REVISED ON 11/18/2021

ARLINGTON
VIRGINIA


ENGINEER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

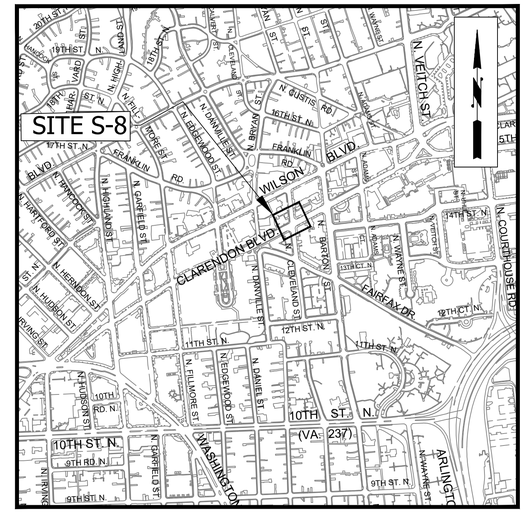
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
PHONE: 703.228.3629 FAX: 703.228.3606
WWW.ARLINGTONVA.US

OWNER
DES/DTD/PLAN

DIVISION OF TRANSPORTATION & DEVELOPMENT/
TRANSPORTATION PLANNING BUREAU
2100 CLARENDON BOULEVARD, SUITE 900,
ARLINGTON, VA 22201
PHONE: 703.228.6570 FAX: 703.228.3606
WWW.ARLINGTONVA.US

CONTRACTOR
TO BE DETERMINED


## LOCATION MAP




0 600 1200
GRAPHIC SCALE

CONSTRUCTION DRAWINGS FOR:

# CLARENDON BLVD. & N CLEVELAND ST INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

PROJECT NUMBER: P31D

# GENERAL NOTES:

## GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
4. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES 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.
8. THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
9. ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

## STORMWATER AND ENVIRONMENTAL PROTECTION

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

## TREE PROTECTION

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

## TRAFFIC CONTROL

12. CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
13. THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. 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 5 BUSINESS DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
15. WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.
16. THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. ANY RELOCATION OR CLOSURE OF A BUS STOP SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
17. WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

## WATER DISTRIBUTION, STORM AND SANITARY SEWER SYSTEMS

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

## FIRE DEPARTMENT NOTES:

21. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 507.5.4 AND 507.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
22. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH THE ARLINGTON COUNTY FIRE PREVENTION CODE.
23. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

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| SHEET NUMBER | SHEET TITLE |
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| C000.1 | COVER |
| C000.2 | VDOT COVER |
| C002.1 | DETAILS |
| C004.1 | TYPICAL SECTIONS |
| C006.1 | LEGEND |
| C011.1 | EXISTING_CONDITIONS |
| C021.1 | DEMOLITION_PLAN |
| C031.1 | EROSION_AND_SEDIMENT CONTROL PLAN |
| C032.1 | EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS |
| C032.2 | EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS |
| C032.3 | EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS |
| C032.4 | EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS |
| C035.1 | STORMWATER POLLUTION PREVENTION PLAN |
| C035.2 | STORMWATER POLLUTION PREVENTION PLAN |
| C041.1 | PLAN AND PROFILE |
| C042.2 | RAMP DETAILS |
| C042.3 | RAMP DETAILS |
| C042.4 | RAMP DETAILS |
| C043.1 | CURB RETURN PROFILES |
| C044.2 | CROSS-SECTIONS |
| C044.3 | CROSS-SECTIONS |
| C044.4 | CROSS-SECTIONS |
| C045.1 | GEOMETRIC CONTROL PLAN |
| C101.1 | SIGNAGE_AND_STRIPING |
| C121.1 | MAINTENANCE OF TRAFFIC PLAN |
| C122.1 | MAINTENANCE OF TRAFFIC NOTES & DETAILS |
| C122.2 | MAINTENANCE OF TRAFFIC NOTES & DETAILS |


VDOT PROJECT # EN18-000-880

UPC # 113868

LOCALITY PROJECT # P31D

## SWM # 22-0205

AS NOTED

## ADT

14,800 VPD - CLARENDON BLVD (FROM N. HIGHLAND ST TO N. COURTHOUSE RD.) - 2016 - TE & O
N/A - N. CLEVELAND ST. (FROM WILSON BLVD TO 12TH ST N.)

## STREET CLASSIFICATION

CLARENDON BLVD. - MAJOR ARTERIAL
N. CLEVELAND ST. - MINOR ARTERIAL

MAINTAINING AGENCY : ARLINGTON COUNTY

## POSTED SPEED

CLARENDON BLVD. - 25 MPH
N. CLEVELAND ST. - 25 MPH

2011 AASHTO CITY BUS


ARLINGTON
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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum<br>QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

COVER

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

AS NOTED

C000.1

FILENAME: COVER_MAP.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021

THIS PROJECT WAS DEVELOPED UTILIZING THE ARLINGTON COUNTY DES DESIGN PACKAGE (AUTOCAD CIVIL3D 2020).
PROJECT UPC: 113868
ARLINGTON COUNTY STORMWATER MANAGEMENT #: SWM 02-0205
ARLINGTON COUNTY LAND DEVELOPMENT APPLICATION #: LDAP22-00052
ARLINGTON COUNTY BOARD APPROVAL DATE: N/A
ARLINGTON COUNTY PROGRAM OWNER: Transportation Planning Bureau

ARLINGTON
VIRGINIA

FHWA 534 DATA: 43128

| STATE | FEDERAL AID PROJECT | STATE ROUTE | STATE PROJECT | SHEET NO. |
|---|---|---|---|---|
| VA | FHWA-5B01 (074 ) | N/A | EN18-000-880 | 1 |
| | | | | |

| FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA | | | |
|---|---|---|---|
| ROADWAY | MAJOR ARTERIAL | MINOR ARTERIALS | |
| | CLARENDON BLVD. | N CLEVELAND STREET | |
| POSTED V (MPH) | 25 MPH | 25MPH | |
| ADT (2016) | 14,800 | N/A | |
| | | | |

MAINTAINING AGENCY : ARLINGTON COUNTY

## Sheet List Table


| SHEET NUMBER | SHEET TITLE |
|---|---|
| C000.2 | VDOT COVER |
| C002.1 | DETAILS |
| C004.1 | TYPICAL SECTIONS |
| C006.1 | LEGEND |
| C011.1 | EXISTING_CONDITIONS |
| C021.1 | DEMOLITION_PLAN |
| C031.1 | EROSION_AND_SEDIMENT CONTROL PLAN |
| C032.1 | EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS |
| C032.2 | EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS |
| C032.3 | EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS |
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| C035.1 | STORMWATER POLLUTION PREVENTION PLAN |
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| C042.3 | RAMP DETAILS |
| C042.4 | RAMP DETAILS |
| C043.1 | CURB RETURN PROFILES |
| C044.2 | CROSS-SECTIONS |
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| C045.1 | GEOMETRIC CONTROL PLAN |
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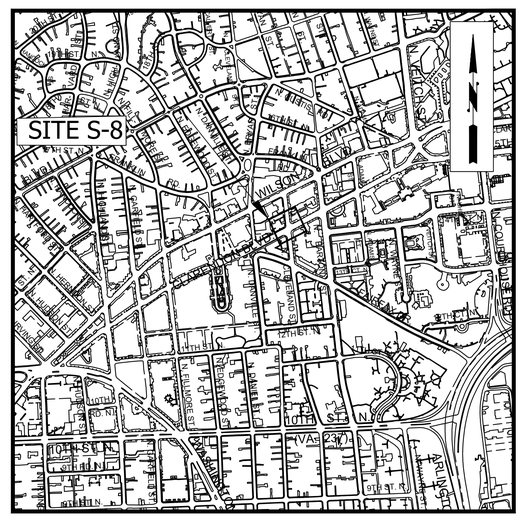
| C122.1 | MAINTENANCE OF TRAFFIC NOTES & DETAILS |
| C122.2 | MAINTENANCE OF TRAFFIC NOTES & DETAILS |
| C200.1 | TURNING MOVEMENT EXHIBIT-RT |
| C200.2 | TURNING MOVEMENT EXHIBIT-LT |


# CONSTRUCTION DRAWINGS FOR: CLARENDON BLVD. & N CLEVELAND ST INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

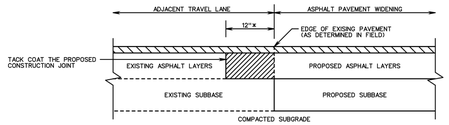
PROJECT NUMBER: P31D
UPC NUMBER: 113868

## LOCATION MAP


SITE S-8
WILSON
CLARENDON
N CLEVELAND
N FILLMORE
N DANIEL
N EDISON
N QUINCY
N OAKLAND
N ROOSEVELT
N GLEBE
N ARLINGTON RIDGE
ARLINGTON
VA-237
N ROOSEVELT
N GLEBE
N ARLINGTON RIDGE
N ARLINGTON

REVISED ON 11/18/2021

WP-2




## CONSTRUCTION JOINT DETAIL

REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS

PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)

* MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

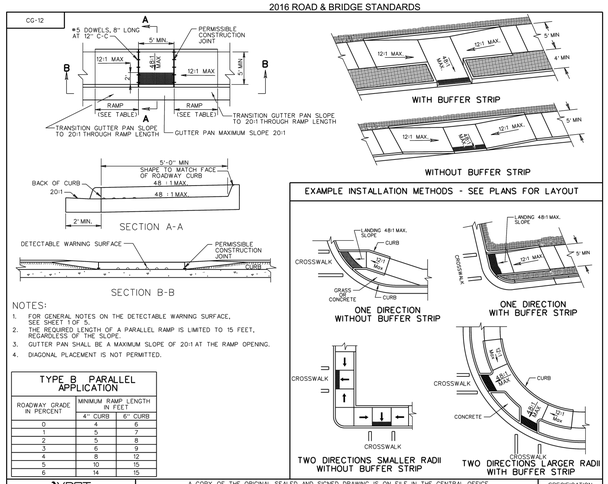
### NOTES:

1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315.05(c) OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315.07(a) OF THE SPECIFICATIONS.

| VDOT ROAD AND BRIDGE STANDARDS | | ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC | SPECIFICATION REFERENCE |
|---|---|---|---|
| SHEET 1 OF 1 | REVISION DATE | VIRGINIA DEPARTMENT OF TRANSPORTATION | 315 |
| 303.02 | | | |

2016 ROAD & BRIDGE STANDARDS

CG-12




NOTES:

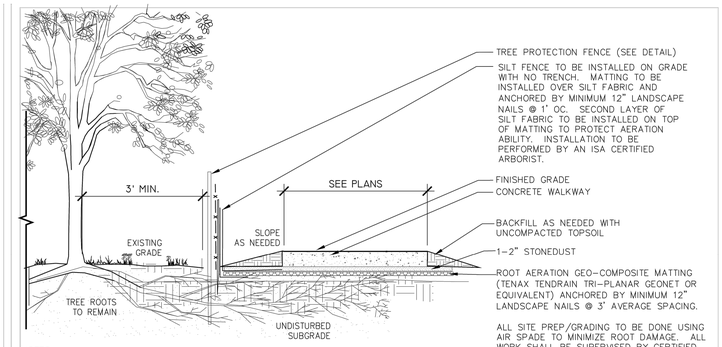
1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.
3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
4. DIAGONAL PLACEMENT IS NOT PERMITTED.

TYPE B PARALLEL APPLICATION

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

| VDOT ROAD AND BRIDGE STANDARDS | | A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION | SPECIFICATION REFERENCE |
|---|---|---|---|
| SHEET 3 OF 5 | REVISION DATE | | 505 |
| 204.03 | 04/19 | | 502 |
| | | | 504 |

2016 ROAD & BRIDGE STANDARDS



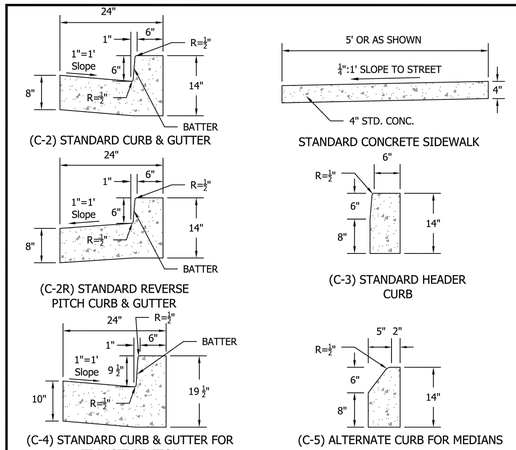

NOTES:

1. ALL WORK SHALL BE SUPERVISED BY AN ISA CERTIFIED ARBORIST.
2. NO ROOTS GREATER THAN 1" SHALL BE CUT WITHOUT REVIEW BY ARLINGTON COUNTY URBAN FORESTER.
3. EXCAVATION SHALL BE NOT MORE THAN MINIMUM NEEDED TO ACHIEVE REQUIRED FINAL GRADE
4. ALL EXCAVATION SHAL BE BY SSAT AND/OR BY HAND TO MINIMIZE ROOT DAMAGE AS DIRECTED BY CERTIFIED ARBORIST.
5. WORK SHALL NOT DAMAGE TREE TRUNK, LIMBS OR ROOTS TO REMAIN.

TREE SENSITIVE CONCRETE SIDEWALK — N.T.S.

311300.11NS

ARLINGTON VIRGINIA DPR



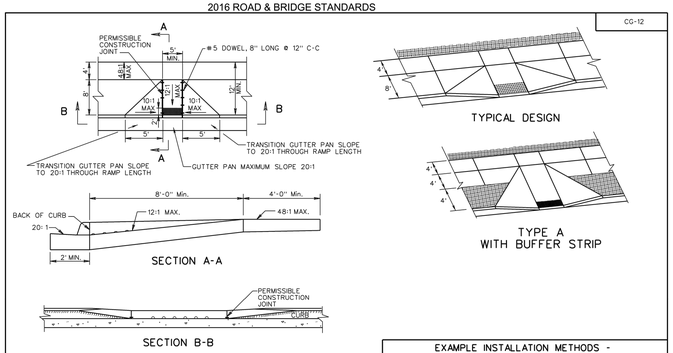

NOTES:

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

| CONCRETE CURB & GUTTER AND SIDEWALK | | |
|---|---|---|
| ARLINGTON VIRGINIA | ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES | ISSUED 9/14/2020 |
| | | DRAWING NO. R-2.0 |

2016 ROAD & BRIDGE STANDARDS

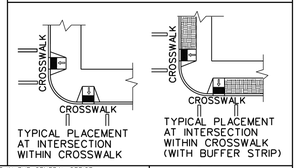
CG-12




NOTES:

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

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT




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

2016 ROAD & BRIDGE STANDARDS


ARLINGTON VIRGINIA

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



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SEAL

COMMONWEALTH OF VIRGINIA — ZORAN DRAGACEVAC — No. 031869 — PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum — QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders — CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

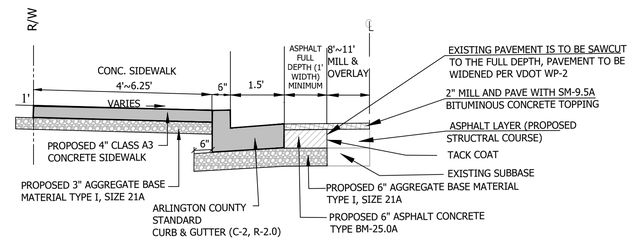
AS SHOWN

C002.1

FILENAME: P31D_S-8-202-LEGEND.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021

TYPICAL SECTION
@ CLARENDON BLVD. & N. CLEVELAND ST.
(N.T.S.)





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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum<br>QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
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| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

TYPICAL SECTIONS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

AS SHOWN

C004.1

FILENAME: P31D_S-8-202-LEGEND.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021

## LINETYPE LEGEND

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

## SYMBOL LEGEND

| EXISTING FEATURE | PROPOSED FEATURE |
|---|---|
| EX CABLE PEDESTAL | |
| EX ELECTRIC BOX | |
| EX FIRE HYDRANT | PROP FIRE HYDRANT |
| EX GAS VALVE | PROP GAS VALVE |
| EX GROUND LIGHT | |
| EX GUY WIRES | |
| EX IRON PIPE OR PIN | |
| EX LIGHT POLE | PROP LIGHT POLE |
| EX MAILBOX | |
| EX MONUMENT | |
| EX PARKING METER | |
| EX PAY STATION | PROP PAY STATION |
| EX SANITARY MANHOLE | PROP SANITARY MANHOLE |
| EX STORM BASIN | PROP STORM CATCH BASIN (TO SCALE) |
| EX STORM MANHOLE | PROP STORM MANHOLE |
| EX TELEPHONE PEDESTAL | |
| EX TRAFFIC CONTROL BOX | |
| EX TRAFFIC SIGN | PROP TRAFFIC SIGN |
| EX TRASH CAN | PROP TRASH CAN |
| EX TRAVERSE | |
| EX TREES, WOODED AREA | PROPOSED TREE |
| | PROPOSED TREE REMOVAL |
| EX UTILITY MANHOLE TYPE INDICATED ELEC, TELE, ETC | |
| EX UTILITY POLE | PROP UTILITY POLE |
| EX WATER MANHOLE | PROP WATER MANHOLE |
| EX WATER METER | PROP WATER METER |
| EX WATER VALVE | PROP WATER VALVE |
| EX YARD INLET | PROP YARD INLET (TO SCALE) |
| EX BENCHMARK | CONSTRUCTION NOTES (LEADER TO AREA AFFECTED) |
| | DETAIL NUMBER (SEE NOTE) |
| NORTH ARROW | CURVE NUMBER (SEE CURVE TABLE) |
| | LINE NUMBER (SEE LINE TABLE) |
| | TEST HOLE |

## SYMBOL LEGEND

| EXISTING FEATURE | PROPOSED FEATURE |
|---|---|
| EX STRIPING | PROP STRIPING |
| EX BUS STOP | PROP BUS STOP |

## LABEL LEGEND

| EXISTING | PROPOSED |
|---|---|
| EXISTING SANITARY STRUCTURE NUMBER | PROPOSED SANITARY SEWER STRUCTURE NUMBER |
| EXISTING STORM SEWER STRUCTURE NUMBER | PROPOSED STORM SEWER STRUCTURE NUMBER |

## HATCH LEGEND

PROP MILL & OVERLAY
SEE TYPICAL SECTION FOR DETAILS

PROP FULL DEPTH ASPHALT
SEE TYPICAL SECTION FOR DETAILS

PROP CONCRETE

REPLACE & MATCH EXISTING DRIVEWAY
OR LEADWALK. SEE CONSTRUCTION NOTES

DEMOLITION AREA


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COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
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| CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
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| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

# LEGEND

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

N/A

C006.1

FILENAME: P31D_S-8-202-LEGEND.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

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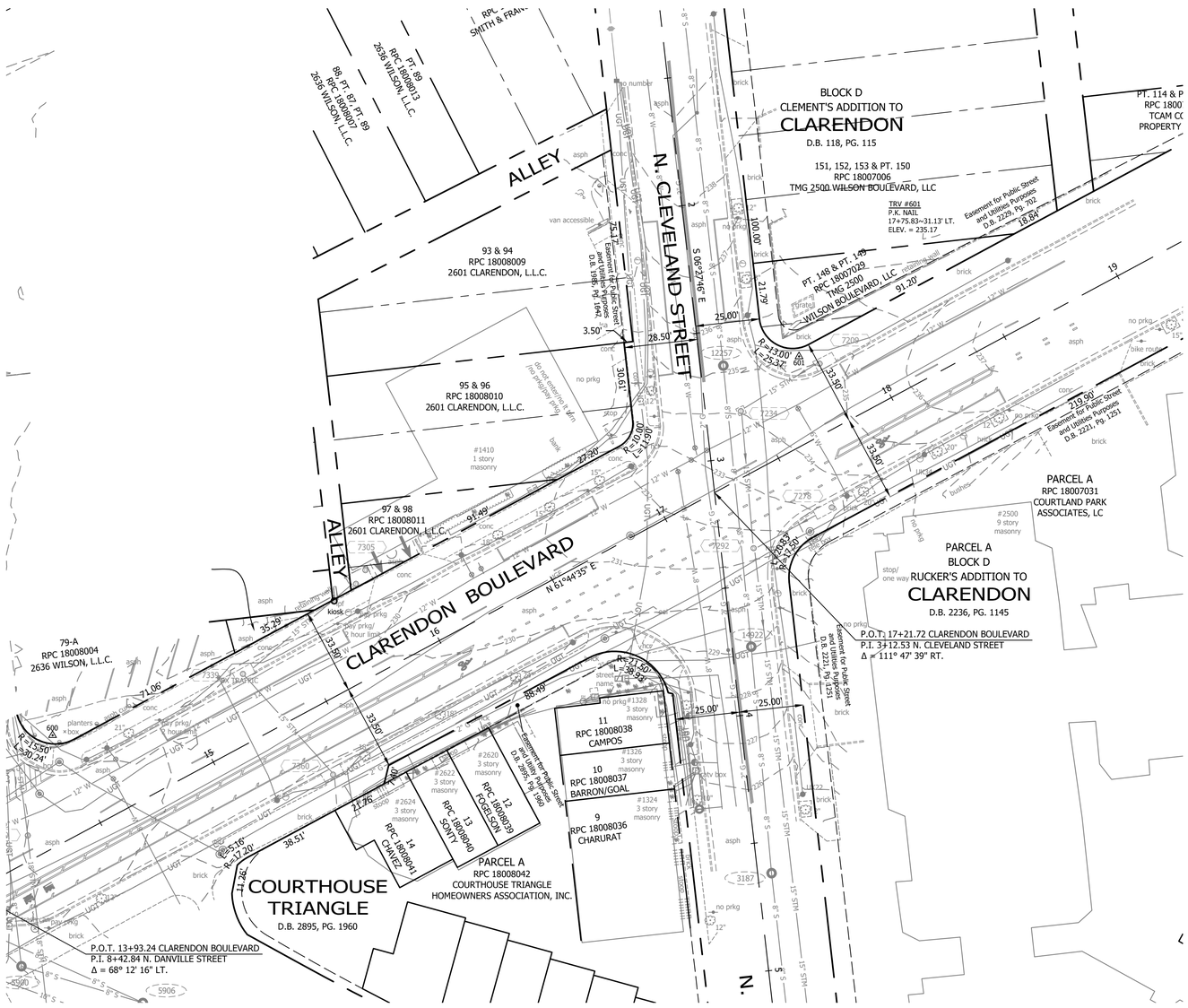


# PROJECT CONTROL DATA

| Point No. | Northing(Y) | Easting(X) | Elev(Z) | Description |
|---|---|---|---|---|
| 600 | 7009855.8773 | 11884103.4349 | 230.67 | PIPE & CAP |
| 601 | 7010003.4716 | 11884394.2996 | 235.17 | P.K. NAIL |
| 602 | 7010219.9158 | 11884301.6827 | 237.92 | P.K. NAIL |
| 603 | 7010067.7500 | 11884019.5121 | 236.26 | P.K. NAIL |
| 604 | 7009975.6954 | 11883707.2003 | 242.36 | P.K. NAIL |

STORM TABULATION

#7052
TOP = 236.04
15" RCP C/L INV. = 233.35 (30953)
18" RCP C/L INV. = 233.35 (7059)

#7059
TOP = 236.11
15" RCP INV. IN = 232.63 (30954)
18" RCP INV. IN = INACCESSIBLE (7292)
18" RCP INV. OUT = 232.51 (7071)

#7071
TOP = 236.48
18" RCP INV. IN = 232.37 (7059)
18" RCP INV. OUT = 232.29 (7121)

#7121
TOP = 236.42
15" RCP INV. IN = 232.00 (7144)
18" RCP INV. IN = 229.29 (7137)
18" RCP INV. IN = 231.80 (7071)
24" RCP INV. OUT = 229.12 (7371)

#7137
TOP = 236.60
18" RCP INV. IN = 231.14 (7145)
18" RCP INV. IN = 229.66 (7065)
18" RCP INV. OUT = 228.47 (7121)

#7144
TOP = 236.66
18" RCP INV. OUT = 232.76 (7121)

#7209
TOP = 235.08
15" RCP INV. OUT = 229.65 (7234)

#7234
TOP = 234.09
15" RCP INV. IN = 228.51 (7209)
15" RCP INV. OUT = 228.37 (7292)

#7278
TOP = 233.82
15" RCP INV. OUT = 228.65 (7292)
STRUCTURE NEEDS CLEANING.
INVERT CALCULATED FROM EXISTING PLANS.

#7293
TOP = 231.32
15" RCP INV. IN = 225.34 (7228)
15" RCP INV. IN = 225.19 (7234)
15" RCP INV. OUT = 225.15 (7402)

#7305
TOP = 231.18
4" WEIR ORIFICE = 223.99
TOP OF WEIR WALL = 227.69
36" RCP INV. IN = 223.88 (7299)
15" RCP INV. OUT = 223.63 (7339)

#7306
TOP = 231.98
15" RCP INV. OUT = 228.73 (7350)

#7339
TOP = 229.84
15" RCP INV. IN = INACCESSIBLE (7305)
15" RCP INV. OUT = 220.11 (7360)

#7350
TOP = 230.96
15" RCP INV. IN = INACCESSIBLE (7306)
18" RCP INV. OUT = INACCESSIBLE (7464)

#7360
TOP = 229.44
15" RCP INV. IN = 219.83 (7339)
18" RCP INV. OUT = INACCESSIBLE (25343)

#7370
TOP = 231.73
15" RCP INV. OUT = 229.13 (25207)

#7371
TOP = 232.36
15" RCP INV. IN = INACCESSIBLE (7375)
15" RCP INV. IN = 228.11 (25207)
15" RCP INV. IN = INACCESSIBLE (7397)
24" RCP INV. IN = 228.00 (7121)
24" RCP INV. IN = INACCESSIBLE (7419)

#7375
TOP = 232.26
15" RCP INV. OUT = 228.31 (7371)

#7379
TOP = 232.11
15" RCP INV. OUT = 228.46 (7371)

#7419
TOP = 232.29
15" RCP INV. IN = 227.13 (7371)
24" RCP INV. OUT = 227.10 (7461)

#7461
TOP = 231.67
24" RCP INV. IN = 222.55 (7419)
24" RCP INV. OUT = 222.14 (7464)

#7464
TOP = 230.90
18" RCP INV. IN = 227.06 (7350)
24" RCP INV. IN = 221.25 (7461)

#7464
TOP = 230.90
18" RCP INV. IN = 227.06 (7350)
24" RCP INV. IN = 221.25 (7461)

#7492
TOP = 220.72
15" RCP INV. IN = 216.58 (7292)
15" RCP INV. OUT = 216.52 (7501)

#7501
TOP = 220.77
15" RCP INV. IN = 216.19 (7492)
18" RCP INV. OUT = 216.09 (7565)

#7565
TOP = 218.92
18" RCP INV. IN = 214.45 (7637)
18" RCP INV. IN = 213.69 (7560)
18" RCP INV. IN = 213.62 (7501)
18" RCP INV. IN = 210.42 (5646)
48" RCP INV. IN = 209.47 (7537)
48" RCP INV. OUT = 207.90 (7711)

#25207
TOP = 231.74
15" RCP INV. IN = 228.16 (7370)
15" RCP INV. OUT = 225.11 (7371)

#30953
TOP = 236.02
15" RCP INV. OUT = 233.88 (7052)

#30954
TOP = 235.96
15" RCP INV. OUT = 233.25 (7059)

SANITARY TABULATION

#3165
TOP = 219.83
C/L INV. = 215.15

#3187
TOP = 224.27
C/L INV. = 216.67

#3188
TOP = 239.27
C/L INV. = 233.17

#5527
TOP = 236.96
C/L INV. = 233.90

#5556
TOP = 238.42
C/L INV. = 228.39

#5623
TOP = 236.28
C/L INV. = 227.09

#5726
TOP = 232.81
C/L INV. = 226.35

#5758
TOP = 232.42
C/L INV. = 226.30

#5884
TOP = 231.70
C/L INV. = 223.61

#5892
TOP = 233.23
C/L INV. = 223.79

#5900
TOP = 233.02
C/L INV. = 224.96

#5906
TOP = 229.68
C/L INV. = 223.58

#12257
TOP = 235.27
C/L INV. = 225.07

#14922
TOP = 229.14
C/L INV. = 220.72

#41487
TOP = 232.72
C/L INV. = 225.48

#42370
TOP = 236.49
C/L INV. = 234.25

## GENERAL SURVEY NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM AN ACTUAL GROUND SURVEY; THE IMAGE AND/OR ORIGINAL DATA WAS OBTAINED FROM 05/2016 TO 06/2016; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

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SEAL

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No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
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| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
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| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

EXISTING_CONDITIONS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:
0 25 50
GRAPHIC SCALE

C011.1



FILENAME: P31D-S-8-214_EXISTING_CONDITIONS.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

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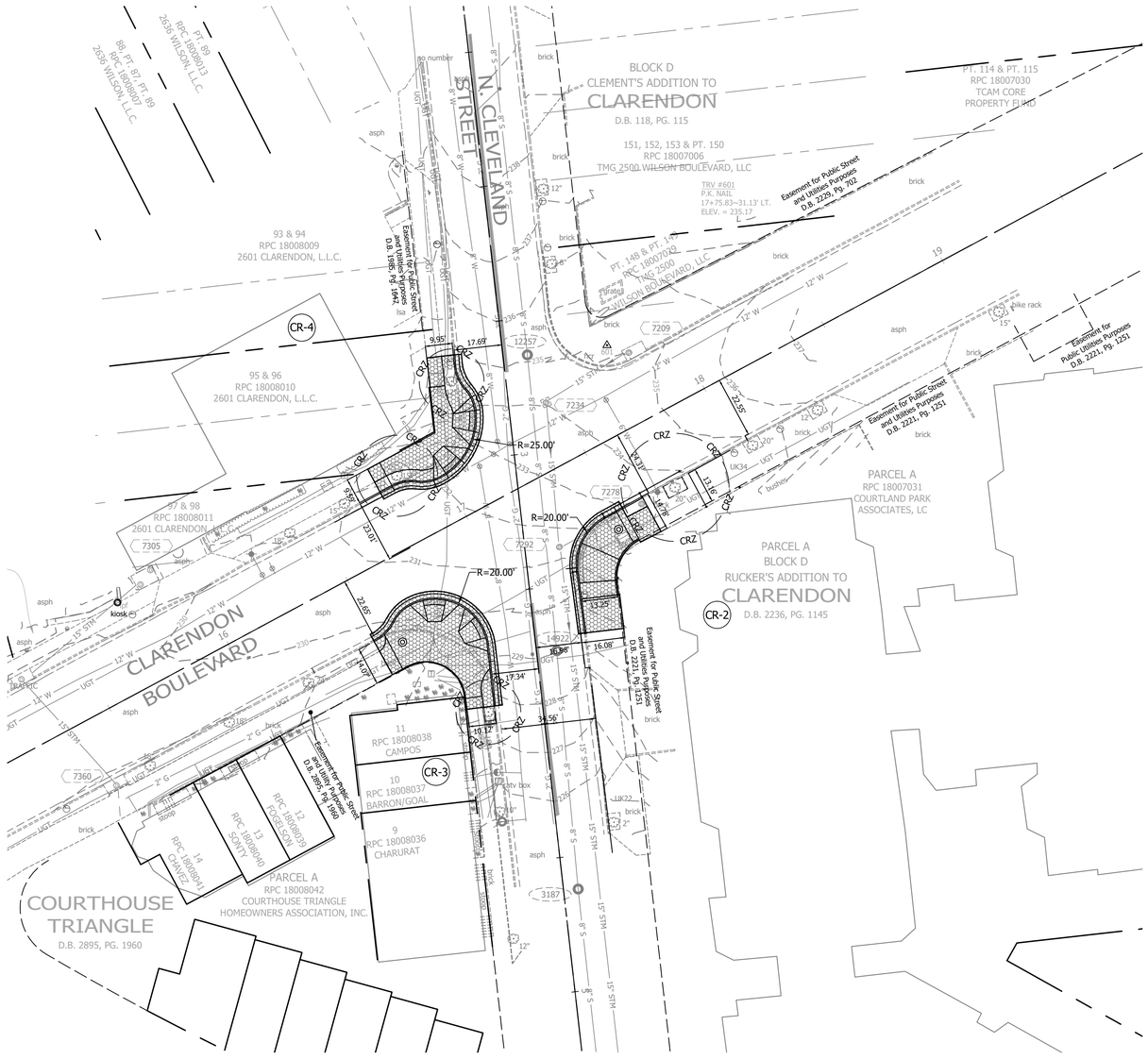


Demolition note:
Where existing pavement is to be removed within the Critical Root Zone of a tree, leave pavement in place as long as possible during construction. Remove pavement with the rollback technique, keep equipment on paving, and limit overdig. Do not cut roots beigger than 1" without approval. Once pavement has been removed, vehicular traffic is strictly prohibited until paving is replaced. Replaced paving should be a bridged, tree-friendly detail or flexible pavers set on stonedust (not CR6) with no compaction beyond 85%, hand compact. Coordinate with the Urban Forester when process or construction details can't follow this specification.


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| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

DEMOLITION_PLAN

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

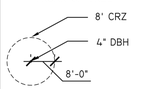
SCALE:
0 25 50
GRAPHIC SCALE

C021.1

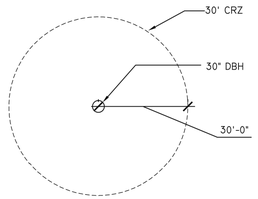
FILENAME: P31D_S-8-228-DEMOLITION_PLAN.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021

TREES 8" DBH AND SMALLER
8' CRZ RADIUS AROUND THE TRUNK OF TREE




TREES 8.1 AND LARGER
1" DBH = 1' CRZ RADIUS




ELEVATION

NOTES:

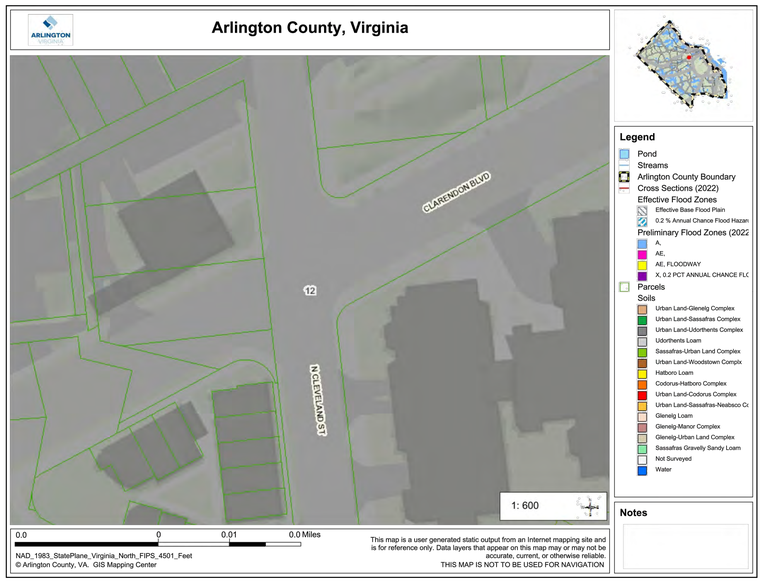
1. GRAPHICALLY, THE CRITICAL ROOT ZONE (CRZ) IS REPRESENTED AS A CIRCULAR REGION MEASURED OUTWARD FROM A TREE TRUNK REPRESENTING THE AREA OF ROOTS THAT MUST BE MAINTAINED OR PROTECTED FOR THE TREE'S SURVIVAL.

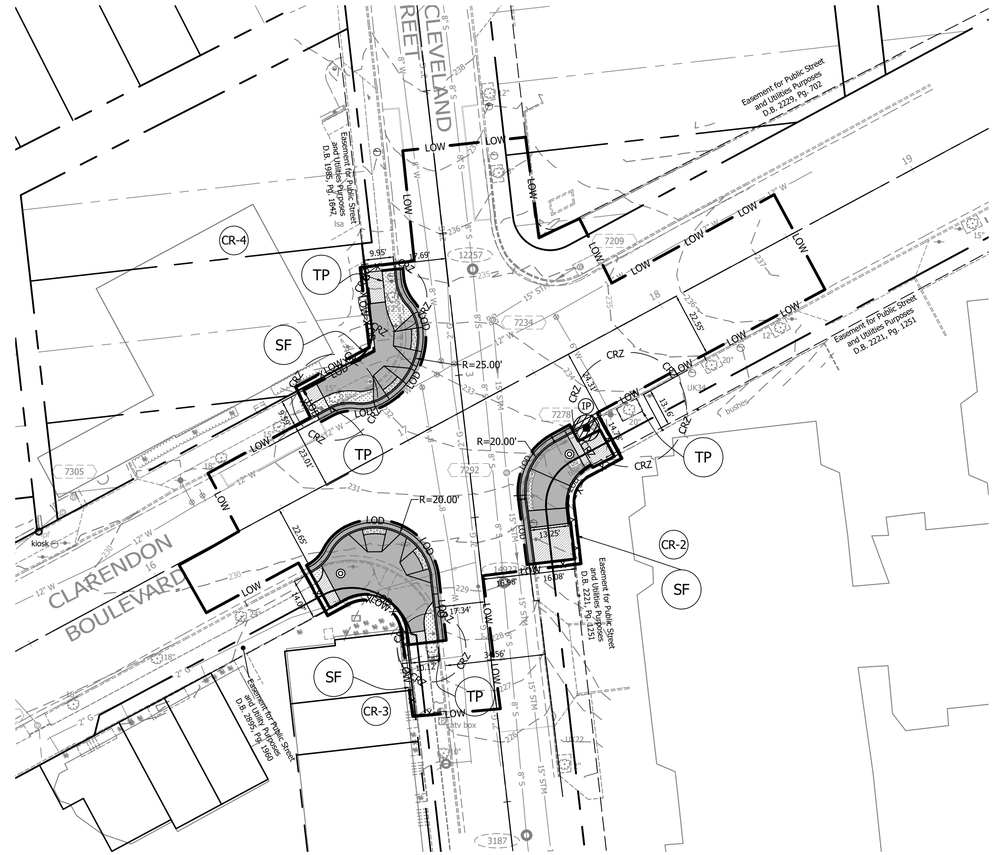
2. THE CRZ OF A TREE IS THE ZONE IN WHICH THE MAJORITY OF THE ROOTS LAY. 95% OF THE ROOTS OF MOST TREES WILL BE FOUND IN THE UPPER 12-18" OF THE SOIL. MOST OF THE ROOTS THAT SUPPLY THE NUTRIENTS AND WATER TO THE TREE ARE FOUND JUST BELOW THE SOIL SURFACE. THE TOTAL AMOUNT OF A TREE'S ROOTS ARE GENERALLY PROPORTIONAL TO THE VOLUME OF THE TREE'S CANOPY. THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THEN THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE EXTENSION OF THE CANOPY.

3. PLOT ACCURATE TRUNK LOCATIONS OF ALL TREES GREATER THAN 3" DIAMETER AT BREAST HEIGHT (DBH) AND/OR TREE STANDS WITHIN DEVELOPMENT AREAS ON ALL PLANS FOR THE PROJECT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.

4. PLOT ACCURATE TRUNK LOCATIONS OF OFFSITE TREES WHICH WILL HAVE THEIR CRZ AFFECTED BY DEVELOPMENT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.

TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE — N.T.S.
311300.3 (2019)
ARLINGTON VIRGINIA DPR




LIMIT OF DISTURBED AREA= 3189 S.FT.

THIS SHEET IS FOR EROSION AND SEDIMENTATION CONTROL USE ONLY

## EROSION & SEDIMENTATION CONTROL NOTES

i. Contractor to contact the Arlington Forester to schedule a pre-construction inspection of tree protection measures before any work near the critical root zones of trees. To schedule the pre-construction meeting call 703-228-7980.

ii. Contractor to protect trees per the plan according to the Arlington County DPR Design Standard Detail 02231.1

iii. Contractor to root prune trees per the plan according to the Arlington County DPR Design Standard Detail 02231.5, where called out on the plan.

iv. Contractor to call the urban forester at 703-228-1863, 72 hours before planting, to schedule inspection of the trees to be planted. Warranty for 1 year after planting shall be the contractor's responsibility. The urban forester and DPR is responsible for inspection.

v. Contractor to prepare tree planting strips for the replacement trees according to Arlington County DPR Design Standard Detail 329300.4a and 329300.4b.

vi. Contractor to prepare street tree planting pits according to the Arlington County DPR Design Standard Detail 329300.3a, 329300.3b, and 329300.11c

vii. Contractor to plant the trees according to Arlington County DPR Design Standard Detail 329300.1 (on flat land) or 329300.2 (on slopes)

## EROSION AND SEDIMENT CONTROL LEGEND

| | | | |
|---|---|---|---|
| 3.05 | TEMPORARY SILT FENCE | SF | —X—X— |
| 3.07 | STORM DRAIN INLET PROTECTION | IP | |
| 3.38 | TREE PROTECTION | TP | — TP — |
| 3.33 | SODDING | SO | |
| | CRITICAL ROOT ZONE | | — CRZ — |

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SEAL
COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum, QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders, CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

EROSION_AND_SEDIMENT CONTROL PLAN

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:
0 25 50
GRAPHIC SCALE

C031.1



FILENAME: P31D_S-8-224-E_AND_S_PLAN.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021

# EROSION AND SEDIMENT CONTROL NARRATIVE

## PROJECT DESCRIPTION:
RECONSTRUCT CURBS AND SIDEWALKS TO INSTALL ADA COMPLIANT CURB RAMPS AND SIDEWALK AREAS. WORK CAN INCLUDE CONSTRUCTION OF CURB EXTENSIONS (NUBS), RELOCATION OF EXISTING FEATURES SUCH AS FIRE HYDRANTS, SIGN POLES AND DRAINAGE INLETS. THIS PROJECT IS UNDER ROCKY RUN WATERSHED AREA. THE TOTAL DISTURBED ARE IS 3,189 S.F. (0.0732 ACRES) AND THE TOTAL PROJECT AREA IS 18,722 SF (0.4298 AC**RES)**.

## EXISTING SITE CONDITIONS:
THE TOPOGRAPHY OF THE PROJECT HAVE SLOPE RANGING FROM 1% TO 10%. THERE ARE EXISTING DRAINAGE STRUCTURES SERVING THESE SITES IN THE FORM OF CURB INLETS. THE CURRENT LAND COVER IS MAINLY IMPERVIOUS.

## ADJACENT PROPERTIES:
PRIVATE PROPERTIES ARE LOCATED ALONG THE ROADWAY.

## OFF-SITE AREAS:
THE EXTENT OF OFFSITE CONSTRUCTION IS LIMITED.

## CRITICAL AREAS:
THERE ARE NO STEEP SLOPES OR CRITICAL AREAS LOCATED WITHIN THE LIMITS OF DISTURBANCE.

## EROSION AND SEDIMENT CONTROL MEASURES:
THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA INCLUDE SAFETY FENCE AND INLET PROTECTION. INLET PROTECTION IS REQUIRED OUTSIDE THE PROJECT LIMITS WHEN/WHERE WATER FROM DISTURBED AREA FLOWS. (REVISE AS NEEDED)

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

## STORMWATER RUNOFF CONSIDERATIONS:
NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LAND DISTURBANCE.....= 3189 SF (0.0732 ACRES)
PRE-IMPROVEMENT IMPERVIOUS AREA.....= 2950 SF (0.0677 ACRES)
POST-IMPROVEMENT IMPERVIOUS AREA.....= 2939 SF (0.0675 ACRES)
DECREASE IMPERVIOUS AREA.....= 11 SF (0.0003 ACRES)

## SOILS INFORMATION:
THE FOLLOWING SOILS ARE FOUND ON SITE (SEE SOILS MAP ON SHEET C031.1 FOR LOCATION)

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

## FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):
THERE ARE NO FLOODPLAIN OR RESOURCE PROTECTION AREAS LOCATED WITHIN THIS PROJECT SITE

## EROSION & SEDIMENT CONTROL PROJECT PHASING
1. **PHASE I:**
   - a. PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.
   - b. INSTALL THE TEMPORARY CONSTRUCTION ENTRANCE (IF NEEDED) IN THE LOCATION SHOWN ON THE E&S PHASE I PLAN. MUD AND DEBRIS SHALL BE WASHED FROM ALL TRUCKS EXISTING THE SITE.
   - c. INSTALL PERIMETER TREE DEMARCATION FENCING IN THE FORM OF TREE PROTECTION FENCE (TP) AS SHOWN ON E&S PHASE I PLAN.
   - d. PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS DIVERSION DIKE (DD), SILT FENCE (SF), AND SUPER SILT FENCE (SSF) AS PER THE PHASE I PLAN.
   - e. INSTALL INLET PROTECTION ON EXISTING STORM DRAIN INLETS BEFORE CLEANING AND CONSTRUCTION.
   - f. CONTACT ARLINGTON COUNTY PROJECT OFFICER FOR A PERIMETER INSPECTION PRIOR TO CLEARING THE REMAINDER OF THE SITE IN ORDER TO OBTAIN PHASE II GRADING PERMIT.
   - g. CLEAR THE SITE TO THE LIMITS AS SHOWN ON THE CONSTRUCTION PLANS.
2. **PHASE II:**
   - a. NO UTILITY CONSTRUCTION WITH THIS PROJECT, ADJUST ALL UNDERGROUND UTILITIES AND BEGIN SITE GRADING.
   - b. INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.
   - c. ONCE THE SITE IS BROUGHT TO NEAR FINAL GRADE, AND THE UTILITY CONSTRUCTION IS COMPLETE, COMMENCE CONSTRUCTION OF CURB & GUTTER, STREET, SIDEWALKS, AND OTHER IMPROVEMENTS
   - d. THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

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

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

## 1. STRUCTURAL PRACTICES
- a. TEMPORARY CONSTRUCTION ENTRANCE - VESCH 3.02
  - a.a. A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AT THE EXISTING ACCESS POINT TO THE SITE. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE RE-ENTERING THE LOCAL ROADWAYS.
  - a.b. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC WASHING OF THE MATS AND/OR REPLACEMENT OF WOOD CHIPS AS NECESSARY.
  - a.c. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
  - a.d. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED INTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
- b. SILT FENCE - VESCH 3.05
  - b.a. SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.
  - b.b. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
  - b.c. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.
  - b.d. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
  - b.e. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - b.f. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, THEN PREPARED AND SEEDED.
- c. TEMPORARY DIVERSION DIKE - VESCH 3.09
  - c.a. A SYSTEM OF TEMPORARY DIKES, TO DIRECT FLOW INTO PROPOSED & EXISTING STORM SEWER STRUCTURES WILL BE INSTALLED AS INDICATED IN EROSION & SEDIMENT CONTROL PLAN.
  - c.b. THE STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.
- d. STORM DRAIN INLET PROTECTION - VESCH 3.07
  - d.a. ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.
  - d.b. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.
  - d.c. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- e. DEWATERING STRUCTURE - VESCH 3.26
  - e.a. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.
  - e.b. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED.
  - e.c. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER THE APPROVED PLAN.
- f. TREE PROTECTION - VESCH 3.38
  - f.a. ALL TREES ARE TO BE PROTECTED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR AND URBAN FORESTER. THE COUNTY'S URBAN FORESTER (703-228-1863) SHALL INSPECT ALL TREE PROTECTION 72 HOURS PRIOR TO THE START OF CONSTRUCTION. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, THE FOLLOWING MAINTENANCE GUIDELINES SHALL BE FOLLOWED:
    - f.a.a. SOIL AERATION: IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED WITH INSTRUCTIONS FROM URBAN FORESTER.
    - f.a.b. REPAIR OF DAMAGE:
      - f.a.A.a. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY IF POSSIBLE.
      - f.a.A.b. DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY IF BROKEN, OR IF EXPOSED, BRIDGE WITH BASE MATERIAL RATHER THAN CUTTING. DO NOT COMPACT BASE BEYOND 85% WITH CRZ.

## 2. VEGETATIVE PRACTICES
- a. TOPSOILING (STOCKPILE) - VESCH 3.30
  - a.a. TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS MAY HAVE TO BE LOCATED OFF-SITE AND ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN (IF THE STOCKPILE IS LOCATED OFF-SITE). THIS SUPPLEMENTAL PLAN WOULD HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY OFF-SITE ACTIVITY COMMENCES.
- b. TEMPORARY SEEDING - VESCH 3.31
  - b.a. ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.
  - b.b. SEE SHEET III-288 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) FOR ALLOWABLE PLANTING MATERIAL, SEEDING RATES, AND DATES. THE PLANTING REQUIREMENTS OF THE "SOUTH" SHALL BE FOLLOWED. LIMING SHALL BE BASED ON TABLE 3.31-A OF VESCH. FERTILIZERS SHALL BE APPLIED AS 600 LB/ACRE. THE FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2-4" OF SOIL. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.
- c. EROSION CONTROL BLANKET AND MULCHING - VESCH 3.36 AND 3.35
  - c.a. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN SEEDING OPERATION.
- d. DUST CONTROL - VESCH 3.39
  - d.a. DUST SHALL BE CONTROLLED USING A VARIETY OF METHODS SUCH AS VEGETATIVE COVER, MULCH, TILLAGE, IRRIGATION, SPRAY-ON ADHESIVES, STONE BARRIERS, AND CALCIUM CHLORIDE. THE IMPLEMENTATION OF THE DUST CONTROL METHODS SHALL BE INSTALLED PER SECTION 3.39 OF VESCH
- e. PERMANENT SEEDING - VESCH 3.32
  - e.a. SINCE THE SUBJECT SITE IS LOCATED WITHIN THE COASTAL PLAIN AREA OF VIRGINIA, SHEET III-304 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE FOLLOWED FOR FINAL SEEDING MATERIAL, SEEDING RATES, AND DATES OF APPLICATION.
- f. SODDING - VESCH 3.33
  - f.a. SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR LIME AND FERTILIZER. PRIOR TO LAYING SOD, SOIL SURFACE SHALL BE CLEAR OF TRASH, DEBRIS AND LARGE OBJECTS. QUALITY OF SOD SHALL BE STATE CERTIFIED TO ENSURE GENETIC PURITY AND HIGH QUALITY. SOD SHALL NOT BE LAID ON FROZEN SOIL SURFACE, OR IN EXCESSIVELY WET OR DRY WEATHER. SOD SHALL BE DELIVERED AND INSTALLED WITHIN 36 HOURS, AND SHALL BE INSTALLED PER PAGE III-339 OF VESCH.

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

# EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES
## LANDSCAPE / TREE PRESERVATION NOTES
PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY ARBORIST TO SCHEDULE AN INSPECTION.

## LAND CONSERVATION NOTES:
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 100 FEET ARE TO BE OPEN AT ANY ONE TIME.
4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILLING.
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.
7. ANY DISTURBED AREA NOT COVERED BY NOTE 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOV. 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE AND OVER-SEEDED BY APRIL 15.
8. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

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

## GENERAL EROSION AND SEDIMENT CONTROL NOTES
1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
7. 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.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
10. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

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

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

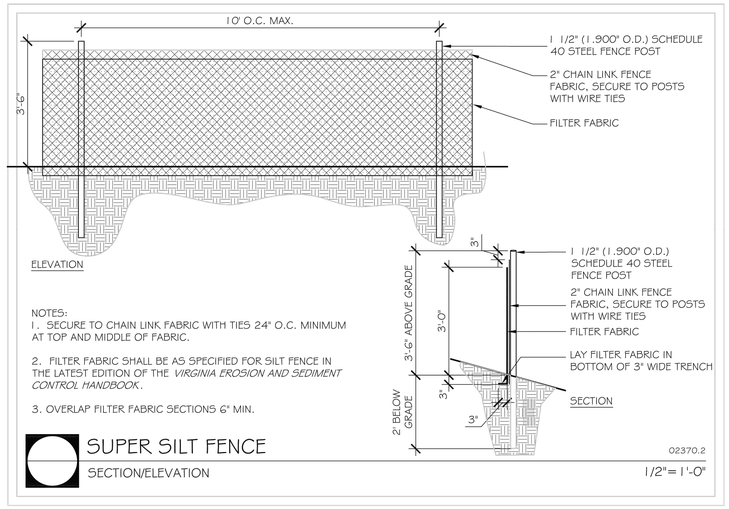
1. PERIMETER CONTROLS
   - a. SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WON. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (VESCH STD & SPEC 3.09).
   - b. WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
   - c. SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHALL BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
   - d. HAY BALES OR A STONE BERM SHALL BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
2. EXPOSED SLOPES AND SOIL
   - a. EXPOSED SLOPES NOT AT THE FINAL STABILIZATION PHASE SHALL BE COVERED WITH TARPS, PLASTIC SHEETING, OR EROSION CONTROL MATTING. COVERING MATERIAL SHALL BE PROPERLY SECURED/ANCHORED.
   - b. CONTROLS SHALL BE INSTALLED TO PREVENT CONCENTRATED FLOW DOWN AN EXPOSED SLOPE. BERMS OR DIVERSION DIKES SHALL BE INSTALLED AT THE TOP OF CUT/EXPOSED SLOPES TO DIRECT STORM FLOW AROUND THE DISTURBED AREA.
   - c. EXPOSED SLOPES AT THE FINAL STABILIZATION PHASE SHALL BE STABILIZED USING SLOPE STABILIZATION PRACTICES SUCH AS SOIL STABILIZATION BLANKETS OR MATTING AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH STD & SPEC 3.36). BLANKETS OR MATS MUST BE PROPERLY SECURED AND ANCHORED TO THE SLOPE USING STAPLES, PINS, OR STAKES.
   - d. SEEDED AREAS SHALL BE CHECKED AND RESEEDED AS NECESSARY TO COVER EXPOSED SOIL. RECENTLY SEEDED AREAS SHALL BE PROTECTED BY STRAW OR SOIL STABILIZATION BLANKETS TO PREVENT SEEDING FROM BEING WASHED AWAY.
3. STOCKPILES
   - a. STOCKPILED SOIL AND OTHER LOOSE MATERIALS THAT CAN BE WASHED AWAY SHALL BE COVERED WITH A TARP, PLASTIC SHEETING, OR OTHER STABILIZATION MATTING. THE COVER MUST BE PROPERLY SECURED/ANCHORED DOWN TO PREVENT IT FROM BEING BLOWN OFF AND EXPOSING MATERIALS TO RAIN. CONTROLS SUCH AS HAY BALES OR BOOMS SHALL BE PLACED ALONG THE PERIMETER OF THE STOCKPILE (DOWNHILL SIDE).
4. INLET PROTECTION
   - a. INLET PROTECTION CONTROLS SHALL BE INSPECTED TO ENSURE THEY ARE FUNCTIONING PROPERLY AND FLOODING WILL NOT OCCUR. CLOGGED OR DAMAGED CONTROLS MUST BE REPLACED IMMEDIATELY. ENSURE CONTROLS ALLOW FOR OVERFLOW/BYPASS OF STORMWATER RUNOFF DURING SIGNIFICANT STORM EVENTS.

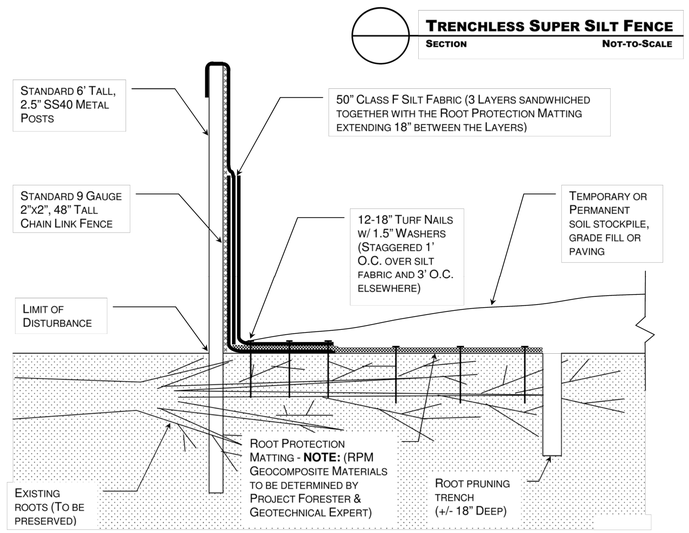
IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

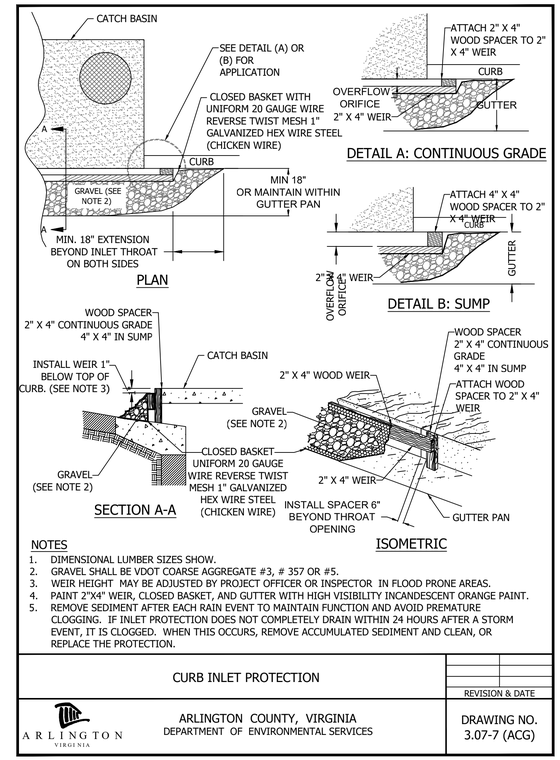
## POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)
1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
   - a. WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIREFIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S 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.

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

REVISED ON 11/18/2021




NOTES

1. DIMENSIONAL LUMBER SIZES SHOW.
2. GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, # 357 OR #5.
3. WEIR HEIGHT MAY BE ADJUSTED BY PROJECT OFFICER OR INSPECTOR IN FLOOD PRONE AREAS.
4. PAINT 2"X4" WEIR, CLOSED BASKET, AND GUTTER WITH HIGH VISIBILITY INCANDESCENT ORANGE PAINT.
5. REMOVE SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE PROTECTION.

CURB INLET PROTECTION

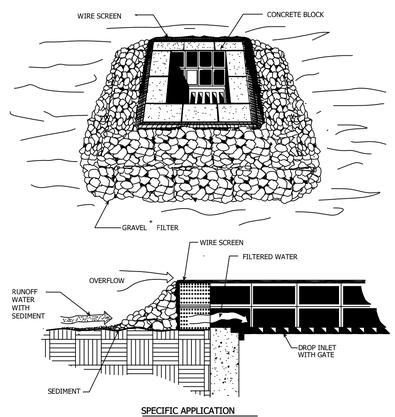
REVISION & DATE

ARLINGTON VIRGINIA

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. 3.07-7 (ACG)

## BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER




SPECIFIC APPLICATION

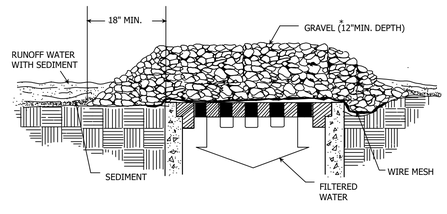
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

SOURCE: VA. DSWC

PLATE. 3.07-3

## GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER




SPECIFIC APPLICATION

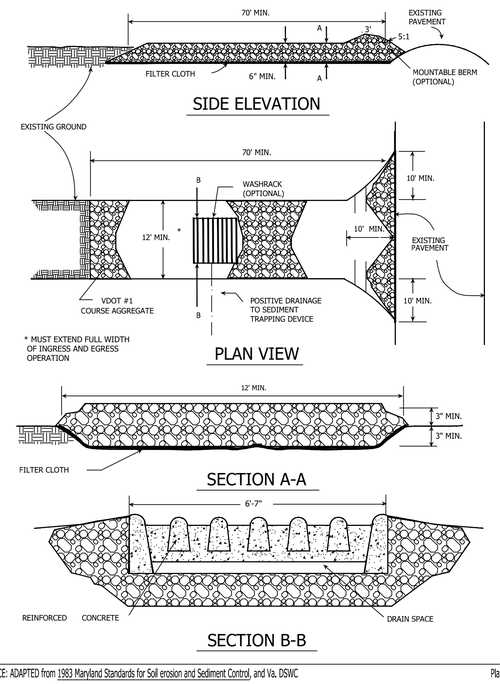
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

SOURCE: VA. DSWC

PLATE. 3.07-2

## STONE CONSTRUCTION ENTRANCE




SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC

Plate 3.02-1

ARLINGTON VIRGINIA
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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| QUALITY CONTROL ENGINEER | 02/08/23 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

AS SHOWN

C032.2



FILENAME: P31D_S-8-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021

**TABLE 3.31-B**
(Revised June 2003)
**TEMPORARY SEEDING SPECIFICATIONS**
**QUICK REFERENCE FOR ALL REGIONS**

| SEED | | |
|---|---|---|
| **APPLICATION DATES** | **SPECIES** | **APPLICATION RATES** |
| Sept. 1 - Feb. 15 | 50/50 Mix of Annual Ryegrass (Iolium multi-florum) & Cereal (Winter) Rye (Secale cereale) | 50 -100 (lbs/acre) |
| Feb. 16 - Apr. 30 | Annual Ryegrass (Iolium multi-florum) | 60 - 100 (lbs/acre) |
| May 1 - Aug. 31 | German Millet | 50 (lbs/acre) |

**FERTILIZER & LIME**

- Apply 10-10-10 **fertilizer** at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.)
- Apply **Pulverized Agricultural Limestone** at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

**NOTE:**
1 - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
2 - Incorporate the lime and fertilizer into the top 4 – 6 inches of the soil by disking or by other means.
3 - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs

**TABLE 3.32-D**
(Revised June 2003)
**PERMANENT SEEDING SPECIFICATIONS FOR PIEDMONT AREA**

| SEED[1] | | |
|---|---|---|
| **LAND USE** | **SPECIES** | **APPLICATION PER ACRE** |
| Minimum Care Lawn (Commercial or Residential) | Tall Fescue[1]<br>Perennial Ryegrass<br>Kentucky Bluegrass[1] | 95-100%<br>0-5%<br>0-5%<br>TOTAL: 175-200 lbs. |
| High-Maintenance Lawn | Tall Fescue[1] | TOTAL: 200-250 lbs. |
| General Slope (3:1 or less) | Tall Fescue[1]<br>Red Top Grass or Creeping Red Fescue<br>Seasonal Nurse Crop[2] | 128 lbs.<br>2 lbs.<br>20 lbs.<br>TOTAL: 150 lbs. |
| Low-Maintenance Slope (Steeper than 3:1) | Tall Fescue[1]<br>Red Top Grass or Creeping Red Fescue<br>Seasonal Nurse Crop[2]<br>Crownvetch[3] | 108 lbs.<br>2 lbs.<br>20 lbs.<br>20 lbs.<br>TOTAL: 150 lbs. |

1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at http://sudan.cses.vt.edu/html/Turf/turf/publications/publications2.html

2 - Use seasonal nurse crop in accordance with seeding dates as stated below:

| | |
|---|---|
| February 16th - April …… | Annual Rye |
| May 1st - August 15th …… | Foxtail Millet |
| August 16th - October …… | Annual Rye |
| November - February 15th …… | Winter Rye |

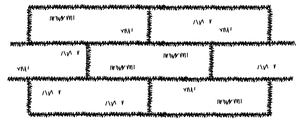
3 - Substitute Sericea lespedeza for Crownvetch east of Farmville, VA (May through September use hulled seed, all other periods, use unhulled Sericea). If Flatpea is used, increase rate to 30 lbs./acre. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40

**FERTILIZER & LIME**

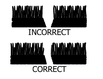
- Apply 10-20-10 **fertilizer** at a rate of **500** lbs. / acre (or 12 lbs. / 1,000 sq. ft.)
- Apply **Pulverized Agricultural Limestone** at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

**NOTE:**
- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- Incorporate the lime and fertilizer into the top 4 – 6 inches of the soil by disking or by other means.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs

## SODDING



LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.



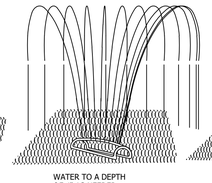
INCORRECT



CORRECT

BUTTING - ANGLED ENDS CAUSED BY THE AUTO-MATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

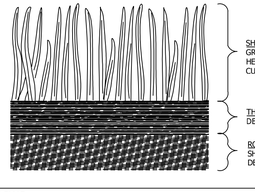
ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.



WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

MOW WHEN THE SOD IS ESTABLISHED - IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

### APPEARANCE OF GOOD SOD



SHOOTS OR GRASS BLADES. GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"-3" CUTTING HEIGHT.

THATCH - GRASS CLIPPINGS AND DEAD LEAVES, UP TO 1/2" THICK.

ROOT ZONE - SOIL AND ROOTS. SHOULD BE 1/2"-3/4" THICK, WITH DENSE ROOT MAT FOR STRENGTH.

SOURCE: VA. DSWC

PLATE: 3.33-1


ARLINGTON VIRGINIA
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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum<br>QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

AS SHOWN

C032.3

FILENAME: P31D_S-8-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021

*DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet – Version 3.0*

☐ 2011 BMP Standards and Specifications ☒ 2013 Draft BMP Standards and Specifications

| | | | |
|---|---|---|---|
| Project Name: | P31D CLARENDON BLVD. @ N. CLEVELAND ST | CLEAR ALL | data input cells |
| Date: | 19-Jul-22 | | constant values |
| Linear Development Project? | Yes | | calculation cells |
| | | | final results |

## Site Information

## Post-Development Project (Treatment Volume and Loads)

| | | | |
|---|---|---|---|
| Enter Total Disturbed Area *(acres)* → | 0.0732 | *Check:* | TRUE |
| | | *BMP Design Specifications List:* | 2013 Draft Stds & Specs |
| *Maximum reduction required:* | 20% | *Linear project?* | Yes |
| *The site's net increase in impervious cover (acres) is:* | 0.0000 | *Land cover areas entered correctly?* | ✓ |
| *Post-Development TP Load Reduction for Site (lb/yr):* | 0.0295 | *Total disturbed area entered?* | ✓ |

**Pre-ReDevelopment Land Cover (acres)**

| | A Soils | B Soils | C Soils | D Soils | Totals |
|---|---|---|---|---|---|
| **Forest/Open Space (acres)** – undisturbed forest/open space | | | | | 0.0000 |
| **Managed Turf (acres)** – disturbed, graded for yards or other turf to be mowed/managed | | 0.0055 | | | 0.0055 |
| **Impervious Cover (acres)** | | 0.0677 | | | 0.0677 |
| | | | | | 0.0732 |

**Post-Development Land Cover (acres)**

| | A Soils | B Soils | C Soils | D Soils | Totals |
|---|---|---|---|---|---|
| **Forest/Open Space (acres)** – undisturbed, protected forest/open space or reforested land | | | | | 0.0000 |
| **Managed Turf (acres)** – disturbed, graded for yards or other turf to be mowed/managed | | 0.0057 | | | 0.0057 |
| **Impervious Cover (acres)** | | 0.0675 | | | 0.0675 |
| **Area Check** | OK. | OK. | OK. | OK. | 0.0732 |

**Constants**

| | |
|---|---|
| Annual Rainfall (inches) | 43 |
| Target Rainfall Event (inches) | 1.00 |
| Total Phosphorus (TP) EMC (mg/L) | 0.26 |
| Total Nitrogen (TN) EMC (mg/L) | 1.86 |
| Target TP Load (lb/acre/yr) | 0.41 |
| Pj (unitless correction factor) | 0.90 |

**Runoff Coefficients (Rv)**

| | A Soils | B Soils | C Soils | D Soils |
|---|---|---|---|---|
| Forest/Open Space | 0.02 | 0.03 | 0.04 | 0.05 |
| Managed Turf | 0.15 | 0.20 | 0.22 | 0.25 |
| Impervious Cover | 0.95 | 0.95 | 0.95 | 0.95 |

### LAND COVER SUMMARY – PRE-REDEVELOPMENT

*Land Cover Summary-Pre*

| Pre-ReDevelopment | Listed | Adjusted[1] |
|---|---|---|
| Forest/Open Space Cover (acres) | 0.0000 | 0.0000 |
| Weighted Rv(forest) | 0.0000 | 0.0000 |
| % Forest | 0% | 0% |
| Managed Turf Cover (acres) | 0.0055 | 0.0055 |
| Weighted Rv(turf) | 0.2000 | 0.2000 |
| % Managed Turf | 8% | 8% |
| Impervious Cover (acres) | 0.0677 | 0.0677 |
| Rv(impervious) | 0.9500 | 0.9500 |
| % Impervious | 92% | 92% |
| **Total Site Area (acres)** | **0.0732** | **0.0732** |
| **Site Rv** | **0.8936** | **0.8936** |

Treatment Volume and Nutrient Load

| | | |
|---|---|---|
| **Pre-ReDevelopment Treatment Volume (acre-ft)** | 0.0055 | 0.0055 |
| **Pre-ReDevelopment Treatment Volume (cubic feet)** | 237.4565 | 237.4565 |
| **Pre-ReDevelopment TP Load (lb/yr)** | **0.1492** | **0.1492** |
| Pre-ReDevelopment TP Load per acre (lb/acre/yr) | 2.0400 | 2.0400 |
| Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover) | | 0.0300 |

[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 1 shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).*

### LAND COVER SUMMARY – POST DEVELOPMENT

*Land Cover Summary-Post (Final)*

| Post ReDev. & New Impervious | |
|---|---|
| Forest/Open Space Cover (acres) | 0.0000 |
| Weighted Rv(forest) | 0.0000 |
| % Forest | 0% |
| Managed Turf Cover (acres) | 0.0057 |
| Weighted Rv (turf) | 0.2000 |
| % Managed Turf | 8% |
| Impervious Cover (acres) | 0.0675 |
| Rv(impervious) | 0.9500 |
| % Impervious | 92% |
| **Final Site Area (acres)** | **0.0732** |
| **Final Post Dev Site Rv** | **0.8916** |

*Land Cover Summary-Post*

| Post-ReDevelopment | |
|---|---|
| Forest/Open Space Cover (acres) | 0.0000 |
| Weighted Rv(forest) | 0.0000 |
| % Forest | 0% |
| Managed Turf Cover (acres) | 0.0057 |
| Weighted Rv (turf) | 0.2000 |
| % Managed Turf | 8% |
| ReDev. Impervious Cover (acres) | 0.0675 |
| Rv(impervious) | 0.9500 |
| % Impervious | 92% |
| **Total ReDev. Site Area (acres)** | **0.0732** |
| **ReDev Site Rv** | **0.8916** |

*Land Cover Summary-Post*

| Post-Development New Impervious | |
|---|---|
| New Impervious Cover (acres) | 0.0000 |
| Rv(impervious) | – |

Treatment Volume and Nutrient Load

| | | | | | |
|---|---|---|---|---|---|
| **Final Post-Development Treatment Volume (acre-ft)** | 0.0054 | **Post-ReDevelopment Treatment Volume (acre-ft)** | 0.0054 | **Post-Development Treatment Volume (acre-ft)** | – |
| **Final Post-Development Treatment Volume (cubic feet)** | 236.9120 | **Post-ReDevelopment Treatment Volume (cubic feet)** | 236.9120 | **Post-Development Treatment Volume (cubic feet)** | – |
| **Final Post-Development TP Load (lb/yr)** | **0.1489** | **Post-ReDevelopment Load (TP) (lb/yr)*** | **0.1489** | **Post-Development TP Load (lb/yr)** | – |
| Final Post-Development TP Load per acre (lb/acre/yr) | 2.0300 | Post-ReDevelopment TP Load per acre (lb/acre/yr) | 2.0300 | | |
| | | **Max. Reduction Required (Below Pre-ReDevelopment Load)** | 20% | | |
| | | **TP Load Reduction Required for Redeveloped Area (lb/yr)** | **0.0295** | **TP Load Reduction Required for New Impervious Area (lb/yr)** | **0** |

**Post-Development Requirement for Site Area**

| | |
|---|---|
| **TP Load Reduction Required (lb/yr)** | **0.0295** |
| **Linear Project TP Load Reduction Required (lb/yr):** | 0.0295 |

## RUNOFF REDUCTION NOTES:

THE RUNOFF REDUCTION SPREADSHEET INFORMATION ON THIS PLAN IS FOR DATA TRACKING PURPOSES TO DOCUMENT THE AREA OF LAND DISTURBANCE AND TO CHARACTERIZE PRE- AND POST-DEVELOPMENT LAND USE CONDITIONS.

IN ACCORDANCE WITH ARLINGTON COUNTY'S CHESAPEAKE BAY TOTAL MAXIMUM DAILY LOAD (TMDL) ACTION PLAN, APPROVED BY THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) ON SEPTEMBER 1, 2015, LINEAR DEVELOPMENT PROJECTS CONDUCTED BY THE COUNTY ARE ADMINISTERED AND TRACKED AS FOLLOWS CONSISTENT WITH 9VAC25-870-69.A.4, 9VAC25-870-76, AND 9VAC25-870-92:

- POLLUTANT LOAD CHANGES WILL BE COMPUTED AS DESCRIBED IN SECTION 3.A OF THE ACTION PLAN.
- RETROFIT OPPORTUNITIES WILL BE EVALUATED FOR EACH PROJECT, USING THE SCREENING AND SELECTION CRITERIA APPLIED AND DESCRIBED IN THE ADOPTED STORMWATER MASTER PLAN.
- RETROFIT PROJECTS THAT MEET THE SCREENING CRITERIA AND ARE DETERMINED BY ARLINGTON TO BE FEASIBLE AND COST-EFFECTIVE WILL BE IMPLEMENTED WITH SPECIFIC LINEAR DEVELOPMENT PROJECTS. POLLUTANT LOAD REDUCTIONS FROM RETROFIT PROJECTS WILL BE COMPUTED AS DESCRIBED IN SECTION 5 OF THE ACTION PLAN.
- IN CASES WHERE RETROFIT PROJECTS ARE NOT FEASIBLE AND COST-EFFECTIVE FOR A PARTICULAR LINEAR PROJECT, ANY POLLUTANT OF CONCERN (POC) LOAD INCREASES THAT MIGHT OCCUR FOR THAT PROJECT WILL BE ADDRESSED BY LARGER OVERALL POC LOAD REDUCTIONS IN PLACE OR ADDED THROUGH TMDL ACTION PLAN IMPLEMENTATION.

IN THE ABOVE MANNER ARLINGTON, AS THE MS4 OPERATOR AND THE CONSTRUCTION SITE OPERATOR FOR ITS LINEAR DEVELOPMENT PROJECTS, IMPLEMENTS LINEAR PROJECTS AND RETROFIT PROJECTS IN A MANNER THAT ACHIEVES THE MOST TMDL POC REDUCTION FOR THE LEAST COST, WHILE FULLY ACCOUNTING FOR LOAD CHANGES THAT OCCUR WITH LINEAR DEVELOPMENT PROJECT ACTIVITY CONSISTENT WITH THE DEQ CHESAPEAKE BAY TMDL SPECIAL CONDITION GUIDANCE.

## GENERAL NOTES :

i. Contractor to contact the Arlington Forester to schedule a pre-construction inspection of tree protection measures before any work near the critical root zones of trees. To schedule the pre-construction meeting call 703-228-1863.

ii. Contractor to protect trees per the plan according to the Arlington County DPR Design Standard Detail 311300.14NS

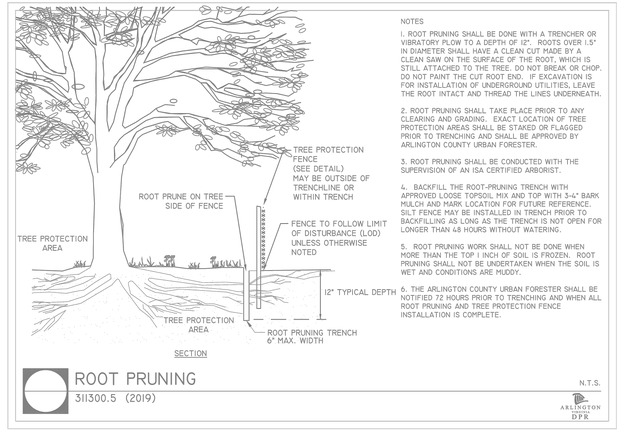
iii. Contractor to root prune trees per the plan according to the Arlington County DPR Design Standard Detail 02231.5, where called out on the plan.

iv. Contractor to call the urban forester at 703-228-1863, 72 hours before planting, to schedule inspection of the trees to be planted. Warranty for 1 year after planting shall be the contractor's responsibility. The urban forester and DPR is responsible for inspection.

v. Contractor to prepare tree planting strips for the replacement trees according to Arlington County DPR Design Standard Detail 329300.4a and 329300.4b.

vi. Contractor to prepare street tree planting pits according to the Arlington County DPR Design Standard Detail 329300.3a, 329300.3b, and 329300.11c

vii. Contractor to plant the trees according to Arlington County DPR Design Standard Detail 329300.1 (on flat land) or 329300.2 (on slopes)




NOTES

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

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

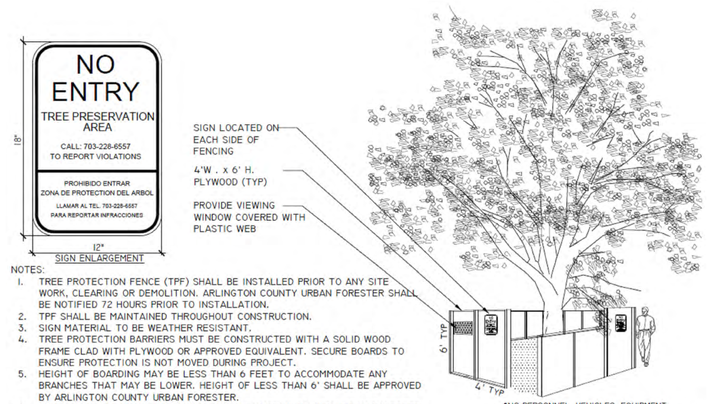
3. ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF AN ISA CERTIFIED ARBORIST.

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

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

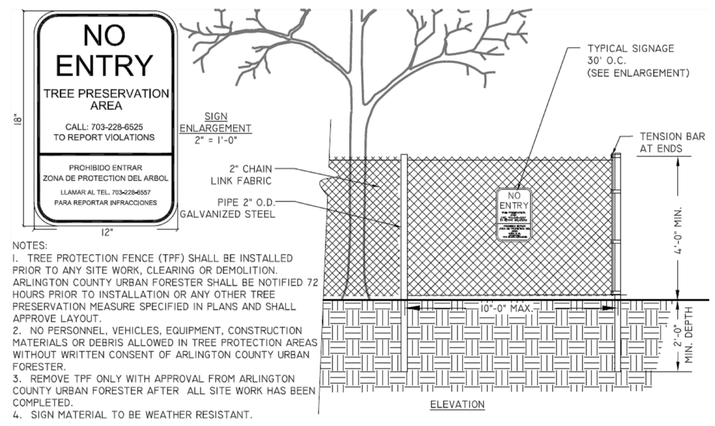
6. THE ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO TRENCHING AND WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

ROOT PRUNING
311300.5 (2019)
N.T.S.
ARLINGTON DPR




NOTES:
1. TREE PROTECTION FENCE (TPF) SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION. ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO INSTALLATION.
2. TPF SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
3. SIGN MATERIAL TO BE WEATHER RESISTANT.
4. TREE PROTECTION BARRIERS MUST BE CONSTRUCTED WITH A SOLID WOOD FRAME CLAD WITH PLYWOOD OR APPROVED EQUIVALENT. SECURE BOARDS TO ENSURE PROTECTION IS NOT MOVED DURING PROJECT.
5. HEIGHT OF BOARDING MAY BE LESS THAN 6 FEET TO ACCOMMODATE ANY BRANCHES THAT MAY BE LOWER. HEIGHT OF LESS THAN 6' SHALL BE APPROVED BY ARLINGTON COUNTY URBAN FORESTER.
6. REMOVE TPF ONLY WITH APPROVAL FROM ARLINGTON COUNTY URBAN FORESTER AFTER ALL SITE WORK HAS BEEN COMPLETED.
7. PROVIDE 12"(WIDTH) X4"(HEIGHT) CUT-OUTS ALONG PANELS FACING PAVED SURFACES SUCH AS SIDEWALKS, TWO CUT-OUTS PER FENCE PANEL.

TREE PROTECTION BARRIERS FOR RESTRICTED SPACE AND TREE PITS N.T.S.
311300.14NS (2019)
ARLINGTON DPR




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

4' CHAIN LINK TREE PROTECTION FENCE (RESIDENTIAL) 1/2" = 1'-0"
311300.2 (2016) (02231.2)
ARLINGTON DPR


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



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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| QUALITY CONTROL ENGINEER | 02/08/23 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

EROSION_AND_SEDIMENT_CONTROL NOTES AND DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

AS SHOWN

C032.4

FILENAME: P31D_S-8-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

# STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
## Arlington County Template

| PROJECT / SITE INFORMATION | | | |
|---|---|---|---|
| **Project Name** | **CLARENDON BLVD. AND N CLEVELAND ST.** | | |
| **LDA Permit#** | **LDA** | **CGP#:** | |
| **Project Address** | **CLARENDON BLVD. AND N CLEVELAND ST.** | | |
| **Watershed** | SITE IS UNDER ROCKY WATERSHED AREA | | |
| **Latitude** | 38.8833 N (decimal degrees) | | |
| **Longitude** | 77.0965 W (decimal degrees) | | |

| CONSTRUCTION ACTIVITY OPERATOR INFORMATION | |
|---|---|
| **Operator Name** | Arlington County Government |
| **Company Name** | Department of Environmental Services |
| **Address** | 2100 CLARENDON BLVD, SUITE 813, ARLINGTON, VA 22201 (C/o Solomon Shikur) |
| **Phone Number** | 703-228-6509 (24 Hr Emergency) |
| **Email Address** | Zdragacevac@arlingtonva.us |
| **24-hour Emergency Contact Phone #** | 703-228-6509 |

**CERTIFICATION STATEMENT**

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

| | |
|---|---|
| **Operator Name** | **Zoran Dragacevac** |
| **Signature** | |
| **Title** | **Design team supervisor** |
| **Date** | 08/05/2022 |

ARLINGTON
VIRGINIA

**Watershed / Impaired Waters / Total Maximum Daily Load (TMDL) Information**
This project site is in the Chesapeake Bay and Potomac River watersheds; TMDLs have been established for sediment, nutrients (nitrogen, phosphorus), and PCBs. A TMDL has also been established for bacteria in the Four Mile Run Watershed. Measures will be taken to minimize the discharge of these pollutants of concern to the storm drain system and surface waters.

☒ Site inspections will be conducted every four (4) business days

☒ Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site.

☒ Nutrients shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events, during windy conditions, or when rain is in the immediate 48-hour forecast.

☒ For projects located in the Potomac River Watershed, measures will be taken to prevent /minimize the discharge of PCBs from the project site. Proper sediment controls and stabilization measures will be implemented. Debris and waste materials generated during demolition activities shall be properly disposed in accordance with local, state, and federal regulations.

☒ Arlington County's TMDL Action Plan for Bacteria covers the entire County. Measures will be taken to prevent /minimize the discharge of bacteria from the project site. Pollution prevention controls focused on managing dumpsters, portable lavatories, and other wastes will be implemented (additional information is provided in Section 6.0 Potential Sources of Pollution & Pollution Prevention Practices).

**1.0 SWPPP Documents Located Onsite & Available for Review**

| SWPPP Documents | Located Onsite & Available for Review? | |
|---|---|---|
| • LDA Permit | ☒ Yes | |
| • Erosion & Sediment Control Plan (or agreement in lieu of) | ☒ Yes | |
| • Pollution Prevention Plan | ☒ Yes | |
| • Stormwater Management Plan | ☐ Yes | ☒ N/A |
| • Construction General Permit | ☐ Yes | ☒ N/A |
| • Notice of Coverage Letter | ☐ Yes | ☒ N/A |
| • Registration Statement | ☐ Yes | ☒ N/A |

**Required documents are kept in a centralized location on the project site (i.e. mail box or another container marked SWPPP). Permits are displayed on site.**

**2.0 Authorized Non-Stormwater Discharges**

| Types of Authorized Non-Stormwater Discharges | Likely Present at Project Site? | |
|---|---|---|
| • Uncontaminated / filtered excavation dewatering | ☒ Yes | ☐ NA |
| • Uncontaminated / filtered wash water | ☐ Yes | ☒ NA |
| • Potable water sources that do not create an in-stream impact | ☐ Yes | ☒ NA |
| • Pumped uncontaminated ground water | ☐ Yes | ☒ NA |
| • Landscape irrigation | ☐ Yes | ☒ NA |
| • Other _____ | ☐ Yes | ☐ NA |



**3.0 Pollution Prevention Awareness / Subcontractor Information**

☒ Employees and subcontractors will be given a "walk through" of the site identifying areas of possible pollution and will be shown Erosion and Sediment Controls and Pollution Prevention Practices identified in the SWPPP that are applicable to their assigned job responsibilities.

☒ Refresher meetings and "walk throughs" for new staff will be conducted on an as needed basis.

**Date of walk-through(s):** _____

**Subcontractor(s) Information**

| | |
|---|---|
| Name of Subcontractor: | |
| Type of work conducted on this project / area of responsibility: | |
| Name of main contact person: | |
| Phone: | |
| Email: | |

| | |
|---|---|
| Name of Subcontractor: | |
| Type of work conducted on this project / area of responsibility: | |
| Name of main contact person: | |
| Phone: | |
| Email: | |

| | |
|---|---|
| Name of Subcontractor: | |
| Type of work conducted on this project / area of responsibility: | |
| Name of main contact person: | |
| Phone: | |
| Email: | |



**4.0 Erosion & Sediment Control (ESC)**

Details and specs shown on the approved ESC plan are part of this SWPPP.

All controls shall be checked daily and after runoff producing rainfall events. Maintenance will be performed as specified in the ESC plan and state specifications, or as directed by an inspector.

| Select all that apply | Erosion & Sediment Control | Estimated Installation Date | Estimated Removal Date |
|---|---|---|---|
| ☐ | Safety Fence | | |
| ☒ | Silt Fence (detail on approved ESC plan) | | |
| ☒ | Super Silt Fence (detail on approved ESC plan) | | |
| ☐ | Construction Entrance (detail on approved ESC plan) | | |
| ☒ | Tree Protection (Arlington County Std. & Spec) | | |
| ☐ | Dewatering (Device shown on approved ESC plan or device selected in Section 5.0 (5) (PPP5)) | | |
| ☒ | Temporary Seeding | As required | NA |
| ☐ | Permanent Seeding | | NA |
| ☒ | Sodding | | NA |
| ☐ | Outlet Protection (detail on approved ESC plan) | | |
| ☐ | Turbidity Curtain (detail on approved ESC plan) | | |
| ☐ | Stream Crossing / Cofferdams (detail on approved ESC plan) | | |
| ☐ | Pump Around System (detail on approved ESC plan) | | |
| ☒ | Other Practice(s) - Storm Drain Inlet Protection (Std & Spec 3.08) | | |



**Pre-Storm Site Preparation Checklist**
Per Erosion and Sediment Control General Note 6, the Contractor is responsible for the installation and maintenance of any additional erosion and sediment control (ESC) measures necessary to prevent erosion and sedimentation as determined by the County. Controls and measures shall be modified as needed to ensure only clean water is discharged from the site.

**The following actions shall be taken prior to storm events with predicted heavy and/or large volume rainfall to prevent sediment discharges from a construction site. A typical summer thunderstorm is an example of a storm event with predicted heavy and/or large volume rainfall.**

*Perimeter controls*
- Silt fence shall be checked for undermining, holes, or deterioration of the fabric. Fencing shall be replaced immediately if the fabric is damaged or worn. Silt fence must be trenched into the ground per state specifications (Std & Spec 3.09).
- Wooden stakes or steel posts shall be properly secured upright into the ground. Damaged posts or stakes must be replaced.
- Sediment that has accumulated against the silt fence should be removed. Accumulated sediment must be removed when the level reaches one-half the height of the fencing.
- Hay bales or a stone berm should be placed across the construction entrance to minimize sediment from leaving the construction site.

*Exposed slopes, soil, and stockpiles*
- Exposed slopes not at the final stabilization phase shall be covered with 2" layer of straw, plastic sheeting, or erosion control matting. Cover material shall be properly secured/anchored.
- Controls shall be installed to prevent concentrated flow down an exposed slope. Berms or diversion dikes shall be installed at the top of cut / exposed slopes to direct storm flow around the disturbed area.
- Exposed slopes at the final stabilization phase shall be stabilized using slope stabilization practices such as soil stabilization blankets or matting as specified in the Virginia Erosion and Sediment Control Handbook (VESCH) Std & Spec 3.36. Blankets or mats must be properly secured and anchored to the slope using staples, pins, or stakes.
- Recently seeded areas shall be protected by straw, matting, or soil stabilization blankets to prevent seeding from being washed away.
- Stockpiled soil and other loose materials that can be washed away shall be covered with a tarp, plastic sheeting, or other stabilization matting. The cover must be properly secured / anchored down to prevent it from being blown off and exposing materials to rain. Controls such as hay bales or booms should be placed along the perimeter of the stock pile (downhill side).



**5.0 Pollution Prevention Practices (PPP)**

Pollution prevention practices (PPP) including daily good housekeeping efforts will be employed at the project site to prevent pollution discharges. Equipment, tools and materials needed for cleanup (brooms, shovels, vacuums, trash bags) will be readily available on site.

**The following selected ("checked") activities will be conducted during this project and the corresponding pollution prevention controls and practices will be implemented. Specific controls and additional information are included as applicable.**

(1) ☒ **Clearing, Grading, Excavating - Sediment Control / Stabilization (PPP1)**
- Erosion and sediment controls selected and/or described in Section 4.0 will be installed and maintained to protect resources and prevent sediment from leaving the site/LOD and entering the storm drain system or surface waters.
- Sediment tracking onto paved areas outside the LOD / construction entrances will be swept up
- Plastic sheeting, tarps, 2" deep straw cover, mulch and/or erosion matting will be used for temporary stabilization of exposed soil / slopes.
- The Pre-Storm Site Preparation Checklist will be followed and implemented.

(2) ☒ **Saw Cutting and Paving Operations (PPP2)**
- Slurry or other debris shall not enter a storm drain or surface water.
- Spill containment techniques such as the use of sand bags or booms around the immediate work area shall be used to contain and capture any non-stormwater discharges.
- Slurry from saw cutting operations must be contained, collected (vacuumed), and disposed of properly.

Description of temporary controls that will be used:

(3) ☒ **Concrete Operations - Washout and Waste Management (PPP3)**
Concrete wash out will be conducting in 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.
- Concrete wash water shall not be discharged to a storm drain or surface water.
- Washout facilities will be sized appropriately for the needs of the project.
- Washout facilities will not be located near storm drains.
- Mixers and truck chutes will be washed out in designated contained washout areas
- No tracking from washout areas will occur.
- Plastic sheeting, boards, or tarps will be placed under concrete truck chutes during pouring
- Concrete washout areas will not be used for dewatering

The selected concrete wash out facility will be used:
☐ Washout Structure - Wood Planks
☐ Washout Structure - Straw Bales
☐ Prefabricated Containment System – Type: _____
☐ Other: _____



ARLINGTON
VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
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SEAL
COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| QUALITY CONTROL ENGINEER | 02/08/23 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

STORMWATER POLLUTION PREVENTION PLAN

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE: N/A

C035.1



REVISED ON 11/18/2021
FILENAME: P31D_S-8-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

(4) ☐ **Washing Activities (PPP4)**
Wash water discharges to the storm drain system or surface waters are prohibited.
The following pollution prevention practices and controls will be implemented where applicable:

- Wash water or liquid wastes shall not enter a storm drain or surface waters.
- A suitable containment system for cleaning equipment such as a drum, prefabricated system, lined container, or portable wash pad will be provided.
- The wash / containment area will be sized appropriately for the needs of the project.
- The wash / containment area(s) will be situated away from storm drains.
- Containers will be monitored for leaks or damage. Containers will be replaced as needed.

Washout containment / controls for this project will include:

(5) ☒ **Dewatering Operations (PPP5)**
Construction site dewatering will not be discharged without the use of controls. Sediment laden or turbid water associated with dewatering shall be filtered, settled or similarly treated prior to discharge. The dewatering detail on approved ESC plan will be used. Dewatering operations will be monitored to ensure the controls being used are effective (clear water being discharged) and no clogging or overflow is occurring. Controls will be cleaned out or replaced when the control is no longer effective at removing sediment. Pumping will be conducted so that the rate of discharge does not overwhelm the dewatering system and allows for adequate settling and/or filtration.

Dewatering controls that will be used:
☐ Filter bag on stone bed with haybales
☐ Portable sediment tank
☐ Manufactured / customized system

(6) ☐ **Materials / Chemical Use and Storage (PPP6)**
Areas will be designated for material delivery and storage. These areas will be near construction entrances and not situated near storm drains. Lay downs areas will be shown on plans. Storage and containment areas will be adequately enclosed or covered. Additional pollution prevention practices and controls include:

- Stockpiled soil and other loose materials that can be washed away shall be covered with a tarp, plastic sheeting, or other stabilization matting when not being actively accessed. Covers must be properly secured / anchored down to prevent the covering from being blown off and exposing materials to rain. Controls such as hay bales or booms should be placed along the perimeter of stock pile (downhill side).
- Stockpiled materials located on the edge of roadways will not obstruct flow along the curb line (gutter). Adequate space between the curb and stockpile will be left to allow stormwater to flow along the curb line. Pipes or boards laid over curbs may be used to create the flow through space.
- Secondary containment will be used for storage of fuels, oil, grease, paint, solvents, sealers, cleaners, and other chemicals. Materials will be kept secured and covered when not in use.

(7) ☐ **Equipment and Vehicle Fueling / Maintenance (PPP7)**
Designated areas for refueling vehicles or equipment or perform maintenance will be located away from storm drains and surface waters. Additional pollution prevention practices and controls include:



- Vehicles and equipment will be inspected daily for leaks. Any leaks or spills will be addressed upon discovery.
- Containment measures will be used when conducting fueling (e.g. place fuel mats, spill pads, boards, or plastic sheeting on ground) to contain drips, leaks, spills.
- Fuel tank (s) will have containment.
- Fuel tanks and containers will be inspected daily for signs of damage.
- Employees will be instructed not to "top off" or overfill vehicles or equipment to prevent spills.
- Secondary containment and secure storage will be provided for fuel, oil, solvent and/or lubricants.
- Drip pans, sheeting, and/or absorbent pads will be placed under heavy equipment when not in use (i.e. overnight) to capture any potential leaks.

(8) ☒ **Waste Management (PPP8)**
Trash, waste, and construction debris will be managed and disposed of properly. Designated areas for trash and debris collection will be situated as far away from storm drains as possible. Additional pollution prevention practices and controls include:

- A sufficient number of waste containers will be kept on a site to handle the quantity of waste produced.
- Waste collection / pick up will be conducted as necessary to prevent overfilling.
- Containers will have lids or covers that can be used to cover open containers at the end of the work day and prior to rain events. Roll off containers will be kept covered when not being accessed. Lids and doors on dumpsters and/or / trash can will be kept closed.
- Waste containers will be checked frequently for damage / leaks. Any cleaning will be conducting using DRY methods. Waste containers will not be power washed or hosed out unless the wash water is collected and disposed of into the sanitary sewer system.
- Damaged containers / receptacles (leaking, cracked, corroded, or otherwise deteriorating) will be replaced.

(9) ☒ **Portable Lavatories (PPP9)**
Portable lavatory units will be properly situated and maintained to prevent pollution releases. Additional pollution prevention practices and controls include:

- Portable lavatories will be situated away from storm drains and surface waters.
- Portable lavatories will be kept level and have secondary containment (i.e. trays) if situated on paved surfaces.
- Units will be inspected for leaks or damage will be conducted frequently.
- Routine maintenance / cleaning will occur, and units will be replaced if damaged or leaking.

(10) ☐ **Nutrient Management / Fertilizer Application (PPP10)**
Fertilizer will be applied in accordance with manufacturer's recommendations. Fertilizer will not be applied during rainfall events or windy conditions, or when rain is forecasted. Fertilizer will be properly secured and stored under cover when not being used. Residual fertilizer on paved surfaces will be swept up.



## 6.0 Stormwater Management Controls

The stormwater management plan in the approved plan set is part of this SWPPP. The sequence of construction for stormwater management facilities (SWMF) will be followed. Measures will be taken to prevent issues such as soil compaction and/or sediment intrusion / clogging that would compromise the functionality of the approved specified SWMF.

| Select all that apply | Stormwater Management Control | Installation Date |
|---|---|---|
| ☐ | Permeable Pavement / Pavers (1 or 2) | |
| ☐ | Bio-retention (1 or 2) | |
| ☐ | Dry Well | |
| ☐ | Infiltration Trench (1 or 2) | |
| ☐ | Manufactured Device | |
| ☐ | Green Roof (1 or 2) | |
| ☐ | Other approved post construction control: | |
| ☒ | Linear development project per Arlington County Chesapeake Bay Total Maximum Daily Load (TMDL) Action Plan[1] | |
| ☐ | Exempt – linear stormwater management retrofit, stream restoration, underground utility work, routine maintenance projects | |

[1] *In accordance with Arlington County's Chesapeake Bay Total Maximum Daily Load (TMDL) Action Plan, approved by the Virginia Department of Environmental Quality (DEQ), linear development projects conducted by the County are administered and tracked as follows consistent with 9VAC25-870-69.A.4, 9VAC25-870-76, and 9VAC25-870-92:*

- *Pollutant load changes will be computed as described in Section 3.A of the Action Plan.*
- *Retrofit opportunities will be evaluated for each project, using the screening and selection criteria applied and described in the adopted Stormwater Master Plan.*
- *Retrofit projects that meet the screening criteria and are determined by Arlington to be feasible and cost-effective will be implemented with specific linear development projects. Pollutant load reductions from retrofit projects will be computed as described in Section 5 of the Action Plan.*
- *In cases where retrofit projects are not feasible and cost-effective for a particular linear project, any POC load increases that might occur for that project will be addressed by larger overall POC load reductions in place or added through TMDL action plan implementation.*

*In the above manner Arlington, as the MS4 operator and the construction site operator for its linear development projects, implements linear projects and retrofit projects in a manner that achieves the most TMDL POC reduction for the least cost, while fully accounting for load changes that occur with linear development project activity consistent with the DEQ Chesapeake Bay TMDL Special Condition Guidance.*



## 7.0 Spill Prevention, Response, and Reporting

Spills and leaks will be cleaned up upon discovery using dry cleaning methods (placement of absorbent materials, sweeping, shoveling, bagging, proper disposal). Spills will not be hosed down unless the wash water is contained, collected and disposed of properly.

Spill kits will be kept on site. The spill kit shall be labeled, stocked, and readily accessible. **Employees will be informed of the location of the spill kit(s) and how to respond to and report spills.**

Spill kits should contain absorbent materials, pads, socks, plastic bags, and personal protective equipment (gloves, eye protection). Shovels/brooms should be accessible.

**Location(s) of spill kit(s) on site:**

**1.)**

**2.)**

**3.)**

**Spill Response and Reporting:**

- Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911.
- Ensure the spill area is safe to enter and does not pose an immediate threat to health and safety
- Stop the spill source.
- Notify personnel in area of spill and potential dangers.
- Ask for assistance to block off area and help with cleanup efforts.
- Take measures to prevent a spill from spreading and/or entering storm drains (socks, booms, soil)
- Clean up spill using dry methods and dispose of materials in accordance with Safety Data Sheet specification and local, state, and federal regulations.
- Never flush or "hose down" a spill down into a storm drain.
- If spilled material has entered a storm drain or surface water; call the Fire Department (911)

**Emergency Contacts:**

| | |
|---|---|
| • Arlington County Fire & Police | 911 / 703-558-2222 |
| • DES Water, Sewer, Streets 24-Hour Emergency | 703-228-6555 |
| • Washington Gas Emergency Line | 703-750-1400 |
| • VA Dept. of Emergency Management (24 hour) | 804-674-2400 |

- Water or sewer breaks, or overflows will be reported to Arlington County Department of Environmental Services, Water, Sewer, Streets 24-Hour Emergency # 703-228-6555
- Leaking underground storage tanks will be reported to the Virginia Department of Environmental Quality Northern Regional Office, 703-583-3800 and the Arlington County Fire Prevention Office, 703-228-4644



## 8.0 Self Inspection Report Form

Inspection Schedule: ☒ Once every 4 business days (Chesapeake Bay Watershed TMDL requirement)

| | |
|---|---|
| **Project Name:** | **LDA Permit #:**<br>**CGP#:** |
| **Name of Inspector:** | |
| **Company/Organization:** | |
| **Telephone Number:** | |
| **Email Address:** | |

| | |
|---|---|
| **Inspection Date / Time:** | **Weather Conditions:** |
| **Phase of construction:**<br>☐ Initial Clearing & Grading ☐ Building / Construction ☐ Final Grading ☐ Final Stabilization | |
| **Permit and SWPPP documentation are on site and available for review:** ☐ Yes ☐ No | |

| Erosion & Sediment Control (ESC)/ Pollution Prevention Practice (PPP) | | In Compliance? | Noncompliance Issue(s) and Corrective Action(s) Needed |
|---|---|---|---|
| PPP 1 | Construction entrances or other designated controls are in place to prevent sediment from being tracked off site / onto paved areas? | ☐ Yes ☐ No ☐ NA | |
| PPP 1 | Perimeter controls (silt fence) are adequately installed, in good condition, and properly maintained? | ☐ Yes ☐ No ☐ NA | |
| PPP 1 | Containment controls / methods are being used to prevent pollutants from entering storm drains? | ☐ Yes ☐ No ☐ NA | |
| PPP 1, 6 | All slopes and disturbed areas, including stockpiles, not actively being worked are properly covered or stabilized? | ☐ Yes ☐ No ☐ NA | |
| PPP 1 | Construction dust is properly controlled? | ☐ Yes ☐ No ☐ NA | |
| PPP 1 | Tree protection and signs are in place and the enclosed protected area is free of debris, materials, equipment? | ☐ Yes ☐ No ☐ NA | |
| PPP 2, 4 | Non-stormwater discharges (i.e. wash water, saw cut slurry) are properly managed and waste is properly disposed of? | ☐ Yes ☐ No ☐ NA | |
| PPP 3, 4 | Washout facilities (concrete, paint) are accessible, labeled, and maintained (not leaking or damaged)? | ☐ Yes ☐ No ☐ NA | |



| Erosion & Sediment Control (ESC)/ Pollution Prevention Practice (PPP) | | In Compliance? | Noncompliance Issue(s) and Corrective Action(s) Needed |
|---|---|---|---|
| PPP 5 | Filtering controls for dewatering operations are in place and working properly (only clear water is being discharged off site)? | ☐ Yes ☐ No ☐ NA | |
| PPP 6 | Materials that are potential stormwater contaminants are properly stored (covered / secondary containment in place)? | ☐ Yes ☐ No ☐ NA | |
| PPP 7 | Vehicle and equipment fueling, maintenance, and/or staging areas are free of spills and leaks? Fuel storage has proper containment? | ☐ Yes ☐ No ☐ NA | |
| PPP 8 | Trash and waste materials are properly managed and disposed of? | ☐ Yes ☐ No ☐ NA | |
| PPP 8 | Dumpsters and roll off containers are properly covered / contained and not leaking? | ☐ Yes ☐ No ☐ NA | |
| PPP 9 | Portable lavatories are level, in good condition, not leaking, and situated away from storm drains? | ☐ Yes ☐ No ☐ NA | |
| PPP 10 | Fertilizer is applied in accordance with manufacturer's specifications or an approved nutrient management plan and are not applied during rainfall events or just prior to forecasted storm event. | ☐ Yes ☐ No ☐ NA | |
| Sec. 7.0 | Spill kits are stocked and accessible? | ☐ Yes ☐ No ☐ NA | |

**Are there any unauthorized discharges at the time of this inspection?** ☐ Yes ☐ No
If yes, describe the type and location of discharge:

**Has any unauthorized discharge occurred since the last inspection?** ☐ Yes ☐ No
If yes, describe the type and location of discharge:

**Notes / comments:**

**Certification**
*I certify that I am qualified to conduct this inspection and the information provided in this report, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of enforcement actions for knowing violations.*

**Operator or Assigned Qualified Personnel Name**: _____

**Signature:** _____

**Date / Time:** _____

*INSPECTION REPORTS WILL BE KEPT ONSITE IN THE SWPPP BOX OR OTHER APPROVED LOCATION*



**9.0 Major Grading & Stabilization Activities Log**

| Date Activity Initiated | Description of the Grading or Stabilization Activity | Date Grading Activity Ceased | Date Stabilization Measures Initiated | Description of the Stabilization Measure |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | Final Stabilization* | | | |

*Specifications for final stabilization outlined on the approved plan will be followed. Measures will be taken to ensure soils are not compacted and will support the growth of vegetation (seeding and/or sodding).

**10.0 SWPPP Modifications Log**
Modifications will be made if it is determined that the existing control measures or practices are ineffective in minimizing the discharge or pollutants from the project site.

| Modification Date | Description of Modification |
|---|---|
| | |
| | |
| | |
| | |



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ENGINEERING BUREAU
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SEAL
COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum<br>QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

STORMWATER POLLUTION PREVENTION PLAN

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

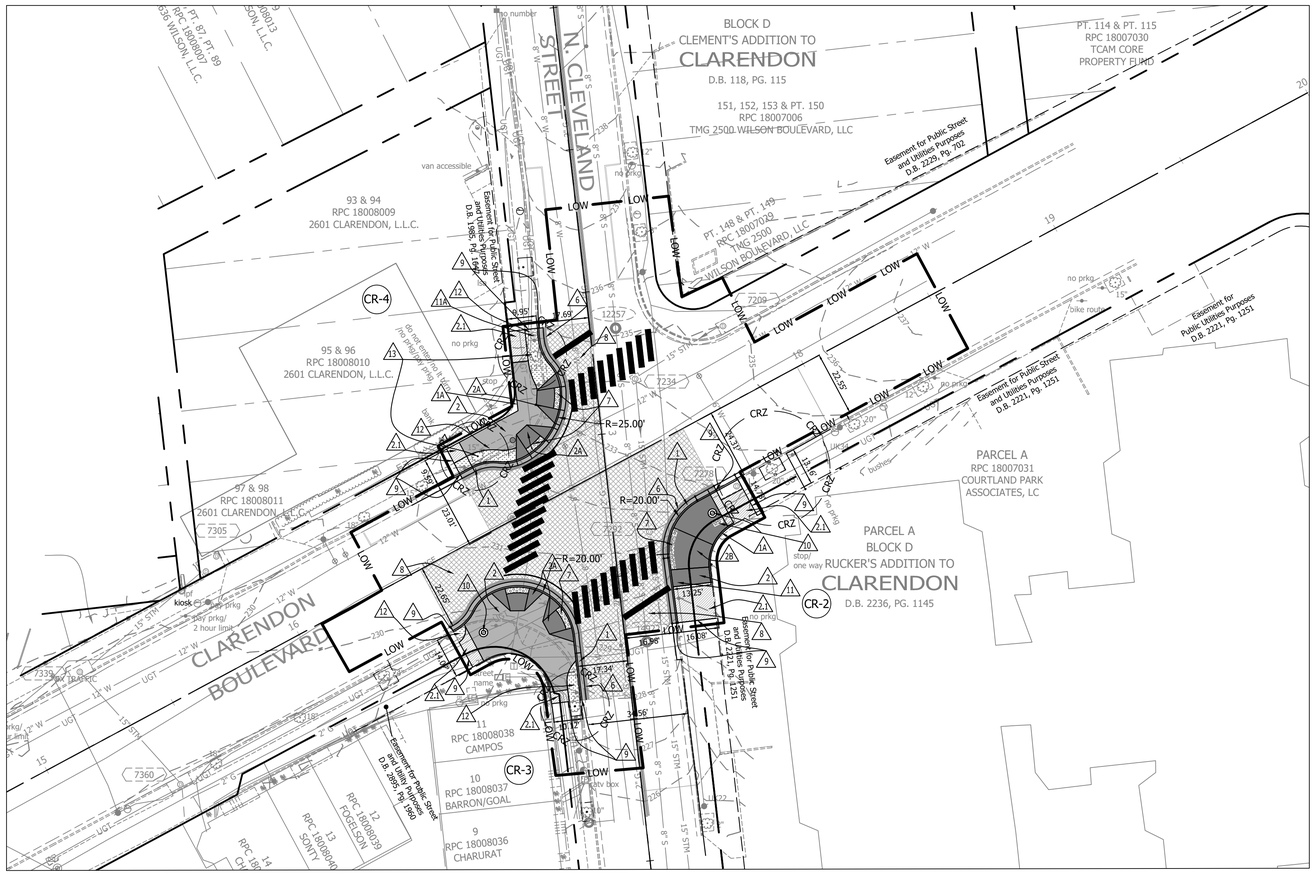
SCALE:

N/A

C035.2



REVISED ON 11/18/2021
FILENAME: P31D_S-8-220-E_AND_S_NOTES_SWPPP.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL




## ROW ASSESSMENT

- NO ROW ACQUISITION OR PERMANENT EASEMENTS ARE ANTICIPATED WITH THIS PROJECT.

## UTILITY IMPACT ASSESSMENT

WET UTILITIES:

- NO STORM SYSTEM IMPROVEMENT IS ANTICIPATED WITH THIS PROJECT.
- WATER METERS AND VALVES - VERTICAL ADJUSTMENTS ARE ANTICIPATED WITH THIS PROJECT.
- SANITARY MANHOLE - NO POTENTIAL CONFLICT.

DRY UTILITIES:

- NO IMPACTS TO EXISTING UTILITY POLES.
- NO IMPACTS TO EXISTING STREET LIGHT POLES.
- NO NEW STREET LIGHTS PROPOSED.
- NO IMPACTS TO EXISTING UNDERGROUND FACILITIES.

## PERMIT ASSESSMENT

- COUNTY LDA PERMIT IS REQUIRED.

## PARKING IMPACTS

- NO IMPACT ON EXISTING ON-STREET PARKING SPACE, EXCEPT S/E CORNER.

## TREE IMPACTS

- NO TREE REMOVALS ARE ANTICIPATED WITH THIS PROJECT. FURTHER TREE IMPACTS TO BE EVALUATED BY COUNTY URBAN FORESTER.

## OTHER IMPACTS

- NO FULL DEPTH PAVEMENT TO BE EXPECTED.
- NO RETAINING WALLS ARE EXPECTED.

## CONSTRUCTION NOTES

1 PROP CURB AND GUTTER (C-2) ARL STD (R-2.0)

1A PROP HEADER CURB (C-3) ARL STD (R-2.0)

2 PROP SIDEWALK ARL STD (R-2.0)

2.1 PROVIDE SMOOTH TRANSITION TO MEET EXISTING WALKWAY GRADE.

2A PROP RAMP (CG-12A) VDOT ROAD & BRIDGE STANDARDS (204.02) SEE CURB RAMP DETAIL SHEET #C002.1

2B PROP RAMP (CG-12B) VDOT ROAD & BRIDGE STANDARDS (204.03) SEE CURB RAMP DETAIL SHEET #C002.1

6 PROPOSED ASPHALT FULL DEPTH REPLACEMENT AS PER ARLINGTON COUNTY STANDARD (R-1.4)

7 PROPOSED DETECTABLE WARNING SURFACE DARK GRAY COLOR PER ARLINGTON COUNTY STANDARD H-3.2, CURB RAMPS

8 ASPHALT - MILL AND OVERLAY (½"TO 3" ) PER ARLINGTON COUNTY STANDARD (R-1.4)

9 MATCH EXISTING T.O.C. OR SIDEWALK GRADE.

10 ADJUST EXISTING UTILITY BOX TO PROPOSED GRADE.

11 REMOVE EXISTING PARKING METER.

11A EXISTING PARKING METER TO BE REMAIN .

12 PROVIDE MULCH PER ARLINGTON STD. & SPEC. SECTION 329100 PLANT PREPARATION.

13 NO MECHANICAL DIGGING IN CRZ AREA OF TREE, CONTRACTOR TO DO HAND DIGGING AND HAND COMPACTION TO PROTECT ROOT ZONE AREA, AND SHOULD BE MULCHED.

TREE PRESERVATION NOTES:

1 CONTRACTOR TO CONTACT THE ARLINGTON FORESTER TO SCHEDULE A PRE-CONSTRUCTION INSPECTION OF THE TREE PROTECTION MEASURES BEFORE ANY WORK NEAR THE CRITICAL ROOT ZONES OF THE TREE. TO SCHEDULE THE PRE-CONSTRUCTION MEETING CALL 703-228-7980

2 CONTRACTOR TO PROTECT TREES PER THE PLAN ACCORDING TO THE ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02231.1

3 CONTRACTOR TO ROOT PRUNE TREE PER THE PLAN ACCORDING TO THE ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02231.5, WHERE CALL OUT ON THE PLAN

4 NO MECHANICAL DIGGING IN CRZ OF TREE, CONTRACTOR TO DO HAND DIGGING TO PROTECT ROOT ZONE.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ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

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| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

PLAN AND PROFILE

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 6 2023

SCALE:

0 5 10
VERT. SCALE

0 25 50
HORIZ. SCALE

C041.1

REVISED ON 11/18/2021

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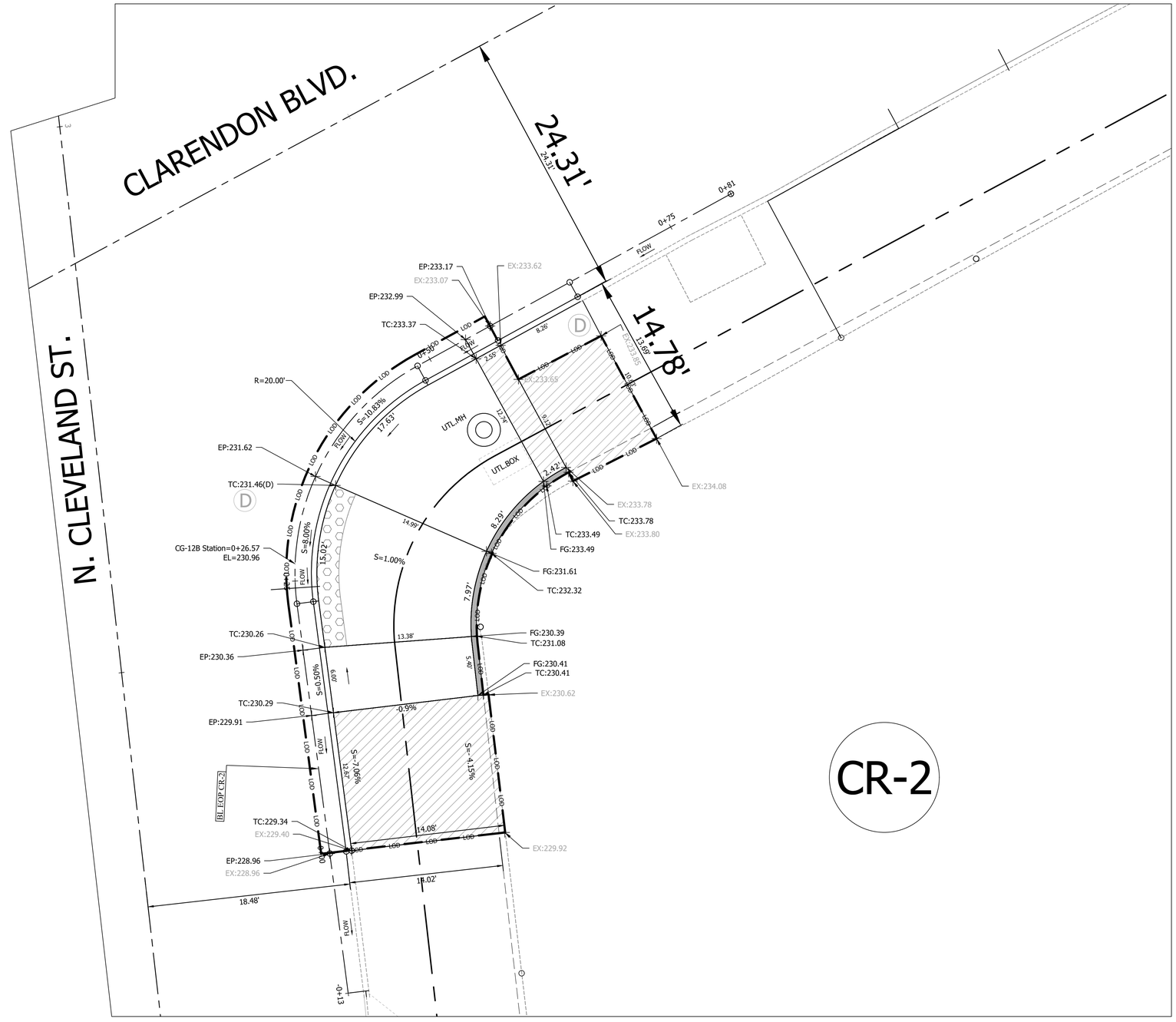


CR-2

## STANDARD ABBREVITION:

EX: EXISTING GRADE
FG: FINISH GRADE
TC: TOP OF CURB
EP: EDGE OF PAVEMENT


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|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

RAMP DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

SCALE:

0 5 10
HORIZ. SCALE

C042.2

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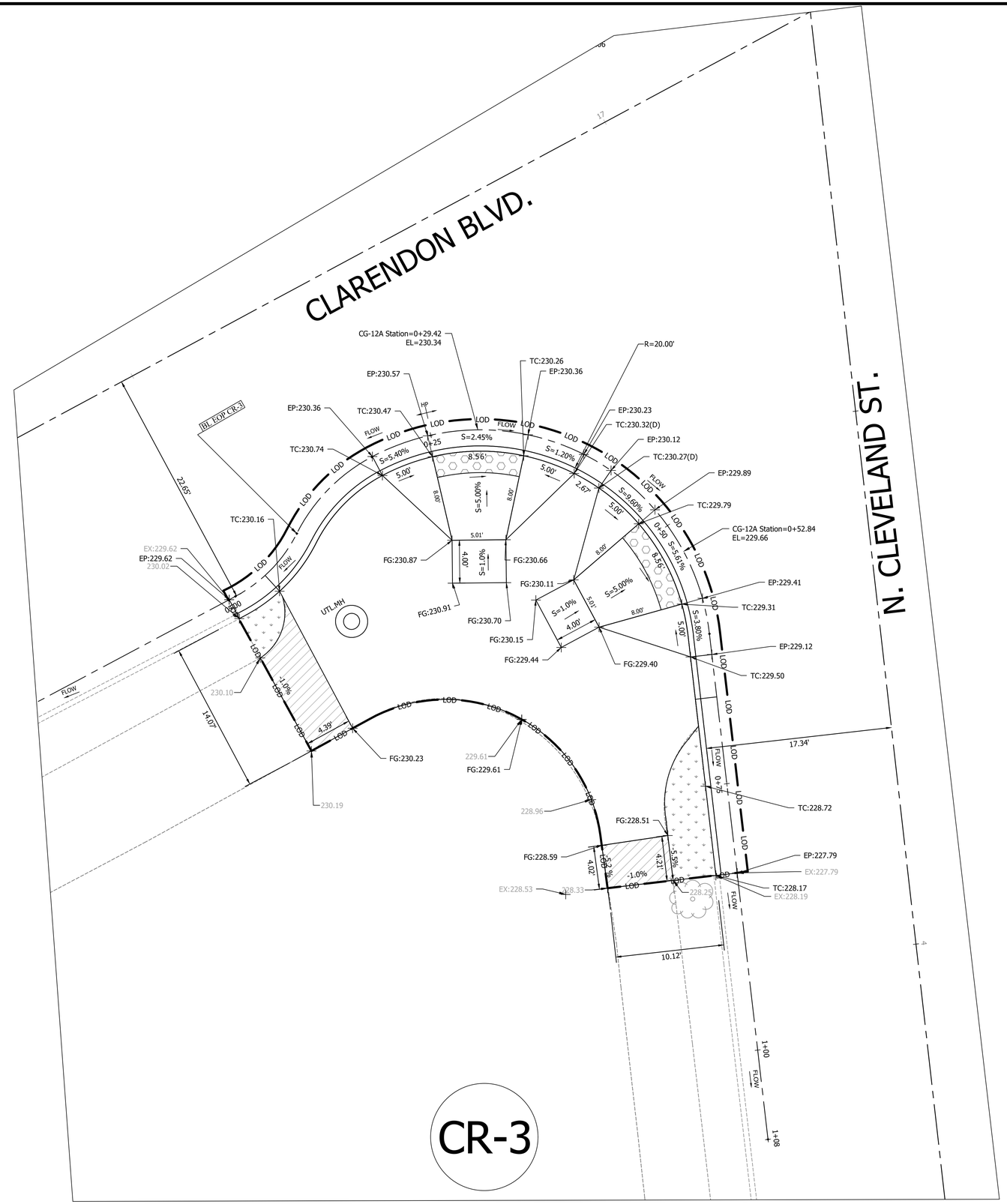


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CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

# RAMP DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

SCALE:

0 5 10
HORIZ. SCALE

C042.3

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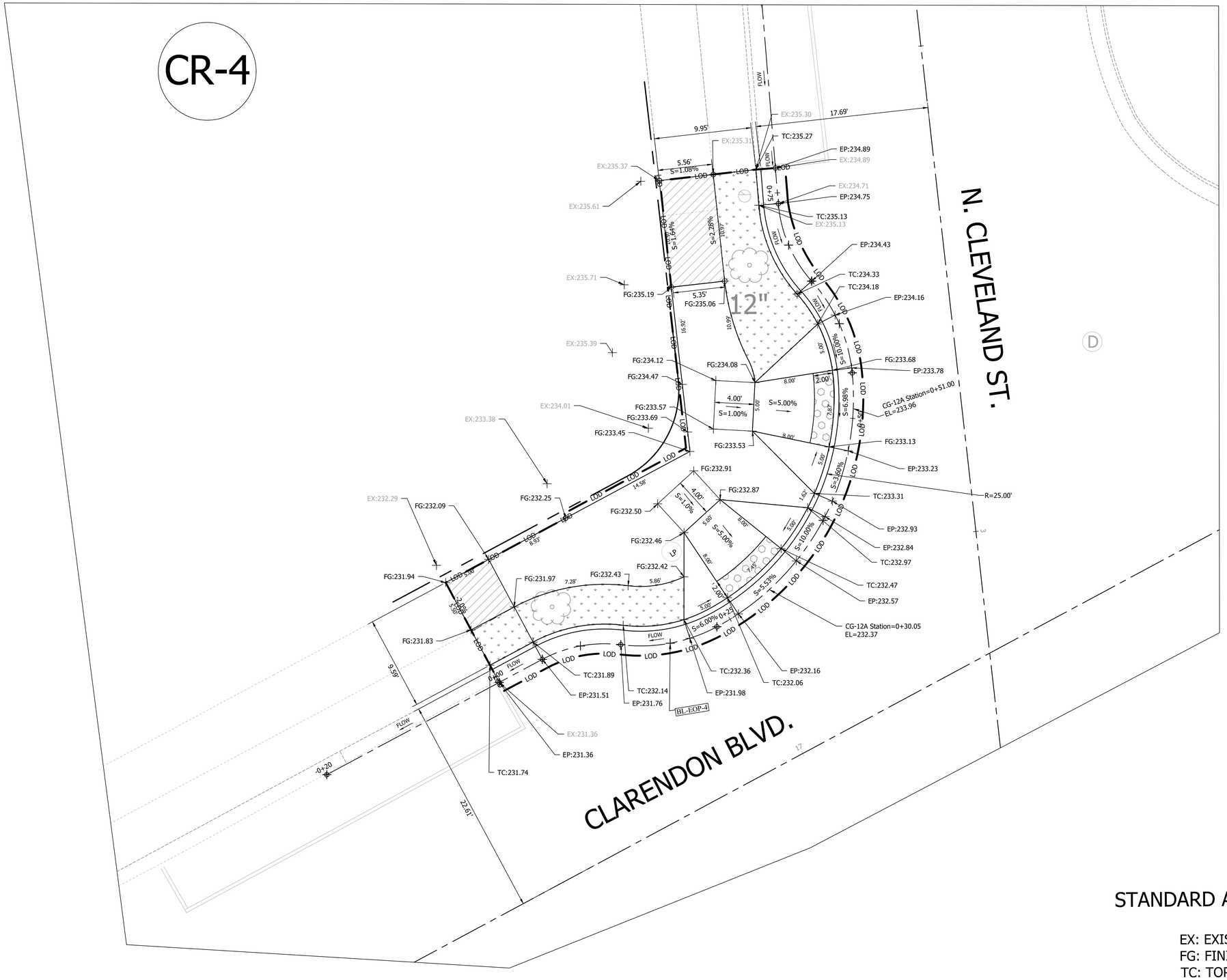


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| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

RAMP DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

SCALE:

0 5 10
HORIZ. SCALE

C042.4



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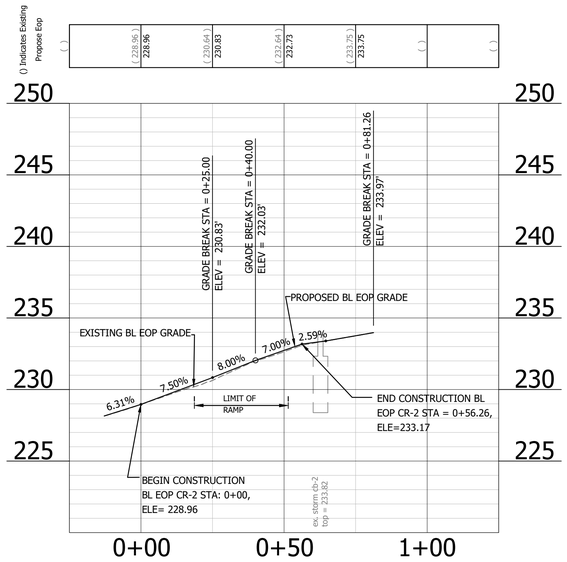
## PROFILE BL-EOP CR-2

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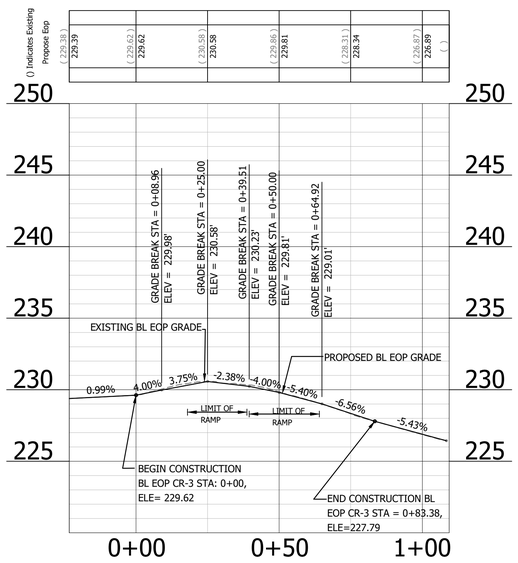


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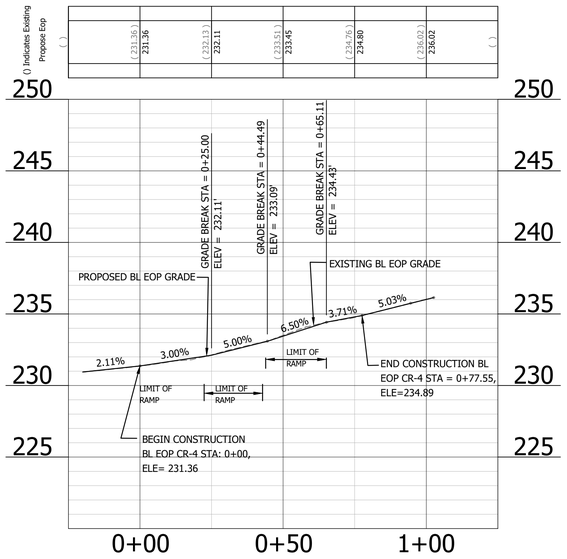



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| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

CURB RETURN PROFILES

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

SCALE:
0 5 10
VERT. SCALE
0 25 50
HORIZ. SCALE

C043.1

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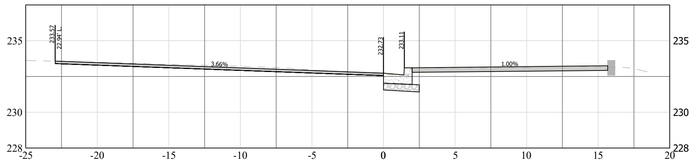


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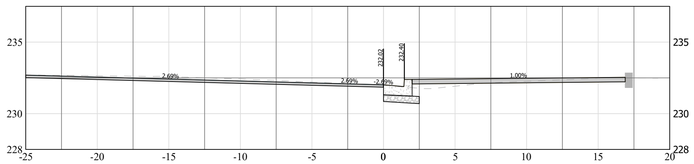


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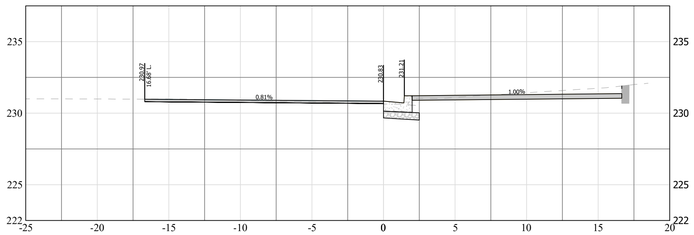


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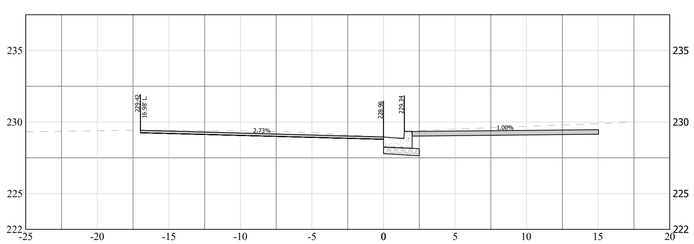


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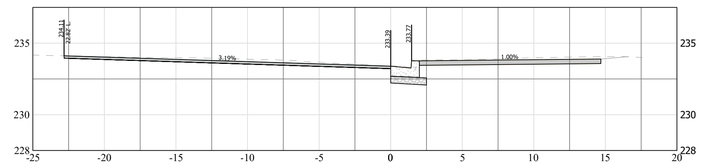


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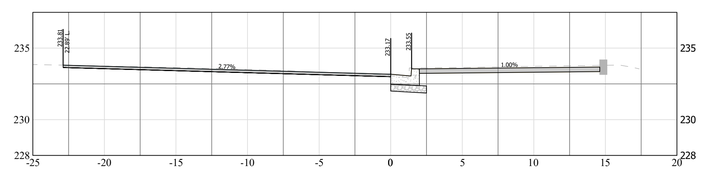


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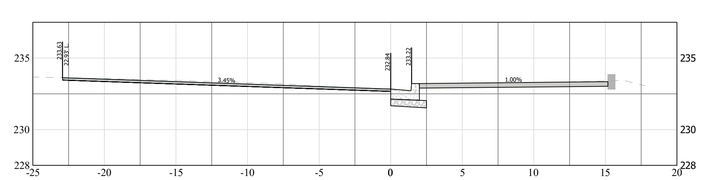


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ARLINGTON VIRGINIA

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



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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum<br>QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

CROSS-SECTIONS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

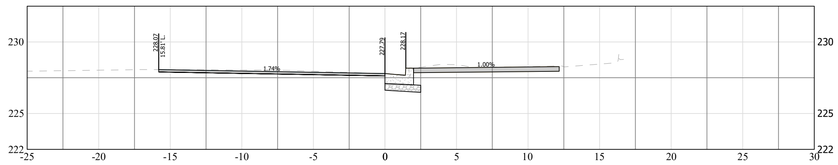
SCALE:
0 5 10
VERT. SCALE
0 5 10
HORIZ. SCALE

C044.2

REVISED ON 11/18/2021

FILENAME: P31D_5-8-234-CROSS-SECTIONS.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

# B L EOP- CR-3

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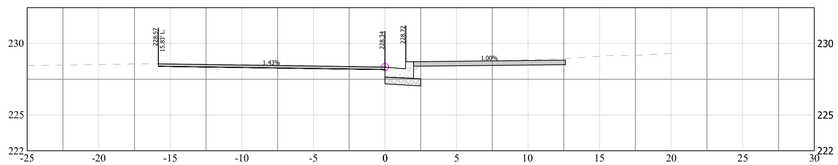


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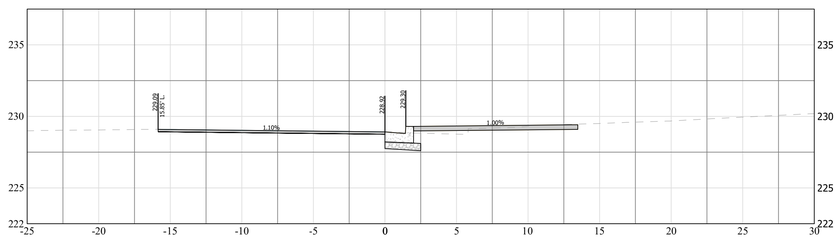


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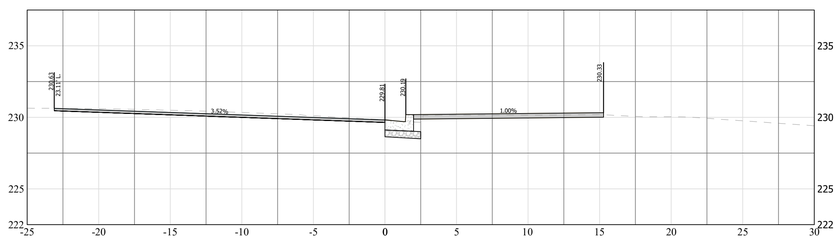


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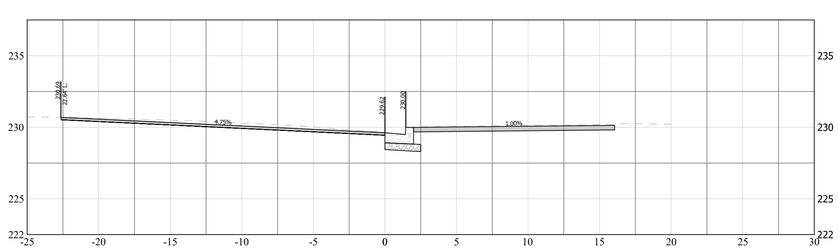


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REVISED ON 11/18/2021

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ARLINGTON
VIRGINIA


DEPARTMENT OF
ENVIRONMENTAL SERVICES
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ENGINEERING BUREAU
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ARLINGTON, VA 22201
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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

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| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

CROSS-SECTIONS

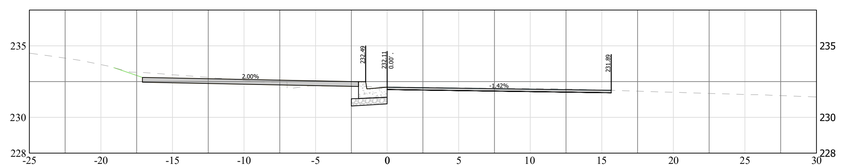
DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

SCALE:
0 5 10
VERT. SCALE
0 5 10
HORIZ. SCALE

C044.3

# B L EOP- CR-4

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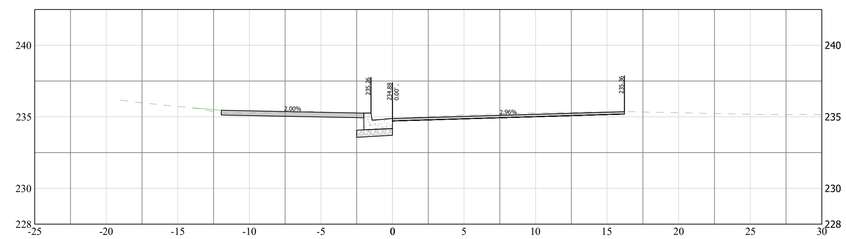


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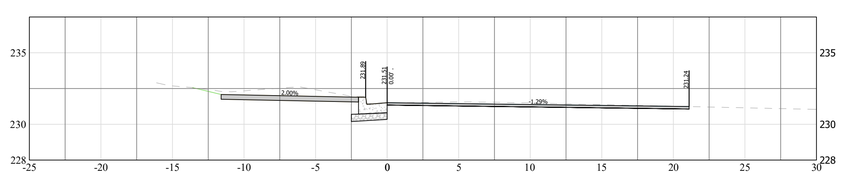


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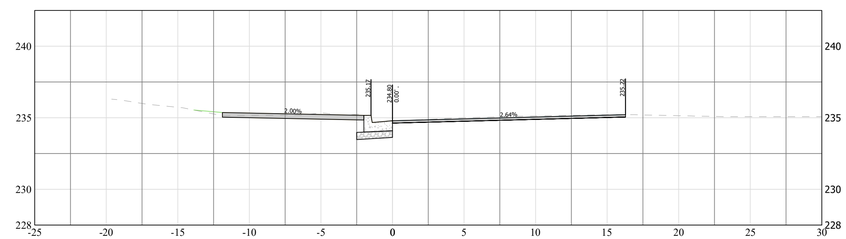


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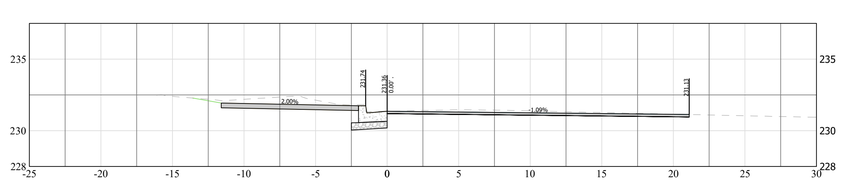


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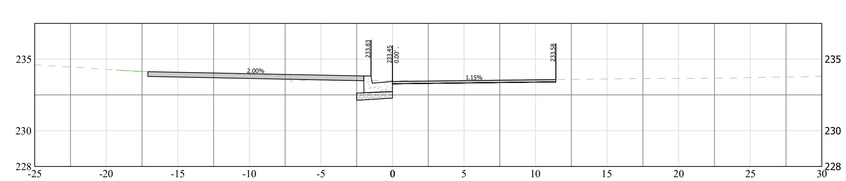


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ARLINGTON
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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

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| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |
| | |
| | |
| | |
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

CROSS-SECTIONS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

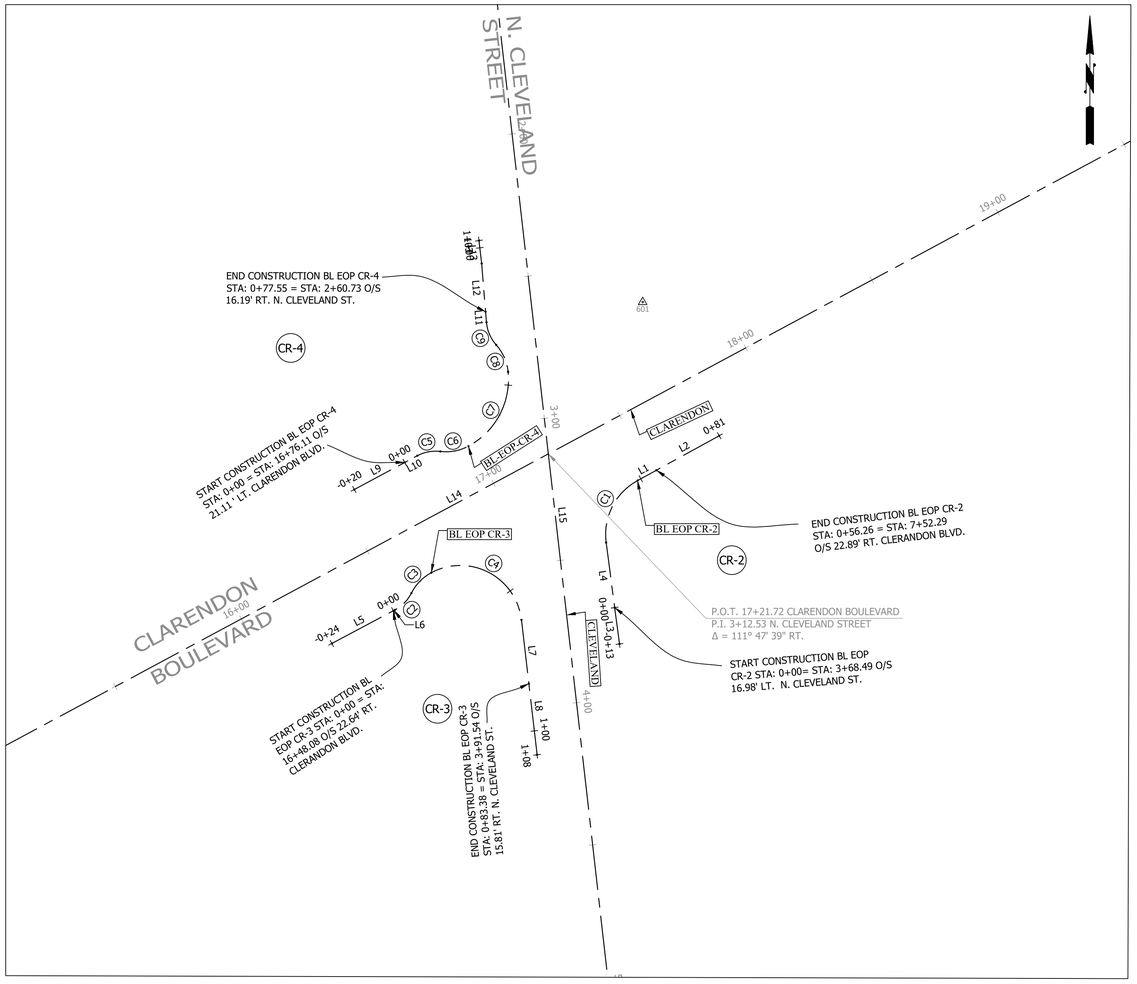
SCALE:
0 5 10
VERT. SCALE
0 5 10
HORIZ. SCALE

C044.4

REVISED ON 11/18/2021

FILENAME: P31D_S-8-234-CROSS-SECTIONS.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021




## PROJECT CONTROL DATA

| Point No. | Northing(Y) | Easting(X) | Elev(Z) | Description |
|---|---|---|---|---|
| 600 | 7009855.8773 | 11884103.4349 | 230.67 | PIPE & CAP |
| 601 | 7010003.4716 | 11884394.2996 | 235.17 | P.K. NAIL |
| 602 | 7010219.9158 | 11884301.6827 | 237.92 | P.K. NAIL |
| 603 | 7010067.7500 | 11884019.5121 | 236.26 | P.K. NAIL |
| 604 | 7009975.6954 | 11883707.2003 | 242.36 | P.K. NAIL |

BL EOP CR-2

| | Length | Radius | Line/Chord Direction | Station (Start) | Station (End) | Northing, Easting (Start) | Northing, Easting (End) |
|---|---|---|---|---|---|---|---|
| C1 | 25.79 | 21.50 | N26° 52' 18.15"E | 0+22.92 | 0+48.72 | 7009919.4608, 11884381.5555 | 7009941.1133 , 11884392.5269 |
| L1 | 7.54 | | N61° 14' 21.42"E | 0+48.72 | 0+56.26 | 7009941.1133, 11884392.5269 | 7009944.7415, 11884399.1374 |
| L2 | 25.00 | | N61° 14' 21.42"E | 0+56.26 | 0+81.26 | 7009944.7415, 11884399.1374 | 7009956.7703, 11884421.0533 |
| L3 | 12.82 | | N7° 29' 45.12"W | -0+12.82 | -0+00.00 | 7009884.0234, 11884386.2183 | 7009896.7289, 11884384.5465 |
| L4 | 22.93 | | N7° 29' 45.12"W | -0+00.00 | 0+22.92 | 7009896.7289, 11884384.5465 | 7009919.4608, 11884381.5555 |

BL EOP CR-3

| | Length | Radius | Line/Chord Direction | Station (Start) | Station (End) | Northing, Easting (Start) | Northing, Easting (End) |
|---|---|---|---|---|---|---|---|
| C2 | 8.30 | 13.50 | N44° 18' 43.71"E | 0+00.66 | 0+08.96 | 7009895.9324, 11884307.8134 | 7009901.7817 , 11884313.5240 |
| C3 | 10.15 | 16.50 | N44° 18' 43.71"E | 0+08.96 | 0+19.12 | 7009901.7817, 11884313.5240 | 7009908.9309 , 11884320.5035 |
| C4 | 41.82 | 21.50 | S62° 20' 04.06"E | 0+19.12 | 0+60.94 | 7009908.9309, 11884320.5035 | 7009892.4318 , 11884351.9757 |
| L5 | 24.34 | | N61° 56' 09.22"E | -0+24.34 | -0+00.00 | 7009884.1709, 11884285.7529 | 7009895.6201, 11884307.2276 |
| L6 | 0.66 | | N61° 56' 09.22"E | -0+00.00 | 0+00.66 | 7009895.6201, 11884307.2276 | 7009895.9324, 11884307.8134 |
| L7 | 22.44 | | S6° 36' 17.35"E | 0+60.94 | 0+83.38 | 7009892.4318, 11884351.9757 | 7009870.1410, 11884354.5568 |
| L8 | 25.00 | | S6° 36' 17.35"E | 0+83.38 | 1+08.38 | 7009870.1410, 11884354.5568 | 7009845.3069, 11884357.4323 |

BL-EOP-CR-4

| | Length | Radius | Line/Chord Direction | Station (Start) | Station (End) | Northing, Easting (Start) | Northing, Easting (End) |
|---|---|---|---|---|---|---|---|
| C5 | 8.30 | 13.50 | N79° 26' 24.87"E | 0+05.00 | 0+13.30 | 7009949.7904, 11884315.6186 | 7009951.2872 , 11884323.6478 |
| C6 | 10.15 | 16.50 | N79° 25' 16.50"E | 0+13.30 | 0+23.45 | 7009951.2872, 11884323.6478 | 7009953.1218 , 11884333.4710 |
| C7 | 31.22 | 26.50 | N28° 02' 38.34"E | 0+23.45 | 0+54.67 | 7009953.1218, 11884333.4710 | 7009979.1099 , 11884347.3147 |
| C8 | 10.44 | 16.50 | N23° 49' 35.92"W | 0+54.67 | 0+65.11 | 7009979.1099, 11884347.3147 | 7009988.4987 , 11884343.1686 |
| C9 | 8.78 | 13.50 | N23° 18' 28.04"W | 0+65.11 | 0+73.89 | 7009988.4987, 11884343.1686 | 7009996.4238 , 11884339.7542 |
| L9 | 20.00 | | N61° 49' 56.10"E | -0+20.00 | 0+00.00 | 7009937.9890, 11884293.5793 | 7009947.4300, 11884311.2104 |
| L10 | 5.00 | | N61° 49' 56.10"E | 0+00.00 | 0+05.00 | 7009947.4300, 11884311.2104 | 7009949.7904, 11884315.6186 |
| L11 | 3.66 | | N4° 40' 06.93"W | 0+73.89 | 0+77.55 | 7009996.4238, 11884339.7542 | 7010000.0731, 11884339.4562 |
| L12 | 16.96 | | N4° 40' 06.93"W | 0+77.55 | 0+94.51 | 7010000.0731, 11884339.4562 | 7010016.9765, 11884338.0758 |
| L13 | 8.04 | | N6° 44' 33.53"W | 0+94.51 | 1+02.56 | 7010016.9765, 11884338.0758 | 7010024.9647, 11884337.1314 |

CLARENDON

| | Length | Radius | Line/Chord Direction | Station (Start) | Station (End) | Northing, Easting (Start) | Northing, Easting (End) |
|---|---|---|---|---|---|---|---|
| L14 | 700.00 | | N61° 44' 35.11"E | 13+00.00 | 20+00.00 | 7009750.7758, 11883989.9093 | 7010082.1740, 11884606.4928 |

CLEVELAND

| | Length | Radius | Line/Chord Direction | Station (Start) | Station (End) | Northing, Easting (Start) | Northing, Easting (End) |
|---|---|---|---|---|---|---|---|
| L15 | 603.23 | | S6° 27' 45.89"E | 0+00.00 | 6+03.23 | 7010260.9709, 11884326.1971 | 7009661.5743, 11884394.0950 |

ARLINGTON VIRGINIA
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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

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| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

GEOMETRIC CONTROL PLAN

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

SCALE:

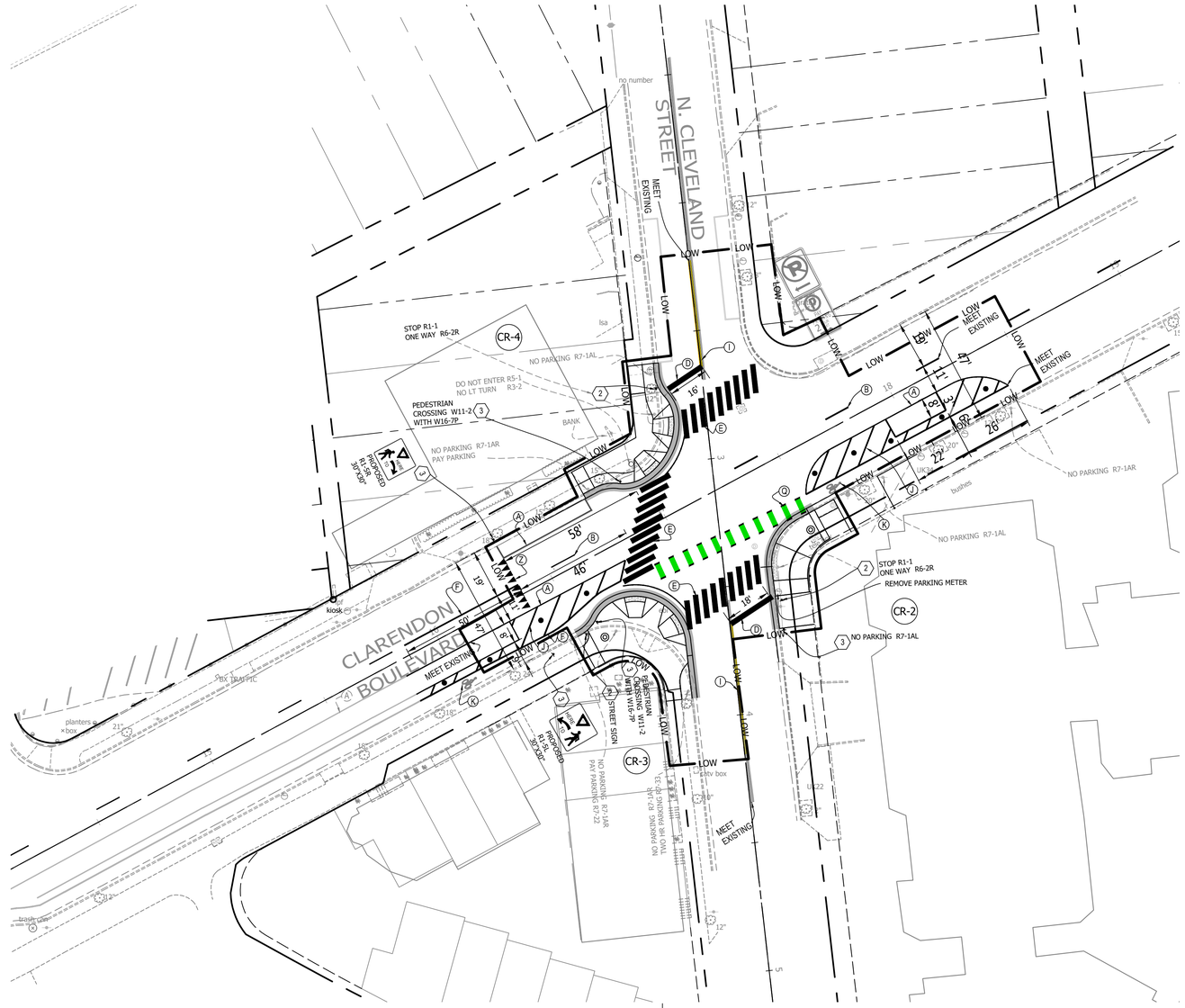
0 25 50
GRAPHIC SCALE

C045.1



FILENAME: P31D_S-8-216-GEOMETRIC_CONTROL.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021



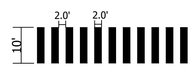

PROPOSED SIGNING LEGEND

| R7-1AL | R1-5R | W11-2 | W16-7P | R1-5L |
|---|---|---|---|---|
| 12" x 18" | 30"X30" | 30" x 30" | 24" x 12" | 30"X30" |

CONSTRUCTION SIGNAGE NOTES

2. EXISTING SIGN TO BE REMOVED AND RELOCATE WITH NEW POST.
3. PROPOSED NEW SIGN
5. ERADICATE AS NECESSARY ANY EXISTING PAVEMENT MARKING

All existing signage to remain unless otherwise noted.




HIGH VISIBILITY CROSSWALK
NOT TO SCALE

## PAVEMENT MARKING NOTES:

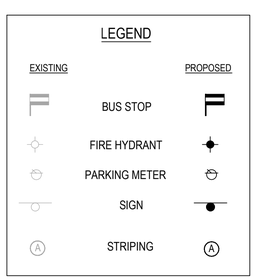
1. STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING .
2. CONTACT DES-TRANSPORTATION ENGINEERING & OPERATIONS CONSTRUCTION MANAGEMENT SPECIALIST OR HIS DESIGNEE AT 703-228-6598 OR 571-437-1077 TO APPROVE MARKING LAYOUT 48 HOURS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

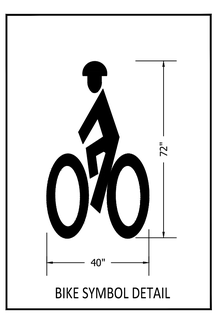
## SIGN NOTES:

1. FOR ALL SIGN POSTS PLACED IN CONCRETE USE 7 GAUGE HEAVY DUTY ANCHOR (30"X2.50") WITH HARDWARE FOR 2" POST. USE $\frac{5}{16}$" CORNER BOLT WITH FLANGED NUT AND $\frac{3}{8}$" DRIVER RIVET WITH WASHER.
2. CONTACT TE&O CONSTRUCTION MANAGER OR HIS DESIGNEE AT 703-228-6598 OR 571-437-1077 48 HRS PRIOR TO POURING CONCRETE. ALTERNATIVE CONTACT AT 703-228-3788 OR 571-414-7497.

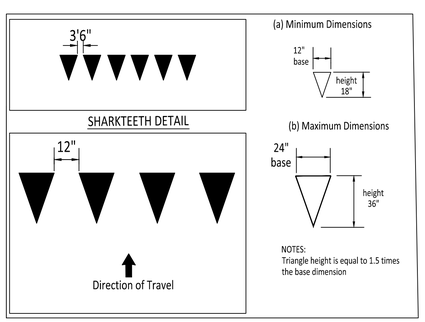
## STANDARD PAVEMENT MARKING LEGEND

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




BIKE SYMBOL DETAIL




YIELD MARKINGS DETAIL

ARLINGTON VIRGINIA

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SEAL

COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum, QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders, CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

SIGNAGE_AND_STRIPING

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

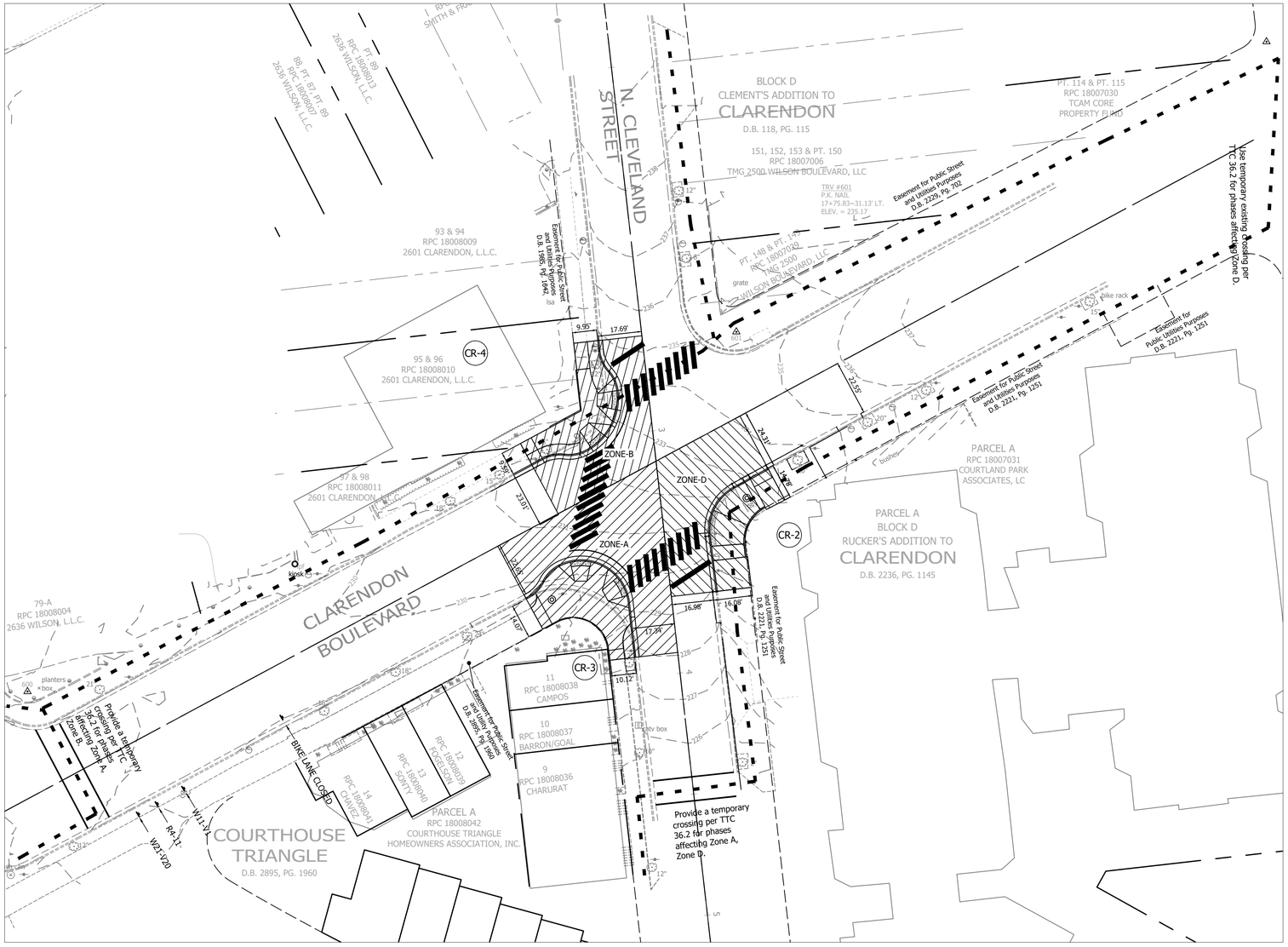
SCALE:

0 25 50
HORIZ. SCALE

C101.1

FILENAME: P31D-S-8-280-SIGNAGE_AND_STRIPING.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

REVISED ON 11/18/2021




MAINTENANCE OF TRANSPORTATION PLAN

| ZONE TABLE | | | |
|---|---|---|---|
| ZONE# | TTC# | COMMENTS | DURATION |
| ZONE A | TTC-23.2<br>TTC-36.2<br>TTC-16.2 | LANE CLOSURE ON A TWO-LANE ROADWAY USING FLAGGERS<br>CROSSWALK CLOSURE AND PEDESTRIAN DETOUR OPERATIONS<br>OUTSIDE LANE CLOSURE OPERATION ON A FOUR LANE ROADWAY | 1 WEEK - 1 MONTH |
| ZONE B | TTC-28.2<br>TTC-36.2<br>TTC-16.2 | LANE CLOSURE OPERATION IN AN INTERSECTION<br>CROSSWALK CLOSURE AND PEDESTRIAN DETOUR OPERATIONS<br>OUTSIDE LANE CLOSURE OPERATION ON A FOUR LANE ROADWAY | 1 WEEK - 1 MONTH |
| ZONE D | TTC-23.2<br>TTC-36.2<br>TTC - 5.2 | LANE CLOSURE ON A TWO-LANE ROADWAY USING FLAGGERS<br>CROSSWALK CLOSURE AND PEDESTRIAN DETOUR OPERATIONS<br>SHOULDER OPERATION WITH MINOR ENCROACHMENTS | 1 WEEK - 1 MONTH |

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

## NOTES:

1. THE FOLLOWING ZONES CAN NOT BE BUILT AT THE SAME TIME :
   1: A AND B
   2: A AND D
2. ZONE A, B, AND D SHOULD BE FURNISHED WITH ( R9-11 ) SIGN TO ADDRESS THE SIDEWALK CLOSING.
3. WARNING SIGN SPACING : 100'
   CHANNELIZATION DEVICES SPACING FOR TRANSITION AREAS = 20'
4. TEMPORARY SIGNS AND BARRICADES SHOULD NOT BE PLACED WHERE THEY WILL OBSTRUCT PEDESTRIAN PASSAGE, EXCEPT WHEN SIGN IS INTENDED TO CLOSE THE SIDEWALK SECTION.

WORKING HOURS:

1. IN ARLINGTON RIGHT-OF-WAY: 9:00 AM TO 4:00 PM (MON.-FRI.)
2. ALL LANES SHALL BE FULLY OPEN TO TRAFFIC OUTSIDE THE ABOVE HOURS UNLESS SPECIFIED OTHERWISE IN THE MAINTENANCE OF TRAFFIC PLANS.

## CONSTRUCTION NOTES

1. FOR ALL ARTERIAL STREETS, PORTABLE VARIABLE MESSAGE SIGNS WITH CLOSURE INFORMATION MUST BE INSTALLED AHEAD OF THE PROJECT SITE AT EACH VEHICULAR APPROACH 3 WEEKS PRIOR TO STREET CLOSURE IN LOCATIONS DIRECTED BY THE PROJECT OFFICER.
2. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.
3. CONTACT TRANSPORTATION ENGINEERING OPERATIONS AT 703-228-6598 OR 571-437-1077 AND THE PROJECT OFFICER TO APPROVE MARKING LAYOUT 48 HOURS PRIOR TO INSTALLATION OF MARKINGS.
4. ONE LANE CLOSURE IN EACH DIRECTION OF TRAFFIC WILL BE PERMITTED FOR FINAL PAVEMENT OVERLAY.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE FLOW OF TRAFFIC ON ANY INTERSECTION WITHIN THE WORK AREA.
6. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY PUBLIC SCHOOLS TWO WEEKS PRIOR TO STARTING CONSTRUCTION.
7. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER
8. WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.

### MOT NOTES:

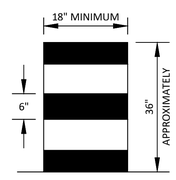
1. PARKING SHALL BE RESTRICTED BY THE COUNTY AS PART OF THE RIGHT OF WAY PERMIT. CONTACT DES-PERMITTING SECTION, 703-228-4798, AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF WORK.
2. ALL TEMPORARY BUS TRAVEL LANES MUST BE MINIMUM 11' WIDE.
3. THE CONTRACTOR SHALL MAINTAIN ADA ACCESSIBLE PARKING SPACES AT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

### PEDESTRIAN NOTE:

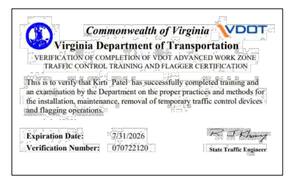
1. PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.

## LEGEND:

- ARROW PANEL
- ARROW PANEL ON TRAILER
- AREA UNDER CONSTRUCTION
- AREA CONSTRUCTED IN PREVIOUS PHASE
- SUB-PHASE OF AREA UNDER CONSTRUCTION
- TRAFFIC FLOW
- TRAFFIC DRUM
- 2" X 36" TUBULAR MARKERS
- ARROW PANEL ON TRAILER
- SIGN
- TYPE III BARRICADE
- FLAGGER
- TEMPORARY PEDESTRAIN ACCESS




TRAFFIC DRUM
N.T.S.


Commonwealth of Virginia
Virginia Department of Transportation
VERIFICATION OF COMPLETION OF VDOT ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING AND FLAGGER CERTIFICATION
This is to verify that Kirti Patel has successfully completed training and an examination by the Department on the proper practices and methods for the installation, maintenance, removal of temporary traffic control devices and flagging operations.
Expiration Date: 2/31/2026
Verification Number: 070722120
State Traffic Engineer


ARLINGTON
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COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
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| Edward Sanders<br>CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
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| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

MAINTENANCE OF TRAFFIC PLAN

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

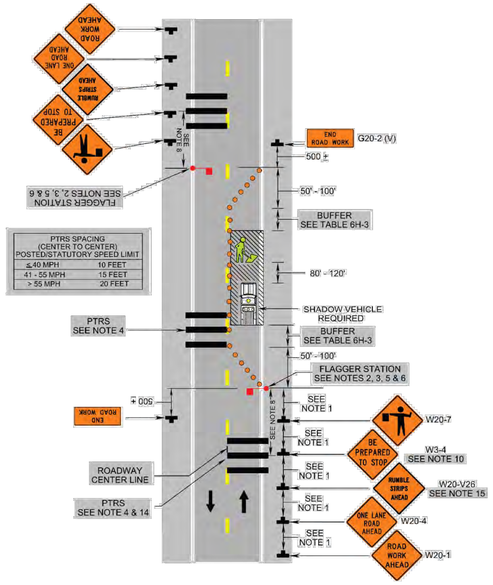
SCALE:

0 25 50
GRAPHIC SCALE

C121.1

FILENAME: P31D_S-8-286-MOT.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

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




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



**Typical Traffic Control**
***Lane Closure on a Two-Lane Roadway Using Flaggers***
**(Figure TTC-23.2)**
**NOTES**

*Guidance:*

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]

**Standard:**

4. **Portable Temporary Rumle Strips (PTRS) shall be used as noted in Section 6F.99.**
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 Table 6H-3 on Page 6H-5).**
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**[1] **oscillating light shall be parked 80'-120' in advance of the first work crew.**

Option:

8. A SLOW (W21-V10) sign[2] 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.

*Guidance:*

9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign then the signs, and if used the* PTRS[1] *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).*

**Standard:**

11. **At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).**

Option:

12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. 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).

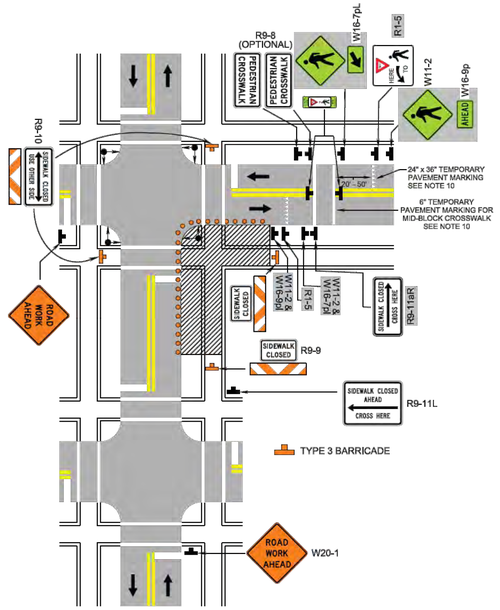
**Standard:**[1]

14. **When used**[3]**, 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
2: Revision 2 – 9/1/2019



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




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



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

**Standard:**

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

*Guidance:*

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

Option:

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

**Standard:**

8. **In order to maintain the systematic use of the fluorescent yellow-green background for school warning signs in a jurisdiction, the fluorescent yellow-green background for school warning signs shall be used in TTC zones.**[2]
9. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 Barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.**[2]

Support:

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

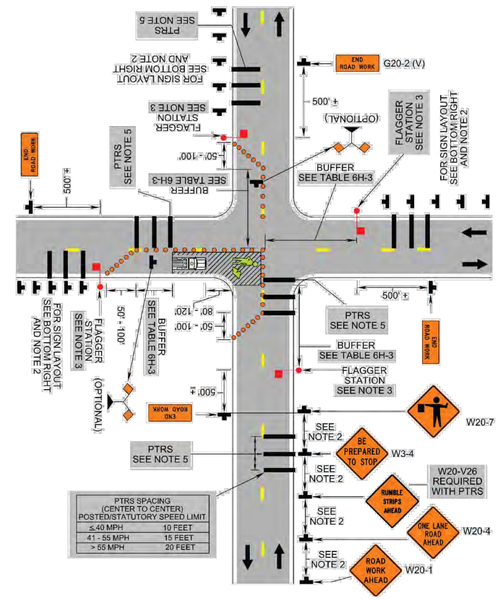
**Standard:**[1]

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

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



**Lane Closure Operation in an Intersection**
**(Figure TTC-28.2)**




2: Revision 2 – 9/1/2019



**Typical Traffic Control**
***Lane Closure Operation in an Intersection***
**(Figure TTC-28.2)**
**NOTES**

*Guidance:*

1. *The control of traffic through the intersection in order of preference should be:*
   a. *Obtain the services of law enforcement personnel.*
   b. *Detour the effective routes to other roads and streets as approved and directed by the District*[2] *Traffic Engineer.*
   c. *Place a state certified flagger on each leg of the intersection controlling a single lane of traffic.*

   *Appropriate signing as shown should be used for law enforcement and flagging operations. For detour signs see Figure TTC-34.*
2. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway the maximum time motorist 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]

**Standard:**

4. **Channelizing device spacing shall be on 20' centers or less.**
5. **PTRS shall be used as noted in Section 6F.99.**

*Guidance:*

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

**Standard:**

7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating**[1] **lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

*Guidance:*

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

Support:

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

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

REVISED ON 11/18/2021

FILENAME: P31D_S-8-286-MOT.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL

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SEAL
COMMONWEALTH OF VIRGINIA
ZORAN DRAGACEVAC
No. 031869
PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy P. Flaum — QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders — CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

MAINTENANCE OF TRAFFIC NOTES & DETAILS

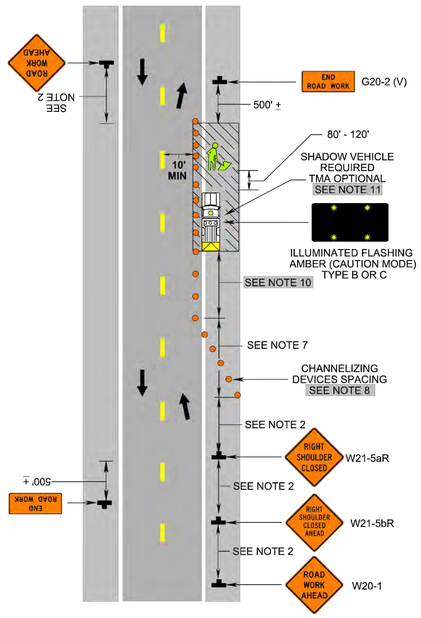
DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC

PLOTTED: MARCH 7 2023

SCALE:
AS SHOWN

C122.1

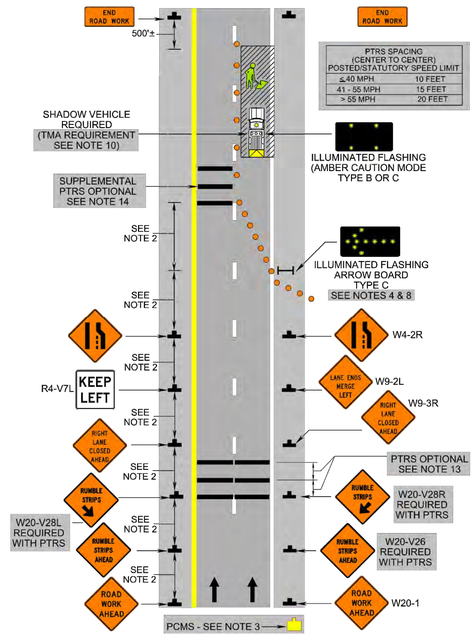
## Shoulder Operation with Minor Encroachment
**(Figure TTC-5.2)**




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



## Outside Lane Closure Operation on a Four-Lane Roadway
**(Figure TTC-16.2)**




2: Revision 2 – 9/1/2019



## Typical Traffic Control
### *Shoulder Operation with Minor Encroachment*
**(Figure TTC-5.2)**
**NOTES**

**Standard**

1. **For required sign assemblies for multi-lane roadways see Note 1, TTC-4.[1]**

*Guidance*

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 the posted speed limit is 45 mph or less.*
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.*

Option:

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.

**Standard:**

5. **A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity 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[1] oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or[1] oscillating lights.**
7. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

| Speed Limit (mph) | Lane Width (Feet) 9 | 10 | 11 | 12 | Remarks | Speed Limit (mph) | Lane Width (Feet) 9 | 10 | 11 | 12 | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 95 | 105 | 115 | 125 | $L=S^2W/60$ | 50 | 450 | 500 | 550 | 600 | L=SW |
| 30 | 135 | 150 | 165 | 180 | $L=S^2W/60$ | 55 | 495 | 550 | 605 | 660 | L= SW |
| 35 | 185 | 205 | 225 | 245 | $L=S^2W/60$ | 60 | 540 | 600 | 660 | 720 | L=SW |
| 40 | 240 | 270 | 295 | 320 | $L=S^2W/60$ | 65 | 585 | 650 | 715 | 780 | L=SW |
| 45 | 405 | 450 | 495 | 540 | L=SW | 70 | 630 | 700 | 770 | 840 | L=SW |

**Limited Access highways shall use a 1000' merging taper regardless of the posted speed, a 750' shifting taper for posted speeds < 65 mph and a 1000' shifting taper for posted speeds ≥ 65 mph.[2]**

Shoulder Taper = ½ L Minimum

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

Channelizing Device Spacing

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

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

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.[2]**
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.**
11. **A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.**
12. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

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



## Typical Traffic Control
### *Outside Lane Closure Operation on a Four-Lane Roadway*
**(Figure TTC-16.2)**
**NOTES**

**Standard:**

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

*Guidance:*

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 the posted speed limit is 45 mph or less.*
3. *When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.[2]*
4. *Care should be exercised when establishing the limits of the work zone to insure maximum possible 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.*
5. *All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.*

**Standard:**

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

Taper Length L

| Speed Limit (mph) | Lane Width (Feet) 9 | 10 | 11 | 12 | Remarks | Speed Limit (mph) | Lane Width (Feet) 9 | 10 | 11 | 12 | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 95 | 105 | 115 | 125 | $L=S^2W/60$ | 50 | 450 | 500 | 550 | 600 | L=SW |
| 30 | 135 | 150 | 165 | 180 | $L=S^2W/60$ | 55 | 495 | 550 | 605 | 660 | L= SW |
| 35 | 185 | 205 | 225 | 245 | $L=S^2W/60$ | 60 | 540 | 600 | 660 | 720 | L=SW |
| 40 | 240 | 270 | 295 | 320 | $L=S^2W/60$ | 65 | 585 | 650 | 715 | 780 | L=SW |
| 45 | 405 | 450 | 495 | 540 | L=SW | 70 | 630 | 700 | 770 | 840 | L=SW |

**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**

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

Channelizing Device Spacing

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

*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 separate arrow board shall be used for each closed lane (see Figure TTC-18).**
9. **The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
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[1] oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.**
11. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights but can be used to supplement the amber rotating, flashing, or[1] oscillating lights.**
12. **When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.**

Option:[2]

13. PTRS and their supporting signs may be used, see Sections 6F.99 and 6G.25. Long-term transverse rumble strips may be used in long-term situations, see Section 6F.99 and TTC-20.[2]
14. The supplemental PTRS may be eliminated.[2]

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

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ZORAN DRAGACEVAC
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PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|---|---|
| Amy Pflaum, QUALITY CONTROL ENGINEER | 02/08/23 |
| Edward Sanders, CONSTRUCTION MANAGEMENT SUPERVISOR | 2/15/2023 |
| WATER, SEWER, STREETS BUREAU CHIEF | 2/2/23 |
| TRANSPORTATION DIRECTOR | 02/21/2023 |
| PROJECT MANAGER | 2/27/2023 |

| REVISIONS | DATE |
|---|---|
| | |

CLARENDON BLVD. & N CLEVELAND ST
P31D
INTERSECTION OF CLARENDON BLVD. & N CLEVELAND ST

MAINTENANCE OF TRAFFIC NOTES & DETAILS

DESIGNED: K.PATEL
DRAWN: K. PATEL
CHECKED: Z. DRAGACEVAC
PLOTTED: MARCH 7 2023

SCALE:
AS SHOWN

C122.2



REVISED ON 11/18/2021
FILENAME: P31D_S-8-286-MOT.DWG PATH: Q:\DATA\P31D\S-8 - CLARENDON BLVD & N CLEVELAND ST\DESIGN\CAD\ACTIVE PLOTTED BY: KPATEL