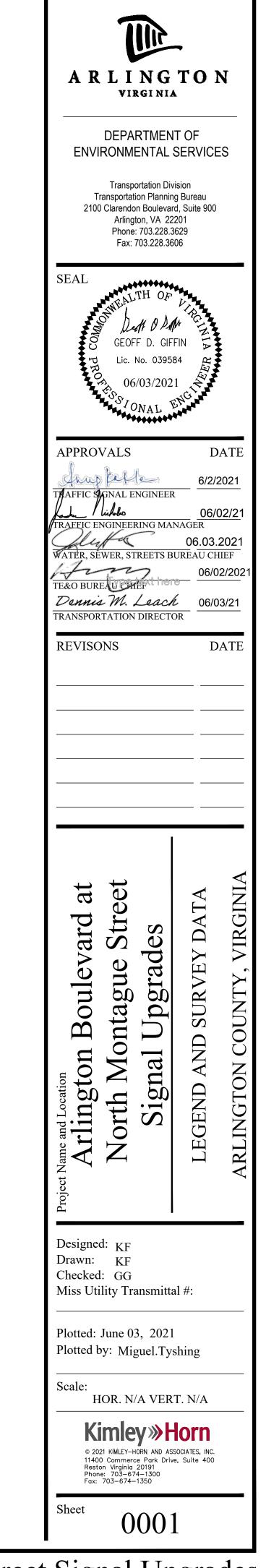
 $\langle ST1 \rangle$ 

Existing

### Parking Meter Traffic Mast Arm Pole Traffic Pedestrian Pole ■ Traffic Electrical Box Traffic Junction Box Traffic Service Meter Coniferous Tree Bush/Hedge/Shrub Construction Notes Benchmark Monument (GPS) Monument Iron Rod Found Iron Pipe Found Rebar Rod Found

### LEGEND AND SURVEY DATA

### STORM DRAIN INVERTS SANITARY SEWER INVERTS #14589 #10513 #10655 TOP = 299.45LOCATION UNKNOWN 18" RCP = 300.77 (FF101) TOP = 298.74TOP = 270.4915" RCP OUT = 296.29 (14694) C/L INV. = 288.75C/L INV. = 264.21#FF101 #14694 TOP = 280.23TOP = 304.84#10567 #10660 TOP = 292.2715" RCP OUT = 276.58 (14861) TOP = 278.0818" RCP IN = 299.69 (FF102) TOP = 282.2618" RCP IN = 287.77 (14589)18" RCP OUT = 299.64 (FF100) C/L INV. = UNKNOWN C/L INV. = 274.3821" RCP OUT = 287.72 (14729) #14890 #10662 TOP = 288.22#FF102 #10576 #14729 15" RCP IN = 284.37 (SD101) TOP = 305.37TOP = 290.98TOP = 288.1918" RCP OUT = 300.03 (FF101) TOP = 293.3815" RCP OUT = 284.22 (14937) C/L INV. = 282.85C/L INV. = 281.0921" RCP IN = 286.84 (14694) #10591 #10667 21" RCP OUT = 286.78 (14746) TOP = 298.31TOP = 304.57TOP = 306.96TOP = 293.6615" RCP INV. OUT = 298.22 (14898) 15" RCP IN = 292.17 (SD100) C/L INV. = 297.37C/L INV. = 287.0821" RCP = 286.52 (14729) 24" RCP IN = 289.41 (UNKNOWN)27" RCP IN = 292.07 (14878) #10648 #SAN101 #14763 24" RCP OUT = 288.77 (14937) TOP = 291.19TOP = 318.17TOP = 302.5124" RCP = 284.28 (14765) 15" RCP OUT = 287.27 (14890) C/L INV. = 306.94C/L INV. = 290.58#14937 TOP = 288.09#10649 #SAN100 24" RCP = 285.32 (14763) 24" RCP IN = 281.28 (14898) 24" RCP = 265.65 (SD103) TOP = 299.81TOP = 294.4515" RCP IN = UNKNOWN (14890) C/L INV. = 290.54C/L INV. = UNKNOWN #14861 24" RCP OUT = 281.48 (14859) 24" RCP = 266.09 (SD102) TOP = 279.3915" RCP IN = 275.30 (14887) 15" RCP OUT = 275.12 (14853) TOP = 286.8724" RCP IN = 281.62 (14937) #14853 TOP = 261.4715" RCP IN = 257.57 (14861) 15" RCP IN = 258.00 (14880) 24" RCP OUT = 256.57 (14836)



# General Signal Notes

- 1. ALL WORK FOR TRAFFIC SIGNALS, TRAFFIC SIGNS, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE LATEST EDITION OF THE ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS, 2016 VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, 2016 VDOT ROAD AND BRIDGE STANDARDS, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PRODUCTION MANUAL, AND SPECIAL PROVISIONS IN EFFECT AT THE TIME OF ADVERTISEMENT.
- 2. FIVE WORKING DAYS PRIOR TO COMMENCING SIGNAL INSTALLATION/MODIFICATION WORK AT ANY LOCATION IN ARLINGTON COUNTY, VIRGINIA, SIGNAL CONTRACTORS MUST NOTIFY THE COUNTY ENGINEER IN WRITING WITH THE NAME, DAYTIME PHONE NUMBER, AND EMERGENCY PHONE NUMBERS OF THE CONTRACTOR. THIS NOTIFICATION IS TO INCLUDE LOCATION, ROUTE NUMBERS, TYPE, AND DETAILS OF CONSTRUCTION AND SCHEDULE OF WORK.
- 3. THE TRAFFIC SIGNAL CONSTRUCTION SHALL NOT BEGIN WITHOUT PRIOR NOTIFICATION AND APPROVAL FROM ARLINGTON COUNTY.
- 4. THE COUNTY ENGINEER, PRIOR TO CONSTRUCTION, SHALL VERIFY POLE(S) AND CONTROLLER CABINET LOCATIONS.
- 5. ALL CATALOG CUTS, POLE CALCULATIONS, FOUNDATION DESIGNS, SHOP DRAWINGS, ETC., SHALL BE SUBMITTED TO, AND APPROVED BY, ARLINGTON COUNTY PRIOR TO CONSTRUCTION.
- 6. OPERATION OF THE SIGNALIZED INTERSECTION IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE TRAFFIC SIGNAL IS ACCEPTED BY ARLINGTON COUNTY.
- 7. ANY NOTES NOT MENTIONED IN THE NOTES SECTION OF THIS SIGNAL PLAN WILL REVERT TO THE ARLINGTON COUNTY STANDARDS.
- 8. CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL COMMUNICATION THROUGHOUT THE PROJECT.
- 9. ALL NEW CONTROLLER CABINETS MUST BE FURNISHED WITH A BACKUP POWER BATTERY

- 10. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY." PRIVATE UTILITY LATERALS ARE NOT LOCATED. CONTRACTOR SHALL VERIFY THE LOCATION OF UTILITY LATERALS AND IS RESPONSIBLE FOR ANY DAMAGE TO PRIVATE UTILITY LATERALS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, SIDEWALK, ETC. THAT ARE DAMAGED DURING CONSTRUCTION.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE SIGNING, DELINEATION, PAVEMENT MARKINGS AND ANY OTHER TRAFFIC CONTROL DEVICES NECESSARY TO PERFORM THE WORK IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL TEMPORARY DEVICES.
- 13. THE CONTRACTOR SHALL SUBMIT "AS-BUILT" DRAWINGS TO ARLINGTON COUNTY UPON JOB COMPLETION AND FINAL INSPECTION .
- 14. EXISTING CONTROLLER AND CABINETS SPECIFIED TO BE REMOVED SHALL BE RETURNED TO ARLINGTON COUNTY.
- 15. CCTV LOCATIONS AND QUANTITIES ARE FOR PLANNING PURPOSES ONLY. THE FINAL LOCATIONS SHALL BE FIELD LOCATED.
- 16. CONTRACTOR SHALLL COORDINATE WITH UTILITY COMPANIES ON ADJUSTMENT OF OVERHEAD CABLES TO INSTALL MAST ARM SIGNAL POLES.

## Signal Notes

### A. POLES AND FOUNDATIONS

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

### (UAZ XRE LED 57.69W). B. CONTROLLER AND FOUNDATION

- 1. NEW CONTROLLER CABINETS SHALL BE TS2, P TYPE WITH BATTERY BACKUP PER ARLINGTON COUNTY REQUIREMENTS.
- CONTROLLER SHALL BE INTELIGHT X-3 AND SHALL BE INSTALLED AND SET AS FOLLOWS:
   TO REST IN PHASE 2 & 6 GREEN INTERVAL
- 3. THE CONTROLLER CABINET AND FOUNDATION SHALL BE INSTALLED IN ACCORDANCE

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

- WITH ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS 66-01. 66-02, AND 70-01.
- 4. THE COUNTY WILL PROVIDE SIGNAL TIMINGS TO THE CONTRACTOR FOR THE CONTROLLER WHEN THE INTERSECTION IS TOTALLY PREPARED FOR OPERATION. THE CONTRACTOR SHALL NOTIFY THE COUNTY IN WRITING 10 DAYS IN ADVANCE OF REQUIRING FINAL TIMINGS.

### C. TRAFFIC SIGNAL HEADS

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

ALL SIGNAL HEADS SHALL BE YELLOW IN COLOR

### D. DETECTORS

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

### E. CONDUIT, CONDUCTORS, AND ELECTRICAL

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

### F. SIGNS

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

### G. DEMOLITION/SALVAGE

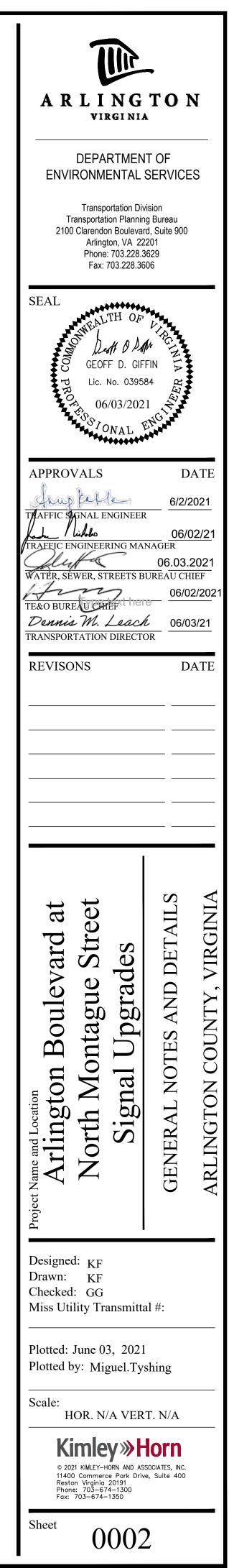
- 1. ALL EXISTING SIGNAL EQUIPMENT IS TO BE REMOVED & RETURNED TO ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES LOCATED AT 4300 29TH ST S., ARLINGTON, VA 22206.
- 2. ALL EXISTING SIGNAL POLE FOUNDATIONS SHALL BE DEMOLISHED IN ACCORDANCE WITH ARLINGTON COUNTY SPECIFICATIONS.

### H. COMMUNICATIONS

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

### I. INSPECTIONS

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



### GENERAL NOTES

### MAPPING

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

### GENERAL REQUIREMENTS

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

### COORDINATION

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

### CLEARING AND GRUBBING/DEMOLITION

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

### UTILITIES

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

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

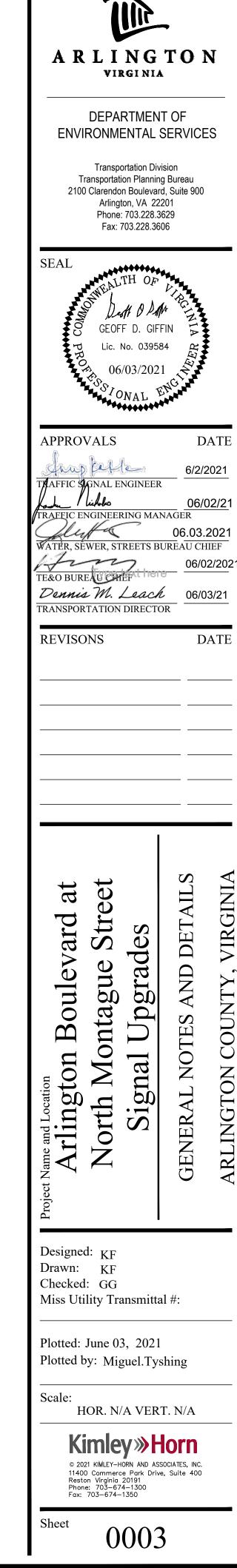
- CONTRACTOR SHALL CONFORM TO THE OVERHEAD HIGH VOLTAGE ACT" (EFFECTIVE JULY 1, 2003) AND SHALL CONTACT THE NECESSARY AUTHORITIES PRIOR TO START OF CONSTRUCTION.
- ARLINGTON COUNTY'S UTILITY DEPARTMENT INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENT PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED.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

### DRAINAGE

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

### CONSTRUCTION

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



### EROSION AND SEDIMENT CONTROL

- 1. TEMPORARY SILT FENCE SHALL BE CONSTRUCTED FOR SHEET RUNOFF AS SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
- WHEN WIRE SUPPORT IS USED, STANDARD STRENGTH FILTER CLOTH MAY BE USED. POSTS FOR THIS TYPE OF INSTALLATION SHALL BE PLACED A MAXIMUM OF 10 FEET APART. THE WIRE MESH FENCE MUST BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF TWO INCHES AND SHALL NOT EXTEND MORE THAN 34 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- WHEN WIRE SUPPORT IS NOT USED, EXTRA STRENGTH FILTER CLOTH SHALL BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 6 FEET APART. THE FILTER FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING ONE INCH LONG (MINIMUM) HEAVY DUTY WIRE STAPLES OR TIE WIRES AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH.
- WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 14 GAUGE AND SHALL HAVE A MAXIMUM MESH SPACING OF 6 INCHES. POSTS SHALL BE EITHER STEEL POSTS OR WOODEN STAKES AND HAVE A MINIMUM LENGTH OF 5 FEET.
- 5. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS NOTED IN TABLE 3.05-B OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION. THE SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0°F TO 120°F.
- SILT FENCES SHALL BE INSPECTED AND CLEANED ON A WEEKLY BASIS AND ON A DAILY BASIS IMMEDIATELY FOLLOWING EACH RAIN STORM. ALL NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.
- 14. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE <u>VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION (1992)</u> AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.
- 15. THE TEMPORARY EROSION AND SILTATION (E&S) CONTROL ITEMS SHOWN ON THE E&S CONTROL PLAN ARE INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SILTATION WITHIN THE PROJECT LIMITS. THE E&S CONTROL PLAN IS BASED ON FIELD CONDITIONS AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR, IN CONJUNCTION WITH THE AC PROJECT MANAGER AND/OR RLD, SHALL ADJUST THE LOCATION, QUANTITY AND TYPE OF EROSION AND SILTATION CONTROL ITEMS REQUIRED BASED ON THE ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE SELECTED SEQUENCE OF CONSTRUCTION.
- 16. THE AREAS BEYOND THE PROJECT'S CONSTRUCTION AREA ARE TO BE PROTECTED FROM SILTATION. PERIMETER CONTROLS SUCH AS FILTER BARRIER, SILT FENCE, ETC. SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OPERATIONS.
- 17. SILT REMOVAL AND SEDIMENT CLEAN-OUT FROM EROSION AND SILTATION CONTROL ITEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING:
- TEMPORARY SEDIMENT BASINS AND SEDIMENT TRAPS WHEN THE "WET" STORAGE VOLUME (PERMANENT POOL) HAS BEEN REDUCED BY 50%.
- DEWATERING BASINS WHEN THE EXCAVATED VOLUME HAS BEEN REDUCED BY 50%. ALL OTHER EROSION AND SILTATION CONTROL ITEMS - WHEN THE CAPACITY, HEIGHT, OR DEPTH HAS BEEN REDUCED BY 50%.
- 18. EXCEPT WHERE NOTED HEREON, TO THE BEST OF THE DESIGNER'S KNOWLEDGE, THE PROPOSED DEVELOPMENT OF THE SUBJECT PROPERTY CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS.
- 19. LAND CONSERVATION NOTES MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. HOWEVER, THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY AC.
- 20. ADDITIONAL SILTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS DIRECTED BY ARLINGTON COUNTY INSPECTOR DURING FIELD REVIEW; COSTS ASSOCIATED WITH ADDITIONAL MEASURES SHALL BE ASSUMED BY THE CONTRACTOR.
- EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION.
- 22. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- 23. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- 24. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- 25. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- 26. EROSION CONTROL MEASURES ARE TO BE REMOVED BY CONTRACTOR AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.
- 27. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
  - NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
  - EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED (EXAMPLE WOULD BE A SILT BAG) OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE (EXAMPLE WOULD BE A SEDIMENT TRAP) OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR
  - MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
  - RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH STANDARDS 3.31 AND 3.32. ALL TRENCHING SHALL BE IN ACCORDANCE WITH APPLICABLE SAFETY STANDARDS.

### MINIMUM STANDARDS REVIEW

- MS-1 TEMPORARY AND PERMANENT STABILIZATION HAS BEEN ADDRESSED.
- MS-2 THERE ARE NO STOCKPILES PROPOSED WITH THIS PLAN.
- MAINTENANCE OF PERMANENT STABILIZATION HAS BEEN ADDRESSED, SEE PERMANENT STABILIZATION.
- SEDIMENT TRAPPING FACILITIES ARE TO BE INSTALLED AS THE FIRST STEP IN LAND DISTURBING ACTIVATES. MAINTENANCE OF FACILITIES ARE DETAILED UNDER THE EROSION AND SEDIMENT CONTROL NOTES.
- MS-5 THERE ARE NO EARTHEN STRUCTURE PROPOSED WITH THIS PROJECT.
- THERE ARE NO SEDIMENT BASINS PROPOSED WITH THIS PROJECT.
- MS-7 THERE ARE NO CUT AND FILL SLOPES PROPOSED WITH THIS PROJECT.
- MS-8 THERE ARE NO PAVED FLUMES, CHANNELS, OR SLOPE DRAINS PROPOSED WITH THIS PROJECT.
- THERE ARE NO WATER SEEPS ANTICIPATED WITH THIS PROJECT.
- MS-10 INLET PROTECTION IS PROVIDED ON INLETS DOWN GRADIENT FROM DISTURBED AREAS.
- ADEQUATE OUTLET PROTECTION EXIST AT ALL EXISTING OUTLETS. THERE ARE NO NEW OUTLETS PROPOSED.
- MS-12 THERE ARE NO IN-STREAM CONSTRUCTION MEASURES PROPOSED WITH THIS PROJECT.
- MS-13 THERE ARE NO STREAM CROSSINGS PROPOSED WITH THIS PROJECT.
- MS-14 THERE ARE NO WATERCOURSES BEING CROSSED WITH THIS PROJECT.
- MS-15 THERE ARE NO IMPACTS TO IN-STREAM IMPROVEMENTS PROPOSED WITH THIS PROJECT.
- MS-16 UTILITY TRENCHING HAS BEEN ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.
- MS-17 PREVENTING SOIL FROM BEING TRACKED ON THE STREETS IS ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.
- MS-18 THE REMOVAL OF TEMPORARY PRACTICES HAS BEEN ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.
- MS-19 THIS PROJECT DOES NOT SIGNIFICANTLY INCREASE THE IMPERVIOUS AREA OR THE RUNOFF FROM THE SITE AREA. DOWNSTREAM OUTFALL POINTS ARE ADEQUATELY PROTECTED AND ARE NOT ACTIVELY ERODING. OUTFALL POINTS HAVE BEEN ANALYZED AND FOUND TO BE ADEQUATE IN ACCORDANCE WITH THE STATE OUTFALL REQUIREMENTS.

### MS4 NOTES

- ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS: WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIRE FIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
- APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (EG., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM. WHICH INCLUDES THE CURB AND GUTTER SYSTEM. AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
- PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATER, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER. TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

### GENERAL LAND CONSERVATION NOTES

- 1. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
- 3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ANY ONE
- 4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS OF BACKFILL
- 5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- 6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
- 7. ANY DISTURBED AREA NOT COVERED BY NOTE # 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
- 8. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

### EROSION CONTROL NARRATIVE

### PROJECT DESCRIPTION:

THIS PROJECT RECONSTRUCTS A PEDESTRIAN CROSSING AND SIGNAL ALONG ARLINGTON BOULEVARD (RTE 50) AT MONTAGUE STREET. ALL CONSTRUCTION WORK WILL BE FOR THE DURATION OF 110 TOTAL CALENDAR (80 WORK DAYS). WORK DAYS NOT TO INCLUDE ARLINGTON COUNTY PUBLIC HOLIDAYS.

### **EXISTING CONDITIONS:**

ARLINGTON BOULEVARD IS A MULTI-LANE ROAD WITH PARALLEL SERVICE ROADS ON BOTH SIDES. OVERHEAD UTILITIES ARE LOCATED ALONG MOST OF THE ROAD. THE RIGHT OF WAY INCLUDES TREES, STORM DRAINAGE STRUCTURES AND PIPES, SANITARY SEWER MAINS, WATER MAINS, ELECTRIC LINES, COMMUNICATIONS LINES AND MASS TRANSIT STOP LOCATIONS. MINIMAL CHANGES TO THE EXISTING TOPOGRAPHY ARE PROPOSED WITH NO AREAS OUTSIDE OF THE RIGHT-OF-WAY BEING IMPACTED. MOST OF THE EXISTING VEGETATION WITHIN THE PROJECT LIMITS SHALL BE REPLACED.

ARLINGTON BOULEVARD IS BOUND ON BOTH SIDES BY RESIDENTIAL DEVELOPMENTS OF VARIABLE DENSITY. THE CONTRACTOR SHALL PROVIDE TO THE ARLINGTON COUNTY INSPECTOR PHOTOGRAPHS OF IMMEDIATE ADJACENT AREAS TO DOCUMENT ADJACENT OFFSITE CONDITIONS PRIOR TO INSTALLING PERIMETER EROSION CONTROLS.

### OFF-SITE AREAS: THERE ARE NO OFF-SITE AREAS OR STOCKPILES ASSOCIATED WITH THIS PROJECT. OFFSITE AREAS DAMAGED BY THE CONTRACTOR

OR ITS LACK OF EROSION CONTROLS SHALL BE REPAIRED BY THE CONTRACTOR, AT ITS EXPENSE, IN A TIMELY MANOR. THE SOILS IN THE PROJECT AREA HAVE BEEN MAPPED AS URBAN LAND - UDORTHENTS COMPLEX WHICH ARE SOILS THAT HAVE BEEN

PREVIOUSLY DISTURBED AND NOT CHARACTERIZED. THE SOILS ALONG THIS PROJECT AREA HAVE BEEN ANALYZED BY GEOCONCEPTS ENGINEERING, INC. AND A GEOTECHNICAL REPORT HAS BEEN PROVIDED IN THE CONTRACT DOCUMENTS. THE SOILS HAVE BEEN LISTED AS A SANDY FAT CLAY (USCS - CH) AND CLAYED SAND W/ GRAVEL (USCS - SC). ADDITIONAL INFORMATION IS AVAILABLE IN THE PROJECT GEOTECHNICAL REPORT.

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

### EROSION AND SEDIMENT CONTROL MEASURES:

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

ALL DISTURBED AREAS BY THIS PROJECT SHALL BE STABILIZED WITH PERMANENT GROUND COVER UTILIZING STD. 3.33. PERMANENT SODDING SHALL BE UTILIZED IN DISTURBED AREAS ADJACENT TO CURB RAMP MODIFICATIONS. SEEDING SHALL BE UTILIZED IN ALL OTHER DISTURBED AREAS WITHIN RIGHT-OF-WAY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL DISTURBED ARES UNTIL FINAL ACCEPTANCE BY ARLINGTON COUNTY AND/OR LAND OWNER. THIS SHALL INCLUDE CUTTING THE GRASS TO MAINTAIN THE SAME APPEARANCE AS THE ADJOINING PROPERTY.

### CALCULATIONS:

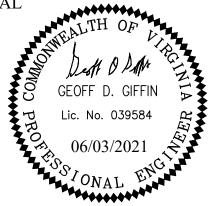
DETAILED CALCULATIONS SHOWING PRE AND POST DEVELOPMENT DRAINAGE AREAS, INLET COMPUTATIONS, PIPE CAPACITIES AND FLOWS ARE INCLUDED IN THIS SET OF PLANS IN ADDITION TO THE DRAINAGE AND STORMWATER MANAGEMENT REPORT / ANALYSIS.



DEPARTMENT OF **ENVIRONMENTAL SERVICES** 

Transportation Division Transportation Planning Bureau 2100 Clarendon Boulevard, Suite 900 Arlington, VA 22201 Phone: 703.228.3629 Fax: 703.228.3606





APPROVALS

6/2/2021 TAAFFIC MONAL ENGINEER TRAFFIC ENGINEERING MANAGER 06.03.2021 WATER, SEWER, STREETS BUREAU CHIEF fring TE&O BUREAU CHEF Dennis M. Leach

TRANSPORTATION DIRECTOR

REVISONS DATE

0 nta D a

Designed: KF Drawn: KF Checked: GG Miss Utility Transmittal #:

orth

GEN

Plotted: June 03, 2021 Plotted by: Miguel. Tyshing

Scale:

Kimley» Horn © 2021 KIMLEY-HORN AND ASSOCIATES, INC. 11400 Commerce Park Drive, Suite 400 Reston Virginia 20191 Phone: 703-674-1300 Fax: 703-674-1350

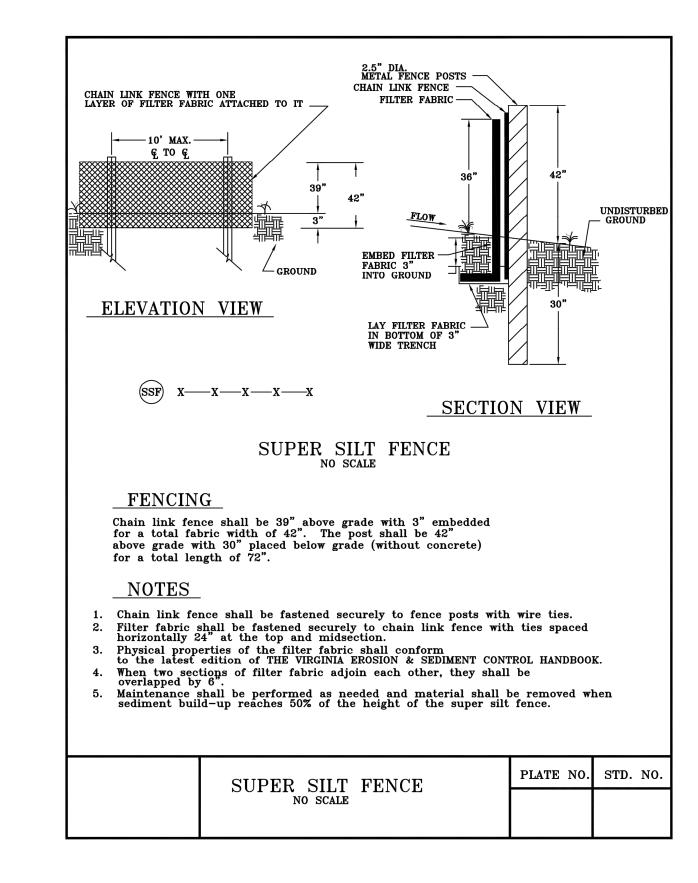
HOR. N/A VERT. N/A

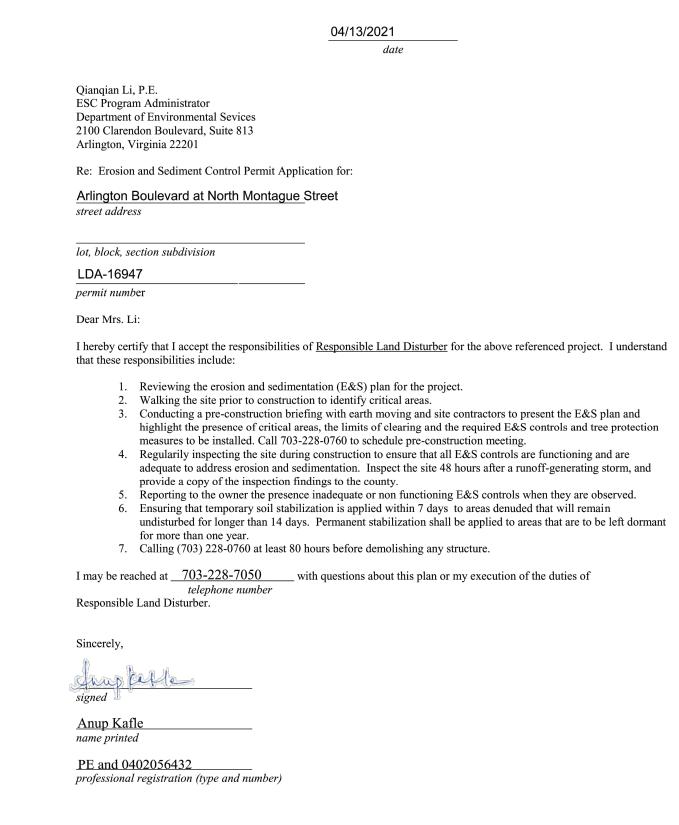
Sheet 0004

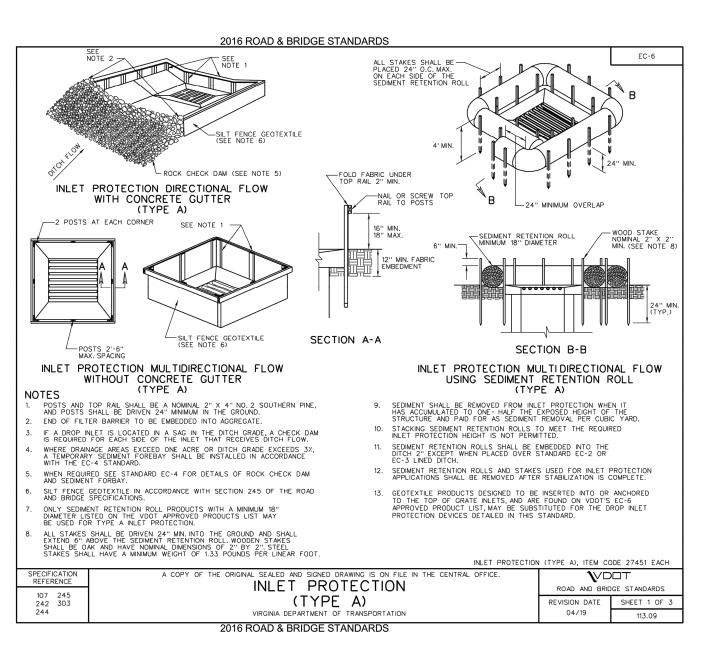
# ath: K:\NVA\_TPTO\110010094 Arlington Blvd at Montague\CAD\PlanSheets

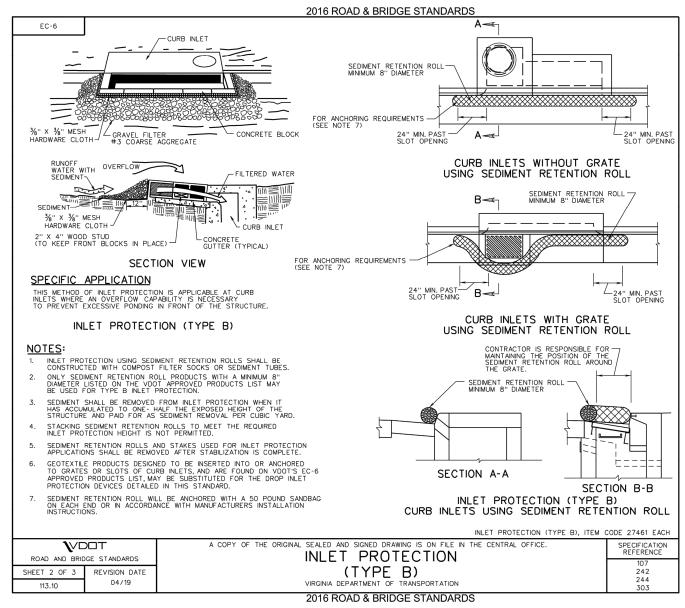
### GENERAL DETAILS

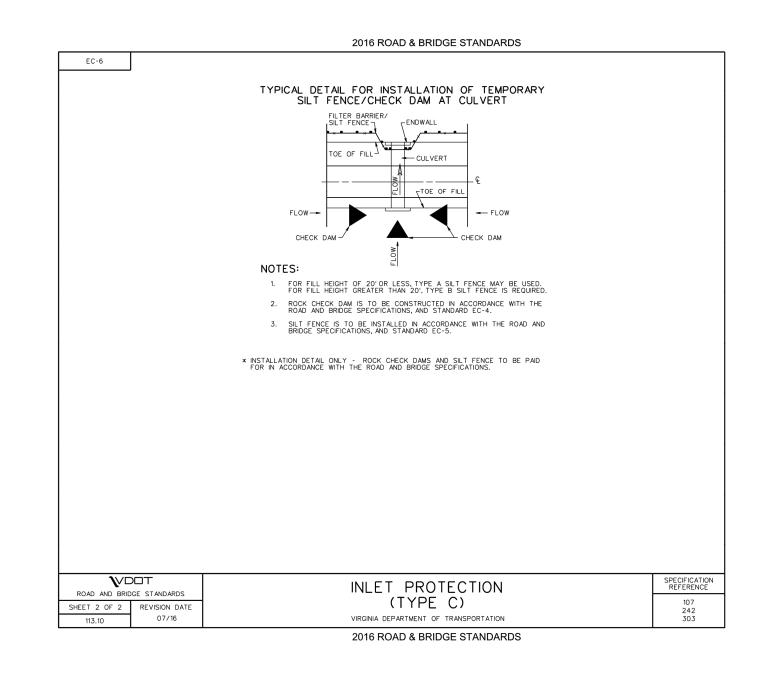
REFER TO SHEET 0001 FOR LEGEND AND SURVEY DATA

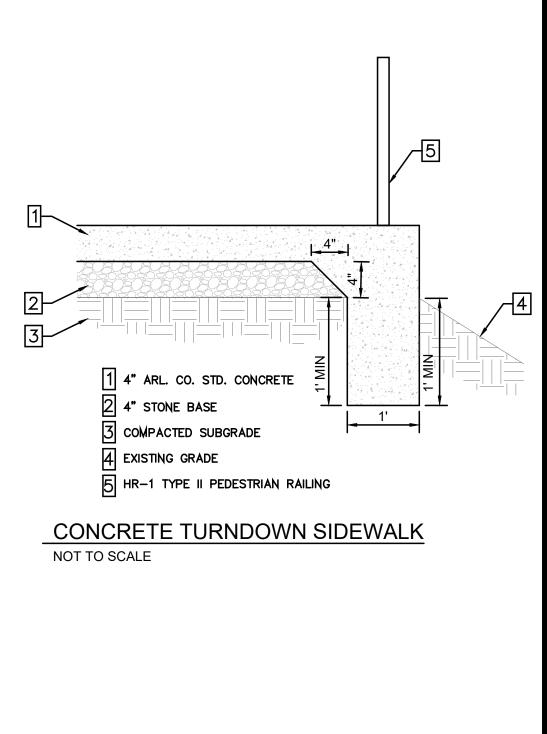


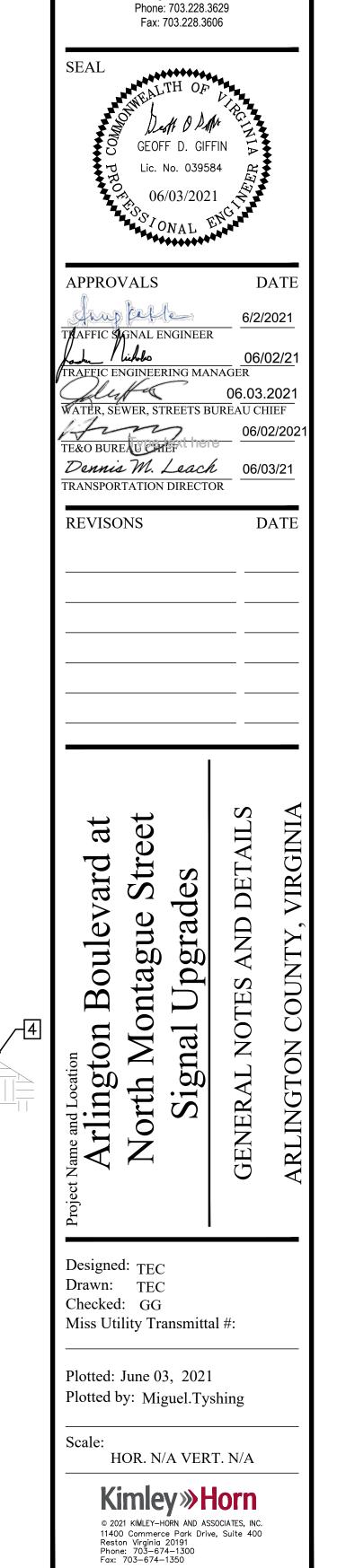










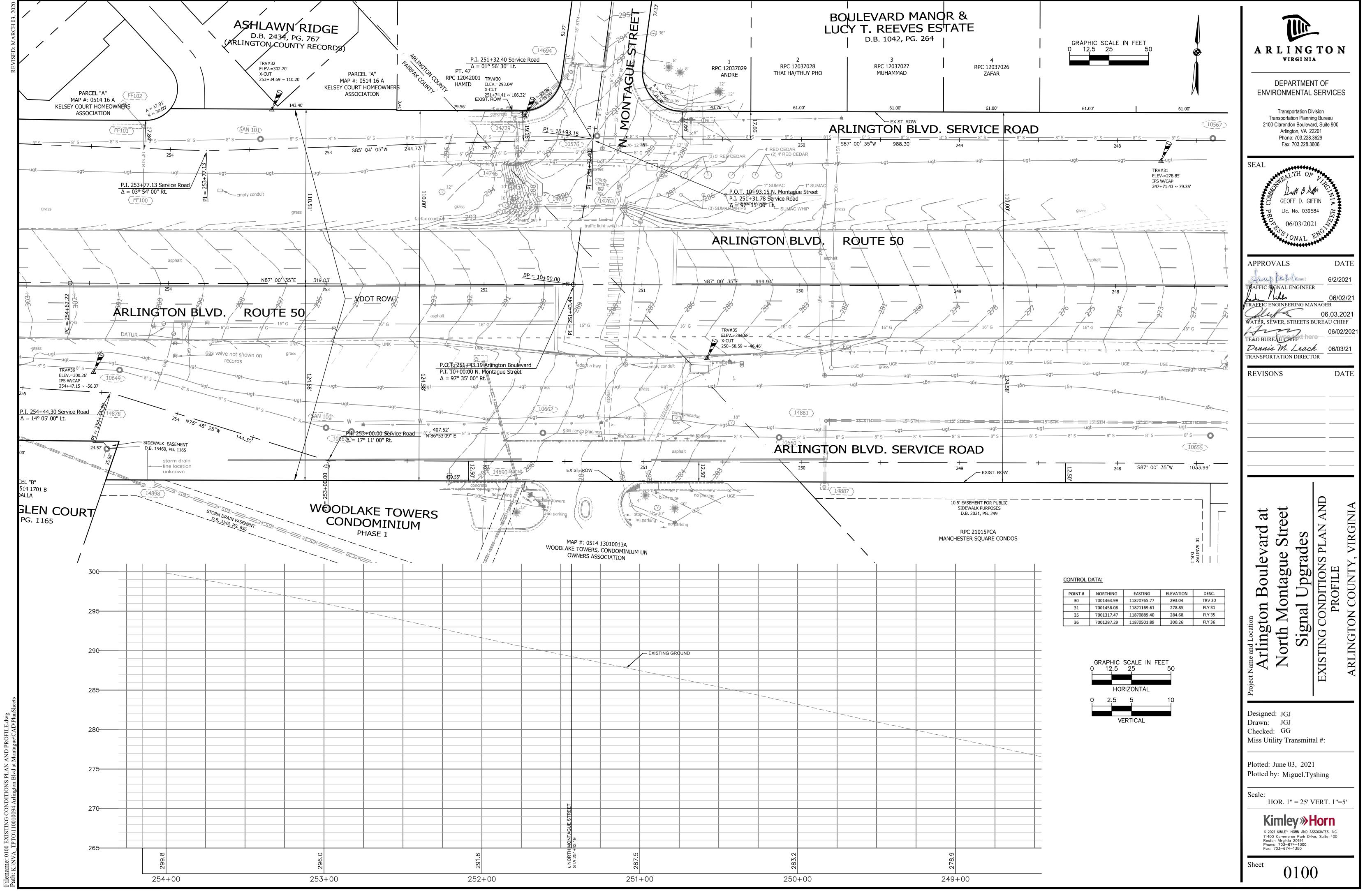


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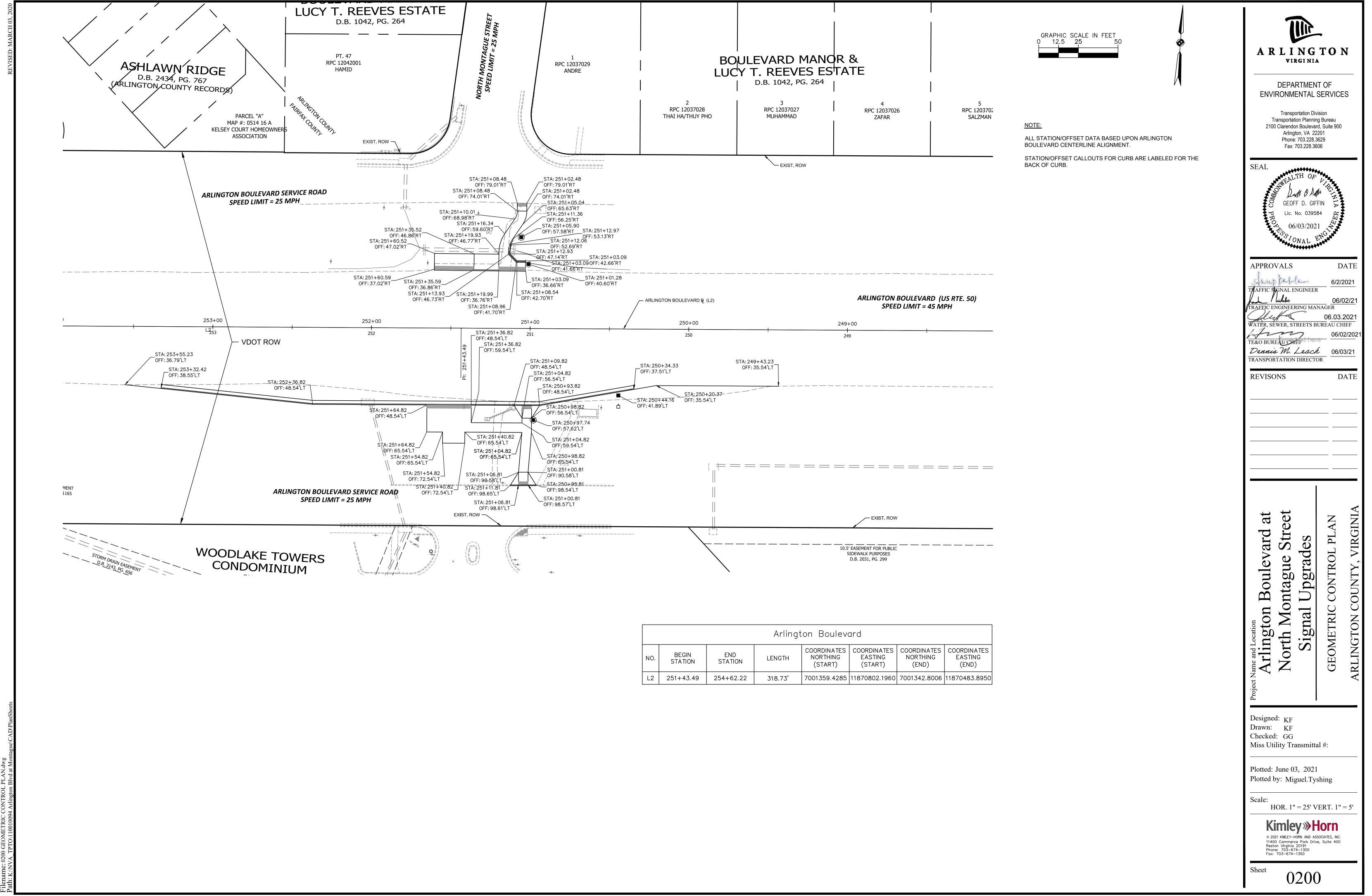
ARLINGTON

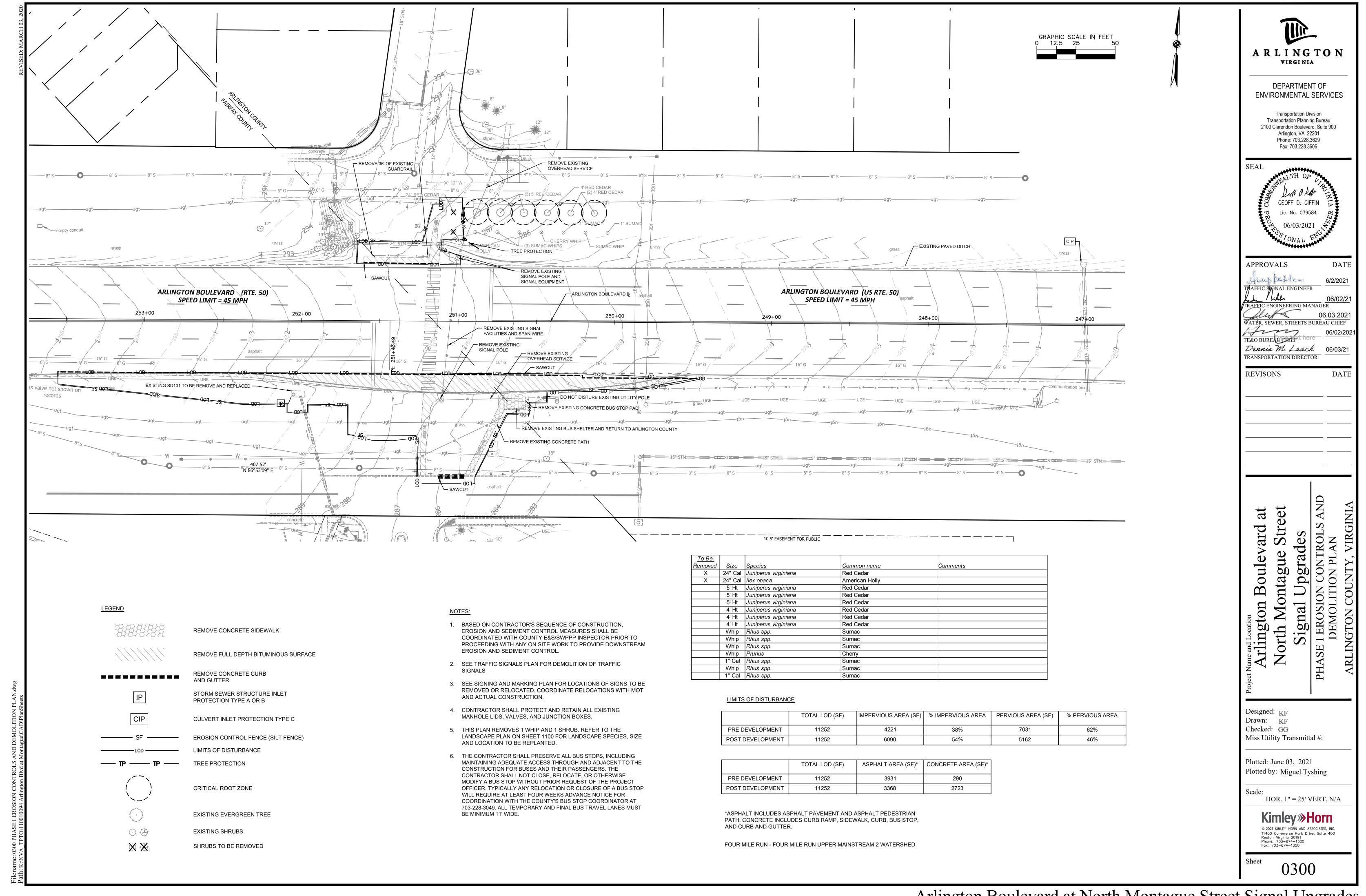
DEPARTMENT OF ENVIRONMENTAL SERVICES

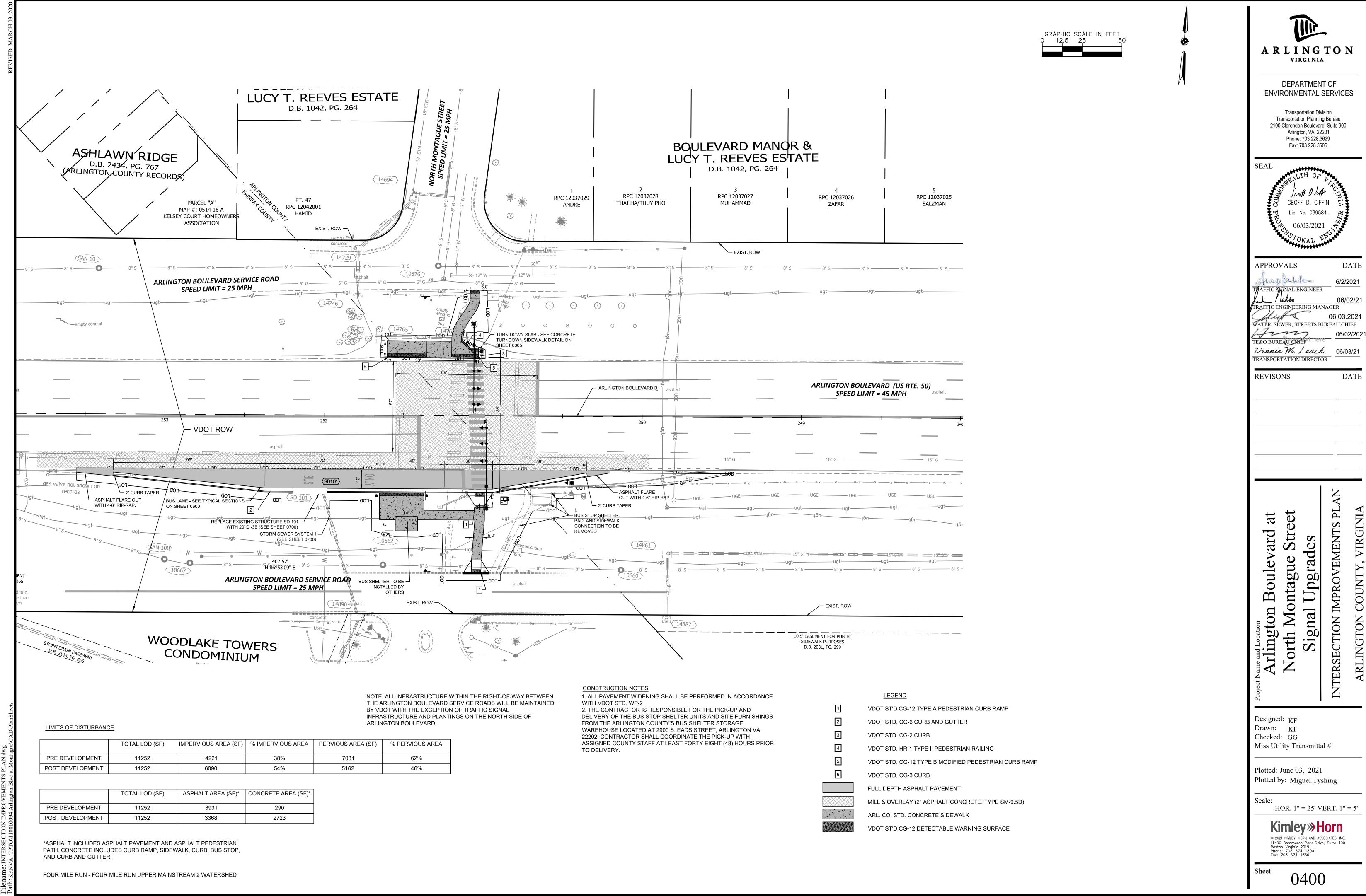
Transportation Division
Transportation Planning Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201

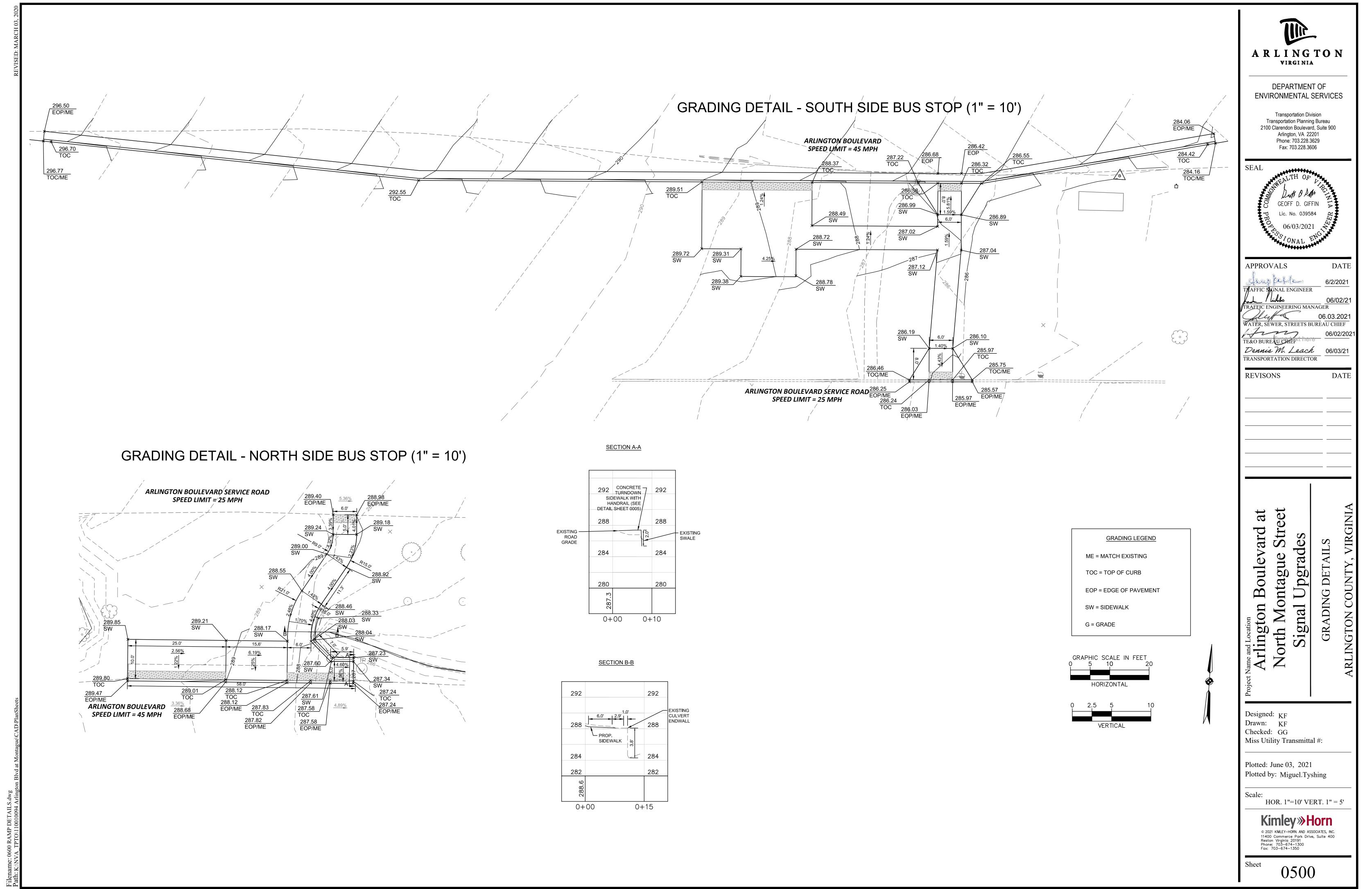


Arlington Boulevard at North Montague Street Signal Upgrades



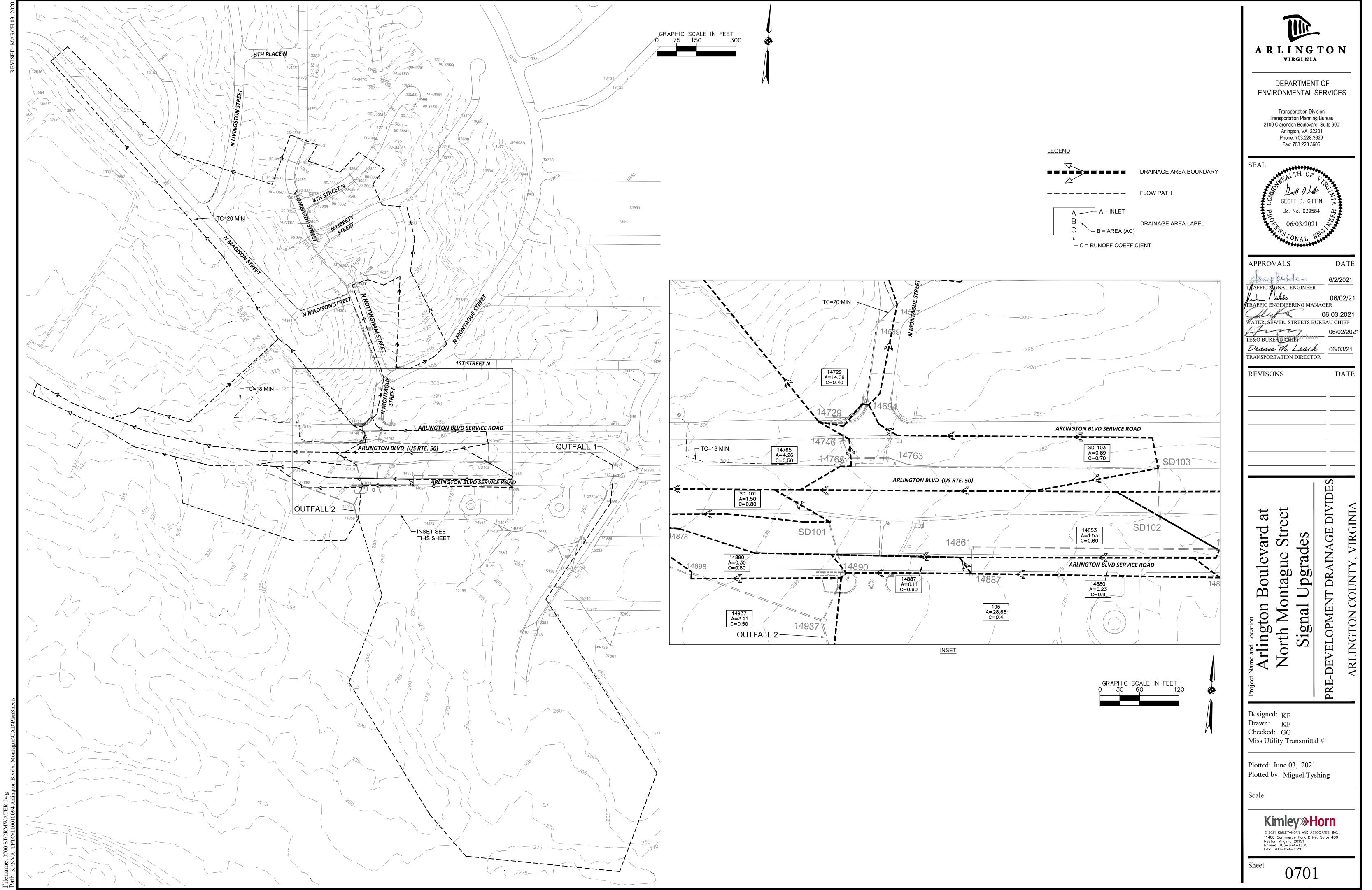


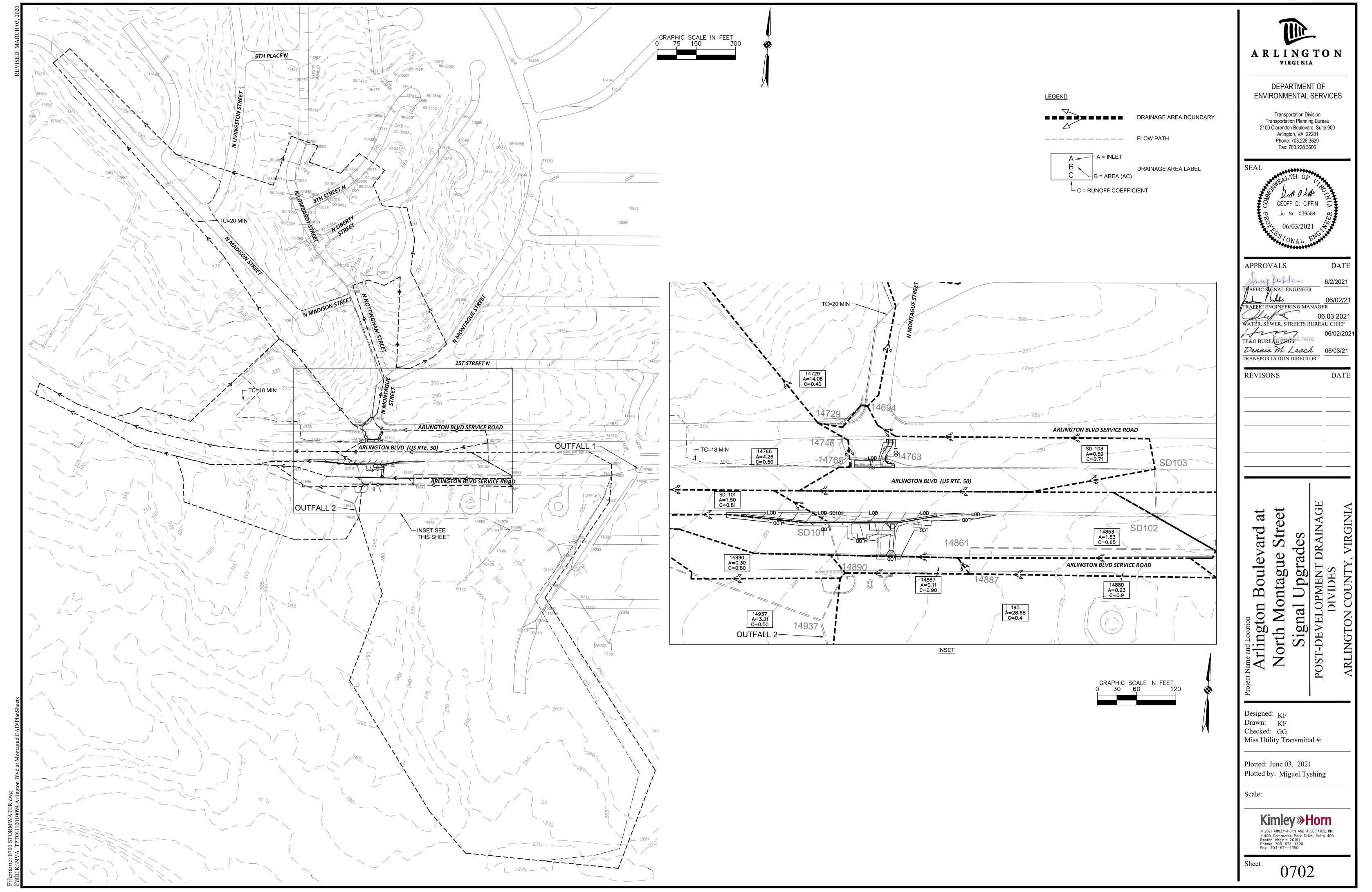


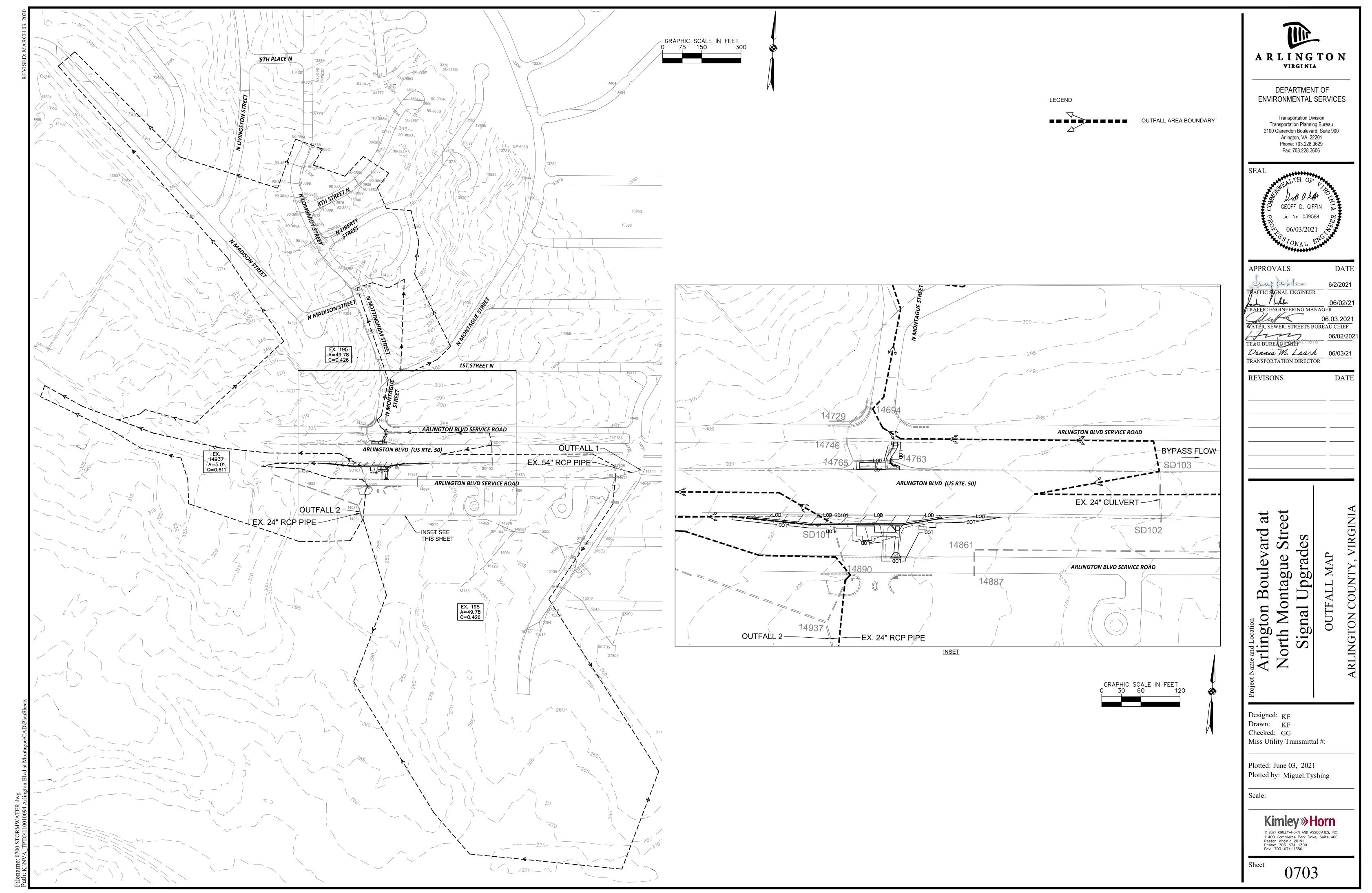


Kimley»Horn

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Refinerence 1												
Size Information   Size Inform		Arlingt			nal Updrades	W.	CLEAR	ALL				
PORT-Development Project. (Frestment Volume and Loads)  Inter fatal Definited Area forced: 9	Date:		_	• •	Yes	5	!	<u>.</u>				
The control of the	Site Information								final results			
The control of the												
State	Post-Development Project	(Treatmer	nt Volume a	and Loads)								
Marie   Mari		1	Ent	ter Total Disturbe	ed Area (acres) $\rightarrow$	0.2583		PMD Docian Co.		2012 D	roft Stds 9. Space	
Peach-Confederate   Action				Maximum	reduction required:	20%					art Stas & Specs	
The Discrete Control Court (pers)  1												
The control of contr			Post-Developr	nent IP Load Redu	ction for Site (lb/yr):	0.1289		Total disturbed	a area enterea?			
The control product of substances of the control product of the cont	Pre-ReDevelopment Land Cover (acres											
March   Marc	Forest/Open Space (acres) undisturbed	A Soils		C Soils								
March   Marc		0.0000	0.0000	0.0000	0.0000		1					
Prof.   Prof	yards or other turf to be mowed/managed	0.0000	0.0000	0.0000	0.1614		1					
Post Development Land Cover General	Impervious Cover (acres)	0.0000	0.0000	0.0000	0.0969							
A Solid   So												
	Post-Development Land Cover (acres)	i	B Soils	C Soils	D Soils	Totals						
					0.0000	0.0000						
	Managed Turf (acres) disturbed, graded for					0.1185						
Constant						0.1398	1					
March   Marc	Area Check					0.2583						
March   Marc												
Target Entitle Consistency		42		Runoff Coefficien		B C "	66 "	F. 6. "				
Manager   1	Target Rainfall Event (inches)	1.00			0.02	0.03	0.04	0.05				
	Total Nitrogen (TN) EMC (mg/L)											
Land Clover Summery-Pour   Place												
Land Clover Summery-Pour   Floor   Proc.   Adjusted   Proc.		RE-REDEVE	LOPMENT				LAND COVE	P SLIMMARY P	OST DEVELO	PMEN	)T	
Prot 6000est (protect)										4 <b>5</b> M/38		
President Name Count (creek)		1	Adjusted <sup>1</sup>						-		+	
Washington Richards   3,0000   Control   Con	·	0.0000	-			0.0000			0.0000			
Manager Turf Cover (circum)   2.1644   0.1185					Weighted Rv(forest)			Weighted Rv(forest)			_	
Very No. (1976)   C. (2001)   C. (2001)   C. (2001)   C. (2001)   C. (2001)   Very No. (1976)   Very											_	
Note	Managed Turf Cover (acres)	0.1614	0.1185			0.1185	-	(acres)	0.1185		_	
Impervious Court (Occid)   D.09991   D.09990   D.09900	- , ,										_	
Reflected Cort (1981)	% Managed Turf	62%	55%		% Managed Turf	46%						
Mangeroom   38%   35%	Impervious Cover (acres)	0.0969	0.0969		Impervious Cover (acres)	0.1398			0.0969		· ·	0.0429
Total Size Area [secret]   0.2583   0.2154   Final Size Area (secret)   0.2583   Final Post Devisite No   0.6289   Redevisite No   0.5590   Final Post Devisite No   0.6289   Redevisite No   0.5590   Final Post Devisite No   0.6289   Final Pos	Rv(impervious)		1		Rv(impervious)			Rv(impervious)			Rv(impervious)	0.9500
Site No. 0.5126 0.5649   Final Post Development Treatment Volume and Nutrient Load  Free Accessiognment Treatment Volume (are 4)   0.010   0.0	·										-	
Treatment Volume and Nutrient Load  Pre-ReDevelopment Treatment Volume (acc 4)  Pre-ReDevelopment Treatment Vo	` '				· · ·						_	
Pre-ReDevelopment Treatment Volume (care-ft)  Pre-ReDevelopment Treatment Treatment Treatment Treatment Treatment Volume (care-ft)  Pre-ReDevelopment Treatment	Site Rv	0.5126	0.5649		Final Post Dev Site Rv	0.6289	L	ReDev Site Rv	0.5649			
PPE-ReDevelopment Treatment Volume (care-ft) (0.010 (care-ft) (car	Treatment Volume and	d Nutrient Lo	ad T				Trea	tment Volume and	d Nutrient Loa	d		
Pre-Rebevelopment TP Load (bl/yr)  Baseline TP Load (bl/yr)  (bl/ster/yr)  Baseline TP Load (bl/yr)  (bl/ster/yr)  Baseline TP Load (bl/yr)  (bl/ster/yr)  Double for rev impervious cover (bl/ster/yr)  Pre-Rebevelopment Load)  Pre-Rebevelopment TP Load (bl/yr)  Double for the pre-Bebvelopment TP Load (bl/yr)  Double for the pre-Bebvelopment TP Load (bl/yr)  Pre-Rebevelopment TP Load (bl/yr)  Double for the pre-Bebvelopment TP Load (bl/yr)  Pre-Rebevelopment TP Load (bl/yr)  Double for the pre-Bebvelopment TP Load (bl/yr)  Double for the pre-Bebvelopment Load)  Pre-Rebevelopment TP Load (bl/yr)  Double for the pre-Bebvelopment Load)  Pre-Rebevelopment TP Load (bl/yr)  Double for the pre-Bebvelopment Load)  Pre-Rebevelopment TP Load (bl/yr)  Double for the pre-Bebvelopment Load)  Pre-Rebevelopment TP Load Reduction Required for Repetition for Pre-Bebvelopment Load)  Pre-Rebevelopment Load cover (bl/yr)  Pre-Rebevelopment Load)  Double for the pre-Bebvelopment Load (bl/yr)  Double for the pre-Bebvelopment Load)  Double for the pre-Bebvelopment Load (bl/yr)  Double for the pre-Bebvelo	•	0.0110	0.0101		Treatment Volume			Treatment Volume	0.0101		Treatment Volume	0.0034
Pre-ReDevelopment TP Load (Ib/yr)  Pre-ReDevelopment TP Load (Ib/yr)  Pre-ReDevelopment TP Load per acre (Ib/acre/yr)  Pre-ReDevelopment TP Load per acre (Ib/acre/yr)  Baseline TP Load (Ib/yr)  (0.41 lbs/acre/yr applied to pre-redevelopment acrea excluding pervious land proposed for new impervious cover)  Adjusted Load Cover Summary:  Pre-ReDevelopment acreage (minus acreage of new impervious cover)  Pre-ReDevelopment acreage (minus acreage of new impervious cover)  Pre-ReDevelopment TP Load (Ib/yr)  1.4300  Pre-ReDevelopment TP Load (Ib/yr)  1.4300  Required for Redevelopment Load (Ib/yr)  Pre-ReDevelopment TP Load (Ib/yr)  1.4300  Required for Redevelopment Load (Ib/yr)  Pre-ReDevelopment Indicates minus pandous land cover (forest/open space or managed turif) acreage proposed for new impervious cover.  Pre-ReDevelopment Load (Ib/yr)  Pre-ReDevelopment Indicates minus pandous land cover (forest/open space or managed turif) acreage proposed for new impervious cover.  Pre-ReDevelopment Load (Ib/yr)  Pre-ReDevelopment I P Load (Ib/yr)  1.4300  Required for Redeveloped Area (Ib/yr)  Pre-ReDevelopment I P Load (Ib/yr)  1.4300  Required for Redeveloped Area (Ib/yr)  Pre-ReDevelopment I P Load (Ib/yr)  Pr	•	480.6302	441.6984		Treatment Volume	589.6391		Treatment Volume	441.6984		Treatment Volume (cubic	147.9407
1.290   1.200   1.20	-	0.3020	0.2775		Development TP Load	0.3705		Load (TP)	0.2775			0.0930
(0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)  1 Adjusted Land Cover Summary: Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.  Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).  Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).  Post-Development Requirement for Site Area  TP Load Reduction Required (lb/yr)  0.1309  Linear Project TP Load Reduction Required (lb/yr): 0.1289	· 1	1.1700	1.2900		Load per acre	1.4300		Load per acre	1.2900			
Adjusted total acreage is consistent with Post-ReDevelopment acreage of new impervious cover).  Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).  Post-Development Requirement for Site Area  TP Load Reduction Required (lb/yr)  D.1309  Linear Project TP Load Reduction Required (lb/yr): 0.1289	(0.41 lbs/acre/yr applied to pre-redevelopment area ex		i 0.0883					(Below Pre-	20%			
Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).  Post-Development Requirement for Site Area  TP Load Reduction Required (lb/yr)  Linear Project TP Load Reduction Required (lb/yr): 0.1289	Pre ReDevelopment land cover minus pervious land turf) acreage proposed for new impervious cover.							Required for Redeveloped Area	0.0555		Required for New	0.0754
Post-Development Requirement for Site Area  TP Load Reduction Required (lb/yr)  Linear Project TP Load Reduction Required (lb/yr): 0.1289	new impervious cover). Column I shows load reduction requriement for nev											
Linear Project TP Load Reduction Required (lb/yr): 0.1289				Post-De	velopment Requ	irement for S	Site Area					
	TP Load Reduction Required (lb/yr)  0.1309											
Nitrogen Leads (Informational Durnasse Only)				Linear F	Project TP Load Reducti	on Required (lb/yr):	: 0.1289					
Nitrogen Leads (Informational Durances Only)												
Nitrogen Loads (Informational Purposes Only)				Ni	trogen Loads (Info	rmational Purp	ooses Only)					
Final Post-Development TN Load  Pre-ReDevelopment TN Load (lb/yr) 2.1603 (Post-ReDevelopment & New Impervious) 2.6503		Pre-RoDovolon	nent TN Load (lb /)	2.1602					2 6502			
(Post-Rebevelopment in Load (lb/yr) 2.1603 (lb/yr)		. To Nepevelopin	Tre Load (ID/ yl )	2.1003		1	, oscinebevelop		2.0303			

Post-development Storm Drain Design Calculations VDOT LD-229

**Project:** Arlington Boulevard at North Montague Street Improvements Locality: Arlington County

Date: 3/20/2021 Project #: 110010094

Designed By/Checked: Kelley Frank FIT / Mike Albright P.F.

FDOM		DRAINAGE	RUNOFF	C	:A	INLET TIME	RAINFALL	RUNOFF	INVERT EL	EVATIONS	LENGTH	SLOPE	SIZE	PIPE	$Q/Q_f$	VELOCITY	FLOW	/ TIME	
FROM POINT	TO POINT	AREA	COEFFICIENT	inlet	2661177	TINLET TIIVIE	KAINFALL	KUNUFF	upper end	lower end	LENGIA	SLOPE	SIZE	CAPACITY	Ť	VELOCITY	incr	accum	REMARKS
POINT		acres	С	illiet	accum	min	in/hr	cfs	ft	ft	ft	%	in	cfs	%	fps	m	iin	
SD101	14890	1.50	0.81	1.215	1.215	5.00	6.79	8.31	287.27	284.37	83	3.50%	15	12.05	69%	10.59	0.13	5.00	
14890	14937	0.30	0.80	0.240	1.455	5.00	6.75	9.89	284.22	281.48	72	3.80%	15	12.60	78%	11.37	0.11	5.13	
14937	14959	3.21	0.50	1.605	3.060	5.00	6.71	20.69	281.28	280.38	45	2.00%	24	31.99	65%	10.83	0.07	5.24	
14880	14853	0.23	0.90	0.207	0.207	5.00	6.79	1.42	258.38	258.00	38	1.00%	15	6.46	22%	4.22	0.15	5.00	
14763	SD103	18.32	0.42	7.694	7.754	20.00	4.05	31.62	284.28	266.19	410	4.40%	0	82.83	38%	10.85	0.63	20.00	DITCH
SD103	SD102	0.89	0.71	0.632	8.386	5.00	3.98	33.68	266.09	265.65	79	0.60%	24	16.93	199%	10.72	0.12	20.63	SURCHARGED
SD102	14853	(N/A)	(N/A)	0.000	8.386	0.00	3.97	33.58	265.65	261.47	101	4.20%	0	56.53	59%	8.28	0.20	20.75	DITCH
14887	14861	0.11	0.90	0.099	0.099	5.00	6.79	0.68	276.58	275.30	42	3.00%	N/A	11.26	6%	5.06	0.14	5.00	
14861	14853	(N/A)	(N/A)	0.000	0.099	0.00	6.74	0.67	275.12	257.57	376	4.70%	15	13.96	5%	5.86	1.07	5.14	
14853	196	1.53	0.65	0.995	9.686	5.00	3.95	38.60	256.57	241.00	372	4.20%	N/A	46.29	83%	16.49	0.38	20.95	
196	195	(N/A)	(N/A)	0.000	9.686	0.00	3.92	38.25	240.50	239.70	50	1.60%	30	51.88	74%	7.79	0.11	21.33	
195	14799	28.68	0.40	11.472	21.158	18.00	3.91	83.35	239.60	236.50	125	2.50%	54	309.67	27%	16.52	0.13	21.44	

Kimley» Horn

VDOT LD-347

Post-development Hydraulic Grade Line Calculations

Project: Arlington Boulevard at North Montague Street Improvements Locality: Arlington County

Date: 3/20/2021 **Project #**: 110010094

Designed By/Checked: Kelley Frank, EIT / Mike Albright, P.E.

														-									
	0.00		OUTLET										J	UNCTIO	N LOSS							INLET	RIM
INLET	0.8D + INV - (OUT)	ACTUAL OUTLET WSE	WSE	D <sub>o</sub>	Q <sub>o</sub>	L <sub>o</sub>	S <sub>fo</sub>	H <sub>f</sub>	V <sub>o</sub>	Н。	Qi	Vi	$Q_iV_i$	$\frac{V_i^2}{2}$	Hi	Angle	Н∆	H <sub>t</sub>	1.3 H <sub>t</sub>	0.5 H <sub>t</sub>	FINAL H	WSE	ELEV
(1)	] (331)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	2g	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
195	240.10	240.10	240.10	54	83.35	125	0.0220	2.75	16.52	1.06	38.25	7.79	297.97	0.94	0.33	13.64	0.16	1.55	2.02	1.01	3.76	243.86	245.32
196	241.70	243.86	243.86	30	38.25	50	0.0090	0.45	7.79	0.24	38.60	12.29	474.39	2.35	0.82	3.1	0.09	1.15	1.15	0.57	1.02	244.88	247.50
14853	242.60	244.88	244.88	24	38.60	372	0.0400	14.87	16.49	1.06	1.42	1.46	2.07	0.03	0.01	81.8	0.02	1.09	1.42	0.71	15.58	260.46	261.47
14880	259.00	260.46	260.46	15	1.42	38	0.0020	0.08	4.22	0.08	0.00	0.00	0.00	0.00	0.00	0	0.00	0.08	0.11	0.05	0.13	260.59	261.49
14861	258.57	260.46	260.46	15	0.67	376	0.0440	16.54	5.86	0.13	0.68	3.63	2.47	0.20	0.07	90.13	0.14	0.35	0.35	0.17	16.71	277.18	279.39
14887	276.30	277.18	277.18	15	0.68	42	0.0260	1.09	5.06	0.12	0.00	0.00	0.00	0.00	0.00	0	0.00	0.12	0.16	0.08	1.17	278.35	280.23
SD102	261.47	260.46	261.47	0	33.58	101	0.0400	4.02	8.28	0.27	33.68	10.72	361.05	1.78	0.62	61.27	1.01	1.90	1.90	0.95	4.98	266.45	269.00
SD103	267.25	266.45	267.25	24	33.68	79	0.0220	1.73	10.72	0.45	31.62	5.27	166.64	0.43	0.15	86.24	0.30	0.89	1.16	0.58	2.31	269.56	270.00
14763	266.19	269.56	269.56	0	31.62	410	0.0430	17.63	10.85	0.55	0.00	0.00	0.00	0.00	0.00	0	0.00	0.55	0.71	0.36	17.99	287.55	288.00
14937	281.98	280.38	281.98	24	20.69	45	0.0140	0.63	10.83	0.46	9.89	8.06	79.71	1.01	0.35	52.12	0.52	1.33	1.72	0.86	1.49	283.47	288.09
14890	282.48	283.47	283.47	15	9.89	72	0.0250	1.80	11.37	0.50	8.31	6.78	56.34	0.71	0.25	44.45	0.33	1.08	1.41	0.70	2.50	285.98	288.33
SD101	285.37	285.98	285.98	15	8.31	83	0.0300	2.50	10.59	0.52	0.00	0.00	0.00	0.00	0.00	0	0.00	0.52	0.68	0.34	2.84	288.82	290.85



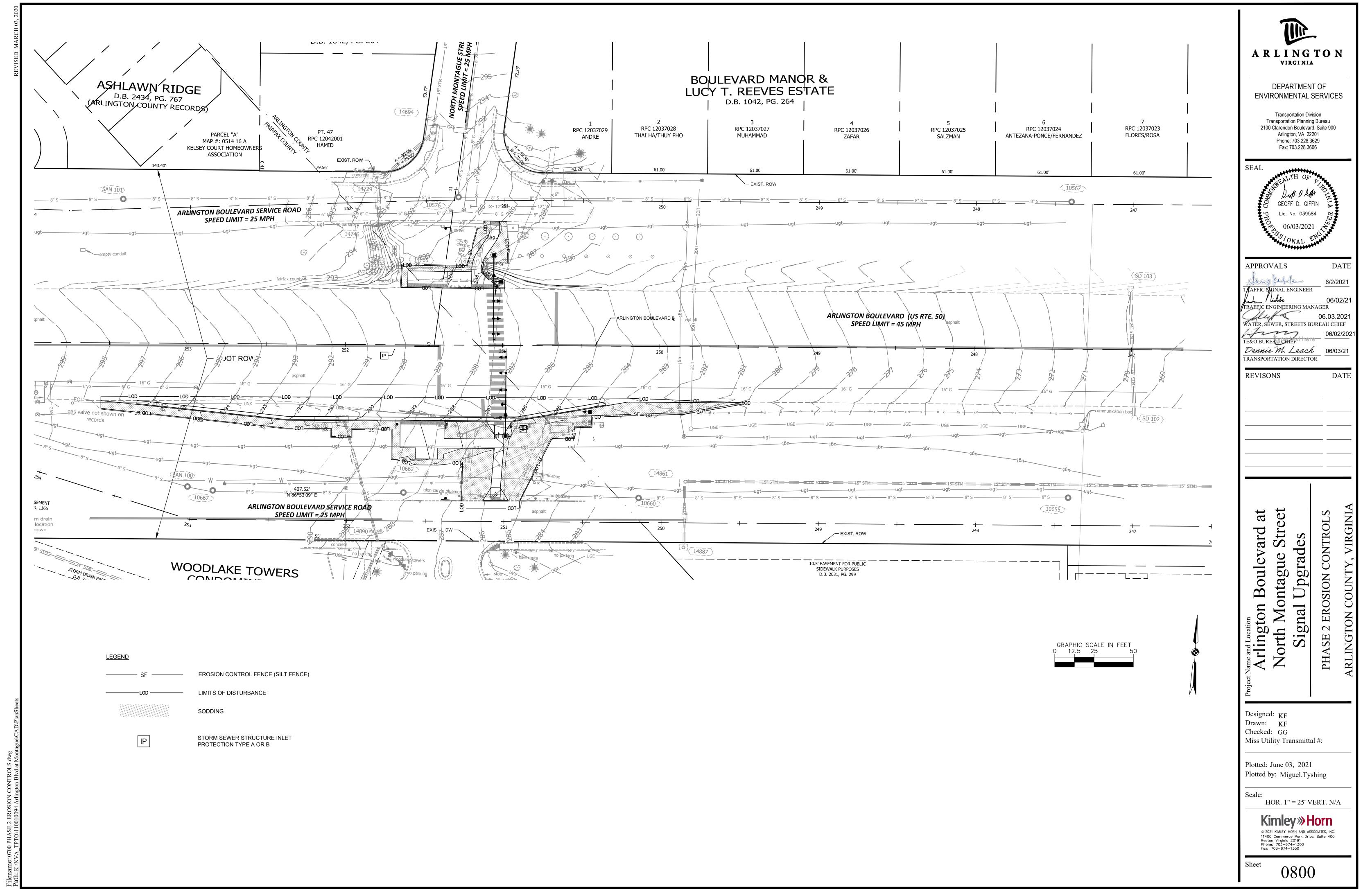
ONAL	
APPROVALS	DATE
Amp for the Market Mark	6/2/2021
TAFFIC ENGINEERING MAI	06/02/21
ATER, SEWER, STREETS B	06.03.2021
Jun	06/02/202
e&o bure W. Leach RANSPORTATION DIRECTO	
REVISONS	DATE
Arlington Boulevard at North Montague Street Signal Upgrades	DRAINAGE CALCULATIONS RUNGTON COUNTY, VIRGINIA

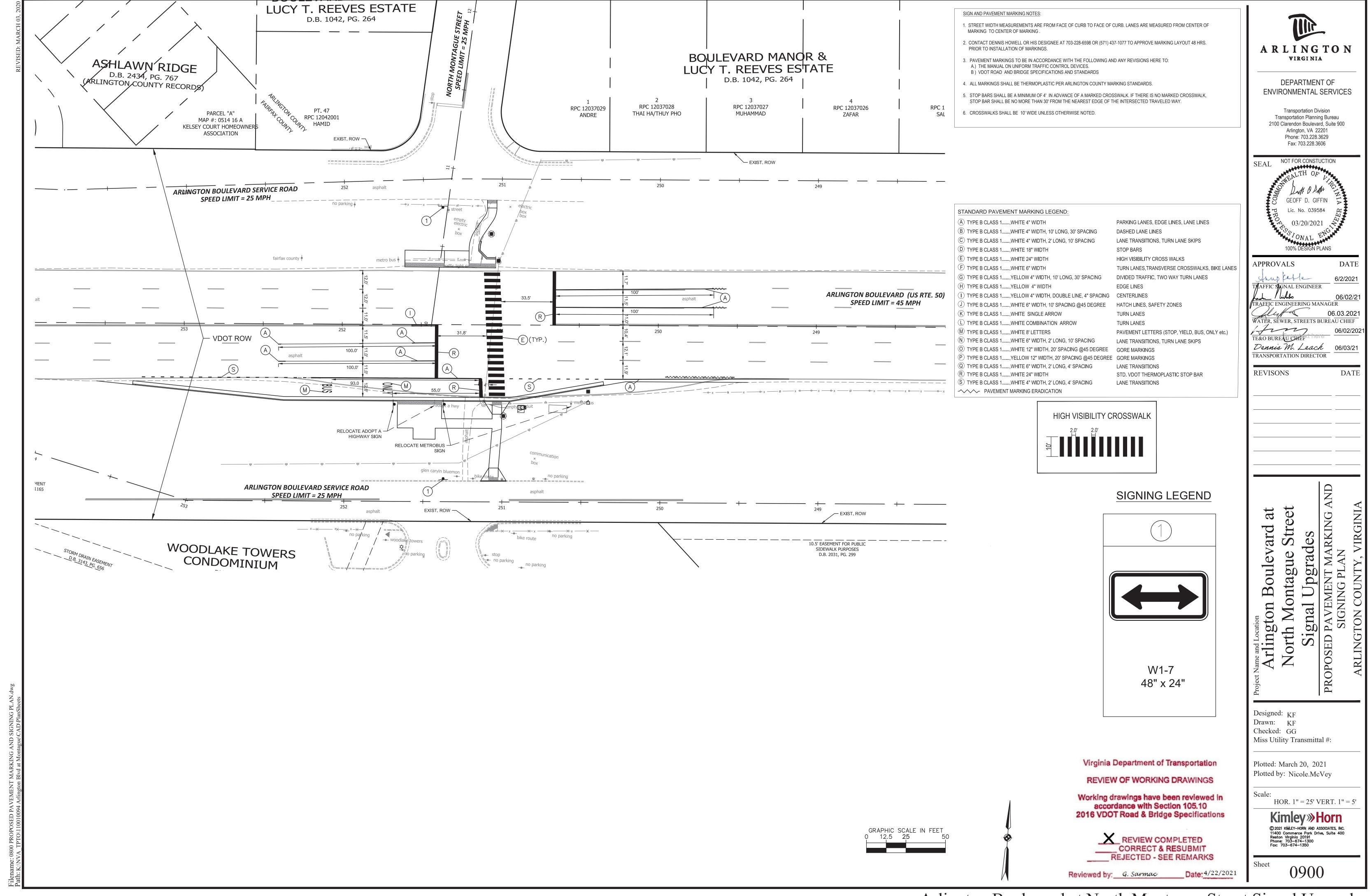
Designed: KF Drawn: KF Checked: GG Miss Utility Transmittal #:

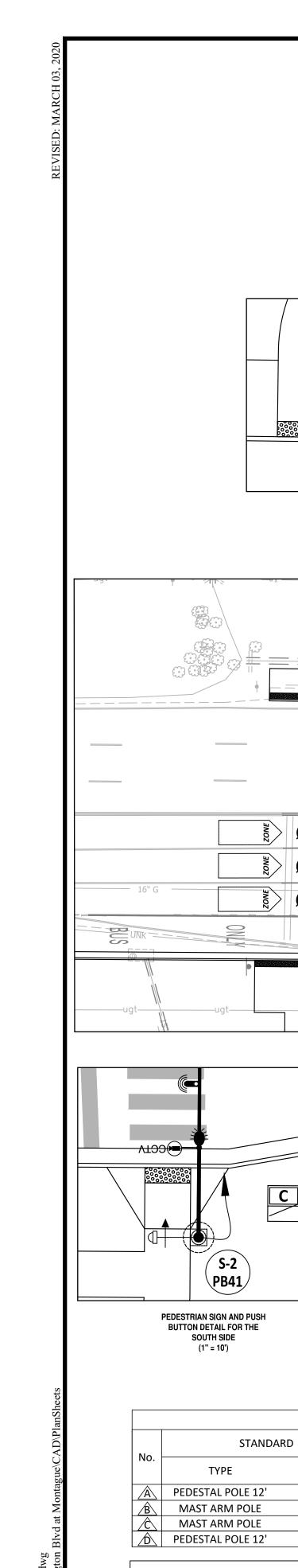
Plotted: June 03, 2021 Plotted by: Miguel. Tyshing

Scale:

Kimley»Horn © 2021 KIMLEY-HORN AND ASSOCIATES, INC. 11400 Commerce Park Drive, Suite 400 Reston Virginia 20191 Phone: 703-674-1300 Fax: 703-674-1350







PEDESTRIAN SIGN AND PUSH BUTTON DETAIL FOR THE

NORTH SIDE (1" = 10')

### PROPOSED SIGNS



ARLINGTON BOULEVARD

SPEED LIMIT = 45 MPH

INSET (SCALE: 1"=10')

VIDEO DETECTOR

PREEMPTION & CCTV

VD2

CCTV, VD1

STREET

NAME

SIGN

POLE SIGNAL MOUNTING

VEHICLE & PED.

HEADS

61, 62, 63

POLE HEIGHT

31'

31'

(2)

55' | 12' | 145W | 21, 22, 23, P41

POLE LOCATION SCHEDULE

55' | 12' | 145W

OFFSET

40.60' RT

\* CONTRACTOR SHALL REVIEW IF THE PROPOSED LOADING IS GREATER THAN THE ARLINGTON COUNTY STANDARD DESIGN. IF THE LOADING IS GREATER, THEN THE CONTRACTOR SHALL PROVIDE A CUSTOM DESIGN AND PROVIDE ARLINGTON COUNTY WITH STRUCTURAL CALCULATIONS FOR APPROVAL PRIOR TO

STATION

251+01.27

POLE ID

A 034-PP-01-N

<u>/B</u> 034-MA-01-N | 251+05.90

© 034-MA-01-S 250+97.74

**△D** 034-PP-01-S | 250+44.16

POLE SIGNAL MOUNTING

SIGNS

S-2

S-1

S-1, S-2

POLE TYPE

67-01 (12')

67-01 (12')

PED. PUSH

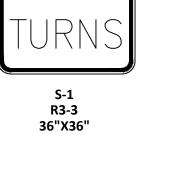
**BUTTONS** 

PB42

PB41

MAST ARM

LENGTH





PROPOSED ACCESSIBLE

PEDESTRIAN PUSHBUTTONS

S-3

R10-3E(R)

9"X15"

S-2

R10-3E(L)

9"X15"

- ACCESSIBLE PUSHBUTTON SYSTEM SHALL BE POLARA SYSTEM CONFORMING TO ARLINGTON COUNTY SPECIFICATION AND SHALL INCLUDE A POLARA CENTRAL CONTROL LINIT
- PUSHBUTTON WALK MESSAGE

  PB41, PB42 "ARLINGTON BOULEVARD, WALK SIGN IS ON TO CROSS ARLINGTON BOULEVARD."

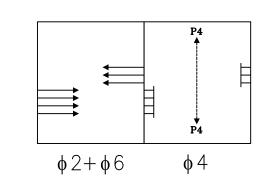
### **PROPOSED SIGNALS**



61,62,63



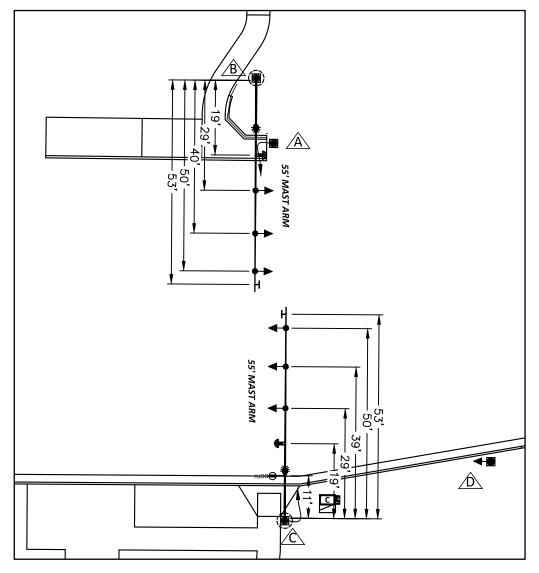
### PROPOSED PHASING DIAGRAM



		INIT	IAL TI	MING (	CHART	•		
PHASE	1	2	3	4	5	6	7	8
MOVEMENT		EB ON ARLINGTON BLVD		NB/SB PED PHASE CROSSING ARLINGTON BLVD		WB ON ARLINGTON BLVD		
PHASE ON		X		X		X		
PHASE OFF	Χ		Χ		Χ		X	Х
INTERVAL					PHASE	TIMINGS		
MIN GR		5.0		-		5.0		
PASSAGE		0.0		-		0.0		
YELLOW		5.6		-		5.6		
RED		1.0		3.0		1.0		
MAX 1		70.0		-		70.0		
MAX 2		0.0		-		0.0		
MIN GAP		0.0		-		0.0		
TIME BEFORE REDUCTION		0.0		-		0.0		
TIME TO REDUCE		0.0		-		0.0		
PED WALK		-		7.0		-		
PED FLASH DON'T WALK		-		22.0		-		
MODE		MAX RECALL		NON- LOCK		MAX RECALL		

Conduit Run

### POLE LOCATION DETAIL (SCALE: 1"=25')



### CONSTRUCTION NOTES

EXISTING CONTROLLER AND CABINET TO BE REPLACED WITH NEW CONTROLLER AND CABINET ON A NEW FOUNDATION. ALL OTHER EXISTING EQUIPMENT TO BE REMOVED INCLUDING UNUSED WIRING, CONDUIT, AND JUNCTION BOXES UNLESS OTHERWISE SPECIFIED. CONTRACTOR SHALL SEQUENCE THE INSTALLATION OF THE NEW MAST ARMS TO MINIMIZE DOWN

- INSTALL SIGNAL CONTROLLER CABINET WITH UPS AND CONCRETE STOOP.
  CABINET SHALL BE ORIENTED TO PROVIDE TECH VIEW OF SIGNAL DISPLAYS.
- INSTALL UNDERGROUND ELECTRIC SERVICE WITH PEDESTAL METERPAN.
  CONTRACTOR SHALL COORDINATE WITH DOMINION VIRGINIA POWER FOR
  CONNECTION DETAILS. CONTRACTOR SHALL INSTALL ALL NECESSARY
  GROUNDING EQUIPMENT IN COMPLIANCE WITH VDOT ROAD AND BRIDGE
  STANDARDS, WHICH MAY NOT BE SHOWN EXPLICITLY ON PLANS.
- INSTALL NON-ORNAMENTAL MAST ARM SIGNAL POLE WITH 12' LUMINAIRE, PEDESTRIAN, VEHICULAR SIGNAL HEADS, ACCESSIBLE PEDESTRIAN PUSHBUTTON, VEHICLE DETECTION, CCTV CAMERA, AND SIGNS.
- INSTALL NON-ORNAMENTAL MAST ARM SIGNAL POLE WITH 12' LUMINAIRE, PEDESTRIAN, VEHICULAR SIGNAL HEADS, ACCESSIBLE PEDESTRIAN PUSHBUTTON, VEHICLE DETECTION, AND SIGNS.
- [5] INSTALL PEDESTAL POLE WITH VEHICULAR SIGNAL.
- REMOVE EXISTING STRAIN POLE, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, PEDESTRIAN PUSHBUTTONS, CCTV CAMERA, AND POLE-MOUNTED STREET NAME SIGNS TO BE SALVAGED AND RETURNED TO ARLINGTON COUNTY. CONTRACTOR SHALL COMPLETELY REMOVE AND DISPOSE OF EXISTING POLE FOUNDATION TO 24" BELOW GRADE.
- CONTRACTOR SHALL REMOVE ALL COMMUNICATION EQUIPMENT TO INCLUDE:

  12 FIBER PATCH PANEL AND FIBER CABLE, ETHERNET SWITCH, AND JUMPER
  CABLES FROM EXISTING CONTROLLER CABINET AND RELOCATE TO PROPOSED
  CONTROLLER CABINET. FIBER TO BE RELOCATED AS SHOWN IN THE CONDUIT
  AND CABLE RUNS SUMMARY.

COLOR SEQUENCE CHART											
PHASE	2	4	6	2+6	FLASH						
SIGNAL	R/W	R/W	R/W	R/W	FLASH						
,22,23,24	G			G	Υ						
1, 62, 63			G	G	Y						
P41, P42		W*			DARK						

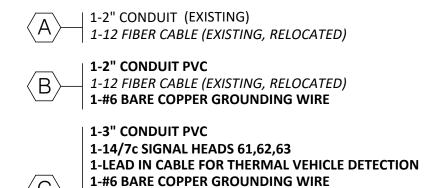
NOTE: BLANK SPACES IN THIS CHART REPRESENT A "RED" SIGNAL INDICATION.

\*WALK INDICATION IS DISPLAYED WHEN PEDESTRIAN CALL IS SERVICED; WALK INDICATION IS DISPLAYED UNTIL IT IS TIMED OUT. OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.

LEGEND	EXISTING	PROPOSED
Control Cabinet		<u> </u>
Signal Junction Box (61-03)	$\overline{\otimes}\tau$	$\overline{\widehat{T}}$
Signal Junction Box (61-04)	$\boxtimes \tau$	T
Electrical Junction Box (LT-16)	$\bigotimes E$	E
Comm. Junction Box	$\otimes c$	<b>©</b>
Service Junction Box	$\otimes s$	<b>(S</b> )
Mast Arm Pole & Foundation		
Pedestrian Pedestal Pole & Foundation		
Carlyle Lighting Pole & Foundation	-)	
Service Meter		
Battery Backup (UPS)	UPS	UPS
Vehicle Signal Head (LED)	0->#	<b>●</b> #
Pedestrian Push Button	<b>▶</b> — <b>►</b> PB#	<b>▶</b> • • • • • • • • • • • • • • • • • • •
FLIR Video Detection	VD#	VD#
Emergency Vehicle Preemption	PE#	₽E#
CCTV Vehicle Camera	о	ссти
Overhead Light (LED)		

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### **CONDUIT & CABLE RUNS**



1-2" CONDUIT PVC 1-12/2c CABLE FOR LUMINAIRE SL2 1-#6 BARE COPPER GROUNDING WIRE

1-3" CONDUIT (BORED) HDPE
1-14/7c SIGNAL HEADS 61,62,63
1-14/7c PEDESTRIAN SIGNAL P42
1-14/3c PEDESTRIAN PUSH BUTTON PB42
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION
1-#6 BARE COPPER GROUNDING WIRE

1-2" CONDUIT (BORED) HDPE 1-12/2c CABLE FOR LUMINAIRE SL2 1-#6 BARE COPPER GROUNDING WIRE

1-3" CONDUIT PVC

1-14/7c SIGNAL HEADS 21,22,23
1-14/7c PEDESTRIAN SIGNAL P41
1-14/3c PEDESTRIAN PUSH BUTTON PB42
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION
1-CCTV LEAD IN CABLE
1-#6 BARE COPPER GROUNDING WIRE

1-2" CONDUIT PVC 1-12/2c CABLE FOR LUMINAIRE SL1 1-#6 BARE COPPER GROUNDING WIRE

4-3" CONDUITS PVC
3-14/7c SIGNAL HEADS 21,22,23,24,61,62,63
2-14/7c PEDESTRIAN SIGNALS P41,P42
2-14/3c PEDESTRIAN PUSH BUTTONS PB41,PB42
2-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION
1-CCTV LEAD IN CABLE
4-#6 BARE COPPER GROUNDING WIRE

1-2" CONDUIT PVC
2-12/2c CABLE FOR LUMINAIRE SL1,SL2
1-12 FIBER CABLE (EXISTING, RELOCATED)
1-#6 BARE COPPER GROUNDING WIRE

1-2" CONDUIT PVC 1-14/7c SIGNAL HEAD 24 1-#6 BARE COPPER GROUNDING WIRE

2-2" CONDUITS PVC (SPARE)

2-#6 BARE COPPER GROUNDING WIRE

1-2" CONDUIT PVC
1-14/7c PEDESTRIAN SIGNAL P42
1-14/3c PEDESTRIAN PUSH BUTTON PB42
1-#6 BARE COPPER GROUNDING WIRE

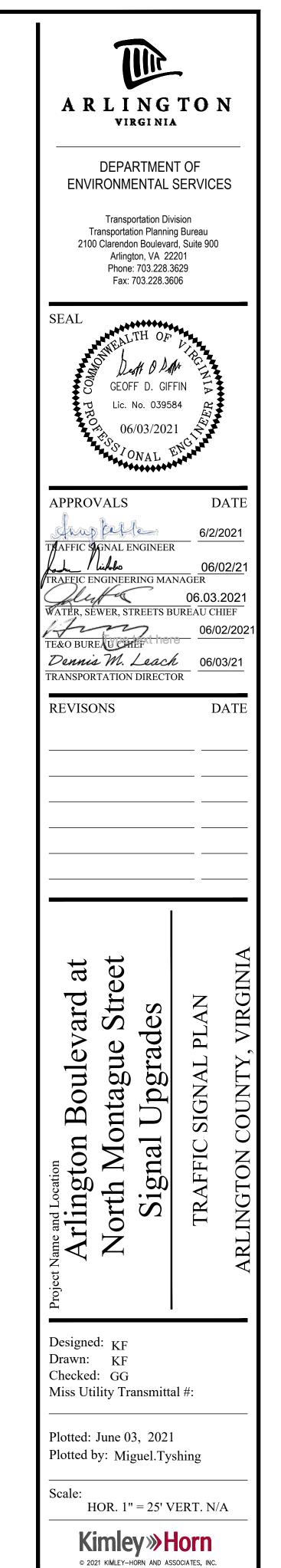
1-2" METAL CONDUIT
3-#6 AWG FOR ELECTRICAL SERVICE

CONDUIT AND CABLE LEGEND
HDPE - HIGH DENSITY POLYETHYLENE CONDUIT

PROPOSED

**EXISTING** 

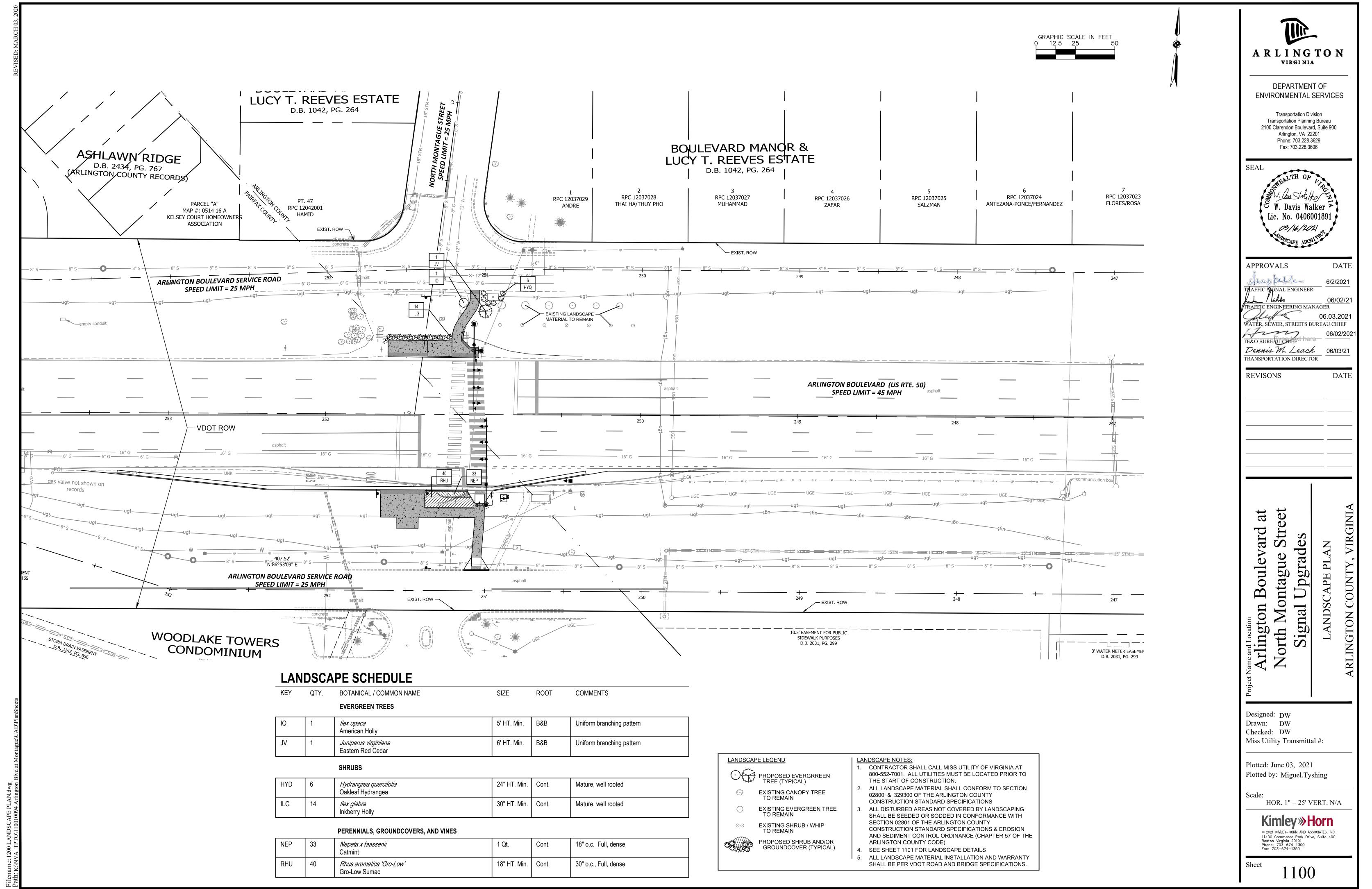
EXISTING, RELOCATED

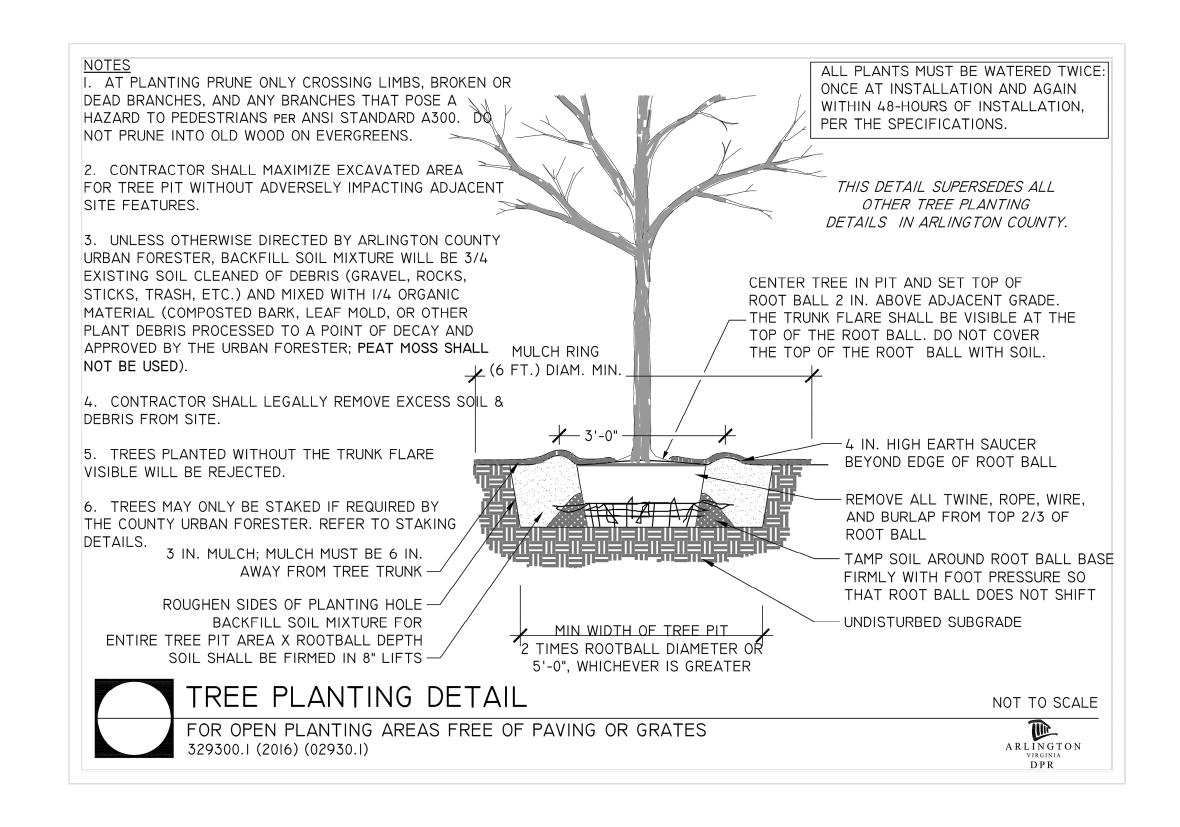


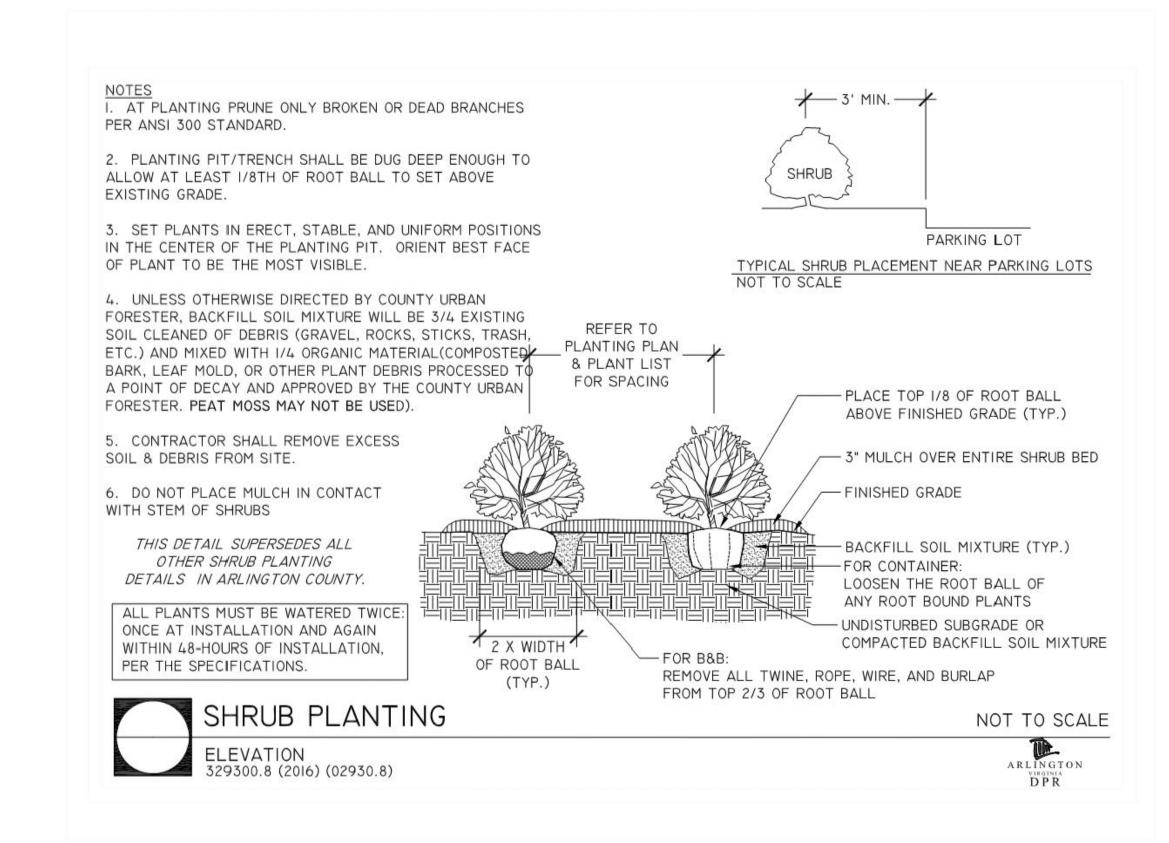
11400 Commerce Park Drive, Suite 400 Reston Virginia 20191 Phone: 703–674–1300 Fax: 703–674–1350

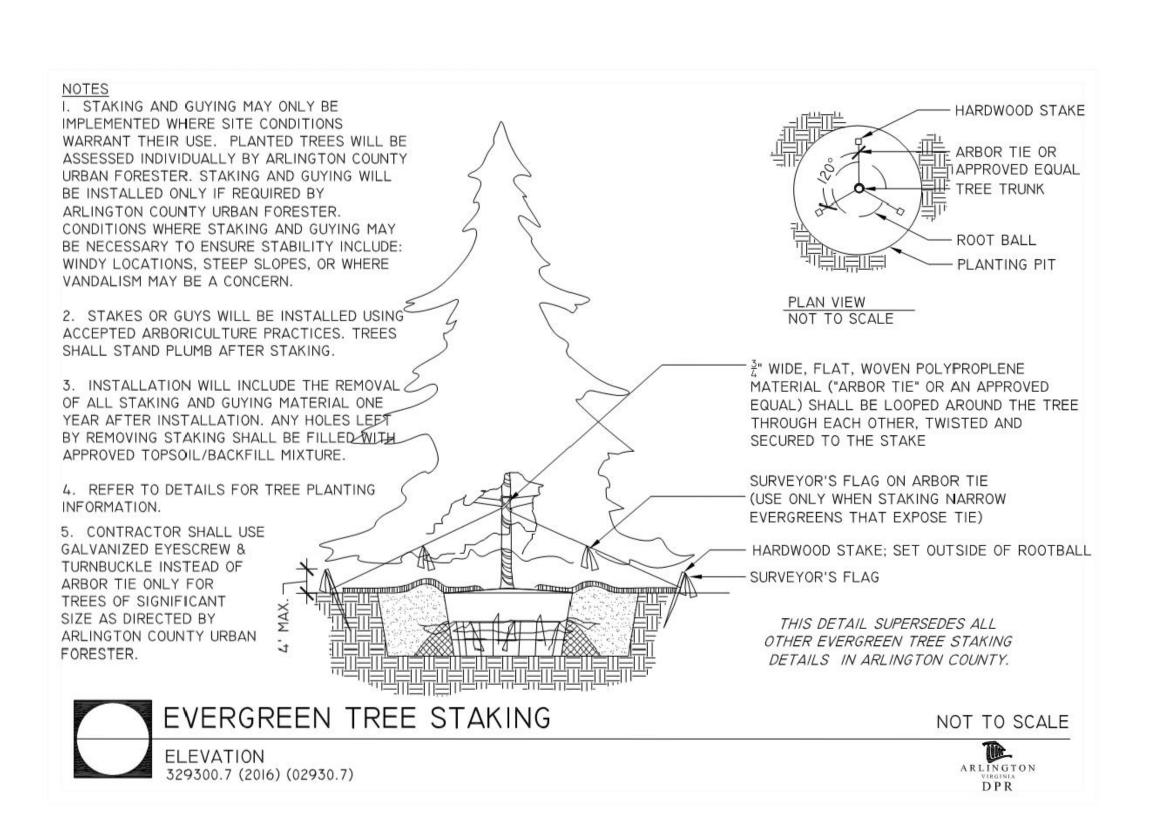
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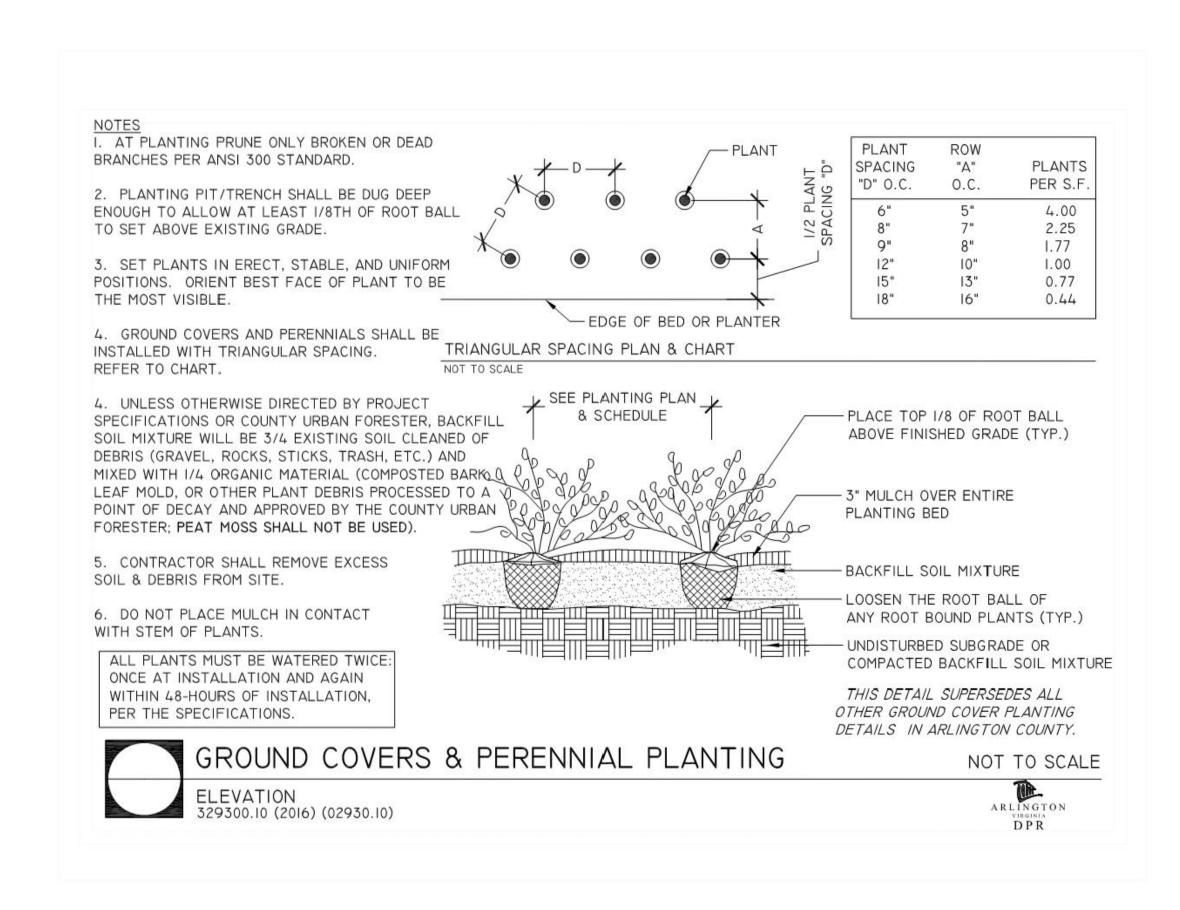
Arlington Boulevard at North Montague Street Signal Upgrades

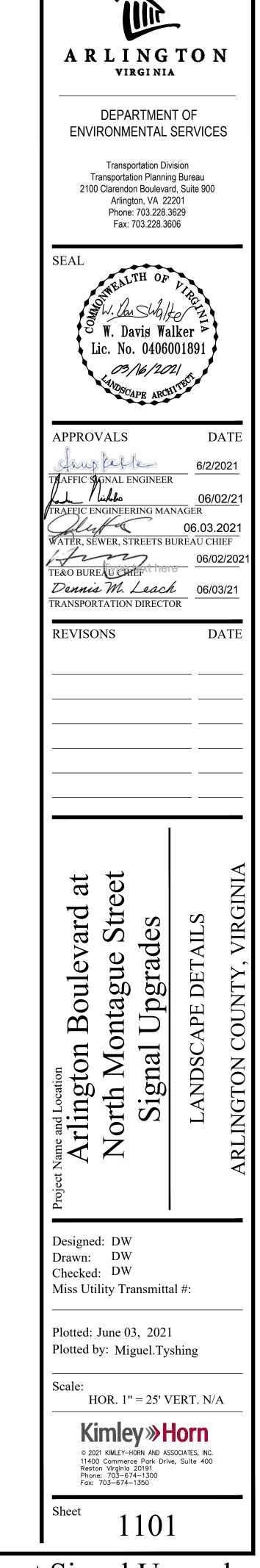


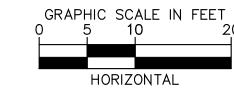


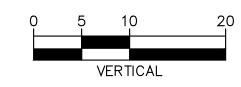




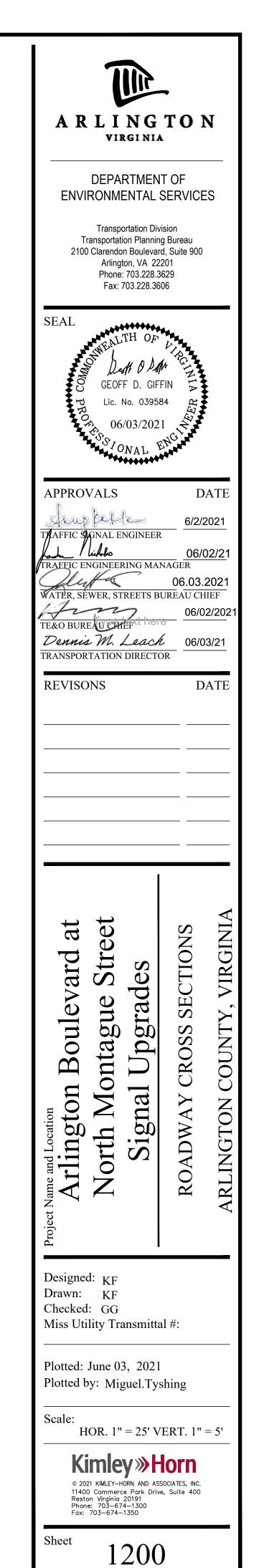


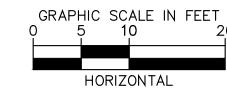


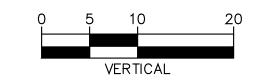




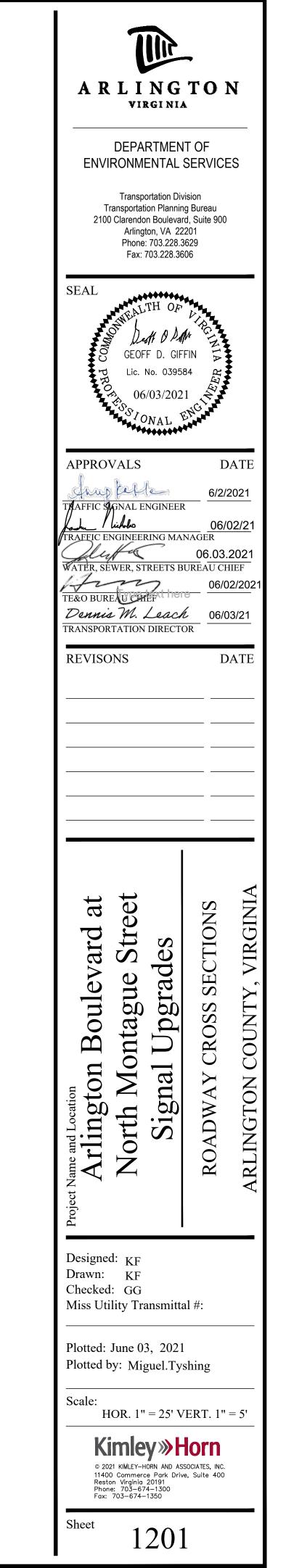
NOTE: EXISTING RIGHT-OF-WAY LINE TO THE NORTH IS OFFSET 110 FEET FROM THE ARLINGTON BOULEVARD CENTERLINE. EXISTING RIGHT-OF-WAY LINE TO THE SOUTH IS OFFSET 125 FEET FROM THE ARLINGTON BOULEVARD CENTERLINE. ALL CROSS SECTIONAL AREA AS SHOWN IS WITHIN THE EXISTING RIGHT-OF-WAY.

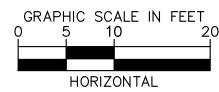


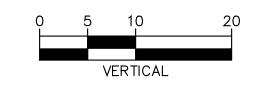




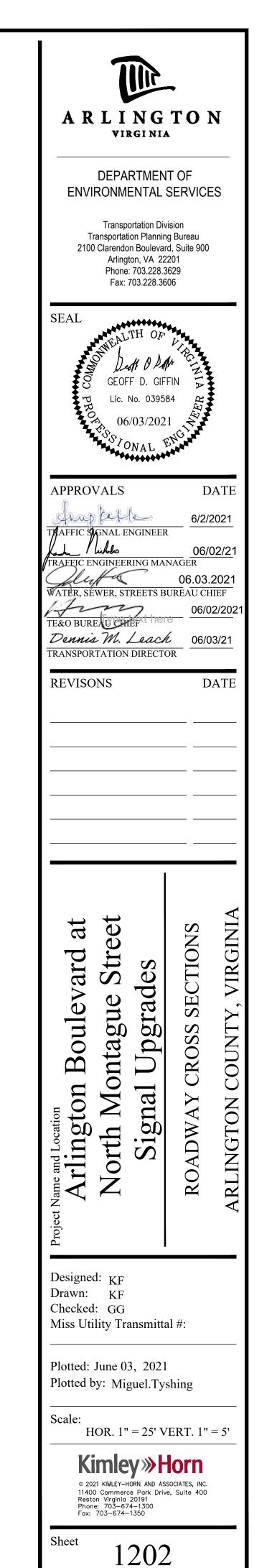
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### TEMPORARY TRAFFIC CONTROL PLAN

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

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

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

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

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

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

- THE CONSTRUCTION ZONE HAS BEEN SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS FOR POTENTIAL LOCATIONS FOR CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE WITHIN THE RIGHT OF WAY. THE CONTRACTOR IS TO PROVIDE ADEQUATE PROTECTION FOR CONSTRUCTION ELEMENTS WITHIN THE CLEAR ZONE.
- THE TMP/SOC PLAN, DURING CONSTRUCTION, SHALL BE IN ACCORDANCE WITH SECTIONS 512, 701, 703 & 704 OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, DATED 2016; THE VIRGINIA WORK AREA PROTECTION MANUAL DATED AUGUST 2011 AND UPDATED APRIL 2015; THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), DATED 2009; THE VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, DATED 2011; AND IIM-LD-241.7 OF THE INSTRUCTIONAL AND INFORMATIONAL MEMORANDA.
- F. NOTE ANY EXISTING ENTRANCES, EXISTING INTERSECTIONS, OR EXISTING PEDESTRIAN ACCESS POINTS THAT WILL BE AFFECTED BY THE CONSTRUCTION AREA OR BY THE TRAFFIC CONTROL DEVICES:

EXISTING ENTRANCES: THERE ARE NO EXISTING ENTRANCES WITHIN THE PROJECT LIMITS.

EAISTING INTERSECTIONS:
THE ARLINGTON BOULEVARD (ROUTE 50) AT N. MONTAGUE STREET INTERSECTION IS AT APPROXIMATE ARLINGTON BOULEVARD STATION 251+00. ALL EXISTING INTERSECTIONS ARE TO REMAIN OPEN AND FUNCTIONAL DURING CONSTRUCTION.

EAISING PEDESTRIAN ACCESS POINTS:
THERE ARE FOUR (4) EXISTING PEDESTRIAN ACCESS POINTS WITHIN THE PROJECT LIMITS. THESE INCLUDE TWO (2) ACCESS
POINTS NORTH OF ARLINGTON BOULEVARD AND TWO (2) ACCESS POINTS SOUTH OF ARLINGTON BOULEVARD. PEDESTRIANS
ARE TO BE DIVERTED AWAY FROM THE CONSTRUCTION ZONE. SEE CONSTRUCTION NARRATIVE FOR DETAILS.

EXISTING BUS STOPS:
THERE ARE TWO EXISTING BUS STOPS WITHIN THE PROJECT LIMITS LOCATED ALONG ARLINGTON BOULEVARD, ONE ON THE
NORTH SIDE OF THE INTERSECTION AND ONE ON THE SOUTH SIDE OF THE INTERSECTION. THE COUNTY WILL COORDINATE
WITH TRANIST BUREAU FOR WORK THAK WILL AFFECT TRANIST STOPS. TRANISTIS STOP ACCESS SHALL BE MAINTAINED FOR
ALL OPERATIONAL HOURS. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUMING MAINTAINING ADEQUATE ACCESS
THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE,
RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. TYPICALLY ANY
RELOCATION OR CLOSURE OF A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. TYPICALLY ANY
THE COUNTY'S BUS STOP COORDINATOR AT 703-228-3049. ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE

- IDENTIFY THE MAJOR TYPES OF TRAVELERS:
  THE TRAFFIC ON THE ROADWAY CONSISTS PRIMARILY OF COMMUTER TRAFFIC WITH TRANSIT BUSES, BIKES, AND PEDESTRIANS. THE SURROUNDING AREA IS MOSTLY RESIDENTIAL WITH BUS STOPS WITHIN THE PROJECT AREA.

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

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

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

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

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

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

- 2. THIS TMP/SOC PLAN IS INTENDED AS A GUIDE, IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IF THE CONTRACTOR TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- THE CONTRACTOR SHALL MAINTAIN AT LEAST 1 TRAVEL LANE ON THE SIDE ROADS AND AT LEAST 2 TRAVEL LANES IN EACH DIRECTION ON ROUTE 50 DURING CONSTRUCTION. THE TRAVEL LANES SHALL BE A MINIMUM OF 11 FEET WIDE, UNLESS APPROVED BY THE ENGINEER.
- ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6:1 WEDGE AGAINST THE EXISTING PAVEMENT OR NEWLY CONSTRUCTED PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC.

- 5. EACH PHASE OF CONSTRUCTION SHALL BE COMPLETED TO THE INSTALLATION OF INTERMEDIATE COURSE ASPHALT PRIOR TO THE START OF THE NEXT PHASE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 6. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION. THE COST SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.
- 7. UNLESS SPECIFIED ON THE PLANS, ALL EXISTING TURN LANES SHALL BE MAINTAINED AT ALL TIMES FOR THE DURATION OF CONSTRUCTION.
- WHERE GROUP 2 CHANNELIZING DEVICES ARE USED TO SEPARATE THE CONSTRUCTION AREA AND TRAFFIC, A MINIMUM CLEAR ZONE AREA AS DEFINED IN THE VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM) IS TO BE MAINTAINED.
- 9. THE CONTRACTOR IS TO COORDINATE WITH ARLINGTON COUNTY FOR LOCATION(S) OF THE CONSTRUCTION STAGING THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AS NECESSARY
- 10. IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN DURING THE FIRST DAY OF THE NEW WORK ZONE TRAFFIC PATTERN, THE PROJECT CONSTRUCTION MANAGER AND PROJECT CONSTRUCTION INSPECTOR SHALL INSPECT THE WORK ZONE TO ENSURE COMPLIANCE WITH THE TMP, ON THE THIRD TO FIFTH DAY OF IMPLEMENTATION OF THE TMP'S NEW WORK ZONE TRAFFIC PATTERN, THE CONSTRUCTION INSPECTOR SHALL CONDUCT AN ON-SITE REVIEW OF THE WORK ZONE'S PERFORMANCE IN COORDINATION WITH VOOT AND RECOMMEND TO THE CONTRACTOR ANY REQUIRED CHANGES TO THE TMP TO ENHANCE THE WORK ZONE'S SAFETY AND MOBILITY, ALL SUCH CHANGES SHALL BE DOCUMENTED. AN ON-SITE REVIEW OF THE PROJECT'S WORK ZONE TRAFFIC CONTROL BY THE COUNTY'S CONSTRUCTION INSPECTOR AND THE CONTRACTOR SHALL BE CONDUCTED (WITH COORDINATION FROM VDOT) WITHIN 48 HOURS OF ANY FATAL ACCIDENT/CRASH WITHIN THE WORK ZONE.
- 11. EVALUATION OF THE TRANSPORTATION MANAGEMENT PLAN
  A PERFORMANCE ASSESSMENT OF THE TMP INCLUDING AREA-WIDE IMPACTS ON ADJACENT ROADWAYS SHALL BE
  PERFORMED BY ARLINGTON COUNTY WITH COORDINATION FROM THE ENGINEER DURING CONSTRUCTION. AS CIRCUMSTANCES DICTATE, A REVIEW OF THE OVERALL EFFECTIVENESS OF THE PROJECT'S TMP SHALL BE COMPLETED DURING THE POST CONSTRUCTION MEETING AND INCLUDED WITH THE POST CONSTRUCTION REPORT. A COPY OF THE SPECIFIC INFORMATION ON THE EFFECTIVENESS OF THE TMP WILL BE FORWARDED TO ARLINGTON COUNTY FOR REVIEW. A COPY OF THE TMP INTERIM/POST CONSTRUCTION REPORT FORM CAN BE OBTAINED FROM ARLINGTON COUNTY.
- 12. PUBLIC COMMUNICATIONS PLAN IE CONTRACTOR SHALL BE RESPONSIBLE FOR:
  - NOTIFYING THE PROJECT MANAGER AND CONSTRUCTION INSPECTOR TWO WEEKS IN ADVANCE OF ANY SCHEDULED

  - NOTIFYING THE PROJECT MANAGER, CONSTRUCTION INSPECTOR, AND CORRESPONDING ENGINEER OF ANY UNSCHEDULED TRAFFIC DELAYS
- 14. TRANSPORTATION OPERATIONS
  THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:
  - NOTIFY THE REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) ONE WEEK IN ADVANCE TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC.
  - B. POST A LIST OF LOCAL EMERGENCY RESPONSE AGENCIES INSIDE THE PROJECT'S CONSTRUCTION OFFICE/TRAILER
  - C. IMMEDIATELY REPORT ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
  - NOTIFY THE PROJECT CONSTRUCTION INSPECTOR AND CORRESPONDING ENGINEER OF ANY NEW INCIDENTS AND EXPECTED TRAFFIC DELAYS.
  - WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE COMPLETED AND RECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE INCIDENTS.

CONTACT NUMBERS:

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

(703) 558-3362

- THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS DURING BOTH WORK AND NON-WORK HOURS TO ENSURE THE PROTECTION AND SAFETY OF THE ADJACENT PROPERTY OWNERS, PEDESTRIANS, VEHICULAR TRAFFIC, AND THE GENERAL PUBLIC FROM ANY CONSTRUCTION RELATED ACTIVITY, CONSTRUCTION EQUIPMENT, AND THE CONSTRUCTION SITE ITSELF.
  TEMPORARY CLOSURES OF PEDESTRIAN ACCESS SHALL BE LIMITED AND ADMINISTERED AS DIRECTED BY
- NO LANE CLOSURES WILL BE ALLOWED OUTSIDE OF THE CONSTRUCTION AREA HOURS, UNLESS APPROVED BY THE ENGINEED
- NO LANE CLOSURES WILL BE ALLOWED OUTSIDE OF THE CONSTRUCTION AREA HOURS, UNLESS APPROVE
  THE BUFFER SPACES SHOWN ON TEMPORARY TRAFFIC CONTROL SHEETS ARE SHOWN TO THE MAXIMUM
  LENGTH POSSIBLE BASED ON THE EXISTING INTERSECTIONS. THE CONTRACTOR SHALL KEEP THE BUFFER
  SPACE CLEAR OF VEHICLES AND MATERIALS AND PROVIDE CHANNELIZING DEVICES SPACED AT 20' FOR THE TAPER AND 40' FOR THE BUFFER AND CONSTRUCTION ZONE TO PROVIDE BETTER WORK ZONE
- CONTRACTOR SHALL COORDINATE ALL BUS STOP MODIFICATIONS WITH ARLINGTON COUNTY BUS STOP COORDINATOR BEFORE CONSTRUCTION.

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

ASE 1:
INSTALL TEMPORARY TRAFFIC CONTROL SIGNS AND DEVISES IN ACCORDANCE WITH TTC-53.0.
CONSTRUCT PROPOSED IMPROVEMENTS WITHIN THE CONSTRUCTION ZONE SHOWN ON SHEET 1302 IN
ACCORDANCE WITH TTC-5.2, TTC-16.2, AND TTC-23.2
CONSTRUCTION SHOULD BE PHASED TO ALLOW ADEQUATE PEDESTRIAN ACCESS IN ACCORDANCE WITH
TTC-35.0 AND TTC-36.2. AN ADEQUATE PEDESTRIAN DIVERSION SHOULD BE IMPLEMENTED WHERE A
DETOUR IS NOT FEASIBLE AT THE CONCLUSION OF WORK EACH DAY.
CONSTRUCTION ACTIVITIES IN THIS PHASE INCLUDE: DEMOLITION, GRADING, CURB, SIDEWALK, CURB RAMP,
HANDRAIL, BUS PLATFORM, AND SIGNAL CONSTRUCTION.

SE 2: INSTALL TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES IN ACCORDANCE WITH TTC-53.0. CONSTRUCT PROPOSED IMPROVEMENTS WITHIN THE CONSTRUCTION ZONE SHOWN ON SHEET 1302 IN ACCORDANCE WITH TTC-16.2 AND TTC-23.2. CONSTRUCTION SHOULD BE PHASED TO ALLOW ADEQUATE PEDESTRIAN ACCESS IN ACCORDANCE WITH

TITC-35.0 AND TITC-36.2. AN ADEQUATE PEDESTRIAN DIVERSION SHOULD BE IMPLEMENTED WHERE A DETOUR IS NOT FEASIBLE AT THE CONCLUSION OF WORK EACH DAY.

CONSTRUCTION ACTIVITIES IN THIS PHASE INCLUDE: DEMOLITION, GRADING, DRAINAGE, CURB AND GUTTER, SIDEWALK, CURB RAMP, HANDRAIL, BUS PLATFORM, AND SIGNAL CONSTRUCTION.

THE PROPOSED SIGNAL SHALL BE FULLY CONSTRUCTED AND IN OPERATION BEFORE THE NEXT PHASE

PHASE 3 (NOT SHOWN):

1. MILL AND OVERLAY AREAS SHOWN ON THE PLANS IN ACCORDANCE WITH TTC-57.1

2. INSTALL ALL PERMANENT PAYEMENT MARKINGS AND SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN.

3. REMOVE ALL TRAFFIC CONTROL SIGNS AND DEVICES.

NOTE:

THE DESIGNER, DERIK DOUGHTY, P.E. HAS COMPLETED THE VDOT ADVANCED WORK ZONE TRAINING ON



Virginia Department of Transportation

REVIEW OF WORKING DRAWINGS

Working drawings have been reviewed in 2016 VDOT Road & Bridge Specifications

X REVIEW COMPLETED CORRECT & RESUBMIT REJECTED - SEE REMARKS

Reviewed by:

By Brian E. Fry at 2:20 pm, Mar 30, 2021

ARLINGTON

DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Planning Bureau 2100 Clarendon Boulevard, Suite 900

SEAL

Ser V.~ DERIK DOUGHTY ic. No. 0402055074 03/20/2021

mus table 6/2/2021 Hickory ENGINEERING MANAGER WATER, SEWER, STREETS BUREAU CHIEF 06 03 202 FE&O BUREAU CHEF 06/02/20 Donnis M. Loach. 06/03/21

DATE

Street Boulevard

Montague U Arlington North Mo *IRANSPORTATION* gnal

ARLINGTON

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

Plotted: March 20, 2021 Plotted by: Nicole McVey

HOR, N/A VERT, N/A

Kimley » Horn © 2021 kiMLEY-HORN AND ASSOCIATES, INC. 11400 Commerce Park Drive, Suite 400 Reston Virginio 20191 Phone: 703—674—1300 Fox: 703—674—1350



DEPARTMENT OF **ENVIRONMENTAL SERVICES** 

Transportation Division Transportation Planning Bureau 2100 Clarendon Boulevard, Suite 900 Arlington, VA 22201 Phone: 703.228.3629 Fax: 703.228.3606

September 2019

**Typical Traffic Control** 

Outside Lane Closure Operation on a Four-Lane Roadway

(Figure TTC-16.2)

**NOTES** 

1. On divided highways having a median wider than 8', right and left sign assemblies shall be

2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign

4. Care should be exercised when establishing the limits of the work zone to insure maximum possible

6. Taper length (L) and channelizing device spacing shall be at the following:

7. Channelizing device spacing shall be at the following:

mounted attenuator shall be used.

14. The supplemental PTRS may be eliminated.<sup>2</sup>

or<sup>1</sup> oscillating lights.

placed as needed.

SHADOW VEHICLE REQUIRED (TMA REQUIREMENT SEE NOTE 10)

SUPPLEMENTAL PTRS OPTIONAL SEE NOTE 14

2: Revision 2 – 9/1/2019

sight distance in advance of the transition, based on the posted speed limit and at least equal to or

greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.

Limited Access highways shall use a 1000' merging taper regardless of the posted speed.

Shifting Tapers see Table 6H-2.² Shoulder Taper = ½ L Minimum

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

8. An arrow board shall be used when a lane is closed. When more than one lane is closed, a

9. The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.

advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-

. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber

12. When a side road intersects the highway within the TTC zone, additional TTC devices shall be

13. PTRS and their supporting signs may be used, see Sections 6F.99 and 6G.25. Long-term transverse

Outside Lane Closure Operation on a Four-Lane Roadway

rumble strips may be used in long-term situations, see Section 6F.99 and TTC-20.2

rotating, flashing, or loscillating lights but can be used to supplement the amber rotating, flashing,

10. A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in

separate arrow board shall be used for each closed lane (see Figure TTC-18).

. All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.

spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where

When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side

APPROVALS DATI 6/2/2021 TAAFFIC MONAL ENGINEER TRAFFIC ENGINEERING MANAGER 06.03.2021 WATER, SEWER, STREETS BUREAU CHIEF Hum TE&O BURE U CHÉF Dennis M. Leach 06/03/21 TRANSPORTATION DIRECTOR

REVISONS DATE

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

Plotted: June 03, 2021 Plotted by: Miguel. Tyshing

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

> Kimley»Horn © 2021 KIMLEY-HORN AND ASSOCIATES, INC. 11400 Commerce Park Drive, Suite 400 Reston Virginia 20191 Phone: 703–674–1300 Fax: 703–674–1350

1301

September 2019 Page 6H-80 September 2019 **Typical Traffic Control** Sidewalk Closure and Bypass Sidewalk Operation Crosswalk Closure and Pedestrian Detour Operation (Figure TTC-36.2) **NOTES** 1. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be 1. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be

detectable and shall include accessibility features consistent with the features present in the existing detectable and shall include accessibility features consistent with the features present in the existing 2. Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk. 2. Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic. 3. Audible information devices should be considered where midblock closings and changed crosswalk areas 3. Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities. cause inadequate communication to be provided to pedestrians who have visual disabilities.

4. Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated. 5. Temporary markings should be considered for operations exceeding three days in duration. 6. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.

closing sidewalks. 8. In order to maintain the systematic use of the fluorescent yellow-green background for school warning signs in a jurisdiction, the fluorescent yellow-green background for school warning signs

7. For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and

9. All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) ign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 Barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.<sup>2</sup> 10. Refer to Sections 3B-16 through 3B-18 of the 2009 MUTCD and the Virginia Supplement to the MUTCD<sup>1</sup>

for crosswalk<sup>1</sup> lines, yield lines and other related TTC devices that may be used to control vehicular traffic

11. The YIELD HERE TO PEDESTRIANS (R1-5) sign shall be placed at the Yield Line. 12. Fluorescent yellow-green PEDESTRIAN TRAFFIC (W11-2) symbol sign, AHEAD (W16-9p)

plaque and ARROW (W16-7p) plaque shall be used to identify the work zone crosswalk.

(Figure TTC-36.2)

**Typical Traffic Control** Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.2) **NOTES** 1. Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph. 2. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger 3. To maintain efficient traffic flow in a flagging operation on a two-lane roadway, the maximum time motorists should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.2

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4. Portable Temporary Rumle Strips (PTRS) shall be used as noted in Section 6F.99.2 5. Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see 6. All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers). 7. Cone spacing shall be based on the posted speed and the values in Table 6H-4 on Page 6H-6.1 8. A shadow vehicle with at least one high intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in advance of the first work crew.

8. A SLOW (W21-V10) sign<sup>2</sup> may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or queued traffic. 9. If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign then the signs, and if used the PTRS<sup>1</sup> should be readjusted at greater distances. 10. When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail

crossing (see Figure TTC-56 for additional information on highway-rail crossings). 11. At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08). 12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching

from both directions, may be used (see Chapter 6E).

14. When used<sup>2</sup>, three portable temporary rumble (PTRS) strips shall be installed across the entire travel lane adjacent to the BE PREPARED TO STOP (W3-4) sign. The portable temporary rumble strips shall be monitored and adjusted as necessary during the work shift to ensure proper placement on the roadway. When the PTRS are installed, the RUMBLE STRIPS AHEAD (W20-V26) sign shall also be utilized. 1: Revision 1 - 4/1/2015

Shoulder Operation with Minor Encroachment (Figure TTC-5.2) 1. For required sign assemblies for multi-lane roadways see Note 1, TTC-4.1 2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where 3. When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet. 4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area. 5. A shadow vehicle with either an arrow board operating in the caution mode, or at least one highintensity amber rotating, flashing, or 1 oscillating light shall be parked 80' - 120' in advance of the first work crew. 6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights. | Care | Taper length (L) and channelizing device spacing shall be at the following: taper for posted speeds < 65 mph and a 1000' shifting taper for posted speeds ≥ 65 mph.² 8. Channelizing device spacing shall be at the following: Location (mph)
Spacing 0-35 36+ 9. On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.<sup>2</sup>  $10.\;\;$  The buffer space length The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit. roadways with posted speed limit equal to or greater than 45 mph.

**Typical Traffic Control** 

September 2019

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required.

signs cannot be installed.2

11. A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane

12. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

2: Revision 2 - 9/1/2019

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

Shoulder Operation with Minor Encroachmen (Figure TTC-5.2) SHADOW VEHICLE

LLUMINATED FLASHING

Sidewalk Closure and Bypass Sidewalk Operation **Crosswalk Closure and Pedestrian Detour Operation** (Figure TTC-35.1) SIDEWALK DIVERSION TYPE 3 BARRICADE

**Typical Traffic Control** 

(Figure TTC-35.1)

4. Temporary markings should be considered for operations exceeding three days in duration.

ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.

5. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or

6. For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and

7. Signs, such as KEEP RIGHT (R4-V7R) and KEEP LEFT (R4-V7L), may be placed along a temporary

8. All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.<sup>2</sup>

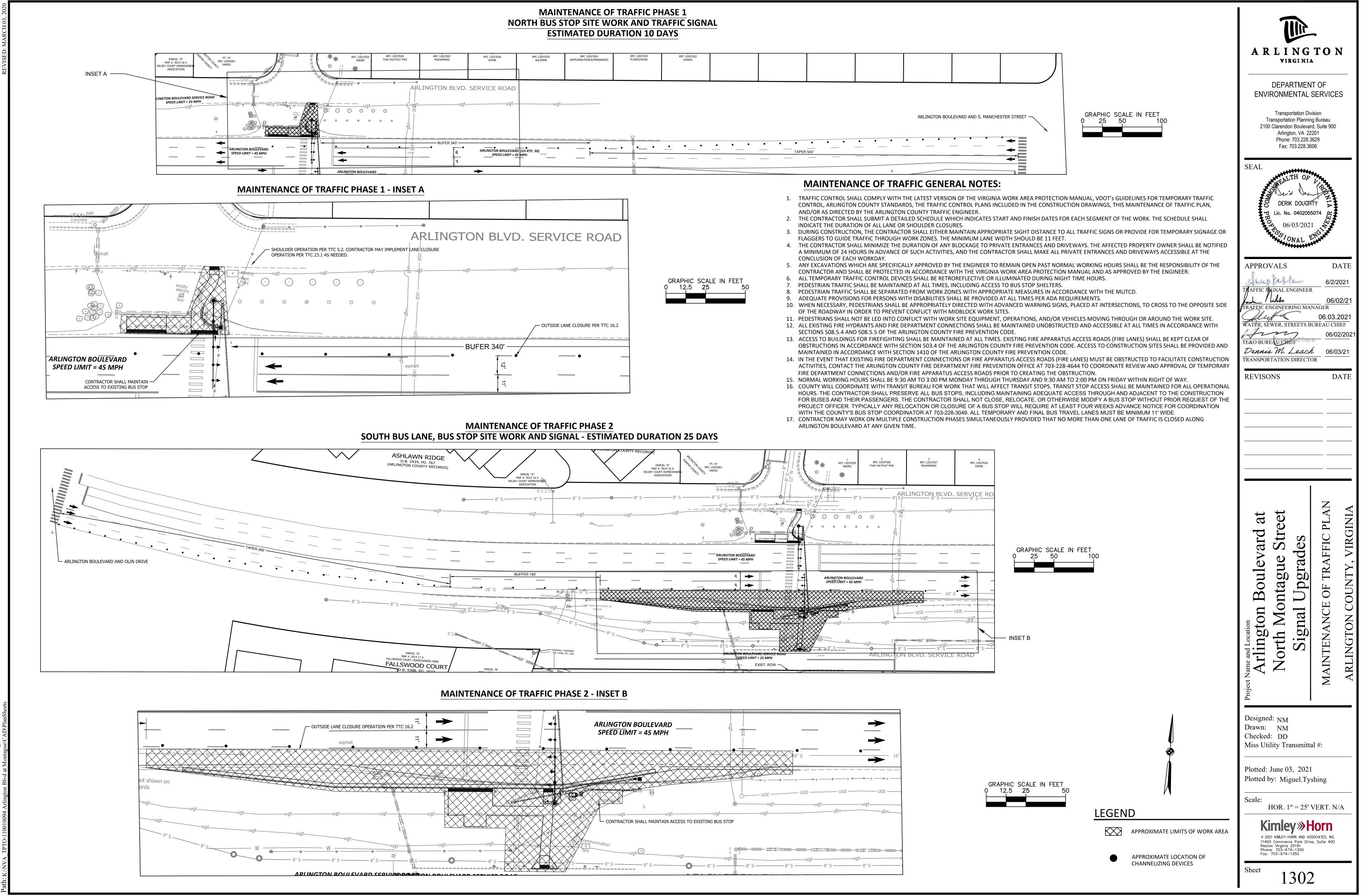
pedestrian facility.

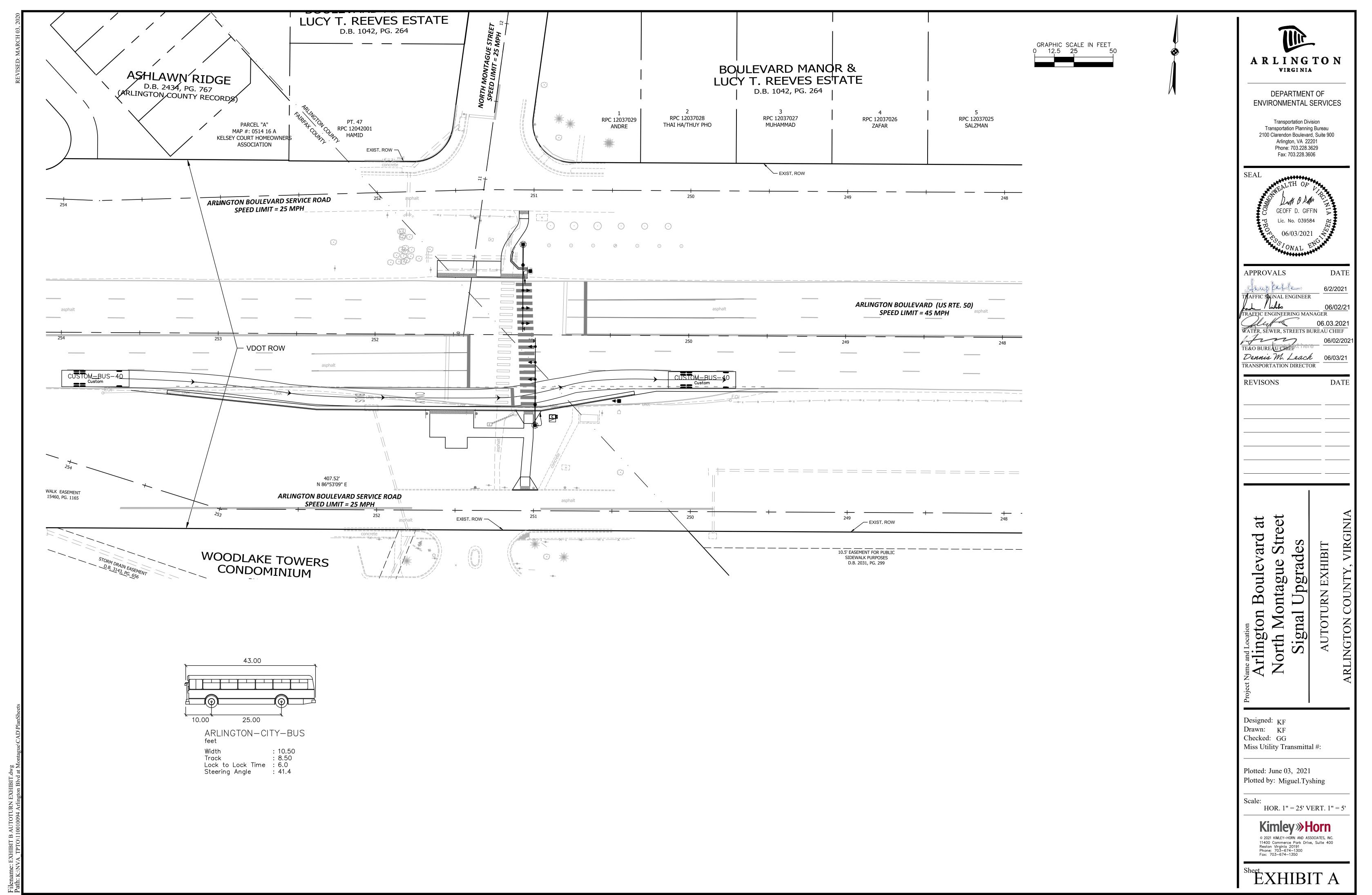
sidewalk to guide or direct pedestrians.

Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.2)

2: Revision 2 - 9/1/2019

Arlington Boulevard at North Montague Street Signal Upgrades





### 2.4 POLLUTION PREVENTION PLAN:

- 1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS: WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIRE FIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
- 2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (EG., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
- 3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

### 2.0 Authorized Non-Stormwater Discharges

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

### 5.0 Potential Sources of Pollution & Pollution Prevention Practices

			ı	Polluta	ants							
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
Clearing, grading, excavating, and un-stabilized areas	X Yes ☐ No	Х							х		(1)	
Paving operations	X Yes □ No	х					х		х		(2)	
Concrete washout and cement waste	☐ Yes 🄀 No			Х	х				х		(3)	
Structure construction, stucco, painting, and cleaning	☐ Yes 🏻 No			Х	х				Х	х	(4)	
Dewatering operations		Х	Х						х		(5)	
Material delivery and storage	☐ Yes 🏻 No	х	Х	Х	х		Х		х	х	(6)	Construction Activity Operator (See Cover Page of this SWPPP)
Material use during building process	☐ Yes 🂢 No		х	Х	Х		Х		Х	х	(7)	Page of this SWPPP)
Solid waste disposal	X Yes □ No								х	х	(8)	
Sanitary waste	☐ Yes ☒ No		х		х			х			(9)	
Landscaping operations	X Yes □ No	х	Х			Х			х	х	(10)	
Others [describe]	☐ Yes ☒ No	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	(11)	

Arlington County – SWPPP 9/2016

### Pollution Prevention Practices:

- (1) Clearing, grading, excavating and un-stabilized areas Utilize erosion and sediment controls to prevent sediment laden or turbid runoff from leaving the construction site. Dispose of clearing debris at acceptable disposal sites. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities.
- (2) **Paving operations** Cover storm drain inlets during paving operations and utilize pollution prevention materials such as drip pans and absorbent/oil dry for all paving machines to limit leaks and spills of paving materials and
- (3) Concrete washout and cement waste Direct concrete wash water into a leak-proof container or leak-proof settling basin that is designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes.
- (4) Structure construction, stucco, painting and cleaning Enclose, cover or berm building material storage areas if susceptible to contaminated stormwater runoff. Conduct painting operations consistent with local air quality and OSHA regulations. Mix paint indoors, in a containment area or in a flat unpaved area. Prevent the discharge of soaps, solvents, detergents and wash water from construction materials, including the clean-up of stucco paint, form release oils and curing compounds.
- (5) **Dewatering operations** Construction site dewatering from building footings or other sources may not be discharged without treatment. Sediment laden or turbid water shall be filtered, settled or similarly treated prior
- (6) **Material delivery and storage** Designate areas of the construction site for material delivery and storage. Place near construction entrances, away from waterways, and avoid transport near drainage paths or
- (7) **Material use during building process** Use materials only where and when needed to complete the construction activity. Follow manufacturer's instructions regarding uses, protective equipment, ventilation,
- flammability and mixing of chemicals.

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

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

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

### 7.0 Spill Prevention & Response

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

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

- Check for hazards (flammable material, noxious fumes, cause of spill) if flammable liquid, turn off engines and nearby electrical equipment. <u>If serious hazards are present leave the area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.</u>
- 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).
- 5. If possible, stop spill from entering drains (use absorbent or other mate6. Stop spill from spreading (use absorbent or other material)
- If spilled material has entered a storm sewer; contact locality's storm water department.
   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

Local Contacts

24 Hour Reporting Service

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

ARLINGTON

DEPARTMENT OF ENVIRONMENTAL SERVICES

Transportation Division
Transportation Planning Bureau
2100 Clarendon Boulevard, Suite 900
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL

GEOFF D. GIFFIN

Lic. No. 039584

06/03/2021

APPROVALS

DATE

6/2/2021

TRAFFIC SIGNAL ENGINEER

Julius

06/02/21

TRAFFIC ENGINEERING MANAGER

06.03.2021

WATER, SEWER, STREETS BUREAU CHIEF

06/02/202

TE&O BURE U CHEF

Dennis M. Leach

TRANSPORTATION DIRECTOR

06/03/21

REVISONS

DATE

rlington Boulevard at orth Montague Street Signal Upgrades

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

Plotted: June 03, 2021 Plotted by: Miguel.Tyshing

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

Kimley >>> Horn
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EXHIBIT B

