



OWNER
DEPARTMENT OF ENVIRONMENTAL SERVICES
Traffic Engineering and Operations Bureau
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ENGINEER
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11400 Commerce Park Drive, Suite 400, Reston VA 20191
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Location Map

Scale: 1" = 500'

Vicinity

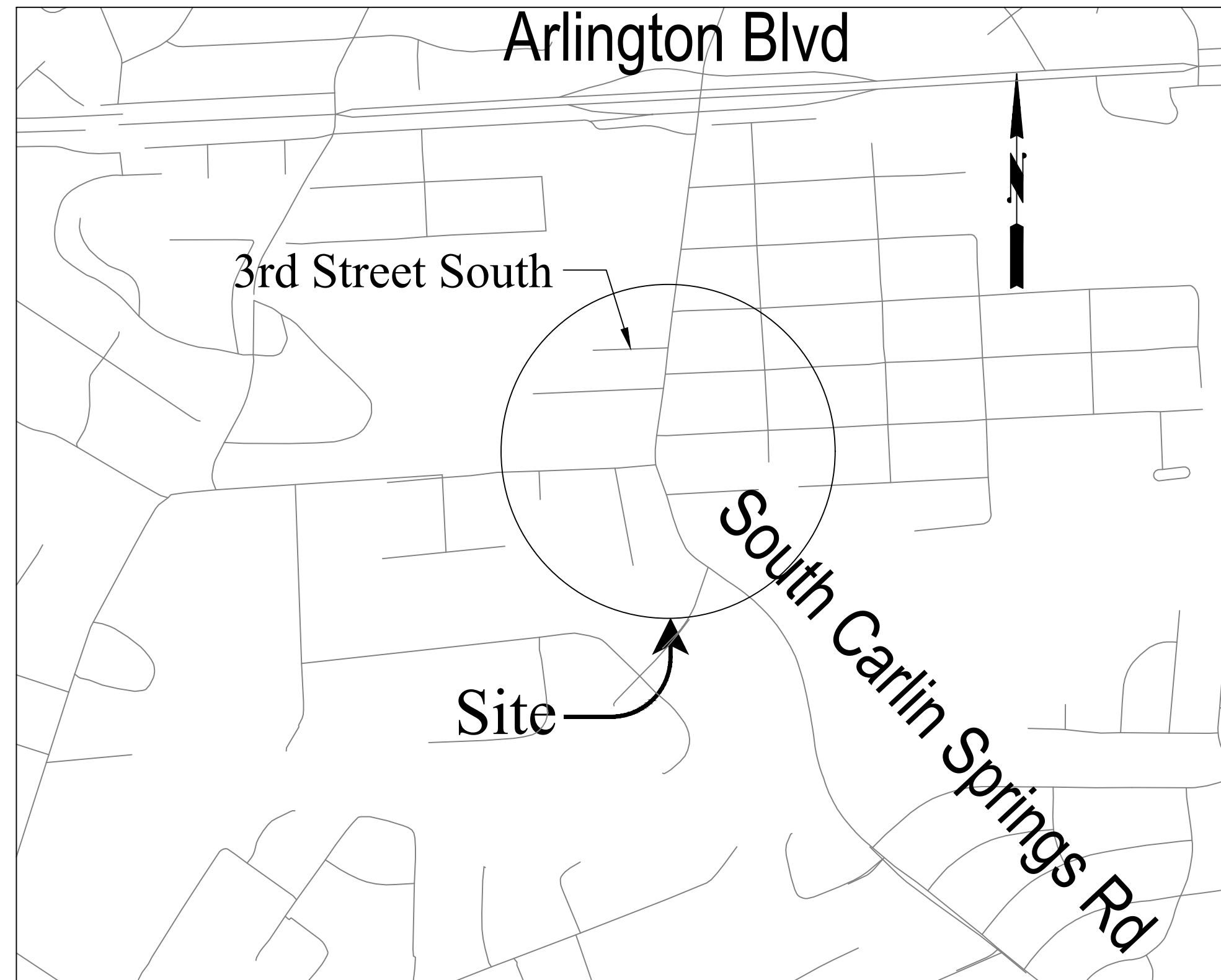


Table of Contents:

C-0000 Cover Sheet
C-0001 Legend and Survey Data
C-0002-C-0006 General Notes and Details
C-0007 Sign Details

C-0100 Existing Conditions Plan and Profile
C-0200 Phase 1 Erosion Controls and Demolition Plan
C-0300 Geometry Plan
C-0400 Proposed Plan
C-0400 Ramp Details
C-0600 Curb Return Profiles
C-0700 Drainage Area Plan
- Drainage Profiles
- Drainage Calculations
- SWPPP
- Waterline Plan and Profile
C-0900 Phase 2 Erosion Controls
C-1000 Pavement Marking and Signing Plan
C-1100 Traffic Signal Design Plan
C-1101 Communications Plan
C-1200 - C-1201 Maintenance of Traffic Plan
C-1300 Cross Sections

EXHIBIT A Streetlight Photometrics
EXHIBIT B AutoTURN - 3rd Street S.
EXHIBIT C Stormwater/Impervious Area Calculation

Construction Drawings For:
S. Carlin Springs Road
Signal Upgrades

Intersection of:

- S. Carlin Springs Road & 3rd Street South

THIS PROJECT CONSISTS OF TRAFFIC SIGNAL MODIFICATIONS AT THE INTERSECTION OF S. CARLIN SPRINGS ROAD WITH 3RD STREET S. THE SIGNAL MODIFICATIONS INCLUDE REMOVING ALL EXISTING EQUIPMENT AND REPLACING WITH NEW EQUIPMENT, ACCESSIBLE PEDESTRIAN SIGNAL DEVICES, AND LIMITED SIDEWALK AND CURB AND GUTTER MODIFICATIONS. PERMANENT AND TEMPORARY EASEMENTS ARE PROPOSED TO ENCOMPASS THE PROPOSED SIGNAL EQUIPMENT AND PEDESTRIAN IMPROVEMENTS. THE CONTRACTOR SHALL CONFIRM THE EXECUTION OF THE PROPOSED EASEMENTS PRIOR TO BEGINNING WORK.

SWM 20-0224

Signal Notes

A. POLES AND FOUNDATIONS

- 1. MAST ARM LENGTH IS TO BE AS SHOWN ON PLAN AND ALL MAST ARMS ARE TO BE FIELD DRILLED ONLY.
2. MAST ARM POLES SHALL BE DESIGNED TO THE PROPER HEIGHT TO ACCOMMODATE A STREET LIGHT LUMINAIRE AND INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS.
3. MAST ARM POLE FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS AND SPECIFICATIONS. ALL POLES SHALL HAVE A MINIMUM 6-BOLT PATTERN.
4. AT THE COUNTY'S REQUEST, THE CONTRACTOR SHALL DIG TEST PITS TO VERIFY THAT SIGNAL POLE FOUNDATIONS WILL NOT CONFLICT WITH UNDERGROUND UTILITIES AND THAT FOUNDATIONS WILL FIT WITHIN THE EXISTING RIGHT-OF-WAY.
5. SIGNAL POLES AND MAST ARMS SHALL BE NON-ORNAMENTAL. COBRA LIGHTING SHALL BE LED.
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING POLE FOUNDATION DESIGNS FOR ANY MAST ARM POLES. THE CONTRACTOR SHALL SUBMIT REQUIRED STRUCTURAL DRAWINGS AND CALCULATIONS FOR REVIEW PRIOR TO STARTING FORM WORK FOR THE FOUNDATIONS.

B. CONTROLLER AND FOUNDATION

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

C. TRAFFIC SIGNAL HEADS

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

D. DETECTORS

- 1. ALL NEW PEDESTRIAN PUSH BUTTON STATIONS SHALL CONFORM TO ARLINGTON COUNTY'S SPECIFICATIONS FOR ACCESSIBLE SIGNAL DESIGN AND SHALL USE POLARA VIBRO-TACTILE/AUDIO PUSH BUTTON ASSEMBLIES UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL PROVIDE EXTENDER BRACKETS IF NEEDED TO MAKE PUSHBUTTONS ACCESSIBLE BY WHEELCHAIR. THE PUSHBUTTON ASSEMBLY SHALL CONTAIN A MOUNTING BRACKET TO ALLOW THE R10-3E SIGN TO BE MOUNTED DIRECTLY TO THE PUSHBUTTON.
2. NEW OVERHEAD VIDEO DETECTION SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY REQUIREMENTS.
3. EMERGENCY VEHICLE PRE-EMPTION (EVP) EQUIPMENT (GTT MODEL M711 OR M721), OR APPROVED SUBSTITUTE, SHALL BE INSTALLED COMPLETE WITH DISCRIMINATOR CARDS, WIRING, ETC. IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS.
4. EVP TO BE MOUNTED ON VEHICLE HEAD MOUNTING BRACKET OR AS APPROVED BY THE ENGINEER IN THE FIELD. EVP SHALL INCLUDE CONFIRMATION LIGHTS.

E. CONDUIT, CONDUCTORS, AND ELECTRICAL

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

F. SIGNS

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

G. DEMOLITION/SALVAGE

- 1. ALL EXISTING SIGNAL EQUIPMENT IS TO BE REMOVED & RETURNED TO ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES LOCATED AT 4300 29TH ST S., ARLINGTON, VA 22206.
2. ALL EXISTING SIGNAL POLE FOUNDATIONS SHALL BE DEMOLISHED IN ACCORDANCE WITH ARLINGTON COUNTY SPECIFICATIONS. ANY REQUIRED RESTORATION RESULTING FROM THE REMOVAL OF EXISTING SIGNAL INFRASTRUCTURE SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMEDY AND SHALL BE INCIDENTAL TO THE WORK.

H. COMMUNICATIONS

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

I. INSPECTIONS

- 1. THE CONTRACTOR SHALL CONTACT THE COUNTY CONSTRUCTION MANAGER FOR INSPECTIONS THROUGHOUT CONSTRUCTION AS REQUIRED BY THE CONSTRUCTION MANAGER.
2. THE COUNTY SHALL VERIFY POLE LOCATIONS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL NOTIFY MR. FRED VERDI AT 703-228-3402 TO SCHEDULE INSPECTION PRIOR TO EXCAVATION, AND AGAIN PRIOR TO POURING CONCRETE. STAKEOUT IS THE RESPONSIBILITY OF THE CONTRACTOR UNLESS DIRECTED OTHERWISE.
3. THE CONTRACTOR SHALL CONTACT THE COUNTY CONSTRUCTION MANAGER WITHIN 7 BUSINESS DAYS OF SIGNAL ACTIVATION. ALL POWER AND COMMUNICATIONS SHALL BE IN OPERATION AT THE TIME OF ACTIVATION UNLESS APPROVED BY THE COUNTY CONSTRUCTION MANAGER.

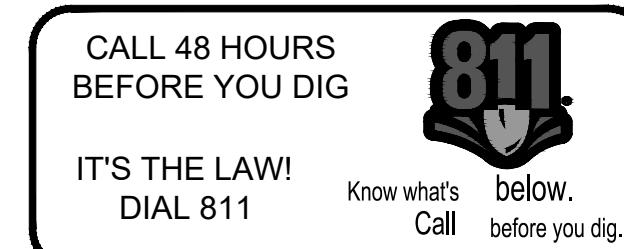
DESIGN CHARACTERISTICS table with columns: ROAD CLASSIFICATION, ADT (2019), PROJECT COMPLETION, DESIGN YEAR. Values: ARTERIAL TYPE E NORTH OF 5TH RD S, 33,000 VPD, 2021, N/A.

DESIGN SPEED = 30 M.P.H.

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

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

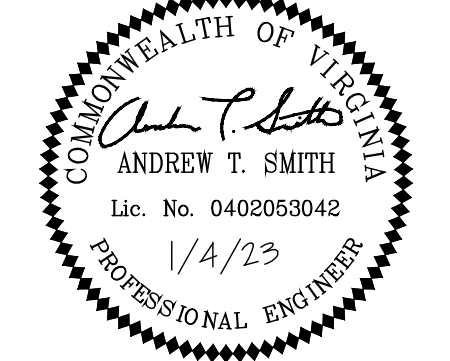
PROJECT MANAGER DATE
CONSTRUCTION MANAGER DATE



DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
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Phone: 703.228.3629
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SEAL



APPROVALS table with columns: APPROVALS, DATE. Includes signatures for Traffic Signal Engineer, Traffic Engineering Manager, Water/Sewer/Streets Bureau Chief, and Transportation Director.

REVISIONS table with columns: REVISIONS, DATE.

Project Name and Location
S. Carlin Springs Road
Signal Upgrades

COVER SHEET

ID #236
TE02

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

Plotted: January 19, 2023
Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet C-0000

LEGEND AND SURVEY DATA

Existing Symbols Proposed

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

STORM SEWER TABULATION:

#15243 TOP = 260.75 15" RCP INV. OUT (15411) = 257.55 (per plan info)	#15411 TOP = 258.95 15" RCP INV. IN (15243) = 255.80 18" RCP INV. OUT (27544) = 255.62	#15415 TOP = 258.26 30" RCP INV. IN (15488) = 246.73	#15488 TOP = 259.12 24" RCP INV. IN (15495) = 250.66 30" RCP INV. OUT (15415) = 250.49	#15495 TOP = 258.67 18" RCP INV. IN (15636) = 253.88 24" RCP INV. OUT (15488) = 250.92	#15636 TOP = 260.09 18" RCP INV. IN (15676) = 256.30 18" RCP INV. OUT (15495) = 256.25	#15685 TOP = 260.85 15" RCP INV. IN (15911) = 257.33	#15911 TOP = 264.70 STRUCTURE NOT ACCESSIBLE 15" RCP INV. IN (15948) = 261.09 (PER PLAN INFO) 15" RCP INV. IN (15929) = 260.93 (PER PLAN INFO) 15" RCP INV. OUT (15685) = 260.86 (PER PLAN INFO)	#15948 TOP = 265.20 15" RCP INV. OUT (15911) = 261.48	#15929 TOP = 264.72 15" RCP INV. OUT (15911) = 260.90	#16337 TOP = 249.15 15" RCP INV. OUT (16357) = 245.94	#16357 TOP = 247.64 15" RCP INV. IN (16337) = 244.40 15" RCP INV. IN (16316) = 243.90 15" RCP INV. OUT (16431) = 243.14	#16316 TOP = 249.56 15" RCP INV. OUT (16357) = 245.01	#16431 TOP = 235.47 15" RCP INV. IN (16357) = 232.71 15" RCP INV. OUT (16560) = 231.57	#16560 TOP = 228.74 15" RCP INV. IN (16431) = 223.00	#16383 TOP = 249.55 15" RCP INV. OUT (16428) = 246.85	#16428 TOP = 246.65 15" RCP INV. IN (16383) = 242.45 15" RCP INV. IN (16445) = 238.17 27" RCP INV. = 238.88 27" RCP INV. OUT (16456) = 238.81	#16445 TOP = 245.60 15" RCP INV. OUT (16456) = 240.12	#16456 TOP = 238.51 27" RCP INV. IN (16428) = 234.97 27" RCP INV. OUT (16472) = 234.79	#16472 TOP = 235.90 27" RCP INV. IN (16456) = 231.26 27" RCP INV. OUT (16518) = 230.59	#16518 TOP = 231.61 27" RCP INV. IN (16472) = 224.96 27" RCP INV. OUT (16694) = 224.46	#27541 TOP = 259.37 15" RCP INV. OUT (2744) = 255.63 15" RCP INV. IN (27542) = 255.69	#27542 TOP = 259.61 15" RCP INV. OUT = 256.23	#27544 TOP = 258.96 18" RCP INV. IN (15411) = 255.05 15" RCP INV. IN (27541) = 255.09 18" RCP INV. OUT (15495) = 254.99
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SANITARY SEWER TABULATION:

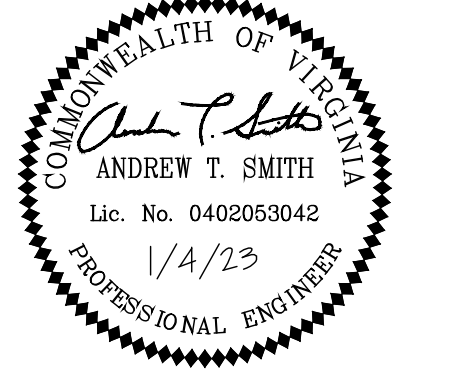
#1635 TOP = 261.27 C/L INV. = 252.42	#1636 TOP = 259.38 C/L INV. = 253.52	#1637 TOP = 267.65 C/L INV. = 259.27	#6388 TOP = 259.29 C/L INV. = 254.04	#9335 TOP = 259.83 NOT ACCESSIBLE C/L INV. = 254.43 (PER PLAN INFO)	#3853 TOP = 261.20 NOT ACCESSIBLE C/L INV. = 255.26 (PER PLAN INFO)	#6744 TOP = 261.80 C/L INV. = 255.31	#3854 TOP = 265.18 NOT ACCESSIBLE C/L INV. = 256.71 (PER PLAN INFO)	#3855 TOP = 265.25 C/L INV. = 258.21	#6183 TOP = 265.66 NOT ACCESSIBLE C/L INV. = 256.60 (PER PLAN)	#10706 TOP = 262.36 C/L INV. = 258.07	#8106 TOP = 260.28 C/L INV. = 257.48	#7924 TOP = 262.69 C/L INV. = 256.71	#7293 TOP = 258.82 C/L INV. = 254.89	#12290 TOP = 251.77 C/L INV. = 239.64	#12289 TOP = 247.74 C/L INV. = 234.27	#12287 TOP = 245.55 C/L INV. = 232.68	#12288 TOP = 254.75 C/L INV. = 243.91	#12286 TOP = 234.97 C/L INV. = 223.85
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DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
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Arlington, VA 22201
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SEAL



APPROVALS DATE

	1/4/2023
	01/06/2023
	1/18/23
	1/11/2023
	01/11/2023

REVISIONS DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**
LEGEND AND SURVEY DATA
ID #236
TE02

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

Plotted: January 19, 2023
Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-0001

General Signal Notes

REVISED: MARCH 03, 2020

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

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

GENERAL CONSTRUCTION NOTES

- ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, THE ARLINGTON COUNTY PARK DESIGN STANDARDS, THE ARLINGTON COUNTY TRAFFIC SIGNAL AND STREETLIGHT SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
- ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
- THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
- EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.

STORMWATER AND ENVIRONMENTAL PROTECTION

- THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).
- THE CONTRACTOR SHALL PROTECT EXISTING DRAINAGE FACILITIES (TO INCLUDE CURB AND GUTTER) AND WATERWAYS FROM ADVERSE IMPACTS PER SECTION 01500 OF THE ARLINGTON COUNTY STANDARDS & SPECIFICATIONS.
- ANY WORK WITHIN A RESOURCE PROTECTION AREA (RPA) SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 61 OF THE COUNTY CODE (THE CHESAPEAKE BAY PRESERVATION ORDINANCE).

TREE PROTECTION

- TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD. NO TREES SHALL BE REMOVED OR OTHERWISE AFFECTED UNLESS CLEARLY MARKED ON THE APPROVED PLAN.

TRAFFIC CONTROL

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

WATER DISTRIBUTION, STORM, AND SANITARY SEWER SYSTEMS

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



DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
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Arlington, VA 22201
Phone: 703.228.3629
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SEAL



APPROVALS DATE

<i>[Signature]</i>	1/4/2023
TRAFFIC SIGNAL ENGINEER	
<i>[Signature]</i>	01/06/2023
TRAFFIC ENGINEERING MANAGER	
<i>[Signature]</i>	1/18/23
WATER/SEWER, STREETS BUREAU CHIEF	
<i>[Signature]</i>	1/11/2023
TE&O BUREAU CHIEF	
<i>[Signature]</i>	01/11/2023
TRANSPORTATION DIRECTOR	

REVISIONS DATE

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**
GENERAL NOTES AND DETAILS
ID #236
TE02

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

Plotted: January 19, 2023
Plotted by: Grant.Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-0002

Filename: C-0002 GENERAL NOTES AND DETAILS.dwg
Path: K:\NVA_TPT\0110614003 - Carlin Springs 2020\CAD\PlanSheets

GENERAL NOTES

MAPPING

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

GENERAL REQUIREMENTS

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

COORDINATION

1. CONSTRUCTION WILL TAKE PLACE ADJACENT TO ONGOING TRAFFIC OPERATIONS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ARLINGTON COUNTY (AC).
2. THE CONTRACTOR SHALL SUBMIT A SCHEDULE FOR CONSTRUCTION TO AC IN ACCORDANCE WITH ARLINGTON COUNTY D.E.S. REQUIREMENTS.
3. PER THE CONTRACT DOCUMENTS, PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ARRANGE A MEETING WITH AC TO DISCUSS COORDINATION OF CONSTRUCTION ACTIVITIES AND RELATED PROJECTS. THE CONTRACTOR SHALL PARTICIPATE IN A CONTRACTOR LED BIWEEKLY PROGRESS MEETINGS WITH THE COUNTY AND SHALL SUBMIT SCHEDULE UPDATES AT THESE MEETINGS.
4. THE CONTRACTOR WILL ALSO BE REQUIRED TO CLOSELY COORDINATE WITH ADJACENT ONGOING AND PLANNED PROJECTS BEING CONSTRUCTED BY OTHERS, INCLUDING BUT NOT LIMITED TO THE COUNTY FIBER OPTIC INSTALLATION.

CLEARING AND GRUBBING/DEMOLITION

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

UTILITIES

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

UTILITY OWNERS	TELEPHONE
DOMINION VIRGINIA POWER (DVP)	888-667-3000
VERIZON COMMUNICATIONS	888-826-2355
COMCAST	888-683-1000
JONES FIBER	540-891-5545
WASHINGTON GAS	703-750-1000
4. CONTRACTOR SHALL CONFORM TO THE "OVERHEAD HIGH VOLTAGE ACT" (EFFECTIVE JULY 1, 2003) AND SHALL CONTACT THE NECESSARY AUTHORITIES PRIOR TO START OF CONSTRUCTION.
5. ARLINGTON COUNTY'S UTILITY DEPARTMENT INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENT PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
 - A. SITE INSPECTOR OR AREA SUPERVISOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
 - B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING COMPACTION TESTS.
6. STABLE SUBGRADE SHALL COMPRISE SOLID, WELL DRAINED, UNDISTURBED EARTH CAPABLE OF SUPPORTING STREET LOADING WITHOUT RESULTING IN ANY DAMAGING SETTLEMENT AS DETERMINED BY THE ENGINEER.
7. WHERE UNSUITABLE SUBGRADE, AS DETERMINED BY THE ENGINEER, IS ENCOUNTERED, IT SHALL BE MADE STABLE BY DRAINING, COMPACTING, AND/OR REPLACING AS REQUIRED, TO THE SATISFACTION OF THE ENGINEER.
8. ALL CONCRETE SHALL BE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) CLASS "A4" FOR PRECAST STRUCTURES AND VDOT CLASS "A3" FOR ALL OTHERS USES, UNLESS OTHERWISE SPECIFIED.
9. ALL ASPHALT PAVEMENT COURSES SHALL BE IN CONFORMANCE WITH VDOT SPECIFICATIONS.
10. EXISTING FIRE HYDRANTS MUST REMAIN ACTIVE UNTIL NEW HYDRANTS ARE AVAILABLE FOR PUBLIC USE. CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS AND FIRE DEPARTMENT WHEN SERVICES TO PROPERTIES ARE INTERRUPTED.

WATER-SEWER CONSTRUCTION REQUIREMENTS

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES CONSTRUCTION STANDARDS & SPECIFICATIONS AND SHALL BE APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL SERVICES. UPON PHYSICAL INSPECTION, THE COUNTY RESERVES THE RIGHT TO REJECT THE USE OF ANY MATERIAL FOUND TO BE DEFECTIVE OR NOT CONFORMING TO THE STANDARDS AND SPECIFICATIONS.
2. BEFORE START OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE FOLLOWING INFORMATION AND/OR EVIDENCE OF COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND LAWS, TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES:
 - THE NAME AND ADDRESS OF THE CONTRACTOR HIRED TO WORK ON THE PROJECT. THE CONTRACTOR SHALL BE REGISTERED IN THE COMMONWEALTH OF VIRGINIA. SATISFACTORY EVIDENCE SHALL BE FURNISHED OF THE CONTRACTOR'S PRIOR EXPERIENCE AS PRIME CONTRACTOR IN THE CONSTRUCTION OF WATER MAINS AND/OR SANITARY SEWER INSTALLATIONS. FURTHER, THE CONTRACTOR SHALL FURNISH A LETTER WITH A LIST OF MATERIALS AND SUPPLIERS FOR PROPOSED PROJECT.
 - A RIGHT-OF-WAY PERMIT IS REQUIRED TO WORK IN ARLINGTON COUNTY STREETS. IN INSTANCES OF EXCAVATIONS IN STATE RIGHT OF WAY, THE DATE AND NUMBER OF ALL PERMITS REQUIRED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) SHALL BE FURNISHED.
 - IF ANY EASEMENTS ARE NEEDED, TWO (2) COPIES OF THE DESCRIPTION OF SUCH EASEMENT, AS ACTUALLY RECORDED, SHALL BE FURNISHED, INCLUDING THE PLACE, DATE AND REFERENCE OF SUCH RECORDATION PRIOR TO PLAN APPROVAL.
 - WRITTEN NOTICE OF TENTATIVE STARTING DATE OF CONSTRUCTION, WHICH SHALL BE A MINIMUM OF ONE (1) WEEK FOLLOWING THE DATE OF NOTICE. IN ADDITION, THE CONTRACTOR SHALL FURNISH THE NAMES AND TELEPHONE NUMBERS OF TWO (2) RESPONSIBLE PERSONS WHO CAN BE CONTACTED IN CASE OF EMERGENCY.
 - EXISTING WATER SERVICES MAY BE ALLOWED FOR CONSTRUCTION PURPOSES ONLY WITH PRIOR APPROVAL OF ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES. IN THESE CASES, INSTALLATION OF A WATER METER FOR "WATER ONLY" USE SHALL BE REQUESTED BY CALLING THE UTILITY SERVICES OFFICES AT (703) 228-6570. THE METER WILL NOT BE PROVIDED WITHOUT EVIDENCE THAT THE CONTRACTOR HAS INSTALLED AN ASSE-1013 APPROVED, REDUCED-PRESSURE, BACKFLOW PREVENTION (HIGH HAZARD) DEVICE PER THE ARLINGTON COUNTY PLUMBING CODE.
 - CONSTRUCTION SHALL NOT BEGIN UNTIL THE ABOVE ITEMS HAVE BEEN COMPLETED AND THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES HAS APPROVED THE STARTING DATE AND ARRANGEMENTS HAVE BEEN MADE FOR THE REQUIRED INSPECTION SERVICE.
3. ALL CONSTRUCTION SHALL BE ACCOMPLISHED FROM APPROVED PLANS, SPECIFICATIONS AND CUT SHEETS SUBMITTED BY A REGISTERED ENGINEER AND APPROVED BY THE COUNTY. TO AVOID CONSTRUCTION DELAYS ALL NECESSARY TEST HOLE INFORMATION SHALL BE OBTAINED PRIOR TO PLAN APPROVAL. WATER MAIN VALVES, METERS AND APPURTENANCES SHALL ONLY BE OPERATED BY ARLINGTON COUNTY WATER PERSONNEL.
4. NO EXISTING WATER MAINS, FIRE HYDRANTS, OR SANITARY SEWERS MAY BE TAKEN OUT OF SERVICE OR MADE INACCESSIBLE BY THE CONTRACTOR WITHOUT THE PRIOR APPROVAL FROM THE DEPARTMENT OF ENVIRONMENTAL SERVICES.
5. SANITARY SEWER LATERALS ARE PRIVATELY OWNED AND MAINTAINED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING LATERALS WITHIN THE LIMITS OF CONSTRUCTION. APPROPRIATE PERMITS AND INSPECTIONS FOR WORK ON ANY LATERALS SHALL BE OBTAINED FROM THE INSPECTION SERVICES DIVISION. ANY LATERALS ABANDONED WITH THE PROJECT SHALL BE CAPPED AT THE SEWER MAIN.
6. IN CASES WHERE A PROPOSED SANITARY SEWER IS TO BE CONNECTED TO AN EXISTING SANITARY MANHOLE, THE EXISTING MANHOLE SHALL BE RECONSTRUCTED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY THE COUNTY TO MEET THE CURRENT STANDARDS. ALL NEW CONNECTIONS TO THE EXISTING MANHOLES SHALL BE CORE DRILLED WITH BOOT JUST ABOVE THE EXISTING BENCH AND THE FLOW CHANNELS RESHAPED AS NEEDED.
7. UPON COMPLETION OF CONSTRUCTION, ALL FINAL TESTS, AS REQUIRED, SHALL BE PERFORMED IN THE PRESENCE OF THE COUNTY'S REPRESENTATIVE. WATER AND SEWER SERVICE CONNECTIONS SHALL NOT BE MADE UNTIL THE WATER AND/OR SEWER MAINS AND APPURTENANCES HAVE BEEN APPROVED AND ACCEPTED BY ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR DECHLORINATING ALL CHLORINATED WATER, REGARDLESS OF THE CONCENTRATION. ALL SUPER CHLORINATED WATER REQUIRES A DECHLORINATION PLAN THAT SHALL BE SUBMITTED TO AND APPROVED BY ARLINGTON COUNTY. THIS PLAN SHALL DESCRIBE HOW AND WHERE THE WATER IS TO BE DISCHARGED.
8. THE CONTRACTOR SHALL MAINTAIN BACKFILL FOR UTILITY EXCAVATIONS UNTIL ARLINGTON COUNTY HAS FINALLY ACCEPTED THE PROPOSED WATER AND/OR SEWER MAIN. ALSO, ALL SURFACES OVER THE UTILITY EXCAVATIONS SHALL EITHER BE RESTORED TO THE ORIGINAL CONDITION OR FINISHED AS PER THE PROPOSED DESIGN BEFORE THE ACCEPTANCE OF THE PROJECT. PAVEMENT PATCHING FOR UTILITY CUTS IN THE PUBLIC STREETS SHALL BE PERFORMED IN ACCORDANCE WITH ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES CONSTRUCTION STANDARDS AND SPECIFICATIONS OR AS PER VDOT ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS DEPENDING UPON THE STREET OWNERSHIP. PRIOR TO FINAL PAVING, THE CONTRACTOR SHALL ADJUST ALL EXISTING VALVE BOXES AND SANITARY SEWER MANHOLE FRAME AND COVERS AS PER COUNTY STANDARDS, REMOVE ALL ABANDONED SANITARY MANHOLES AND VALVE BOXES OVER THE ABANDONED WATER MAINS, ABANDON ALL PIPES IN ACCORDANCE WITH COUNTY STANDARDS AND COMPLETE ALL NECESSARY WATER MAIN "CUT AND CAPS."
9. UPON COMPLETION, APPROVAL, AND ACCEPTANCE OF WATER AND/OR SEWER MAINS AND APPURTENANCES, THE CONTRACTOR SHALL SUBMIT A TELEVISION INSPECTION AND REPORT ON A DVD IN A COUNTY APPROVED FORMAT. PRIOR TO ANY BOND REDUCTION/RELEASE OR APPROVAL/ACCEPTANCE OF WATER AND/OR SEWER MAINS AND APPURTENANCES, THE CONTRACTOR'S REGISTERED ENGINEER SHALL SUBMIT TO ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, A SET OF MYLAR TRACINGS AND CD WITH PDF FILE FORMAT THAT SHOWS THE AS-BUILT CONDITIONS PER THE COUNTY STANDARDS AND A SIGNED STATEMENT CONFIRMING THAT THE WORK, AS INDICATED, IS ACCEPTABLE TO THE ENGINEER.
10. PRIOR TO THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REQUEST TO THE UTILITY SERVICES IN WRITING FOR THE DISCONTINUATION OF ALL EXISTING WATER SERVICES (WHERE APPLICABLE) AT WHICH TIME THE COUNTY WILL REMOVE THE WATER METER AND ISSUE A FINAL BILL. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING METER BOXES RELATED TO THE SERVICES BEING DISCONTINUED AND DISCONNECTING EXISTING WATER SERVICES AT THE MAIN BY EXCAVATING, TURNING OFF THE CORPORATION STOP AND DISCONNECTING THE SERVICE FROM THE CORPORATION STOP.

DRAINAGE

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

CONSTRUCTION

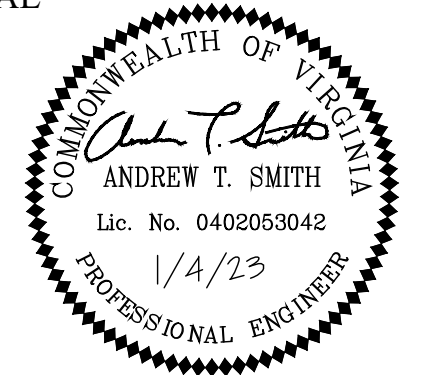
1. SUBMITTALS ON MATERIALS FOR THIS PROJECT SHALL BE PROVIDED TO AC FOR APPROVAL PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
2. EXISTING VEGETATION SURROUNDING THE CONSTRUCTION AREA SHALL REMAIN IN A NATURAL STATE. TREES NEAR THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH TREE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



DEPARTMENT OF ENVIRONMENTAL SERVICES

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SEAL



APPROVALS DATE

<i>[Signature]</i>	1/4/2023
TRAFFIC SIGNAL ENGINEER	
<i>[Signature]</i>	01/06/2023
TRAFFIC ENGINEERING MANAGER	
<i>[Signature]</i>	1/18/23
WATER SEWER STREETS BUREAU CHIEF	
<i>[Signature]</i>	1/11/2023
TEKO BUREAU CHIEF	
<i>[Signature]</i>	01/11/2023
TRANSPORTATION DIRECTOR	

REVISIONS DATE

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**

GENERAL NOTES AND DETAILS

ID #236
TE02

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

Plotted: January 19, 2023
 Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

Sheet
C-0003

EROSION AND SEDIMENT CONTROL

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

GENERAL LAND CONSERVATION NOTES

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

MINIMUM STANDARDS REVIEW

- MS-1 TEMPORARY AND PERMANENT STABILIZATION HAS BEEN ADDRESSED.
MS-2 THERE ARE NO STOCKPILES PROPOSED WITH THIS PLAN.
MS-3 MAINTENANCE OF PERMANENT STABILIZATION HAS BEEN ADDRESSED, SEE PERMANENT STABILIZATION.
MS-4 SEDIMENT TRAPPING FACILITIES ARE TO BE INSTALLED AS THE FIRST STEP IN LAND DISTURBING ACTIVITIES. MAINTENANCE OF FACILITIES ARE DETAILED UNDER THE EROSION AND SEDIMENT CONTROL NOTES.
MS-5 THERE ARE NO EARTHEN STRUCTURE PROPOSED WITH THIS PROJECT.
MS-6 THERE ARE NO SEDIMENT BASINS PROPOSED WITH THIS PROJECT.
MS-7 THERE ARE NO CUT AND FILL SLOPES PROPOSED WITH THIS PROJECT.
MS-8 THERE ARE NO PAVED FLUMES, CHANNELS, OR SLOPE DRAINS PROPOSED WITH THIS PROJECT.
MS-9 THERE ARE NO WATER SEEPS ANTICIPATED WITH THIS PROJECT.
MS-10 INLET PROTECTION IS PROVIDED ON INLETS DOWN GRADIENT FROM DISTURBED AREAS.
MS-11 ADEQUATE OUTLET PROTECTION EXIST AT ALL EXISTING OUTLETS. THERE ARE NO NEW OUTLETS PROPOSED.
MS-12 THERE ARE NO IN-STREAM CONSTRUCTION MEASURES PROPOSED WITH THIS PROJECT.
MS-13 THERE ARE NO STREAM CROSSINGS PROPOSED WITH THIS PROJECT.
MS-14 THERE ARE NO WATERCOURSES BEING CROSSED WITH THIS PROJECT.
MS-15 THERE ARE NO IMPACTS TO IN-STREAM IMPROVEMENTS PROPOSED WITH THIS PROJECT.
MS-16 UTILITY TRENCHING HAS BEEN ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.
MS-17 PREVENTING SOIL FROM BEING TRACKED ON THE STREETS IS ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.
MS-18 THE REMOVAL OF TEMPORARY PRACTICES HAS BEEN ADDRESSED IN THE EROSION AND SEDIMENT CONTROL NOTES.
MS-19 THIS PROJECT REDUCES THE IMPERVIOUS AREA AND DECREASE THE RUNOFF FROM THE SITE AREA. DOWNSTREAM OUTFALL POINTS ARE ADEQUATELY PROTECTED AND ARE NOT ACTIVELY ERODING. OUTFALL POINTS HAVE BEEN ANALYZED AND FOUND TO BE ADEQUATE IN ACCORDANCE WITH THE STATE OUTFALL REQUIREMENTS.

MS4 NOTES

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

Pre-Storm Erosion and Sediment Control 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. These supplementary practices are in addition to those shown in an ESC plan. ESC 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.

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 prevent sediment from leaving the construction site.

Exposed slopes and soil

- Exposed slopes not at the final stabilization phase shall be covered with tarps, plastic sheeting, or erosion control matting. Covering material shall be properly secured/anchored.
Controls shall be installed to prevent concentrated flow down an exposed slope. Berms or diversion dikes shall be installed at the top of cut / exposed slopes to direct storm flow around the disturbed area.
Exposed slopes at the final stabilization phase shall be stabilized using 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.
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.

Stockpiles

- Stockpiled soil and other loose materials that can be washed away shall be covered with a tarp, plastic sheeting, or other stabilization matting. The cover must be properly secured / anchored down to prevent it from being blown off and exposing materials to rain. Controls such as hay bales or booms should be placed along the perimeter of the stock pile (downhill side).

Inlet protection

- Inlet protection controls shall be inspected to ensure they are functioning properly and flooding will not occur. Clogged or damaged controls must be replaced immediately. Ensure controls allow for overflow / bypass of stormwater runoff during significant storm events.

In addition to these pre-storm actions, all erosion and sediment control (ESC) measures must be checked daily and after each significant rainfall.

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION:
S CARLIN SPRINGS ROAD IS AN EXISTING INTERSECTION ALONG S CARLIN SPRINGS ROAD AT 3RD ST S. ALL CONSTRUCTION WORK WILL BE FOR THE DURATION OF 80 TOTAL CALENDAR (60 WORK DAYS). WORK DAYS NOT TO INCLUDE ARLINGTON COUNTY PUBLIC HOLIDAYS.

TOTAL DISTURBED AREA (FOR ESC REQUIREMENTS): 2228.70 SF (0.05 AC)
PRE DEVELOPMENT IMPERVIOUS AREA (FOR SWM REQUIREMENTS): 81.36 SF
POST DEVELOPMENT IMPERVIOUS AREA (FOR SWM REQUIREMENTS): 99.76 SF
POTOMAC RIVER- UPPER LONG BRANCH AND FOUR MILE RUN WATERSHED (HUC12: 020700100301, VAHU6: PL25)

EXISTING CONDITIONS:
S CARLIN SPRINGS ROAD IS A MULTI-LANE, CURB AND GUTTER ROAD WITH SIDEWALKS ON BOTH SIDES. OVERHEAD UTILITIES ARE LOCATED ALONG MOST OF THE ROAD. THE RIGHT OF WAY INCLUDES STREET TREES, STREET LIGHTING, STORM DRAINAGE STRUCTURES AND PIPES, SANITARY SEWER MAINS, WATER MAINS, NATURAL GAS, ELECTRIC LINES, COMMUNICATIONS LINES AND MASS TRANSIT STOP LOCATIONS. MINIMAL CHANGES TO THE EXISTING TOPOGRAPHY ARE PROPOSED WITH LIMITED AREAS OUTSIDE OF THE RIGHT-OF-WAY BEING IMPACTED. MOST OF THE EXISTING VEGETATION WITHIN THE PROJECT LIMITS SHALL BE REPLACED. THERE ARE MINOR NEW CUT AND FILL SLOPES PROPOSED.

ADJACENT AREAS:
S CARLIN SPRINGS ROAD IS BOUND ON BOTH SIDES WITH A MIXTURE OF RESIDENTIAL DEVELOPMENTS, MEDICAL FACILITIES, AND A SCHOOL. THE CONTRACTOR SHALL PROVIDE TO THE ARLINGTON COUNTY INSPECTOR PHOTOGRAPHS OF IMMEDIATE ADJACENT AREAS TO DOCUMENT ADJACENT OFFSITE CONDITIONS PRIOR TO INSTALLING PERIMETER EROSION CONTROLS.

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

SOILS:
THE SOILS IN THE PROJECT AREA HAVE BEEN PRIMARILY MAPPED AS URBAN LAND - UDORTHERNS COMPLEX WHICH ARE SOILS THAT HAVE BEEN PREVIOUSLY DISTURBED AND NOT CHARACTERIZED.

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

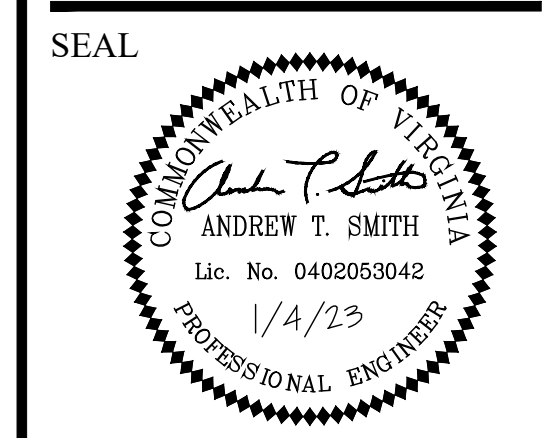
EROSION AND SEDIMENT CONTROL MEASURES:
THE FOLLOWING EROSION CONTROLS SHALL BE USED DURING THIS PROJECT.
1. STD. 3.05 SILT FENCE - SILT FENCE AND SUPER SILT FENCE SHALL BE USED IN ACCORDANCE WITH THIS STANDARD AND AS SPECIFIED BY ARLINGTON COUNTY. SEE DETAIL SHEET C-0005. SILT FENCE OR SUPER SILT FENCE SHALL BE USED DOWN GRADIENT FROM DISTURBED AREAS AS SHOWN ON THE PLANS AND AS NEEDED TO PREVENT THE TRANSPORTATION OF SEDIMENT BEYOND THE PROJECT LIMITS. IT SHALL BE INSTALLED PRIOR TO STARTING LAND DISTURBANCE AND SHALL BE REMOVED AFTER THE DISTURBED AREA HAS HAD TEMPORARY OR PERMANENT STABILIZATION ESTABLISHED. COORDINATE REMOVAL WITH THE ARLINGTON COUNTY INSPECTOR.
2. STD. 3.07 STORM DRAIN INLET PROTECTION - STORM DRAINAGE INLETS SHALL BE PROTECTED IN ACCORDANCE WITH THIS STANDARD. INLETS DOWN GRADIENT FROM LAND DISTURBING ACTIVITIES SHALL HAVE INLET PROTECTION INSTALLED PRIOR TO STARTING LAND DISTURBANCE. CARE SHALL BE TAKEN AS TO NOT INTERFERE WITH TRAFFIC ON S CARLIN SPRINGS ROAD WHEN SELECTING THE TYPE OF INLET PROTECTION TO BE USED. THE CONTRACTOR IS TO REMOVE SILT BUILDUP PROMPTLY SO THAT SILT IS NOT TRACKED ALONG THE ROAD. REMOVAL OF THE INLET PROTECTION SHALL OCCUR ONCE DISTURBED AREA UP GRADIENT OF THE INLET HAVE BEEN STABILIZED AND IN COORDINATION WITH THE ARLINGTON COUNTY INSPECTOR.
3. STD. 3.26 DEWATERING STRUCTURE - ALL DISCHARGES FROM DEWATERING OPERATIONS SHALL BE IN ACCORDANCE WITH THIS STANDARD. DEWATERING CONTROLS SHALL BE USED AT ALL DEWATERING DISCHARGES. THE CONTRACTOR IS TO NOTIFY THE ARLINGTON COUNTY INSPECTOR PRIOR TO DISCHARGING DEWATERING EFFLUENT OF THE LOCATION AND TYPE OF FILTER OR CONTROL THAT IS TO BE USED AND FOR HOW LONG IT WILL BE USED.
4. STD. 3.31 TEMPORARY SEEDING - TEMPORARY SEEDING SHALL BE APPLIED IN ACCORDANCE WITH THIS STANDARD. TEMPORARY STABILIZATION IS REQUIRED WHEN AN AREA IS NOT TO BE WORKED WITHIN A 7 DAY PERIOD. THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE IN ORDER TO ESTABLISH A SURFACE PROTECTION TO EROSION. TEMPORARY SEEDING SHALL BE CARED FOR AS NECESSARY IN ORDER TO GENERATE A DENSE, HEALTHY STAND OF VEGETATION THAT WILL RESIST EROSION.
5. THE CONTRACTOR SHALL USE APPROPRIATE METHODS TO ESTABLISH PERMANENT STABILIZATION THAT ARE SIMILAR TO THE CONDITION THAT WAS PRESENT PRIOR TO STARTING LAND DISTURBANCE ACTIVITIES.
6. STD. 3.33 SODDING - ALL SODDING SHALL BE IN ACCORDANCE WITH THIS STANDARD. SODDED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE SOD HAS BEEN ESTABLISHED AND HAD TWO MOWING CYCLES. THE CONTRACTOR SHALL COORDINATE THE RELEASE OF MAINTENANCE OF SODDED AREAS WITH THE ARLINGTON COUNTY INSPECTOR AND THE LAND OWNER.
7. STD. 3.38 TREE PRESERVATION AND PROTECTION - TREE PROTECTION FENCING SHALL BE IN ACCORDANCE WITH THIS STANDARD AND ARLINGTON COUNTY'S TREE PROTECTION FENCE, PLAN. SEE THIS SHEET FOR DETAIL. TREE PROTECTION SHALL BE USED ALONG THE LIMITS OF DISTURBANCE WHERE AN OFFSITE TREE OR LANDSCAPED AREA MAY HAVE A CRITICAL ROOT ZONE THAT EXTENDS INTO THE LIMITS OF THIS PROJECT. THE ARLINGTON COUNTY URBAN FORESTER MAY REQUIRE ADDITIONAL TREE PRESERVATION AND PROTECTION BE INSTALLED PRIOR TO STARTING LAND DISTURBING ACTIVITIES. TREE PRESERVATION AND PROTECTION SHALL ONLY BE REMOVED WITH THE APPROVAL OF THE ARLINGTON COUNTY URBAN FORESTER.

PERMANENT STABILIZATION:
ALL DISTURBED AREAS BY THIS PROJECT SHALL BE STABILIZED WITH PERMANENT GROUND COVER UTILIZING STD. 3.33. SODDING IS THE REQUIRED GROUND COVER FOR AREAS THAT ARE CURRENTLY GRASS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL DISTURBED AREAS UNTIL FINAL ACCEPTANCE BY ARLINGTON COUNTY AND/OR LAND OWNER. THIS SHALL INCLUDE CUTTING THE GRASS TO MAINTAIN THE SAME APPEARANCE AS THE ADJOINING PROPERTY.

STORMWATER RUNOFF CONSIDERATIONS:
THIS PROJECT REDUCES THE OVERALL IMPERVIOUSNESS OF THE SITE AREA AND DOES NOT INCREASE SURFACE RUNOFF PATTERNS OR VOLUMES. NO FLOODING OR CHANNEL DEGRADATION IS ANTICIPATED DOWNSTREAM OF THE PROJECT DUE TO THE PROPOSED REDUCTION IN RUNOFF.

CALCULATIONS:
DETAILED CALCULATIONS SHOWING PRE AND POST DEVELOPMENT DRAINAGE AREAS, INLET COMPUTATIONS, PIPE CAPACITIES AND FLOWS ARE INCLUDED IN THIS SET OF PLANS.

Table 3.32-D: SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA. Columns: Minimum Care Lawn, High-Maintenance Lawn, General Slope (3:1 or less), Low-Maintenance Slope (Steeper than 3:1). Rows: Kentucky 31 or Turf-Type Tall Fescue, Improved Perennial Ryegrass, Kentucky Bluegrass, Red Top Grass, Seasonal Nurse Crop, Crownvetch, etc. Includes Total Lbs. Per Acre.



APPROVALS table with columns for Name, Title, and Date. Signatures of project manager, traffic engineer, water/sewer chief, and transportation director.

REVISIONS table with columns for Revision Number and Date.

Project Name and Location: S. Carlin Springs Road Signal Upgrades
GENERAL NOTES AND DETAILS
ID #236 TE02

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

Plotted: January 19, 2023
Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet C-0004

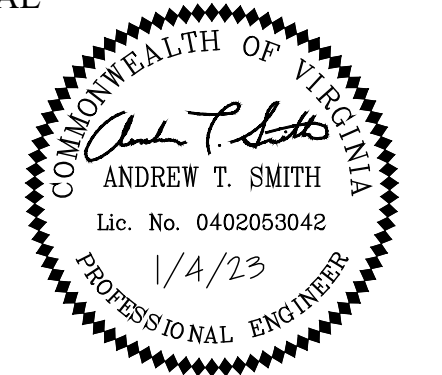
GENERAL DETAILS



DEPARTMENT OF ENVIRONMENTAL SERVICES

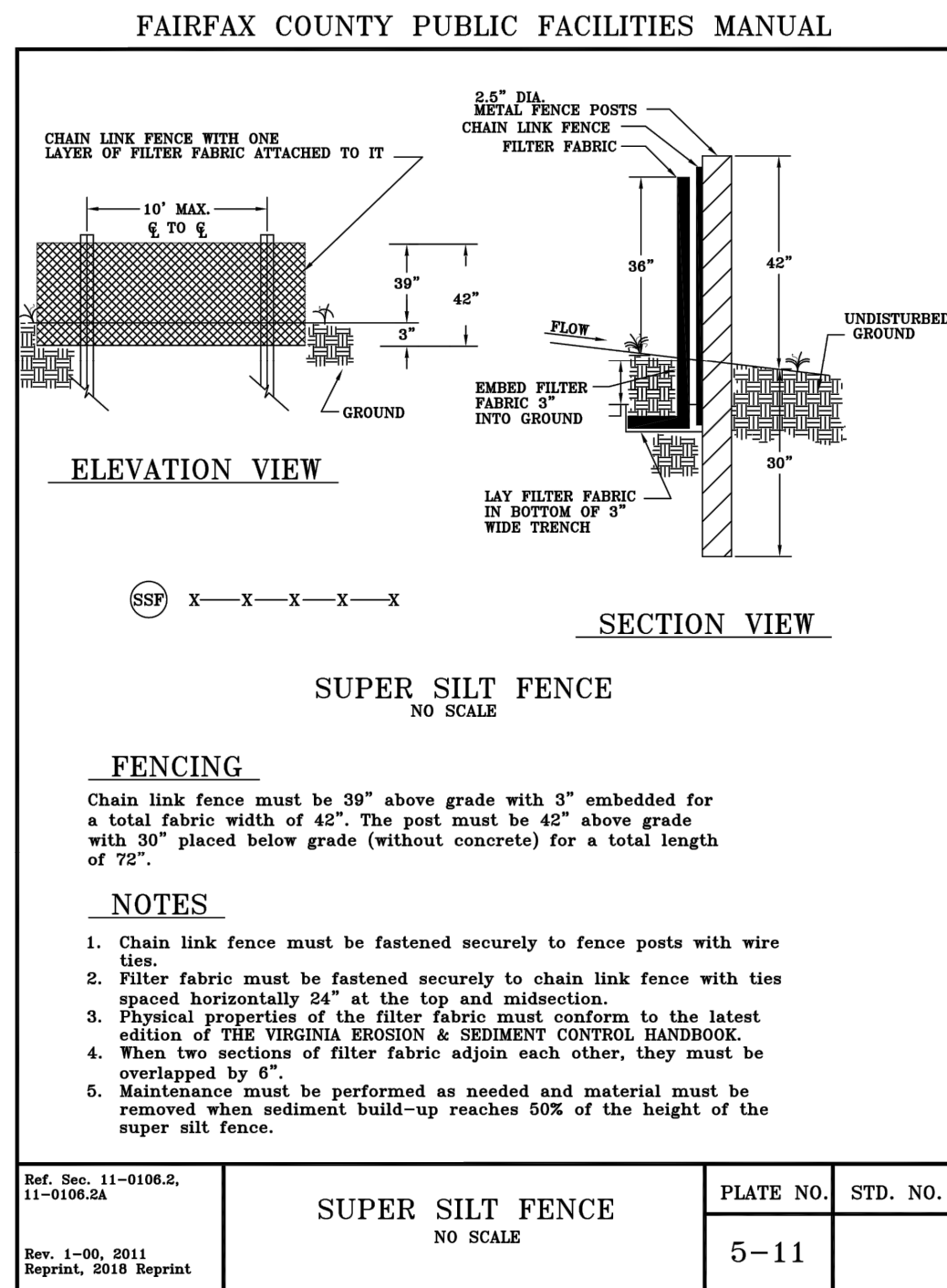
Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL



APPROVALS	DATE
<i>Grant Jacob</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>John Hubbs</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>John Hubbs</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>Dan Nabors</i> TE&O BUREAU CHIEF	1/11/2023
<i>W. Wang</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE



05/03/2021
date

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

Re: Erosion and Sediment Control Permit Application for:
Carlin Springs Road and 3rd Street / Carlin Springs Road and 6th Road
street address

lot, block, section subdivision
LDA-20434
permit number

Dear Mrs. Li:

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

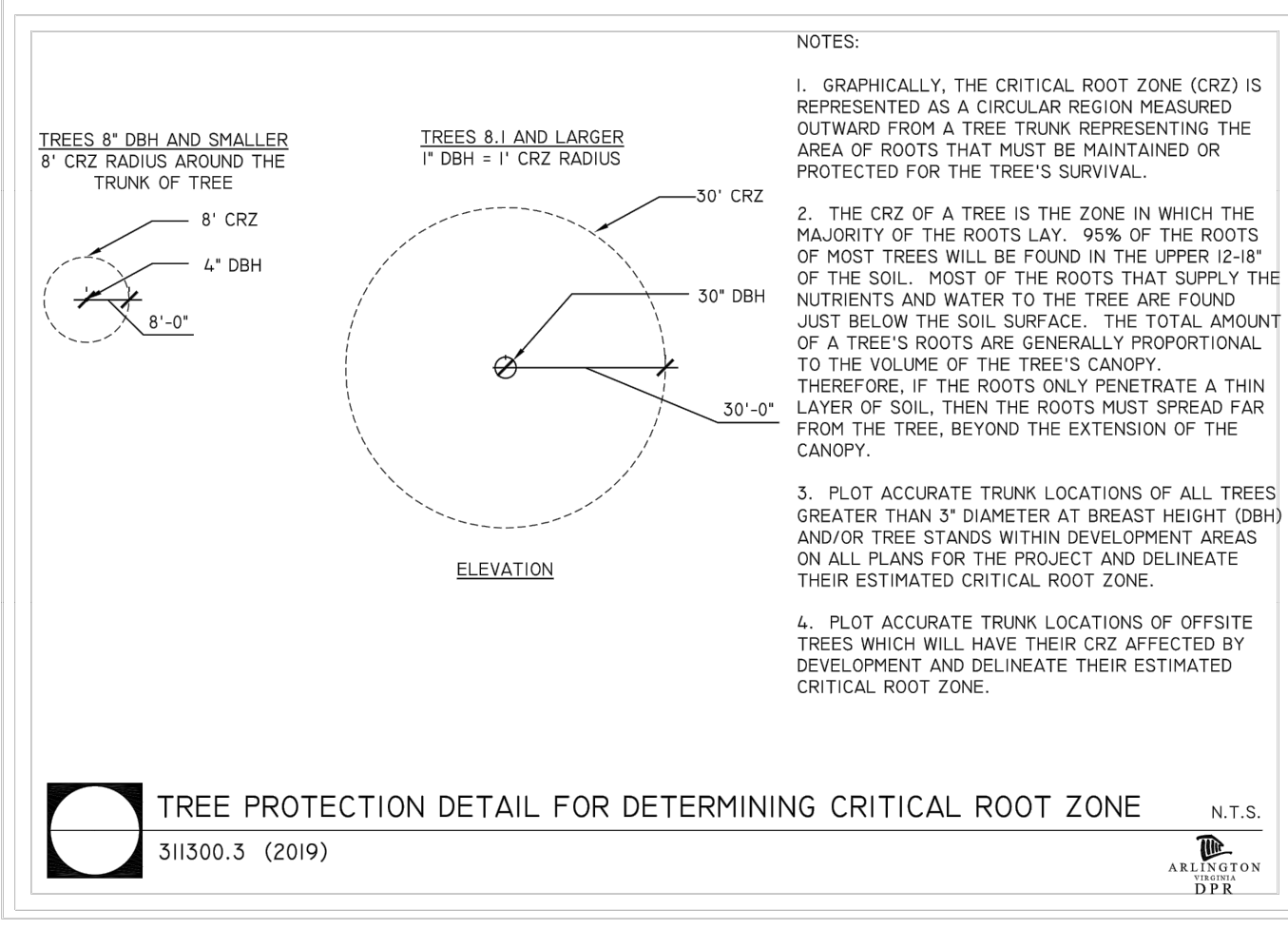
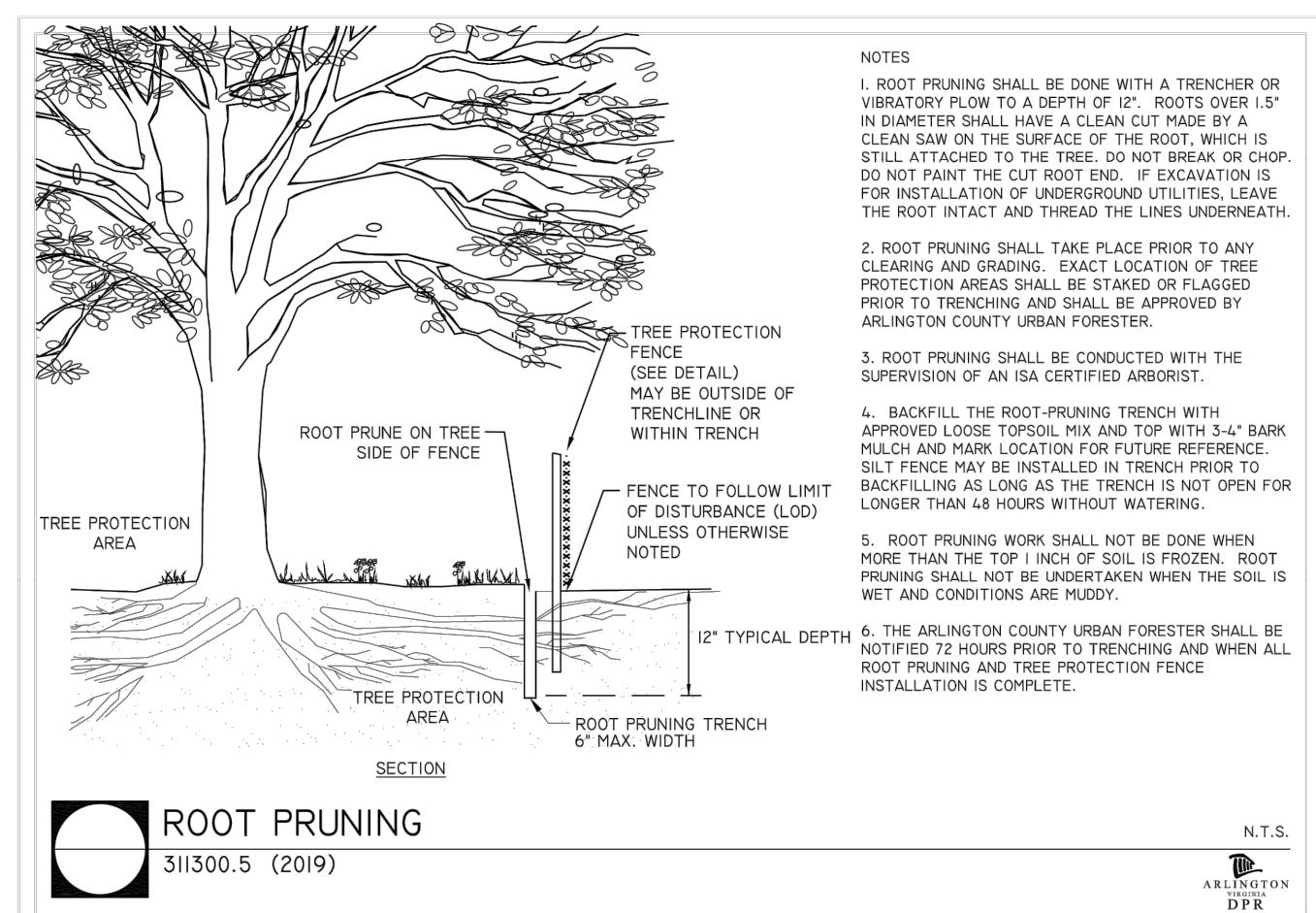
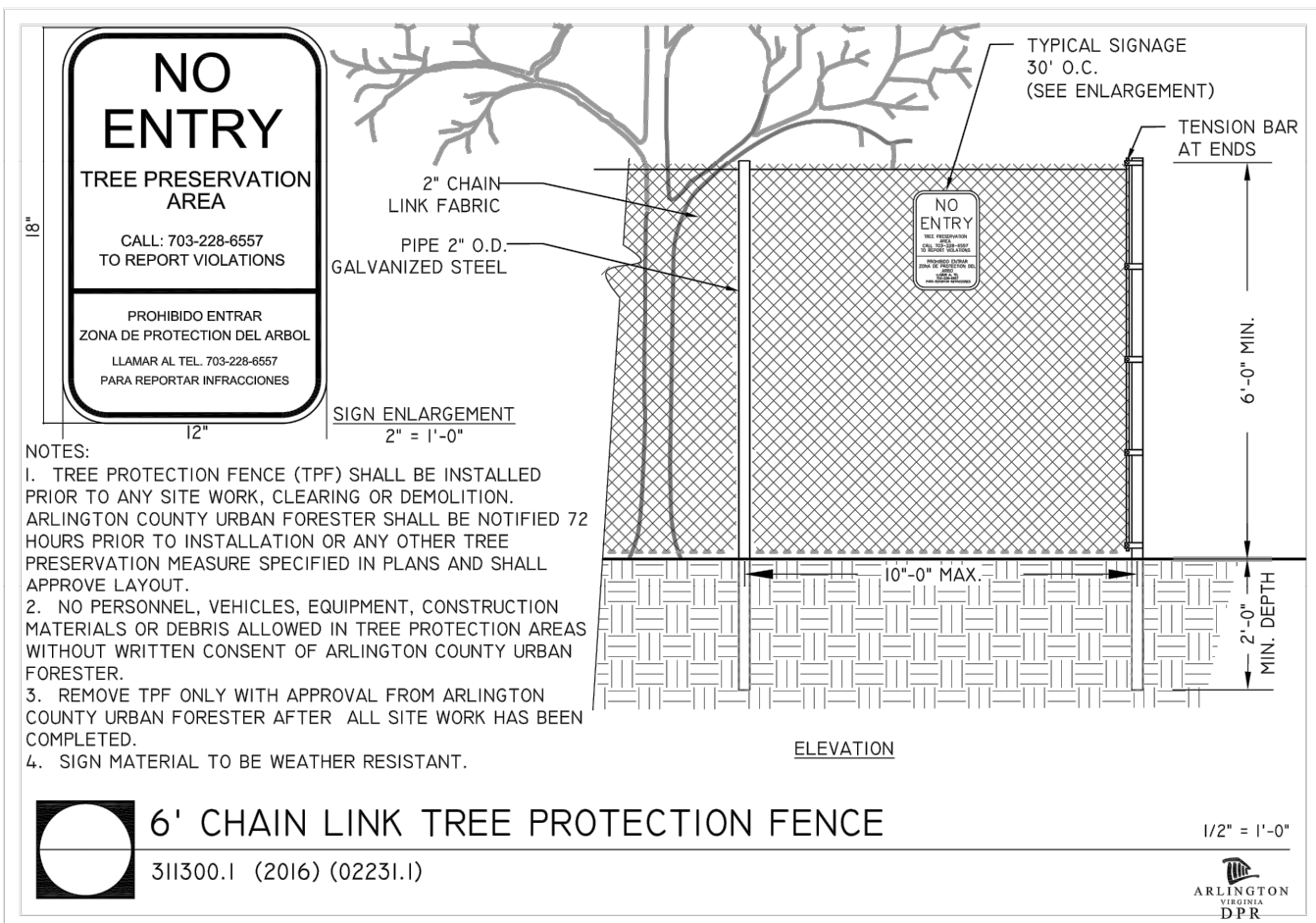
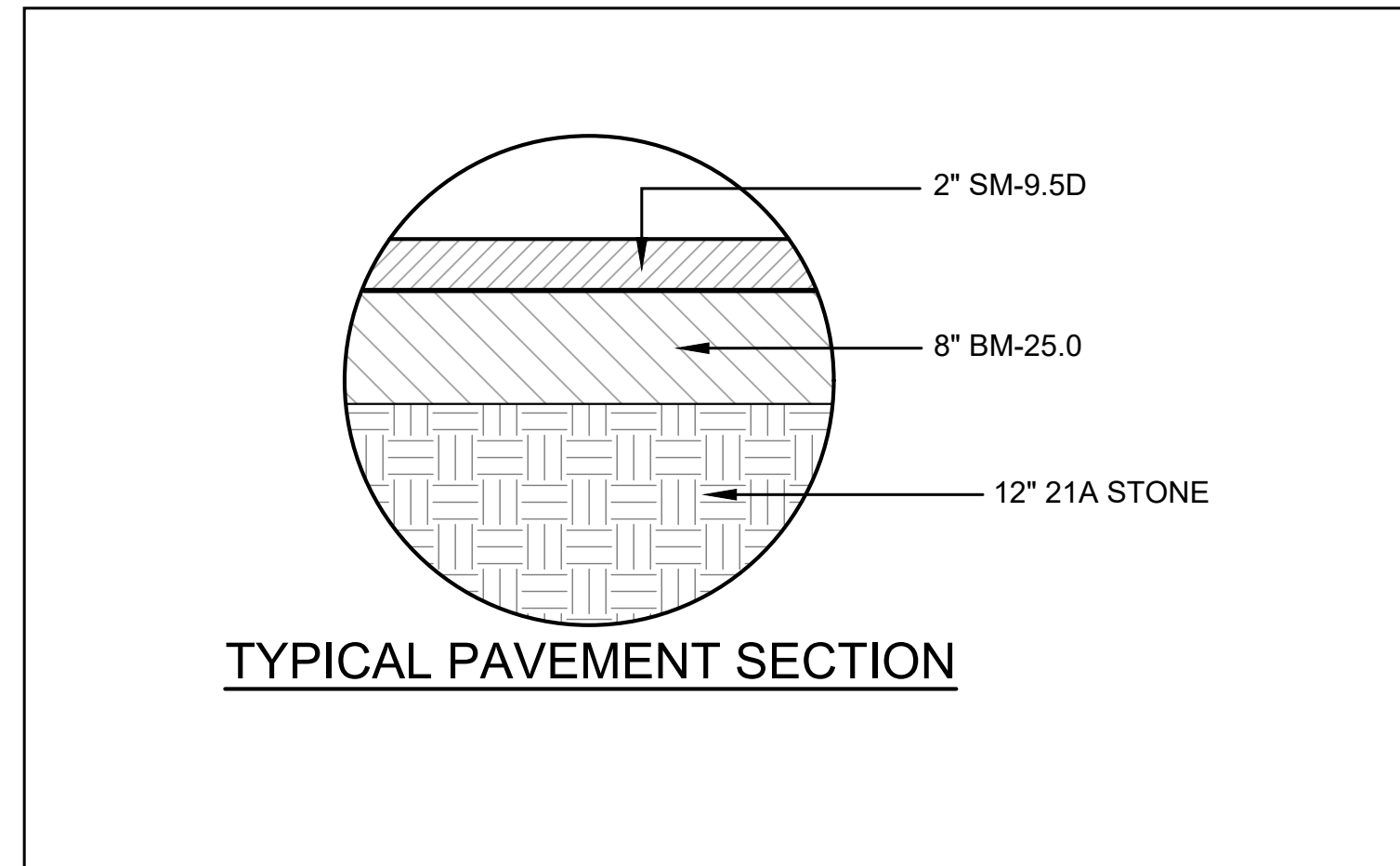
- Reviewing the erosion and sedimentation (E&S) plan for the project.
- Walking the site prior to construction to identify critical areas.
- Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of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

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

Sincerely,

Anup Kalle
signed

Anup Kalle
name printed
PE and 0402056432
professional registration (type and number)



Project Name and Location
S. Carlin Springs Road Signal Upgrades
GENERAL NOTES AND DETAILS
ID #236
TE02

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

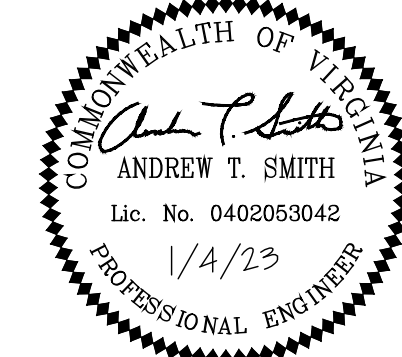
Plotted: January 19, 2023
Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-0005

SEAL



APPROVALS	DATE
<i>[Signature]</i>	1/4/2023
TRAFFIC SIGNAL ENGINEER	
<i>[Signature]</i>	01/06/2023
TRAFFIC ENGINEERING MANAGER	
<i>[Signature]</i>	1/18/23
WATER/SEWER STREETS BUREAU CHIEF	
<i>[Signature]</i>	1/11/2023
TEKO BUREAU CHIEF	
<i>[Signature]</i>	01/11/2023
TRANSPORTATION DIRECTOR	

REVISIONS	DATE

Project Name and Location
S. Carlin Springs Road Signal Upgrades

GENERAL NOTES AND DETAILS

ID #236
TE02

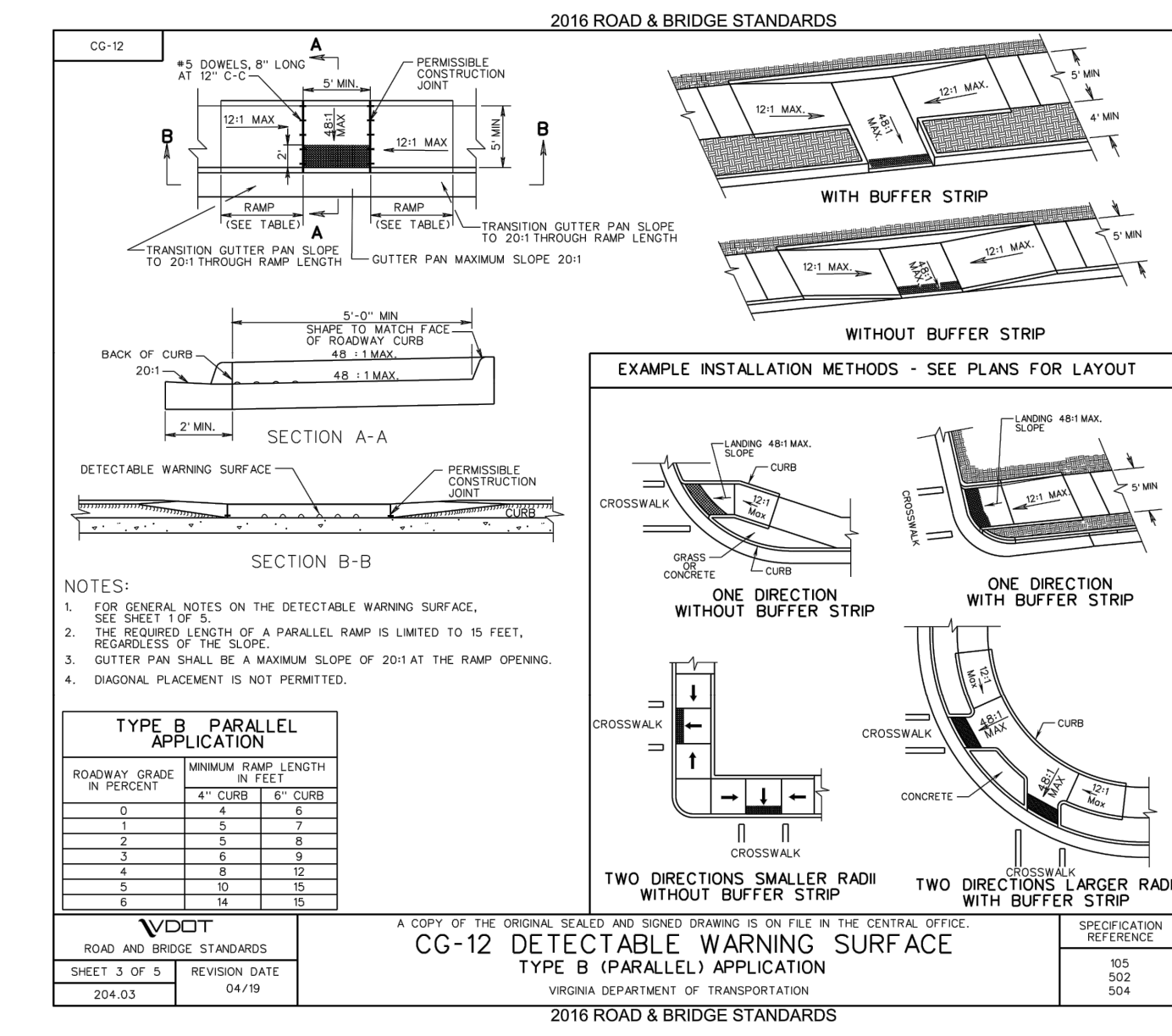
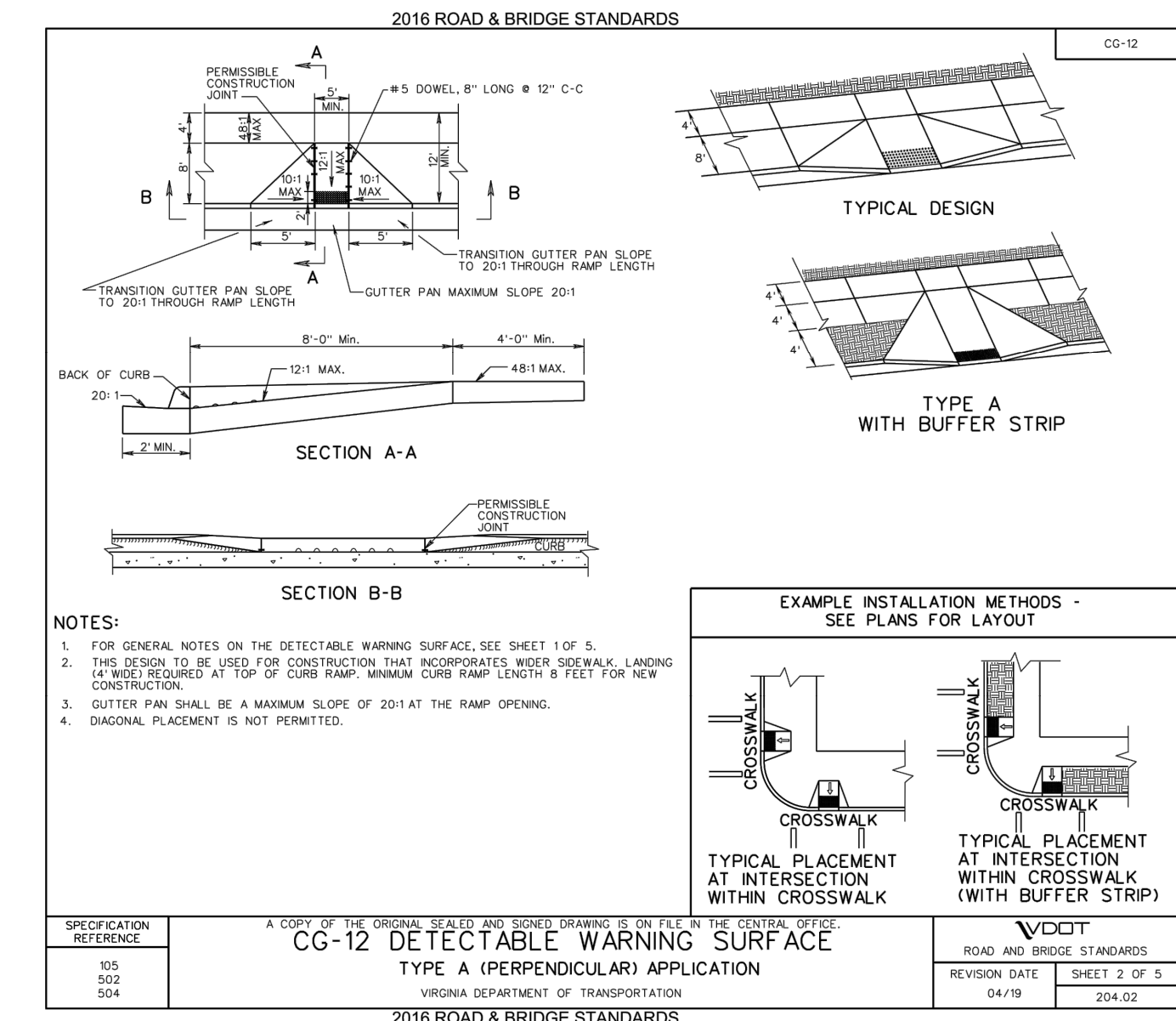
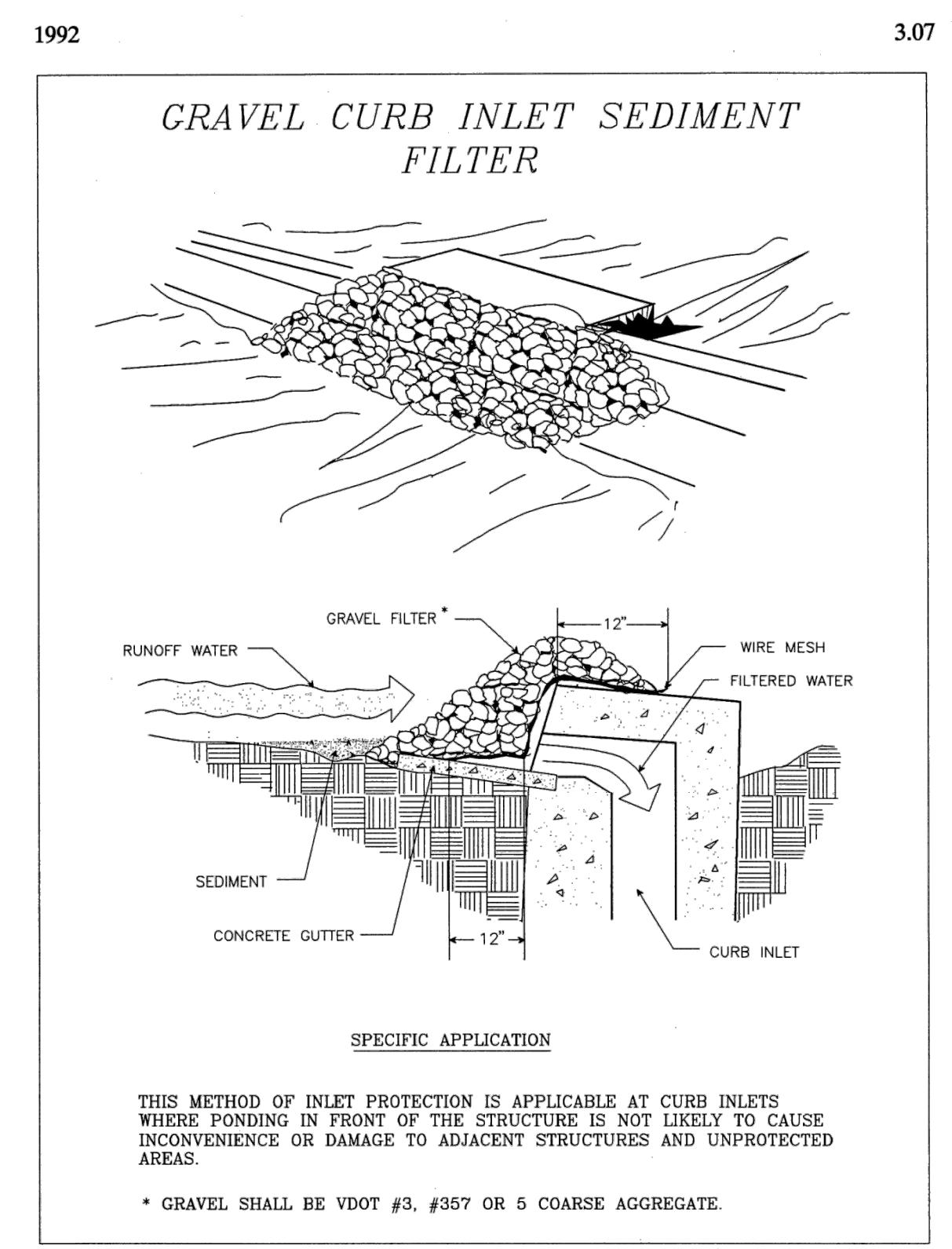
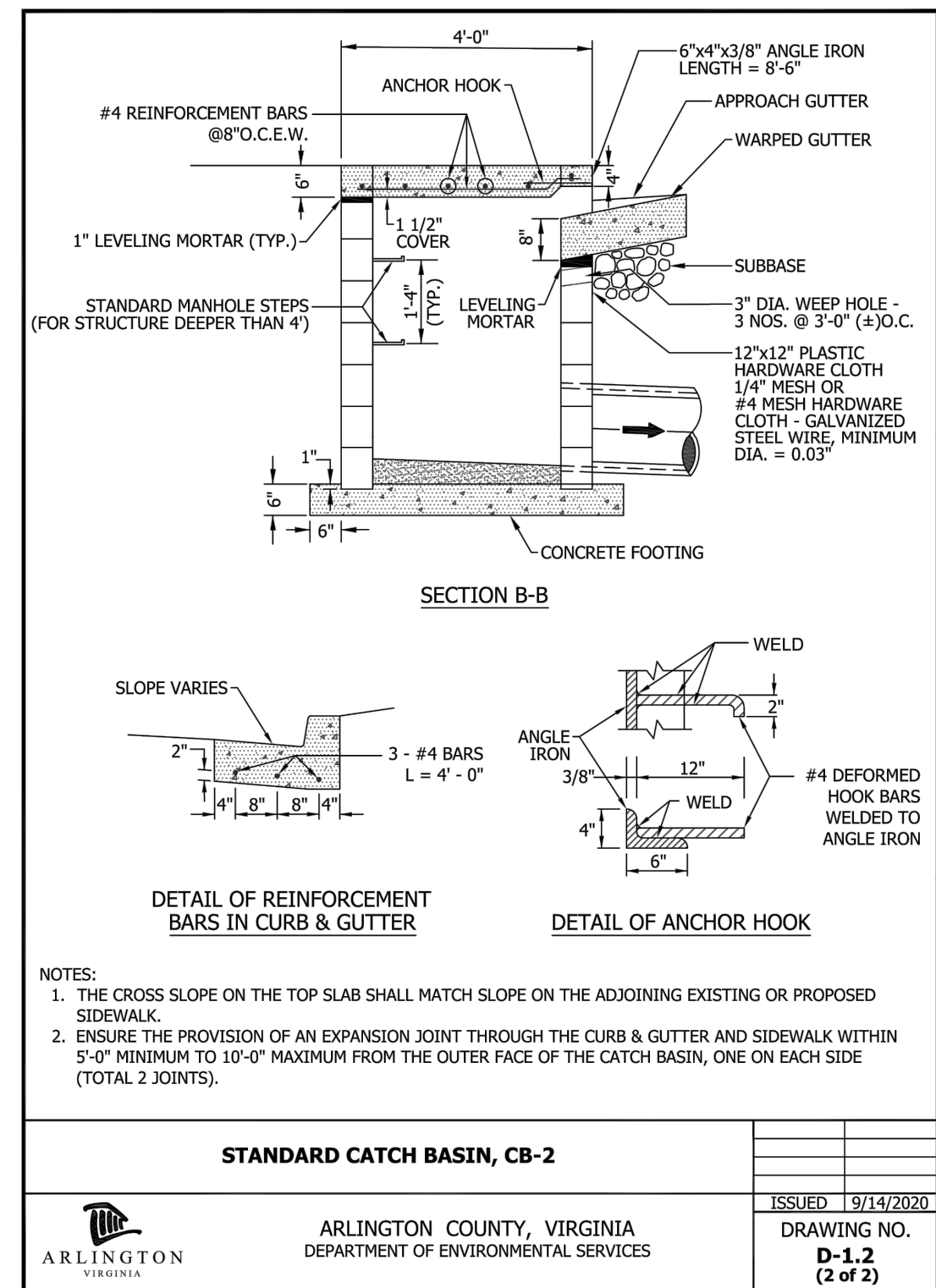
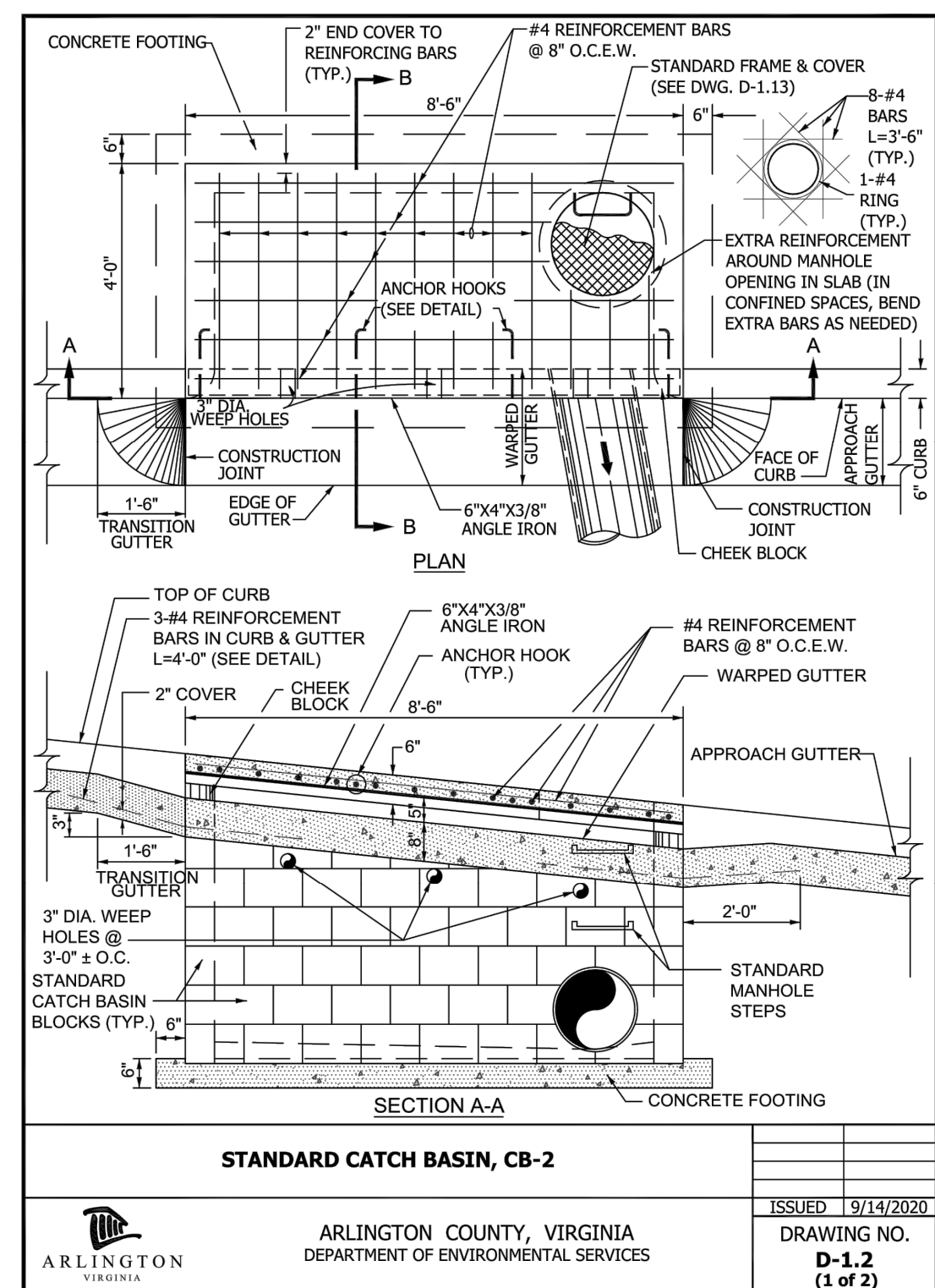
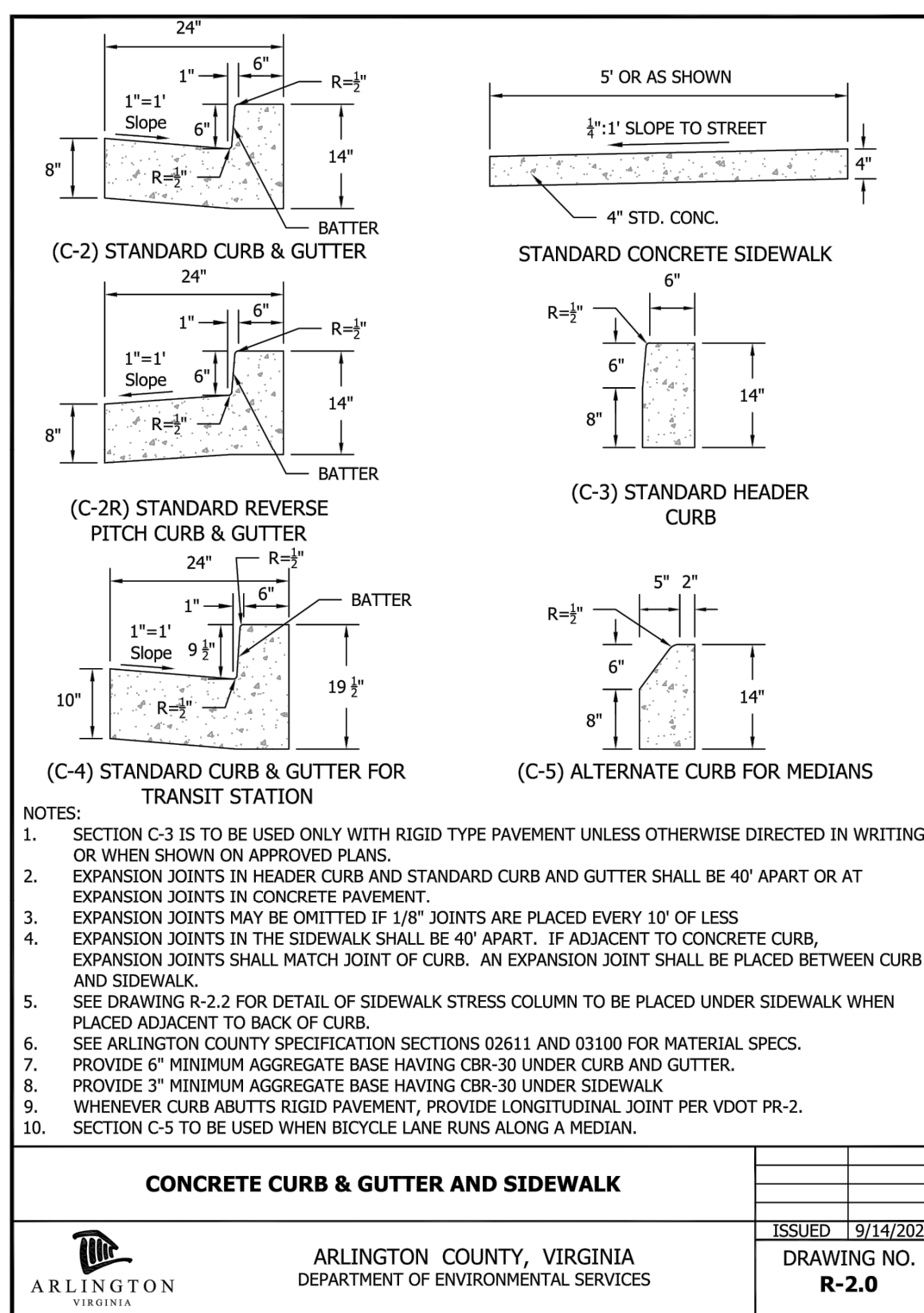
Designed: TEC
Drawn: TEC
Checked: GG
Miss Utility Transmittal #:

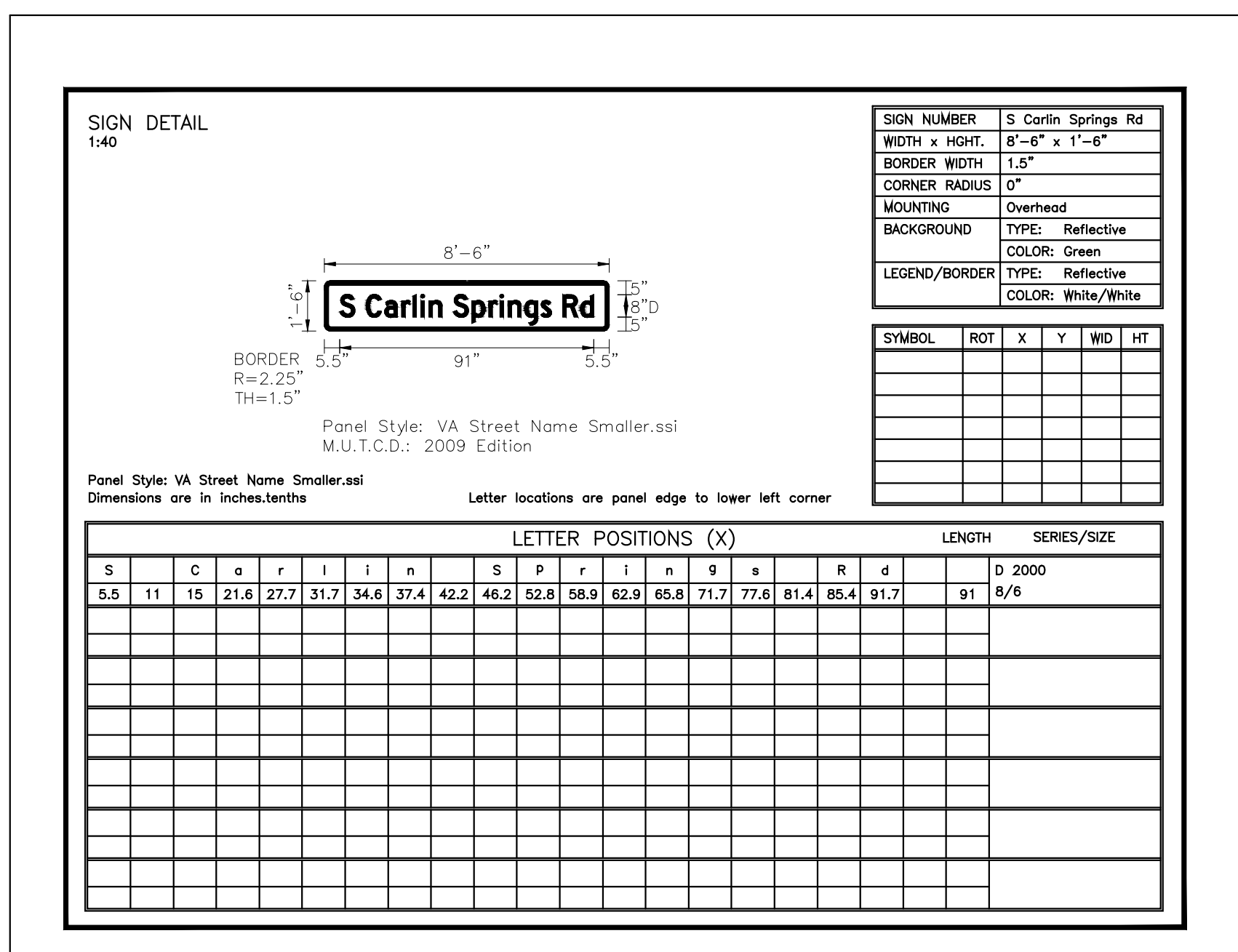
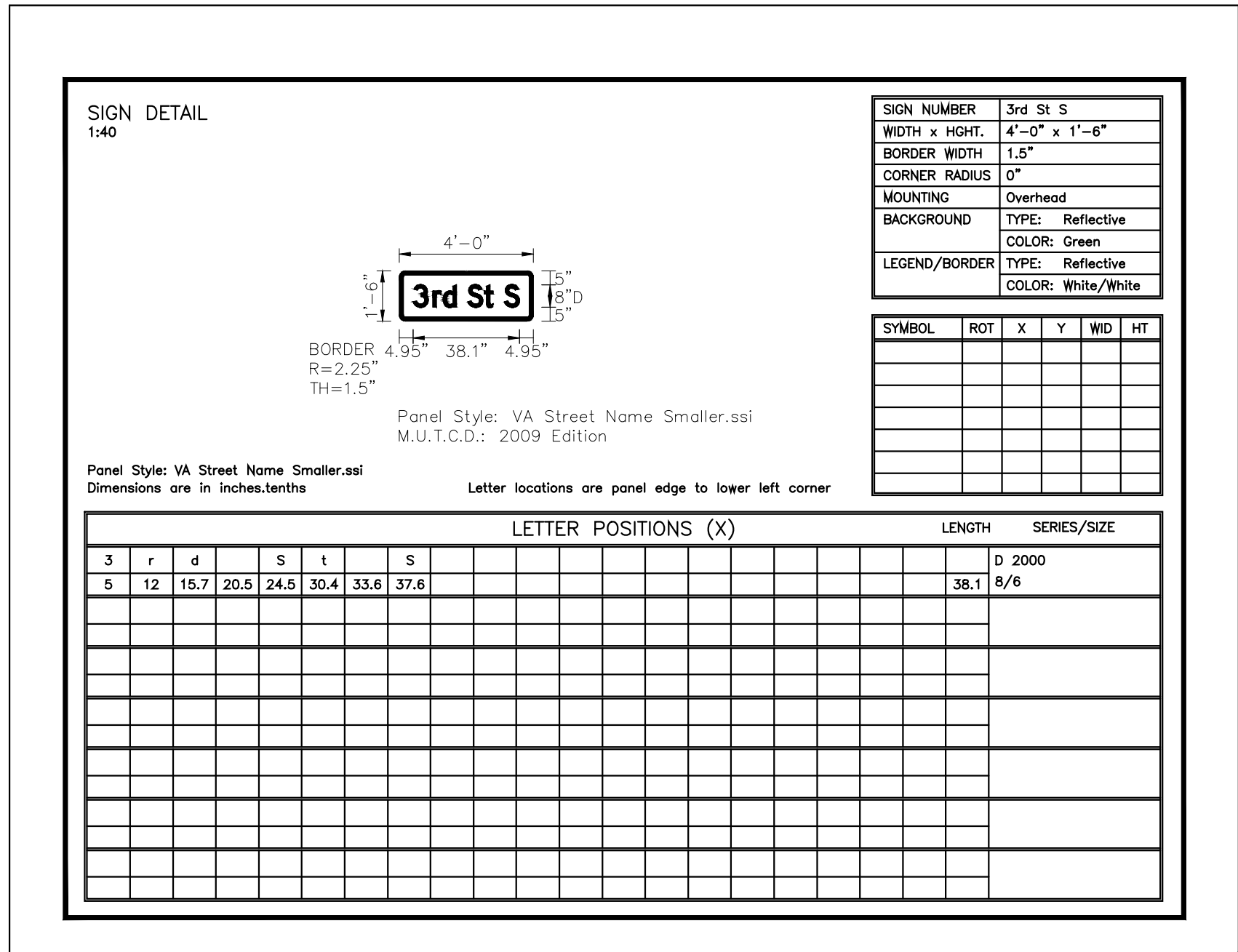
Plotted: January 19, 2023
Plotted by: Grant.Jacob

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

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Reston, Virginia 20191

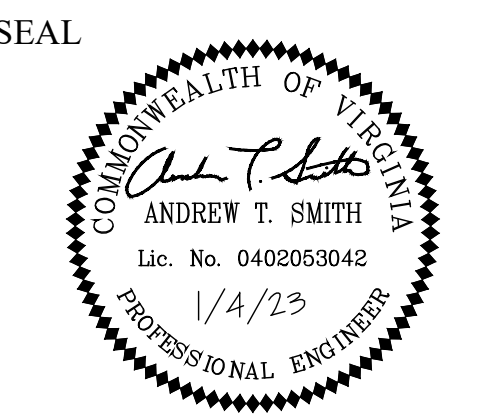
Sheet **C-0006**





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



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 SIGN DETAILS
 ID #236
 TE02

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

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

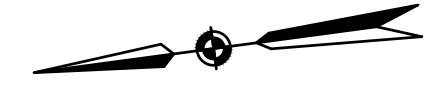
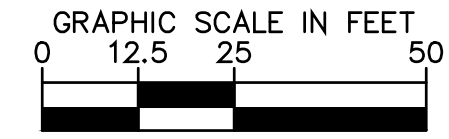
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 HOR. 1" = 25' VERT. N/A

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 11400 Commerce Park Drive, Suite 400
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Sheet
C-0007

REVISED: MARCH 03, 2020

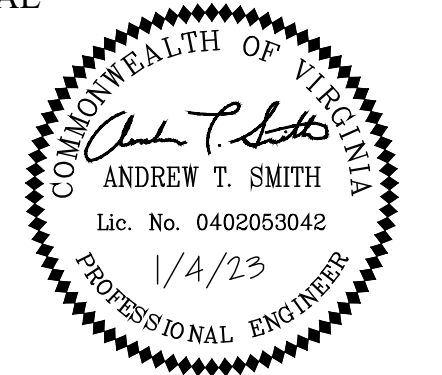
NOTE: EXISTING PAVEMENT WAS RESURFACED AND NEW MARKINGS WERE INSTALLED SINCE SURVEY WAS COMPLETED.



DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
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Fax: 703.228.3606

SEAL



APPROVALS DATE

TRAFFIC SIGNAL ENGINEER 1/4/2023

TRAFFIC ENGINEERING MANAGER 01/06/2023

WATER SEWER, STREETS BUREAU CHIEF 1/18/23

TE&O BUREAU CHIEF 1/11/2023

TRANSPORTATION DIRECTOR 01/11/2023

REVISIONS DATE

REVISIONS	DATE

Project Name and Location
S. Carlin Springs Road
Signal Upgrades
 EXISTING CONDITIONS PLAN AND PROFILE
 3RD STREET S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

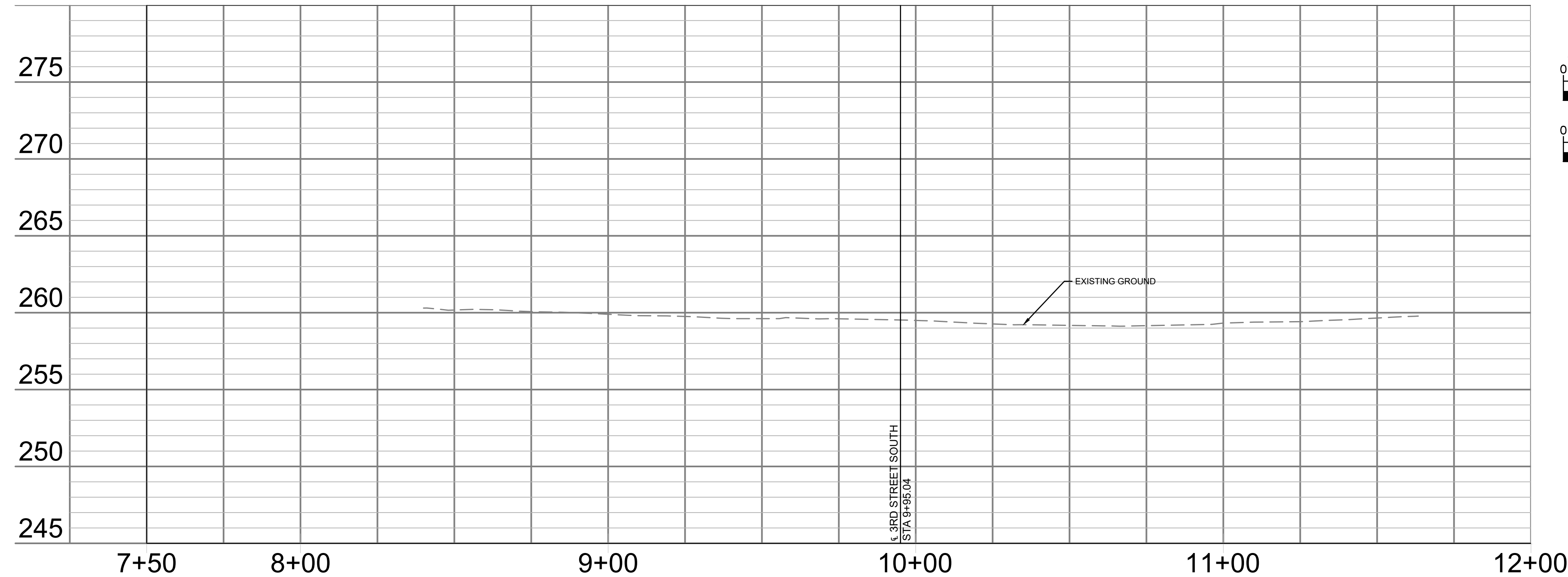
Designed: JGJ
Drawn: JGJ
Checked: GG
Miss Utility Transmittal #:

Plotted: January 19, 2023
Plotted by: Grant Jacob

Scale:
HOR. 1" = 25' VERT. 1" = 5'

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

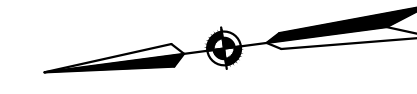
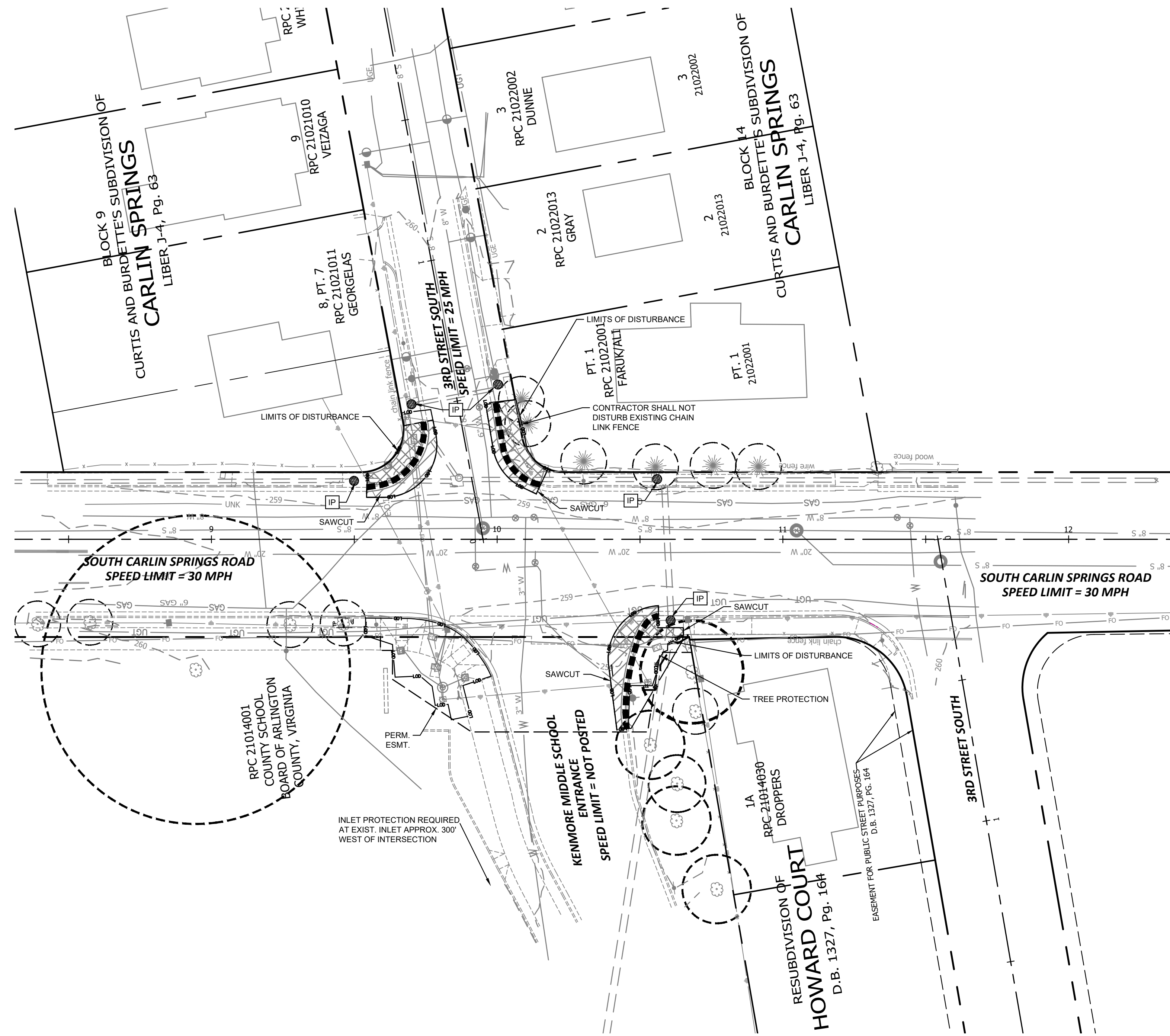
Sheet
C-0100



HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM
1983 NORTH ZONE

VERTICAL DATUM: NORTH AMERICAN VERTICAL
DATUM 1988

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF NATHAN A. ORR, L.S. FROM AN ACTUAL GROUND SURVEY MADE UNDER HIS SUPERVISION; THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM 10/05/2015 TO 11/09/2015; AND THIS PLAN, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.



LEGEND

- REMOVE FULL DEPTH BITUMINOUS SURFACE
- REMOVE FULL DEPTH CONCRETE SURFACE
- REMOVE CONCRETE CURB AND GUTTER
- REMOVE FENCE OR WALL
- STORM SEWER STRUCTURE INLET PROTECTION (VESCH STD & SPEC 3.07)
- EROSION CONTROL FENCE (SILT FENCE) (VESCH STD & SPEC 3.05)
- LIMITS OF DISTURBANCE
- TREE PROTECTION
- ROOT PRUNING LINE
- CRITICAL ROOT ZONE

NOTES:

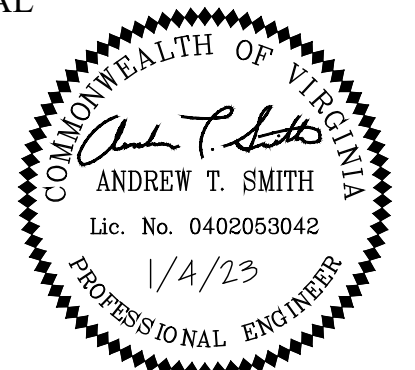
1. EROSION AND SEDIMENT PROTECTION MEASURES SHOULD BE INSTALLED ONLY WHEN NEEDED FOR THE CONSTRUCTION ZONE. IF A PROTECTION MEASURE IS NOT IMPACTED BY THE CONSTRUCTION THEN IT SHOULD BE REMOVED.
2. SEE TRAFFIC SIGNALS PLAN FOR DEMOLITION OF TRAFFIC SIGNALS
3. SEE SIGNING AND MARKING PLAN FOR LOCATIONS OF SIGNS TO BE REMOVED OR RELOCATED. COORDINATE RELOCATIONS WITH MOT AND ACTUAL CONSTRUCTION.
4. CONTRACTOR SHALL PROTECT AND RETAIN ALL EXISTING MANHOLE LIDS, VALVES, AND JUNCTION BOXES.
5. TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING, OR DEMOLITION. CONTACT THE COUNTY URBAN FORESTER AT 703-228-1863, 72 HOURS BEFORE THE START OF CONSTRUCTION, TO COORDINATE AND INSPECT TREE PROTECTION. TREE PROTECTION IS TYPICALLY INSTALLED AT THE LIMIT OF DISTURBANCE LINES.
6. NO TREES ARE PROPOSED TO BE ADDED OR REMOVED AS PART OF THIS PLAN. TREE PROTECTION TABLE NOT INCLUDED.
7. REMOVE EXISTING FENCE AND REPLACE FENCE AS SHOWN WITH NEW MATERIAL MATCHING THE ORIGINAL FENCE.



DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
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Phone: 703.228.3629
Fax: 703.228.3606

SEAL



APPROVALS DATE

<i>[Signature]</i>	1/4/2023
TRAFFIC SIGNAL ENGINEER	
<i>[Signature]</i>	01/06/2023
TRAFFIC ENGINEERING MANAGER	
<i>[Signature]</i>	1/18/23
WATER, SEWER, STREETS BUREAU CHIEF	
<i>[Signature]</i>	1/11/2023
TE&O BUREAU CHIEF	
<i>[Signature]</i>	01/11/2023
TRANSPORTATION DIRECTOR	

REVISIONS DATE

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**

PHASE I EROSION CONTROLS AND
DEMOLITION PLAN
3RD STREET S. AND S. CARLIN SPRINGS ROAD
ID #236
TE02

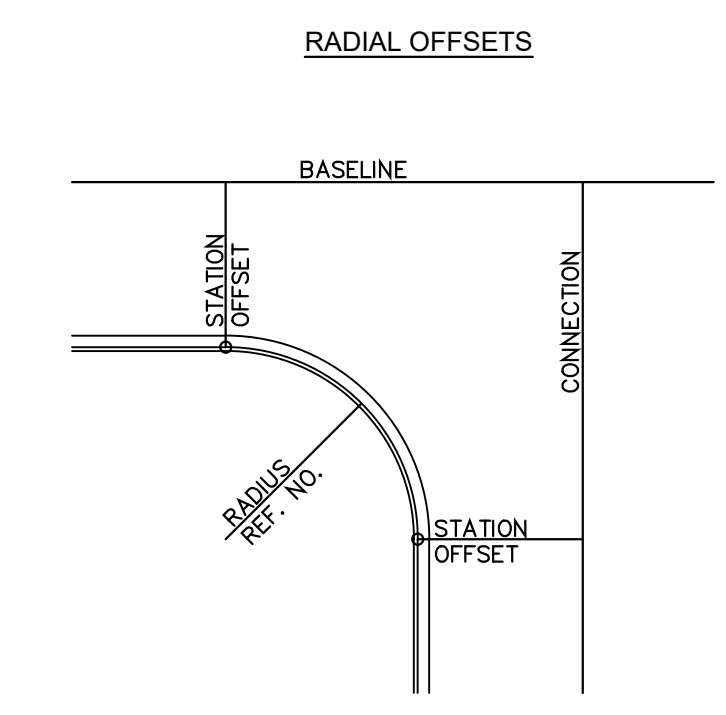
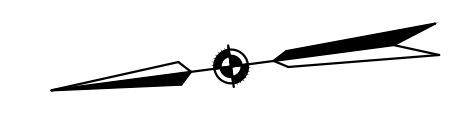
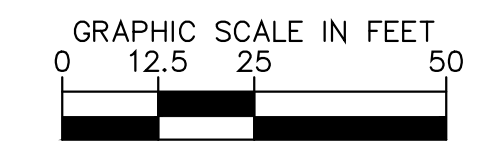
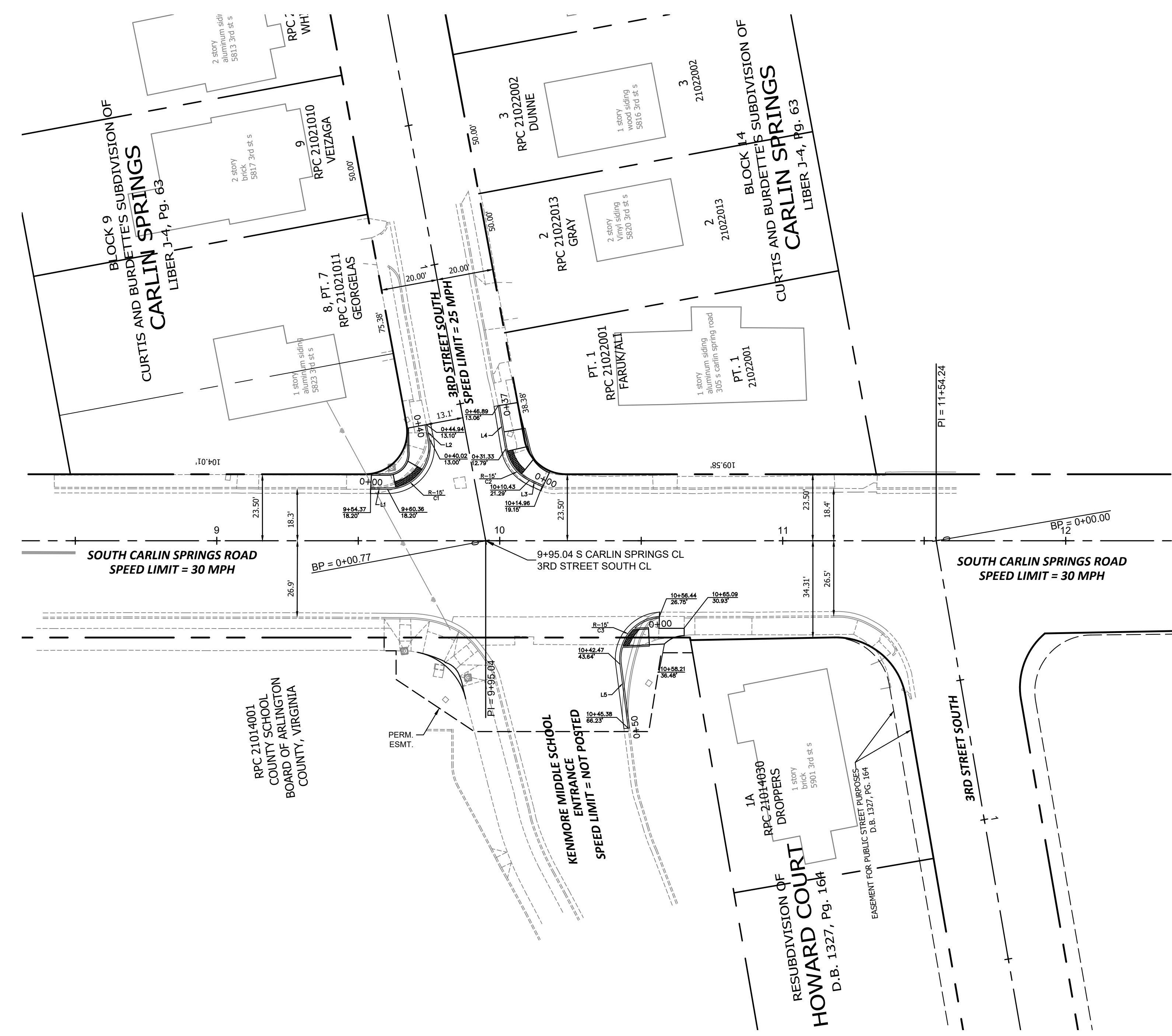
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Drawn: TEC
Checked: GG
Miss Utility Transmittal #:

Plotted: January 19, 2023
Plotted by: Grant.Jacob

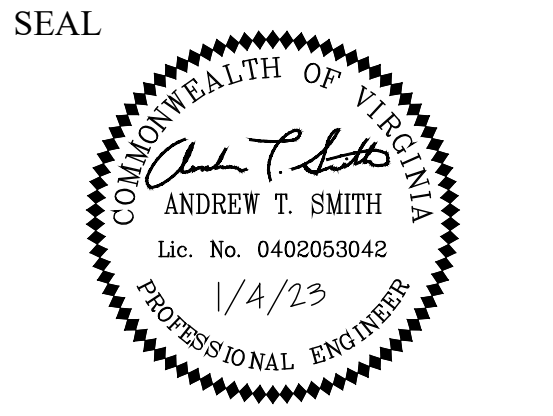
Scale:
HOR. 1" = 25' VERT. N/A

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-0200



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 Facilities & Engineering Division
 Engineering Bureau
 2100 Clarendon Boulevard, Suite 813
 Arlington, VA 22201
 Phone: 703.228.3629
 Fax: 703.228.3606



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 GEOMETRY PLAN
 3RD STREET S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

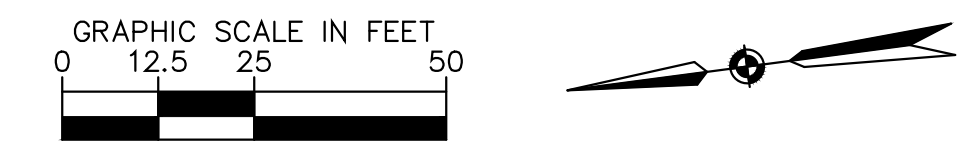
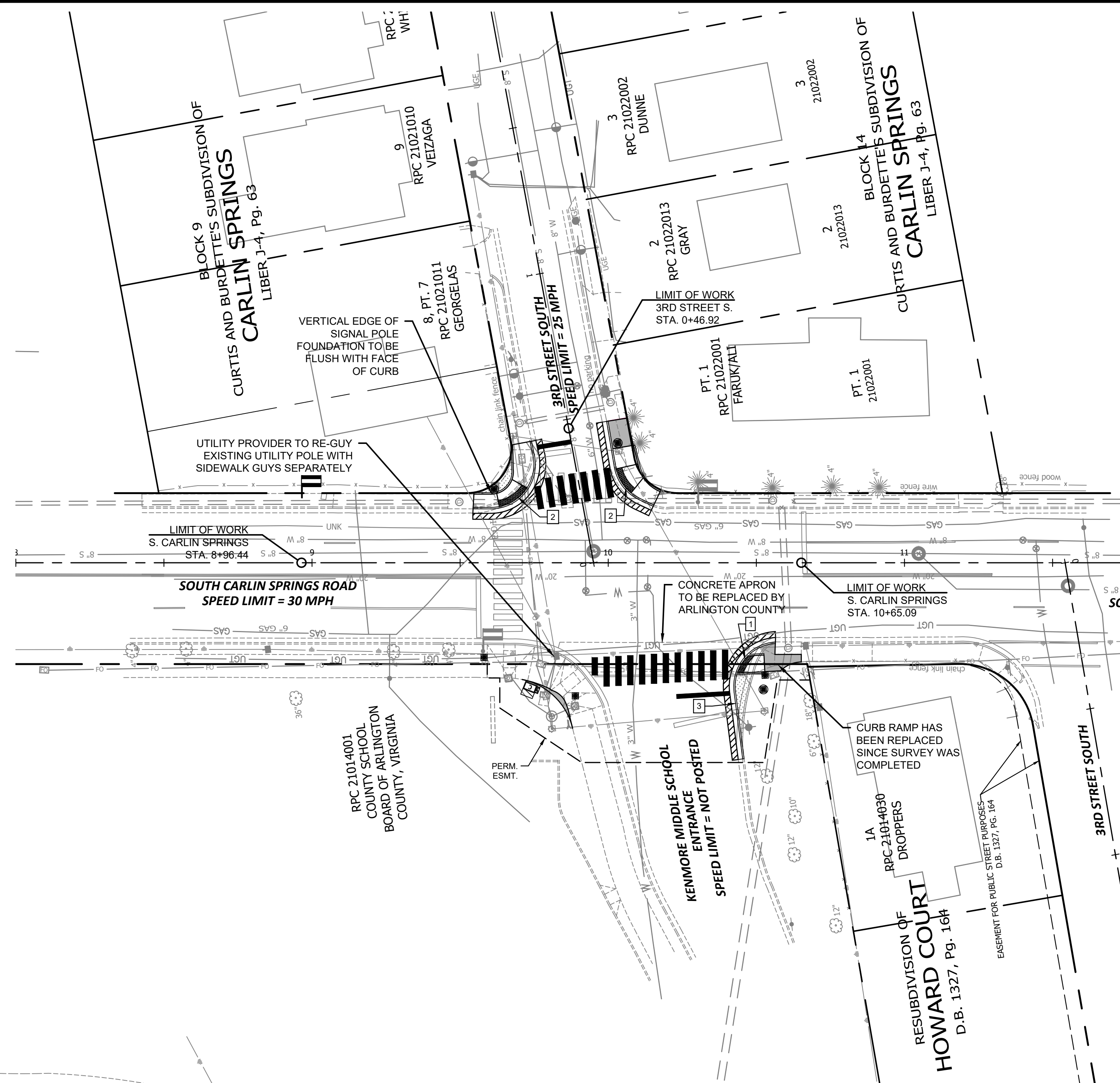
Designed: KF
 Drawn: KF
 Checked: GG
 Miss Utility Transmittal #:

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

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

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 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

Sheet
C-0300



NOTE: TOPOGRAPHIC SURVEY WAS OBTAINED FROM 10/05/2015 TO 11/09/2015 BY ARLINGTON COUNTY. SEE SHEET C-0100 FOR EXISTING CONDITIONS.

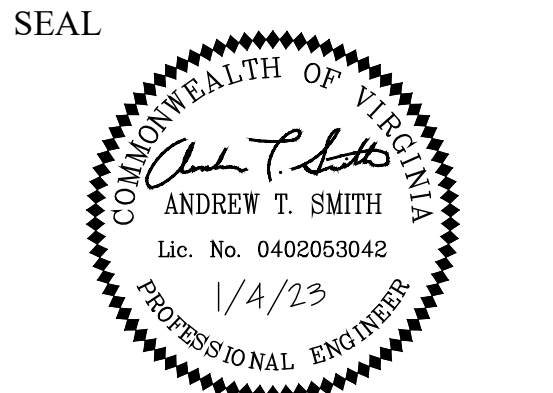
- LEGEND**
- 1 TYPE A PEDESTRIAN CURB RAMP
 - 2 TYPE B PEDESTRIAN CURB RAMP
 - 3 ARL. CO. STD. C-2 CURB AND GUTTER
 - FULL DEPTH ASPHALT PAVEMENT
 - FULL DEPTH CONCRETE PAVEMENT
 - ARL. CO. STD. CONCRETE SIDEWALK
 - LANDSCAPE AREA

- GRADING LEGEND**
- ME = MATCH EXISTING
 - TOC = TOP OF CURB
 - EOP = EDGE OF PAVEMENT
 - SW = SIDEWALK



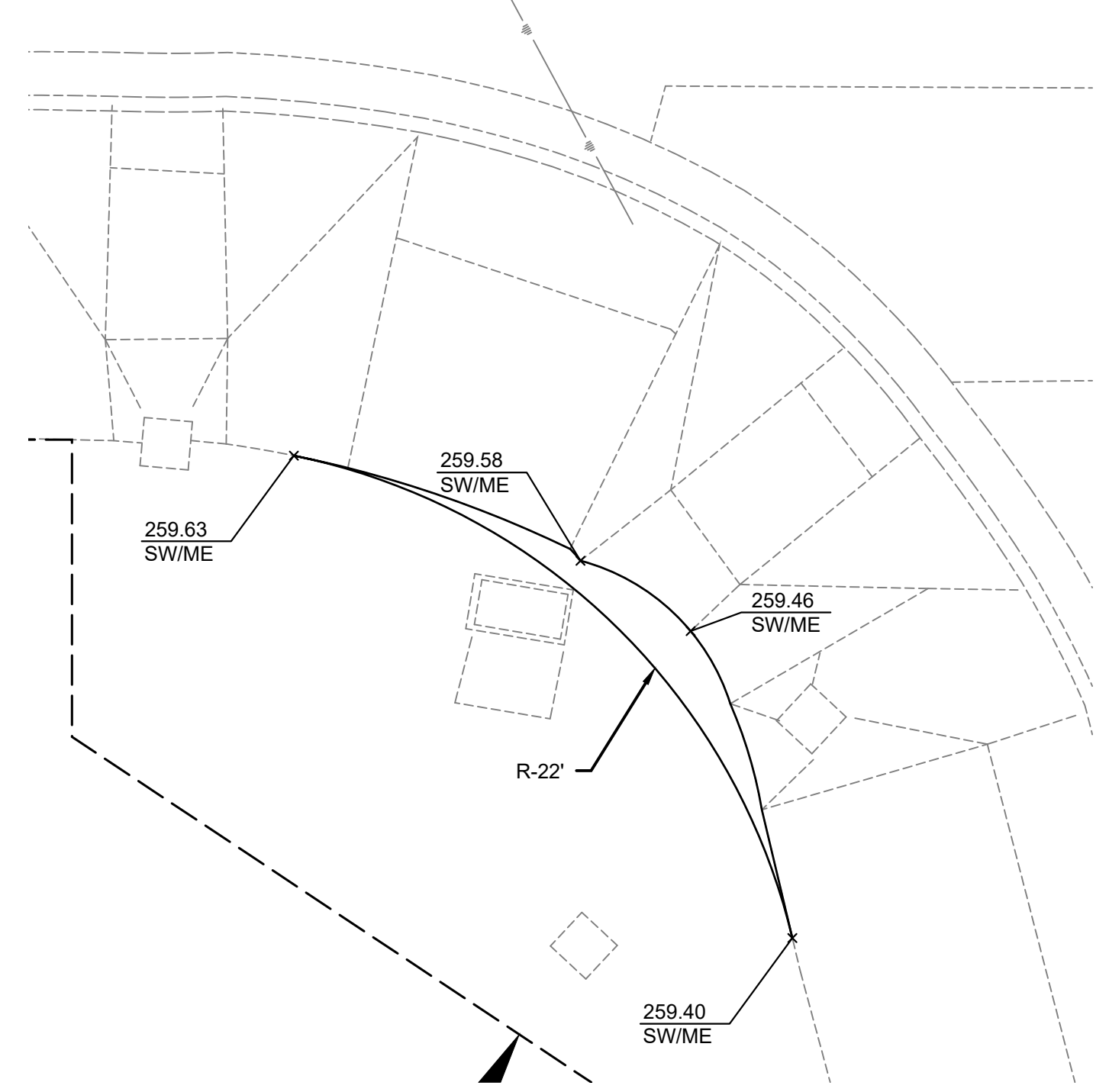
DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

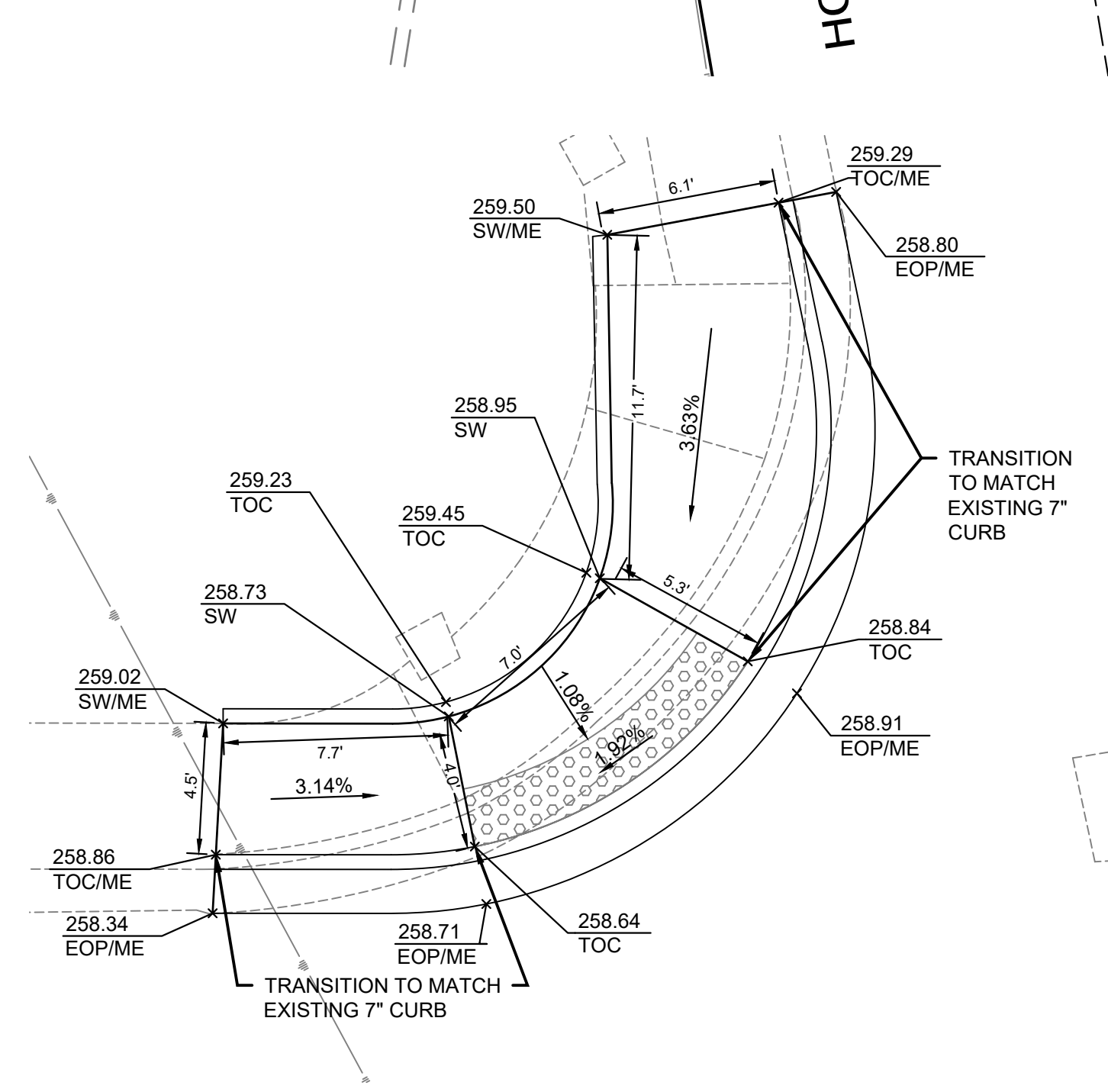


APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

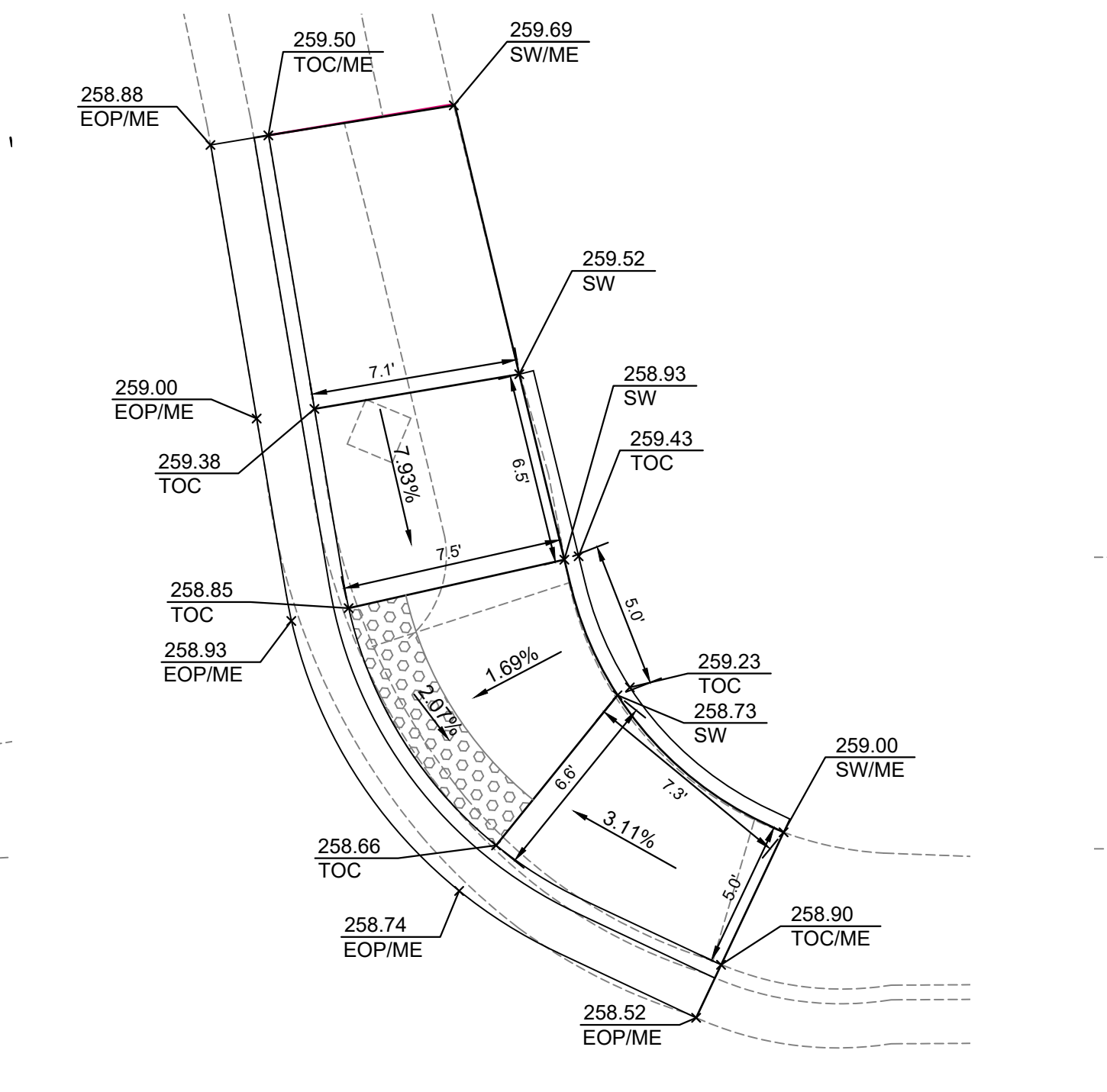
REVISIONS	DATE



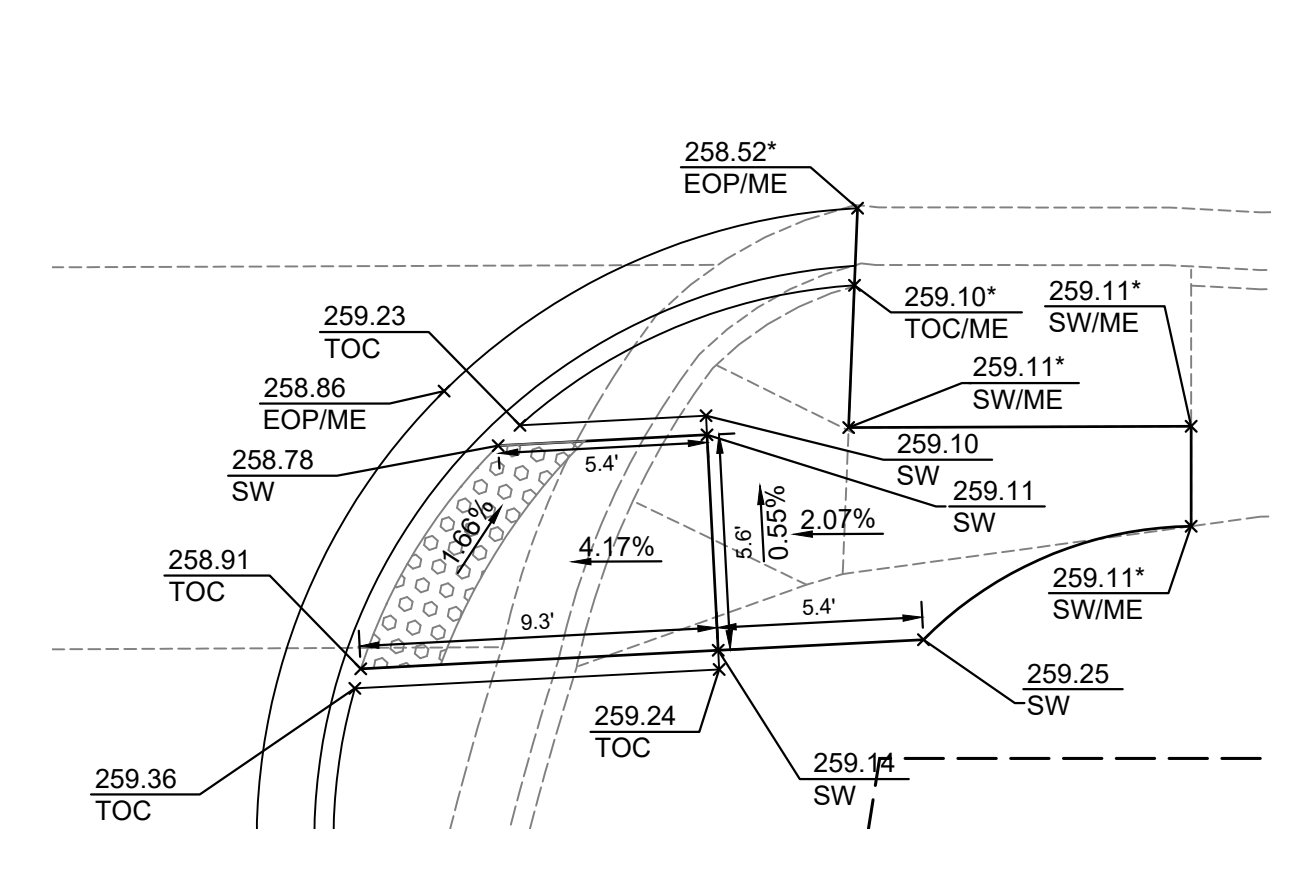
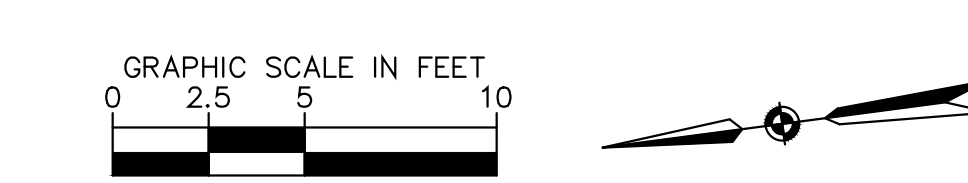
RAMP DETAIL - NW CORNER (1" = 5")



RAMP DETAIL - NE CORNER (1" = 5")



RAMP DETAIL - SE CORNER (1" = 5")



RAMP DETAIL - SW CORNER (1" = 5")
*CONTRACTOR TO VERIFY ELEVATION AND PROPOSED CURB RAMP SLOPES BASED ON RECENTLY REPLACED CURB RAMPS

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**

PROPOSED PLAN AND RAMP DETAILS
3RD STREET S. AND S. CARLIN SPRINGS ROAD

ID #236
TE02

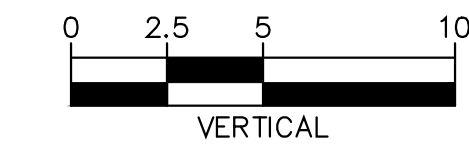
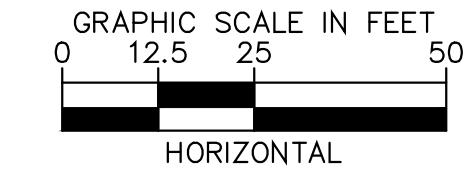
Designed: KF
Drawn: KF
Checked: GG
Miss Utility Transmittal #:

Plotted: January 19, 2023
Plotted by: Grant Jacob

Scale:
HOR. AS SHOWN VERT. N/A

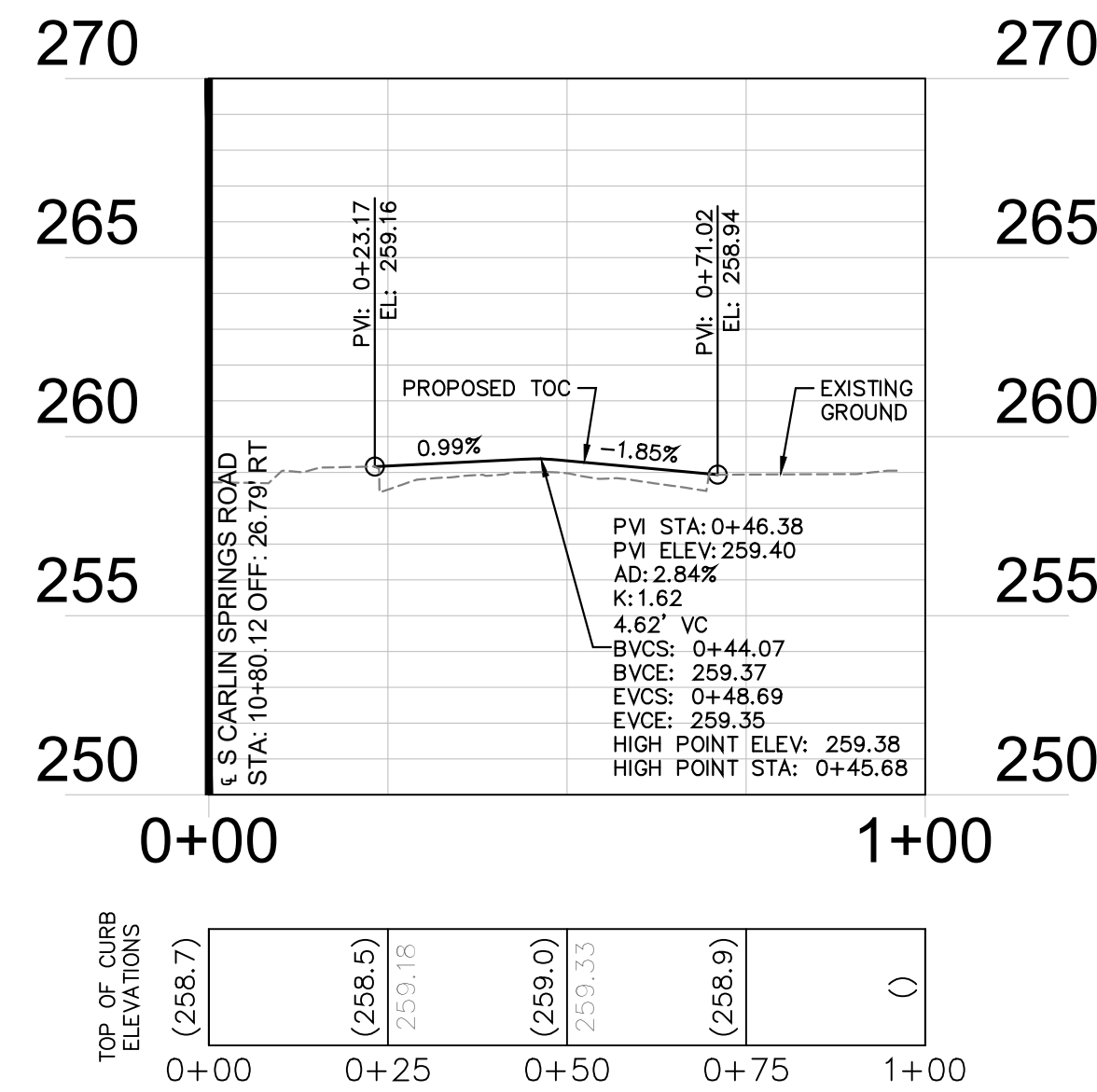
KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-0400

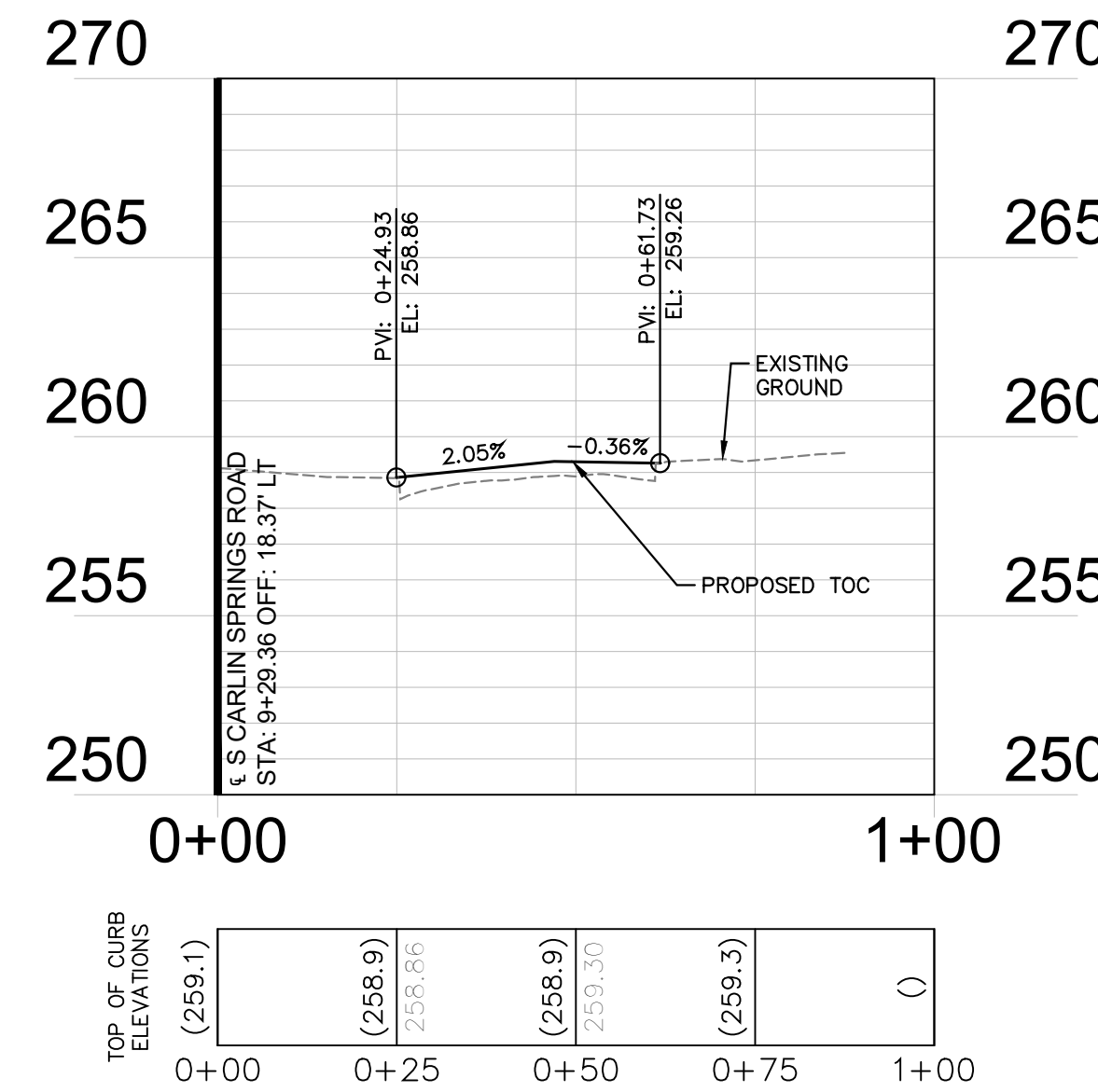


- NOTE**
1. BASELINE (HORIZONTAL) STATIONING IS TAKEN AT THE PROPOSED FACE OF CURB.
 2. PROPOSED GRADES SHOW TOP OF CURB.
 3. EXISTING GRADES SHOW EXISTING GROUND ALONG THE PROPOSED FACE OF CURB.

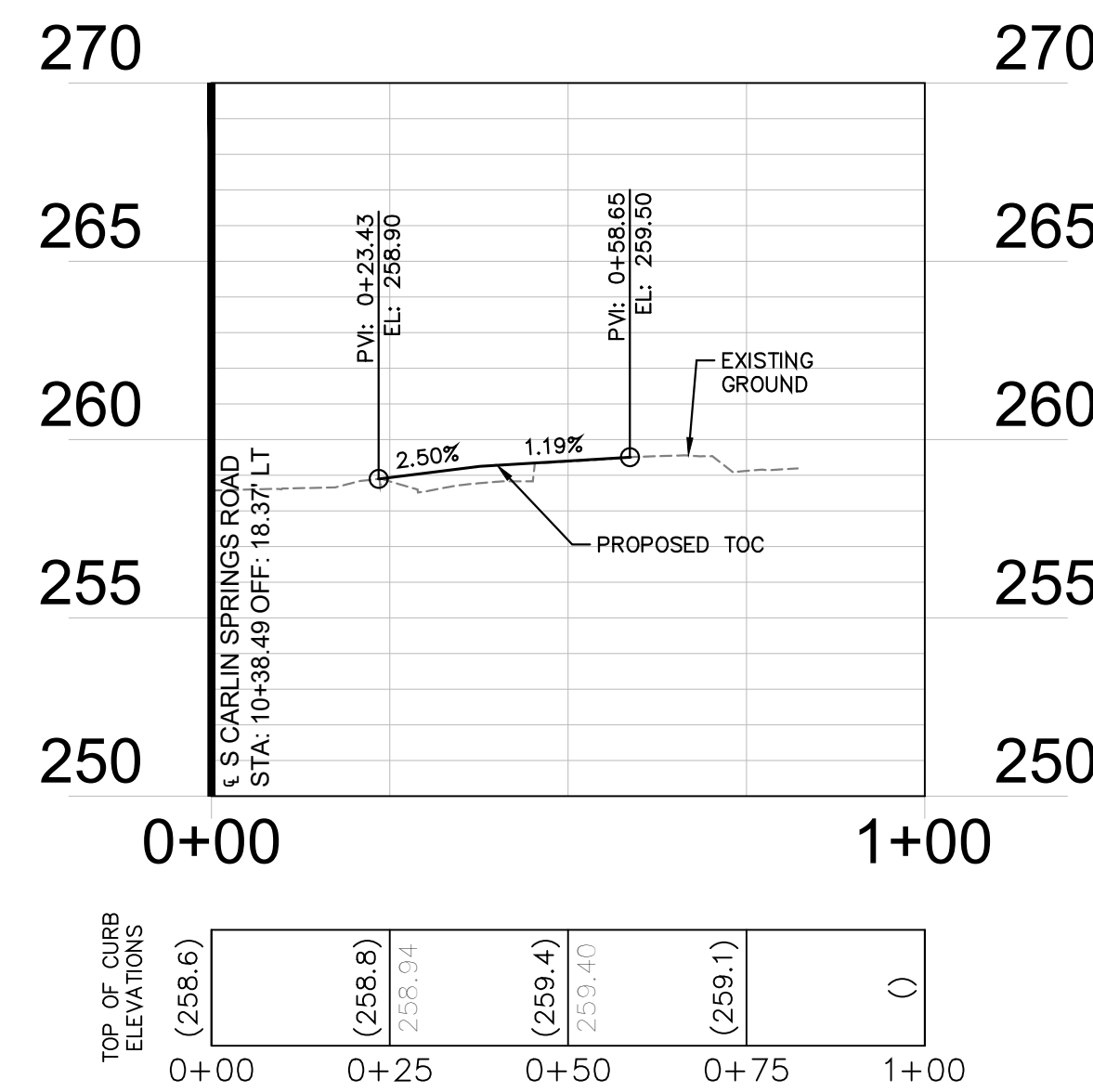
3RD STREET S. - SW CORNER



3RD STREET S. - NE CORNER

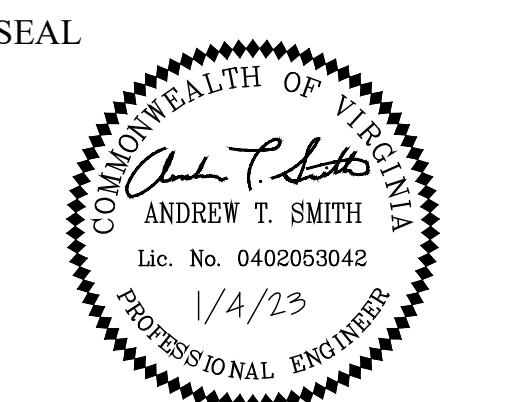


3RD STREET S. - SE CORNER



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



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
S. Carlin Springs Road Signal Upgrades
 CURB RETURN PROFILES
 3RD STREET S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

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

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

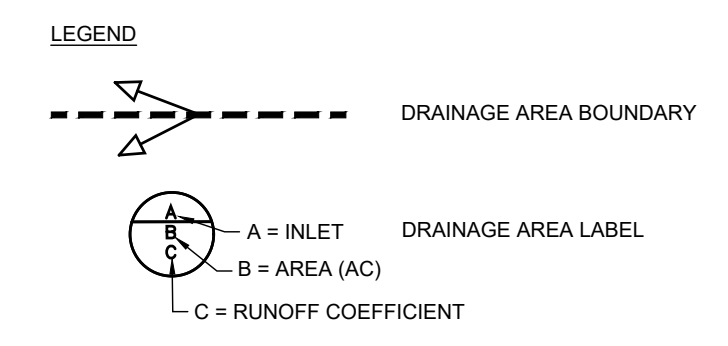
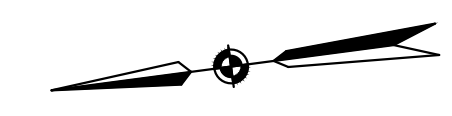
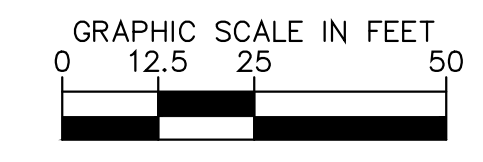
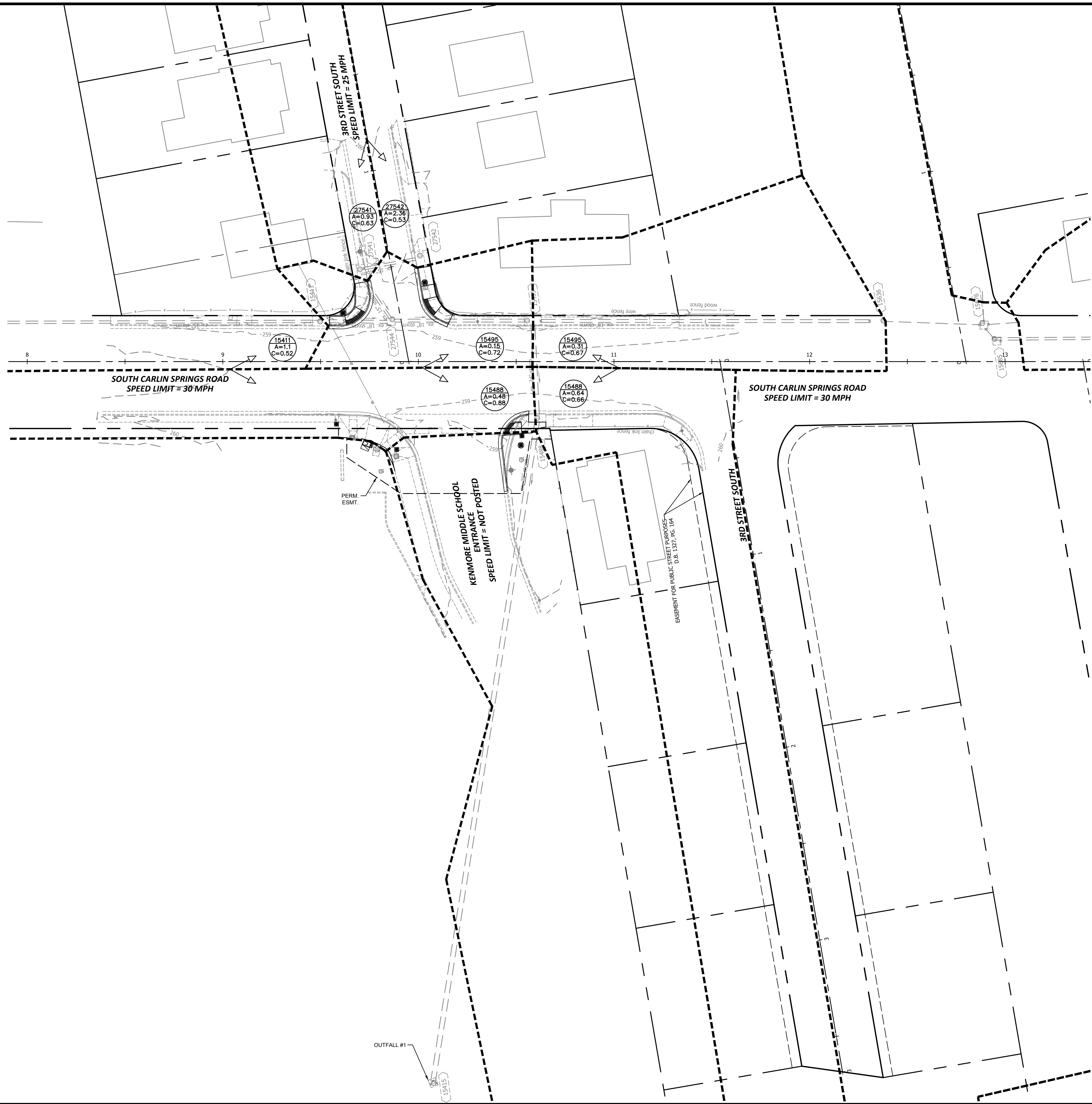
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KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

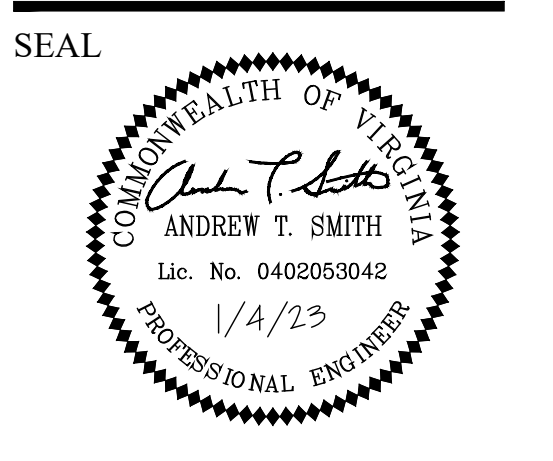
Sheet
C-0600

REVISED: MARCH 03, 2020

Filename: C-0700 DRAINAGE AREA PLAN.dwg
Path: K:\NSVA_T\PTO\110614003 - Carlin Springs 2020 CAD\PlanSheets



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



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 DRAINAGE AREA PLAN
 3RD STREET S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

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

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

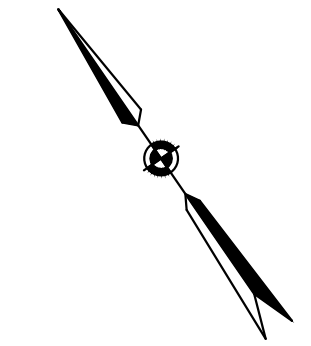
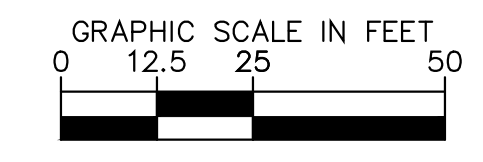
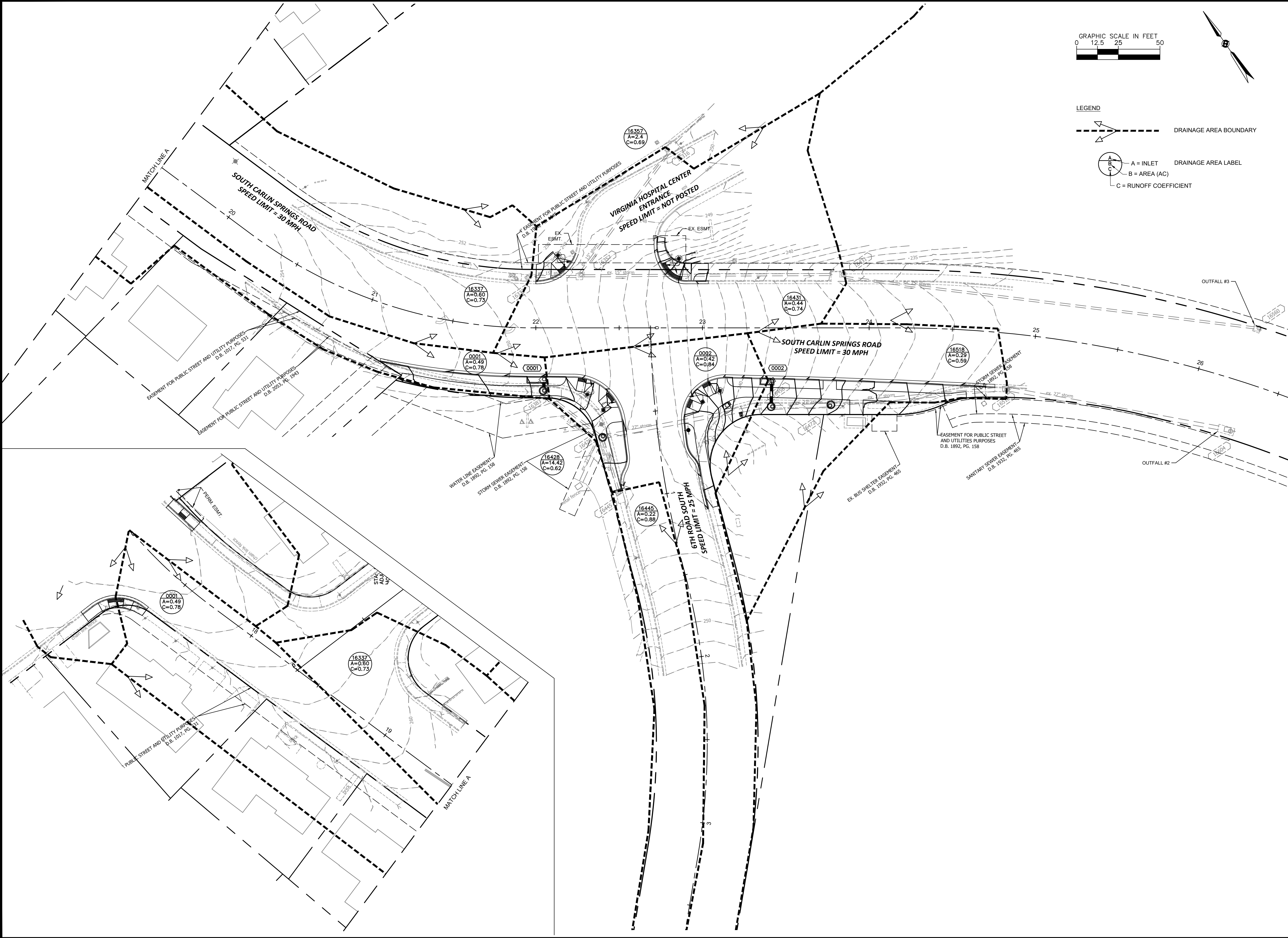
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 HOR. 1" = 25' VERT. N/A

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

Sheet
C-0700

REVISED: MARCH 03, 2020

Filename: C-0710 DRAINAGE AREA PLAN.dwg
Path: K:\NSVA_TPT\0110614003 - Carlin Springs 2020 CAD\PlanSheets

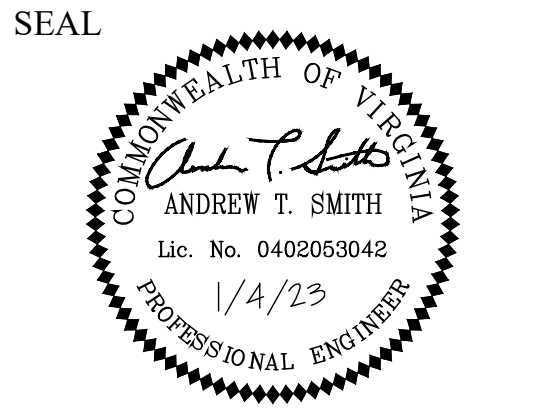


LEGEND

- DRAINAGE AREA BOUNDARY
- A = INLET DRAINAGE AREA LABEL
B = AREA (AC)
C = RUNOFF COEFFICIENT



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



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 DRAINAGE AREA PLAN
 6TH ROAD S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

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

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

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

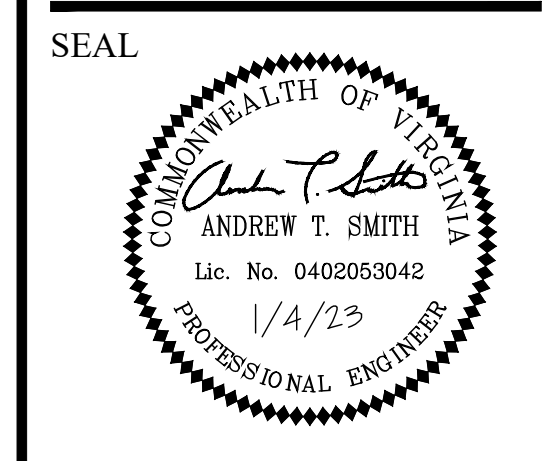
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Sheet
C-0710



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



APPROVALS DATE
Traffic Signal Engineer: 1/4/2023
Traffic Engineering Manager: 01/06/2023
Water Sewer Streets Bureau Chief: 1/18/23
TE&O Bureau Chief: 1/11/2023
Transportation Director: 01/11/2023

REVISIONS DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**
DRAINAGE CALCULATIONS
3RD STREET S. AND S. CARLIN SPRINGS ROAD
ID #236
TE02

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

Plotted: January 19, 2023
Plotted by: Grant Jacob

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

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11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

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C-0712

Appendix 9B-1 LD-204 Stormwater Inlet Computations

Table with columns for INLET NUMBER, TYPE, LENGTH (FT), STATION, DRAINAGE AREA (AC), C, CA, sum CA, I (IN/HR), Q INCR (CFS), Ob. CARRYOVER (CFS), QT, GUTTER FLOW (CFS), S, GUTTER SLOPE (FT/FT), Sx, CROSS SLOPE (FT/FT), T, SPREAD (FT), W (FT), W/T, Sw (FT/FT), Sw/Sx, Eo, a = 12W(Sw - Sx)/H Local Depression, S'w = a/(12W), Ss = Sx + S'(Eo) (FT/FT), COMPUTED LENGTH, Lt (FT), L, SPECIFIED LENGTH (FT), LL', E, Qi, INTERCEPTED (CFS), Ob. CARRYOVER (CFS), d (FT), h (FT), d/h, T, SPREAD @ SAG (FT). Includes EXISTING - ON GRADE, PROPOSED - ON GRADE, EXISTING - IN SAG, and PROPOSED - IN SAG sections.

Project: South Carlin Springs Road
Locality: Arlington County

Post-development Storm Drain Design Calculations
VDOT LD-229

Project No.: 110614003
Date: 2/22/2021
Designed By/Checked: Nicole McVey, P.E. / Derik Doughty, P.E.

Table with columns for FROM POINT, TO POINT, DRAINAGE AREA, RUNOFF COEFFICIENT, CA, INLET TIME, RAINFALL, RUNOFF, INVERT ELEVATIONS, LENGTH, SLOPE, SIZE, PIPE CAPACITY, Q / Qi, VELOCITY, FLOW TIME. Includes sections for S. Carlin Springs Road and 6th Road South (Outfall #3), S. Carlin Springs Road and 3rd Street South (Outfall #1), and S. Carlin Springs Road and 6th Road South (Outfall #2).

Project: South Carlin Springs Road
Locality: Arlington County

Post-development Hydraulic Grade Line Calculations
VDOT LD-347

Project #: 110614003
Date: 2/22/2021
Designed By/Checked: Nicole McVey, P.E. / Derik Doughty, P.E.

Table with columns for INLET, DESIGN OUTLET WSE, Ds, Qs, Ls, Ss, Hs, Vc, Hc, Qc, Vc, Qc, Vc, Hc, Angle, Hs, Ht, 1.3 Ht, 0.5 Ht, FINAL H, INLET WSE, RIM ELEV, AVAILABLE FREEBOARD. Includes sections for S. Carlin Springs Road and 3rd Street South (Outfall #1), S. Carlin Springs Road and 6th Road South (Outfall #2), and S. Carlin Springs Road and 6th Road South (Outfall #3).

DRAINAGE PLAN DESCRIPTION:

TWO NEW ROADWAY INLETS WILL BE ADDED WITHIN THE PROJECT. PROPOSED INLETS 0001 AND 0002 WILL REPLACE EXISTING INLETS 16383 AND 16456. EXISTING INLETS 16383 AND 16456 WILL BE CONVERTED INTO MANHOLES. ALL NEW PIPE DIAMETERS WILL BE 15". LIDS AND/OR TOPS FOR VARIOUS EXISTING DRAINAGE STRUCTURES WILL BE ADJUSTED TO ACCOMMODATE NEW SIDEWALKS AND CURBS.

STORMWATER MANAGEMENT NARRATIVE:

THE PROJECT IMPROVEMENTS INCREASE THE OVERALL SITE IMPERVIOUS AREA SLIGHTLY. THIS INCREASE RESULTS IN A NEGLIGIBLE CHANGE OF NUTRIENT LOAD MEETING QUALITY REQUIREMENTS AND A NEGLIGIBLE CHANGE IN RUNOFF MEETING QUANTITY REQUIREMENTS. THIS PROJECT DOES NOT FALL WITHIN A FLOODPLAIN OR RESOURCE PROTECTION AREA (RPA).

DISTURBED AREA FOR STORMWATER MANAGEMENT: 189 SF.

ROUTINE MAINTENANCE AREA: 2,048 SF.

DISTURBED AREA FOR EROSION AND SEDIMENT CONTROL: 2,229 SF

OUTFALL ANALYSIS:

THERE ARE THREE OUTFALLS FOR THIS PROJECT. WITH ALL LOCATED IN THE POTOMAC RIVER--FOUR MILE RUN WATERSHED (HUC 020700100301, PL25) AND UPPER LONG BRANCH. THERE WILL BE LESS THAN 1 ACRE DISTURBED PER OUTFALL, WITH EACH BEING DEFINED AS A COLLECTION POINT FOR SURFACE RUNOFF.

OUTFALL #1 IS LOCATED WEST OF THE SOUTH CARLIN SPRINGS ROAD AND 3RD STREET SOUTH INTERSECTION, DRAINING TOWARDS DOWNSTREAM STRUCTURE 15415. THE EXISTING MANMADE STORMDRAIN SYSTEM WILL REMAIN IN THE PROPOSED CONDITIONS. THE EXISTING SYSTEM WAS ANALYZED UP TO THE 1% ANALYSIS POINT LOCATED UPSTREAM OF STRUCTURE 15415 WHERE THE DISTURBED AREA FOR STORMWATER MANAGEMENT CALCULATIONS IS 1% OF THE TOTAL DRAINAGE AREA OF THE SYSTEM. THE PIPE AND HGL CALCULATIONS DEMONSTRATE THE OUTFALL IS ADEQUATE IN THE PROPOSED CONDITIONS.

OUTFALL #2 IS LOCATED EAST OF THE SOUTH CARLIN SPRINGS ROAD AND 6TH ROAD SOUTH INTERSECTION, DRAINING TOWARDS DOWNSTREAM STRUCTURE 16604. THE EXISTING MANMADE STORMDRAIN SYSTEM WILL BE MODIFIED TO ADD TWO INLET CONNECTIONS DUE TO THE CURB EXTENSIONS. THE PROPOSED SYSTEM WAS ANALYZED UP TO THE 1% ANALYSIS POINT LOCATED UPSTREAM OF STRUCTURE 16604 WHERE THE DISTURBED AREA FOR STORMWATER MANAGEMENT CALCULATIONS IS 1% OF THE TOTAL DRAINAGE AREA OF THE SYSTEM. THE PIPE AND HGL CALCULATIONS DEMONSTRATE THE OUTFALL IS ADEQUATE IN THE PROPOSED CONDITIONS.

OUTFALL #3 IS LOCATED EAST OF THE SOUTH CARLIN SPRINGS ROAD AND 6TH ROAD SOUTH INTERSECTION, DRAINING TOWARDS DOWNSTREAM STRUCTURE 16560. THE EXISTING MANMADE STORMDRAIN SYSTEM WILL REMAIN IN THE PROPOSED CONDITIONS. THE EXISTING SYSTEM WAS ANALYZED UP TO THE 1% ANALYSIS POINT LOCATED UPSTREAM OF STRUCTURE 16560 WHERE THE DISTURBED AREA FOR STORMWATER MANAGEMENT CALCULATIONS IS 1% OF THE TOTAL DRAINAGE AREA OF THE SYSTEM. THE PIPE AND HGL CALCULATIONS DEMONSTRATE THE OUTFALL IS ADEQUATE IN THE PROPOSED CONDITIONS.

Project Name: S. Carlin Springs Road Signal Upgrades
Date: 9/29/2022
Linear Development Project? Yes

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → 0.0724

Check: 2013 Draft Stds & Specs
Linear project? Yes
Land cover areas entered correctly? Yes
Total disturbed area entered? Yes
TP LOAD REDUCTION NOT REQUIRED

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				0.0116	0.0116
Impervious Cover (acres)				0.0608	0.0608
					0.0724

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				0.0608	0.0608
Impervious Cover (acres)				0.0116	0.0116
					0.0724

Area Check	OK	OK	OK	OK	0.0724
Forest/Open Space					
Managed Turf					
Impervious Cover					

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) (mg/L)	0.76
Total Nitrogen (TN) (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
% Landfill 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

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)	0.0116	0.0116
Weighted Rv(turf)	0.2500	0.2500
% Managed Turf	16%	16%
Impervious Cover (acres)	0.0608	0.0608
Rv(impervious)	0.9500	0.9500
% Impervious	84%	84%
Total Site Area (acres)	0.0724	0.0724
Site Rv	0.8378	0.8378

LAND COVER SUMMARY -- POST DEVELOPMENT

Post ReDev. & New Impervious	Post-Development New Impervious
Forest/Open Space Cover (acres)	0.0000
Weighted Rv(forest)	0.0000
% Forest	0%
Managed Turf Cover (acres)	0.0608
Weighted Rv(turf)	0.2500
% Managed Turf	84%
Impervious Cover (acres)	0.0116
Rv(impervious)	0.9500
% Impervious	16%
Total ReDev. Site Area (acres)	0.0724
ReDev Site Rv	0.3622

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0051	0.0051
Pre-ReDevelopment Treatment Volume (cubic feet)	220,1958	220,1958
Pre-ReDevelopment TP Load (lb/yr)	0.1383	0.1383
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	1.9100	1.9100
Baseline TP Load (lb/yr) (0.41 lb/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		0.0297

Final Post-Development Treatment Volume (acre-ft): 0.0022
Final Post-Development Treatment Volume (cubic feet): 95,1786
Final Post-Development TP Load (lb/yr): 0.0598
Final Post-Development TP Load per acre (lb/acre/yr): 0.8300

Max. Reduction Required (Below Pre-Development Load): 20%
TP Load Reduction Required for Redeveloped Area (lb/yr): -0.0509
TP Load Reduction Required for New Impervious Area (lb/yr): 0

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	-0.0509	** TP LOAD REDUCTION NOT REQUIRED
Linear Project TP Load Reduction Required (lb/yr):	-0.0509	** TP LOAD REDUCTION NOT REQUIRED

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	0.9897	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	0.4278
-----------------------------------	--------	--	--------

Runoff Curve Number & Runoff

Project: South Carlin Springs Road By: NLM Date: 2/19/21
Location: Arlington County Checked: DCD Date: 2/19/21

Check One: Present Developed Basin: 27542
Check One: Tc Tt through subarea

Notes: Space for as many as two segments per flow type can be used for each worksheet. Include a map, schematic, or description of flow segments.

Segment ID	SF-1	
1. Surface description (table 3-1)	Grass	
2. Mannings roughness coefficient, n (table 3-1)	0.2	
3. Flow Length, L (total L ≤ 300 ft)	100	ft
4. Two-year 24-hour rainfall, P ₂	3.16	in
5. Land Slope, S	0.02	ft/ft
6. $T_t = \frac{0.007 (nL)^{0.8}}{P_2^{0.5} S^{0.4}}$ Compute T _t	0.207	hr
Total		0.21

Segment ID	SCF-1	SCF-2	
7. Surface description (paved or unpaved)	Unpaved	Paved	
8. Flow length, L	331	24	ft
9. Watercourse slope, s	0.02	0.01	ft/ft
10. Average velocity, V (figure3-1)	2.2	2	ft/s
11. $T_t = \frac{L}{3600 V}$ Compute T _t	0.04	0.00	hr
Total			0.05

Segment ID	CF-1	CF-2	
12. Cross sectional flow area, a			ft ²
13. Wetted perimeter, pw			ft
14. Hydraulic radius, r = a / pw Compute r			ft
15. Channel slope, s			ft/ft
16. Manning's roughness coefficient, n			ft/s
17. $V = \frac{1.49 r^{2/3} s^{1/2}}{n}$ Compute V			ft/s
18. Flow length, L			ft
19. $T_t = \frac{L}{3600 V}$ Compute T _t			hr
Total			0.00
20. Watershed or subarea T _c or T _t (add T _t in steps 6, 11, and 19)			0.25

Runoff Curve Number & Runoff

Project: South Carlin Springs Road By: NLM Date: 2/21/21
Location: Arlington County Checked: DCD Date: 2/21/21

Check One: Present Developed Basin: 16428
Check One: Tc Tt through subarea

Notes: Space for as many as two segments per flow type can be used for each worksheet. Include a map, schematic, or description of flow segments.

Segment ID	SF-1	
1. Surface description (table 3-1)	Grass	
2. Mannings roughness coefficient, n (table 3-1)	0.2	
3. Flow Length, L (total L ≤ 300 ft)	201	ft
4. Two-year 24-hour rainfall, P ₂	3.16	in
5. Land Slope, S	0.05	ft/ft
6. $T_t = \frac{0.007 (nL)^{0.8}}{P_2^{0.5} S^{0.4}}$ Compute T _t	0.251	hr
Total		0.25

Segment ID	SCF-1	SCF-2	
7. Surface description (paved or unpaved)	Paved		
8. Flow length, L	568		ft
9. Watercourse slope, s	0.05		ft/ft
10. Average velocity, V (figure3-1)	4.5		ft/s
11. $T_t = \frac{L}{3600 V}$ Compute T _t	0.04		hr
Total			0.04

Segment ID	CF-1	CF-2	
12. Cross sectional flow area, a	1.76	140	ft ²
13. Wetted perimeter, pw	4	74	ft
14. Hydraulic radius, r = a / pw Compute r	0.440	1.892	ft
15. Channel slope, s	0.02	0.01	ft/ft
16. Manning's roughness coefficient, n	0.013	0.10	ft/s
17. $V = \frac{1.49 r^{2/3} s^{1/2}}{n}$ Compute V	9.38	2.28	ft/s
18. Flow length, L	908	173	ft
19. $T_t = \frac{L}{3600 V}$ Compute T _t	0.03	0.02	hr
Total			0.05
20. Watershed or subarea T _c or T _t (add T _t in steps 6, 11, and 19)			0.33

Runoff Curve Number & Runoff

Project: South Carlin Springs Road By: NLM Date: 2/22/21
Location: Arlington County Checked: DCD Date: 2/22/21

Check One: Present Developed Basin: 16357
Check One: Tc Tt through subarea

Notes: Space for as many as two segments per flow type can be used for each worksheet. Include a map, schematic, or description of flow segments.

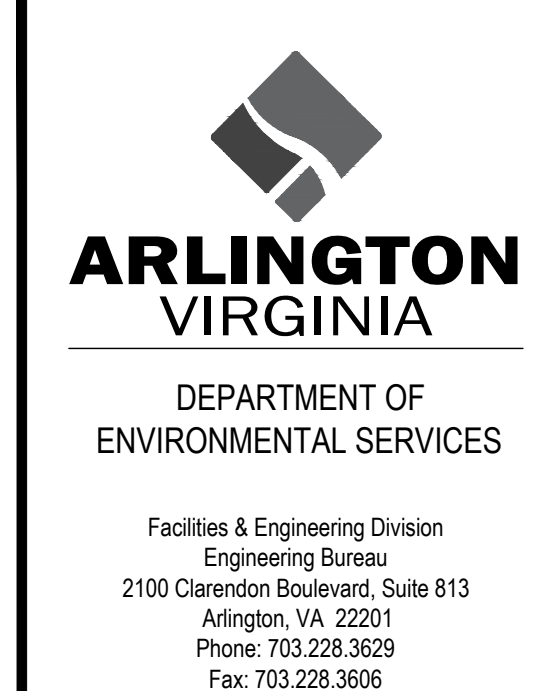
Segment ID	SF-1	
1. Surface description (table 3-1)	Grass	
2. Mannings roughness coefficient, n (table 3-1)	0.2	
3. Flow Length, L (total L ≤ 300 ft)	100	ft
4. Two-year 24-hour rainfall, P ₂	3.16	in
5. Land Slope, S	0.02	ft/ft
6. $T_t = \frac{0.007 (nL)^{0.8}}{P_2^{0.5} S^{0.4}}$ Compute T _t	0.207	hr
Total		0.21

Segment ID	SCF-1	SCF-2	
7. Surface description (paved or unpaved)	Paved		
8. Flow length, L	224		ft
9. Watercourse slope, s	0.02		ft/ft
10. Average velocity, V (figure3-1)	2.8		ft/s
11. $T_t = \frac{L}{3600 V}$ Compute T _t	0.02		hr
Total			0.02

Segment ID	CF-1	CF-2	
12. Cross sectional flow area, a	1.23		ft ²
13. Wetted perimeter, pw	3.93		ft
14. Hydraulic radius, r = a / pw Compute r	0.313		ft
15. Channel slope, s	0.01		ft/ft
16. Manning's roughness coefficient, n	0.013		ft/s
17. $V = \frac{1.49 r^{2/3} s^{1/2}}{n}$ Compute V	5.28		ft/s
18. Flow length, L	90		ft
19. $T_t = \frac{L}{3600 V}$ Compute T _t	0.00		hr
Total			0.00
20. Watershed or subarea T _c or T _t (add T _t in steps 6, 11, and 19)			0.23

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.



Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

APPROVALS DATE

[Signature] 1/4/2023
TRAFFIC SIGNAL ENGINEER

[Signature] 01/06/2023
TRAFFIC ENGINEERING MANAGER

[Signature] 1/18/23
WATER SEWER STREETS BUREAU CHIEF

[Signature] 1/11/2023
TE&O BUREAU CHIEF

[Signature] 01/11/2023
TRANSPORTATION DIRECTOR

REVISIONS DATE

Project Name and Location
S. Carlin Springs Road Signal Upgrades

DRAINAGE CALCULATIONS
3RD STREET S. AND S. CARLIN SPRINGS ROAD
ID #236
TE02

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

Plotted: January 19, 2023
Plotted by: Grant.Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-0713

2.4 POLLUTION PREVENTION PLAN:

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

2.0 Authorized Non-Stormwater Discharges

Type of Authorized Non-Stormwater Discharge	Likely Present at Your Project Site?	
External buildings wash down	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Uncontaminated foundation or footing drains	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Uncontaminated excavation dewatering	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Landscape irrigation	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Others [describe]	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

STORMWATER POLLUTION PREVENTION PLAN
S. CARLIN SPRINGS ROAD SIGNAL UPGRADES

5.0 Potential Sources of Pollution & Pollution Prevention Practices

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

Arlington County – SWPPP 9/2016

POLLUTION PREVENTION PRACTICES:

- CLEARING, GRADING, EXCAVATING AND UN-STABILIZED AREAS** - UTILIZE EROSION AND SEDIMENT CONTROLS TO PREVENT SEDIMENT LADEN OR TURBID RUNOFF FROM LEAVING THE CONSTRUCTION SITE. DISPOSE OF CLEARING DEBRIS AT ACCEPTABLE DISPOSAL SITES. APPLY PERMANENT OR TEMPORARY STABILIZATION, SODDING AND/OR MULCHING TO DENUDED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL SPECIFICATIONS AND THE GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES.
- PAVING OPERATIONS** - COVER STORM DRAIN INLETS DURING PAVING OPERATIONS AND UTILIZE POLLUTION PREVENTION MATERIALS SUCH AS DRIP PANS AND ABSORBENT/OIL DRY FOR ALL PAVING MACHINES TO LIMIT LEAKS AND SPILLS OF PAVING MATERIALS AND FLUIDS.
- CONCRETE WASHOUT AND CEMENT WASTE** - DIRECT CONCRETE WASH WATER INTO A LEAK-PROOF CONTAINER OR LEAK-PROOF SETTLING BASIN THAT IS DESIGNED SO THAT NO OVERFLOWS CAN OCCUR DUE TO INADEQUATE SIZING OR PRECIPITATION. HARDENED CONCRETE WASTES SHALL BE REMOVED AND DISPOSED OF IN A MANNER CONSISTENT WITH THE HANDLING OF OTHER CONSTRUCTION WASTES.
- STRUCTURE CONSTRUCTION, STUCCO, PAINTING AND CLEANING** - ENCLOSE, COVER OR BERM BUILDING MATERIAL STORAGE AREAS IF SUSCEPTIBLE TO CONTAMINATED STORMWATER RUNOFF. CONDUCT PAINTING OPERATIONS CONSISTENT WITH LOCAL AIR QUALITY AND OSHA REGULATIONS. MIX PAINT INDOORS, IN A CONTAINMENT AREA OR IN A FLAT UNPAVED AREA. PREVENT THE DISCHARGE OF SOAPS, SOLVENTS, DETERGENTS AND WASH WATER FROM CONSTRUCTION MATERIALS, INCLUDING THE CLEAN-UP OF STUCCO PAINT, FORM RELEASE OILS AND CURING COMPOUNDS.
- DEWATERING OPERATIONS** - CONSTRUCTION SITE DEWATERING FROM BUILDING FOOTINGS OR OTHER SOURCES MAY NOT BE DISCHARGED WITHOUT TREATMENT. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.
- MATERIAL DELIVERY AND STORAGE** - DESIGNATE AREAS OF THE CONSTRUCTION SITE FOR MATERIAL DELIVERY AND STORAGE. PLACE NEAR CONSTRUCTION ENTRANCES, AWAY FROM WATERWAYS, AND AVOID TRANSPORT NEAR DRAINAGE PATHS OR WATERWAYS.
- MATERIAL USE DURING BUILDING PROCESS** - USE MATERIALS ONLY WHERE AND WHEN NEEDED TO COMPLETE THE CONSTRUCTION ACTIVITY. FOLLOW MANUFACTURER'S INSTRUCTIONS REGARDING USES, PROTECTIVE EQUIPMENT, VENTILATION, FLAMMABILITY AND MIXING OF CHEMICALS.
- SOLID WASTE DISPOSAL** - DESIGNATE A WASTE COLLECTION AREA ON THE CONSTRUCTION SITE THAT DOES NOT RECEIVE A SUBSTANTIAL AMOUNT OF RUNOFF FROM UPLAND AREAS AND DOES NOT DRAIN DIRECTLY TO A WATERWAY. ENSURE THAT CONTAINERS HAVE LIDS SO THEY CAN BE COVERED BEFORE PERIODS OF RAIN, AND KEEP CONTAINERS IN A COVERED AREA WHENEVER POSSIBLE. SCHEDULE WASTE COLLECTION TO PREVENT THE CONTAINERS FROM OVERFILLING.
- SANITARY WASTE** - PREVENT THE DISCHARGE OF SANITARY WASTE BY PROVIDING CONVENIENT AND WELL-MAINTAINED PORTABLE SANITARY FACILITIES. LOCATE SANITARY FACILITIES IN A CONVENIENT LOCATION AWAY FROM WATERWAYS.
- LANDSCAPING OPERATIONS** - MAINTAIN AS MUCH EXISTING VEGETATION AS PRACTICABLE. APPLY PERMANENT OR TEMPORARY STABILIZATION, SODDING AND/OR MULCHING TO DENUDED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL SPECIFICATIONS AND THE GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES. APPLY NUTRIENTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND NOT DURING RAINFALL EVENTS.

7.0 Spill Prevention & Response

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

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

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

Emergency Contacts:

Normal Working Hours

DEQ Northern Regional Office 703-583-3800

Nights, Holidays & Weekends

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

Local Contacts

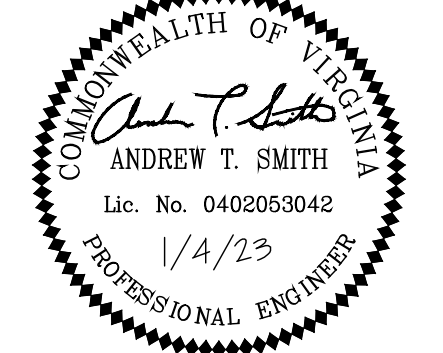
Arlington County Fire & Police 703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency 703-228-6565
Washington Gas Emergency 703-750-1400



DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL



APPROVALS DATE

Grant Jacob 1/4/2023
TRAFFIC SIGNAL ENGINEER

Dan Nabors 01/06/2023
TRAFFIC ENGINEERING MANAGER

Dan Nabors 1/18/23
WATER SEWER, STREETS BUREAU CHIEF

Dan Nabors 1/11/2023
TE&O BUREAU CHIEF

Henry 01/11/2023
TRANSPORTATION DIRECTOR

REVISIONS DATE

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**

SWPPP
3RD STREET S. AND S. CARLIN SPRINGS ROAD
ID #236
TE02

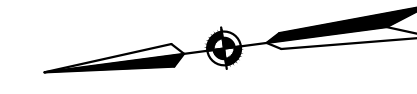
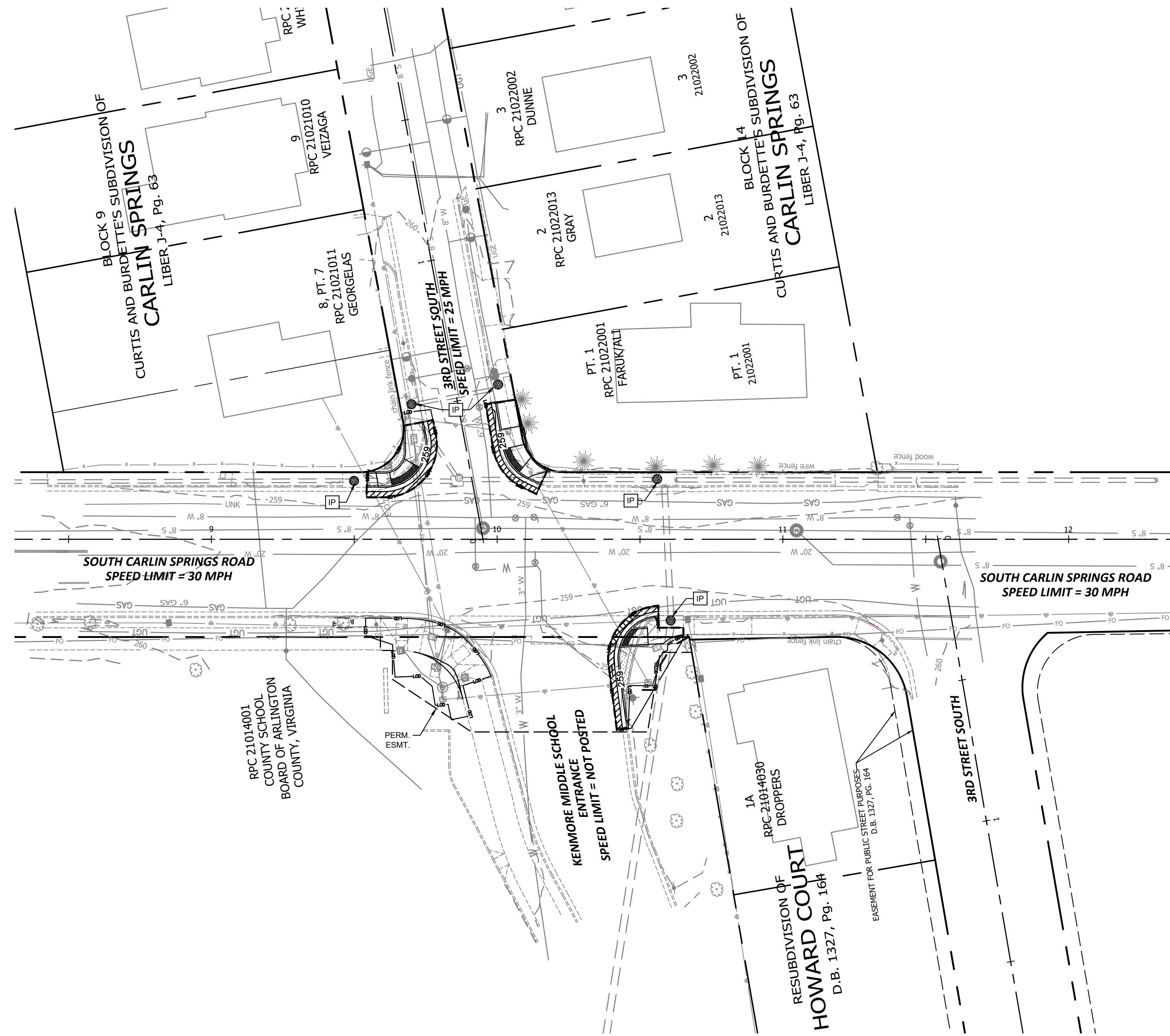
Designed: AS
Drawn: AS
Checked: GG
Miss Utility Transmittal #:

Plotted: January 19, 2023
Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
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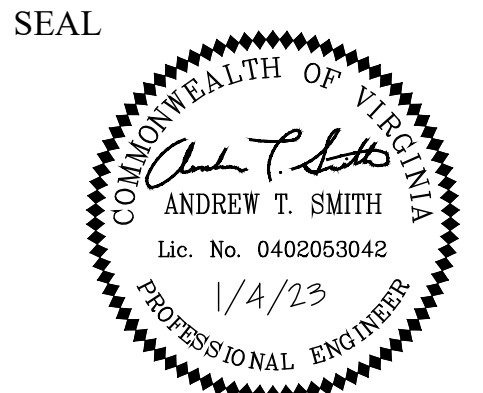


LEGEND

- SF — EROSION CONTROL FENCE (SILT FENCE) (VESCH STD & SPEC 3.05)
- LOD — LIMITS OF DISTURBANCE
- ▨ SODDING
- IP STORM SEWER STRUCTURE INLET PROTECTION (VESCH STD & SPEC 3.07)



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 Facilities & Engineering Division
 Engineering Bureau
 2100 Clarendon Boulevard, Suite 813
 Arlington, VA 22201
 Phone: 703.228.3629
 Fax: 703.228.3606



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 PHASE 2 EROSION CONTROLS
 3RD STREET S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

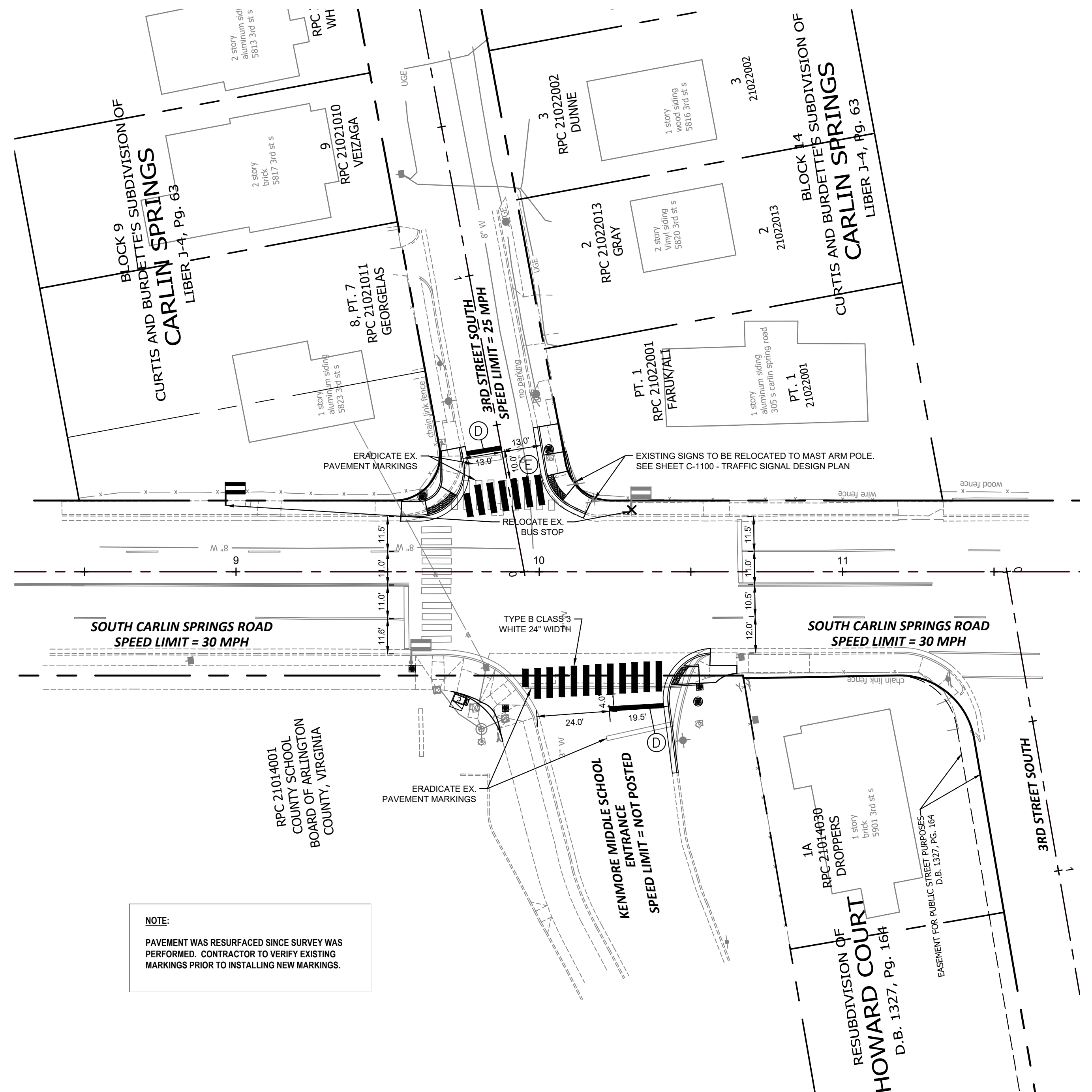
Designed: TEC
 Drawn: TEC
 Checked: GG
 Miss Utility Transmittal #:

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

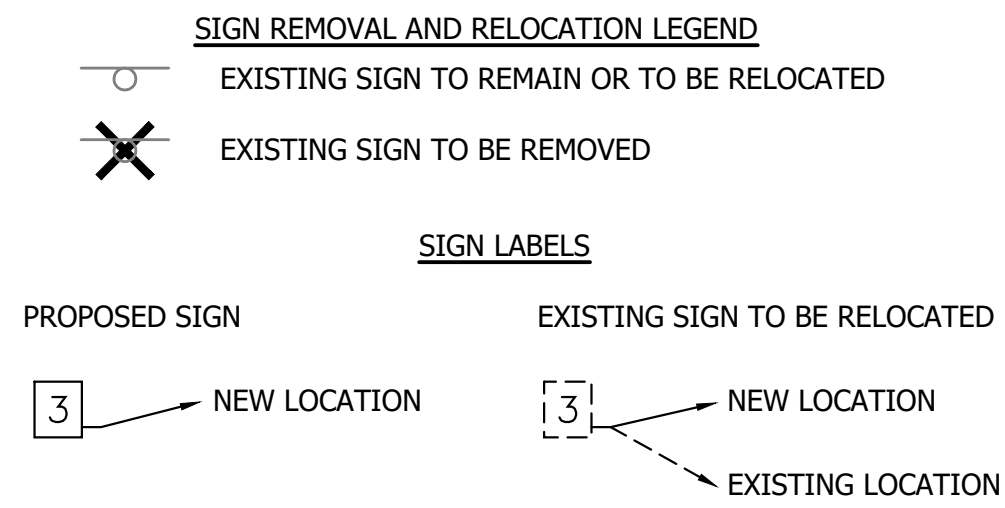
Scale:
 HOR. 1" = 25' VERT. N/A

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

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NOTE:
PAVEMENT WAS RESURFACED SINCE SURVEY WAS PERFORMED. CONTRACTOR TO VERIFY EXISTING MARKINGS PRIOR TO INSTALLING NEW MARKINGS.



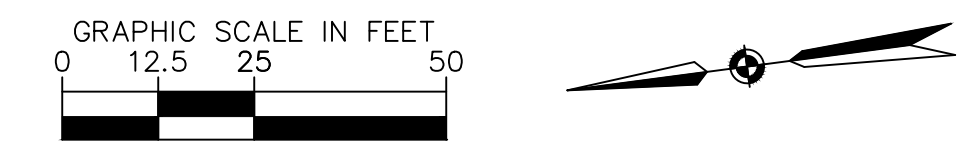
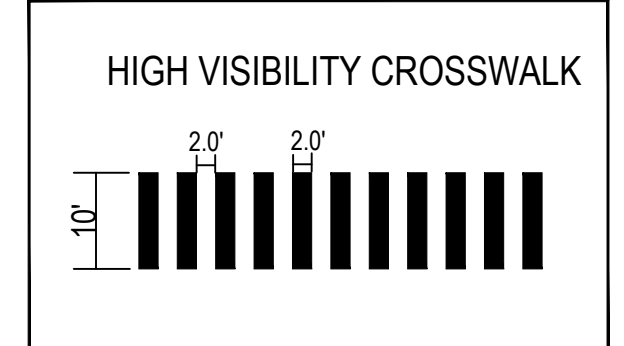
- SIGN AND PAVEMENT MARKING NOTES:**
- STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING.
 - CONTACT DENNIS HOWELL OR HIS DESIGNEE AT 703-228-6598 OR (571) 437-1077 TO APPROVE MARKING LAYOUT 48 HRS. PRIOR TO INSTALLATION OF MARKINGS.
 - 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.
 - ALL MARKINGS SHALL BE THERMOPLASTIC PER ARLINGTON COUNTY MARKING STANDARDS.
 - STOP BARS SHALL BE A MINIMUM OF 4' IN ADVANCE OF A MARKED CROSSWALK. IF THERE IS NO MARKED CROSSWALK, STOP BAR SHALL BE NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTED TRAVELED WAY.
 - CROSSWALKS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
 - LEFT TURN ARROWS SHALL BE LOCATED 25' BACK FROM STOP BAR. FOR ADDITIONAL ARROWS FOLLOW COUNTY MARKING STANDARDS.
 - ON STREET PARKING LANE IS 7' WIDE (UNLESS OTHERWISE NOTED) AND MARKED WITH 4" WIDE WHITE LINES. BEGINNING AND END OF PARKING SHALL BE MARKED WITH AN END LINE PERPENDICULAR TO CURB EXCEPT AT CURBS OR WHERE OTHERWISE INDICATED.

STANDARD PAVEMENT MARKING LEGEND:

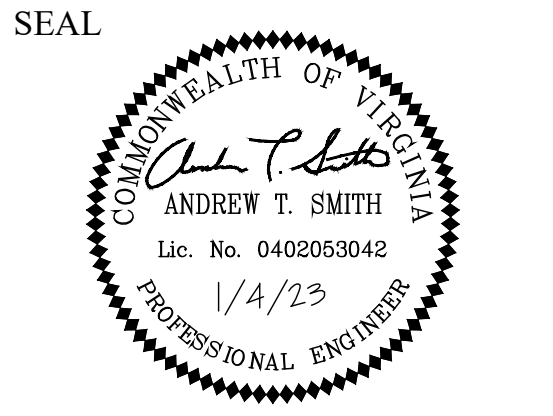
Ⓐ TYPE B CLASS 1.....WHITE 4" WIDTH	PARKING LANES, EDGE LINES, LANE LINES
Ⓑ TYPE B CLASS 1.....WHITE 4" WIDTH, 10' LONG, 30' SPACING	DASHED LANE LINES
Ⓒ TYPE B CLASS 1.....WHITE 4" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
Ⓓ TYPE B CLASS 1.....WHITE 18" WIDTH	STOP BARS
Ⓔ TYPE B CLASS 1.....WHITE 24" WIDTH	HIGH VISIBILITY CROSS WALKS
Ⓕ TYPE B CLASS 1.....WHITE 6" WIDTH	TURN LANES, TRANSVERSE CROSSWALKS, BIKE LANES
Ⓖ TYPE B CLASS 1.....YELLOW 4" WIDTH, 10' LONG, 30' SPACING	DIVIDED TRAFFIC, TWO WAY TURN LANES
Ⓗ TYPE B CLASS 1.....YELLOW 4" WIDTH	EDGE LINES
Ⓘ TYPE B CLASS 1.....YELLOW 4" WIDTH, DOUBLE LINE, 4" SPACING	CENTERLINES
Ⓛ TYPE B CLASS 1.....WHITE 6" WIDTH, 10' SPACING @45 DEGREE	HATCH LINES, SAFETY ZONES
Ⓚ TYPE B CLASS 1.....WHITE SINGLE ARROW	TURN LANES
Ⓛ TYPE B CLASS 1.....WHITE COMBINATION ARROW	TURN LANES
Ⓜ TYPE B CLASS 1.....WHITE 8" LETTERS	PAVEMENT LETTERS (STOP, YIELD, BUS, ONLY etc.)
Ⓝ TYPE B CLASS 1.....WHITE 6" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
Ⓒ TYPE B CLASS 1.....WHITE 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
Ⓔ TYPE B CLASS 1.....YELLOW 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS

SIGNING AND MARKING LEGEND

EXISTING		PROPOSED
	BUS STOP	
	FIRE HYDRANT	
	SIGN	
	MARKING	



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 Phone: 703.228.3629
 Fax: 703.228.3606



APPROVALS

	1/4/2023
	01/06/2023
	1/18/23
	1/11/2023
	01/11/2023

REVISIONS

REVISIONS	DATE

Project Name and Location
S. Carlin Springs Road
Signal Upgrades
 PAVEMENT MARKING AND SIGNING PLAN
 3RD STREET S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

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

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

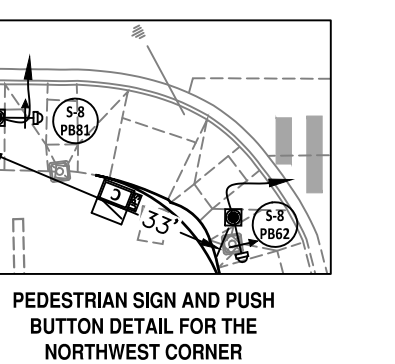
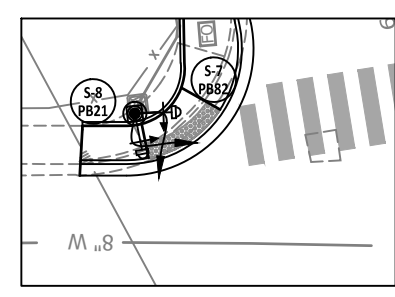
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CONSTRUCTION NOTES

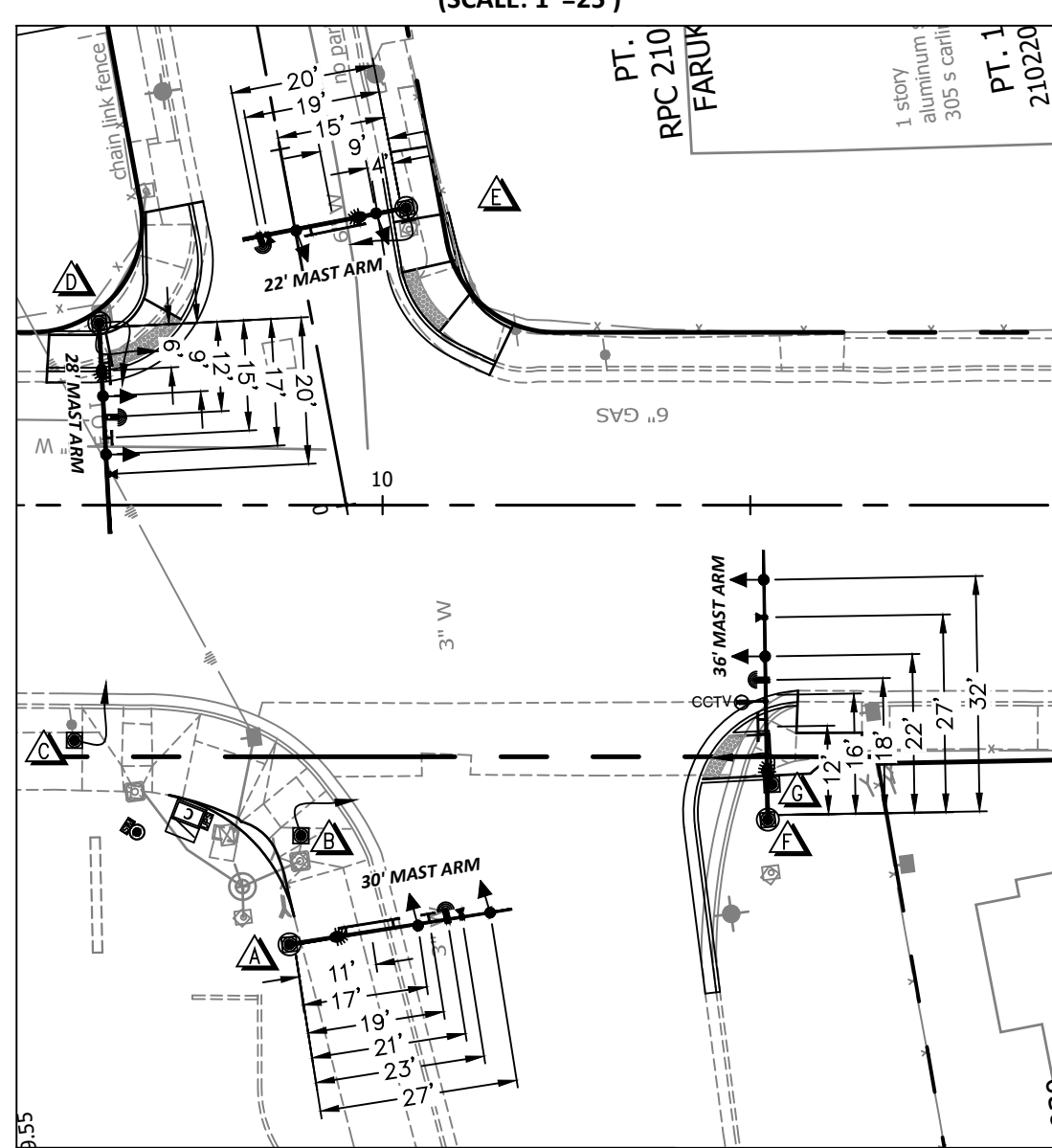
EXISTING CONTROLLER AND CABINET TO BE REPLACED WITH NEW CONTROLLER AND CABINET ON A NEW FOUNDATION. ALL OTHER EXISTING EQUIPMENT TO BE REMOVED INCLUDING UNUSED WIRING, CONDUIT, AND JUNCTION BOXES, UNLESS OTHERWISE SPECIFIED. EXISTING CONTROLLER AND CABINET SHALL BE RETURNED TO ARLINGTON COUNTY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING CONSTRUCTION ACTIVITIES AT SCHOOL ENTRANCE TO PROVIDE ADEQUATE EGRESS/INGRESS AT ALL TIMES.

1. INSTALL SIGNAL CONTROLLER CABINET WITH UPS AND CONCRETE STOOP. CABINET SHALL BE ORIENTED TO PROVIDE TECHNICIAN VIEW OF SIGNAL DISPLAYS.
2. INSTALL UNDERGROUND ELECTRIC SERVICE WITH PEDESTAL METERPAN. PROPOSED CONDUIT SHOWN TO THE APPROXIMATE LOCATION OF POWER SOURCE. TO BE FINALIZED BASED UPON ONGOING DVP COORDINATION.
3. INSTALL NON-ORNAMENTAL MAST ARM SIGNAL POLE WITH LUMINAIRE, PEDESTRIAN SIGNAL HEAD, AND POLARA PEDESTRIAN EQUIPMENT. EXISTING, GROUND-MOUNTED SIGNS S-5 AND S-6 TO BE RELOCATED TO SIGNAL POLE FACING NORTHBOUND (VISIBLE TO SOUTHBOUND TRAFFIC).
4. INSTALL NON-ORNAMENTAL MAST ARM SIGNAL POLE WITH LUMINAIRE.
5. INSTALL PEDESTAL POLE WITH PEDESTRIAN SIGNAL(S), POLARA PEDESTRIAN EQUIPMENT, AND SIGN(S).
6. PRIOR TO REMOVING EXISTING PEDESTAL POLE, INSTALL WOOD POST WITH TEMPORARY PEDESTRIAN PUSH BUTTON. TEMPORARY PUSH BUTTON TO REMAIN UNTIL NEW SIGNAL IS ACTIVATED.
7. SEE COMMUNICATION PLAN ON SHEET C-1101 FOR COMMUNICATION CONNECTION DETAILS.
8. MAST ARM HEIGHT SHOULD BE 19'.
9. CONTRACTOR SHALL CONFIRM LOCATION OF FIBER COMMUNICATIONS CONDUIT AND ADJUST LOCATION OF PROPOSED PEDESTAL IF NECESSARY. A PUSH BUTTON EXTENDER SHALL BE ADDED IF REACH DISTANCE EXCEEDS 12'.
10. MAST ARM HEIGHT SHOULD BE AT 17'. CONTRACTOR SHALL VERIFY MAST ARM HEIGHT NECESSARY BEFORE ORDERING POLE AND SHALL PROTECT AND MAINTAIN EXISTING SPAN WIRES STRUCTURE INTACT DURING CONSTRUCTION.
11. CONTRACTOR TO CONFIRM THAT 2" SHALL BE MAINTAINED BETWEEN SIGNAL EQUIPMENT AND SERVICE LINE.
12. MAST ARM SIGNAL POLE FOUNDATION SHALL HAVE A MAXIMUM DIAMETER OF 3'.
13. SIGNAL POLE FOUNDATION SHALL BE FLUSH WITH SIDEWALK ELEVATION. OUTSIDE EDGE OF SIGNAL POLE SHALL BE A MINIMUM OF 1.5' FROM FACE OF CURB. CLEAR WIDTH OF PEDESTRIAN ACCESS ROUTE SHALL BE 4' WIDE (INCLUDING FLUSH SIGNAL POLE FOUNDATION).



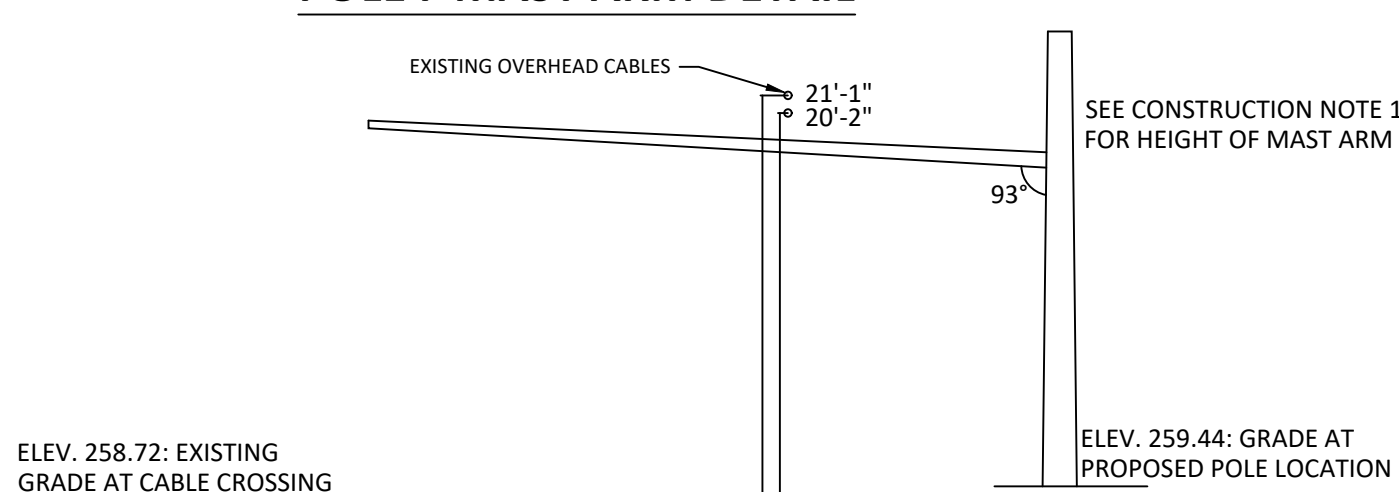
POLE LOCATION DETAIL
(SCALE: 1"=25')



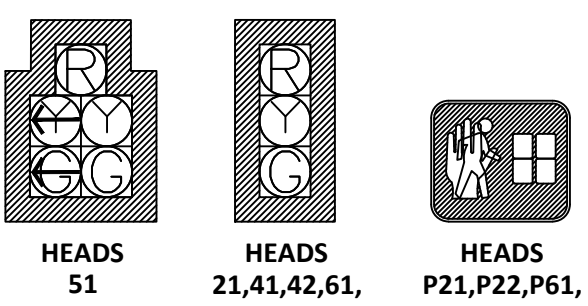
POLE LOCATION SCHEDULE

POLE ID	STATION	OFFSET
236-MA-01-NW	9+87.32	59.71' RT
236-PP-01-NW	9+88.89	44.93' RT
236-PP-01-NW	9+58.09	31.96' RT
236-MA-02-NE	9+61.45	24.77' LT
236-MA-03-SE	10+06.27	40.82' LT
236-MA-04-SW	10+52.38	42.76' RT
236-PP-02-SW	10+52.94	37.95' RT

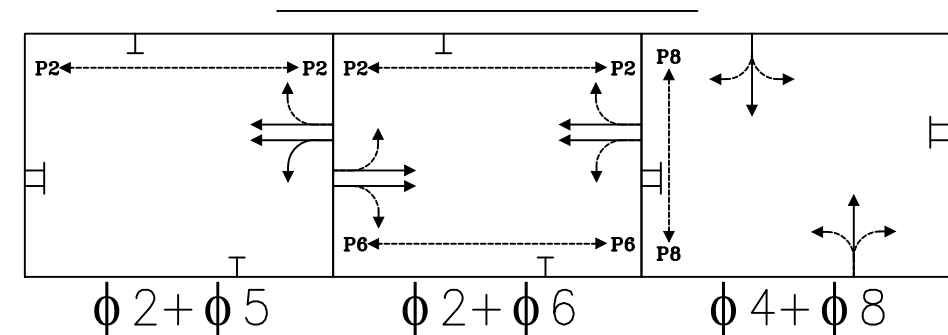
POLE F MAST ARM DETAIL



PROPOSED SIGNALS



EXISTING/PROPOSED PHASING DIAGRAM



POLE SIGNAL MOUNTING

No.	STANDARD					LUM. LED (4)	POLE SIGNAL MOUNTING				STREET NAME SIGN
	TYPE	SIG. M.A. ORIENT.	SIG. M.A.	LUM. M.A. ORIENT.	LUM. M.A. (TYPE)		VEHICLE & PED. HEADS	PED. PUSH BUTTONS	SIGNS	VIDEO DETECTOR PREEMPTION & CCTV	
1	MAST ARM POLE 30'	180°	30'	180°	6' (STANDARD)	72W	81,82	S-2	VD8,PE8	S-4	
2	PEDESTAL POLE 12'	180°	28'	180°	6' (STANDARD)	145W	P62	S-8		S-3	
3	PEDESTAL POLE 12'	180°	22'	180°	6' (STANDARD)	72W	P81	S-8		S-4	
4	MAST ARM POLE 30'	180°	28'	180°	6' (STANDARD)	145W	21,51,P21,P82	S-7,S-8	S-1	VD2,PE2	
5	MAST ARM POLE 30'	180°	22'	180°	6' (STANDARD)	72W	41,42,P22	S-8	S-2,S-5,S-6	VD4,PE4	
6	MAST ARM POLE 30'	180°	36'	180°	6' (STANDARD)	145W	61,62	S-8	VD6,PE6,CCTV	S-3	
7	PEDESTAL POLE 12'						P61	S-8			

CONDUIT & CABLE

- A** 1-3" CONDUIT PVC
1-14/7C FOR SIGNAL HEADS 41 AND 42
1-14/7C FOR PED HEAD P22
1-14/3C FOR PED PUSH BUTTON P22
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION VD4
1-12/2C FOR LUMINAIRE SL2
1-#6 AWG (EGC)
- B** 1-3" CONDUIT PVC
1-12/2C FOR LUMINAIRE SL2
1-#6 AWG (EGC)
- C** 1-3" CONDUIT (BORED) HDPE
1-14/7C FOR SIGNAL HEADS 41 AND 42
1-14/7C FOR PED HEAD P22
1-14/3C FOR PED PUSH BUTTON P22
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION VD4
1-12/2C FOR LUMINAIRE SL2
1-#6 AWG (EGC)
- D** 1-3" CONDUIT (BORED) HDPE
1-14/7C FOR PED HEAD P62
1-14/3C FOR PED PUSH BUTTON P62
1-#6 AWG (EGC)
- E** 1-3" CONDUIT PVC
1-14/7C FOR PED HEAD P61
1-14/3C FOR PED PUSH BUTTON P61
1-#6 AWG (EGC)
- F** 1-3" CONDUIT (BORED) HDPE
1-14/7C FOR SIGNAL HEADS 21 AND 51
1-14/7C FOR PED HEAD P21
1-14/3C FOR PED PUSH BUTTONS P21 AND P82
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION VD2
1-12/2C FOR LUMINAIRE SL3
1-#6 AWG (EGC)
- G** 1-3" CONDUIT PVC
1-14/7C FOR PED HEAD P81
1-14/3C FOR PED PUSH BUTTON P81
1-#6 AWG (EGC)
- H** 1-3" CONDUIT (BORED) HDPE
1-14/7C FOR SIGNAL HEADS 21, 41, 42, 51, 61, 62, 81, AND 82
1-14/7C FOR PED HEADS P21, P22, P61, P62, AND P82
1-14/3C FOR PED PUSH BUTTONS P21, P22, P61, P62, AND P82
4-LEAD IN CABLES FOR THERMAL VEHICLE DETECTION VD2, VD4, VD6, AND VD8
1-CCTV LEAD IN CABLE
4-12/2C FOR LUMINAIRES SL1, SL2, SL3, AND SL4
3-#6 AWG (EGC)
- I** 1-3" CONDUIT PVC
1-14/7C FOR SIGNAL HEADS 21, 41, 42, 51, 61, 62, 81, AND 82
1-14/7C FOR PED HEADS P21, P22, P61, P62, P81, AND P82
1-14/3C FOR PED PUSH BUTTONS P21, P22, P61, P62, P81, AND P82
4-LEAD IN CABLES FOR THERMAL VEHICLE DETECTION VD2, VD4, VD6, AND VD8
1-CCTV LEAD IN CABLE
4-12/2C FOR LUMINAIRES SL1, SL2, SL3, AND SL4
4-#6 AWG (EGC)
- J** 1-3" CONDUIT PVC
1-14/7C FOR SIGNAL HEADS 81 AND 82
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION VD8
1-12/2C FOR LUMINAIRE SL4
1-#6 AWG (EGC)
- K** 1-3" CONDUIT PVC
1-14/7C FOR SIGNAL HEADS 81 AND 82
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION VD8
1-12/2C FOR LUMINAIRE SL4
1-#6 AWG (EGC)
- L** 1-3" CONDUIT PVC
1-14/7C FOR SIGNAL HEADS 81 AND 82
1-LEAD IN CABLE FOR THERMAL VEHICLE DETECTION VD8
1-12/2C FOR LUMINAIRE SL4
1-#6 AWG (EGC)
- M** 1-2" CONDUIT METAL
1-#6/4C AWG FOR ELECTRICAL SERVICE
- N** 1-2" CONDUIT METAL
2-12/2C FOR ELECTRICAL SERVICE
1-#6/4C AWG FOR ELECTRICAL SERVICE

COLOR SEQUENCE CHART

PHASE	2	4	5	6	8	2+5	2+6	4+8	FLASH
SIGNAL	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	
21	G								Y
41, 42		G							R
51			<G			<G			Y
61, 62				G					Y
81, 82					G				R
P21, P22	W*					W*	W*		DARK
P61, P62				W*			W*		DARK
P81, P82					W*		W*		DARK

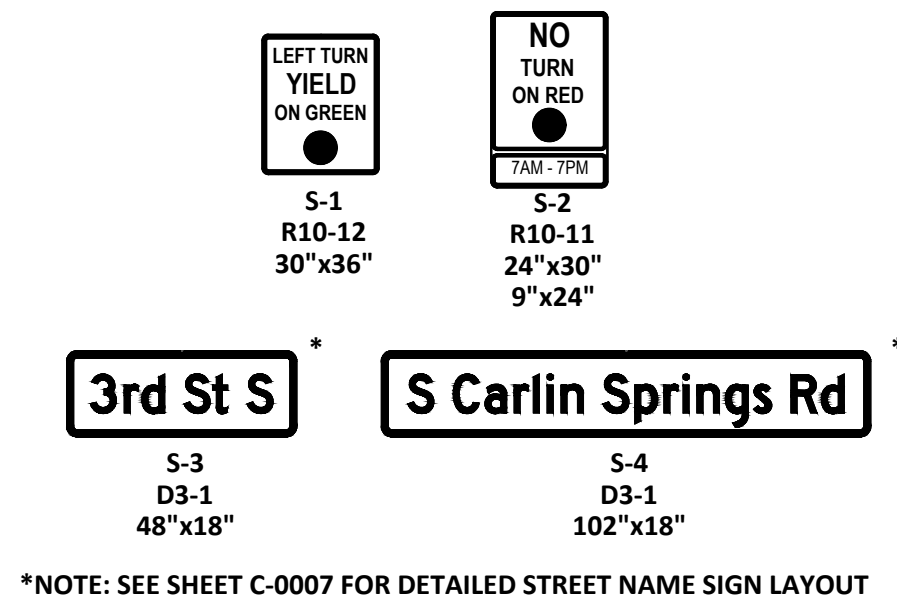
NOTE: BLANK SPACES IN THIS CHART REPRESENT A "RED" SIGNAL INDICATION.
 *WALK INDICATION IS DISPLAYED WHEN PEDESTRIAN CALL IS SERVICED; WALK INDICATION IS DISPLAYED UNTIL IT IS TIMED OUT. OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.

INITIAL TIMING CHART

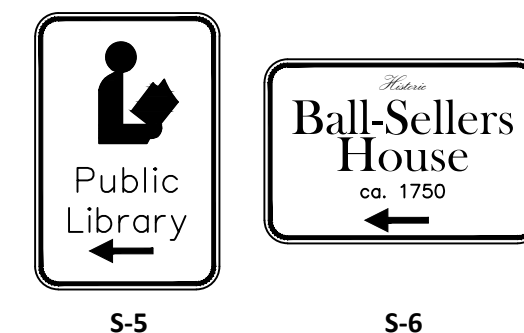
PHASE	1	2	3	4	5	6	7	8
MOVEMENT		NB S CARLIN SPRINGS RD THRU		EB MIDDLE SCHOOL ENTRANCE	NB S CARLIN SPRINGS RD LEFT	SB S CARLIN SPRINGS RD		NB 3RD ST S
PHASE ON		X		X	X	X		X
PHASE OFF	X		X				X	
INTERVAL	PHASE TIMINGS							
MIN GR	-	5.0	-	5.0	5.0	5.0	-	5.0
PASSAGE	-	0.0	-	2.0	0.0	0.0	-	2.0
YELLOW	-	3.9	-	3.5	3.9	3.9	-	3.5
RED	-	2.0	-	2.1	2.0	2.0	-	2.1
MAX 1	-	30.0	-	20.0	15.0	30.0	-	20.0
MAX 2	-	30.0	-	20.0	-	30.0	-	20.0
MIN GAP	-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION	-	-	-	-	-	-	-	-
TIME TO REDUCE	-	-	-	-	-	-	-	-
PED WALK	-	7.0	-	-	-	7.0	-	7.0
PED FLASH	-	11.0	-	-	-	11.0	-	9.0
DON'T WALK	-	-	-	-	-	-	-	-
MODE	-	MAX RECALL	-	NON-LOCK	MAX RECALL	MAX RECALL	-	NON-LOCK

*SIGNAL TIMING INFORMATION PROVIDED BY ARLINGTON COUNTY. UPDATED TIMING INFORMATION TO BE DEVELOPED AND IMPLEMENTED BY ARLINGTON COUNTY ACCOUNTING FOR MODIFIED INTERSECTION GEOMETRY.

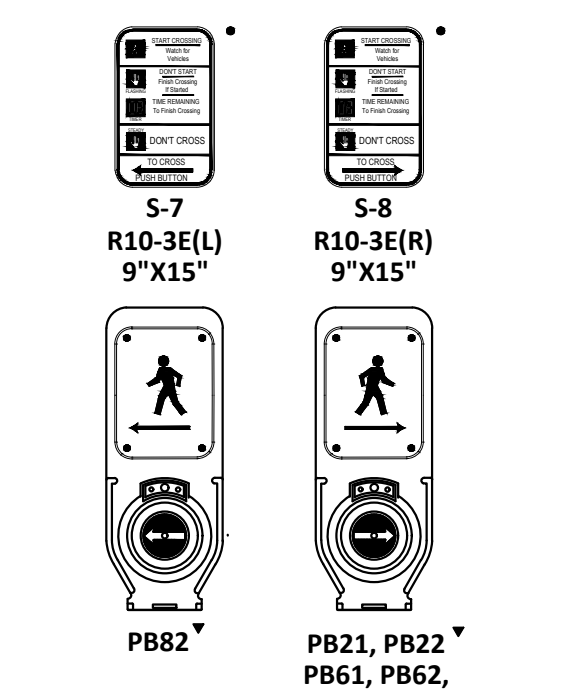
PROPOSED SIGNS



EXISTING SIGNS TO BE RELOCATED



PROPOSED ACCESSIBLE PEDESTRIAN PUSHBUTTONS

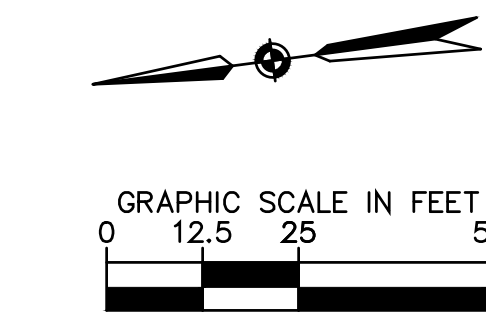


PUSHBUTTON	WALK MESSAGE
PB81, PB82	"SOUTH CARLIN SPRINGS ROAD, WALK SIGN IS ON TO CROSS SOUTH CARLIN SPRINGS ROAD."
PB21, PB22, PB61, PB62	"3RD STREET SOUTH, WALK SIGN IS ON TO CROSS 3RD STREET SOUTH."

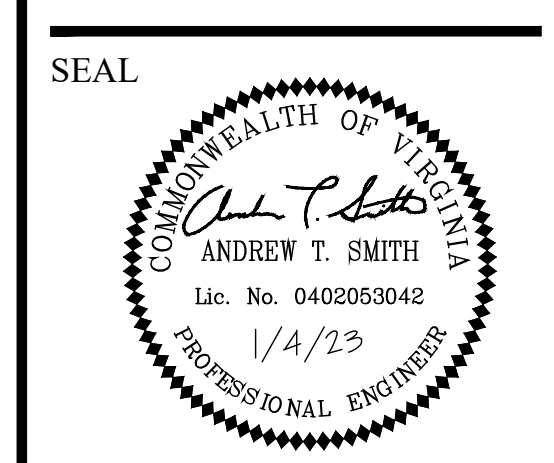
* PEDESTRIAN PUSHBUTTON SIGN SHALL BE MOUNTED ABOVE PEDESTRIAN PUSHBUTTON.
 * ACCESSIBLE PUSHBUTTON SYSTEM SHALL BE POLARA SYSTEM CONFORMING TO ARLINGTON COUNTY SPECIFICATION AND SHALL INCLUDE A POLARA CENTRAL CONTROL UNIT.

LEGEND

	EXISTING	PROPOSED
Control Cabinet		
Signal Junction Box (61-02)		
Signal Junction Box (61-04, TYPE-3)		
Electrical Junction Box (LT-16)		
Comm. Junction Box		
Service Junction Box (61-02)		
Mast Arm Pole & Foundation		
Pedestrian Pedestal Pole & Foundation		
Carlyle Lighting Pole & Foundation		
Service Meter		
Battery Backup (UPS)		
Vehicle Signal Head (LED)		
Pedestrian Push Button		
FLIR Video Detection		
Emergency Vehicle Preemption		
CCTV Vehicle Camera		
Overhead Light (LED)		
Conduit Run		



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



APPROVALS

APPROVALS	DATE
	1/14/2023
	01/06/2023
	1/18/23
	1/11/2023
	01/11/2023

REVISIONS

REVISIONS	DATE

Project Name and Location
S. Carlin Springs Road Signal Upgrades
 TRAFFIC SIGNAL DESIGN PLAN
 3RD STREET S. AND S. CARLIN SPRINGS ROAD
 ID #236
 TE02

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

Plotted: January 19, 2023
 Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

Sheet
C-1100

GENERAL NOTES

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

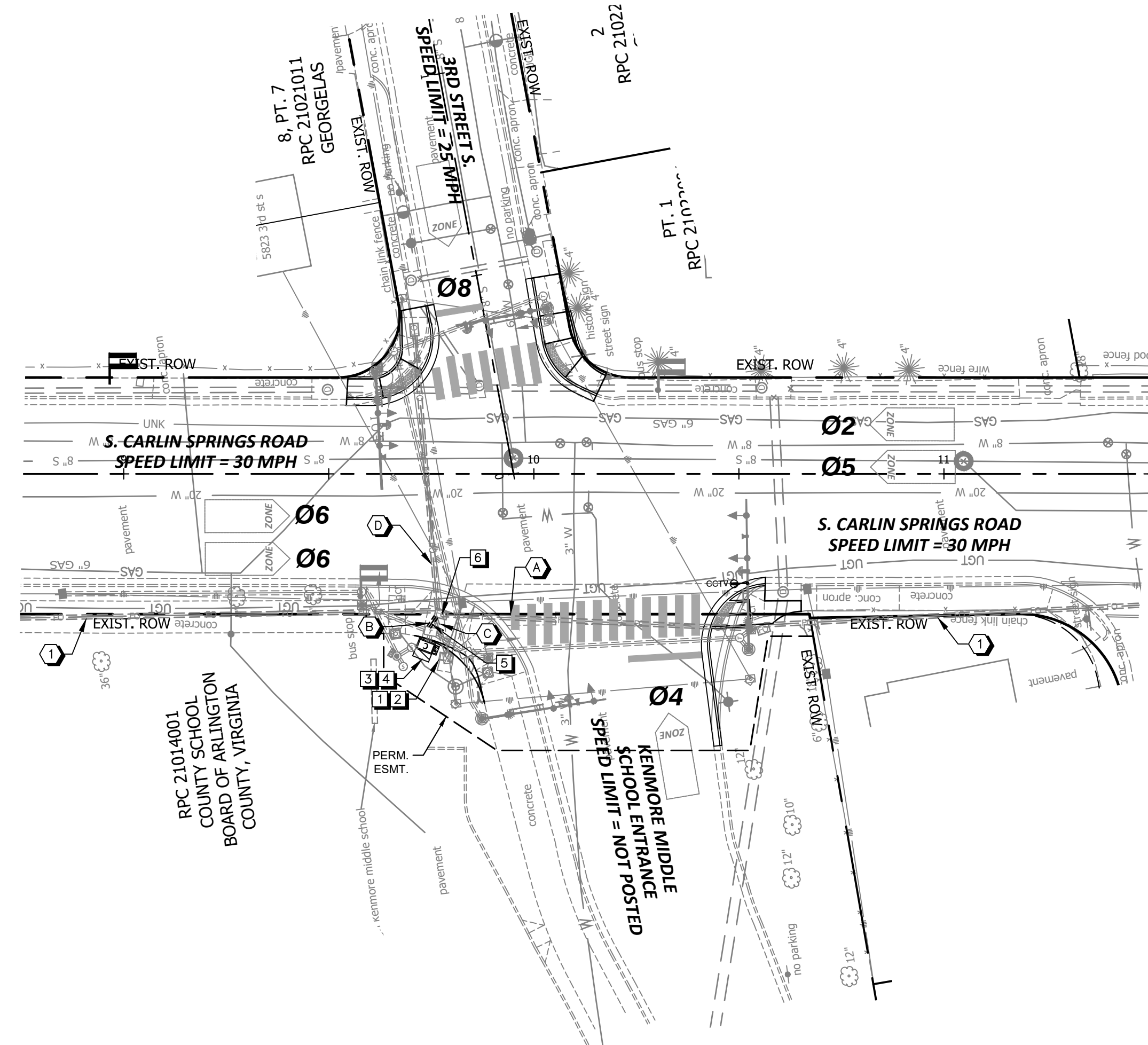
IF ANY OF THE ABOVE CONDITIONS ARE NOT MET, THEN TAKE APPROVED CORRECTIVE ACTION, INCLUDING REMAKING SPLICES OR REPLACING COMPLETE SEGMENTS OF FIBER OPTIC CABLE, AS REQUIRED. CORRECTIVE ACTION WILL BE AT NO ADDITIONAL COST TO THE COUNTY.
- THE CONTRACTOR SHALL NOT CUT OR DAMAGE EXISTING FIBER OPTIC CABLES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

CONSTRUCTION NOTES

- CONTRACTOR SHALL REMOVE ALL COMMUNICATION EQUIPMENT TO INCLUDE: 12 FIBER PATCH PANEL AND FIBER CABLE, ETHERNET SWITCH AND JUMPER CABLES FROM EXISTING CONTROLLER CABINET AND RELOCATE TO PROPOSED CONTROLLER CABINET.
- EXISTING CONTROLLER LOCATION
- PROPOSED CONTROLLER LOCATION
- CONTRACTOR SHALL INSTALL 12 FIBER PATCH PANEL, ETHERNET SWITCH AND JUMPER CABLES IN PROPOSED CONTROLLER CABINET.
- INSTALL 12 FIBER CABLE FROM FIBER TERMINATION PATCH PANEL IN PROPOSED CONDUIT. CONTRACTOR SHALL NOTIFY THE COUNTY IF A SUFFICIENT LENGTH OF FIBER CABLE IS NOT AVAILABLE TO REROUTE TO THE NEW CONTROLLER.
- RE-ENTER EXISTING JUNCTION BOX WITH NEW CONDUIT.

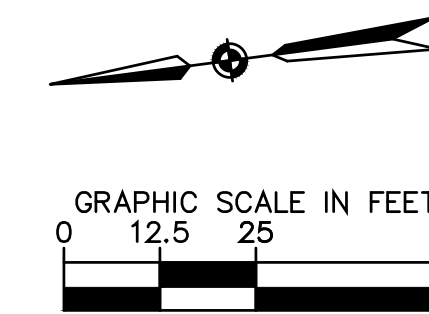
CONDUIT & CABLE

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



LEGEND

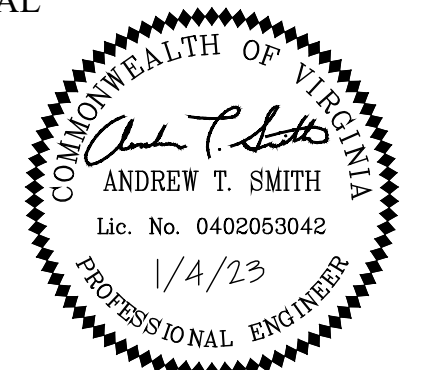
	EXISTING	PROPOSED
Control Cabinet	☒	☐ C
Comm. Junction Box (61-02)	⊗ c	⊙
Comm. Junction Box (61-04, TYPE-3)	☐ FO	☐ FO
Battery Backup (UPS)	☐ UPS	☐ UPS
Conduit Run	===	===



DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL



APPROVALS DATE

<i>[Signature]</i>	1/4/2023
TRAFFIC SIGNAL ENGINEER	
<i>[Signature]</i>	01/06/2023
TRAFFIC ENGINEERING MANAGER	
<i>[Signature]</i>	1/18/23
WATER SEWER, STREETS BUREAU CHIEF	
<i>[Signature]</i>	1/11/2023
TE&O BUREAU CHIEF	
<i>[Signature]</i>	01/11/2023
TRANSPORTATION DIRECTOR	

REVISIONS DATE

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**

COMMUNICATION DESIGN PLAN
3RD STREET S. AND S. CARLIN SPRINGS ROAD

ID #236
TE02

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

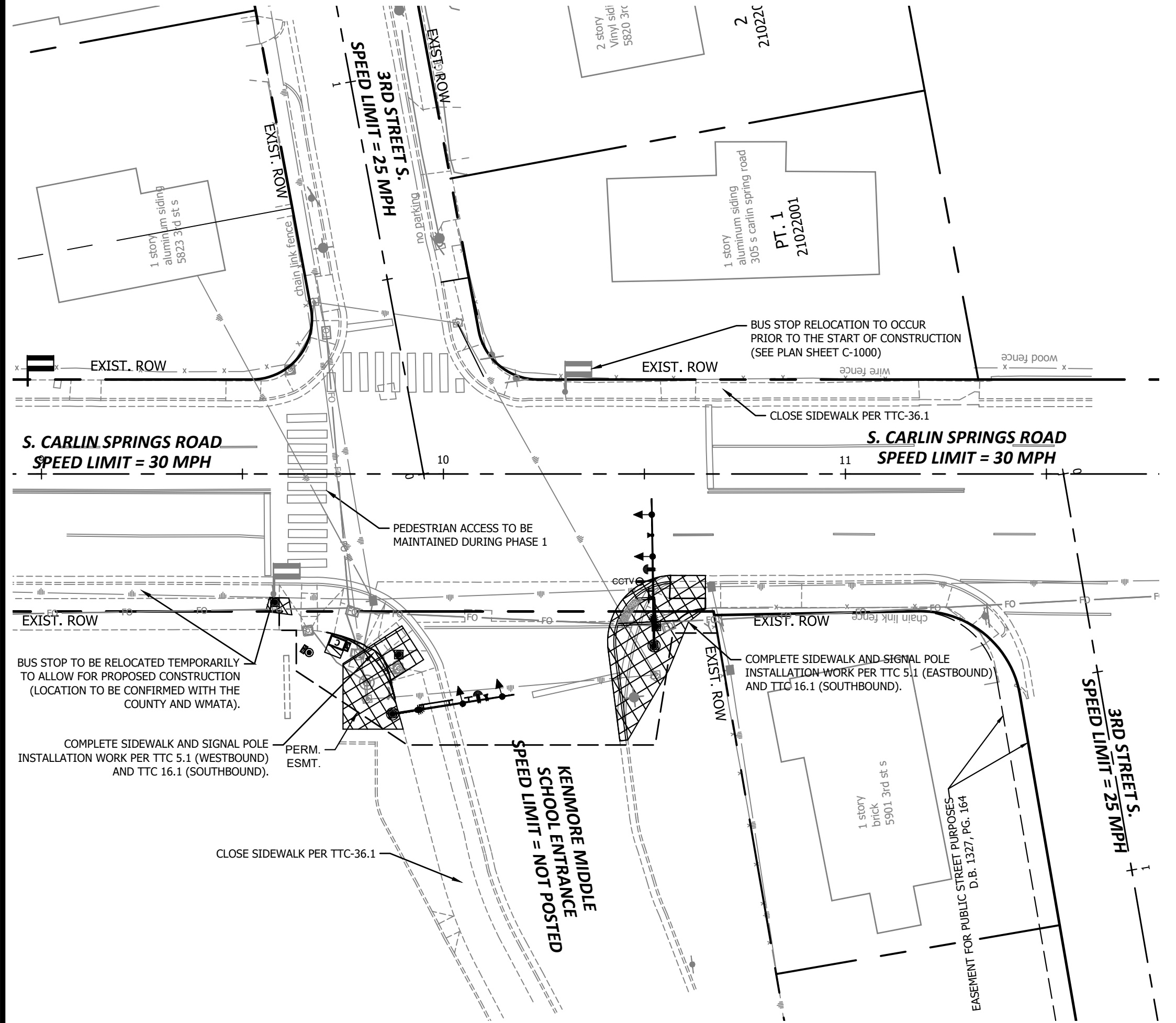
Plotted: January 19, 2023
Plotted by: Grant.Jacob

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

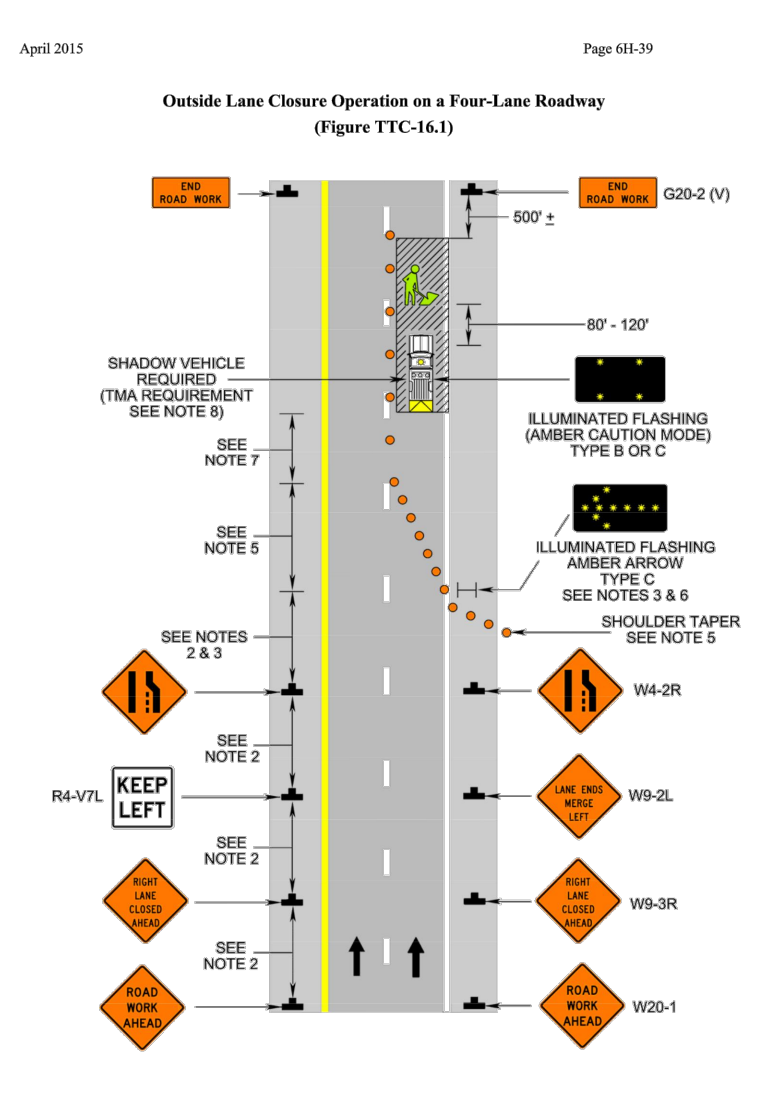
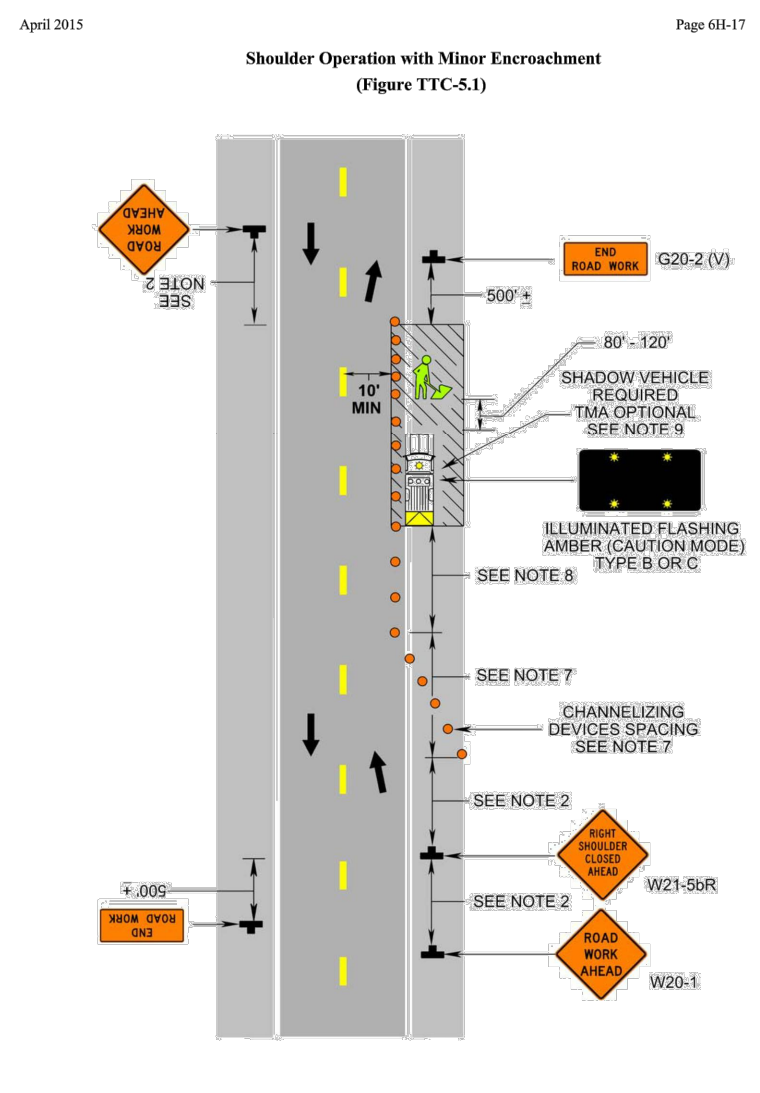
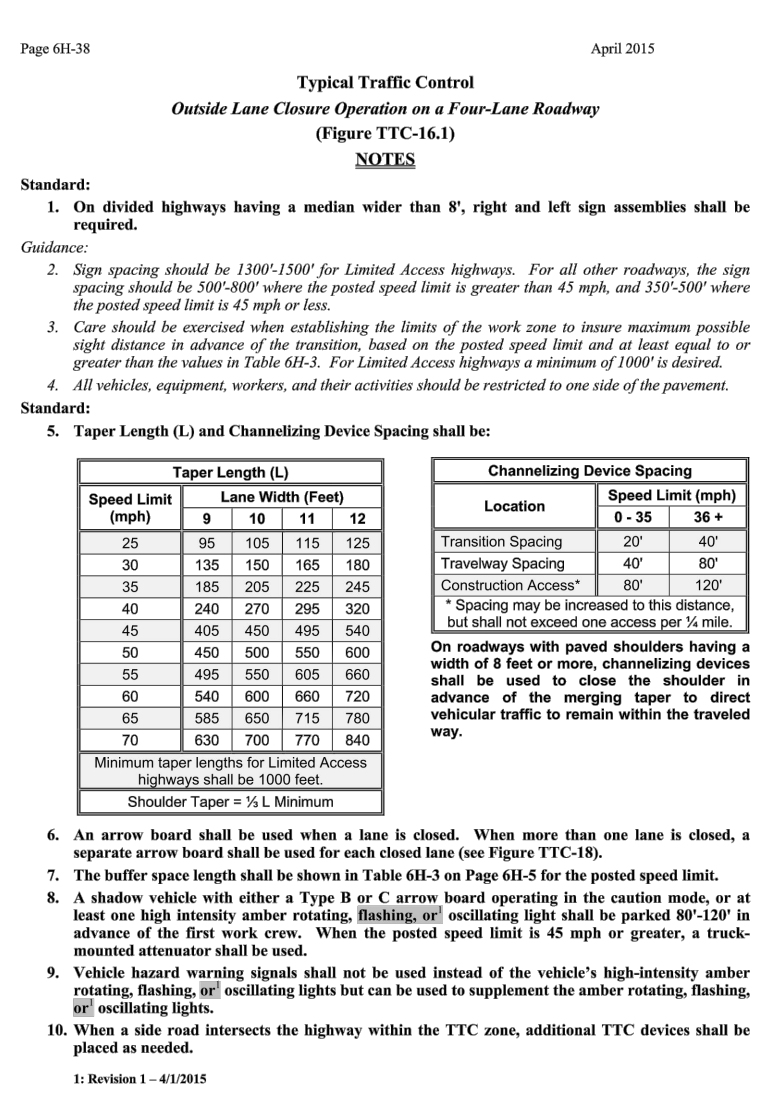
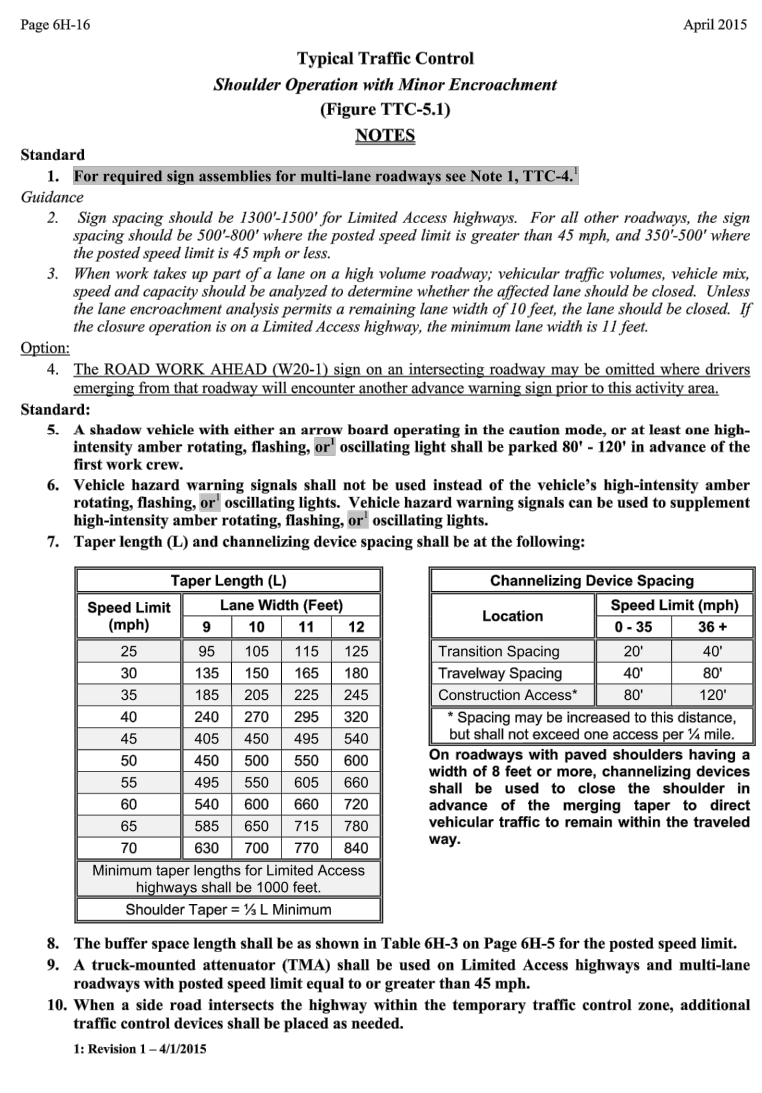
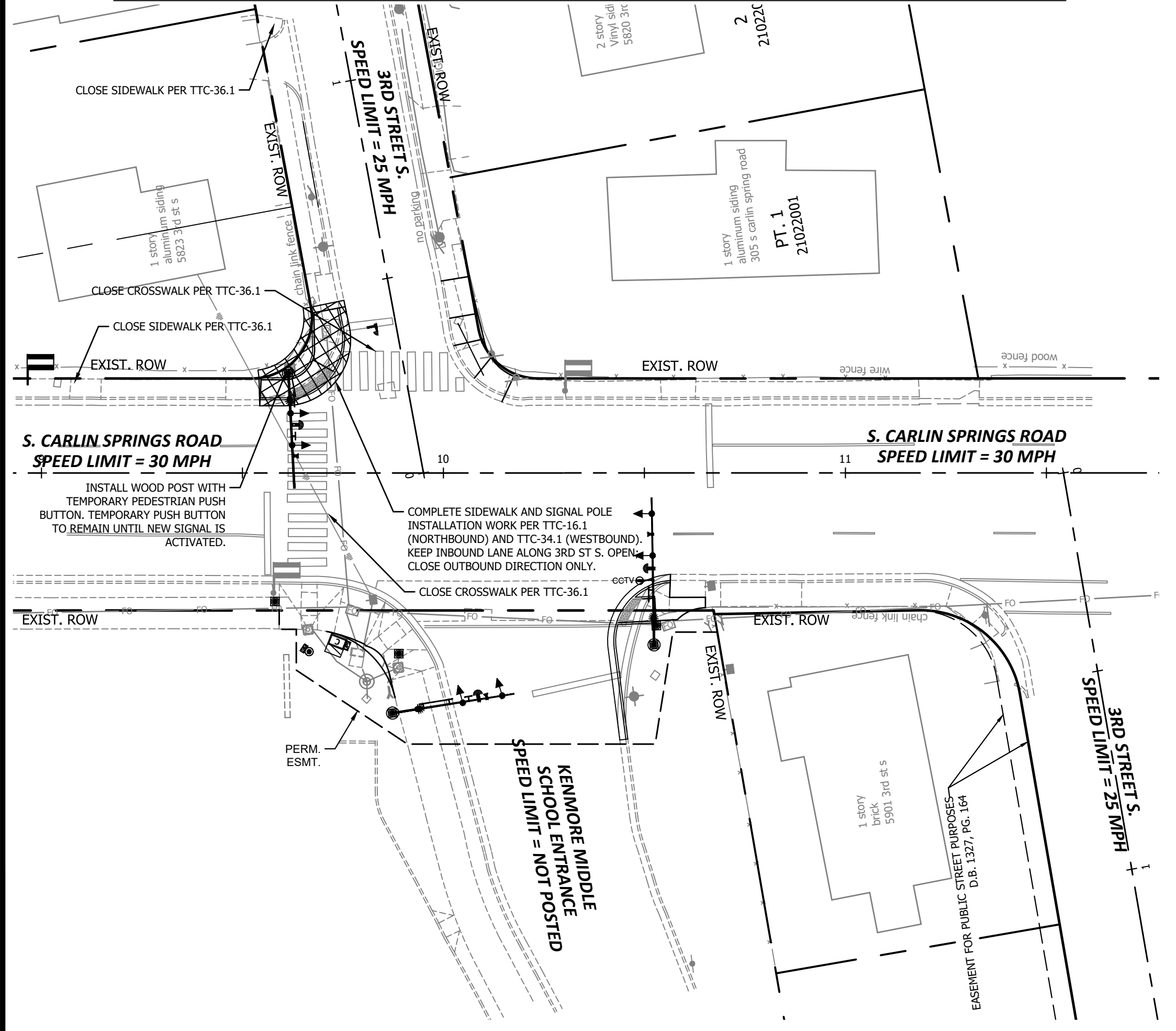
KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-1101

MAINTENANCE OF TRAFFIC PHASE 1 - NORTHWEST AND SOUTHWEST CORNERS - ESTIMATED DURATION 5 DAYS

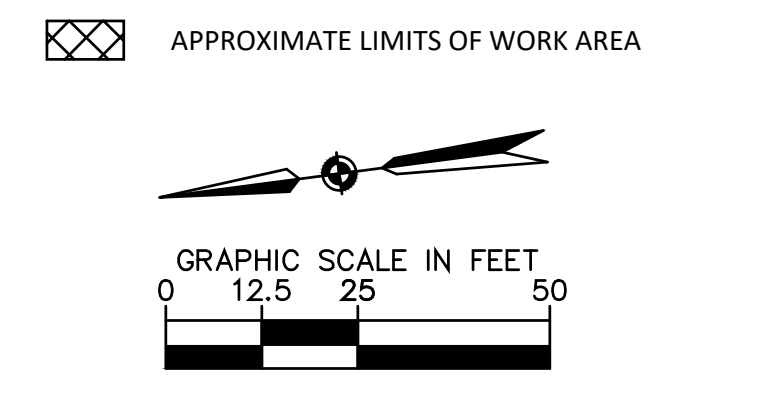
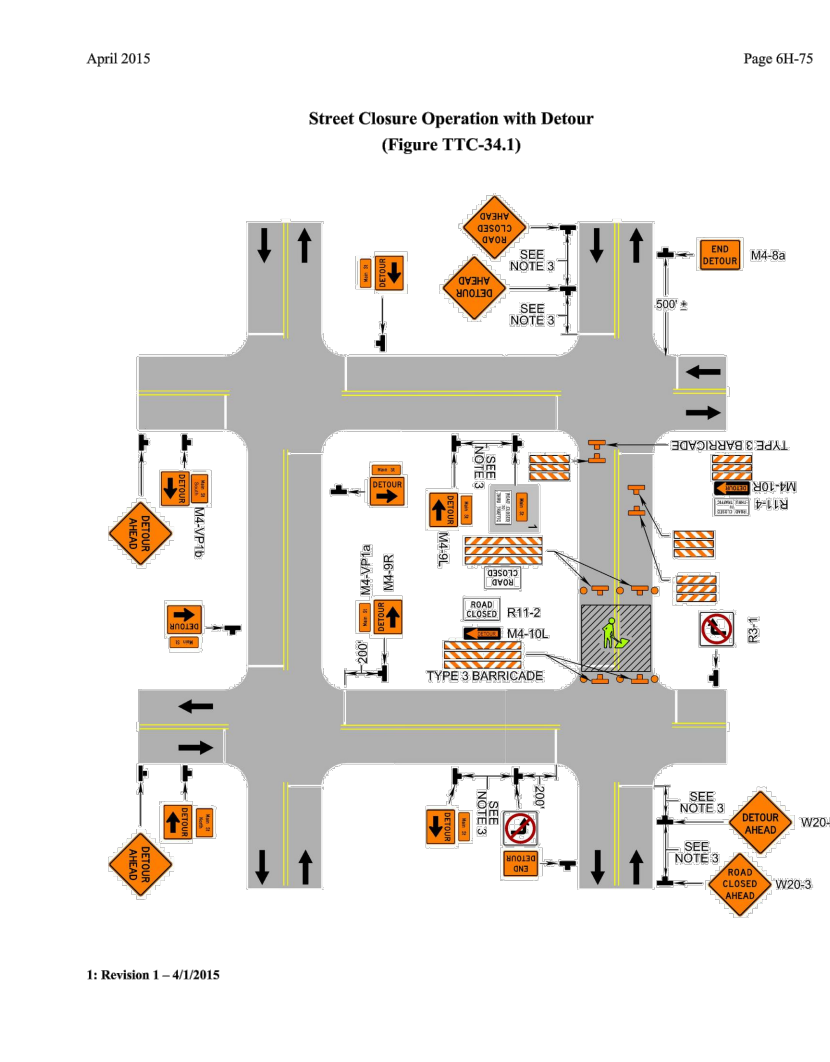
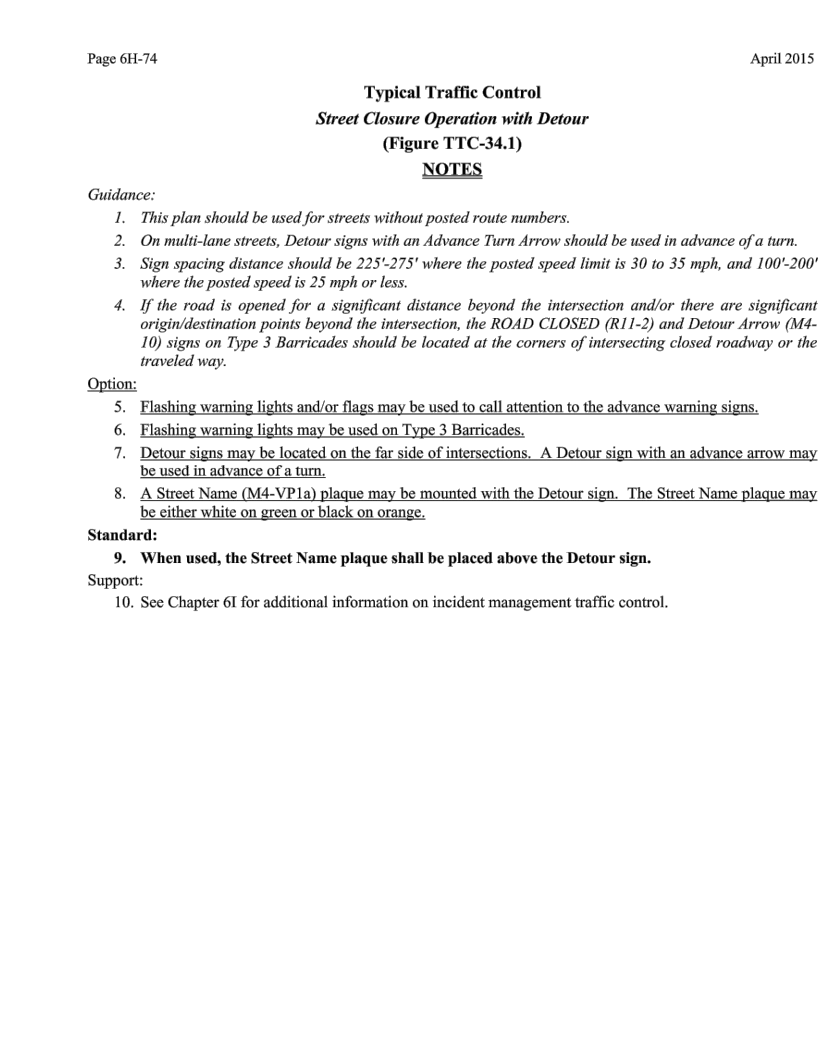
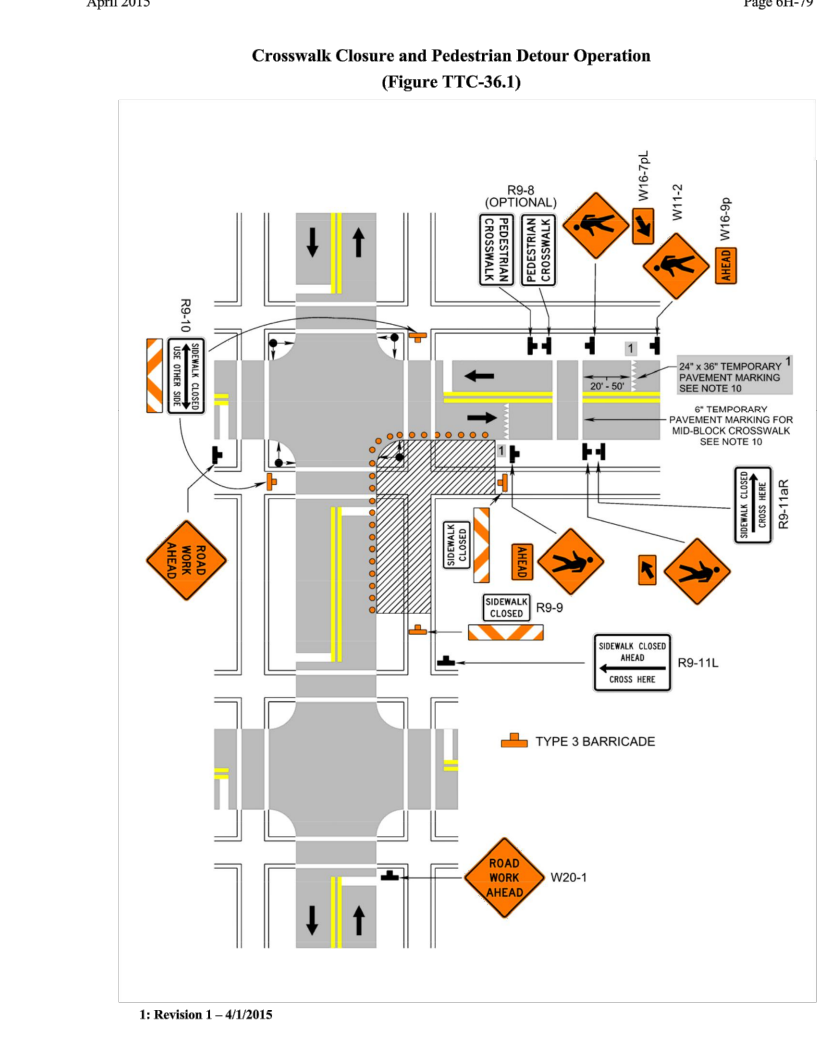
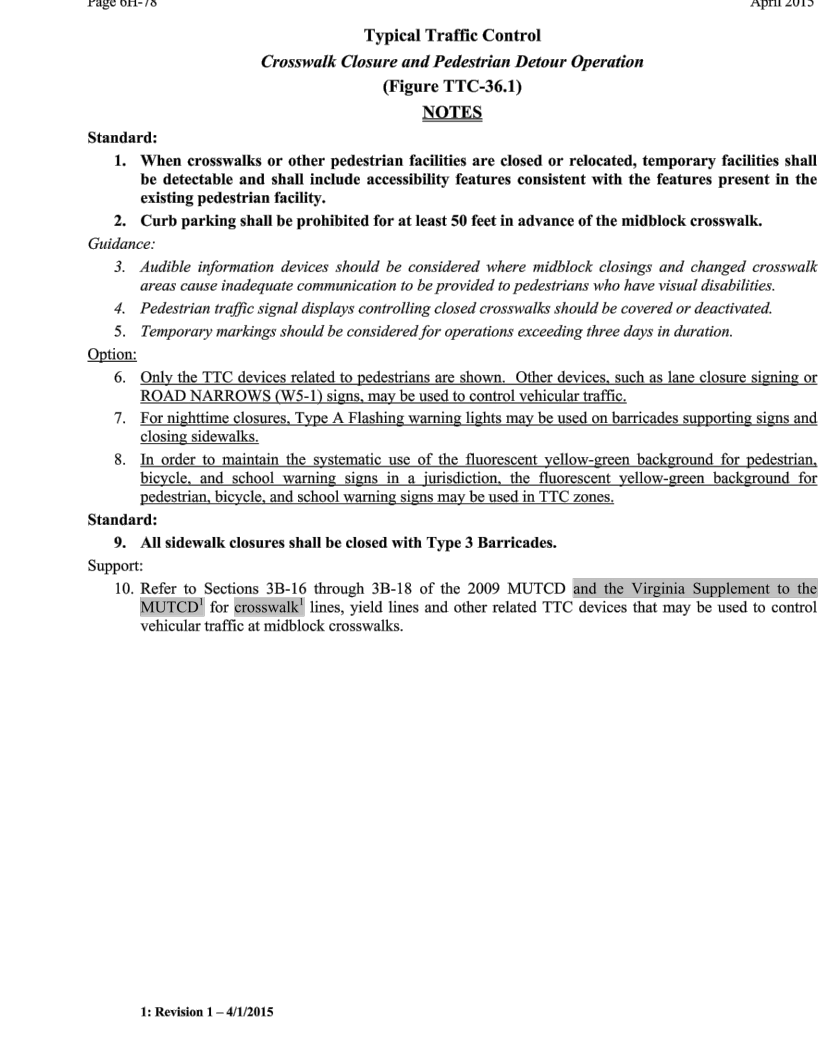


MAINTENANCE OF TRAFFIC PHASE 2 - NORTHEAST CORNER - ESTIMATED DURATION 5 DAYS



MAINTENANCE OF TRAFFIC GENERAL NOTES:

- 1. TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST VERSION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT'S GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, ARLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, THIS MAINTENANCE OF TRAFFIC PLAN, AND/OR AS DIRECTED BY THE ARLINGTON COUNTY TRAFFIC ENGINEER.
2. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE WHICH INDICATES START AND FINISH DATES FOR EACH SEGMENT OF THE WORK. THE SCHEDULE SHALL INDICATE THE DURATION OF ALL LANE OR SHOULDER CLOSURES.
3. DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES. THE MINIMUM LANE WIDTH SHOULD BE 10 FEET.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE EGRESS/INGRESS TO PRIVATE ENTRANCES AND DRIVEWAYS AT ALL TIMES. OWNERS OF AFFECTED PROPERTIES SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF WORK IN APPLICABLE WORK ZONE, AND THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS FULLY ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY. THE PRIVATE ENTRANCE TO KENMORE ELEMENTARY SCHOOL SHALL REMAIN ACCESSIBLE TO SUPPORT INGRESS/EGRESS FOR ALL VEHICULAR TRAFFIC, INCLUDING SCHOOL BUSES, AND PEDESTRIAN TRAFFIC.
5. ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE ENGINEER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS APPROVED BY THE ENGINEER.
6. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE OR ILLUMINATED DURING NIGHT TIME HOURS.
7. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING ACCESS TO BUS STOP SHELTERS.
8. PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH THE MUTCD.
9. ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
10. WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS, PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDDLEBLOCK WORK SITES.
11. PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
12. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
13. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
14. 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 AT 703-228-4624 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.
15. NORMAL WORKING HOURS SHALL BE 9:00 AM TO 4:00 PM MONDAY THROUGH FRIDAY WITHIN ARLINGTON COUNTY RIGHT-OF-WAY AND 9:30 AM TO 3:00 PM MONDAY THROUGH THURSDAY AND 9:30 AM TO 2:00 PM ON FRIDAY WITHIN VDOT RIGHT-OF-WAY.
16. COUNTY WILL COORDINATE WITH TRANSIT BUREAU FOR WORK THAT WILL EFFECT TRADIT STOPS.



ARLINGTON VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES Facilities & Engineering Division Engineering Bureau 2100 Clarendon Boulevard, Suite 813 Arlington, VA 22201 Phone: 703.228.3629 Fax: 703.228.3606

SEAL COMMUNITY HEALTH OF VIRGINIA ANDREW T. SMITH Lic. No. 0402063042 1/4/23 PROFESSIONAL ENGINEER

APPROVALS DATE Traffic Signal Engineer 1/4/2023 Traffic Engineering Manager 01/06/2023 Water Sewer Streets Bureau Chief 1/18/23 Dan Nabors 1/11/2023 TEKO Bureau Chief 01/11/2023 Transportation Director

Table with 2 columns: REVISIONS, DATE. Multiple empty rows for revisions.

Project Name and Location: S. Carlin Springs Road Signal Upgrades. Maintenance of Traffic Plan. 3RD STREET S. AND S. CARLIN SPRINGS ROAD. ID #236 TE02.

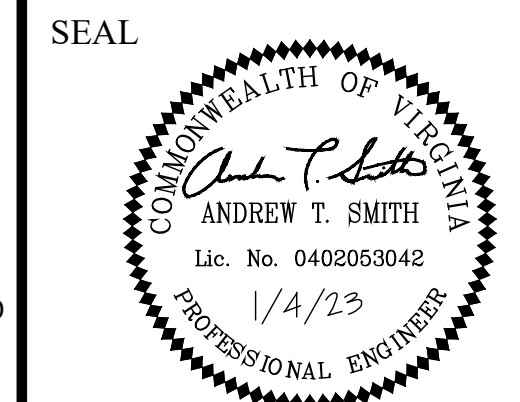
Designed: DM Drawn: DM Checked: GG Miss Utility Transmittal #:

Plotted: January 19, 2023 Plotted by: Grant Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC. 11400 Commerce Park Drive, Suite 400 Reston, Virginia 20191

Sheet C-1200



APPROVALS	DATE
<i>Andrew T. Smith</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>John Nabor</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>John Nabor</i> WATER SEWER STREETS BUREAU CHIEF	1/18/23
<i>Dan Nabor</i> TEKO BUREAU CHIEF	1/11/2023
<i>Henry</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
S. Carlin Springs Road Signal Upgrades

MAINTENANCE OF TRAFFIC PLAN
3RD STREET S. AND S. CARLIN SPRINGS ROAD
ID #236
TE02

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

Plotted: January 19, 2023
Plotted by: Grant.Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

Sheet
C-1201

MAINTENANCE OF TRAFFIC GENERAL NOTES:

- TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST VERSION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT'S GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, ARLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, THIS MAINTENANCE OF TRAFFIC PLAN, AND/OR AS DIRECTED BY THE ARLINGTON COUNTY TRAFFIC ENGINEER.
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- DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES. THE MINIMUM LANE WIDTH SHOULD BE 10 FEET.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE EGRESS/INGRESS TO PRIVATE ENTRANCES AND DRIVEWAYS AT ALL TIMES. OWNERS OF AFFECTED PROPERTIES SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF WORK IN APPLICABLE WORK ZONE, AND THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS FULLY ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY. THE PRIVATE ENTRANCE TO KENMORE ELEMENTARY SCHOOL SHALL REMAIN ACCESSIBLE TO SUPPORT INGRESS/EGRESS FOR ALL VEHICULAR TRAFFIC, INCLUDING SCHOOL BUSES, AND PEDESTRIAN TRAFFIC.
- ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE ENGINEER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS APPROVED BY THE ENGINEER.
- ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE OR ILLUMINATED DURING NIGHT TIME HOURS.
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- PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH THE MUTCD.
- ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
- WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS, PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDDLEBLOCK WORK SITES.
- PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
- ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT OFFICE AT 703-228-4644 FOR COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.
- NORMAL WORKING HOURS SHALL BE 9:00 AM TO 4:00 PM MONDAY THROUGH FRIDAY WITHIN ARLINGTON COUNTY RIGHT-OF-WAY AND 9:30 AM TO 3:00 PM MONDAY THROUGH THURSDAY AND 9:30 AM TO 2:00 PM ON FRIDAY WITHIN VDOT RIGHT-OF-WAY.
- COUNTY WILL COORDINATE WITH TRANSIT BUREAU FOR WORK THAT WILL EFFECT TRANSIT STOPS.

Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-4.1)

Standard:

- Required sign assemblies for multi-lane roadways see Note 1, TTC-4.1.
- 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.
- When work takes up part of a lane on a high volume roadway, vehicular traffic volume, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Close the lane encroachment analysis priority 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.
- The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where advance encroachment from that roadway will encounter another advance warning sign prior to the activity area.
- A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, or oscillating light shall be parked 80' - 120' in advance of the first work crew.
- Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.
- Taper length (L) and channelizing device spacing shall be at the following:

Taper Length (L)			Channelizing Device Spacing	
Speed Limit (mph)	Lane Width (Feet)	L	Location	Speed Limit (mph)
25	95	105	20'	40'
30	135	150	20'	40'
35	185	205	20'	40'
40	240	270	20'	40'
45	300	360	20'	40'
50	360	450	20'	40'
55	420	540	20'	40'
60	480	630	20'	40'
65	540	720	20'	40'
70	600	810	20'	40'

Minimum taper lengths for Limited Access highways shall be 500 feet.
Shoulder Taper = 1/2 L Minimum

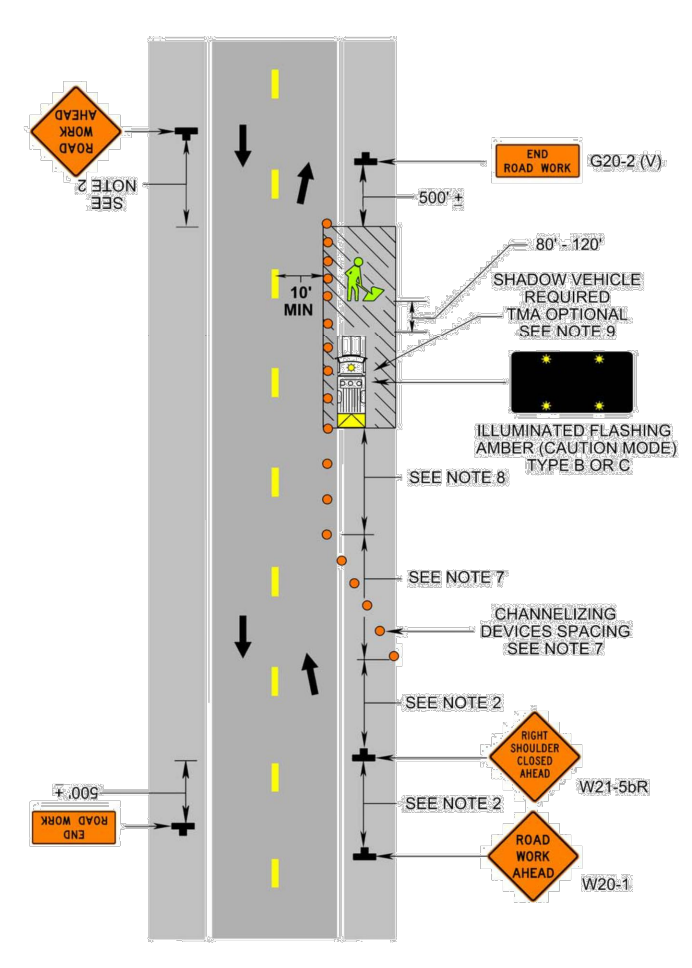
8. The buffer space length shall be shown in Table TTC-4.2 on Page 481.5 for the posted speed limit.

9. 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.

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

1. Revisions: 1 - 4/3/2019

Shoulder Operation with Minor Encroachment
(Figure TTC-5.1)



Typical Traffic Control
Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.1)

Standard:

- On divided highways having a median wider than 8', right and left sign assemblies shall be required.
- 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.
- 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 TTC-16.2. For Limited Access highways a minimum of 1000' is desired.
- All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.
- Taper Length (L) and Channelizing Device Spacing shall be:

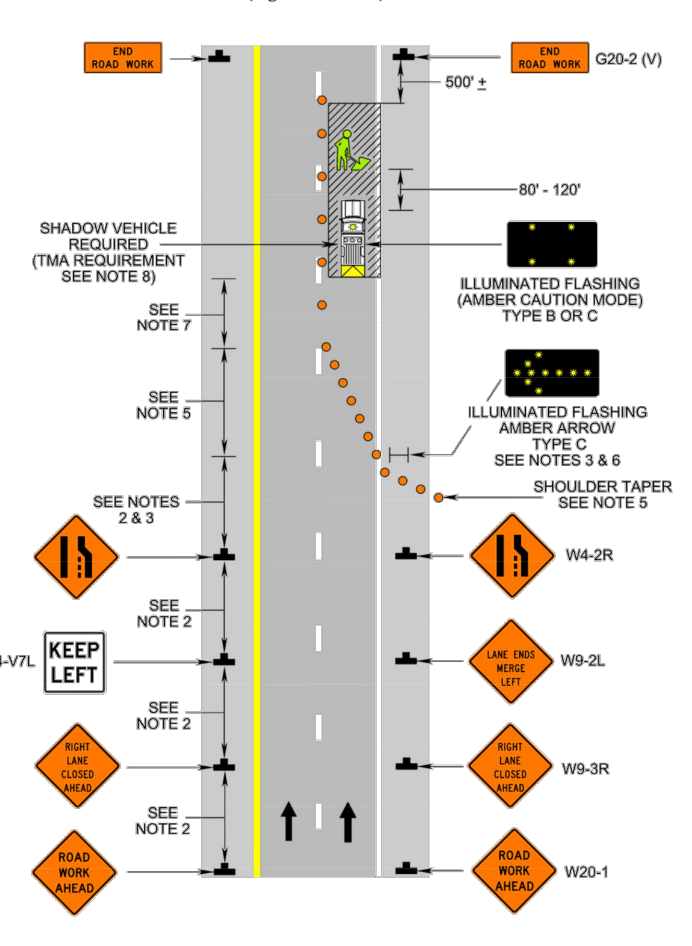
Taper Length (L)			Channelizing Device Spacing	
Speed Limit (mph)	Lane Width (Feet)	L	Location	Speed Limit (mph)
25	95	105	20'	40'
30	135	150	20'	40'
35	185	205	20'	40'
40	240	270	20'	40'
45	300	360	20'	40'
50	360	450	20'	40'
55	420	540	20'	40'
60	480	630	20'	40'
65	540	720	20'	40'
70	600	810	20'	40'

Minimum taper lengths for Limited Access highways shall be 500 feet.
Shoulder Taper = 1/2 L Minimum

- 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-16.1).
- The buffer space length shall be shown in Table TTC-16.3 on Page 481.5 for the posted speed limit.
- A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.
- Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement the amber rotating, flashing, or oscillating lights.
- When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.

1. Revisions: 1 - 4/3/2019

Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.1)



Typical Traffic Control
Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.1)

Standard:

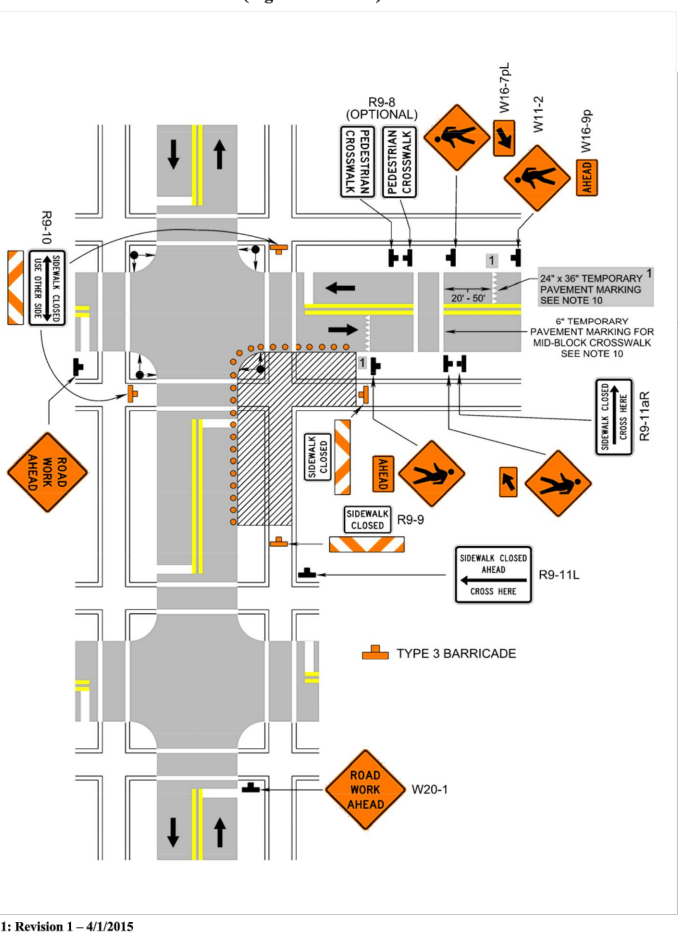
- When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.
- Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk.
- Available information devices should be considered where midblock crossings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.
- Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.
- Temporary markings should be considered for operations exceeding three days in duration.
- Only the TTC devices defined in pedestrian are shown. Other devices, such as lane closure signing or ROAD NARROWS (W2-1) signs, may be used to control vehicular traffic.
- For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.
- In order to maintain the systematic use of the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs in a jurisdiction, the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs may be used in TTC zones.
- All sidewalk closures shall be closed with Type 3 Barricades.

Support:

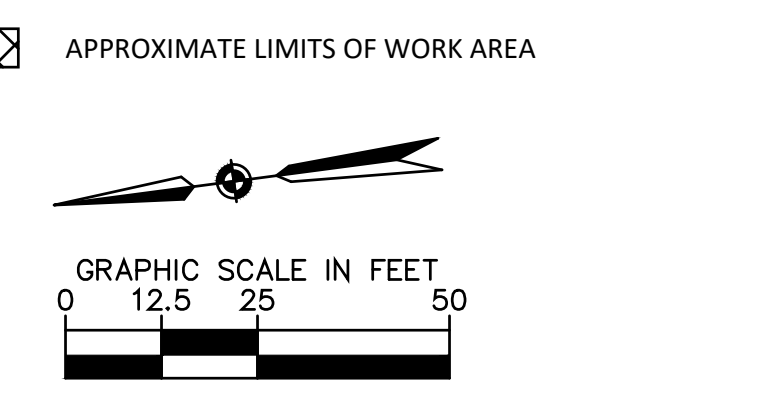
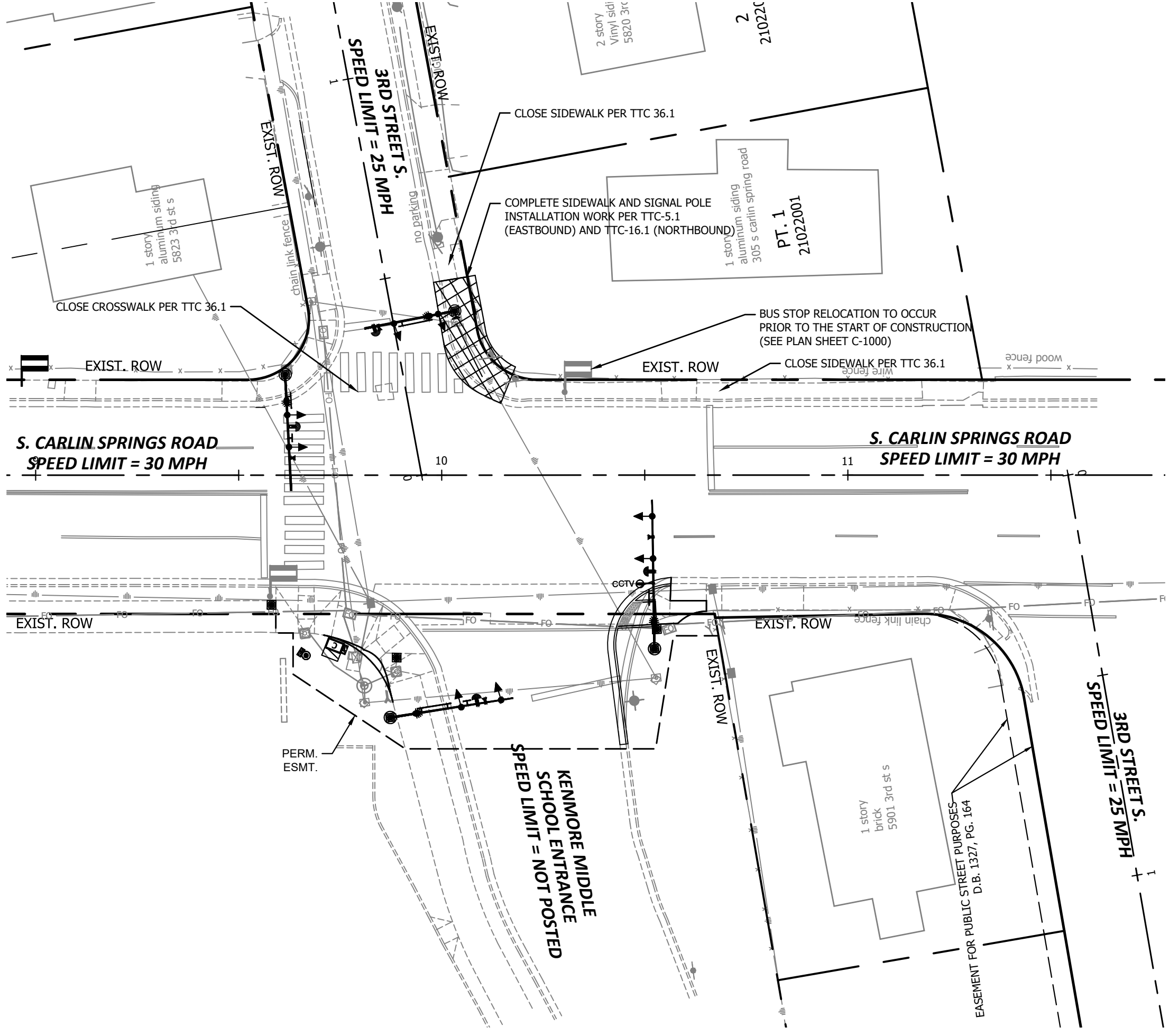
10. Refer to Sections 30-14 through 30-18 of the 2009 MUTCD and the Virginia Supplement to the MUTCD for permitted lines, yield lines and other related TTC devices that may be used to control vehicular traffic at midblock crosswalks.

1. Revisions: 1 - 4/3/2019

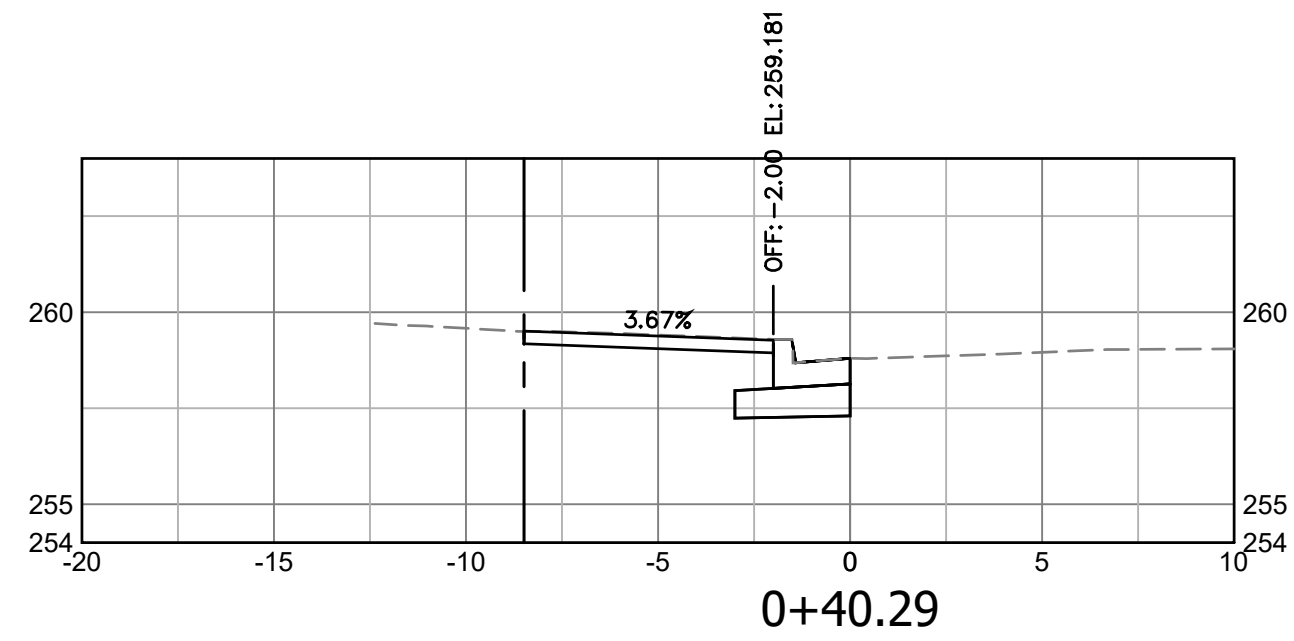
Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.1)



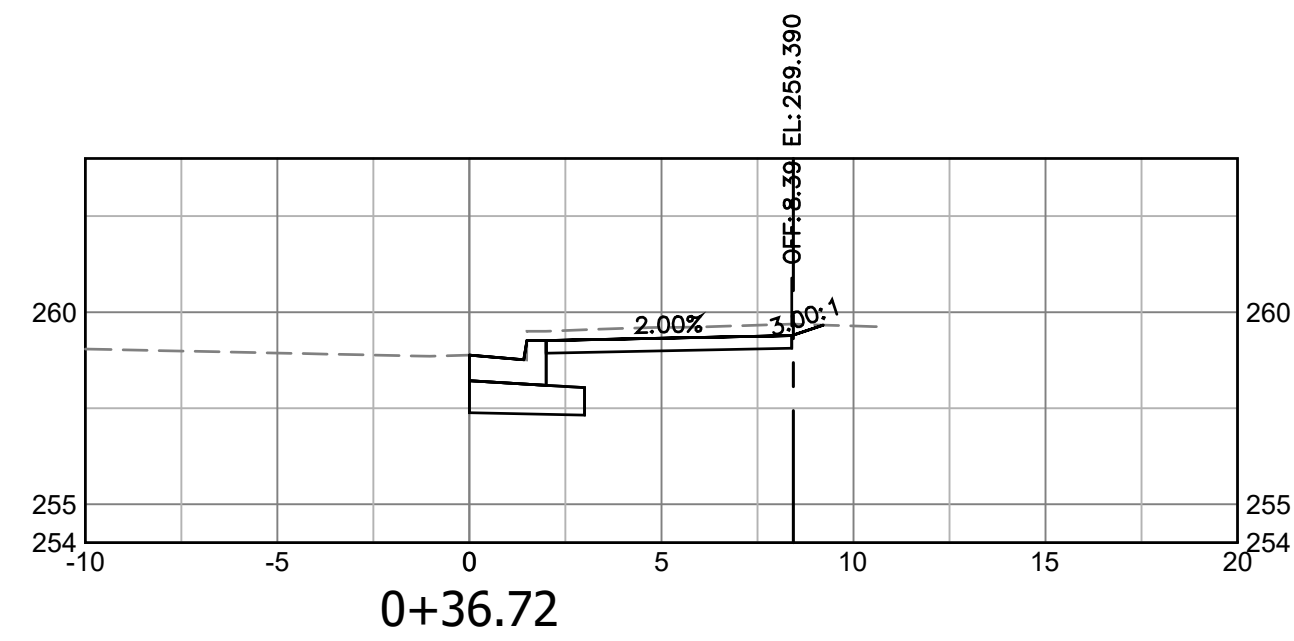
MAINTENANCE OF TRAFFIC PHASE 3 - SOUTHEAST CORNER - ESTIMATED DURATION 5 DAYS



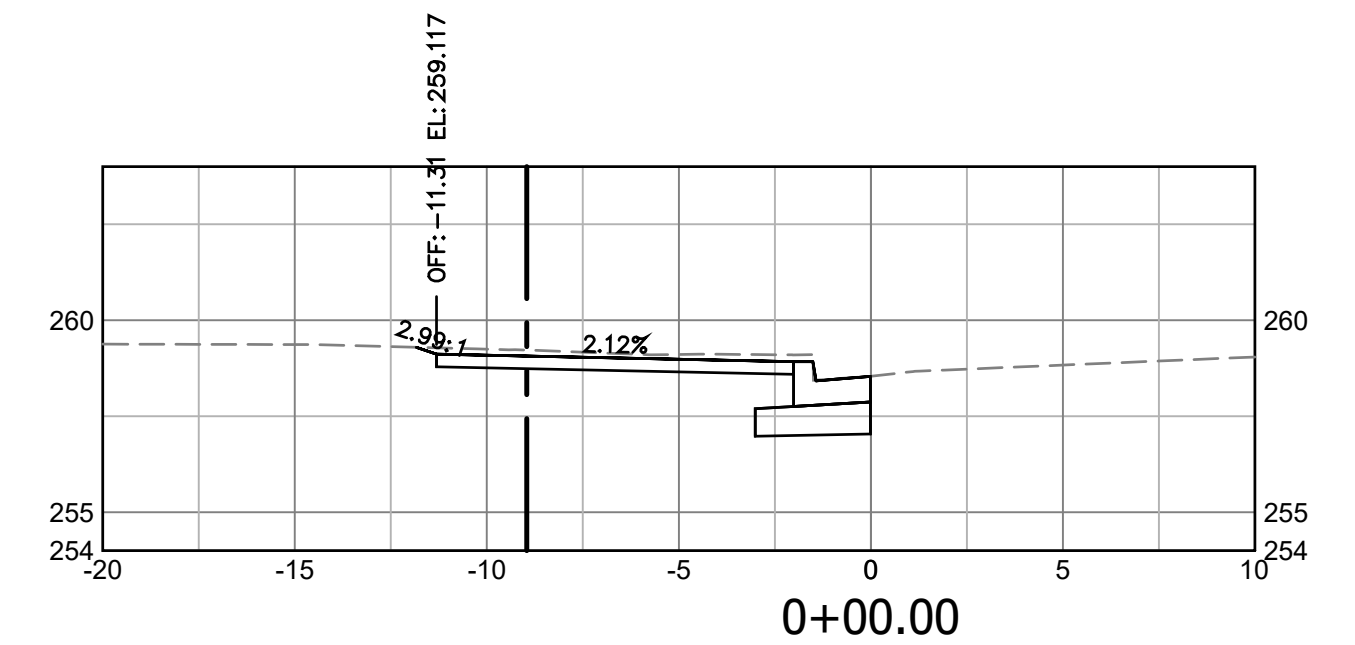
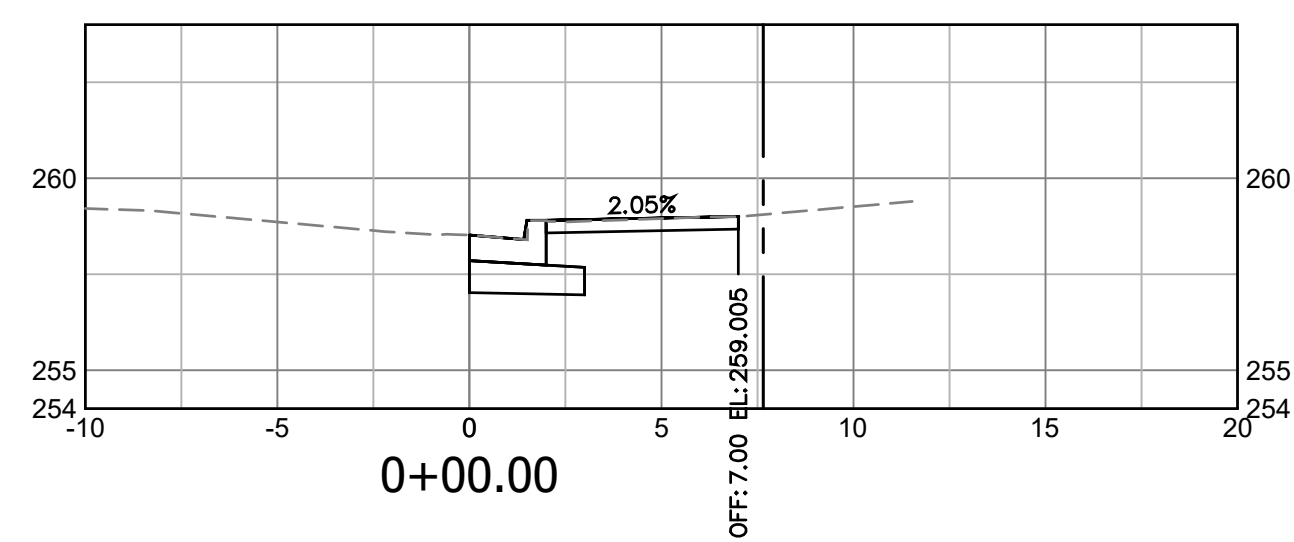
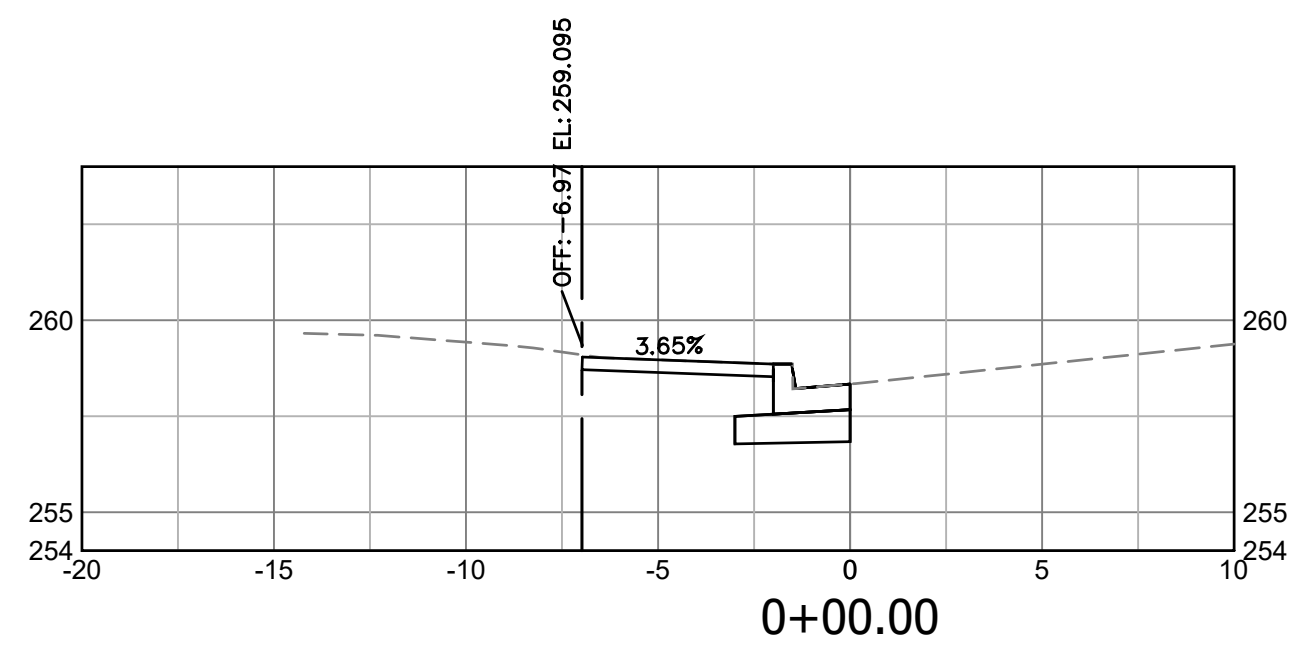
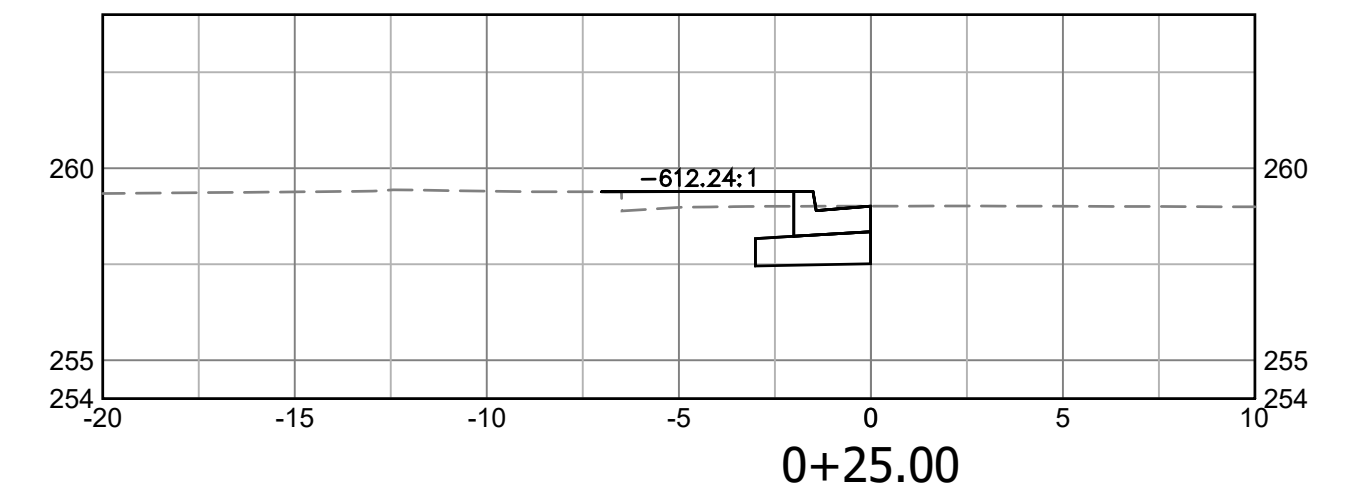
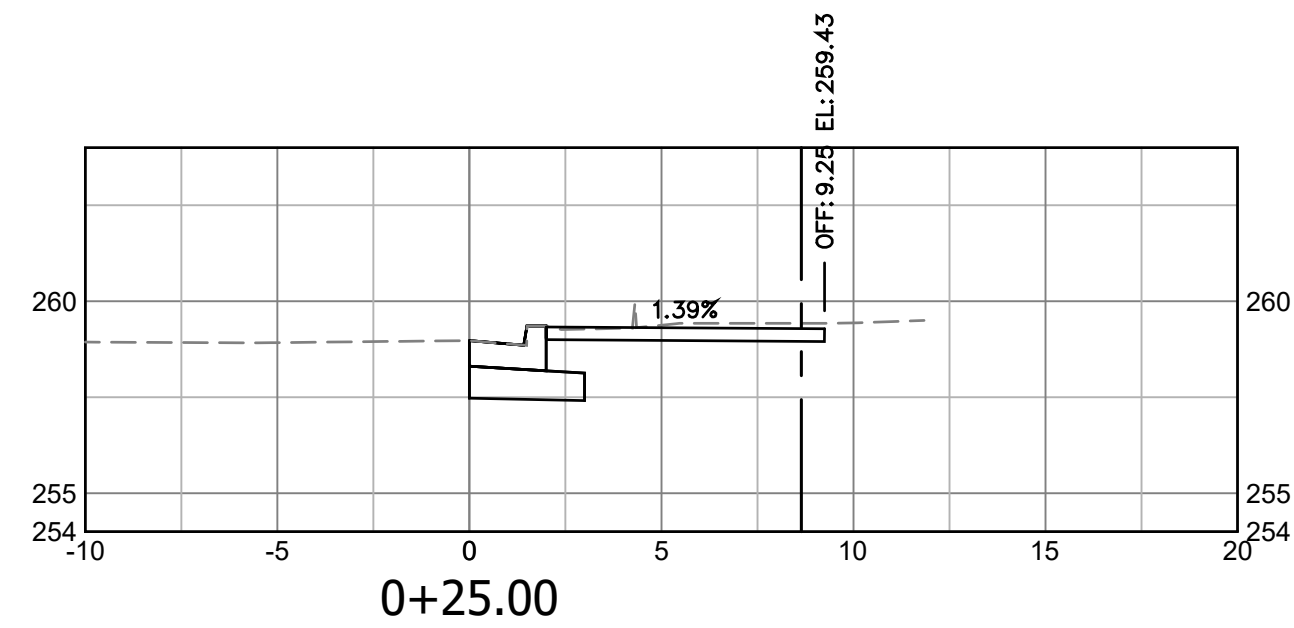
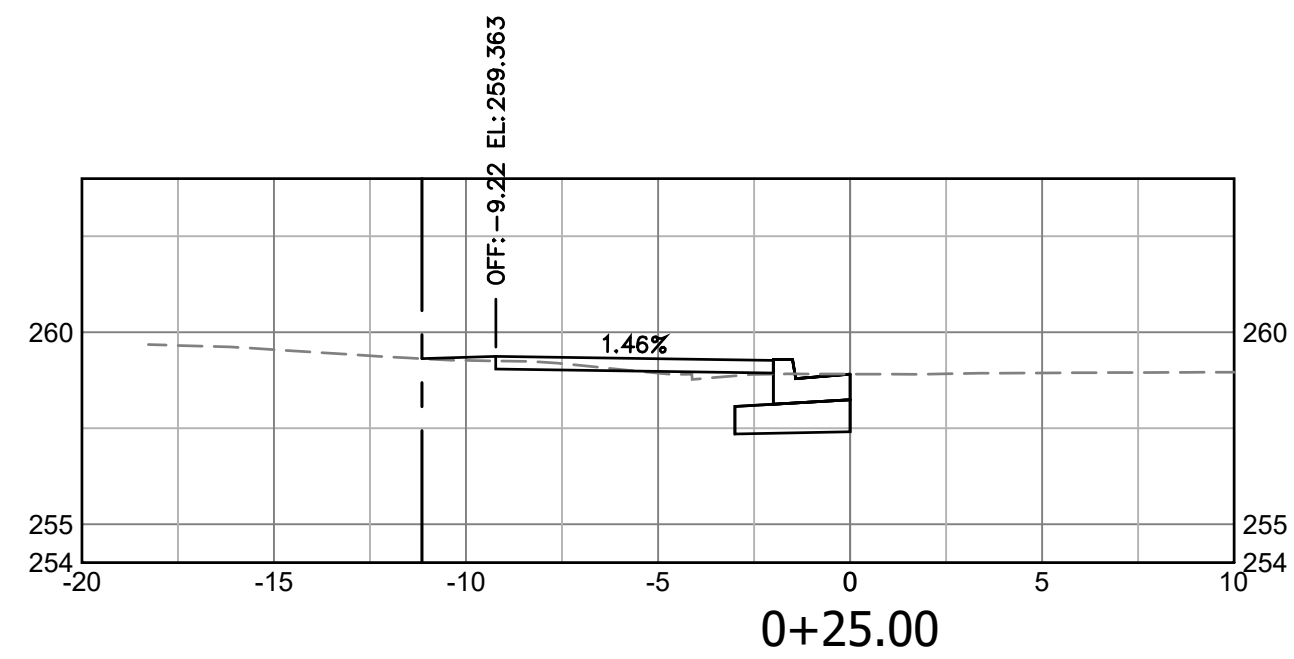
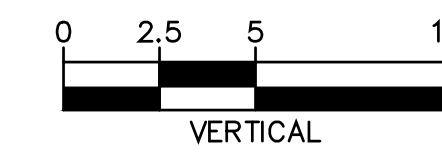
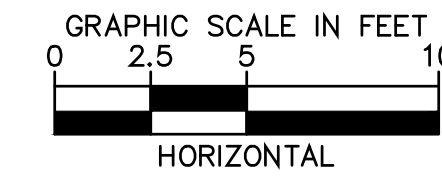
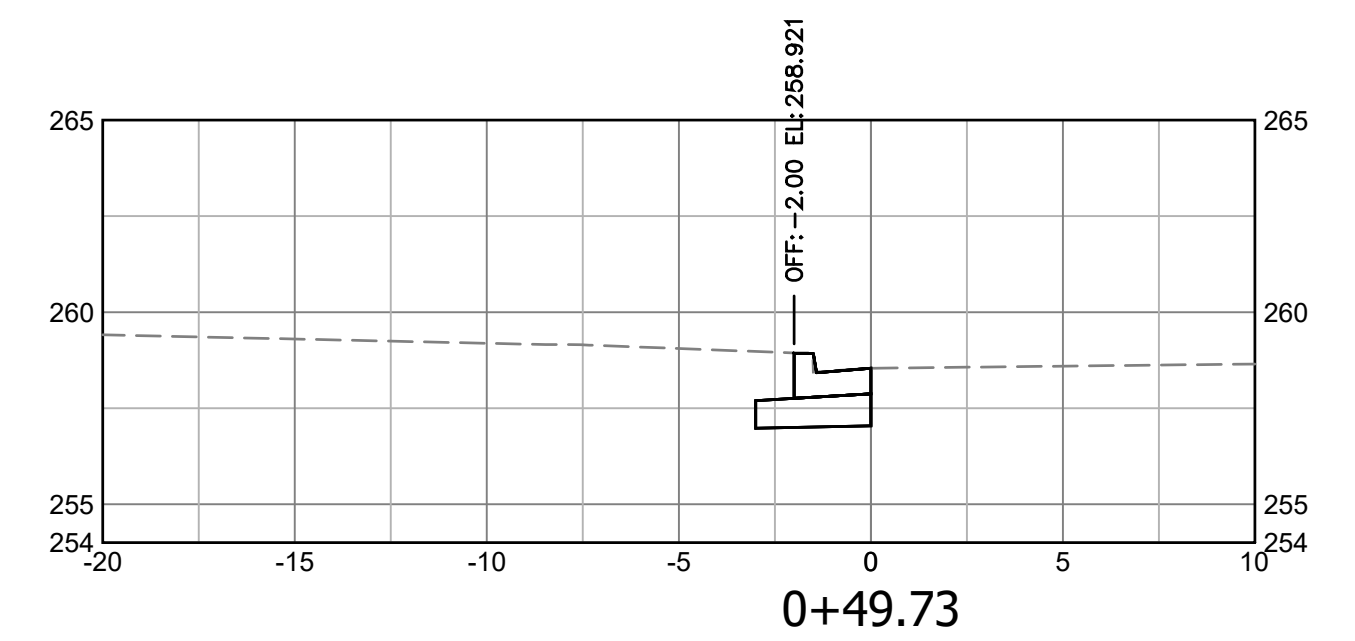
3RD STREET S. - NE CORNER



3RD STREET S. - SE CORNER



3RD STREET S. - SW CORNER



LEGEND	
— · — · — ·	EXIST. RIGHT OF WAY
- - - - -	PROP. TEMPORARY CONSTRUCTION EASEMENT
— · — · — ·	PROP. PERMANENT EASEMENT

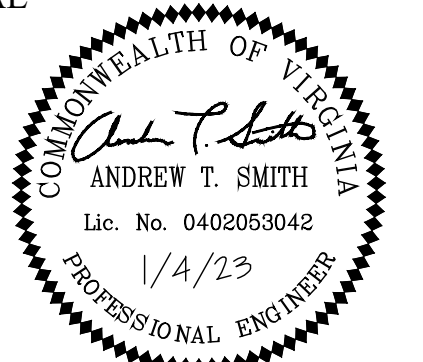
INFORMATIONAL ONLY. SEE PROPOSED PLAN AND RAMP DETAILS SHEET FOR SPOT ELEVATIONS.



DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

SEAL



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
Signal Upgrades**

CROSS SECTIONS

ID #236
TE02

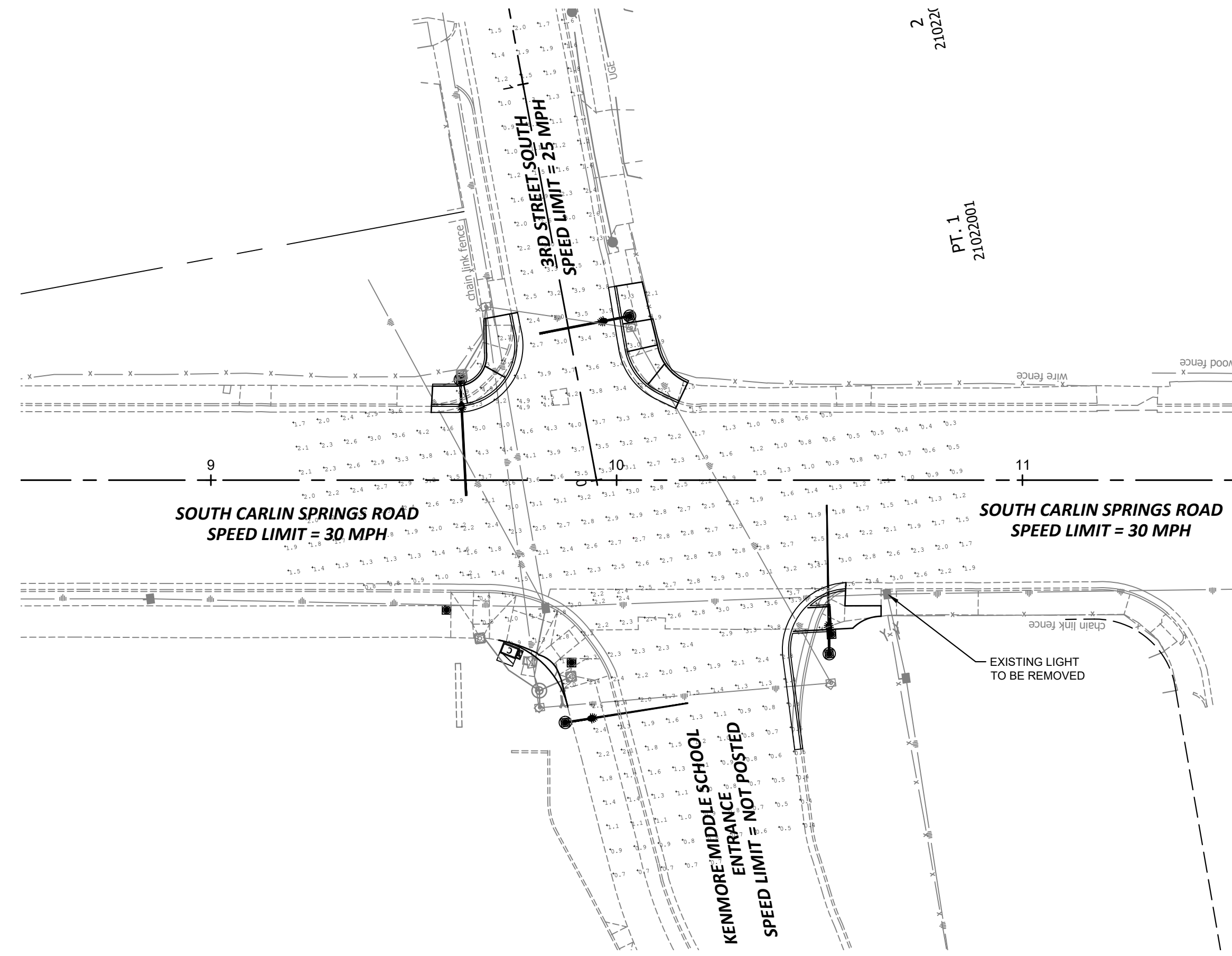
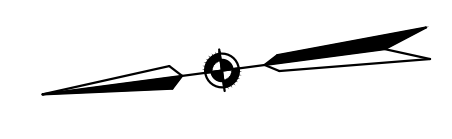
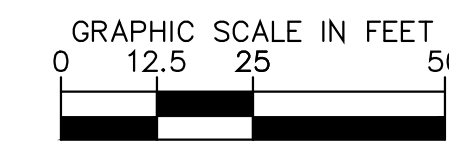
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Drawn: KF
Checked: GG
Miss Utility Transmittal #:

Plotted: January 19, 2023
Plotted by: Grant.Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
11400 Commerce Park Drive, Suite 400
Reston, Virginia 20191

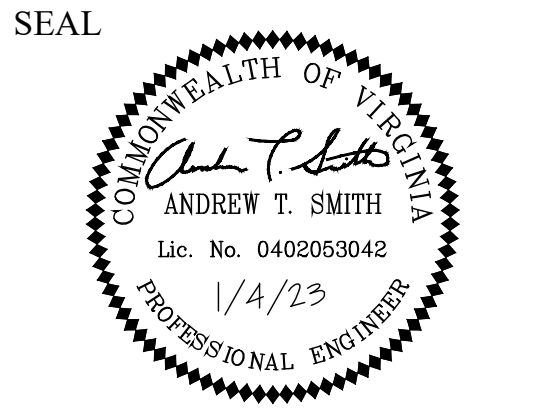
Sheet
C-1300



Facility	Carlin Springs Intersections						Requirements Met?
	Target			Proposed			
	Avg	Avg/Min	Max/Min	Avg	Avg/Min	Max/Min	
3rdCW_E	2.2	4	20	3.9	1.4	1.8	Yes
3rdCW_N	2.2	4	20	3.3	3.0	4.8	Yes
3rdCW_W	2.2	4	20	2.9	1.5	2.0	Yes
3rdInt	1.7	4	20	2.8	1.9	3.3	Yes
3rdRampsSidewalk_NE	1.3	4	20	3.7	0.2	2.3	Yes
3rdRampsSidewalk_SE	1.3	4	20	2.3	1.5	2.2	Yes
3rdRampsSidewalk_SW	1.3	4	20	4.3	1.0	1.1	Yes



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



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 STREETLIGHT PHOTOMETRICS EXHIBIT
 ID #236
 TE02

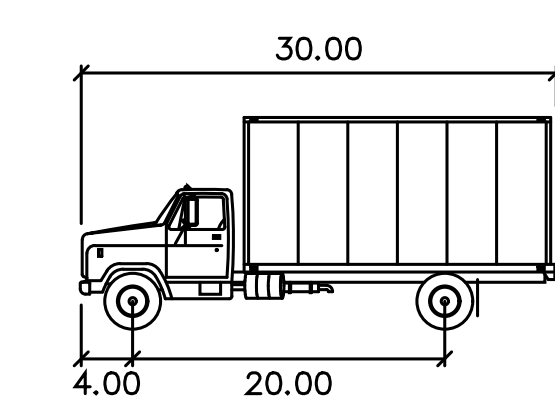
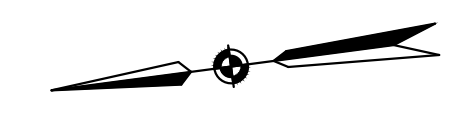
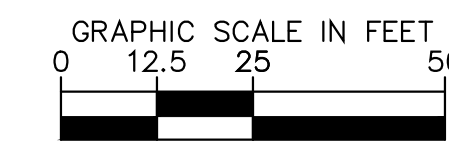
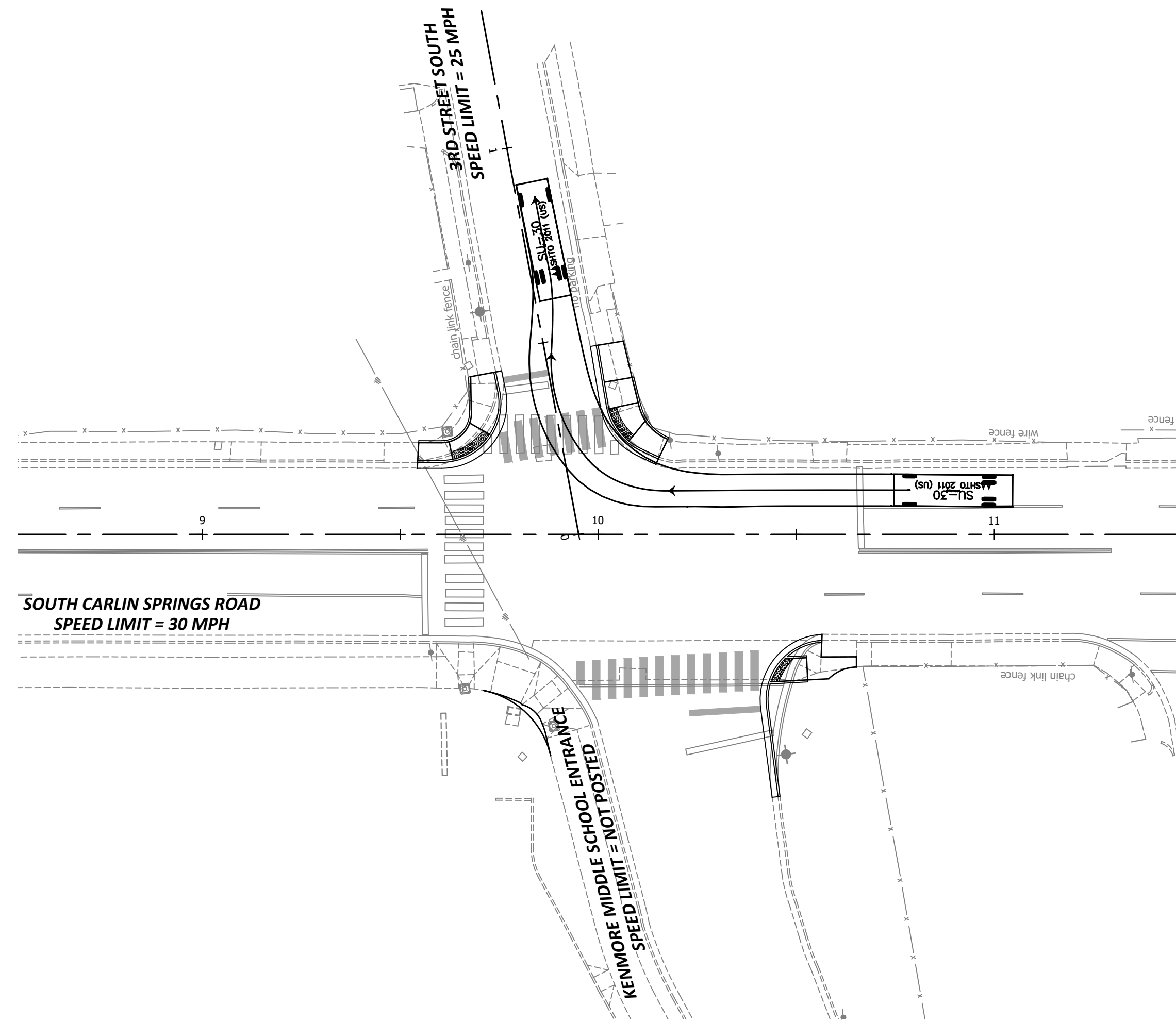
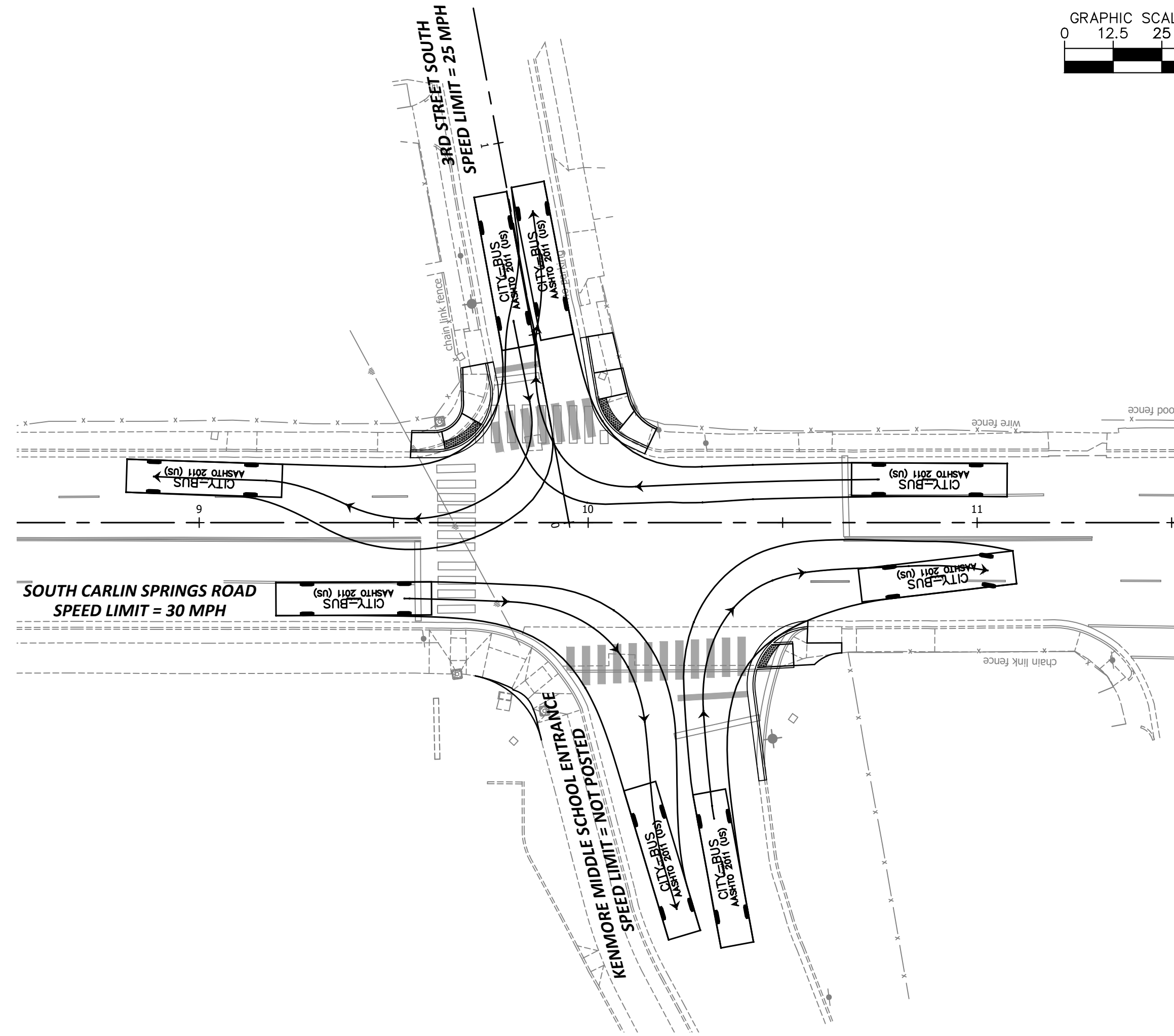
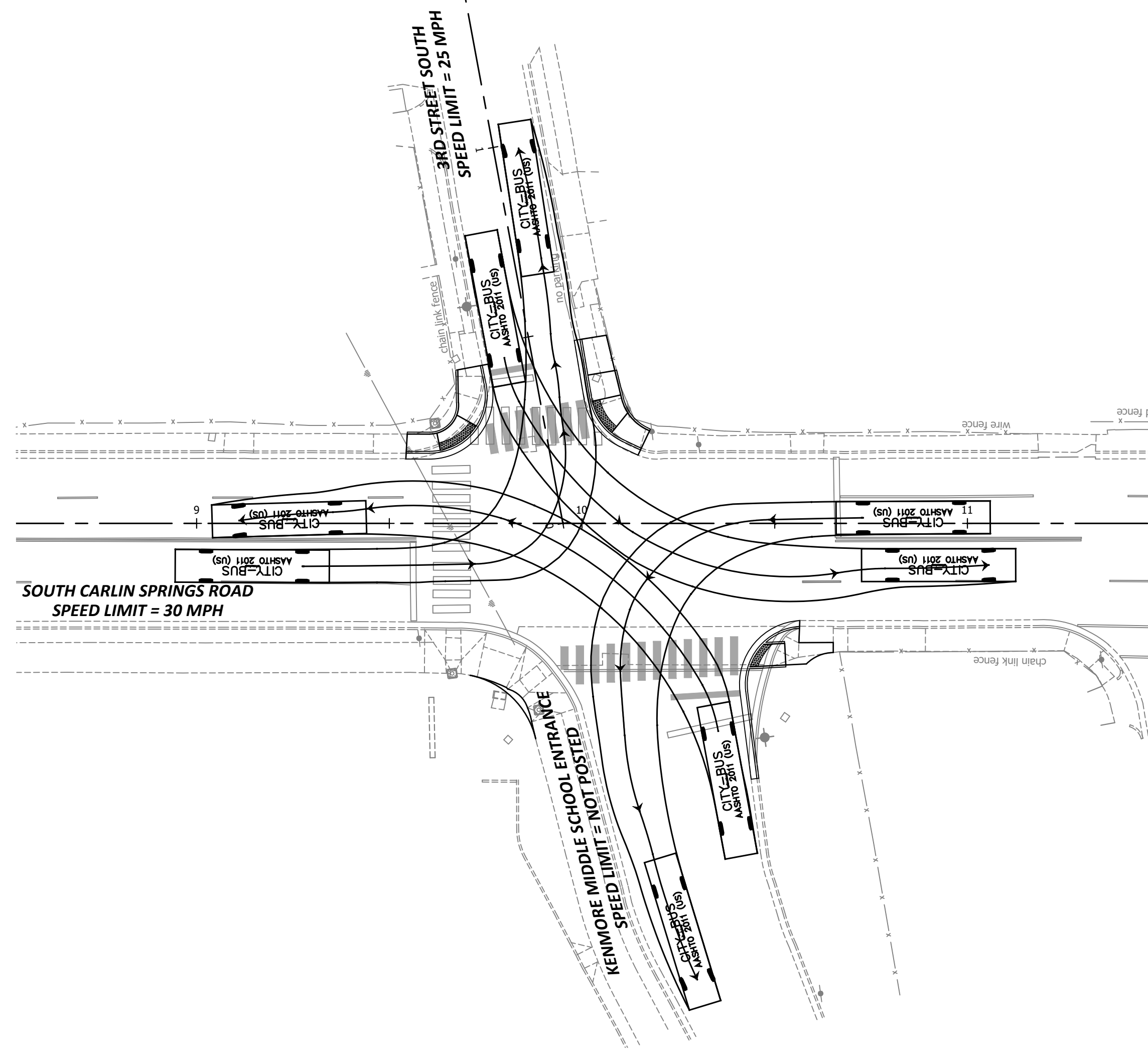
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 Checked: GG
 Miss Utility Transmittal #:

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

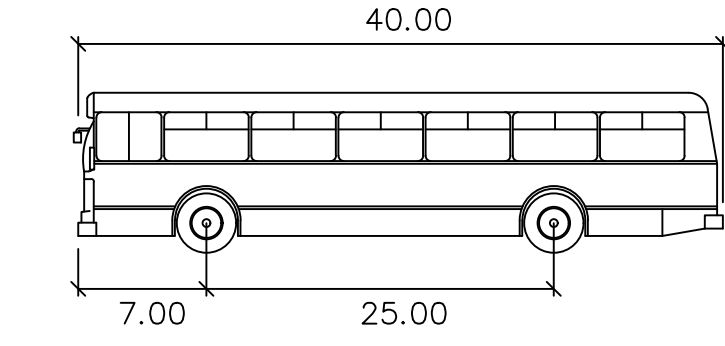
Scale:
 HOR. 1" = 25' VERT. N/A

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

Sheet
EXHIBIT A



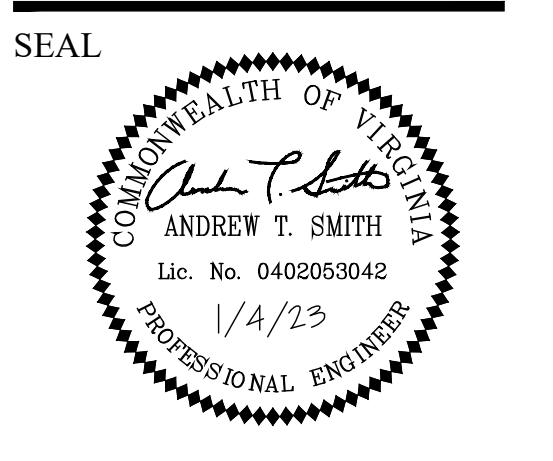
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 Width : 8.00
 Track : 8.00
 Lock to Lock Time : 6.0
 Steering Angle : 31.8



CITY-BUS feet
 Width : 8.50
 Track : 8.50
 Lock to Lock Time : 6.0
 Steering Angle : 41.4



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



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER, SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 AUTOTURN EXHIBIT
 ID #236
 TE02

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

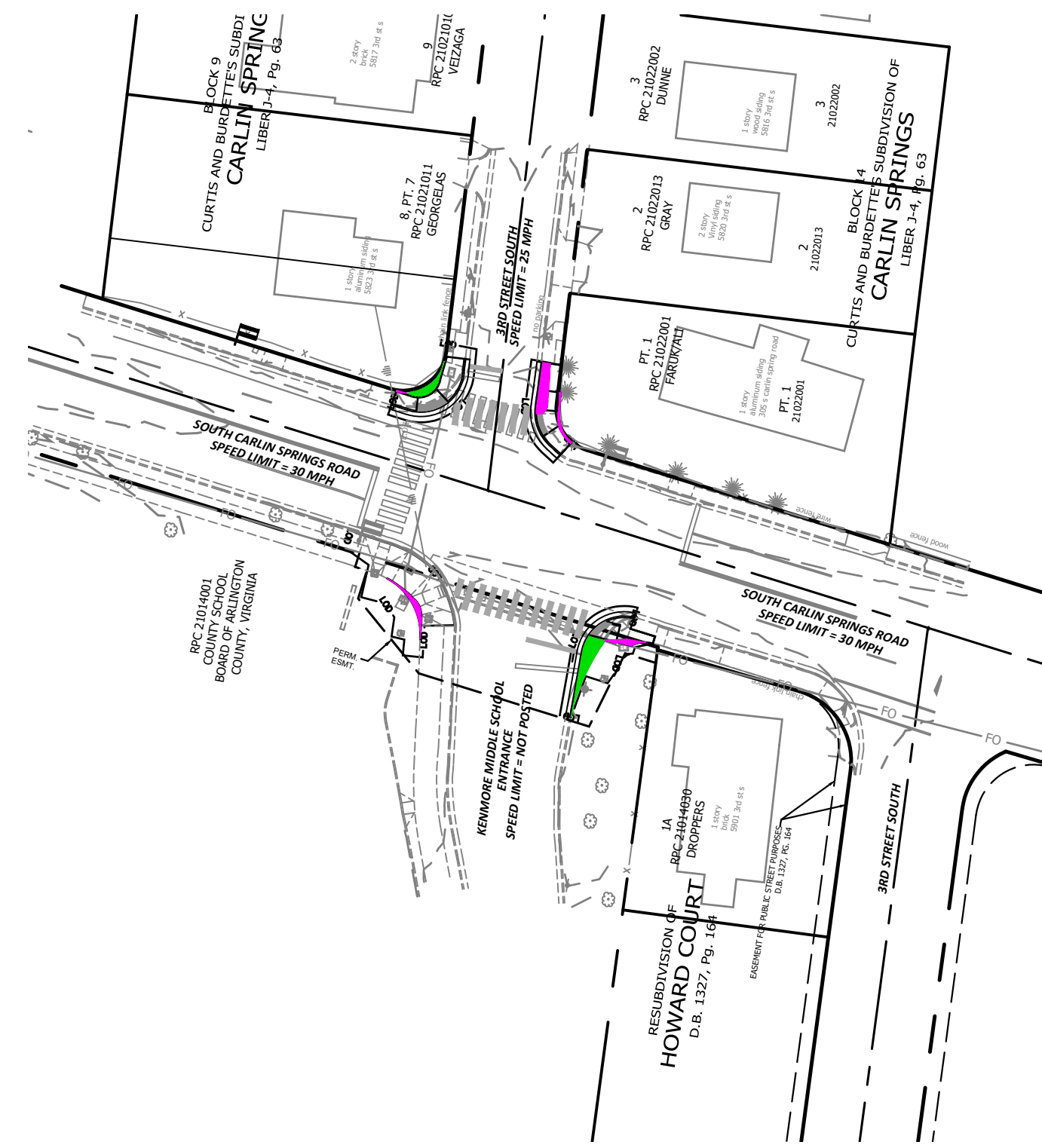
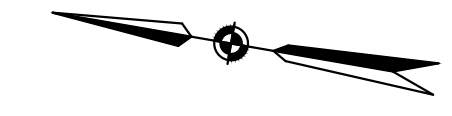
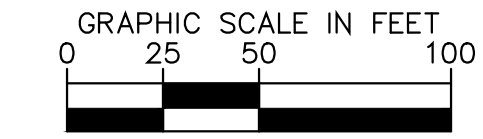
Plotted: January 19, 2023
 Plotted by: Grant.Jacob

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

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

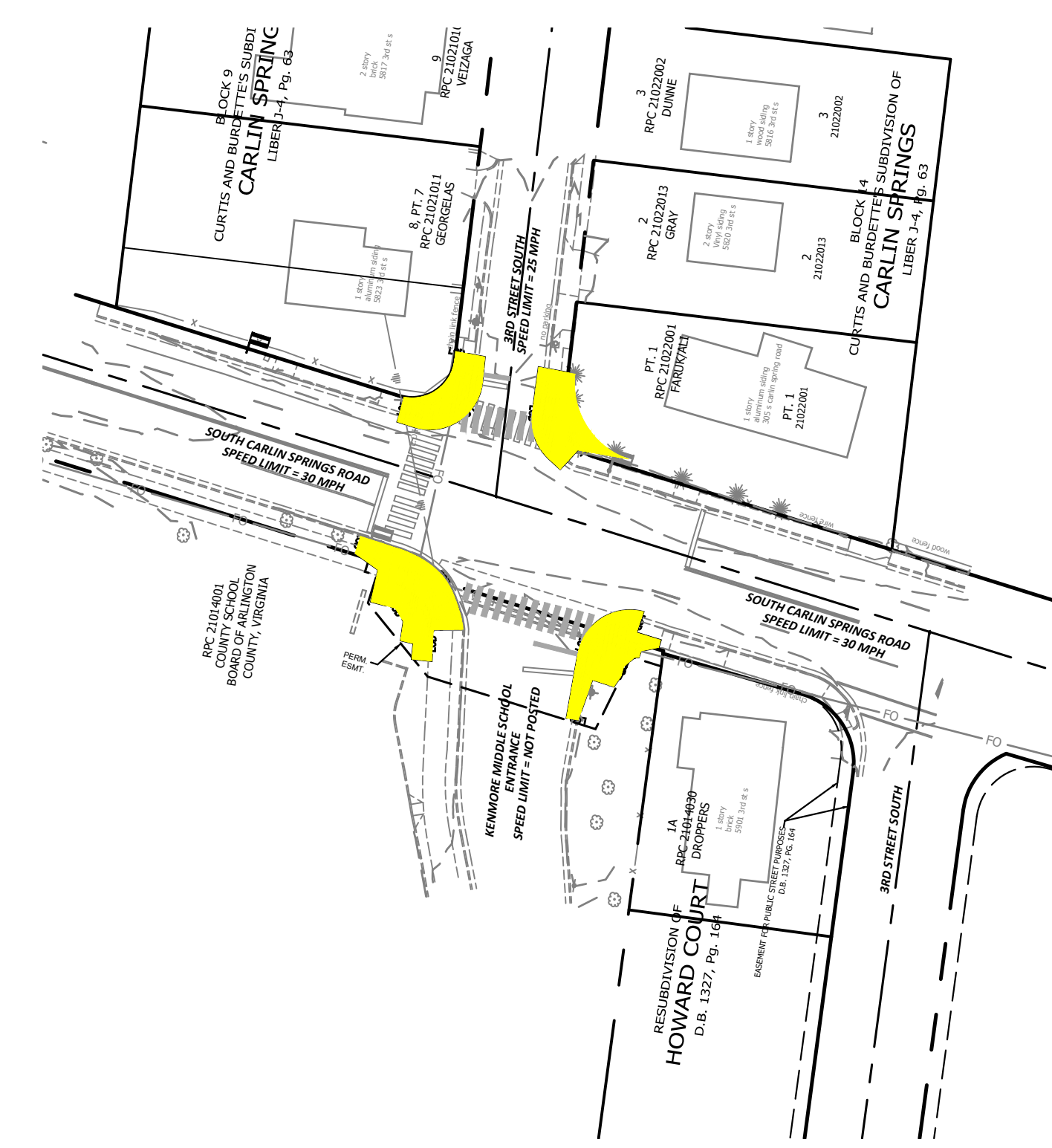
Sheet
EXHIBIT B

DISTURBED AREA FOR STORMWATER MANAGEMENT



DISTURBED AREA FOR STORMWATER MANAGEMENT					
INTERSECTION	TOTAL	EXISTING IMPERVIOUS	EXISTING PERVIOUS	PROPOSED IMPERVIOUS	PROPOSED PERVIOUS
3RD STREET S AND S CARLIN SPRINGS ROAD	189.12 SF	89.36 SF	99.76 SF	99.76 SF	89.36 SF

DISTURBED AREA FOR EROSION AND SEDIMENT CONTROL

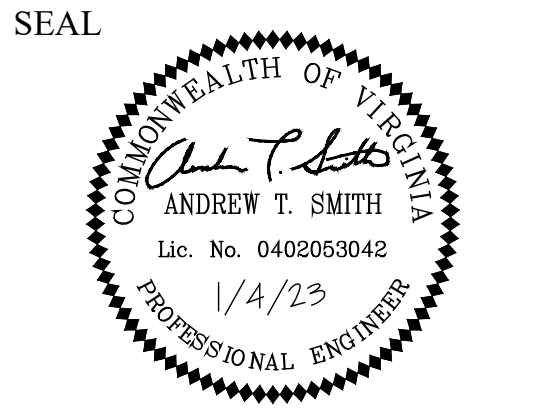


DISTURBED AREA FOR EROSION AND SEDIMENT CONTROL	
INTERSECTION	TOTAL
3RD STREET S AND S CARLIN SPRINGS ROAD	2228.70 SF

- LEGEND**
- PERVIOUS TO IMPERVIOUS AREA
 - IMPERVIOUS TO PERVIOUS AREA
 - LIMITS OF DISTURBANCE



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



APPROVALS	DATE
<i>[Signature]</i> TRAFFIC SIGNAL ENGINEER	1/4/2023
<i>[Signature]</i> TRAFFIC ENGINEERING MANAGER	01/06/2023
<i>[Signature]</i> WATER SEWER, STREETS BUREAU CHIEF	1/18/23
<i>[Signature]</i> TE&O BUREAU CHIEF	1/11/2023
<i>[Signature]</i> TRANSPORTATION DIRECTOR	01/11/2023

REVISIONS	DATE

Project Name and Location
**S. Carlin Springs Road
 Signal Upgrades**
 IMPERVIOUS AREA
 ID #236
 TE02

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

Plotted: January 19, 2023
 Plotted by: Grant.Jacob

Scale:
 HOR. 1" = 50' VERT. N/A

KIMLEY-HORN AND ASSOCIATES, INC.
 11400 Commerce Park Drive, Suite 400
 Reston, Virginia 20191

Sheet **EXHIBIT C**