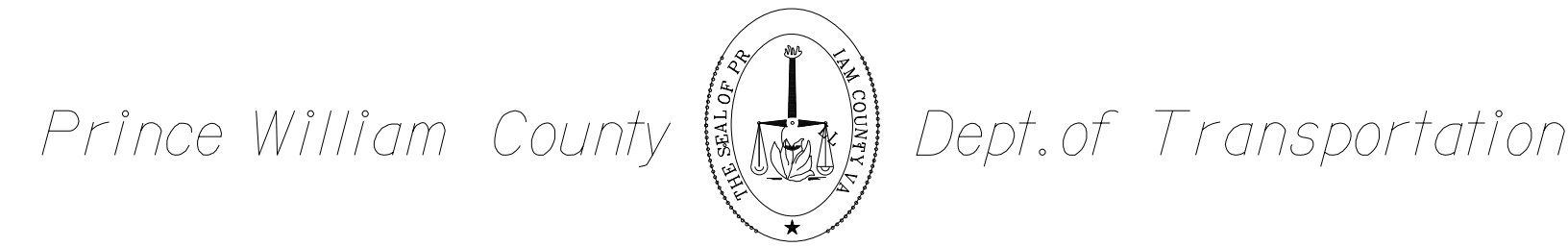


FOR INDEX OF SHEETS SEE SHEET 1B



THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
Openroads / GEOPAK Computer Identification No. 118626

FHWA 534 DATA 42101

STATE	ROUTE	STATE PROJECT		SHEET NO.
		VA.	234		(NFO) 0234-076-323	1
(SEE TABULATION BELOW FOR SECTION NUMBERS)				

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

ROUTE 234-BRENTSVILLE ROAD INTERCHANGE PROJECT

VDOT Proj.No.0234-076-323

FROM: 0.374 MI. W. OF BRENTSVILLE ROAD (RTE. 649)
TO: 0.711 MI. E. OF BRENTSVILLE ROAD (RTE. 649)

Note: See Sheet 1A for Functional Classification and Traffic Data.

COVER SHEET INFORMATION	
County Plan Name:	ROUTE 234-BRENTSVILLE ROAD INTERCHANGE PROJECT
Magisterial District:	Brentsville
County Contract No.:	
VDOT Project No.:	0234-076-323
County Project Manager:	Mary Ankers
Address and Phone:	Prince William Department of Transportation 5 County Complex Court, Suite 290 Prince William, VA 22192, Phone: (703) 792-5276
Construction Contractor:	Wagman Design Build Project Manager, P.E.
Consultant Engineer:	Rinker Design Associates, P.C. Design Build Design Manager, Mark Gunn, P.E.
Address and Phone:	11100 Endeavor Court, Suite 200 Manassas, VA 20109, Phone: (703) 334-9300

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NHS FREEWAY STREET SYSTEM- ROLLING-GS-5 ROUTE 234 BYPASS, PRINCE WILLIAM PKWY PRINCE WILLIAM COUNTY STANDARD PA-10	
	Fr: 0.426 MI. West of Brentsville Road (Route 649) To: 0.130 MI. East of Brentsville Road (Route 649)
ADT (2021)	48,000
ADT (2045)	57,100
DHV	3,311
D (%) (design hour)	60/40
T (%) (design hour)	6.0
V (MPH)	60 MPH
TC ST'D.	TC-5.11R

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NHS OTHER PRINCIPAL ARTERIAL STREET SYSTEM- ROLLING-GS-5 ROUTE 234 BYPASS, DUMFRIES RD PRINCE WILLIAM COUNTY STANDARD PA-2	
	Fr: 0.130 MI. East of Brentsville Road (Route 649) To: 0.464 MI. East of Brentsville Road (Route 649)
ADT (2021)	47,000
ADT (2045)	55,600
DHV	3,000
D (%) (design hour)	60/40
T (%) (design hour)	6.0
V (MPH)	60 MPH
TC ST'D.	TC-5.11R

PUBLIC HEARING PLAN
2021

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

PROJECT LAND DISTURBANCE (ACRES)
Project Area: 85.59
Disturbed Area: 78.44
Impervious Area: 20.40

THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE GENERAL NOTES.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

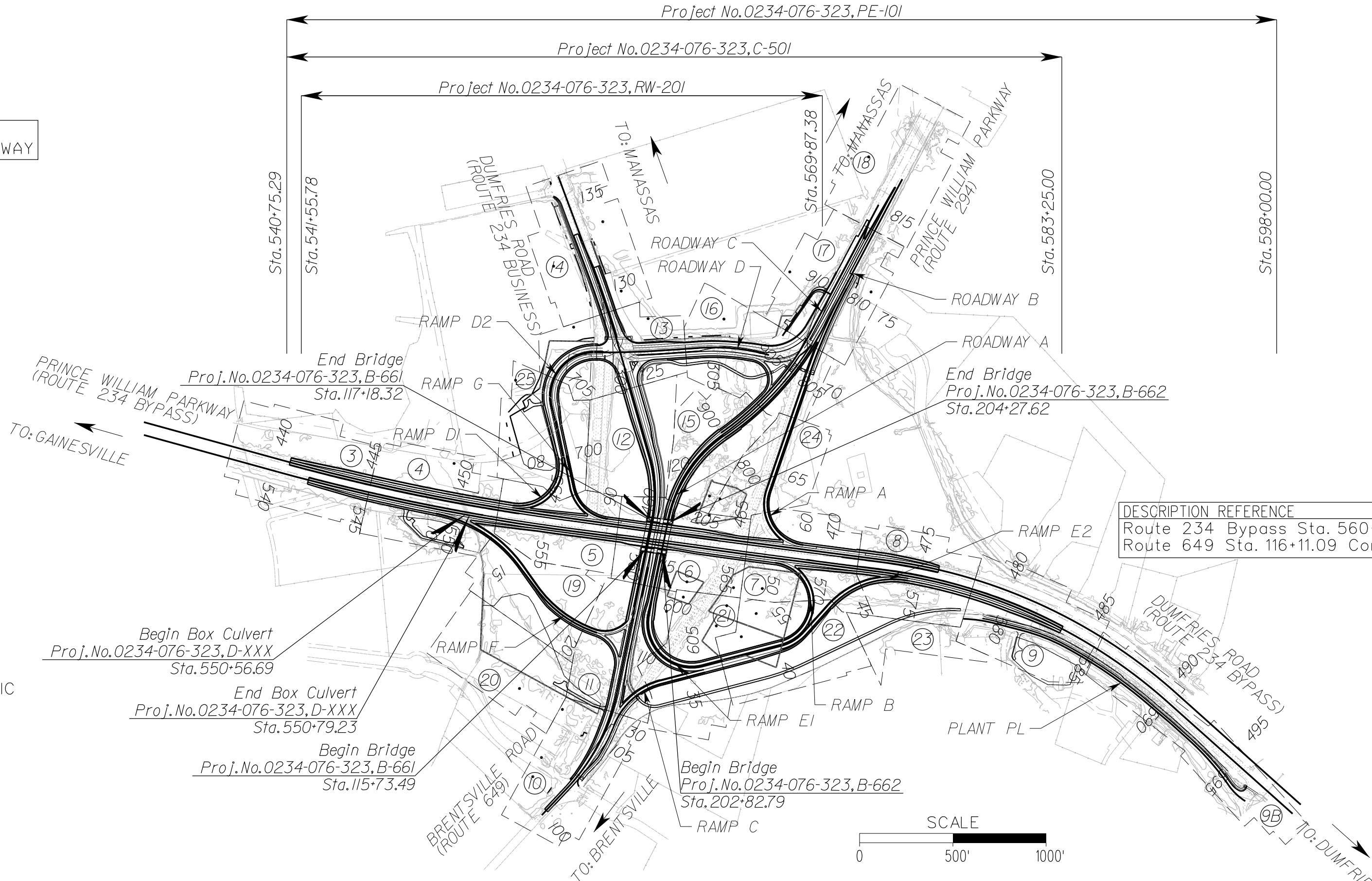
THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S:

- 2016 ROAD AND BRIDGE SPECIFICATIONS,
- 2016 ROAD AND BRIDGE STANDARDS,
- 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD),
- 2011 VIRGINIA SUPPLEMENT TO THE MUTCD,
- 2011 VIRGINIA WORK AREA PROTECTION MANUAL including Revision 2 (September 1, 2019),

AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.11U/TC-5.11R, EXCEPT WHERE OTHERWISE NOTED.

THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, IS FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.



DESCRIPTION REFERENCE	
Route 234 Bypass Sta. 560+47.85 SB Constr.	☑
Route 649 Sta. 116+11.09 Constr.	☑

CONVENTIONAL SIGNS	
STATE LINE	LEVEE OR EMBANKMENT
COUNTY LINE	BRIDGES
CITY, TOWN OR VILLAGE	CULVERTS
RIGHT OF WAY LINE	DROP INLET
FENCE LINE	POWER POLES
UNFENCED PROPERTY LINE	TELEPHONE OR TELEGRAPH POLES
FENCED PROPERTY LINE	TELEPHONE OR TELEGRAPH LINES
WATER LINE	HEDGE
SANITARY SEWER LINE	TREES
GAS LINE	HEAVY WOODS
ELECTRIC UNDERGROUND CABLE	GROUND ELEVATION
TRAVELED WAY	GRADE ELEVATION
GUARD RAIL	
RETAINING WALL	
RAILROADS	
BASE OR SURVEY LINE	

Prince William County Population 468,011 (2018 Est. CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		TYPE PROJECT	DESCRIPTION
					FEET	MILES	FEET	MILES		
0234-076-323	PE-101	N/A	PENG	118626	5724.71	1.084	5724.71	1.084	Prelim. Engineering	From 0.374 mi. W of Brentsville Rd. (Rte. 649) to 0.711 mi. E. of Brentsville Rd.
	RW-201	N/A	ROWA	118626	2831.60	0.536	2831.60	0.536	R/W	From 0.358 mi. W of Brentsville Rd. (Rte. 649) to 0.178 mi. E. of Brentsville Rd.
	C-501	N/A	F000	118626	4249.71	0.805	4249.71	0.805	Construction	From 0.374 mi. W of Brentsville Rd. (Rte. 649) to 0.431 mi. E. of Brentsville Rd.
	B-661	N/A	X231-SN	118626	144.83	0.027	-	-	Bridge	Bridge passing over Prince William Pkwy.
	B-662	N/A	X231-SN	118626	144.83	0.027	-	-	Bridge	Bridge passing over Prince William Pkwy.
	D-XXX	N/A	X028	118626	22.54	0.004	-	-	Box Culvert	Prince William Pkwy. over Piney Branch

NOTE: PROJECT LENGTH BASED ON PRINCE WILLIAM PARKWAY (RTE. 234 BYPASS) SOUTHBOUND CONSTRUCTION BASELINE

TIER 2 PROJECT	
LOCALLY ADMINISTERED PROJECTS	
PRINCE WILLIAM COUNTY DEPARTMENT OF TRANSPORTATION	
NAME OF LOCALITY	
NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED)	
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
DATE	ASSISTANT DIRECTOR OF TRANSPORTATION
DATE	LOCALITY PROJECT MANAGER (P.E. REQUIRED)

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
(DESIGN-BUILD FIRM) DESIGN MANAGER	
(DESIGN-BUILD FIRM) PROJECT MANAGER	
VDOT DISTRICT CONSTRUCTION ENGINEER OR PFTA PROGRAM MANAGER	
CHIEF ENGINEER	
APPROVED FOR RIGHT OF WAY ACQUISITION	
CHIEF OF POLICY	

Copyright 2021, Commonwealth of Virginia

PROJECT MANAGER: Mary Ankers (703) 792-5276
SURVEYED BY: DATE: Rinker Design Associates, P.C. (703) 366-7373, June 2021
DESIGN BY: Mark Gunn, P.E., Rinker Design Associates, P.C. (703) 366-7373
SUBSURFACE UTILITY BY: DATE: Accumark (804) 550-7740, April 2021

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER: BWC, DOT, Mary, Askers (703) 792-5276
SURVEYED BY, DATE: Blnker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7240, April 2021

LOCATION MAP, FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA

PRINCE WILLIAM COUNTY

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS URBAN MINOR ARTERIAL STREET SYSTEM-ROLLING-GS-6 (Bus. Route 234, Dumfries Road) PRINCE WILLIAM COUNTY STANDARD PA-2	
	Fr: Route 649, Brentsville Rd To: North of Roadway D
ADT (2021)	9,200
ADT (2045)	14,500
DHV	748
D (%) (design hour)	60/40
T (%) (design hour)	2.0
V (MPH)	45 MPH
TC ST'D.	TC-5.11U

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS URBAN COLLECTOR STREET SYSTEM-ROLLING-GS-7 (Route 649, Brentsville Road) PRINCE WILLIAM COUNTY STANDARD MA-1	
	Fr: South of Boutlier Lane / Bradley Forge To: Bus. Route 234, Dumfries Road
ADT (2021)	4,000
ADT (2045)	12,000
DHV	319
D (%) (design hour)	65/35
T (%) (design hour)	3.0
V (MPH)	40 MPH
TC ST'D.	TC-5.11U

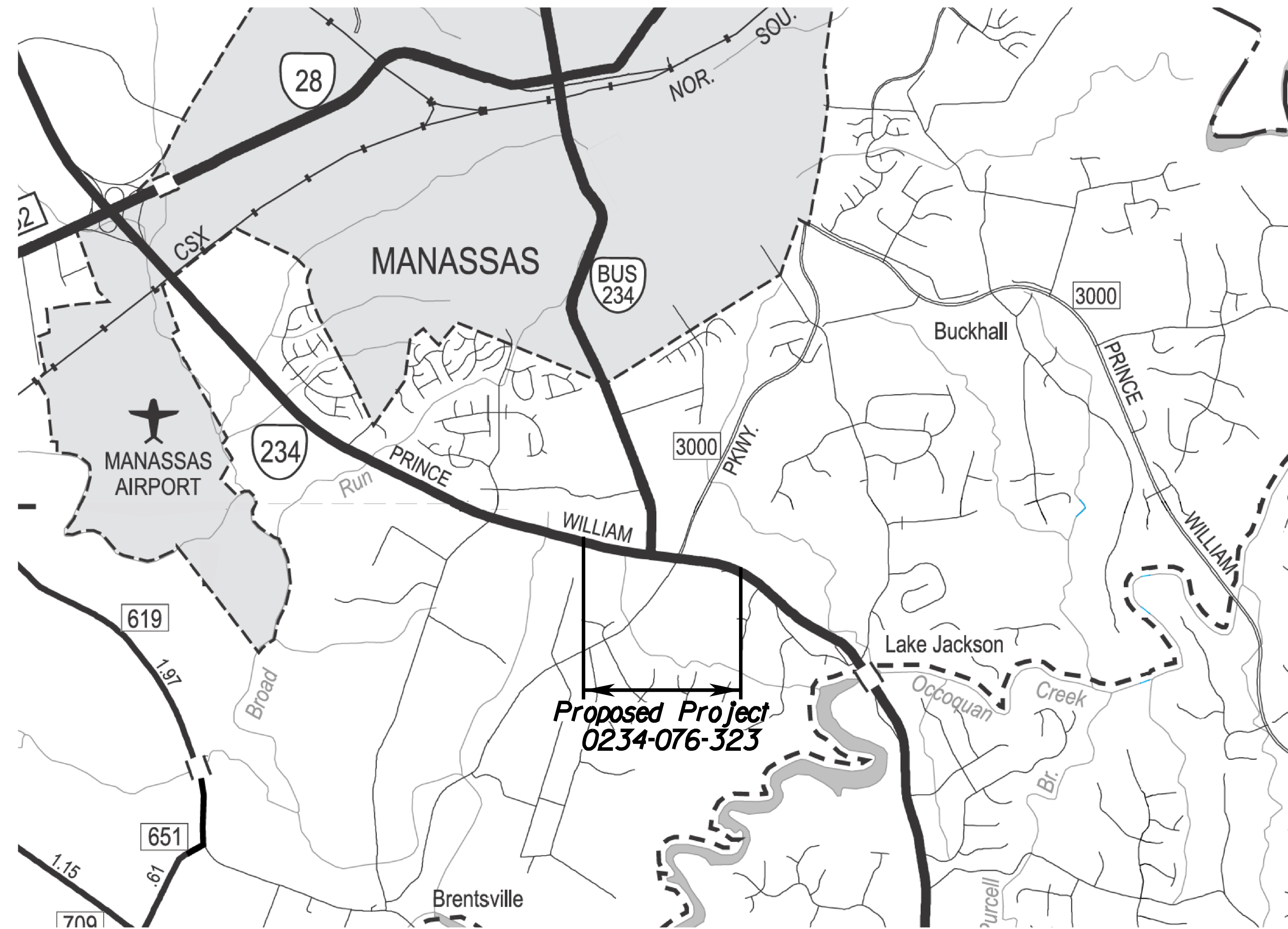
FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NHS OTHER PRINCIPAL ARTERIAL STREET SYSTEM-ROLLING-GS-5 (Roadway B, & C) PRINCE WILLIAM COUNTY STANDARD MA-22	
	Fr: Roadway D To: North of Roadway D
ADT (2021)	27,500
ADT (2045)	38,000
DHV	2133
D (%) (design hour)	60/40
T (%) (design hour)	4.0
V (MPH)	40 MPH
TC ST'D.	TC-5.11U

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NHS INTERCHANGE RAMP-ROLLING-GS-R (Roadway A, B, & C) PRINCE WILLIAM COUNTY STANDARD N/A	
	Fr: Ramp E1 To: Roadway D
ADT (2017/2019)	13,500
ADT (2045)	21,100
DHV	N/A
D (%) (design hour)	60/40
T (%) (design hour)	4.0
V (MPH)	30 MPH
TC ST'D.	TC-5.11R

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NHS URBAN LOCAL STREET SYSTEM-ROLLING-GS-8 (Roadway D) PRINCE WILLIAM COUNTY STANDARD MA-1	
	Fr: Route 649, Brentsville Road To: Roadway C
ADT (2021)	1,700
ADT (2045)	23,000
DHV	N/A
D (%) (design hour)	60/40
T (%) (design hour)	4.0
V (MPH)	25 MPH
TC ST'D.	TC-5.11U

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS INTERCHANGE RAMP-ROLLING-GS-R (RAMP A, B, C, D1, E1, E2 & G) NHS INTERCHANGE RAMP-ROLLING-GS-R (RAMP D2) PRINCE WILLIAM COUNTY STANDARD N/A	
	Fr: N/A To: N/A
ADT (2017/2019)	N/A
ADT (2045)	A: 5,600 D1/D2: 12,800 B: 9,100 E1/E2: 13,000 C: 1,000 G: 4,500
DHV	N/A
D (%) (design hour)	N/A
T (%) (design hour)	4.0 (A, B, D1, D2, E1, E2 & G) / 2.0 (C)
V (MPH)	30 MPH
TC ST'D.	TC-5.11R

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS INTERCHANGE RAMP-ROLLING-GS-R (Ramp F) PRINCE WILLIAM COUNTY STANDARD N/A	
	Fr: Route 234 Bypass To: Route 649, Brentsville Road
ADT (2017/2019)	N/A
ADT (2045)	3,900
DHV	N/A
D (%) (design hour)	N/A
T (%) (design hour)	4.0
V (MPH)	35 MPH
TC ST'D.	TC-5.11R



COUNTY OF PRINCE WILLIAM
POPULATION 468,011
2018 CENSUS



PROJECT	SHEET NO.
0234-076-323	1A

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PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guano, P.E., Rlnker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-50i	1B

INDEX OF SHEETS

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Sheet Number	Description
I	Title Sheet
IA	Location Map, Functional Classification And Traffic Data
IB	Index of Sheets
IC	Right Of Way Data Sheet
ID	Revision Data Sheet
IE	Stream Flow Hydrograph Sheet
IF-IF(1)	Survey Control Data
IF(2)-IF(3)	Existing Drainage Descriptions
IG-IG(7)	Construction Alignment Data Sheet
IH	Underground Utility Test Hole
II	Not Used
IJ - IJ(1)	Erosion & Sediment Control Plan Notes/VESCH Narrative & Checklist
IJ(2)	Erosion & Sediment Control Plan Approved Water Quality Permits
IJ(3)	Erosion & Sediment Control Plan Roadside Development
IJ(4)	Erosion & Sediment Control Plan Soils Map and Table
IJ(5) - IJ(9)	Erosion & Sediment Control Plan Details
IJ(10) - IJ(15)	Erosion & Sediment Control Plan Temporary Sediment Basin Details
IJ(16)	Erosion & Sediment Control Plan Temporary Sediment Trap Details
IJ(17)	Erosion & Sediment Control Plan Temporary Diversion Channel Details
IJ(18)	Erosion & Sediment Control Plan Temporary Ditch Details
IJ(19)-IJ(27)	Erosion & Sediment Control Plan Pipe Culvert Details
IK(3) - IK(25)	Erosion & Sediment Control Phase 1
IL(3) - IL(25)	Erosion & Sediment Control Phase 2 AWP
IM(3) - IM(25)	Erosion & Sediment Control Phase 2 Final
IN	TMP/SOC General Notes & Narrative
IN(1)	Advance Work Package & Phase 1 TMP 50 Scale Base Layout Plan
IN(2)	Phase 2 - 3 TMP 50 Scale Base Layout Plan
IO(1)-IO(2)	TMP/SOC VWAPM TTC Details
IP	TMP/SOC AWP Typical Sections
IP(1)-IP(6)	TMP/SOC Phase 1-3 Typical Sections
IQ(1) - IQ(11)	TMP/SOC AWP
IR(1) - IR(11)	TMP/SOC Phase 1
IS(1) - IS(11)	TMP/SOC Phase 2
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IV(1) - IV(4)	Detour Map Phase 1 - 3
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2A(9)	Generalized Methods For Removing Unsuitable Material
2B - 2B(6)	Gore Details
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2D	Roadside Development
2E	Culvert Detail
2F - 2F(3)	Stormwater Pollution Prevention Plan
2F(4) - 2F(5)	Pre/Post Development PL41 Drainage Area Maps
3	Plan Sheet Route 234 Bypass Sta.538-25.00 to Sta.545-25.00
3A	Profile Sheet Route 234 Bypass Sta.538-25.00 to Sta.545-25.00
4	Plan Sheet Route 234 Bypass Sta.545-25.00 to Sta.552-25.00
4A	Profile Sheet Route 234 Bypass Sta.545-25.00 to Sta.552-25.00
5	Plan Sheet Route 234 Bypass Sta.552-25.00 to Sta.558-75.00
5A	Profile Sheet Route 234 Bypass Sta.552-25.00 to Sta.558-75.00
5B	Profile Sheet Ramp D1 Sta.80-00.00 to Sta.84-17.48 /Ramp G Sta.90-00.00 to Sta.94-38.82
6	Plan Sheet Route 234 Bypass Sta.558-75.00 to Sta.565-75.00
6A	Profile Sheet Route 234 Bypass Sta.558-75.00 to Sta.565-75.00
6B	Profile Sheet Route 649 Sta.113-75.00 to 118-50.00/Roadway A Sta.200-00.00 to 205-50.00
7	Plan Sheet 234 Bypass Sta.565-75.00 to Sta.571-75.00
7A	Profile Sheet Route 234 Bypass Sta.565-75.00 to Sta.571-75.00
7B	Profile Sheet Ramp B 50-00.00 to 55-92.72/Ramp E2 Sta.43-75.00 to 48-04.71
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8A	Profile Sheet Route 234 Bypass Sta.571-75.00 to Sta.578-00.00
8B	Profile Sheet Shared Use Path B Sta.13-75.00 to 19-50.00
9	Plan Sheet 234 Bypass Sta.578-00.00 to Sta.585-25.00
9A	Profile Sheet Route 234 Bypass Sta.578-00.00 to Sta.585-00.00 /Plant Place
9B	Plan Sheet Plant Place Sta.807-03.06 to 818-46.66
9C	Profile Sheet Plant Place Sta.807-00.00 to 818-46.66
10	Plan Sheet Route 649 Sta.100-00.00 to Sta.106-75.00
10A	Profile Sheet Route 649 Sta.100-00.00 to Sta.106-75.00
11	Plan Sheet Route 649 Sta.106-75.00 to Sta.113-75.00
11A	Profile Sheet Route 649 Sta.106-75.00 to Sta.113-75.00
11B	Profile Sheet Ramp F TMI Sta.1-00.00 to 3-33.05/Ramp F TM2 Sta.2-00.00 to 4-37.25
12	Plan Sheet Route 649 Sta.118-50.00 to Sta.124-50.00
12A	Profile Sheet Route 649 Sta.118-50.00 to Sta.124-50.00
13	Plan Sheet Route 649/Route 234 Business Sta.124-50.00 to Sta.128-75.00

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13B	Radial Return Profiles
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15B	Profile Sheet Roadway B Sta.800-00.00 to 802-50.00/Roadway C Sta.900-00.00 to 902-50.00
16	Plan Sheet Roadway B Sta.802-50.00 to 806-75.00/Roadway D Sta.303-50.00 to 308-00.00
16A	Profile Sheet Roadway B Sta.802-50.00 to 806-75.00/Roadway C Sta.902-50.00 to 907-00.00
16B	Profile Sheet Ramp A Sta.68-00.00 to 75-50.60
16C	Profile Sheet Roadway D Sta.303-50.00 to 308-00.00/SUP A Sta.1-00.00 to 6-70.68
16D	Profile Sheet Roadway D TMI Sta.1-00.00 to 3-27.83/Roadway D TM2 Sta.2-00.00 to 5-24.94
16E	Profile Sheet Roadway D TM3 Sta.3-00.00 to 5-70.29/Entrance 90957 Sta.1-00.00 to 4-90.16
17	Plan Sheet Roadway B Sta.806-75.00 to 813-75.00
17A	Profile Sheet Roadway B Sta.806-75.00 to 813-75.00/Roadway C Sta.907-00.00 to 914-00.00
18	Plan Sheet Roadway B Sta.813-75.00 to 817-00.00
18A	Profile Sheet Roadway B Sta.813-75.00 to 817-00.00
19	Plan Sheet Ramp F Sta.13-25.00 to 20-25.00
19A	Profile Sheet Ramp F Sta.10-00.00 to 20-97.20
20	Plan Sheet SWM Pond 4-3
21	Plan Sheet Ramp E1 Sta.602-75.00 to 606-50.00
21A	Profile Sheet Ramp C Sta.30-00.00 to 35-88.95/Ramp E1 Sta.600-00.00 to 606-50.00
22	Plan Sheet Ramp E1 Sta.606-50.00 to Ramp E2 Sta.43-75.00
22A	Profile Sheet Ramp E1 Sta.606-50.00 to 609-81.85/Ramp E2 Sta.40-00.00 to 43-75.00
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24A	Profile Sheet Ramp A Sta.60-00.00 to 68-00.00
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29-29(2)	Drainage Descriptions
30(4A)-30(25A)	Drainage Profiles
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32B-32B(3)	Stormwater Management Facility 4-2 Plan /Profile/Detail
32C-32C(4)	Stormwater Management Facility 4-3 Plan/Profile/Detail
32D-32D(3)	Stormwater Management Facility 6-2 Plan/Profile/Detail
32E-32E(2)	Stormwater Management Facility Checklist
33-33(X)	Underdrain Summary
34(1)-34(11)	Signage Plans
35(1)-35(11)	Pavement Marking Plans
36(1)-36(22)	Roadway Lighting
37(3)-37(5)	Traffic Signal Plan
38-38(X)	Utility Relocation Plans
*	Denotes Sheets that are excluded from this Plan Set.

Sheet Number	Description
CROSS SECTIONS	
X1	Cross Sections Title Sheet
X2-X70	Route 234 Bypass
X71-X115	Route 649
X116-X128	Route 234 Business
X129-X145	Roadway A
X146-X172	Roadway B
X173-X197	Roadway C
X198-X209	Roadway D
X210-X215	Roadway D TMI
X216-X220	Roadway D TM2
X221-X226	Roadway D TM3
X227-X244	Ramp F
X245-X250	Ramp F TMI
X251-X255	Ramp F TM2
X256-X264	Ramp C
X265-X284	Ramp E1
X285-X300	Ramp E2
X301-X313	Ramp B
X314-X339	Ramp A
X340-X354	Ramp D2
X355-X363	Ramp D1
X364-X371	Ramp G
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X403-X408	Entrance 90957
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X418-X447	Shared Use Path B
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I-37	0234-076-323, B661
I-28	0234-076-323, B662

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PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Blnker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rlnker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, Apr 11, 2021

Preliminary Right of Way Data Sheet

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	1C

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

PARCEL INFORMATION					AREA: Areas greater than or equal to 1 acre will be shown in acres to 3 decimal places (x.xxx AC). Areas less than 1 acre will be shown in square feet (xx,xxx SF).									
PARCEL NO.	LANDOWNER NAME	PLAN SHEET NO.	DEED ACREAGE	REMAINDER	FEE TAKE SUMMARY			PERMANENT EASEMENTS		UTILITY EASEMENTS			TEMP. EASEMENTS	PROFFERS
					TOTAL	PRESCRIPTIVE R/W	NON-PRESCR. R/W	DRAINAGE	SLOPE	VERIZON SOUTH	NOVEC	DE	CONSTRUCTION	YES/NO
001	KENNETH F. FELD	13,14,25	20,341 AC	18,798 AC	1,403 AC	-	1,543 AC	843 SF	-	-	-	-	19,167 SF	NO
002	KENNETH J. FELD, TRADING AS KJF ENTERPRISES	13,14,16,17,18	22,099 AC	22,099 AC	-	-	-	-	-	-	-	-	3,353 SF	NO
003	BENJAMIN D. BROOKWELL	17	5,965 AC	5,965 AC	-	-	-	318 SF	-	-	-	-	270 SF	NO
004	ANA L. AVILES	10,20	2,412 AC	2,412 AC	-	-	-	-	-	-	1,996 SF	-	-	NO
005	THOMAS J. ASHE, III AND JOHN E. MCCULLOUGH, TRUSTEES	14	20,000 AC	20,000 AC	-	-	-	-	-	-	-	-	1,721 SF	NO
006	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	NO
007	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	NO
008	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	NO
009	COMMONWEALTH OF VIRGINIA	6,7,11,15,21,22,24	4,136 AC	0 AC	4,136 AC	-	4,136 AC	-	-	-	-	-	-	NO
010	COMMONWEALTH OF VIRGINIA	21,22	1,621 AC	0 AC	1,621 AC	-	1,621 AC	-	-	-	-	-	-	NO
011	COMMONWEALTH OF VIRGINIA	10	-	-	-	-	-	-	-	-	167 SF	-	-	NO

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PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

Survey Traverse Control

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	IF

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

BENCHMARKS

Note: Benchmarks PN Correspond to SBL Point

PN	Elev. (US Ft.)
1	248.08
2	256.23
3	246.09
4	240.20
5	246.83
6	260.98
7	256.38
8	265.37
9	273.06
10	273.27
11	271.58
12	277.75
13	285.79
14	289.99
15	288.96
16	283.48
17	277.20
18	267.83
19	252.62
20	265.72
21	275.90
22	280.34
23	287.43
24	290.89
25	283.13
26	270.93
27	258.75
28	248.35
29	242.74
30	274.59
31	266.29
32	258.71
33	244.01



Beginning BRENTSVILLE ROAD/RTE. 234 SURVEY BASELINE

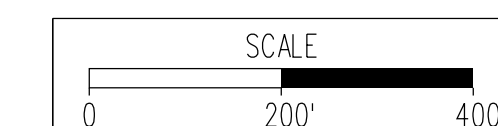
Point 02	N	6,945,865.10	E	11,776,373.96	Sta	10+00.00
Course from 02 to 03 S 82° 26' 53" E Dist 524.43						
Point 03	N	6,945,796.17	E	11,776,893.83	Sta	15+24.43
Course from 03 to 04 S 77° 15' 25" E Dist 533.53						
Point 04	N	6,945,678.49	E	11,777,414.22	Sta	20+57.95
Course from 04 to 05 S 74° 22' 18" E Dist 467.31						
Point 05	N	6,945,552.60	E	11,777,864.25	Sta	25+25.26
Course from 05 to 06 S 88° 23' 04" E Dist 471.86						
Point 06	N	6,945,539.29	E	11,778,335.92	Sta	29+97.12
Course from 06 to 07 N 7° 57' 18" W Dist 464.49						
Point 07	N	6,945,999.32	E	11,778,271.64	Sta	34+61.61
Course from 07 to 08 N 17° 33' 07" E Dist 445.15						
Point 08	N	6,946,423.74	E	11,778,405.88	Sta	39+06.76
Course from 08 to 09 N 80° 25' 19" E Dist 392.22						
Point 09	N	6,946,489.00	E	11,778,792.64	Sta	42+98.99
Course from 09 to 10 S 87° 47' 58" E Dist 357.78						
Point 10	N	6,946,475.27	E	11,779,150.15	Sta	46+56.76
Course from 10 to 11 S 65° 38' 28" E Dist 354.34						
Point 11	N	6,946,329.12	E	11,779,472.95	Sta	50+11.00
Course from 11 to 12 S 20° 09' 30" W Dist 458.57						
Point 12	N	6,945,898.64	E	11,779,314.92	Sta	54+69.67
Course from 12 to 13 S 16° 29' 05" W Dist 486.57						
Point 13	N	6,945,432.07	E	11,779,176.85	Sta	59+56.24
Course from 13 to 14 S 82° 08' 00" E Dist 473.02						
Point 14	N	6,945,367.33	E	11,779,645.42	Sta	64+29.26
Course from 14 to 15 S 79° 44' 57" E Dist 463.92						
Point 15	N	6,945,284.77	E	11,780,101.93	Sta	68+93.18
Course from 15 to 16 S 72° 59' 29" E Dist 462.73						
Point 16	N	6,945,149.42	E	11,780,544.43	Sta	73+55.91
Course from 16 to 17 S 64° 27' 12" E Dist 449.66						
Point 17	N	6,944,955.50	E	11,780,950.12	Sta	78+05.57

Point 17	N	6,944,955.50	E	11,780,950.12	Sta	78+05.57
Course from 17 to 18 S 56° 03' 06" E Dist 427.20						
Point 18	N	6,944,716.93	E	11,781,304.50	Sta	82+32.77
Course from 18 to 19 S 49° 21' 11" E Dist 404.62						
Point 19	N	6,944,453.37	E	11,781,611.50	Sta	86+37.39
Course from 19 to 20 N 61° 08' 26" W Dist 367.58						
Point 20	N	6,944,630.79	E	11,781,289.57	Sta	90+04.97
Course from 20 to 21 N 55° 13' 36" W Dist 460.87						
Point 21	N	6,944,893.63	E	11,780,911.01	Sta	94+65.84
Course from 21 to 22 N 70° 05' 22" W Dist 433.39						
Point 22	N	6,945,041.22	E	11,780,503.53	Sta	98+99.22
Course from 22 to 23 N 66° 58' 26" W Dist 456.19						
Point 23	N	6,945,219.66	E	11,780,083.69	Sta	103+55.41
Course from 23 to 24 N 81° 24' 21" W Dist 527.19						
Point 24	N	6,945,298.44	E	11,779,562.42	Sta	108+82.60
Course from 24 to 25 N 89° 14' 23" W Dist 491.60						
Point 25	N	6,945,304.96	E	11,779,070.86	Sta	113+74.21
Course from 25 to 26 N 83° 04' 39" W Dist 401.63						
Point 26	N	6,945,353.37	E	11,778,672.16	Sta	117+75.83
Course from 26 to 27 N 79° 57' 26" W Dist 411.49						
Point 27	N	6,945,425.13	E	11,778,266.97	Sta	121+87.32
Course from 27 to 28 N 81° 23' 47" W Dist 412.79						
Point 28	N	6,945,486.88	E	11,777,858.83	Sta	126+00.11
Course from 28 to 29 N 79° 53' 45" W Dist 476.83						
Point 29	N	6,945,570.53	E	11,777,389.39	Sta	130+76.94
Course from 29 to 01 N 78° 04' 25" W Dist 505.60						
Point 01	N	6,945,675.02	E	11,776,894.71	Sta	135+82.54
Course from 01 to 02 N 69° 56' 50" W Dist 554.36						
Point 02	N	6,945,865.10	E	11,776,373.96	Sta	141+36.90

Beginning BRENTSVILLE ROAD/RTE. 649 SURVEY BASELINE

Point 33	N	6,944,052.39	E	11,778,146.30	Sta	200+00.00
Course from 33 to 32 N 30° 11' 41" E Dist 486.97						
Point 32	N	6,944,473.28	E	11,778,391.21	Sta	204+86.97
Course from 32 to 31 N 47° 11' 16" E Dist 272.25						
Point 31	N	6,944,658.30	E	11,778,590.93	Sta	207+59.21
Course from 31 to 30 N 32° 49' 29" E Dist 372.33						
Point 30	N	6,944,971.18	E	11,778,792.76	Sta	211+31.54
Course from 30 to 25 N 39° 48' 01" E Dist 434.45						
Point 25	N	6,945,304.96	E	11,779,070.86	Sta	215+66.00

Ending BRENTSVILLE ROAD/RTE. 649 SURVEY BASELINE



PROJECT	SHEET NO.
0234-076-323	IF

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PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7740, Apr 11, 2021

Survey Control Cards

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	IF(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

LD-200 (REV. 10/2014)
Virginia Department of Transportation Horizontal Control
Control Station I.D.: 1 Date: 5-18-2021

VDOT Project Coordinates (2014) East (X): 11776894.710 ft. North (Y): 6945675.017 ft. Elevation: 248.08 ft.	VA State Plane Coordinates: NAD 83- U.S. Survey Feet East (X): 11776217.460 ft. North (Y): 6945275.594 ft. Ortho. Elevation (H): 248.08 ft. Zone: North X South (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000057510 (9 Decimal Places)	Project Information Project Number: 118626 Route: 234 City/County: Prince William Established By: RDA
Latitude: 38° 42' 55.96926" N (5 Decimal Places) Longitude: 77° 28' 19.33334" W (5 Decimal Places) Geoid Separation (N): -33.299m Ellipsoid Height (H): 42.316m Horizontal Datum: NAD83 Year: 2011 Vertical Datum: NAVD88 Geoid: 2012b Azimuth to Station: 2 Is 290° 03' 10" Control Based On: Station (Name/PID) PW06 & PW08 or Project (Monument No.): N/A	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula: • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)
Virginia Department of Transportation Horizontal Control
Control Station I.D.: 2 Date: 5-18-2021

VDOT Project Coordinates (2014) East (X): 11776373.955 ft. North (Y): 6945865.099 ft. Elevation: 256.23 ft.	VA State Plane Coordinates: NAD 83- U.S. Survey Feet East (X): 11775696.735 ft. North (Y): 6945465.665 ft. Ortho. Elevation (H): 256.23 ft. Zone: North X South (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000057510 (9 Decimal Places)	Project Information Project Number: 118626 Route: 234 City/County: Prince William Established By: RDA
Latitude: 38° 42' 57.90558" N (5 Decimal Places) Longitude: 77° 28' 25.87617" W (5 Decimal Places) Geoid Separation (N): -33.299m Ellipsoid Height (H): 44.800m Horizontal Datum: NAD83 Year: 2011 Vertical Datum: NAVD88 Geoid: 2012b Azimuth to Station: 1 Is 110° 03' 10" Control Based On: Station (Name/PID) PW06 & PW08 or Project (Monument No.): N/A	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula: • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)
Virginia Department of Transportation Horizontal Control
Control Station I.D.: 19 Date: 5-18-2021

VDOT Project Coordinates (2014) East (X): 11781611.503 ft. North (Y): 6944453.368 ft. Elevation: 252.62 ft.	VA State Plane Coordinates: NAD 83- U.S. Survey Feet East (X): 11780933.981 ft. North (Y): 6944054.015 ft. Ortho. Elevation (H): 252.62 ft. Zone: North X South (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000057510 (9 Decimal Places)	Project Information Project Number: 118626 Route: 234 City/County: Prince William Established By: RDA
Latitude: 38° 42' 43.36861" N (5 Decimal Places) Longitude: 77° 27' 20.00467" W (5 Decimal Places) Geoid Separation (N): -33.302m Ellipsoid Height (H): 43.697m Horizontal Datum: NAD83 Year: 2011 Vertical Datum: NAVD88 Geoid: 2012b Azimuth to Station: 2 Is 298° 51' 34" Control Based On: Station (Name/PID) PW06 & PW08 or Project (Monument No.): N/A	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula: • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)
Virginia Department of Transportation Horizontal Control
Control Station I.D.: 20 Date: 5-18-2021

VDOT Project Coordinates (2014) East (X): 11781289.575 ft. North (Y): 6944630.785 ft. Elevation: 265.72 ft.	VA State Plane Coordinates: NAD 83- U.S. Survey Feet East (X): 11780612.072 ft. North (Y): 6944231.422 ft. Ortho. Elevation (H): 265.72 ft. Zone: North X South (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000057510 (9 Decimal Places)	Project Information Project Number: 118626 Route: 234 City/County: Prince William Established By: RDA
Latitude: 38° 42' 45.15846" N (5 Decimal Places) Longitude: 77° 27' 24.03939" W (5 Decimal Places) Geoid Separation (N): -33.302m Ellipsoid Height (H): 47.687m Horizontal Datum: NAD83 Year: 2011 Vertical Datum: NAVD88 Geoid: 2012b Azimuth to Station: 19 Is 118° 51' 34" Control Based On: Station (Name/PID) PW06 & PW08 or Project (Monument No.): N/A	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula: • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)
Virginia Department of Transportation Horizontal Control
Control Station I.D.: 32 Date: 5-18-2021

VDOT Project Coordinates (2014) East (X): 11778391.212 ft. North (Y): 6944473.282 ft. Elevation: 258.71 ft.	VA State Plane Coordinates: NAD 83- U.S. Survey Feet East (X): 1177713.876 ft. North (Y): 6944073.928 ft. Ortho. Elevation (H): 258.71 ft. Zone: North X South (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000057510 (9 Decimal Places)	Project Information Project Number: 118626 Route: 649 City/County: Prince William Established By: RDA
Latitude: 38° 42' 43.92545" N (5 Decimal Places) Longitude: 77° 28' 00.62471" W (5 Decimal Places) Geoid Separation (N): -33.302m Ellipsoid Height (H): 45.552m Horizontal Datum: NAD83 Year: 2011 Vertical Datum: NAVD88 Geoid: 2012b Azimuth to Station: 33 Is 210° 11' 41" Control Based On: Station (Name/PID) PW06 & PW08 or Project (Monument No.): N/A	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula: • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)
Virginia Department of Transportation Horizontal Control
Control Station I.D.: 33 Date: 5-18-2021

VDOT Project Coordinates (2014) East (X): 11778146.298 ft. North (Y): 6944052.387 ft. Elevation: 244.01 ft.	VA State Plane Coordinates: NAD 83- U.S. Survey Feet East (X): 11777468.976 ft. North (Y): 6943653.058 ft. Ortho. Elevation (H): 244.01 ft. Zone: North X South (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000057510 (9 Decimal Places)	Project Information Project Number: 118626 Route: 649 City/County: Prince William Established By: RDA
Latitude: 38° 42' 39.79262" N (5 Decimal Places) Longitude: 77° 28' 03.77402" W (5 Decimal Places) Geoid Separation (N): -33.303m Ellipsoid Height (H): 41.071m Horizontal Datum: NAD83 Year: 2011 Vertical Datum: NAVD88 Geoid: 2012b Azimuth to Station: 32 Is 30° 11' 31" Control Based On: Station (Name/PID) PW06 & PW08 or Project (Monument No.): N/A	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula: • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LD-200 (REV. 10/2014)

NOT TO SCALE	PROJECT 0234-076-323	SHEET NO. IF(1)
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PROJECT MANAGER BWC DOT: Mary Ankers (703)792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

AS-BUILT STORM SEWER INFORMATION

Structures 5050 to 3513

REVISED	STATE	ROUTE	PROJECT	SHEET NO.	
	VA.		0234-076-323 RW-201,C-501	1F(2)	
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
(5050)	In Pl. Conc. End Wall Top = 255.12' Inv. In = 252.14' (From Structure 5052)	(5153)	In Pl. Conc. DI Top = 278.14' Inv. Out = 273.85' (To Structure 5155)	(5671) to (5649)	In Pl. 82LF-18" RCP Inv. In = 236.07' Inv. Out = 235.27'
(5052)	In Pl. CDI Top = 257.30' Inv. In = 252.45' (From Structure 5063) Inv. In = 252.52' (From Structure 5065) Inv. Out = 252.36' (To Structure 5050)	(5155)	In Pl. 97LF-15" RCP Inv. In = 273.85' Inv. Out = 272.91'	(5673)	In Pl. End Section Inv. Out = 236.23' (To Structure 5649)
(5052) to (5050)	In Pl. 44LF-24"x36" Ellip. RCP Inv. In = 252.36' Inv. Out = 252.14'	(5157)	In Pl. End Section Inv. In = 272.91' (From Structure 5153)	(5673) to (5649)	In Pl. 82LF-18" RCP Inv. In = 236.23' Inv. Out = 234.59'
(5063)	In Pl. Conc. Head Wall Top = 255.53' Inv. Out = 252.63' (To Structure 5052)	(5376)	In Pl. Pond Outfall Top = 246.85' Bottom = 239.70' Inv. In = 242.78' (8" RCP) Inv. Out = 242.45' (To Structure 5443)	(5690) to (5745)	In Pl. C/B Top = 240.93' Inv. Out = 238.54' (To Structure 5745)
(5063) to (5052)	In Pl. 45LF-24"x36" Ellip. RCP Inv. In = 252.63' Inv. Out = 252.45'	(5443)	In Pl. 53LF-36" RCP Inv. In = 242.45' Inv. Out = 241.78'	(5698) to (5762)	In Pl. C/B Top = 242.54' Inv. Out = 240.20' (To Structure 5762)
(5065)	In Pl. CDI Top = 258.17' Inv. In = 253.41' (From Structure 5077) Inv. Out = 253.23' (To Structure 5052)	(5443) to (5443)	In Pl. End Section Inv. In = 241.78' (From Structure 5376)	(5762) to (5762)	In Pl. 17LF-15" CPP Inv. In = 240.20' Inv. Out = 234.95'
(5065) to (5052)	In Pl. 94LF-15" RCP Inv. In = 253.23' Inv. Out = 252.52'	(5453)	In Pl. Conc. End Wall Top = 237.13' Inv. In = 234.83' (From Structure 5601)	(5745)	In Pl. End Wall Top = 237.52' Inv. In = 235.25' (From Structure 5690)
(5077)	In Pl. CDI Top = 261.31' Inv. Out = 255.40' (To Structure 5065)	(5465)	In Pl. End Section Inv. In = 233.87' (From Structure 5649)	(5762)	In Pl. End Wall Top = 237.25' Inv. In = 234.95' (From Structure 5698)
(5077) to (5065)	In Pl. 137LF-15" RCP Inv. In = 255.40' Inv. Out = 253.41'	(5469)	In Pl. 40LF-18" RCP Inv. In = 234.51' Inv. Out = 234.10'	(5704)	In Pl. 40LF-18" CMP Inv. In = 280.95' Inv. Out = 280.81'
(5080)	In Pl. 110LF-24" RCP Inv. In = 253.22' Inv. Out = 251.57'	(5477)	In Pl. 20LF-30" RCP Inv. In = 233.59' Inv. Out = 233.29'	(5711)	In Pl. 52LF-12" RCP Inv. In = 257.92' Inv. Out = 256.39'
(5090)	In Pl. CDI Top = 255.68' Inv. In = 249.70' (From Structure 5110) Inv. Out = 249.58' (To Structure 5092)	(5483)	In Pl. Pond Outfall Top = 235.18' Bottom = 229.33' Inv. In = 232.30' (6" Weir) Inv. Out = 232.26' (To Structure 5503)	(5723)	In Pl. Conc. Head Wall Top = 235.99' Inv. Out = 230.26' (To Structure 5558)
(5090) to (5092)	In Pl. 279LF-18" RCP Inv. In = 249.58' Inv. Out = 244.24'	(5483) to (5503)	In Pl. 36LF-18" RCP Inv. In = 232.26' Inv. Out = 232.10'	(5723) to (5558)	In Pl. 172LF-4"x6" RCP (3) Inv. In = 230.26' Inv. Out = 229.35'
(5092)	In Pl. C/B Top = 250.56' Inv. In = 244.24' (From Structure 5090) Inv. Out = 244.22' (To Southwest)	(5503)	In Pl. End Section Inv. In = 232.10' (From Structure 5483)	(5775)	In Pl. Head Wall Top = 254.19' Inv. Out = 249.78' (To Structure 5784)
(5110)	In Pl. C/B Top = 255.54' Inv. In = 250.81' (From Structure 5117) Inv. Out = 250.64' (To Structure 5090)	(5558)	In Pl. Conc. End Wall Top = 235.08' Inv. In = 229.35' (From Structure 5723)	(5775) to (5784)	In Pl. 106LF-36" RCP Inv. In = 249.78' Inv. Out = 247.53'
(5110) to (5090)	In Pl. 33LF-18" RCP Inv. In = 250.64' Inv. Out = 249.70'	(5582)	In Pl. End Wall Top = 238.23' Inv. In = 235.95' (From Structure 5605)	(5784)	In Pl. End Wall Top = 251.89' Inv. In = 247.53' (From Structure 5775)
(5117)	In Pl. Conc. Head Wall Top = 255.53' Inv. Out = 252.98' (To Structure 5110)	(5601)	In Pl. C/B Top = 242.87' Inv. Out = 240.42' (To Structure 5453)	(5802)	In Pl. Metal Gate Top = 258.86' Inv. Out = 256.56' (To Structure 5809)
(5117) to (5110)	In Pl. 53LF-18" RCP Inv. In = 252.98' Inv. Out = 250.81'	(5605)	In Pl. C/B Top = 246.11' Inv. Out = 243.95' (To Structure 5582)	(5802) to (5809)	In Pl. 72LF-18" RCP Inv. In = 256.56' Inv. Out = 256.50'
(5124)	In Pl. 22LF-18" CMP Inv. In = 278.57' Inv. Out = 277.62'	(5605) to (5582)	In Pl. 18LF-15" CPP Inv. In = 243.95' Inv. Out = 235.95'	(5809)	In Pl. End Wall Top = 258.51' Inv. In = 256.50' (From Structure 5802)
(5126)	In Pl. End Section Inv. Out = 276.75' (To Structure 5141)	(5601) to (5453)	In Pl. 19LF-15" CPP Inv. In = 240.42' Inv. Out = 234.83'	(5817)	In Pl. 54LF-24" RCP Inv. In = 268.23' Inv. Out = 267.41'
(5126) to (5141)	In Pl. 129LF-15" RCP Inv. In = 276.75' Inv. Out = 275.40'	(5627)	In Pl. Structure Top = 238.93' Inv. Out = 236.02' (To Structure 5649)	(5842)	In Pl. 34LF-15" CMP Inv. In = 260.92' Inv. Out = 260.60'
(5132)	In Pl. Conc. DI Top = 280.09' Inv. Out = 275.59' (To Structure 5141)	(5627) to (5649)	In Pl. 92LF-18" RCP Inv. In = 236.02' Inv. Out = 235.20'	(5908)	In Pl. Metal Gate Top = 284.06' Inv. In = 281.61' (From Structure 5913)
(5132) to (5141)	In Pl. 77LF-15" RCP Inv. In = 275.59' Inv. Out = 273.94'	(5649)	In Pl. Structure Top = 238.65' Inv. In = 235.25' (From Structure 5671) Inv. In = 234.80' (From Structure 5673) Inv. In = 235.15' (From Structure 5627) Inv. In = 235.40' (6" CPP From Southwest) Inv. In = 235.40' (6" CPP From Southwest) Inv. Out = 234.67' (To Structure 5465)	(5913)	In Pl. Metal Gate Top = 284.29' Inv. Out = 282.11' (To Structure 5908)
(5141)	In Pl. Metal Gate Top = 278.52' Inv. In = 273.94' (From Structure 5132) Inv. In = 275.40' (From Structure 5126) Inv. Out = 273.92' (To Northwest)	(5649) to (5465)	In Pl. 79LF-24" RCP Inv. In = 234.67' Inv. Out = 233.87'	(5913) to (5908)	In Pl. 63LF-18" RCP Inv. In = 282.11' Inv. Out = 281.61'
(5145)	In Pl. 33LF-15" CMP Inv. In = 283.79' Inv. Out = 283.11'	(5671)	In Pl. Structure Top = 238.83' Inv. Out = 236.07' (To Structure 5649)	(6570)	In Pl. End Section Inv. Out = 232.15' (To Structure 6578)
		(6572)	In Pl. End Section Inv. Out = 235.73' (To Structure 6576)	(6570) to (6578)	In Pl. 116LF-30" RCP Inv. In = 232.15' Inv. Out = 230.03'
		(6572) to (6576)	In Pl. 159LF-18" RCP Inv. In = 235.73' Inv. Out = 231.14'	(6572) to (6576)	In Pl. End Section Inv. Out = 235.49' (To Structure 6576)
		(6574)	In Pl. End Section Inv. Out = 235.49' (To Structure 6576)	(6574) to (6576)	In Pl. 31LF-15" RCP Inv. In = 235.49' Inv. Out = 231.63'
		(6576)	In Pl. Manhole Top = 237.21' Inv. In = 231.14' (From Structure 6572) Inv. In = 231.63' (From Structure 6574) Inv. Out = 228.86' (To Structure 6578)	(6576)	In Pl. Manhole Top = 237.21' Inv. In = 231.14' (From Structure 6572) Inv. In = 231.63' (From Structure 6574) Inv. Out = 228.86' (To Structure 6578)
		(6576) to (6578)	In Pl. 29LF-21" RCP Inv. In = 228.86' Inv. Out = 227.28'	(6576) to (6578)	In Pl. 29LF-21" RCP Inv. In = 228.86' Inv. Out = 227.28'
		(6578)	In Pl. Manhole Top = 234.94' Inv. In = 230.03' (From Structure 6570) Inv. In = 227.28' (From Structure 6576) Inv. Out = 227.02' (To Structure 6604)	(6578)	In Pl. Manhole Top = 234.94' Inv. In = 230.03' (From Structure 6570) Inv. In = 227.28' (From Structure 6576) Inv. Out = 227.02' (To Structure 6604)
		(6578) to (6604)	In Pl. 191LF-36" RCP Inv. In = 227.02' Inv. Out = 224.56'	(6578) to (6604)	In Pl. Metal Gate Top = 239.37' Inv. Out = 235.22' (To Structure 6594)
		(6592)	In Pl. Metal Gate Top = 239.37' Inv. Out = 235.22' (To Structure 6594)	(6592)	In Pl. 80LF-18" RCP Inv. In = 235.22' Inv. Out = 233.71'
		(6592) to (6594)	In Pl. 80LF-18" RCP Inv. In = 235.22' Inv. Out = 233.71'	(6592) to (6594)	In Pl. End Section Inv. In = 233.71' (From Structure 6592)
		(6604)	In Pl. Conc. End Wall Top = 229.03' Inv. In = 224.56' (From Structure 6578)	(6604)	In Pl. Conc. End Wall Top = 229.03' Inv. In = 224.56' (From Structure 6578)
		(6691)	In Pl. 31LF-12" CMP Inv. In = 241.9' Inv. Out = 239.92'	(6691)	In Pl. 31LF-12" CMP Inv. In = 241.9' Inv. Out = 239.92'
		(6728)	In Pl. 21LF-15" CMP Inv. In = 244.83' Inv. Out = 242.33'	(6728)	In Pl. 21LF-15" CMP Inv. In = 244.83' Inv. Out = 242.33'
		(6738)	In Pl. Conc. DI Top = 288.93' Inv. Out = 286.52' (To Structure 10208)	(6738)	In Pl. Conc. DI Top = 288.93' Inv. Out = 286.52' (To Structure 10208)
		(10204)	In Pl. Conc. DI Top = 286.52' (To Structure 10208) Inv. Out = 277.11'	(10204)	In Pl. Conc. DI Top = 286.52' (To Structure 10208) Inv. Out = 277.11'
		(10204) to (10208)	In Pl. 22LF-15" CPP Inv. In = 277.12' Inv. Out = 270.97'	(10204) to (10208)	In Pl. 22LF-15" CPP Inv. In = 277.12' Inv. Out = 270.97'
		(10208)	In Pl. End Wall Top = 279.16' Inv. In = 277.11' (From Structure 10204)	(10208)	In Pl. End Wall Top = 279.16' Inv. In = 277.11' (From Structure 10204)
		(10279)	In Pl. Conc. End Wall Top = 253.59' Inv. In = 249.76' (From Structure 10284)	(10279)	In Pl. Conc. End Wall Top = 253.59' Inv. In = 249.76' (From Structure 10284)
		(10284)	In Pl. Conc. Head Wall Top = 255.29' Inv. Out = 250.80' (To Structure 10279)	(10284)	In Pl. Conc. Head Wall Top = 255.29' Inv. Out = 250.80' (To Structure 10279)
		(10284) to (10279)	In Pl. 165LF-36" CMP Inv. In = 250.80' Inv. Out = 249.76'	(10284) to (10279)	In Pl. 165LF-36" CMP Inv. In = 250.80' Inv. Out = 249.76'
		(15414)	In Pl. Conc. Head Wall Top = 245.63' Inv. Out = 242.46' (To Structure 15418)	(15414)	In Pl. Conc. Head Wall Top = 245.63' Inv. Out = 242.46' (To Structure 15418)
		(15414) to (15418)	In Pl. 56LF-27" RCP Inv. In = 242.46' Inv. Out = 241.94'	(15414) to (15418)	In Pl. 56LF-27" RCP Inv. In = 242.46' Inv. Out = 241.94'
		(15418)	In Pl. Conc. End Wall Top = 245.03' Inv. In = 241.94' (From Structure 15414)	(15418)	In Pl. Conc. End Wall Top = 245.03' Inv. In = 241.94' (From Structure 15414)
		(25004)	In Pl. CDI Top = 285.27' Inv. Out = 282.77' (To Structure 25009)	(25004)	In Pl. CDI Top = 285.27' Inv. Out = 282.77' (To Structure 25009)
		(25004) to (25009)	In Pl. 41LF-15" CPP Inv. In = 282.77' Inv. Out = 273.66'	(25004) to (25009)	In Pl. 41LF-15" CPP Inv. In = 282.77' Inv. Out = 273.66'
		(25009)	In Pl. Conc. End Wall Top = 275.76' Inv. In = 273.66' (From Structure 25004)	(25009)	In Pl. Conc. End Wall Top = 275.76' Inv. In = 273.66' (From Structure 25004)
		(25014)	In Pl. CDI Top = 281.04' Inv. Out = 278.77' (To Structure 25018)	(25014)	In Pl. CDI Top = 281.04' Inv. Out = 278.77' (To Structure 25018)
		(25014) to (25018)	In Pl. 38LF-15" CPP Inv. In = 278.77' Inv. Out = 271.72'	(25014) to (25018)	In Pl. 38LF-15" CPP Inv. In = 278.77' Inv. Out = 271.72'
		(25018)	In Pl. Conc. End Wall Top = 273.89' Inv. In = 271.72' (From Structure 25014)	(25018)	In Pl. Conc. End Wall Top = 273.89' Inv. In = 271.72' (From Structure 25014)
		(25022)	In Pl. Conc. End Wall Top = 268.58' Inv. In = 266.13' (From Structure 25057)	(25022)	In Pl. Conc. End Wall Top = 268.58' Inv. In = 266.13' (From Structure 25057)
		(25023)	In Pl. 31LF-12" CMP Inv. In = 273.90' Inv. Out = 272.97'	(25023)	In Pl. 31LF-12" CMP Inv. In = 273.90' Inv. Out = 272.97'
		(25026)	In Pl. 31LF-12" CMP Inv. In = 273.43' Inv. Out = 273.38'	(25026)	In Pl. 31LF-12" CMP Inv. In = 273.43' Inv. Out = 273.38'
		(25028)	In Pl. 60LF-18" RCP Inv. In = 270.84' Inv. Out = 269.53'	(25028)	In Pl. 60LF-18" RCP Inv. In = 270.84' Inv. Out = 269.53'
		(25030)	In Pl. 24LF-18" RCP Inv. In = 269.34' Inv. Out = 268.99'	(25030)	In Pl. 24LF-18" RCP Inv. In = 269.34' Inv. Out = 268.99'
		(25036)	In Pl. Conc. End Wall Top = 260.18' Inv. In = 256.31' (From Structure 25052)	(25036)	In Pl. Conc. End Wall Top = 260.18' Inv. In = 256.31' (From Structure 25052)
		(25043)	In Pl. Pond Outfall Top = 254.12' Bottom = 247.12' Inv. In = 250.20' (10" Weir) Inv. Out = 250.01' (To Structure 25047)	(25043)	In Pl. Pond Outfall Top = 254.12' Bottom = 247.12' Inv. In = 250.20' (10" Weir) Inv. Out = 250.01' (To Structure 25047)
		(25043) to (25047)	In Pl. 43LF-18" RCP Inv. In = 250.01' Inv. Out = 248.15'	(25043) to (25047)	In Pl. 43LF-18" RCP Inv. In = 250.01' Inv. Out = 248.15'
		(25047)	In Pl. Conc. End Wall Top = 254.12' Inv. In = 248.15' (From Structure 25043)	(25047)	In Pl. Conc. End Wall Top = 254.12' Inv. In = 248.15' (From Structure 25043)
		(25052)	In Pl. Conc. Head Wall Top = 268.65' Inv. Out = 264.90' (To Structure 25036)	(25052)	In Pl. Conc. Head Wall Top = 268.65' Inv. Out = 264.90' (To Structure 25036)
		(25052) to (25036)	In Pl. 95LF-33" RCP Inv. In = 264.90' Inv. Out = 256.31'	(25052) to (25036)	In Pl. 95LF-33" RCP Inv. In = 264.90' Inv. Out = 256.31'
		(25057)	In Pl. Grate Inlet Top = 277.12' Inv. Out = 270.97'	(25057)	In Pl. Grate Inlet Top = 277.12' Inv. Out = 270.97'
		(25057) to (25022)	In Pl. 89LF-18" RCP Inv. In = 270.97' Inv. Out = 266.13'	(25057) to (25022)	In Pl. 89LF-18" RCP Inv. In = 270.97' Inv. Out = 266.13'
		(25062)	In Pl. Conc. DI Top = 277.38' Inv. Out = 274.91' (To Structure 25066)	(25062)	In Pl. Conc. DI Top = 277.38' Inv. Out = 274.91' (To Structure 25066)
		(25062) to (25066)	In Pl. 21LF-15" CPP Inv. In = 274.91' Inv. Out = 270.95'	(25062) to (25066)	In Pl. 21LF-15" CPP Inv. In = 274.91' Inv. Out = 270.95'
		(25066)	In Pl. Conc. End Wall Top = 270.96' Inv. In = 270.95' (From Structure 25062)	(25066)	In Pl. Conc. End Wall Top = 270.96' Inv. In = 270.95' (From Structure 25062)
		(25070)	In Pl. Conc. DI Top = 271.21' Inv. Out = 268.76' (To Structure 25076)	(25070)	In Pl. Conc. DI Top = 271.21' Inv. Out = 268.76' (To Structure 25076)
		(25070) to (25076)	In Pl. 18LF-15" CPP Inv. In = 268.76' Inv. Out = 262.82'	(25070) to (25076)	In Pl. 18LF-15" CPP Inv. In = 268.76' Inv. Out = 262.82'
		(25076)	In Pl. Conc. End Wall Top = 264.84' Inv. In = 262.82' (From Structure 25070)	(25076)	In Pl. Conc. End Wall Top = 264.84' Inv. In = 262.82' (From Structure 25070)
		(25168)	In Pl. 32LF-12" CMP Inv. In = 269.77' Inv. Out = 269.28'	(25168)	In Pl. 32LF-12" CMP Inv. In = 269.77' Inv. Out = 269.28'
		(35022)	In Pl. Pond Outfall Top = 232.45' Bottom = 225.75' Inv. In = 228.95' (8" RCP) Inv. Out = 228.90' (To Structure 35031)	(35022)	In Pl. Pond Outfall Top = 232.45' Bottom = 225.75' Inv. In = 228.95' (8" RCP) Inv. Out = 228.90' (To Structure 35031)
		(35022) to (35031)</			

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7740, April 2021

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.		0234-076-323 RW-201, C-501	1F(3)

AS-BUILT STORM SEWER INFORMATION

Structures 35132 to 50183

- (35131) to (35132) In Pl. 42LF- 2" RCP
Inv. In = 269.21'
Inv. Out = 263.18'
- (35132) In Pl. Metal Grate
Top = 268.41'
Inv. In = 263.18' (From Structure 35131)
Inv. Out = 262.91' (To Structure 35158)
- (35132) to (35158) In Pl. 350LF- 24" RCP
Inv. In = 262.91'
Inv. Out = 258.05'
- (35158) In Pl. Metal Grate
Top = 263.77'
Inv. In = 258.05' (From Structure 35132)
Inv. In = 258.10' (From Structure 35171)
Inv. Out = 257.66' (To Structure 35163)
- (35158) to (35163) In Pl. 195LF- 27" RCP
Inv. In = 257.66'
Inv. Out = 254.64'
- (35171) In Pl. Metal Grate
Top = 262.22'
Inv. In = 259.28' (From Structure 35172)
Inv. Out = 259.07' (To Structure 35158)
- (35171) to (35158) In Pl. 55LF- 24" RCP
Inv. In = 259.07'
Inv. Out = 258.10'
- (35172) In Pl. Metal Grate
Top = 263.44'
Inv. Out = 259.61' (To Structure 35171)
- (35172) to (35171) In Pl. 57LF- 18" RCP
Inv. In = 259.61'
Inv. Out = 259.28'
- (35163) In Pl. Conc. DI
Top = 261.84'
Inv. In = 254.64' (From Structure 3158)
Inv. Out = 254.34' (To Structure 35124)
- (35163) to (35124) In Pl. 293LF- 27" RCP
Inv. In = 254.34'
Inv. Out = 247.06'
- (35177) In Pl. Conc. End Wall
Top = 252.98'
Inv. In = 249.81' (From Structure 35188)
- (35187) In Pl. Conc. End Wall
Top = 255.57'
Inv. In = 253.87' (From Southwest)
- (35188) In Pl. Conc. Head Wall
Top = 255.99'
Inv. Out = 252.80' (To Structure 35177)
- (35188) to (35177) In Pl. 137LF- 24" RCP
Inv. In = 252.80'
Inv. Out = 249.81'
- (35196) In Pl. Conc. End Wall
Inv. In = 235.51' (From Structure 35205)
- (35205) In Pl. Conc. Head Wall
Inv. Out = 237.39' (To Structure 35196)
- (35205) to (35196) In Pl. 195LF- 8"x12" RCP (3)
Inv. In = 237.39'
Inv. Out = 235.51'
- (35213) In Pl. Conc. End Wall
Top = 237.97'
Inv. In = 233.58' (From Structure 35093)
- (50026) In Pl. Conc. Head Wall
Top = 252.87'
Inv. Out = 249.00' (To Structure 50011)
- (50026) to (50011) In Pl. 100LF- 30" RCP
Inv. In = 249.00'
Inv. Out = 247.82'
- (50011) In Pl. End Section
Inv. In = 247.82' (From Structure 50026)
- (50179) In Pl. 27LF- 15" CMP
Inv. In = 263.09'
Inv. Out = 262.29'
- (50183) In Pl. 27LF- 15" CMP
Inv. In = 258.49'
Inv. Out = 258.06'

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

PROJECT	SHEET NO.
0234-076-323	1F(3)

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

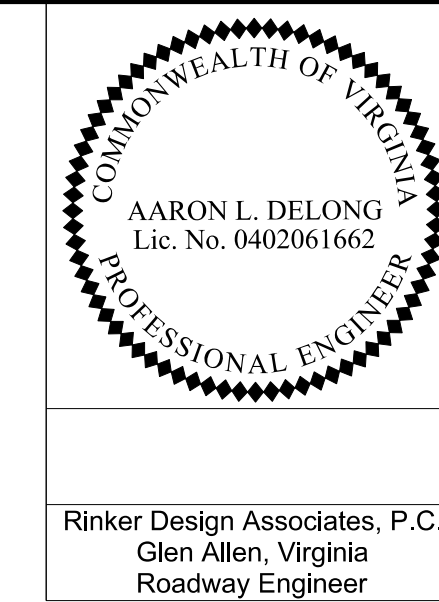
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

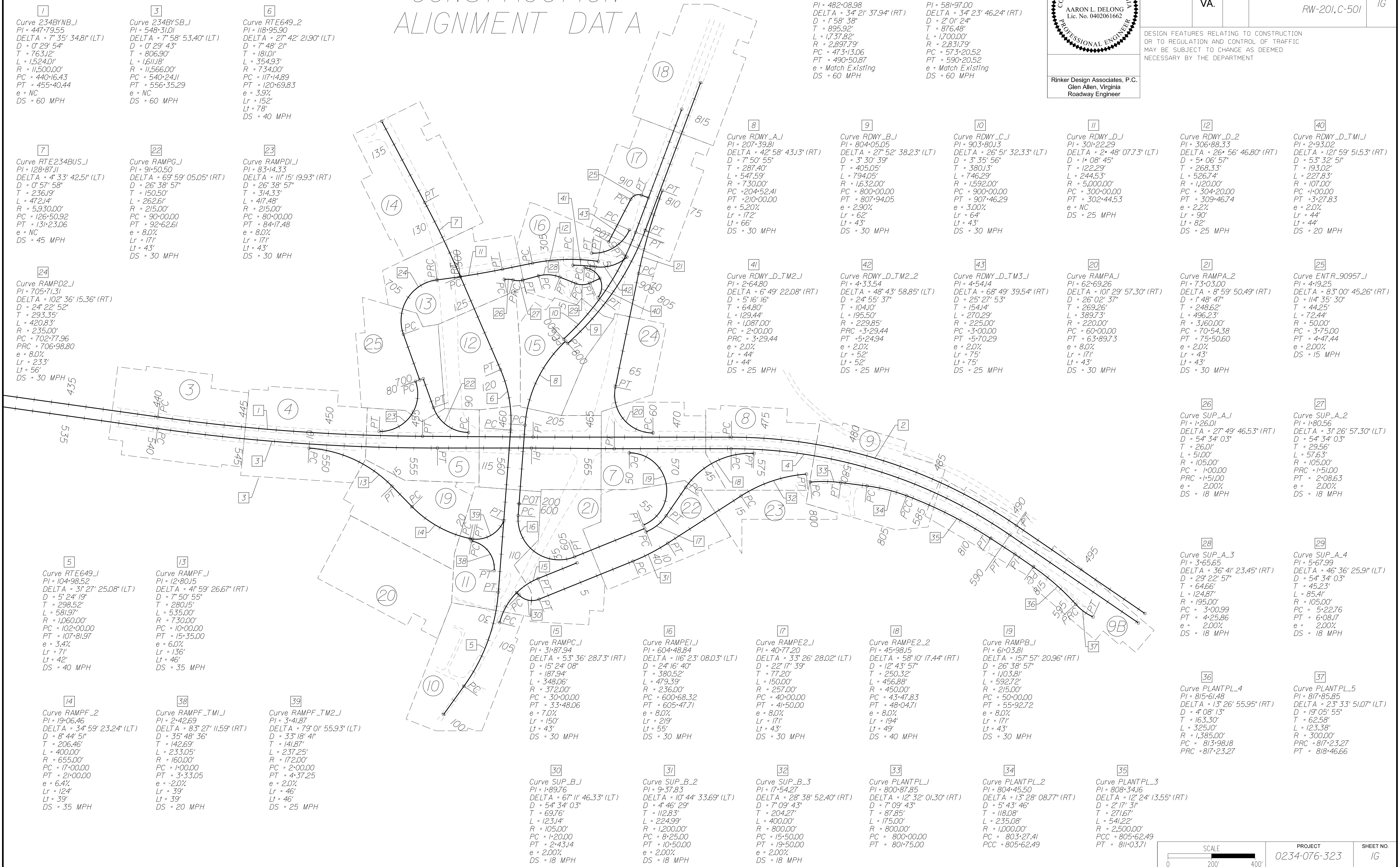
PROJECT MANAGER BWC DOT: Mary Aokers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	1G

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



- 1** Curve 234BYNB_L
PI = 447.79.55
DELTA = 7° 35' 34.81" (LT)
D = 0° 29' 54"
T = 763.12'
L = 1,524.01'
R = 11,500.00'
PC = 440.16.43
PT = 455.40.44
e = NC
DS = 60 MPH
- 3** Curve 234BYSB_L
PI = 548.31.01
DELTA = 7° 58' 53.40" (LT)
D = 0° 29' 43"
T = 806.90'
L = 1,611.8'
R = 11,566.00'
PC = 540.24.11
PT = 556.35.29
e = NC
DS = 60 MPH
- 6** Curve RTE649_2
PI = 118.95.90
DELTA = 27° 42' 21.90" (LT)
D = 7° 48' 21"
T = 181.01'
L = 354.93'
R = 734.00'
PC = 117.14.89
PT = 120.69.83
e = 3.9%
Lr = 152'
Lt = 78'
DS = 40 MPH
- 7** Curve RTE234BUS_L
PI = 128.87.11
DELTA = 4° 33' 42.51" (LT)
D = 0° 57' 58"
T = 236.19'
L = 472.14'
R = 5,930.00'
PC = 126.50.92
PT = 131.23.06
e = NC
DS = 45 MPH
- 22** Curve RAMPG_L
PI = 91.50.50
DELTA = 69° 59' 05.05" (RT)
D = 26° 38' 57"
T = 150.50'
L = 262.61'
R = 215.00'
PC = 90.00.00
PT = 92.62.61
e = 8.0%
Lr = 171'
Lt = 43'
DS = 30 MPH
- 23** Curve RAMPD_L
PI = 83.14.33
DELTA = 111° 15' 19.93" (RT)
D = 26° 38' 57"
T = 314.33'
L = 417.48'
R = 215.00'
PC = 80.00.00
PT = 84.17.48
e = 8.0%
Lr = 171'
Lt = 43'
DS = 30 MPH
- 24** Curve RAMPD2_L
PI = 705.71.31
DELTA = 102° 36' 15.36" (RT)
D = 24° 22' 52"
T = 293.35'
L = 420.83'
R = 235.00'
PC = 702.77.96
PRC = 706.98.80
e = 8.0%
Lr = 233'
Lt = 56'
DS = 30 MPH
- 5** Curve RTE649_L
PI = 104.98.52
DELTA = 31° 27' 25.08" (LT)
D = 5° 24' 19"
T = 298.52'
L = 581.97'
R = 1,060.00'
PC = 102.00.00
PT = 107.81.97
e = 3.4%
Lr = 71'
Lt = 42'
DS = 40 MPH
- 13** Curve RAMPF_L
PI = 12.80.15
DELTA = 4° 59' 26.67" (RT)
D = 7° 50' 55"
T = 280.15'
L = 535.00'
R = 730.00'
PC = 10.00.00
PT = 15.35.00
e = 6.0%
Lr = 136'
Lt = 46'
DS = 35 MPH
- 14** Curve RAMPF_2
PI = 19.06.46
DELTA = 34° 59' 23.24" (LT)
D = 8° 44' 51"
T = 206.46'
L = 400.00'
R = 655.00'
PC = 17.00.00
PT = 21.00.00
e = 6.4%
Lr = 124'
Lt = 39'
DS = 35 MPH
- 17** Curve RAMPF_TMI_L
PI = 2.42.69
DELTA = 83° 27' 11.59" (RT)
D = 35° 48' 36"
T = 142.69'
L = 233.05'
R = 160.00'
PC = 1.00.00
PT = 3.33.05
e = 2.0%
Lr = 39'
Lt = 39'
DS = 20 MPH
- 19** Curve RAMPF_TM2_L
PI = 3.41.87
DELTA = 79° 01' 55.93" (LT)
D = 33° 18' 41"
T = 141.87'
L = 237.25'
R = 172.00'
PC = 2.00.00
PT = 4.37.25
e = 2.0%
Lr = 46'
Lt = 46'
DS = 25 MPH
- 30** Curve SUP_B_L
PI = 1.89.76
DELTA = 67° 11' 46.33" (LT)
D = 54° 34' 03"
T = 69.76'
L = 123.14'
R = 105.00'
PC = 1.20.00
PT = 2.43.14
e = 2.00%
DS = 18 MPH
- 31** Curve SUP_B_2
PI = 9.37.83
DELTA = 10° 44' 33.69" (LT)
D = 4° 46' 29"
T = 112.83'
L = 224.99'
R = 1,200.00'
PC = 8.25.00
PT = 10.50.00
e = 2.00%
DS = 18 MPH
- 32** Curve SUP_B_3
PI = 17.54.27
DELTA = 28° 38' 52.40" (RT)
D = 7° 09' 43"
T = 204.27'
L = 400.00'
R = 800.00'
PC = 15.50.00
PT = 19.50.00
e = 2.00%
DS = 18 MPH
- 33** Curve PLANTPL_L
PI = 800.87.85
DELTA = 12° 32' 01.30" (RT)
D = 7° 09' 43"
T = 87.85'
L = 175.00'
R = 800.00'
PC = 800.00.00
PT = 801.75.00
e = 2.00%
PCC = 805.62.49
- 34** Curve PLANTPL_2
PI = 804.45.50
DELTA = 13° 28' 08.77" (RT)
D = 5° 43' 46"
T = 118.00'
L = 235.08'
R = 1,000.00'
PC = 803.27.41
PCC = 805.62.49
- 35** Curve PLANTPL_3
PI = 808.34.16
DELTA = 12° 24' 13.55" (RT)
D = 2° 17' 31"
T = 271.67'
L = 541.22'
R = 2,500.00'
PCC = 805.62.49
PT = 811.03.71
- 36** Curve PLANTPL_4
PI = 815.61.48
DELTA = 13° 26' 55.95" (RT)
D = 4° 08' 13"
T = 163.30'
L = 325.10'
R = 1,385.00'
PC = 813.98.18
PRC = 817.23.27
- 37** Curve PLANTPL_5
PI = 817.85.85
DELTA = 23° 33' 51.07" (LT)
D = 19° 05' 55"
T = 62.58'
L = 123.38'
R = 300.00'
PRC = 817.23.27
PT = 818.46.66
- 8** Curve RDWY_A_L
PI = 207.39.81
DELTA = 42° 58' 43.13" (RT)
D = 7° 50' 55"
T = 287.40'
L = 547.59'
R = 730.00'
PC = 204.52.41
PT = 210.00.00
e = 5.20%
Lr = 172'
Lt = 66'
DS = 30 MPH
- 9** Curve RDWY_B_L
PI = 804.05.05
DELTA = 27° 52' 38.23" (LT)
D = 3° 30' 39"
T = 405.05'
L = 794.05'
R = 1,632.00'
PC = 800.00.00
PT = 807.94.05
e = 2.90%
Lr = 62'
Lt = 43'
DS = 30 MPH
- 10** Curve RDWY_C_L
PI = 903.80.13
DELTA = 26° 51' 32.33" (LT)
D = 3° 35' 56"
T = 380.13'
L = 746.29'
R = 1,592.00'
PC = 900.00.00
PT = 907.46.29
e = 3.00%
Lr = 64'
Lt = 43'
DS = 30 MPH
- 11** Curve RDWY_D_L
PI = 301.22.29
DELTA = 2° 48' 07.73" (LT)
D = 1° 08' 45"
T = 122.29'
L = 248.33'
R = 5,000.00'
PC = 300.00.00
PT = 302.44.53
e = NC
DS = 25 MPH
- 12** Curve RDWY_D_2
PI = 306.88.33
DELTA = 26° 56' 46.80" (RT)
D = 5° 06' 57"
T = 268.33'
L = 526.74'
R = 1,200.00'
PC = 304.20.00
PT = 309.46.74
e = 2.2%
Lr = 90'
Lt = 82'
DS = 25 MPH
- 20** Curve RAMP_A_L
PI = 62.69.26
DELTA = 10° 29' 57.30" (RT)
D = 26° 02' 37"
T = 154.14'
L = 270.29'
R = 225.00'
PC = 60.00.00
PT = 63.89.73
e = 8.0%
Lr = 75'
Lt = 43'
DS = 30 MPH
- 21** Curve RAMP_A_2
PI = 73.03.00
DELTA = 8° 59' 50.49" (RT)
D = 1° 48' 47"
T = 248.62'
L = 496.23'
R = 3,160.00'
PC = 70.54.38
PT = 75.50.60
e = 2.0%
Lr = 43'
Lt = 43'
DS = 30 MPH
- 25** Curve ENTR_90957_L
PI = 4.19.25
DELTA = 83° 00' 45.26" (RT)
D = 114° 35' 30"
T = 248.62'
L = 72.44'
R = 50.00'
PC = 3.75.00
PT = 4.47.44
e = 2.00%
DS = 15 MPH
- 26** Curve SUP_A_L
PI = 1.26.01
DELTA = 27° 49' 46.53" (RT)
D = 54° 34' 03"
T = 26.01'
L = 51.00'
R = 105.00'
PC = 1.00.00
PRC = 1.51.00
e = 2.00%
DS = 18 MPH
- 27** Curve SUP_A_2
PI = 1.80.56
DELTA = 31° 26' 57.30" (LT)
D = 54° 34' 03"
T = 29.56'
L = 57.63'
R = 105.00'
PC = 1.51.00
PT = 2.08.63
e = 2.00%
DS = 18 MPH
- 28** Curve SUP_A_3
PI = 3.65.65
DELTA = 36° 41' 23.45" (RT)
D = 29° 22' 57"
T = 64.66'
L = 124.87'
R = 195.00'
PC = 3.00.99
PT = 4.25.86
e = 2.00%
DS = 18 MPH
- 29** Curve SUP_A_4
PI = 5.67.99
DELTA = 46° 36' 25.91" (LT)
D = 54° 34' 03"
T = 45.23'
L = 85.41'
R = 105.00'
PC = 5.22.76
PT = 6.08.17
e = 2.00%
DS = 18 MPH
- 40** Curve RDWY_D_TMI_L
PI = 2.93.02
DELTA = 121° 59' 51.53" (RT)
D = 53° 32' 51"
T = 193.02'
L = 227.83'
R = 107.00'
PC = 1.00.00
PT = 3.27.83
e = 2.0%
Lr = 44'
Lt = 44'
DS = 20 MPH

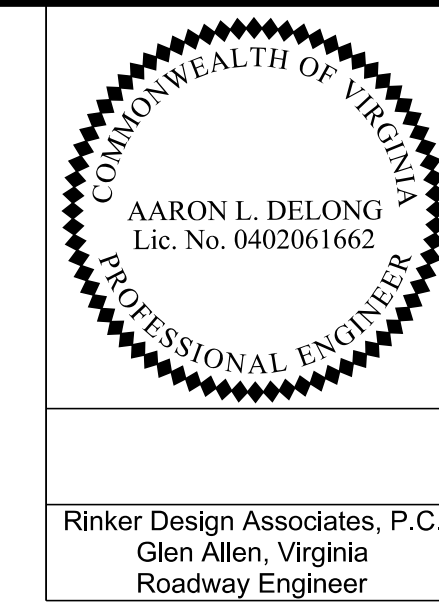
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

SCALE 0 200' 400'	PROJECT 0234-076-323	SHEET NO. 1G
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PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Btker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, Apr 11, 2021

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IG(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

ROUTE 234 BYPASS NB CONSTRUCTION ALIGNMENT

Beginning chain 234BYNB description

Point 235 N 6,946,514.04 E 11,774,171.07 Sta 415+00.00

Course from 235 to PC 234BYNB_1 S 74° 36' 39.30" E Dist 2,516.43

Curve Data

Curve 234BYNB_1
 P.I. Station 447+79.55 N 6,945,643.74 E 11,777,333.04
 Delta = 7° 35' 34.8" (LT)
 Degree = 0° 29' 53.6"
 Tangent = 763.12
 Length = 1,524.01
 Radius = 11,500.00
 External = 25.29
 Long Chord = 1,522.90
 Mid.Ord. = 25.24
 P.C. Station 440+16.43 N 6,945,846.25 E 11,776,597.27
 P.T. Station 455+40.44 N 6,945,540.22 E 11,778,089.11
 C.C. N 6,956,933.93 E 11,779,649.06
 Back = S 74° 36' 39.30" E
 Ahead = S 82° 12' 14.12" E
 Chord Bear = S 78° 24' 26.7" E

Course from PT 234BYNB_1 to 236 S 82° 12' 14.12" E Dist 634.56

Point 236 N 6,945,454.15 E 11,778,717.81 Sta 461+75.01

Course from 236 to PC 234BYNB_2 S 82° 33' 24.89" E Dist 1,138.05

Curve Data

Curve 234BYNB_2
 P.I. Station 482+08.98 N 6,945,190.66 E 11,780,734.64
 Delta = 34° 21' 37.94" (RT)
 Degree = 1° 58' 38.00"
 Tangent = 895.92
 Length = 1,737.82
 Radius = 2,897.79
 External = 135.34
 Long Chord = 1,711.89
 Mid.Ord. = 129.30
 P.C. Station 473+13.06 N 6,945,306.72 E 11,779,846.27
 P.T. Station 490+50.87 N 6,944,593.46 E 11,781,402.49
 C.C. N 6,942,433.35 E 11,779,470.88
 Back = S 82° 33' 24.89" E
 Ahead = S 48° 11' 46.96" E
 Chord Bear = S 65° 22' 35.93" E

Course from PT 234BYNB_2 to 237 S 48° 11' 46.96" E Dist 893.59

Point 237 N 6,943,997.81 E 11,782,068.60 Sta 499+44.46

Ending chain 234BYNB description

ROUTE 234 BYPASS SB CONSTRUCTION ALIGNMENT

Beginning chain 234BYSB description

Point 230 N 6,946,450.41 E 11,774,153.55 Sta 515+00.00

Course from 230 to PC 234BYSB_1 S 74° 36' 39.30" E Dist 2,524.11

Curve Data

Curve 234BYSB_1
 P.I. Station 548+31.01 N 6,945,566.45 E 11,777,365.13
 Delta = 7° 58' 53.40" (LT)
 Degree = 0° 29' 43.37"
 Tangent = 806.90
 Length = 1,611.18
 Radius = 11,566.00
 External = 28.11
 Long Chord = 1,609.88
 Mid.Ord. = 28.04
 P.C. Station 540+24.11 N 6,945,780.58 E 11,776,587.16
 P.T. Station 556+35.29 N 6,945,462.42 E 11,778,165.29
 C.C. N 6,956,931.89 E 11,779,656.46
 Back = S 74° 36' 39.30" E
 Ahead = S 82° 35' 32.7" E
 Chord Bear = S 78° 36' 06.00" E

Course from PT 234BYSB_1 to 231 S 82° 35' 32.7" E Dist 539.71

Point 231 N 6,945,392.84 E 11,778,700.50 Sta 561+75.00

Course from 231 to 232 S 82° 08' 55.50" E Dist 475.00

Point 232 N 6,945,327.95 E 11,779,171.04 Sta 566+50.00

Course from 232 to PC 234BYSB_2 S 82° 35' 33.20" E Dist 670.52

ROUTE 234 BYPASS SB CONSTRUCTION ALIGNMENT (CONT'D.)

Curve Data

Curve 234BYSB_2
 P.I. Station 581+97.00 N 6,945,128.51 E 11,780,705.14
 Delta = 34° 23' 46.24" (RT)
 Degree = 2° 01' 23.90"
 Tangent = 876.48
 Length = 1,700.00
 Radius = 2,831.79
 External = 132.54
 Long Chord = 1,674.59
 Mid.Ord. = 126.61
 P.C. Station 573+20.52 N 6,945,241.51 E 11,779,835.97
 P.T. Station 590+20.52 N 6,944,544.26 E 11,781,358.50
 C.C. N 6,942,433.35 E 11,779,470.88
 Back = S 82° 35' 33.20" E
 Ahead = S 48° 11' 46.96" E
 Chord Bear = S 65° 23' 40.08" E

Course from PT 234BYSB_2 to 233 S 48° 11' 46.96" E Dist 893.59

Point 233 N 6,943,948.61 E 11,782,024.61 Sta 599+14.11

Ending chain 234BYSB description

ROUTE 649 CONSTRUCTION ALIGNMENT

Beginning chain RTE649 description

Point 23 N 6,943,941.84 E 11,778,003.49 Sta 100+00.00

Course from 23 to PC RTE649_1 N 43° 12' 20.87" E Dist 200.00

Curve Data

Curve RTE649_1
 P.I. Station 104+98.52 N 6,944,305.22 E 11,778,344.79
 Delta = 31° 27' 25.08" (LT)
 Degree = 5° 24' 18.94"
 Tangent = 298.52
 Length = 581.97
 Radius = 1,060.00
 External = 41.23
 Long Chord = 574.69
 Mid.Ord. = 39.69
 P.C. Station 102+00.00 N 6,944,087.62 E 11,778,404.42
 P.T. Station 107+81.97 N 6,944,597.48 E 11,778,405.58
 C.C. N 6,944,813.32 E 11,777,367.78
 Back = N 43° 12' 20.87" E
 Ahead = N 11° 44' 55.79" E
 Chord Bear = N 27° 28' 38.33" E

Course from PT RTE649_1 to PC RTE649_2 N 11° 44' 55.79" E Dist 932.92

Curve Data

Curve RTE649_2
 P.I. Station 118+95.90 N 6,945,688.07 E 11,778,632.40
 Delta = 27° 42' 21.90" (LT)
 Degree = 7° 48' 21.47"
 Tangent = 181.01
 Length = 354.93
 Radius = 734.00
 External = 21.99
 Long Chord = 351.49
 Mid.Ord. = 21.35
 P.C. Station 117+14.89 N 6,945,510.86 E 11,778,595.54
 P.T. Station 120+69.83 N 6,945,862.11 E 11,778,582.63
 C.C. N 6,945,660.32 E 11,777,876.92
 Back = N 11° 44' 55.79" E
 Ahead = N 15° 57' 26.11" W
 Chord Bear = N 2° 06' 15.16" W

Course from PT RTE649_2 to 24 N 15° 57' 26.11" W Dist 581.00

Point 24 N 6,946,420.81 E 11,778,422.88 Sta 126+50.92

Ending chain RTE649 description

ROUTE 234 BUSINESS CONSTRUCTION ALIGNMENT

Beginning chain RTE234BUS description

Curve Data

Curve RTE234BUS_1
 P.I. Station 128+87.11 N 6,946,647.91 E 11,778,357.94
 Delta = 4° 33' 42.51" (LT)
 Degree = 0° 57' 58.33"
 Tangent = 236.19
 Length = 472.14
 Radius = 5,930.00
 External = 4.70
 Long Chord = 472.01
 Mid.Ord. = 4.70
 P.C. Station 126+50.92 N 6,946,420.81 E 11,778,422.88
 P.T. Station 131+23.06 N 6,946,869.11 E 11,778,275.15
 C.C. N 6,944,790.54 E 11,772,721.38
 Back = N 15° 57' 26.11" W
 Ahead = N 20° 31' 08.62" W
 Chord Bear = N 18° 14' 17.36" W

Course from PT RTE234BUS_1 to 404 N 20° 31' 08.62" W Dist 526.94

Point 404 N 6,947,362.62 E 11,778,090.45 Sta 136+50.00

Ending chain RTE234BUS description

ROADWAY A CONSTRUCTION ALIGNMENT

Beginning chain RDWY_A description

Point 276 N 6,945,085.05 E 11,778,588.69 Sta 200+00.00

Course from 276 to PC RDWY_A_1 N 11° 44' 55.79" E Dist 452.41

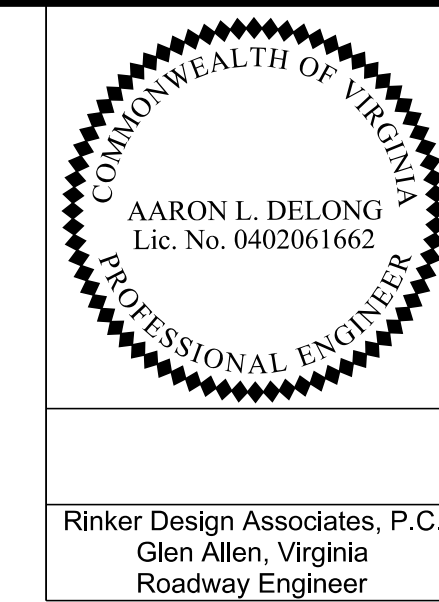
Curve Data

Curve RDWY_A_1
 P.I. Station 207+39.81 N 6,945,809.36 E 11,778,739.33
 Delta = 42° 58' 43.13" (RT)
 Degree = 7° 50' 55.45"
 Tangent = 287.40
 Length = 547.59
 Radius = 730.00
 External = 54.54
 Long Chord = 534.84
 Mid.Ord. = 50.75
 P.C. Station 204+52.41 N 6,945,527.99 E 11,778,680.81
 P.T. Station 210+00.00 N 6,945,975.32 E 11,778,973.97
 C.C. N 6,945,379.34 E 11,779,395.52
 Back = N 11° 44' 55.79" E
 Ahead = N 54° 43' 38.91" E
 Chord Bear = N 33° 14' 17.35" E

Ending chain RDWY_A description

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, Apr 11, 2021

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1G(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

ROADWAY B CONSTRUCTION ALIGNMENT

Beginning chain RDWY_B description

Curve Data			
Curve	Station	Point	Description
Curve RDWY_B_1	804+05.05 N	6,946,189.02 E	11,779,318.86
P.I. Station	27° 52' 38.23" (LT)		
Delta	3° 30' 38.77"		
Degree	405.05		
Tangent	794.05		
Length	1632.00		
Radius	49.51		
External	786.24		
Long Chord	48.06		
Mid. Ord.	800+00.00 N	6,945,961.45 E	11,778,983.79
P.C. Station	807+94.05 N	6,946,546.85 E	11,779,508.64
P.T. Station	C.C. N	6,947,311.51 E	11,778,066.87
C.C.	Back = N 55° 49' 01.2" E		
Back	Ahead = N 27° 56' 22.89" E		
Ahead	Chord Bear = N 41° 52' 42.01" E		
Chord Bear			

Course from PT RDWY_B_1 to 266 N 27° 56' 22.89" E Dist 905.95

Point 266 N 6,947,347.21 E 11,779,933.12 Sta 817+00.00

Ending chain RDWY_B description

ROADWAY C CONSTRUCTION ALIGNMENT

Beginning chain RDWY_C description

Curve Data			
Curve	Station	Point	Description
Curve RDWY_C_1	903+80.13 N	6,946,208.33 E	11,779,274.77
P.I. Station	26° 51' 32.33" (LT)		
Delta	3° 35' 56.33"		
Degree	380.13		
Tangent	746.29		
Length	1,592.00		
Radius	44.75		
External	739.48		
Long Chord	43.53		
Mid. Ord.	900+00.00 N	6,945,989.20 E	11,778,964.15
P.C. Station	907+46.29 N	6,946,544.16 E	11,779,452.88
P.T. Station	C.C. N	6,947,290.08 E	11,778,046.44
C.C.	Back = N 54° 47' 55.23" E		
Back	Ahead = N 27° 56' 22.89" E		
Ahead	Chord Bear = N 41° 22' 09.06" E		
Chord Bear			

Course from PT RDWY_C_1 to 271 N 27° 56' 22.89" E Dist 753.71

Point 271 N 6,947,210.01 E 11,779,806.02 Sta 915+00.00

Ending chain RDWY_C description

ROADWAY D CONSTRUCTION ALIGNMENT

Beginning chain RDWY_D description

Curve Data			
Curve	Station	Point	Description
Curve RDWY_D_1	301+22.29 N	6,946,423.31 E	11,778,545.14
P.I. Station	2° 48' 07.73" (LT)		
Delta	1° 08' 45.30"		
Degree	122.29		
Tangent	244.53		
Length	5,000.00		
Radius	1.50		
External	244.51		
Long Chord	1.49		
Mid. Ord.	300+00.00 N	6,946,420.81 E	11,778,422.88
P.C. Station	302+44.53 N	6,946,431.77 E	11,778,667.14
P.T. Station	C.C. N	6,951,419.78 E	11,778,320.98
C.C.	Back = N 88° 49' 56.18" E		
Back	Ahead = N 86° 01' 48.45" E		
Ahead	Chord Bear = N 87° 25' 52.32" E		
Chord Bear			

Course from PT RDWY_D_1 to PC RDWY_D_2 N 86° 01' 48.45" E Dist 175.47

ROADWAY D CONSTRUCTION ALIGNMENT (CONT'D.)

Curve Data			
Curve	Station	Point	Description
Curve RDWY_D_2	306+11.84 N	6,946,457.20 E	11,779,033.57
P.I. Station	19° 26' 22.70" (RT)		
Delta	5° 06' 56.50"		
Degree	191.84		
Tangent	380.00		
Length	1,120.00		
Radius	16.31		
External	378.18		
Long Chord	16.08		
Mid. Ord.	304+20.00 N	6,946,443.92 E	11,778,842.19
P.C. Station	308+00.00 N	6,946,406.03 E	11,779,218.46
P.T. Station	C.C. N	6,945,326.61 E	11,778,919.73
C.C.	Back = N 86° 01' 48.45" E		
Back	Ahead = S 74° 31' 48.85" E		
Ahead	Chord Bear = S 84° 15' 00.20" E		
Chord Bear			

Ending chain RDWY_D description

RAMP F CONSTRUCTION ALIGNMENT

Beginning chain RAMPF description

Curve Data			
Curve	Station	Point	Description
Curve RAMPF_1	12+80.15 N	6,945,503.08 E	11,777,709.99
P.I. Station	41° 59' 26.67" (RT)		
Delta	7° 50' 55.45"		
Degree	280.15		
Tangent	535.00		
Length	730.00		
Radius	51.91		
External	523.11		
Long Chord	48.47		
Mid. Ord.	10+00.00 N	6,945,556.77 E	11,777,435.03
P.C. Station	15+35.00 N	6,945,279.22 E	11,777,878.43
P.T. Station	C.C. N	6,944,840.31 E	11,777,295.12
C.C.	Back = S 78° 56' 59.56" E		
Back	Ahead = S 36° 57' 32.88" E		
Ahead	Chord Bear = S 57° 57' 16.22" E		
Chord Bear			

Course from PT RAMPF_1 to PC RAMPF_2 S 36° 57' 32.88" E Dist 165.00

Curve Data			
Curve	Station	Point	Description
Curve RAMPF_2	19+06.46 N	6,944,982.40 E	11,778,101.77
P.I. Station	34° 59' 23.24" (LT)		
Delta	8° 44' 50.81"		
Degree	206.46		
Tangent	400.00		
Length	655.00		
Radius	31.77		
External	393.81		
Long Chord	30.30		
Mid. Ord.	17+00.00 N	6,945,147.37 E	11,777,977.64
P.C. Station	21+00.00 N	6,944,918.43 E	11,778,298.06
P.T. Station	C.C. N	6,945,541.19 E	11,778,501.02
C.C.	Back = S 36° 57' 32.88" E		
Back	Ahead = S 71° 56' 56.13" E		
Ahead	Chord Bear = S 54° 27' 14.51" E		
Chord Bear			

Course from PT RAMPF_2 to 116 S 71° 56' 56.13" E Dist 171.65

Point 116 N 6,944,865.24 E 11,778,461.26 Sta 22+71.65

Ending chain RAMPF description

RAMP C CONSTRUCTION ALIGNMENT

Beginning chain RAMP_C description

Curve Data			
Curve	Station	Point	Description
Curve RAMP_C_1	31+87.94 N	6,944,597.61 E	11,778,459.90
P.I. Station	53° 36' 28.73" (RT)		
Delta	15° 24' 07.53"		
Degree	187.94		
Tangent	348.06		
Length	372.00		
Radius	44.78		
External	335.50		
Long Chord	39.97		
Mid. Ord.	30+00.00 N	6,944,423.05 E	11,778,390.24
P.C. Station	33+48.06 N	6,944,645.10 E	11,778,641.74
P.T. Station	C.C. N	6,944,285.17 E	11,778,735.74
C.C.	Back = N 21° 45' 19.04" E		
Back	Ahead = N 75° 21' 47.76" E		
Ahead	Chord Bear = N 48° 33' 33.40" E		
Chord Bear			

Course from PT RAMP_C_1 to 141 N 75° 21' 47.76" E Dist 240.90

Point 141 N 6,944,705.97 E 11,778,874.82 Sta 35+88.95

Ending chain RAMP_C description

RAMP E1 CONSTRUCTION ALIGNMENT

Beginning chain RAMP_E1 description

Curve Data			
Curve	Station	Point	Description
Curve RAMP_E1_1	604+48.84 N	6,944,645.61 E	11,778,497.30
P.I. Station	116° 23' 08.03" (LT)		
Delta	24° 16' 40.34"		
Degree	380.52		
Tangent	479.39		
Length	236.00		
Radius	211.76		
External	401.12		
Long Chord	111.61		
Mid. Ord.	600+68.32 N	6,945,018.16 E	11,778,574.78
P.C. Station	605+47.71 N	6,944,741.77 E	11,778,865.47
P.T. Station	C.C. N	6,944,970.11 E	11,778,805.84
C.C.	Back = S 11° 44' 55.79" W		
Back	Ahead = N 75° 21' 47.76" E		
Ahead	Chord Bear = S 46° 26' 38.22" E		
Chord Bear			

Course from PT RAMP_E1_1 to 201 N 75° 21' 47.76" E Dist 434.14

Point 201 N 6,944,851.47 E 11,779,285.52 Sta 609+81.85

Ending chain RAMP_E1 description

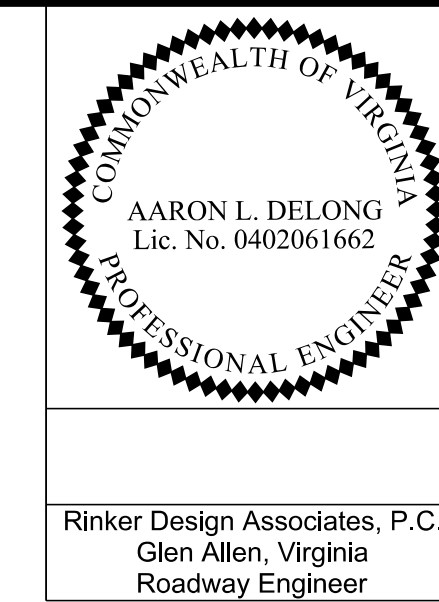
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11/1/2021

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, Apr 11, 2021

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1G(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

RAMP E2 CONSTRUCTION ALIGNMENT

Beginning chain RAMPE2 description

Curve Data			
Curve RAMPE2_1			
P.I. Station	40+77.20 N	6,944,850.66 E	11,779,365.52
Delta	33° 26' 28.02" (LT)		
Degree	22° 17' 38.68"		
Tangent	77.20		
Length	150.00		
Radius	257.00		
External	11.35		
Long Chord	147.88		
Mid.Ord.	10.87		
P.C. Station	40+00.00 N	6,944,831.15 E	11,779,290.83
P.T. Station	41+50.00 N	6,944,908.10 E	11,779,417.11
C.C.	N 69°45'07.91 E	11,779,225.88	
Back	N 75° 21' 47.76" E		
Ahead	N 4° 55' 19.74" E		
Chord Bear	N 58° 38' 33.75" E		

Course from PT RAMPE2_1 to PC RAMPE2_2 N 4° 55' 19.74" E Dist 197.83

Curve Data			
Curve RAMPE2_2			
P.I. Station	45+98.15 N	6,945,241.55 E	11,779,716.52
Delta	58° 10' 17.44" (RT)		
Degree	12° 43' 56.62"		
Tangent	250.32		
Length	456.88		
Radius	450.00		
External	64.94		
Long Chord	437.51		
Mid.Ord.	56.75		
P.C. Station	43+47.83 N	6,945,055.30 E	11,779,549.28
P.T. Station	48+04.71 N	6,945,197.68 E	11,779,962.97
C.C.	N 69°44'54.65 E	11,779,884.10	
Back	N 4° 55' 19.74" E		
Ahead	S 7° 54' 22.82" E		
Chord Bear	N 71° 00' 28.46" E		

Ending chain RAMPE2 description

RAMP B CONSTRUCTION ALIGNMENT

Beginning chain RAMPB description

Curve Data			
Curve RAMPB_1			
P.I. Station	61+03.81 N	6,945,150.71 E	11,780,348.20
Delta	157° 57' 20.96" (RT)		
Degree	26° 38' 57.12"		
Tangent	1,103.81		
Length	592.72		
Radius	215.00		
External	909.55		
Long Chord	422.07		
Mid.Ord.	173.89		
P.C. Station	50+00.00 N	6,945,293.02 E	11,779,253.60
P.T. Station	55+92.72 N	6,944,871.79 E	11,779,280.21
C.C.	N 69°45'07.91 E	11,779,225.88	
Back	S 82° 35' 33.20" E		
Ahead	S 75° 21' 47.76" W		
Chord Bear	S 3° 36' 52.72" E		

Ending chain RAMPB description

RAMP G CONSTRUCTION ALIGNMENT

Beginning chain RAMPG description

Curve Data			
Curve RAMPG_1			
P.I. Station	91+50.50 N	6,945,548.63 E	11,778,204.63
Delta	69° 59' 05.05" (RT)		
Degree	26° 38' 57.12"		
Tangent	150.50		
Length	262.61		
Radius	215.00		
External	47.44		
Long Chord	246.59		
Mid.Ord.	38.87		
P.C. Station	90+00.00 N	6,945,528.22 E	11,778,353.74
P.T. Station	92+62.61 N	6,945,695.72 E	11,778,172.77
C.C.	N 69°45'41.23 E	11,778,382.90	
Back	N 82° 12' 14.12" W		
Ahead	N 12° 13' 09.06" W		
Chord Bear	N 47° 12' 41.59" W		

Course from PT RAMPG_1 to 236 N 12° 13' 09.06" W Dist 176.20

Point 236 N 6,945,867.93 E 11,778,135.48 Sta 94+38.82

Ending chain RAMPG description

RAMP A CONSTRUCTION ALIGNMENT

Beginning chain RAMPA description

Curve Data			
Curve RAMPA_1			
P.I. Station	62+69.26 N	6,945,423.73 E	11,779,135.90
Delta	10° 29' 57.30" (RT)		
Degree	26° 02' 36.73"		
Tangent	269.26		
Length	389.73		
Radius	220.00		
External	127.71		
Long Chord	340.73		
Mid.Ord.	80.80		
P.C. Station	60+00.00 N	6,945,388.85 E	11,779,402.90
P.T. Station	63+89.73 N	6,945,678.41 E	11,779,223.31
C.C.	N 69°45'60.00 E	11,779,431.39	
Back	N 82° 33' 24.89" W		
Ahead	N 18° 56' 32.41" E		
Chord Bear	N 31° 48' 26.24" W		

Course from PT RAMPA_1 to PC RAMPA_2 N 18° 56' 32.41" E Dist 664.65

Curve Data			
Curve RAMPA_2			
P.I. Station	73+03.00 N	6,946,542.22 E	11,779,519.77
Delta	8° 59' 50.49" (RT)		
Degree	1° 48' 47.37"		
Tangent	248.62		
Length	496.23		
Radius	3,160.00		
External	9.77		
Long Chord	495.72		
Mid.Ord.	9.74		
P.C. Station	70+54.38 N	6,946,307.06 E	11,779,439.06
P.T. Station	75+50.60 N	6,946,761.87 E	11,779,636.26
C.C.	N 69°45'281.28 E	11,782,427.94	
Back	N 18° 56' 32.41" E		
Ahead	N 27° 56' 22.89" E		
Chord Bear	N 23° 26' 27.65" E		

Ending chain RAMPA description

RAMP D1 CONSTRUCTION ALIGNMENT

Beginning chain RAMPD1 description

Curve Data			
Curve RAMPD1_1			
P.I. Station	83+14.33 N	6,945,550.99 E	11,778,157.05
Delta	111° 15' 19.93" (LT)		
Degree	26° 38' 57.12"		
Tangent	314.33		
Length	417.48		
Radius	215.00		
External	165.82		
Long Chord	354.92		
Mid.Ord.	93.62		
P.C. Station	80+00.00 N	6,945,600.36 E	11,777,846.62
P.T. Station	84+17.48 N	6,945,858.20 E	11,778,090.52
C.C.	N 69°45'812.69 E	11,777,880.39	
Back	S 80° 57' 49.13" E		
Ahead	N 12° 13' 09.06" W		
Chord Bear	N 43° 24' 30.91" E		

Ending chain RAMPD1 description

RAMP D2 CONSTRUCTION ALIGNMENT

Beginning chain RAMPD2 description

Point 195	N	6,945,863.49 E	11,778,149.95 Sta	700+00.00
Course from 195 to PC RAMPD2_1 N 12° 13' 09.06" W Dist 277.96				
Curve Data				
Curve RAMPD2_1				
P.I. Station	705+71.31 N	6,946,421.86 E	11,777,994.03	
Delta	102° 36' 15.36" (RT)			
Degree	24° 22' 52.26"			
Tangent	293.35			
Length	420.83			
Radius	235.00			
External	140.87			
Long Chord	366.81			
Mid.Ord.	88.07			
P.C. Station	702+77.96 N	6,946,135.16 E	11,778,056.12	
P.T. Station	706+98.80 N	6,946,419.89 E	11,778,287.38	
C.C.	N 69°45'184.89 E	11,778,285.80		
Back	N 12° 13' 09.06" W			
Ahead	S 89° 36' 53.70" E			
Chord Bear	N 39° 04' 58.62" E			

Curve Data			
Curve RAMPD2_2			
P.I. Station	707+66.56 N	6,946,419.43 E	11,778,355.13
Delta	1° 33' 10.12" (LT)		
Degree	1° 08' 45.30"		
Tangent	67.76		
Length	135.51		
Radius	5,000.00		
External	0.46		
Long Chord	135.50		
Mid.Ord.	0.46		
P.C. Station	706+98.80 N	6,946,419.89 E	11,778,287.38
P.T. Station	708+34.31 N	6,946,420.81 E	11,778,422.88
C.C.	N 69°45'19.78 E	11,778,320.98	
Back	S 89° 36' 53.70" E		
Ahead	N 88° 49' 56.18" E		
Chord Bear	N 89° 36' 31.24" E		

Ending chain RAMPD2 description

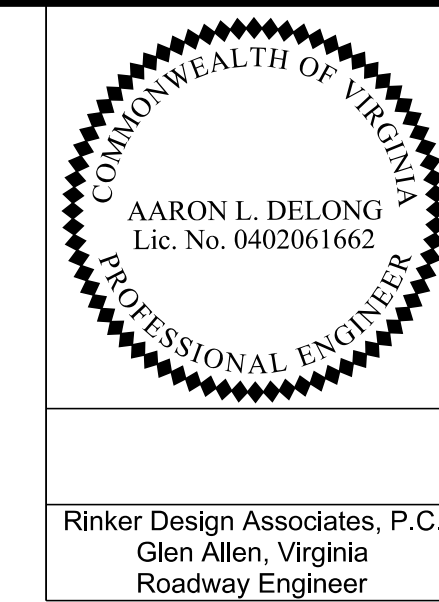
PROJECT	SHEET NO.
0234-076-323	1G(3)

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PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	IG(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

ENTR_90957 CONSTRUCTION ALIGNMENT

Beginning chain ENTR_90957 description

Point 300 N 6,946,509.56 E 11,779,292.13 Sta 1+00.00

Course from 300 to PC ENTR_90957_L N 34° 55' 37.64" E Dist 275.00

Curve Data

Curve ENTR_90957_L
 P.I. Station 4+19.25 N 6,946,771.30 E 11,779,474.91
 Delta = 83° 00' 45.26" (RT)
 Degree = 114° 35' 29.61"
 Tangent = 44.25
 Length = 72.44
 Radius = 50.00
 External = 16.77
 Long Chord = 66.27
 Mid.Ord. = 12.56
 P.C. Station 3+75.00 N 6,946,735.03 E 11,779,449.58
 P.T. Station 4+47.44 N 6,946,750.57 E 11,779,514.00
 C.C. N 6,946,706.40 E 11,779,490.57
 Back = N 34° 55' 37.64" E
 Ahead = S 62° 03' 37.11" E
 Chord Bear = N 76° 26' 00.27" E

Course from PT ENTR_90957_L to 301 S 62° 03' 37.11" E Dist 42.72

Point 301 N 6,946,730.56 E 11,779,551.74 Sta 4+90.16

Ending chain ENTR_90957 description

SHARED USE PATH A CONSTRUCTION ALIGNMENT

Beginning chain SUP_A description

Curve Data

Curve SUP_A_1
 P.I. Station 1+26.01 N 6,946,373.66 E 11,778,696.48
 Delta = 27° 49' 46.53" (RT)
 Degree = 54° 34' 02.67"
 Tangent = 26.01
 Length = 51.00
 Radius = 105.00
 External = 3.17
 Long Chord = 50.50
 Mid.Ord. = 3.08
 P.C. Station 1+00.00 N 6,946,371.86 E 11,778,670.53
 P.T. Station 1+51.00 N 6,946,363.14 E 11,778,720.27
 C.C. N 6,946,267.11 E 11,778,677.80
 Back = N 86° 01' 48.45" E
 Ahead = S 66° 08' 25.02" E
 Chord Bear = S 80° 03' 18.28" E

Curve Data

Curve SUP_A_2
 P.I. Station 1+80.56 N 6,946,351.18 E 11,778,747.30
 Delta = 31° 26' 57.30" (LT)
 Degree = 54° 34' 02.67"
 Tangent = 29.56
 Length = 57.63
 Radius = 105.00
 External = 4.08
 Long Chord = 56.91
 Mid.Ord. = 3.93
 P.C. Station 1+51.00 N 6,946,363.14 E 11,778,720.27
 P.T. Station 2+08.63 N 6,946,355.09 E 11,778,776.61
 C.C. N 6,946,459.17 E 11,778,762.74
 Back = S 66° 08' 25.02" E
 Ahead = N 82° 24' 37.68" E
 Chord Bear = S 81° 51' 53.67" E
 Course from PT SUP_A_2 to PC SUP_A_3 N 82° 24' 37.68" E Dist 92.36

SHARED USE PATH A CONSTRUCTION ALIGNMENT (CONT'D.)

Curve Data

Curve SUP_A_3
 P.I. Station 3+65.65 N 6,946,375.83 E 11,778,932.25
 Delta = 36° 41' 23.45" (RT)
 Degree = 29° 22' 56.82"
 Tangent = 64.66
 Length = 124.87
 Radius = 195.00
 External = 10.44
 Long Chord = 122.75
 Mid.Ord. = 9.91
 P.C. Station 3+00.99 N 6,946,367.29 E 11,778,868.16
 P.T. Station 4+25.86 N 6,946,344.38 E 11,778,988.75
 C.C. N 6,946,173.99 E 11,778,893.91
 Back = N 82° 24' 37.68" E
 Ahead = S 60° 53' 58.86" E
 Chord Bear = S 79° 14' 40.59" E

Course from PT SUP_A_3 to PC SUP_A_4 S 60° 53' 58.86" E Dist 96.89

Curve Data

Curve SUP_A_4
 P.I. Station 5+67.99 N 6,946,275.26 E 11,779,129.3
 Delta = 46° 36' 25.91" (LT)
 Degree = 54° 34' 02.67"
 Tangent = 45.23
 Length = 85.41
 Radius = 105.00
 External = 9.33
 Long Chord = 83.08
 Mid.Ord. = 8.57
 P.C. Station 5+22.76 N 6,946,297.26 E 11,779,073.41
 P.T. Station 6+08.17 N 6,946,288.86 E 11,779,156.06
 C.C. N 6,946,389.00 E 11,779,124.48
 Back = S 60° 53' 58.86" E
 Ahead = N 72° 29' 35.23" E
 Chord Bear = S 84° 12' 11.82" E

Course from PT SUP_A_4 to 151 N 72° 29' 35.23" E Dist 38.06

Point 151 N 6,946,300.31 E 11,779,192.36 Sta 6+46.23

Ending chain SUP_A description

SHARED USE PATH B CONSTRUCTION ALIGNMENT

Beginning chain SUP_B description

Point 165 N 6,944,580.53 E 11,778,509.59 Sta 1+00.00

Course from 165 to PC SUP_B_1 S 37° 26' 25.91" E Dist 200.00

Curve Data

Curve SUP_B_1
 P.I. Station 1+89.76 N 6,944,509.27 E 11,778,564.16
 Delta = 67° 11' 46.33" (LT)
 Degree = 54° 34' 02.67"
 Tangent = 69.76
 Length = 123.14
 Radius = 105.00
 External = 21.06
 Long Chord = 116.21
 Mid.Ord. = 17.54
 P.C. Station 1+20.00 N 6,944,564.65 E 11,778,521.75
 P.T. Station 2+43.14 N 6,944,526.89 E 11,778,631.65
 C.C. N 6,944,628.49 E 11,778,605.12
 Back = S 37° 26' 25.91" E
 Ahead = N 75° 21' 47.76" E
 Chord Bear = S 71° 02' 19.08" E

Course from PT SUP_B_1 to PC SUP_B_2 N 75° 21' 47.76" E Dist 581.86

Curve Data

Curve SUP_B_2
 P.I. Station 9+37.83 N 6,944,702.43 E 11,779,303.79
 Delta = 10° 44' 33.69" (LT)
 Degree = 4° 46' 28.73"
 Tangent = 112.83
 Length = 224.99
 Radius = 1,200.00
 External = 5.29
 Long Chord = 224.66
 Mid.Ord. = 5.27
 P.C. Station 8+25.00 N 6,944,673.92 E 11,779,194.63
 P.T. Station 10+50.00 N 6,944,750.79 E 11,779,405.73
 C.C. N 6,945,834.98 E 11,778,891.40
 Back = N 75° 21' 47.76" E
 Ahead = N 64° 37' 14.07" E
 Chord Bear = N 69° 59' 30.92" E

Course from PT SUP_B_2 to PC SUP_B_3 N 64° 37' 14.07" E Dist 500.00

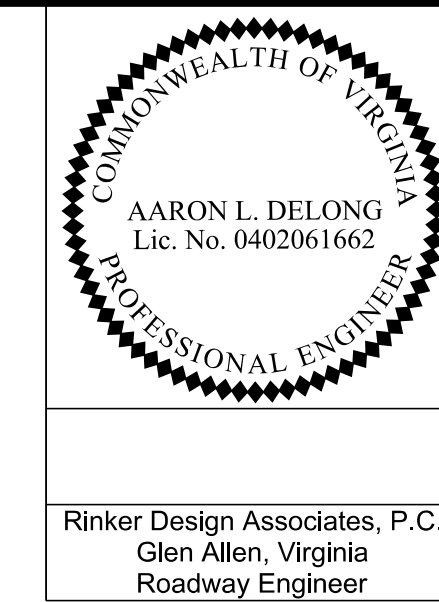
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PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7240, Apr 11, 2021

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IG(5)

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Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

PLANT PLACE CONSTRUCTION ALIGNMENT

Beginning chain PLANTPL description

Curve Data			
Curve PLANTPL_1			
P.I. Station	800+87.85 N	6,944,989.68 E	11,780,349.84
Delta	12° 32' 01.30" (RT)		
Degree	7° 09' 43.0"		
Tangent	87.85		
Length	175.00		
Radius	800.00		
External	4.81		
Long Chord	174.65		
Mid.Ord.	4.78		
P.C. Station	800+00.00 N	6,944,992.94 E	11,780,262.05
P.T. Station	801+75.00 N	6,944,967.44 E	11,780,434.83
C.C.	6,944,933.49 E 11,780,232.33		
Back	S 87° 52' 16.63" E		
Ahead	S 75° 20' 15.33" E		
Chord Bear	S 81° 36' 15.98" E		

Course from PT PLANTPL_1 to PC PLANTPL_2 S 75° 20' 15.33" E Dist 152.41

Curve Data			
Curve PLANTPL_2			
P.I. Station	804+45.50 N	6,944,898.97 E	11,780,696.52
Delta	13° 28' 08.77" (RT)		
Degree	5° 43' 46.48"		
Tangent	118.08		
Length	235.08		
Radius	1,000.00		
External	6.95		
Long Chord	234.54		
Mid.Ord.	6.90		
P.C. Station	803+27.41 N	6,944,928.86 E	11,780,582.28
P.T. Station	805+62.49 N	6,944,843.29 E	11,780,800.65
C.C.	6,943,961.43 E 11,780,329.15		
Back	S 75° 20' 15.33" E		
Ahead	S 61° 52' 06.56" E		
Chord Bear	S 68° 36' 10.94" E		

Curve Data			
Curve PLANTPL_3			
P.I. Station	808+34.16 N	6,944,715.20 E	11,781,040.23
Delta	12° 24' 13.55" (RT)		
Degree	2° 17' 30.59"		
Tangent	271.67		
Length	541.22		
Radius	2,500.00		
External	14.72		
Long Chord	540.16		
Mid.Ord.	14.63		
P.C. Station	805+62.49 N	6,944,843.29 E	11,780,800.65
P.T. Station	811+03.71 N	6,944,538.64 E	11,781,246.70
C.C.	6,942,638.62 E 11,779,621.91		
Back	S 61° 52' 06.56" E		
Ahead	S 49° 27' 53.01" E		
Chord Bear	S 55° 39' 59.78" E		

Course from PT PLANTPL_3 to 330 S 49° 27' 53.01" E Dist 166.29

Point 330 N 6,944,430.57 E 11,781,373.08 Sta 812+70.00

Course from 330 to PC PLANTPL_4 S 48° 00' 05.88" E Dist 128.18

Curve Data			
Curve PLANTPL_4			
P.I. Station	815+61.48 N	6,944,235.54 E	11,781,589.69
Delta	13° 26' 55.95" (RT)		
Degree	4° 08' 12.77"		
Tangent	163.30		
Length	325.10		
Radius	1,385.00		
External	9.59		
Long Chord	324.35		
Mid.Ord.	9.53		
P.C. Station	813+98.18 N	6,944,344.80 E	11,781,468.34
P.T. Station	817+23.27 N	6,944,101.04 E	11,781,682.31
C.C.	6,943,315.52 E 11,780,541.62		
Back	S 48° 00' 05.88" E		
Ahead	S 34° 33' 09.92" E		
Chord Bear	S 41° 16' 37.90" E		

PLANT PLACE CONSTRUCTION ALIGNMENT (CONT'D)

Curve Data			
Curve PLANTPL_5			
P.I. Station	817+85.85 N	6,944,049.50 E	11,781,717.80
Delta	23° 33' 51.07" (LT)		
Degree	19° 05' 54.78"		
Tangent	62.58		
Length	123.38		
Radius	300.00		
External	6.46		
Long Chord	122.51		
Mid.Ord.	6.32		
P.C. Station	817+23.27 N	6,944,101.04 E	11,781,682.31
P.T. Station	818+46.66 N	6,944,016.45 E	11,781,770.94
C.C.	6,944,271.19 E 11,781,929.39		
Back	S 34° 33' 09.92" E		
Ahead	S 58° 07' 01.00" E		
Chord Bear	S 46° 20' 05.46" E		

Ending chain PLANTPL description

RAMP F TURNING MOVEMENT 1 CONSTRUCTION ALIGNMENT

Beginning chain RAMPF_TMI description

Curve Data			
Curve RAMPF_TMI_1			
P.I. Station	2+42.69 N	6,944,863.11 E	11,778,427.12
Delta	83° 27' 11.59" (RT)		
Degree	35° 48' 35.50"		
Tangent	142.69		
Length	233.05		
Radius	160.00		
External	54.38		
Long Chord	212.98		
Mid.Ord.	40.59		
P.C. Station	1+00.00 N	6,944,907.90 E	11,778,291.64
P.T. Station	3+33.05 N	6,944,723.41 E	11,778,398.06
C.C.	6,944,755.99 E 11,778,241.41		
Back	S 71° 42' 15.80" E		
Ahead	S 11° 44' 55.79" W		
Chord Bear	S 29° 58' 40.01" E		

Ending chain RAMPF_TMI description

RAMP F TURNING MOVEMENT 2 CONSTRUCTION ALIGNMENT

Beginning chain RAMPF_TM2 description

Curve Data			
Curve RAMPF_TM2_1			
P.I. Station	3+41.87 N	6,944,876.25 E	11,778,417.30
Delta	79° 01' 55.93" (LT)		
Degree	33° 18' 41.40"		
Tangent	141.87		
Length	237.25		
Radius	172.00		
External	50.96		
Long Chord	218.89		
Mid.Ord.	39.31		
P.C. Station	2+00.00 N	6,944,923.37 E	11,778,283.48
P.T. Station	4+37.25 N	6,944,998.66 E	11,778,489.01
C.C.	6,945,085.60 E 11,778,340.61		
Back	S 70° 36' 07.53" E		
Ahead	S 30° 21' 56.54" E		
Chord Bear	N 69° 52' 54.51" E		

Ending chain RAMPF_TM2 description

ROADWAY D TURNING MOVEMENT 1 CONSTRUCTION ALIGNMENT

Beginning chain RDWY_D_TMI description

Curve Data			
Curve RDWY_D_TMI_1			
P.I. Station	2+93.02 N	6,946,341.08 E	11,779,324.36
Delta	121° 59' 51.53" (RT)		
Degree	53° 32' 50.85"		
Tangent	193.02		
Length	227.83		
Radius	107.00		
External	113.70		
Long Chord	187.17		
Mid.Ord.	55.12		
P.C. Station	1+00.00 N	6,946,379.78 E	11,779,135.25
P.T. Station	3+27.83 N	6,946,201.21 E	11,779,191.33
C.C.	6,946,274.95 E 11,779,113.80		
Back	S 78° 26' 04.17" E		
Ahead	S 43° 33' 47.36" W		
Chord Bear	S 17° 26' 08.41" E		

Ending chain RDWY_D_TMI description

ROADWAY D TURNING MOVEMENT 2 CONSTRUCTION ALIGNMENT

Beginning chain RDWY_D_TM2 description

Curve Data			
Curve RDWY_D_TM2_1			
P.I. Station	2+64.80 N	6,946,393.89 E	11,779,135.75
Delta	6° 49' 22.08" (RT)		
Degree	5° 16' 15.60"		
Tangent	64.80		
Length	129.44		
Radius	1,087.00		
External	1.93		
Long Chord	129.36		
Mid.Ord.	1.93		
P.C. Station	2+00.00 N	6,946,402.95 E	11,779,071.59
P.T. Station	3+29.44 N	6,946,377.28 E	11,779,198.38
C.C.	6,945,326.61 E 11,778,919.73		
Back	S 81° 58' 08.63" E		
Ahead	S 75° 08' 46.54" E		
Chord Bear	S 78° 33' 27.59" E		

Ending chain RDWY_D_TM2 description

Curve Data			
Curve RDWY_D_TM2_2			
P.I. Station	4+33.54 N	6,946,350.60 E	11,779,299.01
Delta	48° 43' 58.85" (LT)		
Degree	24° 55' 37.46"		
Tangent	104.10		
Length	195.50		
Radius	229.85		
External	22.48		
Long Chord	189.66		
Mid.Ord.	20.47		
P.C. Station	3+29.44 N	6,946,377.28 E	11,779,198.38
P.T. Station	5+24.94 N	6,946,408.63 E	11,779,385.44
C.C.	6,946,599.46 E 11,779,257.31		
Back	S 75° 08' 46.54" E		
Ahead	N 56° 07' 14.61" E		
Chord Bear	N 80° 29' 14.03" E		

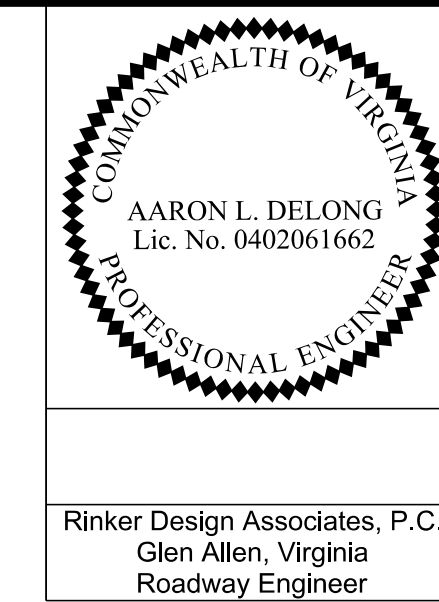
Ending chain RDWY_D_TM2 description

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER *BWC DOT: Mary Ankers (703) 792-5276*
SURVEYED BY, DATE *Binker Design Associates, P.C. (703) 386-7373, June 2021*
DESIGN BY *Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373*
SUBSURFACE UTILITY BY, DATE *Accumark (804) 550-7740, April 2021*

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IG(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

BMP4_1 CONSTRUCTION ALIGNMENT

Beginning chain BMP4_1 description

Point 455 N 6,945,609.93 E 11,777,293.09 Sta 1+00.00

Course from 455 to PC BMP4_1 S 11° 47' 26.62" W Dist 79.02

Curve Data

Curve BMP4_1
P.I. Station 1+93.28 N 6,945,518.61 E 11,777,274.03
Delta = 57° 30' 03.98" (LT)
Degree = 22° 22' 06.18"
Tangent = 14.26
Length = 26.09
Radius = 26.00
External = 3.66
Long Chord = 25.01
Mid.Ord. = 3.21
P.C. Station 1+79.02 N 6,945,532.58 E 11,777,276.94
P.T. Station 2+05.11 N 6,945,508.65 E 11,777,284.24
C.C. N 6,945,527.26 E 11,777,302.40
Back = S 11° 47' 26.62" W
Ahead = S 45° 42' 37.36" E
Chord Bear = S 16° 57' 35.37" E

Course from PT BMP4_1 to 456 S 45° 42' 37.36" E Dist 75.47

Point 456 N 6,945,455.95 E 11,777,338.27 Sta 2+80.58

Ending chain BMP4_1 description

BMP4_2 CONSTRUCTION ALIGNMENT

Beginning chain BMP4_2 description

Point 325 N 6,946,151.22 E 11,778,053.22 Sta 1+00.00

Course from 325 to PC BMP4_2 S 81° 45' 45.52" W Dist 89.05

Curve Data

Curve BMP4_2
P.I. Station 1+98.24 N 6,946,137.15 E 11,777,956.00
Delta = 22° 06' 28.88" (LT)
Degree = 121° 54' 21.29"
Tangent = 9.18
Length = 18.14
Radius = 47.00
External = 0.89
Long Chord = 18.02
Mid.Ord. = 0.87
P.C. Station 1+89.05 N 6,946,138.46 E 11,777,965.09
P.T. Station 2+07.19 N 6,946,132.51 E 11,777,948.08
C.C. N 6,946,091.95 E 11,777,971.82
Back = S 81° 45' 45.53" W
Ahead = S 59° 39' 16.65" W
Chord Bear = S 70° 42' 31.09" W

Course from PT BMP4_2 to 326 S 59° 39' 16.65" W Dist 49.62

Point 326 N 6,946,107.44 E 11,777,905.25 Sta 2+56.81

Ending chain BMP4_2 description

BMP4_3 CONSTRUCTION ALIGNMENT

Beginning chain BMP4_3 description

Point 357 N 6,944,497.84 E 11,778,379.75 Sta 1+00.00

Course from 357 to PC BMP4_3 N 72° 41' 06.64" W Dist 101.54

Curve Data

Curve BMP4_3
P.I. Station 2+06.94 N 6,944,529.67 E 11,778,277.65
Delta = 12° 20' 43.26" (RT)
Degree = 114° 35' 29.61"
Tangent = 5.41
Length = 10.77
Radius = 50.00
External = 0.29
Long Chord = 10.75
Mid.Ord. = 0.29
P.C. Station 2+01.54 N 6,944,528.06 E 11,778,282.81
P.T. Station 2+12.31 N 6,944,532.35 E 11,778,272.95
C.C. N 6,944,575.80 E 11,778,297.70
Back = N 72° 41' 06.64" W
Ahead = N 60° 20' 23.36" W
Chord Bear = N 66° 30' 45.01" W

Course from PT BMP4_3 to 358 N 60° 20' 23.36" W Dist 236.67

Point 358 N 6,944,649.47 E 11,778,067.29 Sta 4+48.98

Ending chain BMP4_3 description

BMP6_2 CONSTRUCTION ALIGNMENT

Beginning chain BMP6_2 description

Point 350 N 6,944,933.01 E 11,780,566.41 Sta 1+00.00

Course from 350 to PC BMP6_2 S 14° 53' 07.71" W Dist 137.04

Curve Data

Curve BMP6_2
P.I. Station 2+52.45 N 6,944,785.68 E 11,780,527.25
Delta = 61° 17' 25.32" (LT)
Degree = 22° 22' 06.18"
Tangent = 15.40
Length = 27.81
Radius = 26.00
External = 4.22
Long Chord = 26.51
Mid.Ord. = 3.63
P.C. Station 2+37.04 N 6,944,800.57 E 11,780,531.21
P.T. Station 2+64.85 N 6,944,775.06 E 11,780,538.40
C.C. N 6,944,793.89 E 11,780,556.33
Back = S 14° 53' 07.71" W
Ahead = S 46° 24' 17.62" E
Chord Bear = S 15° 45' 34.96" E

Ending chain BMP6_2 description

EXISTING DUMFRIES ROAD CONSTRUCTION ALIGNMENT

Beginning chain EX_DUMFRIES description

Feature: - 50 Scale Baselines

Point 57 N 6,945,479.48 E 11,778,287.80 Sta 1200+00.00

Course from 57 to PC EX_DUMFRIES_3 N 2° 55' 59.70" E Dist 957.08

Curve Data

Curve EX_DUMFRIES_3
P.I. Station 121+94.39 N 6,946,672.31 E 11,778,348.92
Delta = 23° 23' 59.68" (LT)
Degree = 4° 59' 59.93"
Tangent = 237.31
Length = 468.00
Radius = 1,145.92
External = 24.31
Long Chord = 464.75
Mid.Ord. = 23.81
P.C. Station 1209+57.08 N 6,946,435.31 E 11,778,336.78
P.T. Station 1214+25.08 N 6,946,894.63 E 11,778,265.95
C.C. N 6,946,493.95 E 11,777,192.36
Back = N 2° 55' 59.70" E
Ahead = N 20° 27' 59.98" W
Chord Bear = N 8° 46' 00.14" W

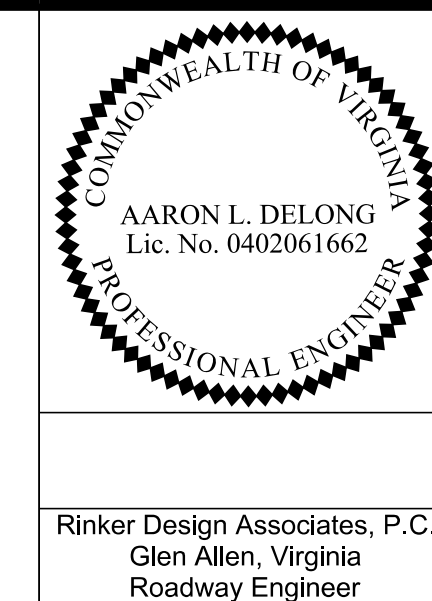
Course from PT EX_DUMFRIES_3 to 58 N 20° 27' 59.98" W Dist 1124.92

Point 58 N 6,947,948.54 E 11,777,872.60 Sta 1225+50.00

Ending chain EX_DUMFRIES description

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7240, April 2021

CONSTRUCTION ALIGNMENT DATA



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IG(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

EXISTING BRENTSVILLE ROAD CONSTRUCTION ALIGNMENT

Beginning chain EX_BRENTSVILLE description
Feature: - 50 Scale Baselines

Point 48 N 6,944,006.60 E 11,778,063.75 Sta 900+50.00

Course from 48 to PC EX_BRENTSVILL_3 N 43° 32' 15.17" E Dist 83.14

Curve Data

Curve EX_BRENTSVILL_3
 P.I. Station 902+20.29 N 6,944,300.05 E 11,778,181.05
 Delta = 7° 40' 14.00" (LT)
 Degree = 4° 24' 26.52"
 Tangent = 87.15
 Length = 174.04
 Radius = 1,300.00
 External = 2.92
 Long Chord = 173.91
 Mid.Ord. = 2.91
 P.C. Station 901+33.14 N 6,944,066.87 E 11,778,121.02
 P.T. Station 903+07.18 N 6,944,200.67 E 11,778,232.11
 C.C. N 6,944,962.35 E 11,777,178.62
 Back = N 43° 32' 15.26" E
 Ahead = N 35° 52' 01.77" E
 Chord Bear = N 39° 42' 08.22" E

Course from PT EX_BRENTSVILL_3 to PC EX_BRENTSVILL_6 N 35° 52' 01.70" E Dist 112.52

Curve Data

Curve EX_BRENTSVILL_6
 P.I. Station 917+55.82 N 6,945,374.62 E 11,779,080.89
 Delta = 16° 41' 14.00" (LT)
 Degree = 2° 30' 00.00"
 Tangent = 336.12
 Length = 667.49
 Radius = 2,291.83
 External = 24.52
 Long Chord = 665.13
 Mid.Ord. = 24.26
 P.C. Station 914+19.70 N 6,945,102.23 E 11,778,883.95
 P.T. Station 920+87.19 N 6,945,692.09 E 11,779,191.31
 C.C. N 6,946,445.03 E 11,777,026.70
 Back = N 35° 52' 01.70" E
 Ahead = N 19° 10' 47.70" E
 Chord Bear = N 27° 31' 24.70" E

Course from PT EX_BRENTSVILL_6 to PC EX_BRENTSVILL_9 N 19° 10' 47.70" E Dist 852.65

Curve Data

Curve EX_BRENTSVILL_9
 P.I. Station 930+86.10 N 6,946,635.55 E 11,779,519.49
 Delta = 8° 45' 30.59" (RT)
 Degree = 3° 00' 00.00"
 Tangent = 146.26
 Length = 291.95
 Radius = 1,909.86
 External = 5.59
 Long Chord = 291.67
 Mid.Ord. = 5.58
 P.C. Station 929+39.84 N 6,946,497.41 E 11,779,471.44
 P.T. Station 932+31.79 N 6,946,764.76 E 11,779,588.02
 C.C. N 6,945,869.95 E 11,781,275.29
 Back = N 19° 10' 47.70" E
 Ahead = N 27° 56' 18.28" E
 Chord Bear = N 23° 33' 32.99" E

Course from PT EX_BRENTSVILL_9 to 49 N 27° 56' 18.28" E Dist 1,060.00

Point 49 N 6,947,701.22 E 11,780,084.65 Sta 942+91.79

Ending chain EX_BRENTSVILLE description

EXISTING BRADLEY CEMETERY WAY CONSTRUCTION ALIGNMENT

Beginning chain EX_BRADLEYCEM description
Feature: - 50 Scale Baselines

Point 54 N 6,946,365.33 E 11,779,425.50 Sta 10+00.00

Course from 54 to PC EX_BRADLEYCEM_3 N 70° 49' 12.83" W Dist 174.20

Curve Data

Curve EX_BRADLEYCEM_3
 P.I. Station 13+80.23 N 6,946,490.25 E 11,779,066.38
 Delta = 23° 16' 59.83" (LT)
 Degree = 5° 43' 46.48"
 Tangent = 206.03
 Length = 406.37
 Radius = 1,000.00
 External = 21.00
 Long Chord = 403.58
 Mid.Ord. = 20.57
 P.C. Station 11+74.20 N 6,946,422.56 E 11,779,260.97
 P.T. Station 15+80.57 N 6,946,475.51 E 11,778,860.88
 C.C. N 6,945,478.07 E 11,778,932.43
 Back = N 70° 49' 12.83" W
 Ahead = S 85° 53' 47.34" W
 Chord Bear = N 82° 27' 42.75" W

Course from PT EX_BRADLEYCEM_3 to PC EX_BRADLEYCEM_6 S 85° 53' 46.17" W Dist 316.72

Curve Data

Curve EX_BRADLEYCEM_6
 P.I. Station 19+27.65 N 6,946,450.67 E 11,778,514.68
 Delta = 3° 28' 42.34" (RT)
 Degree = 5° 43' 46.48"
 Tangent = 30.36
 Length = 60.71
 Radius = 1,000.00
 External = 0.46
 Long Chord = 60.70
 Mid.Ord. = 0.46
 P.C. Station 18+97.29 N 6,946,452.84 E 11,778,544.97
 P.T. Station 19+58.00 N 6,946,450.33 E 11,778,484.32
 C.C. N 6,947,450.28 E 11,778,473.40
 Back = S 85° 53' 46.17" W
 Ahead = S 89° 22' 28.50" W
 Chord Bear = S 87° 38' 07.33" W

Course from PT EX_BRADLEYCEM_6 to 56 S 89° 22' 29.17" W Dist 146.94

Point 56 N 6,946,448.73 E 11,778,337.39 Sta 21+04.94

Ending chain EX_BRADLEYCEM description

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PROJECT MANAGER BWC DOT: Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

Erosion and Sediment Control Plan Notes and Details

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.		
		234		0234-076-323 RW-201,C-501	IJ

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS:

- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
- A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
 - THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
 - SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL AT A MINIMUM MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
- CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
- CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
- WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
- ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
- WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
- WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
- ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
- THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - RESTALLIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
 - APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.

- WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 14 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS:
 - CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
 - ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
 - THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS 100 TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION;
 - NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS. ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
 - IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
 - IMPROVE THE CHANNELS TO A CONDITION WHERE A 10-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS;
 - IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE 10-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;
 - DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A 10-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
 - PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.
- THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
- ALL HYDROLOGIC ANALYSES SHALL BE BASED ON EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.
- IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
- OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
- ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
- INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
- IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
- ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

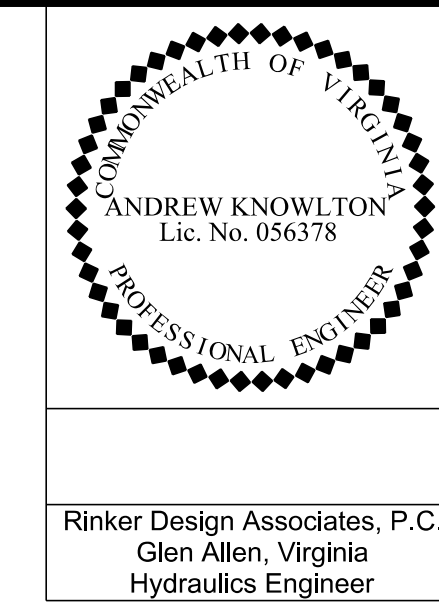
- ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 15.2 AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62J-44J5.54 OR 62J-44J5.65 OF THE ACT.
- FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62J-44J5.52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (S 62J-44J5.24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES (I) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN § 62J-44J5.47 OR GRANDFATHERING IN § 62J-44J5.48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62J-44J5.52 A OF THE ACT SHALL APPLY, OR (II) ARE EXEMPT PURSUANT TO § 62J-44J5.34 C 7 OF THE ACT.
- COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN § 62J-44J5.66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF THIS SUBDIVISION 19.
- TEMPORARY STONE CONSTRUCTION ENTRANCE: A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE, (PER VDOT STANDARD EC-11 AND STD & SPEC 3.02 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK)
- SAFETY FENCE TO BE INSTALLED AROUND ALL SEDIMENT BASINS AND WHERE DEEMED NECESSARY (STD & SPEC 3.01 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK).

PROJECT	SHEET NO.
0234-076-323	IJ

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, Apr 11, 2021

Erosion and Sediment Control Plan VESCH Narrative and Checklist



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE		STATE	SHEET NO.
	STATE	ROUTE	PROJECT	
	VA.	234	0234-076-323 RW-201,C-501	IJ(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

PROJECT DESCRIPTION

THIS PROJECT IS FOR THE DESIGN AND CONSTRUCTION OF AN OVERPASS AND RAMP INTERCHANGE OF DUMFRIES ROAD, PRINCE WILLIAM PARKWAY, AND BRENTSVILLE ROAD IN PRINCE WILLIAM COUNTY. THE PROJECT BEGINS APPROXIMATELY 2,000 FEET WEST OF THE EXISTING SMITH LAKE/COLES DRIVE INTERSECTION AND EXTENDS WESTWARD APPROXIMATELY 3,500 FEET ON THE EXISTING RTE. 234 BY-PASS ALIGNMENT. APPROXIMATELY 78.44 ACRES WILL BE DISTURBED.

EXISTING SITE CONDITIONS

TOPOGRAPHY FOR THE MAJORITY OF THE PROJECT AREA IS ROLLING WITH HEAVY FOREST COVER, EXCEPT ALONG THE EXISTING ROADWAYS. WETLANDS HAVE BEEN IDENTIFIED WITHIN THE PROJECT LIMITS AT APPROXIMATELY STATIONS 124+25 TO 125+50 (RIGHT) ON ROUTE 234 BUSINESS AND 125+50 TO 126+25 (RIGHT & LEFT) ON ROUTE 234 BUSINESS. STREAMS HAVE BEEN IDENTIFIED WITHIN THE PROJECT LIMIT AT APPROXIMATELY STATIONS 448+50 TO 450+75 (LEFT) AND 451+50 TO 454+00 (LEFT) AND PERPENDICULAR FROM A CULVERT AT STATION 551+00 ON ROUTE 234 BYPASS. STREAMS HAVE ALSO BEEN IDENTIFIED AT APPROXIMATELY STATIONS 700+00 TO 704+00 (RIGHT) AND PERPENDICULAR FROM STATION 703+75 ON RAMP D. STREAMS HAVE ALSO BEEN IDENTIFIED AT APPROXIMATELY STATIONS 120+50 TO 121+50 ON RTE. 649.

THE PROJECT IS WITHIN THE LIMITS OF ONE WATERSHED - PL41, HUC12 020700100801, OCCOQUAN RIVER - OCCOQUAN RESERVOIR - LAKE JACKSON

ADJACENT AREAS:

AREAS ADJACENT TO THE PROJECT LIMITS ARE COMMERCIAL, AGRICULTURAL, AND RESIDENTIAL USES.

OFFSITE AREAS:

THERE IS NO ANTICIPATION THAT BORROW MATERIAL WILL BE NECESSARY FOR THIS PROJECT. IF DURING CONSTRUCTION THE CONTRACTOR REQUIRES OFFSITE BORROW MATERIAL, THIS EROSION CONTROL PLAN DOES NOT ADDRESS THESE AREAS AND THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING INDEPENDENT EROSION AND SEDIMENT CONTROL PLANS TO COVER OFFSITE.

SOILS:

THE SOILS ON THE SITE ARE A COMBINATION OF SANDY LOAM, LOAM, AND SILTY LOAM SOILS. SEE SHEET IJ(2) FOR COMPLETE SOILS INFORMATION PROVIDED FROM USDA SOIL SURVEY.

CRITICAL AREAS:

THERE ARE STEEP SLOPES LOCATED ALONG THE RIGHT OF WAYS WITHIN THE PROJECT AREA. THE CONTRACTOR IS TO BE EXTRA DILIGENT WITH EROSION AND SEDIMENT CONTROL MEASURES AROUND STOCKPILES, HAZMAT SOILS, AND THE EXISTING STORMWATER MANAGEMENT FACILITIES LOCATED ON PROPOSED FACILITIES AND ADJACENT PROPERTIES. THE CONTRACTOR IS TO INSPECT AFTER EVERY RAIN AND RESTORE TO PROPOSED CONDITIONS. WETLANDS HAVE BEEN IDENTIFIED WITHIN PROJECT LIMITS AT FOLLOWING APPROXIMATE STATIONS:

- STA. 449+50 to 451+75 (left) on Route 234 Bypass Northbound
- STA. 473+75 to 474+25 (left) on Route 234 Bypass Northbound
- STA. 546+50 to 547+50 (right) on Route 234 Bypass Southbound
- STA. 554+50 to 554+75 (right) on Route 234 Bypass Southbound
- STA. 573+25 to 575+50 (right) on Route 234 Bypass Southbound
- STA. 33+75 to 35+50 (right) on Ramp C
- STA. 12+00 to 13+00 (right) on Ramp F
- STA. 12+50 to 17+50 (right) on Ramp F
- STA. 14+25 to 14+75 (left) on Ramp F
- STA. 15+75 to 17+75 (left) on Ramp F
- STA. 80+00 to 81+00 (right) on Ramp D
- STA. 80+25 to 81+00 (left) on Ramp D
- STA. 93+25 to 93+50 (left) on Ramp G
- STA. 104+00 to 105+50 (right) on Route 649
- STA. 113+25 to 113+75 (left & right) on Route 649
- STA. 117+50 to 118+75 (right) on Route 649
- STA. 118+25 to 119+75 (left) on Route 649
- STA. 120+25 to 124+00 (left & right) on Route 649
- STA. 124+25 to 126+25 (left & right) on Route 649
- STA. 128+25 to 130+25 (right) on Route 234 Business
- STA. 132+75 to 132+90 (left) on Route 234 Business
- STA. 133+50 to STA 133+75 (left) on Route 234 Business
- STA. 204+75 to 205+25 (left & right) on Roadway A
- STA. 207+50 to 207+75 (left & right) on Roadway A
- STA. 901+50 to STA 902+00 (left) on Roadway C

EROSION AND SEDIMENT CONTROL MEASURES:

UNLESS OTHERWISE DIRECTED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MOST CURRENT MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVERSION DIKES, FILTER BARRIER, AND SILT FENCE FOR EXISTING STORM DRAINAGE STRUCTURES SHALL BE PLACED PRIOR TO EARTH MOVING OPERATIONS. THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

MAINTENANCE PROGRAM:

THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREAS (IE SEEDED, MULCHED, OR SODDED AREAS) ON A DAILY BASIS AND AFTER EACH RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE FUNCTIONING PROPERLY. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR, INLET PROTECTION, SEDIMENT TRAPS, SILT FENCE AND CHECK DAMS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE, AND IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC, AND SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALFWAY TO THE TOP OF THE BARRIER, AND THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED, AND AREAS SHALL BE FERTILIZED AND RESEDED AS NEEDED. ANY DAMAGED CONTROLS SHALL BE REPAIRED BY THE END OF THE WORK DAY, INCLUDING RESEEDING AND MULCHING IF NECESSARY AT THE INSPECTOR'S APPROVAL.

TEMPORARY AND PERMANENT STABILIZATION:

TEMPORARY AND PERMANENT STABILIZATION SHALL BE APPLIED TO ALL DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADING IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS LEFT DORMANT FOR MORE THAN ONE YEAR. DISTURBED AREAS WITHIN 100 FEET OF DELINEATED WETLANDS SHALL BE CONTINUOUSLY PROSECUTED UNTIL COMPLETED AND STABILIZED IMMEDIATELY UPON COMPLETION OF THE WORK IN EACH IMPACTED AREA.

STORMWATER RUNOFF CONSIDERATIONS:

THE PROJECT PROPOSES ONE NEW STORMWATER MANAGEMENT FACILITY (PL41 BMP 4-2), THE REMOVAL OF ONE STORMWATER MANAGEMENT FACILITY (PL41 BMP 4-A), AND MODIFICATIONS TO THREE EXISTING STORMWATER MANAGEMENT FACILITIES (PL41 BMP 4-1, PL41 BMP 4-3, AND PL41 BMP 6-2) FOR WATER QUANTITY AND QUALITY PURPOSES. PROPOSED RUNOFF TO THESE FACILITIES WILL MEET THE MS-19 AND VDOT REGULATIONS.

CALCULATIONS

ALL PERMANENT FACILITY CALCULATIONS, AS WELL AS OUTFALL AND RUNOFF CALCULATIONS WILL BE PROVIDED IN THE AWP SUBMISSION. TEMPORARY SEDIMENT BASIN CALCULATIONS WILL BE PROVIDED IN THE AWP SUBMISSION.

PHASE I LAND DISTURBING/ CONSTRUCTION SEQUENCE:

1. HOLD PRECONSTRUCTION MEETING
2. FLAG LIMITS OF CLEARING
3. INSTALL TEMPORARY CONTROLS INCLUDING SILT FENCE, DIVERSION AND INLET PROTECTION.
4. OBTAIN SITE INSPECTOR'S APPROVAL OF PERIMETER EROSION AND SEDIMENT CONTROLS.
5. AFTER INSPECTOR'S APPROVAL OF INITIAL CONTROLS, CLEAR AND GRUB REMAINDER OF THE SITE AS NECESSARY.
6. INSTALL SEDIMENT BASINS AND ASSOCIATED OUTFALLS.
7. STABILIZE ALL DENUDED AREAS ACCORDING TO THE SECTION TEMPORARY AND PERMANENT STABILIZATION.

PHASE II LAND DISTURBING SEQUENCE:

1. CONSTRUCT PROPOSED STORM SEWER SYSTEM AND PROPOSED CULVERTS AND CULVERT EXTENSIONS. INSTALL INLET PROTECTIONS AT ALL APPLICABLE LOCATIONS. CONSTRUCT DITCH AND LINING AT ALL APPLICABLE LOCATIONS.
2. ROUGH GRADE THE REMAINDER OF THE SITE.
3. INSTALL ALL CURB AND GUTTER AND PLACE BASE STONE PAVEMENT.
4. FINE GRADE SITE AND INSTALL ALL PERMANENT SEEDING AND FERTILIZER ALL GRASSED AREAS.
5. REMOVE ALL EROSION CONTROL MEASURES.
6. CLEAN SITE OF ALL TRASH AND DEBRIS.
7. HAVE THE INSPECTOR INSPECT ALL AREAS TO DETERMINE IF THE AREA ADEQUATELY STABILIZED.

STORAGE YARD/LAY DOWN YARD

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF THE EQUIPMENT STORAGE AREA. THIS AREA MUST STAY WITHIN THE PROJECT'S LIMITS OF CONSTRUCTION, UNLESS AN OFF-SITE AREA IS COORDINATED AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INDEPENDENT E&S CONTROL PERMITS TO COVER ANY OFF-SITE IMPACTS.

EROSION AND SEDIMENT CONTROL STRUCTURES

- SAFETY FENCE (3.01):

A protective barrier installed to prevent access to an erosion control measure.

- TEMPORARY STONE CONSTRUCTION ENTRANCE (3.02):

A stabilized stone pad with a filter fabric underliner located at points of vehicular ingress and egress on a construction site. (Per VDOT Standard EC-11)

- CONSTRUCTION ROAD STABILIZATION (3.03):

The temporary stabilization of access roads, subdivision roads, parking areas, and other on-site vehicle transportation routes with stone immediately after grading. (Per VDOT Standard EC-11)

- TEMPORARY SILT FENCE (3.05):

A temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting posts and entrenched. (Per VDOT Standard EC-5)

- STORM DRAIN INLET PROTECTION (3.07):

A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet. (Per VDOT Standard EC-6 Type A and B)

- CULVERT INLET PROTECTION (3.08):

A sediment filter located at the inlet to storm sewer culverts. (Per VDOT Standard EC-6 Type C)

- TEMPORARY DIVERSION DIKE (3.09):

A temporary ridge of compacted soil constructed at the top or base of a sloping disturbed area. (Per VDOT Standard EC-9)

- DIVERSION (3.12):

A channel constructed across a slope with a supporting earthen ridge on the lower side. (Per VDOT Standard EC-12)

- TEMPORARY SEDIMENT TRAP (3.13):

A temporary ponding area formed by constructing an earthen embankment with a stone outlet. (Per VDOT Standard EC-7)

- TEMPORARY SEDIMENT BASIN (3.14):

A temporary barrier or dam with a controlled stormwater release structure formed by constructing an embankment of compacted soil across a drainway.

- STORMWATER CONVEYANCE CHANNEL (3.17):

A permanent, designed waterway, shaped, sized, and lined with appropriate vegetation or structural material used to safely convey stormwater runoff within or away from a developing area.

- OUTLET PROTECTION (3.18):

Structurally lined aprons or other acceptable energy dissipating devices placed at the outlets of pipes or paved channel sections. (Per VDOT Standard EC-1)

- ROCK CHECK DAMS (3.20):

Small temporary stone dams constructed across a swale or drainage ditch. (Per VDOT Standard EC-4)

- TEMPORARY VEHICULAR STREAM CROSSING (3.24):

A temporary structural span installed across a flowing watercourse for use by construction traffic. (Per VDOT standard EC-14)

- TEMPORARY SEEDING (3.31):

The establishment of a temporary vegetative cover on disturbed areas by seeding with appropriate rapidly growing annual plants. Temporary seeding shall be done in accordance with Virginia Erosion and Sediment Control Handbook standard and specification 3.31.

- PERMANENT SEEDING (3.32):

All areas disturbed by construction shall be stabilized with permanent seeding immediately following finished grading. Seeding shall be done according to Virginia Erosion and Sediment Control Handbook standard and specification 3.32. PERMANENT SEEDING.

- DUST CONTROL (3.39):

Reducing surface and air movement of dust during land disturbing, demolition and construction activities. Dust control shall be done according to Virginia Erosion and Sediment Control Handbook standard and specification 3.39. DUST CONTROL.

PROJECT	SHEET NO.
0234-076-323	IJ(1)

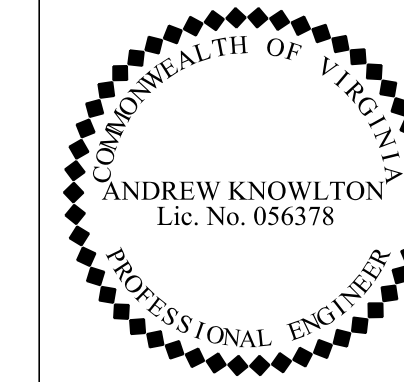
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

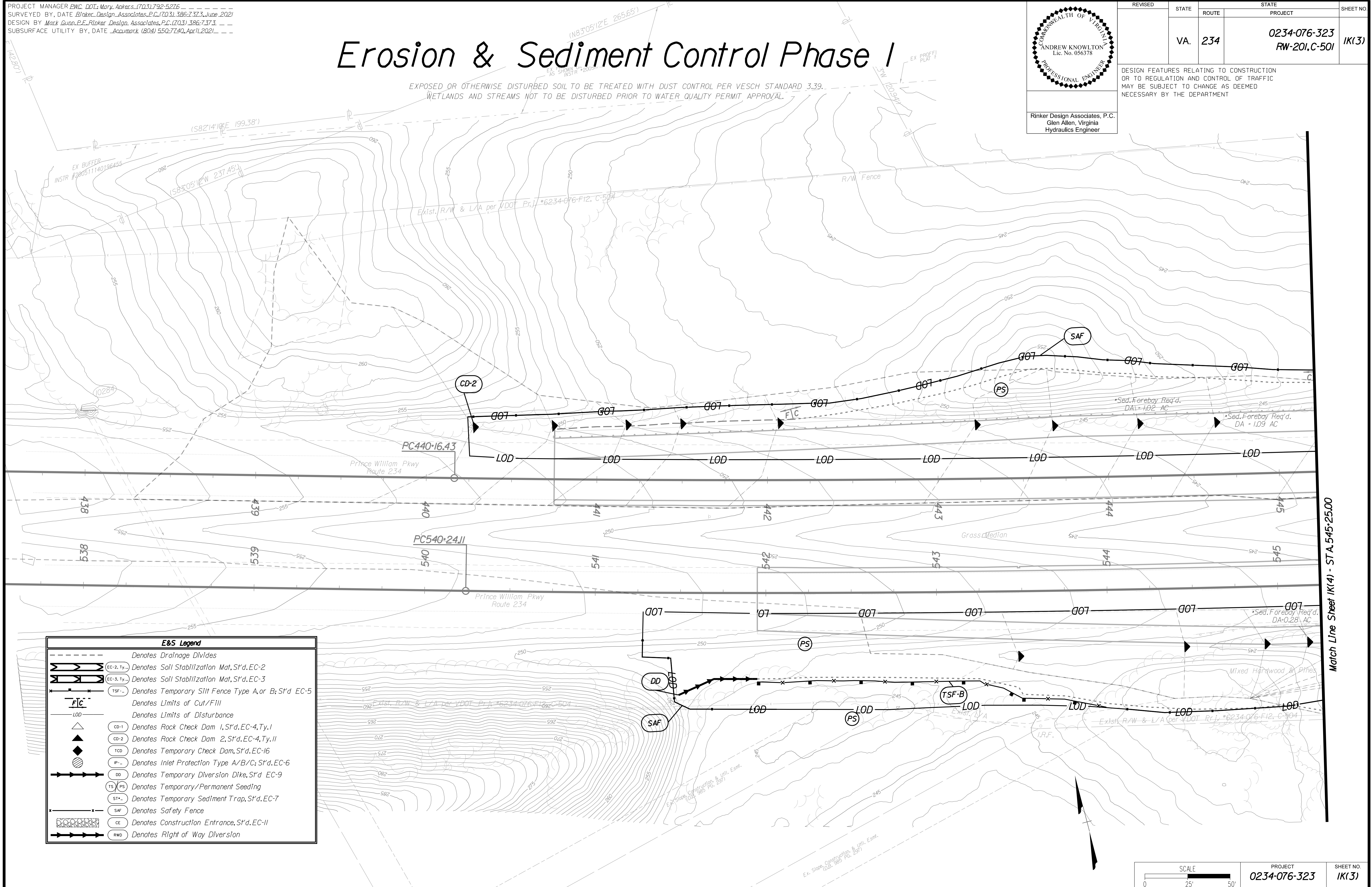
EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S1'd, EC-2
	Denotes Soil Stabilization Mat, S1'd, EC-3
	Denotes Temporary Silt Fence Type A or B, S1'd, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S1'd, EC-4, Ty. I
	Denotes Rock Check Dam 2, S1'd, EC-4, Ty. II
	Denotes Temporary Check Dam, S1'd, EC-16
	Denotes Inlet Protection Type A/B/C, S1'd, EC-6
	Denotes Temporary Diversion Dike, S1'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S1'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S1'd, EC-11
	Denotes Right of Way Diversion



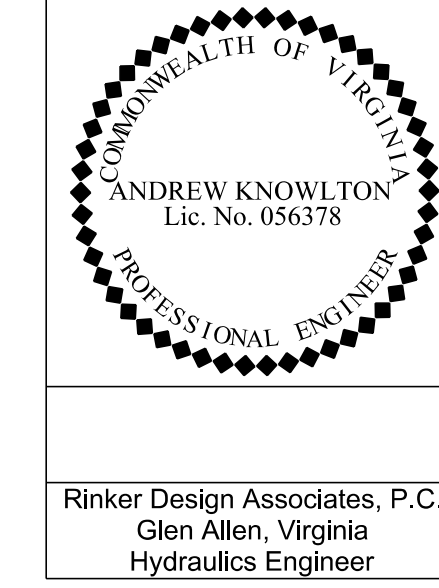
PROJECT	SHEET NO.
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PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
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DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7240, Apr 1, 2021

Erosion & Sediment Control Phase I



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IK(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

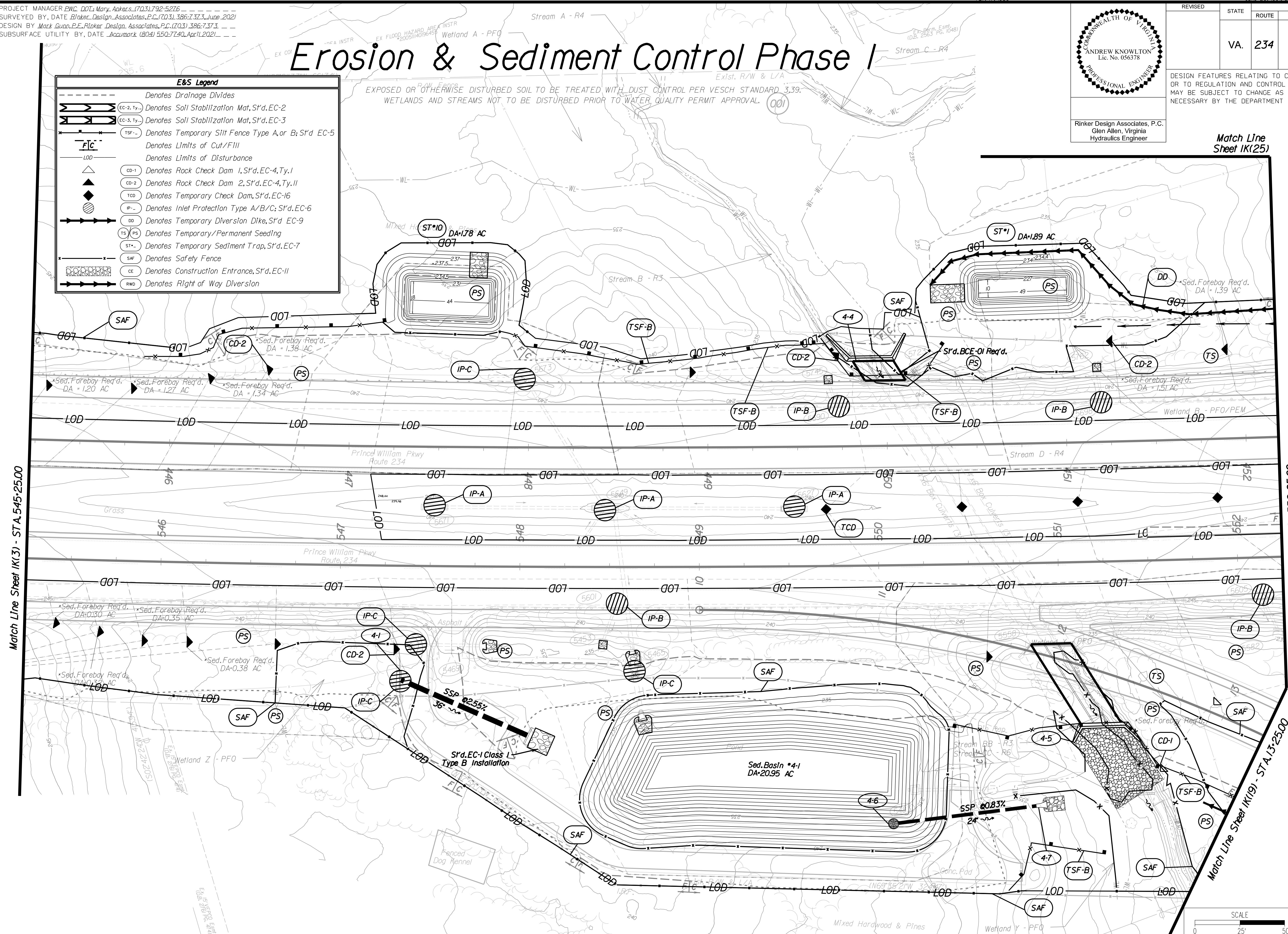
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	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd, EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd, EC-4, Ty. II
	Denotes Temporary Check Dam, S'd, EC-16
	Denotes Inlet Protection Type A/B/C, S'd, EC-6
	Denotes Temporary Diversion Dike, S'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd, EC-11
	Denotes Right of Way Diversion

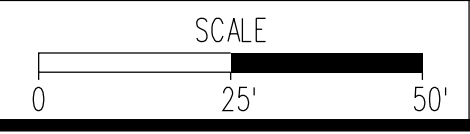
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WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

Match Line Sheet IK(3) - STA. 545+25.00

Match Line Sheet IK(5) - STA. 552+25.00



Match Line Sheet IK(25)



PROJECT	0234-076-323	SHEET NO.	IK(4)
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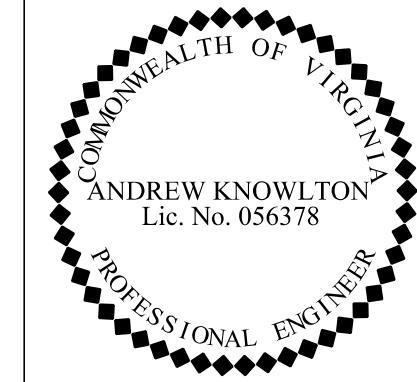
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Askers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, Apr 11, 2021

Erosion & Sediment Control Phase I

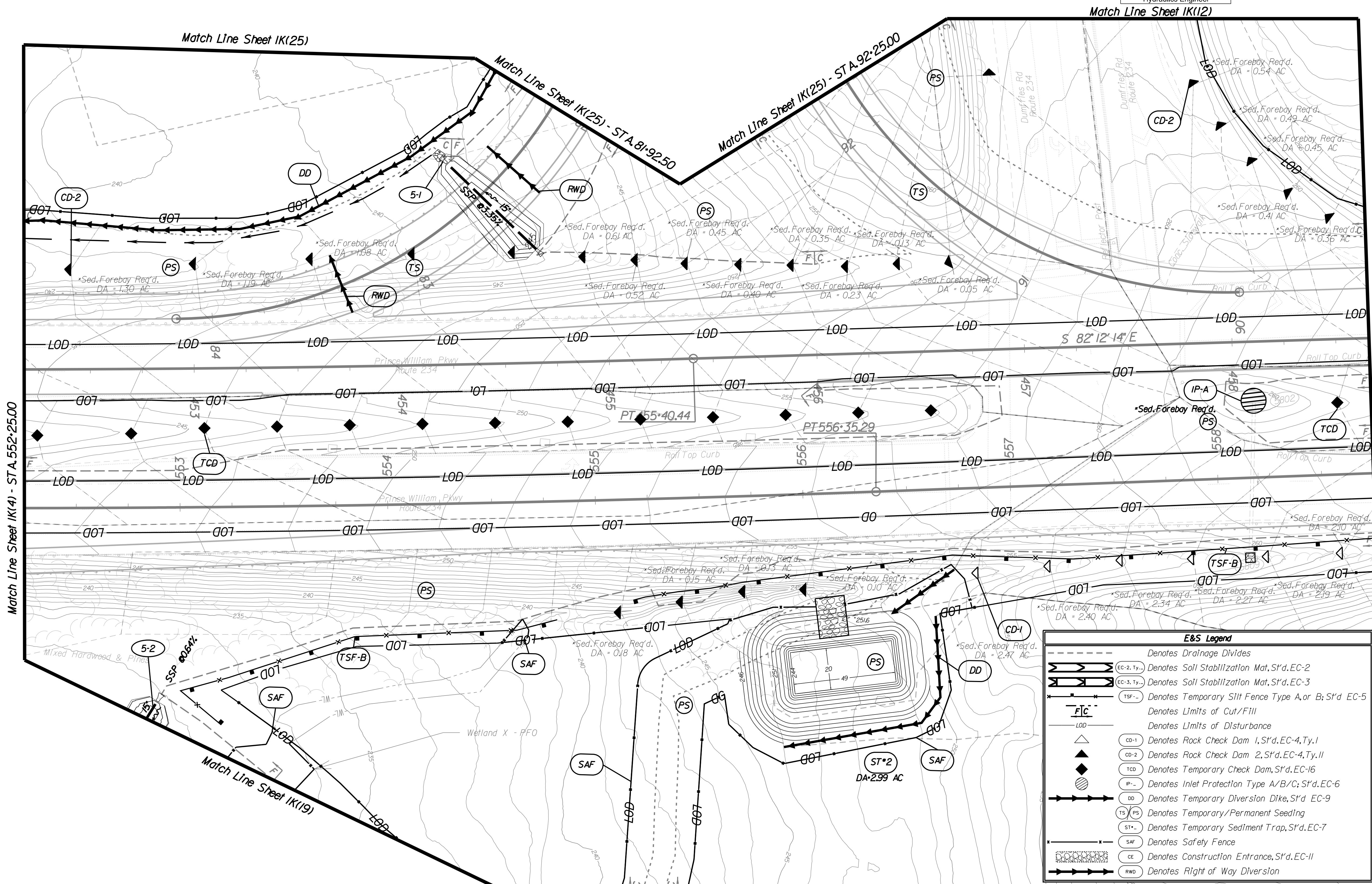
EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(15)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend

- Denotes Drainage Divides
- Denotes Soil Stabilization Mat, S'd, EC-2
- Denotes Soil Stabilization Mat, S'd, EC-3
- Denotes Temporary Silt Fence Type A or B; S'd EC-5
- Denotes Limits of Cut/Fill
- Denotes Limits of Disturbance
- CD-1 Denotes Rock Check Dam 1, S'd, EC-4, Ty. I
- CD-2 Denotes Rock Check Dam 2, S'd, EC-4, Ty. II
- TCD Denotes Temporary Check Dam, S'd, EC-16
- IP-A Denotes Inlet Protection Type A/B/C; S'd, EC-6
- DD Denotes Temporary Diversion Dike, S'd EC-9
- PS Denotes Temporary/Permanent Seeding
- ST-2 Denotes Temporary Sediment Trap, S'd, EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S'd, EC-11
- RWD Denotes Right of Way Diversion

SCALE 0 25 50'
PROJECT 0234-076-323
SHEET NO. IK(15)

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

PROJECT MANAGER EWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Gunn, P.E., Rinker Design Associates, P.C. (703) 396-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

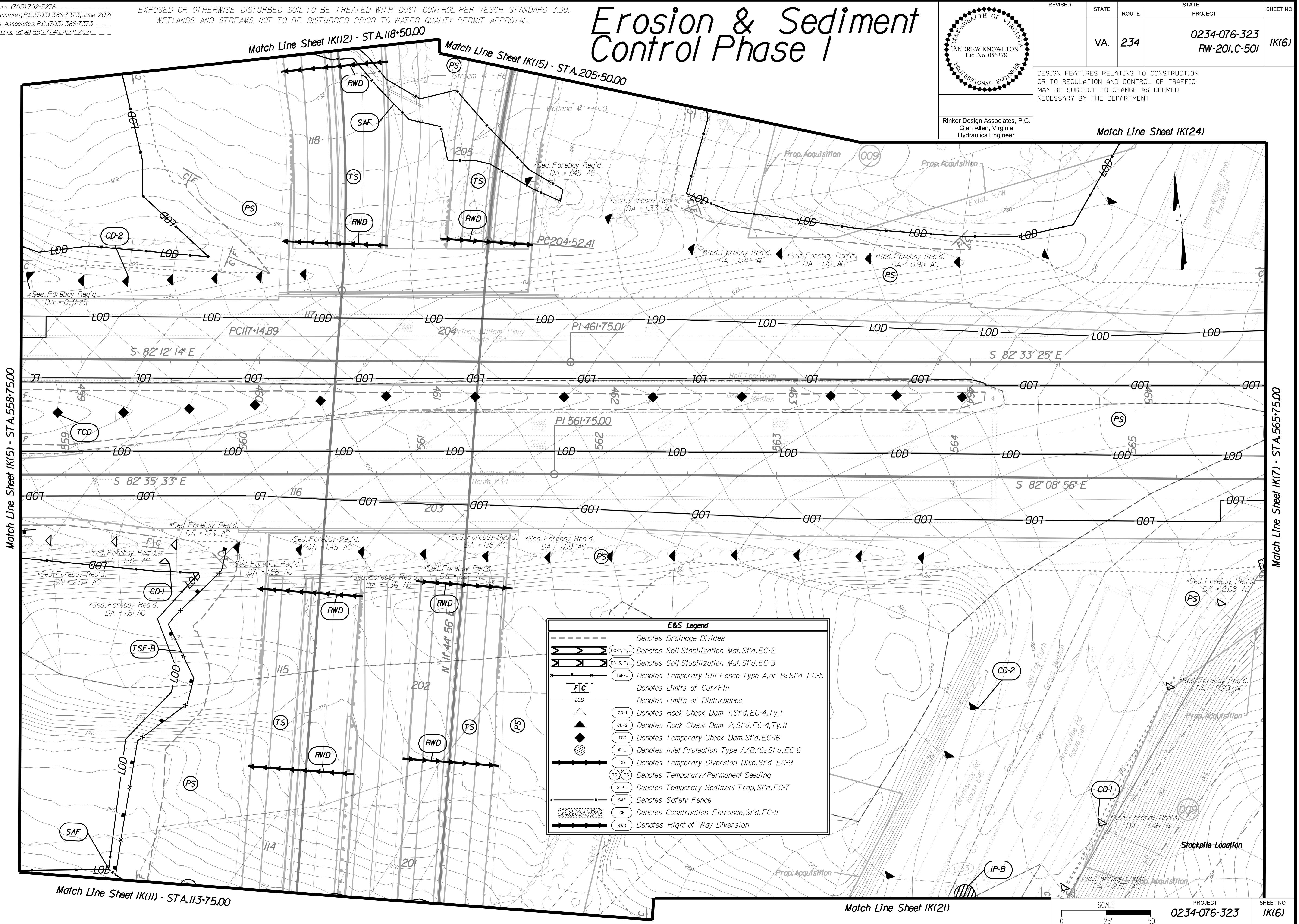
Erosion & Sediment Control Phase I

Andrew Knowlton
Lic. No. 056378
Professional Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201.C-501	IK(16)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend

- Denotes Drainage Divides
- (EC-2, Ty) --- Denotes Soil Stabilization Mat, S'd. EC-2
- (EC-3, Ty) --- Denotes Soil Stabilization Mat, S'd. EC-3
- (TSF) --- Denotes Temporary Silt Fence Type A or B; S'd. EC-5
- Denotes Limits of Cut/Fill
- Denotes Limits of Disturbance
- (CD-1) Denotes Rock Check Dam 1, S'd. EC-4, Ty. I
- (CD-2) Denotes Rock Check Dam 2, S'd. EC-4, Ty. II
- (TCD) Denotes Temporary Check Dam, S'd. EC-16
- (IP) --- Denotes Inlet Protection Type A/B/C; S'd. EC-6
- (DD) Denotes Temporary Diversion Dike, S'd. EC-9
- (TS) Denotes Temporary/Permanent Seeding
- (ST) --- Denotes Temporary Sediment Trap, S'd. EC-7
- (SAF) Denotes Safety Fence
- (CE) --- Denotes Construction Entrance, S'd. EC-11
- (RWD) Denotes Right of Way Diversion

11/1/2021

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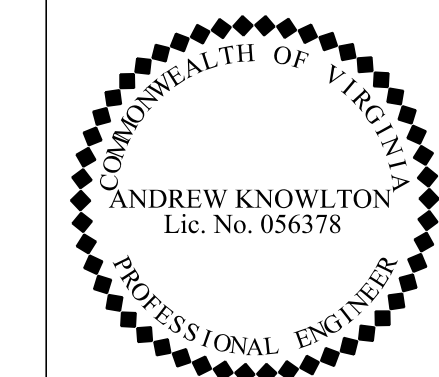
SCALE 0 25' 50'

PROJECT 0234-076-323 SHEET NO. IK(16)

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7740, April 2021



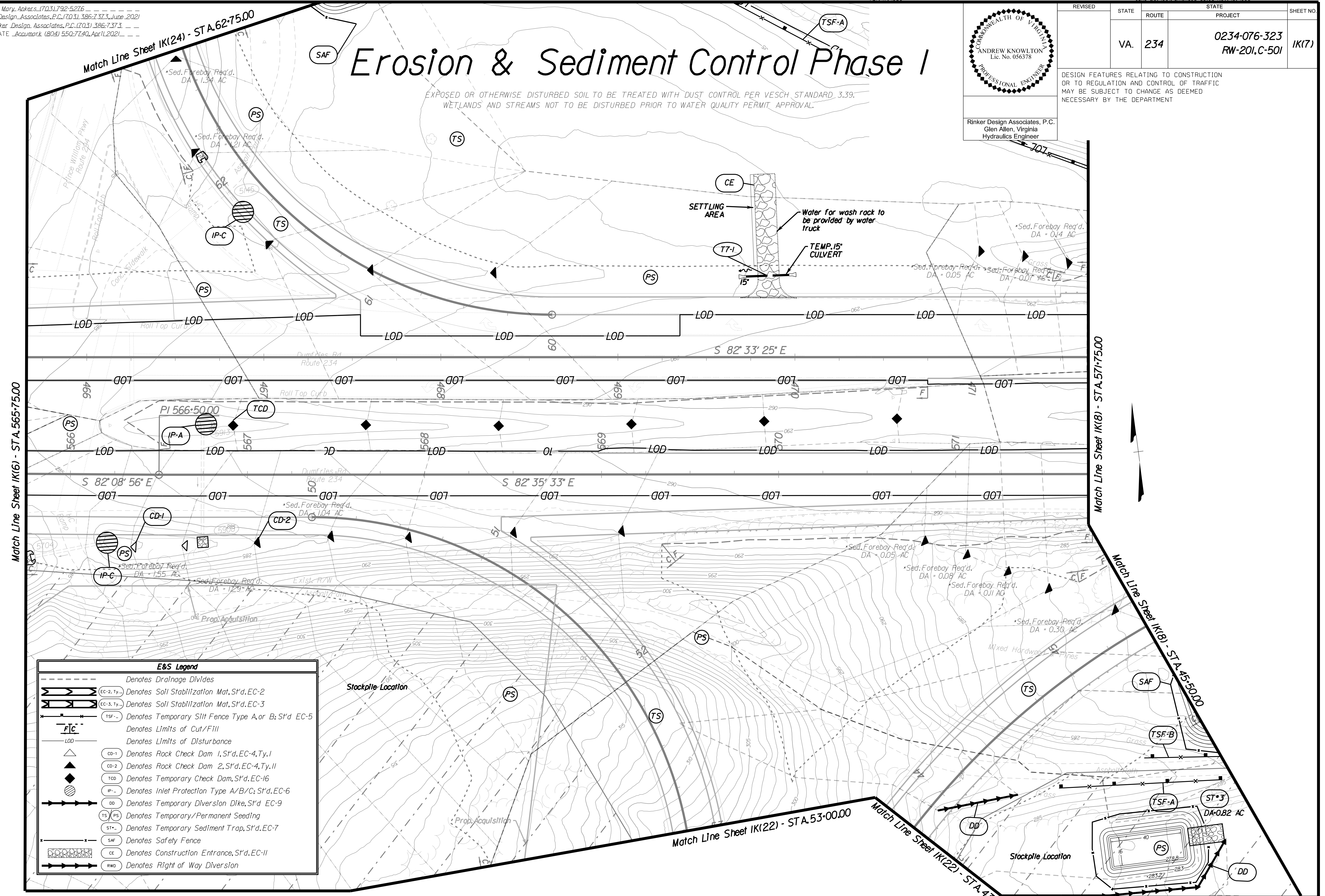
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A or B; S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion

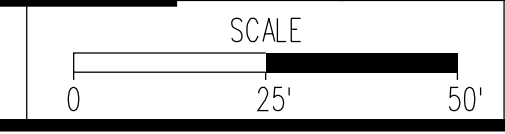
Match Line Sheet IK(22)

Match Line Sheet IK(22) - STA. 53+00.00

Match Line Sheet IK(22) - STA. 43+75.00

Match Line Sheet IK(8) - STA. 57+75.00

Match Line Sheet IK(8) - STA. 45+50.00



PROJECT 0234-076-323
SHEET NO. IK(7)

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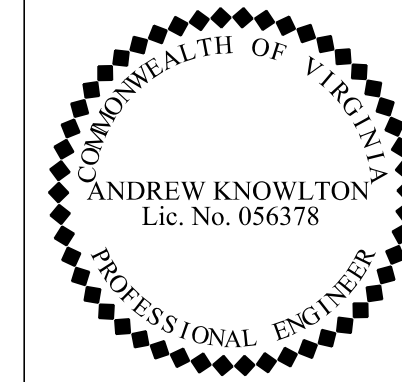
LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

Erosion & Sediment Control Phase I

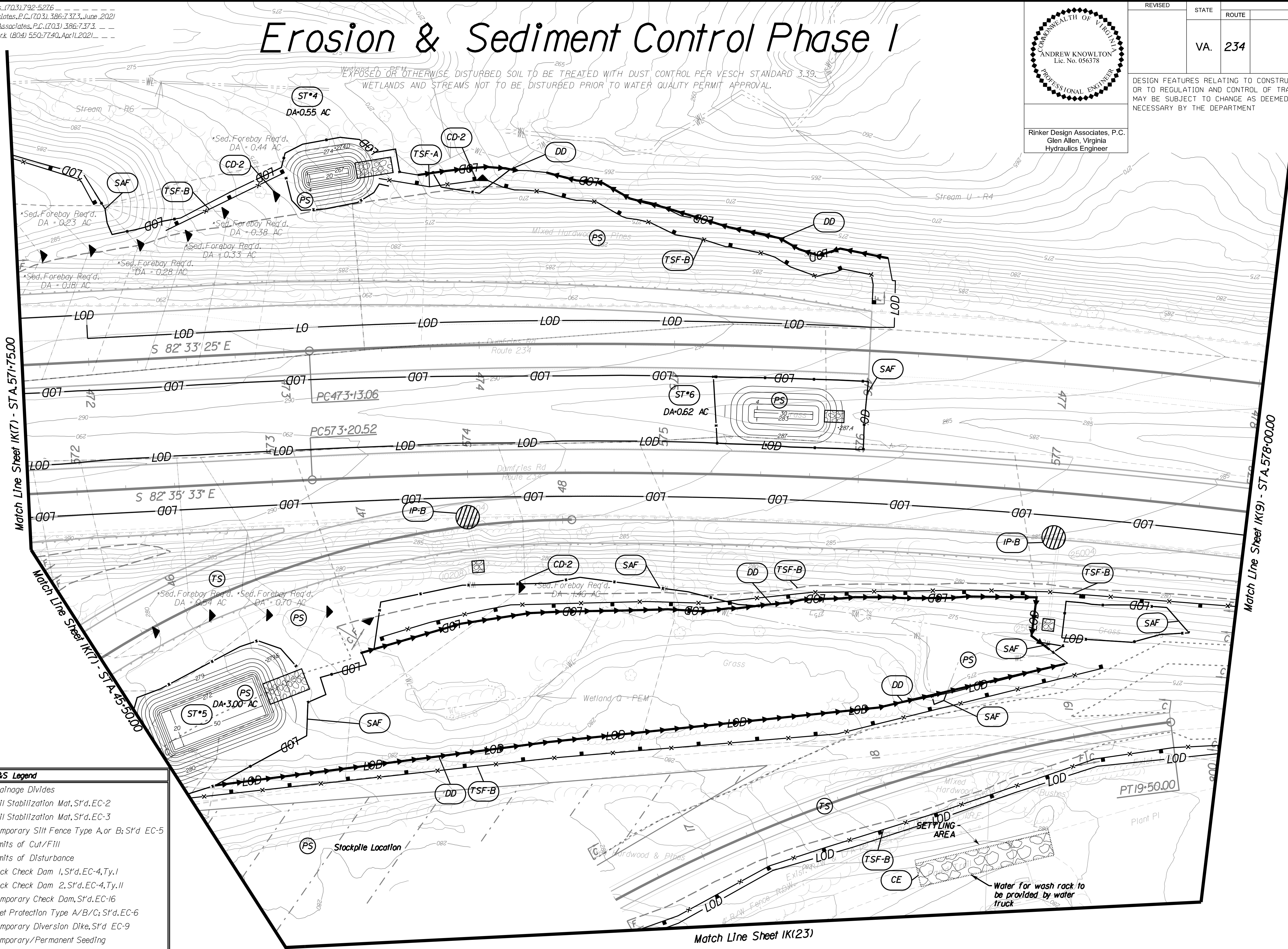


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

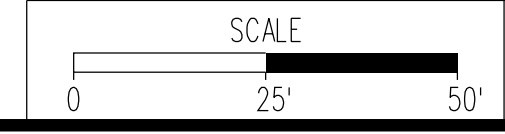
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd.EC-2
	Denotes Soil Stabilization Mat, S't'd.EC-3
	Denotes Temporary Silt Fence Type A, or B; S't'd.EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd.EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd.EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd.EC-16
	Denotes Inlet Protection Type A/B/C; S't'd.EC-6
	Denotes Temporary Diversion Dike, S't'd.EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd.EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd.EC-11
	Denotes Right of Way Diversion



PROJECT	SHEET NO.
0234-076-323	IK(8)

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11/1/2021

LIMITED ACCESS HIGHWAY

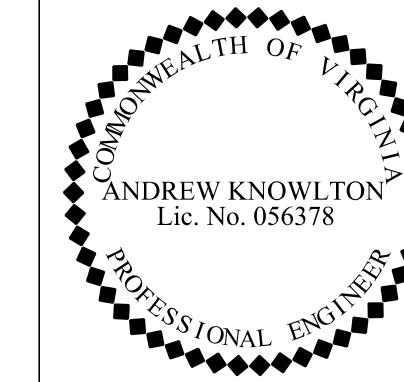
LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, Apr 11 2021

Erosion & Sediment Control Phase I

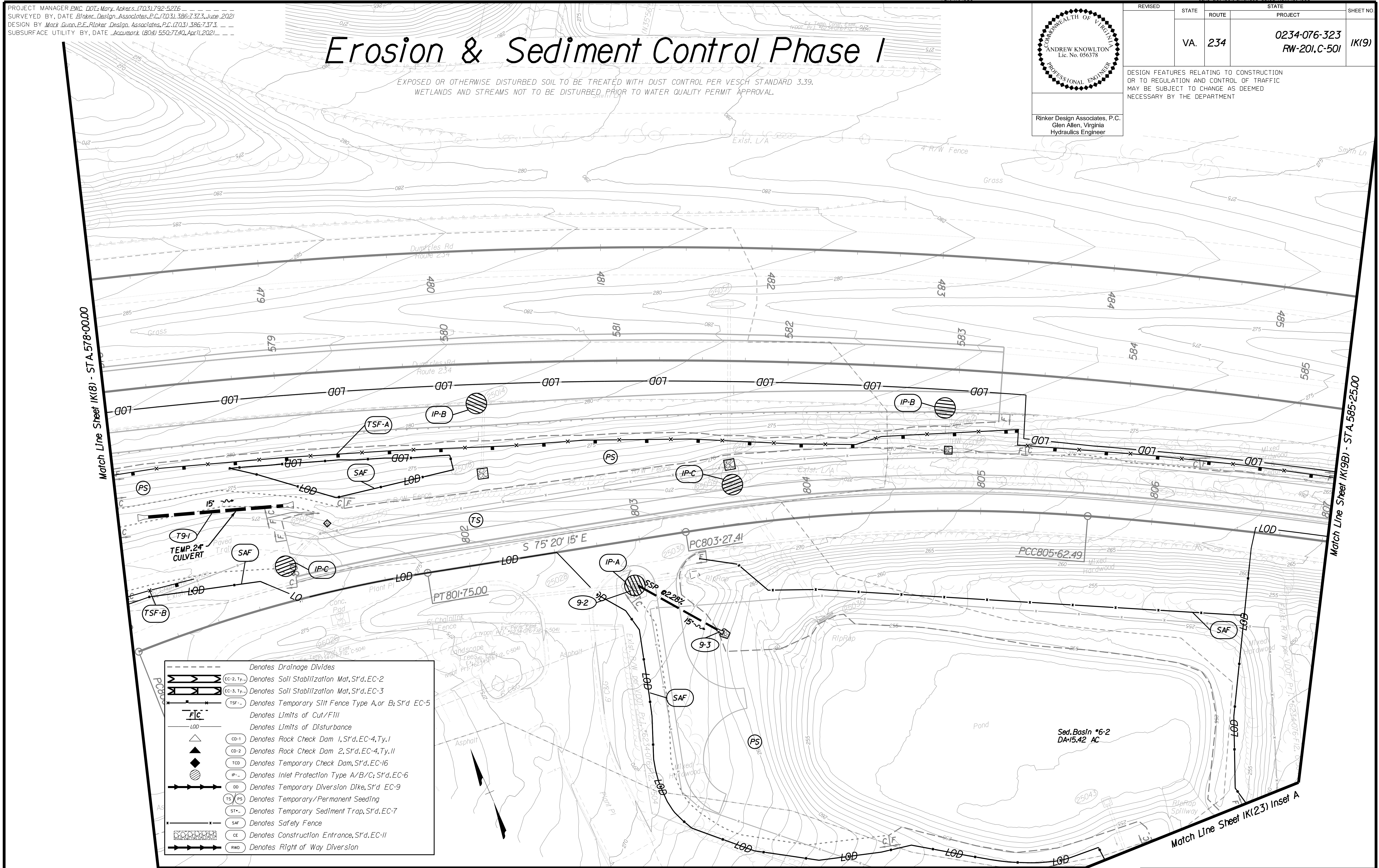
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WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

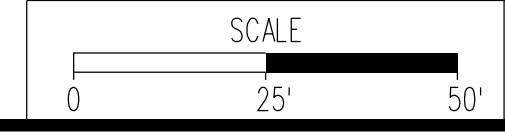
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(19)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd, EC-2
	Denotes Soil Stabilization Mat, S'd, EC-3
	Denotes Temporary Silt Fence Type A, or B; S'd, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd, EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd, EC-4, Ty. II
	Denotes Temporary Check Dam, S'd, EC-16
	Denotes Inlet Protection Type A/B/C; S'd, EC-6
	Denotes Temporary Diversion Dike, S'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd, EC-11
	Denotes Right of Way Diversion

Match Line Sheet IK(23) Inset A



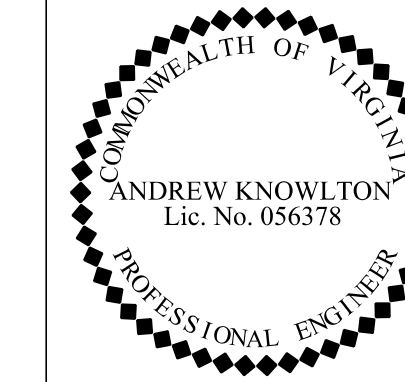
PROJECT	SHEET NO.
0234-076-323	IK(19)

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11/1/2021

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021



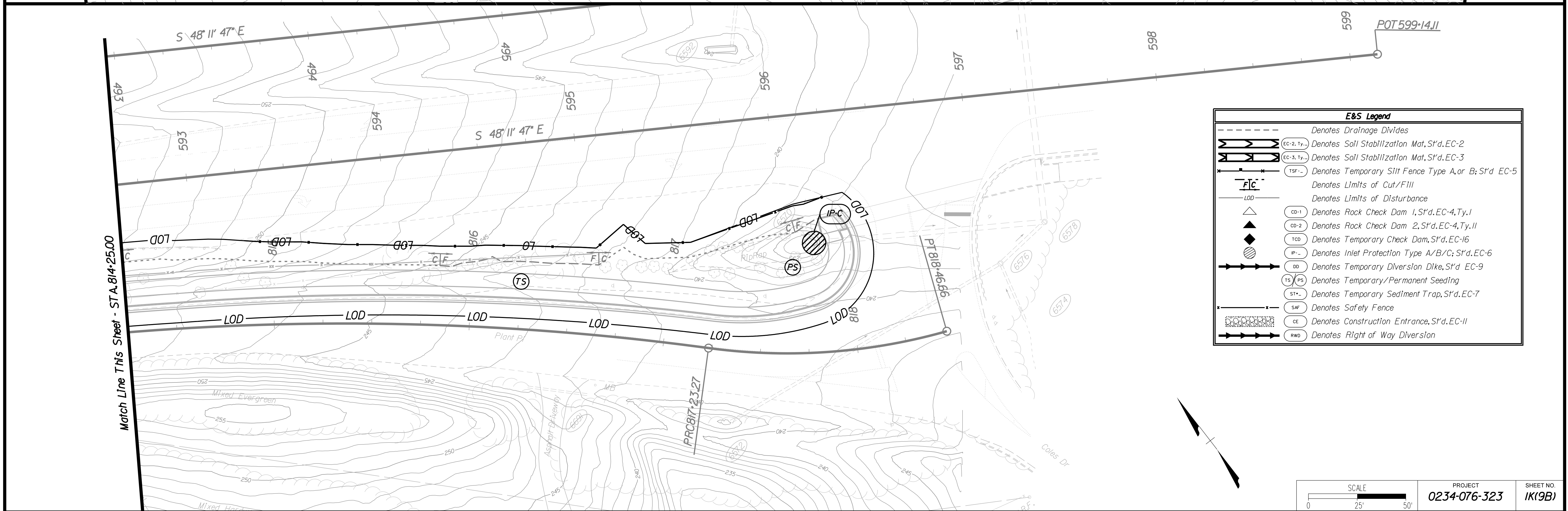
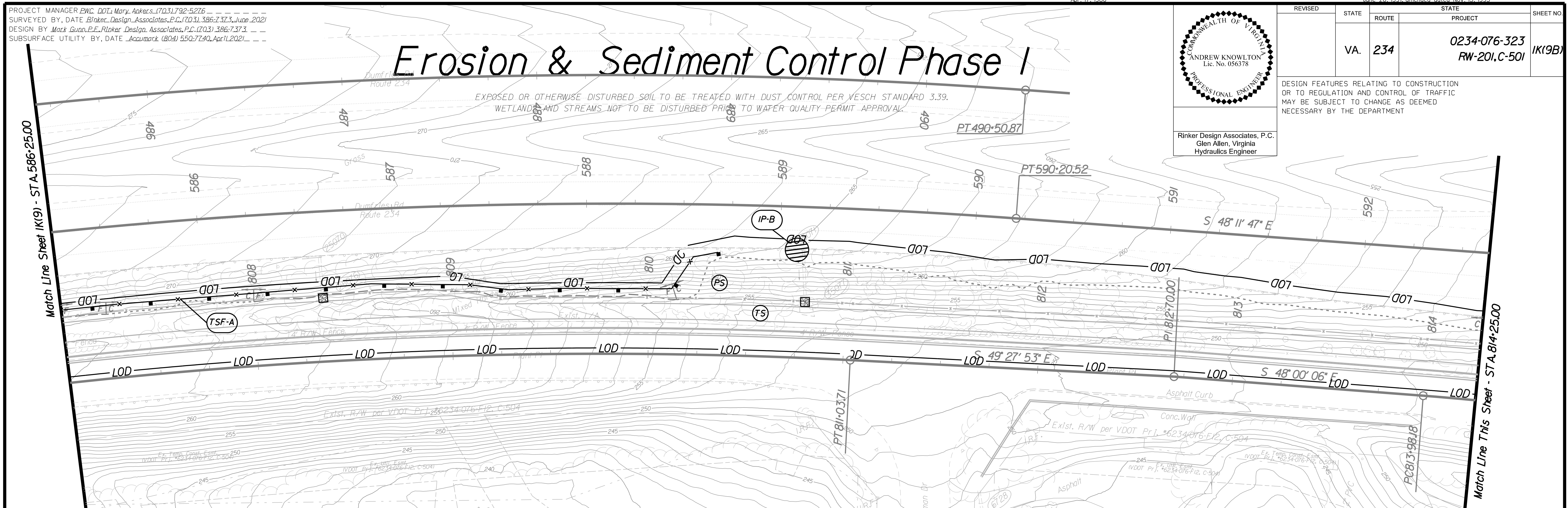
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1K(9B)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S1'd, EC-2
	Denotes Soil Stabilization Mat, S1'd, EC-3
	Denotes Temporary Silt Fence Type A or B; S1'd EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S1'd, EC-4, Ty. I
	Denotes Rock Check Dam 2, S1'd, EC-4, Ty. II
	Denotes Temporary Check Dam, S1'd, EC-16
	Denotes Inlet Protection Type A/B/C; S1'd, EC-6
	Denotes Temporary Diversion Dike, S1'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S1'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S1'd, EC-11
	Denotes Right of Way Diversion

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1K(9B)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

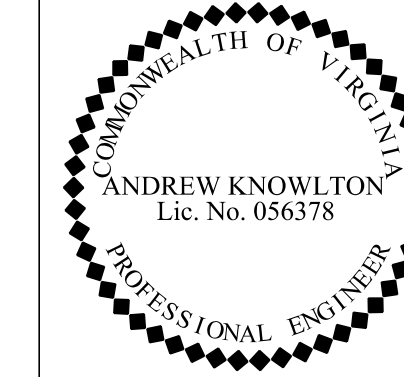
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

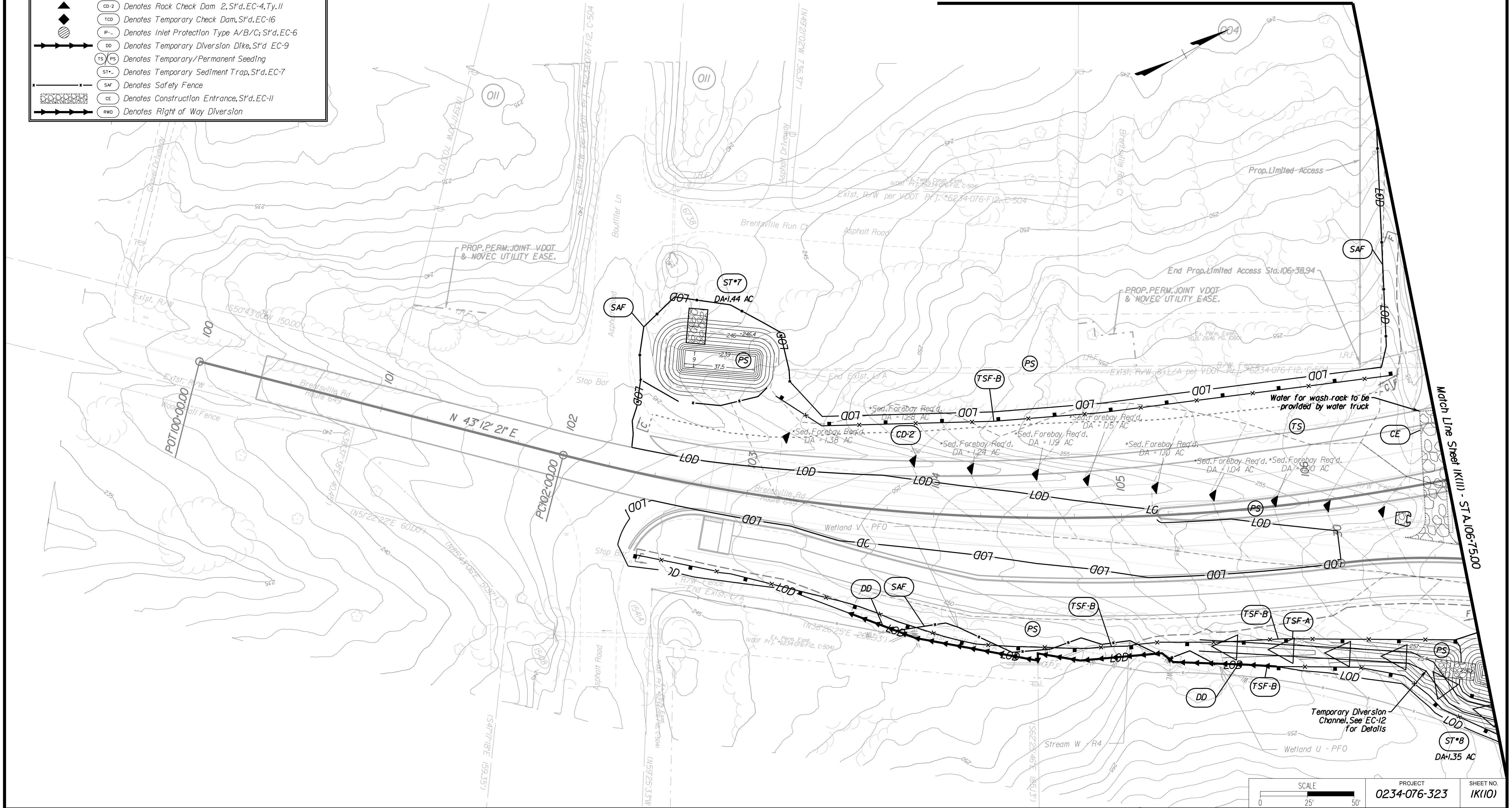


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1K(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd. EC-2
	Denotes Soil Stabilization Mat, S'd. EC-3
	Denotes Temporary Silt Fence Type A, or B, S'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S'd. EC-16
	Denotes Inlet Protection Type A/B/C, S'd. EC-6
	Denotes Temporary Diversion Dike, S'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd. EC-11
	Denotes Right of Way Diversion



SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1K(10)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

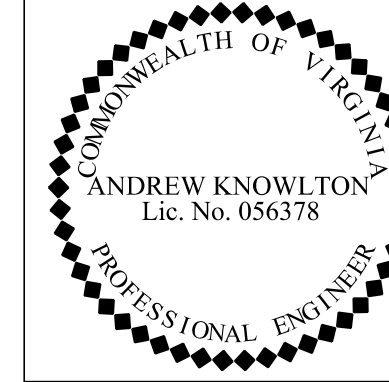
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, Apr 1, 2021

Erosion & Sediment Control Phase I

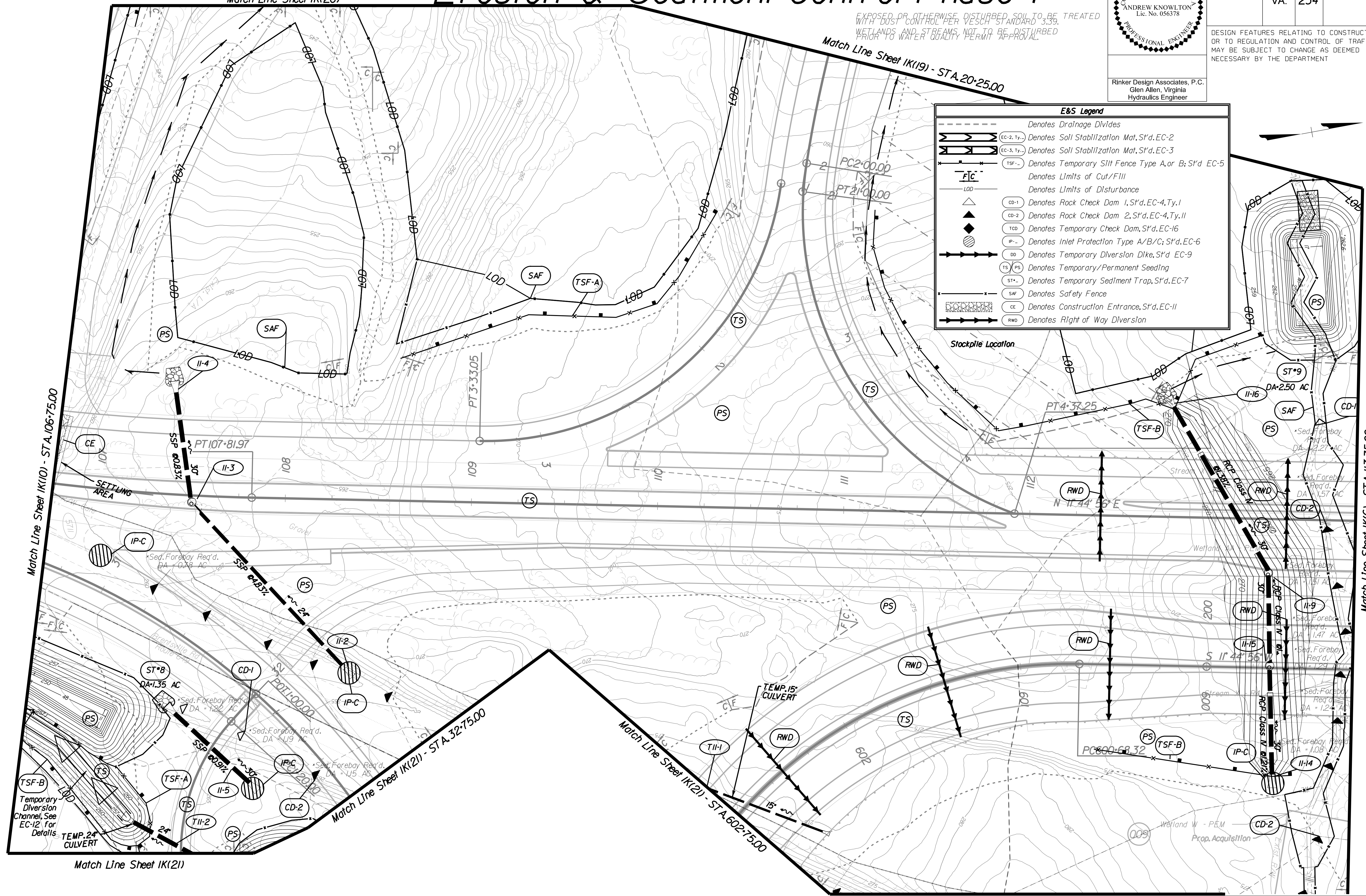
EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH EROSION CONTROL PER VESCH STANDARD 3.39. WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(11)

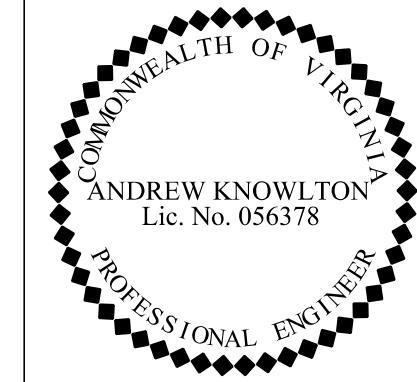
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Btker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7240, Apr 11, 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

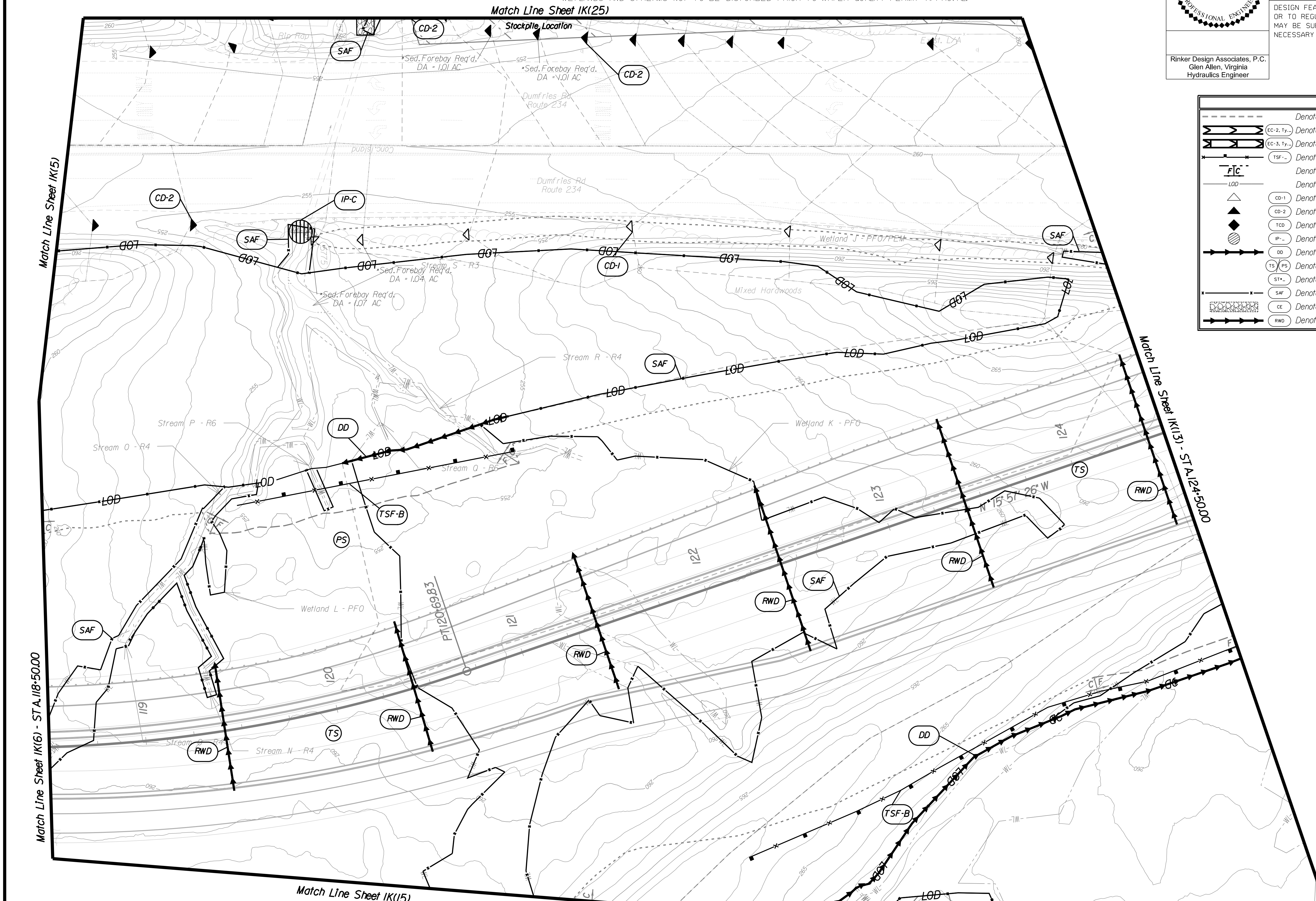


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1K(12)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd, EC-2
	Denotes Soil Stabilization Mat, S'd, EC-3
	Denotes Temporary Silt Fence Type A or B; S'd EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd, EC-4, Ty, I
	Denotes Rock Check Dam 2, S'd, EC-4, Ty, II
	Denotes Temporary Check Dam, S'd, EC-16
	Denotes Inlet Protection Type A/B/C; S'd, EC-6
	Denotes Temporary Diversion Dike, S'd EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd, EC-11
	Denotes Right of Way Diversion



SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1K(12)
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11/1/2021

LIMITED ACCESS HIGHWAY

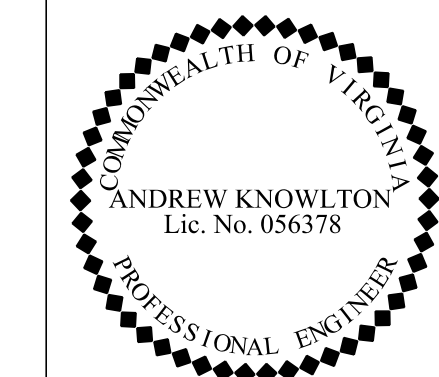
LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Btker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



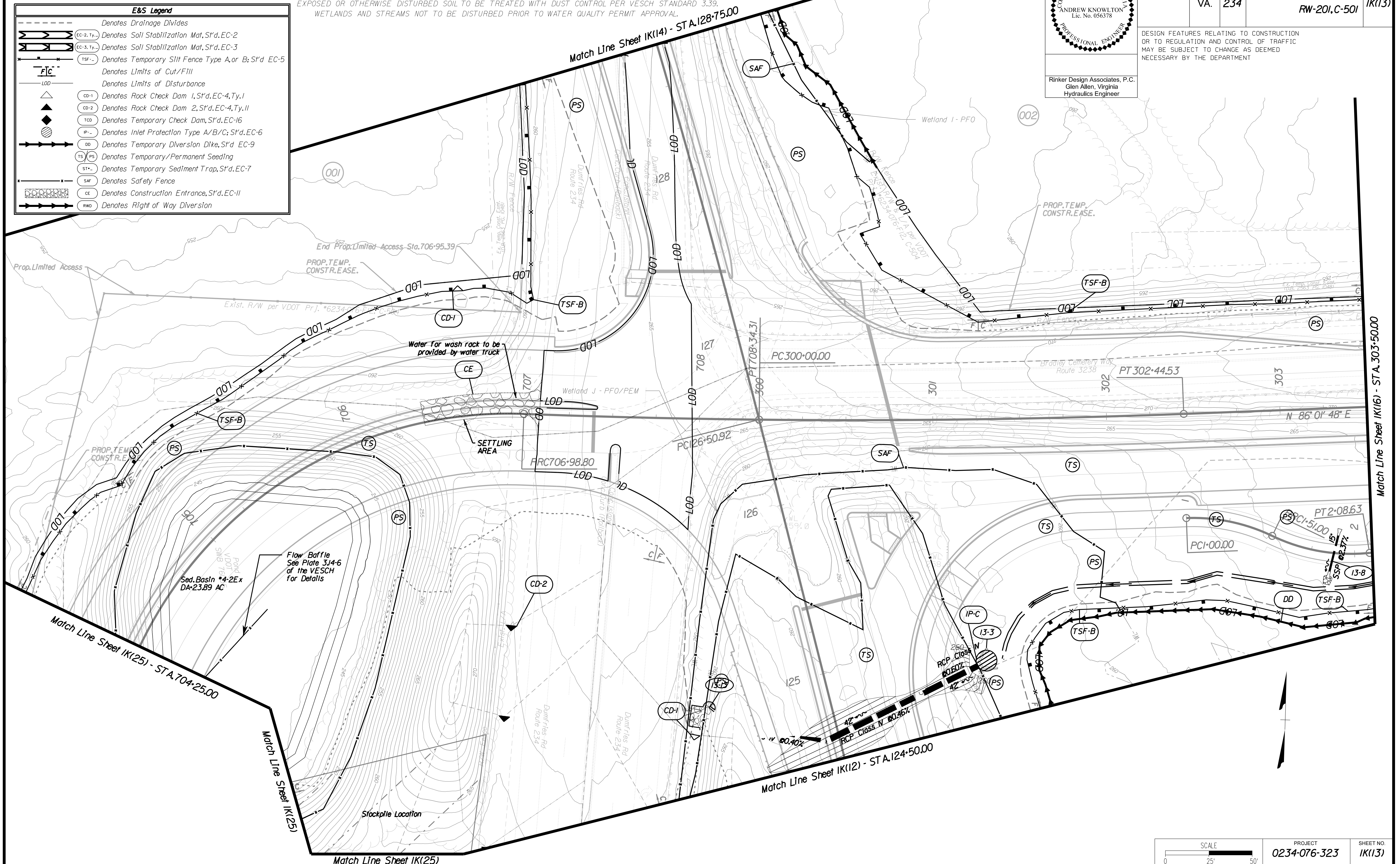
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1K(13)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend

- Denotes Drainage Divides
- EC-2, Ty... Denotes Soil Stabilization Mat, S'd, EC-2
- EC-3, Ty... Denotes Soil Stabilization Mat, S'd, EC-3
- TSF... Denotes Temporary Silt Fence Type A or B; S'd EC-5
- FIC... Denotes Limits of Cut/Fill
- LOD... Denotes Limits of Disturbance
- CD-1 Denotes Rock Check Dam 1, S'd, EC-4, Ty, I
- CD-2 Denotes Rock Check Dam 2, S'd, EC-4, Ty, II
- TCO Denotes Temporary Check Dam, S'd, EC-16
- P... Denotes Inlet Protection Type A/B/C; S'd, EC-6
- DD Denotes Temporary Diversion Dike, S'd EC-9
- TS Denotes Temporary/Permanent Seeding
- PS Denotes Temporary/Permanent Seeding
- ST... Denotes Temporary Sediment Trap, S'd, EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S'd, EC-11
- RWD Denotes Right of Way Diversion



Match Line Sheet 1K(25) - STA. 704+25.00

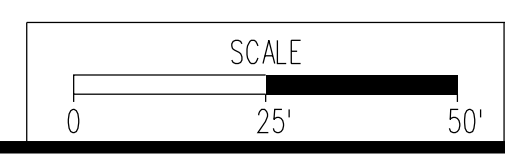
Match Line Sheet 1K(25)

Match Line Sheet 1K(25)

Match Line Sheet 1K(14) - STA. 128+75.00

Match Line Sheet 1K(12) - STA. 124+50.00

Match Line Sheet 1K(16) - STA. 303+50.00



PROJECT	0234-076-323	SHEET NO.	1K(13)
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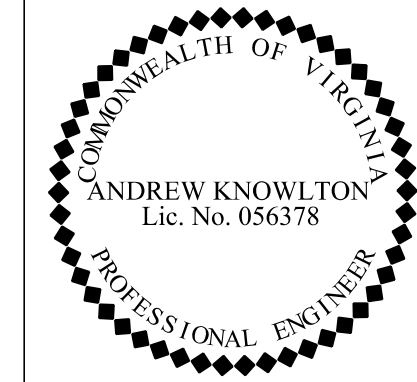
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, Apr 1, 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



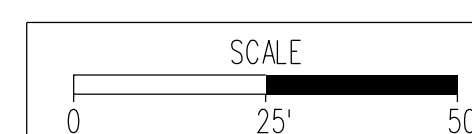
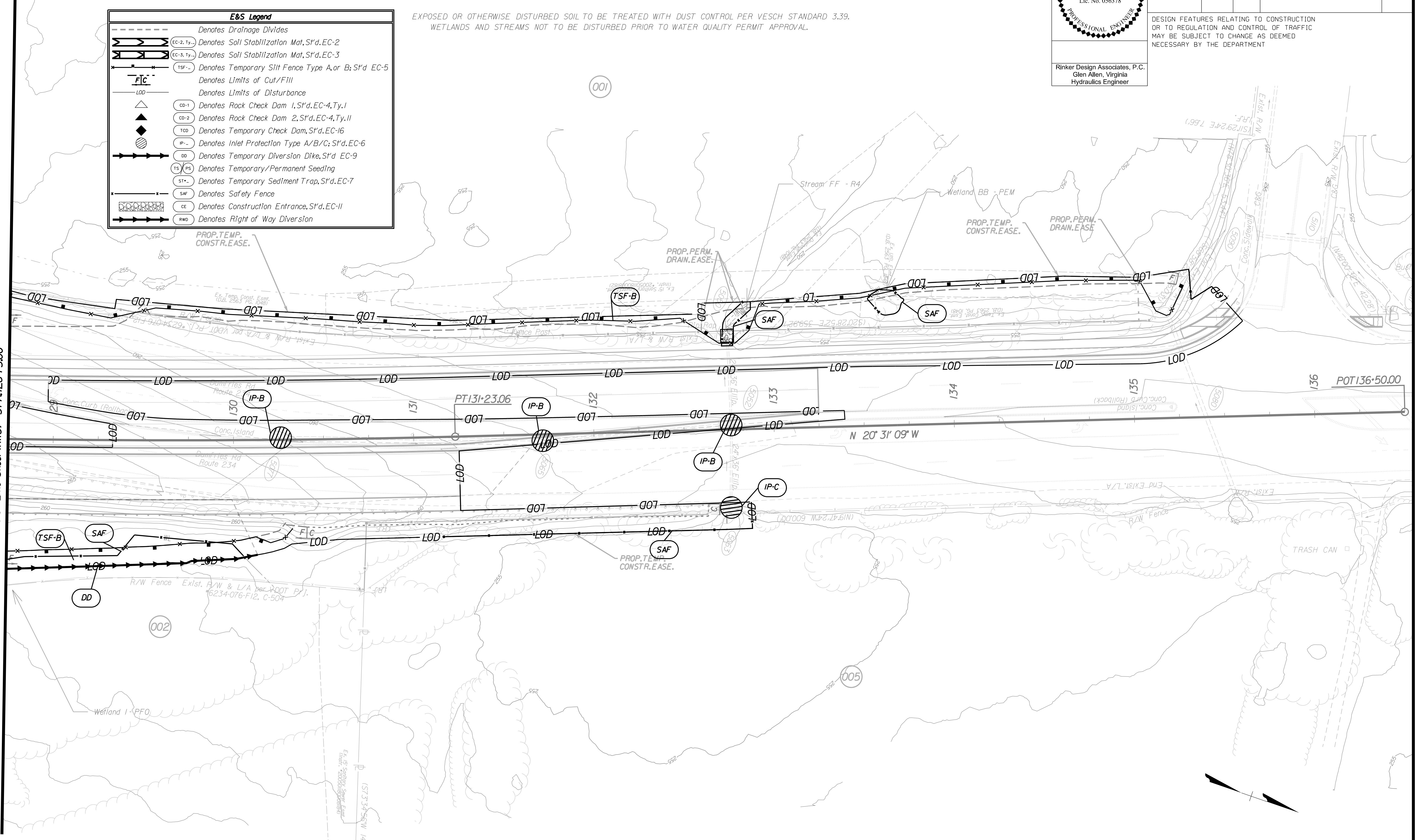
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1K(14)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S1'd, EC-2
	Denotes Soil Stabilization Mat, S1'd, EC-3
	Denotes Temporary Slit Fence Type A or B, S1'd, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S1'd, EC-4, Ty. I
	Denotes Rock Check Dam 2, S1'd, EC-4, Ty. II
	Denotes Temporary Check Dam, S1'd, EC-16
	Denotes Inlet Protection Type A/B/C, S1'd, EC-6
	Denotes Temporary Diversion Dike, S1'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S1'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S1'd, EC-11
	Denotes Right of Way Diversion

Match Line Sheet 1K(13) - STA. 128+75.00



PROJECT	0234-076-323	SHEET NO.	1K(14)
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11/1/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

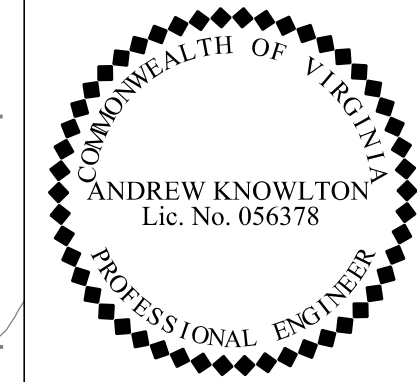
LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39. WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

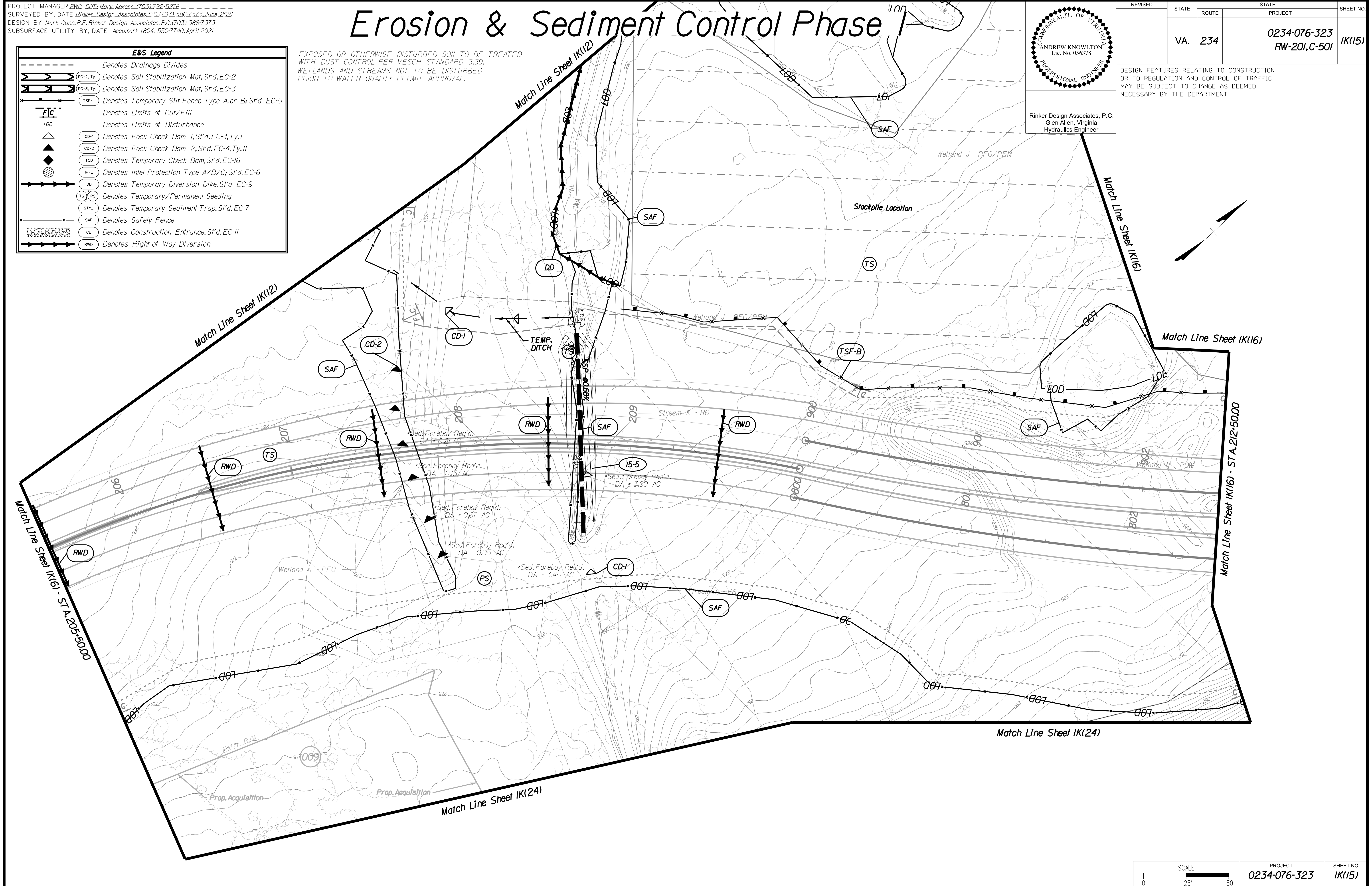
E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A or B, S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C, S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	1K(15)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1K(15)
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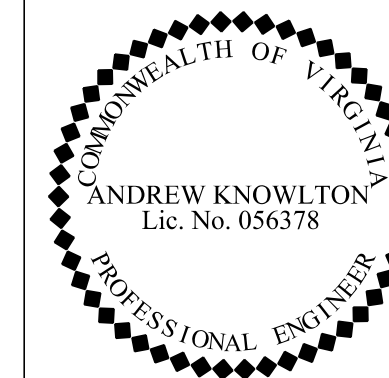
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

PROJECT MANAGER BWC, DOT, Mary, Askers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Acumark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



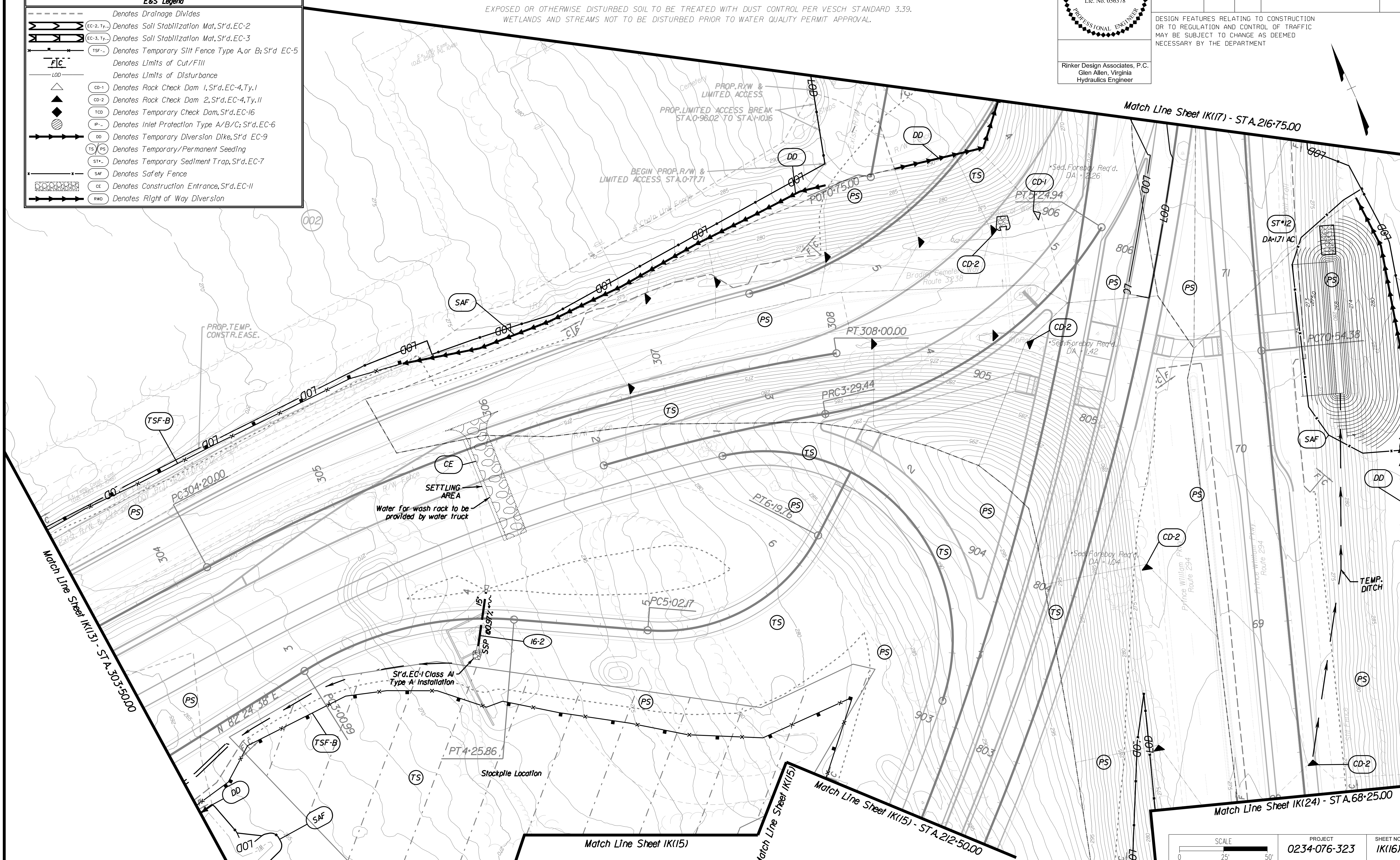
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IK(16)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A, or B; S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion



11/5/2021

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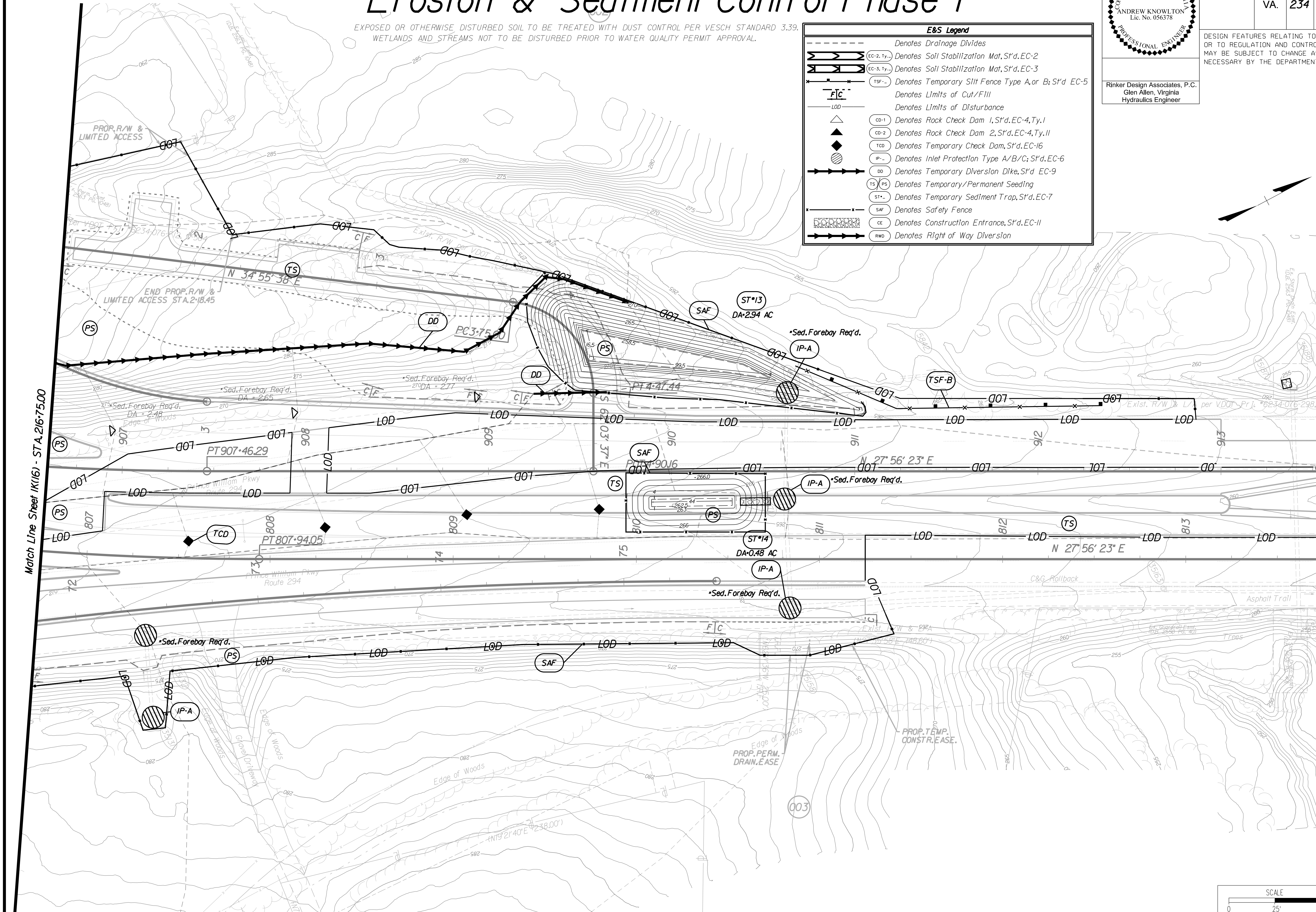
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. IK(16)
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PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



E&S Legend

- Denotes Drainage Divides
- EC-2, Ty- Denotes Soil Stabilization Mat, S't'd. EC-2
- EC-3, Ty- Denotes Soil Stabilization Mat, S't'd. EC-3
- TSF- Denotes Temporary Silt Fence Type A, or B; S't'd. EC-5
- FIC Denotes Limits of Cut/Fill
- LOD Denotes Limits of Disturbance
- CD-1 Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
- CD-2 Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
- TCD Denotes Temporary Check Dam, S't'd. EC-16
- IP- Denotes Inlet Protection Type A/B/C; S't'd. EC-6
- DD Denotes Temporary Diversion Dike, S't'd. EC-9
- TS/PS Denotes Temporary/Permanent Seeding
- ST- Denotes Temporary Sediment Trap, S't'd. EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S't'd. EC-11
- RWD Denotes Right of Way Diversion

COMMONWEALTH OF VIRGINIA
ANDREW KNOWLTON
Lic. No. 056378
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(17)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Match Line Sheet IK(16) - STA. 216+75.00

Match Line Sheet IK(18) - STA. 223+75.00

SCALE 0 25 50'

PROJECT 0234-076-323

SHEET NO. IK(17)

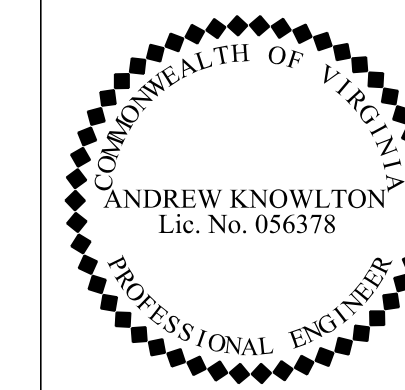
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PROJECT MANAGER EWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7740, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



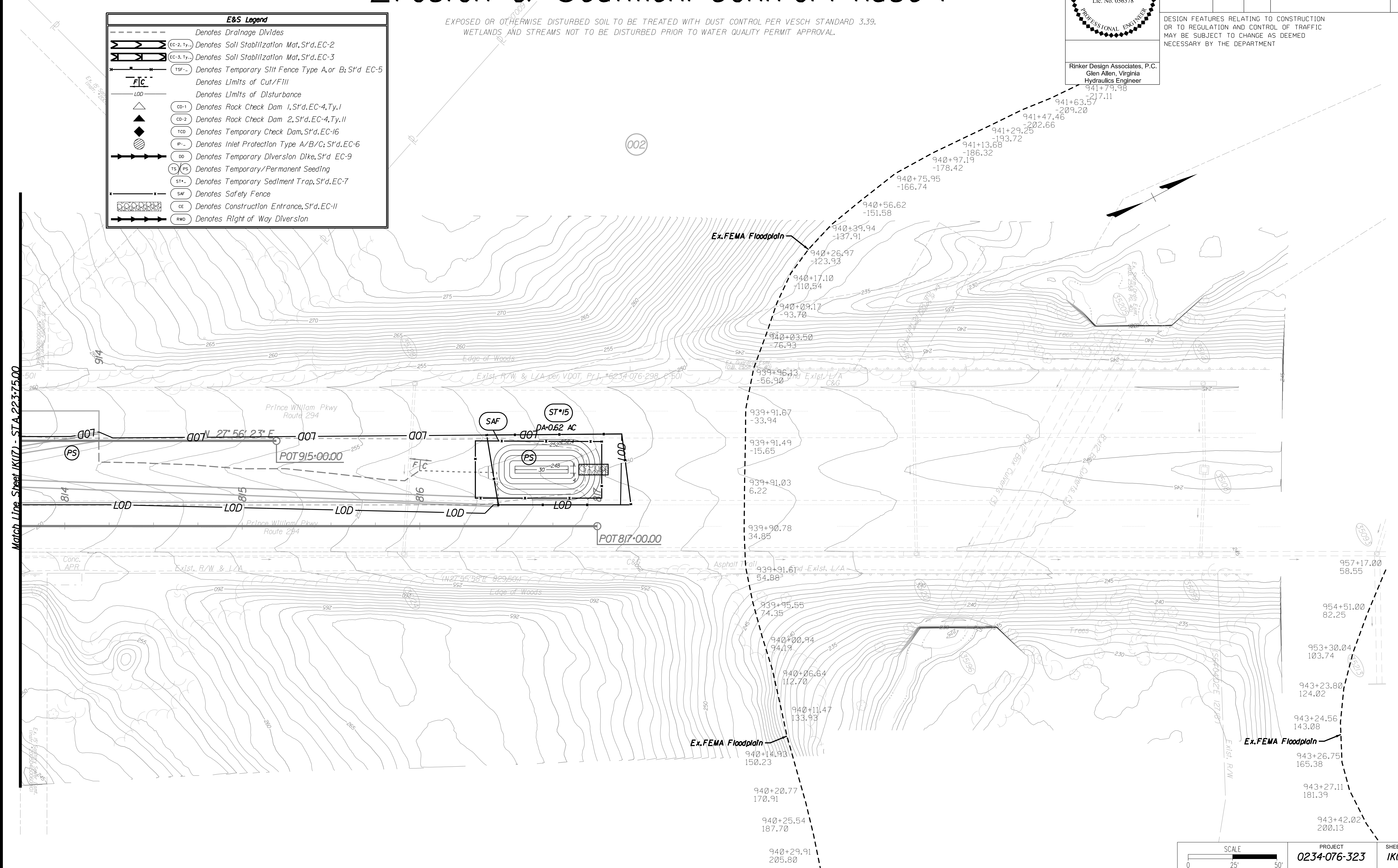
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201.C-501	1K(18)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd, EC-2
	Denotes Soil Stabilization Mat, S'd, EC-3
	Denotes Temporary Silt Fence Type A, or B; S'd, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd, EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd, EC-4, Ty. II
	Denotes Temporary Check Dam, S'd, EC-16
	Denotes Inlet Protection Type A/B/C; S'd, EC-6
	Denotes Temporary Diversion Dike, S'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd, EC-11
	Denotes Right of Way Diversion

Match Line Sheet IK17 - STA 223+75.00



SCALE 0 25' 50'	PROJECT 0234-076-323	SHEET NO. 1K(18)
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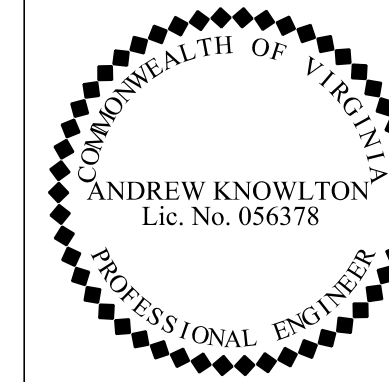
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PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

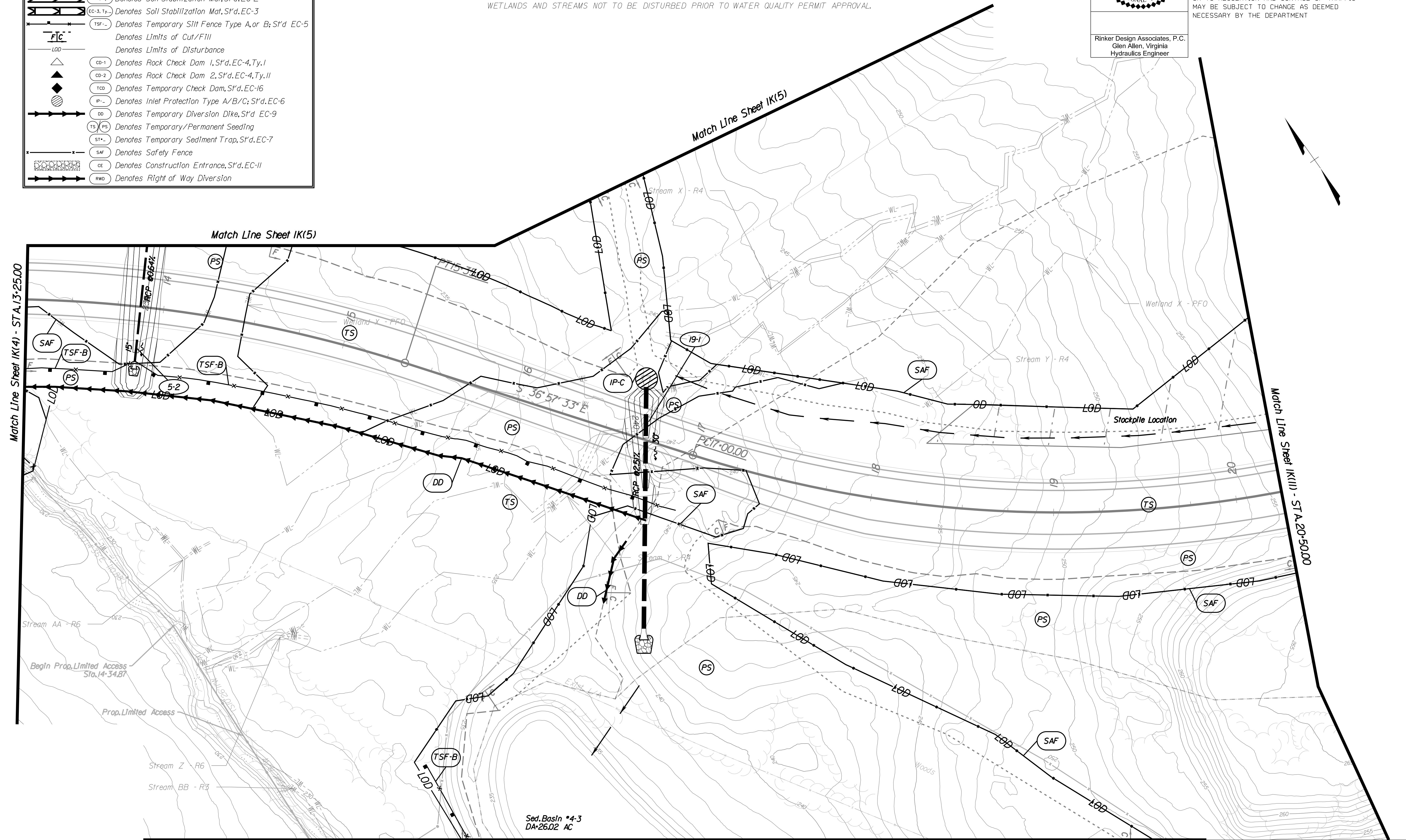


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IK(19)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A, or B; S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion



SCALE	PROJECT	SHEET NO.
0 25 50'	0234-076-323	IK(19)

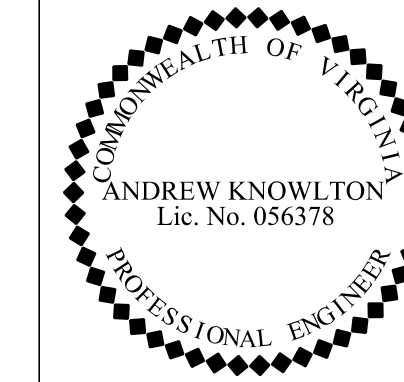
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

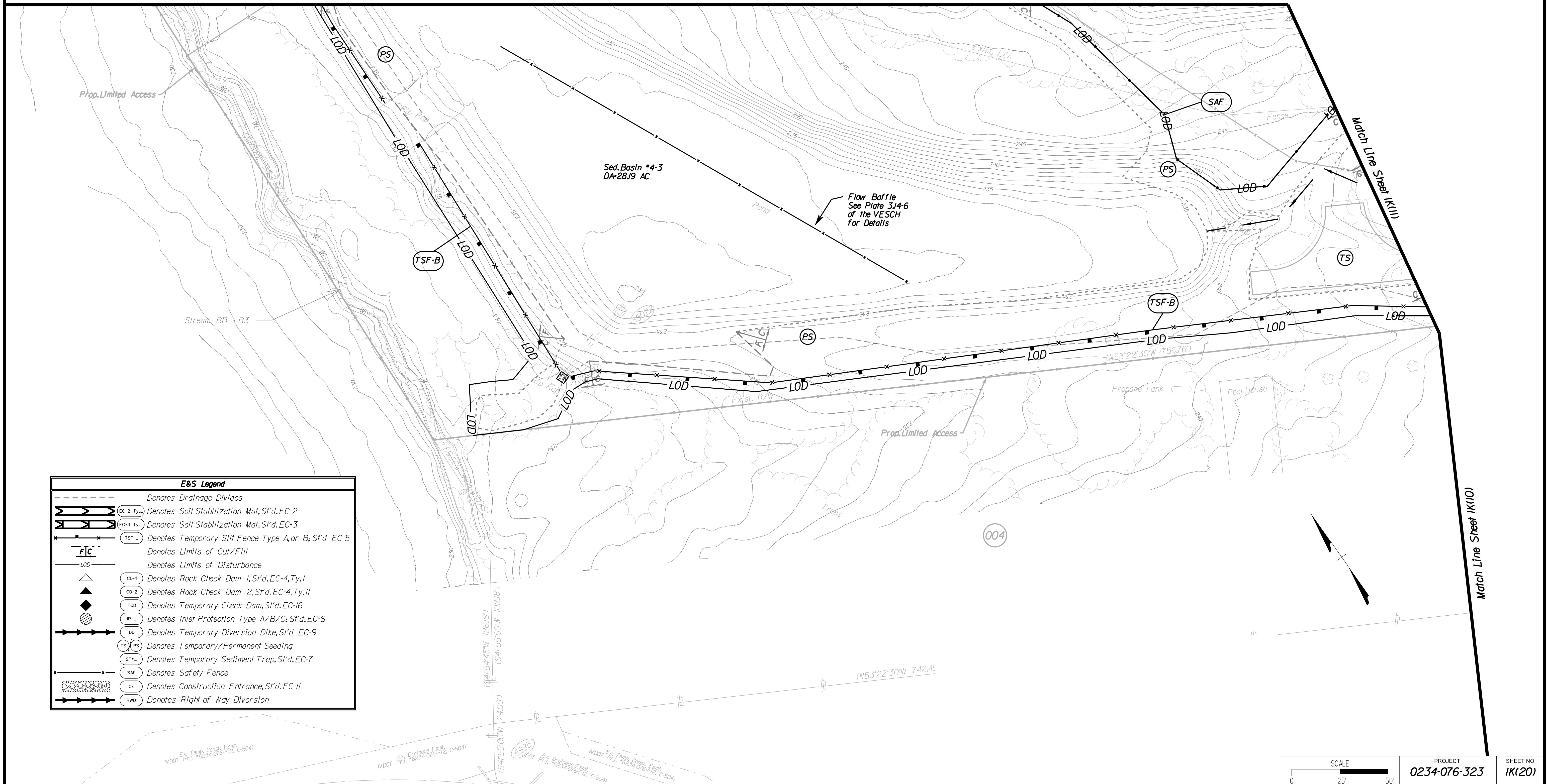


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	1K(20)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Match Line Sheet 1K(19)



	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd. EC-2
	Denotes Soil Stabilization Mat, S'd. EC-3
	Denotes Temporary Silt Fence Type A, or B; S'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S'd. EC-16
	Denotes Inlet Protection Type A/B/C; S'd. EC-6
	Denotes Temporary Diversion Dike, S'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd. EC-11
	Denotes Right of Way Diversion

SCALE 0 25 50'

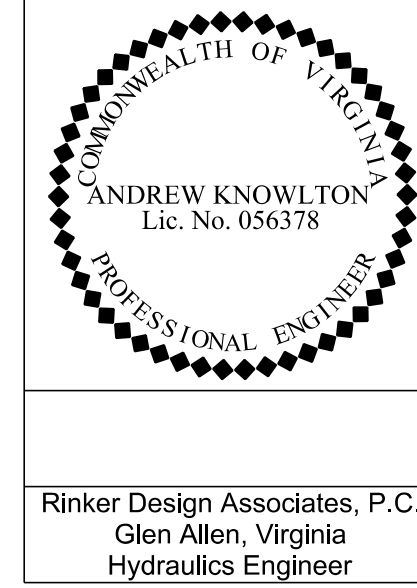
PROJECT 0234-076-323 SHEET NO. 1K(20)

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

Erosion & Sediment Control Phase 1

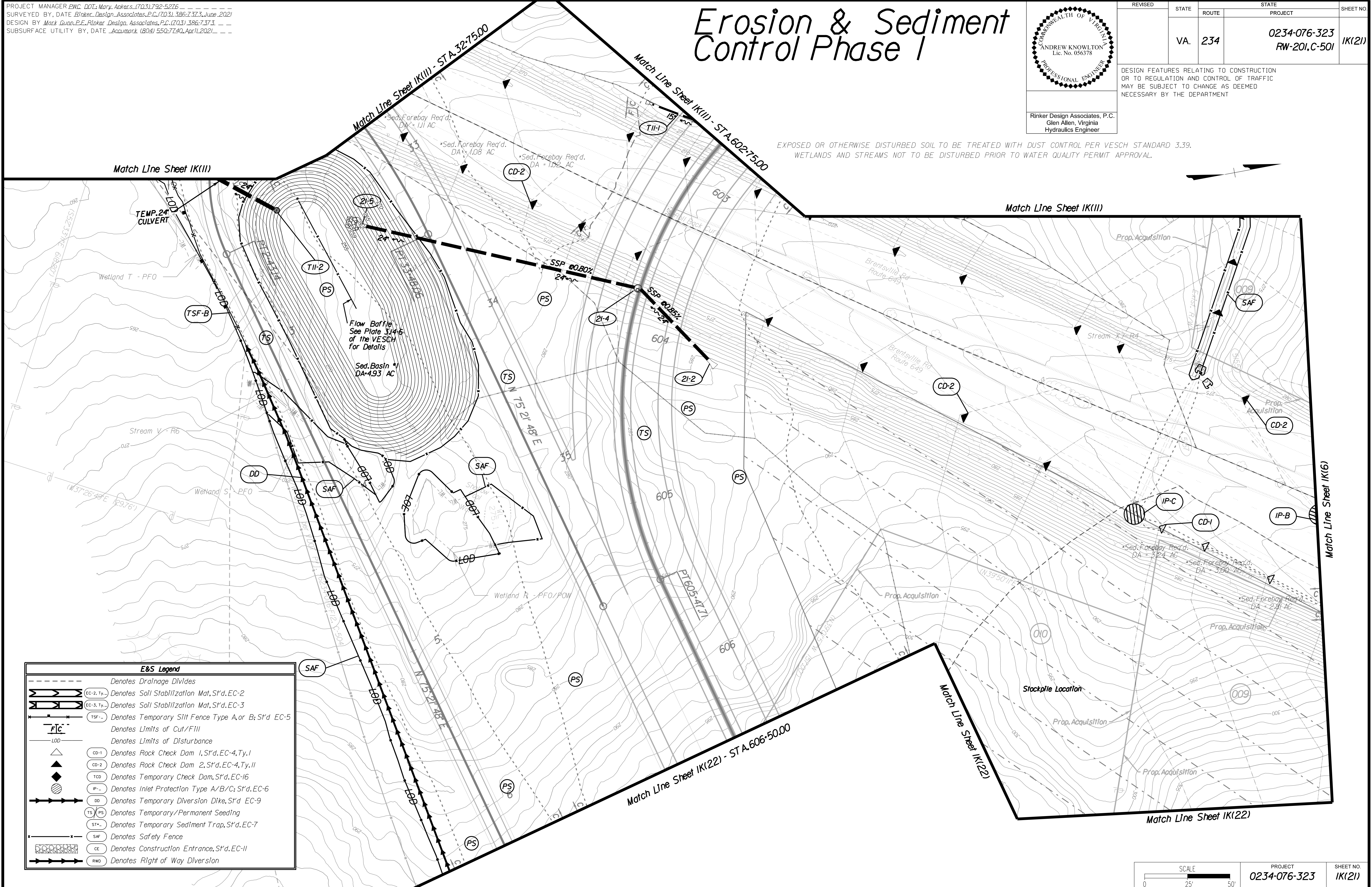


REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1K(21)

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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E&S Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd. EC-2
	Denotes Soil Stabilization Mat, S'd. EC-3
	Denotes Temporary Silt Fence Type A or B; S'd. EC-5
	Denotes Limits of Cut/Fill
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	Denotes Rock Check Dam 1, S'd. EC-4, Ty. I
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	Denotes Temporary Check Dam, S'd. EC-16
	Denotes Inlet Protection Type A/B/C; S'd. EC-6
	Denotes Temporary Diversion Dike, S'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd. EC-11
	Denotes Right of Way Diversion

SCALE	PROJECT	SHEET NO.
0 25 50	0234-076-323	1K(21)

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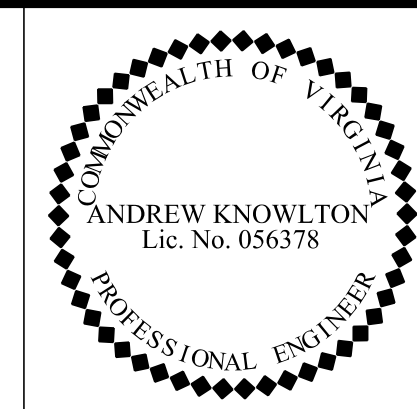
11/1/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER *BWC DOT: Mary Ankers* (703) 792-5276
SURVEYED BY, DATE *Rinker Design Associates, P.C.* (703) 386-7373, June 2021
DESIGN BY *Mark Gunn, P.E., Rinker Design Associates, P.C.* (703) 386-7373
SUBSURFACE UTILITY BY, DATE *Accurmark* (804) 550-7740, April 2021

Erosion & Sediment Control Phase I



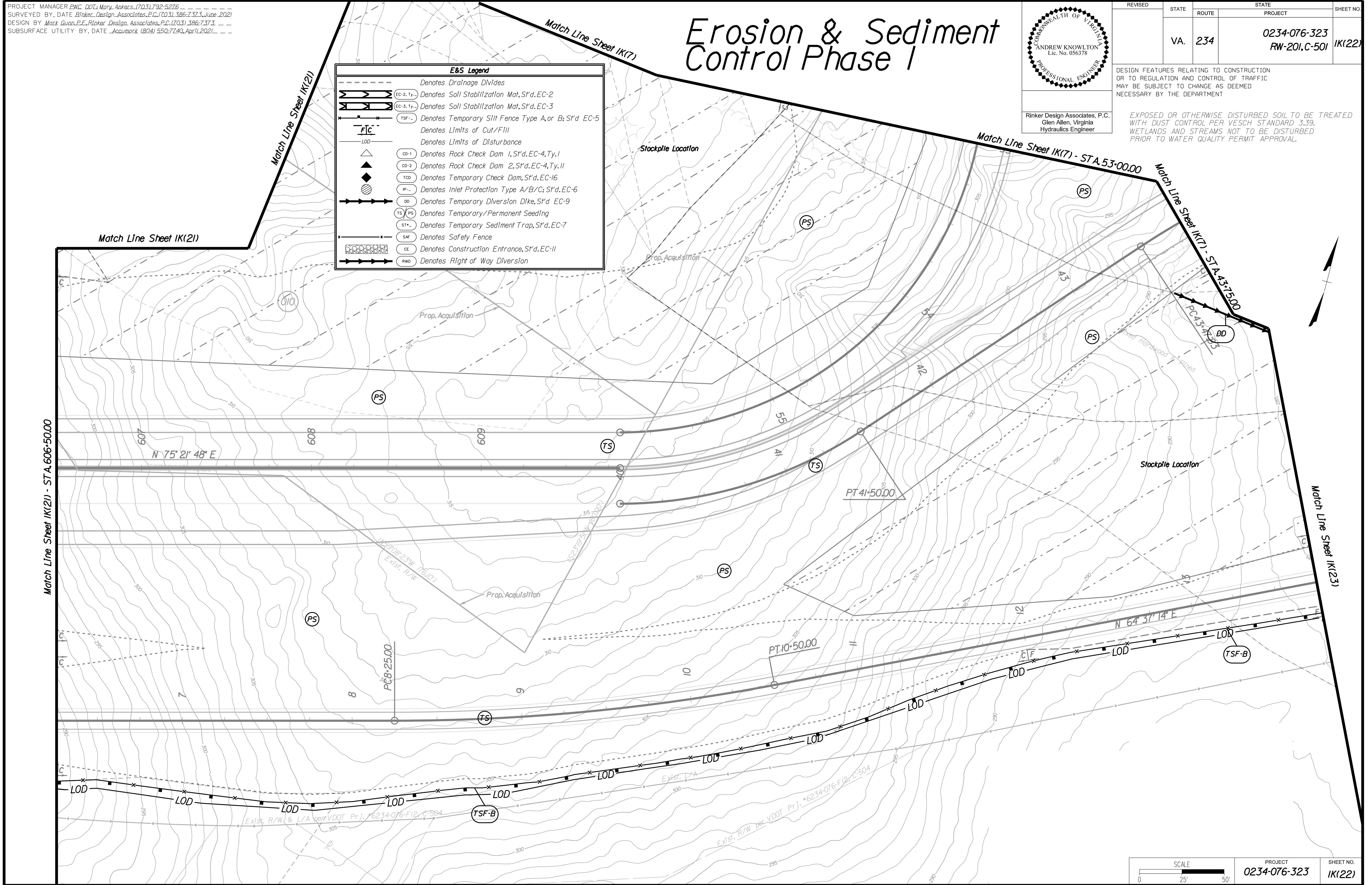
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201.C-501	1K(22)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39. WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd.EC-2
	Denotes Soil Stabilization Mat, S't'd.EC-3
	Denotes Temporary Silt Fence Type A or B; S't'd EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd.EC-4.Ty.I
	Denotes Rock Check Dam 2, S't'd.EC-4.Ty.II
	Denotes Temporary Check Dam, S't'd.EC-16
	Denotes Inlet Protection Type A/B/C; S't'd.EC-6
	Denotes Temporary Diversion Dike, S't'd EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd.EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd.EC-11
	Denotes Right of Way Diversion



SCALE 0 25' 50'	PROJECT 0234-076-323	SHEET NO. 1K(22)
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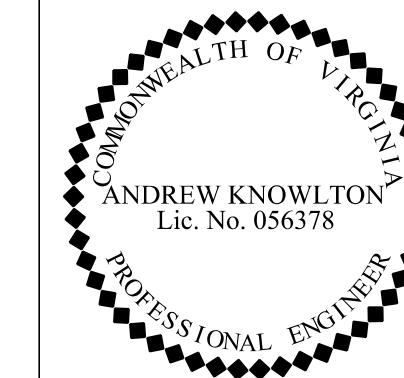
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Akers, (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

Erosion & Sediment Control Phase I

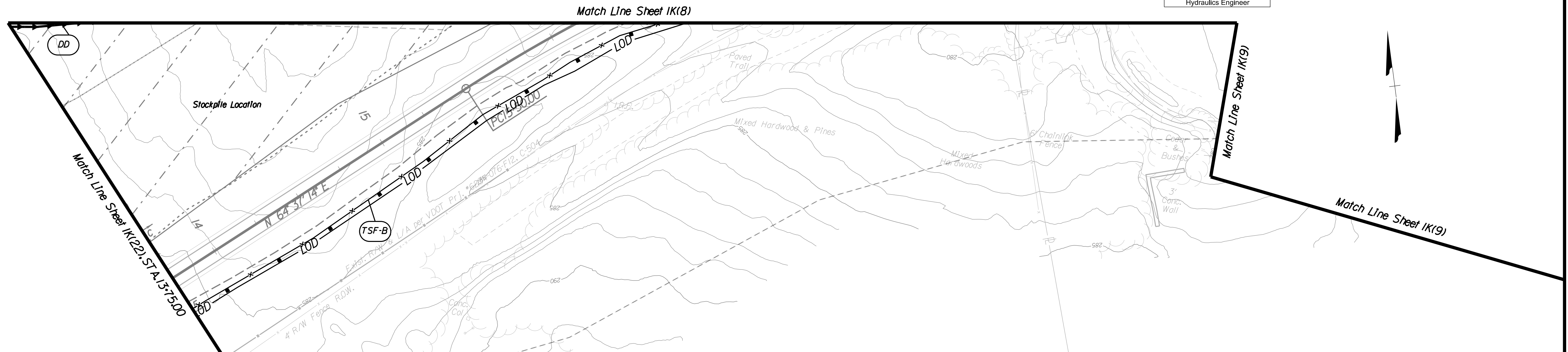
EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
 WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



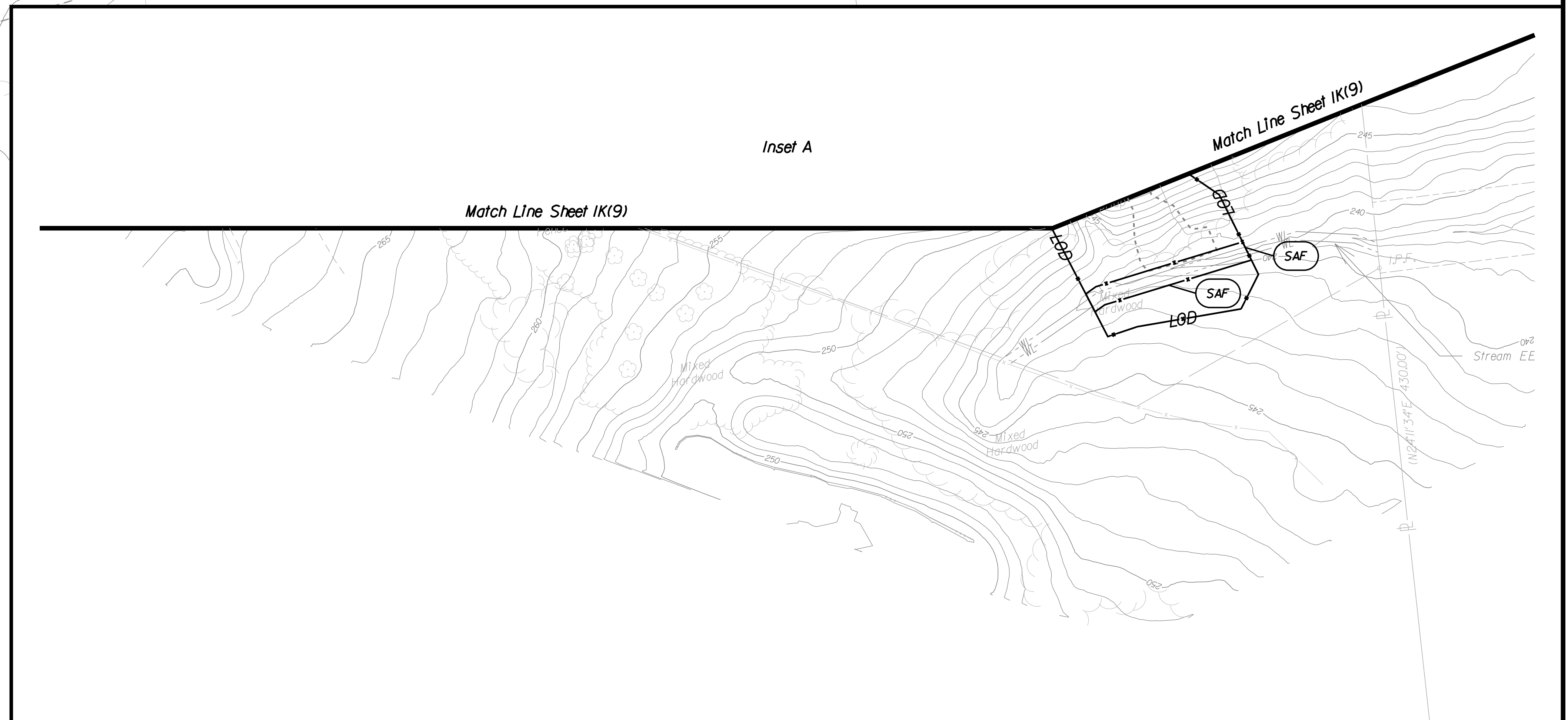
Rinker Design Associates, P.C.
 Glen Allen, Virginia
 Hydraulics Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1K(23)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't.d. EC-2
	Denotes Soil Stabilization Mat, S't.d. EC-3
	Denotes Temporary Silt Fence Type A or B; S't.d. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't.d. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't.d. EC-4, Ty. II
	Denotes Temporary Check Dam, S't.d. EC-16
	Denotes Inlet Protection Type A/B/C; S't.d. EC-6
	Denotes Temporary Diversion Dike, S't.d. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't.d. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't.d. EC-11
	Denotes Right of Way Diversion



SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1K(23)
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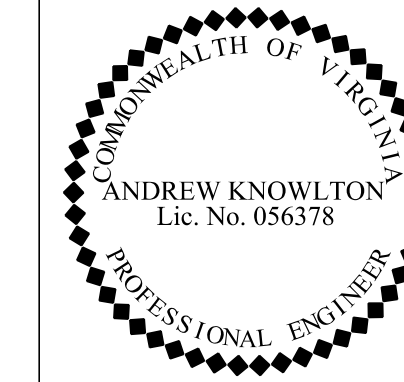
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

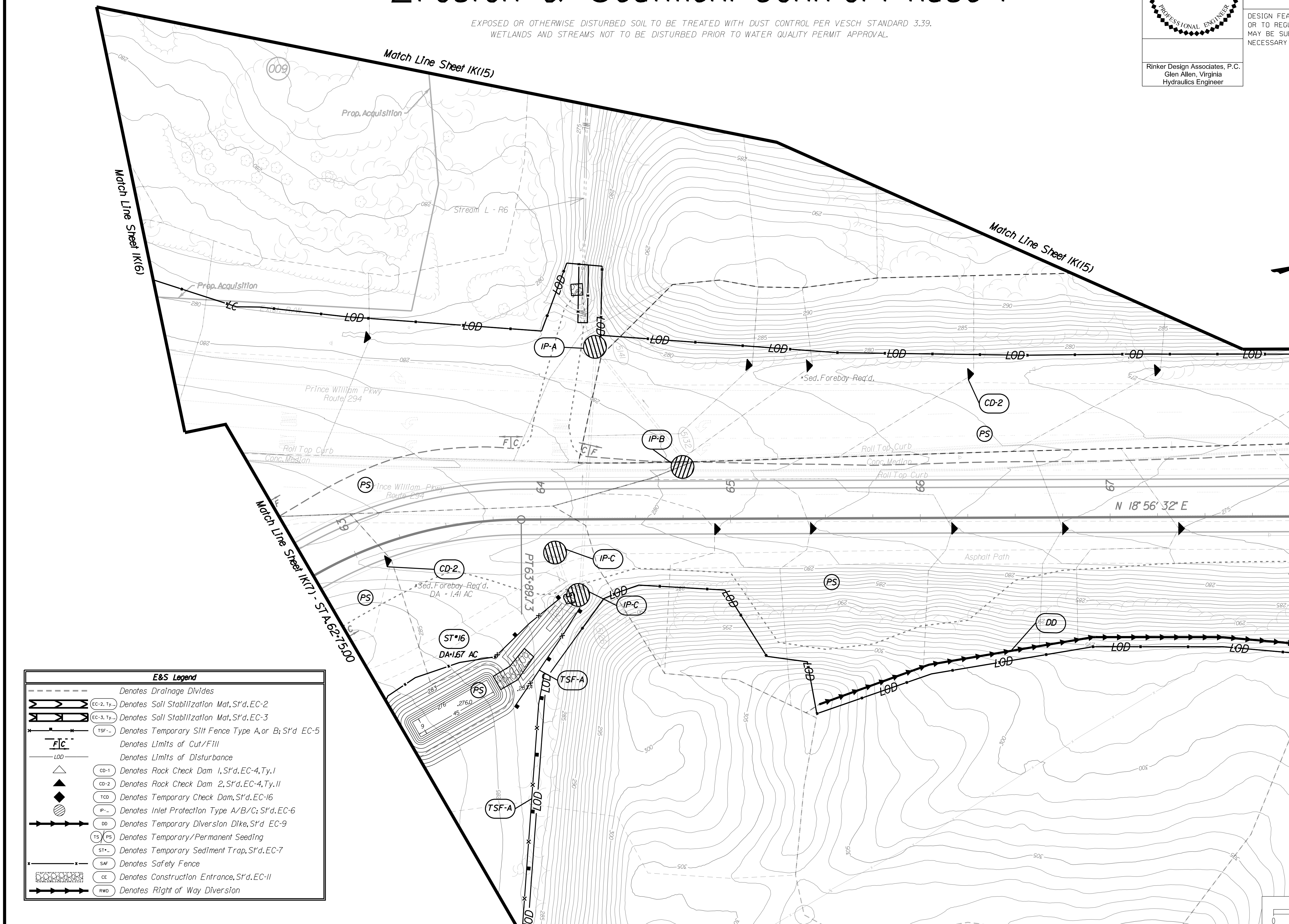
EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1K(24)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd, EC-2
	Denotes Soil Stabilization Mat, S'd, EC-3
	Denotes Temporary Silt Fence Type A, or B; S'd, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd, EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd, EC-4, Ty. II
	Denotes Temporary Check Dam, S'd, EC-16
	Denotes Inlet Protection Type A/B/C; S'd, EC-6
	Denotes Temporary Diversion Dike, S'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd, EC-11
	Denotes Right of Way Diversion



PROJECT	SHEET NO.
0234-076-323	1K(24)

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase I

EXPOSED OR OTHERWISE DISTURBED SOIL TO BE TREATED WITH DUST CONTROL PER VESCH STANDARD 3.39.
WETLANDS AND STREAMS NOT TO BE DISTURBED PRIOR TO WATER QUALITY PERMIT APPROVAL.

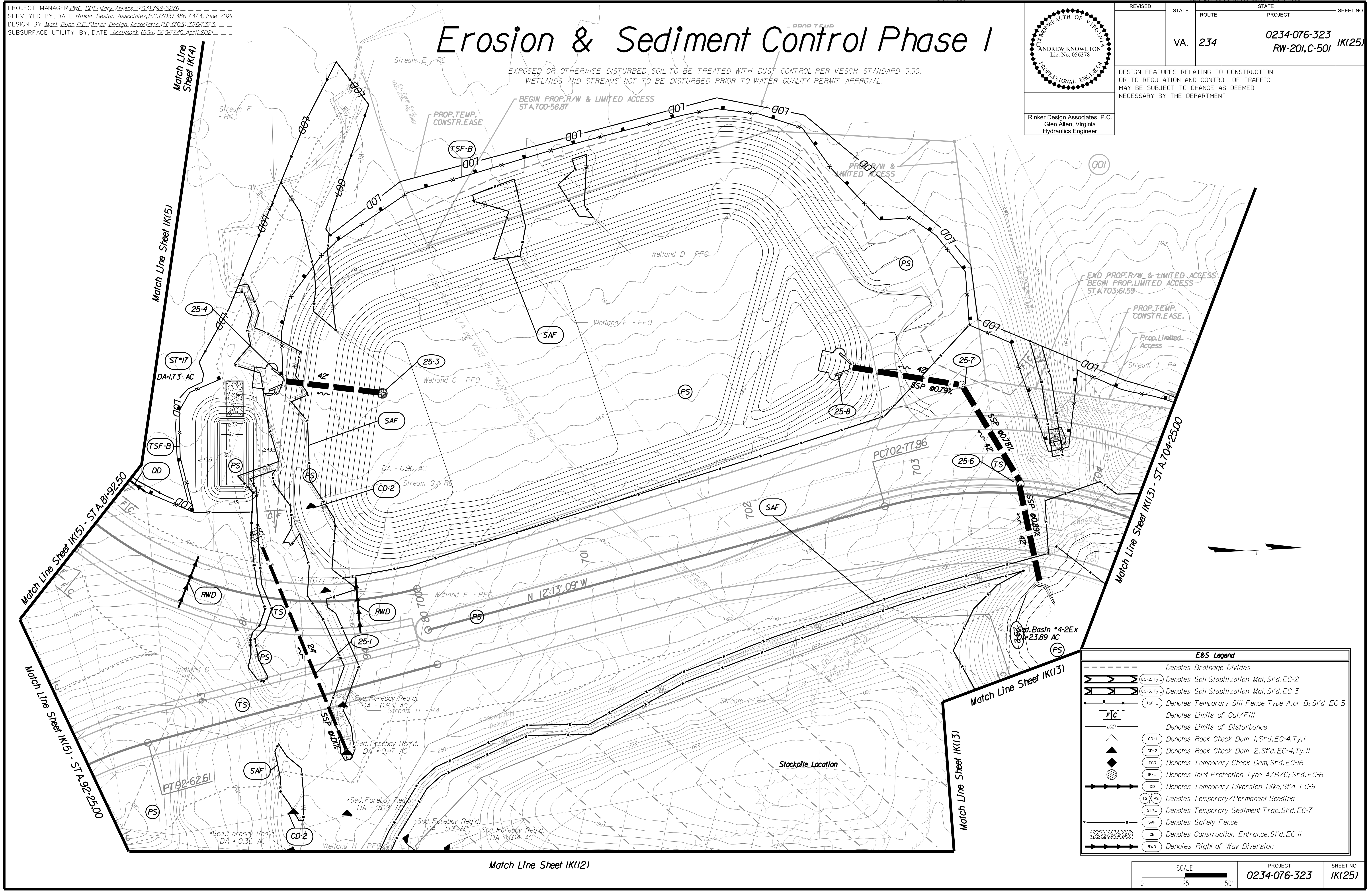
REVISED

STATE	ROUTE	STATE	PROJECT	SHEET NO.
VA.	234		0234-076-323 RW-201,C-501	1K(25)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Professional Engineer
ANDREW KNOWLTON
Lic. No. 056378

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer



E&S Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A or B; S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty.1
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty.11
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion

SCALE 0 25 50'

PROJECT 0234-076-323

SHEET NO. 1K(25)

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11/5/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

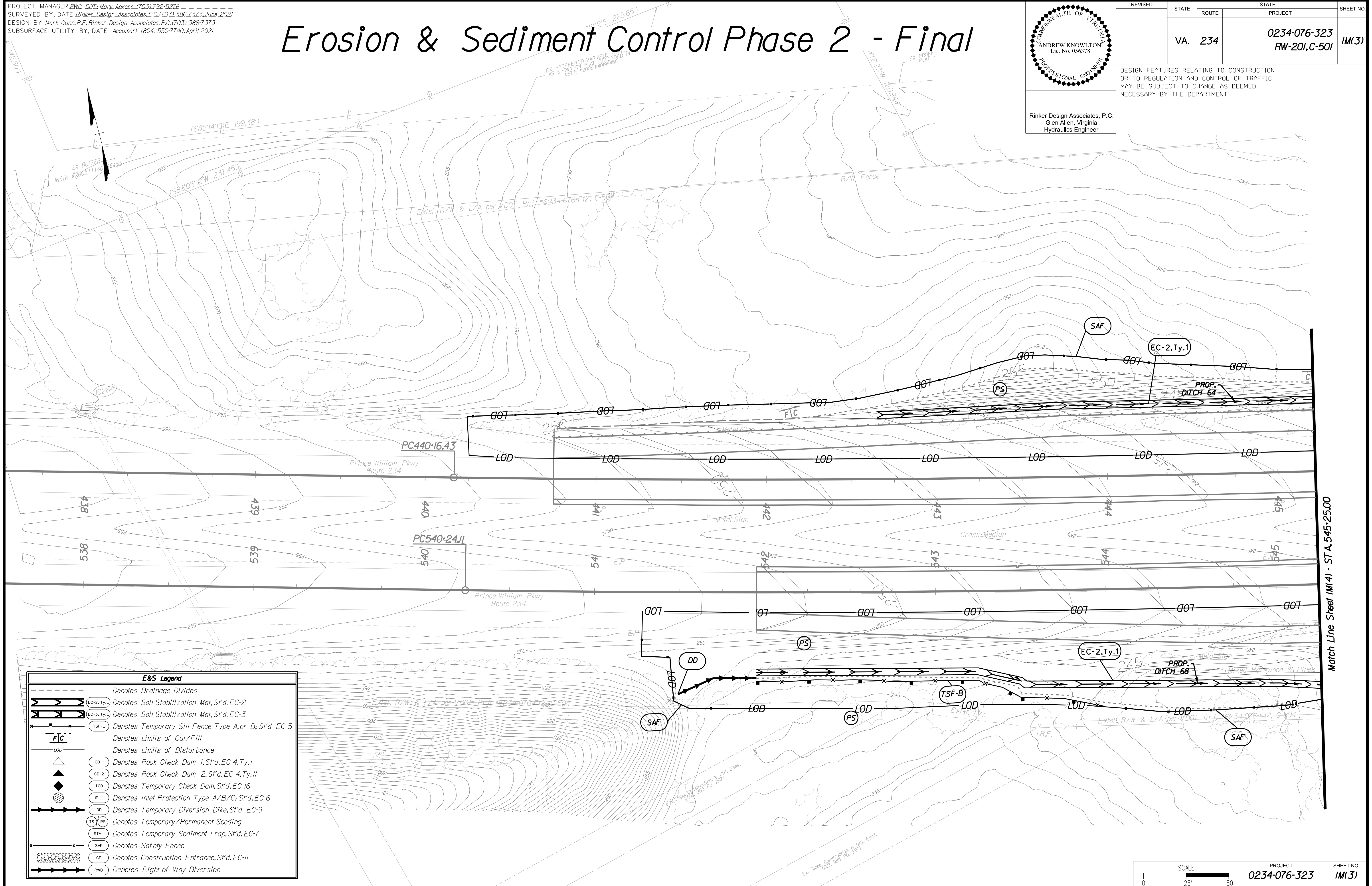
PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IM(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd EC-2
	Denotes Soil Stabilization Mat, S'd EC-3
	Denotes Temporary Silt Fence Type A or B; S'd EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd EC-4, Ty. II
	Denotes Temporary Check Dam, S'd EC-16
	Denotes Inlet Protection Type A/B/C; S'd EC-6
	Denotes Temporary Diversion Dike, S'd EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd EC-11
	Denotes Right of Way Diversion

SCALE 0 25 50'

PROJECT 0234-076-323 SHEET NO. IM(3)

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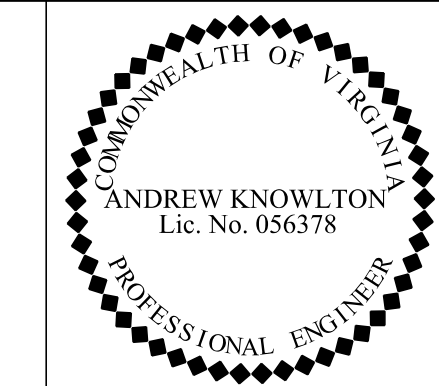
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

Match Line Street IM(4) - STA. 545+25.00

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final



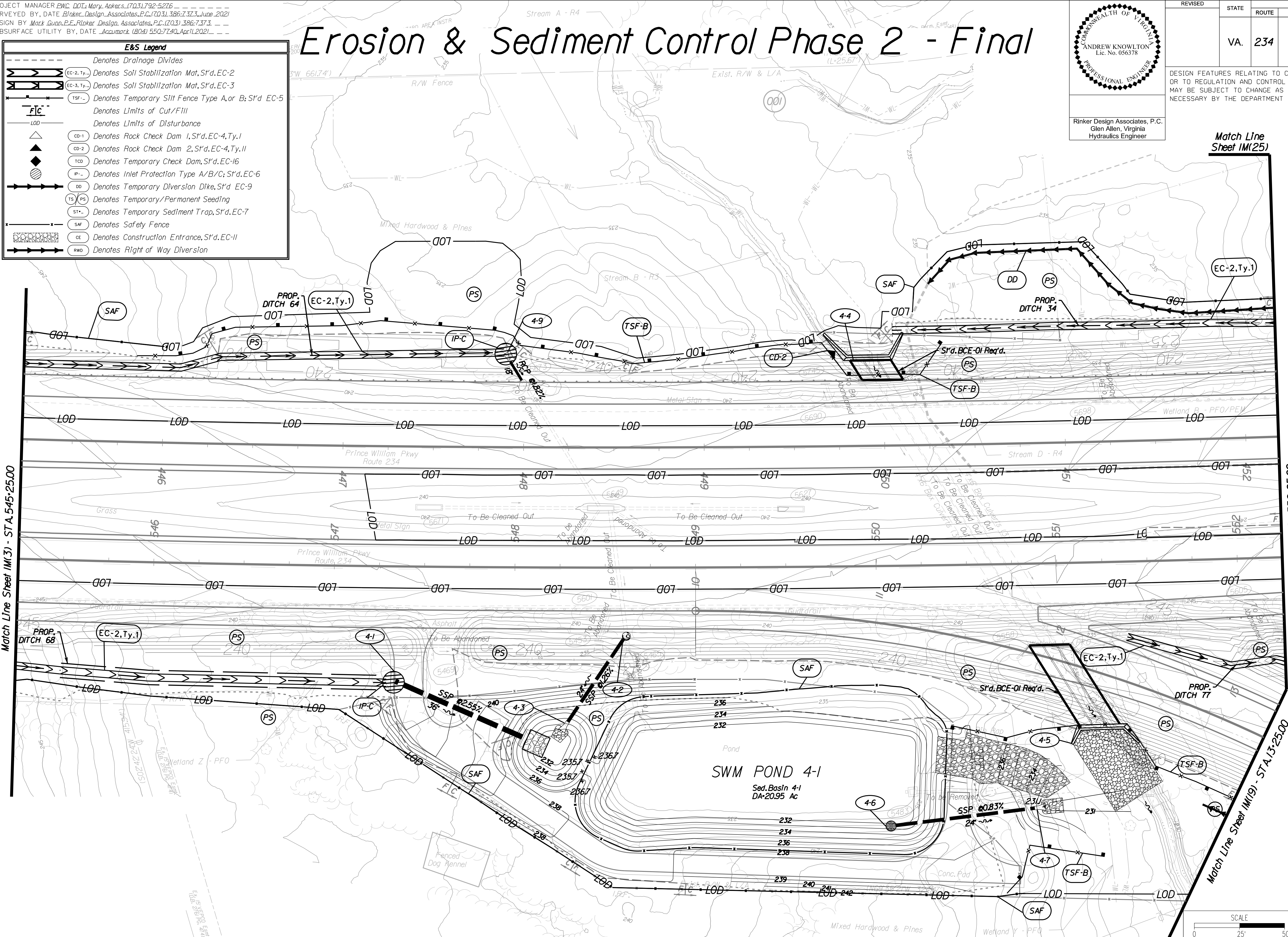
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IM(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend

- Denotes Drainage Divides
- EC-2, Ty.1 Denotes Soil Stabilization Mat, S't.d. EC-2
- EC-3, Ty.1 Denotes Soil Stabilization Mat, S't.d. EC-3
- TSF-A Denotes Temporary Silt Fence Type A or B; S't.d. EC-5
- Denotes Limits of Cut/Fill
- LOD Denotes Limits of Disturbance
- CD-1 Denotes Rock Check Dam 1, S't.d. EC-4, Ty.1
- CD-2 Denotes Rock Check Dam 2, S't.d. EC-4, Ty.11
- TCD Denotes Temporary Check Dam, S't.d. EC-16
- IP-C Denotes Inlet Protection Type A/B/C; S't.d. EC-6
- DD Denotes Temporary Diversion Dike, S't.d. EC-9
- TS PS Denotes Temporary/Permanent Seeding
- ST-1 Denotes Temporary Sediment Trap, S't.d. EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S't.d. EC-11
- RWD Denotes Right of Way Diversion



Match Line Sheet IM(3) - STA. 545+25.00

Match Line Sheet IM(5) - STA. 552+25.00

Match Line Sheet IM(9) - STA. J3+25.00

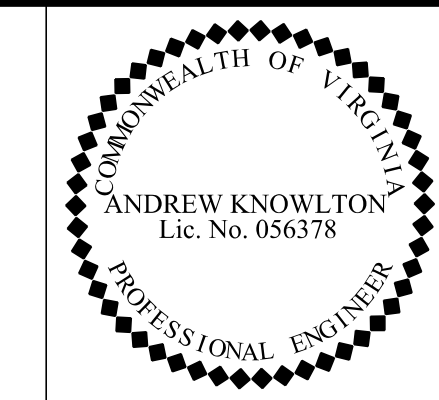
SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. IM(4)
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PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

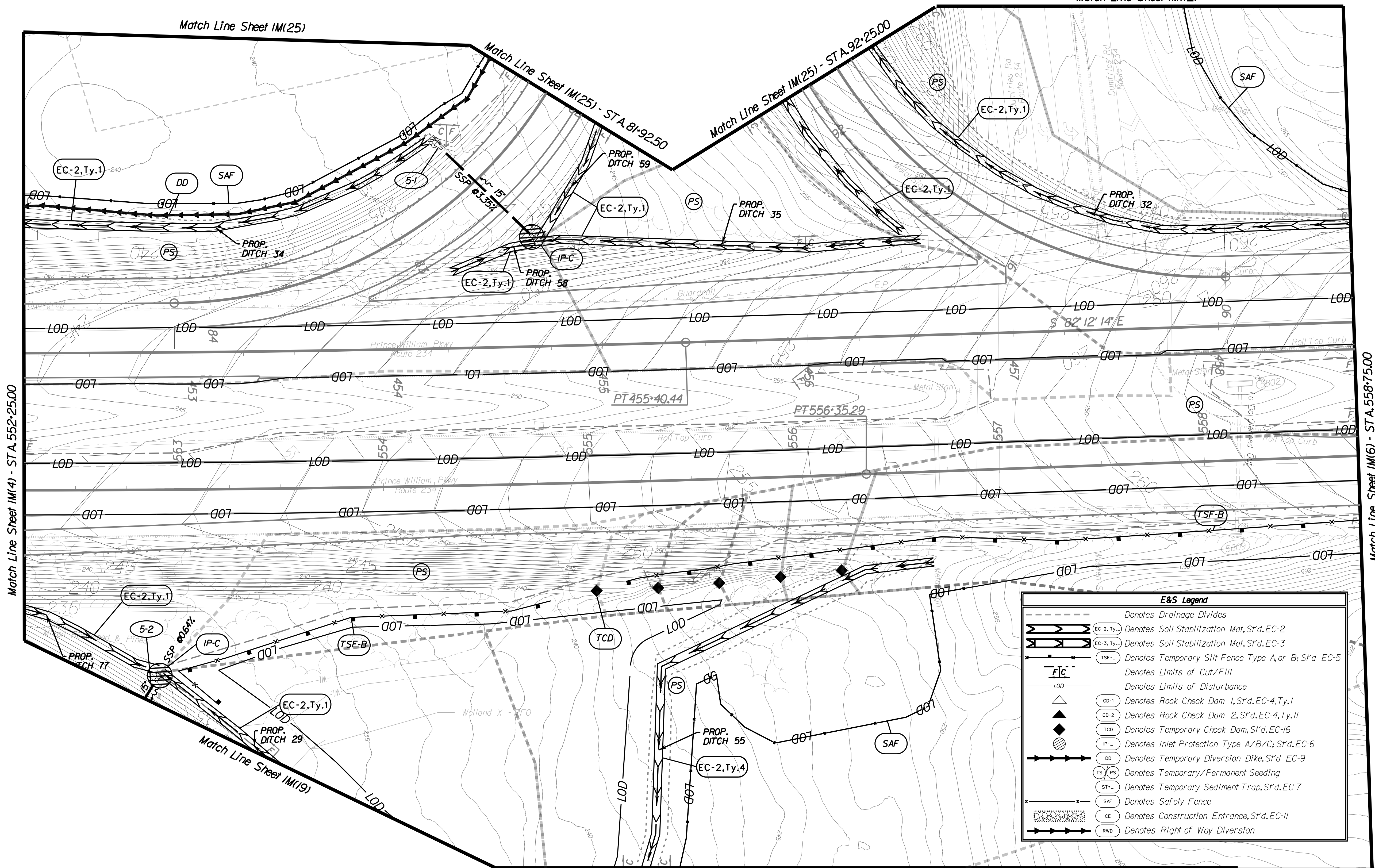
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IM(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A or B; S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion

Match Line Sheet IM(4) - STA. 552-25.00

Match Line Sheet IM(25)

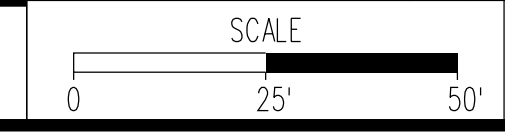
Match Line Sheet IM(25) - STA. 81-92.50

Match Line Sheet IM(25) - STA. 92-25.00

Match Line Sheet IM(12)

Match Line Sheet IM(19)

Match Line Sheet IM(6) - STA. 558-75.00



PROJECT	SHEET NO.
0234-076-323	IM(5)

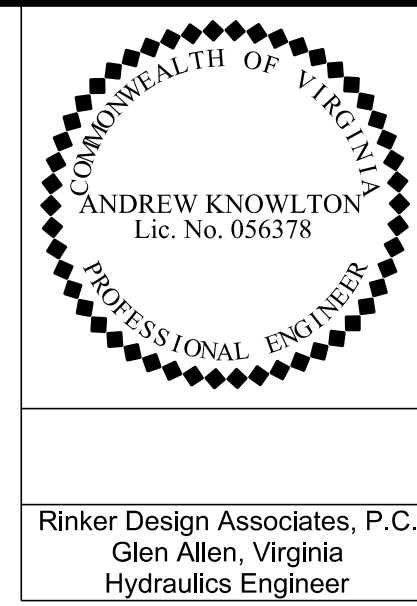
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11/1/2021

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Gunn, P.E., Rinker Design Associates, P.C. (703) 396-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7740, April 2021

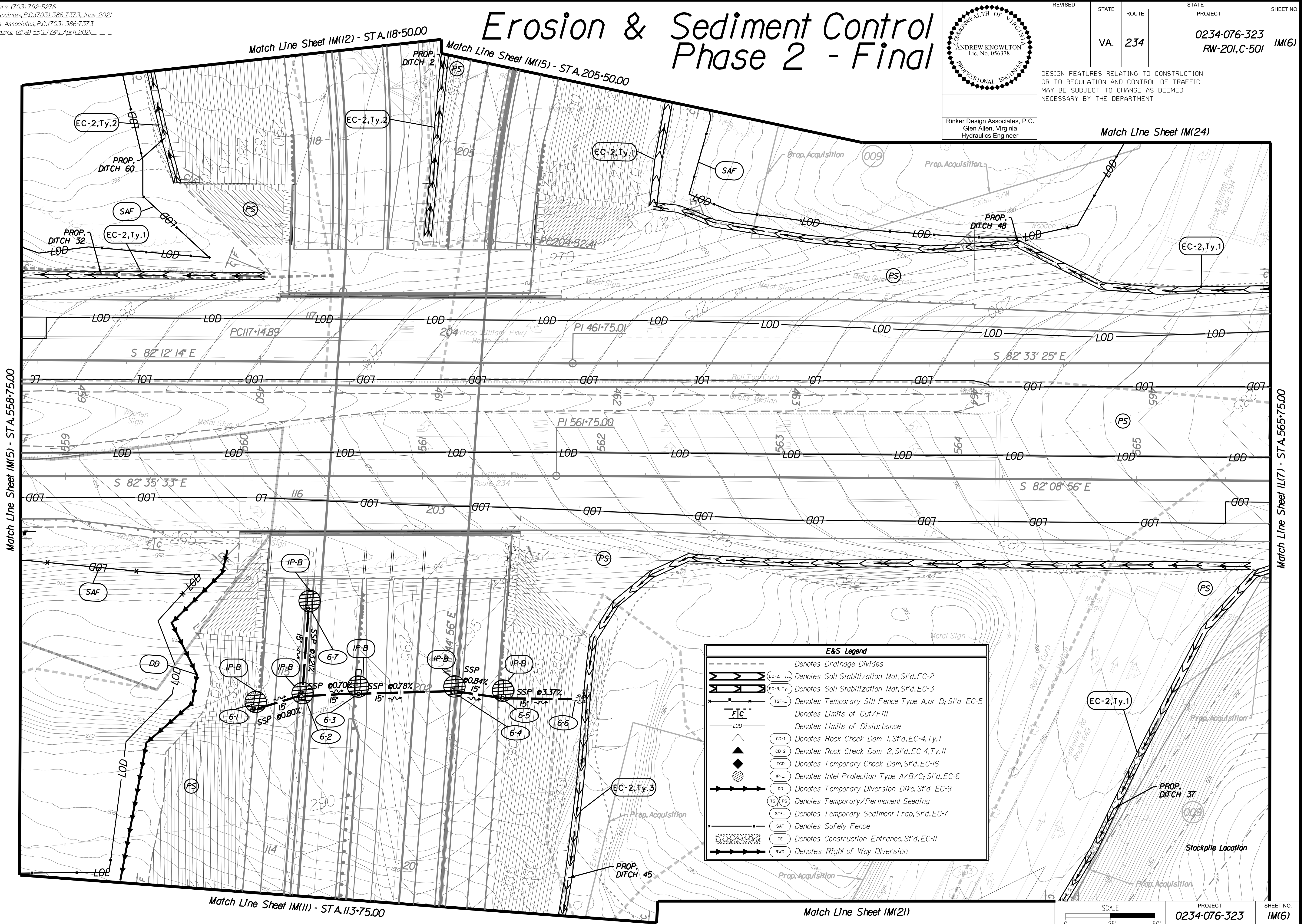
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201.C-501	IM(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd. EC-2
	Denotes Soil Stabilization Mat, S'd. EC-3
	Denotes Temporary Silt Fence Type A or B; S'd. EC-5
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S'd. EC-16
	Denotes Inlet Protection Type A/B/C; S'd. EC-6
	Denotes Temporary Diversion Dike, S'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd. EC-11
	Denotes Right of Way Diversion

SCALE	PROJECT	SHEET NO.
0 25' 50'	0234-076-323	IM(6)

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11/1/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

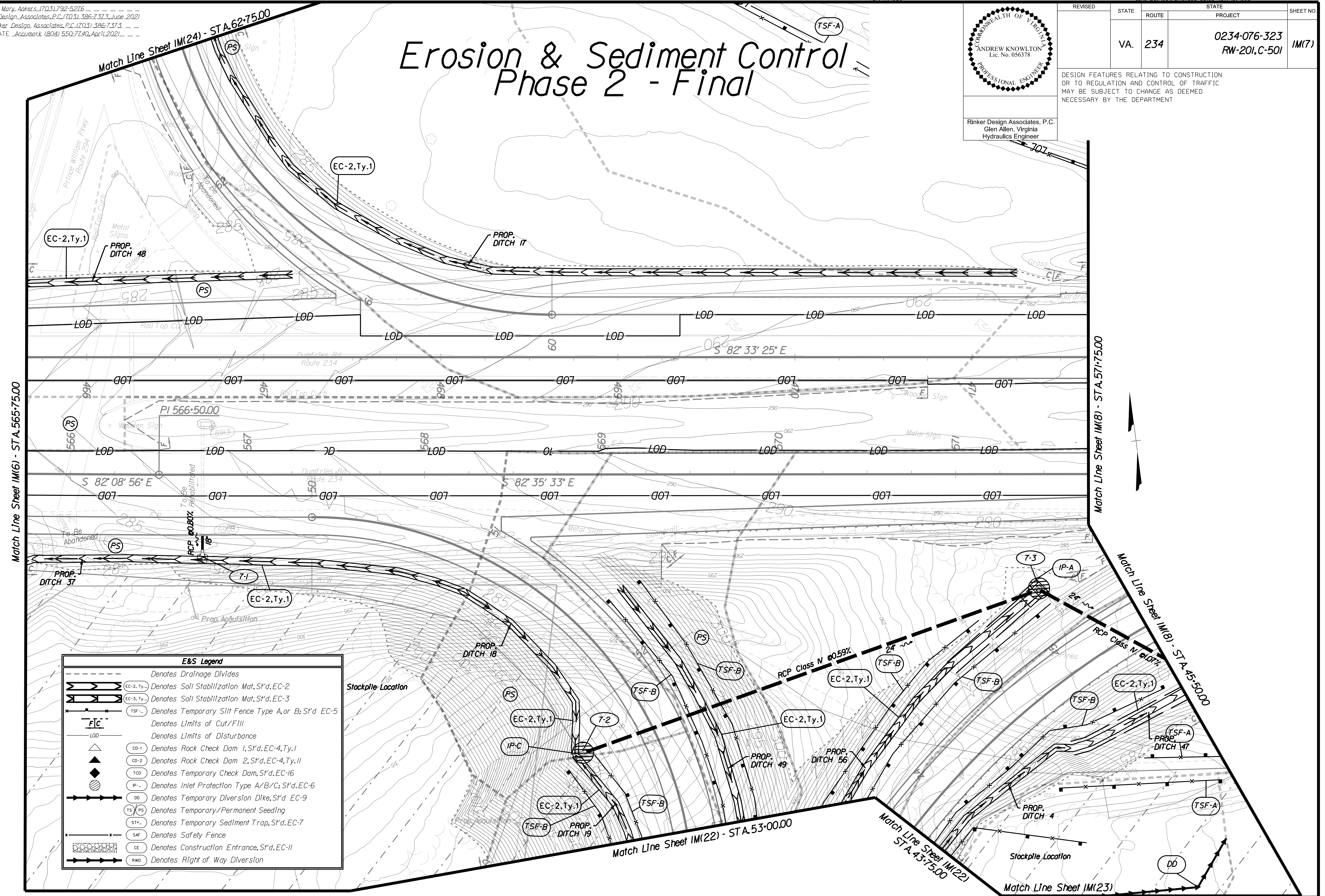
Professional Engineer
 Andrew Knowlton
 Lic. No. 056378

Rinker Design Associates, P.C.
 Glen Allen, Virginia
 Hydraulics Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IM(7)

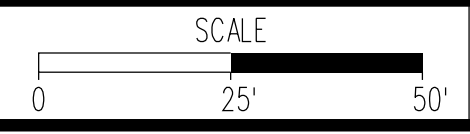
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Erosion & Sediment Control Phase 2 - Final



	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
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	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty.1
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty.11
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion

Match Line Sheet IM(22)



PROJECT 0234-076-323
 SHEET NO. IM(7)

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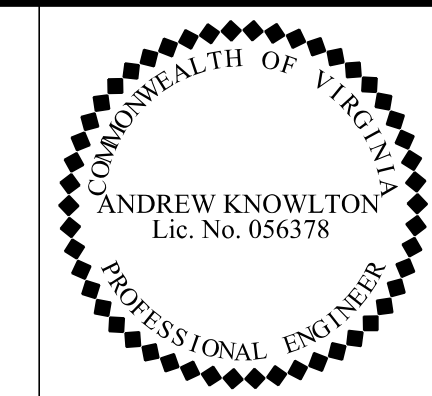
LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

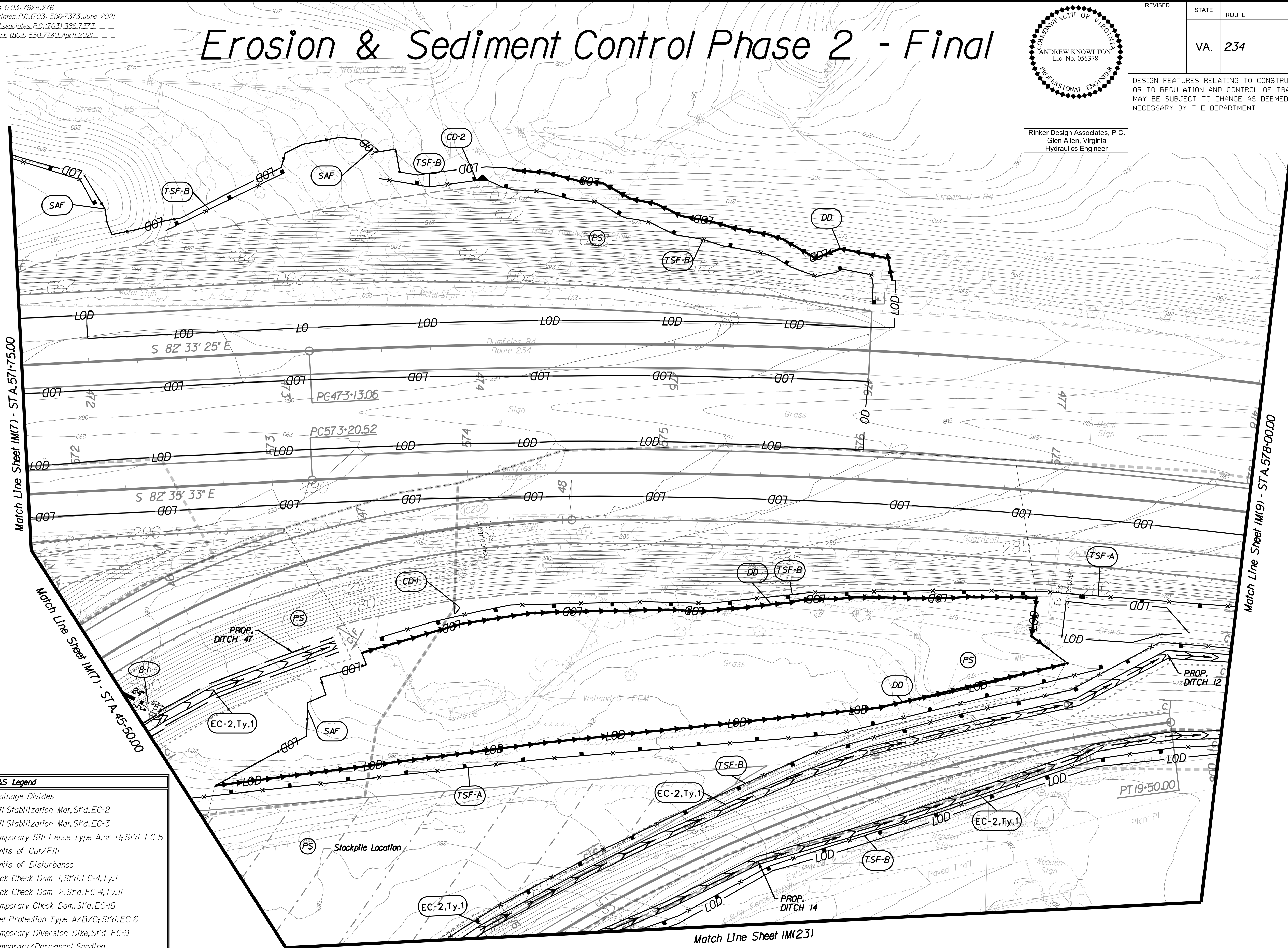
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IM(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A, or B; S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion



PROJECT	SHEET NO.
0234-076-323	IM(8)

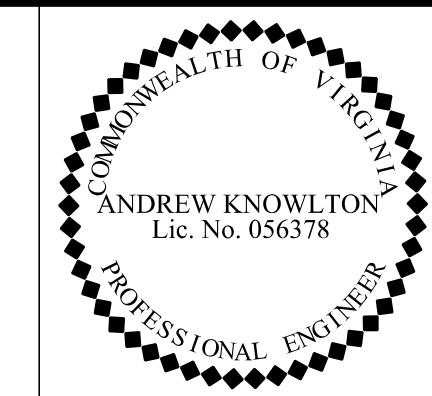
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11/1/2021

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Acumark (804) 550-7240, April 2021

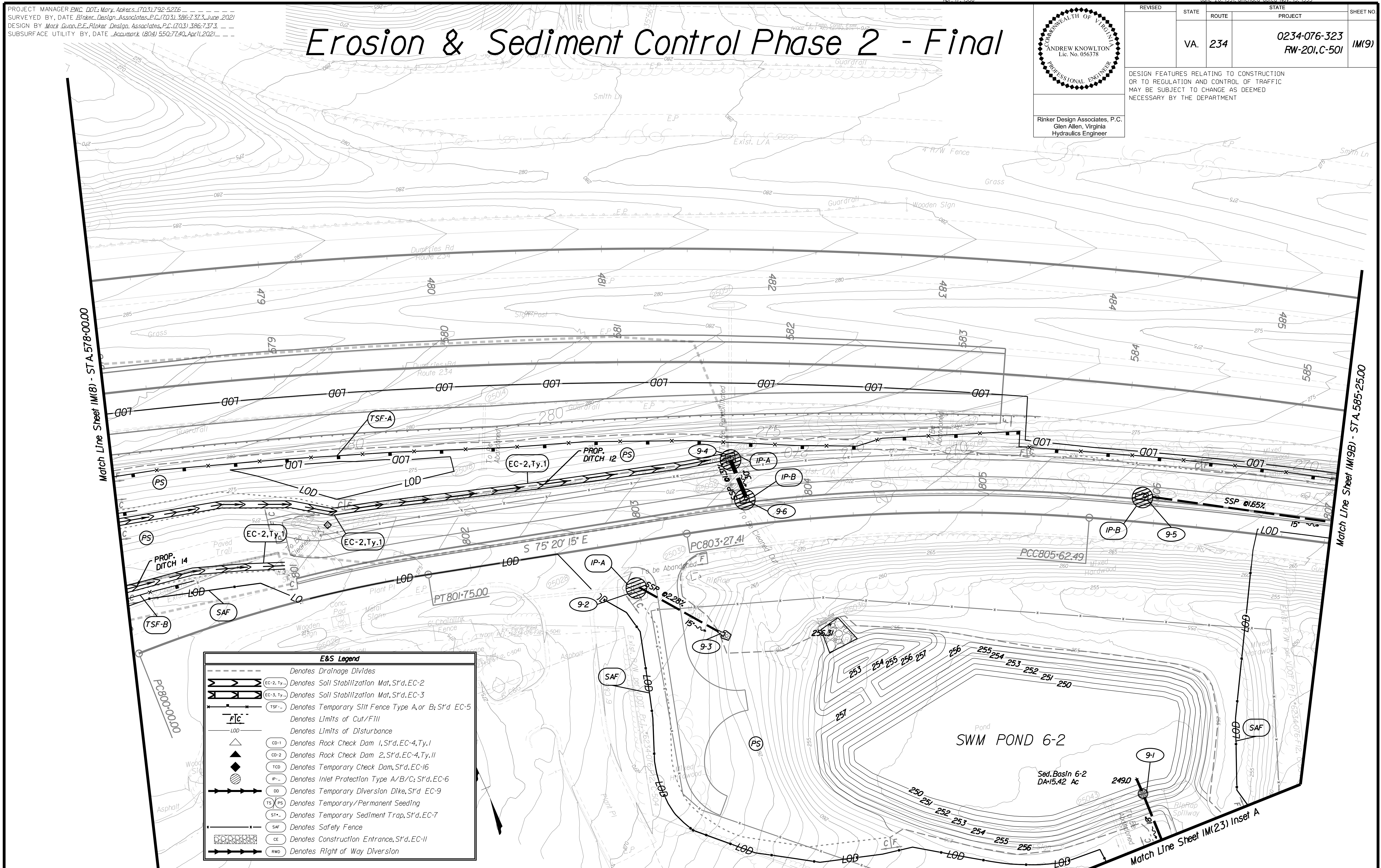
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IM(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2
	Denotes Soil Stabilization Mat, S't'd. EC-3
	Denotes Temporary Silt Fence Type A or B, S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Temporary Check Dam, S't'd. EC-16
	Denotes Inlet Protection Type A/B/C, S't'd. EC-6
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't'd. EC-11
	Denotes Right of Way Diversion

Match Line Sheet IM(23) Inset A

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. IM(9)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

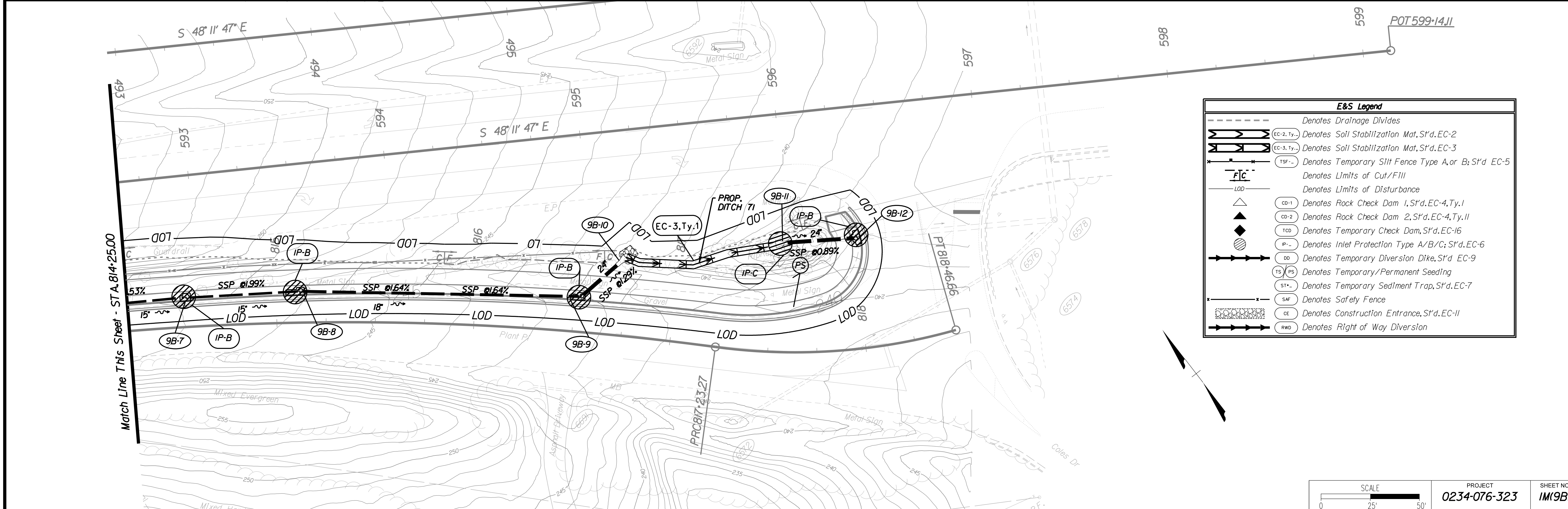
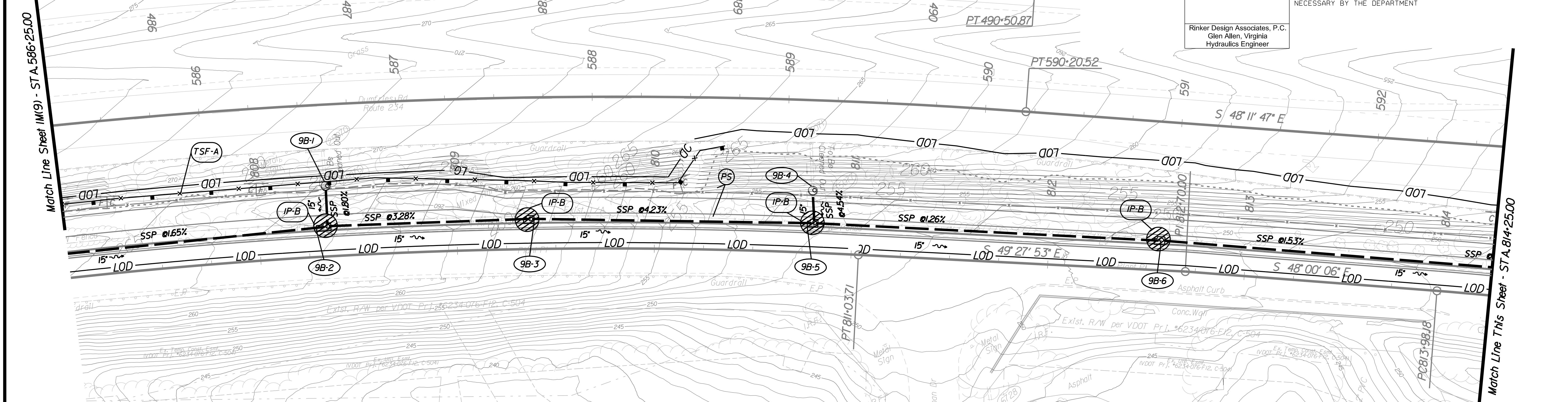
PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1M(9B)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Erosion & Sediment Control Phase 2 - Final



E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't.d. EC-2
	Denotes Soil Stabilization Mat, S't.d. EC-3
	Denotes Temporary Silt Fence Type A, or B; S't.d. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't.d. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't.d. EC-4, Ty. II
	Denotes Temporary Check Dam, S't.d. EC-16
	Denotes Inlet Protection Type A/B/C; S't.d. EC-6
	Denotes Temporary Diversion Dike, S't.d. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't.d. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't.d. EC-11
	Denotes Right of Way Diversion

SCALE: 0 25 50'

PROJECT: 0234-076-323

SHEET NO.: 1M(9B)

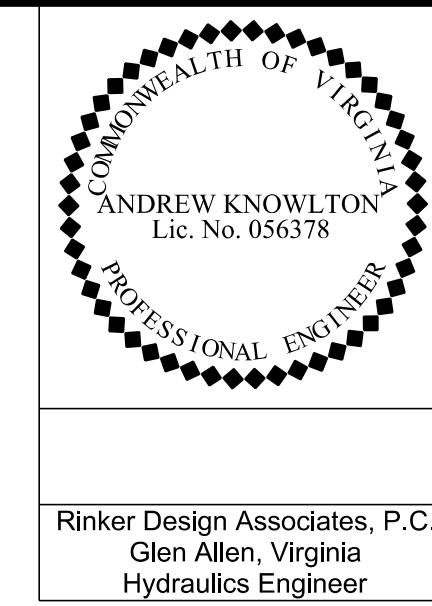
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11/1/2021

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

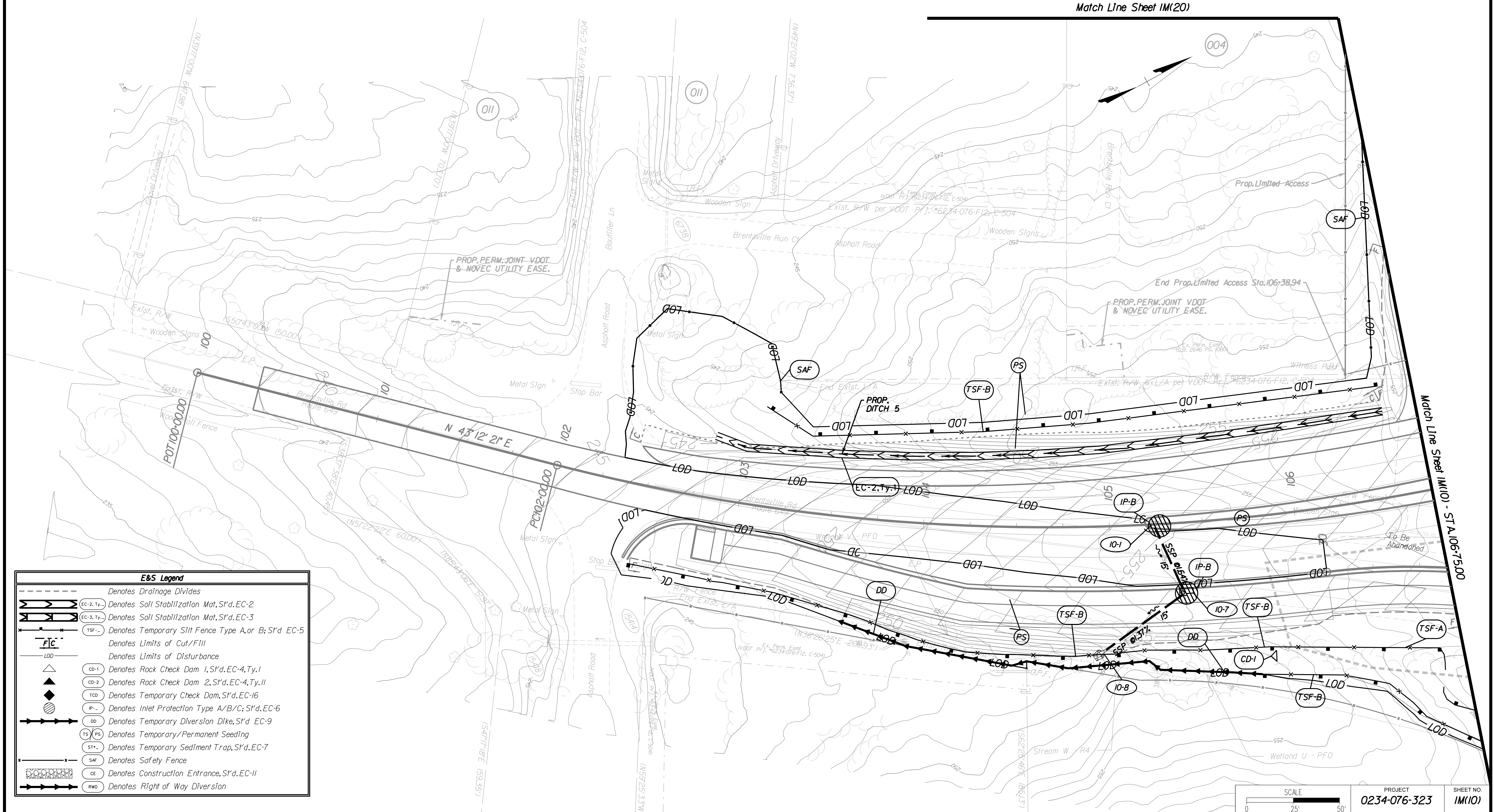
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
 Glen Allen, Virginia
 Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IM(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S' d, EC-2
	Denotes Soil Stabilization Mat, S' d, EC-3
	Denotes Temporary Silt Fence Type A or B, S' d, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S' d, EC-4, Ty. I
	Denotes Rock Check Dam 2, S' d, EC-4, Ty. II
	Denotes Temporary Check Dam, S' d, EC-16
	Denotes Inlet Protection Type A/B/C, S' d, EC-6
	Denotes Temporary Diversion Dike, S' d, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S' d, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S' d, EC-11
	Denotes Right of Way Diversion

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. IM(10)
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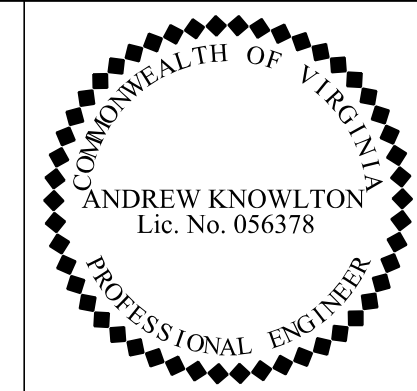
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11/1/2021

PROJECT MANAGER BWC DOT: Mary Akers (703)792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, Apr 1, 2021

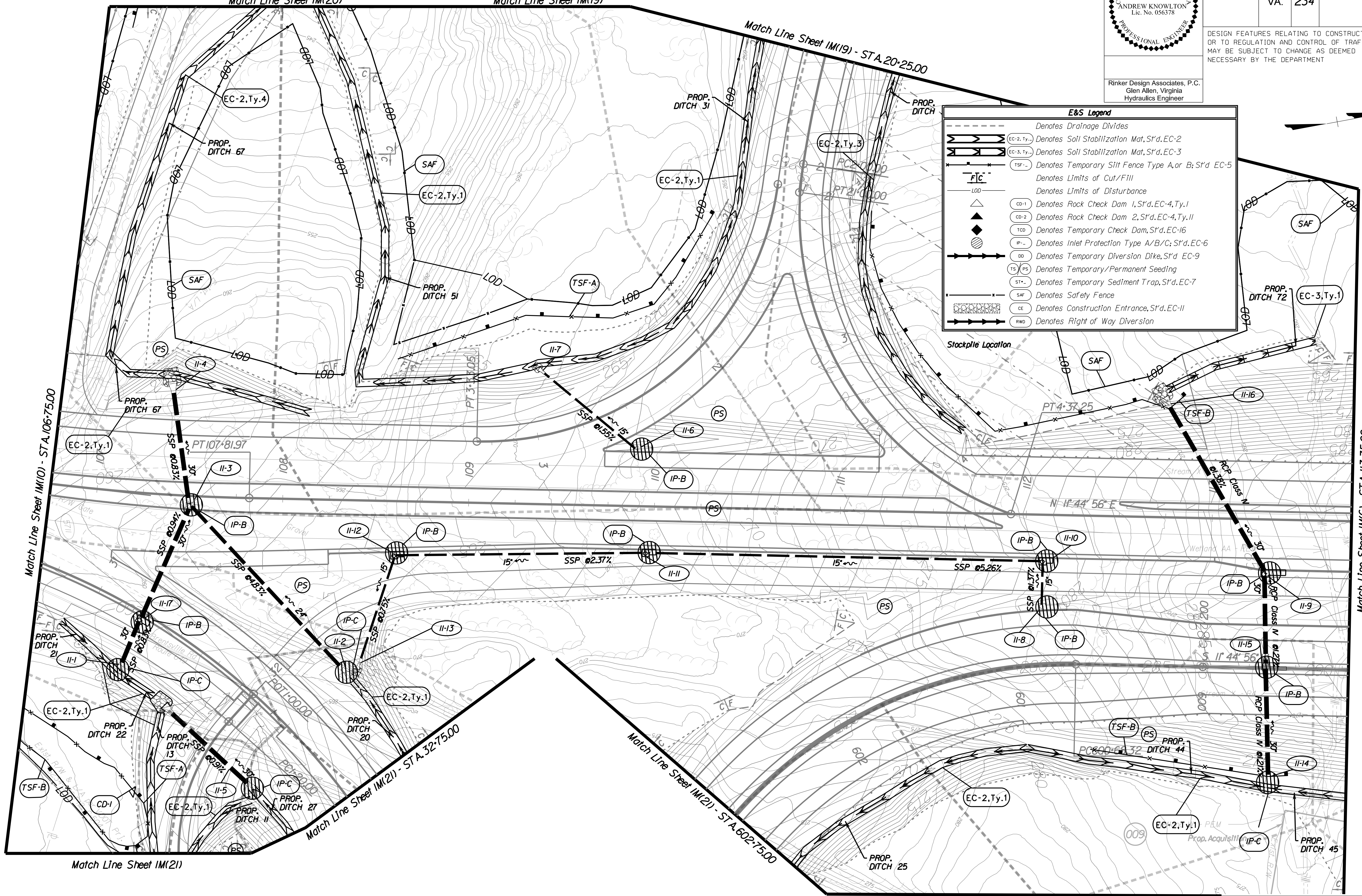
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1M(11)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend

- Denotes Drainage Divides
- EC-2, Ty. 1 Denotes Soil Stabilization Mat, S'd. EC-2
- EC-3, Ty. 1 Denotes Soil Stabilization Mat, S'd. EC-3
- TSF-A Denotes Temporary Silt Fence Type A, or B; S'd. EC-5
- FIC Denotes Limits of Cut/Fill
- LOD Denotes Limits of Disturbance
- CD-1 Denotes Rock Check Dam 1, S'd. EC-4, Ty. 1
- CD-2 Denotes Rock Check Dam 2, S'd. EC-4, Ty. 11
- ICD Denotes Temporary Check Dam, S'd. EC-16
- IP-A Denotes Inlet Protection Type A/B/C; S'd. EC-6
- DD Denotes Temporary Diversion Dike, S'd. EC-9
- TS/PS Denotes Temporary/Permanent Seeding
- ST Denotes Temporary Sediment Trap, S'd. EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S'd. EC-11
- RWD Denotes Right of Way Diversion

Match Line Sheet 1M(10) - STA. 106+75.00

Match Line Sheet 1M(20)

Match Line Sheet 1M(19)

Match Line Sheet 1M(19) - STA. 20+25.00

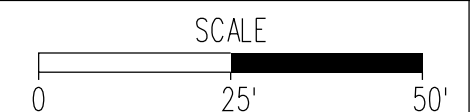
Match Line Sheet 1M(6) - STA. 113+75.00

Match Line Sheet 1M(21)

Match Line Sheet 1M(21) - STA. 32+75.00

Match Line Sheet 1M(21) - STA. 60+75.00

Match Line Sheet 1M(21)



PROJECT 0234-076-323
SHEET NO. 1M(11)

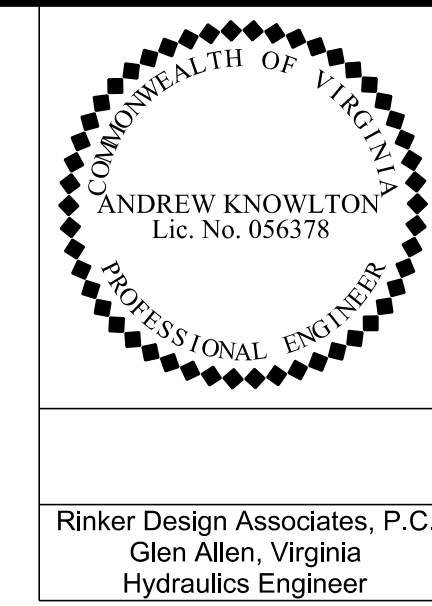
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11/1/2021

PROJECT MANAGER BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final

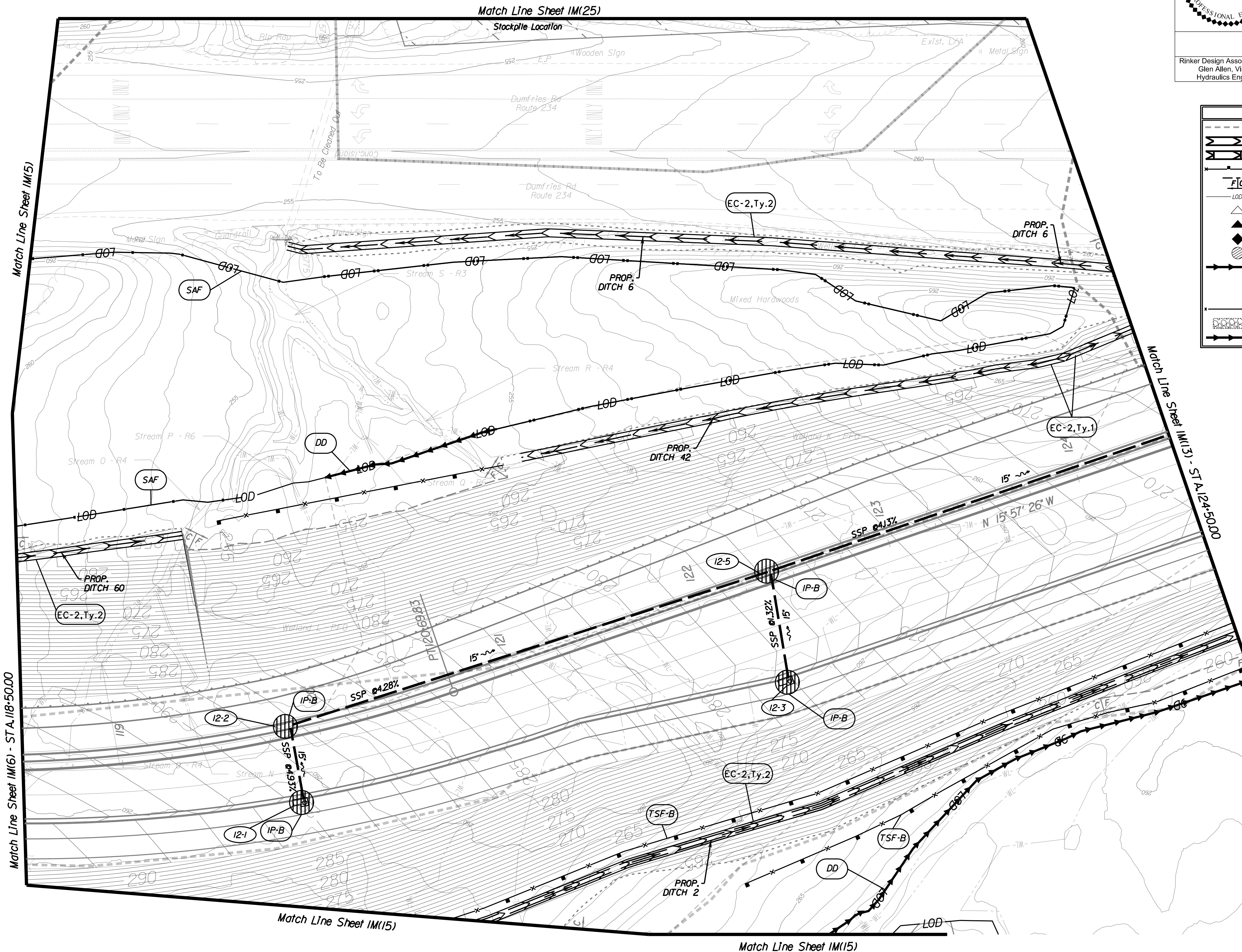


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1M(12)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd, EC-2
	Denotes Soil Stabilization Mat, S'd, EC-3
	Denotes Temporary Silt Fence Type A, or B; S'd, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S'd, EC-4, Ty.1
	Denotes Rock Check Dam 2, S'd, EC-4, Ty.11
	Denotes Temporary Check Dam, S'd, EC-16
	Denotes Inlet Protection Type A/B/C; S'd, EC-6
	Denotes Temporary Diversion Dike, S'd, EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S'd, EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S'd, EC-11
	Denotes Right of Way Diversion



SCALE	PROJECT	SHEET NO.
0 25 50'	0234-076-323	1M(12)

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11/1/2021

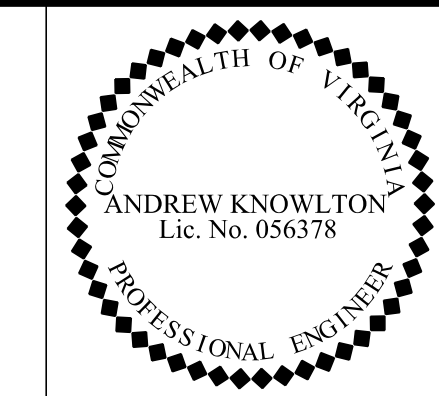
LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Btker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final



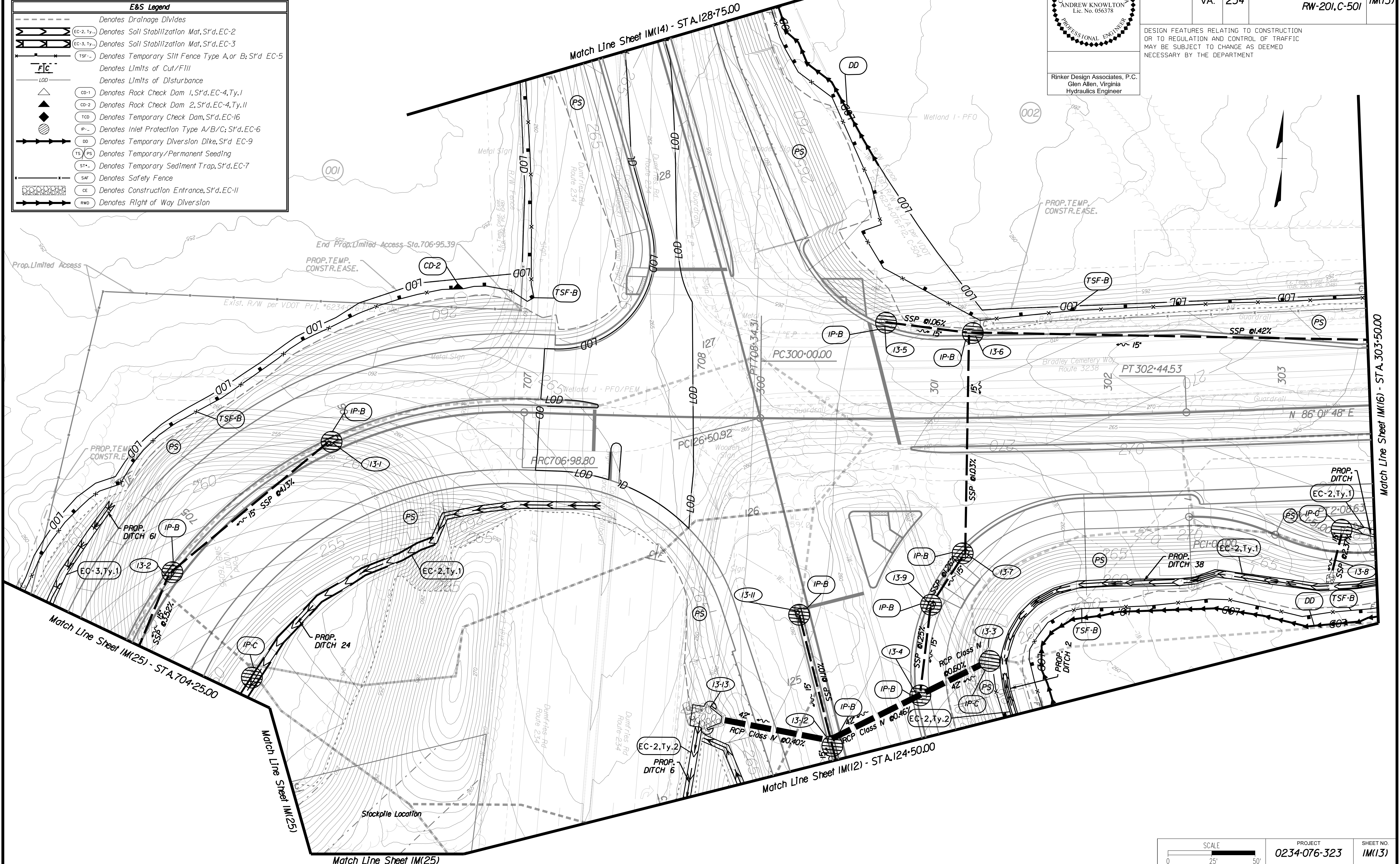
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IM(13)

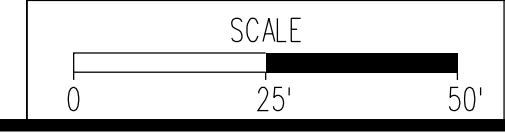
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't.d. EC-2
	Denotes Soil Stabilization Mat, S't.d. EC-3
	Denotes Temporary Silt Fence Type A, or B; S't.d. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't.d. EC-4, Ty.1
	Denotes Rock Check Dam 2, S't.d. EC-4, Ty.11
	Denotes Temporary Check Dam, S't.d. EC-16
	Denotes Inlet Protection Type A/B/C; S't.d. EC-6
	Denotes Temporary Diversion Dike, S't.d. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't.d. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't.d. EC-11
	Denotes Right of Way Diversion



11/1/2021



PROJECT	0234-076-323	SHEET NO.	IM(13)
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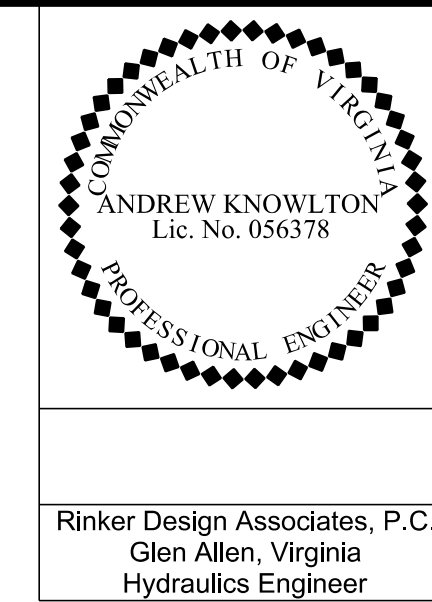
LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final

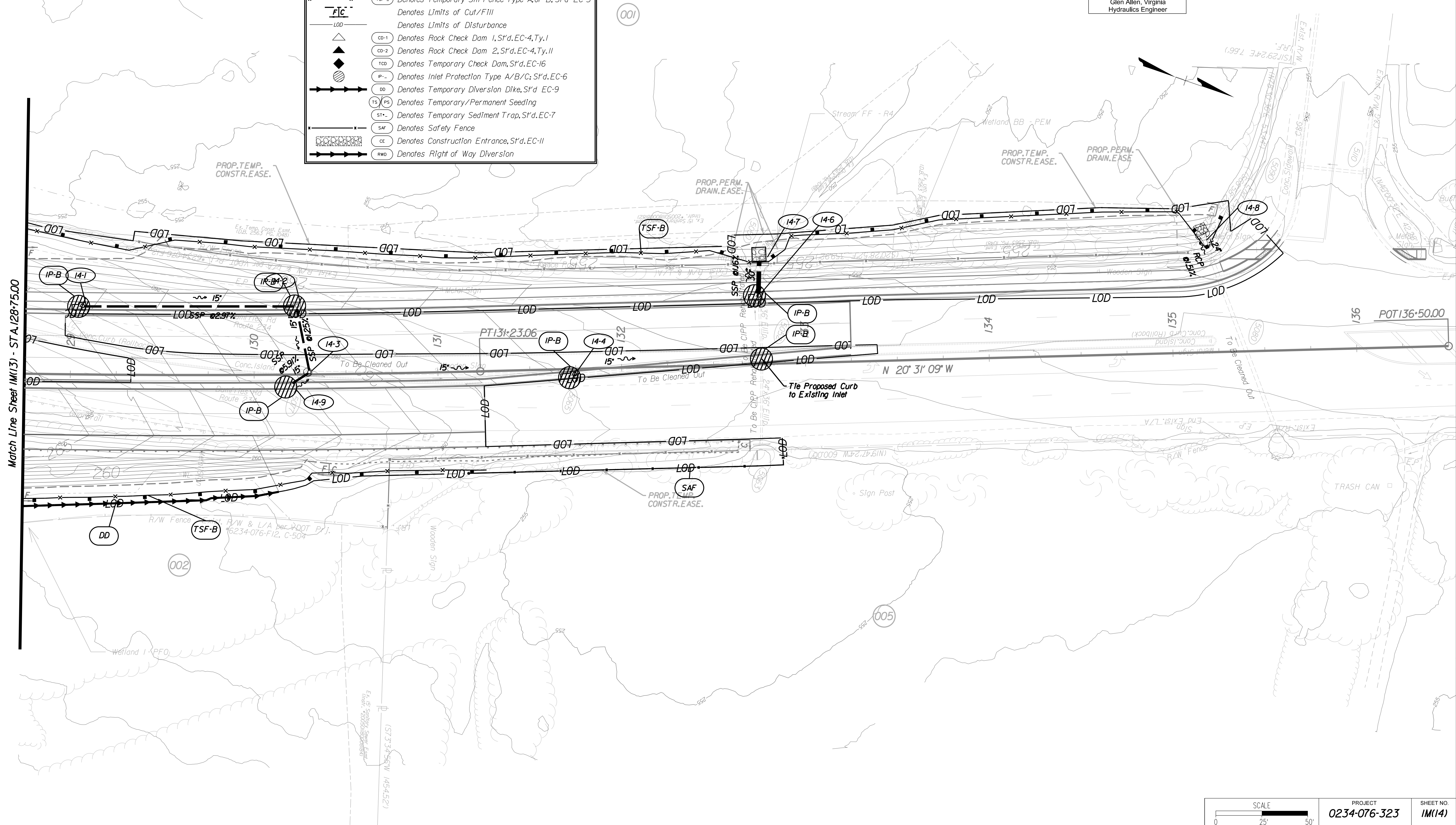


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1M(14)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't.d. EC-2
	Denotes Soil Stabilization Mat, S't.d. EC-3
	Denotes Temporary Silt Fence Type A, or B; S't.d. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't.d. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't.d. EC-4, Ty. II
	Denotes Temporary Check Dam, S't.d. EC-16
	Denotes Inlet Protection Type A/B/C; S't.d. EC-6
	Denotes Temporary Diversion Dike, S't.d. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't.d. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't.d. EC-11
	Denotes Right of Way Diversion



Match Line Sheet 1M(13) - STA. 128+75.00

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1M(14)
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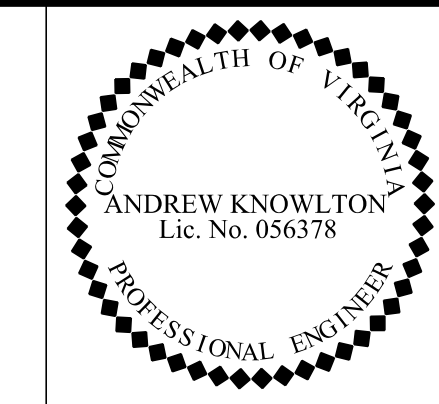
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LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Acumark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final



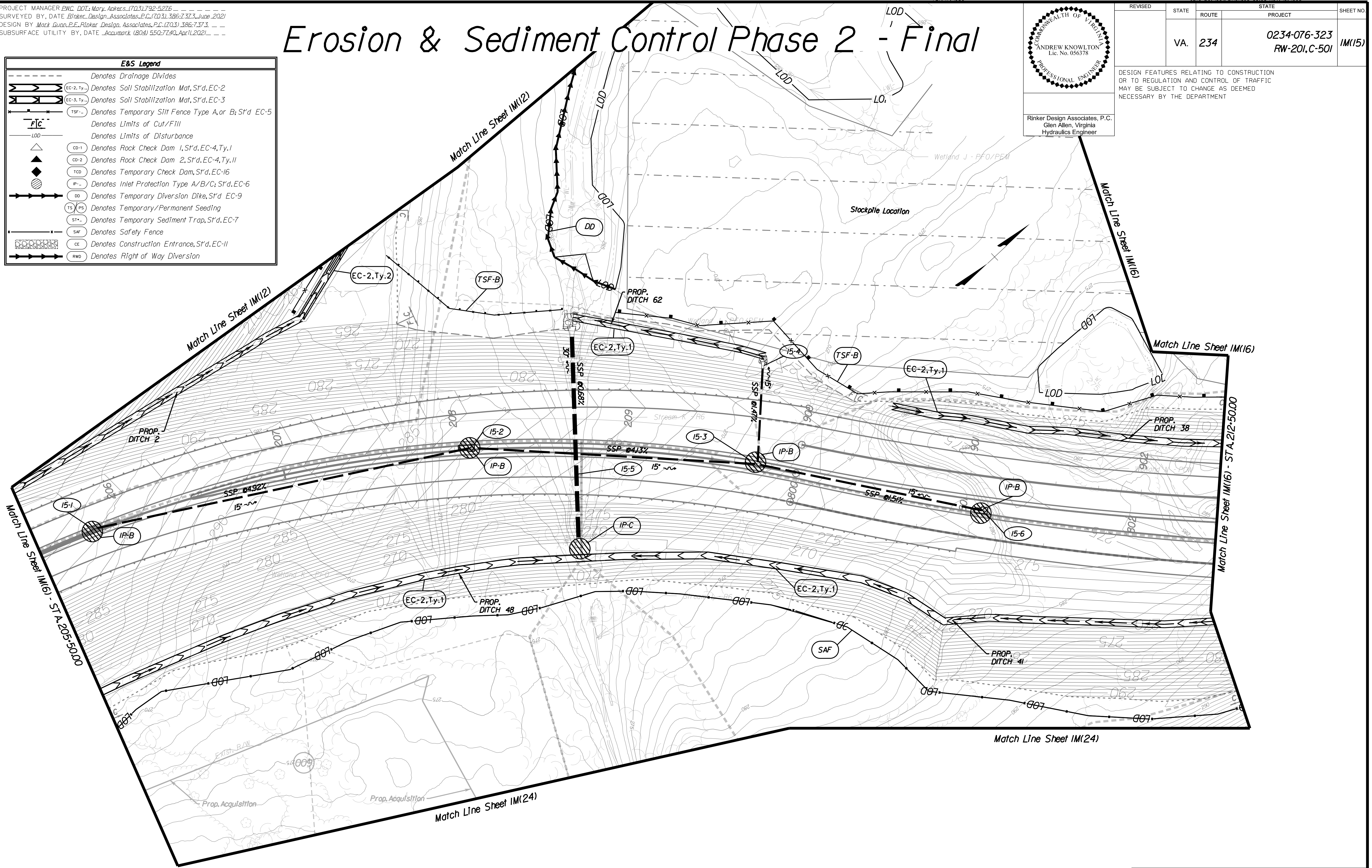
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IM(15)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend

- Denotes Drainage Divides
- EC-2, Ty. Denotes Soil Stabilization Mat, S't'd. EC-2
- EC-3, Ty. Denotes Soil Stabilization Mat, S't'd. EC-3
- TSF- Denotes Temporary Silt Fence Type A or B; S't'd. EC-5
- FIC Denotes Limits of Cut/Fill
- LOD Denotes Limits of Disturbance
- CD-1 Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
- CD-2 Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
- TCD Denotes Temporary Check Dam, S't'd. EC-16
- IP- Denotes Inlet Protection Type A/B/C; S't'd. EC-6
- DD Denotes Temporary Diversion Dike, S't'd. EC-9
- TS Denotes Temporary Seeding
- PS Denotes Temporary/Permanent Seeding
- ST- Denotes Temporary Sediment Trap, S't'd. EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S't'd. EC-11
- RWD Denotes Right of Way Diversion



11/1/2021

SCALE 0 25 50'

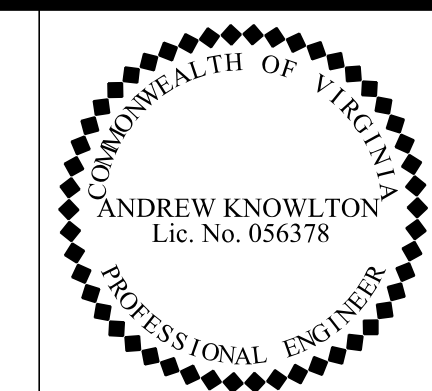
PROJECT 0234-076-323 SHEET NO. IM(15)

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SUBSURFACE UTILITY BY, DATE Acumark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final

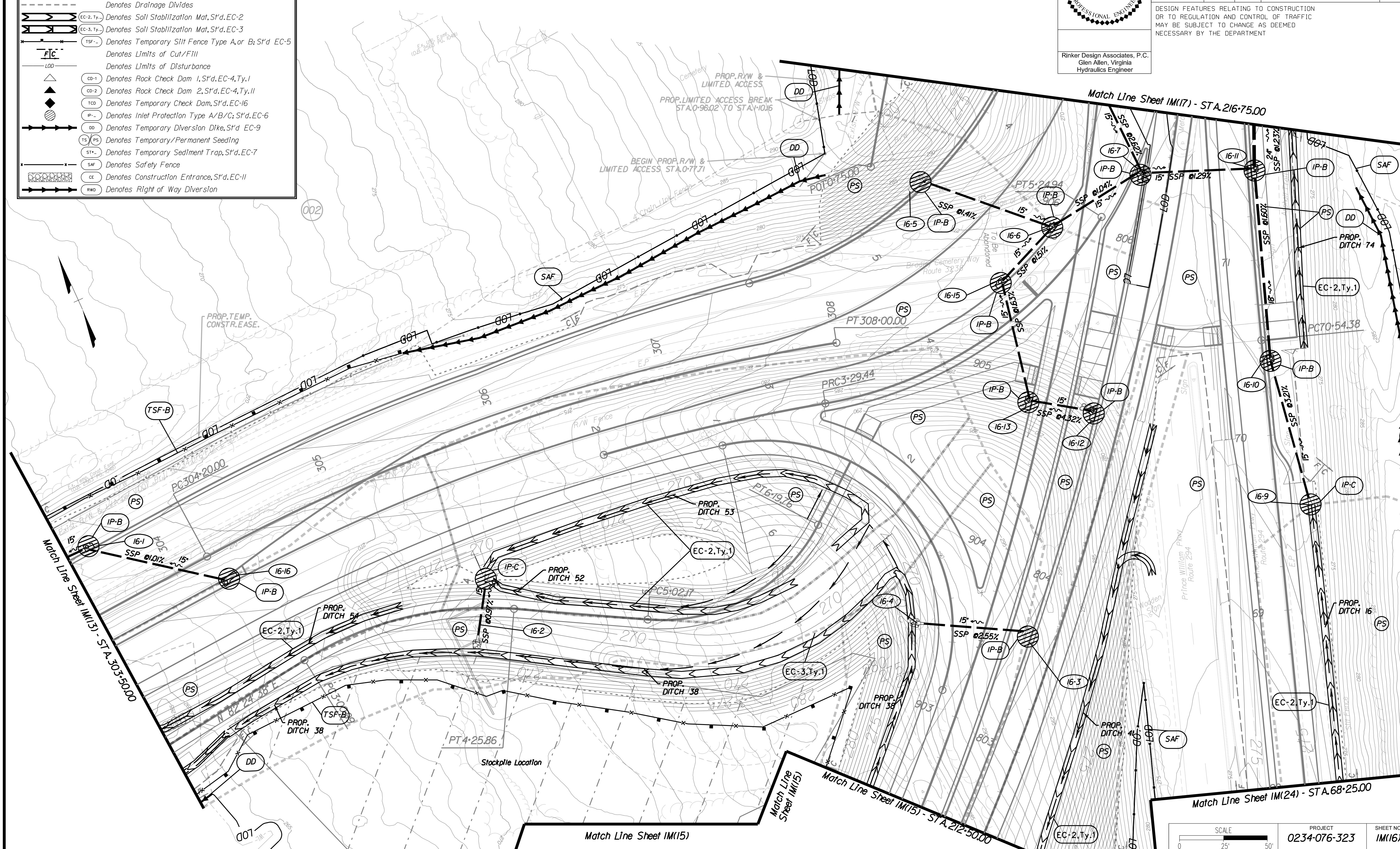


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IM(16)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't.d. EC-2
	Denotes Soil Stabilization Mat, S't.d. EC-3
	Denotes Temporary Silt Fence Type A, or B; S't.d. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Rock Check Dam 1, S't.d. EC-4, Ty. I
	Denotes Rock Check Dam 2, S't.d. EC-4, Ty. II
	Denotes Temporary Check Dam, S't.d. EC-16
	Denotes Inlet Protection Type A/B/C; S't.d. EC-6
	Denotes Temporary Diversion Dike, S't.d. EC-9
	Denotes Temporary/Permanent Seeding
	Denotes Temporary Sediment Trap, S't.d. EC-7
	Denotes Safety Fence
	Denotes Construction Entrance, S't.d. EC-11
	Denotes Right of Way Diversion



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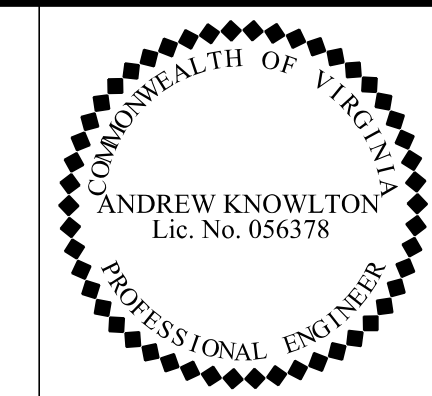
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SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. IM(16)
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11/5/2021

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final



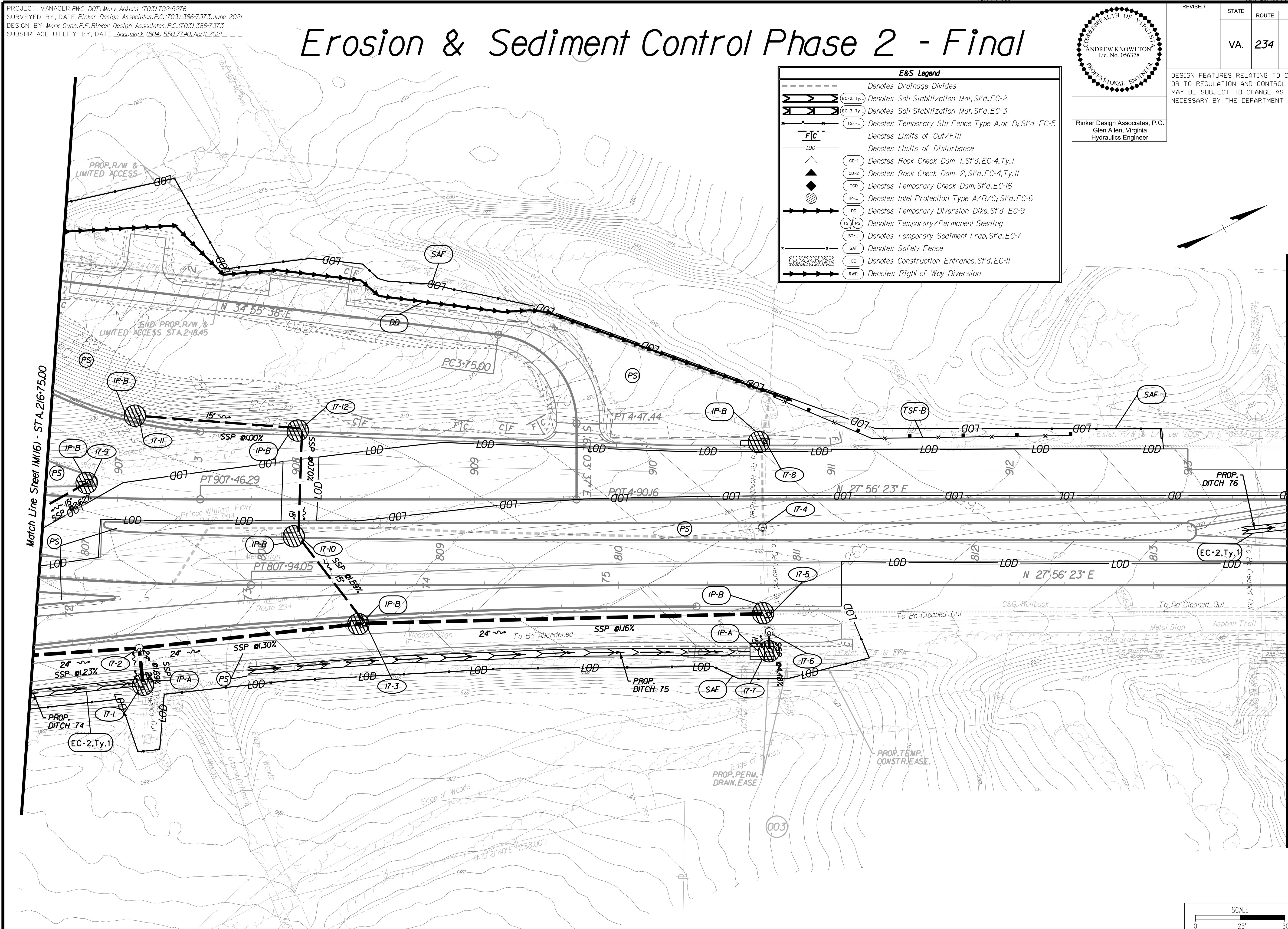
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IM(17)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend

- Denotes Drainage Divides
- EC-2, Ty.1 Denotes Soil Stabilization Mat, S't'd. EC-2
- EC-3, Ty.1 Denotes Soil Stabilization Mat, S't'd. EC-3
- TSF Denotes Temporary Silt Fence Type A or B; S't'd. EC-5
- FIC Denotes Limits of Cut/Fill
- LOD Denotes Limits of Disturbance
- CD-1 Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
- CD-2 Denotes Rock Check Dam 2, S't'd. EC-4, Ty. II
- TCO Denotes Temporary Check Dam, S't'd. EC-16
- IP Denotes Inlet Protection Type A/B/C; S't'd. EC-6
- DD Denotes Temporary Diversion Dike, S't'd. EC-9
- TS/PS Denotes Temporary/Permanent Seeding
- ST Denotes Temporary Sediment Trap, S't'd. EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S't'd. EC-11
- RWD Denotes Right of Way Diversion



PROJECT	0234-076-323	SHEET NO.	IM(17)
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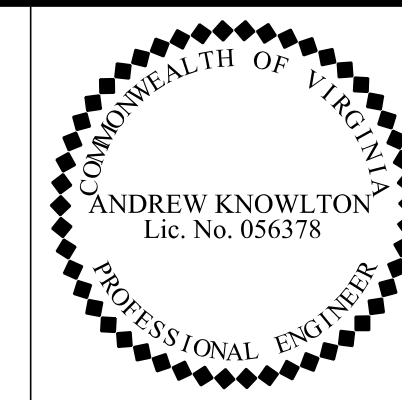
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

PROJECT MANAGER EWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

Erosion & Sediment Control Phase 2 - Final



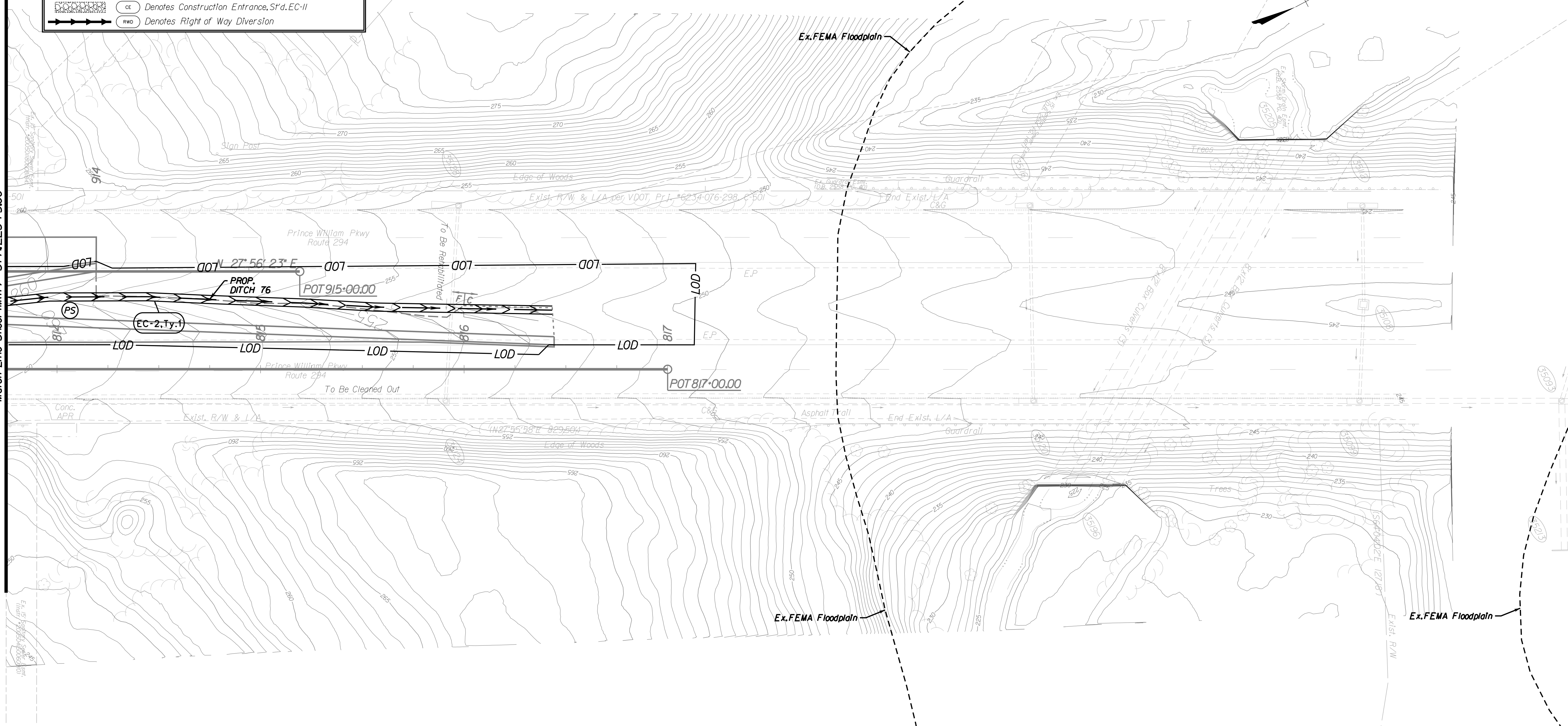
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1M(18)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

E&S Legend	
	Denotes Drainage Divides
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Match Line Sheet 1M(17) - STA. 223+75.00



11/1/2021

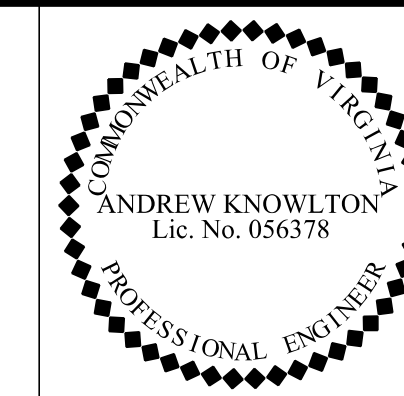
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SCALE 0 25' 50'	PROJECT 0234-076-323	SHEET NO. 1M(18)
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PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, Apr 1, 2021

Erosion & Sediment Control Phase 2 - Final



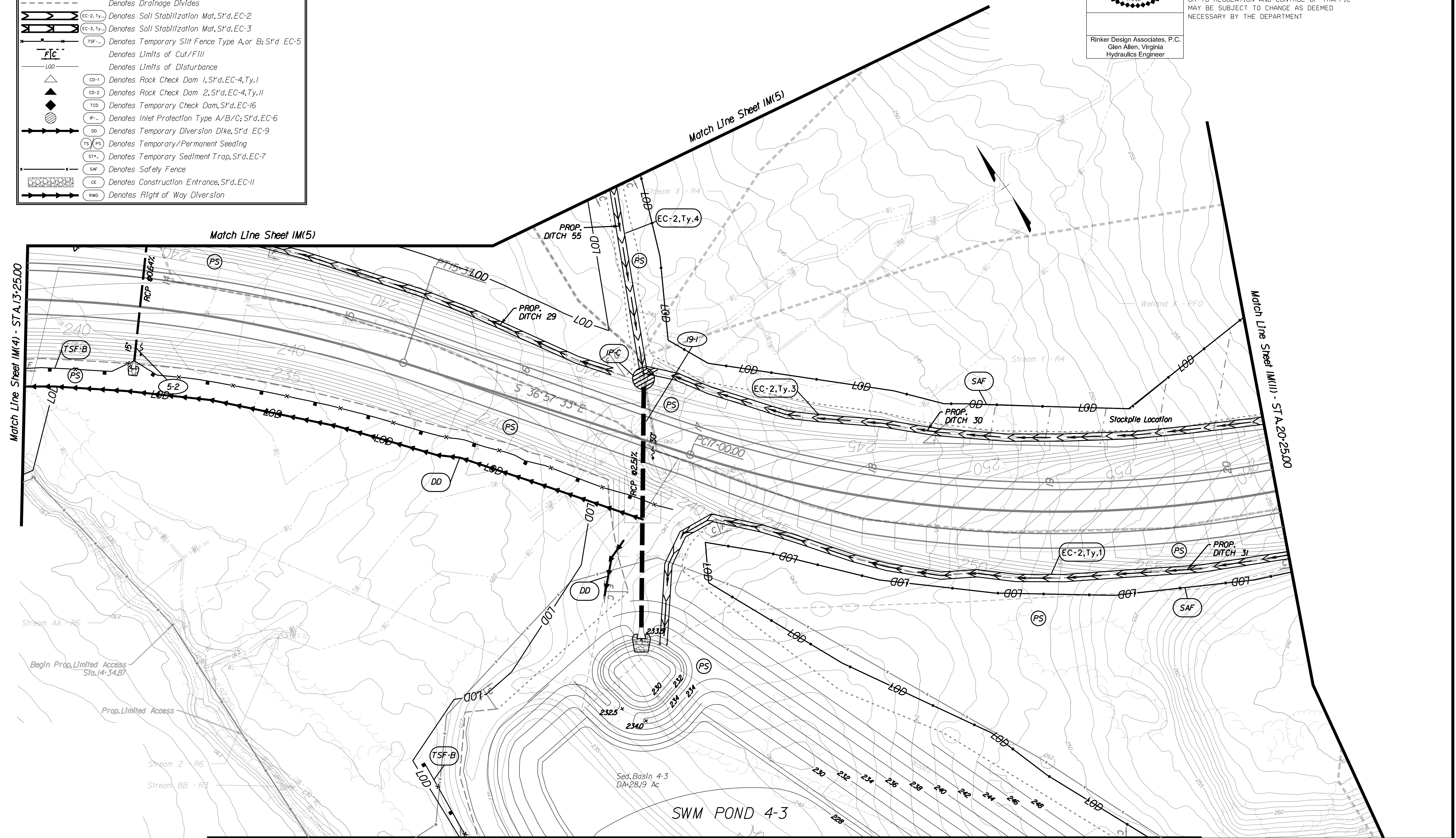
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1M(19)

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SCALE	PROJECT	SHEET NO.
0 25 50'	0234-076-323	1M(19)

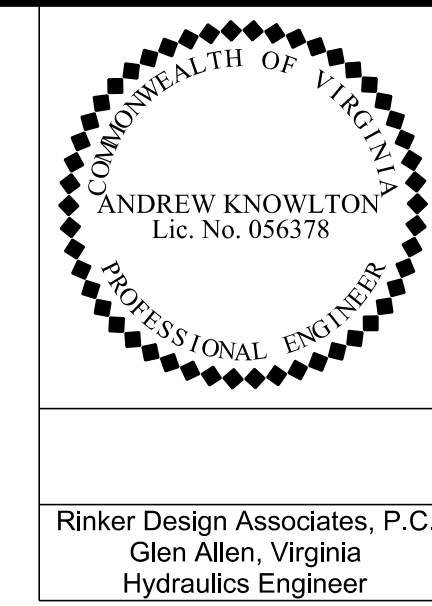
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SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

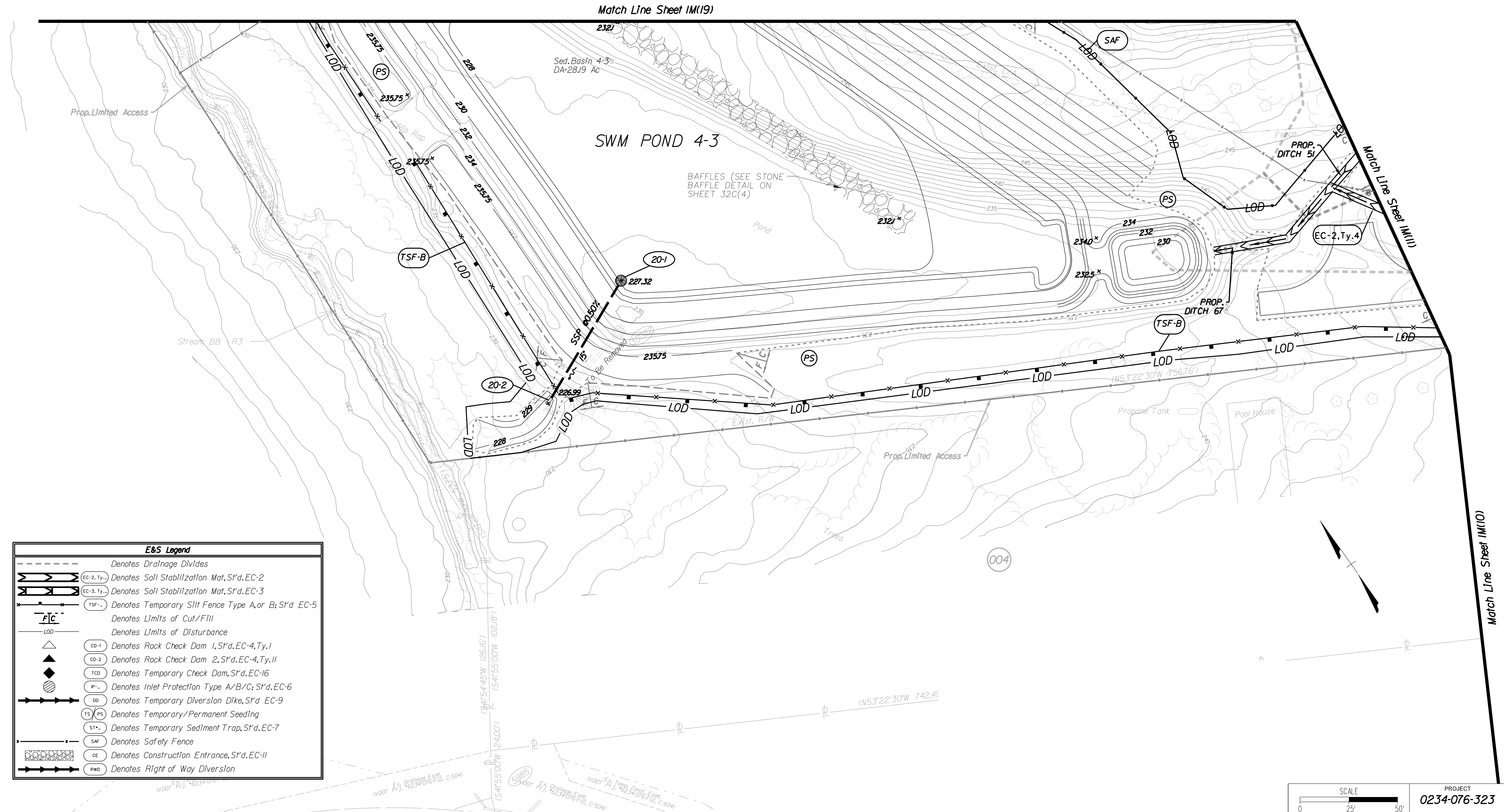
Erosion & Sediment Control Phase 2 - Final



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
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Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer



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SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1M(20)
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PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
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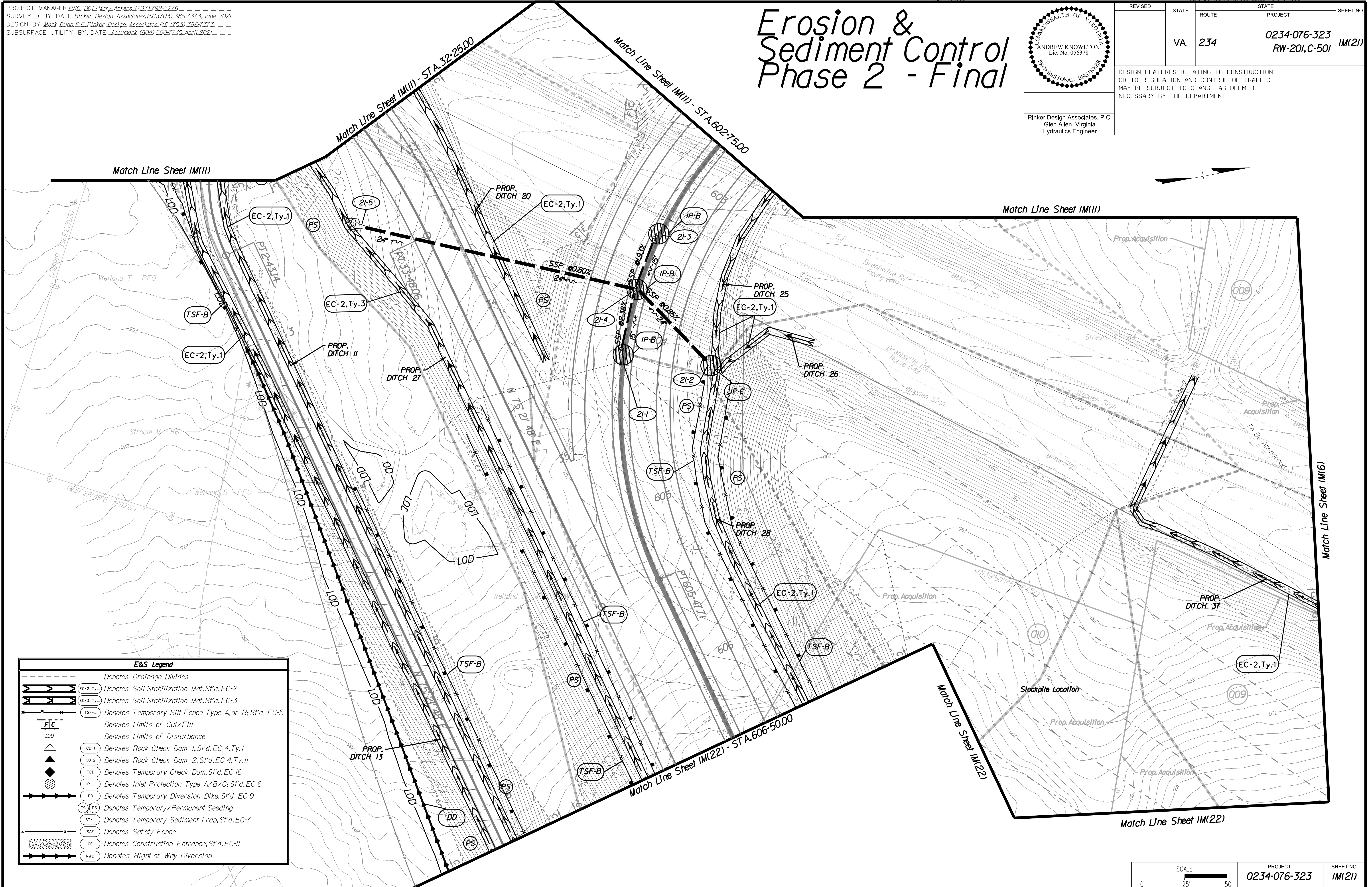
Erosion & Sediment Control Phase 2 - Final

REVISIONS

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1M(21)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer



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SCALE 0 25 50'

PROJECT 0234-076-323 SHEET NO. 1M(21)

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11/1/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Erosion & Sediment Control Phase 2 - Final

REVISIONS

NO.	DATE	DESCRIPTION

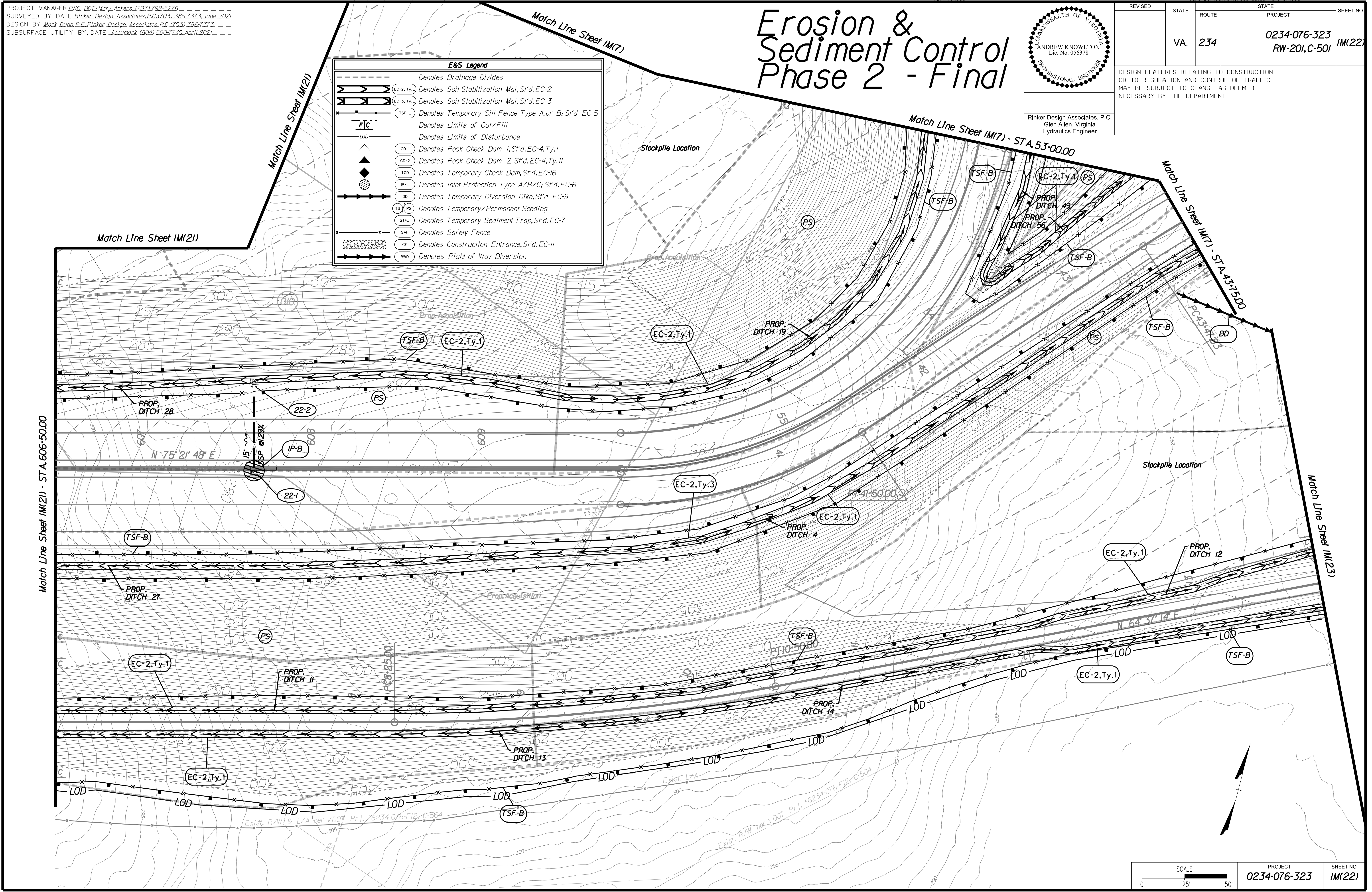
STATE ROUTE PROJECT SHEET NO.
VA. 234 0234-076-323 RW-201,C-501 IM(22)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

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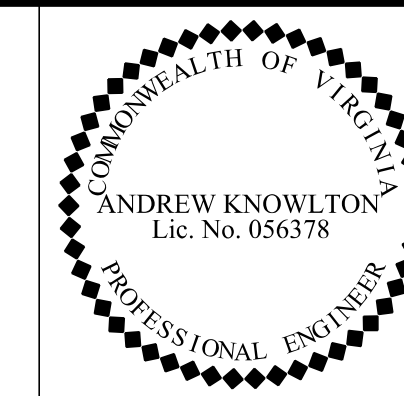
SCALE 0 25 50'

PROJECT 0234-076-323 SHEET NO. IM(22)

11/1/2021

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

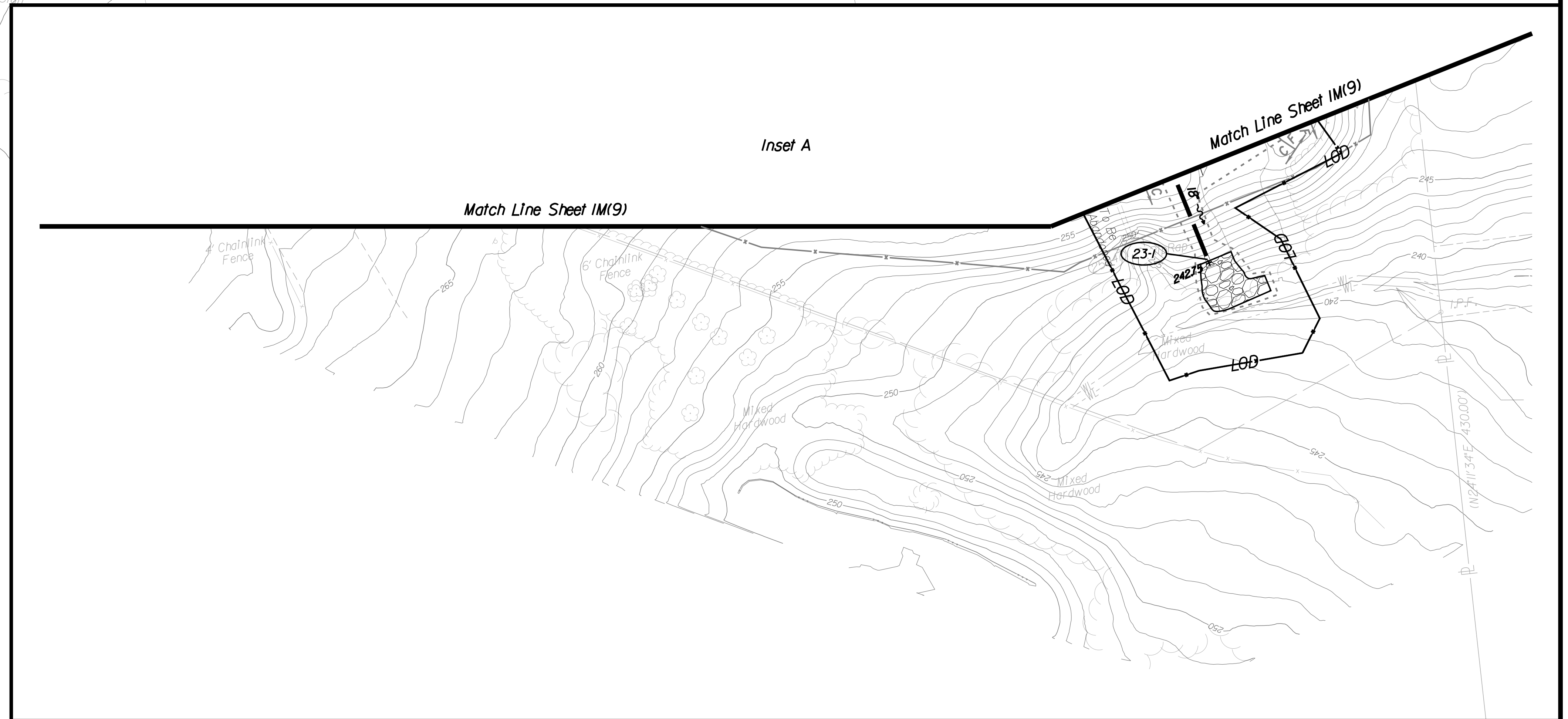
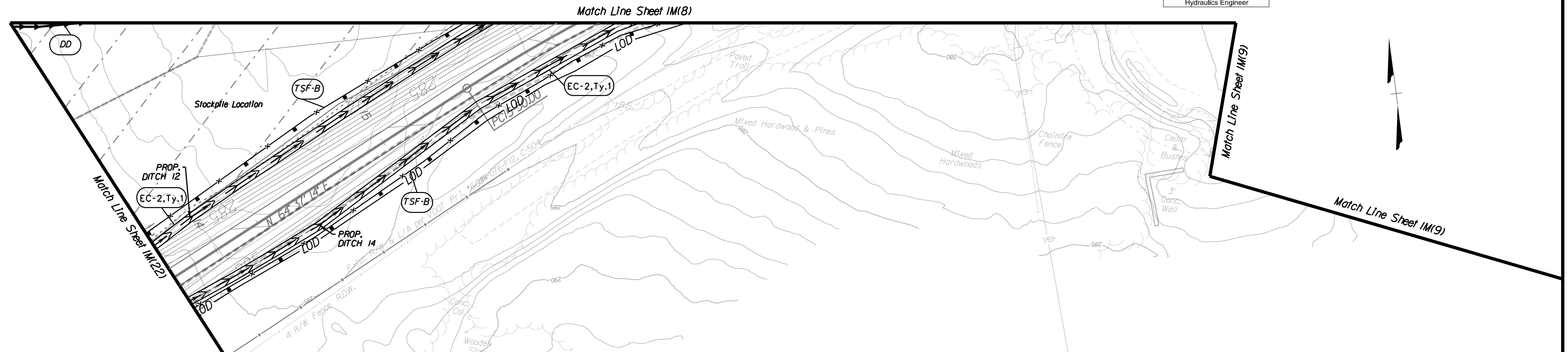
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
 Glen Allen, Virginia
 Hydraulics Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1M(23)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



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	Denotes Limits of Disturbance
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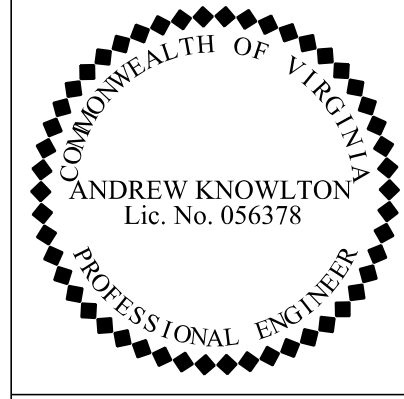
SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 1M(23)
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PROJECT MANAGER BWC, DOT, Mary, Ankers (703)792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, Apr 11, 2021

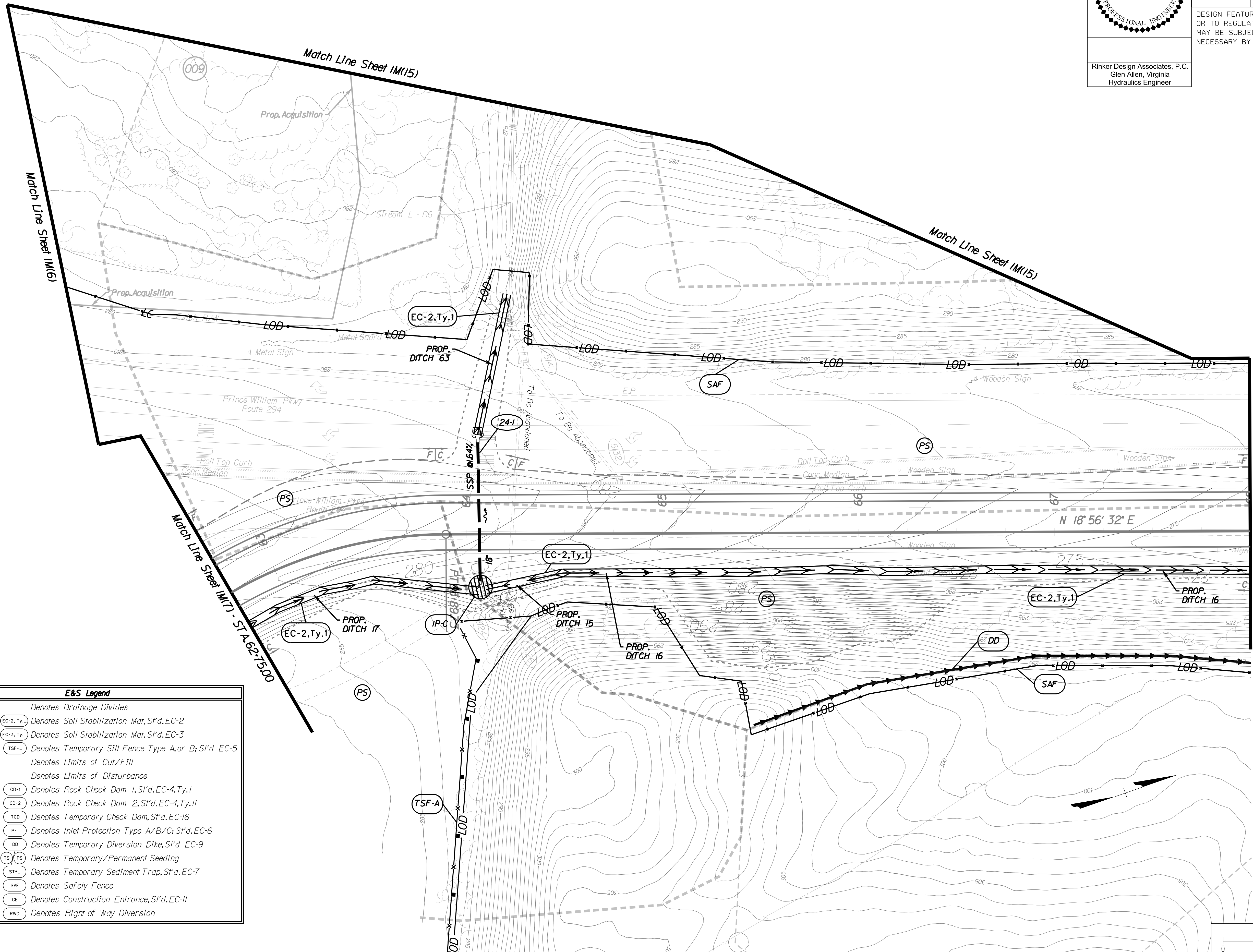
Erosion & Sediment Control Phase 2 - Final



Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IM(24)

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SCALE 0 25 50'

PROJECT 0234-076-323 SHEET NO. IM(24)

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11/1/2021

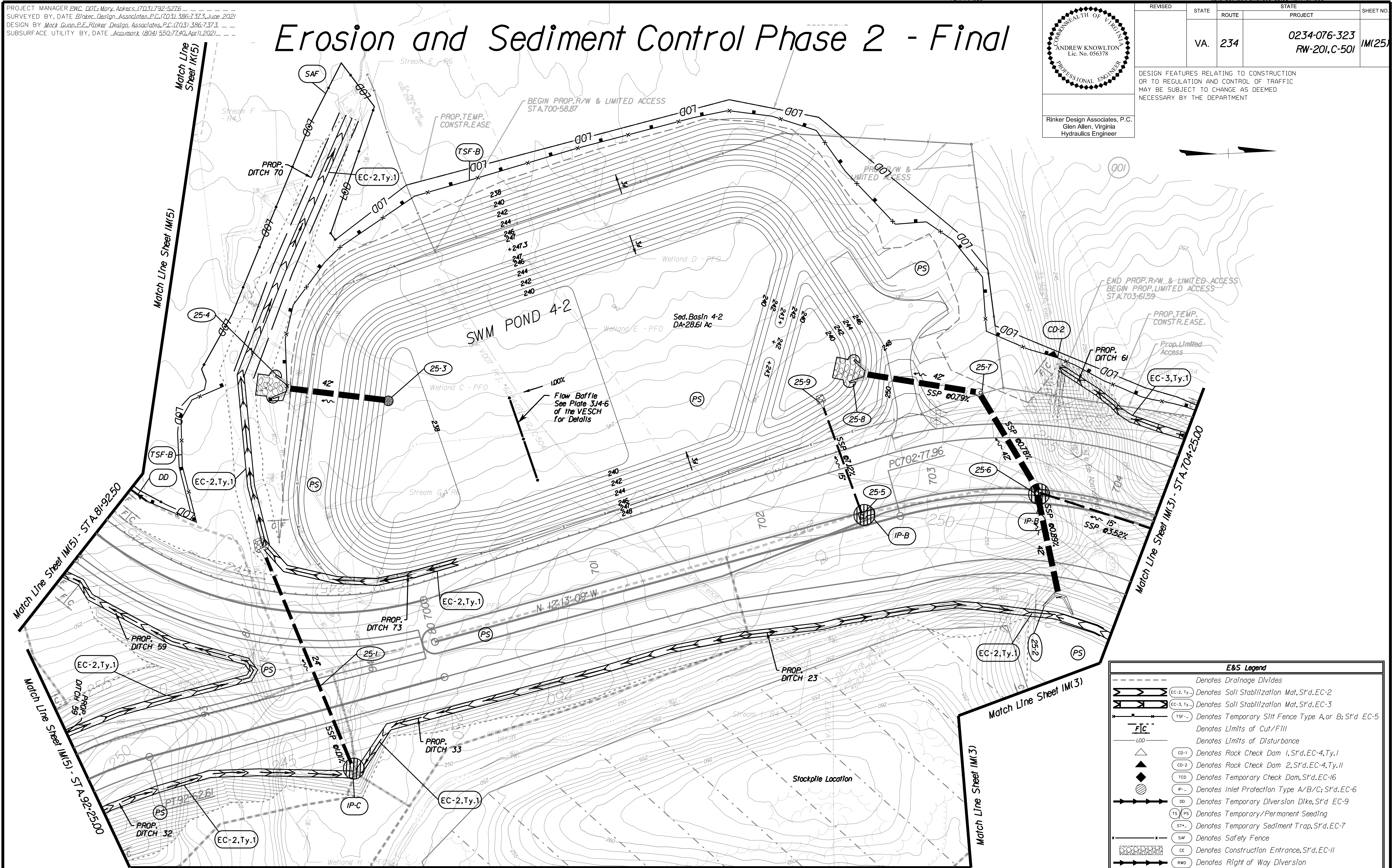
PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, Apr 1, 2021

Erosion and Sediment Control Phase 2 - Final

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1M(25)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



E&S Legend

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- EC-2, Ty.1 Denotes Soil Stabilization Mat, S't'd. EC-2
- EC-3, Ty.1 Denotes Soil Stabilization Mat, S't'd. EC-3
- TSF-1 Denotes Temporary Silt Fence Type A or B; S't'd. EC-5
- Denotes Limits of Cut/Fill
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- CD-1 Denotes Rock Check Dam 1, S't'd. EC-4, Ty. I
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- TCD Denotes Temporary Check Dam, S't'd. EC-16
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- DD Denotes Temporary Diversion Dike, S't'd. EC-9
- TS PS Denotes Temporary/Permanent Seeding
- ST- Denotes Temporary Sediment Trap, S't'd. EC-7
- SAF Denotes Safety Fence
- CE Denotes Construction Entrance, S't'd. EC-11
- RWD Denotes Right of Way Diversion

SCALE 0 25 50'

PROJECT 0234-076-323

SHEET NO. 1M(25)

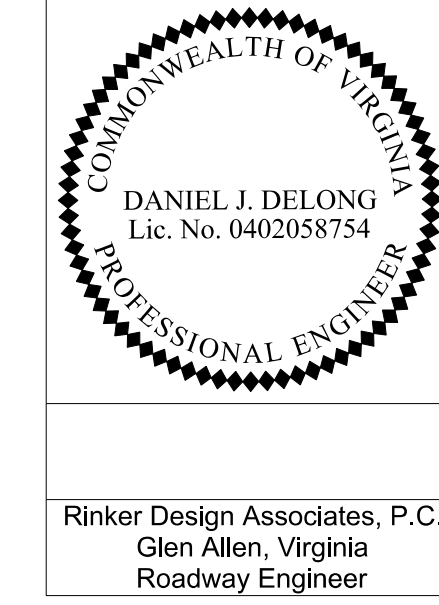
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11/5/2021

PROJECT MANAGER *BWC, DOT, Mary Ankers (703)792-5276*
 SURVEYED BY, DATE *Rinker Design Associates, P.C. (703) 386-7373, June 2021*
 DESIGN BY *Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373*
 SUBSURFACE UTILITY BY, DATE *Accumark (804) 550-7740, April 2021*

TMP/SOC General Notes



REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.		
		234		0234-076-323 RW-201, C-501	IN

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Glen Allen, Virginia
 Roadway Engineer

Temporary Traffic Control Plan

General Notes:

I Transportation Management Plan/Sequence of Construction Type B Project Information:

- a Identify the project's TMP Type:
This project's TMP/SOC has been designed in conformance with a Type B, Category III TMP/SOC.
- b Identify the work zone location, length, and widths:
The project location is as shown on Sheet 1A. The work zone areas have been delineated as shown on the TMP/SOC Sheet 1Q series. The work zone lengths and widths vary by location as shown in these plans.
- c Note the hours the Construction Area will be active:
Construction Area shall be considered active when any impact to traffic occurs (1st Cone in Road). Construction Area hours have the following limitations, unless otherwise approved or directed by the engineer and Prince William County:

Single Lane Closures will be restricted to the hours:

Monday through Thursday	9:30 AM to 3:00 PM Daily, 10:00 PM to 5:00 AM Nightly
Friday	9:30 AM to 2:00 PM, 10:00 PM to 9:00 AM (Fri-Sat Night)
Saturday	10:00 PM to 8:00 AM (Sat-Sun Night)
Sunday	10:00 PM to 5:00 AM (Sun-Mon Night)

Weekend work requires approval by the Prince William County Project Manager.

No lane closures will be allowed from noon on the day before a holiday until noon on the workday following the holiday. Holidays include all State and Federal holidays.

- d The TMP/SOC, during construction, shall be in accordance with the Virginia Department of Transportation Road and Bridge Specifications, dated 2016; the 2011 Virginia Work Area Protection Manual, Revision 2; the Manual on Uniform Traffic Control Devices (MUTCD), Revision 1 & 2, 2009 Edition; and the Virginia Supplement to the MUTCD, dated 2011.
- e Note any existing entrances, existing intersections, or existing pedestrian access points that will be affected by the Construction Area or by the traffic control devices:

Existing Entrances:
 All existing commercial or private entrances shall remain open for the duration of construction. The Contractor shall ensure that all entrance accessibility is maintained during construction.

Existing Intersections:
 There are five intersections within the project limits:
 An unsignalized intersection of Dumfries Road (234 Bus.) and Bradley Cemetery Way at approximate station 126+50/300+00. This intersection shall remain operational for the duration of the project.
 An unsignalized intersection of Prince William County Parkway (Rte. 294) and Bradley Cemetery Way at approximate station 215+50/308+00. This intersection shall remain operational for the duration of the project.
 An unsignalized intersection of Brentsville Road (Rte. 294) and Boutlier Lane/Bradley Forge Drive at approximate station 102+00.
 A signalized intersection of Dumfries Rd. (Rte. 234) and Prince William County Parkway (Rte. 294) at approximate station 465+50. This signal and intersection shall remain operational for the duration of its use. Once traffic has been placed in the ultimate condition this signal can be removed.
 A signalized intersection of Prince William County Parkway (Rte. 234) and Dumfries Rd. (234 Bus.) at approximate station 457+00. This signal and intersection shall remain operational for the duration of its use. Once traffic has been placed in the ultimate condition this signal can be removed.

Existing Pedestrian Access Points:
 There are two existing crosswalks along Route 234 at Dumfries Rd. (234 Bus.) intersection (approx. Sta. 465+50) and at Prince William County Parkway (Rte. 294) intersection. These crosswalks are to be maintained throughout construction while these intersections are in use. The contractor shall ensure safe access to pedestrians. The existing pedestrian paths along Route 234 and Prince William Parkway (Rte. 294) shall be maintained throughout construction.

Existing Bus Stops:
 There are no bus stops in the vicinity of this project.

- f Identify the major types of travelers:
The roadway carries diverse types of travelers. In the peak hours, daily commuters are the prevailing traveler type for these roadways.
- g The Contractor shall:

Designate a person assigned to the project who will have the primary responsibility, with sufficient authority, for implementing the TMP/SOC and other safety and mobility aspects of the permit work. This person shall be designated the "Project Safety Officer."

Ensure that personnel assigned to the project are trained in traffic control to a level commensurate with their responsibilities in accordance with VDOT's work zone traffic control training guidelines.

Inform the VDOT, Prince William County, and/or the Engineer of any work requiring lane shifts, lane closures, and/or phase changes a minimum of one week prior to implementing this activity. Prince William County may use various media publications to announce changes in traffic conditions for which the Contractor shall provide information as needed at no additional cost to the project.

Perform reviews of the Construction Area to ensure compliance with contract documents at regularly scheduled intervals at the direction of the Engineer. Contractor shall maintain a copy of the temporary traffic control plan at the work site at all times.

Coordinate with the Prince William County Police Department, Prince William County Fire/Rescue Department, and Virginia State Police for any lane closures and any detours of any nature at no additional cost to the project.

Notify the Regional Transportation Operations Center (TOC) 1 week in advance in order to place lane closure information on the 511 System and VA-Traffic.

Schedule all phases of construction in such a manner that water, sanitary sewer, cable, fiber cable, optical cable, any overhanging utilities, and any underground utilities services will not be interrupted.

- h During non-working hours, all construction equipment is to stay outside of the construction area clear zone as designated in the VWAPM, Appendix A. Construction equipment (including temporary concrete traffic barrier service) is not to block or obstruct sight distance at any intersection or private entrance along the project when the construction work zone is active.
- 2 It is understood that the work is to be done utilizing the TTC plaques from the Virginia Work Area Protection Manual (2019 Rev 2). However, if there is any significant deviation from the TTC Plaques then a revision shall be submitted for review. Work will only be allowed to proceed under existing TTC Plaques until the review is complete.
- 3 This TMP/SOC plan is intended as a guide. It is not to enumerate every detail which must be considered in the construction of each phase, but only to show the general handling of existing traffic. Any deviation will require a signed and sealed plan to be submitted for approval PRIOR to work at the proposed location. The contractor may modify the distance requirements for the advance warning signs in TTC examples in the Virginia Work Area Protection Manual only slightly. Contractor to ensure modifications to sign spacing do not impact sight distance and shall not inhibit crosswalks.
- 4 Contractor is to maintain all lanes of traffic each of the roadways, during peak hours, throughout construction of this project with a minimum clear zone width in accordance with VDOT Work Area Protection Manual, Rev. 2, Appendix A, unless otherwise approved by the Engineer. For street intersections, commercial connections, or private entrances, a minimum width no less than existing width shall be maintained at all times unless otherwise approved by the Engineer. When construction zone is not active, the Contractor shall ensure all street connections/entrances maintain a minimum of two lanes of traffic (one in each direction).
- 5 Existing surface, aggregate base, and sub base material which will be demolished or obliterated during construction, and which are suitable for maintenance of traffic, should be utilized prior to the use of commercial material.
- 6 Each phase of construction shall be completed to the installation of intermediate course asphalt prior to the start of the next phase unless otherwise directed by the Engineer.
- 7 Contractor shall ensure positive drainage for the duration of the project. Contractor shall add any additional temporary measures necessary to facilitate proper, positive drainage for the duration of construction.
- 8 Where Group 2 Channelizing Devices are used to separate the Construction Area and traffic, a minimum clear zone area as defined in the VWAPM, Appendix A is to be maintained.
- 9 All areas excavated below the existing pavement surface and within the clear zone at the conclusion of each workday, shall be backfilled to form an approximate 6:1 wedge against the existing pavement or newly constructed pavement surface for the safety and protection of vehicular traffic. All costs for placing, maintaining, and removing 6:1 wedge shall be included in the price bid for other items in the contract and no additional compensation shall be allowed.
- 10 IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN
 During the first day of the new work zone traffic pattern, the project's Manager and project's Maintenance of Traffic Coordinator shall inspect the work zone to ensure compliance with the TMP. On the third to fifth day of implementation of the TMP's new work zone traffic pattern, the District Work Zone Safety Coordinator and the project's Maintenance of Traffic Coordinator shall conduct an on-site review of the work zone's performance and recommend to the Contractor any required changes to the TMP to enhance the work zone's safety and mobility. All such changes shall be documented. An on-site review of the project's work zone traffic control by the District Work Zone Safety Coordinator, project's Manager/Maintenance of Traffic Coordinator, District Safety Engineer, and the Contractor shall be conducted within 48 hours of any fatal incident/crash within the work zone.
- 11 EVALUATION OF THE TRANSPORTATION MANAGEMENT PLAN
 A performance assessment of the TMP, including area-wide impacts on adjacent roadways shall be performed by the Regional Traffic Engineering and Operations sections during construction. As circumstances dictate, a review of the overall effectiveness of the project's TMP shall be completed during the Post-Construction Meeting and included with the Post-Construction Report. A copy of the specific information on the effectiveness of the TMP will be forwarded to the State Traffic Engineer for review. A copy of the TMP Interim/Post-Construction Report Form can be obtained from the Regional Traffic Engineer.
- 12 PUBLIC COMMUNICATIONS PLAN
 The Contractor shall be responsible for:
 - a Notifying the Project Manager/Residency Administrator two weeks in advance of any scheduled work plans and traffic delays.
 - b Notifying the Project Manager/Residency Administrator, Regional Operations Manager, and the Public Affairs Staff of any unscheduled traffic delays.

- 13 TRANSPORTATION OPERATIONS
 The Contractor shall be responsible for implementing and providing the following:
 - a Notify the Northern Region Transportation Operations Center (TOC) at (571) 350-2100 at least one week in advance or the Wednesday before scheduled work in order to place lane closure information on the 511 System and VA-Traffic.
 - b The Contractor shall be responsible for maintaining project lane closure information on LCAMS and VAt traffic throughout the duration of the project. It is suggested that an individual should be designated as the point of contact and receive training on how to enter the necessary information into LCAMS.
 - c Post a list of local emergency response agencies inside the project's construction office/trailer.
 - d Immediately report any traffic incidents that may occur in the work zone.
 - e Notify the project's Maintenance of Traffic Coordinator, Project Manager, Resident Administrator, District Work Zone Safety Coordinator, District Traffic Engineer, the Regional Operations Manager, and Public Affairs Manager of any incidents and expected traffic delays.
 - f Within 24 hours of any incidents within the construction work zone, a review of the traffic controls shall be completed and necessary adjustments made to reduce the frequency and severity of any future incidents.
 - g The contractor shall contact the VDOT TOC 15-45 minutes prior to executing all lane and/or shoulder closures and contact TOC 15-45 minutes after the work has been completed and lane and/or shoulder closures have been removed.

CONTACT NUMBERS

Project Manager	Mary Ankers	(703) 792-5276
Construction Manager	Vincent Yuskoski	(717) 654-3936
Construction Safety Manager	Dawn Pattison	(410) 382-2356
Emergency Call		911
Non-Emergency Numbers:		
Police		(703) 792-6500
Fire & Rescue		(703) 792-6800

TMP/SOC Designer:
 Danny DeLong, P.E.
 Advance Work Zone Traffic Control Training, VDOT Certificate No. 010720205, Expires 01-31-2024

Commonwealth of Virginia
 Virginia Department of Transportation
 VERIFICATION OF COMPLETION OF
 ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING
 AND FLAGGER CERTIFICATION

This is to verify that **Danny DeLong** has successfully completed training and an examination by the Department on the proper practices and methods for the installation, maintenance, removal of temporary traffic control devices and flagging operations.

Date: 1/7/2020
 State Traffic Engineer
 Verification No.: 010720205
 Expiration Date: 1/31/2024

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated
 Apr. 17, 1980

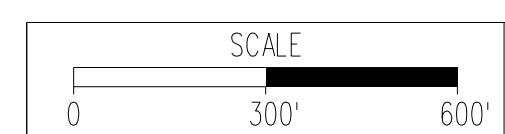
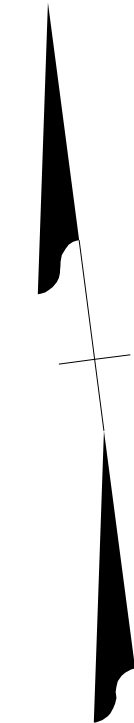
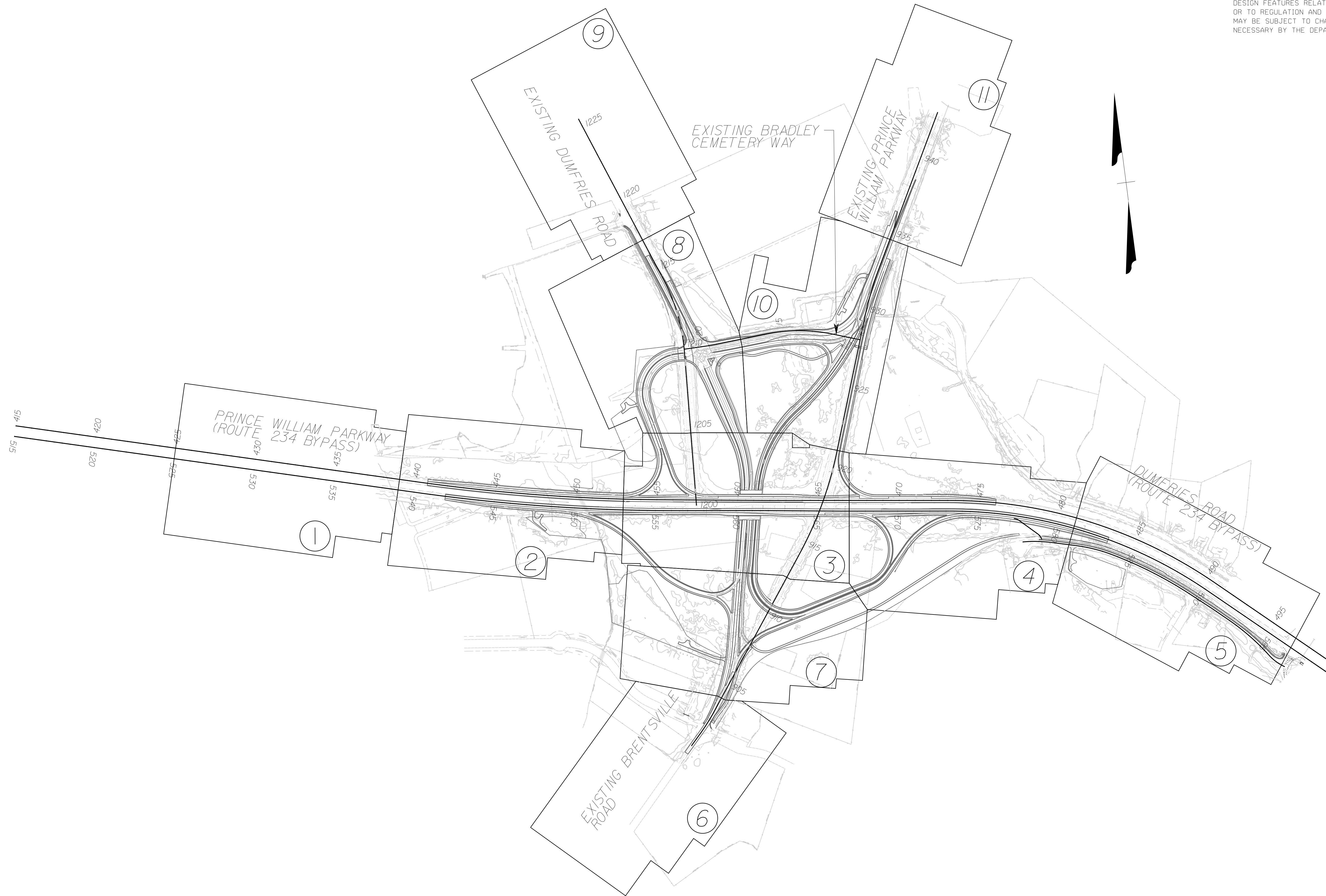
LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated
 June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
 SURVEYED BY, DATE Rlnker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guon, P.E., Rlnker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

Advance Work Package & Phase I TMP 50 Scale Base Layout Plan

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IN(1)

DESIGN FEATURES RELATING TO CONSTRUCTION
 OR TO REGULATION AND CONTROL OF TRAFFIC
 MAY BE SUBJECT TO CHANGE AS DEEMED
 NECESSARY BY THE DEPARTMENT



PROJECT	SHEET NO.
0234-076-323	IN(1)

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

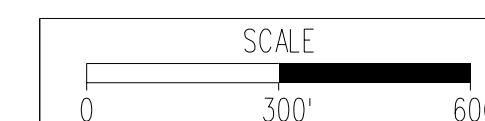
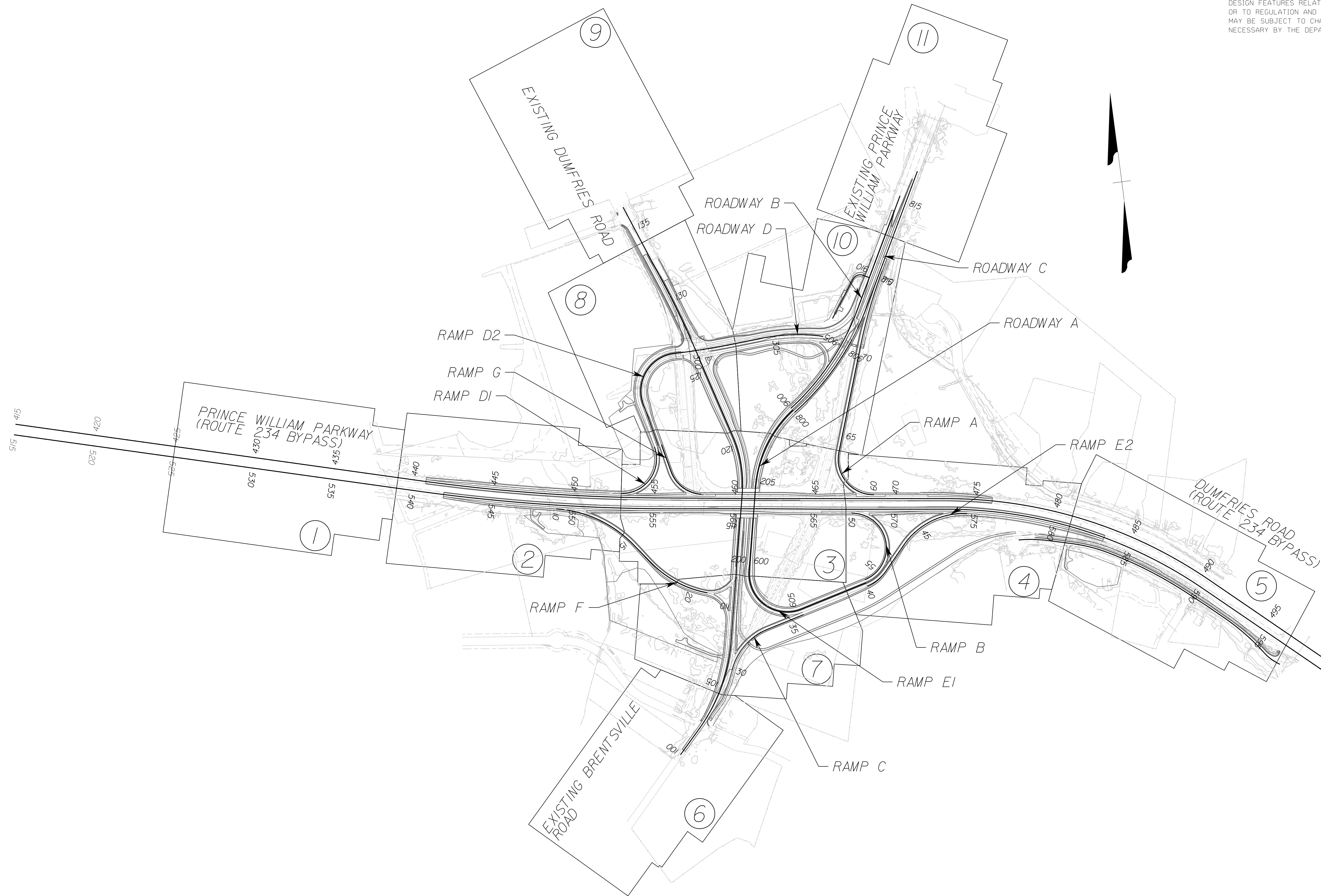
LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Rlnker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rlnker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

TMP 50 Scale Base Layout Plan Phase 2 - 3

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	11(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PROJECT	SHEET NO.
0234-076-323	11(2)

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Blnker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rlnker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TMP/SOC VWAPM TTC Details

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	10(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Page 6H-42 September 2019

Typical Traffic Control Inside Lane Closure Operation on a Four-Lane Roadway (Figure TTC-17.2)

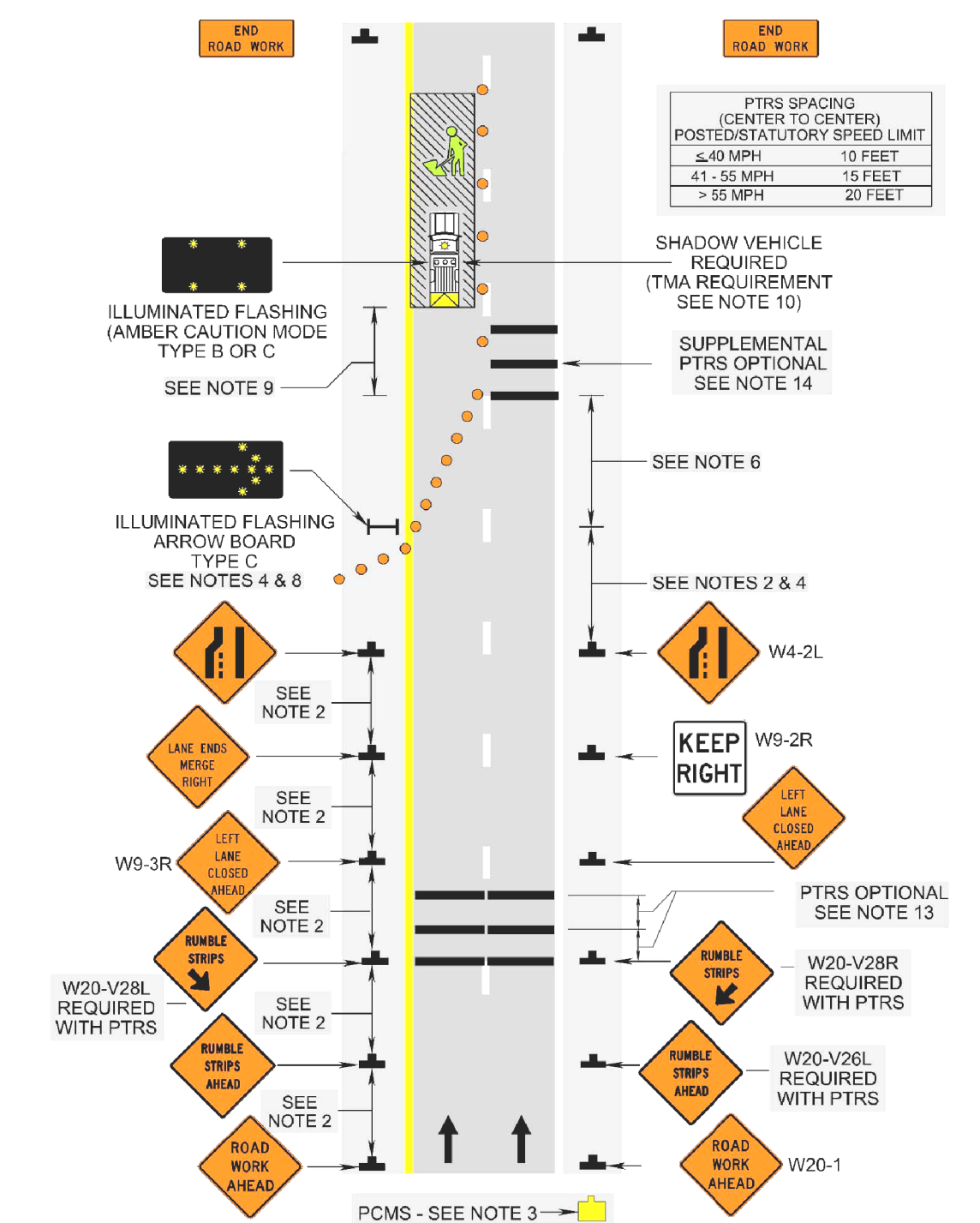
NOTES

- 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.
 - When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.
 - 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 6G-3. 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.
- Standard:**
- Taper length (L) and channelizing device spacing shall be at the following:
- | Taper Length L | | | | | |
|-------------------|-----|-----|-----|-----|---------|
| Speed Limit (mph) | 9 | 10 | 11 | 12 | Remarks |
| 25 | 95 | 105 | 115 | 125 | L=5*W60 |
| 30 | 105 | 150 | 165 | 180 | L=5*W60 |
| 35 | 185 | 205 | 225 | 245 | L=5*W60 |
| 40 | 240 | 270 | 295 | 320 | L=5*W60 |
| 45 | 425 | 450 | 475 | 540 | L=5*W |
- Limited Access highways shall use a 1000' merging taper regardless of the posted speed.
Shifting Tapers see Table 6H-2.7
- Channelizing device spacing shall be at the following:
- | Location Spacing | Speed Limit (mph) | Location Spacing | Speed Limit (mph) | Location Spacing | Speed Limit (mph) |
|------------------|-------------------|------------------|-------------------|------------------|-------------------|
| Transition | 20 | 40 | 40 | 80 | 80 |
| Travelway | 36+ | 36+ | 36+ | 36+ | 36+ |
- *Construction access spacing may be increased to this distance, but shall not exceed one access per 1/4 mile.
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-18).
 - The buffer space length shall be shown in Table 6H-3 on Page 6H-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 but 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.
- Option:**
- PTRS and their supporting signs may be used, see sections 6E.99 and 6G.25. Long-term transverse rumble strips may be used in long-term situations, see Section 6E.99 and TTC-20.
 - The supplemental PTRS may be eliminated.

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

September 2019 Page 6H-43

Inside Lane Closure Operation on a Four-Lane Roadway (Figure TTC-17.2)



2: Revision 2 - 9/1/2019

Page 6H-114 September 2019

Typical Traffic Control Signing for Project Limits (Figure TTC-53.0)

NOTES

- Support:**
- This layout depicts signing requirements for notifying motorist when they are entering and exiting a potential construction/maintenance area with a duration equal to or greater than 60 days.
- Standard:**
- The ROAD WORK AHEAD (W20-1) sign or the ROAD WORK NEXT XX MILES (G20-1 (V)) sign shall be placed far enough in advance of the project limits so that other warning signs in a series may be adequately placed prior to the condition they are warning about.
 - The ROAD WORK NEXT XX MILES sign shall be used for projects with activity areas greater than 2 miles in length, or when multiple work activities (such as pavement patching, guardrail installations, shoulder restoration, etc.) occur along a highway.
 - The distance displayed on the ROAD WORK NEXT XX MILES sign shall be stated to the nearest whole mile from the point of installation to the END ROAD WORK (G20-2 (V)) sign.
 - On divided highways having a median wider than 8', right and left sign assemblies shall be required.
- Guidance:**
- For projects with activity areas 2 miles or less in length, the ROAD WORK AHEAD sign should be the first sign motorist encounter.
 - 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.
 - All connections within the project limits should be identified with signs indicating to motorist they are entering or exiting a potential construction/maintenance area.

Page 6H-134 July 2019

Typical Traffic Control Logging Operations (Figure TTC-63.2)

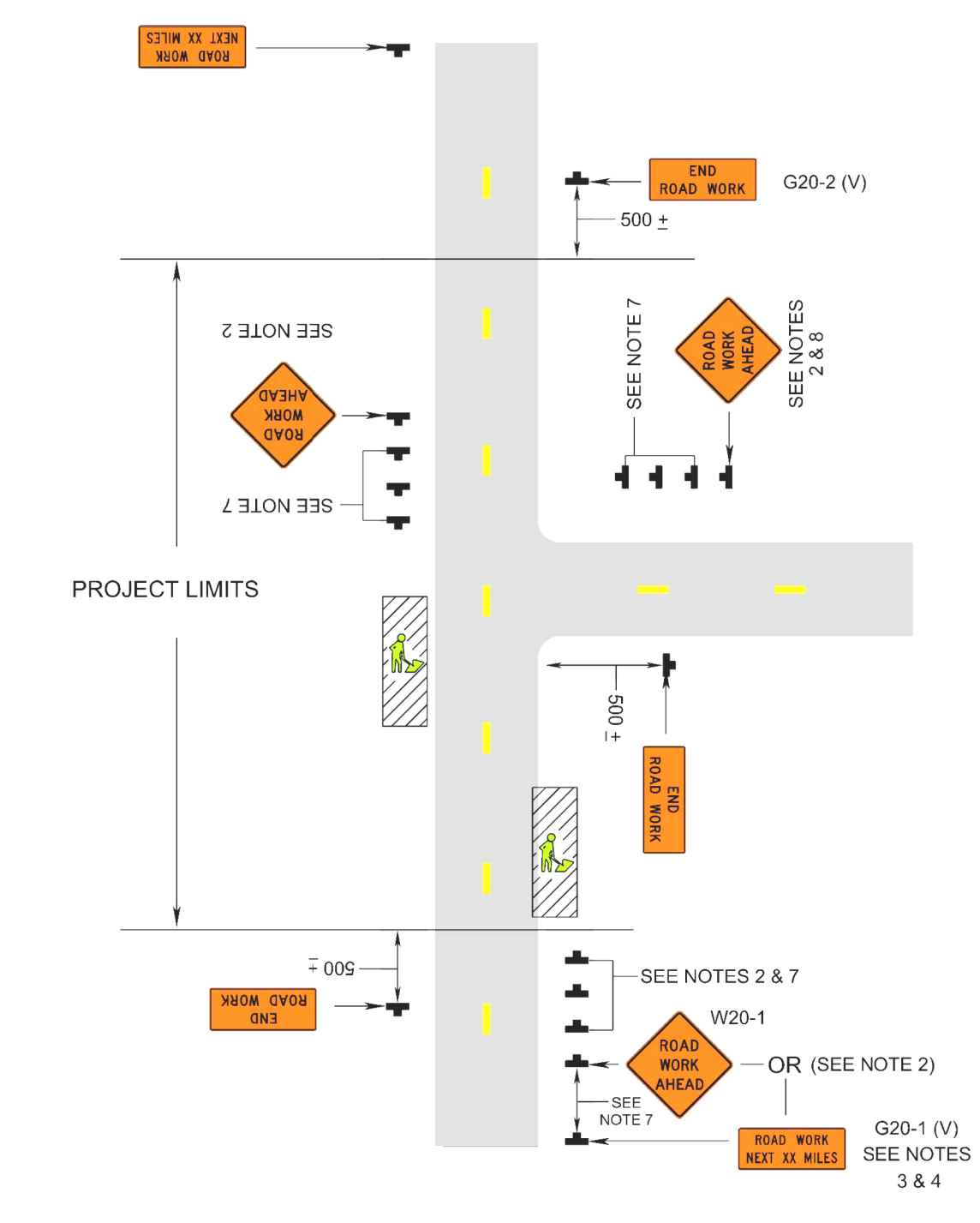
NOTES

- Standard:**
- Prior to the installation of the entrance and placement of any traffic control devices, the appropriate state/local agencies shall be notified.
- Guidance:**
- Care should be exercised when establishing the location of the permitted temporary entrance to insure maximum possible sight distance in advance of the entrance, and should be based on the posted speed limit and at least equal to or greater than the values in Table 6G-1, Intersection Sight Distance for Construction Entrances. If the minimum distances in Table 6G-1 cannot be obtained, a flagging operation should be implemented for exiting and entering vehicles.
 - Sign spacing distance 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.
- Standard:**
- TRUCKS ENTERING HIGHWAY (W11-V4) sign shall be used to warn of logging trucks entering roadways. LOG TRUCKS ENTERING HIGHWAY sign is not allowed for use.
 - On divided highways having a median wider than 8', right and left sign assemblies shall be used. Median barrier is considered to be part of the shoulder and its measurement shall be used to determine the total width of the shoulder.
- Guidance:**
- For operations that disrupt (stop) traffic on the travelway, Typical Traffic Control Figure TTC-23, Lane Closure on a Two-Lane Roadway Using Flaggers, or Typical Traffic Control Figure TTC-16 or 17, Outside or Inside Lane Closure Operation on Four-Lane Roadway, should be used.
- Standard:**
- Flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).
 - The organization receiving the entrance permit shall be responsible for the removal of all debris (gravel, mud, dust, hauled materials, etc.), obstructions and irregularities caused by the operation in accordance with Section 105 of the Road and Bridge Specifications.
- Guidance:**
- For the removal of debris on the roadway, Typical Traffic Control Figure TTC-14, Moving/Mobile Operation on a Two-Lane Roadway, or Typical Traffic Control Figure TTC-13, Moving/Mobile Operation on a Multi-Lane Roadway, should be used.

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

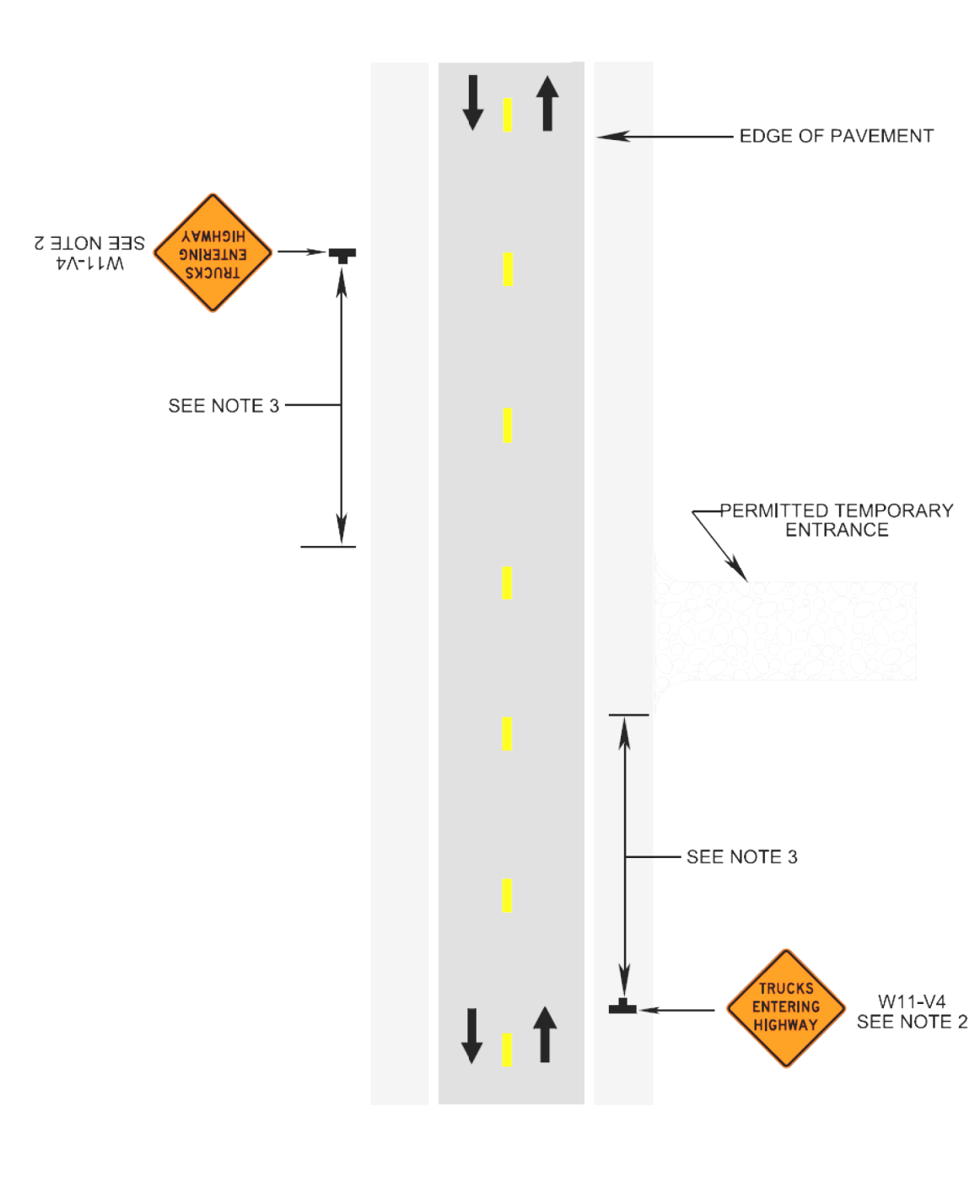
September 2019 Page 6H-115

Signing for Project Limits (Figure TTC-53.0)



July 2019 Page 6H-135

Logging Operations (Figure TTC-63.2)

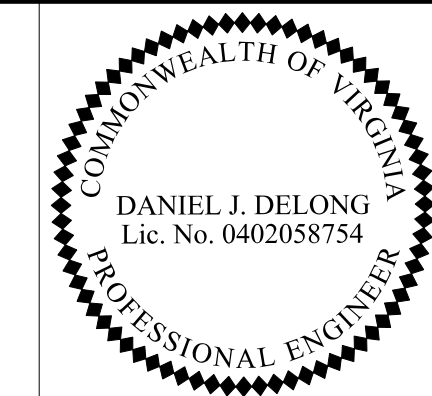


NOT TO SCALE PROJECT 0234-076-323 SHEET NO. 10(2)

10/20/2021

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

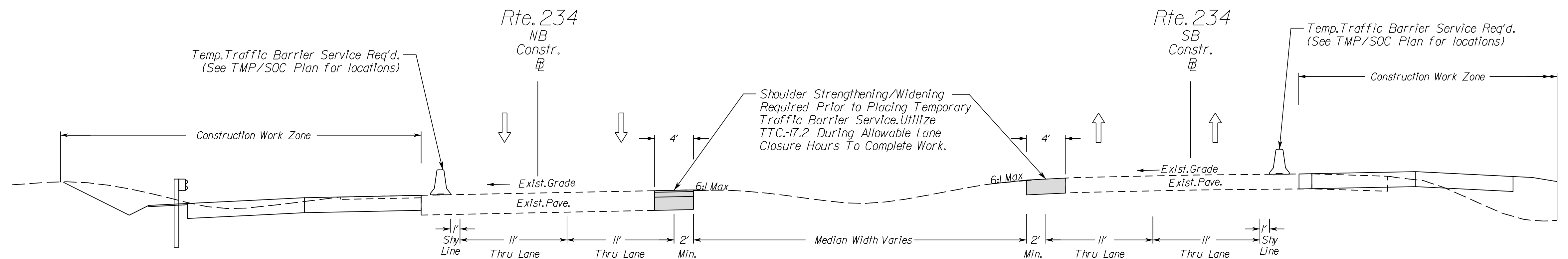
TMP/SOC Narrative & Typical Sections Phase I



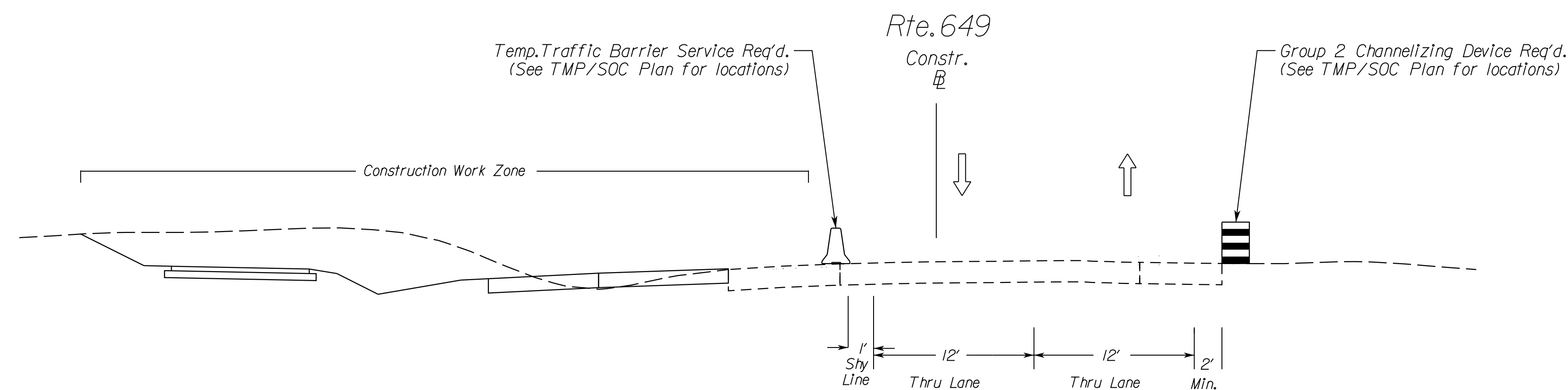
Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IP(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LOCATION	STATION	TO	STATION
Route 234 Bypass (existing)	540+00		566+00



LOCATION	STATION	TO	STATION
Route 649 (Brentsville Rd.)	102+50		106+75

Sequence of Construction

Phase - I

Purpose: Construct shoulder strengthening/widening along Rte. 234 median. Complete clearing & grubbing and construct permanent pavement outside of work zone clear zone unless otherwise shown on TMP/SOC plans.

Anticipated Virginia Work Area Protection Manual, Rev. 2, typical applications include: TTC-1, 4.2, 7.1, 16.2, 17.2, 53.0 & 63.2.

Install Project Limits and detour signing for existing Bradley Cemetery per TTC-53.0 and sheet N(1). Utilize single lane closure Per TTC-17.2 to perform shoulder leveling and temporary pavement widening along Rte. 234 Median.

Install temporary barrels/cones/fence, barrier, signs and all other temporary traffic controls, as appropriate. Existing pavement markings and markers are to remain during this phase except where noted on TMP/SOC plans.

Contractor to perform clearing/grubbing, grading and permanent pavement construction outside of work zone clear zone as noted on typical sections. Lane/shoulder closures shall be implemented whenever working inside of clear zone and shall be in accordance with the table on sheet IN. At the conclusion of each workday, all pavement edge drop-offs shall meet the requirements of Figure 2 in Appendix A of Virginia Work Area Protection Manual for the safety and protection of vehicular traffic. Where proper ingress/egress space is not available to construction entrances, contractor shall utilize lane/shoulder closures, as allowed in the contract.

NOT TO SCALE	PROJECT 0234-076-323	SHEET NO. IP(1)
--------------	-------------------------	--------------------

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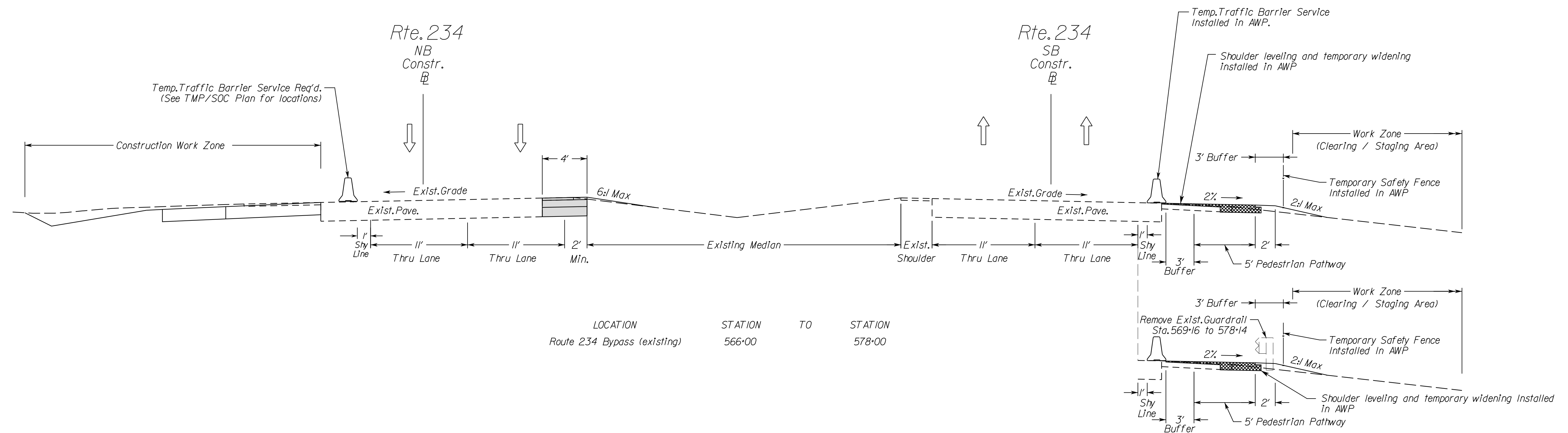
TMP/SOC Narrative & Typical Sections Phase I

DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1P(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Sequence of Construction

Phase - I

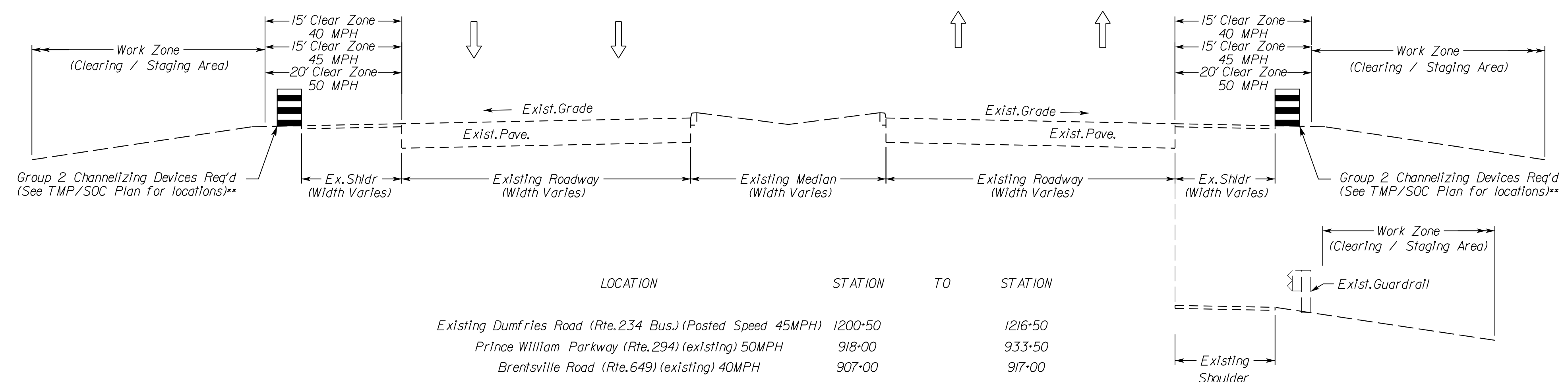
Purpose: Construct shoulder strengthening/widening along Rte. 234 median. Complete clearing & grubbing and construct permanent pavement outside of work zone clear zone unless otherwise shown on TMP/SOC plans.

Anticipated Virginia Work Area Protection Manual, Rev. 2, typical applications include: TTC-11, 4.2.7.1, 16.2, 17.2, 53.0 & 63.2.

Install Project limits and detour signing for existing Bradley Cemetery per TTC-53.0 and sheet IV(1). Utilize single lane closure Per TTC-17.2 to perform shoulder leveling and temporary pavement widening along Rte. 234 Median.

Install temporary barrels/cones/fence/barrier/signs and all other temporary traffic controls, as appropriate. Existing pavement markings and markers are to remain during this phase except where noted on TMP/SOC plans.

Contractor to perform clearing/grubbing, grading and permanent pavement construction outside of work zone clear zone as noted on typical sections. Lane/shoulder closures shall be implemented whenever working inside of clear zone and shall be in accordance with the table on sheet IV. At the conclusion of each workday, all pavement edge drop-offs shall meet the requirements of Figure 2 in Appendix A of Virginia Work Area Protection Manual for the safety and protection of vehicular traffic. Where proper ingress/egress space is not available to construction entrances, contractor shall utilize lane/shoulder closures, as allowed in the contract.



** Note: In locations where existing guardrail is being maintained, the existing guardrail can serve as the protective barrier in lieu of Group 2 Channelizing Devices.

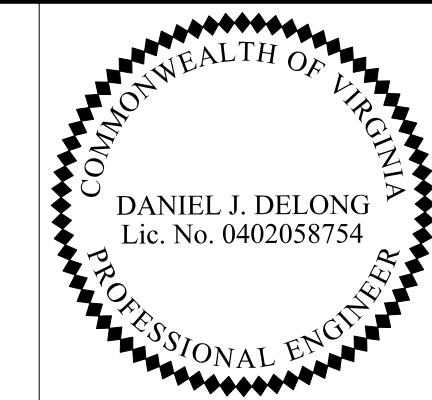
NOT TO SCALE	PROJECT 0234-076-323	SHEET NO. 1P(2)
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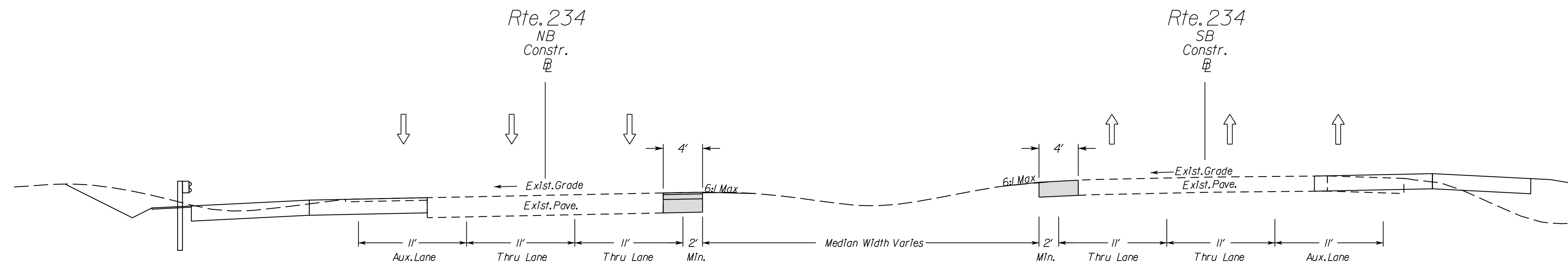
TMP/SOC Narrative & Typical Sections Phase 2



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1P(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LOCATION	STATION	TO	STATION
Route 234 Bypass (existing)	540+00		566+00

Sequence of Construction

Phase - 2

Purpose: Construct pavement widening & reconstruction along Rte.234, Rte.234 BUS, Rte.649, Roadway C and Roadway D.

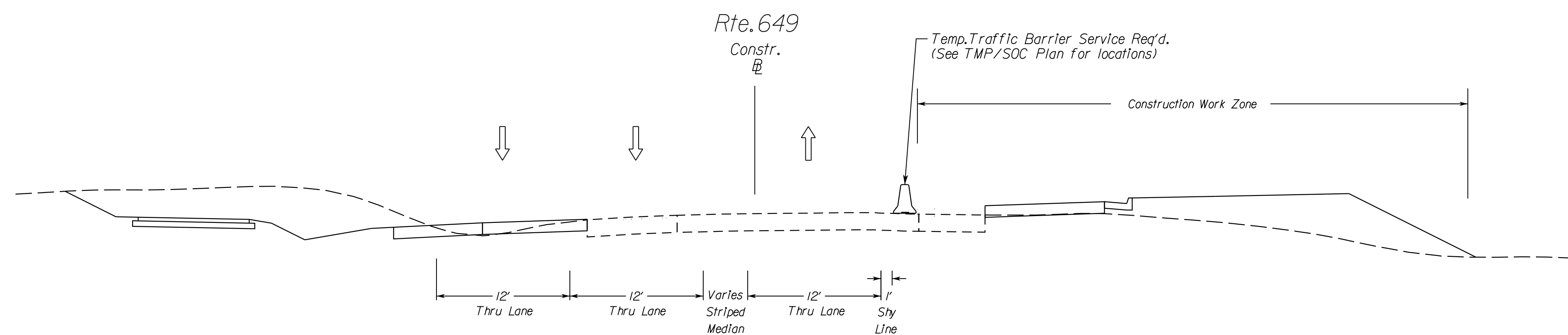
Anticipated Virginia Work Area Protection Manual, Rev. 2, typical applications include: TTC-1, 4, 2, 7, 1, 16, 2, 17, 2, 53, 0 & 63, 2.

Install project limit and detour signing for Rte.649 and Rte.224 BUS Northbound per TTC-53, 0 and sheet IV(2). Utilize TTC-17, 2 to perform remaining shoulder strengthening/widening in median of Rte.234.

Install temporary barrels/cones/fence, barrier, signs and all other temporary traffic controls, as appropriate. Existing pavement markings and markers are to remain during this phase except where noted on TMP/SOC plans.

Divert Rte 649 Traffic onto newly constructed pavement in order to construct remaining widening and complete ramps C & E. Contractor to perform permanent pavement widening on the outside of Rte.234 Northbound as noted on typical sections. Implement long term lane closure of Rte 234 BUS southbound and shift Northbound traffic to previously constructed pavement in Phase I. Shift Roadway C and D traffic to outside on newly constructed pavement and existing shoulder to construct median widening.

Lane/shoulder closures shall be implemented whenever working inside of clear zone and shall be in accordance with the table on sheet IN. At the conclusion of each workday, all pavement edge drop-offs shall meet the requirements of Figure 2 in Appendix A of Virginia Work Area Protection Manual for the safety and protection of vehicular traffic. Where proper ingress/egress space is not available to construction entrances, contractor shall utilize lane/shoulder closures, as allowed in the contract.



LOCATION	STATION	TO	STATION
Route 649 (Brentsville Rd.)	102+50		107+75

NOT TO SCALE	PROJECT 0234-076-323	SHEET NO. 1P(3)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

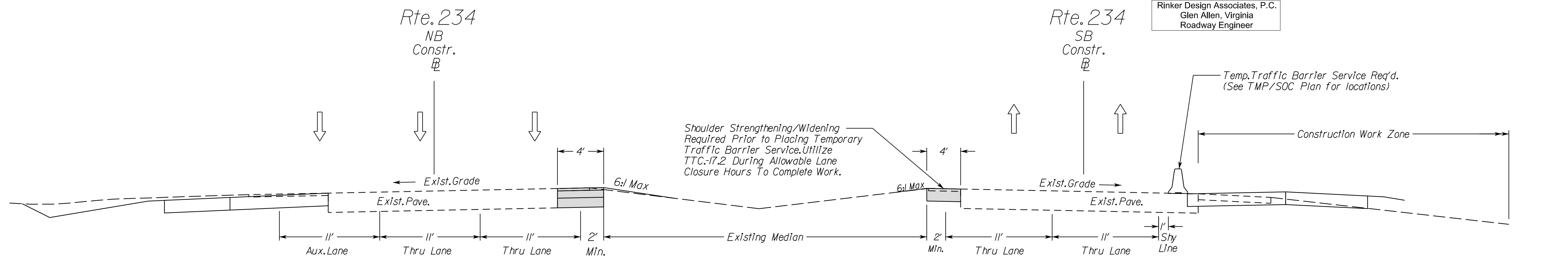
TMP/SOC Narrative & Typical Sections Phase 2 (Cont.)

DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

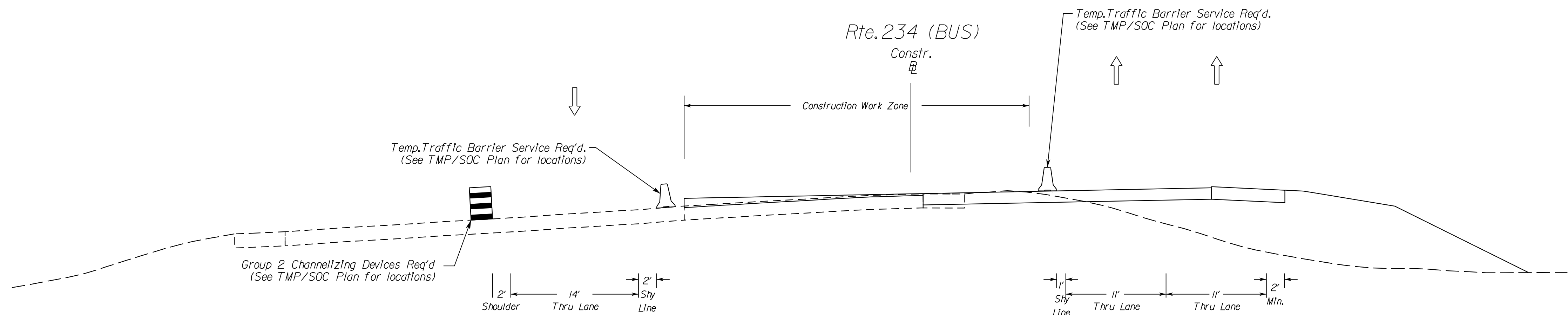
Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IP(4)

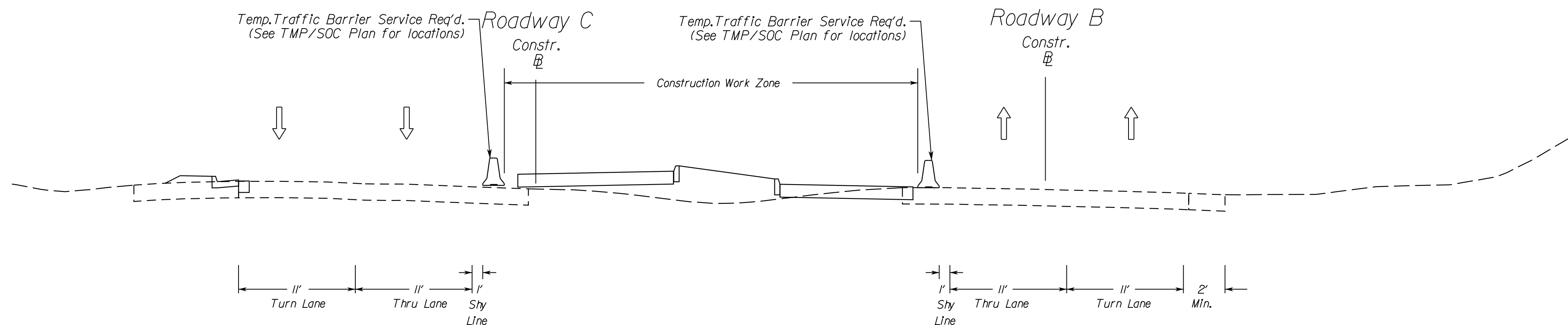
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LOCATION	STATION	TO	STATION
Route 234 Bypass (existing)	566+00		578+00



LOCATION	STATION	TO	STATION
Route 234 BUS (Dumfries Rd.)	126+00		133+50



LOCATION	STATION	TO	STATION	LOCATION	STATION	TO	STATION
Roadway C	907+00		914+00	Roadway B	807+00		817+00

NOT TO SCALE	PROJECT 0234-076-323	SHEET NO. IP(4)
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Sequence of Construction

Phase - 2

Purpose: Construct pavement widening & reconstruction along Rte.234, Rte.234 BUS, Rte.649, Roadway C and Roadway D.

Anticipated Virginia Work Area Protection Manual, Rev. 2, typical applications include: TTC-1, 4.2, 7.1, 16.2, 17.2, 53.0 & 63.2.

Install project limit and detour signing for Rte.649 and Rte.224 BUS Northbound per TTC-53.0 and sheet 11(2). Utilize TTC-17.2 to perform remaining shoulder strengthening/widening in median of Rte.234.

Install temporary barrels/cones/fence, barrier, signs and all other temporary traffic controls, as appropriate. Existing pavement markings and markers are to remain during this phase except where noted on TAMP/SC plans.

Divert Rte 649 Traffic onto newly constructed pavement in order to construct remaining widening and complete ramps C & E. Contractor to perform permanent pavement widening on the outside of Rte.234 Northbound as noted on typical sections. Implement long term lane closure of Rte 234 BUS southbound and shift Northbound traffic to previously constructed pavement in Phase 1. Shift Roadway C and D traffic to outside on newly constructed pavement and existing shoulder to construct median widening.

Lane/shoulder closures shall be implemented whenever working inside of clear zone and shall be in accordance with the table on sheet 11N. At the conclusion of each workday, all pavement edge drop-offs shall meet the requirements of Figure 2 in Appendix A of Virginia Work Area Protection Manual for the safety and protection of vehicular traffic. Where proper ingress/egress space is not available to construction entrances, contractor shall utilize lane/shoulder closures, as allowed in the contract.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

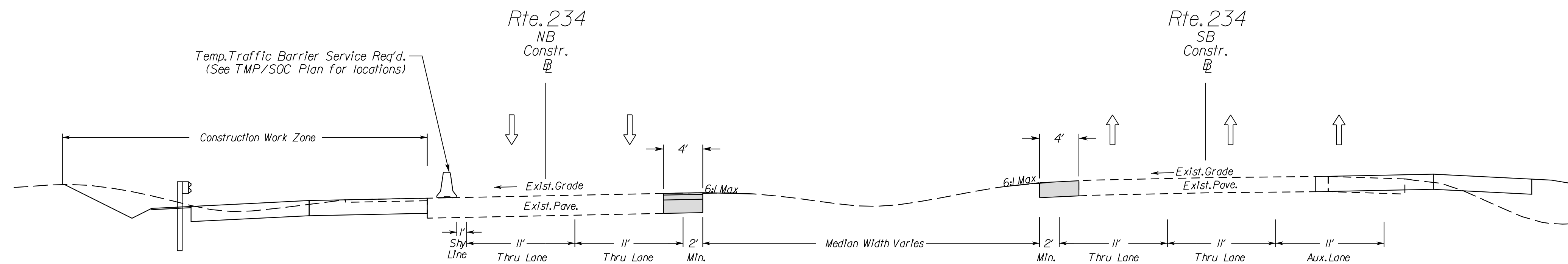
TMP/SOC Narrative & Typical Sections Phase 2A

DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1P(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LOCATION	STATION	TO	STATION
Route 234 Bypass (existing)	556+00		566+00

Sequence of Construction

Phase - 2A

Purpose: Construct pavement widening & reconstruction along Rte. 234, Rte. 234 BUS.

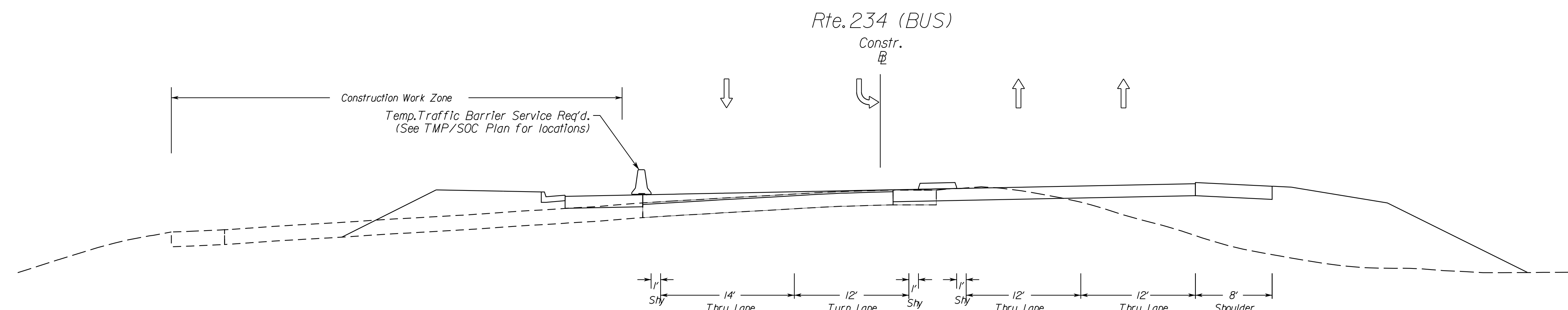
Anticipated Virginia Work Area Protection Manual, Rev. 2, typical applications include: TTC-1.1, 4.2, 7.1, 16.2, 17.2, 53.0 & 63.2.

Install project limit and detour signing for Rte. 234 to Rte. 224 BUS traffic per TTC-53.0 and sheet M(3). Utilize TTC-17.2 to perform remaining outside widening along Southbound Rte. 234.

Install temporary barrels/cones/fence/barrier/signs and all other temporary traffic controls, as appropriate. Existing pavement/previous markings and markers are to remain during this phase except where noted on TMP/SOC plans.

Divert remaining traffic off of existing Rte. 234 Business between Rte. 234 and Roadway C in order to complete outside widening of Rte. 234. Complete construction of curb and gutter and shared use path along Southbound Rte. 234 BUS north of Roadway C.

Lane/shoulder closures shall be implemented whenever working inside of clear zone and shall be in accordance with the table on sheet IN. At the conclusion of each workday, all pavement edge drop-offs shall meet the requirements of Figure 2 in Appendix A of Virginia Work Area Protection Manual for the safety and protection of vehicular traffic. Where proper ingress/egress space is not available to construction entrances, contractor shall utilize lane/shoulder closures, as allowed in the contract.



LOCATION	STATION	TO	STATION
Route 234 BUS (Dumfries Rd.)	126+00		133+50

NOT TO SCALE	PROJECT 0234-076-323	SHEET NO. 1P(5)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

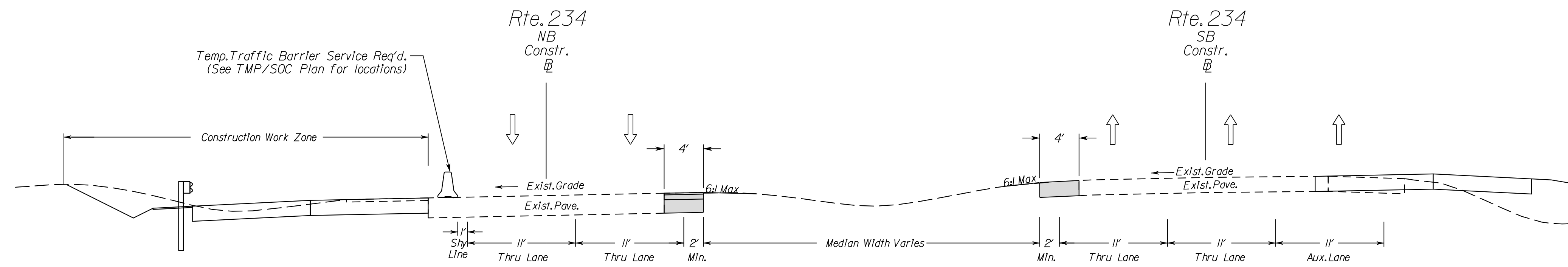
TMP/SOC Narrative & Typical Sections Phase 3

DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IP(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LOCATION	STATION	TO	STATION
Route 234 Bypass (existing)	556+00		566+00

Sequence of Construction

Phase - 3

Purpose: Complete median construction and pavement demo along Rte 234. Complete shared use path construction along Roadway B and construction of Ramp A. Complete demo of existing Prince William Parkway.

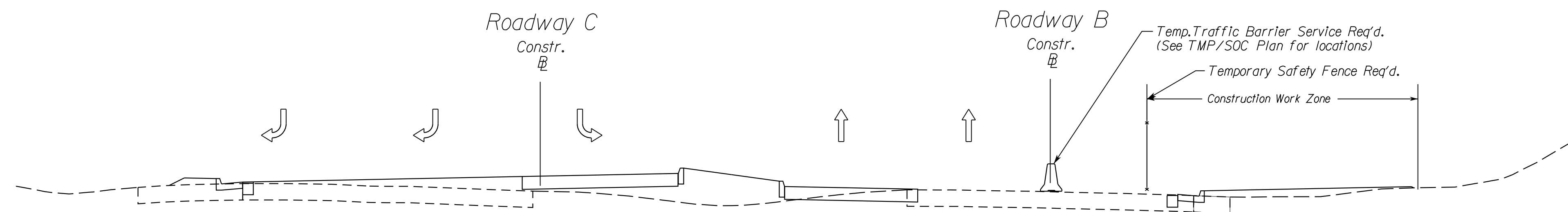
Anticipated Virginia Work Area Protection Manual, Rev. 2, typical applications include: TTC-11, 4.2, 7.1, 16.2, 17.2, 53.0 & 63.2.

Install project limit and detour signing for Ramp A traffic per TTC-53.0 and sheet IV(4).

Install temporary barrels/cones/fence/barrier, signs and all other temporary traffic controls, as appropriate. Existing pavement/previous markings and markers are to remain during this phase except where noted on TMP/SOC plans.

Once Northbound traffic on Existing Prince William Parkway is detoured, complete construction of Ramp A. With pedestrian traffic diverted onto existing pavement of Roadway B, complete construction of shared use path. Shift Northbound and Southbound traffic along Rte 234 onto newly constructed pavement in order to complete median construction and pavement demo.

Lane/shoulder closures shall be implemented whenever working inside of clear zone and shall be in accordance with the table on sheet IV. At the conclusion of each workday, all pavement edge drop-offs shall meet the requirements of Figure 2 in Appendix A of Virginia Work Area Protection Manual for the safety and protection of vehicular traffic. Where proper ingress/egress space is not available to construction entrances, contractor shall utilize lane/shoulder closures, as allowed in the contract.



LOCATION	STATION	TO	STATION
Roadway C	907+00		914+00

LOCATION	STATION	TO	STATION
Roadway B	807+00		817+00

NOT TO SCALE	PROJECT	SHEET NO.
	0234-076-323	IP(6)

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

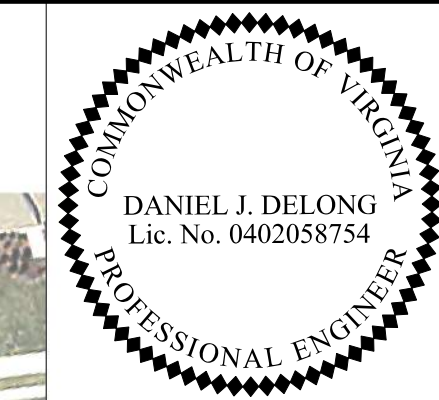
10/20/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase I

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Biker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	IR(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Match Line Sheet IR(2) - STA 539+00

Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(EX)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
[Symbol]	Denotes Construction Access Point
[Symbol]	Denotes Clearing/Staging/Work Area This Phase
[Symbol]	Denotes Perm. Construction This Phase
[Symbol]	Denotes Construction Under Traffic This Phase
[Symbol]	Denotes Temp. Pavement Construction This Phase
[Symbol]	Denotes Perm. Construction From Previous Phase
[Symbol]	Denotes Traffic Flow
[Symbol]	Denotes Group II Channelizing Devices
[Symbol]	Denotes Temporary Concrete Barrier
[Symbol]	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IR(1)
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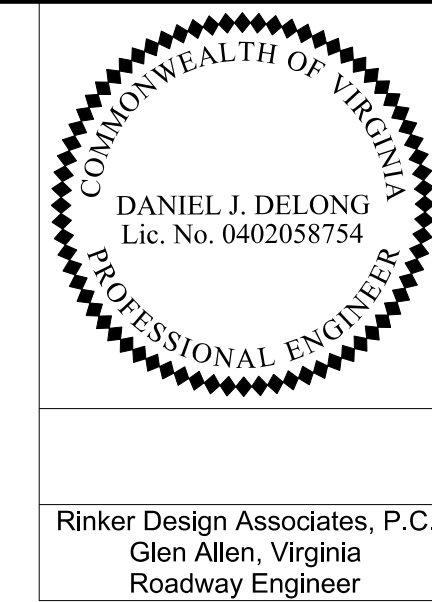
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

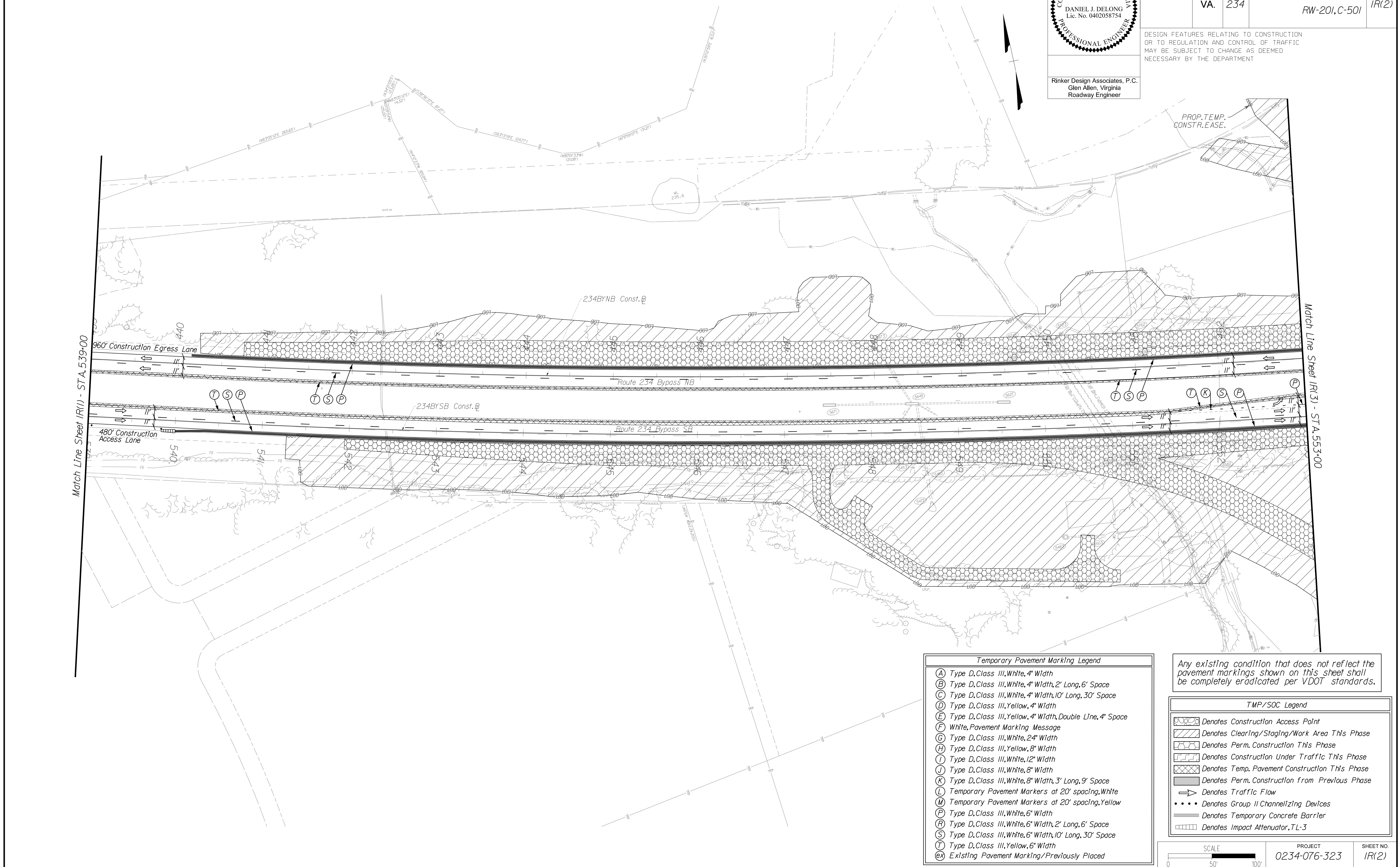
TMP/SOC Phase I



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	1R(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

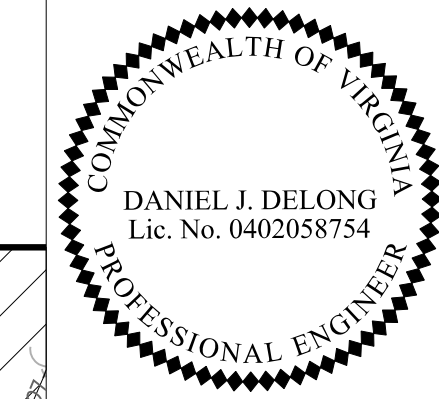
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1R(2)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Blnker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guad, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

TMP/SOC Phase I

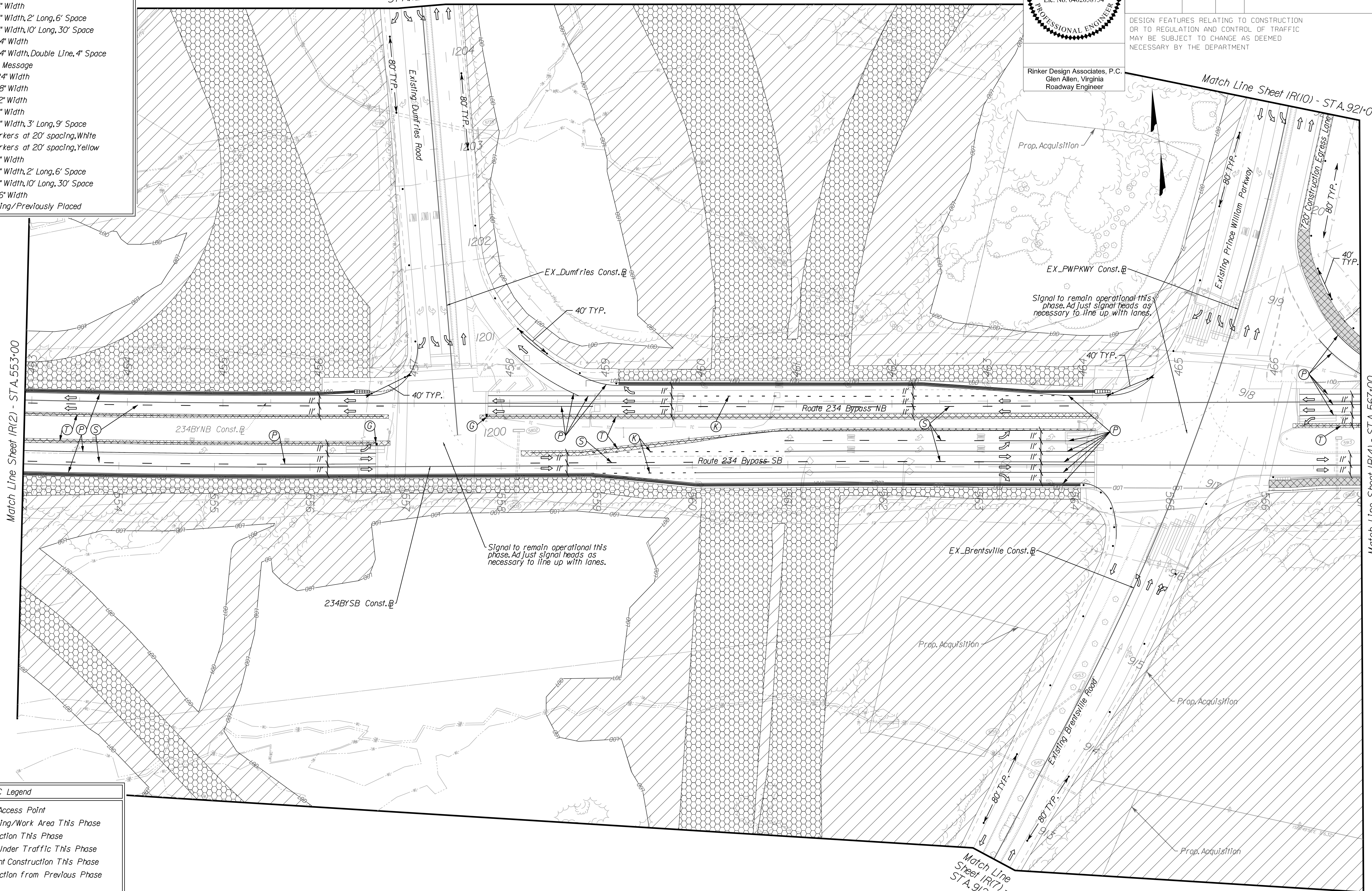


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	1R(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

- Temporary Pavement Marking Legend**
- (A) Type D, Class III, White, 4" Width
 - (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
 - (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
 - (D) Type D, Class III, Yellow, 4" Width
 - (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
 - (F) White, Pavement Marking Message
 - (G) Type D, Class III, White, 24" Width
 - (H) Type D, Class III, Yellow, 8" Width
 - (I) Type D, Class III, White, 12" Width
 - (J) Type D, Class III, White, 8" Width
 - (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
 - (L) Temporary Pavement Markers at 20' spacing, White
 - (M) Temporary Pavement Markers at 20' spacing, Yellow
 - (P) Type D, Class III, White, 6" Width
 - (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
 - (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
 - (T) Type D, Class III, Yellow, 6" Width
 - (X) Existing Pavement Marking/Previously Placed



- TMP/SOC Legend**
- Denotes Construction Access Point
 - Denotes Clearing/Staging/Work Area This Phase
 - Denotes Perm. Construction This Phase
 - Denotes Construction Under Traffic This Phase
 - Denotes Temp. Pavement Construction This Phase
 - Denotes Perm. Construction from Previous Phase
 - Denotes Traffic Flow
 - Denotes Group II Channelizing Devices
 - Denotes Temporary Concrete Barrier
 - Denotes Impact Attenuator, TL-3

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

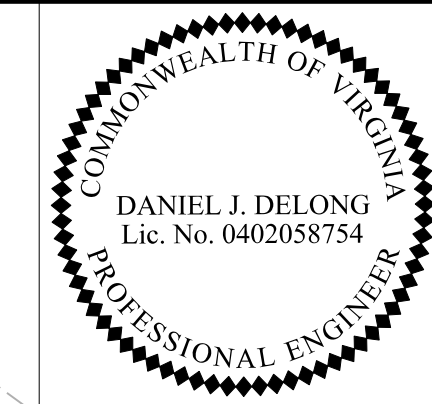
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1R(3)
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PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

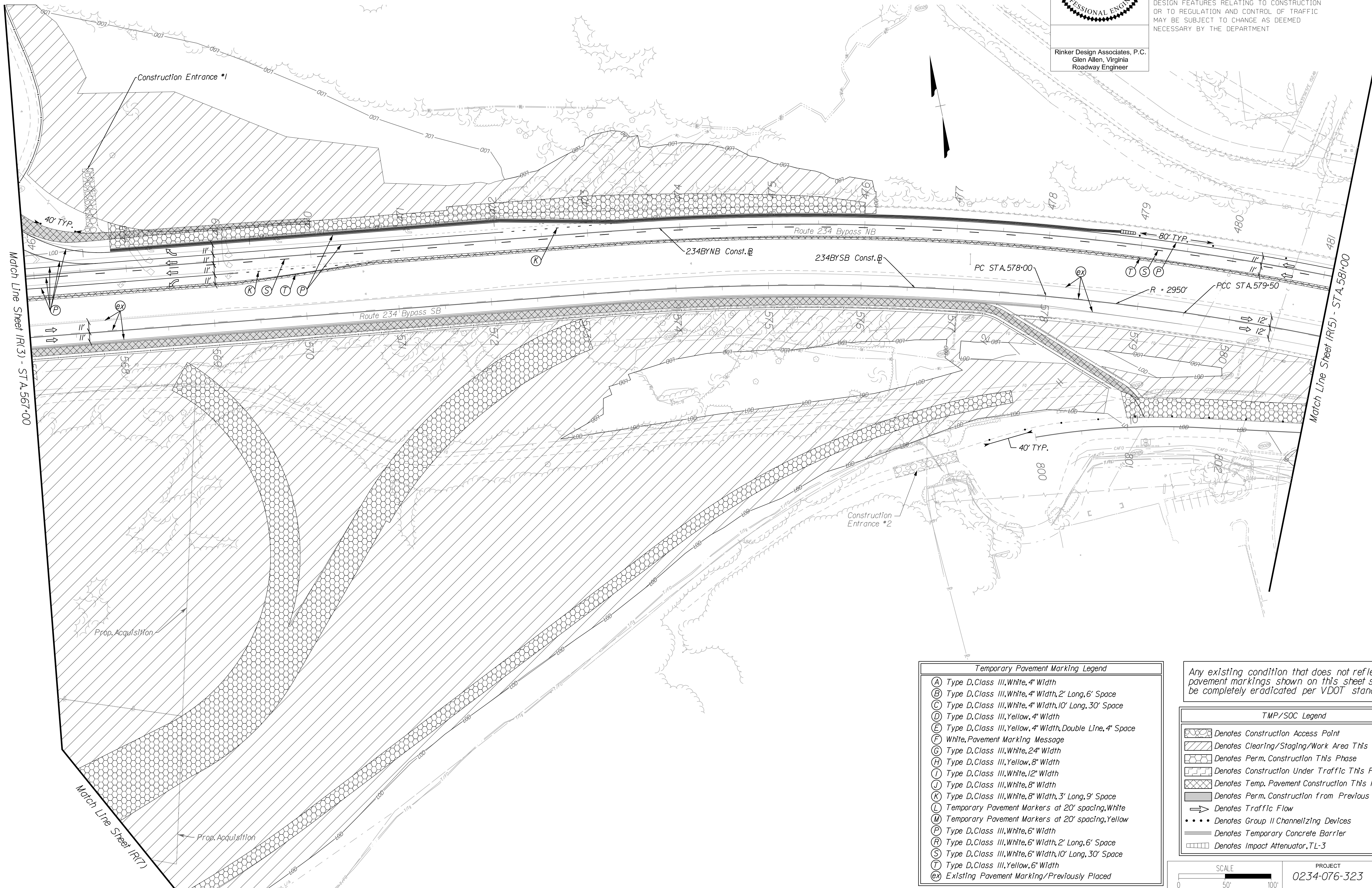
TMP/SOC Phase I



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IR(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(EX)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

[Hatched Box]	Denotes Construction Access Point
[Diagonal Hatched Box]	Denotes Clearing/Staging/Work Area This Phase
[Cross-hatched Box]	Denotes Perm. Construction This Phase
[Dotted Hatched Box]	Denotes Construction Under Traffic This Phase
[Diagonal Hatched Box]	Denotes Temp. Pavement Construction This Phase
[Solid Grey Box]	Denotes Perm. Construction From Previous Phase
[Arrow]	Denotes Traffic Flow
[Dotted Line]	Denotes Group II Channelizing Devices
[Double Line]	Denotes Temporary Concrete Barrier
[Rectangular Box]	Denotes Impact Attenuator, TL-3

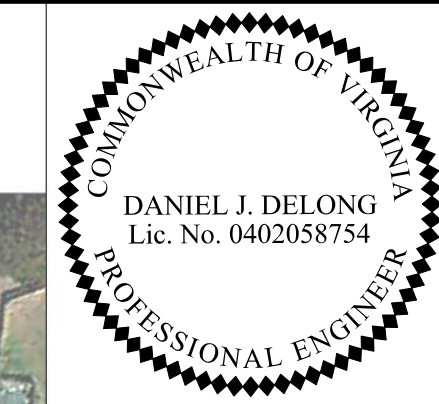
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IR(4)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

TMP/SOC Phase I

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guad, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

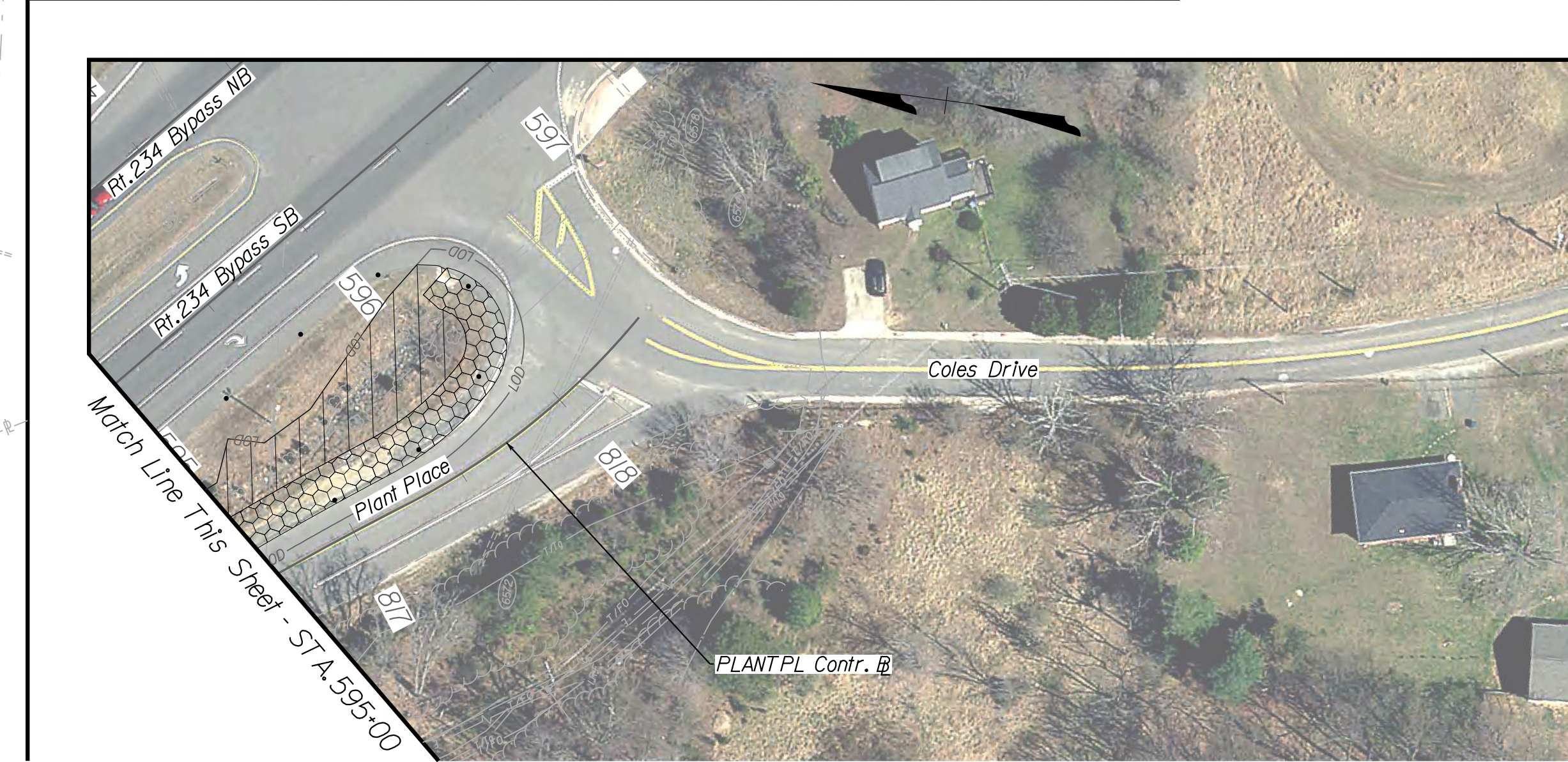
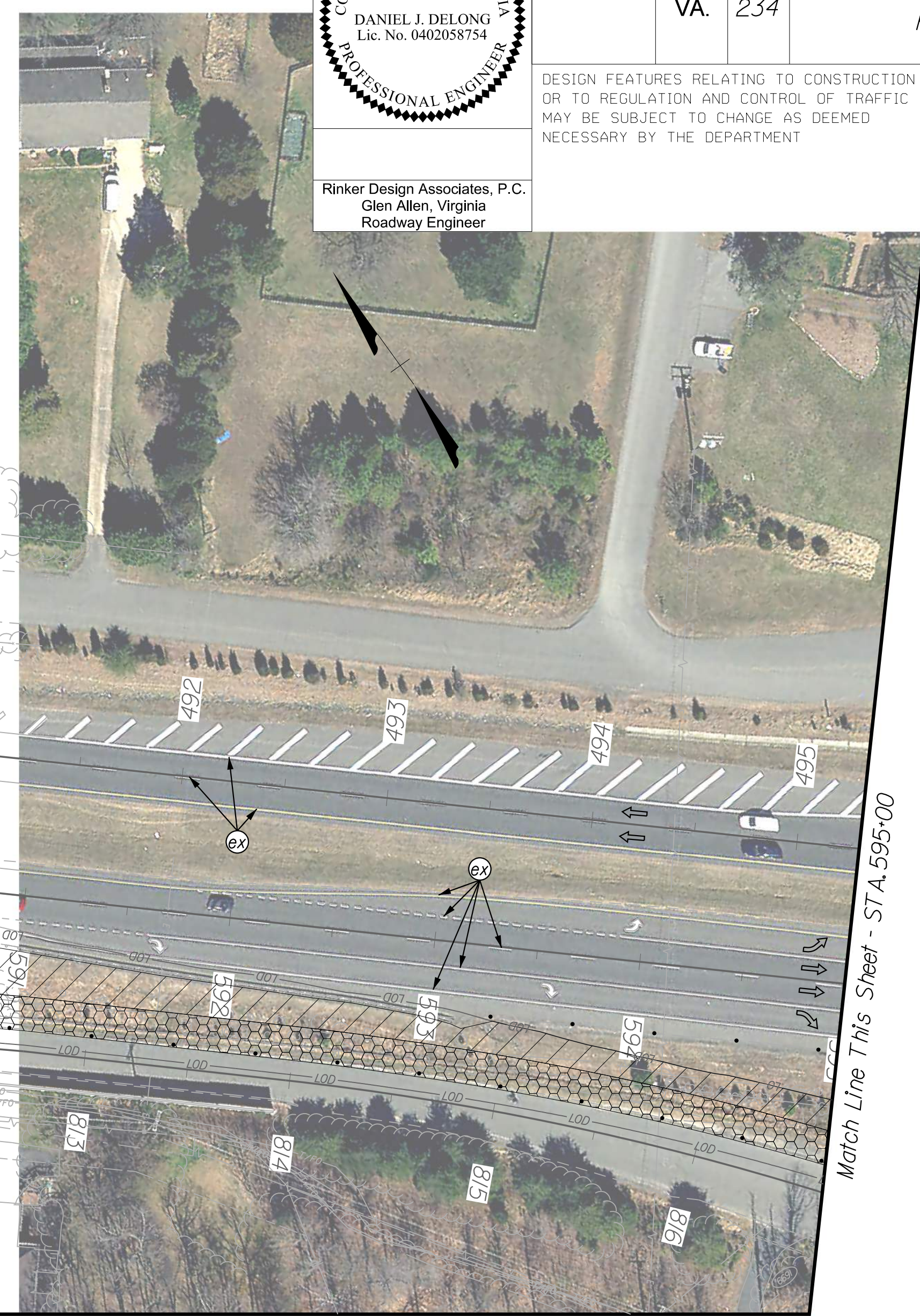
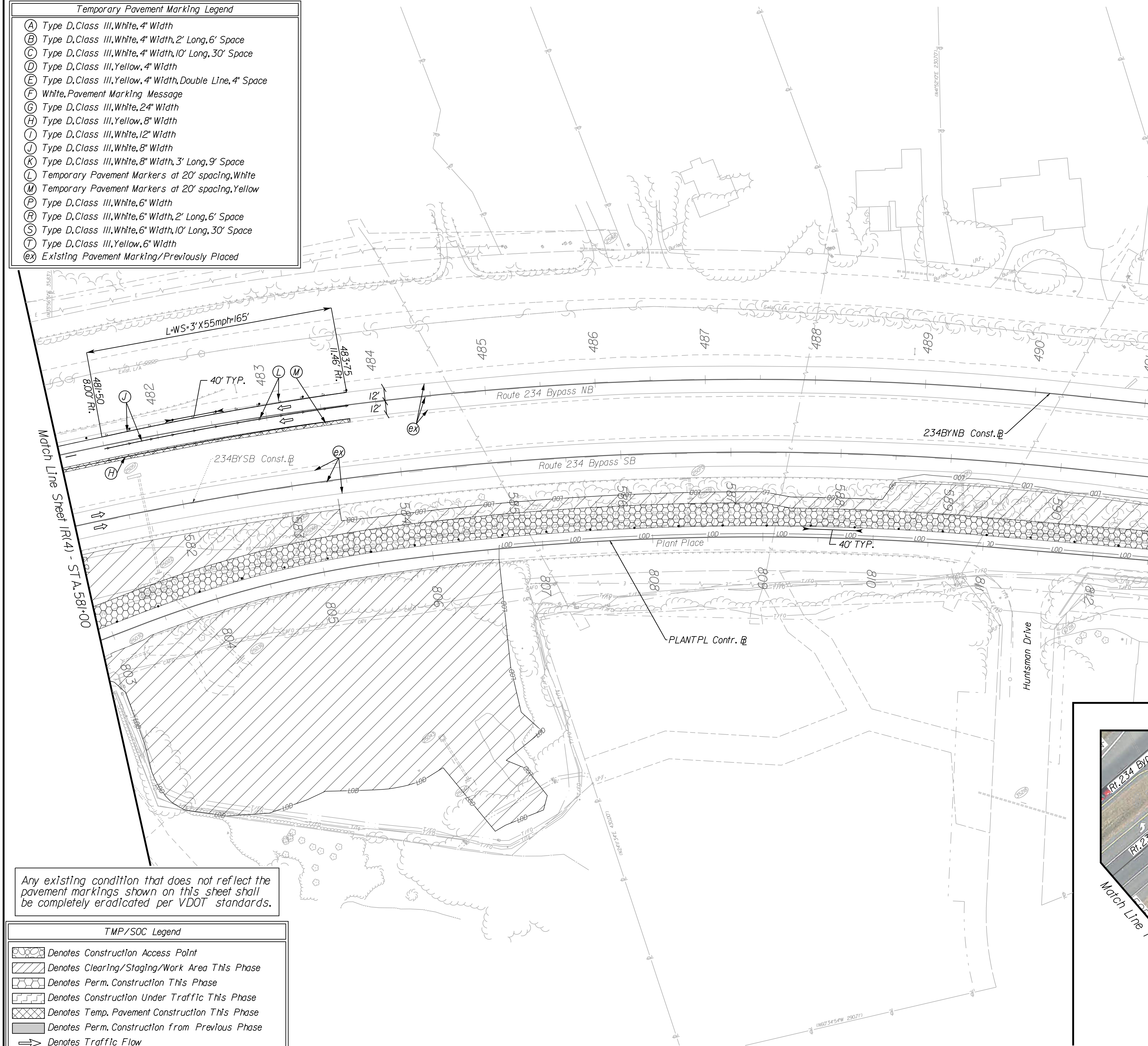


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	1R(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

- Temporary Pavement Marking Legend**
- (A) Type D, Class III, White, 4" Width
 - (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
 - (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
 - (D) Type D, Class III, Yellow, 4" Width
 - (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
 - (F) White, Pavement Marking Message
 - (G) Type D, Class III, White, 2 1/2" Width
 - (H) Type D, Class III, Yellow, 8" Width
 - (I) Type D, Class III, White, 12" Width
 - (J) Type D, Class III, White, 8" Width
 - (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
 - (L) Temporary Pavement Markers at 20' spacing, White
 - (M) Temporary Pavement Markers at 20' spacing, Yellow
 - (N) Type D, Class III, White, 6" Width
 - (O) Type D, Class III, White, 6" Width, 2' Long, 6' Space
 - (P) Type D, Class III, White, 6" Width, 10' Long, 30' Space
 - (Q) Type D, Class III, Yellow, 6" Width
 - (X) Existing Pavement Marking/Previously Placed



- TMP/SOC Legend**
- Denotes Construction Access Point
 - Denotes Clearing/Staging/Work Area This Phase
 - Denotes Perm. Construction This Phase
 - Denotes Construction Under Traffic This Phase
 - Denotes Temp. Pavement Construction This Phase
 - Denotes Perm. Construction from Previous Phase
 - Denotes Traffic Flow
 - Denotes Group II Channelizing Devices
 - Denotes Temporary Concrete Barrier
 - Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1R(5)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

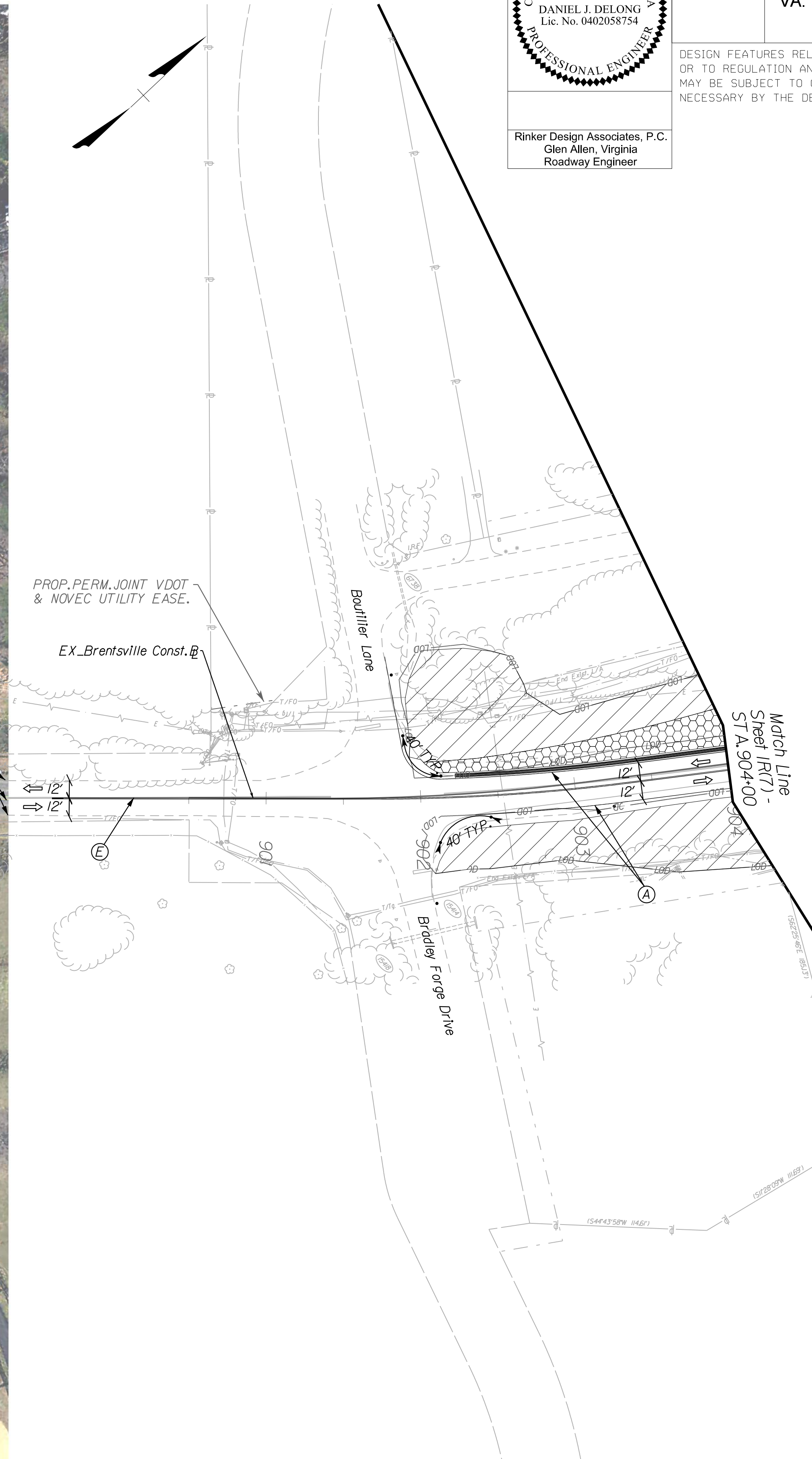
TMP/SOC Phase I

COMMONWEALTH OF VIRGINIA
DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1R(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (EX) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
- [Symbol] Denotes Construction Under Traffic This Phase
- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction from Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. 1R(6)

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7740, April 2021

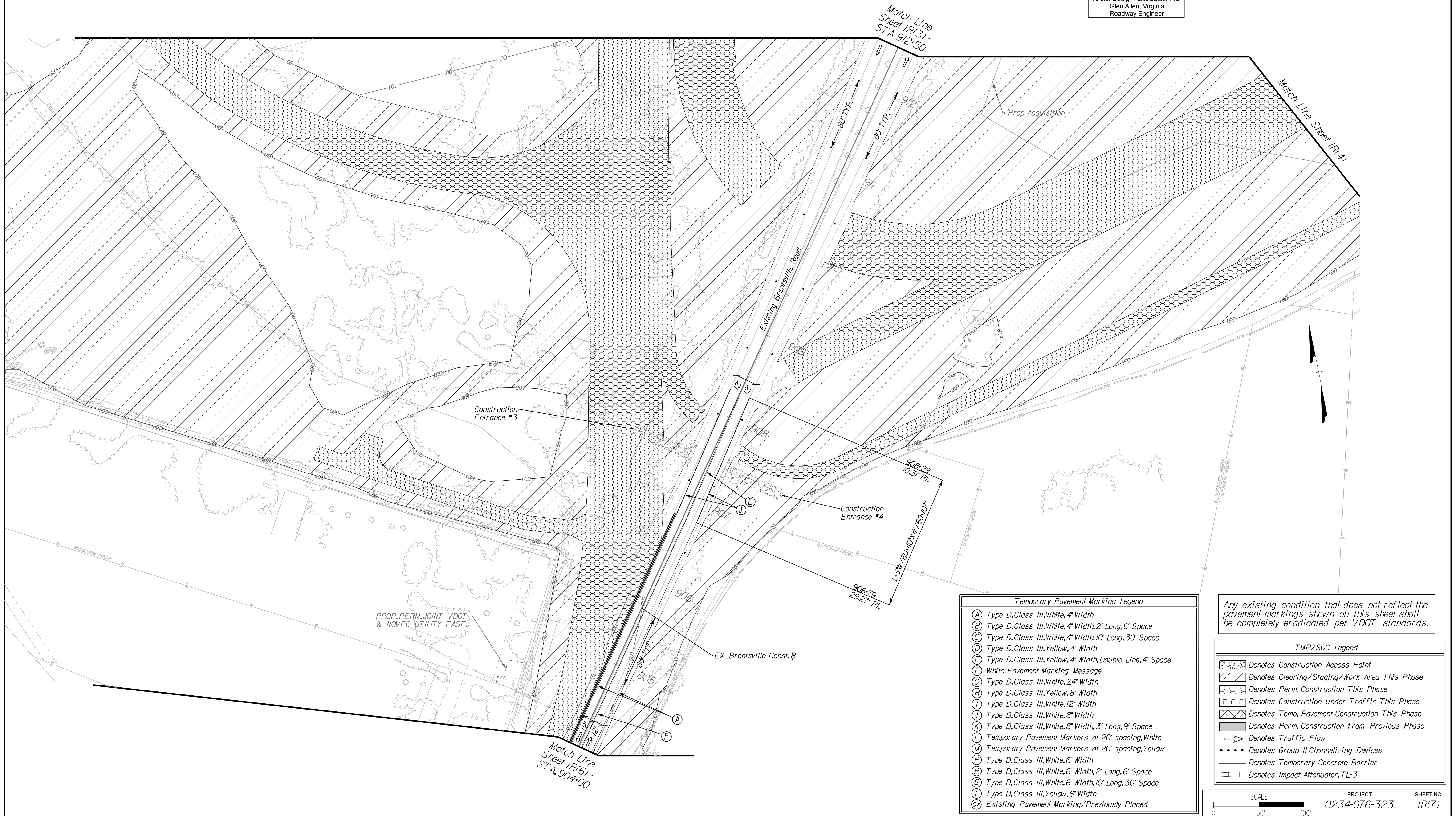
TMP/SOC Phase 1

COMMONWEALTH OF VIRGINIA
DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1R(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- (Symbol) Denotes Construction Access Point
- (Symbol) Denotes Clearing/Staging/Work Area This Phase
- (Symbol) Denotes Perm. Construction This Phase
- (Symbol) Denotes Construction Under Traffic This Phase
- (Symbol) Denotes Temp. Pavement Construction This Phase
- (Symbol) Denotes Perm. Construction from Previous Phase
- (Symbol) Denotes Traffic Flow
- (Symbol) Denotes Group II Channelizing Devices
- (Symbol) Denotes Temporary Concrete Barrier
- (Symbol) Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1R(7)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

TMP/SOC Phase I

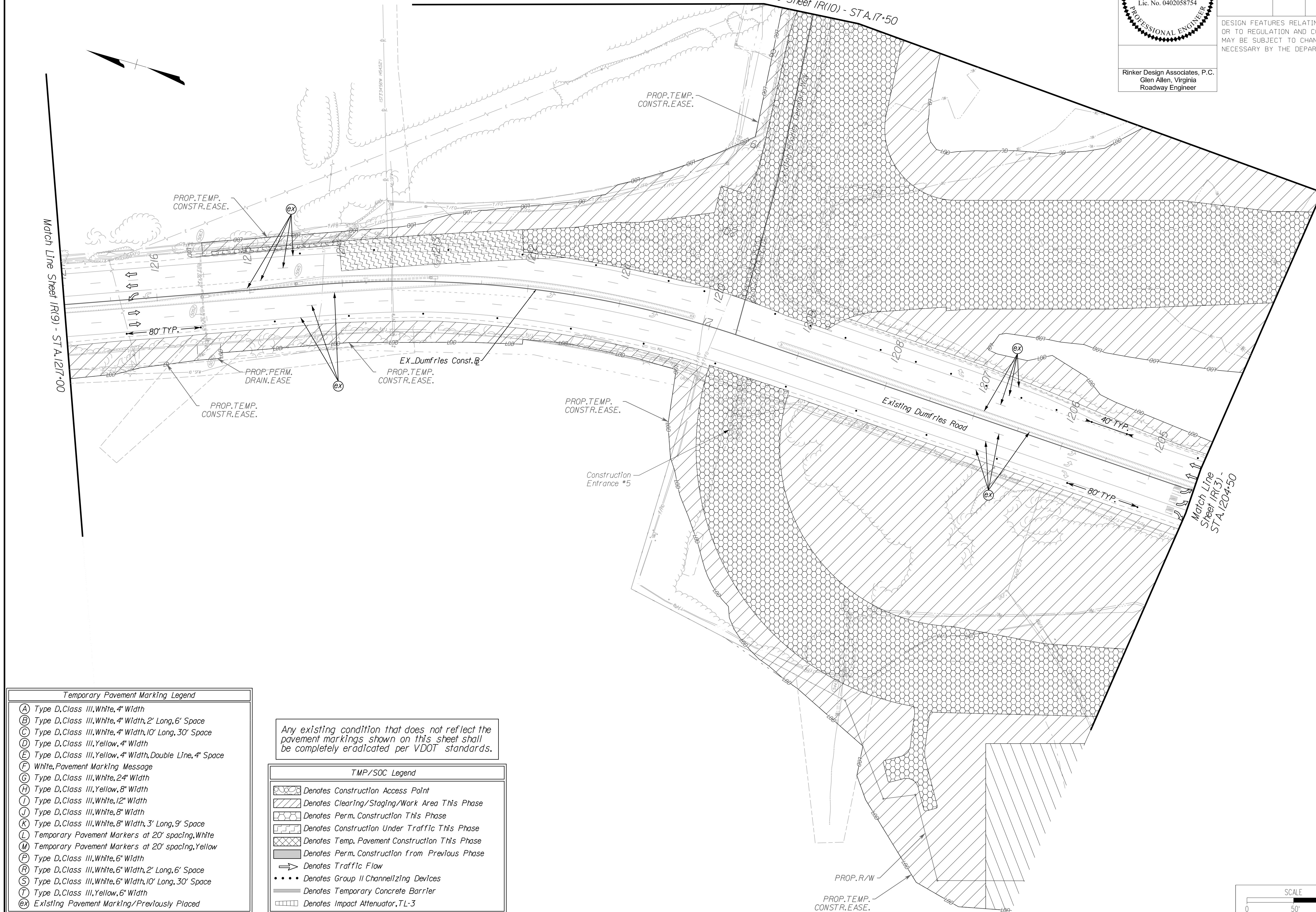
DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1R(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021



Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. 1R(8)

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

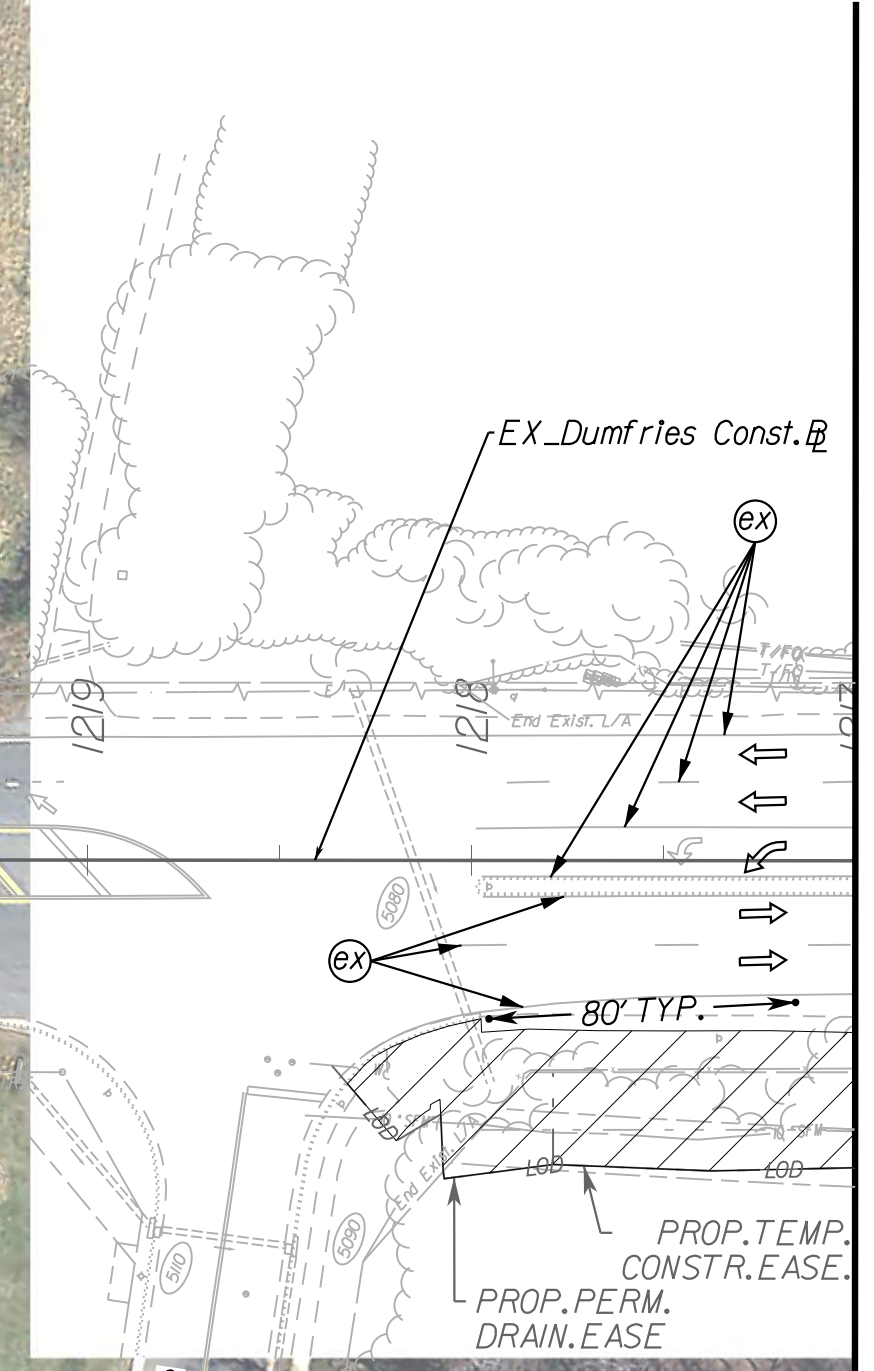
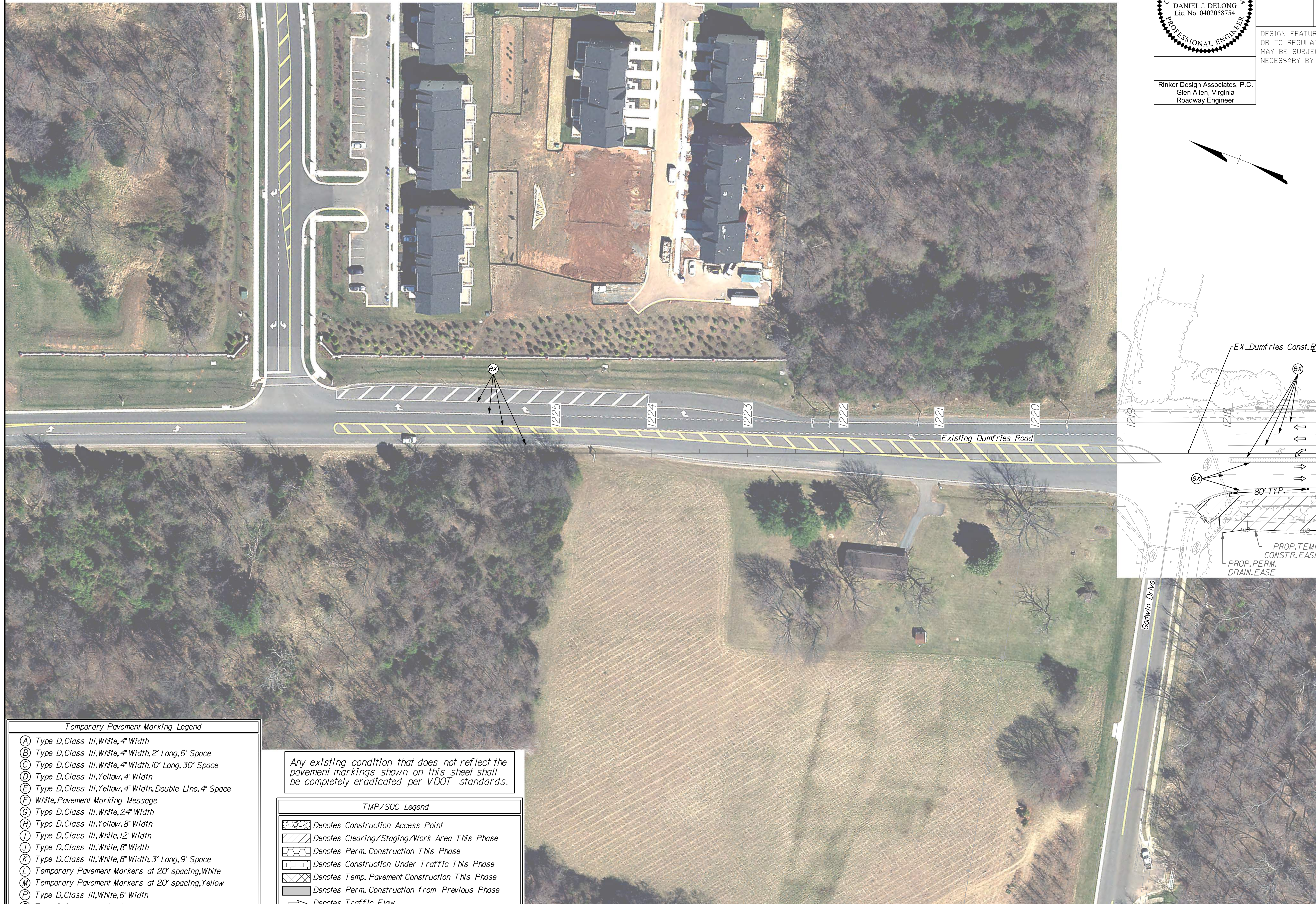
TMP/SOC Phase I

DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1R(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Match Line Sheet 1R(8) - STA. 1217+00

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (N) Type D, Class III, White, 6" Width
- (O) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (P) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (Q) Type D, Class III, Yellow, 6" Width
- (R) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. 1R(9)

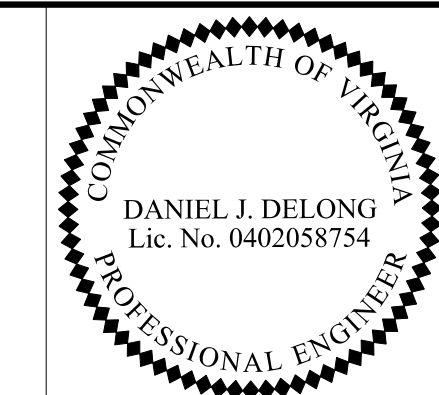
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TMP/SOC Phase 1



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1R(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

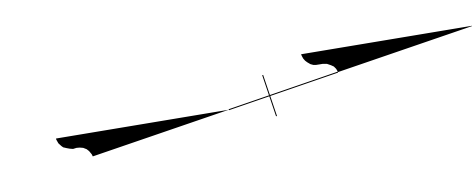
Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (EX) Existing Pavement Marking/Previously Placed

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3



SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1R(10)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

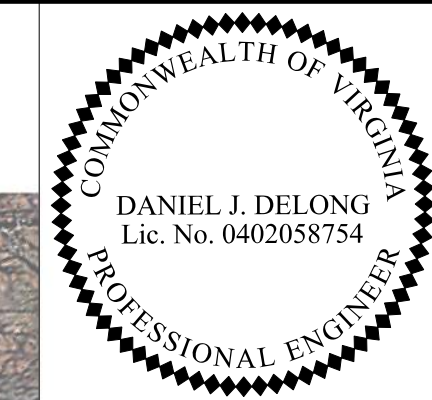
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase I

PROJECT MANAGER BWC, DOT, Mary Akers (703)792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

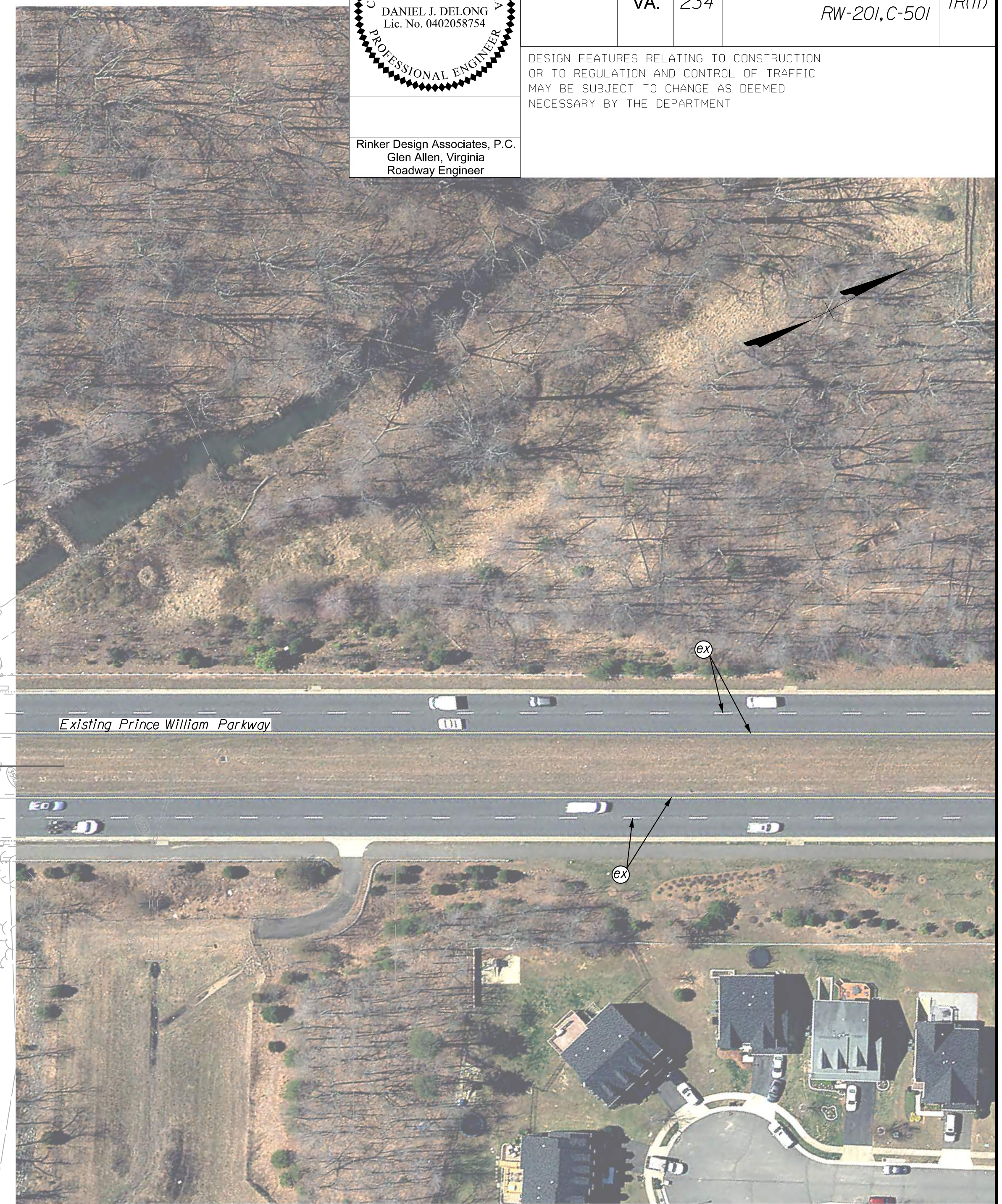
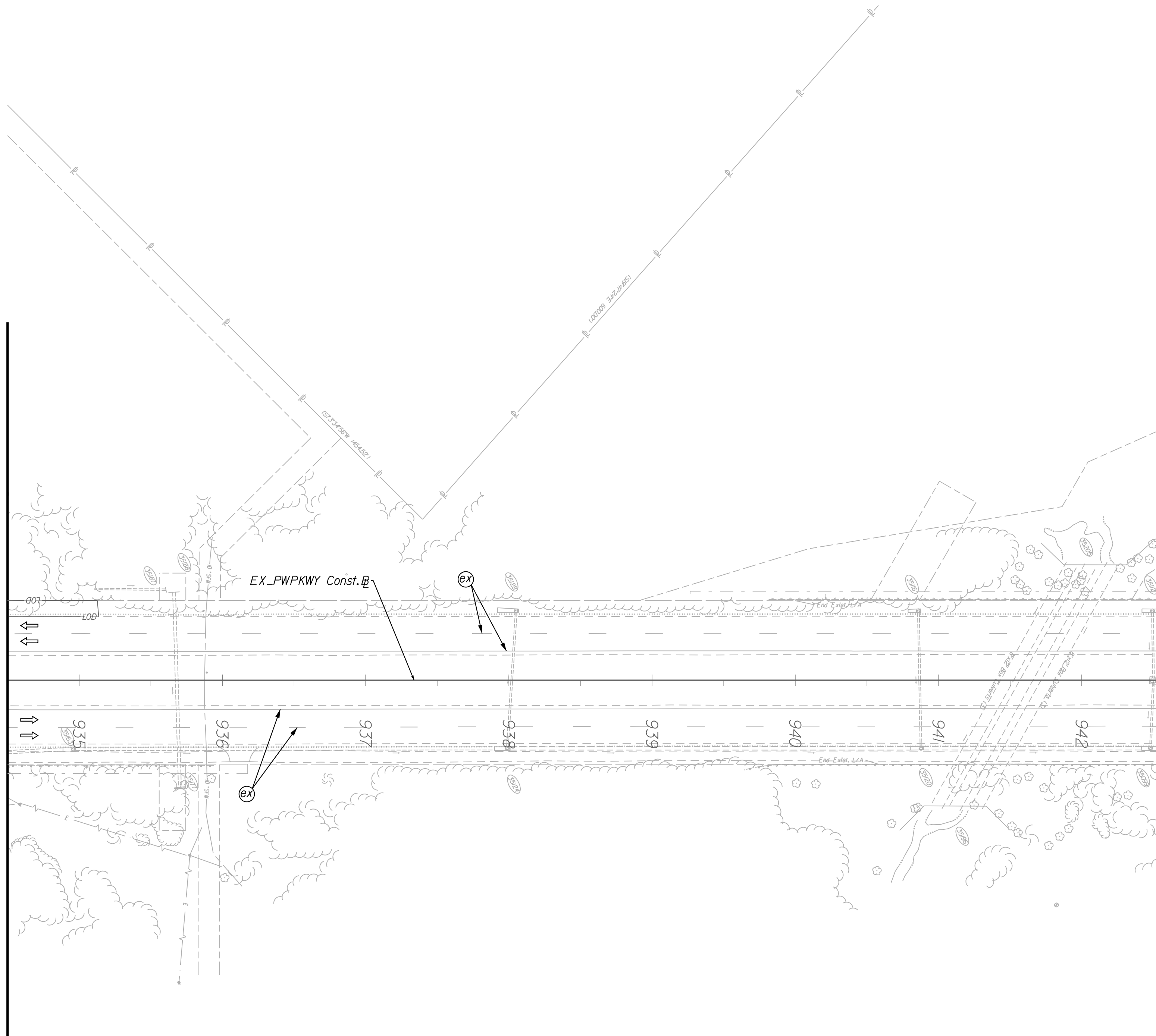


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1R(11)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Match Line Sheet 1R(10) - STA. 934+50



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1R(11)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

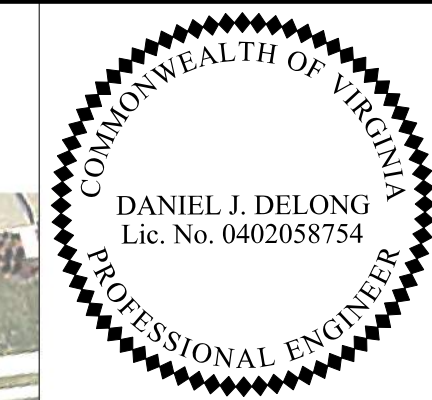
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Biker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

TMP/SOC Phase 2



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	1S(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Match Line Sheet 1S(2) - STA 539+00

Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(ex)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(1)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

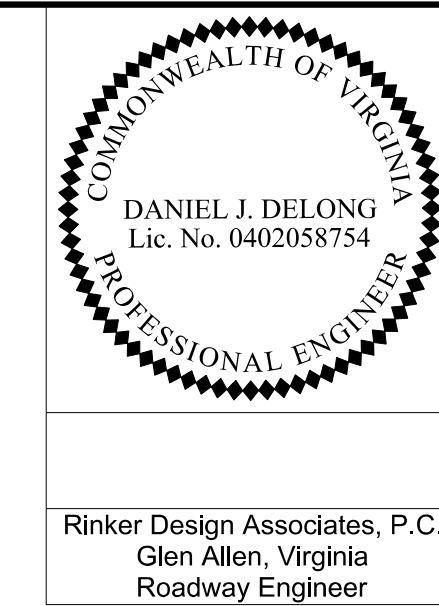
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

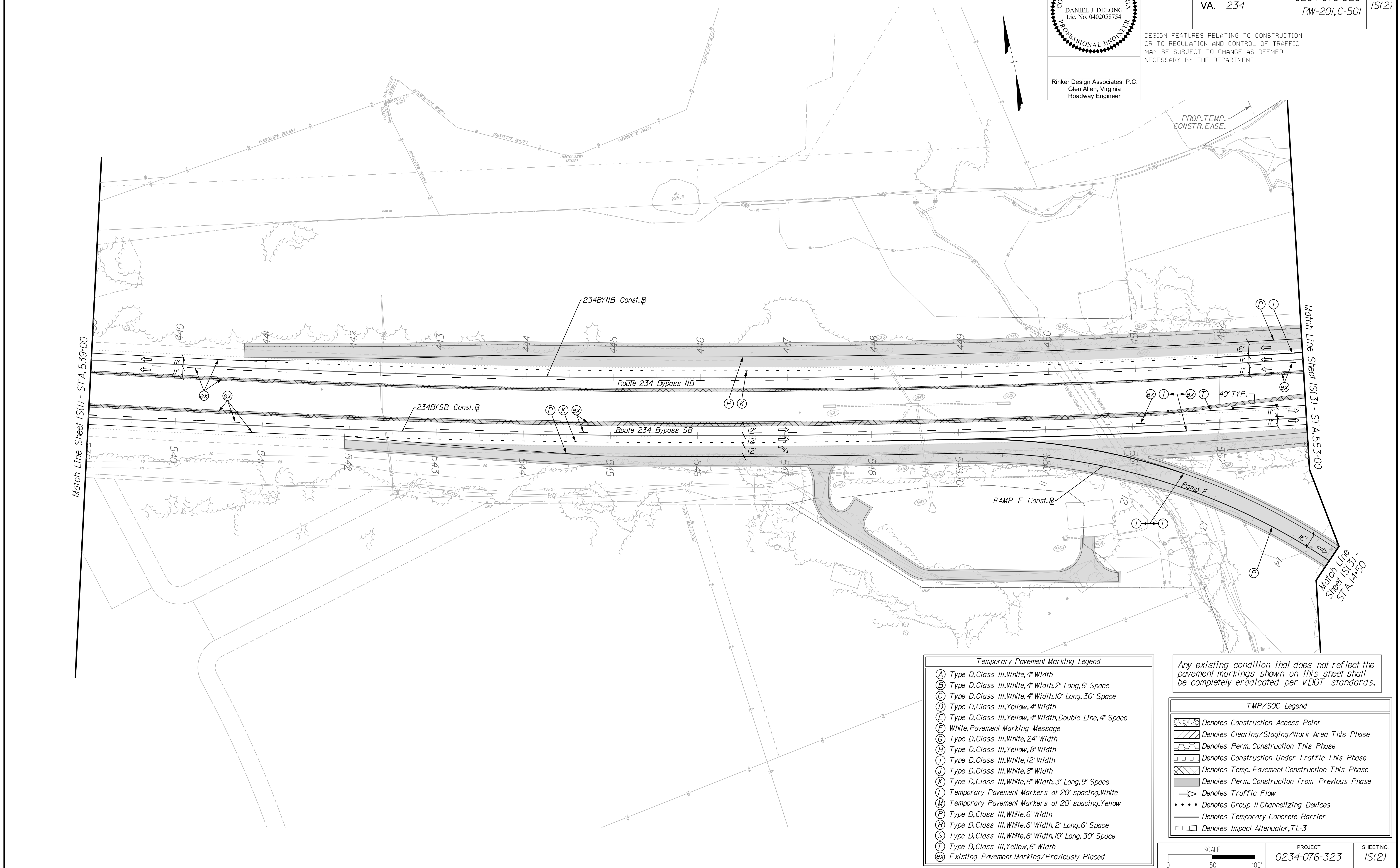
TMP/SOC Phase 2



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	1S(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(ex)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
[Symbol]	Denotes Construction Access Point
[Symbol]	Denotes Clearing/Staging/Work Area This Phase
[Symbol]	Denotes Perm. Construction This Phase
[Symbol]	Denotes Construction Under Traffic This Phase
[Symbol]	Denotes Temp. Pavement Construction This Phase
[Symbol]	Denotes Perm. Construction From Previous Phase
[Symbol]	Denotes Traffic Flow
[Symbol]	Denotes Group II Channelizing Devices
[Symbol]	Denotes Temporary Concrete Barrier
[Symbol]	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(2)
---------------------	-------------------------	--------------------

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

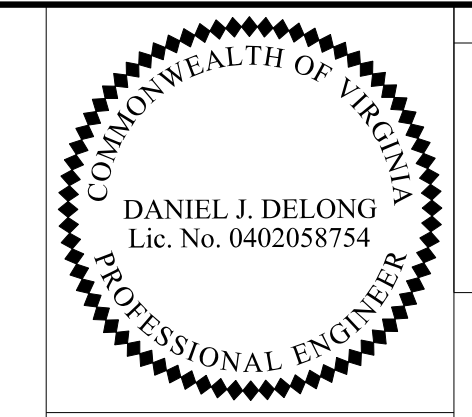
LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (EX) Existing Pavement Marking/Previously Placed

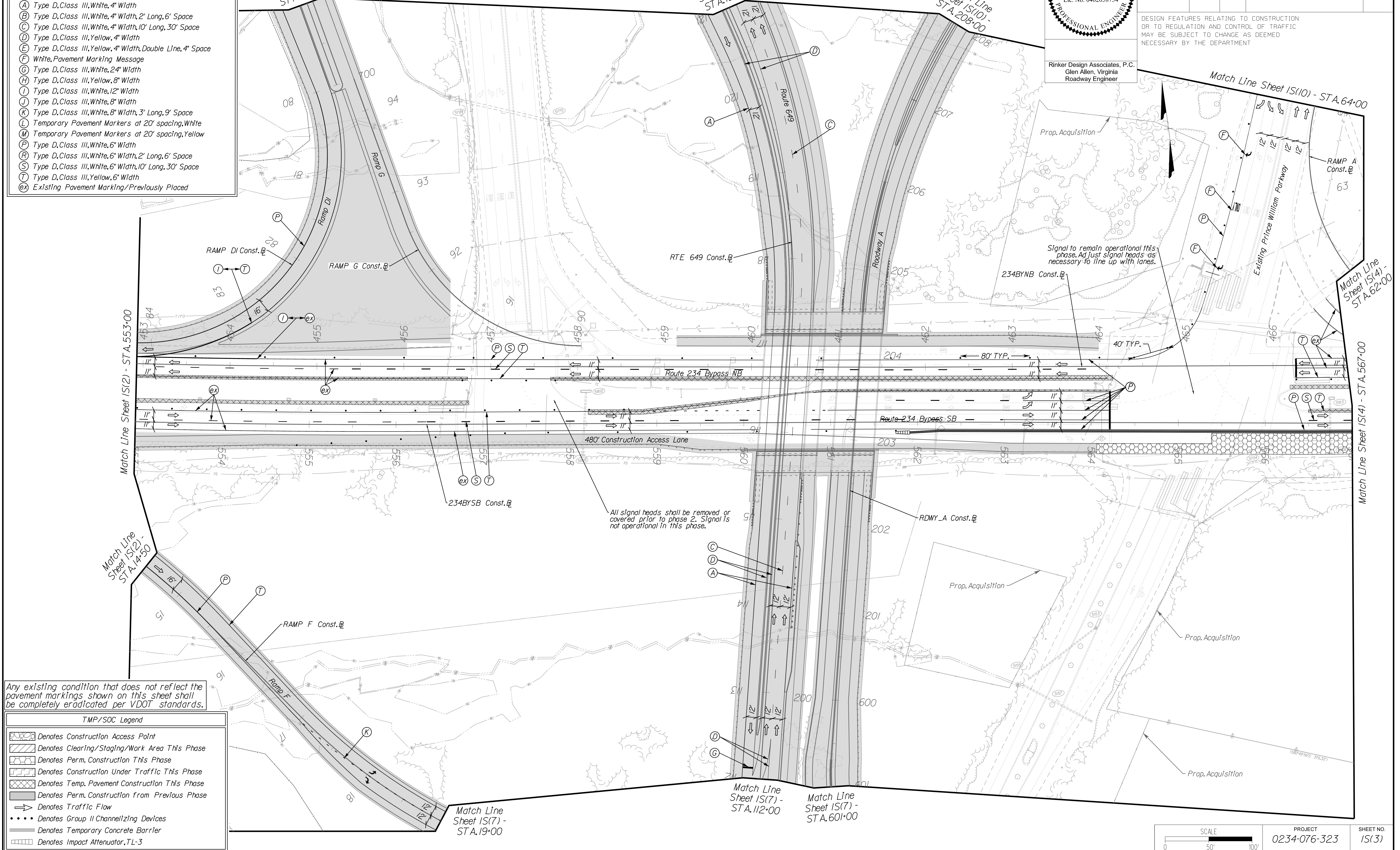
TMP/SOC Phase 2



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1S(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(3)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

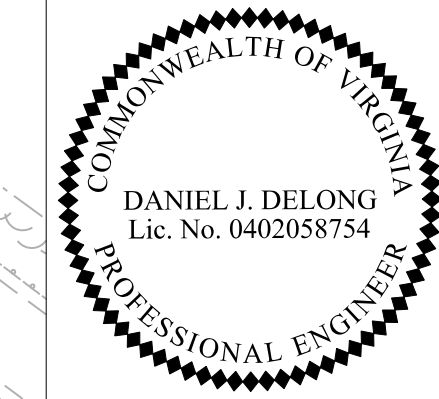
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase 2

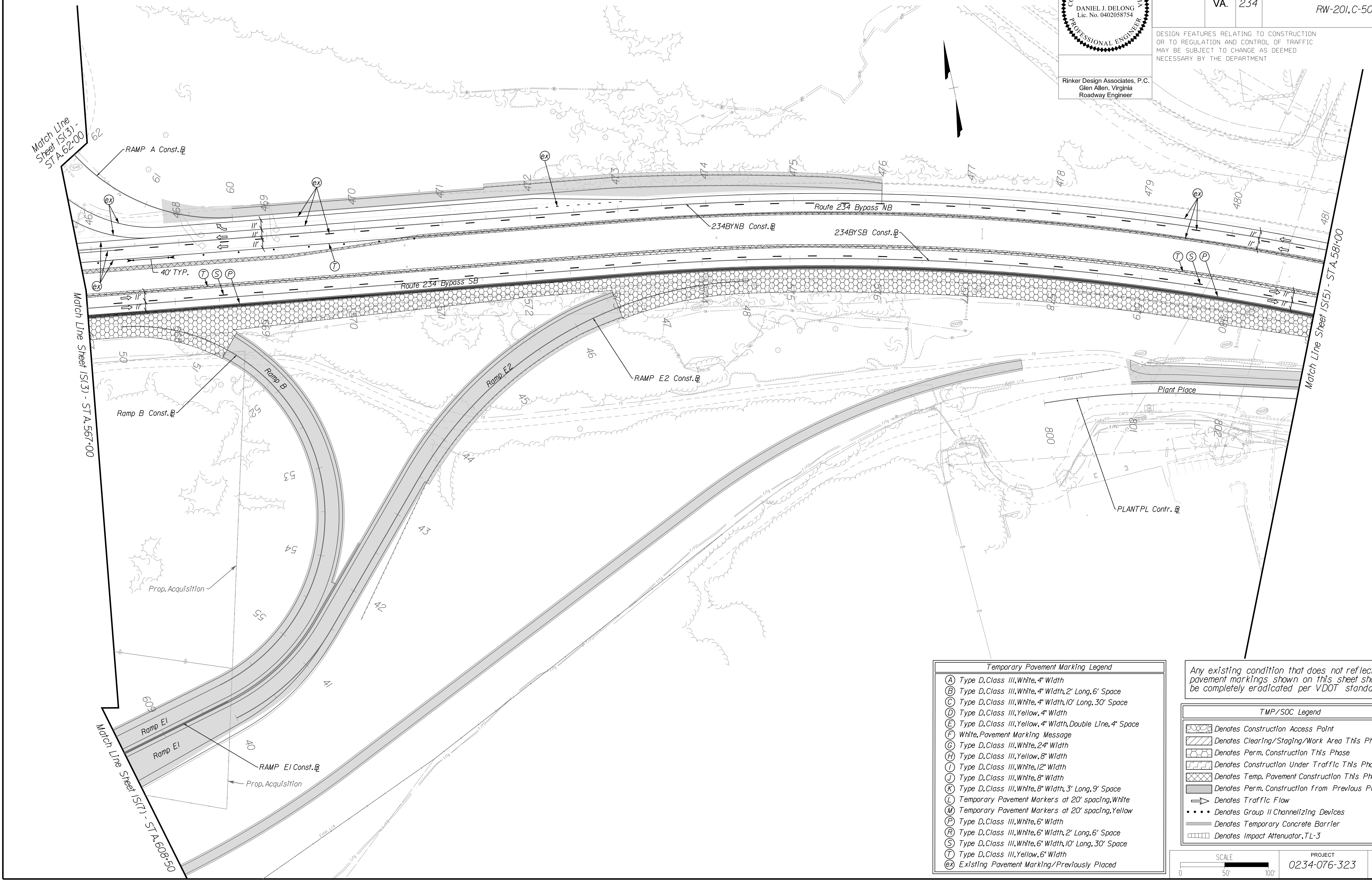
PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IS(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(ex)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IS(4)
---------------------	-------------------------	--------------------

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

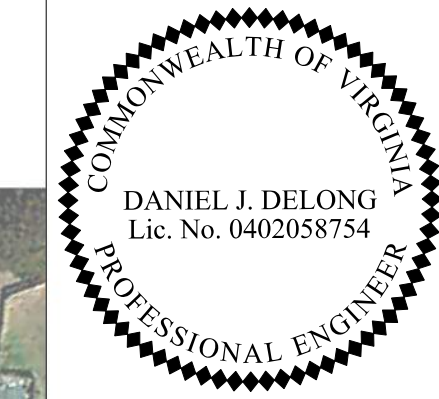
10/20/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

TMP/SOC Phase 2

PROJECT MANAGER BWC, DOT, Mary, Akers, (703) 792-5276
SURVEYED BY, DATE Binker, Design, Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker, Design, Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark, (804) 550-7740, April 2021

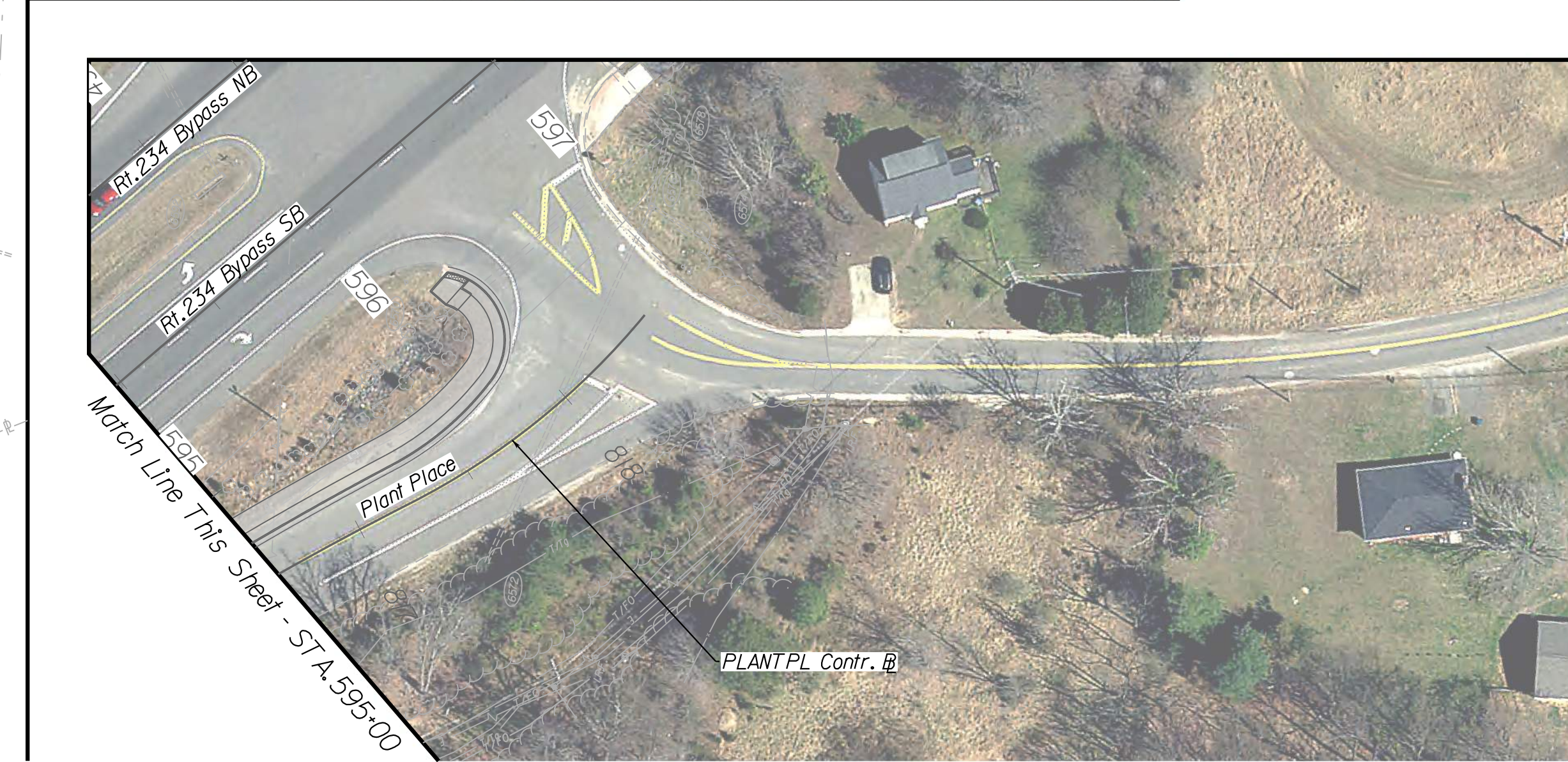
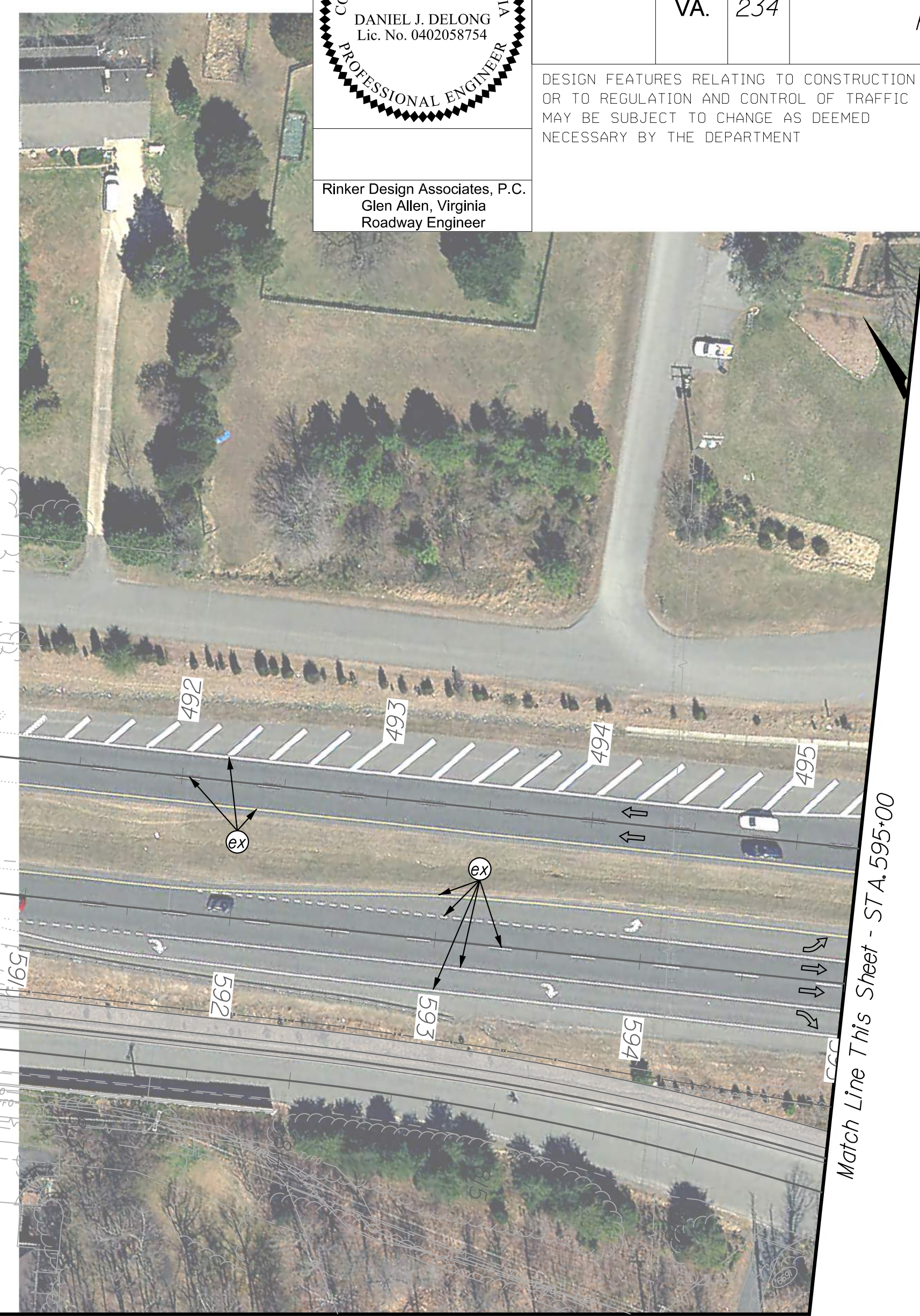
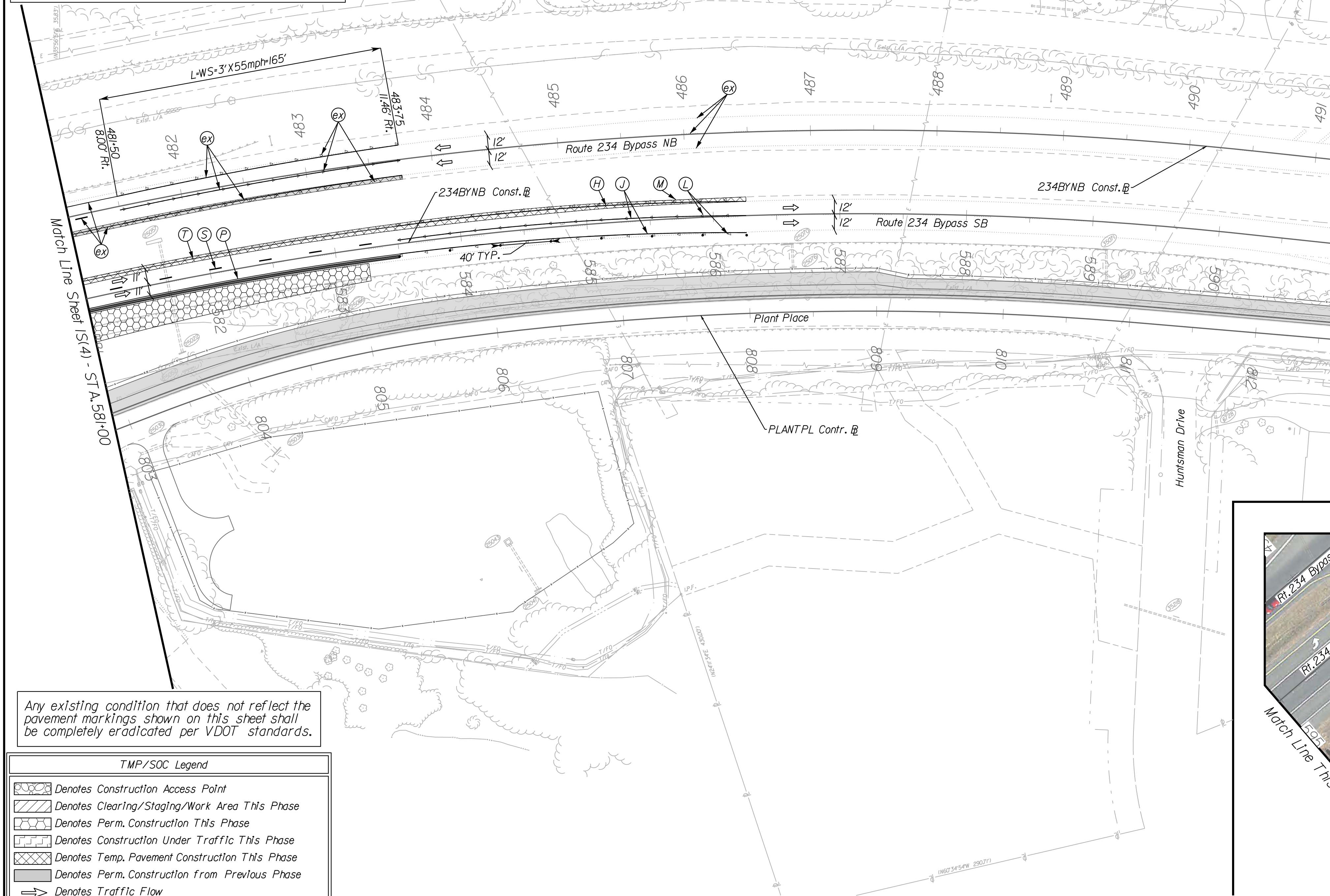


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1S(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

- Temporary Pavement Marking Legend**
- (A) Type D, Class III, White, 4" Width
 - (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
 - (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
 - (D) Type D, Class III, Yellow, 4" Width
 - (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
 - (F) White, Pavement Marking Message
 - (G) Type D, Class III, White, 2 1/2" Width
 - (H) Type D, Class III, Yellow, 8" Width
 - (I) Type D, Class III, White, 12" Width
 - (J) Type D, Class III, White, 8" Width
 - (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
 - (L) Temporary Pavement Markers at 20' spacing, White
 - (M) Temporary Pavement Markers at 20' spacing, Yellow
 - (P) Type D, Class III, White, 6" Width
 - (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
 - (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
 - (T) Type D, Class III, Yellow, 6" Width
 - (X) Existing Pavement Marking/Previously Placed



Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

- TMP/SOC Legend**
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 - Denotes Perm. Construction This Phase
 - Denotes Construction Under Traffic This Phase
 - Denotes Temp. Pavement Construction This Phase
 - Denotes Perm. Construction from Previous Phase
 - Denotes Traffic Flow
 - Denotes Group II Channelizing Devices
 - Denotes Temporary Concrete Barrier
 - Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(5)
---------------------	-------------------------	--------------------

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

PROJECT MANAGER BWC DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

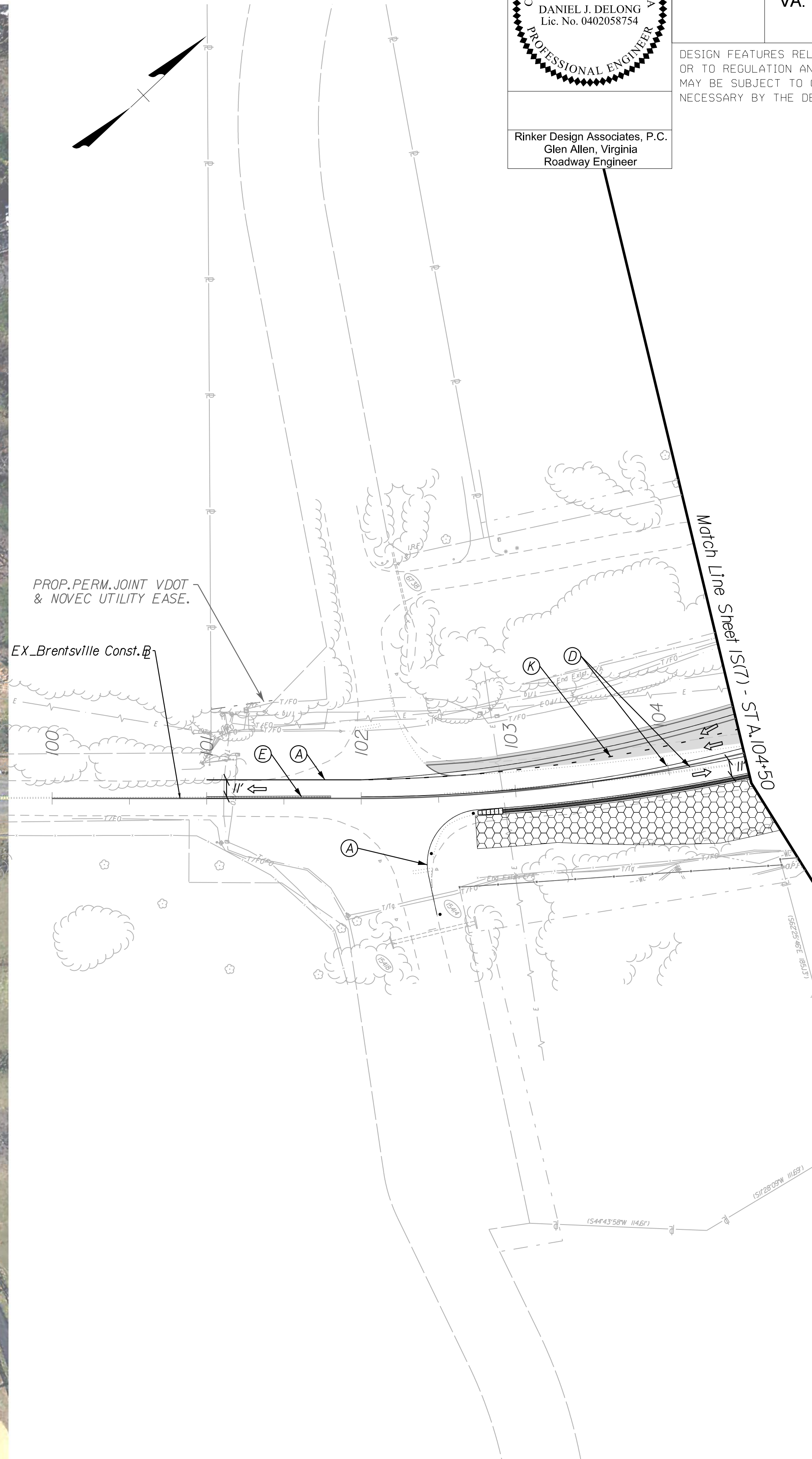
TMP/SOC Phase 2

DANIEL J. DELONG
Lic. No. 0402058754
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1S(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (U) Existing Pavement Marking/Previously Placed

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TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

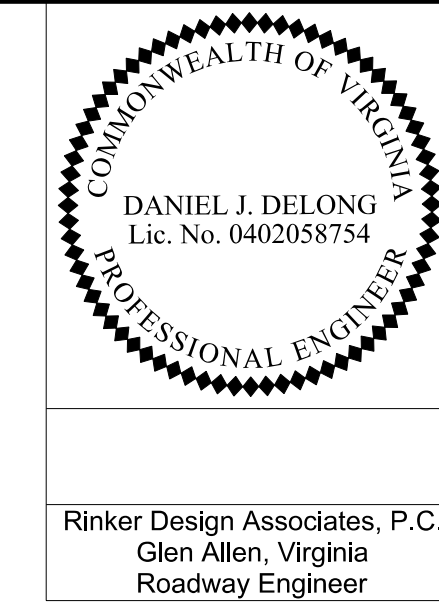
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(6)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

TMP/SOC Phase 2

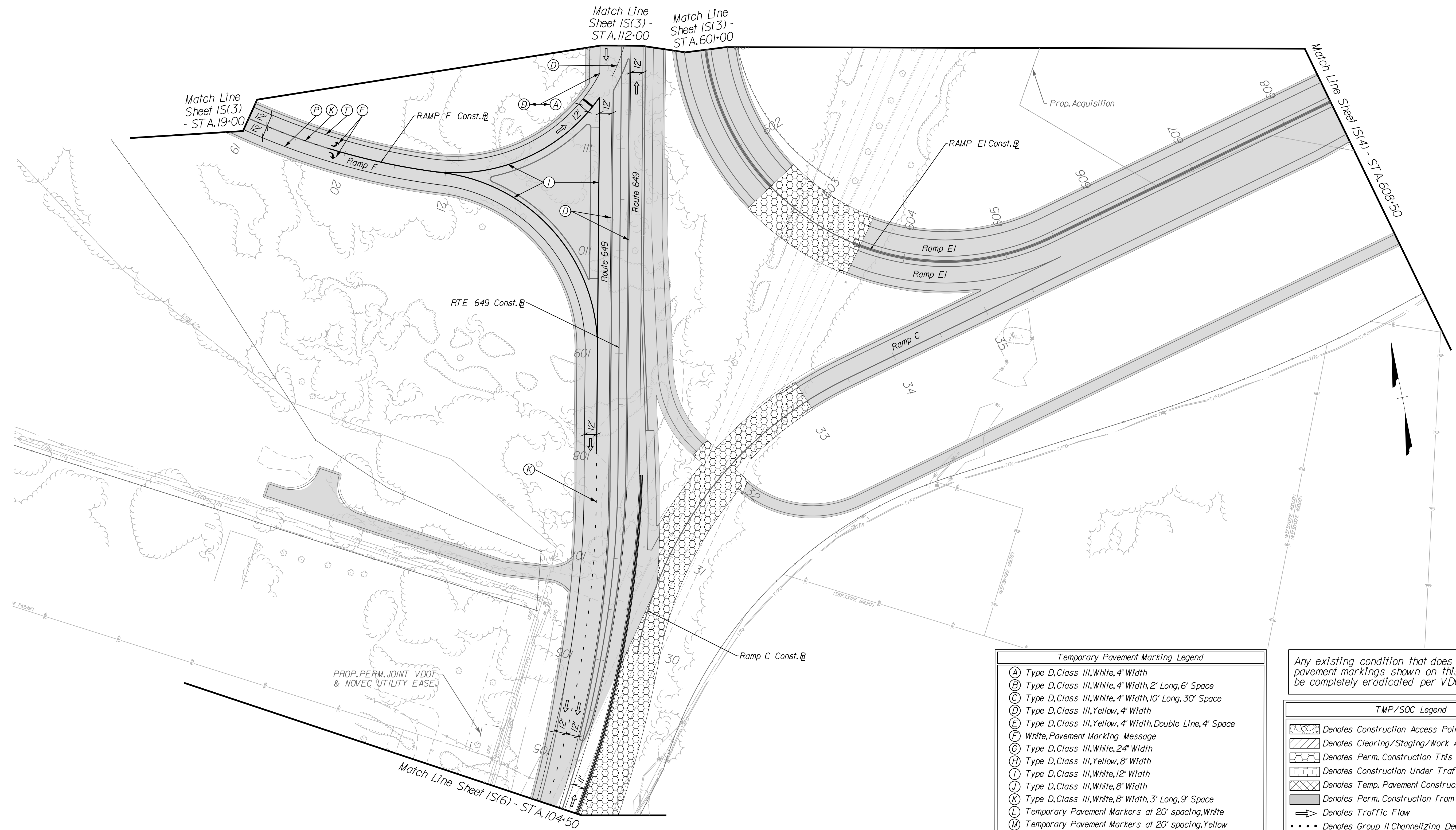
PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IS(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

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TMP/SOC Legend	
[Symbol]	Denotes Construction Access Point
[Symbol]	Denotes Clearing/Staging/Work Area This Phase
[Symbol]	Denotes Perm. Construction This Phase
[Symbol]	Denotes Construction Under Traffic This Phase
[Symbol]	Denotes Temp. Pavement Construction This Phase
[Symbol]	Denotes Perm. Construction from Previous Phase
[Symbol]	Denotes Traffic Flow
[Symbol]	Denotes Temporary Group II Channelizing Devices
[Symbol]	Denotes Temporary Concrete Barrier
[Symbol]	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IS(7)
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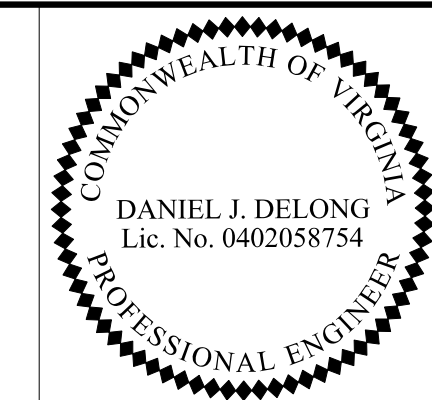
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7740, April 2021

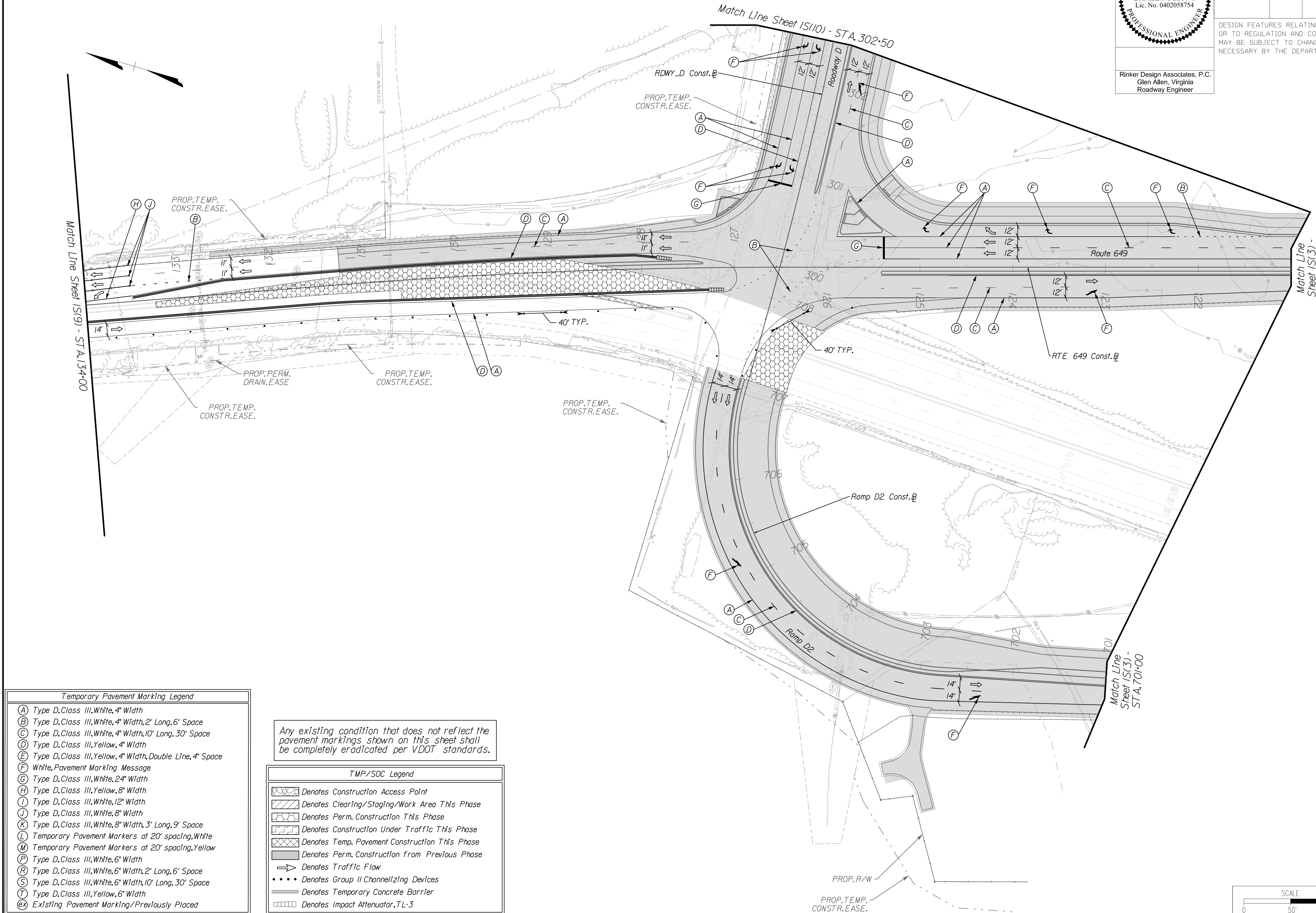
TMP/SOC Phase 2



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1S(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(8)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase 2

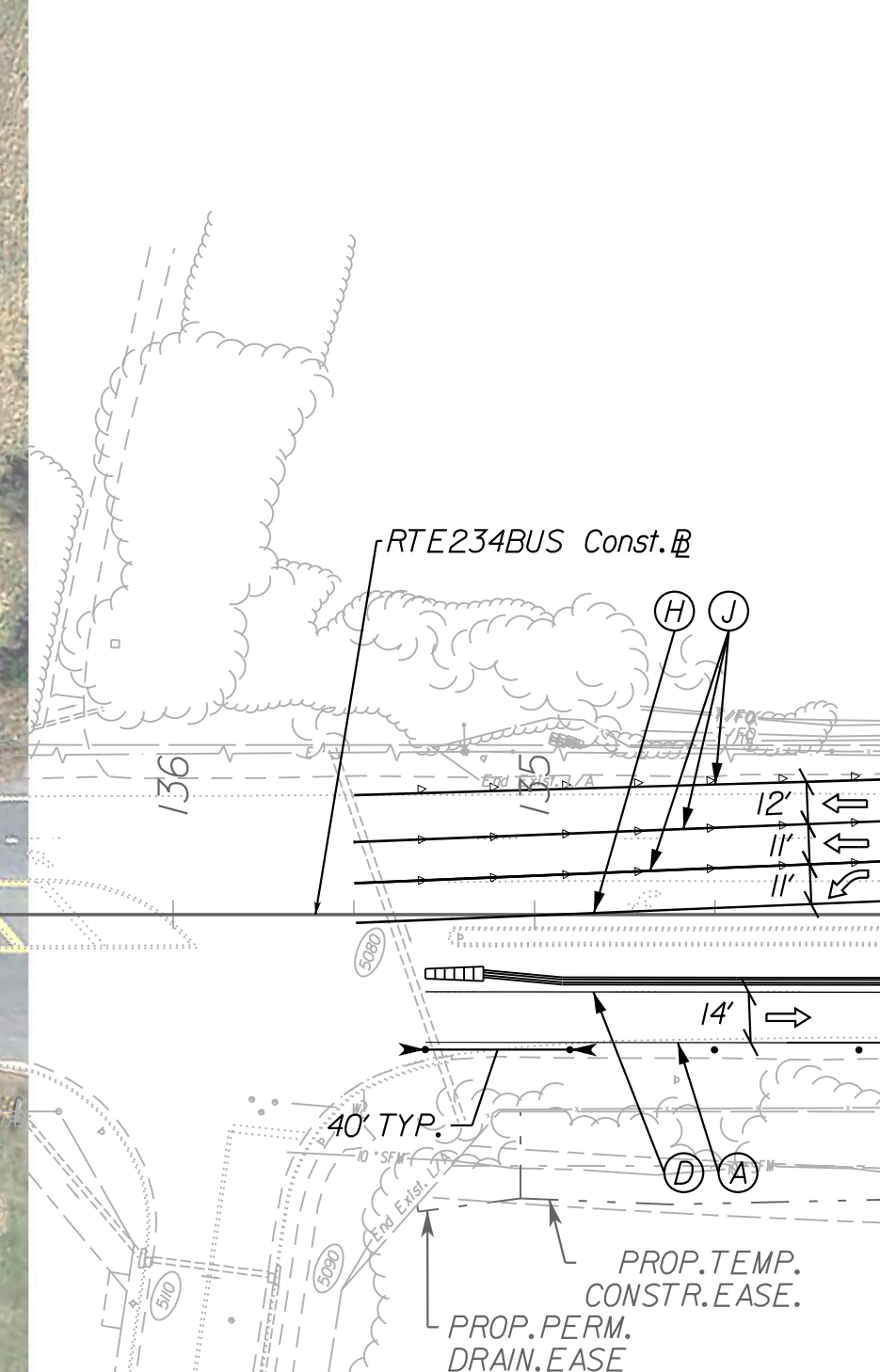
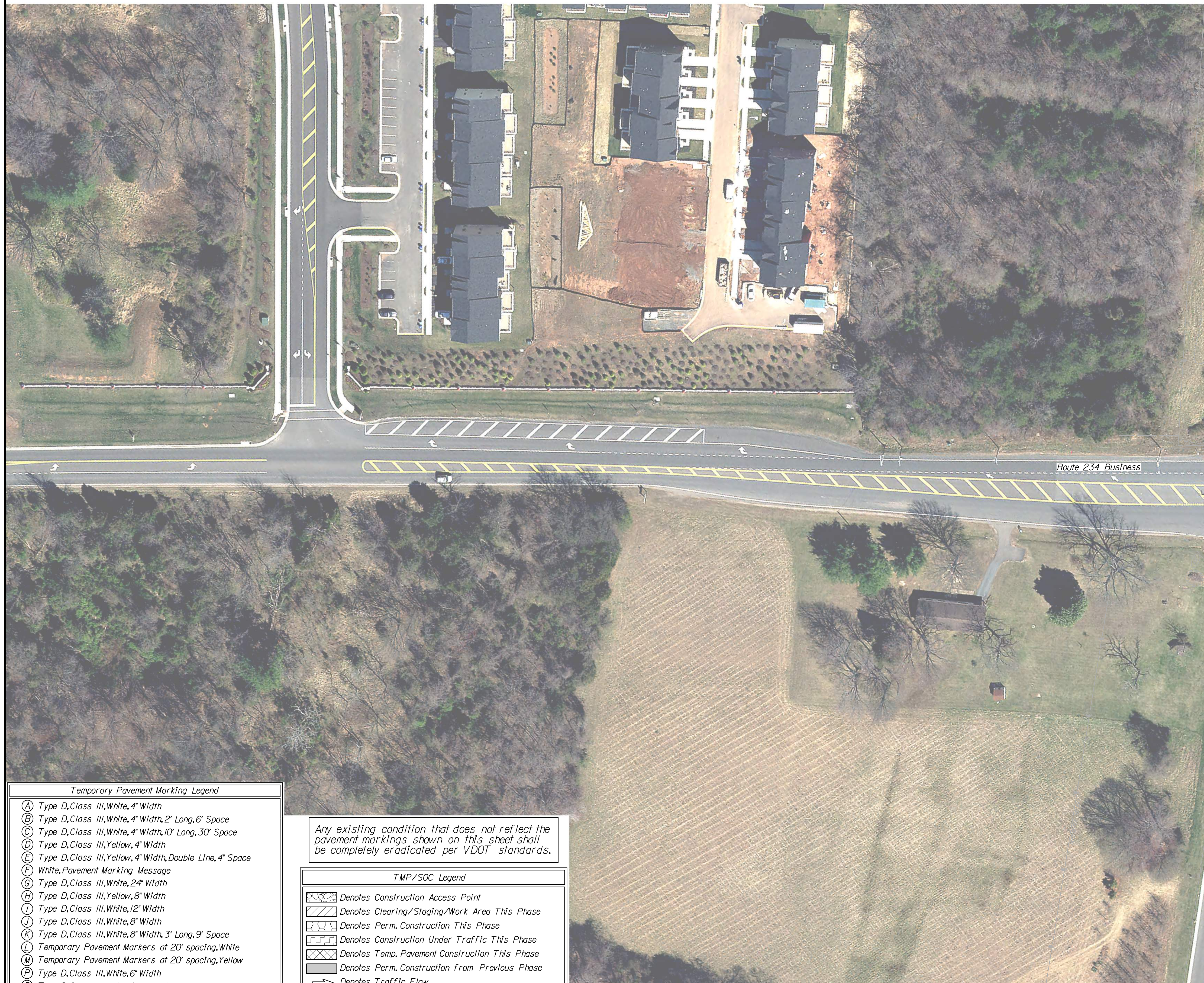
PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
DANIEL J. DELONG
Lic. No. 0402058754

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1S(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (N) Type D, Class III, White, 6" Width
- (O) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (P) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (Q) Type D, Class III, Yellow, 6" Width
- (R) Existing Pavement Marking/Previously Placed

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TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
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- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction from Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. 1S(9)

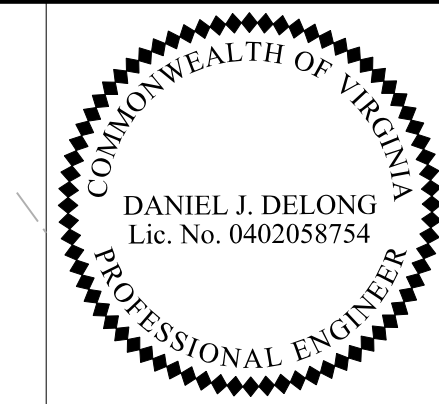
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TMP/SOC Phase 2



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1S(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

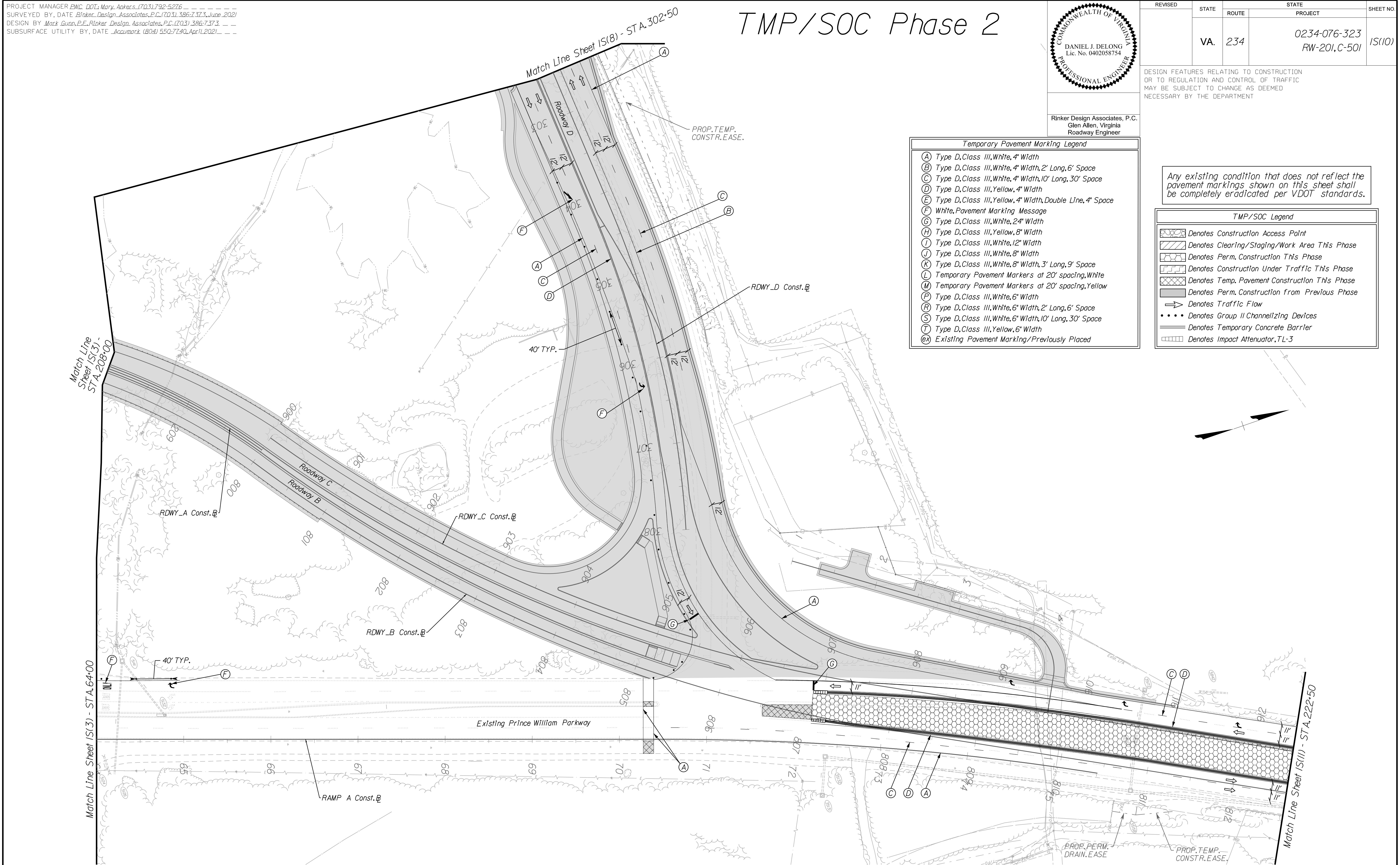
Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3



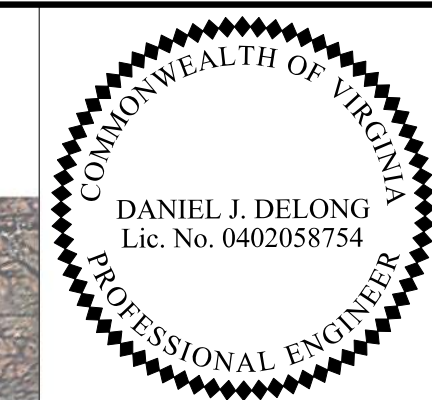
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(10)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

TMP/SOC Phase 2

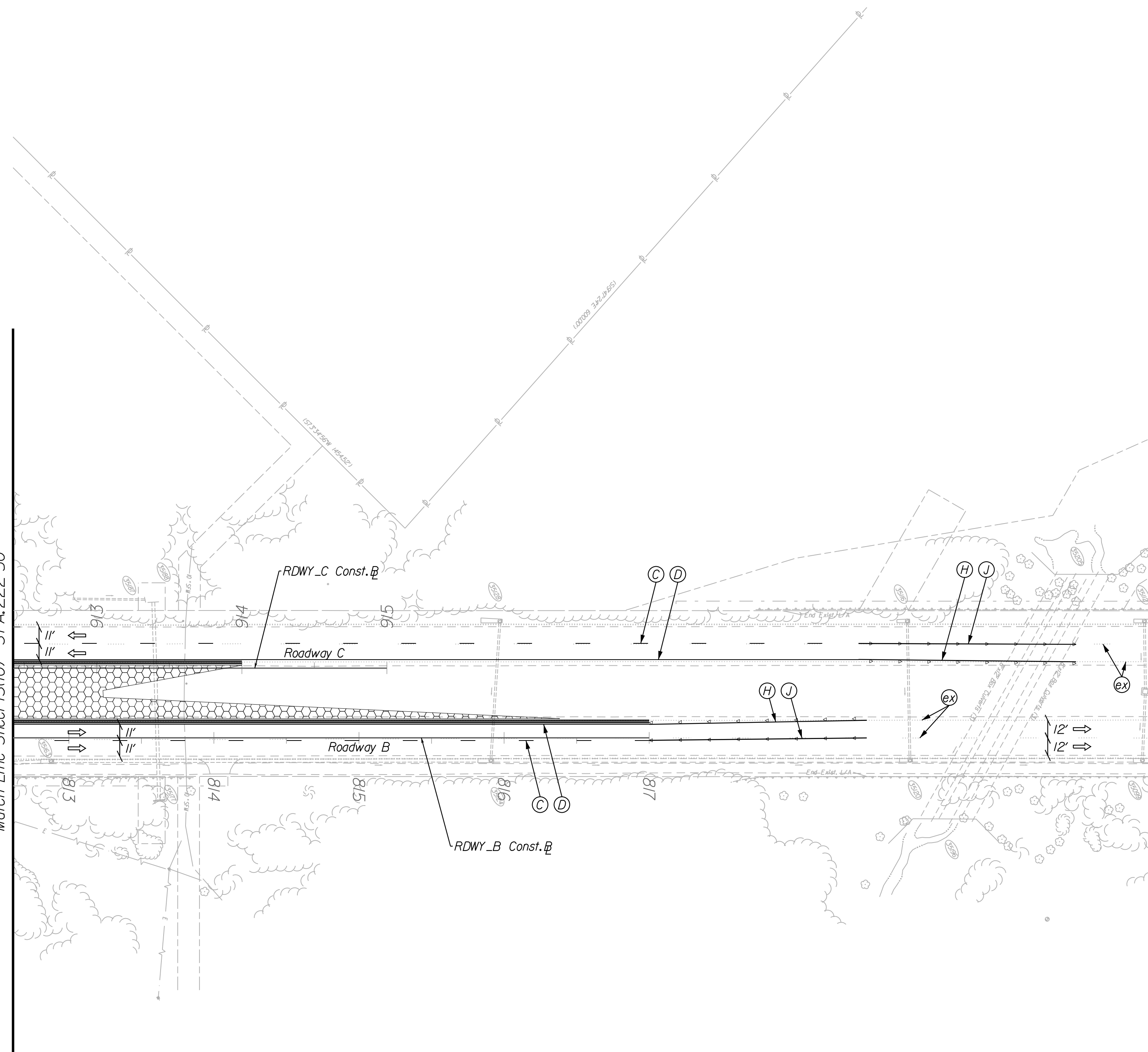


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1S(11)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Match Line Sheet 1S(10) - STA. 222+50



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (EX) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
- [Symbol] Denotes Construction Under Traffic This Phase
- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction From Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3

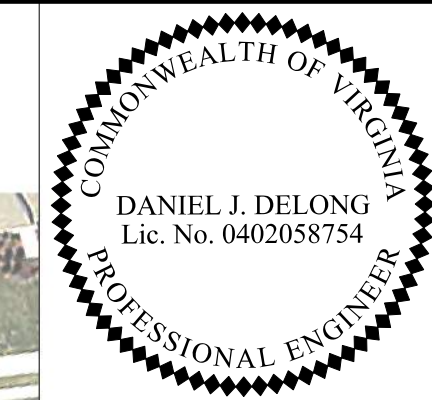
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1S(11)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

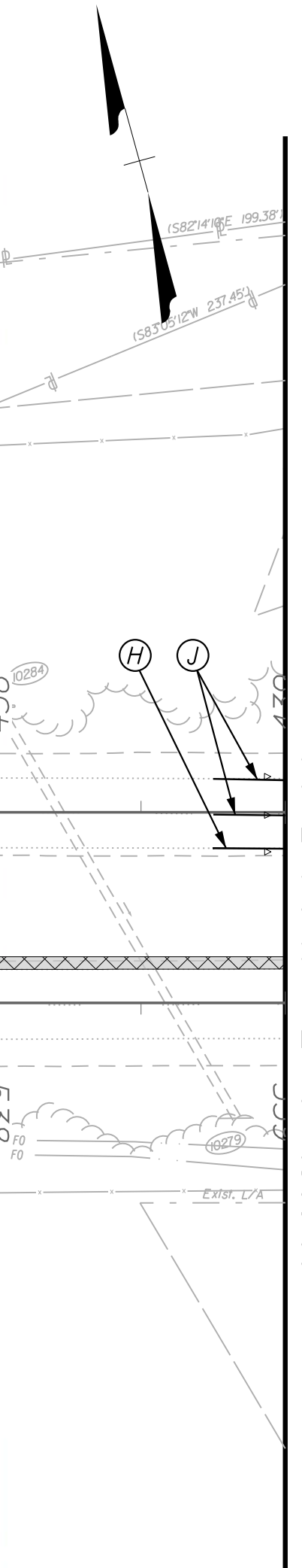
TMP/SOC Phase 2A



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	17(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
[Symbol]	Denotes Construction Access Point
[Symbol]	Denotes Clearing/Staging/Work Area This Phase
[Symbol]	Denotes Perm. Construction This Phase
[Symbol]	Denotes Construction Under Traffic This Phase
[Symbol]	Denotes Temp. Pavement Construction This Phase
[Symbol]	Denotes Perm. Construction from Previous Phase
[Symbol]	Denotes Traffic Flow
[Symbol]	Denotes Group II Channelizing Devices
[Symbol]	Denotes Temporary Concrete Barrier
[Symbol]	Denotes Impact Attenuator, TL-3

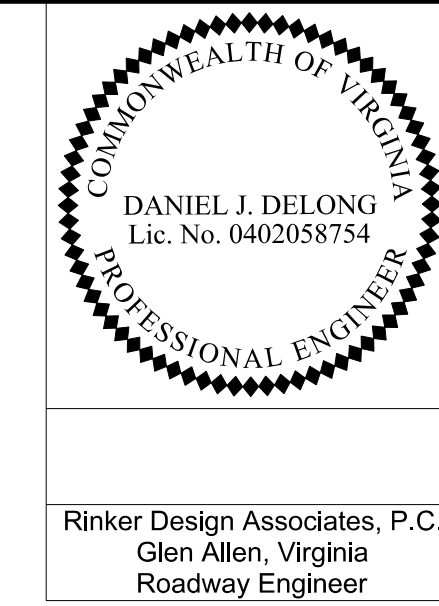
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 17(1)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Btker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

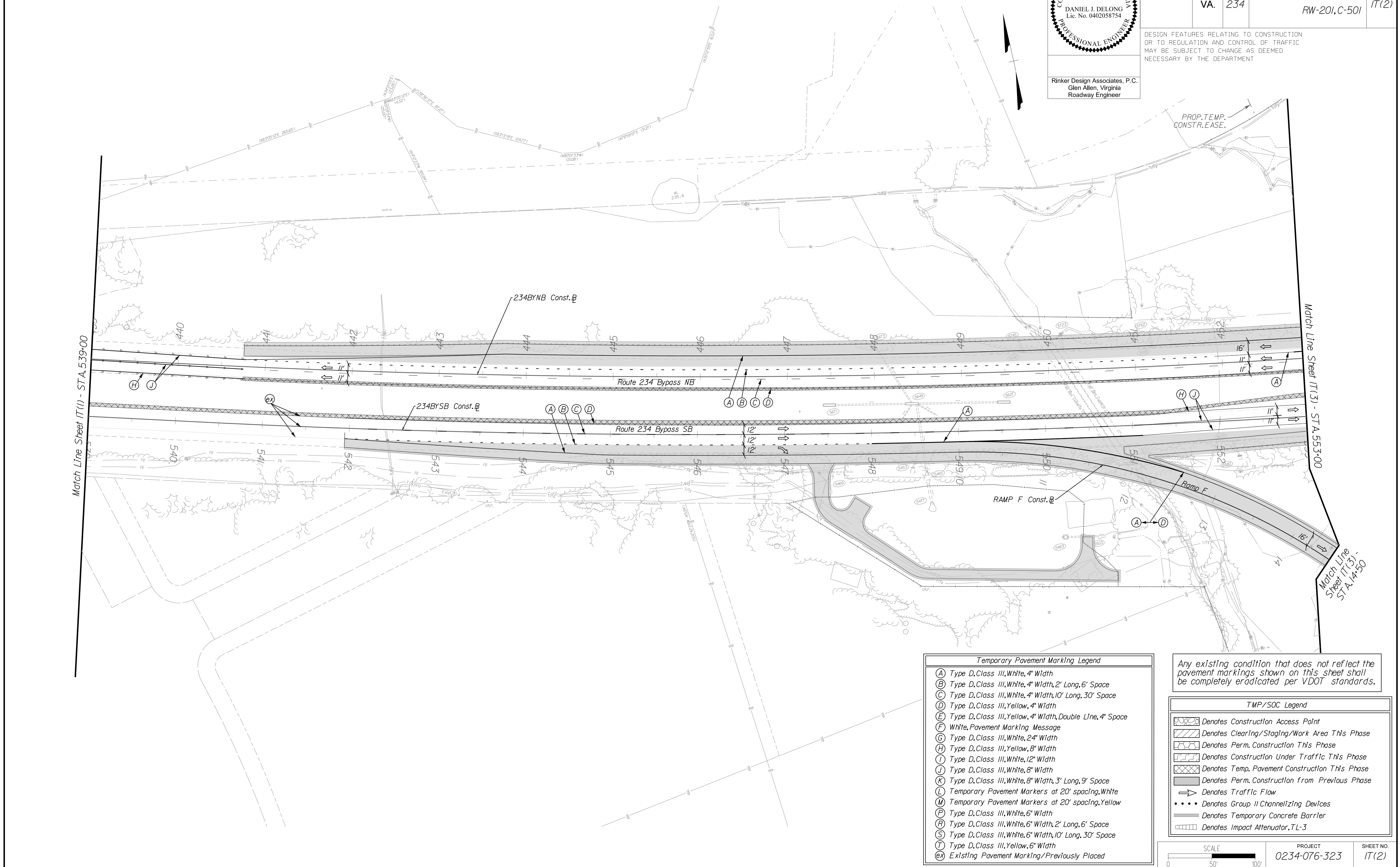
TMP/SOC Phase 2A



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IT(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

[Symbol]	Denotes Construction Access Point
[Symbol]	Denotes Clearing/Staging/Work Area This Phase
[Symbol]	Denotes Perm. Construction This Phase
[Symbol]	Denotes Construction Under Traffic This Phase
[Symbol]	Denotes Temp. Pavement Construction This Phase
[Symbol]	Denotes Perm. Construction From Previous Phase
[Symbol]	Denotes Traffic Flow
[Symbol]	Denotes Group II Channelizing Devices
[Symbol]	Denotes Temporary Concrete Barrier
[Symbol]	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IT(2)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

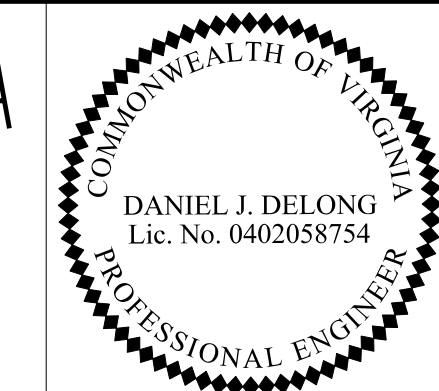
LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

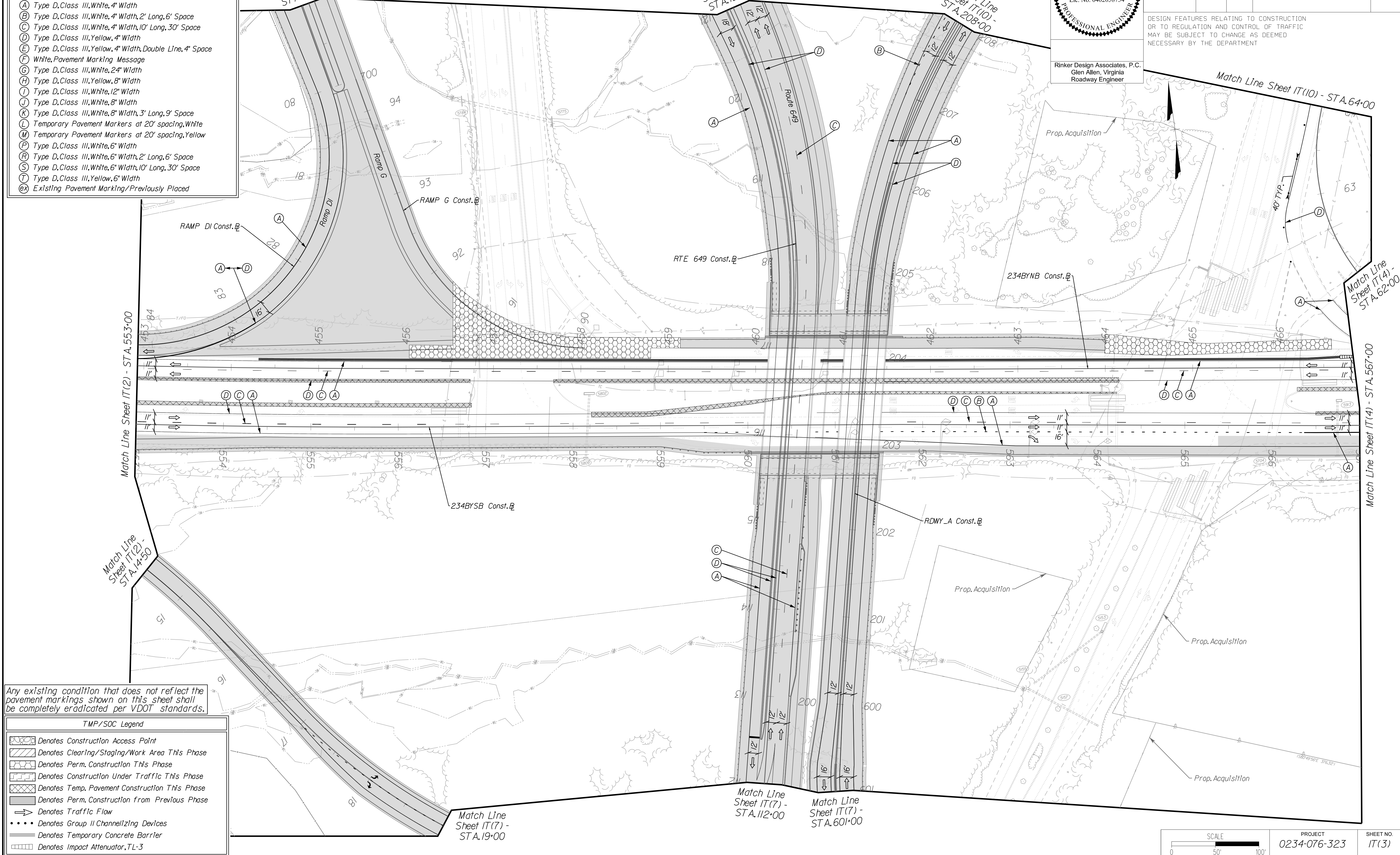
TMP/SOC Phase 2A



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IT(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IT(3)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

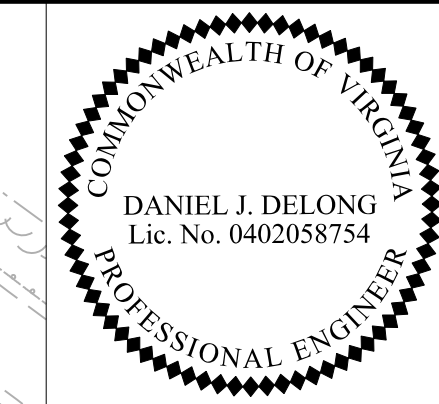
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

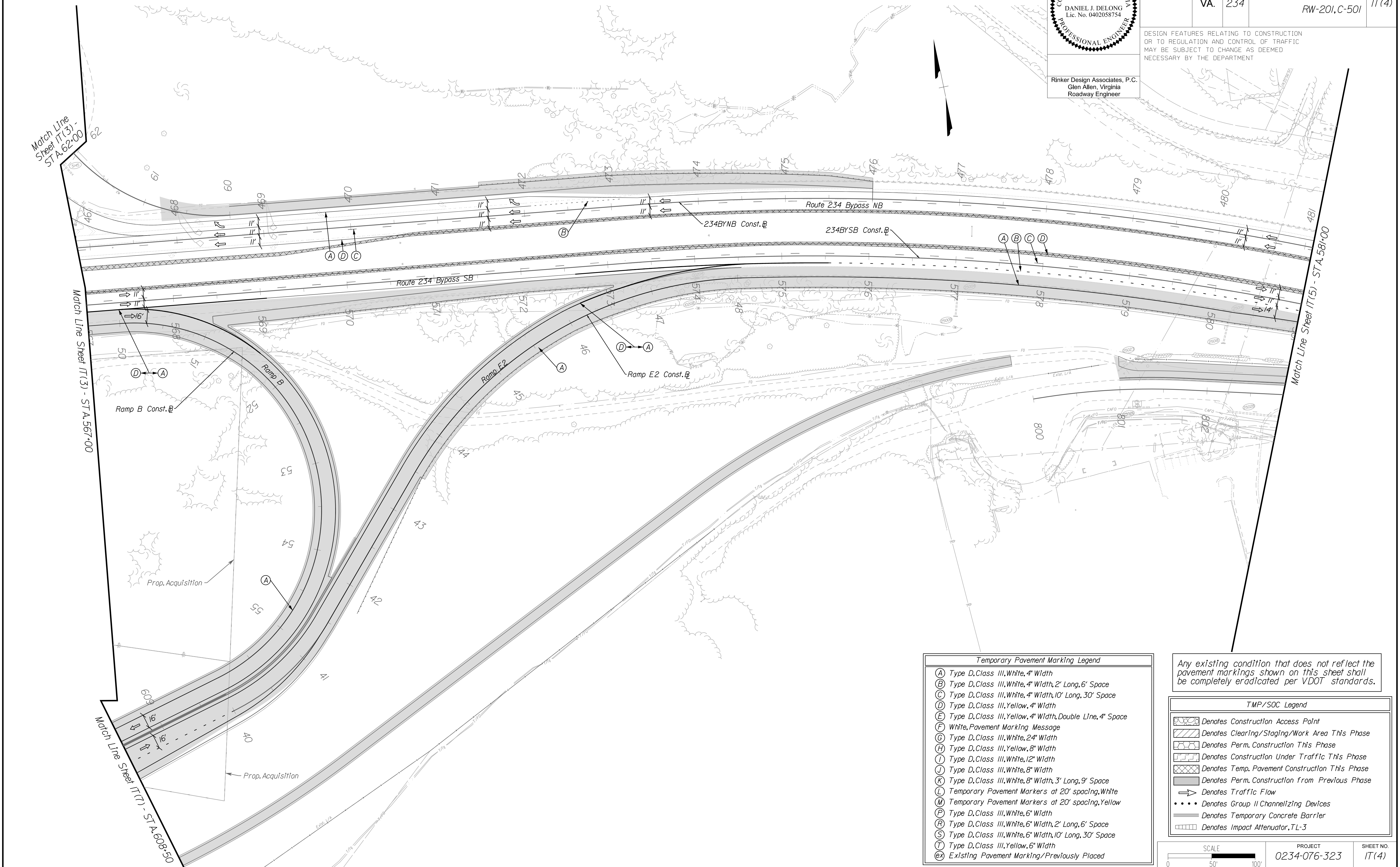
TMP/SOC Phase 2A



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IT(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IT(4)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

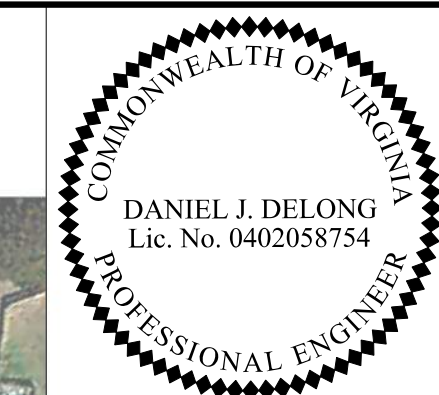
10/20/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

TMP/SOC Phase 2A

PROJECT MANAGER BWC DOT: Mary Akers (703)792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guad, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

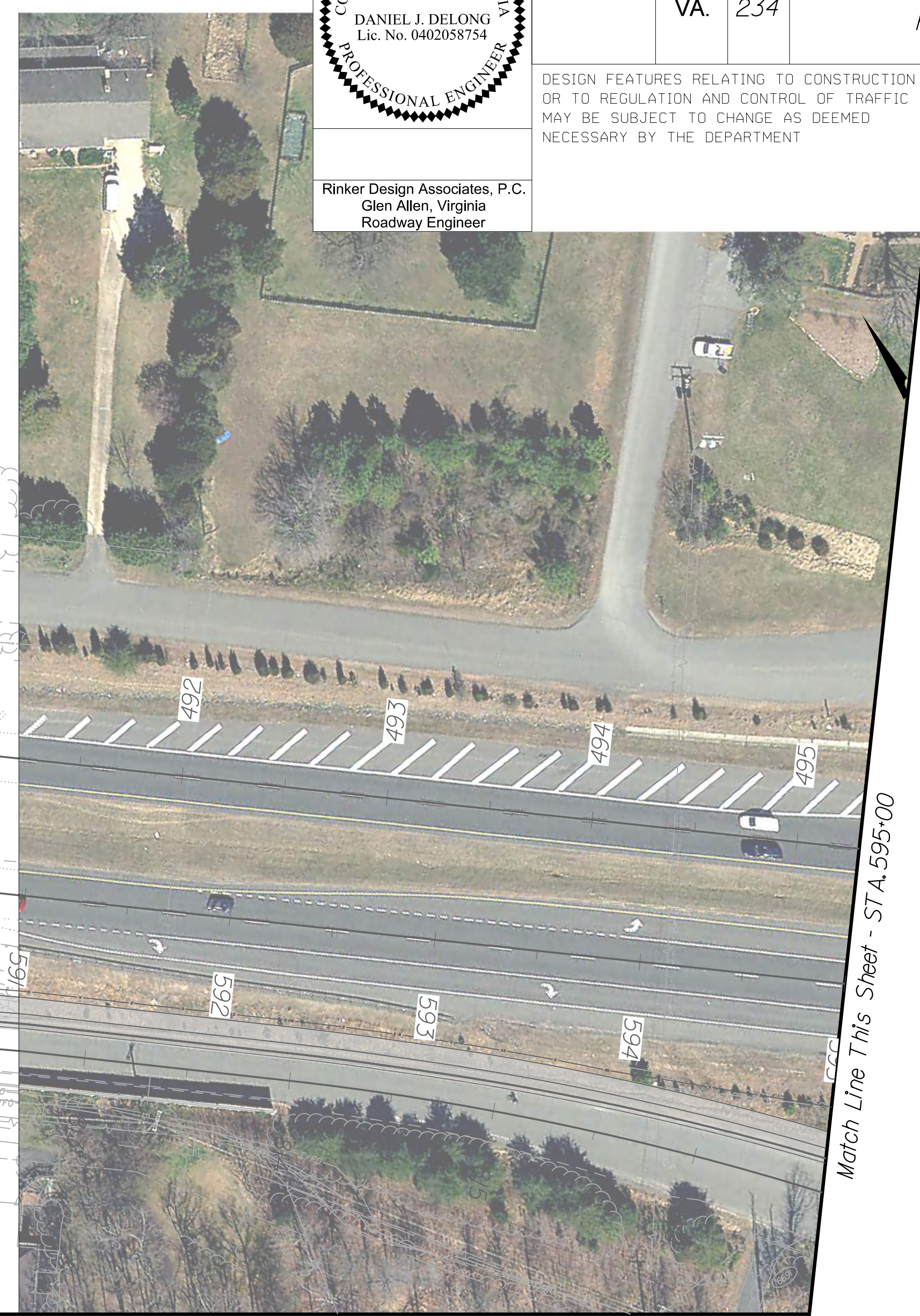
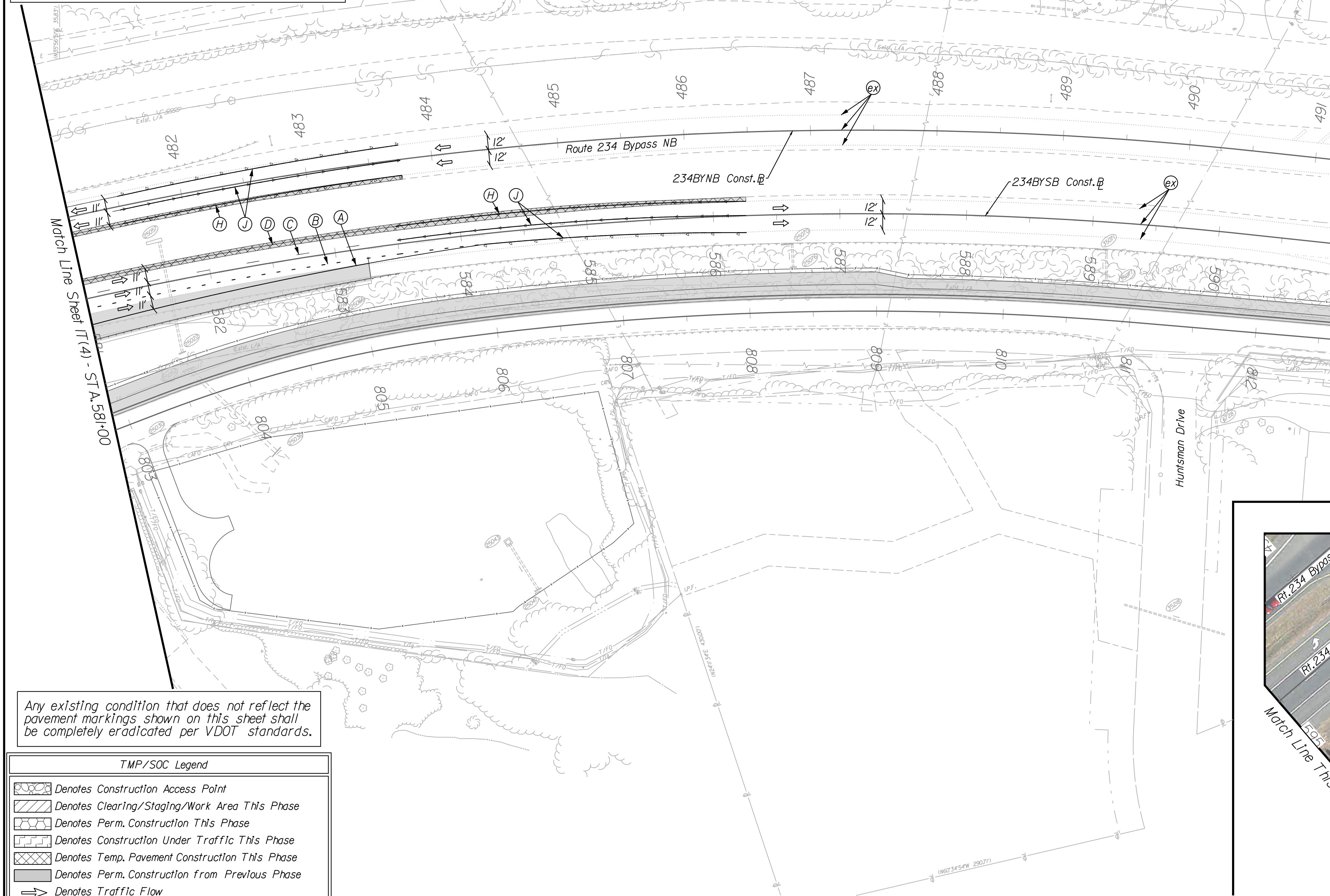


REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	17(5)

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

- Temporary Pavement Marking Legend**
- (A) Type D, Class III, White, 4" Width
 - (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
 - (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
 - (D) Type D, Class III, Yellow, 4" Width
 - (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
 - (F) White, Pavement Marking Message
 - (G) Type D, Class III, White, 2 1/2" Width
 - (H) Type D, Class III, Yellow, 8" Width
 - (I) Type D, Class III, White, 12" Width
 - (J) Type D, Class III, White, 8" Width
 - (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
 - (L) Temporary Pavement Markers at 20' spacing, White
 - (M) Temporary Pavement Markers at 20' spacing, Yellow
 - (P) Type D, Class III, White, 6" Width
 - (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
 - (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
 - (T) Type D, Class III, Yellow, 6" Width
 - (X) Existing Pavement Marking/Previously Placed



Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

- TMP/SOC Legend**
- Denotes Construction Access Point
 - Denotes Clearing/Staging/Work Area This Phase
 - Denotes Perm. Construction This Phase
 - Denotes Construction Under Traffic This Phase
 - Denotes Temp. Pavement Construction This Phase
 - Denotes Perm. Construction from Previous Phase
 - Denotes Traffic Flow
 - Denotes Group II Channelizing Devices
 - Denotes Temporary Concrete Barrier
 - Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 17(5)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

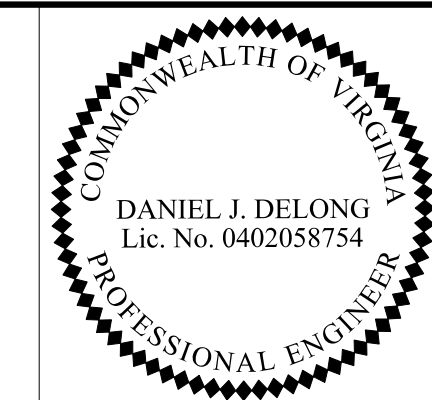
10/20/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

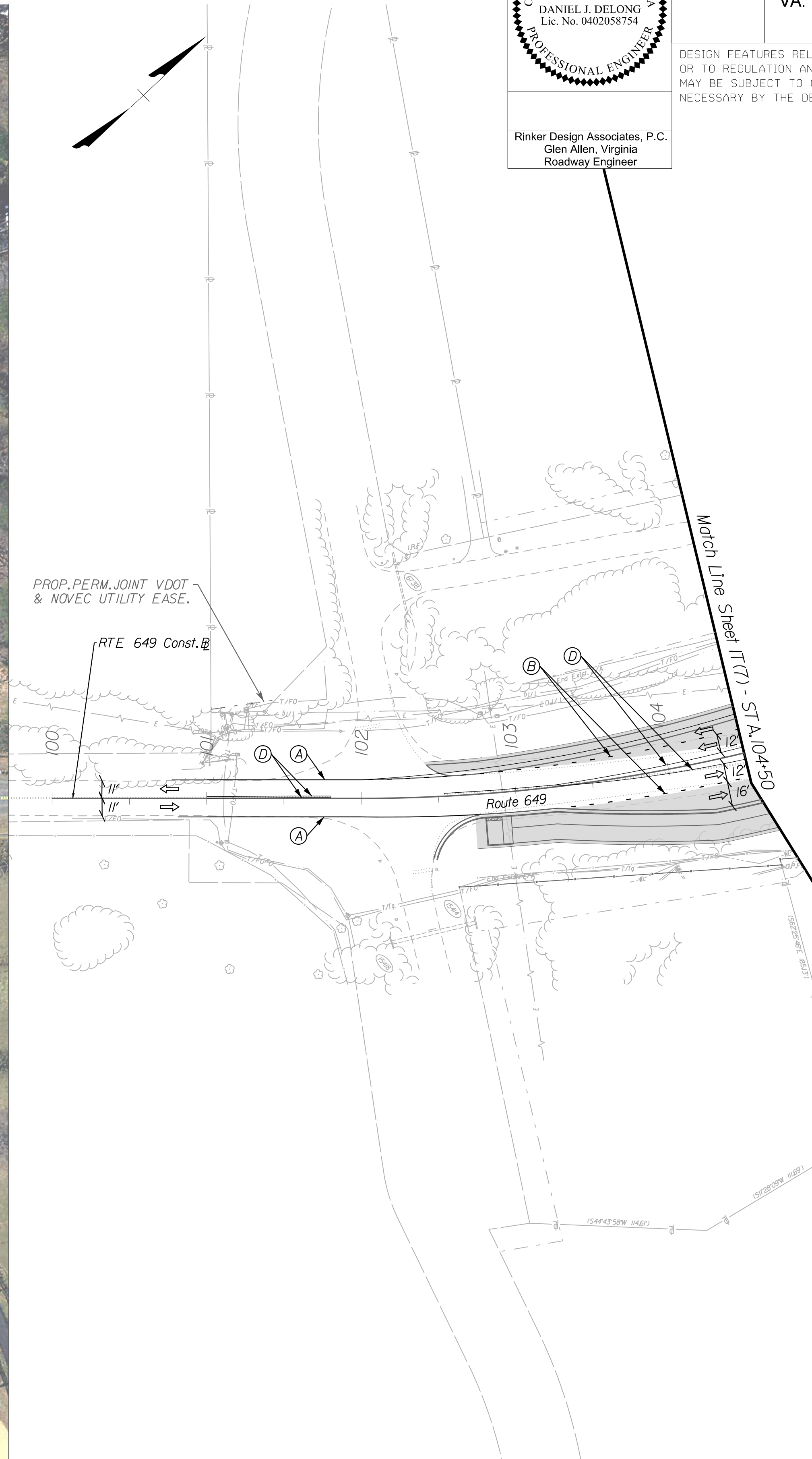
TMP/SOC Phase 2A



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	17(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

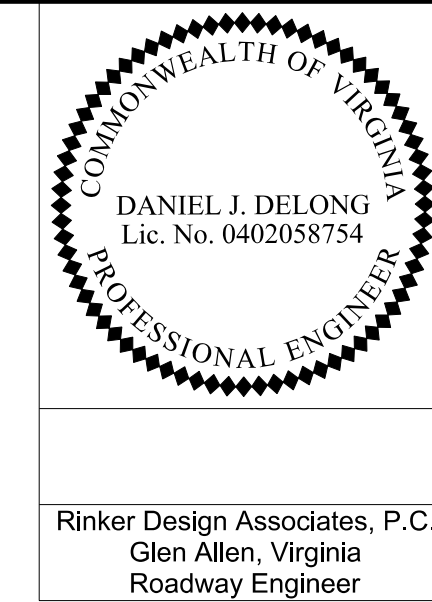
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 17(6)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

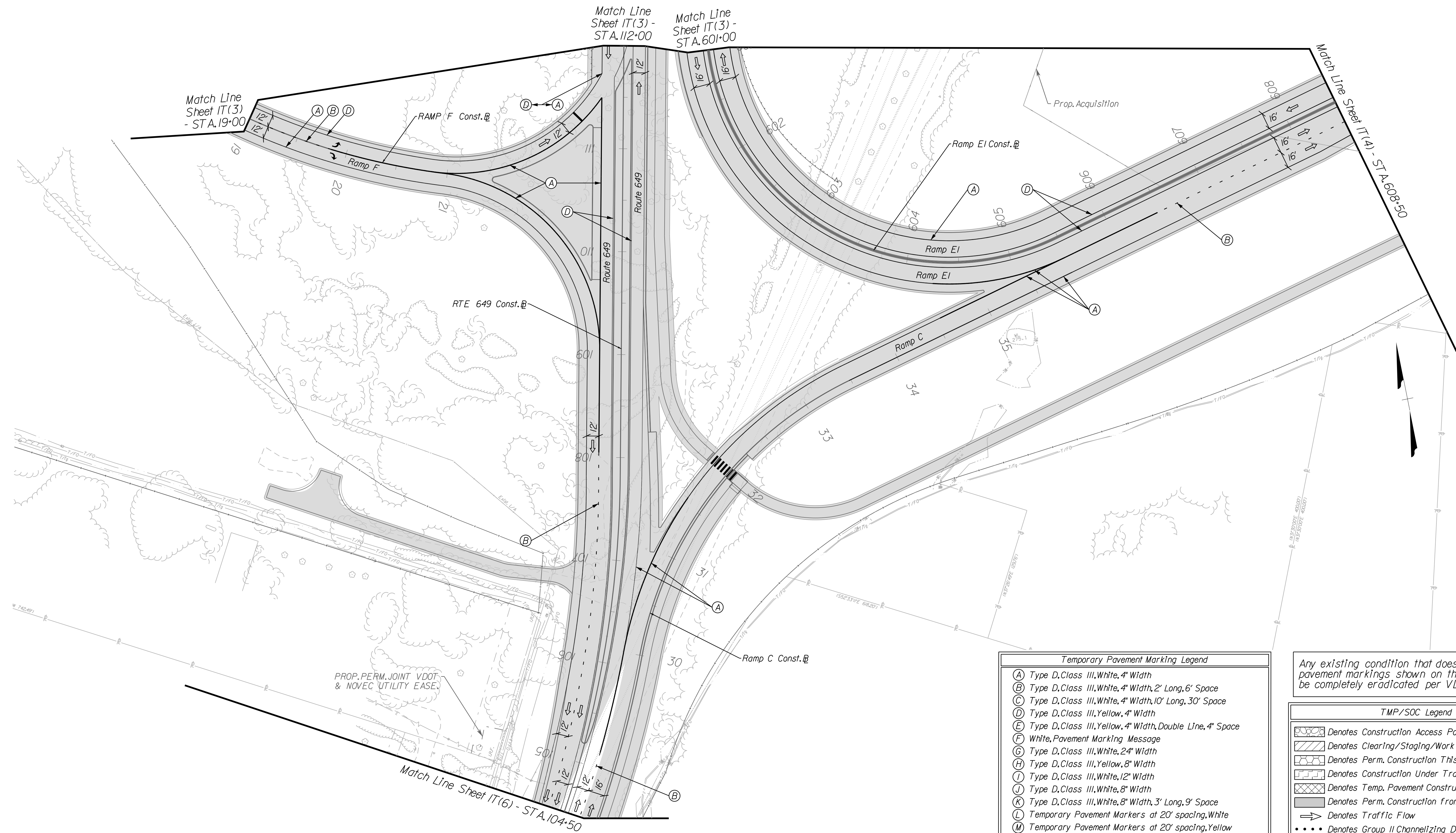
TMP/SOC Phase 2A



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IT(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
[Symbol]	Denotes Construction Access Point
[Symbol]	Denotes Clearing/Staging/Work Area This Phase
[Symbol]	Denotes Perm. Construction This Phase
[Symbol]	Denotes Construction Under Traffic This Phase
[Symbol]	Denotes Temp. Pavement Construction This Phase
[Symbol]	Denotes Perm. Construction from Previous Phase
[Symbol]	Denotes Traffic Flow
[Symbol]	Denotes Temporary Group II Channelizing Devices
[Symbol]	Denotes Temporary Concrete Barrier
[Symbol]	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IT(7)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7740, April 2021

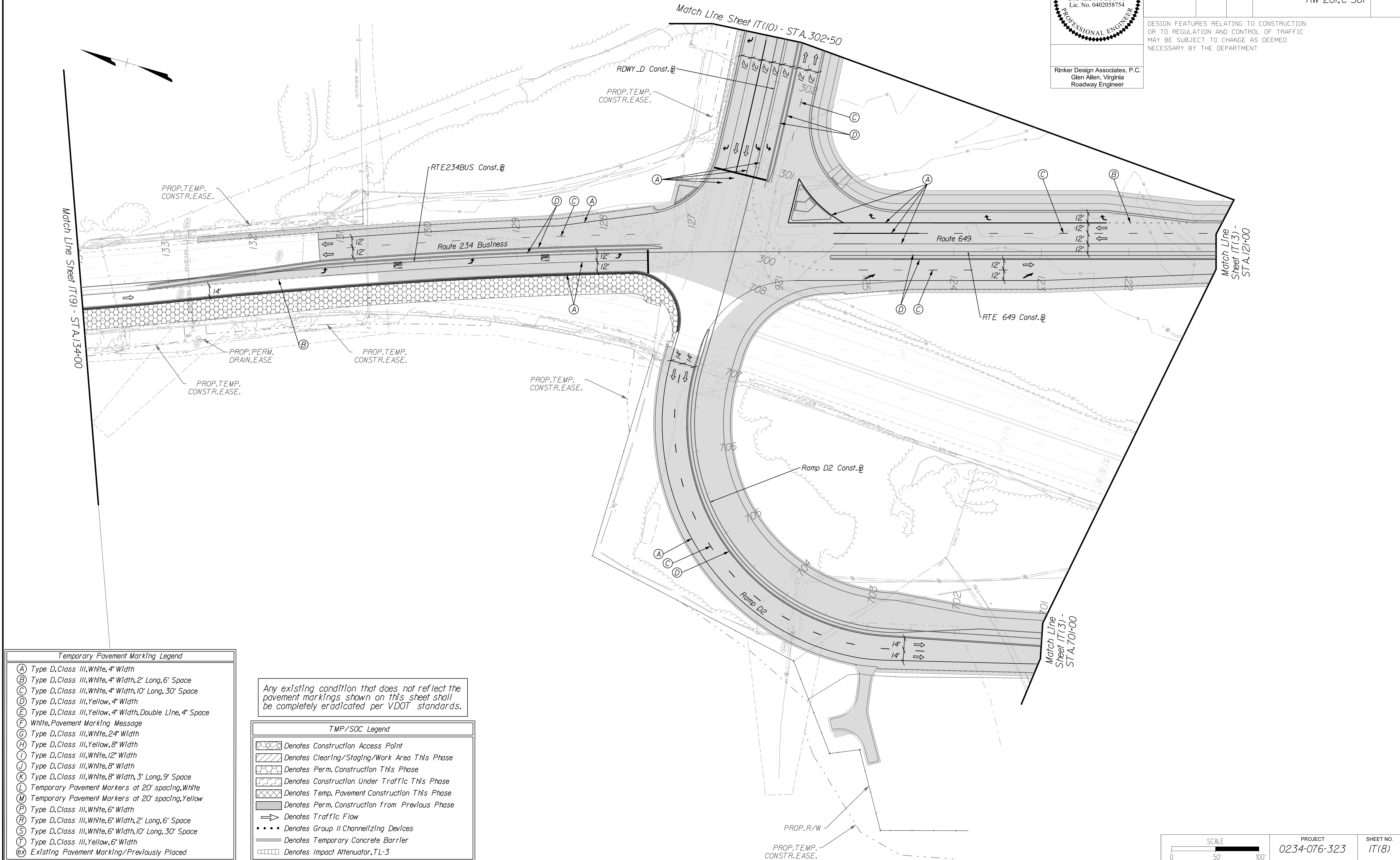
TMP/SOC Phase 2A

DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IT(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

SCALE: 0 50' 100'

PROJECT: 0234-076-323

SHEET NO.: IT(8)

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase 2A

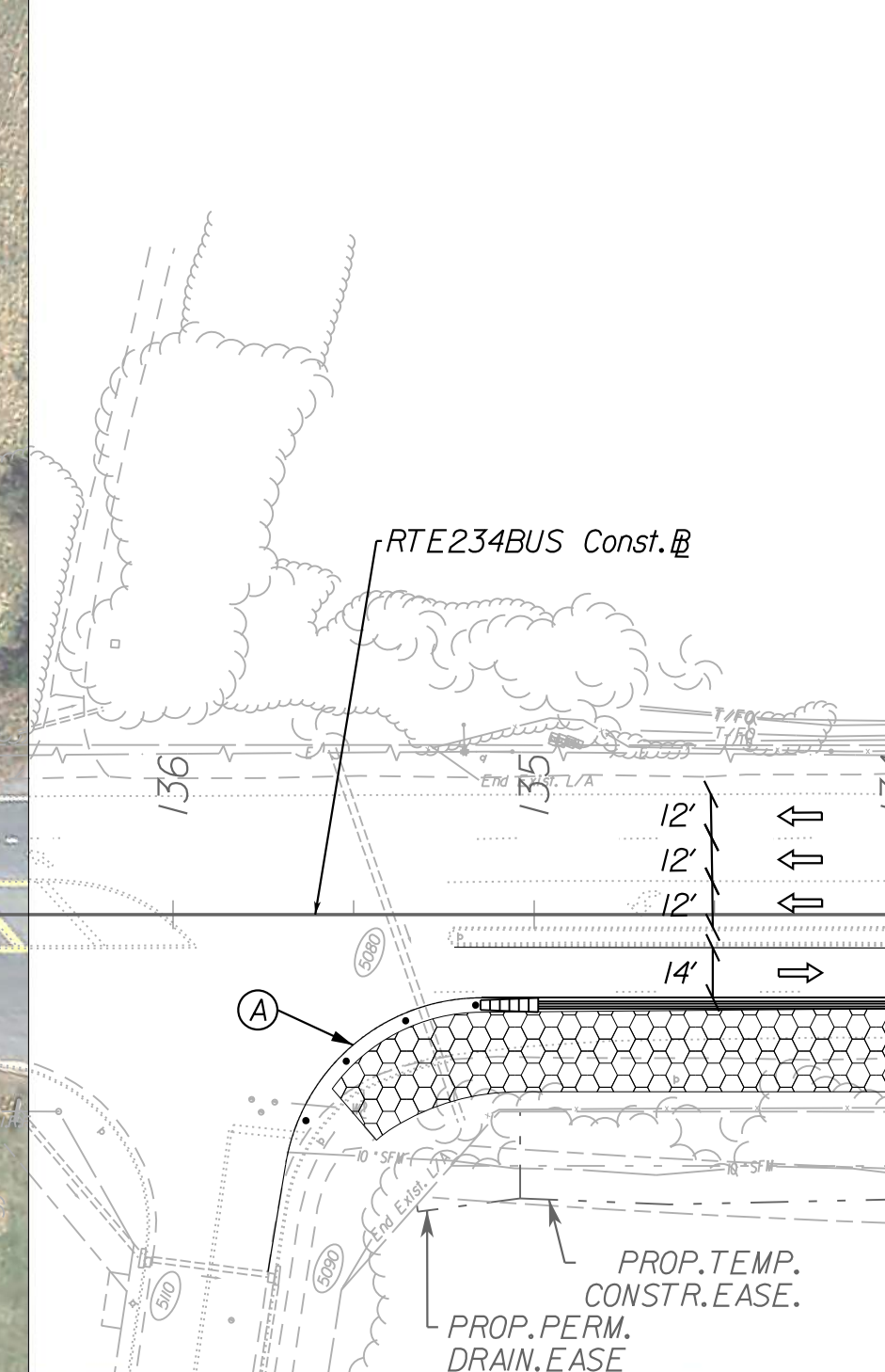
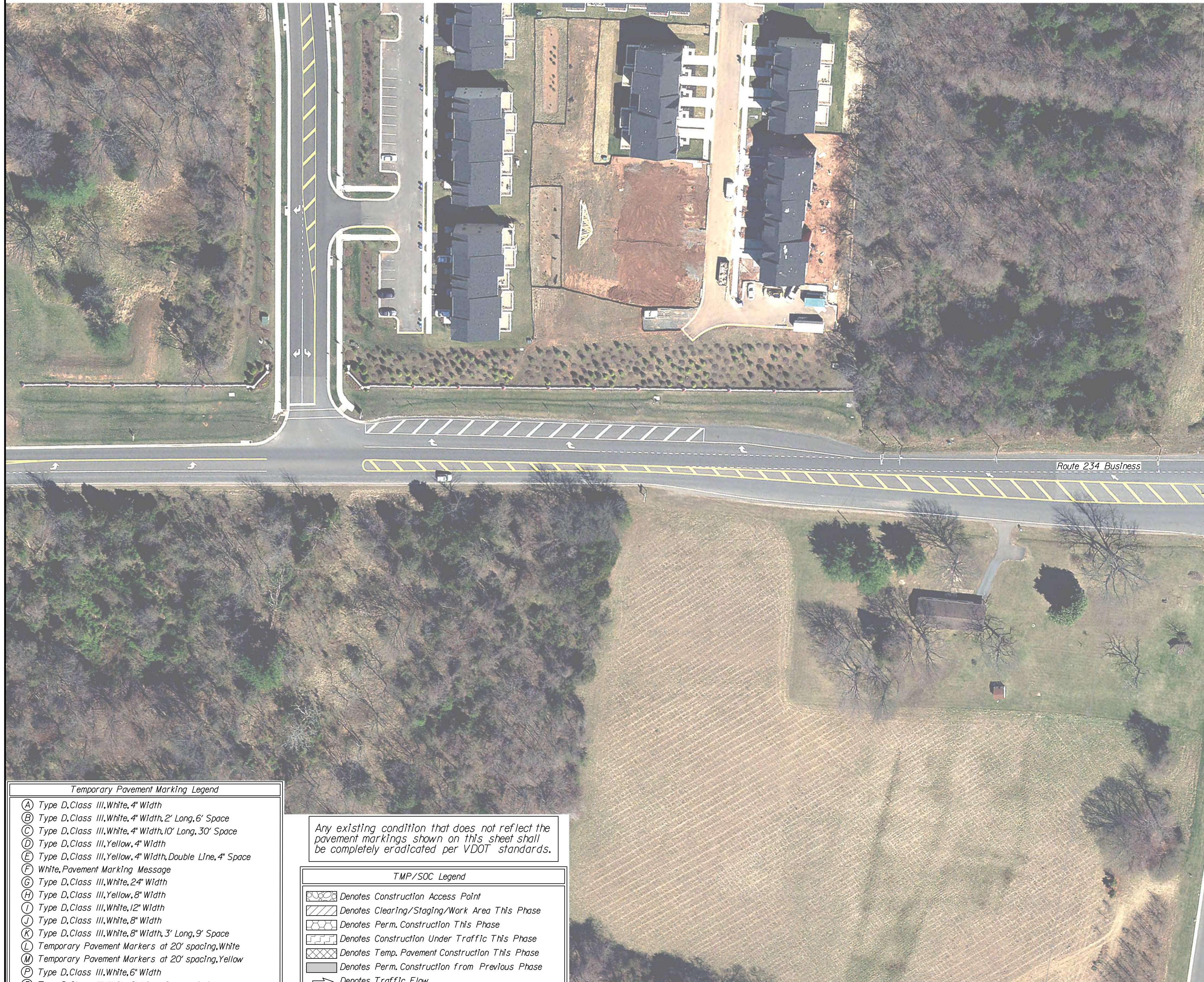
PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	17(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Match Line Sheet 17(8) - STA. 13+40.00

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (N) Type D, Class III, White, 6" Width
- (O) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (P) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (Q) Type D, Class III, Yellow, 6" Width
- (R) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- Denotes Construction Access Point
- Denotes Clearing/Staging/Work Area This Phase
- Denotes Perm. Construction This Phase
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. 17(9)

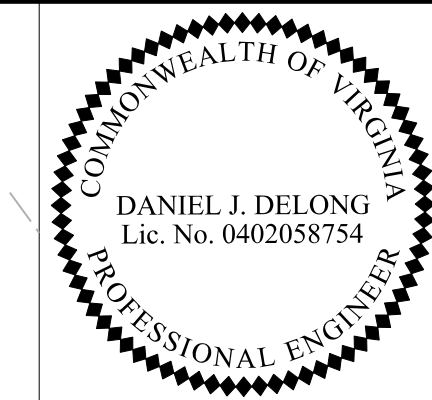
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TMP/SOC Phase 2A



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

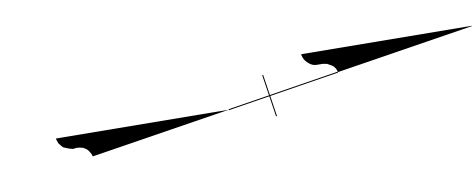
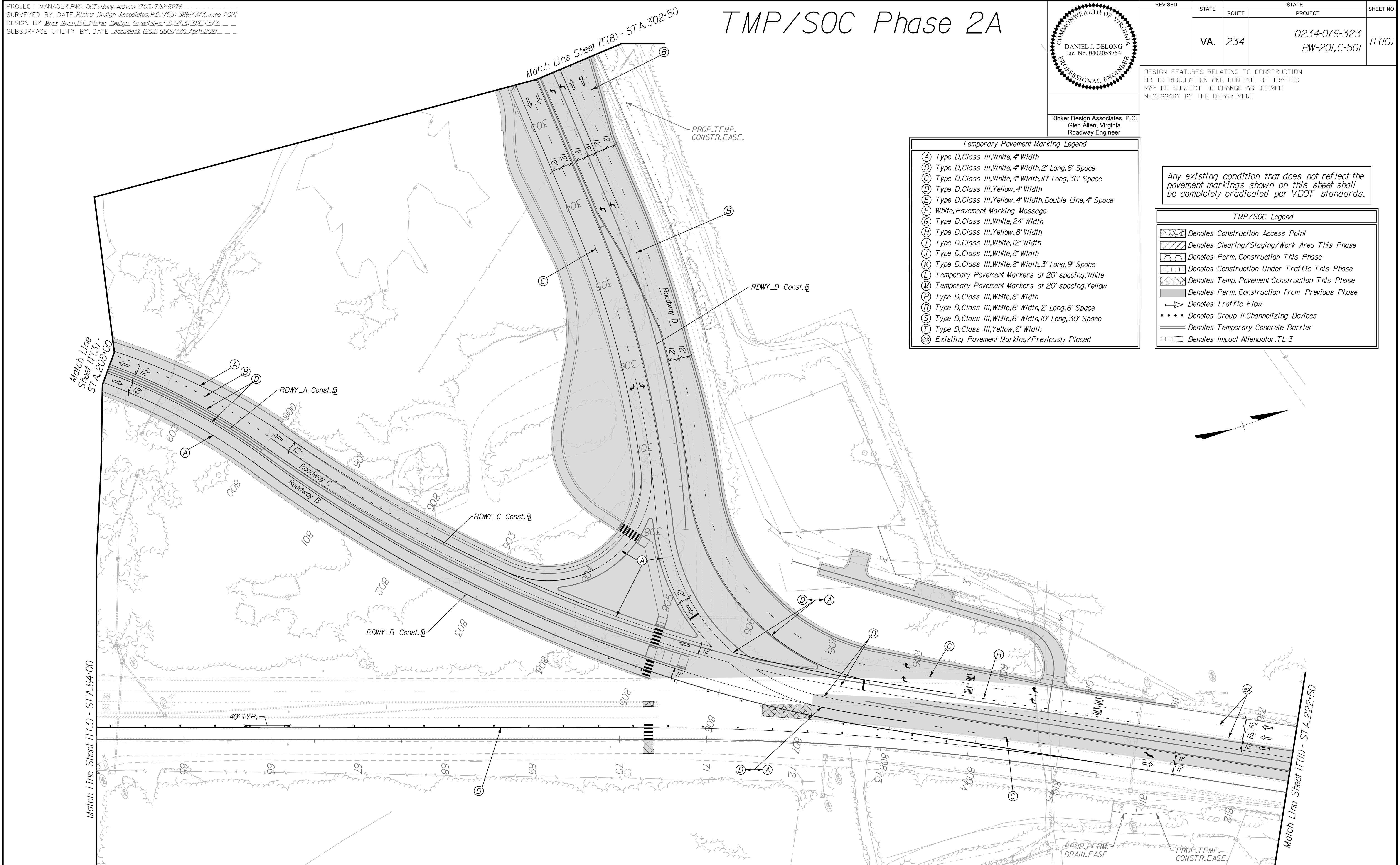
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	1T(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 2" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(EX)	Existing Pavement Marking/Previously Placed

TMP/SOC Legend	
	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3



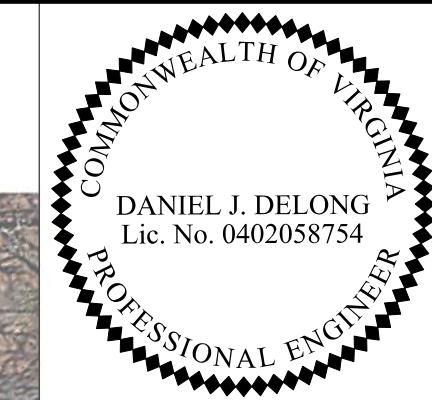
SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1T(10)
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

TMP/SOC Phase 2A

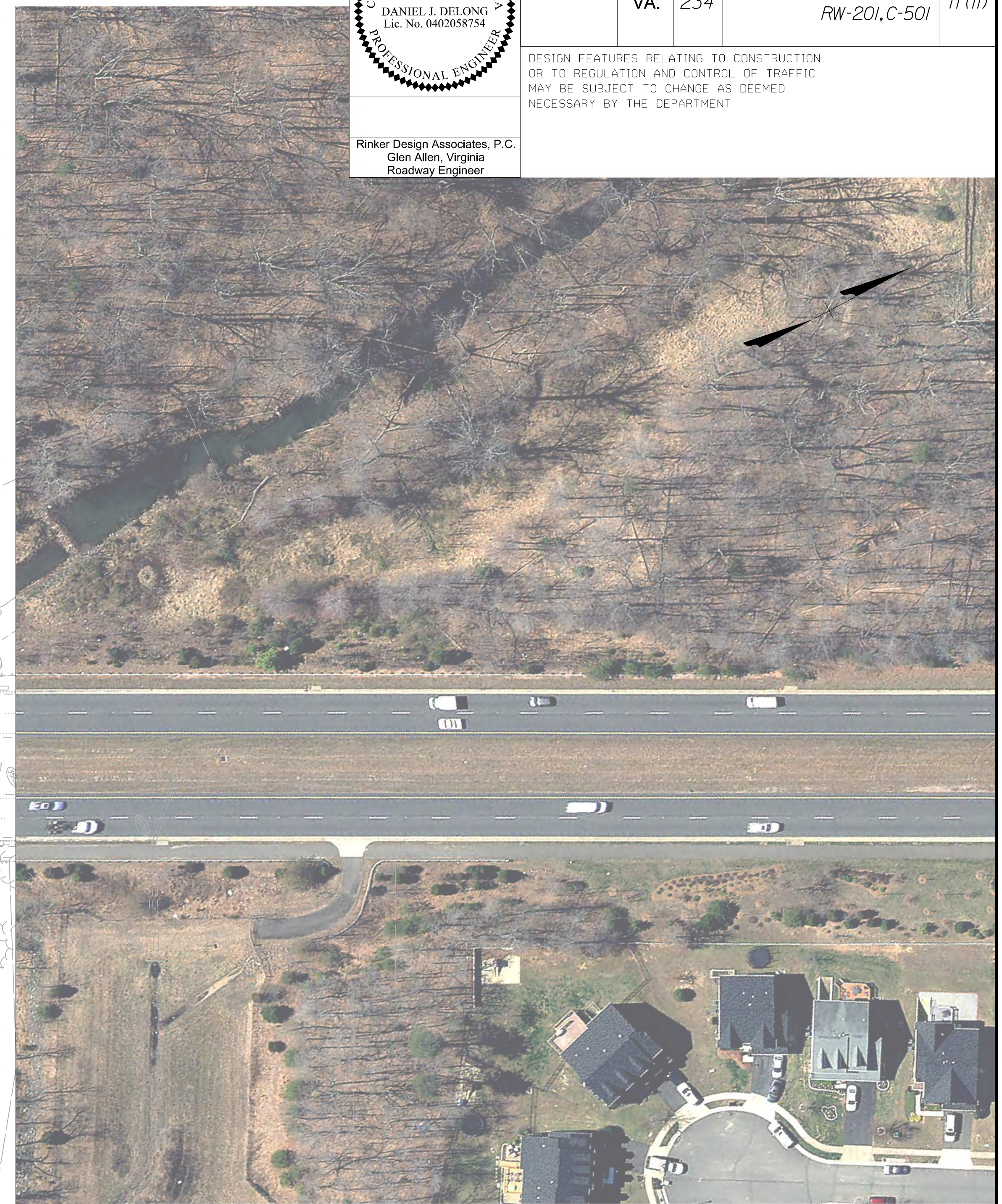
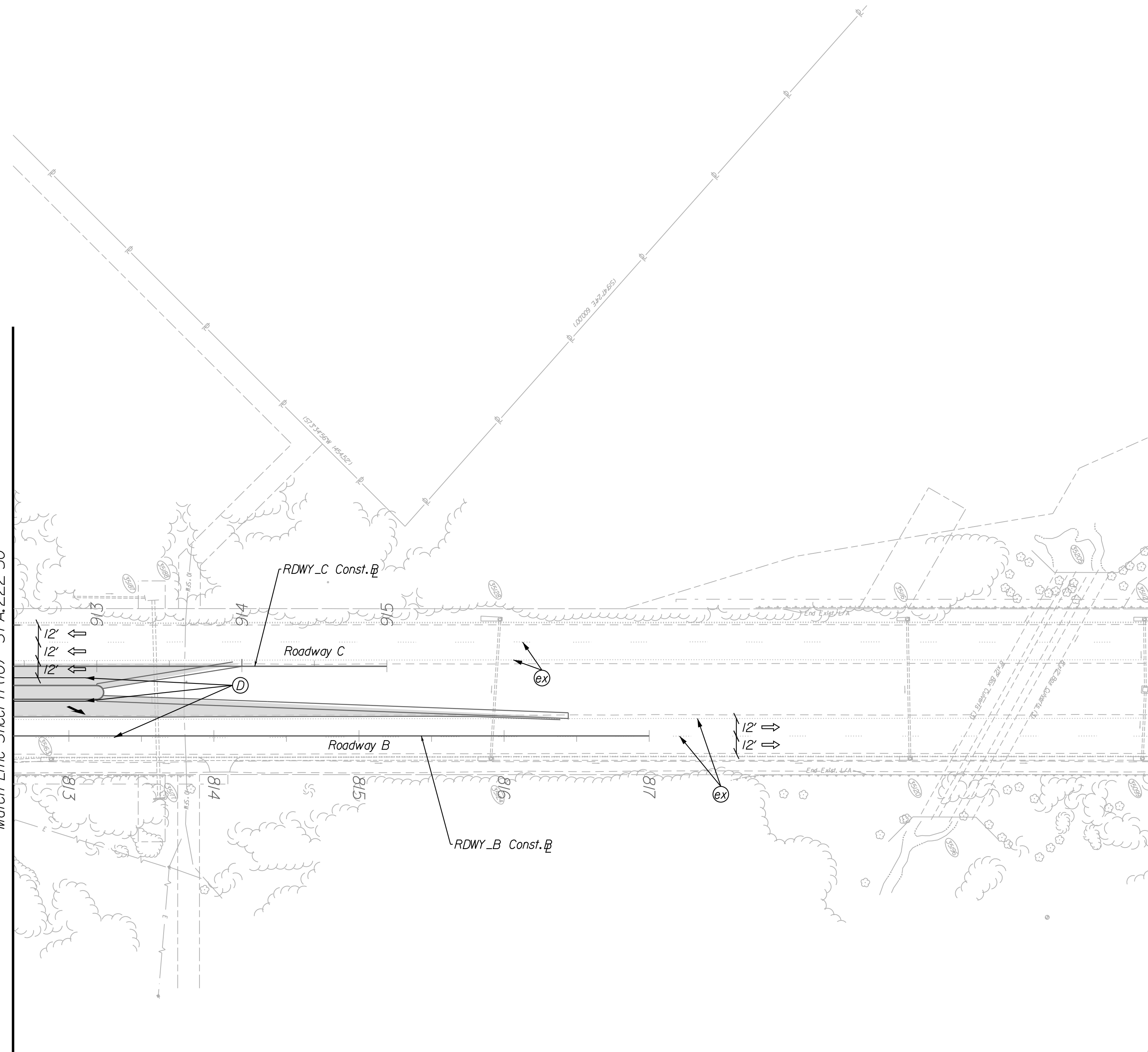


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IT (11)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Match Line Sheet IT(10) - STA. 222+50



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
- [Symbol] Denotes Construction Under Traffic This Phase
- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction From Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IT (11)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

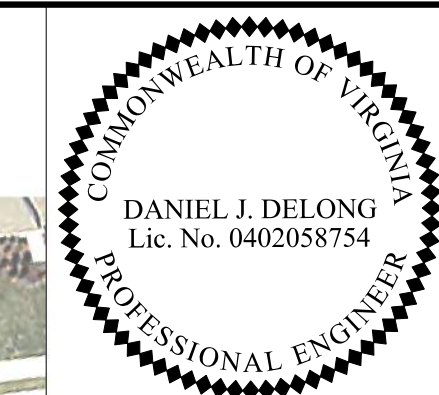
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase 3

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Biker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1U(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Match Line Sheet 1U(2) - STA 539+00

(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction From Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1U(1)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

10/20/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase 3

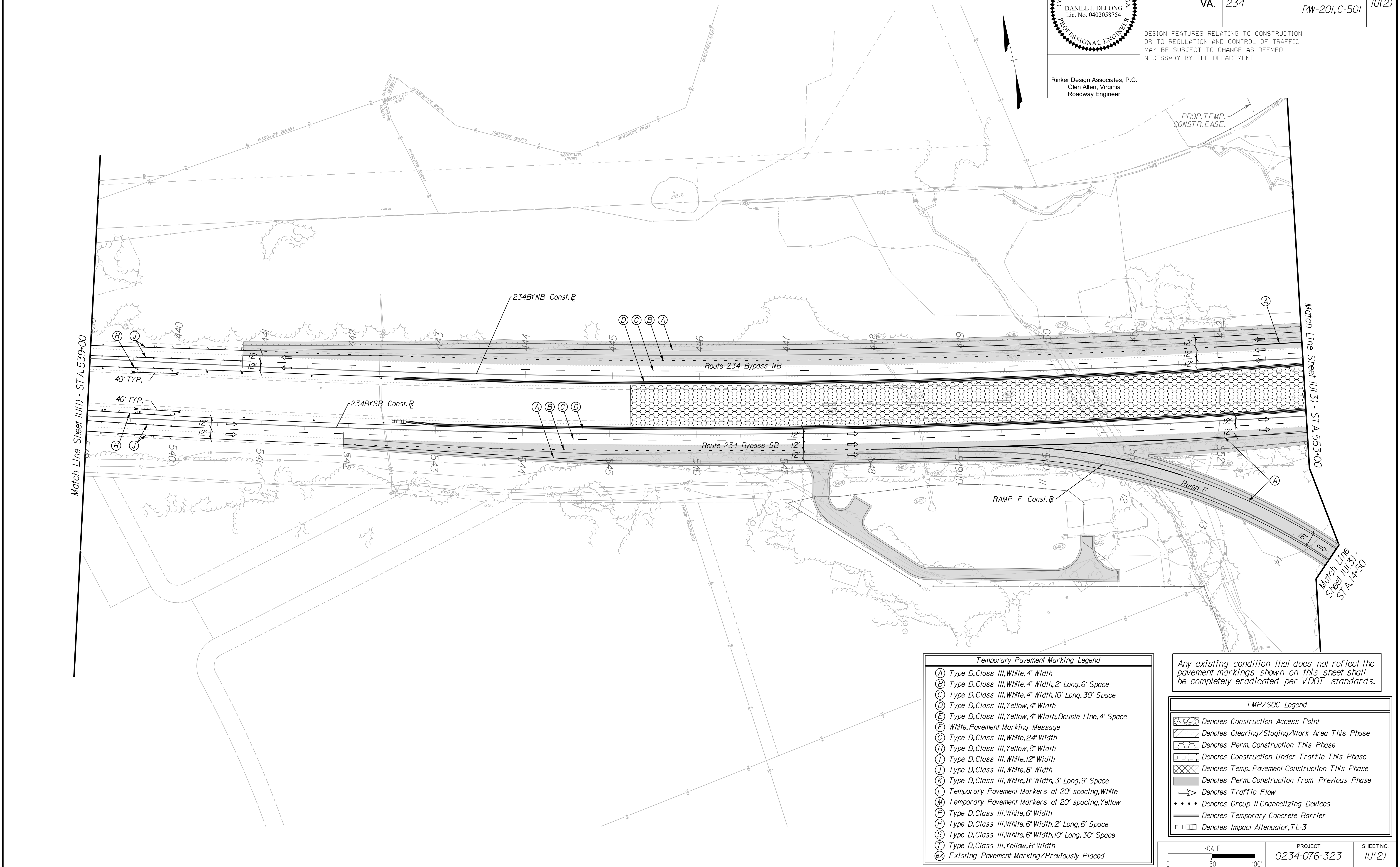
PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Btker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

COMMONWEALTH OF VIRGINIA
DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IU(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

[Symbol]	Denotes Construction Access Point
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[Symbol]	Denotes Perm. Construction This Phase
[Symbol]	Denotes Construction Under Traffic This Phase
[Symbol]	Denotes Temp. Pavement Construction This Phase
[Symbol]	Denotes Perm. Construction from Previous Phase
[Symbol]	Denotes Traffic Flow
[Symbol]	Denotes Group II Channelizing Devices
[Symbol]	Denotes Temporary Concrete Barrier
[Symbol]	Denotes Impact Attenuator, TL-3

SCALE	PROJECT	SHEET NO.
0 50' 100'	0234-076-323	IU(2)

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

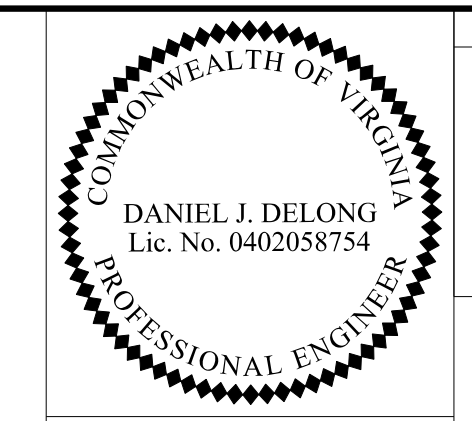
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

TMP/SOC Phase 3

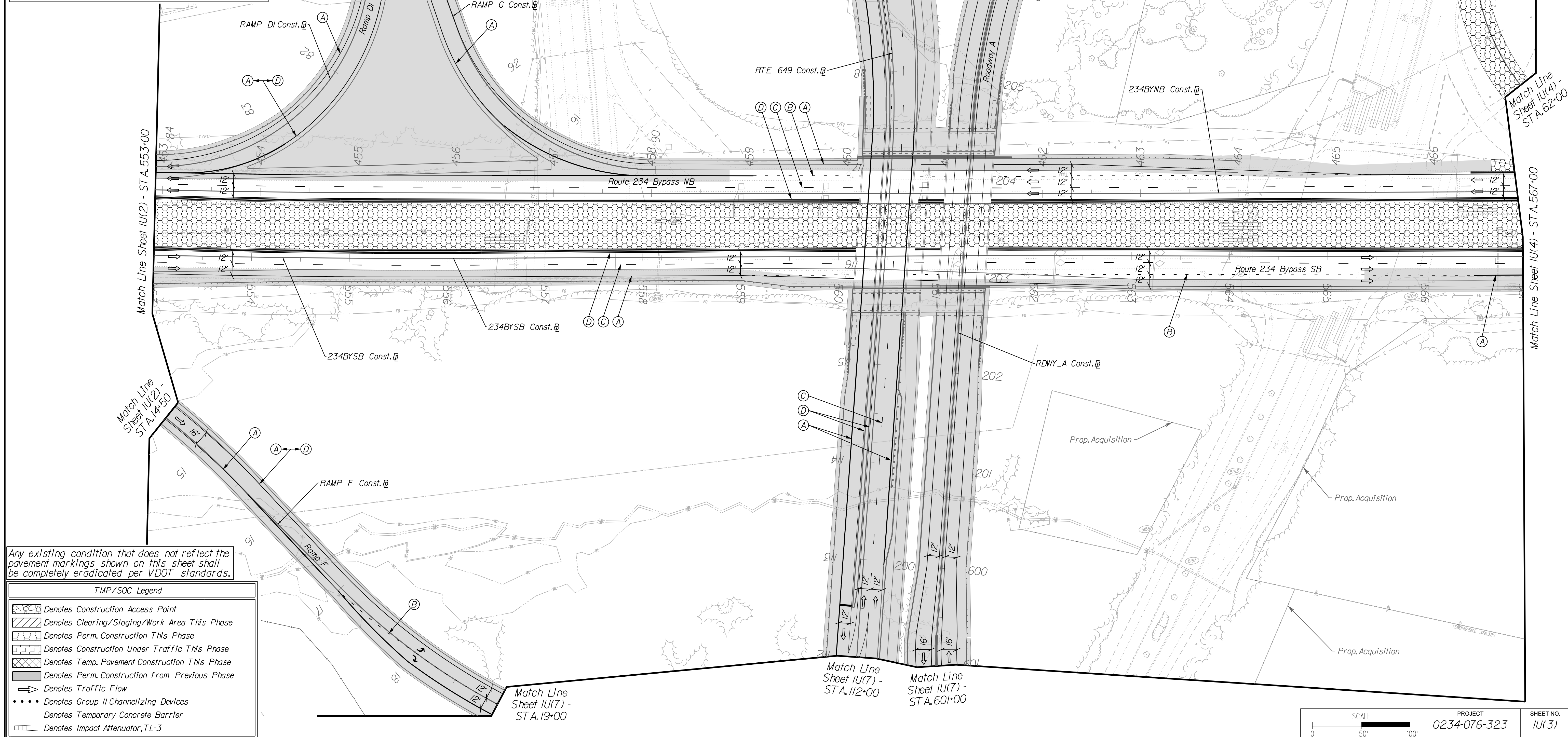


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IU(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

- Temporary Pavement Marking Legend**
- (A) Type D, Class III, White, 4" Width
 - (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
 - (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
 - (D) Type D, Class III, Yellow, 4" Width
 - (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
 - (F) White, Pavement Marking Message
 - (G) Type D, Class III, White, 24" Width
 - (H) Type D, Class III, Yellow, 8" Width
 - (I) Type D, Class III, White, 12" Width
 - (J) Type D, Class III, White, 8" Width
 - (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
 - (L) Temporary Pavement Markers at 20' spacing, White
 - (M) Temporary Pavement Markers at 20' spacing, Yellow
 - (P) Type D, Class III, White, 6" Width
 - (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
 - (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
 - (T) Type D, Class III, Yellow, 6" Width
 - (X) Existing Pavement Marking/Previously Placed



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- TMP/SOC Legend**
- Denotes Construction Access Point
 - Denotes Clearing/Staging/Work Area This Phase
 - Denotes Perm. Construction This Phase
 - Denotes Construction Under Traffic This Phase
 - Denotes Temp. Pavement Construction This Phase
 - Denotes Perm. Construction from Previous Phase
 - Denotes Traffic Flow
 - Denotes Group II Channelizing Devices
 - Denotes Temporary Concrete Barrier
 - Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IU(3)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

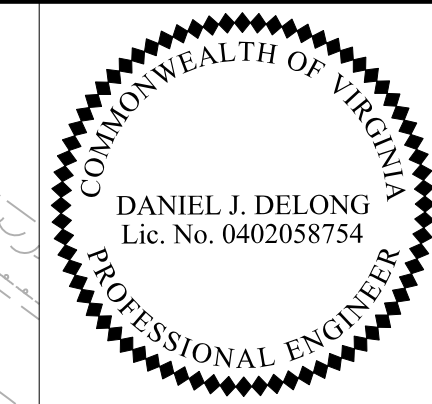
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

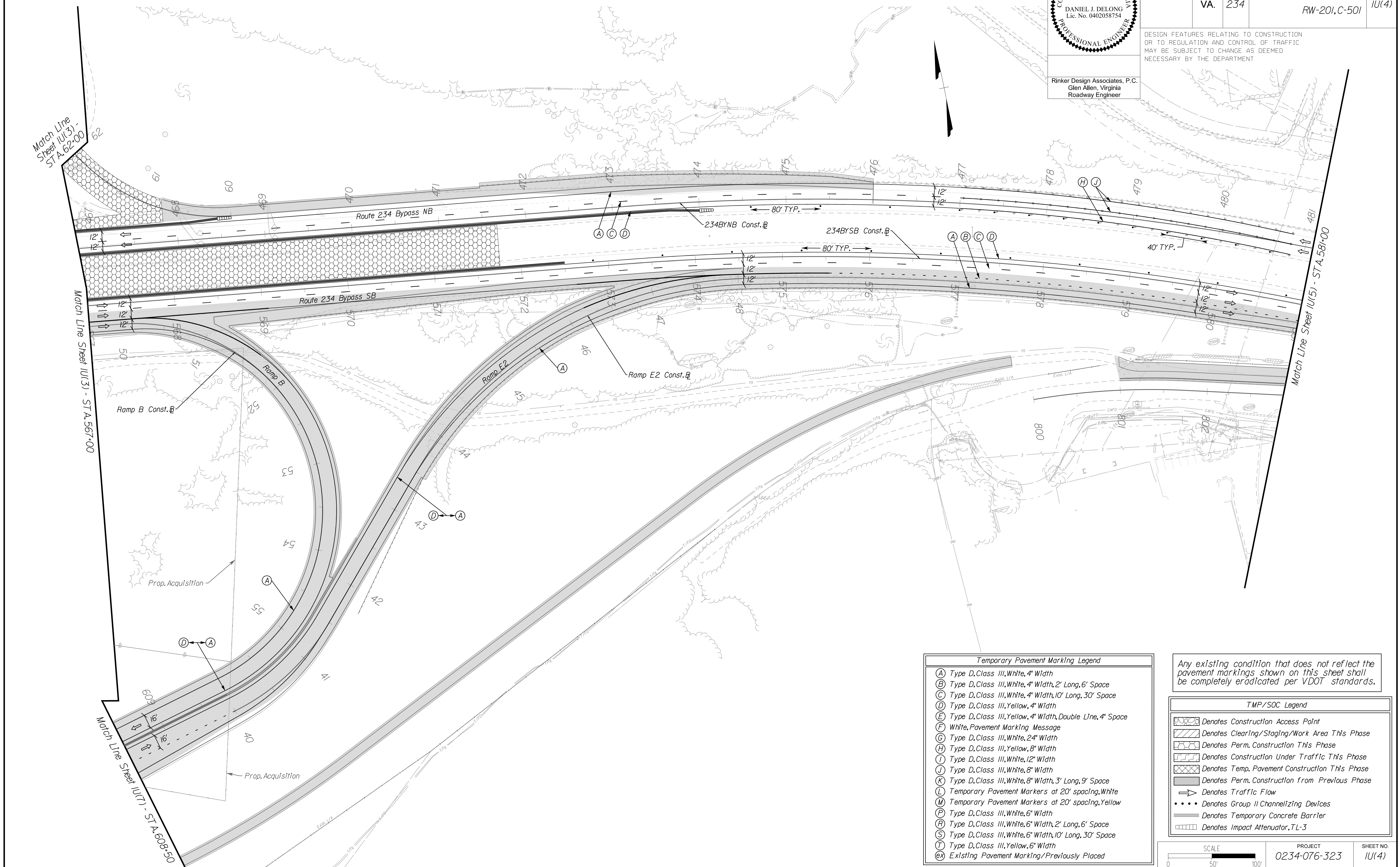
TMP/SOC Phase 3



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	IU(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 24" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(X)	Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend	
	Denotes Construction Access Point
	Denotes Clearing/Staging/Work Area This Phase
	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IU(4)
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

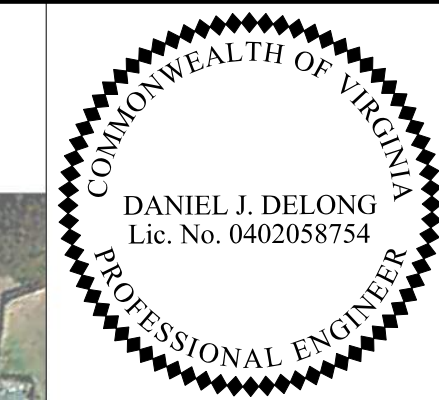
10/20/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

TMP/SOC Phase 3

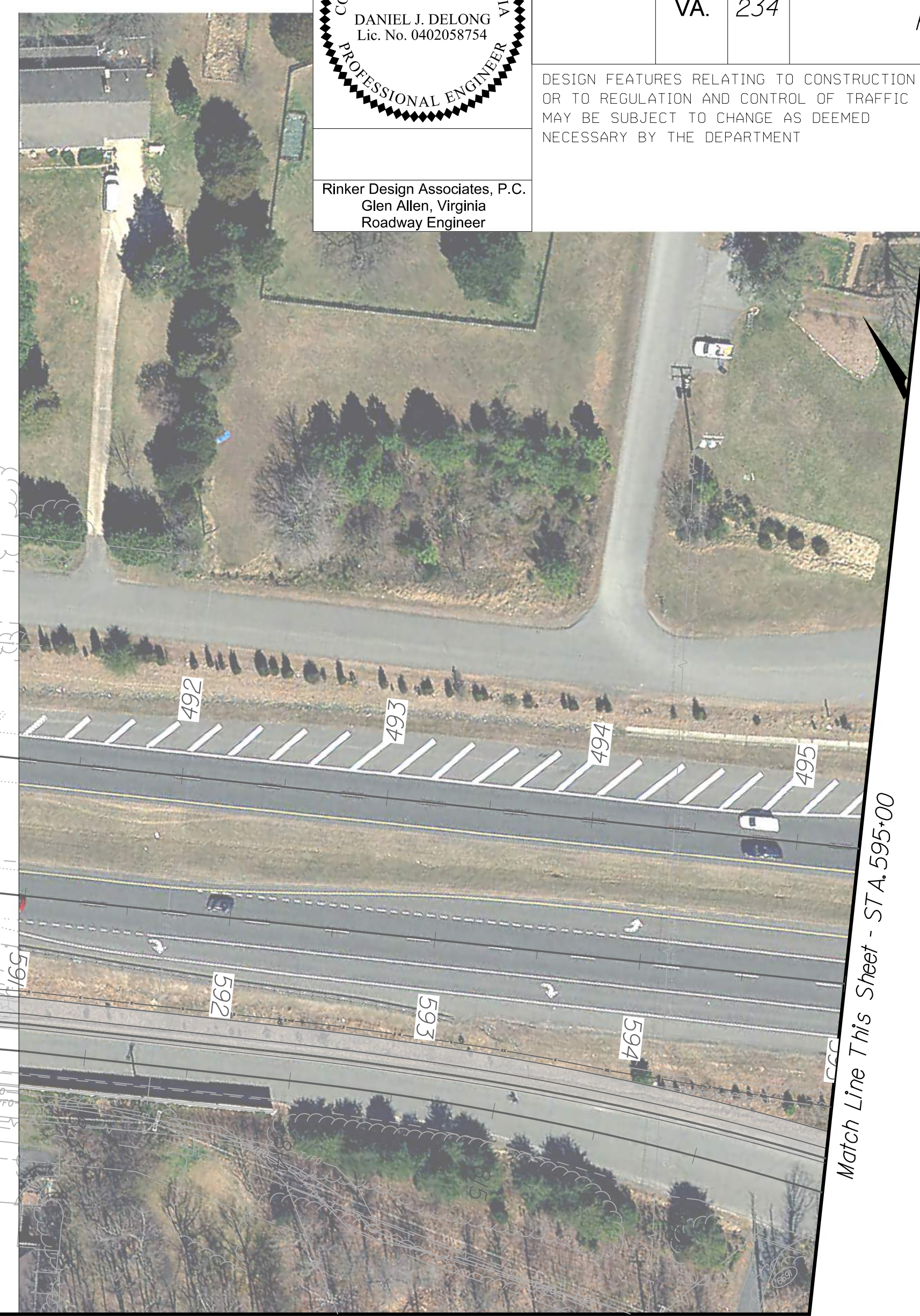
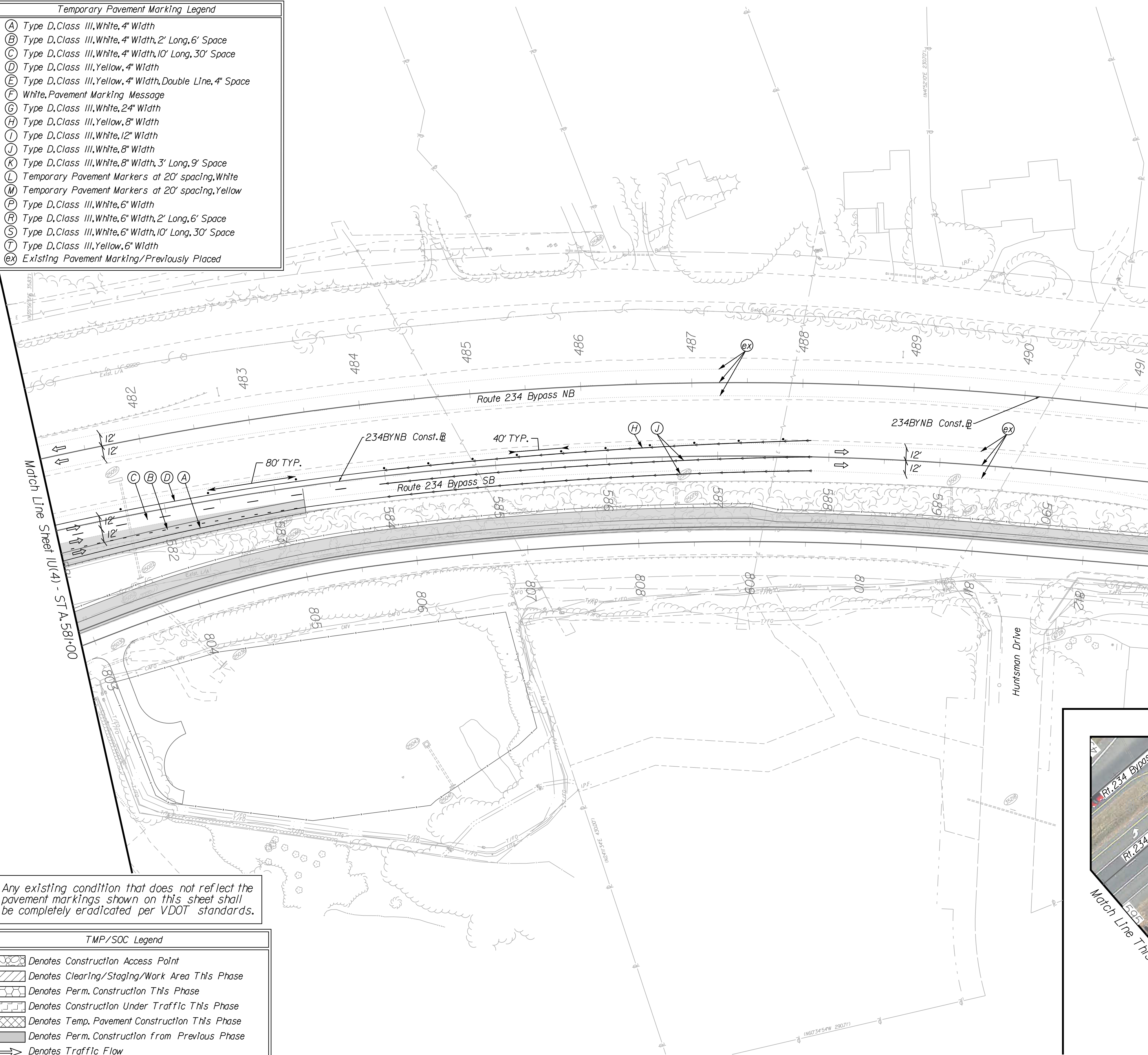


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IU(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

- Temporary Pavement Marking Legend**
- (A) Type D, Class III, White, 4" Width
 - (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
 - (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
 - (D) Type D, Class III, Yellow, 4" Width
 - (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
 - (F) White, Pavement Marking Message
 - (G) Type D, Class III, White, 2 1/2" Width
 - (H) Type D, Class III, Yellow, 8" Width
 - (I) Type D, Class III, White, 12" Width
 - (J) Type D, Class III, White, 8" Width
 - (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
 - (L) Temporary Pavement Markers at 20' spacing, White
 - (M) Temporary Pavement Markers at 20' spacing, Yellow
 - (P) Type D, Class III, White, 6" Width
 - (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
 - (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
 - (T) Type D, Class III, Yellow, 6" Width
 - (X) Existing Pavement Marking/Previously Placed



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- TMP/SOC Legend**
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 - Denotes Clearing/Staging/Work Area This Phase
 - Denotes Perm. Construction This Phase
 - Denotes Construction Under Traffic This Phase
 - Denotes Temp. Pavement Construction This Phase
 - Denotes Perm. Construction from Previous Phase
 - Denotes Traffic Flow
 - Denotes Group II Channelizing Devices
 - Denotes Temporary Concrete Barrier
 - Denotes Impact Attenuator, TL-3



SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IU(5)
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10/20/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

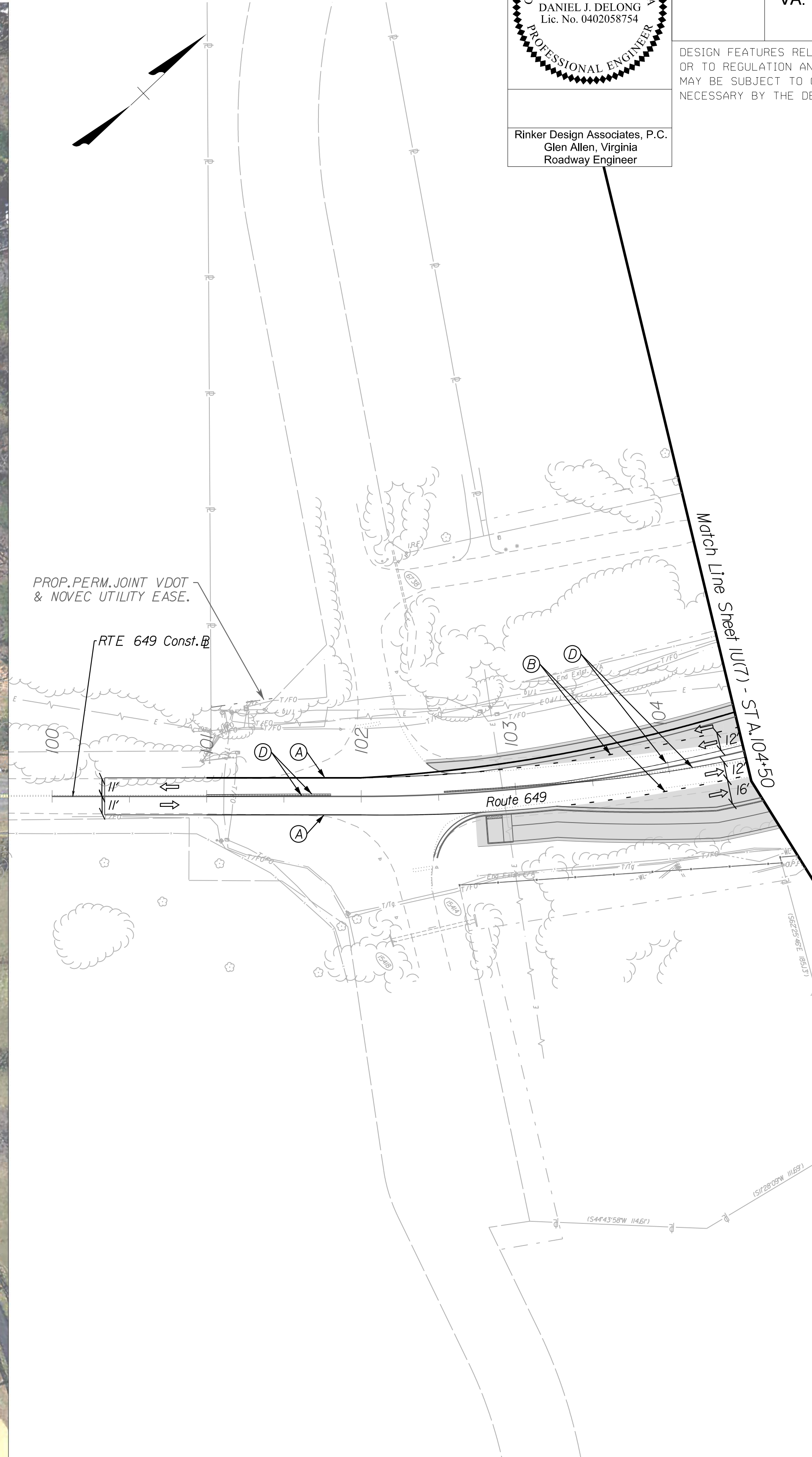
TMP/SOC Phase 3

COMMONWEALTH OF VIRGINIA
DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IU(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (N) Type D, Class III, White, 6" Width
- (O) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (P) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (Q) Type D, Class III, Yellow, 6" Width
- (R) Existing Pavement Marking/Previously Placed

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TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
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- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction from Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. IU(6)

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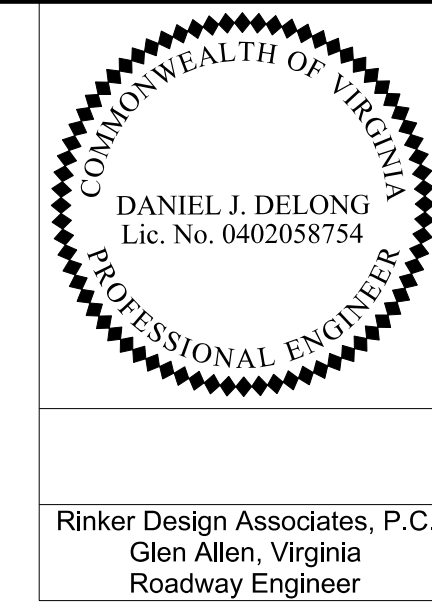
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

TMP/SOC Phase 3

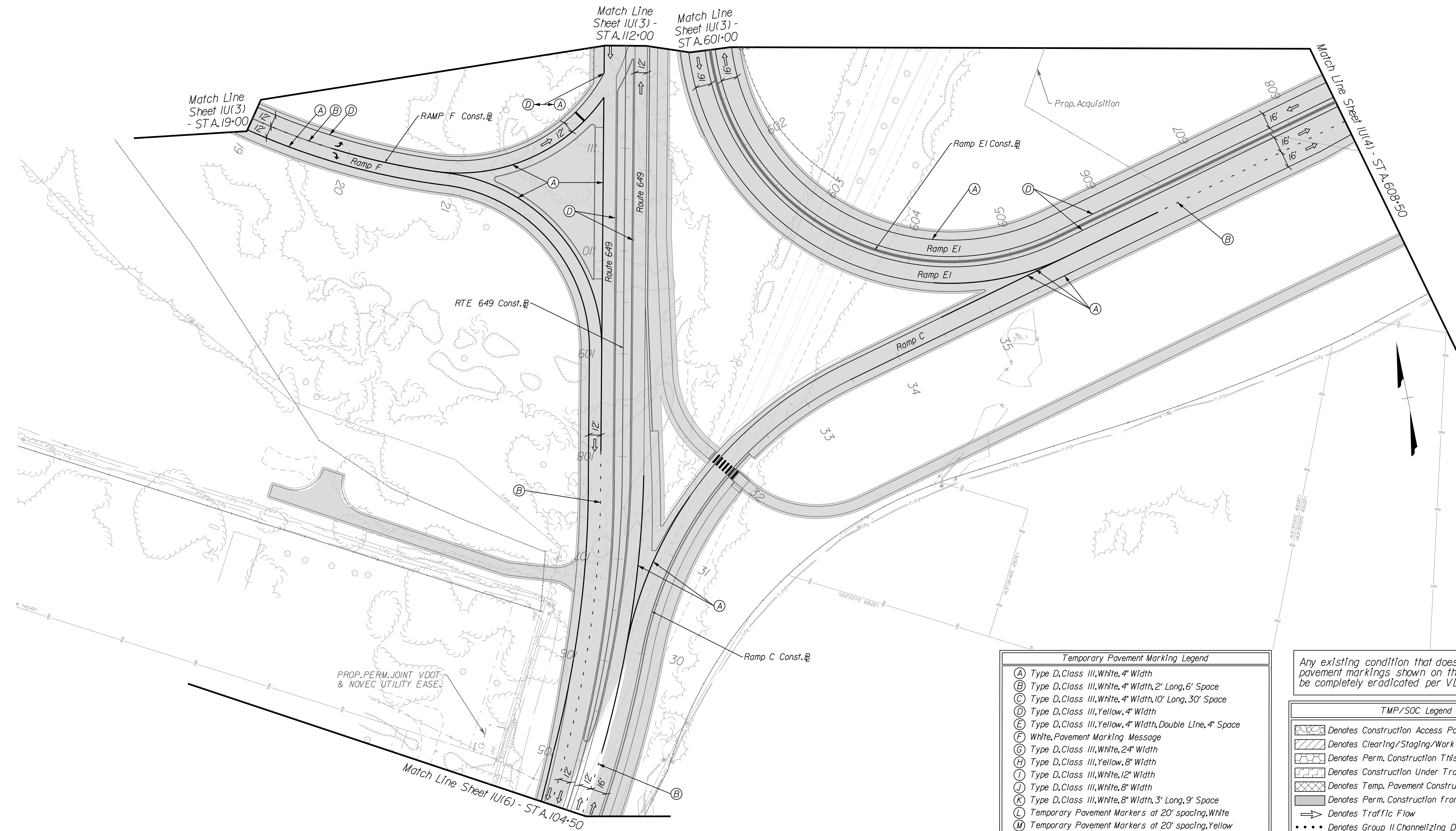
PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	IU(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

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TMP/SOC Legend

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- Denotes Clearing/Staging/Work Area This Phase
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- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Construction This Phase
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Temporary Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IU(7)
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TMP/SOC Phase 3

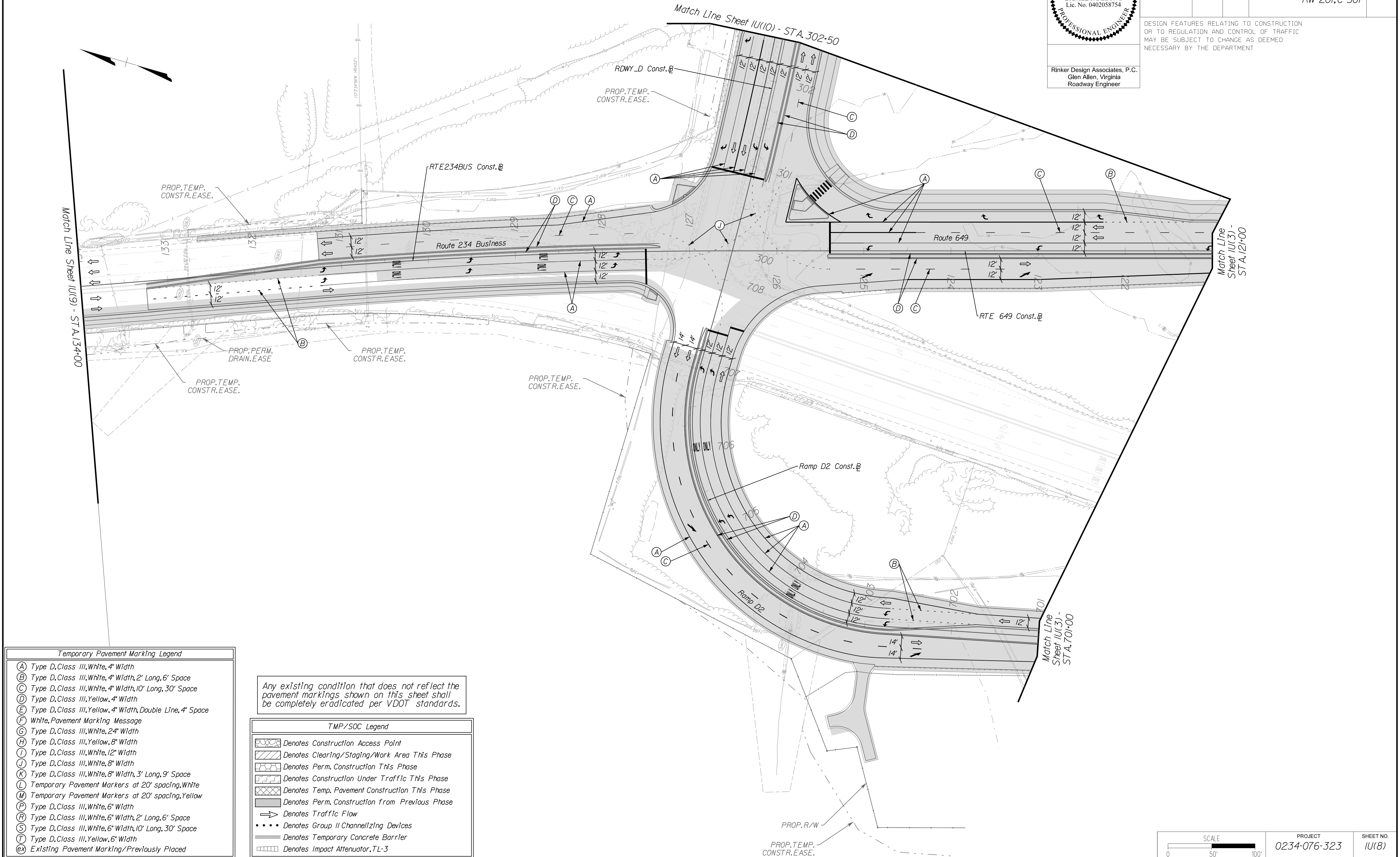
PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

COMMONWEALTH OF VIRGINIA
DANIEL J. DELONG
Lic. No. 0402058754
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IU(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

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TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
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- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction from Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. IU(8)

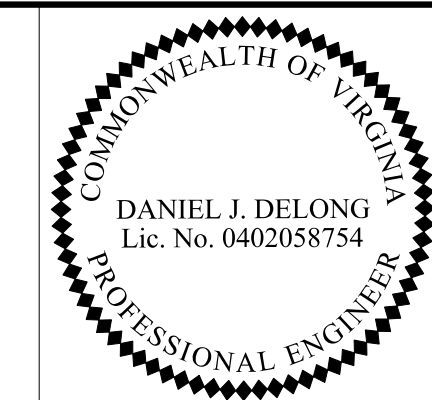
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10/20/2021

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

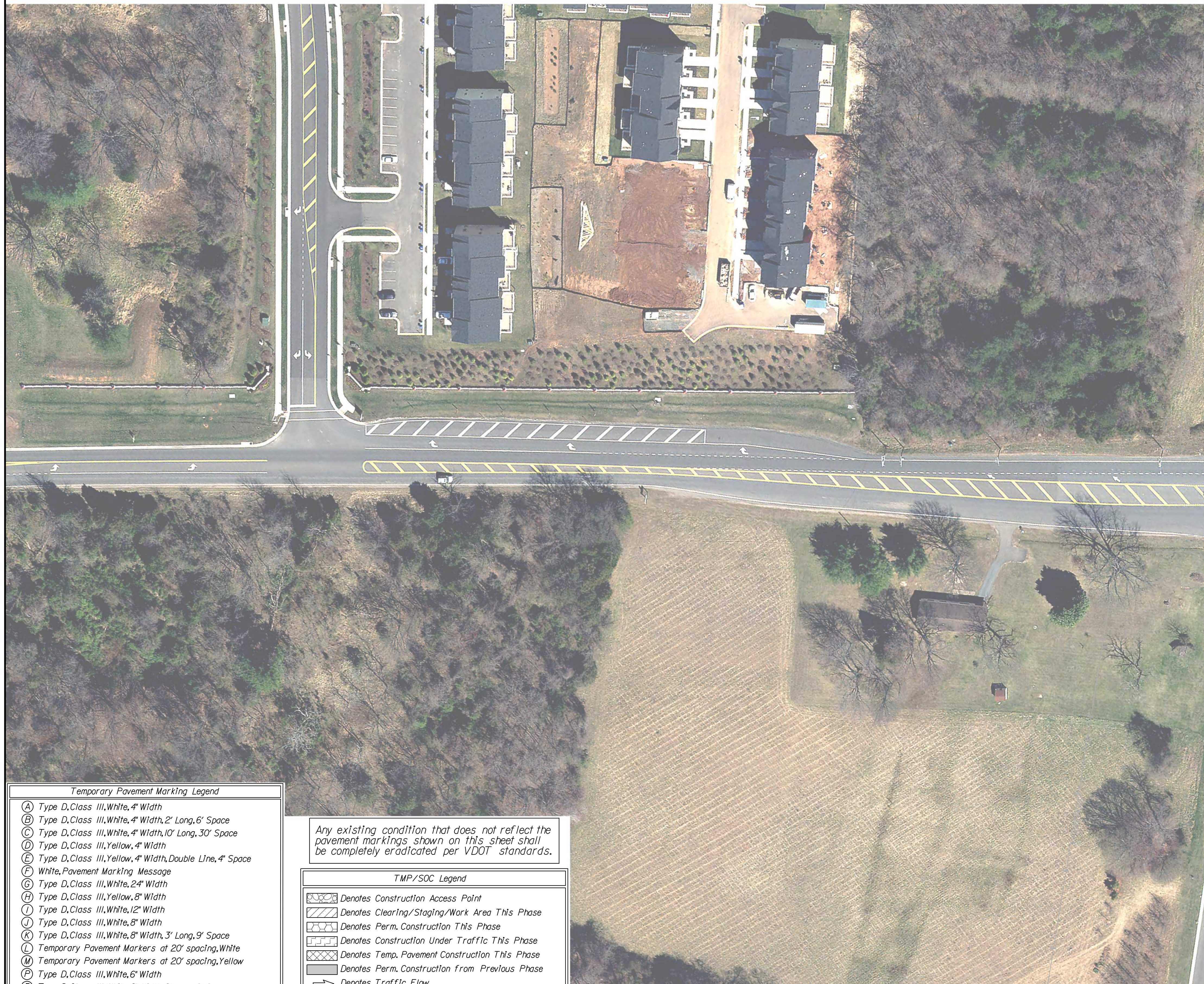
TMP/SOC Phase 3



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1U(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Match Line Sheet 1U(8) - STA. 134+00

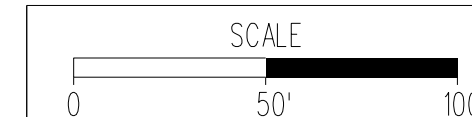
Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (N) Type D, Class III, White, 6" Width
- (O) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (P) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (Q) Type D, Class III, Yellow, 6" Width
- (R) Existing Pavement Marking/Previously Placed

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TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
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- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction from Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3



PROJECT 0234-076-323
SHEET NO. 1U(9)

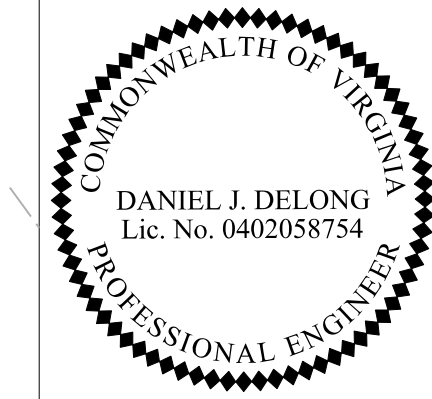
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10/20/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TMP/SOC Phase 3



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

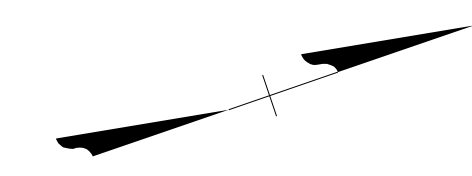
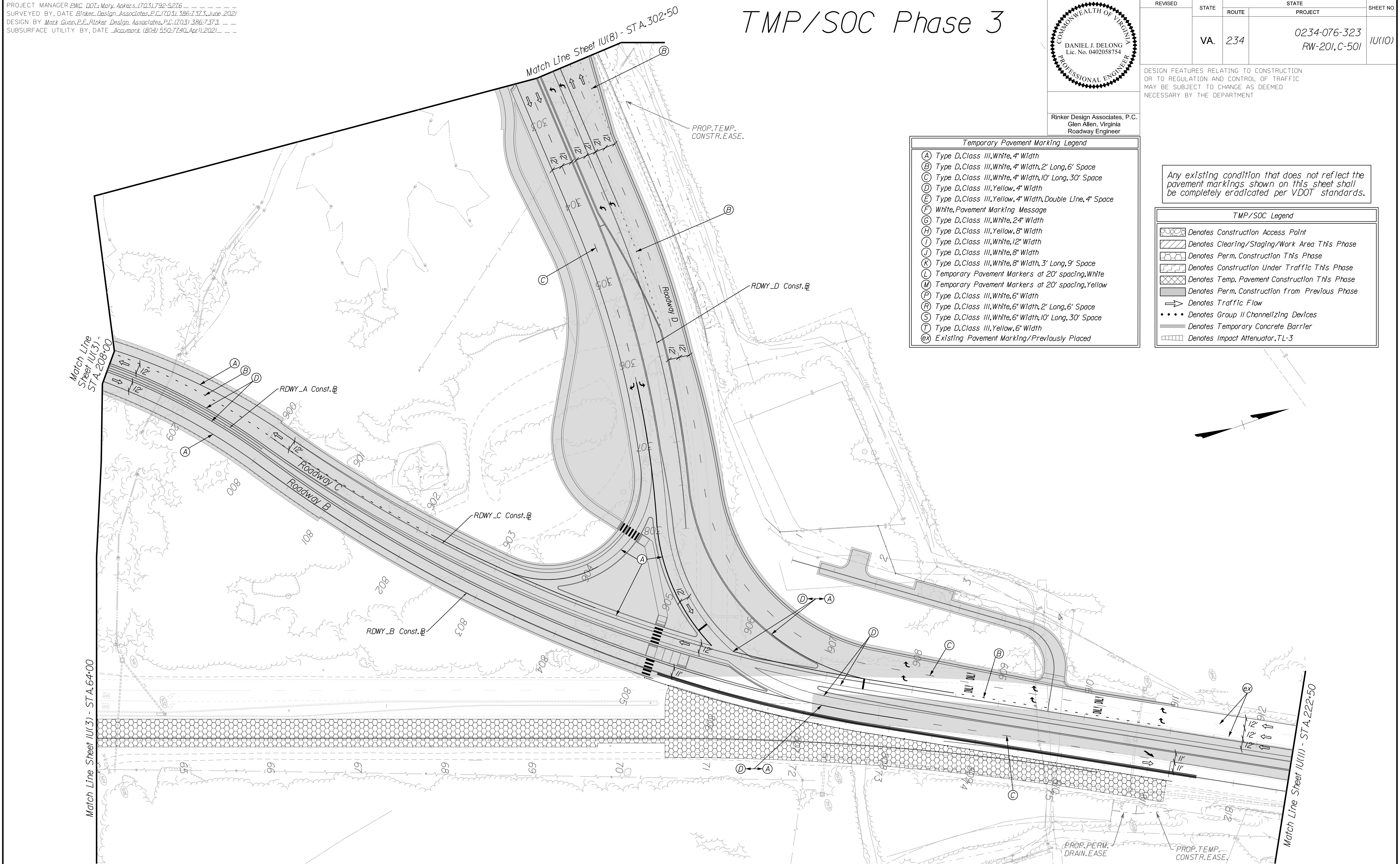
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	1U(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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Temporary Pavement Marking Legend	
(A)	Type D, Class III, White, 4" Width
(B)	Type D, Class III, White, 4" Width, 2' Long, 6' Space
(C)	Type D, Class III, White, 4" Width, 10' Long, 30' Space
(D)	Type D, Class III, Yellow, 4" Width
(E)	Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
(F)	White, Pavement Marking Message
(G)	Type D, Class III, White, 2" Width
(H)	Type D, Class III, Yellow, 8" Width
(I)	Type D, Class III, White, 12" Width
(J)	Type D, Class III, White, 8" Width
(K)	Type D, Class III, White, 8" Width, 3' Long, 9' Space
(L)	Temporary Pavement Markers at 20' spacing, White
(M)	Temporary Pavement Markers at 20' spacing, Yellow
(P)	Type D, Class III, White, 6" Width
(R)	Type D, Class III, White, 6" Width, 2' Long, 6' Space
(S)	Type D, Class III, White, 6" Width, 10' Long, 30' Space
(T)	Type D, Class III, Yellow, 6" Width
(EX)	Existing Pavement Marking/Previously Placed

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	Denotes Perm. Construction This Phase
	Denotes Construction Under Traffic This Phase
	Denotes Temp. Pavement Construction This Phase
	Denotes Perm. Construction from Previous Phase
	Denotes Traffic Flow
	Denotes Group II Channelizing Devices
	Denotes Temporary Concrete Barrier
	Denotes Impact Attenuator, TL-3



SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 1U(10)
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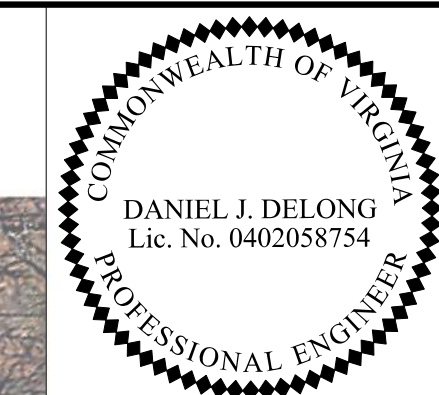
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11/5/2021

TMP/SOC Phase 3

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

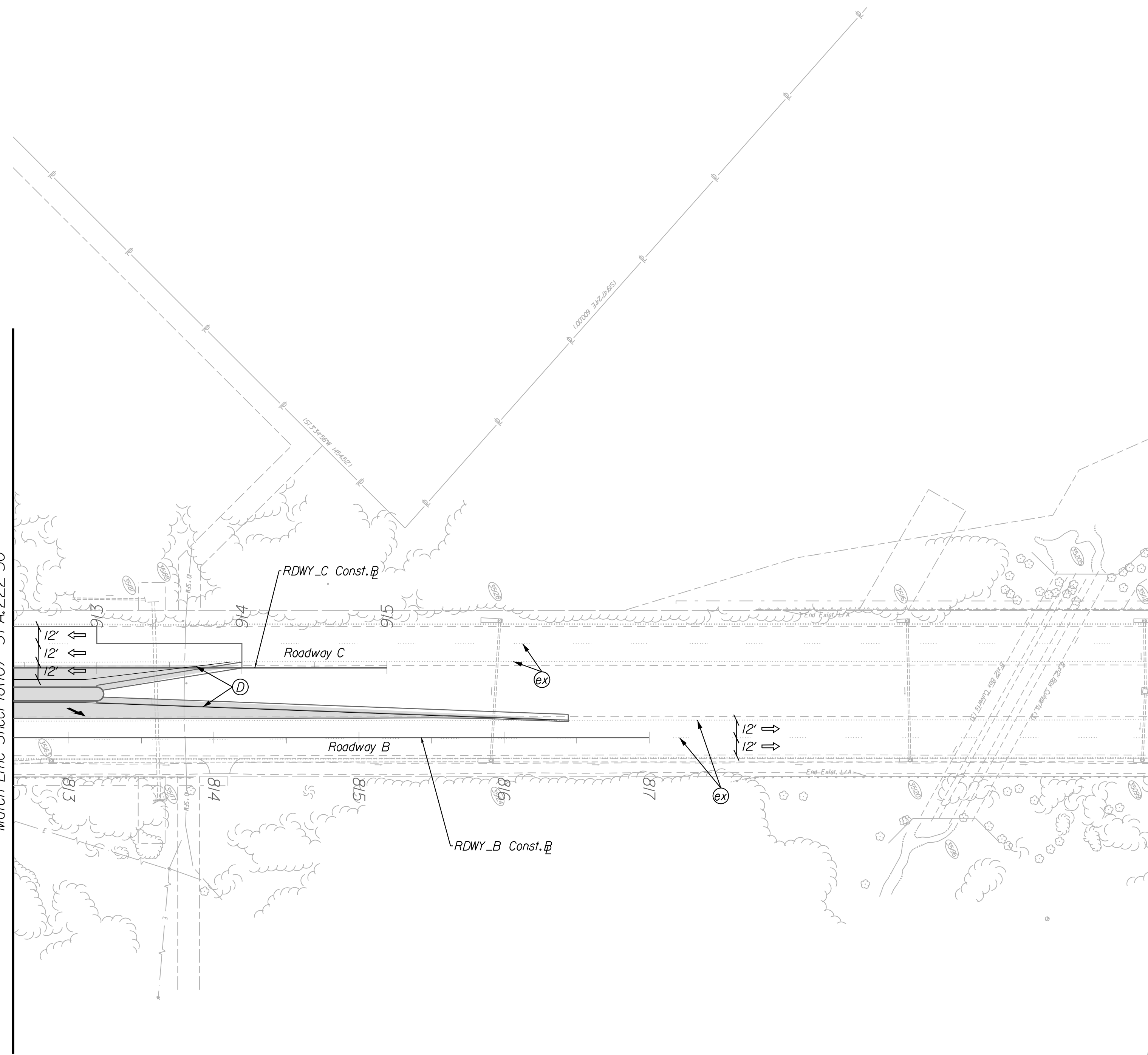


Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	IU(11)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Match Line Sheet IU(10) - STA. 222+50



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 4" Width
- (B) Type D, Class III, White, 4" Width, 2' Long, 6' Space
- (C) Type D, Class III, White, 4" Width, 10' Long, 30' Space
- (D) Type D, Class III, Yellow, 4" Width
- (E) Type D, Class III, Yellow, 4" Width, Double Line, 4" Space
- (F) White, Pavement Marking Message
- (G) Type D, Class III, White, 24" Width
- (H) Type D, Class III, Yellow, 8" Width
- (I) Type D, Class III, White, 12" Width
- (J) Type D, Class III, White, 8" Width
- (K) Type D, Class III, White, 8" Width, 3' Long, 9' Space
- (L) Temporary Pavement Markers at 20' spacing, White
- (M) Temporary Pavement Markers at 20' spacing, Yellow
- (P) Type D, Class III, White, 6" Width
- (R) Type D, Class III, White, 6" Width, 2' Long, 6' Space
- (S) Type D, Class III, White, 6" Width, 10' Long, 30' Space
- (T) Type D, Class III, Yellow, 6" Width
- (X) Existing Pavement Marking/Previously Placed

Any existing condition that does not reflect the pavement markings shown on this sheet shall be completely eradicated per VDOT standards.

TMP/SOC Legend

- [Symbol] Denotes Construction Access Point
- [Symbol] Denotes Clearing/Staging/Work Area This Phase
- [Symbol] Denotes Perm. Construction This Phase
- [Symbol] Denotes Construction Under Traffic This Phase
- [Symbol] Denotes Temp. Pavement Construction This Phase
- [Symbol] Denotes Perm. Construction From Previous Phase
- [Symbol] Denotes Traffic Flow
- [Symbol] Denotes Group II Channelizing Devices
- [Symbol] Denotes Temporary Concrete Barrier
- [Symbol] Denotes Impact Attenuator, TL-3

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. IU(11)
---------------------	-------------------------	---------------------

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

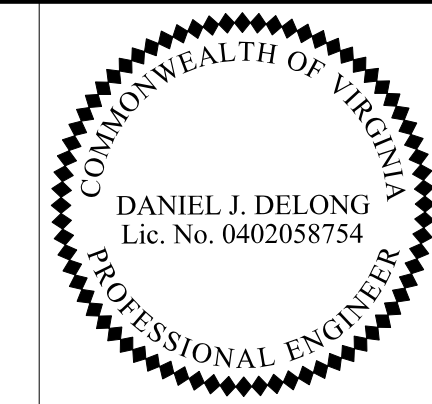
10/20/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

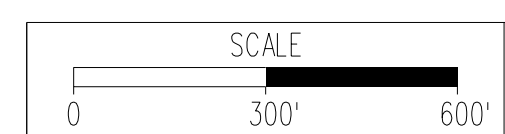
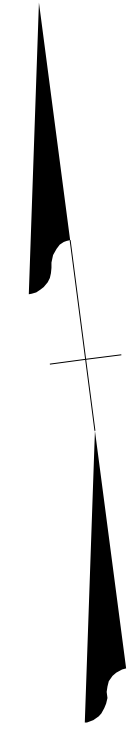
Phase I - Bradley Cemetery Way Detour



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	N(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PROJECT	SHEET NO.
0234-076-323	N(1)

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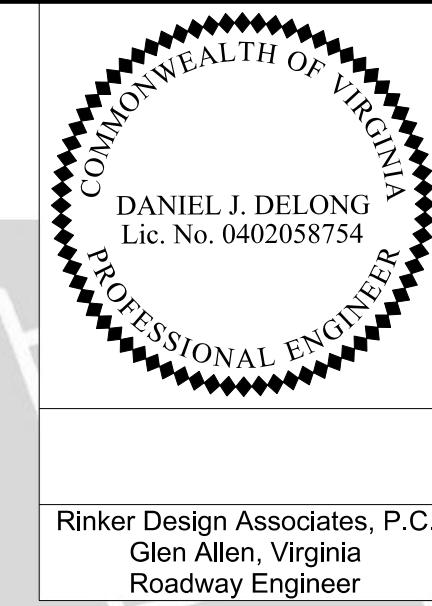
10/20/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated
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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated
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PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

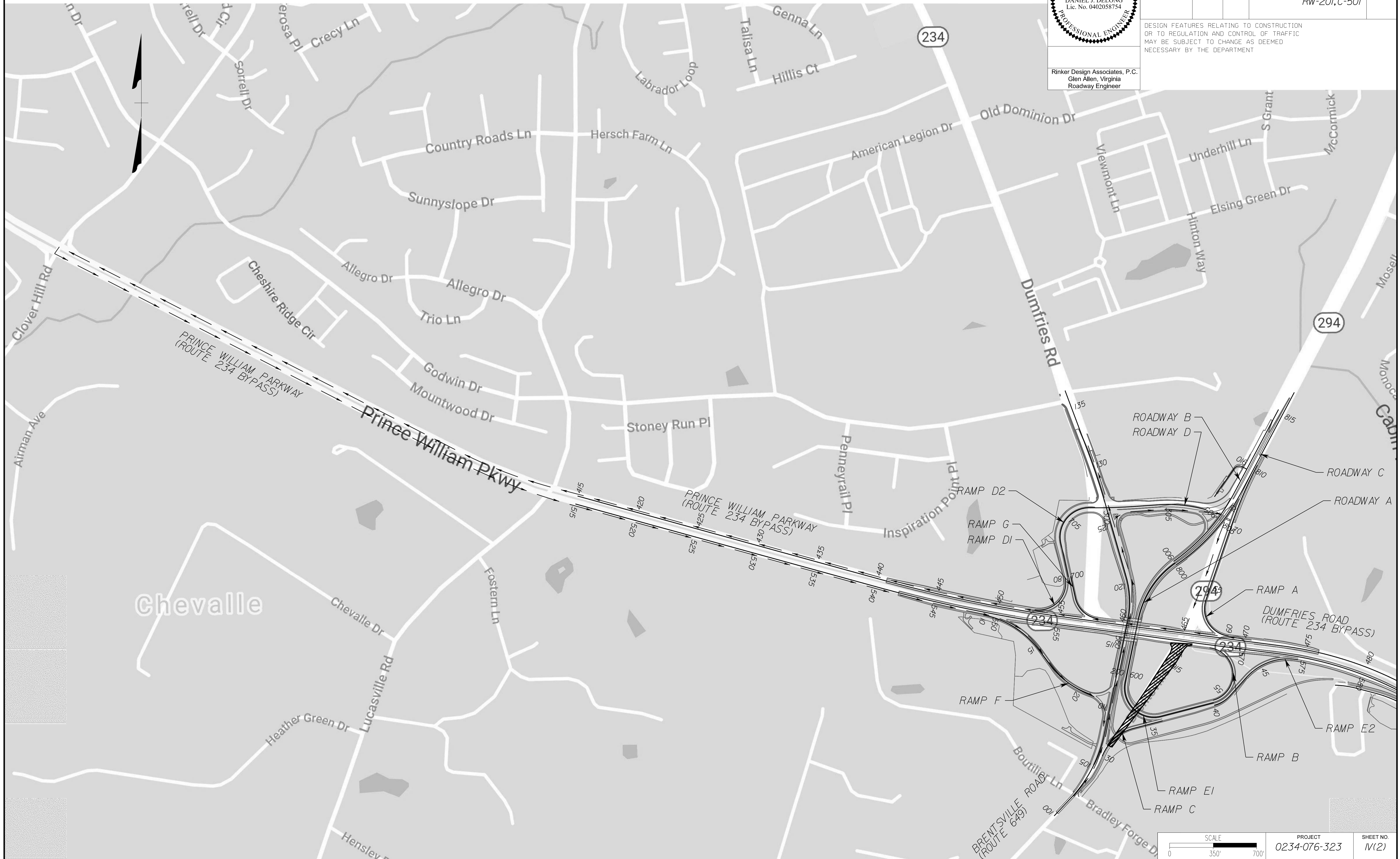
Phase 2 - Rte. 649 (Brentsville RD.) Detour



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	N(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



SCALE 0 350' 700'

PROJECT	0234-076-323	SHEET NO.	N(2)
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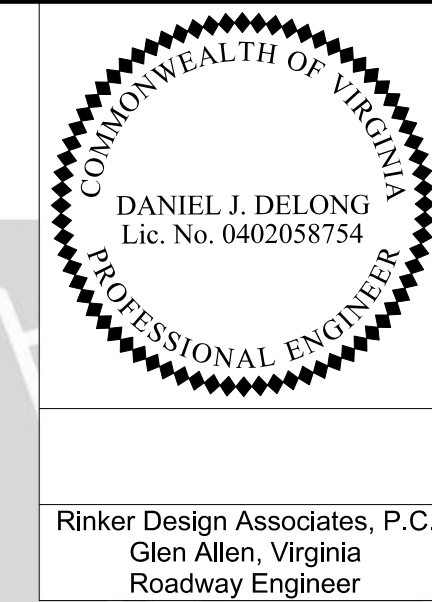
10/20/2021

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SURVEYED BY, DATE Biker Design Associates, P.C. (703) 386-7373, June 2021
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SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

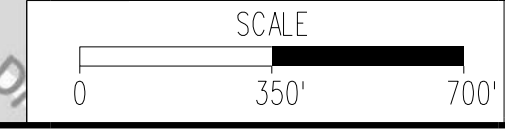
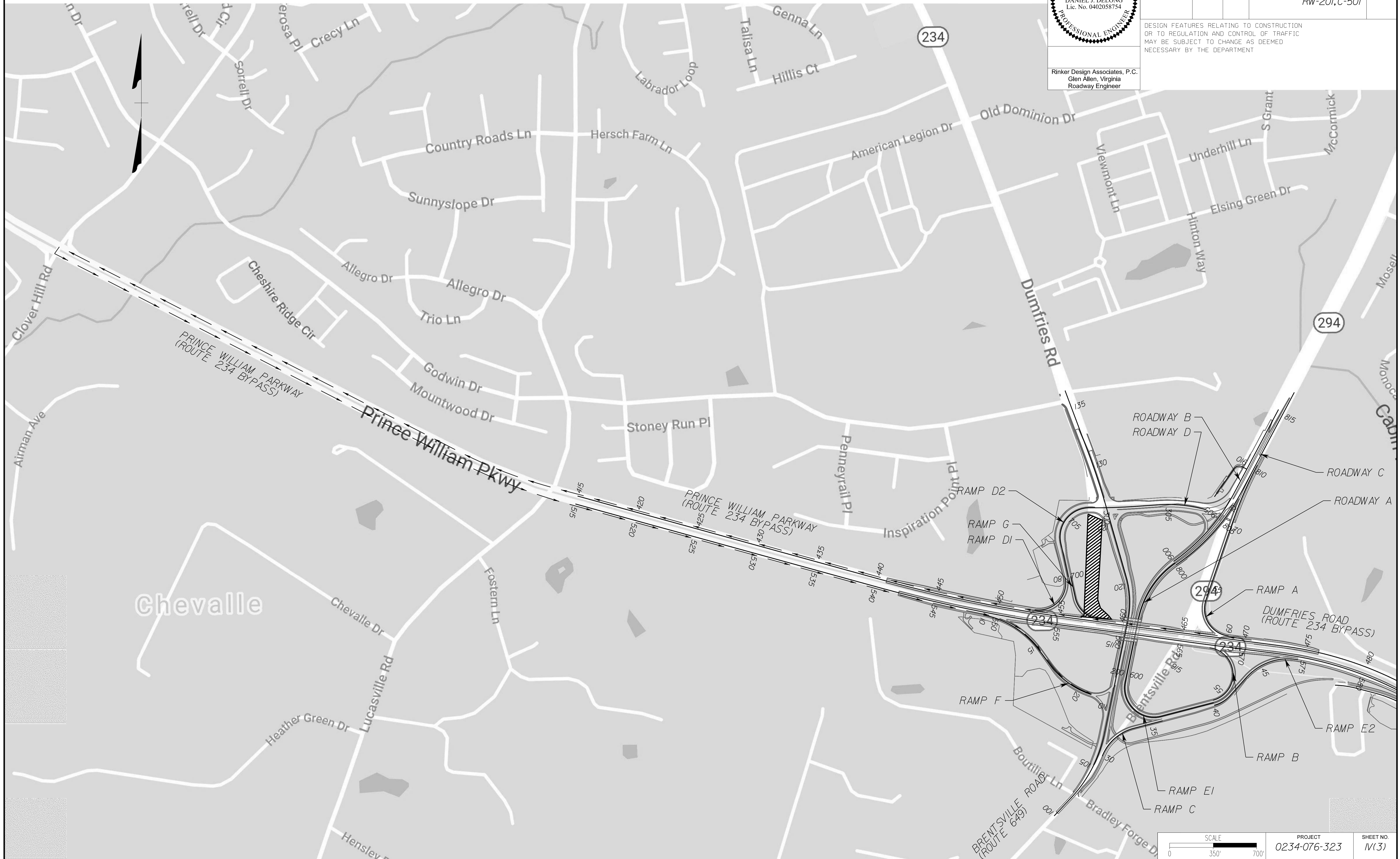
Phase 2A - Rte. 234 Bus (Dumfries RD.) Detour



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	N(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PROJECT	SHEET NO.
0234-076-323	N(3)

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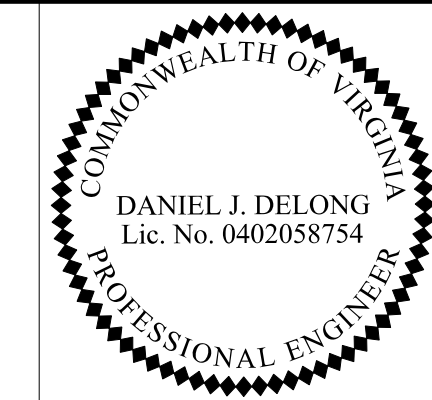
10/20/2021

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SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

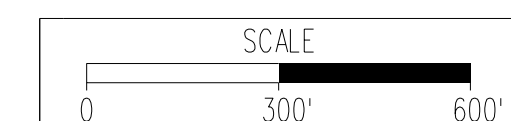
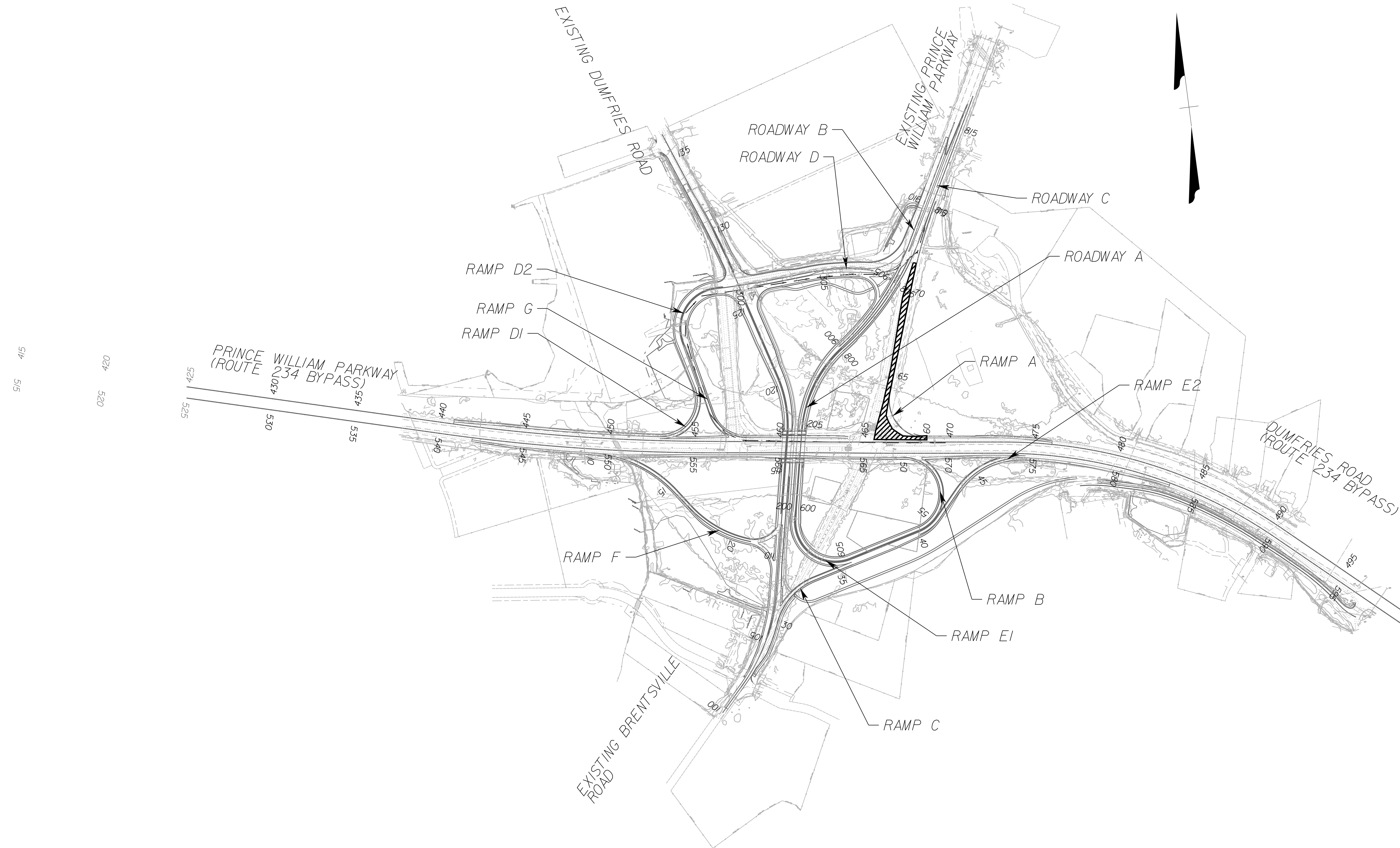
Phase 3 - Ramp A Detour



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE		PROJECT	SHEET NO.
	STATE	ROUTE		
	VA.	234	0234-076-323 RW-201, C-501	N(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



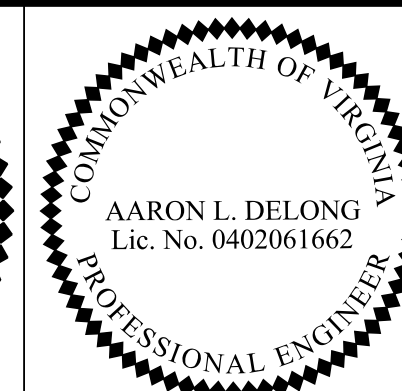
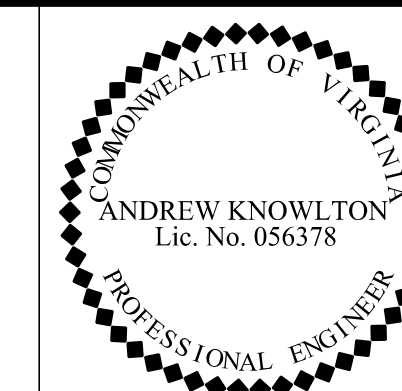
PROJECT	SHEET NO.
0234-076-323	N(4)

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DESIGN BY Mack Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TYPICAL SECTIONS



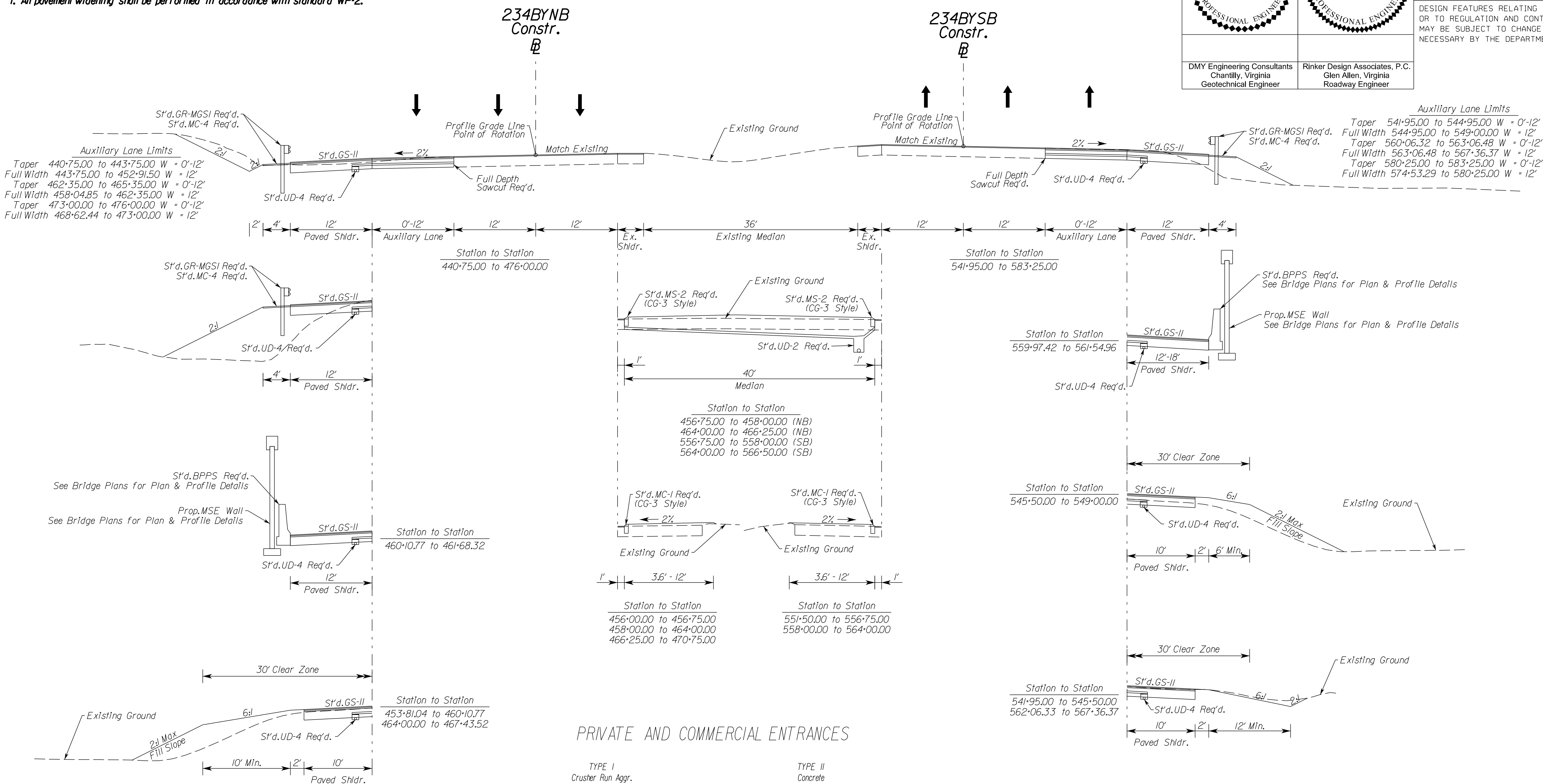
DMY Engineering Consultants
Chantilly, Virginia
Geotechnical Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

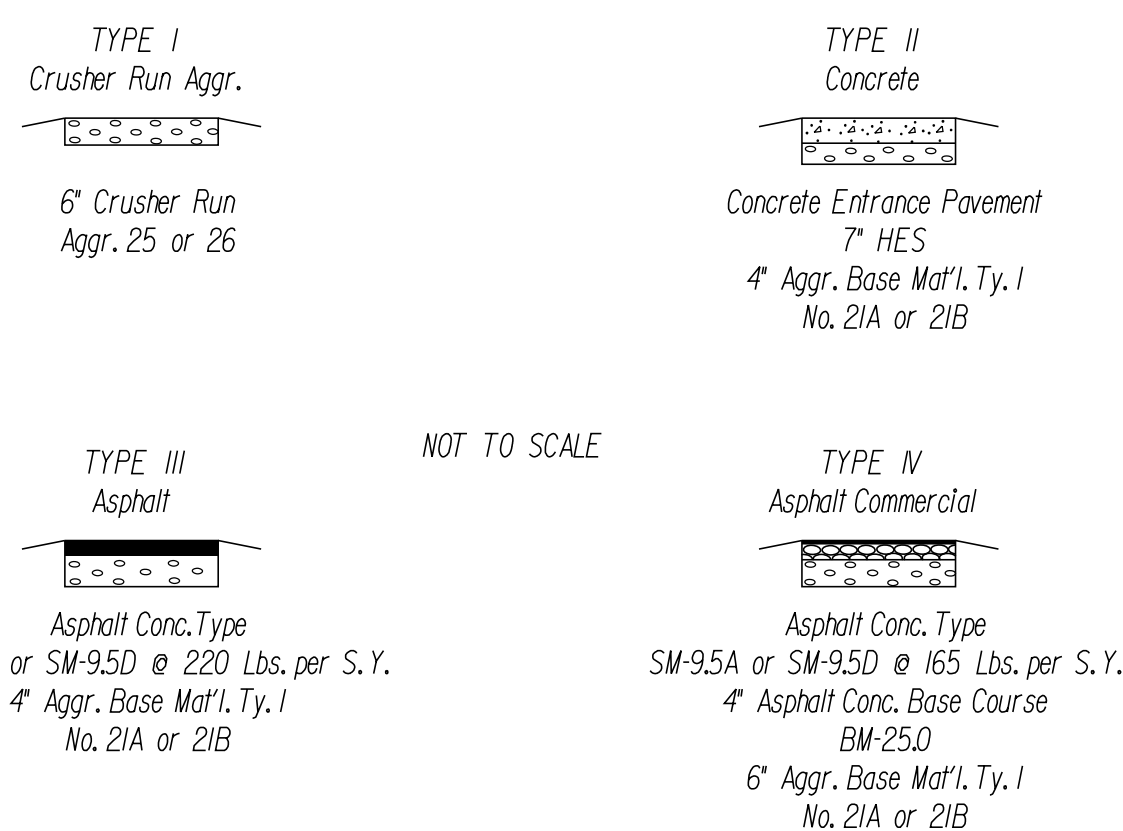
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	2A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

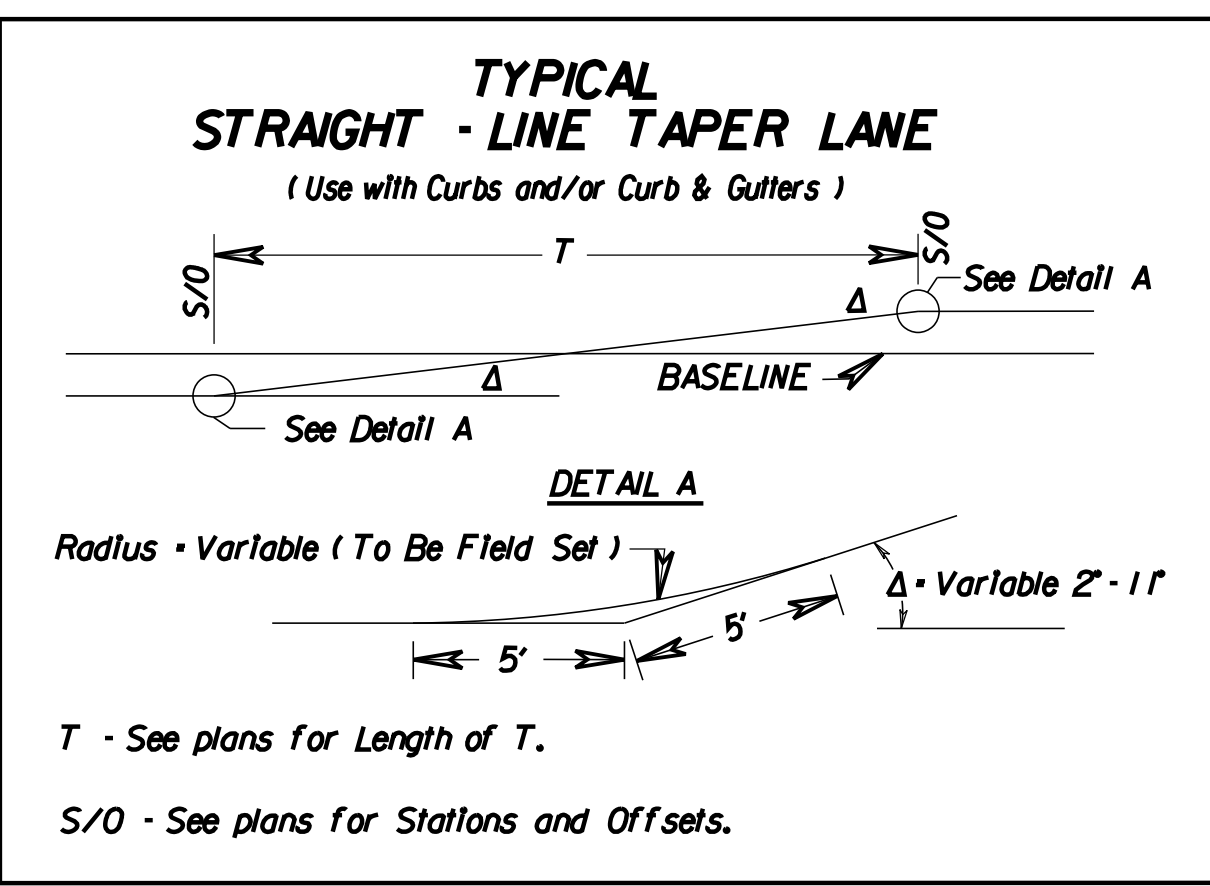
Notes:
1. All pavement widening shall be performed in accordance with standard WP-2.



PRIVATE AND COMMERCIAL ENTRANCES



The type of entrance (I, II, III, IV) to be constructed will be determined by the existing condition at the time of construction.



Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A
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LIMITED ACCESS HIGHWAY

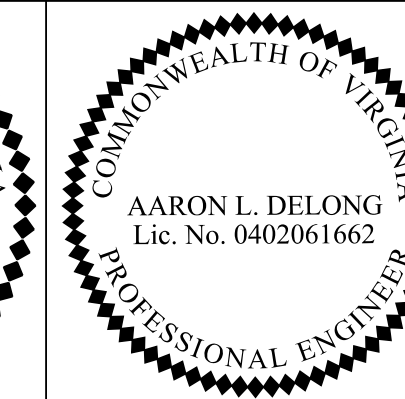
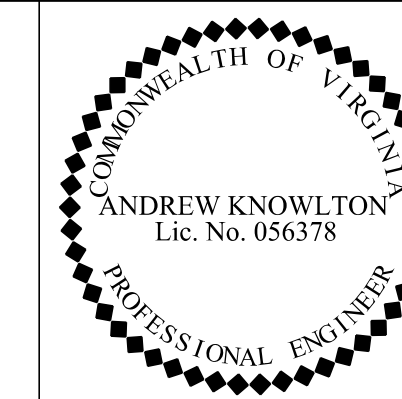
By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

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SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TYPICAL SECTIONS



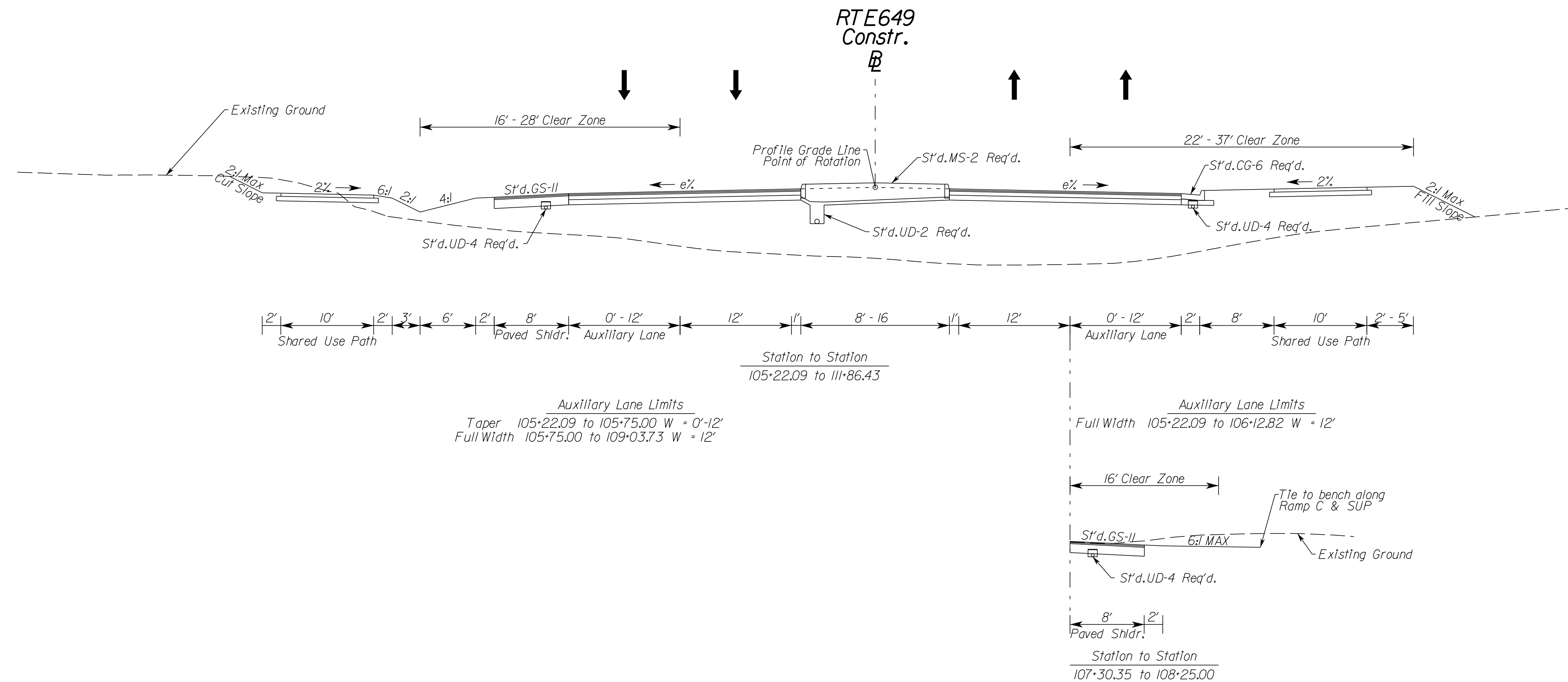
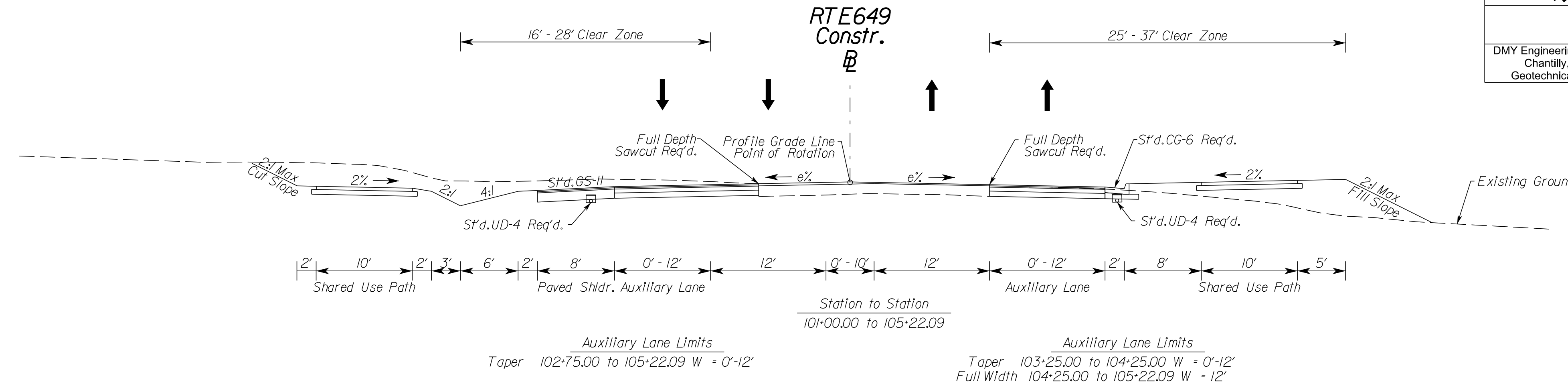
DMY Engineering Consultants
Chantilly, Virginia
Geotechnical Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201, C-501	2A(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Notes:
1. All pavement widening shall be performed in accordance with standard WP-2.



11/5/2021

Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A(1)
--------------	-------------------------	--------------------

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LIMITED ACCESS HIGHWAY

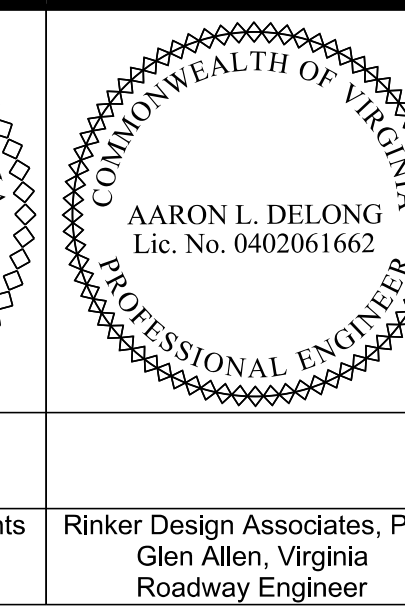
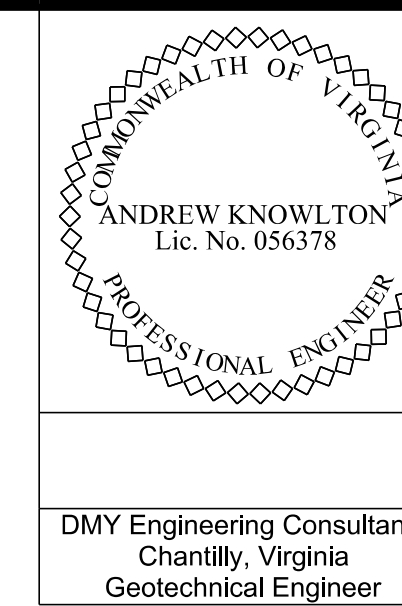
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SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TYPICAL SECTIONS



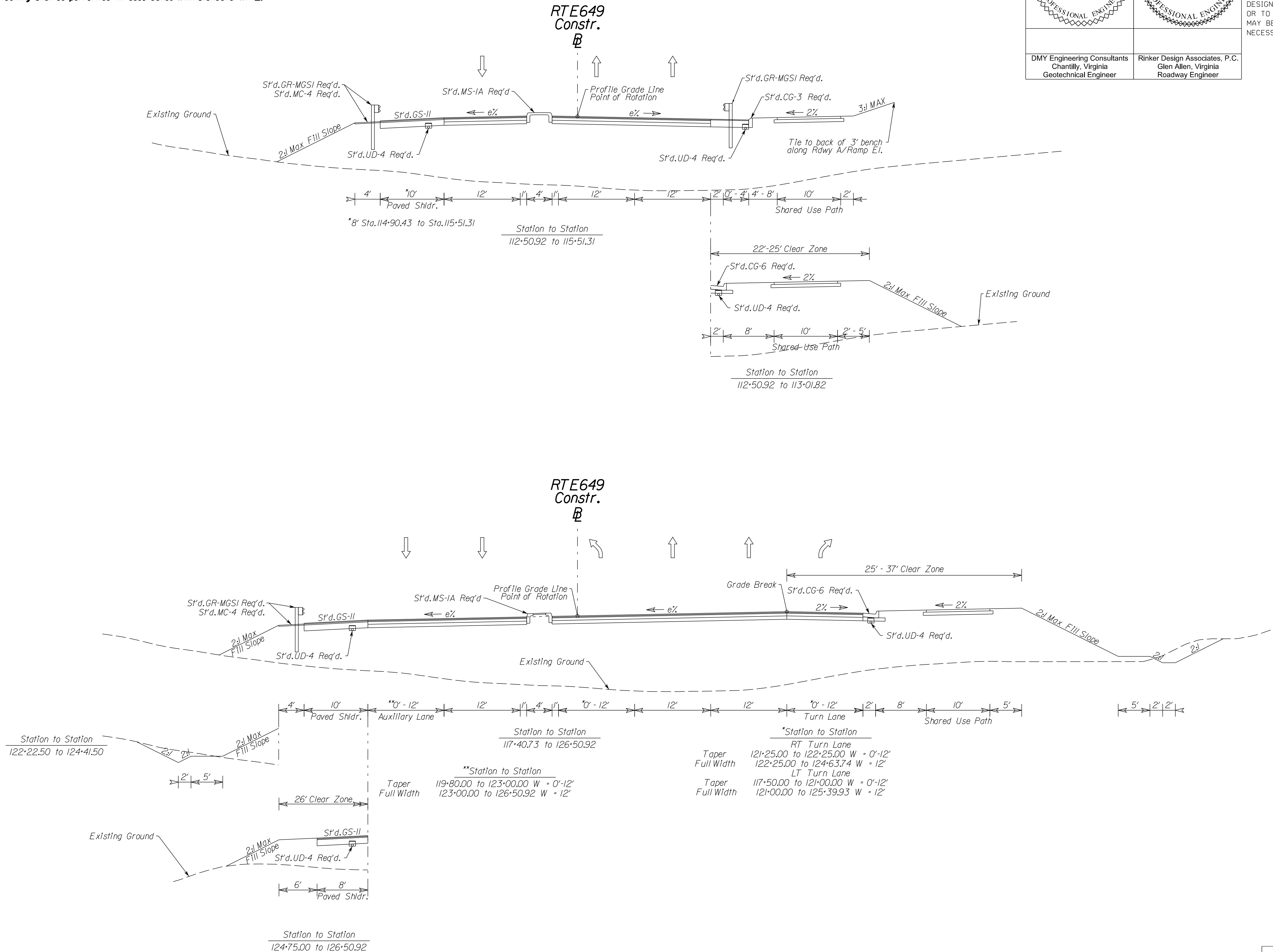
REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201, C-501	2A(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

DMY Engineering Consultants
Chantilly, Virginia
Geotechnical Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Notes:
1. All pavement widening shall be performed in accordance with standard WP-2.



11/5/2021

Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A(2)
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PROJECT MANAGER BWC, DOT, Mary, Akers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

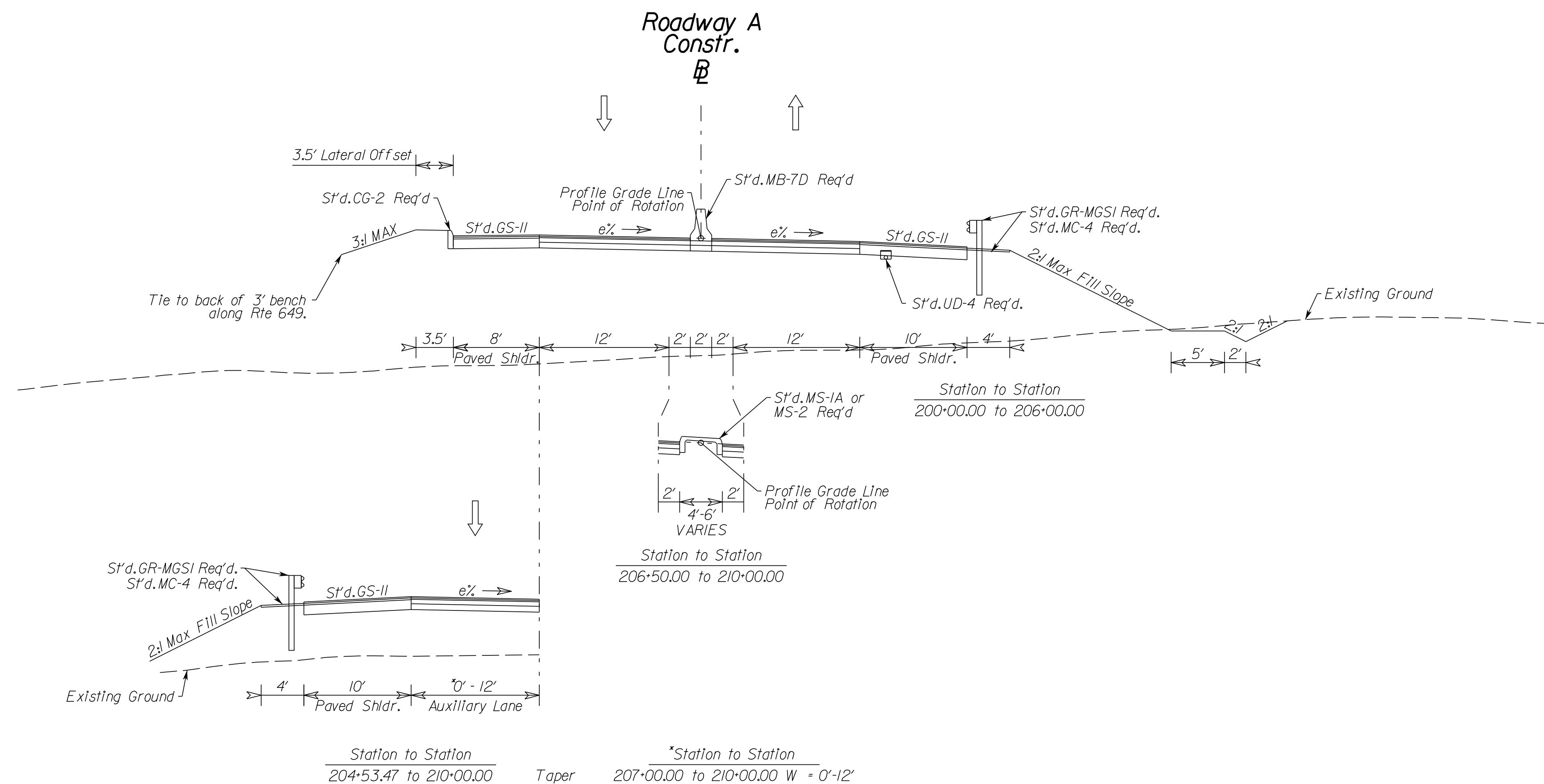
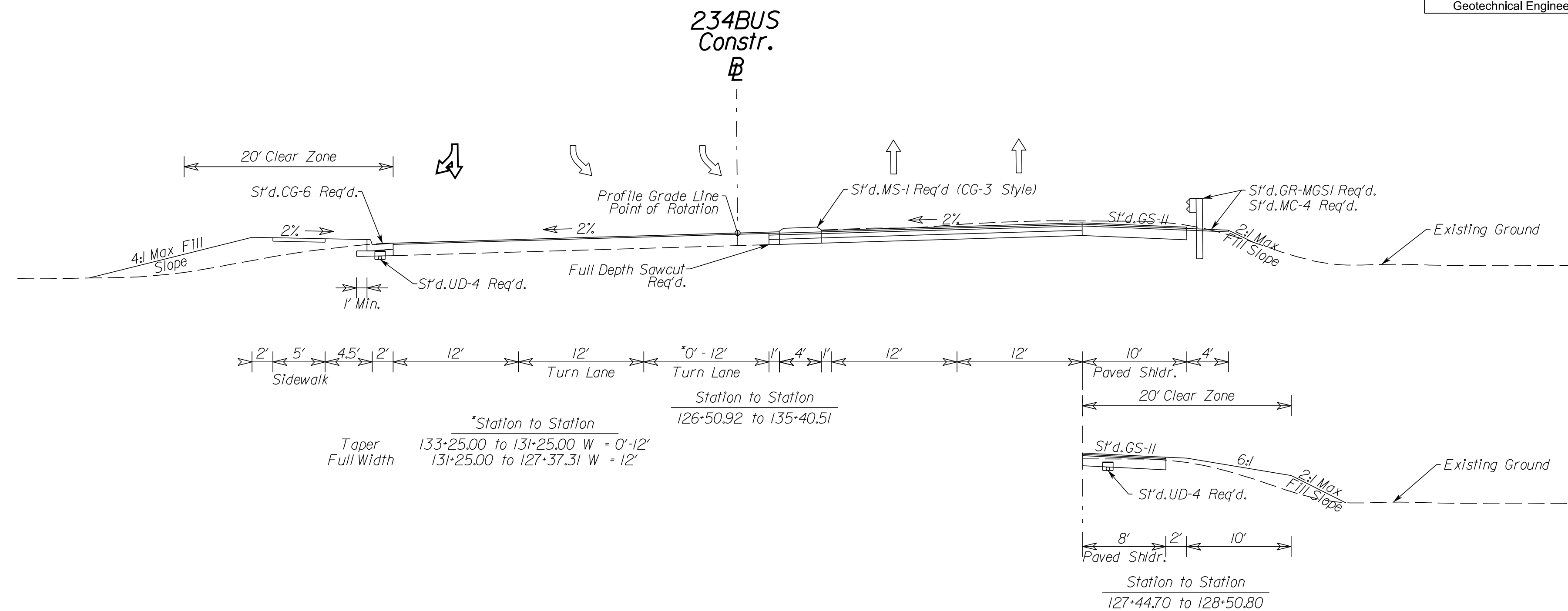
TYPICAL SECTIONS

<p>ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER</p>	<p>AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER</p>
<p>DMY Engineering Consultants Chantilly, Virginia Geotechnical Engineer</p>	<p>Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer</p>

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201, C-501	2A(3)

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11/5/2021

Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A(3)
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LIMITED ACCESS HIGHWAY

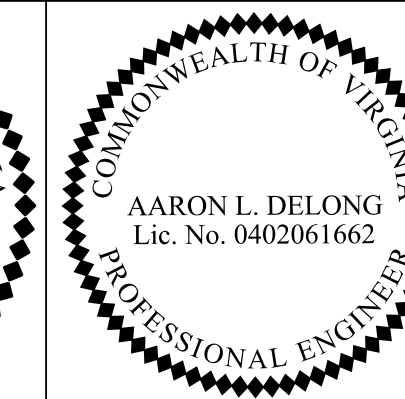
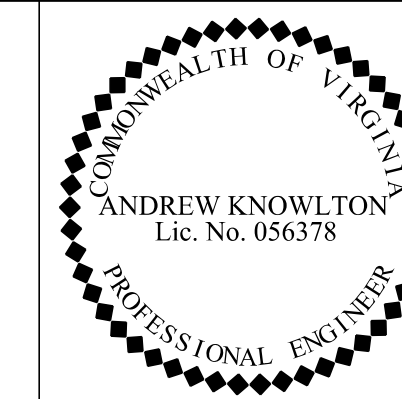
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SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TYPICAL SECTIONS



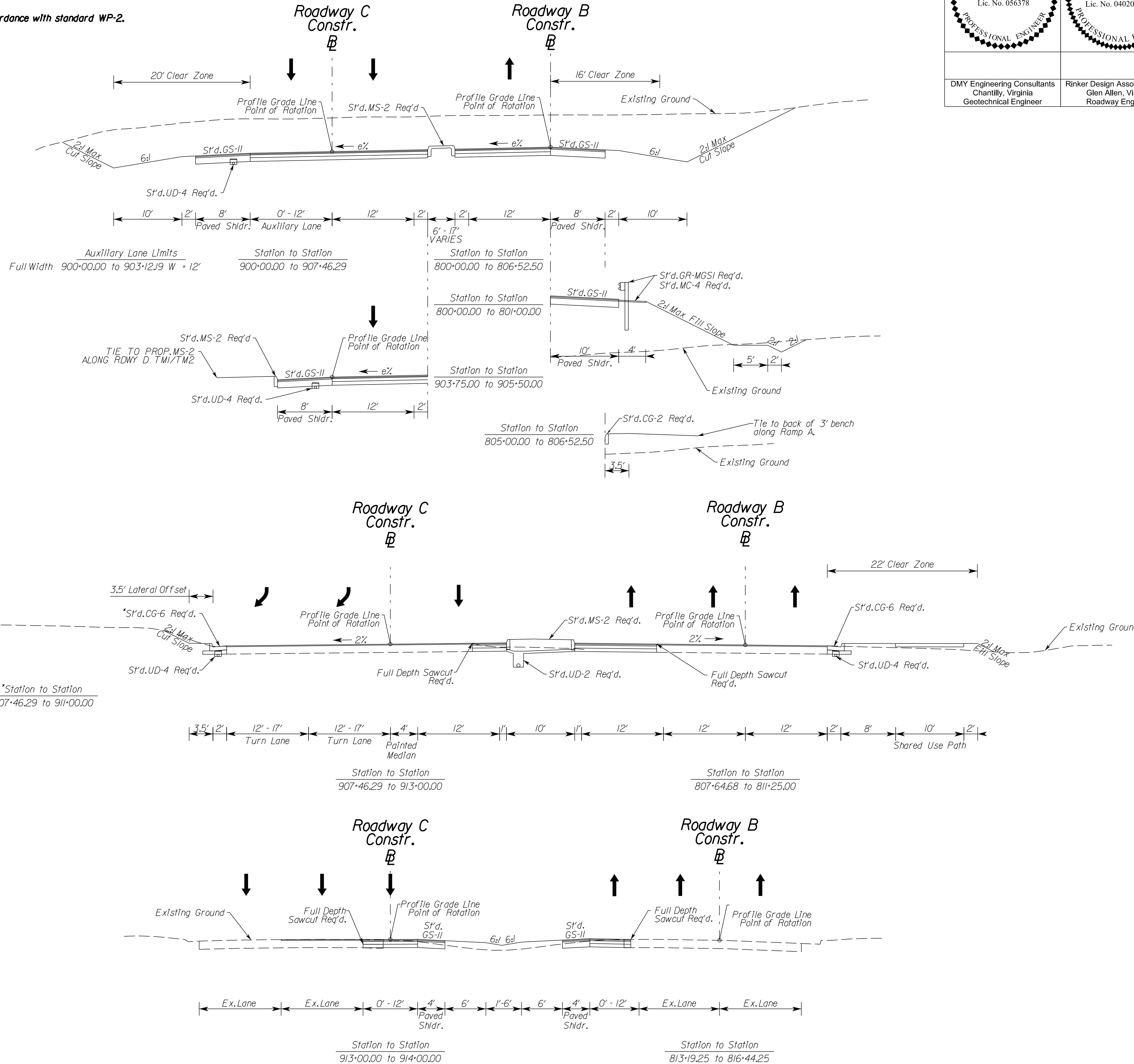
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	2A(4)

DMY Engineering Consultants
Chantilly, Virginia
Geotechnical Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

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11/5/2021

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Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A(4)
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LIMITED ACCESS HIGHWAY

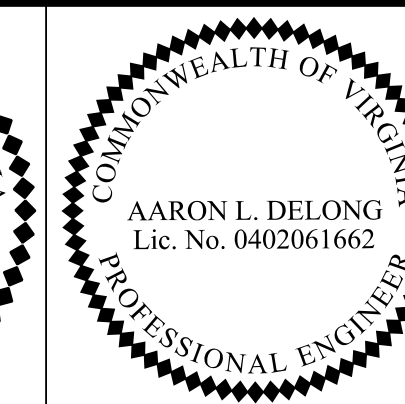
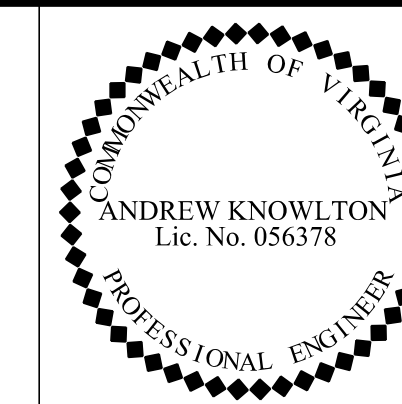
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TYPICAL SECTIONS



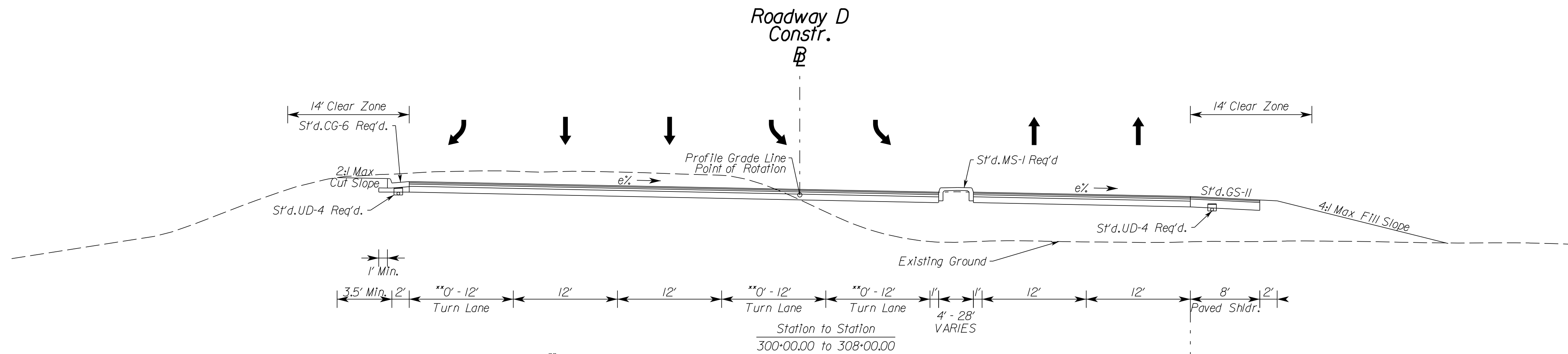
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201, C-501	2A(5)

DMY Engineering Consultants
Chantilly, Virginia
Geotechnical Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

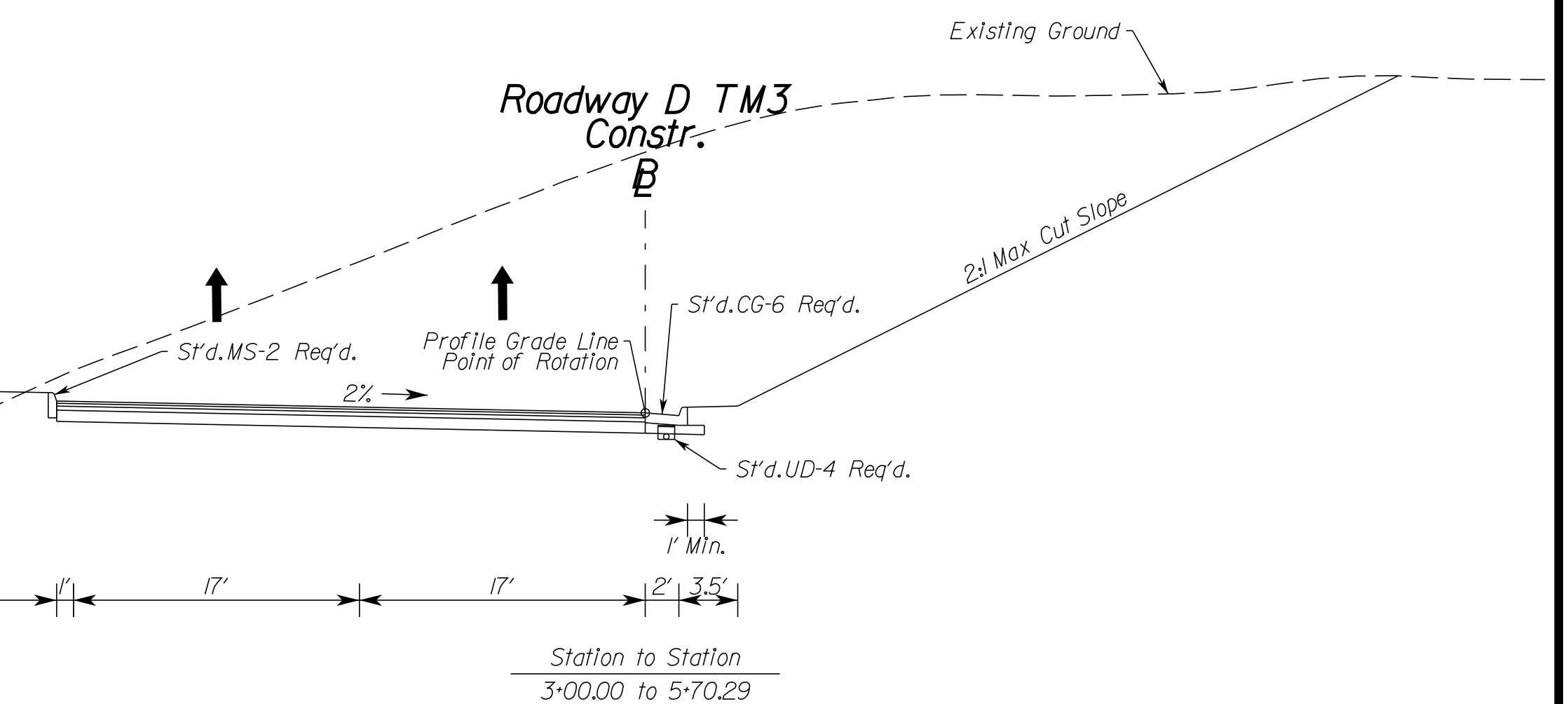
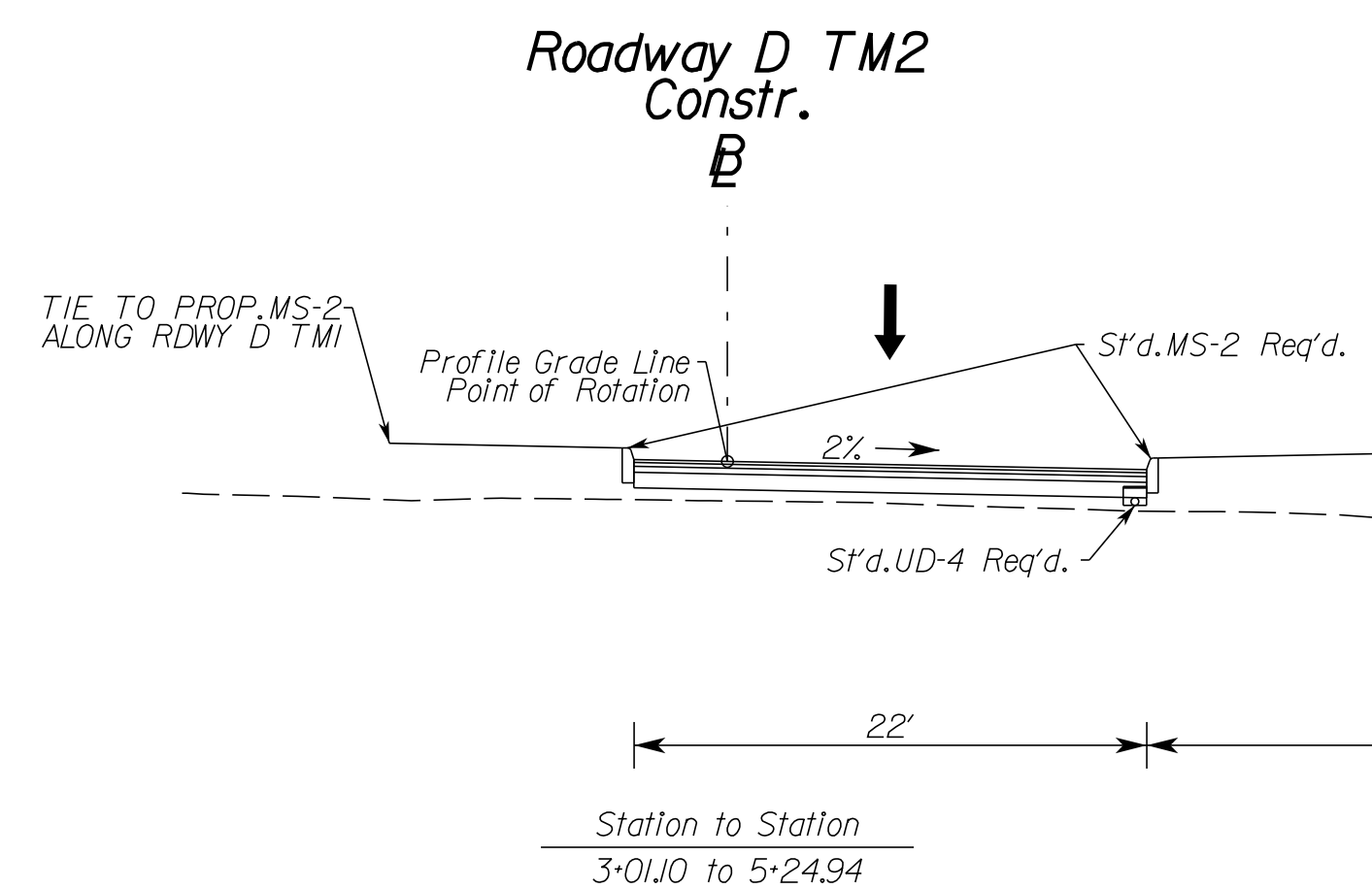
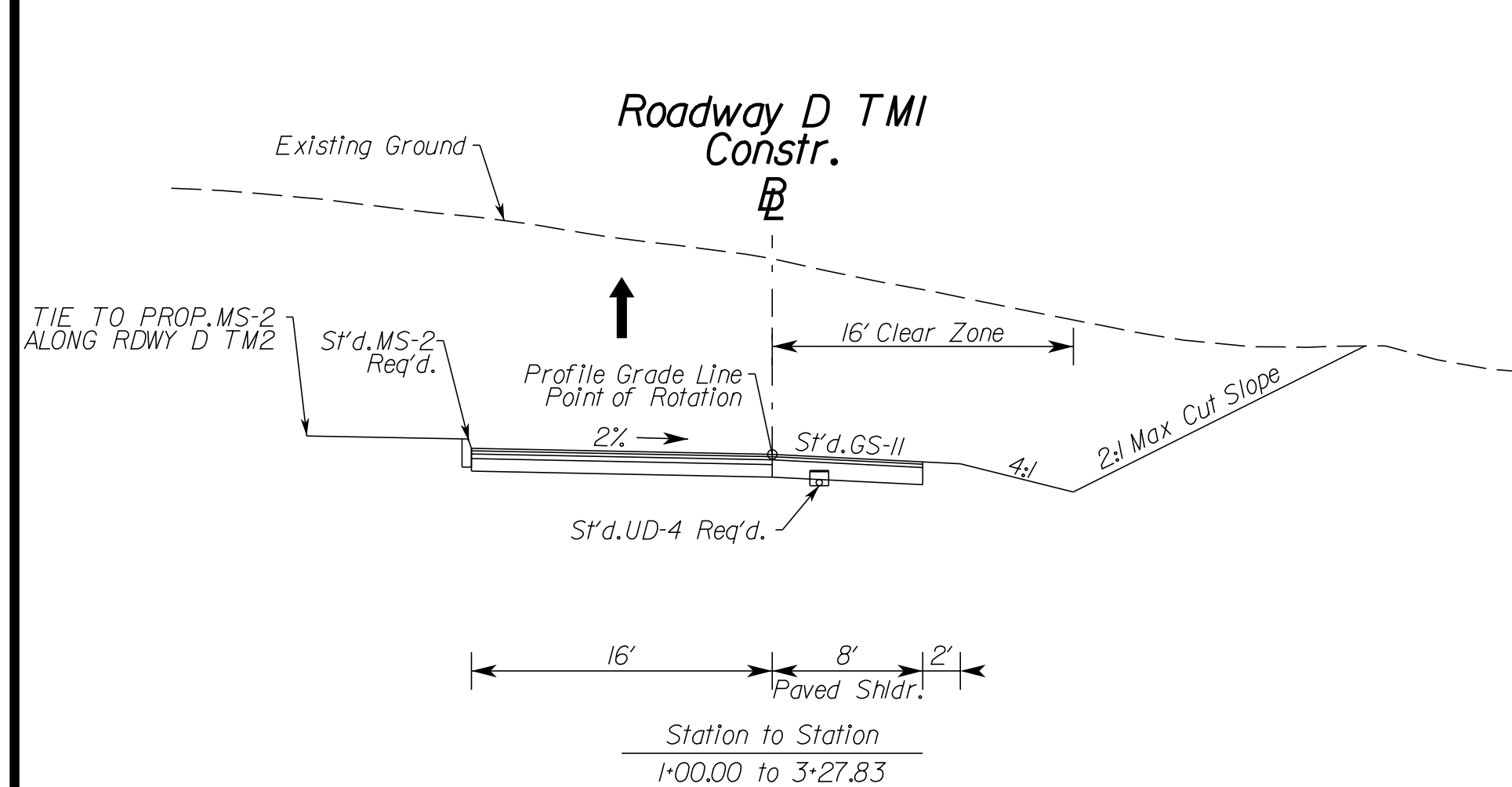
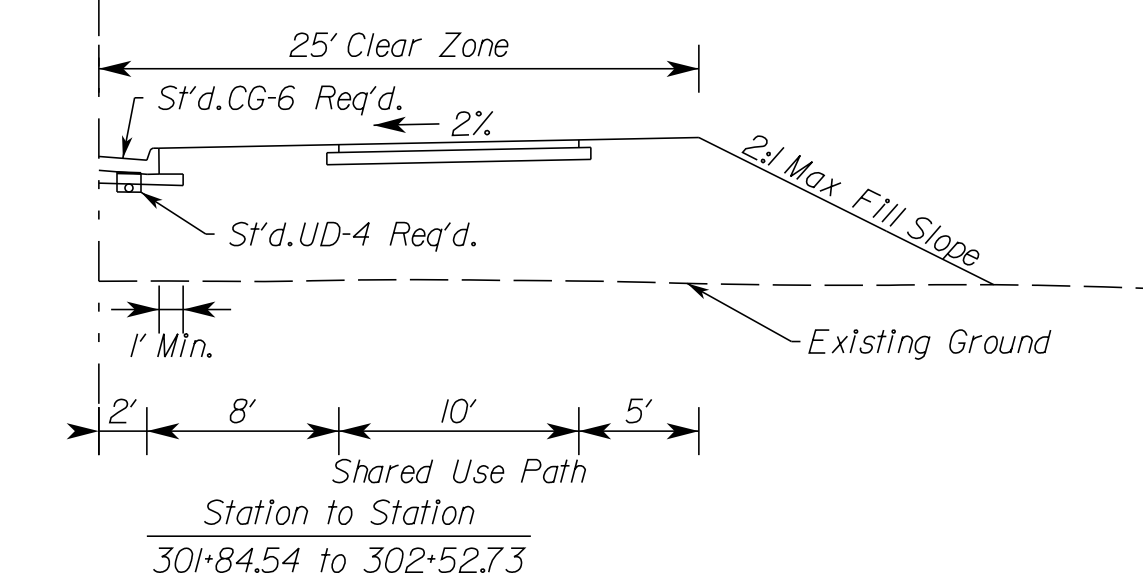
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Notes:
1. All pavement widening shall be performed in accordance with standard WP-2.



**Station to Station

Station to Station	RT Turn Lane
Taper 303+44.53 to 302+44.53	W = 0'-12"
Full Width 302+44.53 to 301+04.68	W = 12'
Station to Station	LT Turn Lanes
Taper 305+72.44 to 304+20.00	W = 0'-12"
Full Width 304+20.00 to 300+78.89	W = 12'



11/5/2021

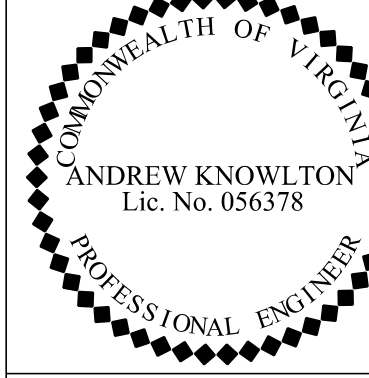
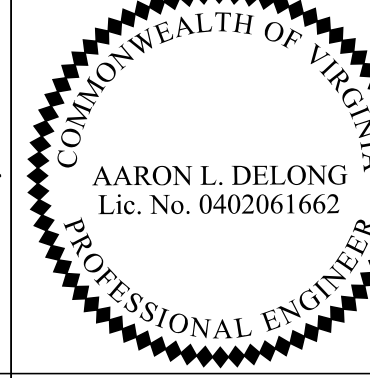
Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A(5)
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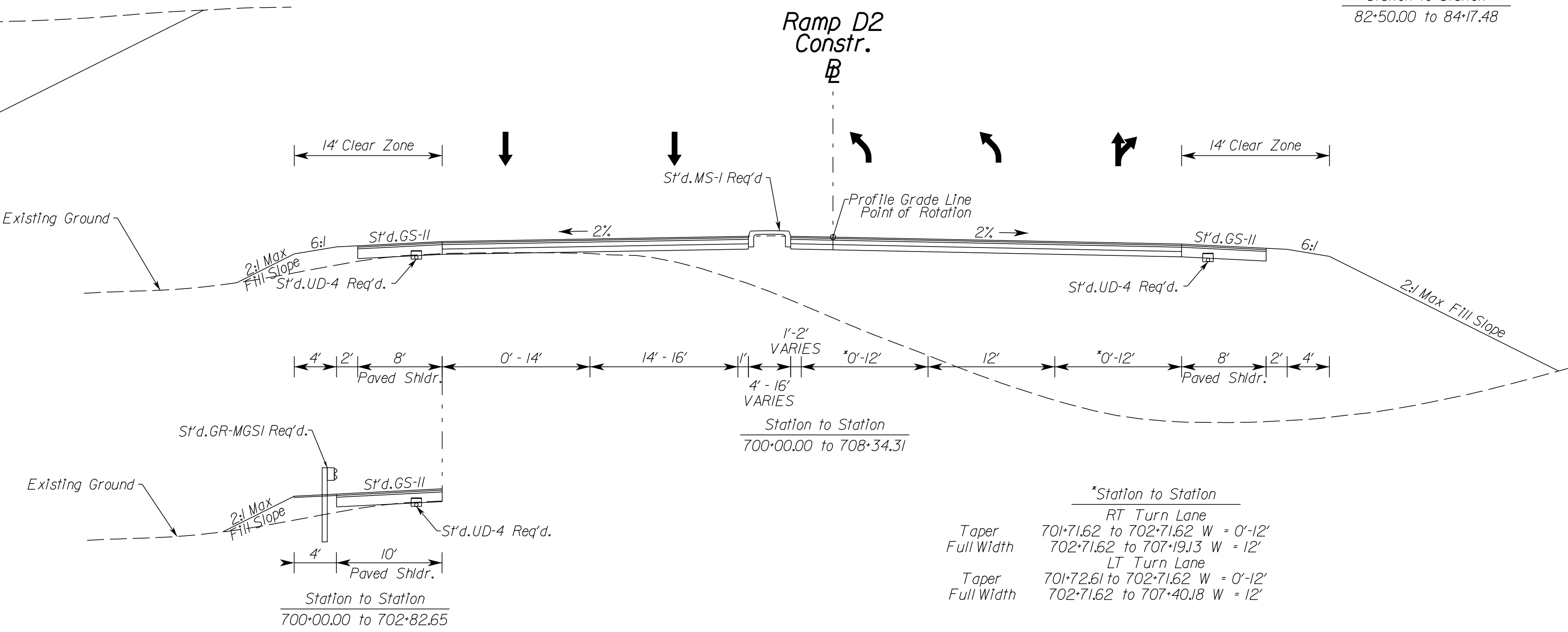
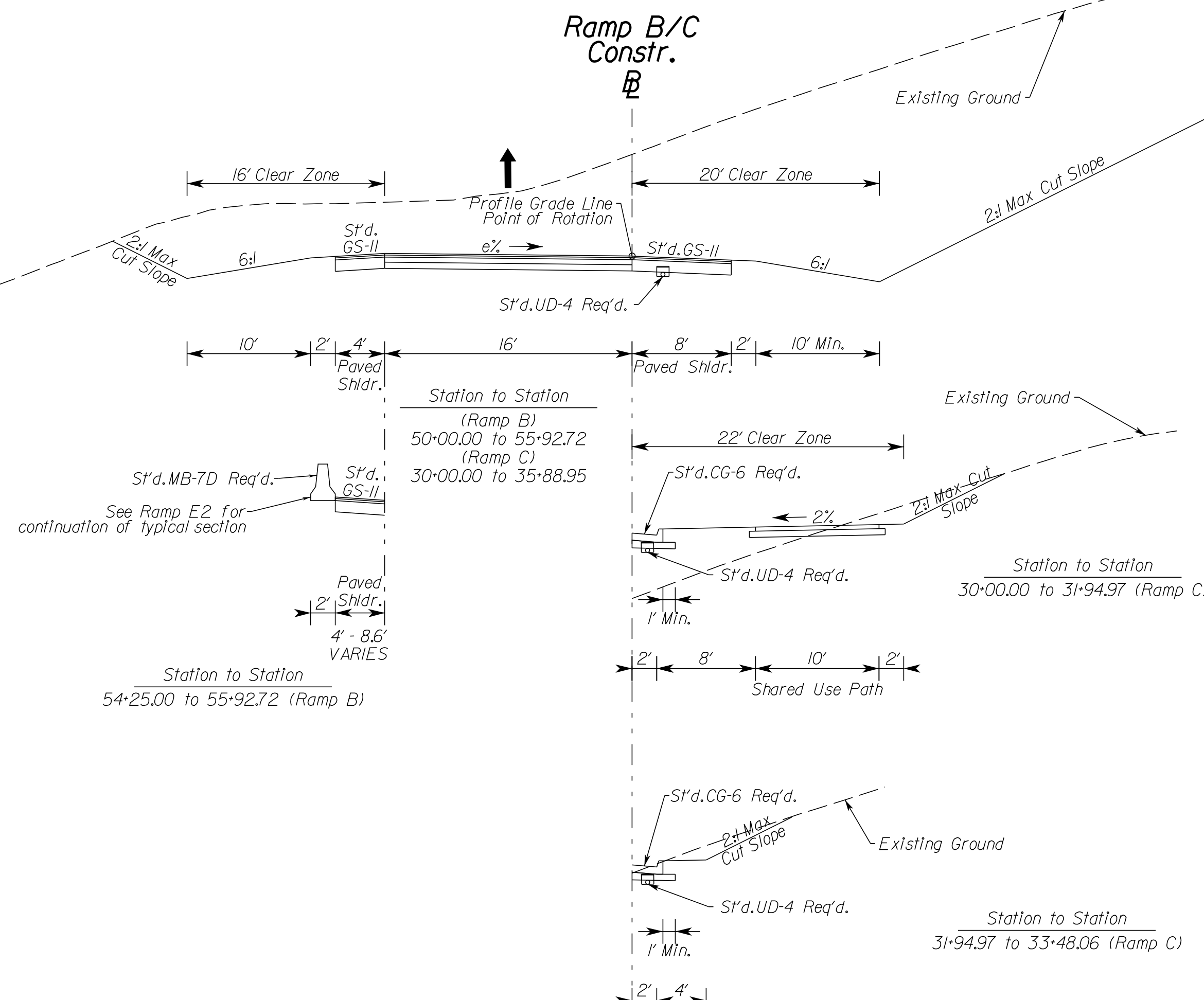
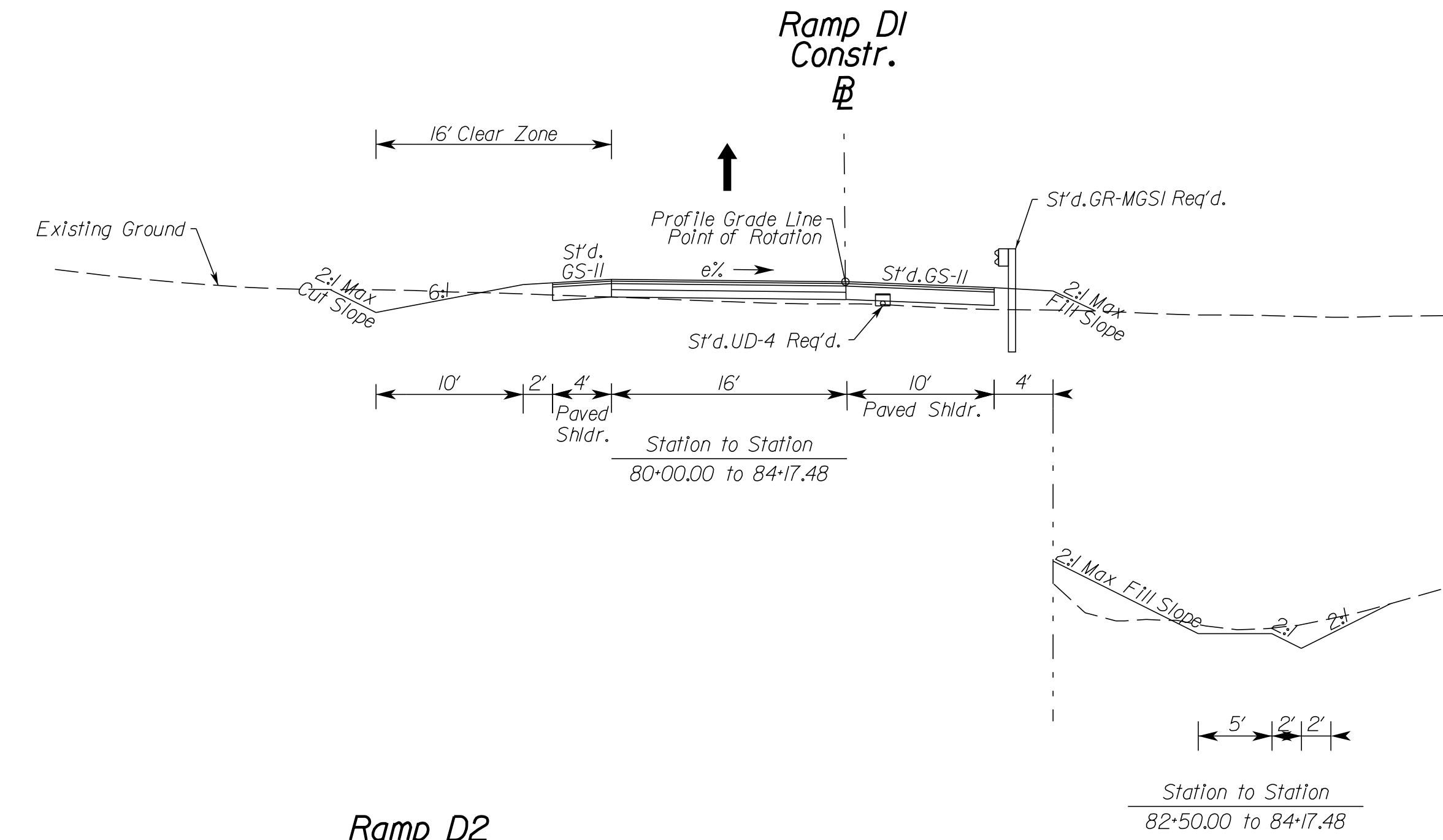
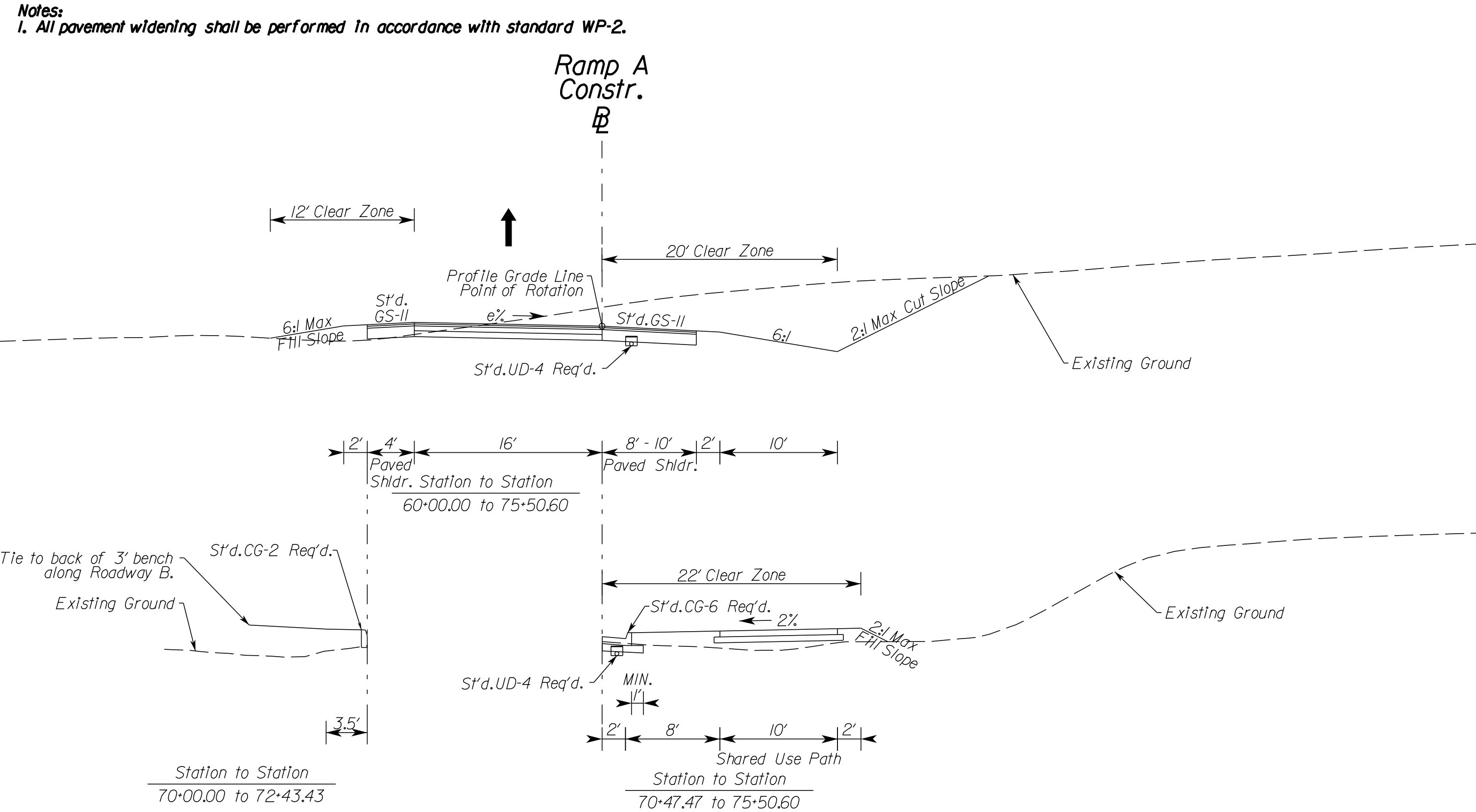
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Askers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

TYPICAL SECTIONS

 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER	 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER	REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.			0234-076-323 RW-201, C-501	2A(6)
DMY Engineering Consultants Chantilly, Virginia Geotechnical Engineer		Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer					
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT							



*Station to Station
RT Turn Lane
Taper 701+71.62 to 702+71.62 W = 0'-12"
Full Width 702+71.62 to 707+19.13 W = 12'
LT Turn Lane
Taper 701+72.61 to 702+71.62 W = 0'-12"
Full Width 702+71.62 to 707+40.18 W = 12'

11/5/2021

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LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

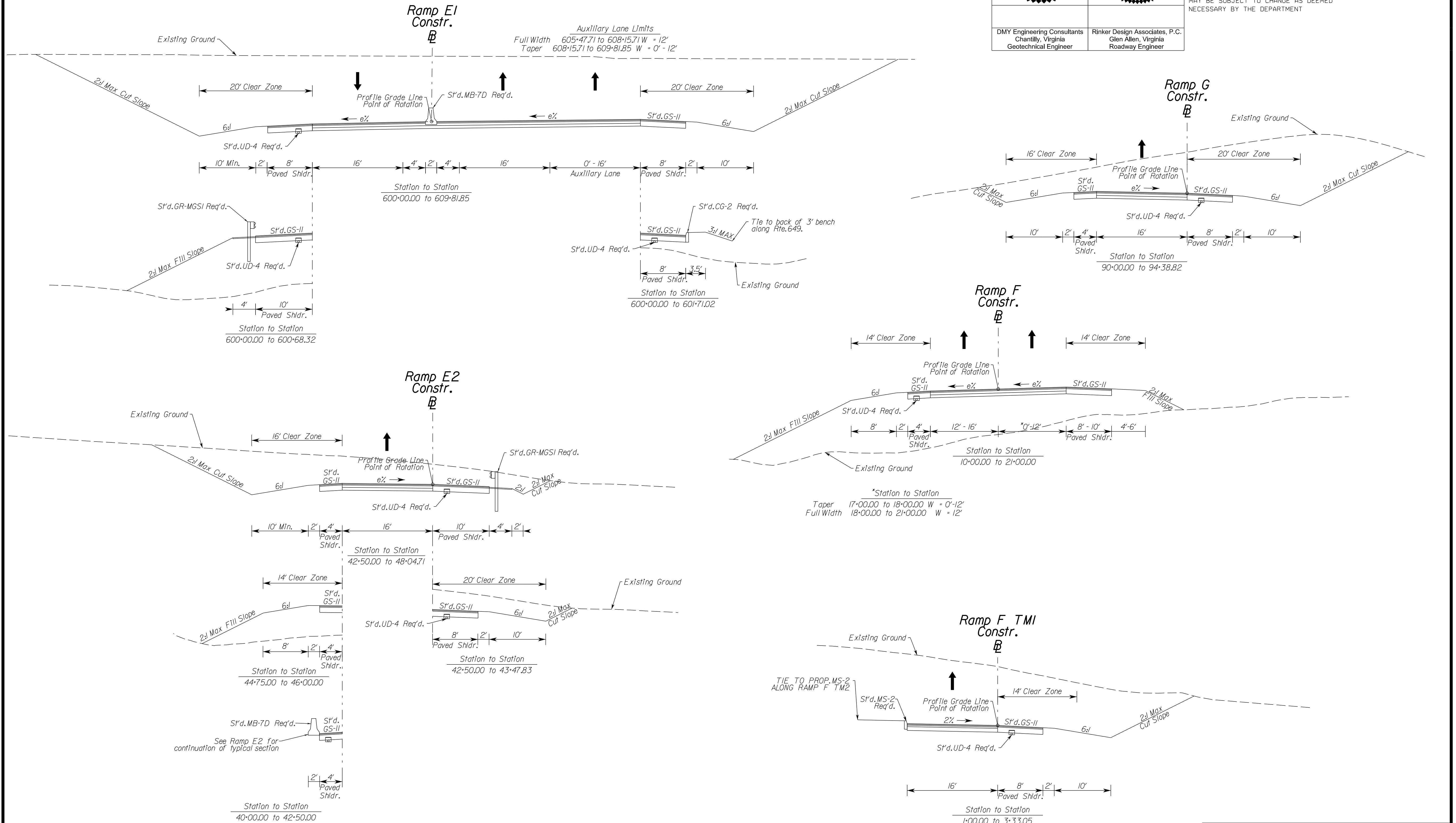
PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

TYPICAL SECTIONS

		REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.			0234-076-323 RW-201,C-501	2A(7)
DMY Engineering Consultants Chantilly, Virginia Geotechnical Engineer		Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer					

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	2A(7)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					

Notes:
1. All pavement widening shall be performed in accordance with standard WP-2.



Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A(7)
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PROJECT MANAGER BWC, DOT, Mary, Akers, (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

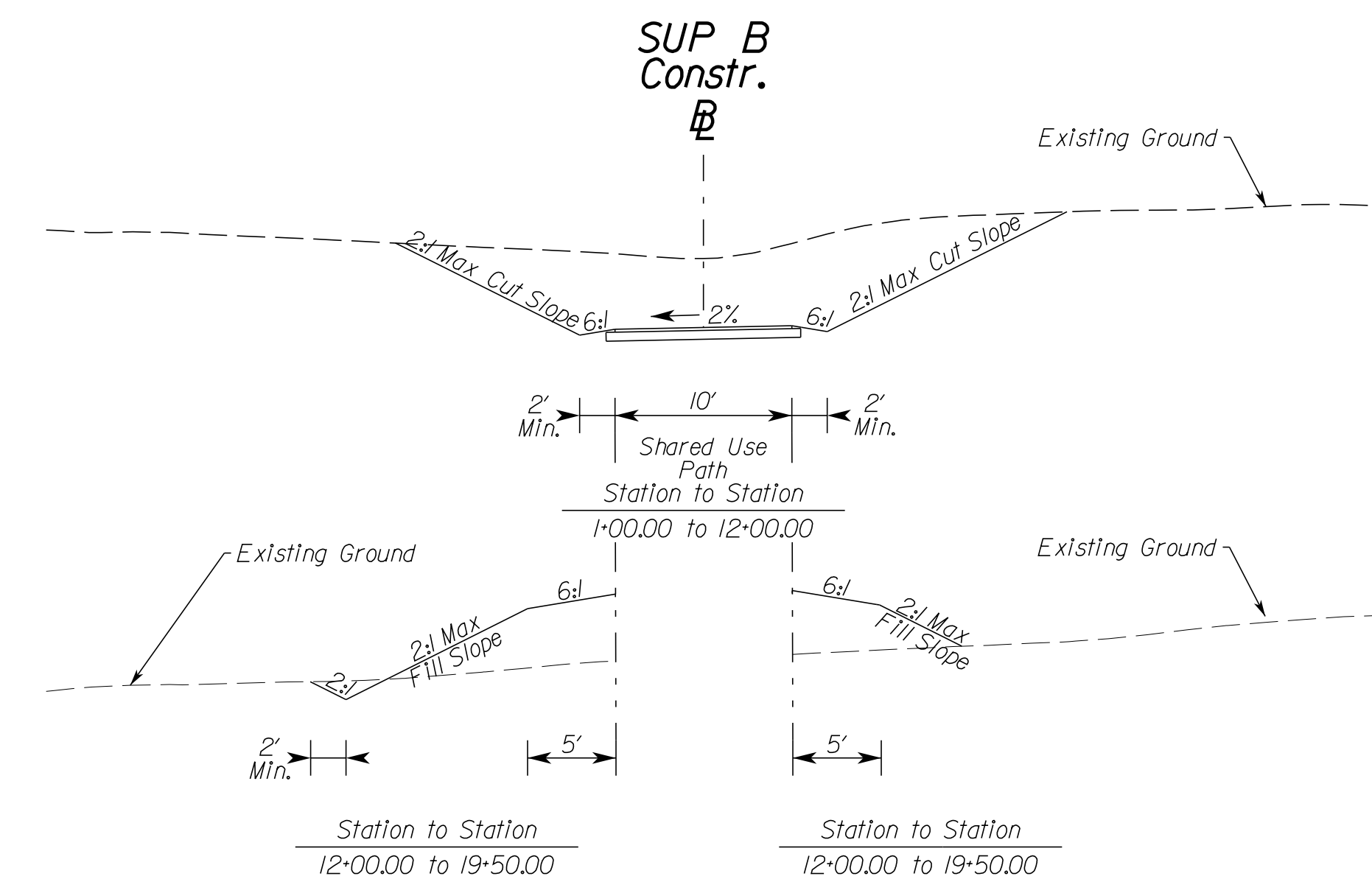
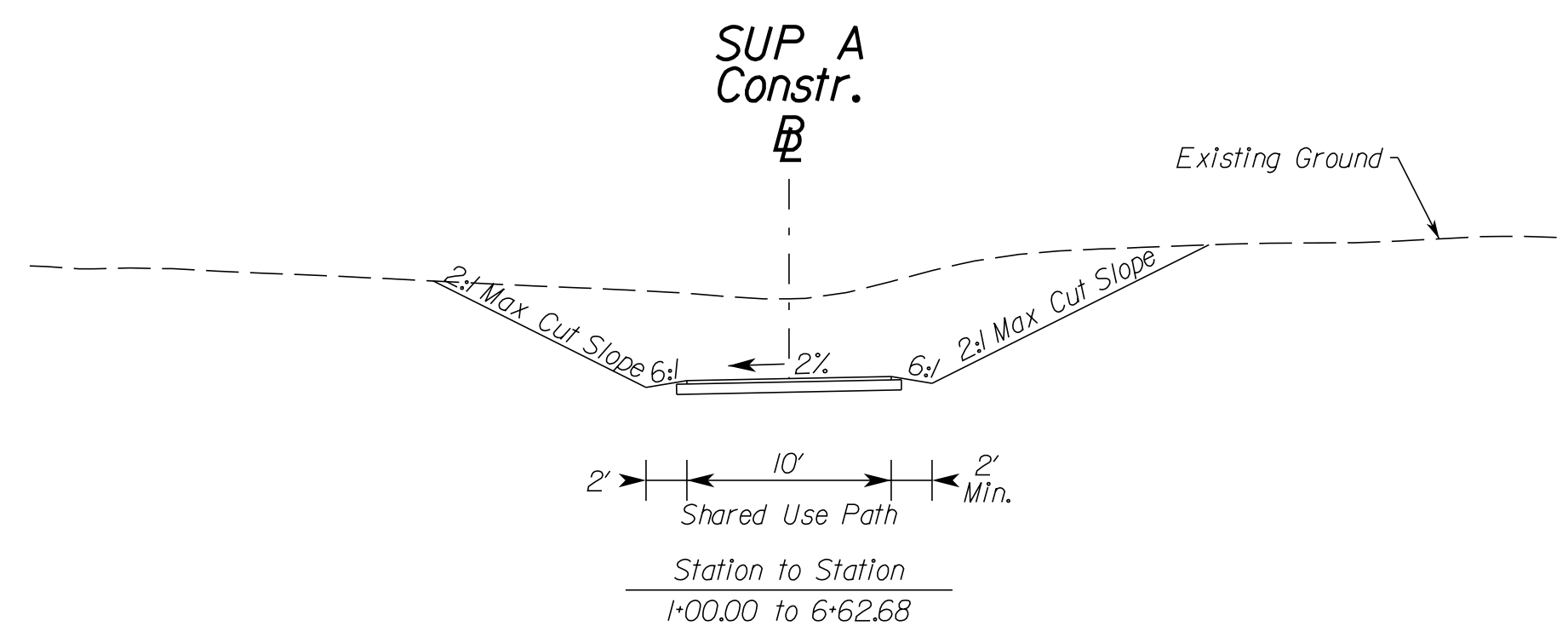
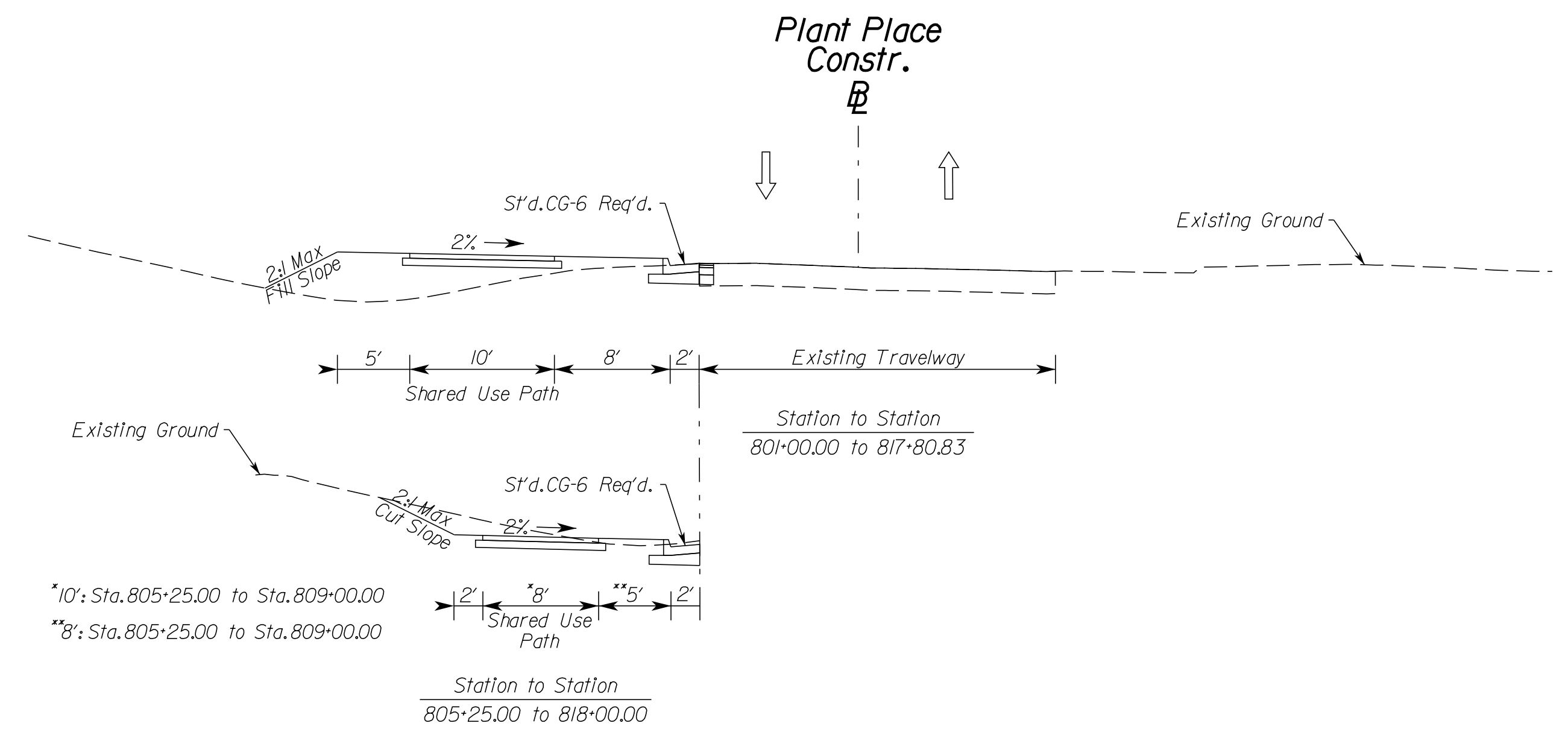
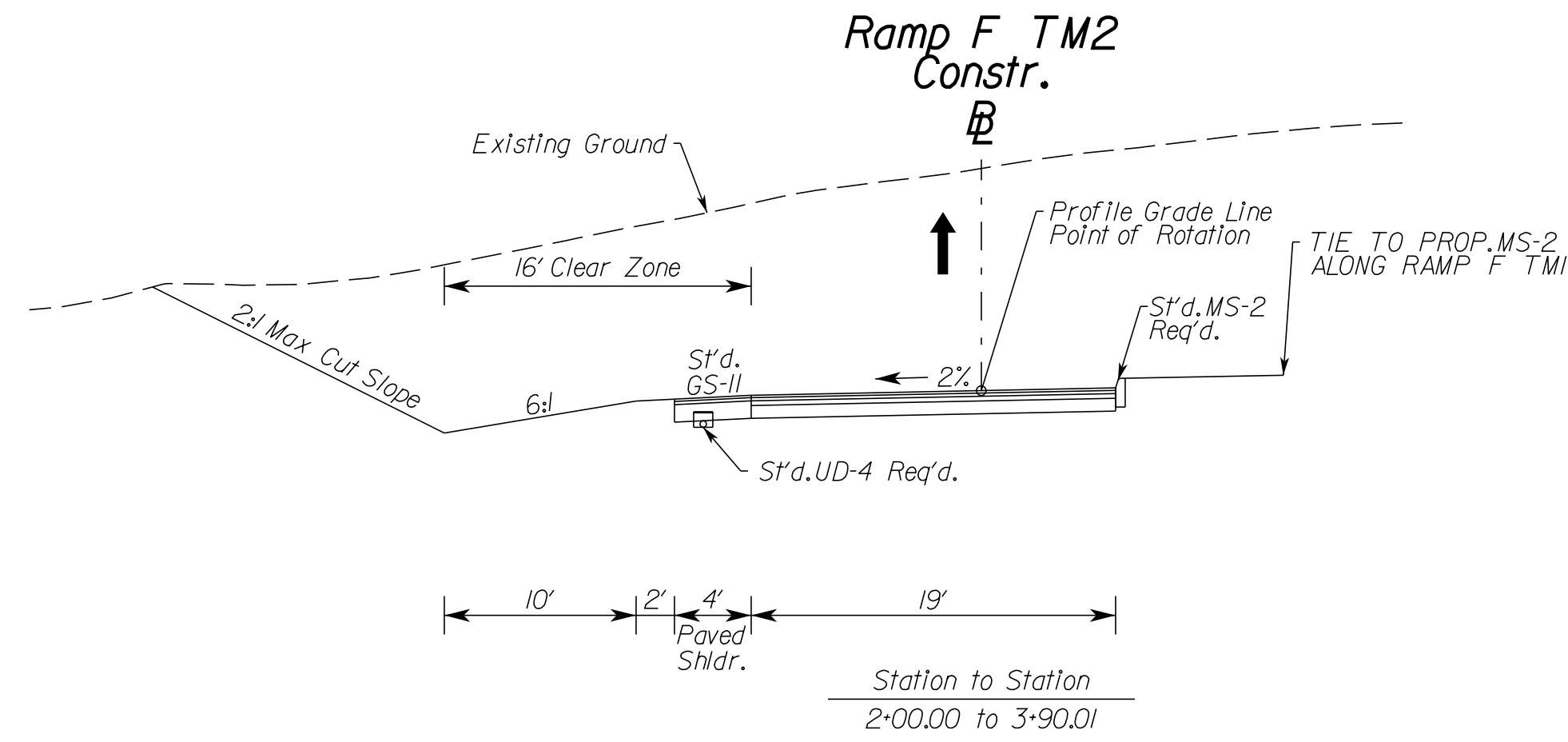
TYPICAL SECTIONS

		REVISED	STATE	STATE	SHEET NO.
			VA.	PROJECT	
				0234-076-323	2A(B)
				RW-201, C-501	
DMY Engineering Consultants Chantilly, Virginia Geotechnical Engineer		Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer			

REVISED	STATE	STATE	SHEET NO.
	VA.	PROJECT	
		0234-076-323	2A(B)
		RW-201, C-501	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Notes:
1. All pavement widening shall be performed in accordance with standard WP-2.



11/5/2021

Not To Scale	PROJECT 0234-076-323	SHEET NO. 2A(B)
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PROJECT MANAGER *BWC DOT: Mary, Askers (703) 792-5276*
SURVEYED BY, DATE *Rinker_Design_Associates, P.C. (703) 386-7373, June 2021*
DESIGN BY *Mack Gunn, P.E., Rinker_Design_Associates, P.C. (703) 386-7373*
SUBSURFACE UTILITY BY, DATE *Accumark (804) 550-7740, Apr 1, 2021*

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE		STATE		SHEET NO.
	STATE	ROUTE	PROJECT		
	VA.		0234-076-323 RW-201,C-501		2F

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

*VSMP PERMIT TO BE OBTAINED AND MAINTAINED BY PRINCE WILLIAM COUNTY

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance activities that disturb an area equal to or greater than 10,000 square feet outside the Chesapeake Bay Preservation Area, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD (as defined in the latest IIM 242) will ensure that the information shown on the SWPPP General Information sheets is updated/ revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/ revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

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

I further certify that this document and all other documents related to the SWPPP, as identified on the SWPPP General Information Sheets, are maintained at the activity site, or at a location convenient to the activity site where no on-site facilities are available, and such documents will be made available for review upon request in accordance with the provisions of the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10) when applicable. Where the SWPPP documents are not stored on-site, a copy of such documents shall be in the possession of those with day to day operational control over the implementation of the SWPPP whenever they are on site.

* or ** Delegated Authority Signature*

Signature: _____
Printed Name: _____
Date: _____

(1) See Section 1, Item 11 relating to delegation of authority, and form LD-445H (Delegation of Authority).

ACRONYMS

CBPA - Chesapeake Bay Preservation Act	SWPPP - Stormwater Pollution Prevention Plan
BMP - Best Management Practice	TMDL - Total Maximum Daily Load
DEQ - Department of Environmental Quality	VDOT - Virginia Department of Transportation
EPA - U.S. Environmental Protection Agency	VPDES - Virginia Pollutant Discharge Elimination System
ESC - Erosion and Sediment Control	VSMP - Virginia Stormwater Management Program
IIM - Instructional and Informational Memorandum	VESCP - Virginia Erosion and Sediment Control Program
R&B - Road and Bridge	WLA - Waste Load Allocation
RLD - Responsible Land Disturber	SWM - Stormwater Management

SECTION I GENERAL INFORMATION

1. Activity Description - The project is for the design and construction of an overpass and ramp interchange of Brentsville Road, Dumfries road, and Prince William Parkway (Rte. 234) in Prince William County. Roadway design for Route 234 and Route 294 corresponds with VDOT GS-5 (Urban Principal Arterial) Standards. Design for Route 234 Business, Route 649, and Bradley Cemetery Way corresponds with VDOT GS-6, GS-7, and GS-8 Standards, respectively.

2. This land disturbance (construction) activity site is located in Prince William County and approximately 78.44 acres will be disturbed by excavation, grading or other construction activities.

3. This proposed activity disturbs one acre or greater and requires coverage under the VPDES General Permit for Discharges Of Stormwater from Construction Activities (the VPDES Construction Permit) as issued by the DEQ. A copy of the VPDES Construction Permit (VAR10), the registration information (LD-445 & LD-445C forms) and the permit coverage letter received from DEQ shall be maintained with other SWPPP documents for this land disturbing activity.

XX 4. The location of on-site support facilities that will be covered under the VPDES Construction Permit coverage for this land disturbance (construction) activity shall be provided by the contractor and identified on the record set of plans or in other appropriate contract documents. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

XX 5. Written Evidence of permit coverage shall be provided by the contractor for all support activities located outside of VDOT right of way or easement in the form of the Construction General Permit coverage letter: (List VPDES Permit # or Letter from VSMP Authority stating coverage not needed)

6. List the surface waters that have been identified as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report for sediment, total suspended solids, turbidity, Nitrogen or Phosphorus. These pollutants are considered benthic impairments: (List the impaired surface waters, when applicable)
- Occoquan River - impaired for recreational uses because of Escherichia coli.

7. Identify the TMDL's where stormwater from construction activities discharges into a watershed with a TMDL waste load allocation established and approved by the State Water Control Board prior to July 1, 2016 for sediment, total suspended solids, turbidity, nitrogen or phosphorus:
N/A

8. This land disturbance activity discharges stormwater to the following surface waters that have been identified as exceptional in Section 9VAC25-260-30 A 3 c of the Virginia Administrative Code:
N/A

9. Locations of surface waters and locations where concentrated stormwater is discharged from this land disturbance (construction) activity are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity. (List name of surface waters and locations here if not shown in construction plan or other such documents).

10. The ESC and SWM plans (where applicable) for this land disturbance (construction) activity have been developed in accordance with VDOT's Approved Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications as approved by the DEQ.

11. List the RLD and other responsible parties for the land disturbance activity: (required for erosion and sediment control). The following individual(s) have "delegated authority" to sign all reports required by the construction permit including the SWPPP General Information Sheets and Inspection Reports (C-107). Reference form LD-445H for delegation of authority (form 445H for the project is hereby incorporated by reference into this SWPPP). These individual(s) has/have overall responsibility or the environmental matters for the project: (required only for permitted projects):

Name	Position	Responsibility
	RLD	Certify the SWPPP (with date & sig.)
	Certified Inspector	Sign (C-107) Inspection Form Part 1
	Certified Inspector	Sign (C-107) Inspection Form Part 2

XX 12. The name of the VDOT individual(s) responsible for the oversight inspection in accordance with IIM-LD-256 on these land disturbance construction activities as identified on these SWPPP General Information Sheets. The names will be updated and maintained with the other SWPPP documents for this land disturbance activity.

VDOT Individuals	Position	Responsibility
Marion Carroll	NPDES	NPDES coordinator responsible for the oversight inspection in accordance with IIM-LD-256
Pawan Sarang	Dist. Hyd. Engineer	District Hydraulic Engineer or designee(s) responsible for the review & the coordination approval of ESC SWM plan modification(s).

X 13. The ESC and P2 inspections for this land disturbing (construction) activity shall follow (Select Schedule 1 or 2, if schedule #2 is used, void note #14) as defined in 2016 R&B Specifications except for Section 107.16(e) 4. an Inspection Requirements Rain gauge notes apply only to Inspection Schedule 1.

XX 14. The location of the on-site rain gage that will be used to determine the occurrence of a measurable storm event for the purposes of ESC and Pollution Prevention inspections will be provided by the contractor and identified on the record set of plans or in other appropriate SWPPP documents for this land disturbance activity: (List location of rain gage).

The rain gage shall be observed daily at 10:00 AM to determine the occurrence of a measurable storm event (i.e., 0.25 inches of rainfall or greater in a 24 hour period). A log book shall be maintained to record observation information which shall include (1) the date, (2) the time, (3) whether or not rainfall is occurring at the time of the observation, (4) the amount of accumulated rainfall in the gage, if any, and (5) whether or not an inspection is required based on the amount of accumulated rainfall in the gage. If there is no rainfall occurring at the time of the observation, the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage. If there is rainfall occurring at the time of the observation, the observation information is to be noted in the log book. The rain gage is not to be emptied but left to accumulate additional rainfall until the conclusion of the rainfall event. At the conclusion of the rainfall event, an observation of the rain gage shall be made and the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

15. The following VDOT documents are applicable to a) permitted projects b) non-permitted projects in Chesapeake Bay Preservation Areas (CBPA) with 2,500 S.F. to 1.0 acre of land disturbance c) non-permitted projects requiring a SWPPP and d) Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP:

- VDOT LD-445: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP and ESC projects > 10,000 s.f. but <1 acre.
- VDOT LD-445A: Permitted projects only.
- VDOT LD-445C: Projects that require a permit, ESC Plan, or SWPPP.
- VDOT LD-445D: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP.
- VDOT LD-445F: Emergency work projects (when applicable).
- Water Quality Requirement (when applicable)
- VDOT LD-445H: Permitted projects only.
- VDOT C-107 Part I and Part II. All projects that require a permit or SWPPP.
- VDOT LD-445I: AS&S Approval Form (when applicable)

16. If there is an excessive loading of sediment from the project (i.e. more than to be expected from the project with an implemented ESC plan) that is discovered within a local watershed with a sediment TMDL that allocates a WLA to VDOT's MS4, (see note #7) the contractor shall investigate the area of concern at the site within 24 hours of discovery and ensure all erosion and sediment control best management practices are being implemented in accordance with the permits approved standards and specifications required by Part I.B of the current Construction General Permit. If corrective action is necessary, the contractor shall initiate corrective actions no later than 5 business days after the initial investigation.

17. If excessive loading of sediment from a land disturbing activity that is not the responsibility of the contractor is discovered discharging into a MS-4, the contractor shall notify the municipality with jurisdiction over erosion and sediment control activities.

X Denotes information that is to be provided/completed by the RLD.
XX Denotes information that is to be provided/completed by the contractor.

Revised 5/1/19

PROJECT 0234-076-323	SHEET NO. 2F
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SURVEYED BY, DATE *Rinker Design Associates, P.C. (703) 386-7373, June 2021*
DESIGN BY *Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373*
SUBSURFACE UTILITY BY, DATE *Accumark (804) 550-7240, Apr 1, 2021*

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	

SECTION II EROSION AND SEDIMENT CONTROL

- XX 1. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.) shall be provided by the contractor in accordance with the current edition of Section 108.03 of the VDOT R&B Specifications and shall be included with the other SWPPP documents for this land disturbance (construction) activity.
2. Directions of stormwater flow and approximate slopes anticipated after major grading activities are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
3. Areas of soil disturbance and areas of the site which will not be disturbed are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
4. Locations of major structural and nonstructural ESC measures intended to filter, settle or similarly remove sediment are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
5. Locations where stabilization practices are expected to occur are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
6. A description of interim and permanent stabilization practices for the site are identified in the applicable sections of the documents identified in the Note 1 of Section IV.

- XX 7. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated will be provided by the contractor and maintained with the record set of plans or other SWPPP documents for this land disturbance (construction) activity: (List how this will be tracked and the location)

8. A description and schedule of procedures to maintain vegetation, erosion and sediment control measures and other protective measures in good and effective operating conditions are identified in the current edition of Sections 107.16 and 303.03 of the VDOT R&B Specifications.

9. Nutrients shall be applied in accordance with the current edition of Sections 60.3 and 60.4 of the VDOT Road and Bridge Specifications. Nutrients shall not be applied during rainfall events. Top soil shall be applied in accordance with the current edition of section 602 of the latest Road and Bridge Specifications.

10. All engineering calculations supporting the design of erosion and sediment control measures proposed for this land disturbance (construction) activity are contained in the project drainage file located in the VDOT Prince William Residency Office and will be made available for review upon request during normal business hours.

11. The temporary erosion and siltation control items shown on the ESC Plan for this land disturbing (construction) activity are intended to provide a general plan for controlling erosion and sediment within the project limits. The ESC Plan is based on field conditions at the time of plan development and an assumed sequence of construction for the project. The contractor, in conjunction with the VDOT Project Engineer and/or ESC Inspector, shall adjust the location, quantity and type of erosion and sediment control items required based on the actual field conditions encountered at the time of construction and the actual scheduling and sequencing of the construction activities. Significant changes to the proposed ESC Plan (e.g., those that require an engineering analysis, elimination of a perimeter control, change to ESC concept that would affect the quantity or direction of flow of water) shall be submitted to the applicable District Hydraulics Engineer for review and approval. Any changes to the proposed ESC Plan must be noted on the designated record set of plans which shall be retained on the project site and made available upon request during normal business hours.

12. The areas beyond the project's construction limits are to be protected from siltation. Perimeter controls such as silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grubbing operations or other earth moving activities.

13. Temporary earthen structures such as dikes and berms are to be stabilized immediately upon installation. Stabilization may include temporary or permanent seeding, riprap, aggregate, sod, mulching, and/or soil stabilization blankets and matting in conjunction with seeding.

14. All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in accordance with all applicable permit requirements and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.

15. The contractor shall plan and implement his land disturbance operations in order to:
- Control the volume and velocity of stormwater runoff within the site to minimize erosion.
 - Control the peak flow rates, volume and velocity of stormwater discharges to minimize erosion at outlets and in downstream channels.
 - Minimize the amount of soil exposed.
 - Minimize the disturbance of steep slopes.
 - Minimize sediment discharge from the site.
 - Provide and maintain natural buffers around surface waters, direct stormwater runoff to vegetated areas and maximize stormwater infiltration, unless infeasible.
 - Minimize soil compaction (except in those areas where compaction is required by the contract documents) and preserve topsoil where feasible.

- XX 16. The name of the individual(s) or contractor(s) responsible for the installation and maintenance of the erosion and sediment control measures shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance (construction) activity.

17. Soil stockpiles temporarily placed within the project area or on VDOT right of way or easement shall be identified, stabilized, and protected with sediment trapping measures.

18. A construction entrance or other approved measure shall be installed at all locations where construction vehicular traffic access routes intersect a paved or a public road in order to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or a public road surface, the road shall be cleaned thoroughly at the end of each work day by shoveling or sweeping. Removed sediment shall be disposed of in accordance with Section 106.04 of the R&B Specifications.

19. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPP.

The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEQ for this land disturbance (construction) activity: (list all approved exceptions and include a brief description of the exception, the date approved and the approving DEQ Office)

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Variance

- (1) Type of modification (Variance from ESC regulations, or Deviation from published guidance)
(2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
(3) Date that variance/exception/deviation was approved by DEQ.

SECTION III POST CONSTRUCTION STORMWATER MANAGEMENT

Choose the appropriate note 1A or 1B that is applicable to the proposed post construction SWMM Plan for this land disturbance (construction) activity. (Delete, strikethrough or mark as NA those notes not applicable.)

1. This land disturbance activity is grandfathered under Section 9VAC25-870-48 of the VSMP Regulations and utilizes the Part IIC technical criteria (i.e., Performance or Technology Based, MS 19, etc.) in Section 9VAC25-870-93 et seq. of the VSMP Regulations.

~~2. An exception for (number) pounds of phosphorus removal has been granted for this land disturbance activity by the DEQ in its letter dated (date).~~

~~3. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPP.~~

~~The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEQ for this land disturbance activity: (list all approved exceptions and include a brief description of the exception, the date approved and the approving DEQ Office).~~

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Waiver

- (1) Type of modification (Variance, or Exception from SWM Regulations or Deviation from published guidance)
(2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
(3) Date that variance/exception/deviation was approved by DEQ.

4. The permanent onsite SWM facilities or offsite strategies proposed to meet the water quality/quantity requirements for this land disturbance (construction) activity are listed in Section VI.

ACRONYMS

CBPA - Chesapeake Bay Preservation Act	SWPPP - Stormwater Pollution Prevention Plan
BMP - Best Management Practice	TMDL - Total Maximum Daily Load
DEQ - Department of Environmental Quality	VDOT - Virginia Department of Transportation
EPA - U.S. Environmental Protection Agency	VPDES - Virginia Pollutant Discharge Elimination System
ESC - Erosion and Sediment Control	VSMP - Virginia Stormwater Management Program
IIM - Instructional and Informational Memorandum	VESCP - Virginia Erosion and Sediment Control Program
R&B - Road and Bridge	WLA - Waste Load Allocation
RLD - Responsible Land Disturber	SWM - Stormwater Management

X Denotes information that is to be provided/ completed by the RLD.

XX Denotes information that is to be provided/completed by the contractor.

PROJECT	SHEET NO.
0234-076-323	2F(1)

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SUBSURFACE UTILITY BY, DATE *Accumark (804) 550-7740, Apr 1, 2021*

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	ROUTE	STATE	SHEET NO.
			PROJECT	
	VA.		0234-076-323 RW-201,C-501	2F(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

*VSMP PERMIT TO BE OBTAINED AND MAINTAINED BY PRINCE WILLIAM COUNTY

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet outside the Chesapeake Bay Preservation Area, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

SECTION IV SWPPP

1. All documents related to the SWPPP for this land disturbance (construction) activity shall be maintained at the activity site and shall be readily available for review upon request during normal business hours. Such documents include, but are not limited to, the construction plans (or other such documents), the ESC Plan, the Pollution Prevention Plan, the post construction SWM Plan (if applicable), the VDOT R&B Standards and Specifications, Supplemental Specifications, Special Provisions and Special Provision Copied Notes. Documents related to stormwater pollution prevention which are not a part of those documents referenced above, such as copies of the VPDES Construction Permit coverage letter (when applicable) and the VPDES General Permit For Discharges Of Stormwater From Construction Activities (when applicable) and those required to be developed by the contractor for pollution prevention associated with any on-site support facilities being included in the VPDES Construction Permit coverage for this land disturbance (construction) activity are to be maintained at the activity site with the other SWPPP documents for this land disturbance (construction) activity. Where no facilities are available at the activity site to maintain the SWPPP documents, they are to be kept by or with the designated RLD at a location convenient to the activity site where they would be made available for review upon request during normal business hours.

2. The SWPPP and any subsequent amendments, modifications and updates shall be implemented from commencement of land disturbance until termination of VPDES Construction Permit coverage or completion of land disturbance (construction) activities where no VPDES Construction Permit coverage is required.

XX 3. For all on-site support facilities that will be included in the VPDES Construction Permit coverage for this land disturbance (construction) activity, the contractor shall develop a SWPPP in accordance with, but not limited to, Section 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications. The SWPPP for the on-site support facilities shall be maintained with and become a component of the SWPPP for this land disturbance (construction) activity. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

4. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the SWPPP shall be made available for review upon the request of the DEQ, the EPA, the VSMP Authority, the VESCP Authority, local government officials or the operator of a municipal separate storm sewer system (MS4) receiving discharge from the construction site.

X 5. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the VDOT RLD shall post, or have posted, a copy of the General Permit coverage letter and a copy of a completed LD-445A form, noting the name and contact information for the VDOT person responsible for the land disturbing (construction) activity and its SWPPP, outside the project's construction office along with other Federal and State mandated information. Where there is no construction office (e.g., a maintenance activity), the permit coverage letter and the LD-445A form are to be maintained with the other SWPPP documents for the land disturbing (construction) activity.

6. The SWPPP shall be made available for review by the public upon request. Such reviews shall be at a time and publicly accessible location convenient to the VDOT and shall be scheduled during normal business hours and no less than once per month.

SECTION V - POLLUTION PREVENTION PLAN

- The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are prohibited:
 - Wastewater from concrete washouts.
 - Wastewater from the washout and cleanout of stucco, paint, from release oils, curing compounds and other construction materials.
 - Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance.
 - Oils, toxic substances or hazardous substances from spills or other releases.
 - Soaps, solvents or detergents used in equipment and vehicle washing.
 - There shall be no discharge of floating solids or visible foam in other than trace amounts.
- The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are allowed when discharged in compliance with the VPDES Construction Permit:
 - Discharges from firefighting activities.
 - Fire hydrant flushings.
 - Waters used to wash vehicles or equipment where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
 - Water used to control dust that has been filtered, settled or similarly treated prior to discharge.
 - Potable water sources including uncontaminated waterline flushings managed in a manner to avoid stream impacts.
 - Routine external building wash down where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
 - Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled or leaked material has been removed prior to washing), where soaps, solvents or detergents have not been used and where the wash water has been filtered, settled or similarly treated prior to discharge.
 - Uncontaminated air conditioning or compressor condensate.
 - Uncontaminated ground water or spring water.
 - Foundation or footing drains where flows are not contaminated with process materials such as solvents.
 - Uncontaminated excavation dewatering, including dewatering trenches and excavations that have been filtered, settled or similarly treated prior to discharge.
 - Landscape irrigation.

XX

3. The contractor shall develop a Pollution Prevention Plan to address any of his on-site operations that have a potential to generate a pollutant that may reasonably be expected to affect the quality of stormwater discharges from this land disturbance (construction) activity. The Pollution Prevention Plan shall be developed in accordance with, but not limited to, Sections 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications and shall include a narrative with appropriate plan detail and shall be provided on standard 8.5 x 11 inch paper or larger and shall:

- Identify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater.
- Describe the location where the potential pollutant-generating activities will occur, or if identified on the record set of plans, reference the record set of plans.
- Identify all non-stormwater discharges, as described in note two of this section, that are or will be commingled with stormwater discharges from the construction activity, including any on-site support activities.
- Identify the person(s) or contractor(s) responsible for implementing and maintaining the pollution prevention practice or practices for each pollutant-generating activity.
- Describe the pollution prevention practices and procedures that will be implemented to:
 - Prevent and respond to leaks, spills, and other releases, including procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases, and procedures for reporting leaks, spills, and other releases in accordance with Section 107.16 of the VDOT Road and Bridge Specifications and the requirements within the VPDES Construction Permit.

- Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities.
- Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including procedures for the clean-up of stucco, paint, form release oils, and curing compounds.
- Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing.
- Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be 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. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters.
- Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including building products (such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures), pesticides, herbicides, insecticides, fertilizers, landscape materials, construction and domestic wastes (such as packaging materials), scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.
- Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, waste concrete and sanitary wastes.
- Address any other discharge from any potential pollutant-generating activity not listed herein.
- Minimize the exposure of waste materials to precipitation by closing or covering waste containers during precipitation events and at the end of the business day, or implementing other similarly effective practices. Minimization of exposure is not required in case where the exposure to precipitation will not result in a discharge of pollutants.
- Describe and implement procedures for providing pollution prevention awareness (including but not limited to prevention practices, disposal practices and appropriate disposal locations) for all applicable wastes (including any wash water), to appropriate personnel.

X Denotes information that is to be provided/completed by the RLD.

XX Denotes information that is to be provided/completed by the contractor.

PROJECT	SHEET NO.
0234-076-323	2F(2)

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7240, April 2021

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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SECTION VI - PERMANENT BMP INFORMATION Δ

✘ Denotes information that is to be completed by the RLD.
() See note referenced by number in parentheses.

INSTALLED BMP INFORMATION (VDOT Owned/Operated)

Plan Sheet(s)	Date BMP Made Functional	Type of BMP Installed (See Table A and C)	Geographic Location (County or City)	Latitude/Longitude (1)		VA 6th Order HUC (7)	Receiving Water (2)	Name of Impaired Water (9)	Acres Treated Per BMP (3)			✘ BMP Maintenance ID Number (10)	BMP Maintenance Manual (11)	BMP Inspection Manual (11)		
				LAT	LONG				Impervious	Pervious	TOTAL				SECTION	SECTION
4		Extended Detention Basin (BMP 4-1)	Prince William	38.7150 N	77.4701 W	PL41	Piney Branch to Lake Jackson	N/A	4.79	17.72	22.51		7	7		
25		Extended Detention Basin (BMP 4-2)	Prince William	38.7162 N	77.4681 W	PL41	Piney Branch to Lake Jackson	N/A	7.50	21.46	28.96		7	7		
19-20		Retention Basin (BMP 4-3)	Prince William	38.7133 N	77.4686 W	PL41	Piney Branch to Lake Jackson	N/A	6.13	22.06	28.19		7	7		
9		Extended Detention Basin (BMP 6-2)	Prince William	38.7129 N	77.4588 W	PL41	Unnamed Tributary to Lake Jackson	N/A	3.78	11.64	15.42		7	7		

ALTERNATIVE BMP INFORMATION

Plan Sheet(s)	Date	Type of BMP Installed (See Table B)	Geographic Location (County or City) (5)	Latitude/Longitude (1) (5)		VA 6th Order HUC (5) (7)	Receiving Water (2)	Name of Impaired Water (9)	Perpetual Nutrient Credits Acquired for Project	
				LAT	LONG				Name of Nutrient Credit Generating Entity (6)	Nutrient Credits (lbs./TP./year) Acquired (6) (12)

Δ Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project that affects the proposed construction details or potentially affects the information shown in the BMP Tables A and/or B shall be coordinated by the VDOT RLD with the appropriate VDOT District Hydraulics Engineer. The construction plans and the BMP Tables A and/or B are to be formally revised to reflect any authorized/approved changes to the proposed SWM Plan and/or the proposed BMP construction details. All plan revisions shall be completed in accordance with the Road Design Manual and the Construction Division IIM-CD-2013-12.01, signed and sealed in accordance with Department's sealing and signing policy IIM-LD-243 and filed with the construction record drawings maintained in the VDOT Central Office Plan File Room (ProjectWise). Prior to submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities, the RLD shall have the District Maintenance Division review the BMPs installed with the project (BMP Table A) for acceptance of maintenance responsibility and to obtain a Maintenance ID number for each BMP listed in BMP Table A. The RLD shall use the information in BMP Tables A and B along with the assigned Maintenance ID number and the date that the BMP became functional as a permanent control measure (for BMPs in Table A only) to complete the LD-445D form when certifying the construction of the BMPs and submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities.

Table A: Permanent BMP Types (1999 Va. SWM Handbook)

- Bio-retention Basin
- Bio-retention Filter
- Constructed Stormwater Wetlands
- Extended Detention Basin
- Extended Detention Basin Enhanced
- Grassed Swale
- Infiltration Basin
- Infiltration Trench
- Manufactured Treatment Device (MTD) (8)
- Retention Basin I
- Retention Basin II
- Retention Basin III
- Sand Filter
- Vegetated Filter Strip
- Other Approved Types (List Type)
- Detention Basin

Table C: Permanent BMP Types (BMP Clearing House)

- Sheet Flow to Vegetated Filter Strip
- Grass Channel
- Soil Compost Amendment
- Permeable Pavement (Level 1)
- Permeable Pavement (Level 2)
- Infiltration Practice (Level 1)
- Infiltration Practice (Level 2)
- Bioretention (Level 1)
- Bioretention (Level 2)
- Dry Swale (Level 1)
- Dry Swale (Level 2)
- Wet Swale (Level 1)
- Wet Swale (Level 2)
- Filtering Practice (Level 1)
- Filtering Practice (Level 2)
- Constructed Wetlands (Level 1)
- Constructed Wetlands (Level 2)
- Extended Detention Pond (Level 1)
- Extended Detention Pond (Level 2)
- Wet Pond (Level 1)
- Wet Pond (Level 2)
- Manufactured Treatment Device (MTD) (8)
- Other Approved Types (List Type)

NOTES:

- (1) In decimal degrees to the nearest one ten-thousandth of a degree.
- (2) For streams with no names, list "(Unnamed Tributary to downstream name)".
- (3) Show acres treated to the nearest one hundredths acre.
- (4) Include agreements with off-site BMP owners.
- (5) Information pertains to the alternative BMP option location, where applicable. Exception - Not required for nutrient credit purchase option.
- (6) Applies to the purchase of nutrient credits only.
- (7) Virginia 6th Order HUC (VAHU6) Example - Y030.
- (8) Final approved shop drawings of Manufactured Treatment Devices (MTDs) are to be included with the BMP information submitted with the LD-445D form.
- (9) List the name of any impaired water to which the BMP discharges. The determination of impaired water shall be based on those streams listed as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report and shall be the first named waterbody to which the BMP discharges. The impaired waters are those impaired by sediment, total suspended solids, turbidity, nitrogen or phosphorus.
- (10) BMP Maintenance ID Number is to be assigned by the District Maintenance Division at permit termination or project completion. This ID number shall be assigned prior to the permit close out process and entered by the area construction engineer under this column, per IIM-LD-95

- (11) Provide the section of each Maintenance manual that pertains to the type of BMP. Both manuals can be found at www.vdot.virginia.gov/business/manuals in the Maintenance selections. Example: Section 4 would be noted for both the maintenance and inspection manuals for a Bioretention Infiltration BMP.
- (12) Nutrient credits purchased to the nearest one hundredth pound.

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	2F(3)

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✘ VSMP PERMIT TO BE OBTAINED AND MAINTAINED BY PRINCE WILLIAM COUNTY

Table B: Alternative BMP Types
Comprehensive SWM Plan (Regional) Facility
Pollutant Loading Pro Rata Shore Program
Other Approved Options (List Type) (4)

PROJECT 0234-076-323	SHEET NO. 2F(3)
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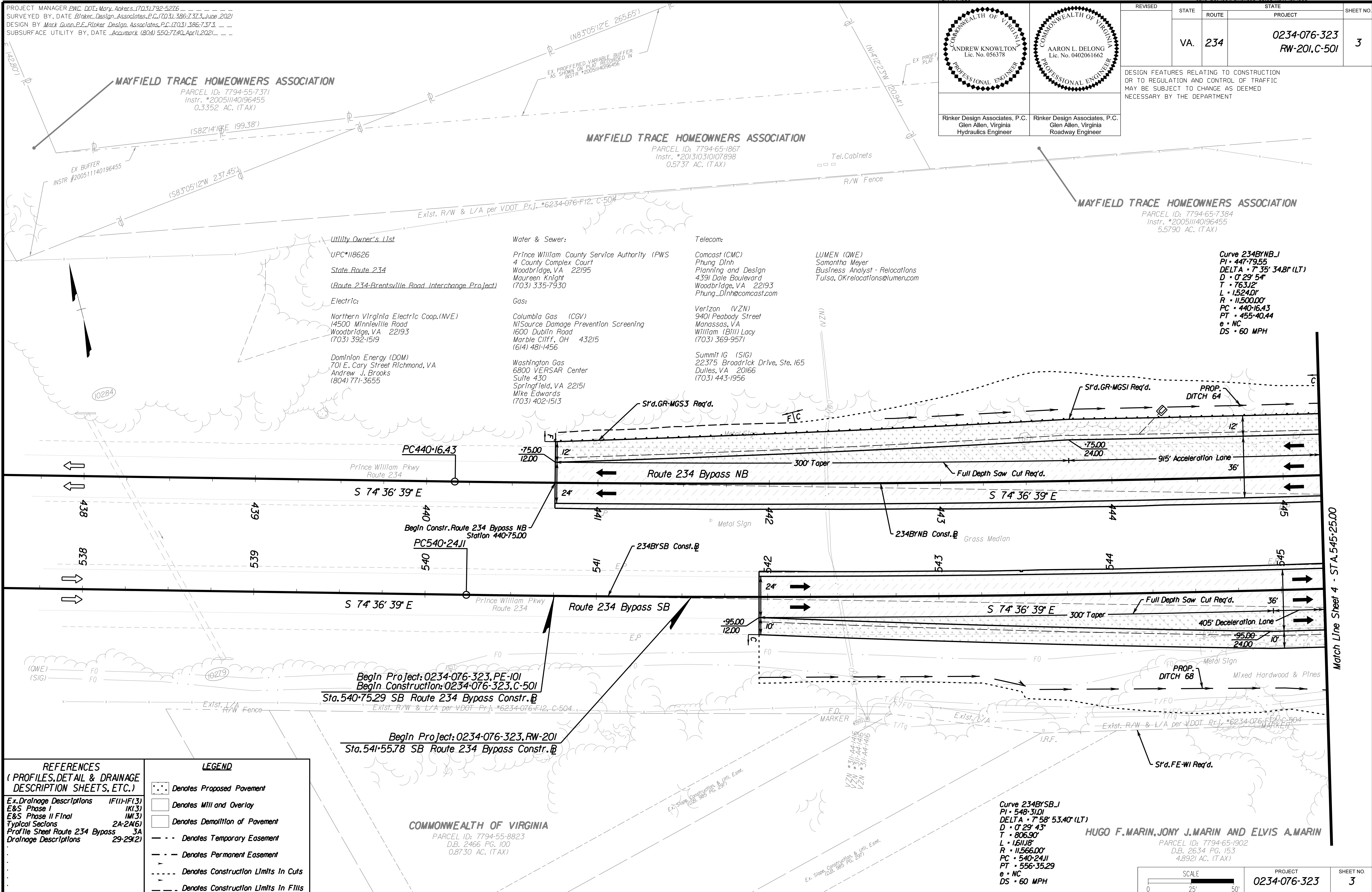
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980
LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

		REVISED	STATE	ROUTE	PROJECT	SHEET NO.
			VA.	234	0234-076-323 RW-201, C-501	3
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT						
Rinker Design Associates, P.C. Glen Allen, Virginia Hydraulics Engineer		Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer				



- Utility Owner's List**
- UPC#118626
 - State Route 234 (Route 234-Brentsville Road Interchange Project)
 - Electric:
 - Northern Virginia Electric Coop. (NVE) 14500 Minnleville Road Woodbridge, VA 22193 (703) 392-1519
 - Dominion Energy (DOM) 701 E. Cary Street Richmond, VA Andrew J. Brooks (804) 771-3655
 - Water & Sewer:
 - Prince William County Service Authority (PWS) 4 County Complex Court Woodbridge, VA 22195 Maureen Knight (703) 335-7930
 - Columbia Gas (CGV) NISource Damage Prevention Screening 1600 Dublin Road Marble Cliff, OH 43215 (614) 481-1456
 - Washington Gas 6800 VERSAR Center Suite 430 Springfield, VA 22151 Mike Edwards (703) 402-1513
 - Telecom:
 - Comcast (CMC) Phung Dinh Planning and Design 4391 Dale Boulevard Woodbridge, VA 22193 Phung_Dinh@comcast.com
 - Verizon (VZN) 9401 Peabody Street Manassas, VA William (Bill) Lacy (703) 369-9571
 - Summit IG (SIG) 22375 Broadrick Drive, Ste. 165 Dulles, VA 20166 (703) 443-1956
 - LUMEN (QWE) Samantha Meyer Business Analyst - Relocations Tulsa, OK relocations@lumen.com

Curve 234BYNB-J
 PI = 447+79.55
 DELTA = 7° 35' 34.8" (LT)
 D = 0° 29' 54"
 T = 763.12'
 L = 1524.00'
 R = 11500.00'
 PC = 440+16.43
 PT = 455+40.44
 e = NC
 DS = 60 MPH

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	LEGEND
Ex. Drainage Descriptions IF(1)-IF(3) E&S Phase I IK(3) E&S Phase II Final IM(3) Typical Sections 2A-2A(6) Profile Sheet Route 234 Bypass 3A Drainage Descriptions 29-29(2)	<ul style="list-style-type: none"> Denotes Proposed Pavement Denotes Mill and Overlay Denotes Demolition of Pavement Denotes Temporary Easement Denotes Permanent Easement Denotes Construction Limits In Cuts Denotes Construction Limits In Fills

COMMONWEALTH OF VIRGINIA
 PARCEL ID: 7794-65-8823
 D.B. 2466 PG. 100
 0.8730 AC. (TAX)

Curve 234BYSB-J
 PI = 548+31.01
 DELTA = 7° 58' 53.40" (LT)
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 L = 1611.8'
 R = 11566.00'
 PC = 540+24.11
 PT = 556+35.29
 e = NC
 DS = 60 MPH

HUGO F. MARIN, JONY J. MARIN AND ELVIS A. MARIN
 PARCEL ID: 7794-65-1902
 D.B. 2634 PG. 153
 4.8921 AC. (TAX)

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 3
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11/5/2021

Match Line Sheet 4 - STA. 545+25.00

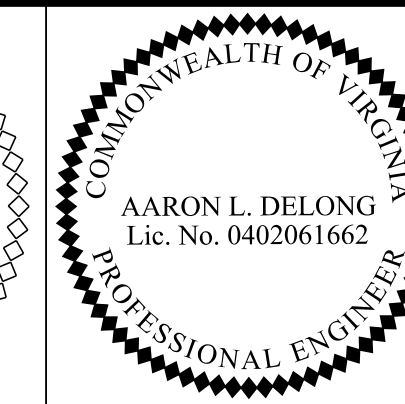
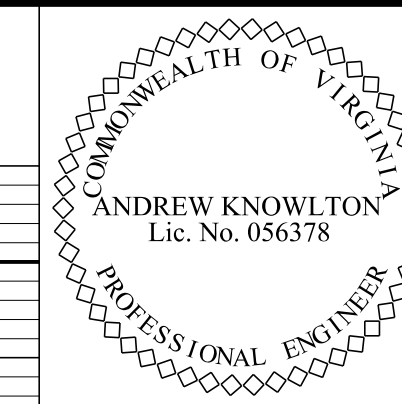
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021

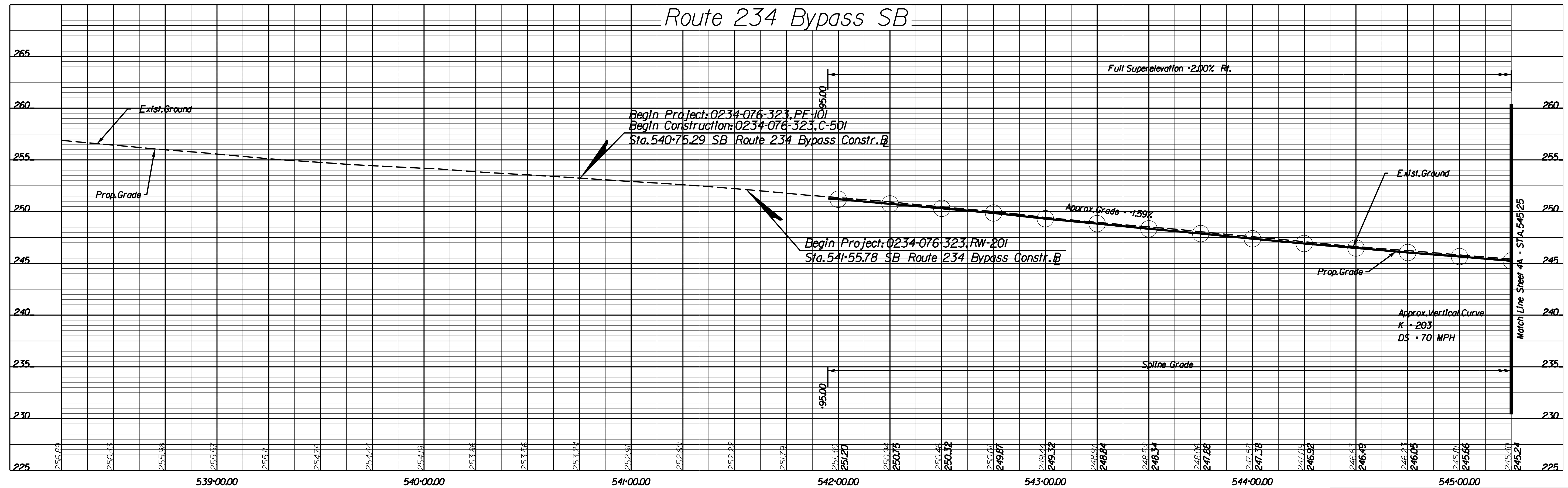
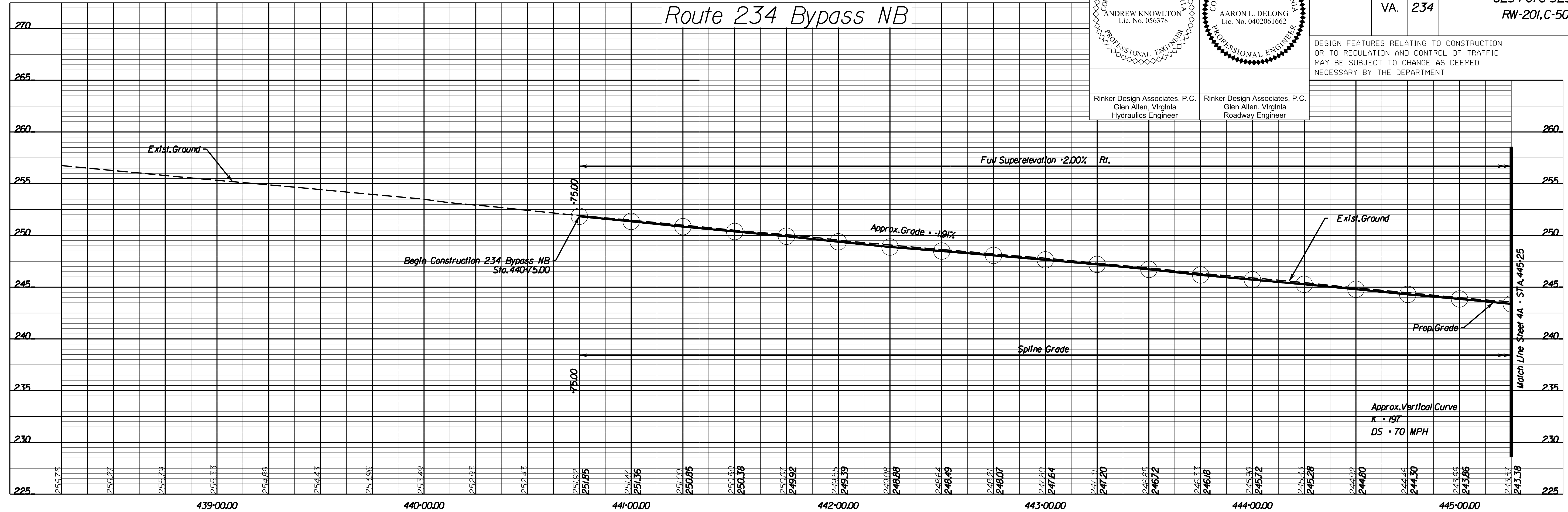


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	3A

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PROJECT: 0234-076-323
SHEET NO.: 3A
Scale: 1"=25' Horz., 1"=5' Vert.

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PROJECT MANAGER BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, Apr 11, 2021

MAYFIELD TRACE HOMEOWNERS ASSOCIATION

PARCEL ID: 7794-65-7384
Instr. #200511140196455
5.5790 AC. (TAX)

KENNETH F. FELD
PARCEL ID: 7794-76-1613
D.B. 1542 PG. 61
20.3410 AC. (TAX)

COMMONWEALTH OF VIRGINIA
ANDREW KNOWLTON
Lic. No. 056378
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
AARON L. DELONG
Lic. No. 0402061662
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	4

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Match Line
Sheet 25

Curve 234BYSB-J
PI • 548+31.01
DELTA • 7° 58' 53.40" (LT)
D • 0' 29' 43"
T • 806.90'
L • 1611.8'
R • 11566.00'
PC • 540+24.11
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Curve 234BYNB-J
PI • 447+79.55
DELTA • 7° 35' 34.81" (LT)
D • 0' 29' 54"
T • 763.12'
L • 1524.01'
R • 11500.00'
PC • 440+16.43
PT • 455+40.44
e • NC
DS • 60 MPH

Begin Box Culvert
Proj. No. 0234-076-323, D-XXX
Sta. 550+56.69

PROP. DITCH 34

Sr'd. GR-MGSI Req'd.

Sr'd. FE-WI Req'd.

Sr'd. BCE-OI Req'd.

Full Depth Saw Cut Req'd.

Route 234 Bypass NB

915' Acceleration Lane

Full Depth Saw Cut Req'd.

End Box Culvert
Proj. No. 0234-076-323, D-XXX
Sta. 550+79.23

PROP. DITCH 77

Sr'd. GR-MGSI Req'd.

Sr'd. GR-MGSI2 Req'd.

Sr'd. GR-MGSI Req'd.

Sr'd. BCE-OI Req'd.

Sr'd. FE-WI Req'd.

Sr'd. FE-WI Req'd.

Sr'd. FE-WI Req'd.

Sr'd. FE-WI Req'd.

Sr'd. FE-WI Req'd.

Sr'd. FE-WI Req'd.

Sr'd. FE-WI Req'd.

Match Line Sheet 3 - STA. 5+45-25.00

Match Line Sheet 5 - STA. 552-25.00

Match Line Sheet 19 - STA. 13+25.00

HUGO F. MARIN, JONY J. MARIN AND ELVIS A. MARIN
PARCEL ID: 7794-65-1902
D.B. 2634 PG. 153
4.8921 AC. (TAX)

PC Sta. 10+00.00 Ramp F -
POT Sta. 549+00.00 SB Route 234 Bypass, 24' R/L
Begin Constr. Ramp F

SWM POND 4-1

HOANG LE NGUYEN AND THAO THITRAN THU
PARCEL ID: 7794-64-6299
Instr. #200603090039834
2.1760 AC. (TAX)

ERVEN R. LHOTKA AND SUSAN E. LHOTKA
PARCEL ID: 7794-64-7965
D.B. 1257 PG. 660
6.5595 AC. (TAX)

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

Curve RAMPF-J
PI • 12+80.15
DELTA • 41° 59' 26.67" (RT)
D • 7' 50' 55"
T • 280.15'
L • 535.00'
R • 730.00'
PC • 10+00.00
PT • 15+35.00
e • 6.0%
Lr • 136'
Lr • 46'
DS • 35 MPH

REFERENCES

(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(11)-IF(3)
E&S Phase I	1K(4)
E&S Phase II Final	1M(4)
Typical Sections	2A-2A(6)
Profile Sheet Route 234 Bypass	19A
Profile Sheet Ramp F	19A
Entrance Profile BMP 4-1	28
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(4A)

SCALE
0 25 50'

PROJECT
0234-076-323

SHEET NO.
4

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

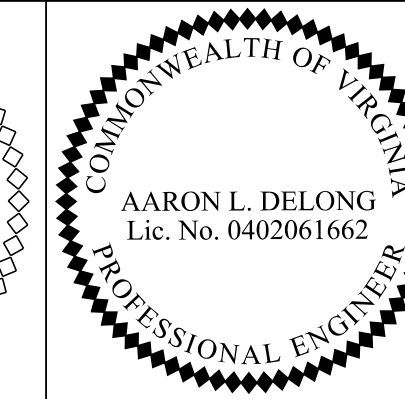
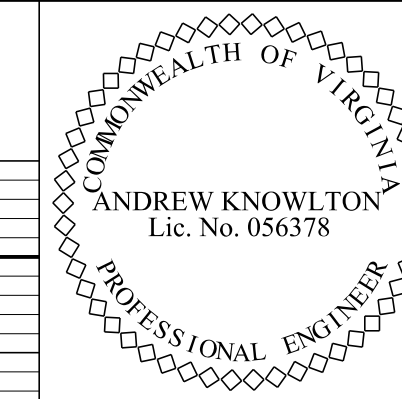
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Blnker, Design, Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark, Guan, P.E., Rinker, Design, Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Acumack (804) 550-7740, April 2021



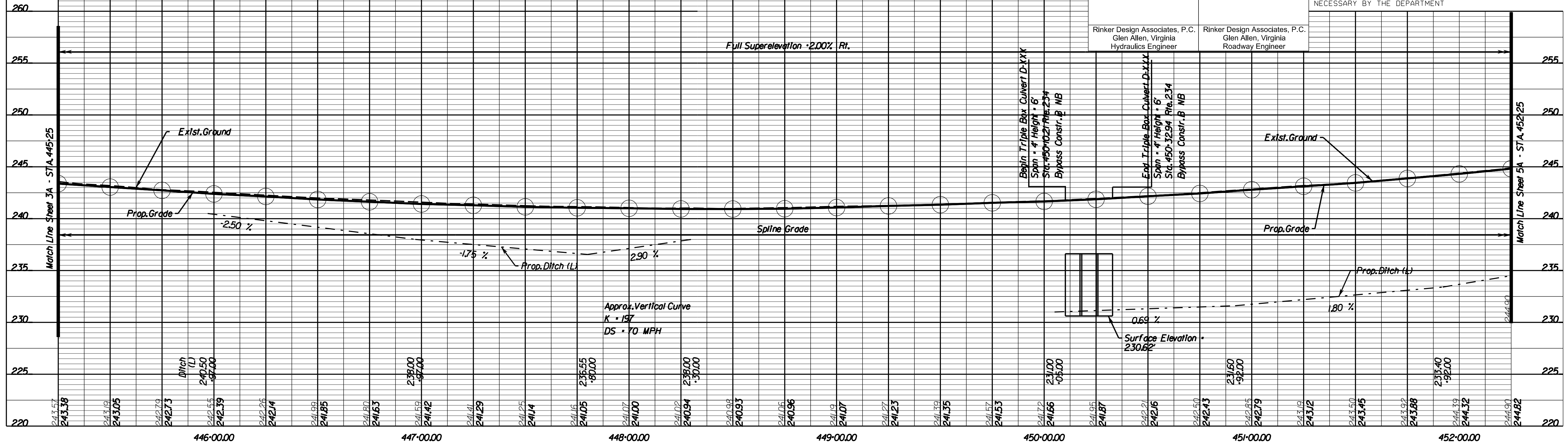
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	4A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

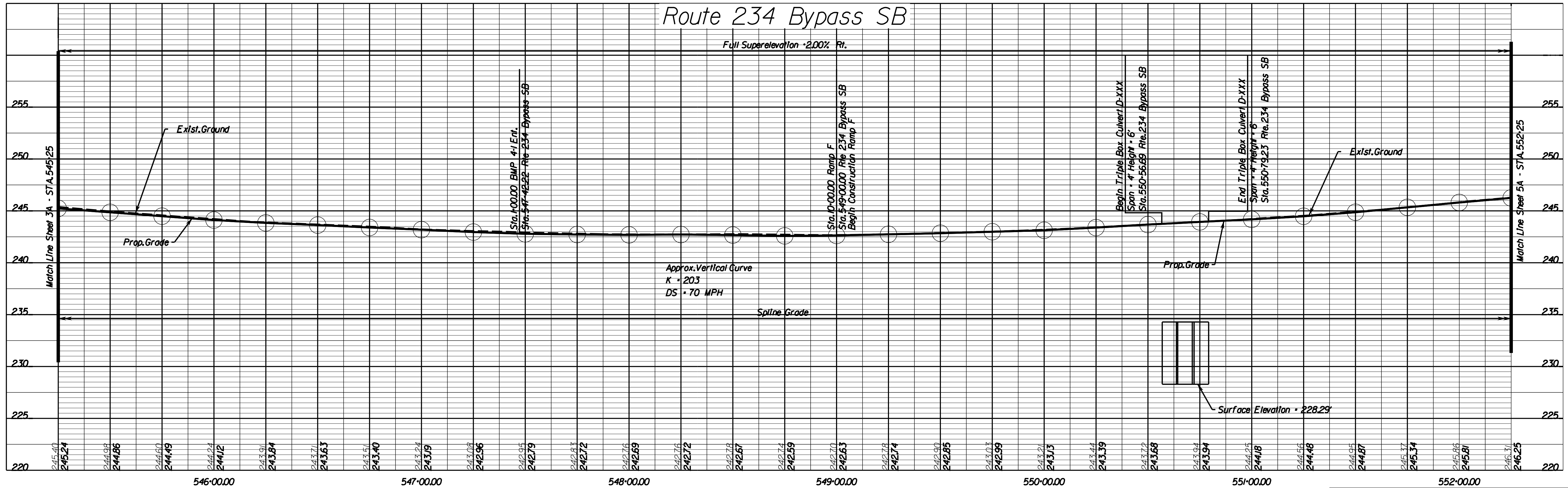
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Route 234 Bypass NB



Route 234 Bypass SB



PROJECT: 0234-076-323
SHEET NO.: 4A
Scale: 1"=25' Horz., 1"=5' Vert.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

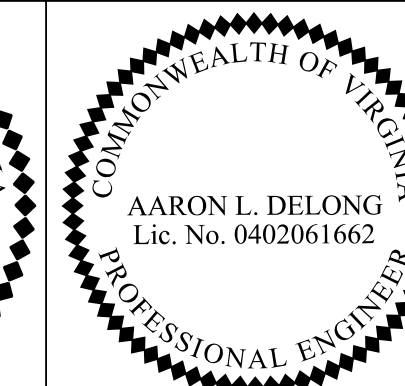
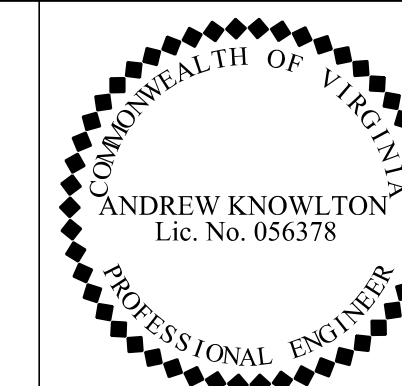
11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021



REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	5

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

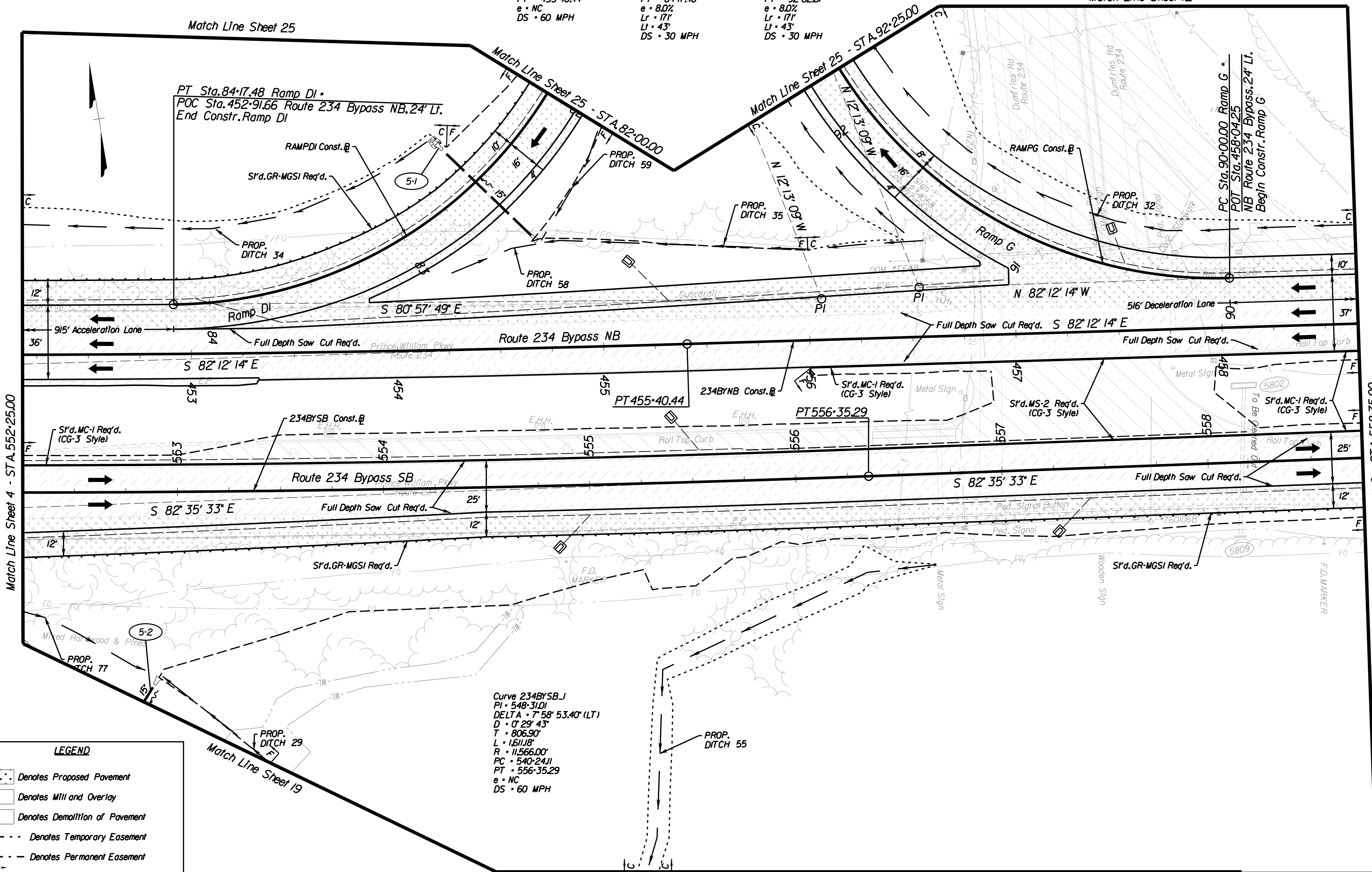
Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

NOTE: ELEMENTS ON THIS SHEET ARE WHOLLY CONTAINED WITHIN EXISTING RIGHT OF WAY AND LIMITED ACCESS

Curve 234BYNB.J
PI • 447-79.55
DELTA • 7° 35' 34.8" (LT)
D • 0' 29' 54"
T • 763.12'
L • 1524.0'
R • 11500.00'
PC • 440-16.43
PT • 455-40.44
e • NC
DS • 60 MPH

Curve RAMPDI.J
PI • 83-14.33
DELTA • 11° 15' 19.93" (RT)
D • 26' 38' 57"
T • 314.33'
L • 417.48'
R • 215.00'
PC • 80-00.00
PT • 84-17.48
e • 8.0%
Lr • 17'
Ll • 43'
DS • 30 MPH

Curve RAMPG.J
PI • 91-50.50
DELTA • 69° 59' 05.05" (RT)
D • 26' 38' 57"
T • 150.50'
L • 262.61'
R • 215.00'
PC • 90-00.00
PT • 92-62.61
e • 8.0%
Lr • 17'
Ll • 43'
DS • 30 MPH



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase I	IK(5)
E&S Phase II Final	IM(5)
Typical Sections	2A-24(6)
Profile Sheet Route 234 Bypass	5A
Profile Sheet Ramp DI/Ramp G	5B
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(5A)
Ditch Profiles	30(5B)

LEGEND

	Denotes Proposed Pavement
	Denotes Mill and Overlay
	Denotes Demolition of Pavement
	Denotes Temporary Easement
	Denotes Permanent Easement
	Denotes Construction Limits In Cuts
	Denotes Construction Limits In Fills

Curve 234BYSB.J
PI • 548-31.01
DELTA • 7° 58' 53.40" (LT)
D • 0' 29' 43"
T • 806.90'
L • 1611.8'
R • 11566.00'
PC • 540-24.11
PT • 556-35.29
e • NC
DS • 60 MPH

Match Line Sheet 19



PROJECT	0234-076-323	SHEET NO.	5
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

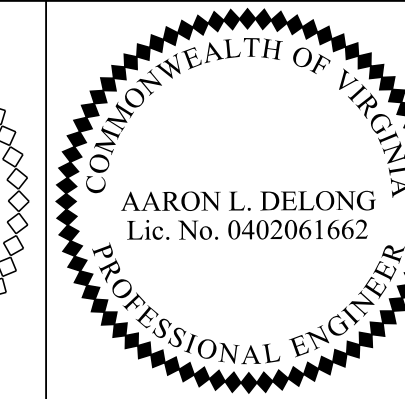
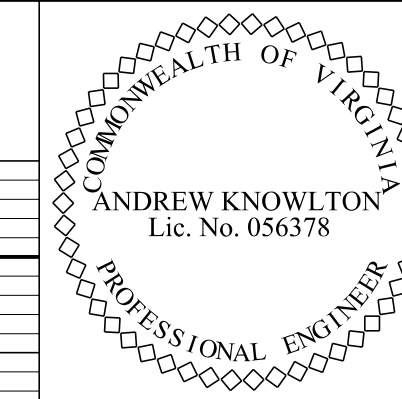
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design, Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark, Guon, P.E., Rinker, Design, Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7740, April 2021



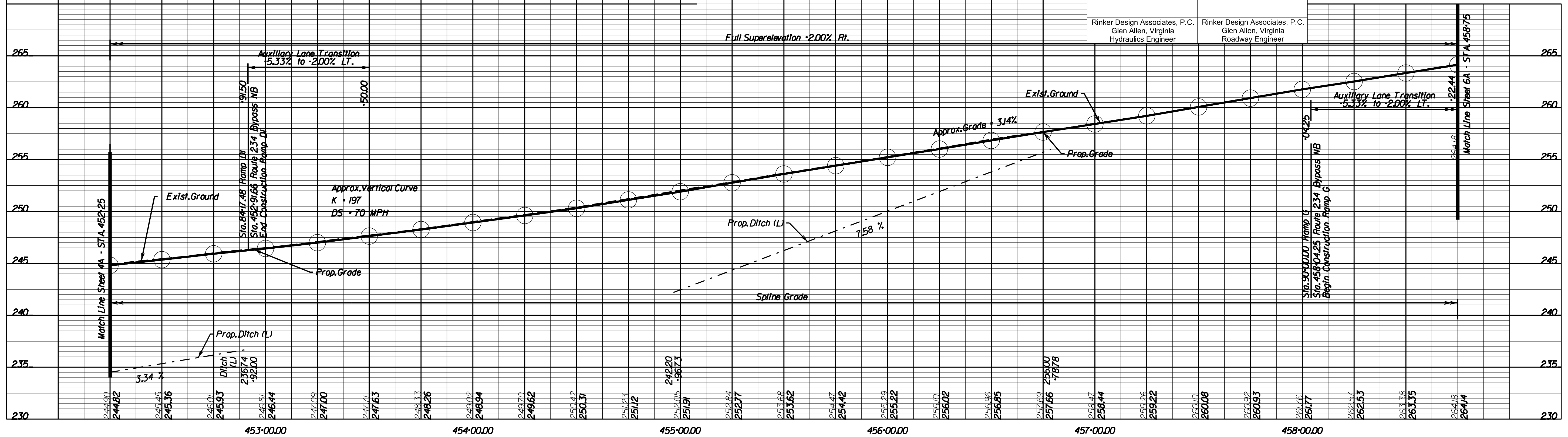
REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	5A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

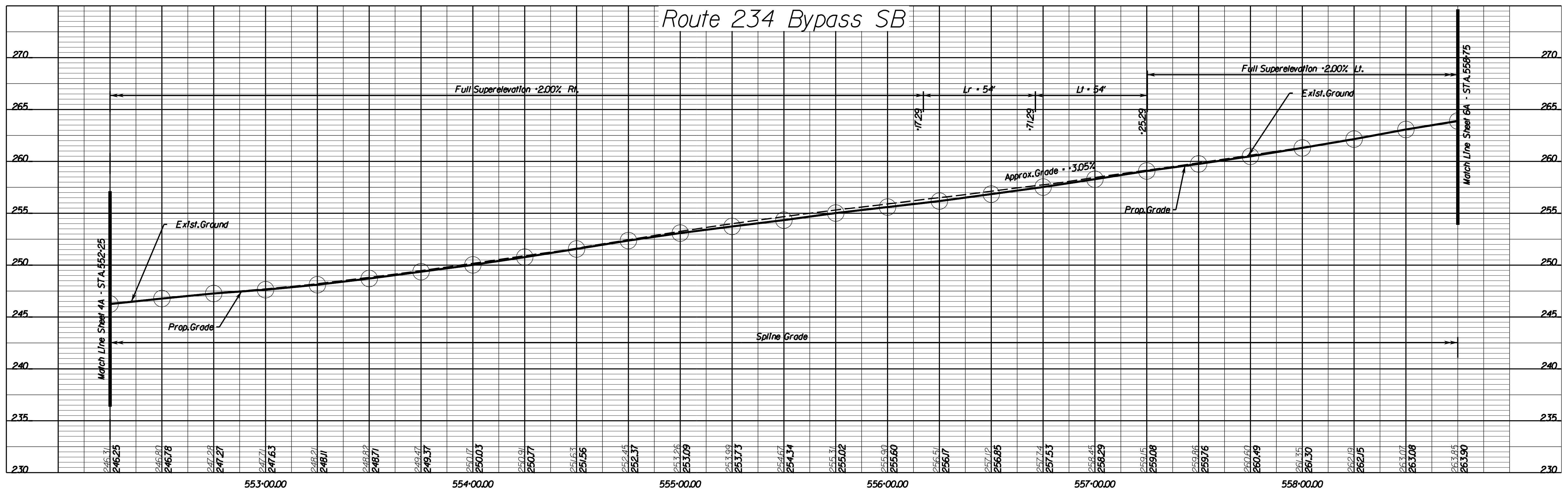
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Route 234 Bypass NB



Route 234 Bypass SB



1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
5A

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

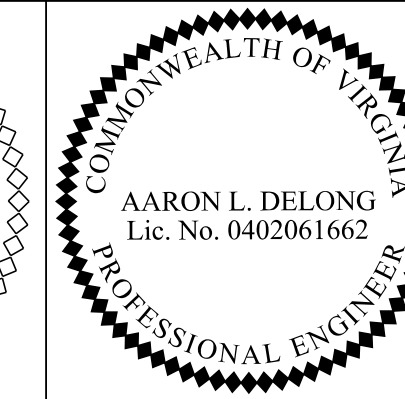
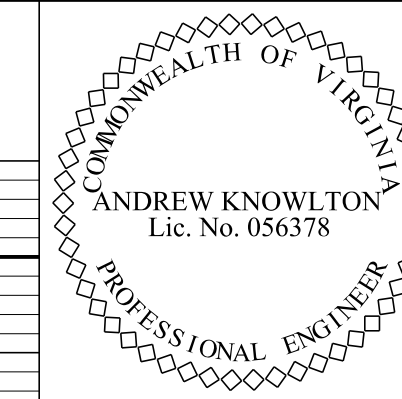
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7740, April 2021



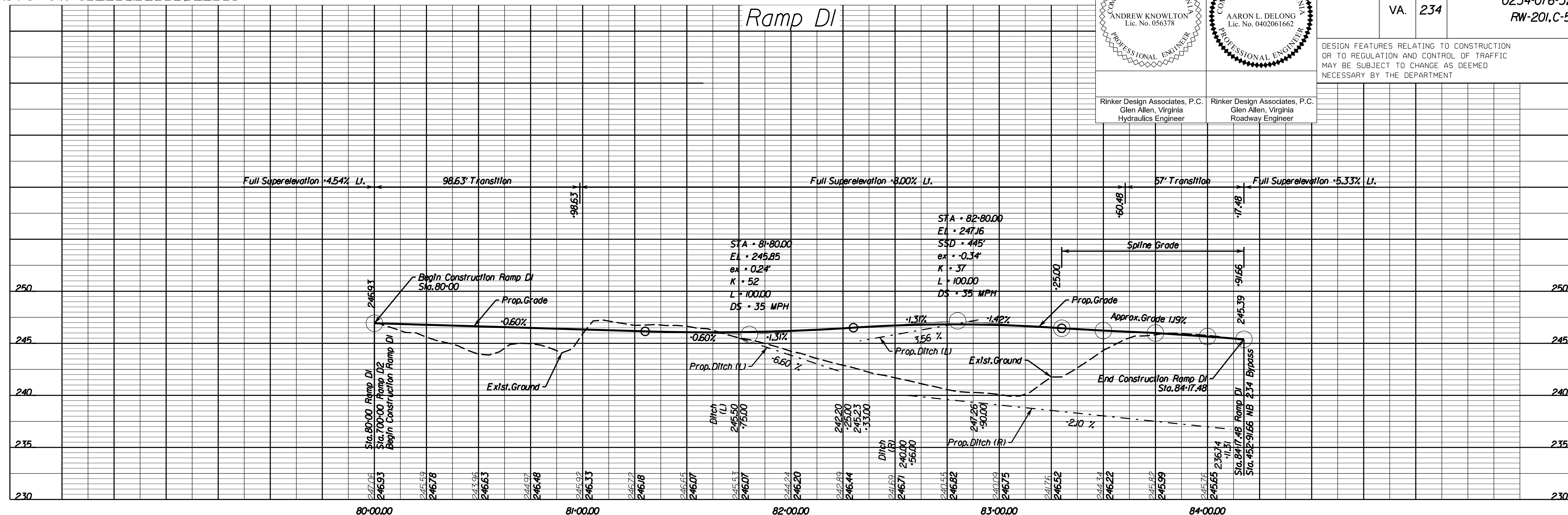
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	5B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

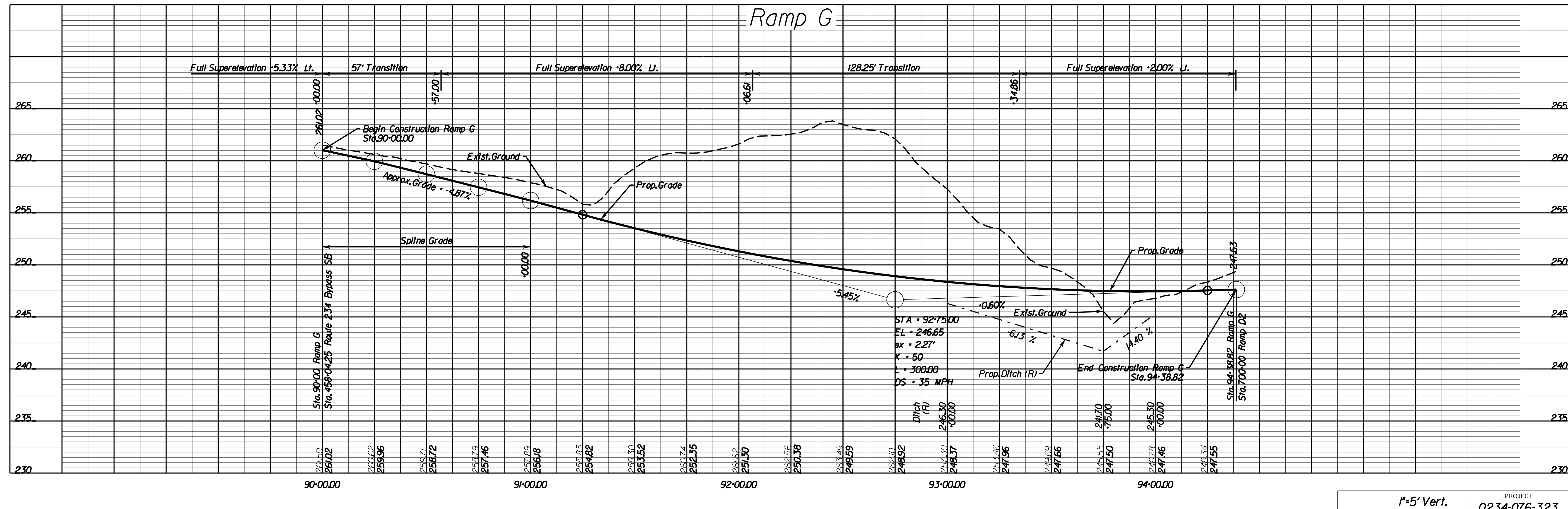
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Ramp D1



Ramp G



Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 5B

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

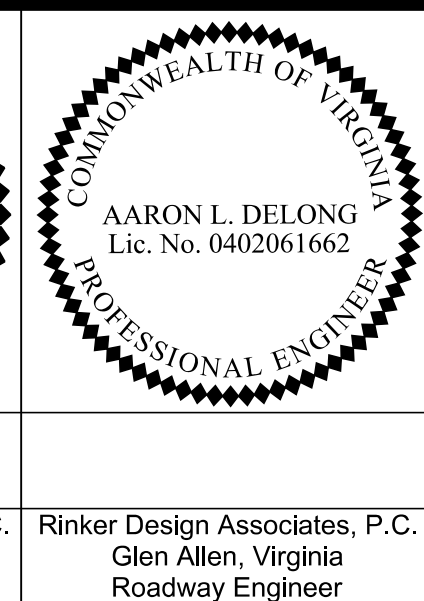
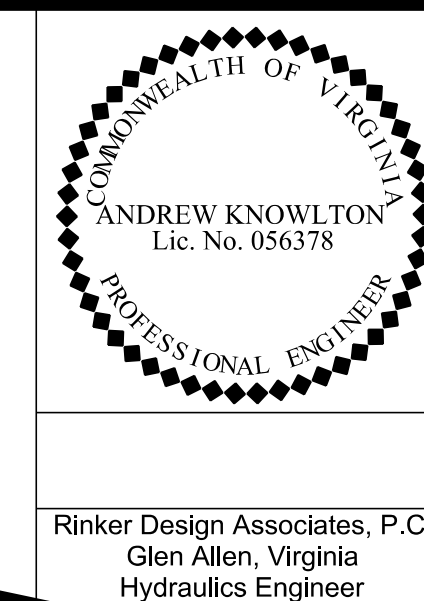
LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: EWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY: DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mack Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY: DATE AccuMark (804) 550-7740, April 2021

NOTE: ELEMENTS ON THIS SHEET ARE WHOLLY CONTAINED WITHIN EXISTING LIMITED ACCESS

Curve RDWY_A/J
PI = 207+39.81
DELTA = 42° 58' 43J3" (RT)
D = 7° 50' 55"
T = 287.40'
L = 547.59'
R = 730.00'
PC = 204+52.41
PT = 210+00.00
e = 3.90%
Lr = 147'
Lr = 17'
DS = 30 MPH

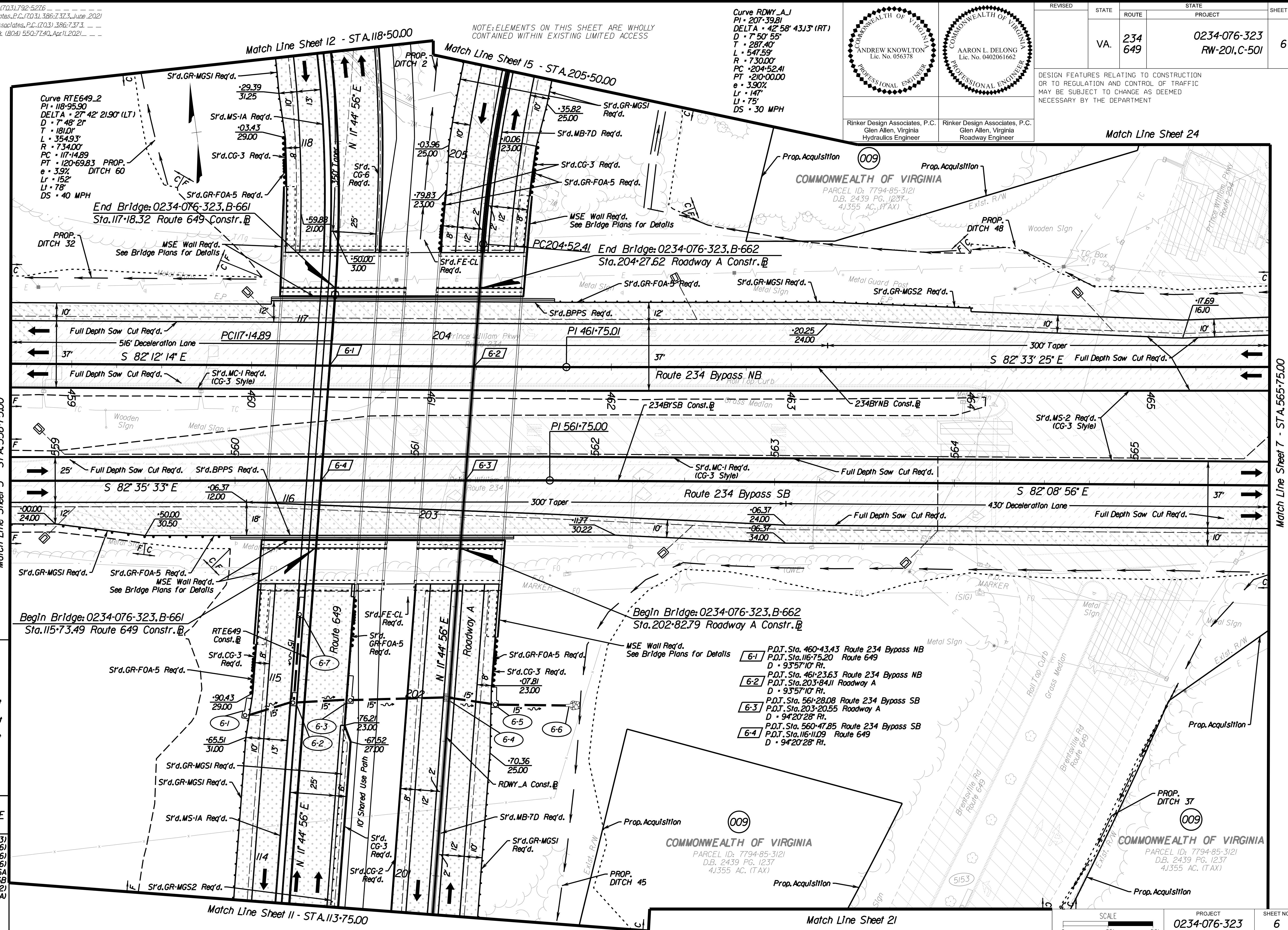


REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234 649	0234-076-323 RW-201.C-501	6

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

- Ex. Drainage Descriptions IF(11)IF(3)
- E&S Phase I IK(6)
- E&S Phase II Final IM(6)
- Typical Sections 2A-2A(6)
- Profile Sheet Route 234 Bypass 6A
- Profile Sheet Route 649/Roadway A 6B
- Drainage Descriptions 29-29(2)
- Storm Sewer Profiles 30(6A)

- 6-1 P.O.T. Sta. 460+43.43 Route 234 Bypass NB
P.O.T. Sta. 116+75.20 Route 649
D = 93°57'10" Rt.
- 6-2 P.O.T. Sta. 461+23.63 Route 234 Bypass NB
P.O.T. Sta. 203+84.11 Roadway A
D = 93°57'10" Rt.
- 6-3 P.O.T. Sta. 561+28.08 Route 234 Bypass SB
P.O.T. Sta. 203+20.55 Roadway A
D = 94°20'28" Rt.
- 6-4 P.O.T. Sta. 560+47.85 Route 234 Bypass SB
P.O.T. Sta. 116+11.09 Route 649
D = 94°20'28" Rt.

SCALE	PROJECT	SHEET NO.
0 25 50	0234-076-323	6

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

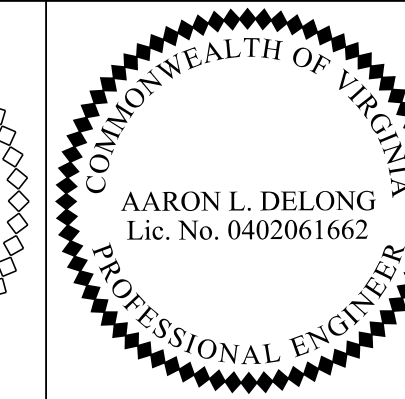
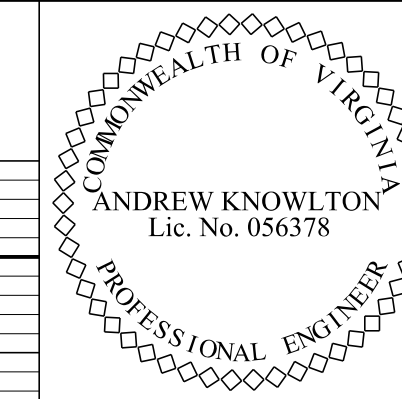
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark, Guan, P.E., Rinker, Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Acumack (804) 550-7740, April 2021



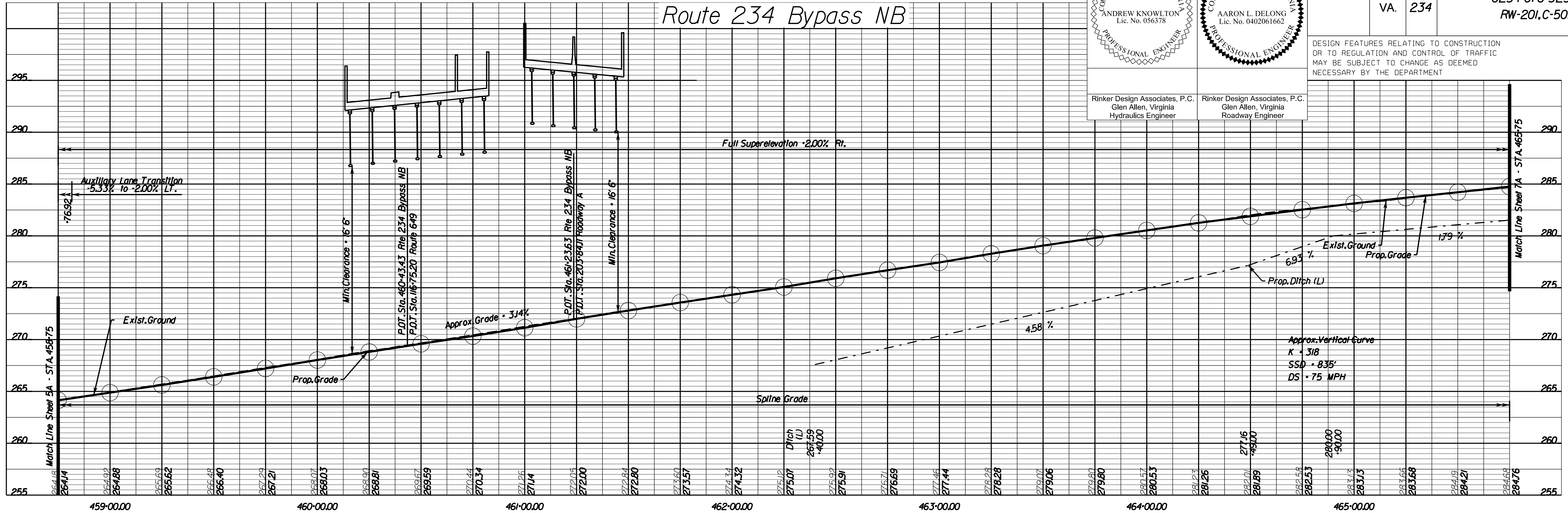
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

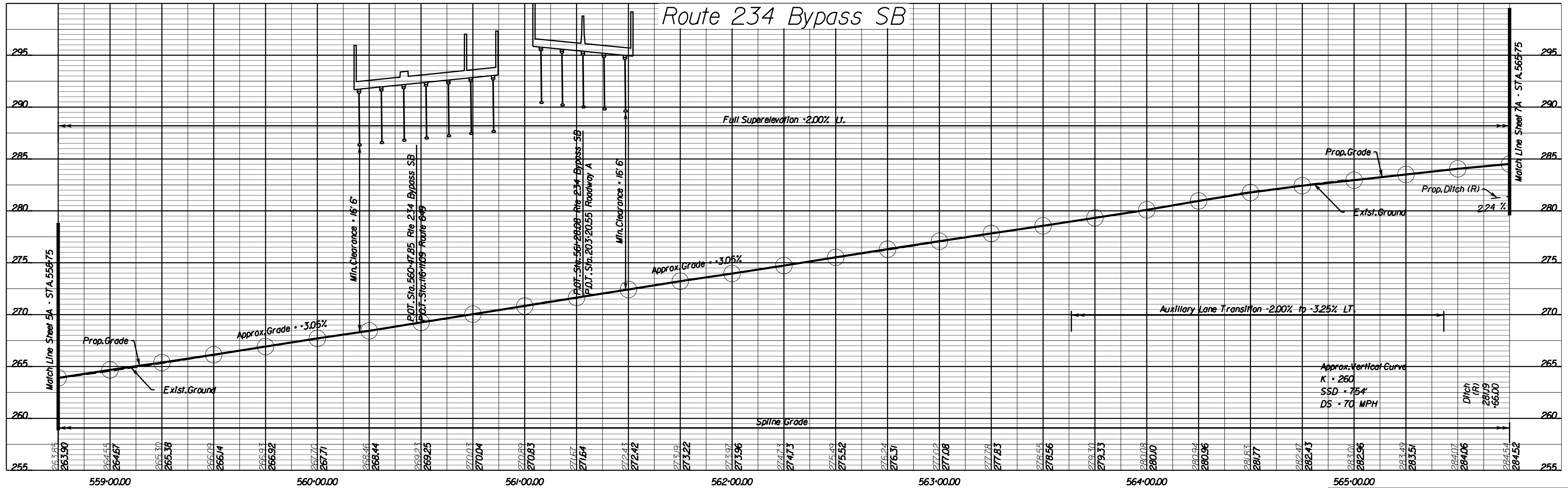
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	6A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Route 234 Bypass NB



Route 234 Bypass SB



Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
6A

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11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Acumark (804) 550-7740, April 2021

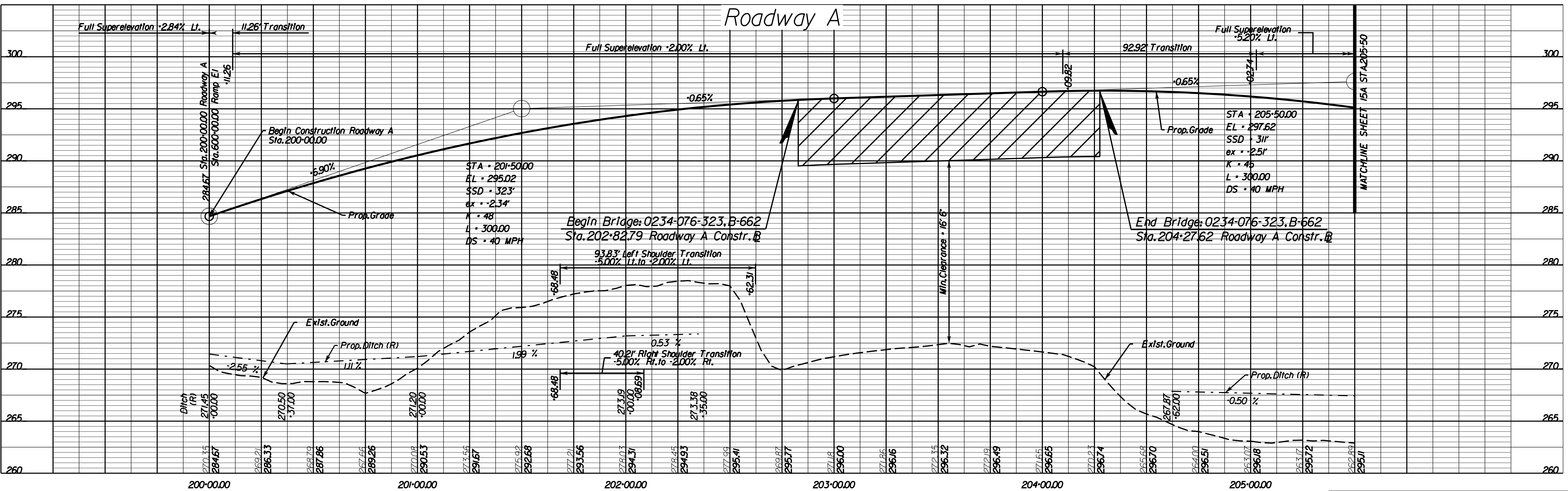
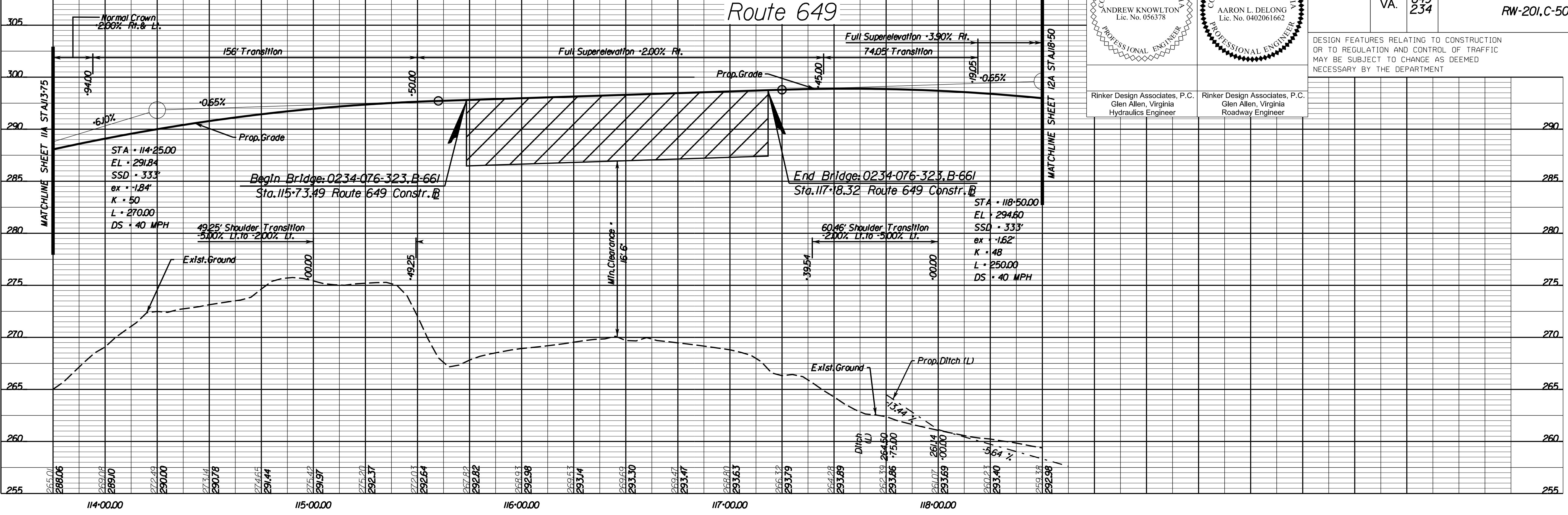
Professional Engineer seals for Andrew Knowlton and Aaron L. DeLong.

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	649 234		0234-076-323 RW-201,C-501	6B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT: 0234-076-323

SHEET NO.: 6B

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, Apr 1, 2021

Curve RAMP A J
PI • 62.69.26
DELTA • 10° 29' 57.30" (RT)
D • 26.02' 37"
T • 269.26'
L • 389.73'
R • 220.00'
PC • 60.00.00
PT • 63.89.73
e • 8.0%
Lr • 171'
LI • 43'
DS • 30 MPH

NOTE: ELEMENTS ON THIS SHEET ARE WHOLLY
CONTAINED WITHIN EXISTING LIMITED ACCESS

		REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.	234		0234-076-323 RW-201, C-501	7

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

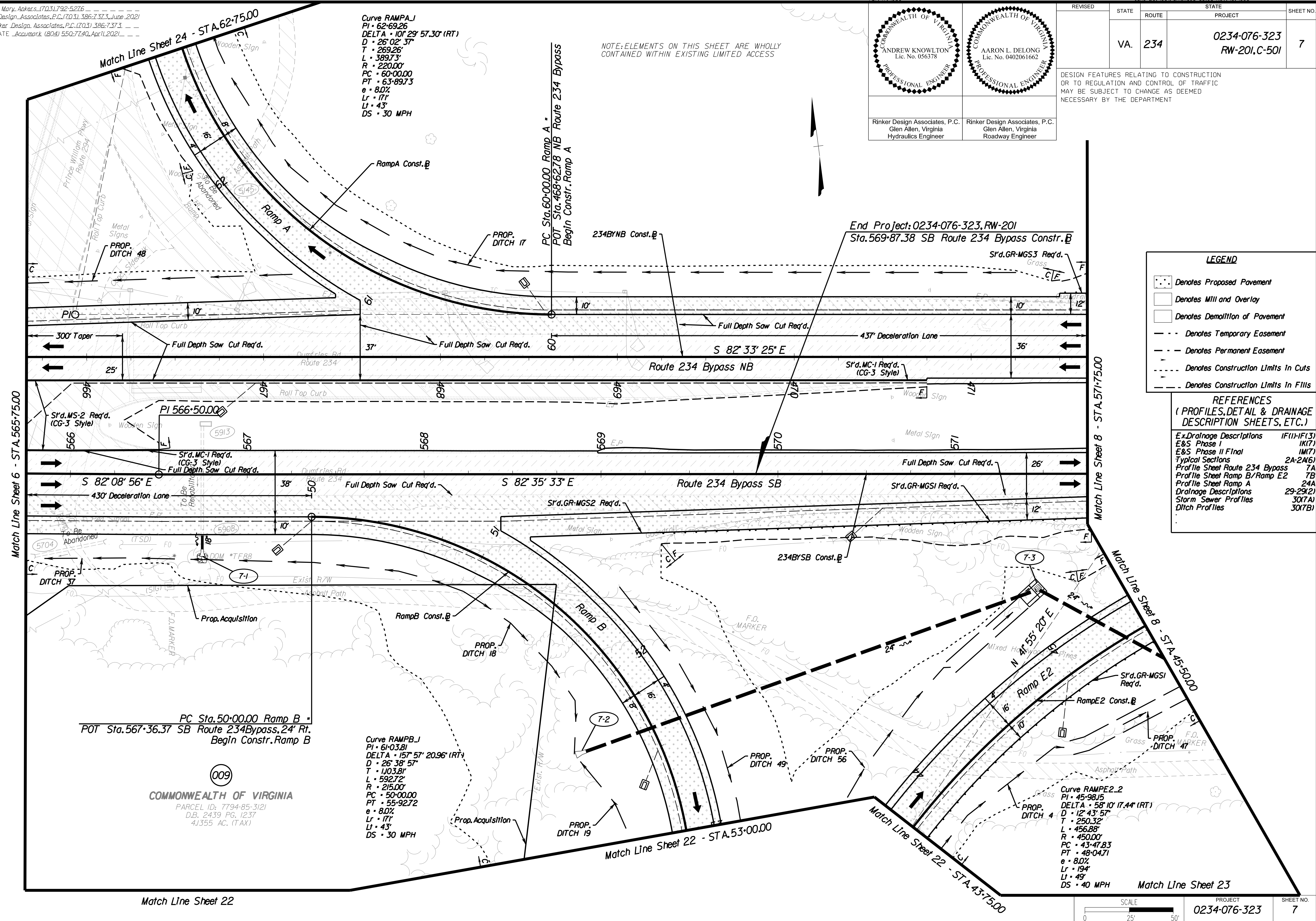
Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

LEGEND

- Denotes Proposed Pavement
- ▭ Denotes Mill and Overlay
- ▭ Denotes Demolition of Pavement
- - - Denotes Temporary Easement
- - - Denotes Permanent Easement
- - - Denotes Construction Limits In Cuts
- - - Denotes Construction Limits In Fills

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase I	IK(7)
E&S Phase II Final	IM(7)
Typical Sections	2A-2A(6)
Profile Sheet Route 234 Bypass	7A
Profile Sheet Ramp B/Ramp E2	7B
Profile Sheet Ramp A	24A
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(TA)
Ditch Profiles	30(TB)



Match Line Sheet 6 - STA. 565+75.00

Match Line Sheet 8 - STA. 57+75.00

Match Line Sheet 8 - STA. 45+50.00

Match Line Sheet 23

Match Line Sheet 22

Match Line Sheet 22 - STA. 53+00.00

Match Line Sheet 22 - STA. 45+75.00

PC Sta. 50+00.00 Ramp B •
POT Sta. 567+36.37 SB Route 234 Bypass, 24' Rt.
Begin Constr. Ramp B

Curve RAMP B J
PI • 61.03.81
DELTA • 15° 57' 20.96" (RT)
D • 26.38' 57"
T • 1103.81'
L • 592.72'
R • 215.00'
PC • 50+00.00
PT • 55+92.72
e • 8.0%
Lr • 171'
LI • 43'
DS • 30 MPH

Curve RAMP E2
PI • 45.98.15
DELTA • 58° 10' 17.44" (RT)
D • 12' 43' 57"
T • 250.32'
L • 456.88'
R • 450.00'
PC • 43+47.83
PT • 48+04.71
e • 8.0%
Lr • 194'
LI • 49'
DS • 40 MPH

COMMONWEALTH OF VIRGINIA
PARCEL ID: 7794-85-3121
D.B. 2439 P.G. 1237
4J355 AC. (TAX)

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND
ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY
AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

SCALE 0 25 50'

PROJECT 0234-076-323

SHEET NO. 7

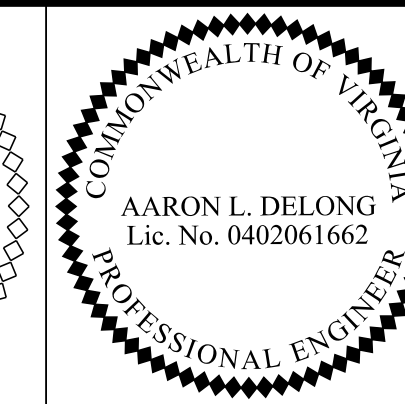
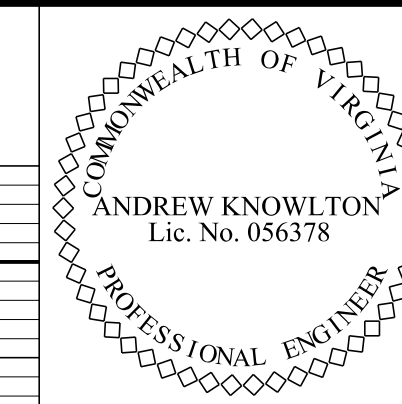
11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker, Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



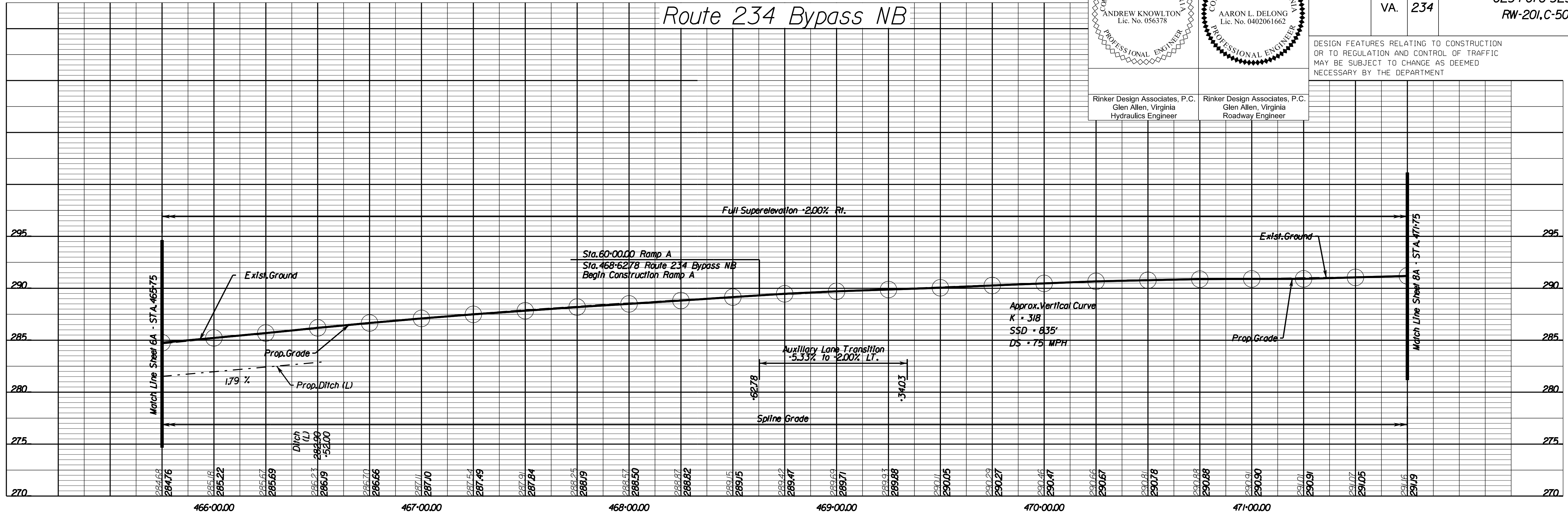
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	7A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

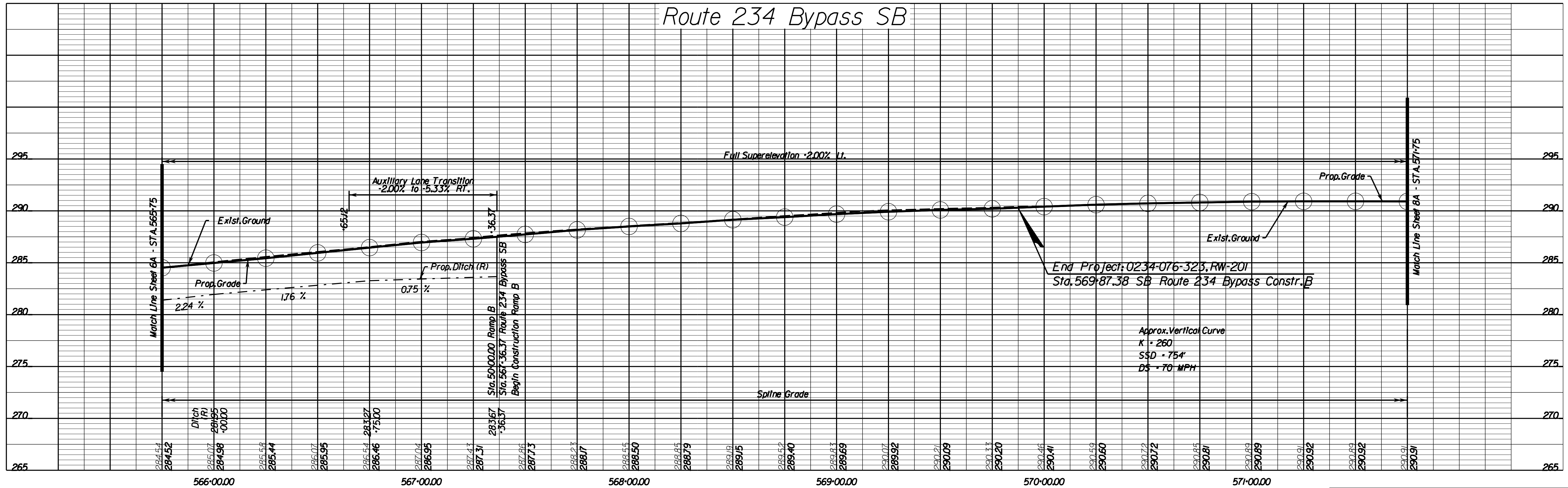
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Route 234 Bypass NB



Route 234 Bypass SB



THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT 0234-076-323
Scale 1"=25' Horz.
SHEET NO. 7A

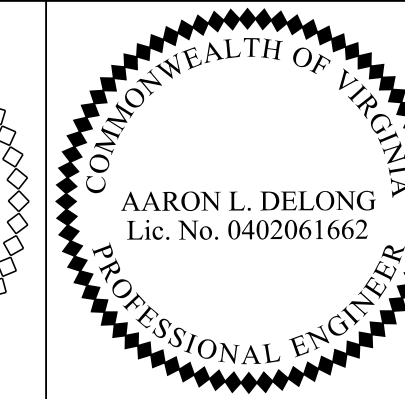
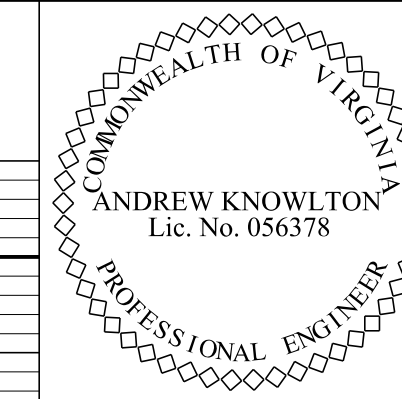
11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker, Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021

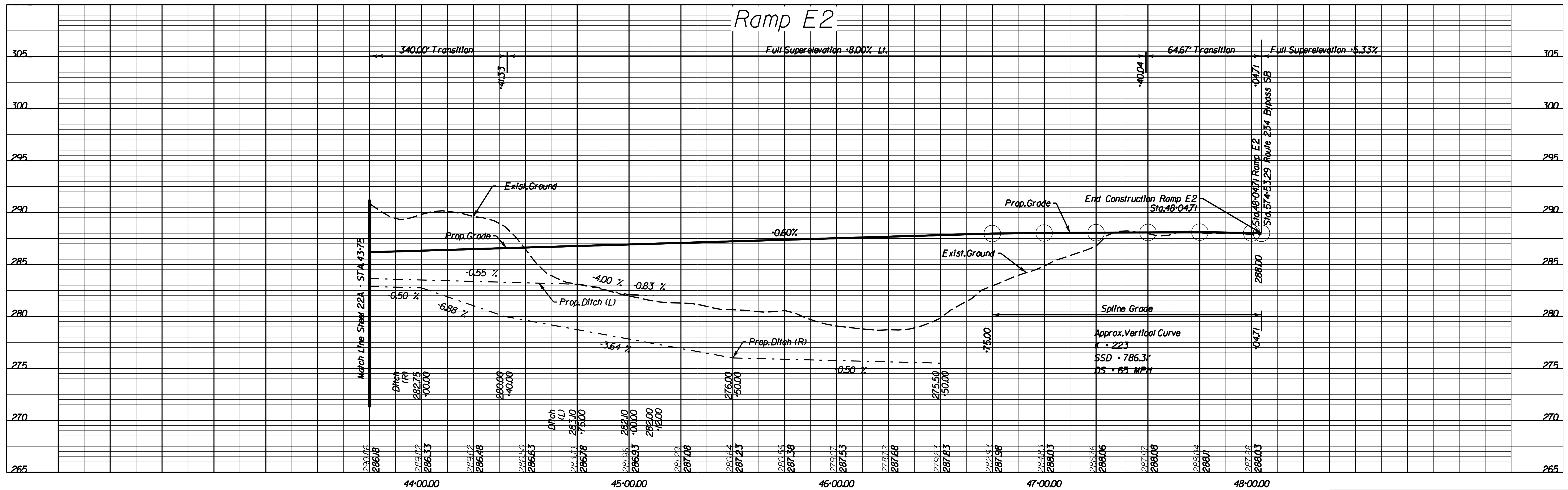
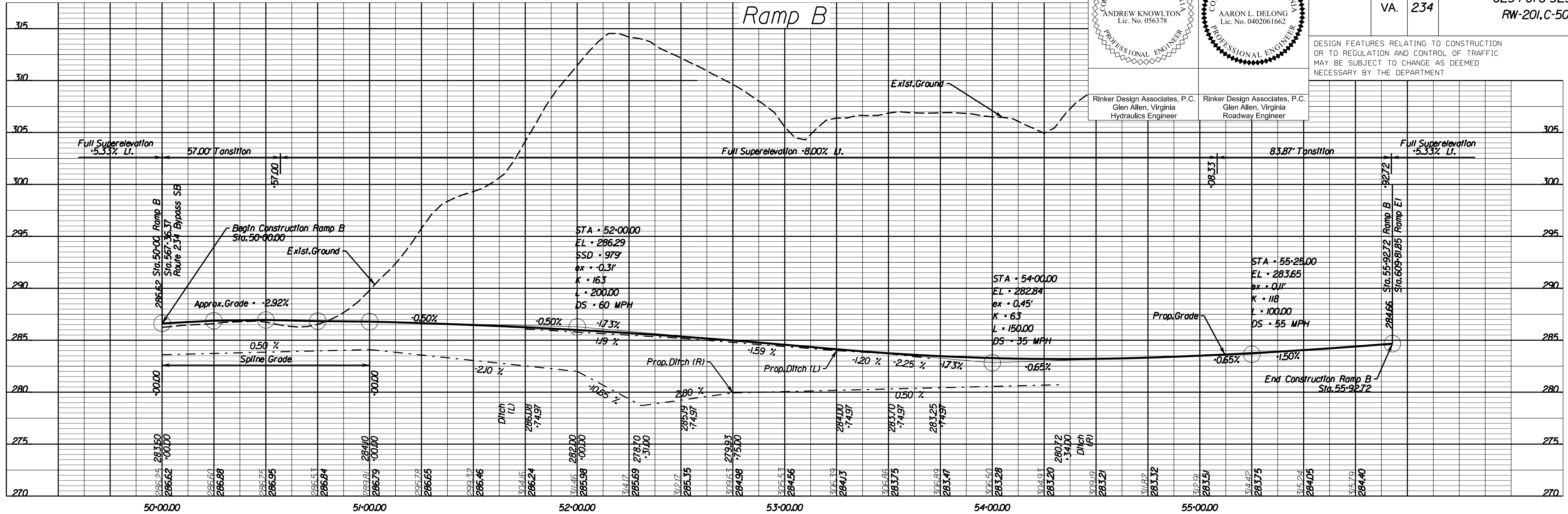


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	7B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
7B

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

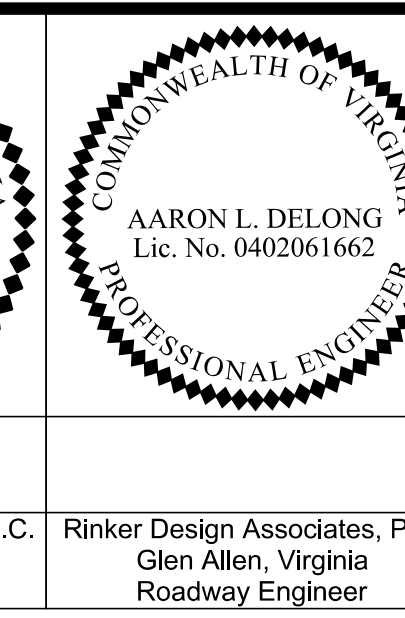
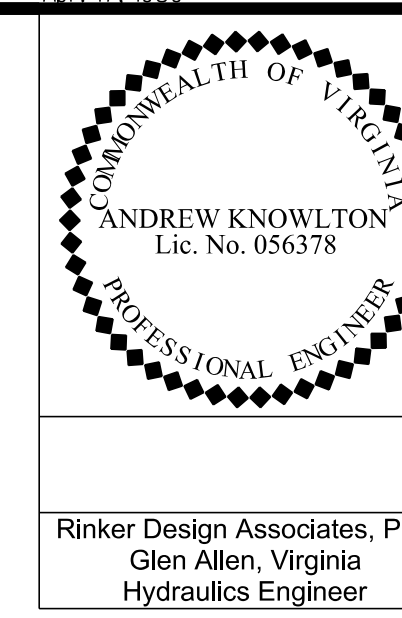
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC DOT: Mary Akers (703)792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

Curve 234BYNB_2
PI • 482+08.98
DELTA • 34° 21' 37.94" (RT)
D • 158' 38"
T • 895.92'
L • 1737.82'
R • 2897.79'
PC • 473+13.06
PT • 490+50.87
e • Existing
Lr • 88'
Li • 54'
DS • 60 MPH

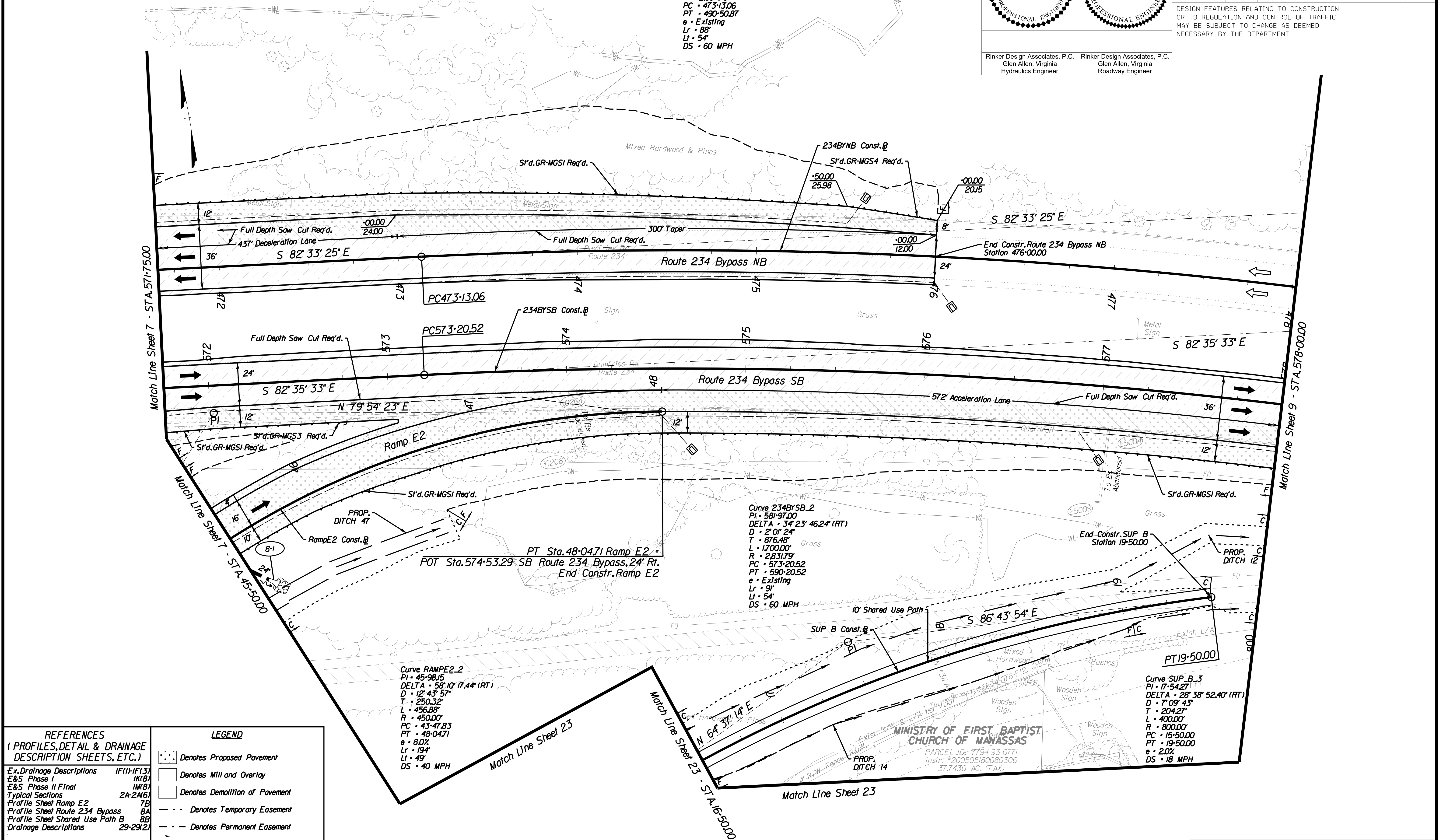


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	8

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase I	IK(8)
E&S Phase II Final	IM(6)
Typical Sections	2A-24(6)
Profile Sheet Ramp E2	7B
Profile Sheet Route 234 Bypass	8A
Profile Sheet Shared Use Path B	8B
Drainage Descriptions	29-29(2)

LEGEND

	Denotes Proposed Pavement
	Denotes Mill and Overlay
	Denotes Demolition of Pavement
	Denotes Temporary Easement
	Denotes Permanent Easement
	Denotes Construction Limits In Cuts
	Denotes Construction Limits In Fills

Curve RAMPE2_2
PI • 45+98.15
DELTA • 58° 10' 17.44" (RT)
D • 12' 43' 57"
T • 250.32'
L • 456.88'
R • 450.00'
PC • 43+47.83
PT • 48+04.71
e • 8.0%
Lr • 194'
Li • 49'
DS • 40 MPH

Curve 234BYSB_2
PI • 581+97.00
DELTA • 34° 23' 46.24" (RT)
D • 2' 01' 24"
T • 876.48'
L • 1700.00'
R • 2831.79'
PC • 573+20.52
PT • 590+20.52
e • Existing
Lr • 9'
Li • 54'
DS • 60 MPH

Curve SUP_B_3
PI • 17+54.27
DELTA • 28° 38' 52.40" (RT)
D • 7' 09' 43"
T • 204.27'
L • 400.00'
R • 800.00'
PC • 15+50.00
PT • 19+50.00
e • 2.0%
DS • 18 MPH

Match Line Sheet 7 - STA. 571+75.00

Match Line Sheet 7 - STA. 45+50.00

Match Line Sheet 23

Match Line Sheet 23 - STA. 16+50.00

Match Line Sheet 23

Match Line Sheet 23

Match Line Sheet 9 - STA. 578+00.00

SCALE	PROJECT	SHEET NO.
0 25 50'	0234-076-323	8

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

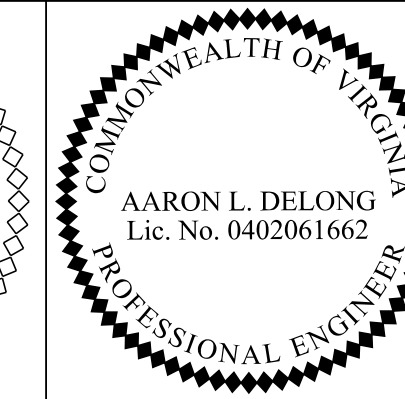
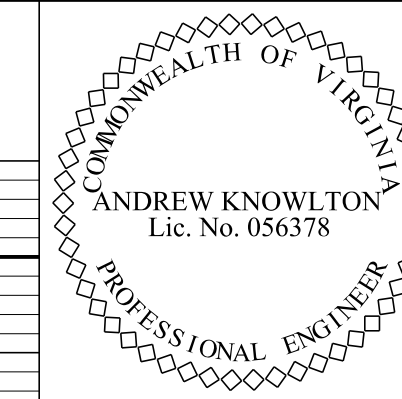
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Blake, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark, Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



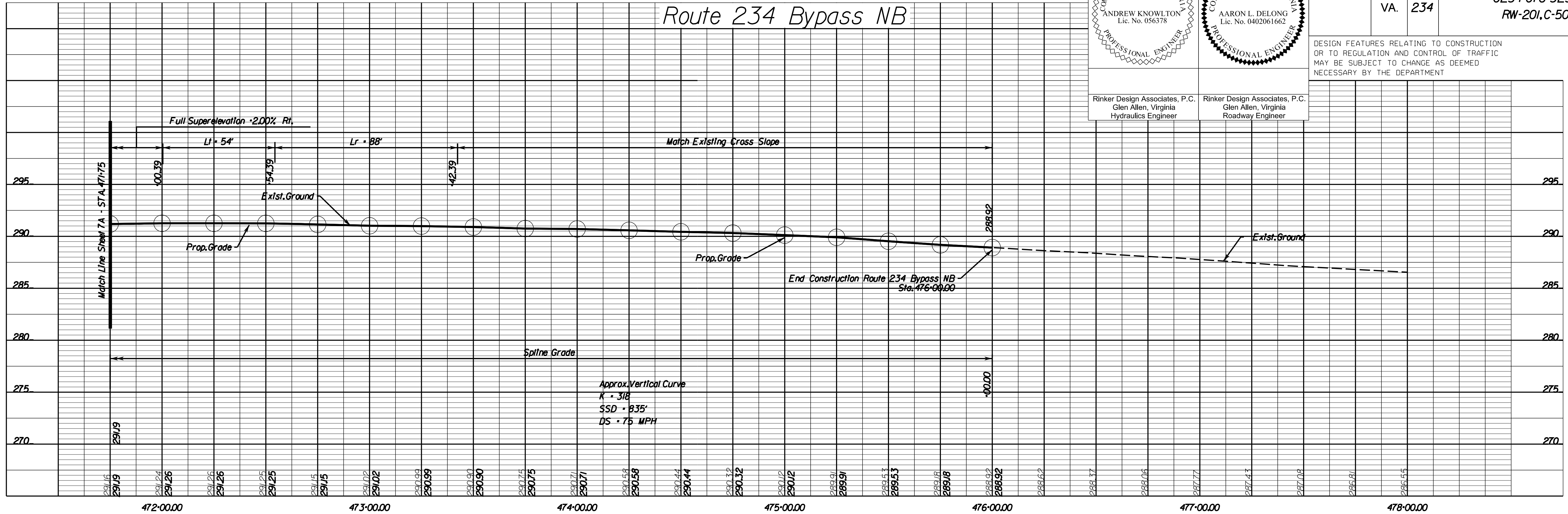
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

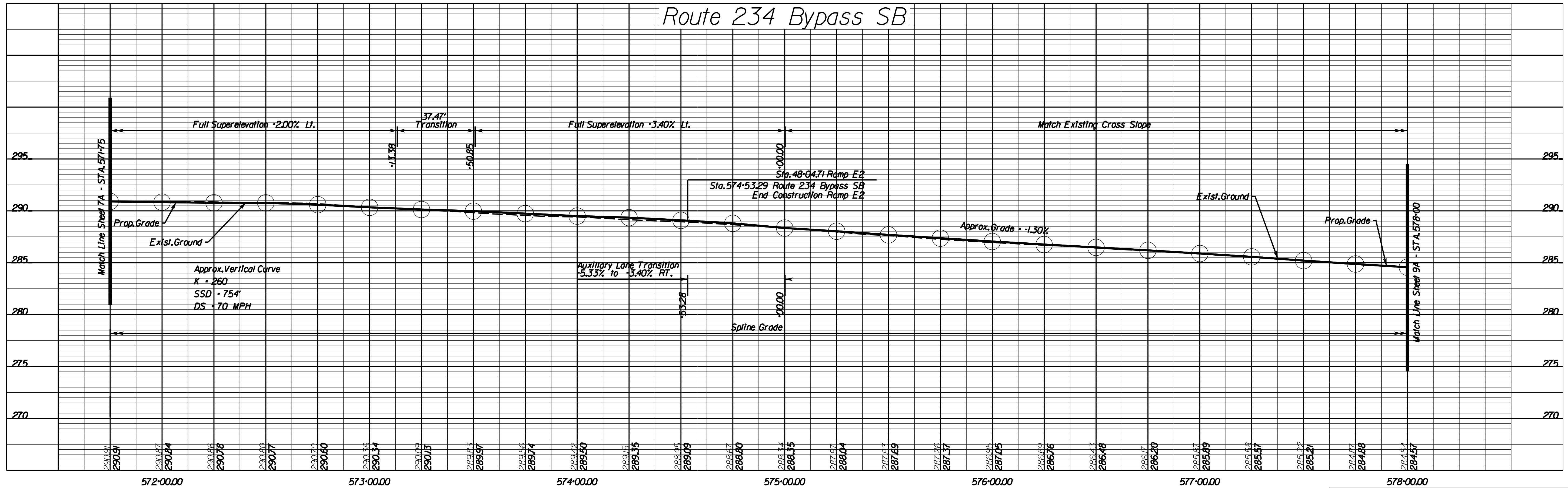
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	8A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Route 234 Bypass NB



Route 234 Bypass SB



PROJECT: 0234-076-323
SHEET NO.: 8A
Scale: 1"=25' Vert., 1"=25' Horiz.

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11/5/2021

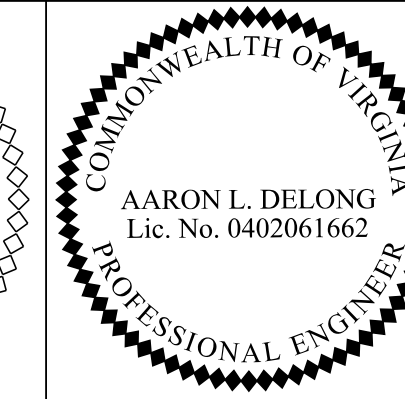
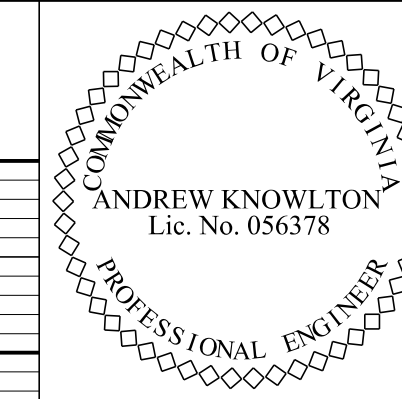
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



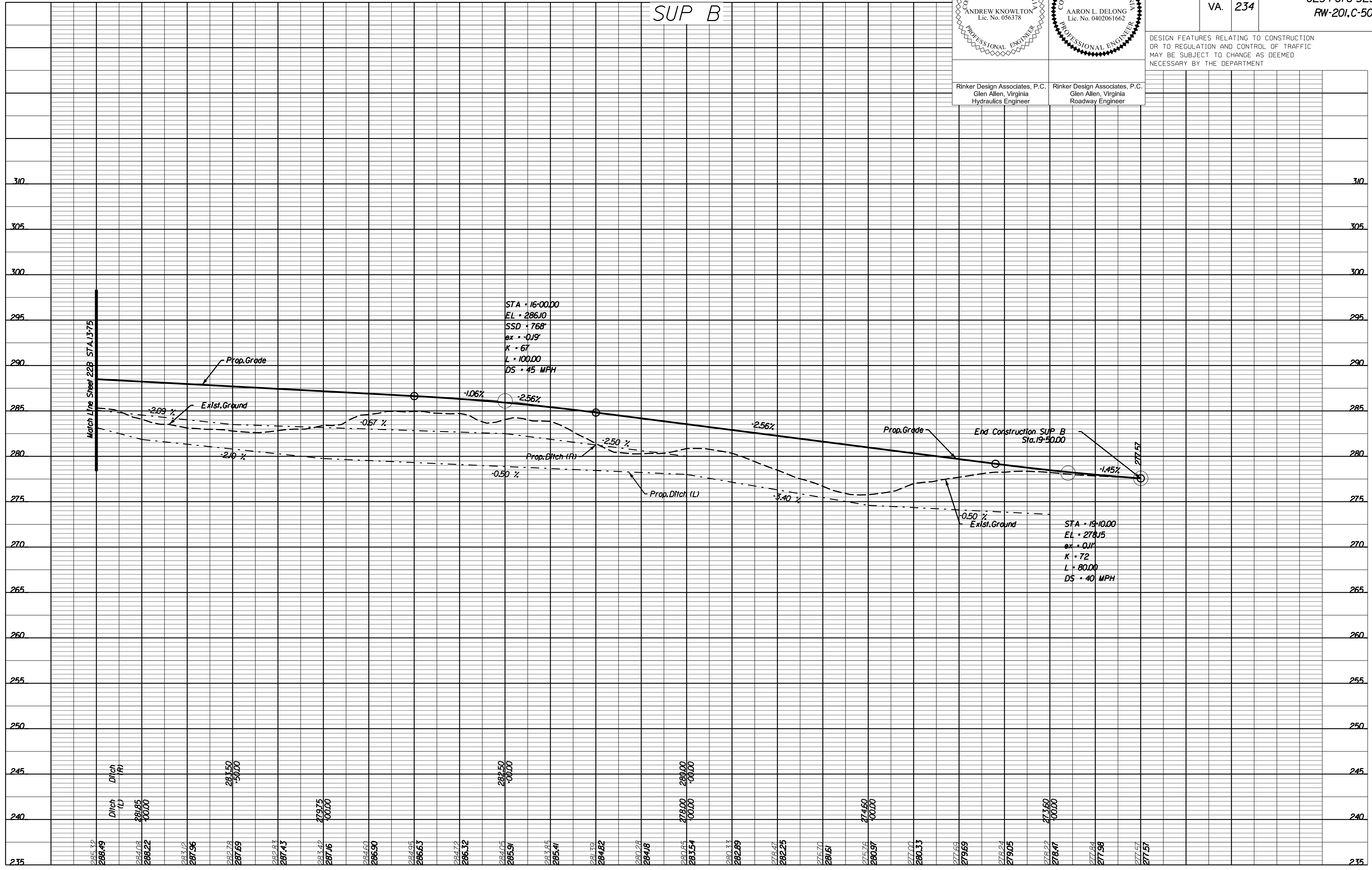
REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	8B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

SUP B



11/5/2021

Scale 1"=5' Vert.
1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 8B

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

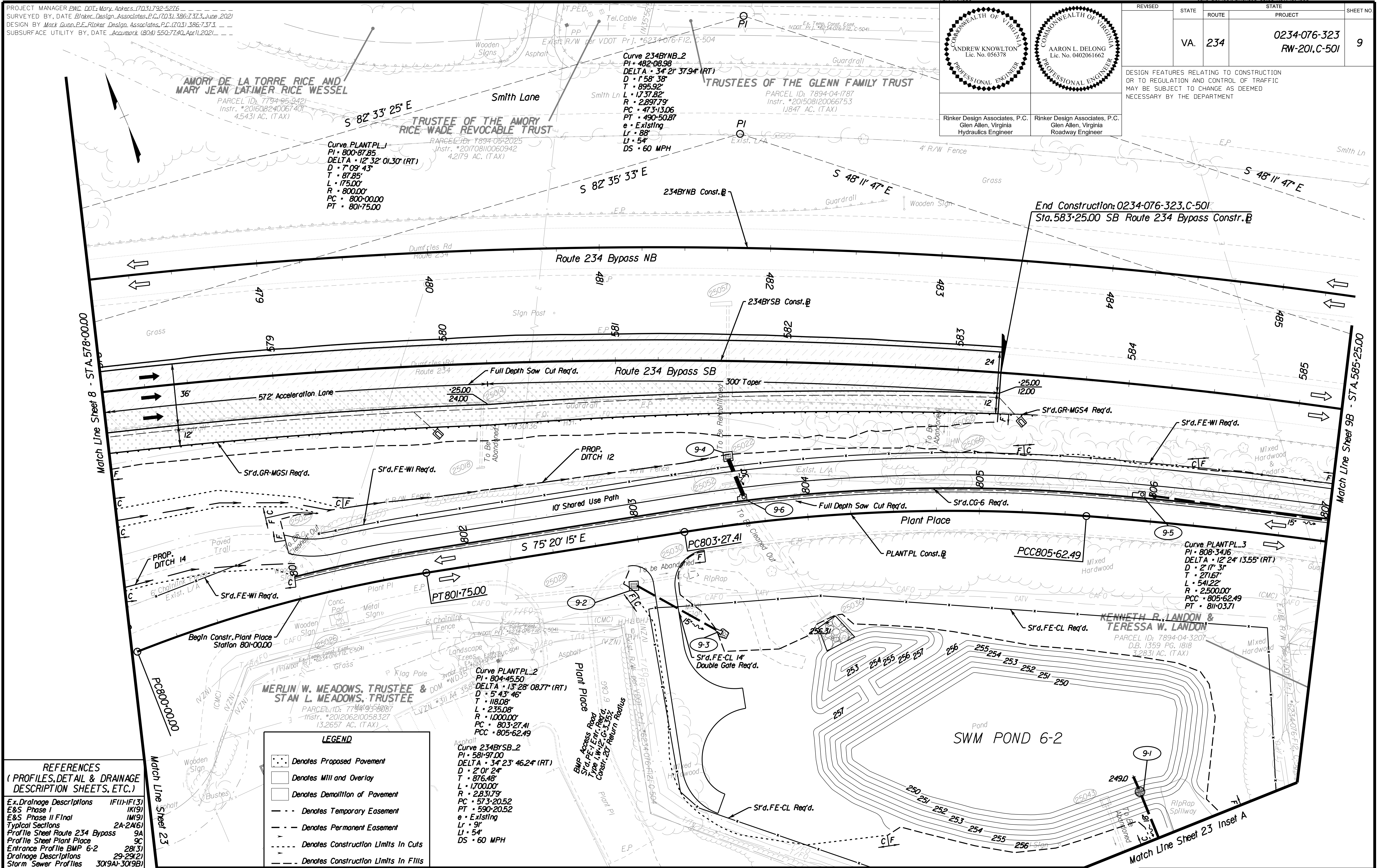
PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

		REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.	234		0234-076-323 RW-201,C-501	9

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

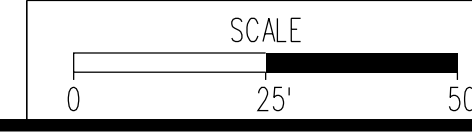
Ex. Drainage Descriptions	IF(11)HF(3)
E&S Phase	IK(9)
E&S Phase II Final	IM(9)
Typical Sections	2A-24(6)
Profile Sheet Route 234 Bypass	9A
Profile Sheet Plant Place	9C
Entrance Profile BMP 6-2	28(3)
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(9A)-30(9B)

LEGEND

	Denotes Proposed Pavement
	Denotes Mill and Overlay
	Denotes Demolition of Pavement
	Denotes Temporary Easement
	Denotes Permanent Easement
	Denotes Construction Limits in Cuts
	Denotes Construction Limits in Fills

Match Line Sheet 23

Match Line Sheet 23 Inset A



PROJECT	0234-076-323	SHEET NO.	9
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

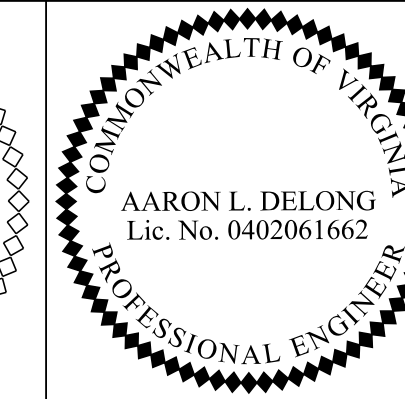
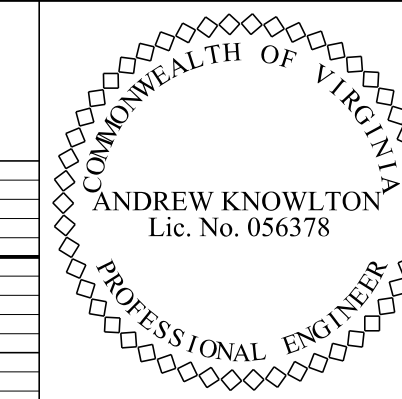
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE Acumark (804) 550-7740, April 2021



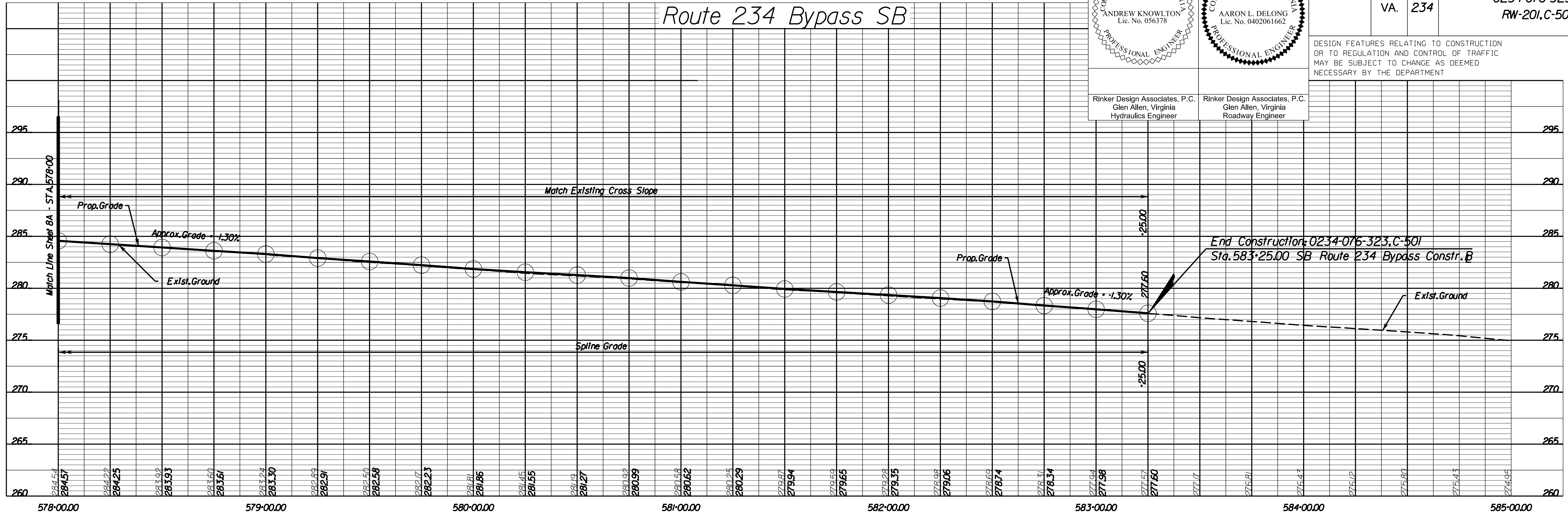
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

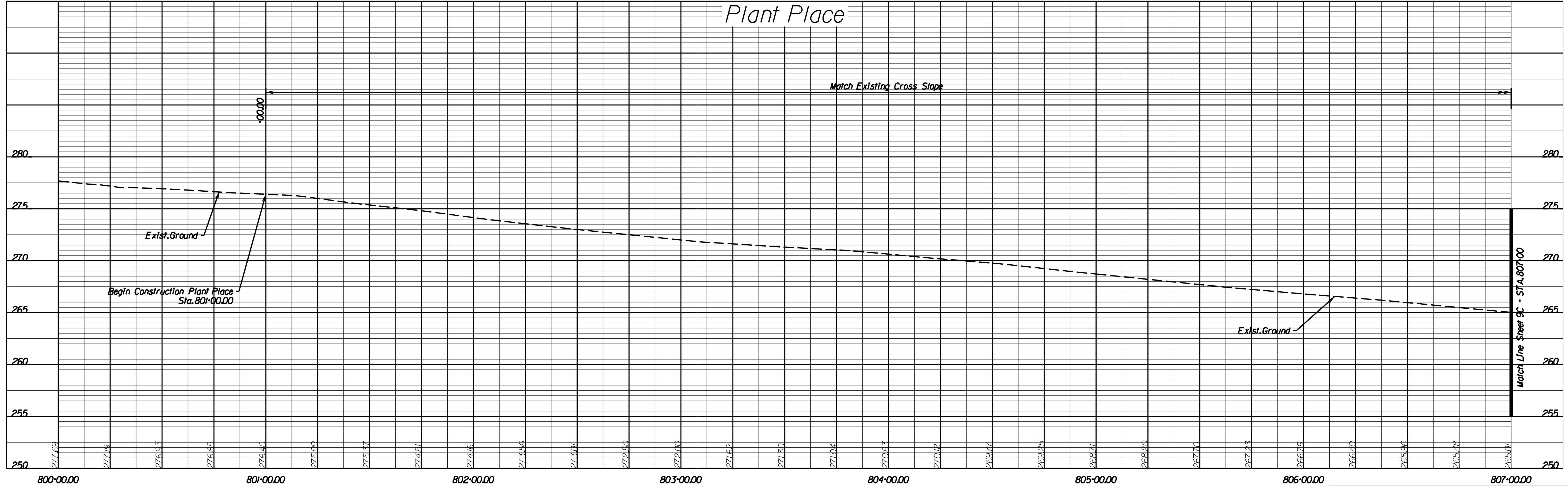
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	9A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Route 234 Bypass SB



Plant Place



Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 9A

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

PROJECT MANAGER BWC DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

ANDREW KNOWLTON
Lic. No. 056378
PROFESSIONAL ENGINEER

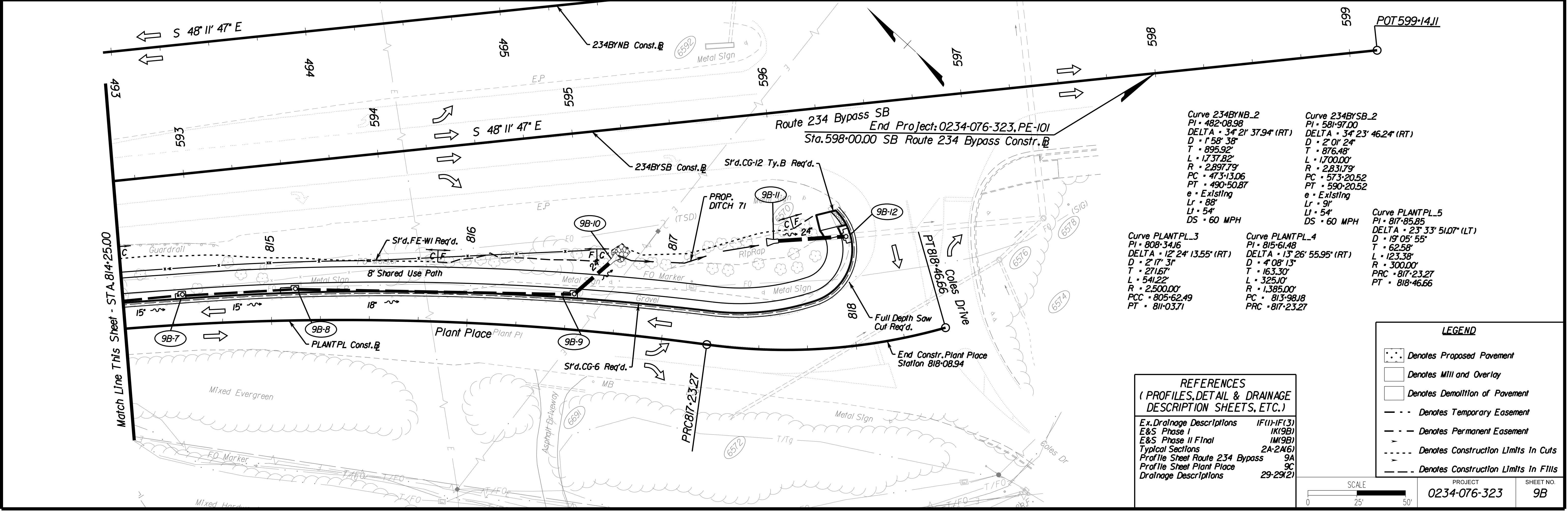
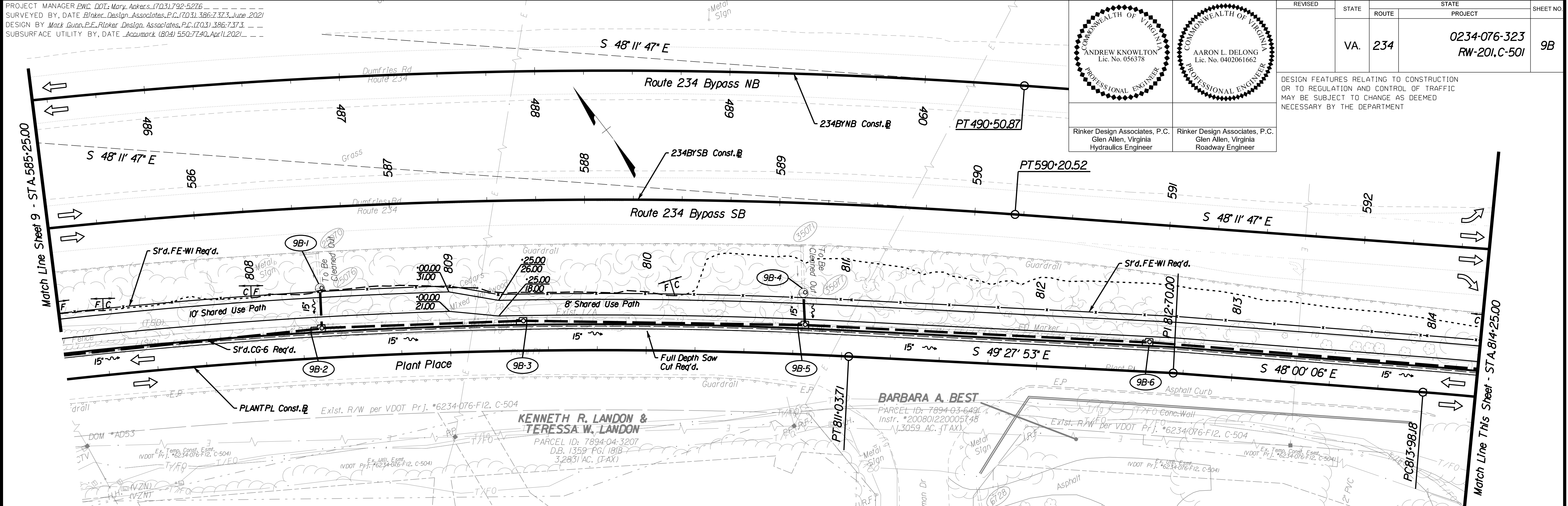
AARON L. DELONG
Lic. No. 0402061662
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	9B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



<p>Curve 234BYNB_2 PI • 482-08.98 DELTA • 34° 21' 37.94" (RT) D • 1' 58" 38" T • 895.92' L • 1737.82' R • 2.89779' PC • 473-13.06 PT • 490-50.87 e • Existing Lr • 88' Ll • 54' DS • 60 MPH</p>	<p>Curve 234BYSB_2 PI • 581-97.00 DELTA • 34° 21' 37.94" (RT) D • 2' 01" 24" T • 876.48' L • 1700.00' R • 2.83179' PC • 573-20.52 PT • 590-20.52 e • Existing Lr • 91' Ll • 54' DS • 60 MPH</p>	<p>Curve PLANTPL_3 PI • 808-34.16 DELTA • 12° 24' 13.55" (RT) D • 2' 17" 31" T • 271.67' L • 541.22' R • 2.50000' PCC • 805-62.49 PT • 811-03.71</p>	<p>Curve PLANTPL_4 PI • 815-61.48 DELTA • 13° 26' 55.95" (RT) D • 4' 08" 13" T • 163.30' L • 325.10' R • 1.38500' PC • 813-98.18 PRC • 817-23.27</p>	<p>Curve PLANTPL_5 PI • 817-85.85 DELTA • 23° 33' 51.07" (LT) D • 19' 05" 55" T • 62.58' L • 123.38' R • 300.00' PRC • 817-23.27 PT • 818-46.66</p>
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REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase I	IK(9B)
E&S Phase II Final	IM(9B)
Typical Sections	2A-2A(6)
Profile Sheet Route 234 Bypass	9A
Profile Sheet Plant Place	9C
Drainage Descriptions	29-29(2)

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

SCALE	PROJECT	SHEET NO.
0 25' 50'	0234-076-323	9B

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

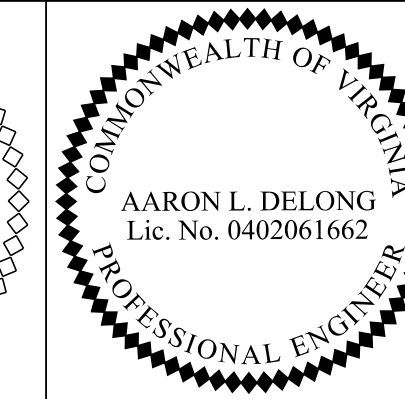
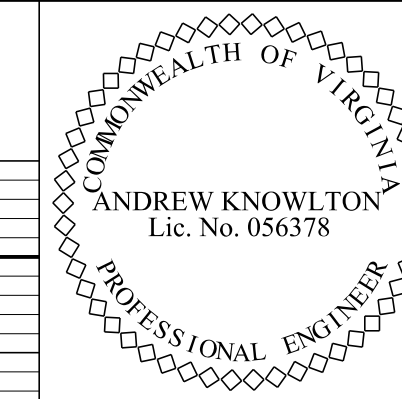
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

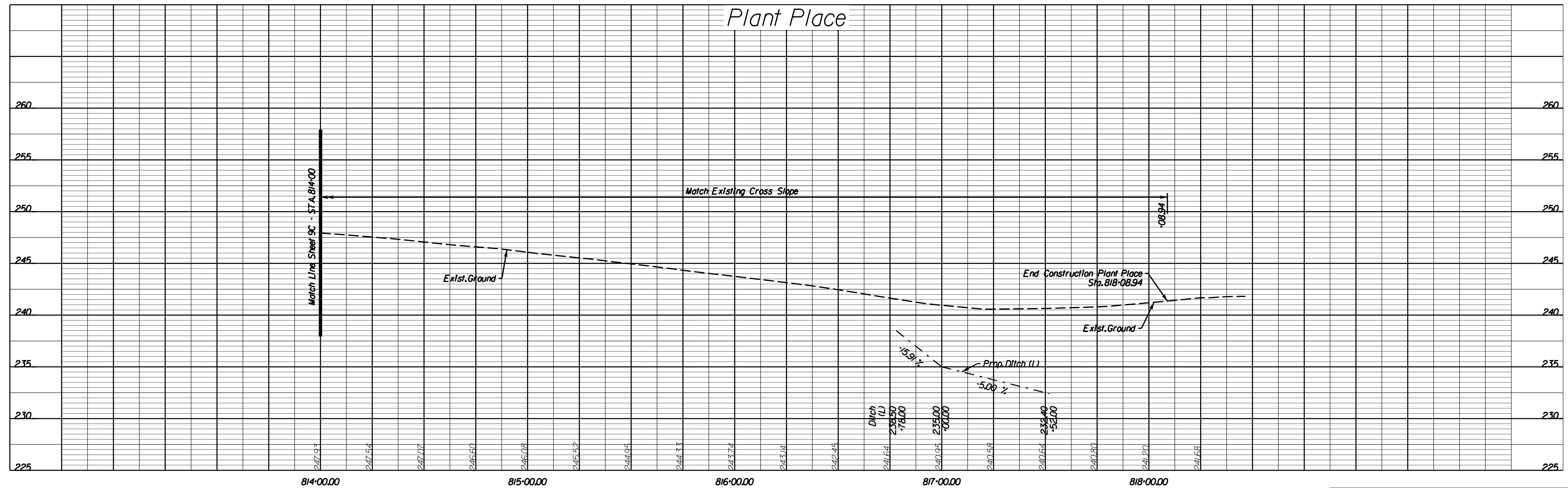
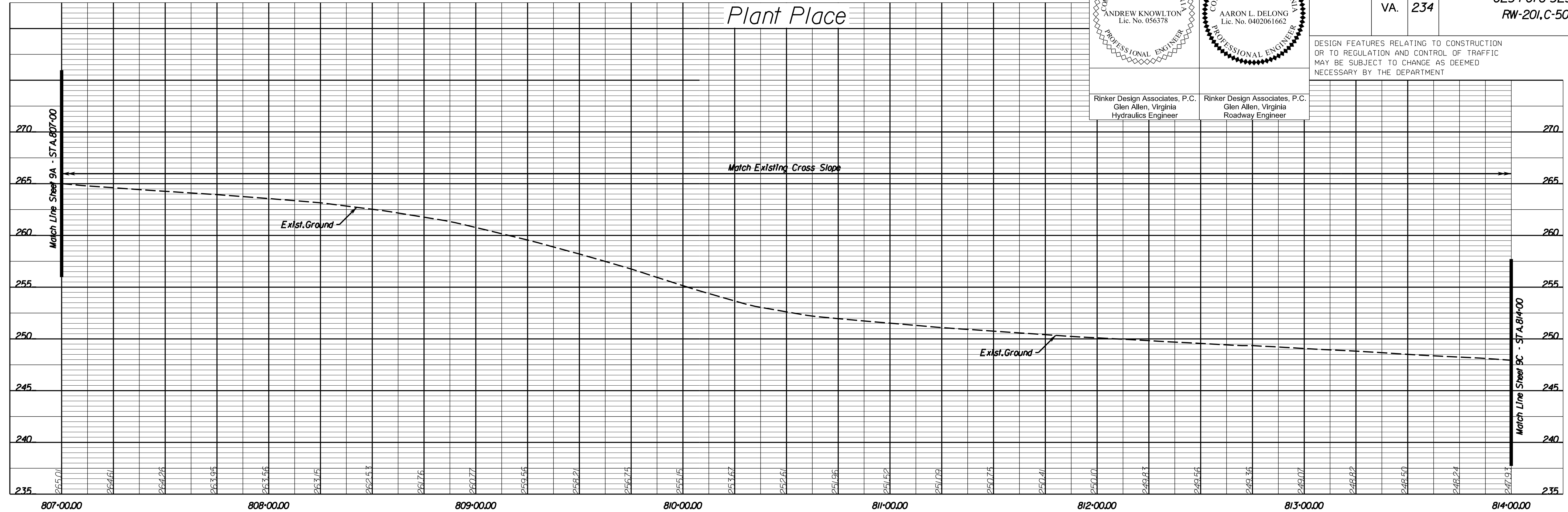


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	9C

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 9C

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

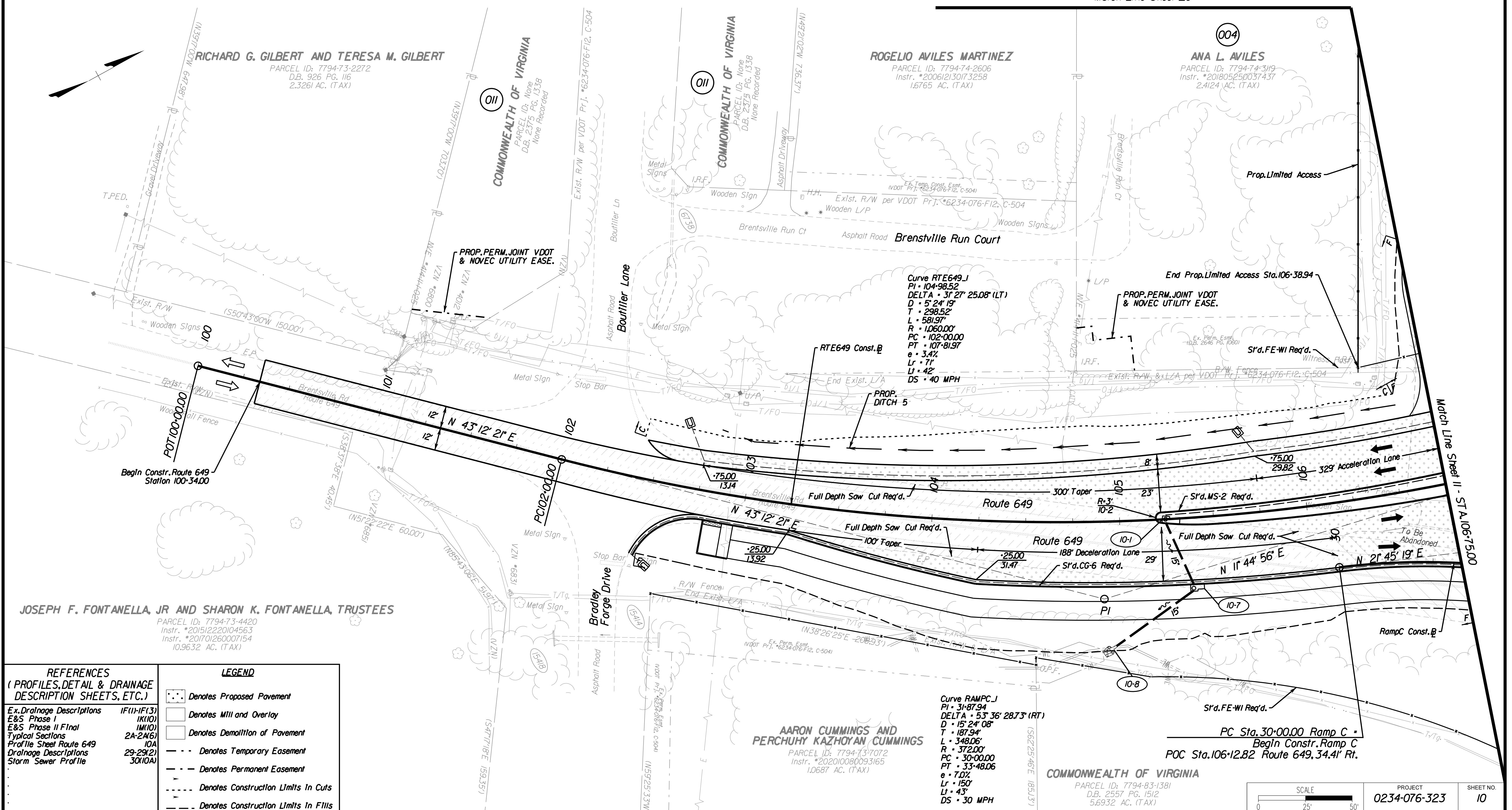
LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ackers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, Apr 11, 2021

		REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.	649		0234-076-323 RW-201, C-501	10
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT							
Rinker Design Associates, P.C. Glen Allen, Virginia Hydraulics Engineer		Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer					



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	LEGEND
Ex. Drainage Descriptions IF(1)-IF(3)	Denotes Proposed Pavement
E&S Phase IK(10)	Denotes Mill and Overlay
E&S Phase II FInal IK(10)	Denotes Demolition of Pavement
Typical Sections 2A-24(6)	Denotes Temporary Easement
Profile Sheet Route 649 10A	Denotes Permanent Easement
Drainage Descriptions 29-29(2)	Denotes Construction Limits In Cuts
Storm Sewer Profile 30(10A)	Denotes Construction Limits In Fills

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

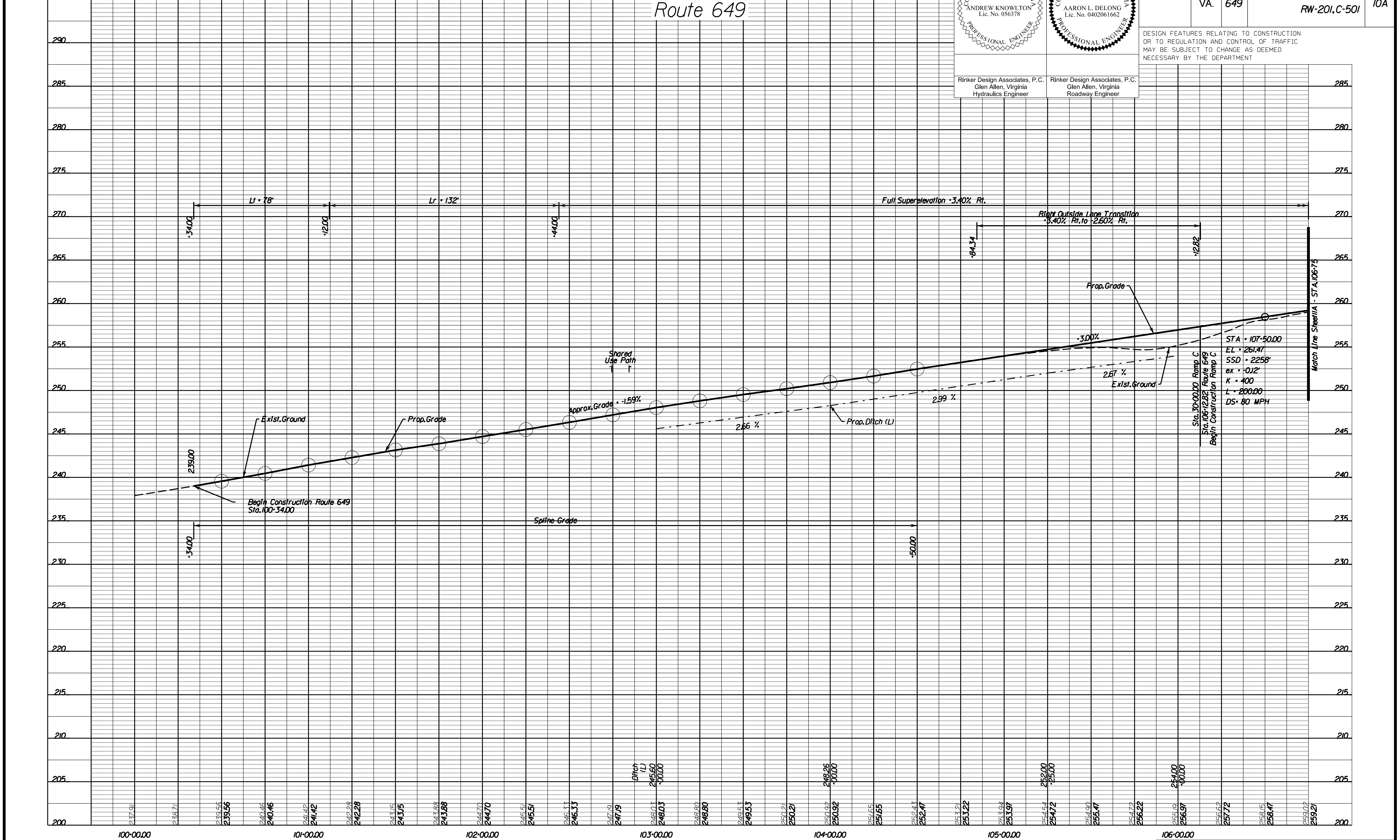
By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER *BWC DOT: Mary Ankers (703) 792-5276*
SURVEYED BY, DATE *Binker Design Associates, P.C. (703) 386-7373, June 2021*
DESIGN BY *Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373*
SUBSURFACE UTILITY BY, DATE *Accumark (804) 550-7740, April 2021*

Professional Engineer stamps for Andrew Knowlton and Aaron L. DeLong, Rinker Design Associates, P.C.

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	649		0234-076-323 RW-201,C-501	10A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



STA - 107+50.00
 EL - 261.47
 SSD - 2258'
 ex - 0J2'
 K - 400
 L - 200.00
 DS - 80 MPH

Scale 1"=5' Vert.
 Scale 1"=25' Horz.
 PROJECT 0234-076-323
 SHEET NO. 10A

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11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary_Aoket.s. (703) 792-5276
SURVEYED BY, DATE: Binker, Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Gunn, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumar, (804) 550-7240, Apr 1, 2021

		REVISED	STATE	ROUTE	PROJECT	SHEET NO.
			VA.	234 649	0234-076-323 RW-201,C-501	11

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Match Line Sheet 20

Match Line Sheet 19

Match Line Sheet 19 - STA. 20+25.00

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

Curve RAMPF_TM1 J
PI = 2+42.69
DELTA = 83° 27' 11.59" (RT)
D = 35' 48" 36"
T = 142.69'
L = 233.05'
R = 160.00'
PC = 1+00.00
PT = 3+33.05
e = 2.0%
Lr = 39'
Ll = 39'
DS = 20 MPH

PC Sta. 1+00.00 Ramp F TM 1
PT Sta. 20+97.20 Ramp F, 12' Rt.
End Constr. Ramp F
Begin Constr. Ramp F TM 1

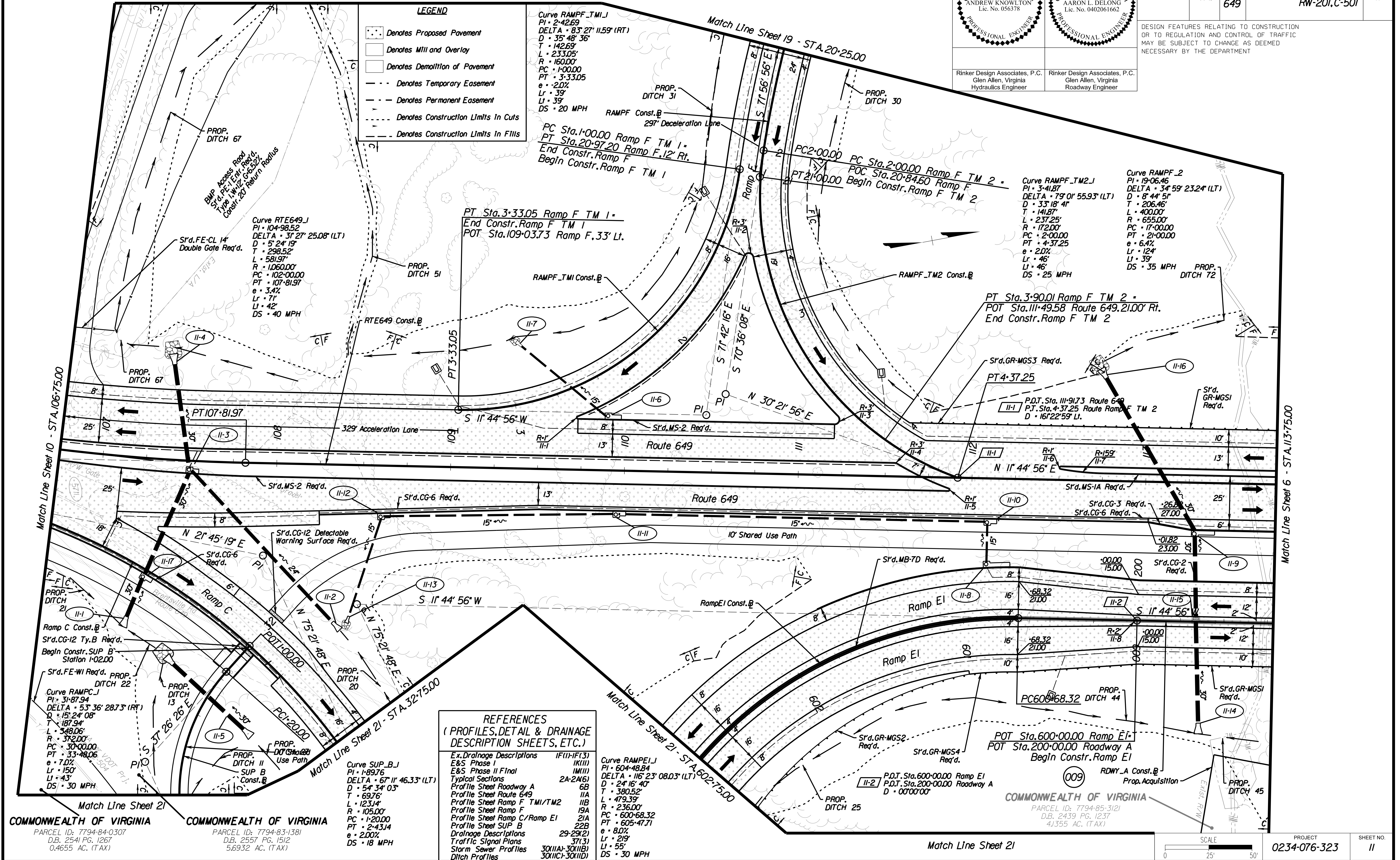
PT Sta. 3+33.05 Ramp F TM 1
End Constr. Ramp F TM 1
POT Sta. 109+03.73 Ramp F, 33' Lt.

Curve RAMPF_TM2 J
PI = 3+41.87
DELTA = 79° 0' 55.93" (LT)
D = 33' 18" 41"
T = 141.87'
L = 237.25'
R = 172.00'
PC = 2+00.00
PT = 4+37.25
e = 2.0%
Lr = 46'
Ll = 46'
DS = 25 MPH

PC Sta. 2+00.00 Ramp F TM 2
PT Sta. 20+84.60 Ramp F
Begin Constr. Ramp F TM 2

Curve RAMPF_2
PI = 19+06.46
DELTA = 34° 59' 23.24" (LT)
D = 8' 44" 51"
T = 206.46'
L = 400.00'
R = 655.00'
PC = 17+00.00
PT = 21+00.00
e = 6.4%
Lr = 124'
Ll = 39'
DS = 35 MPH

PT Sta. 3+90.01 Ramp F TM 2
POT Sta. 111+49.58 Route 649, 21.00' Rt.
End Constr. Ramp F TM 2



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(11)-IF(13)
E&S Phase I	IK(11)
E&S Phase II Final	IM(11)
Typical Sections	2A-2A(6)
Profile Sheet Roadway A	6B
Profile Sheet Route 649	11A
Profile Sheet Ramp F TM1/TM2	11B
Profile Sheet Ramp F	19A
Profile Sheet Ramp C/Ramp E1	21A
Profile Sheet SUP B	22B
Drainage Descriptions	29-29(2)
Traffic Signal Plans	37(3)
Storm Sewer Profiles	30(11A)-30(11B)
Ditch Profiles	30(11C)-30(11D)

Curve SUP_B J
PI = 1+89.76
DELTA = 67° 11' 46.33" (LT)
D = 54' 34" 03"
T = 69.76'
L = 123.14'
R = 105.00'
PC = 1+20.00
PT = 2+43.14
e = 2.00%
Lr = 18 MPH

Curve RAMP_E1 J
PI = 60+48.84
DELTA = 116° 23' 08.03" (LT)
D = 24' 16" 40"
T = 380.52'
L = 479.39'
R = 236.00'
PC = 60+68.32
PT = 60+68.32
e = 8.0%
Lr = 219'
Ll = 55'
DS = 30 MPH

COMMONWEALTH OF VIRGINIA
PARCEL ID: 7794-84-0307
D.B. 2541 PG. 1267
0.4655 AC. (TAX)

COMMONWEALTH OF VIRGINIA
PARCEL ID: 7794-83-1381
D.B. 2557 PG. 1512
5.6932 AC. (TAX)

COMMONWEALTH OF VIRGINIA
PARCEL ID: 7794-85-3121
D.B. 2439 PG. 1237
4.1355 AC. (TAX)

SCALE 0 25 50'

PROJECT 0234-076-323

SHEET NO. 11

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

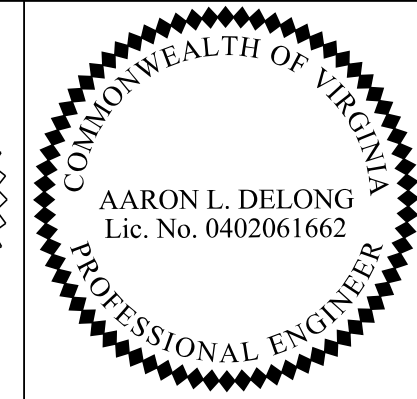
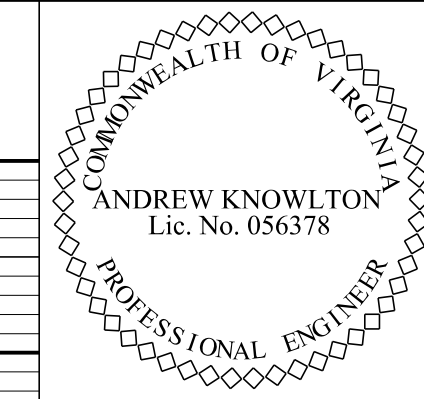
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021



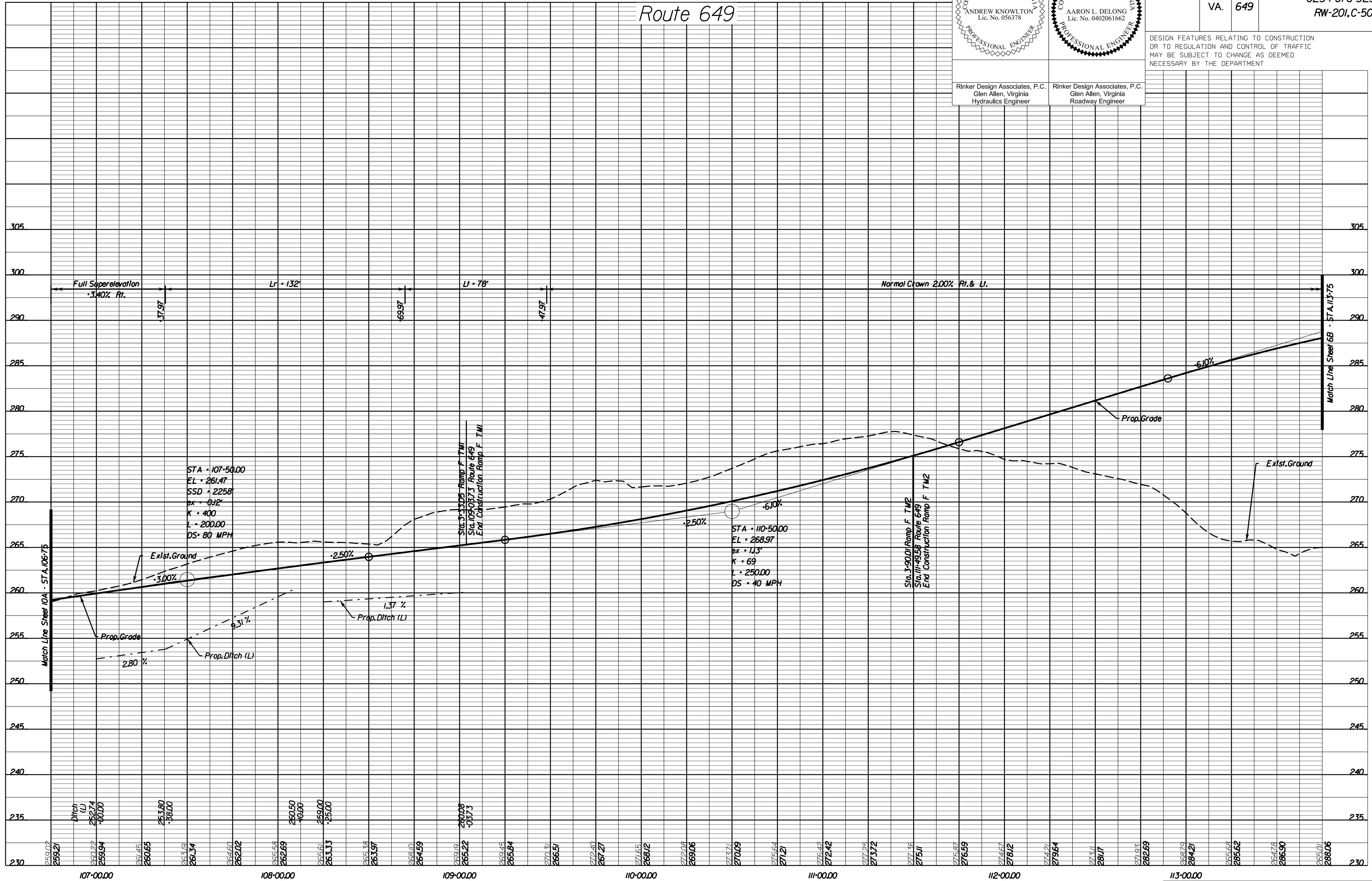
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	649		0234-076-323 RW-201,C-501	11A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Route 649



11/5/2021

Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 11A

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

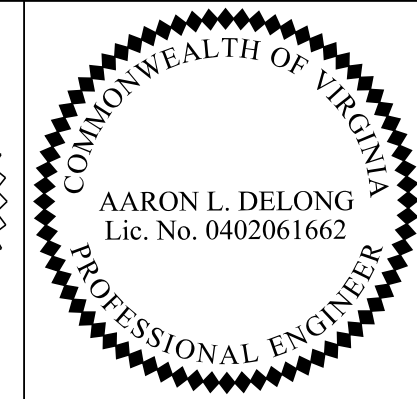
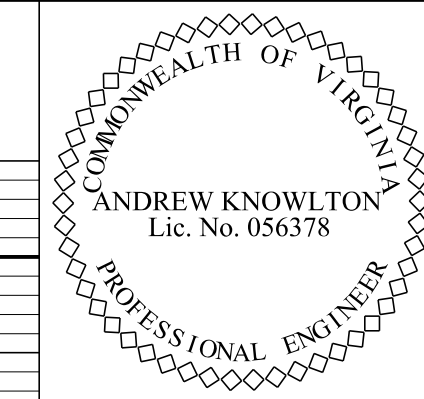
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



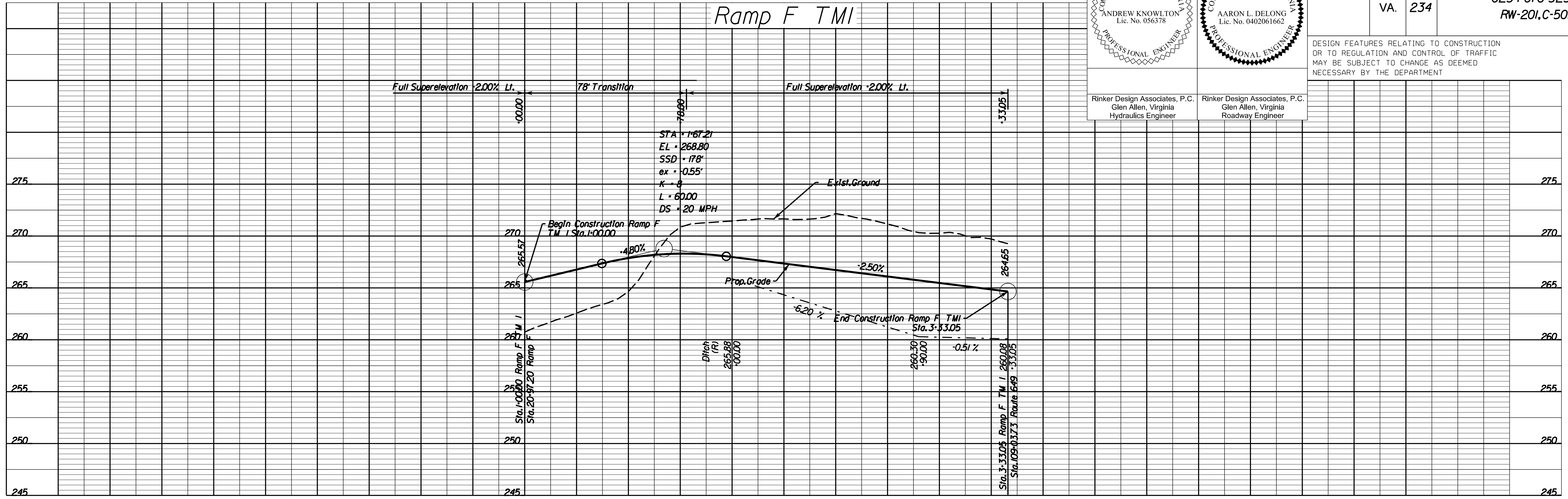
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

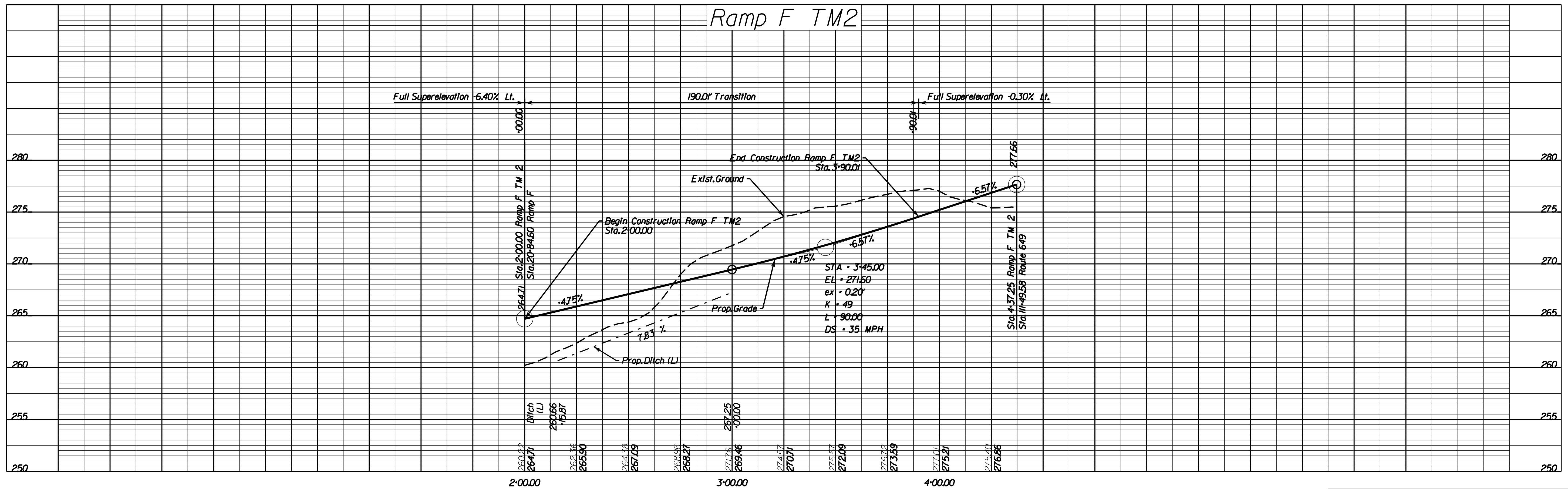
REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	11B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Ramp F TM1



Ramp F TM2



1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
11B

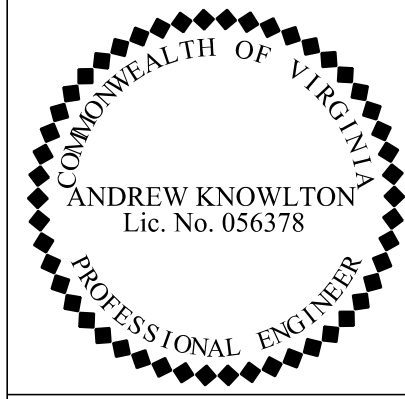
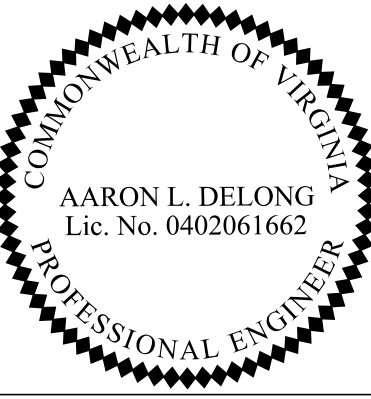
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

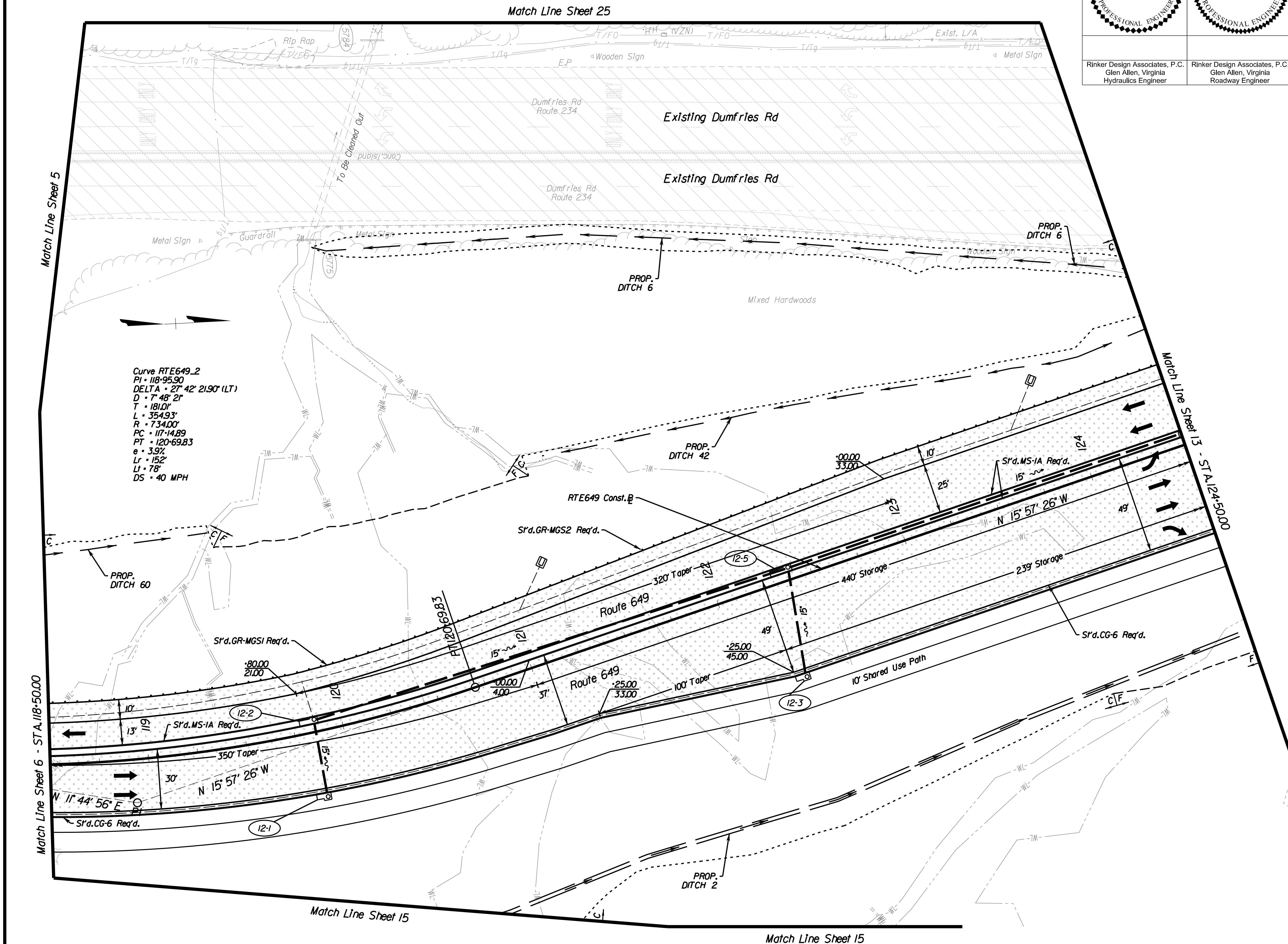
LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC, DOT, Mary, Askers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER	 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER
Rinker Design Associates, P.C. Glen Allen, Virginia Hydraulics Engineer	Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	649	0234-076-323 RW-201,C-501	12

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Curve RTE649.2
 PI • 118+95.90
 DELTA • 27° 42' 21.90" (LT)
 D • 7' 48" 2r
 T • 181.0r
 L • 354.93'
 R • 734.00'
 PC • 117+14.89
 PT • 120+69.83
 e • 3.9%
 Lr • 152'
 Lt • 78'
 DS • 40 MPH

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	1F(1)-1F(3)
E&S Phase I	1K(12)
E&S Phase II Final	1M(12)
Typical Sections	2A-2A(6)
Profile Sheet Route 649	12A
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(12A)
Ditch Profiles	30(12B)

SCALE	PROJECT	SHEET NO.
0 25 50'	0234-076-323	12

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11/5/2021

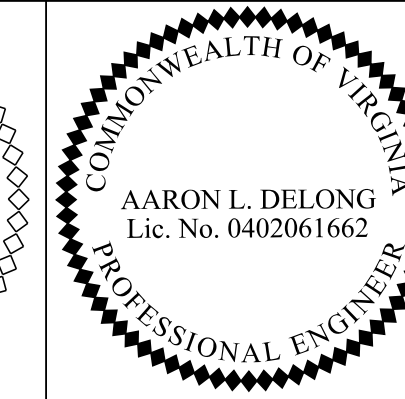
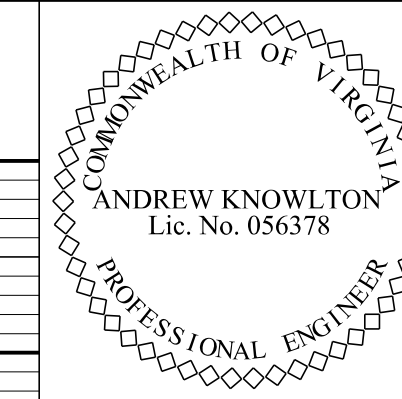
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



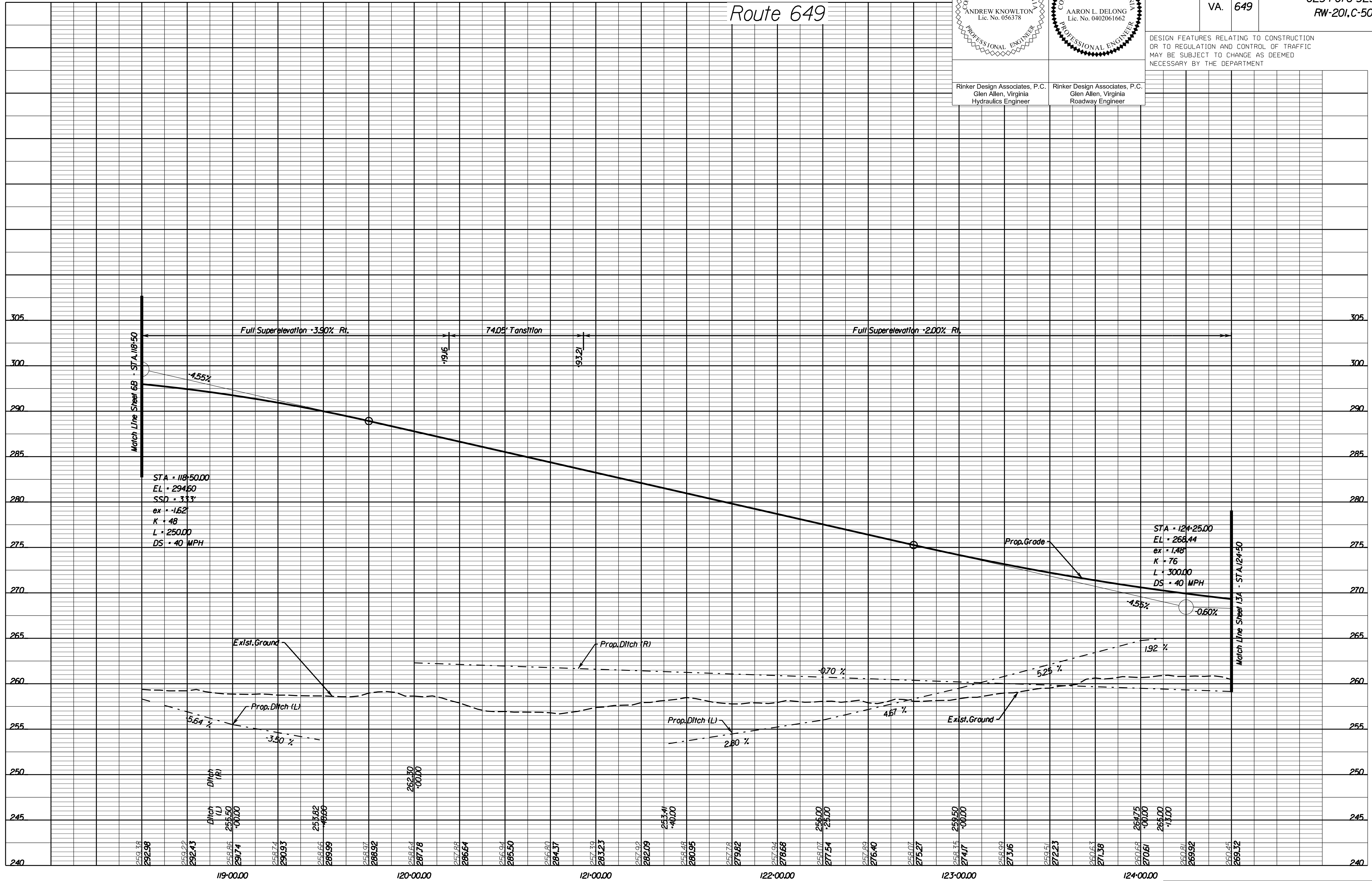
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	649		0234-076-323 RW-201,C-501	12A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Route 649



Match Line Sheet 6B - STA 118+50
 STA = 118+50.00
 EL = 294.60
 SSD = 333'
 ex = -1.62'
 K = 48
 L = 250.00
 DS = 40 MPH

Match Line Sheet 13A - STA 124+50
 STA = 124+25.00
 EL = 268.44
 ex = 1.48'
 K = 76
 L = 300.00
 DS = 40 MPH

Scale 1"=5' Vert.
 Scale 1"=25' Horz.

PROJECT 0234-076-323
 SHEET NO. 12A

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11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

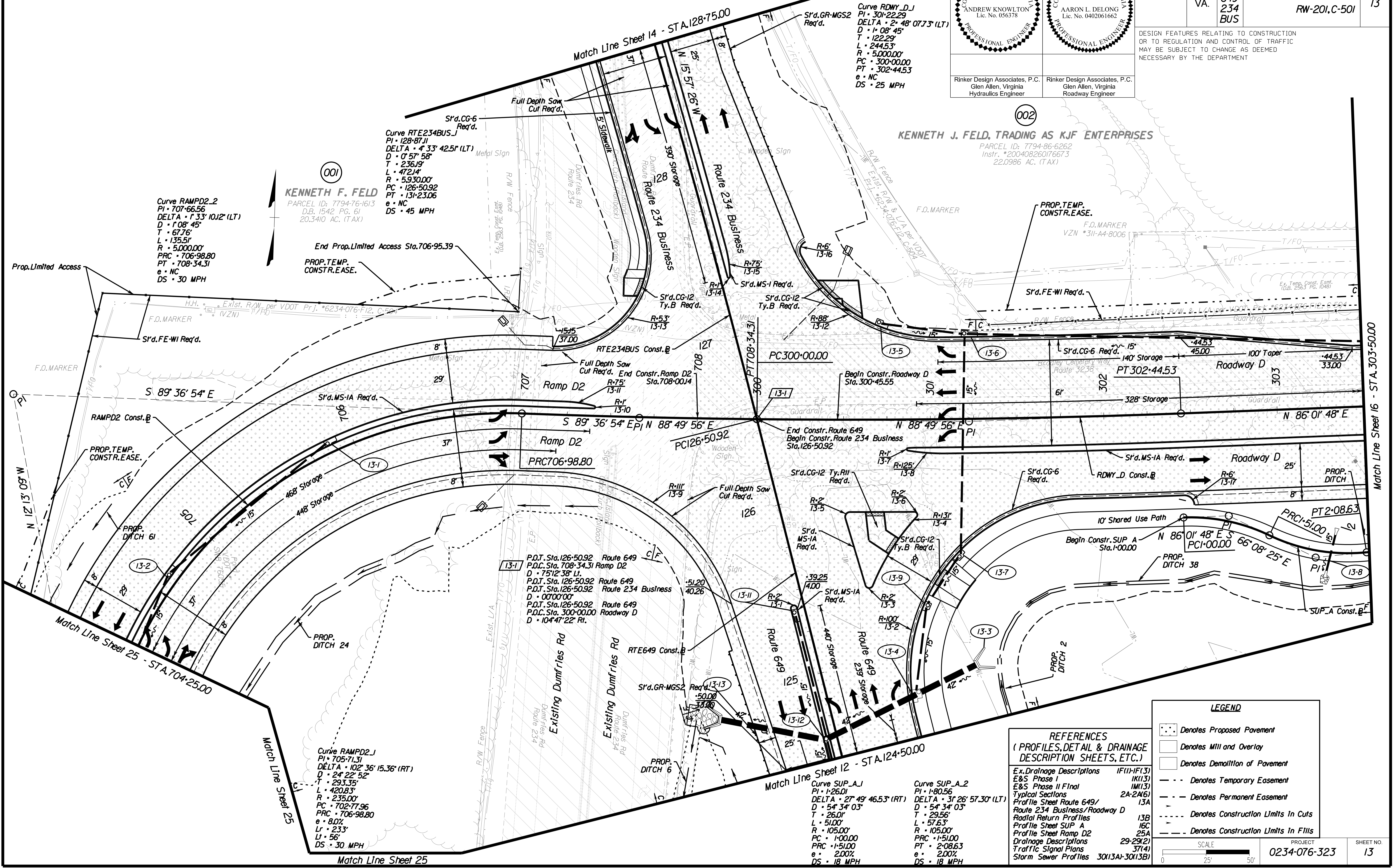
PROJECT MANAGER BWC DOT: Mary, Ankers (703)792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

		REVISED	STATE	ROUTE	PROJECT	SHEET NO.
			VA.	234 649 234 BUS	0234-076-323 RW-201,C-501	13

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(11)-F(13)
E&S Phase I	IK(13)
E&S Phase II Final	IM(13)
Typical Sections	2A-2A(3)
Profile Sheet Route 649/	13A
Route 234 Business/Roadway D	
Radial Return Profiles	13B
Profile Sheet SUP A	16C
Profile Sheet Ramp D2	25A
Drainage Descriptions	29-29(2)
Traffic Signal Plans	37(4)
Storm Sewer Profiles	30(13A)-30(13B)

SCALE
0 25 50'

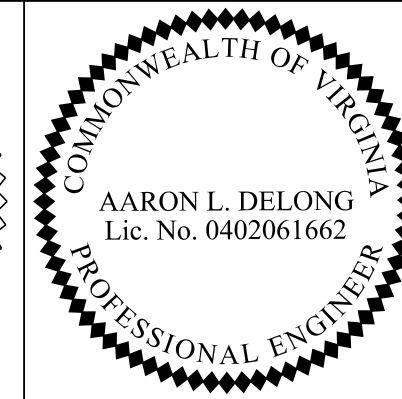
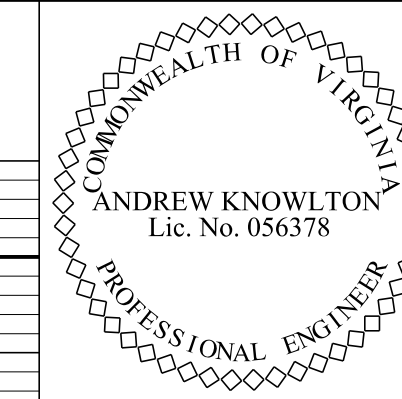
PROJECT: 0234-076-323
SHEET NO.: 13

11/5/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design, Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark, Guon, P.E., Rinker, Design, Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



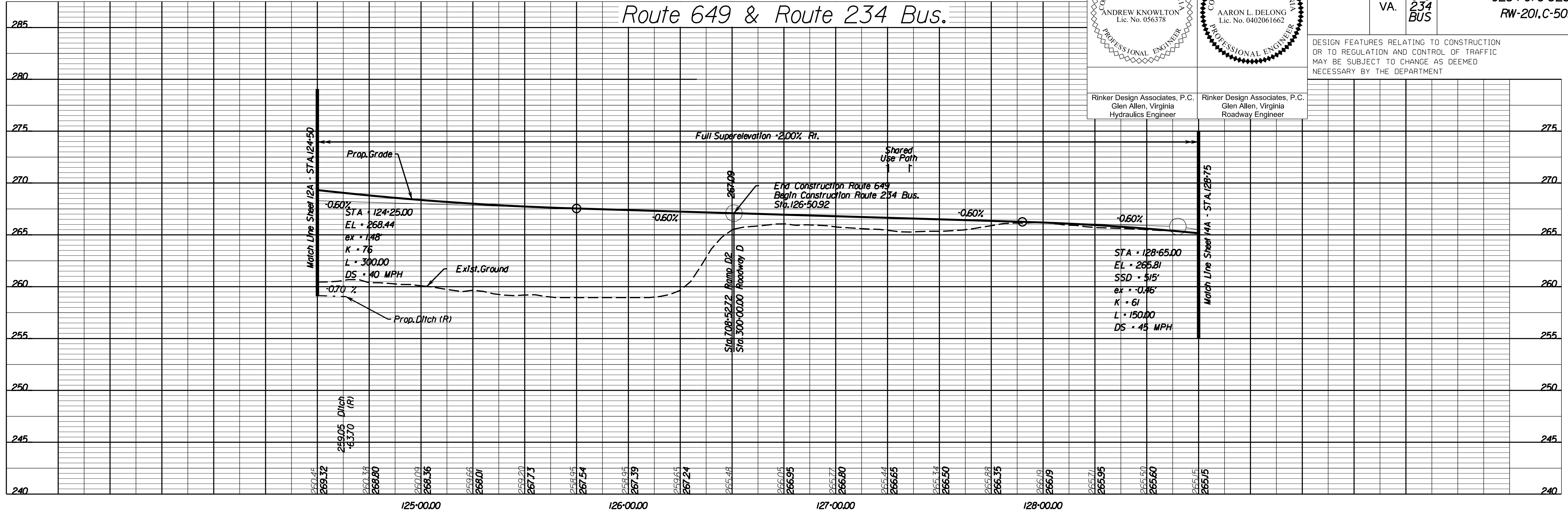
REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	649 234 BUS	0234-076-323 RW-201,C-501	13A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

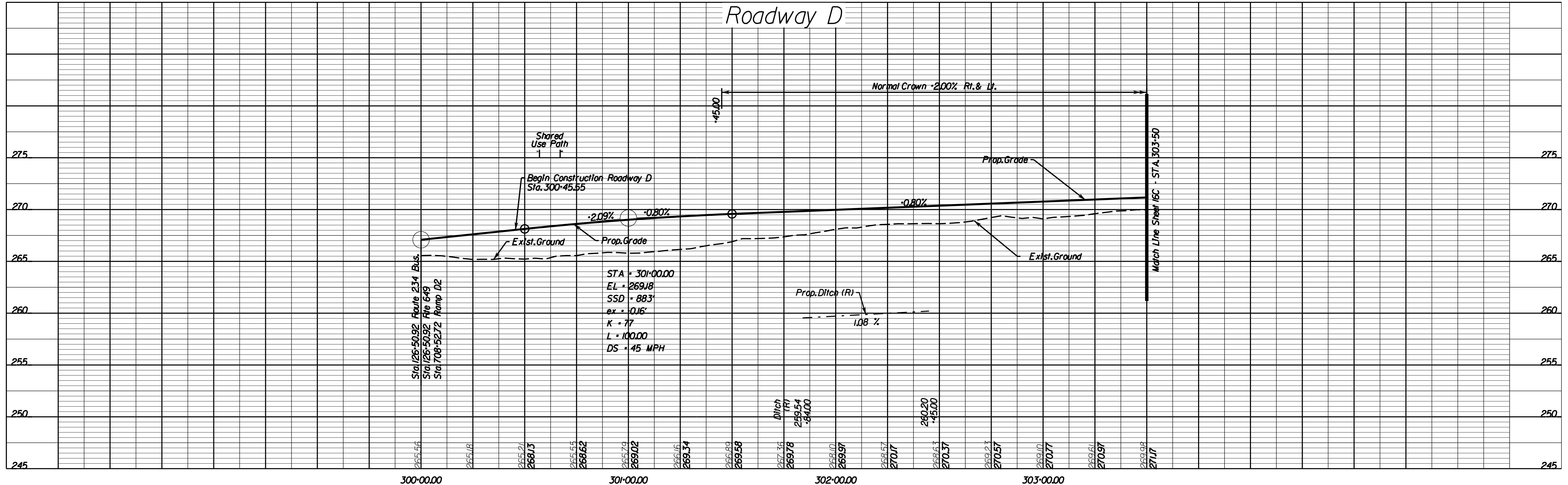
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Route 649 & Route 234 Bus.



Roadway D



1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
13A

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LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY DATE AccuMark (804) 550-7740, April 2021

REVISIONS

NO.	DATE	DESCRIPTION

STATE	ROUTE	PROJECT	SHEET NO.
VA.	234 BUS	0234-076-323 RW-201,C-501	14

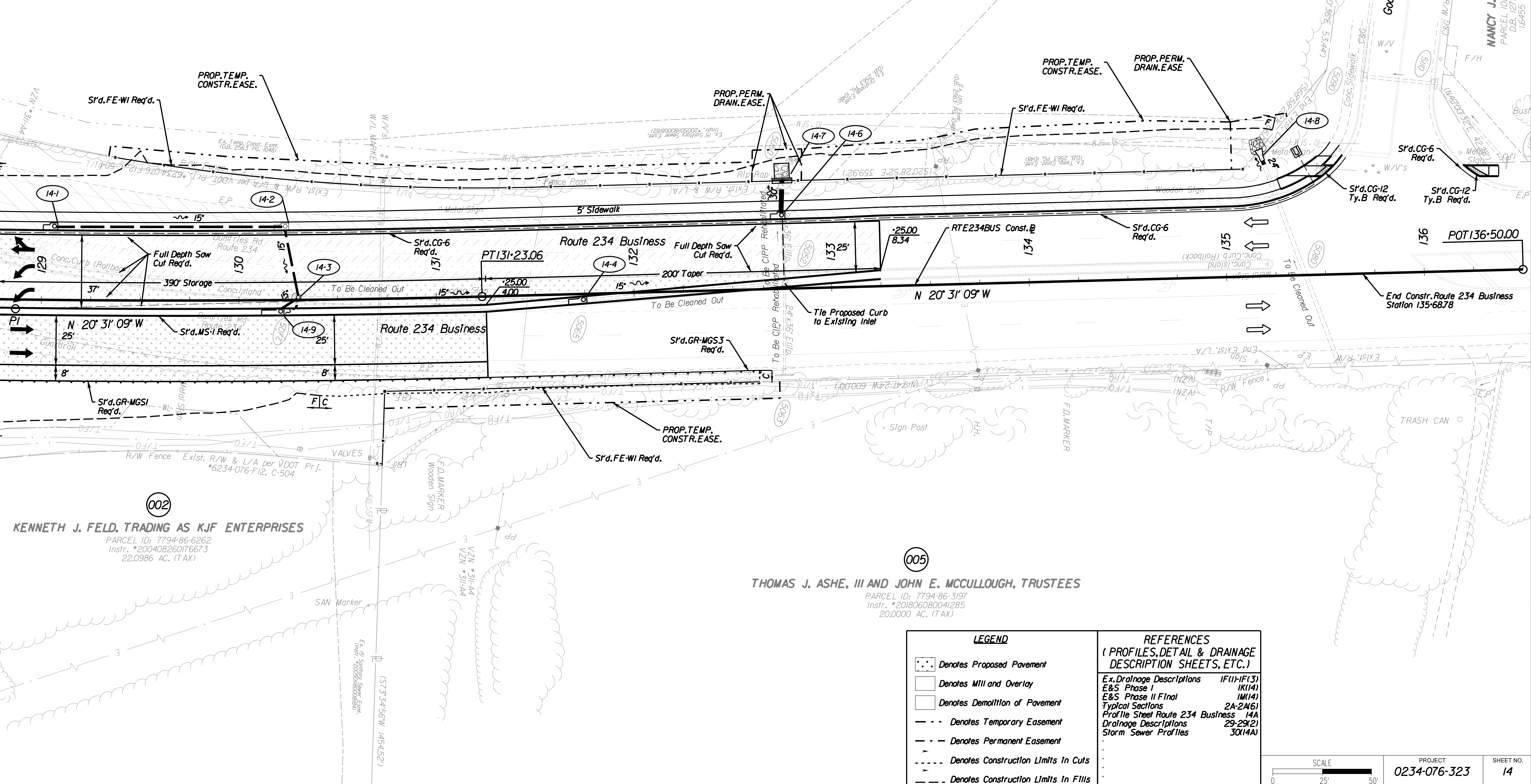
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Curve RTE234BUS.J
PI = 128+87.11
DELTA = 4° 33' 42.5" (LT)
D = 0' 57" 58"
T = 236.19'
L = 472.14'
R = 5,930.00'
PC = 126+50.92
PT = 131+23.06
e = NC
DS = 45 MPH

001
KENNETH F. FELD
PARCEL ID: 7794-76-1613
D.B. 15-42 PG. 61
20.3410 AC. (TAX)



Match Line Sheet 13 - STA. 128+75.00

002
KENNETH J. FELD, TRADING AS KJF ENTERPRISES
PARCEL ID: 7794-86-6262
Instr. #200408260176673
22.0986 AC. (TAX)

005
THOMAS J. ASHE, III AND JOHN E. MCCULLOUGH, TRUSTEES
PARCEL ID: 7794-86-3197
Instr. #201806080041285
20.0000 AC. (TAX)

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-HF(3)
E&S Phase I	IK(14)
E&S Phase II Final	IM(14)
Typical Sections	2A-24(6)
Profile Sheet Route 234 Business	14A
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(14A)

SCALE: 0 25 50'

PROJECT	SHEET NO.
0234-076-323	14

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

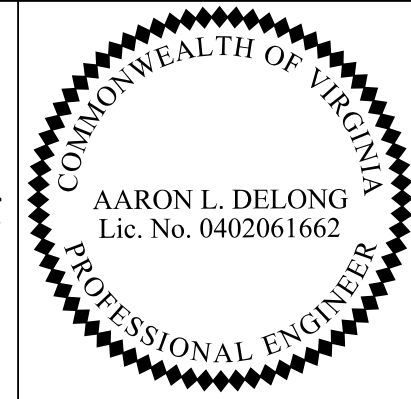
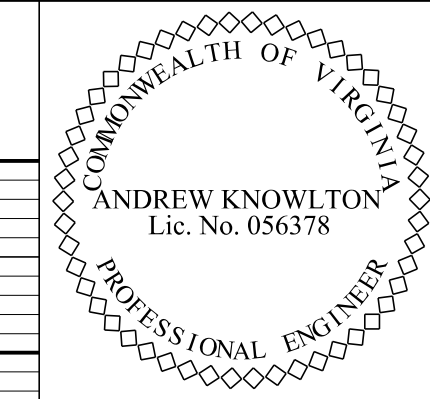
11/5/2021

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Blaker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



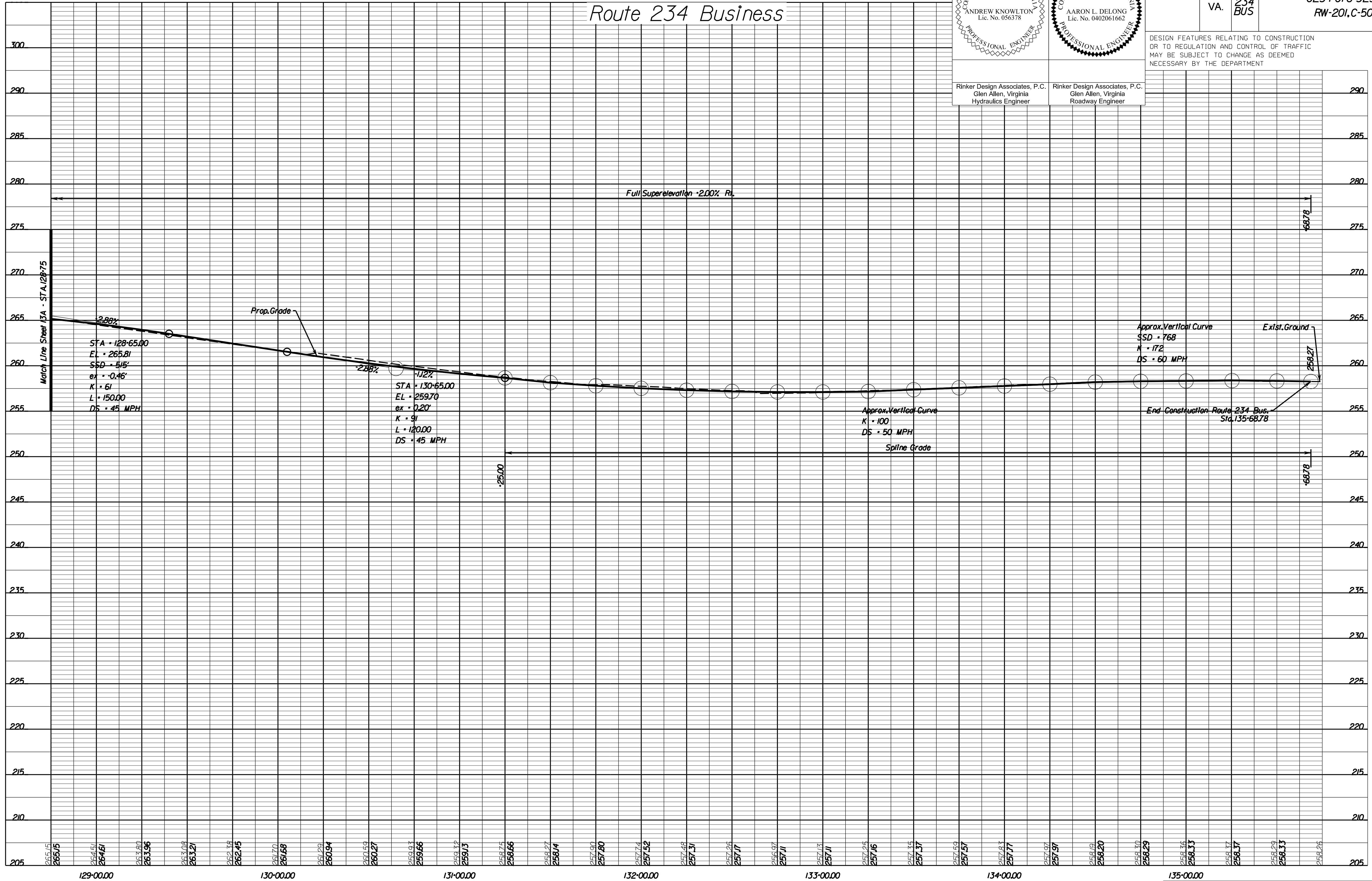
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234 BUS	0234-076-323 RW-201,C-501	14A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Route 234 Business



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PROJECT: 0234-076-323
SHEET NO.: 14A
Scale: 1"=25' Horz., 1"=5' Vert.

11/5/2021

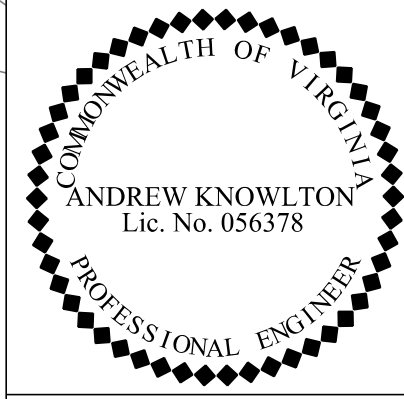
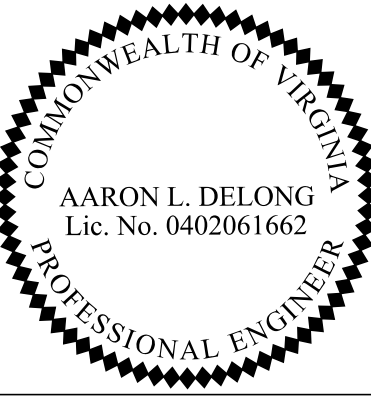
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

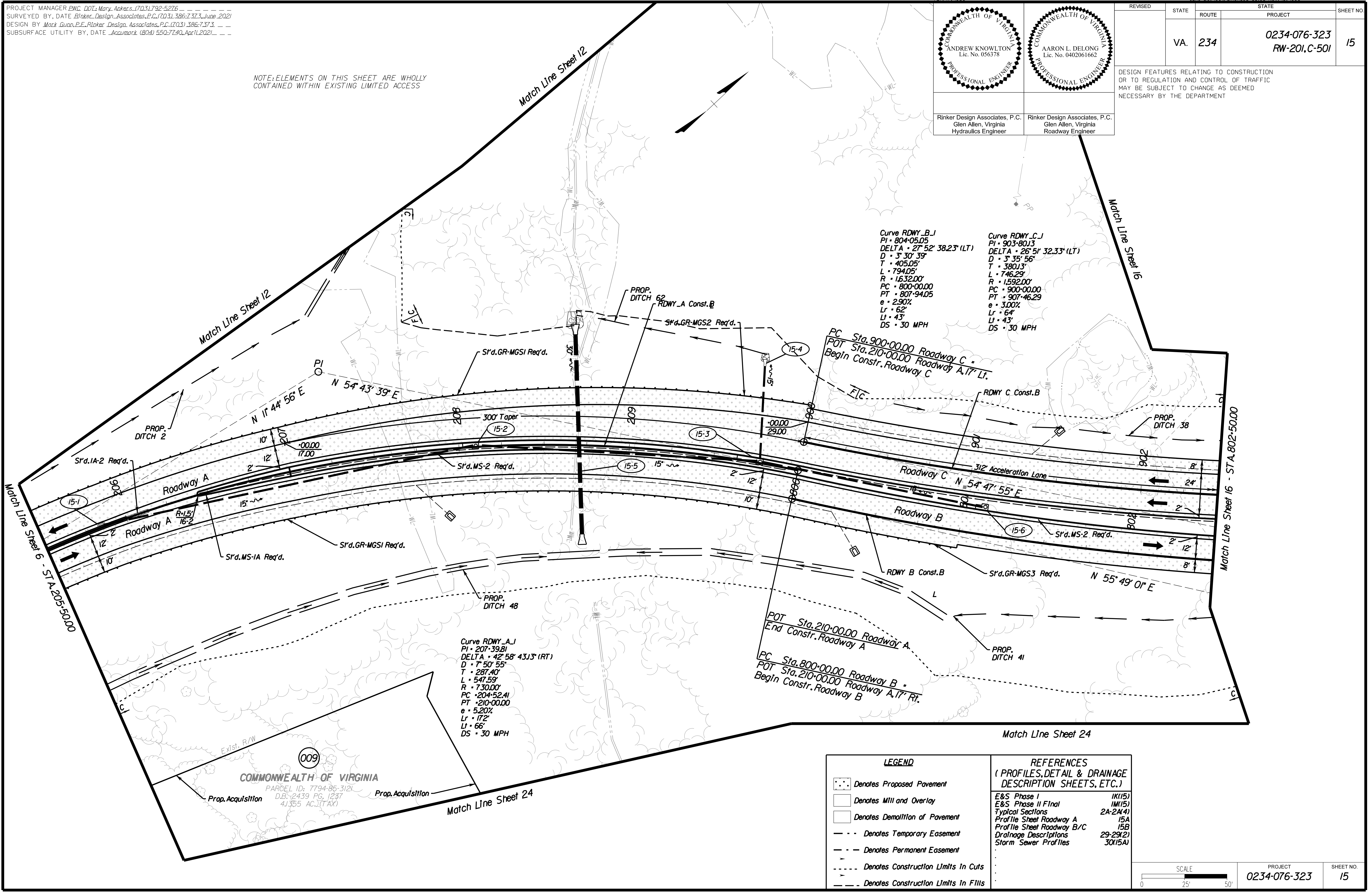
PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER		 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER	
Rinker Design Associates, P.C. Glen Allen, Virginia Hydraulics Engineer		Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer	

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	15

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

NOTE: ELEMENTS ON THIS SHEET ARE WHOLLY CONTAINED WITHIN EXISTING LIMITED ACCESS



Curve RDWY_B_L
 PI • 804+05.05
 DELTA • 27° 52' 38.23" (LT)
 D • 3' 30' 39"
 T • 405.05'
 L • 794.05'
 R • 1632.00'
 PC • 800+00.00
 PT • 807+94.05
 e • 2.90%
 Lr • 62'
 Lt • 43'
 DS • 30 MPH

Curve RDWY_C_L
 PI • 903+80.13
 DELTA • 26° 51' 32.33" (LT)
 D • 3' 35' 56"
 T • 380.13'
 L • 746.29'
 R • 1592.00'
 PC • 900+00.00
 PT • 907+46.29
 e • 3.00%
 Lr • 64'
 Lt • 43'
 DS • 30 MPH

Curve RDWY_A_L
 PI • 207+39.81
 DELTA • 42° 58' 43.13" (RT)
 D • 7' 50' 55"
 T • 287.40'
 L • 547.53'
 R • 730.00'
 PC • 204+52.41
 PT • 210+00.00
 e • 5.20%
 Lr • 172'
 Lt • 65'
 DS • 30 MPH

LEGEND	
	Denotes Proposed Pavement
	Denotes Mill and Overlay
	Denotes Demolition of Pavement
	Denotes Temporary Easement
	Denotes Permanent Easement
	Denotes Construction Limits In Cuts
	Denotes Construction Limits In Fills

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
E&S Phase I	IK1151
E&S Phase II Final	IM1151
Typical Sections	2A-2A(4)
Profile Sheet Roadway A	15A
Profile Sheet Roadway B/C	15B
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(15A)

SCALE 0 25 50'

PROJECT	0234-076-323	SHEET NO.	15
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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

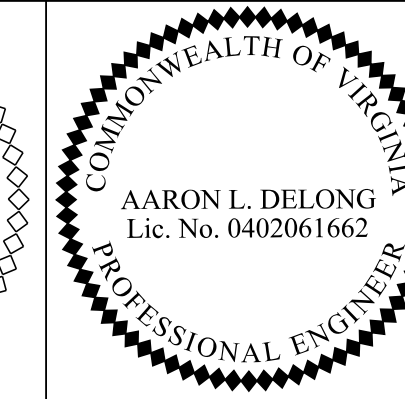
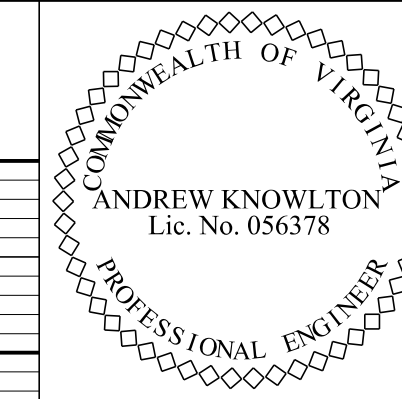
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021



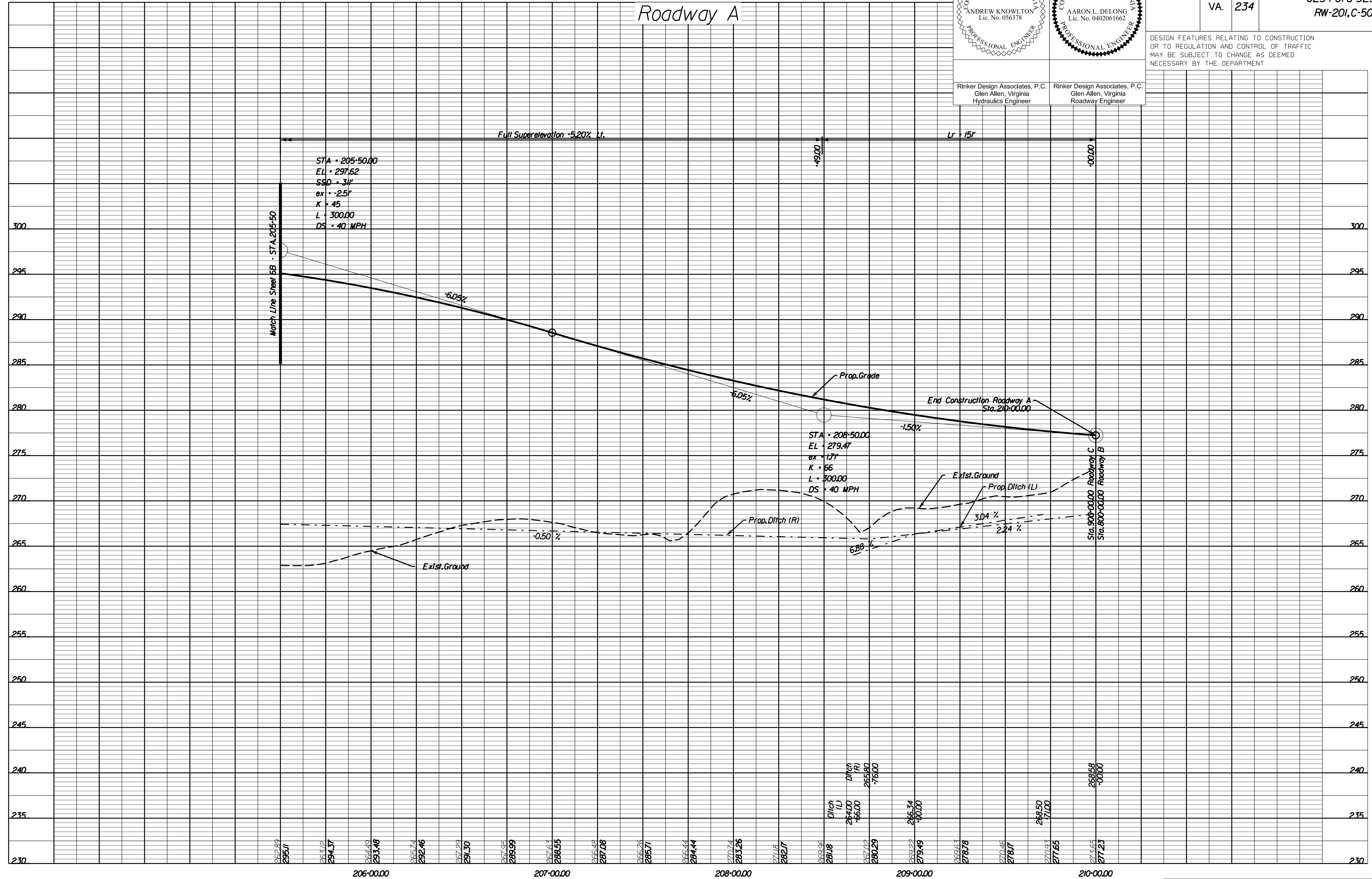
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	15A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Roadway A



11/5/2021

Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 15A

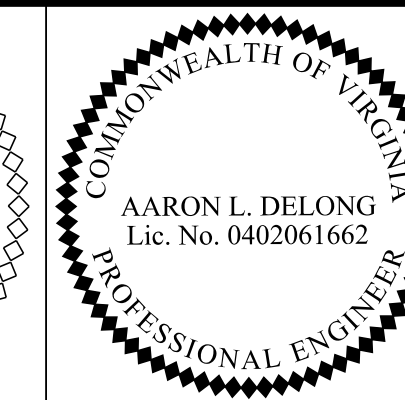
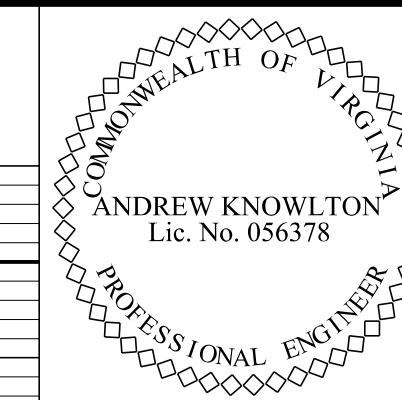
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LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Blnker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

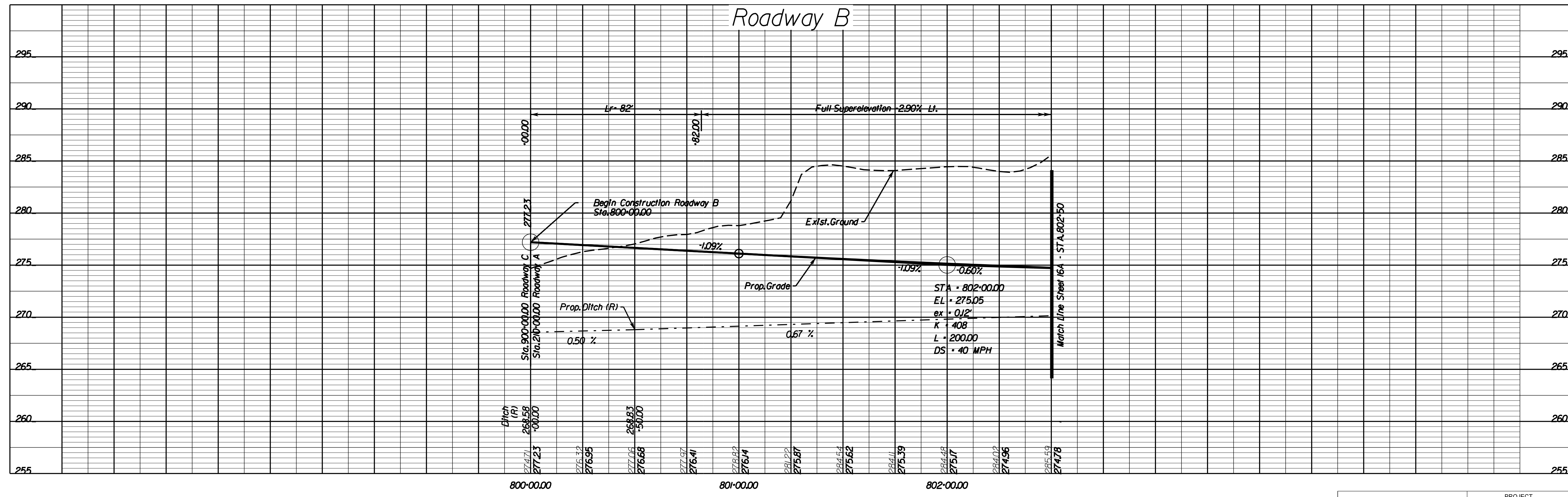
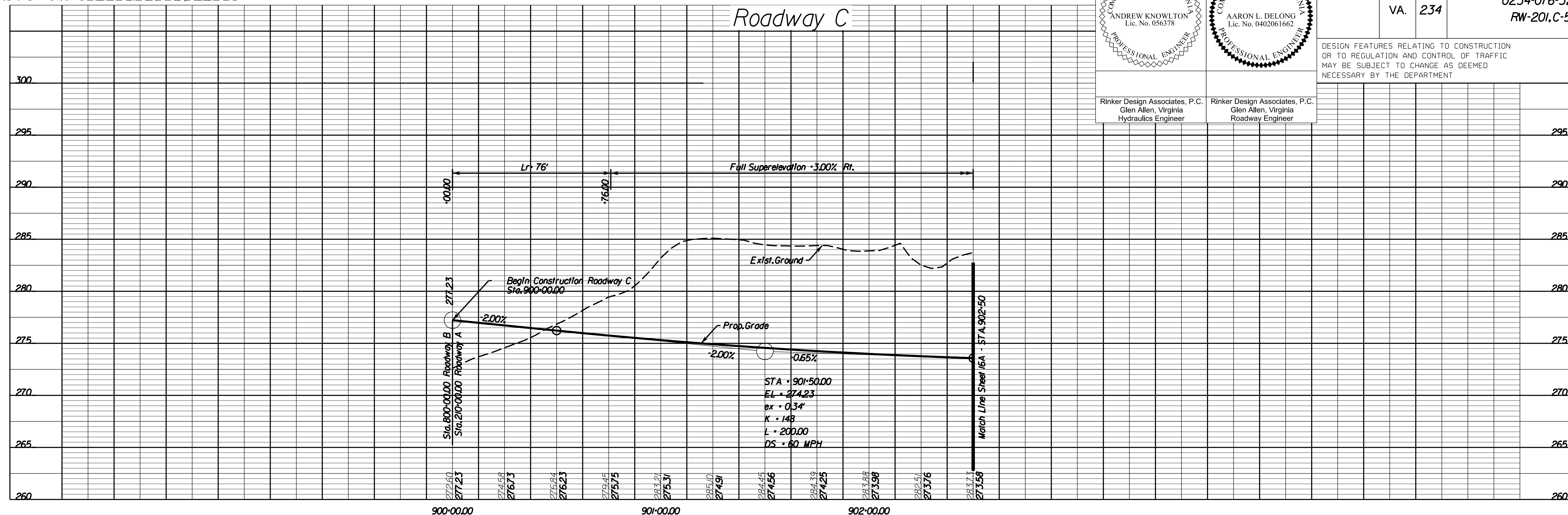


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	15B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 15B

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11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC DOT, Mary, Ankers (703)792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	16

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Curve RAMP A_2
 PI - 73+03.00
 DELTA - 8° 59' 50.49" (RT)
 D - 148' 47"
 T - 248.62'
 L - 496.23'
 R - 3160.00'
 PC - 70+54.38
 PT - 75+50.60
 e - 2.0%
 Lr - 43'
 Li - 43'
 DS - 30 MPH

Curve RDWY_D.TM2_1
 PI - 2+64.80
 DELTA - 6° 49' 22.08" (RT)
 D - 5' 16' 16"
 T - 64.80'
 L - 129.44'
 R - 1087.00'
 PC - 2+00.00
 PRC - 3° 29.44'
 PT - 5+24.94
 e - 2.0%
 Lr - 44'
 Li - 44'
 DS - 25 MPH

Curve RDWY_D.TM2_2
 PI - 4+33.54
 DELTA - 48° 43' 58.85" (LT)
 D - 24' 55' 37"
 T - 104.10'
 L - 195.50'
 R - 229.85'
 PRC - 3° 29.44'
 PT - 5+24.94
 e - 2.0%
 Lr - 52'
 Li - 52'
 DS - 25 MPH

Curve RDWY_D.TM3_1
 PI - 4+54.14
 DELTA - 68° 49' 39.54" (RT)
 D - 25' 27' 53"
 T - 154.14'
 L - 270.29'
 R - 225.00'
 PC - 3+00.00
 PT - 5+70.29
 e - 2.0%
 Lr - 75'
 Li - 75'
 DS - 25 MPH

LEGEND

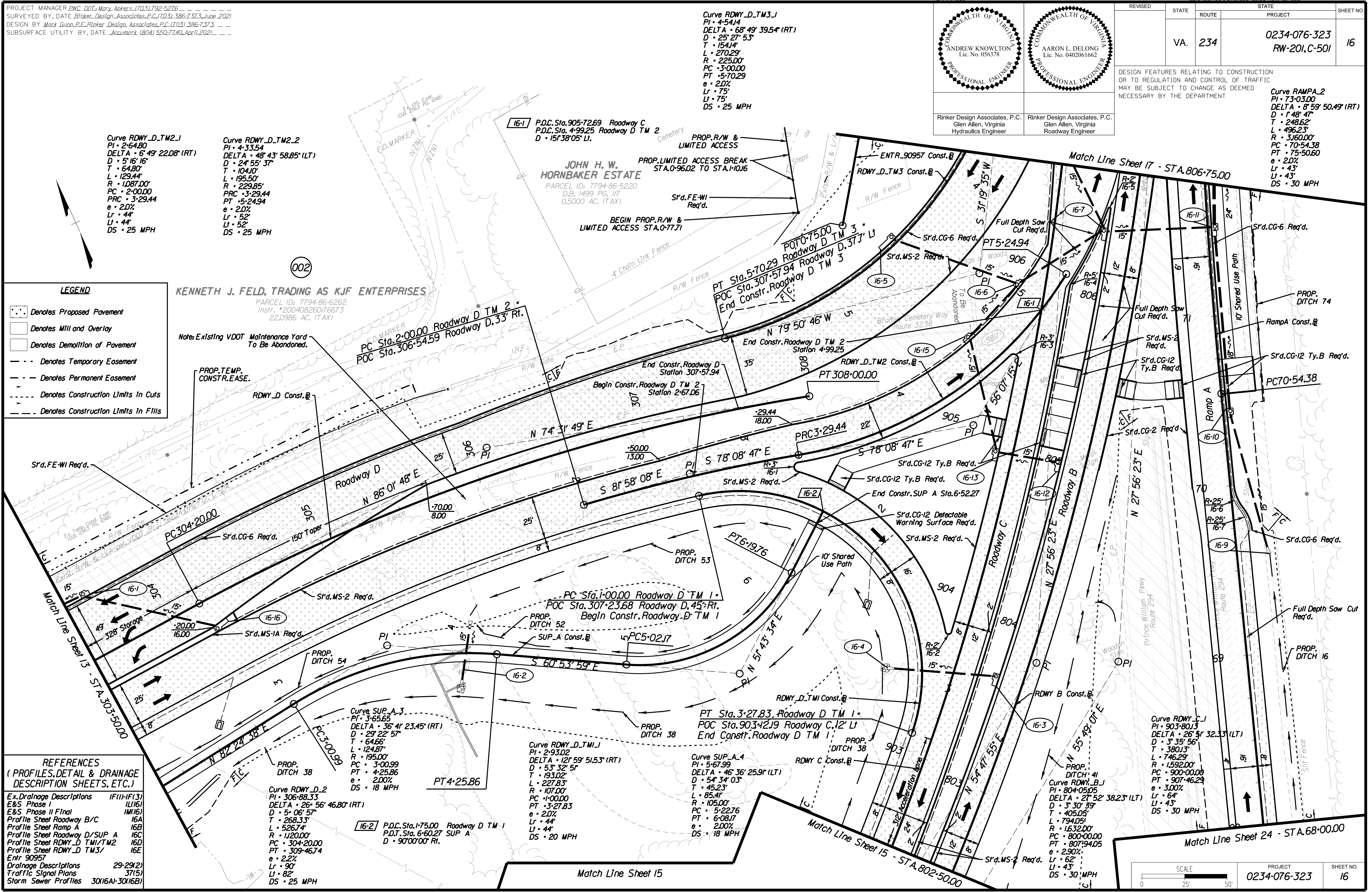
- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

KENNETH J. FELD, TRADING AS KJF ENTERPRISES

PARCEL ID: 7794-86-6262
 Instr. *200408260176673
 22.0986 AC. (TAX)

Note: Existing VDOT Maintenance Yard To Be Abandoned.

JOHN H. W. HORNBAKER ESTATE
 PARCEL ID: 7794-86-5220
 D.B. 1499 PG. 117
 0.5000 AC. (TAX)



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase II Final	11/16
Profile Sheet Roadway B/C	16A
Profile Sheet Ramp A	16B
Profile Sheet Roadway D/SUP A	16C
Profile Sheet RDWY_D.TM1/TM2	16D
Profile Sheet RDWY_D.TM3/	16E
Entr. 90957	
Drainage Descriptions	29-29(2)
Traffic Signal Plans	37(5)
Storm Sewer Profiles	30(16A)-30(16B)

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SCALE 0 25 50

PROJECT	0234-076-323
SHEET NO.	16

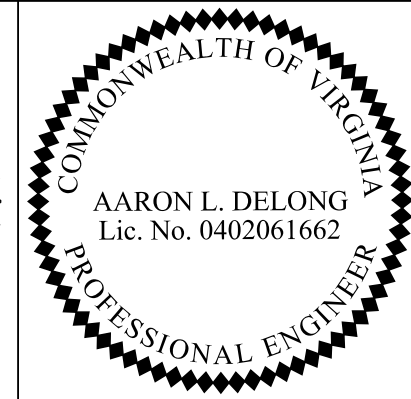
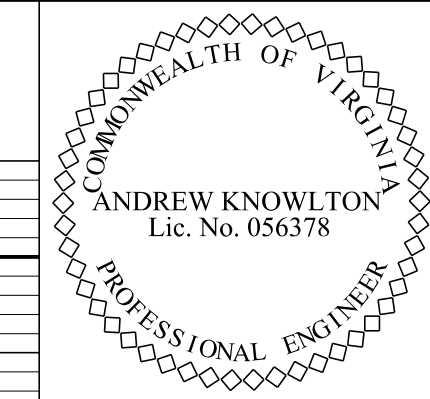
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021

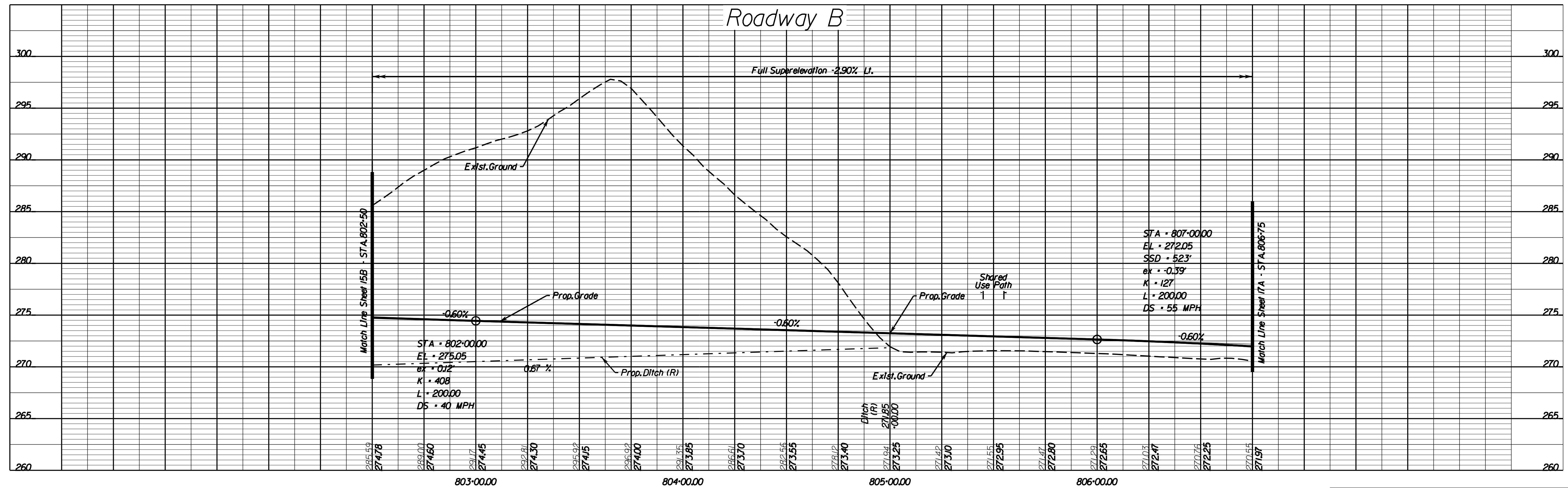
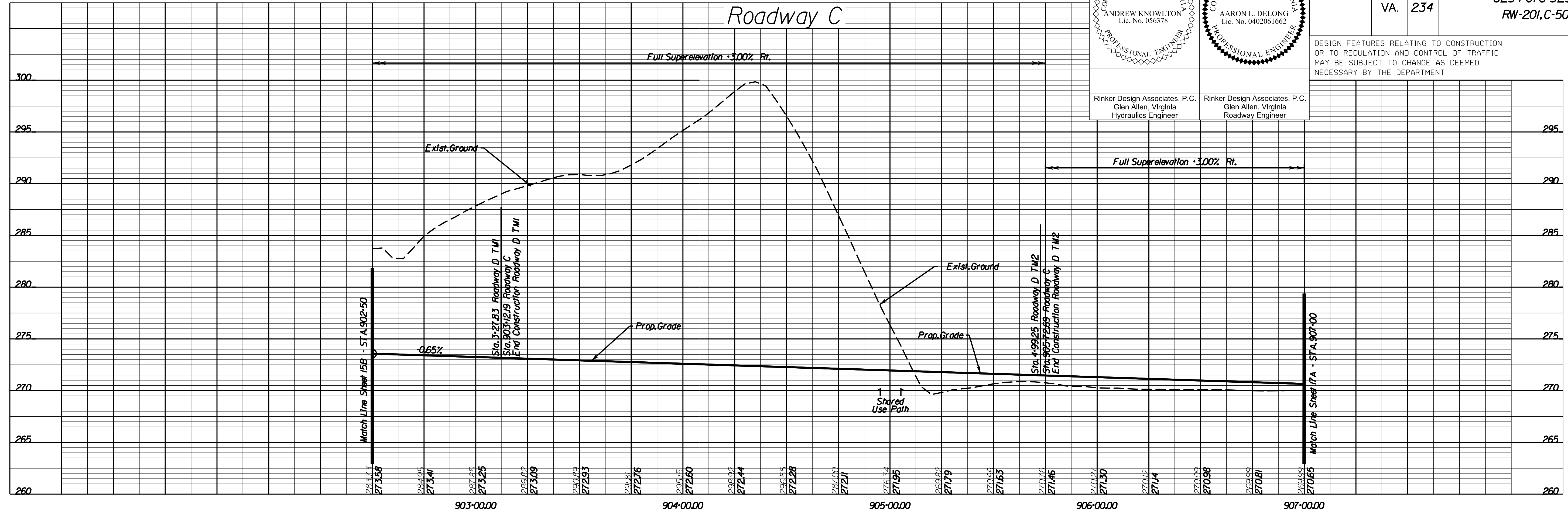


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	16A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



11/5/2021

Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT: 0234-076-323

SHEET NO.: 16A

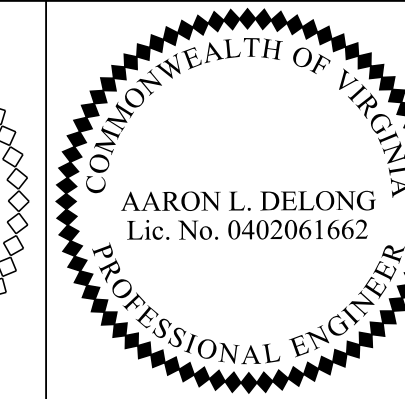
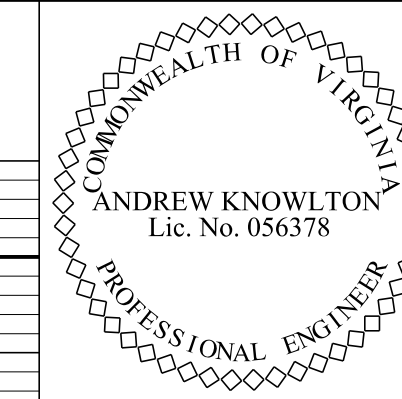
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LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Blnker, Design, Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker, Design, Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021

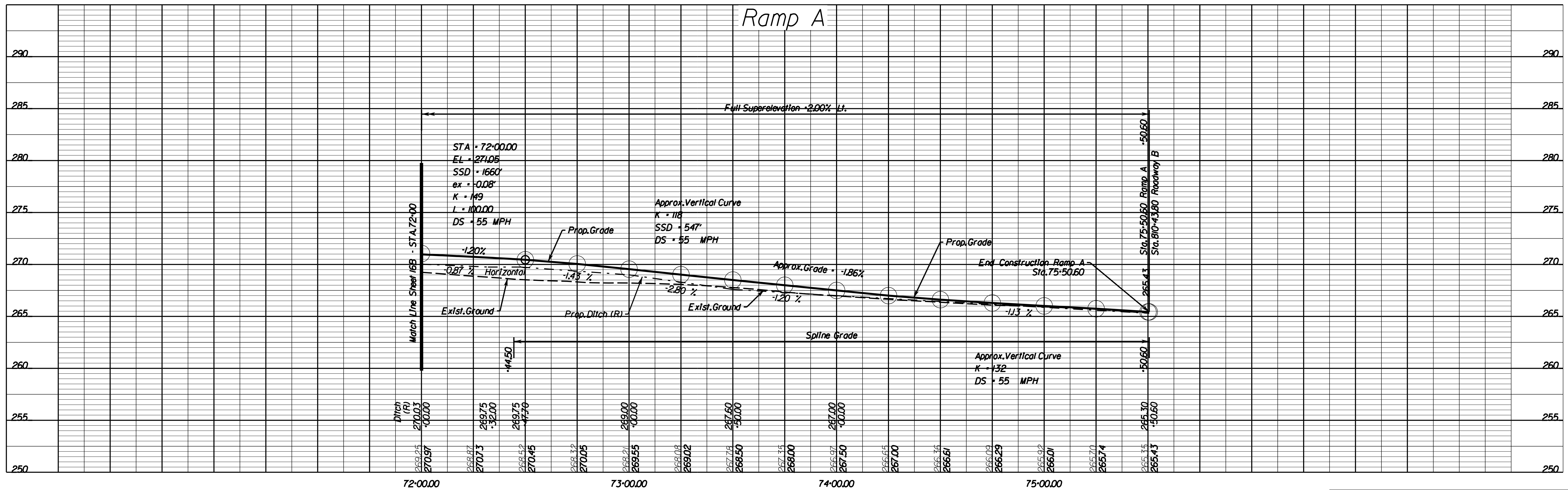
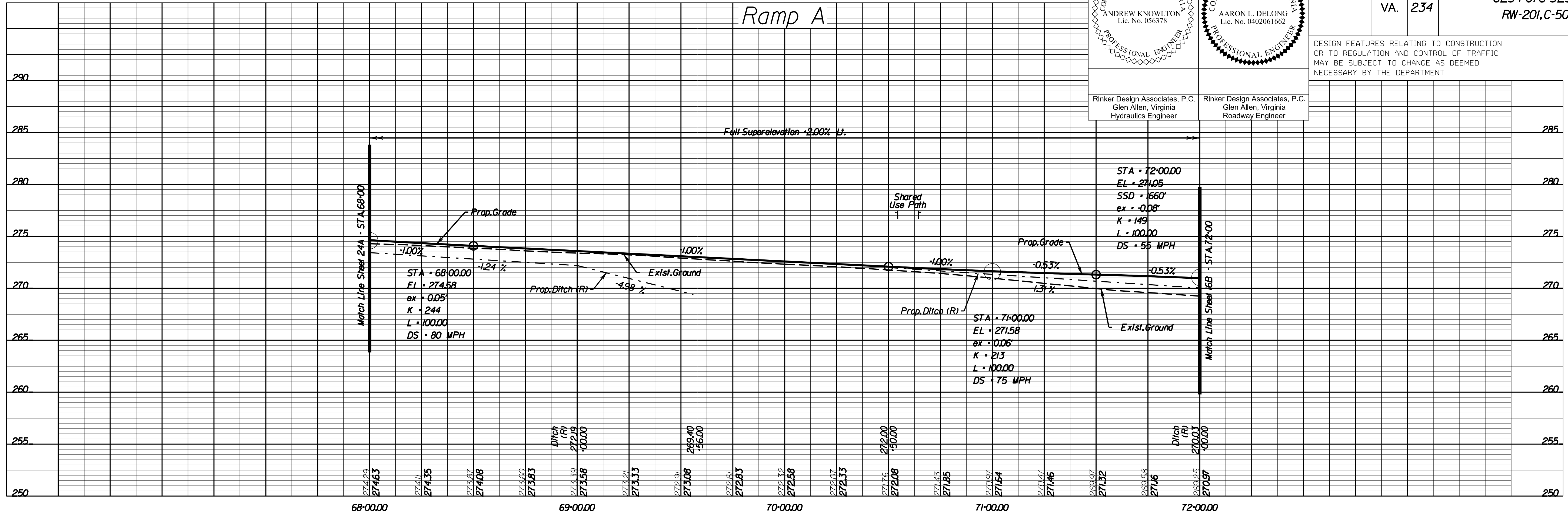


REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	16B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT 0234-076-323
SHEET NO. 16B

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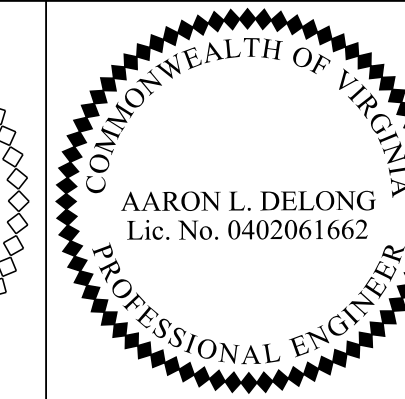
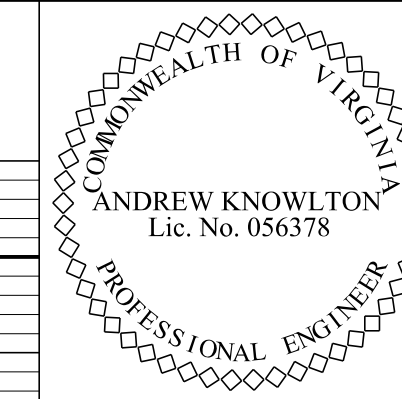
11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design, Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark, Guan, P.E., Rinker, Design, Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021

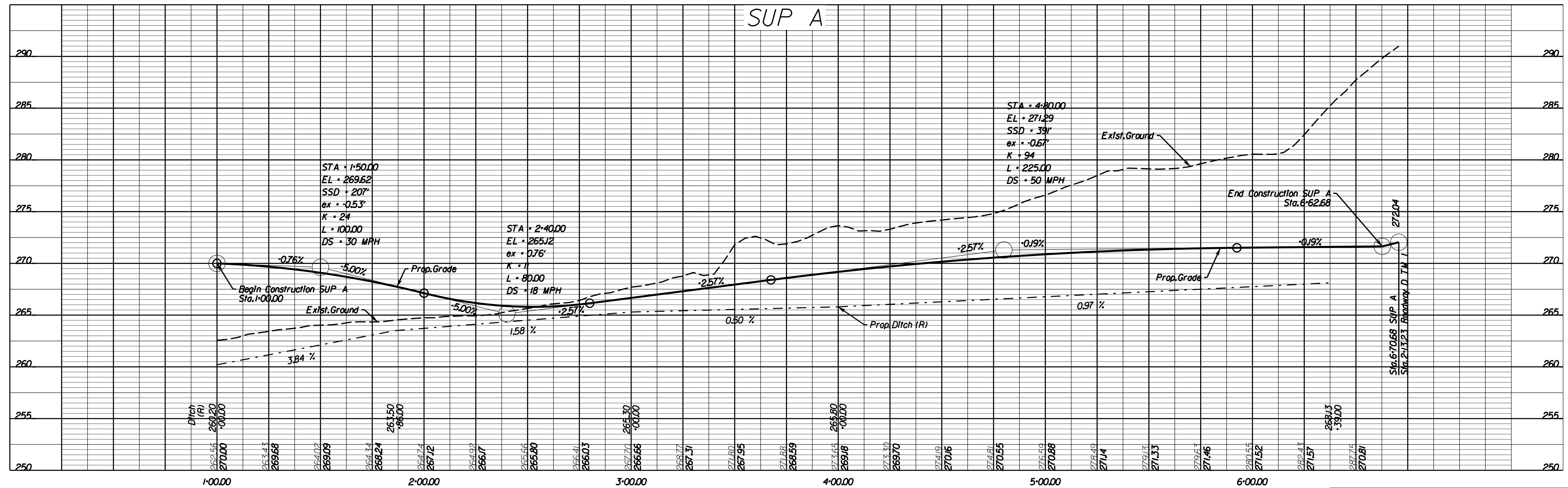
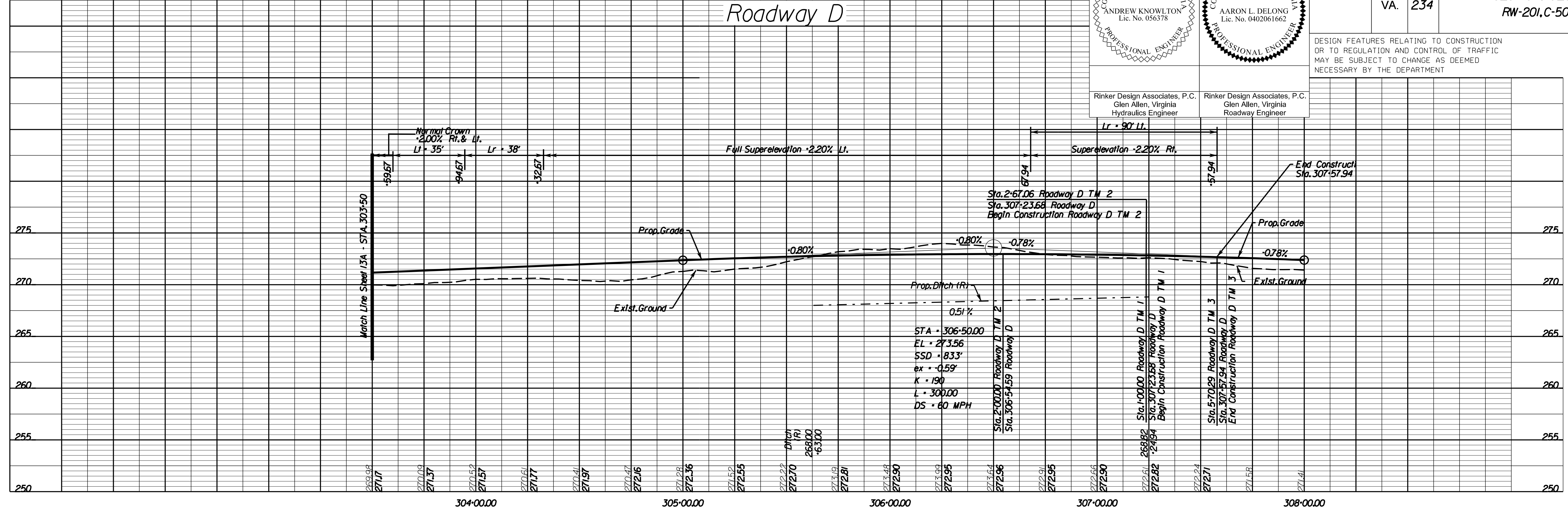


REVISION	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	16C

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



Scale 1"=25' Horz.
1"=5' Vert.
PROJECT 0234-076-323
SHEET NO. 16C

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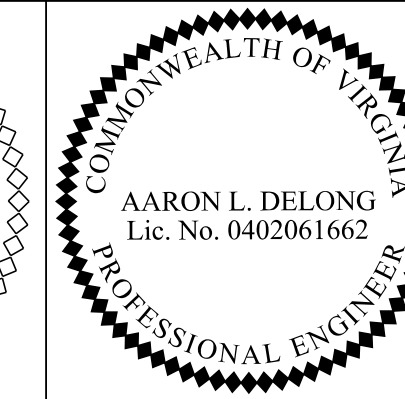
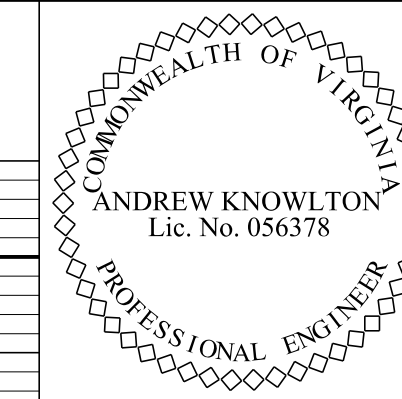
11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021



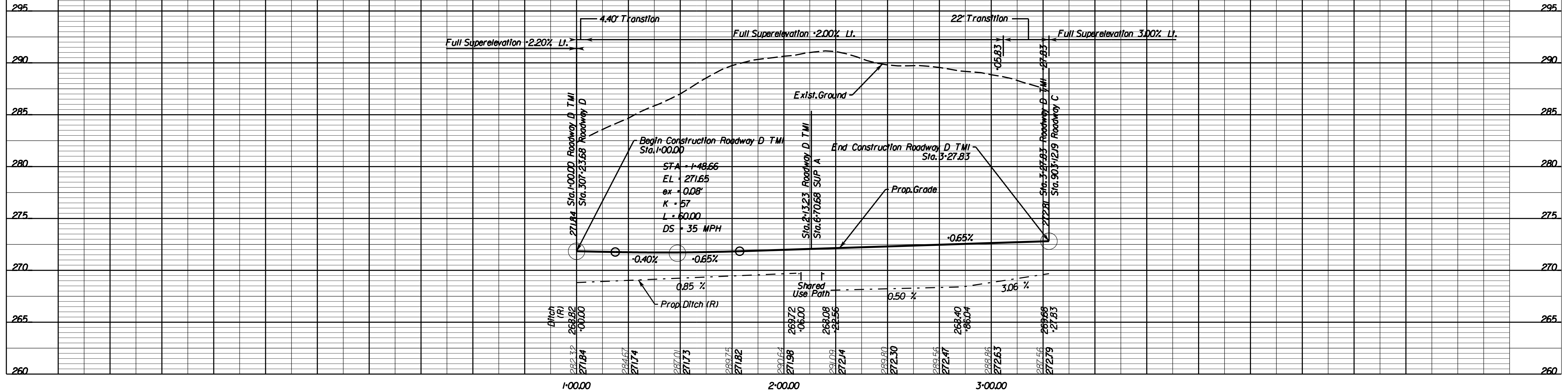
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	16D

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

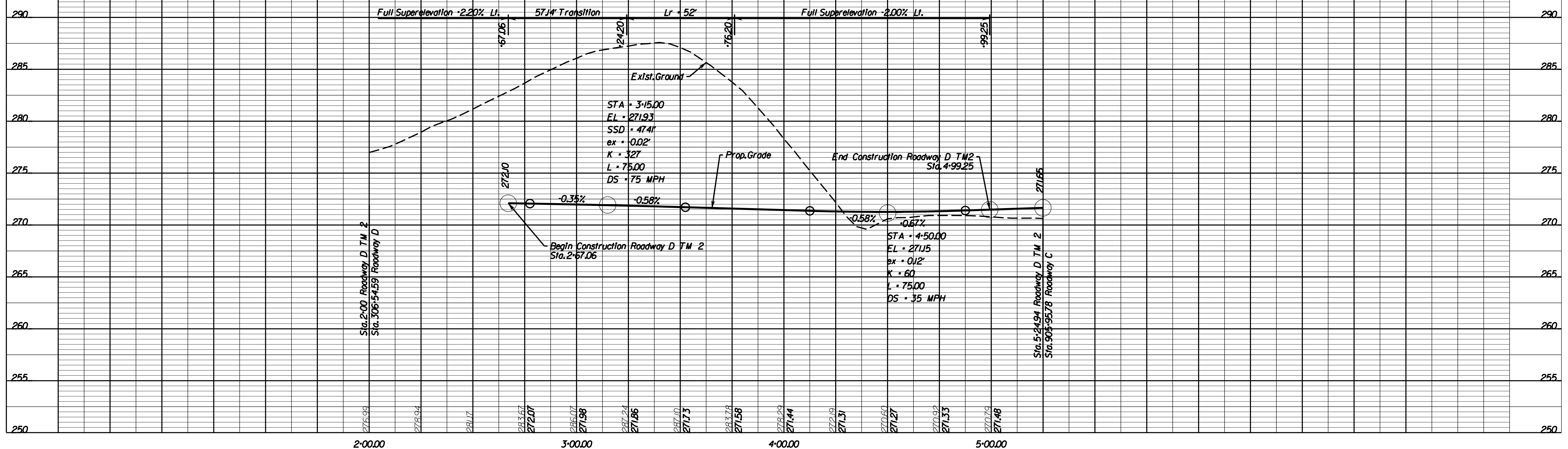
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Roadway D Turning Movement 1



Roadway D Turning Movement 2



1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
16D

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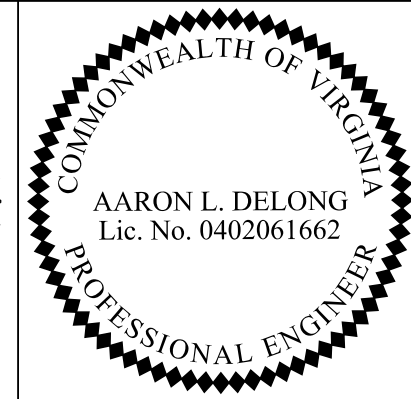
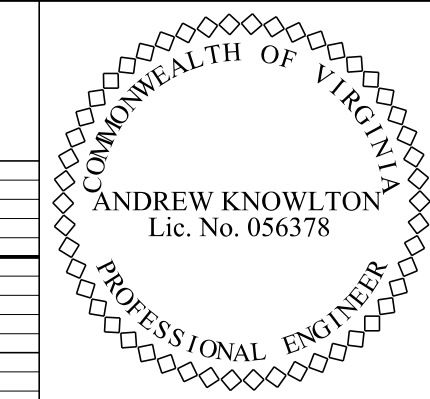
LIMITED ACCESS HIGHWAY

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SURVEYED BY, DATE Blnker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021



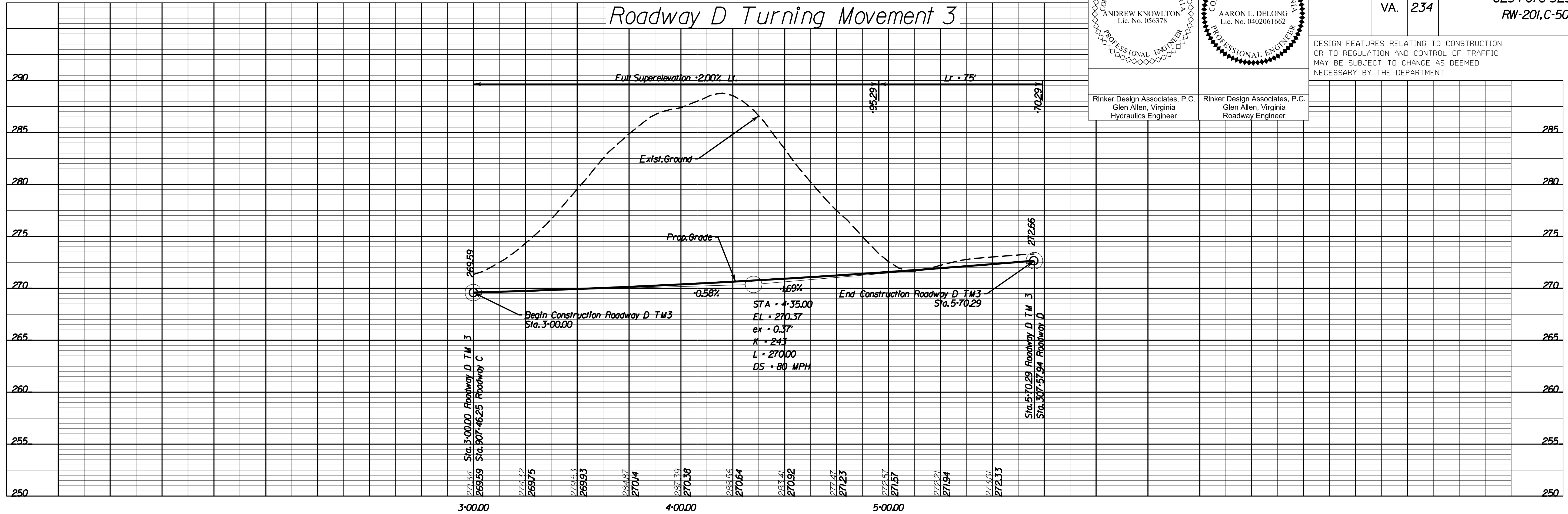
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	16E

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

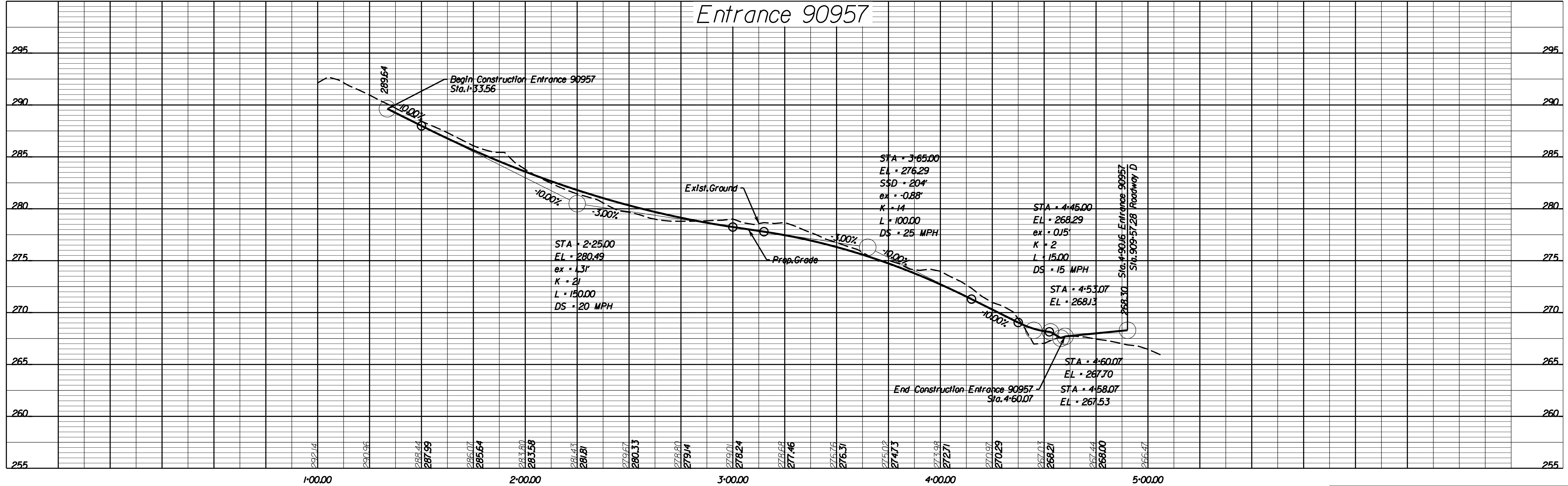
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Roadway D Turning Movement 3



Entrance 90957



1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
16E

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

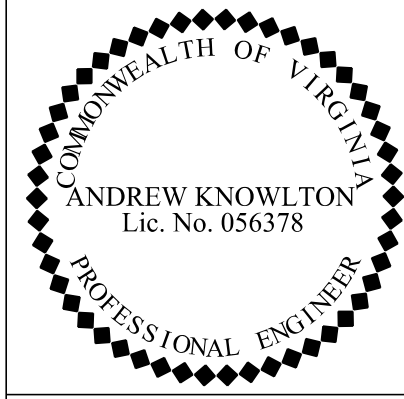
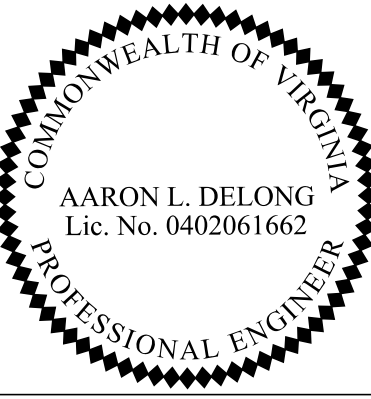
11/5/2021

LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated Apr. 17, 1980

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER	 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER	REVISED	STATE	ROUTE	PROJECT	SHEET NO.
		VA.	234	0234-076-323 RW-201,C-501	17	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

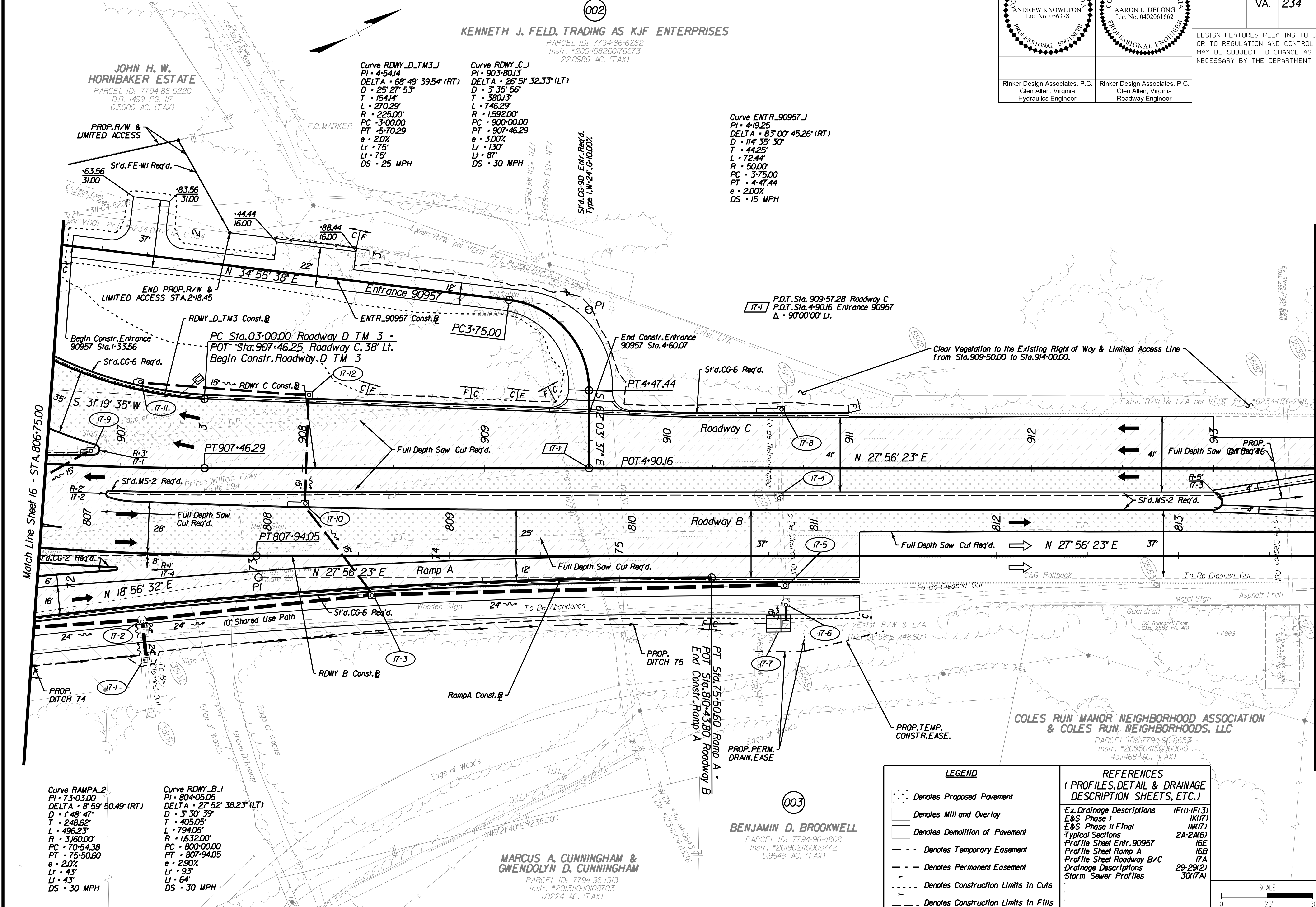
Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

002
KENNETH J. FELD, TRADING AS KJF ENTERPRISES
 PARCEL ID: 7794-86-6262
 Instr. *200408260176673
 22.0986 AC. (TAX)

Curve RDWY_D.TM3.J
 PI • 4•5414
 DELTA • 68° 49' 39.54" (RT)
 D • 25' 27' 53"
 T • 154.14'
 L • 270.29'
 R • 225.00'
 PC • 3•00.00
 PT • 5•70.29
 e • 2.0%
 Lr • 75'
 Li • 75'
 DS • 25 MPH

Curve RDWY_C.J
 PI • 903•8013
 DELTA • 26° 51' 32.33" (LT)
 D • 3' 35' 56"
 T • 380.13'
 L • 746.29'
 R • 1592.00'
 PC • 900•00.00
 PT • 907•46.29
 e • 3.00%
 Lr • 130'
 Li • 87'
 DS • 30 MPH

Curve ENTR_90957.J
 PI • 4•1925
 DELTA • 83° 00' 45.26" (RT)
 D • 114' 35' 30"
 T • 44.25'
 L • 72.44'
 R • 50.00'
 PC • 3•75.00
 PT • 4•47.44
 e • 2.00%
 DS • 15 MPH

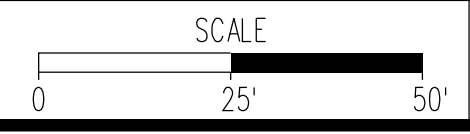


LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(11)-F(13)
E&S Phase I	IK(17)
E&S Phase II Final	IM(17)
Typical Sections	2A-2(A)(1)
Profile Sheet Entr. 90957	16E
Profile Sheet Ramp A	16B
Profile Sheet Roadway B/C	17A
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(1A)



PROJECT	0234-076-323	SHEET NO.	17
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

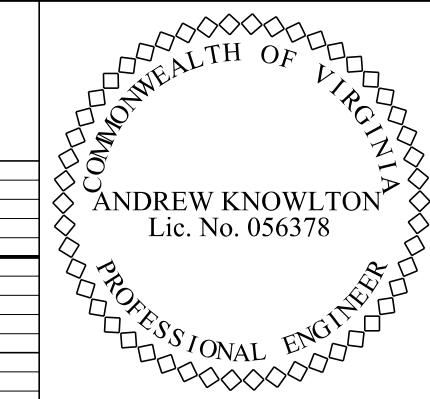
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Acumark (804) 550-7740, April 2021

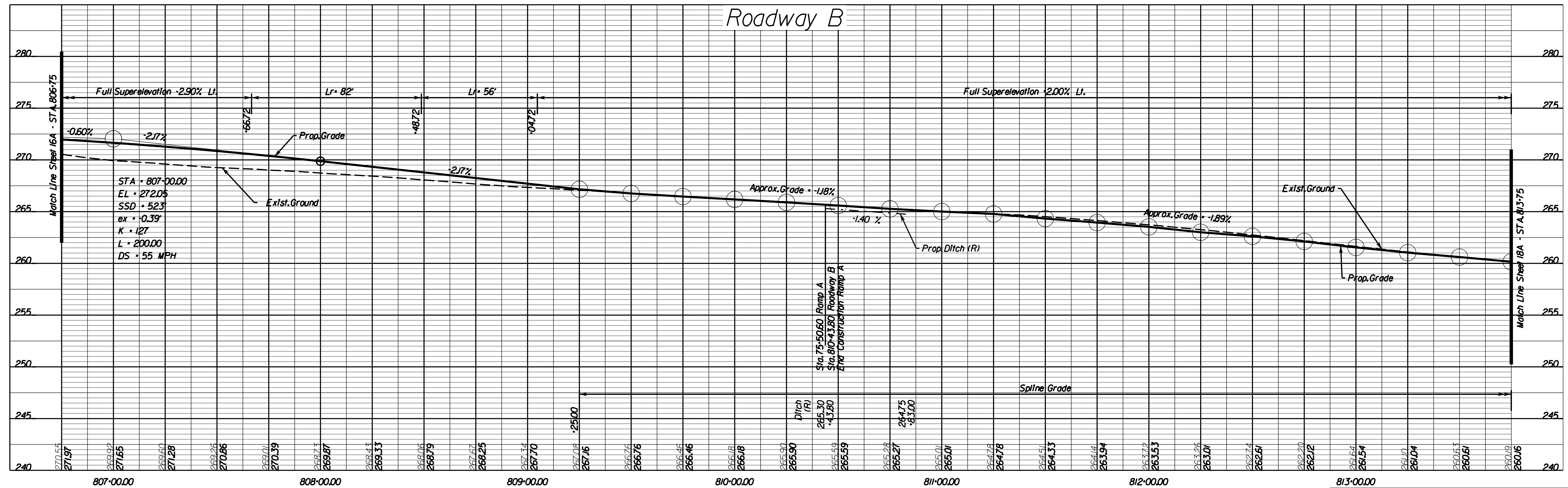
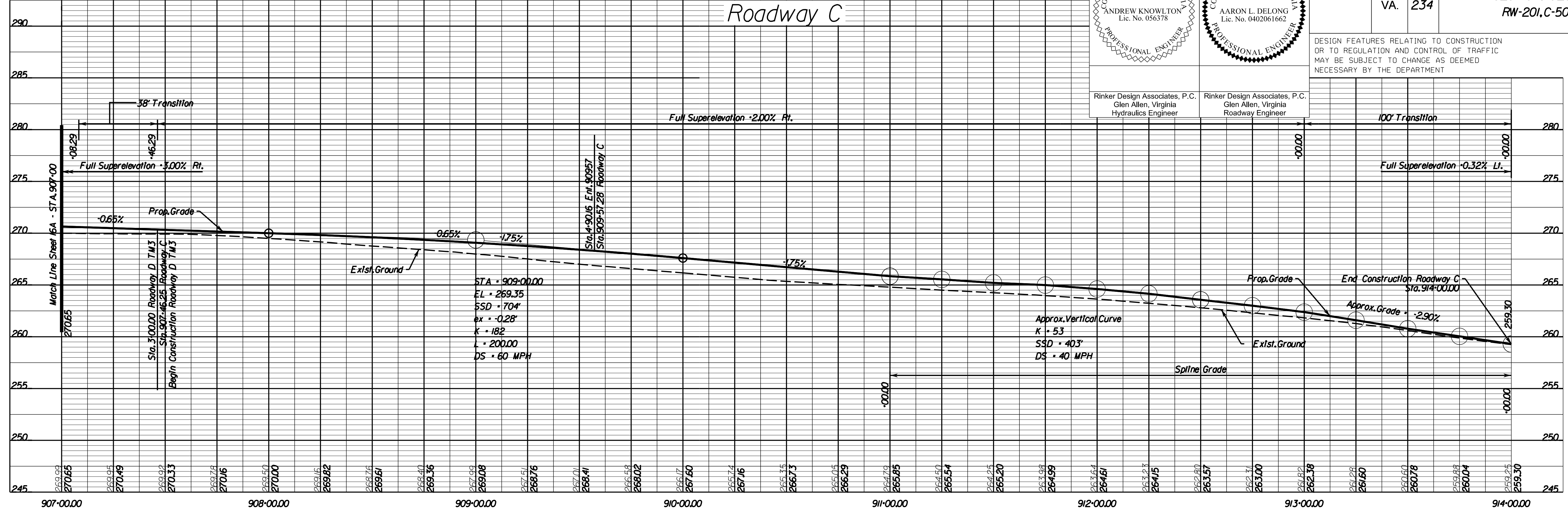


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	17A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 17A

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

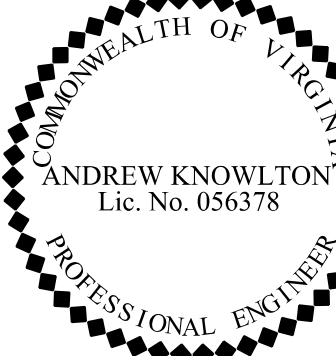
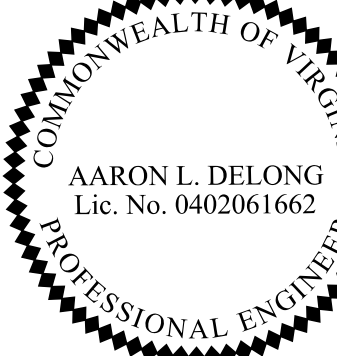
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

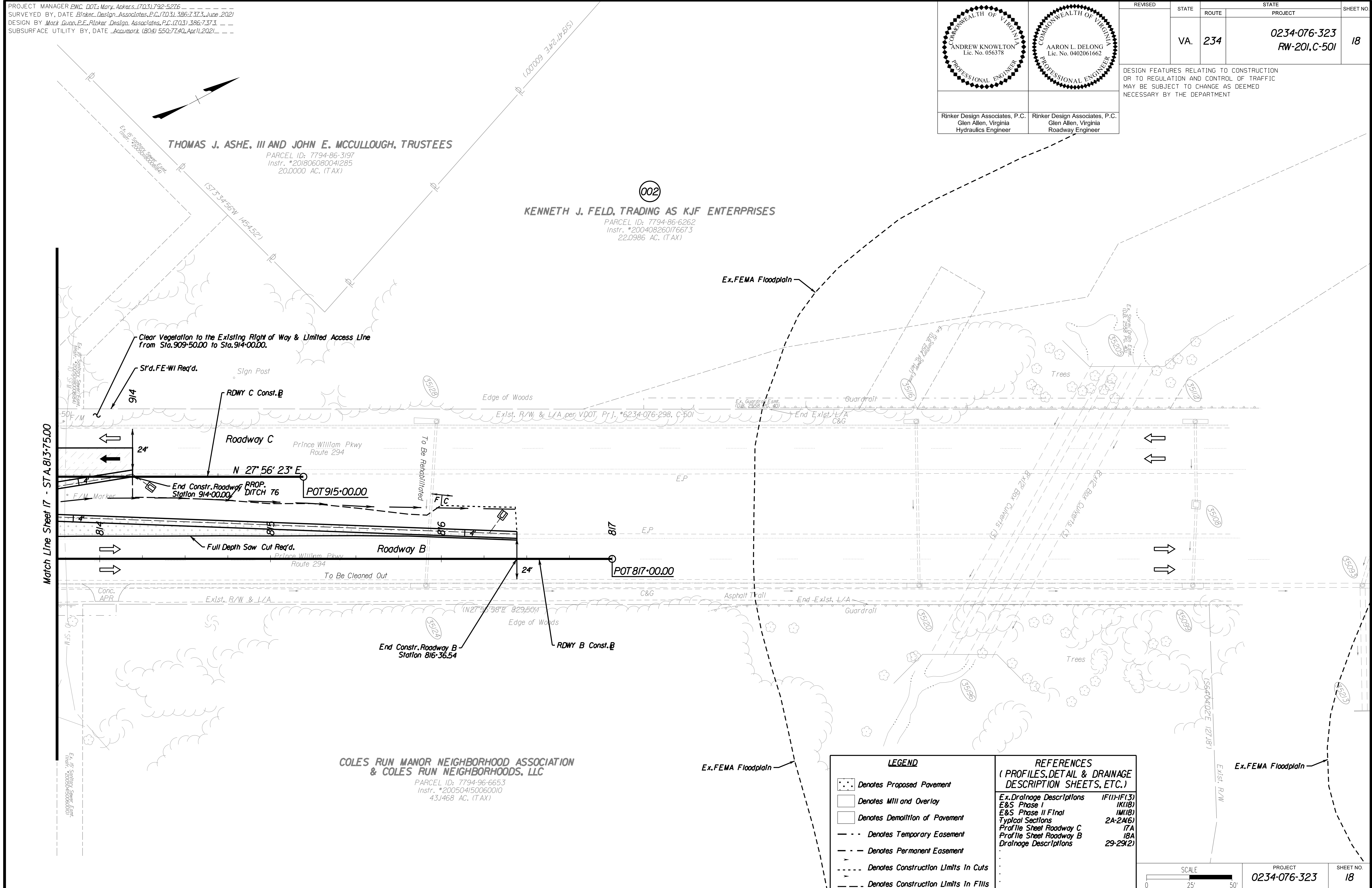
By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER EWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER	 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER
Rinker Design Associates, P.C. Glen Allen, Virginia Hydraulics Engineer	Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	18

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(11)-IF(3)
E&S Phase I Final	IK(1B)
E&S Phase II Final	IM(1B)
Typical Sections	2A-24(G)
Profile Sheet Roadway C	17A
Profile Sheet Roadway B	18A
Drainage Descriptions	29-29(2)

SCALE 0 25' 50'

PROJECT	0234-076-323	SHEET NO.	18
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

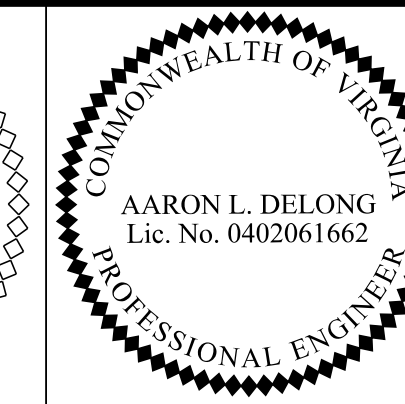
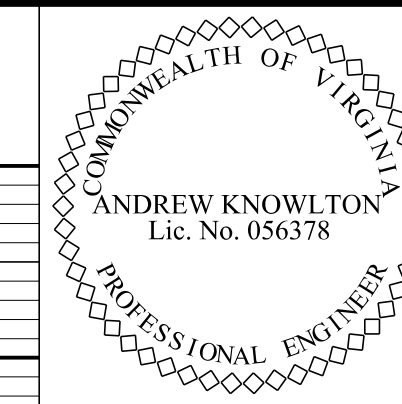
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021



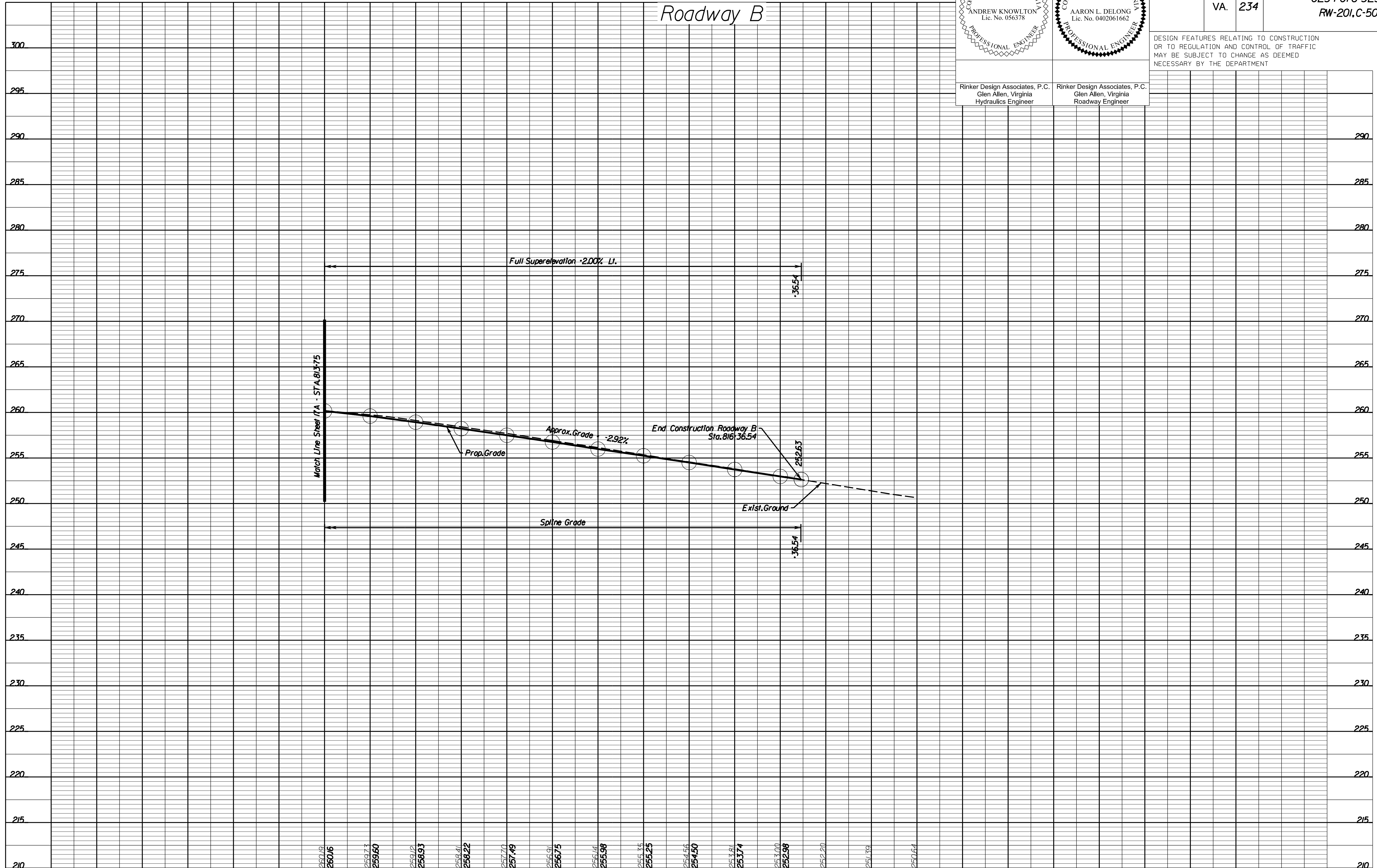
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	18A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Roadway B



11/5/2021

1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
18A

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

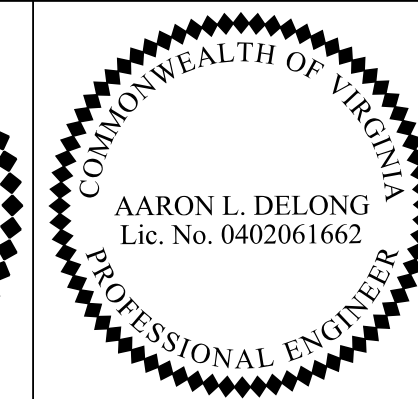
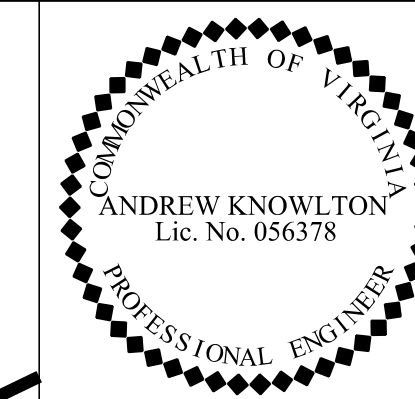
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021



REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	19

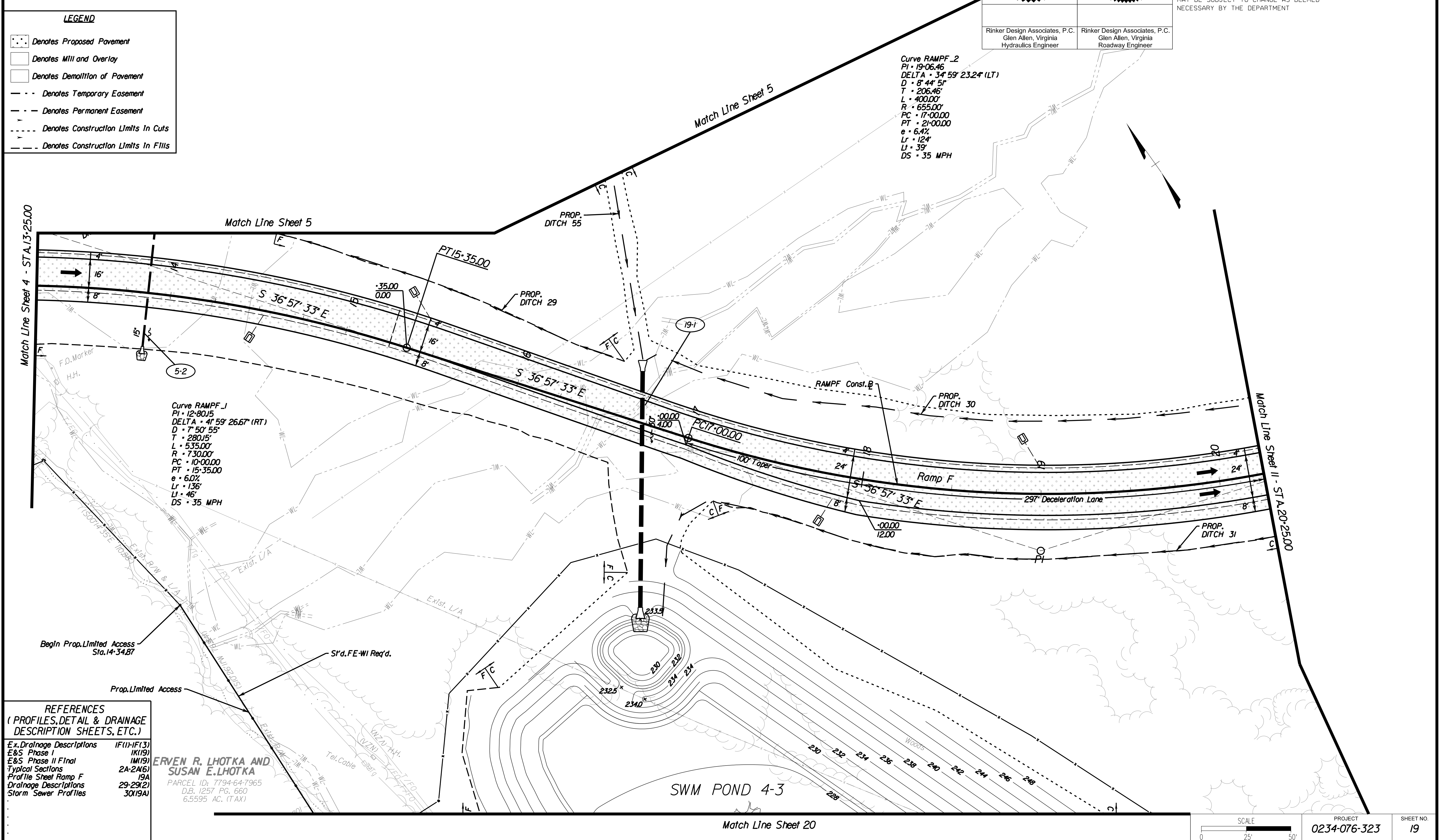
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase I	IM(19)
E&S Phase II Final	IM(19)
Typical Sections	2A-24(6)
Profile Sheet Ramp F	19A
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(19A)

ERVEN R. LHOTKA AND SUSAN E. LHOTKA
 PARCEL ID: 7794-64-7965
 D.B. 1257 PG. 660
 6.5595 AC. (TAX)

SCALE 0 25 50'
 PROJECT 0234-076-323
 SHEET NO. 19

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

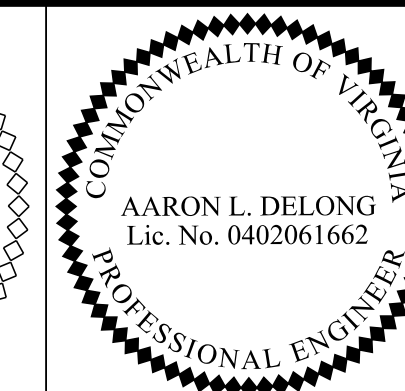
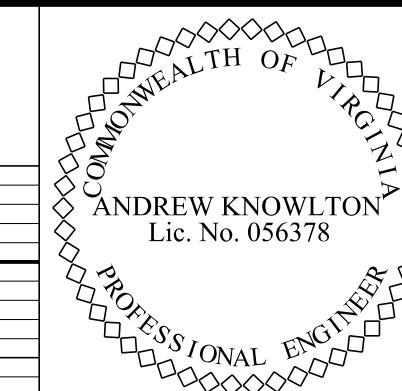
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1981, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY: DATE: Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guan, P.E., Rinker, Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY: DATE: Acumack (804) 550-7740, April 2021

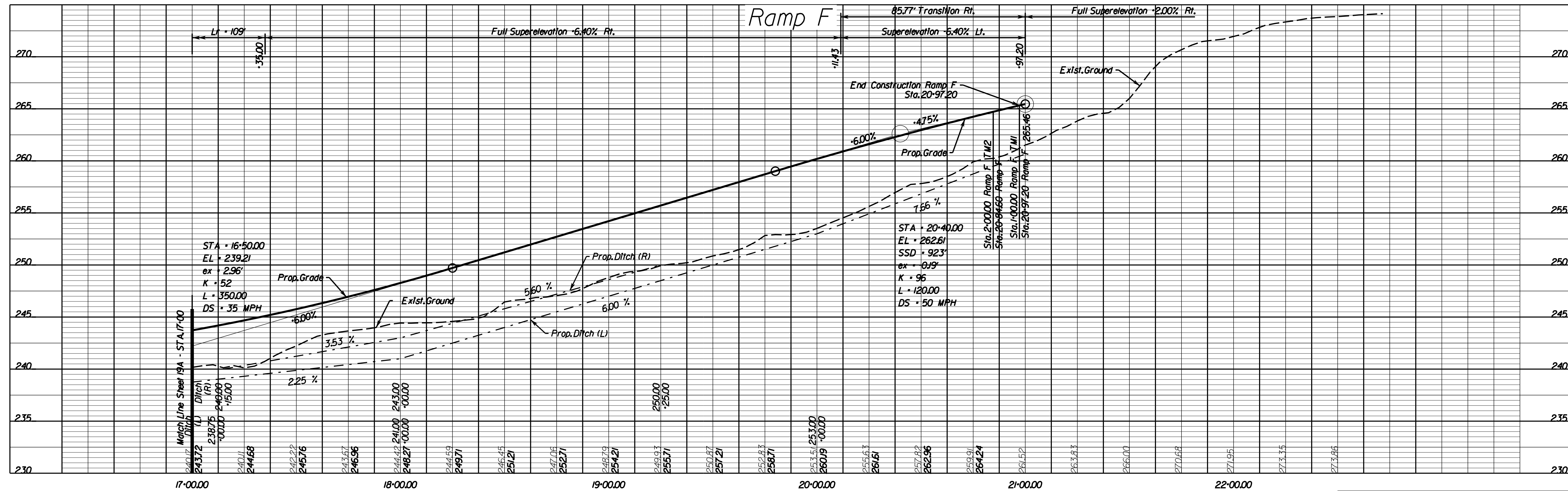
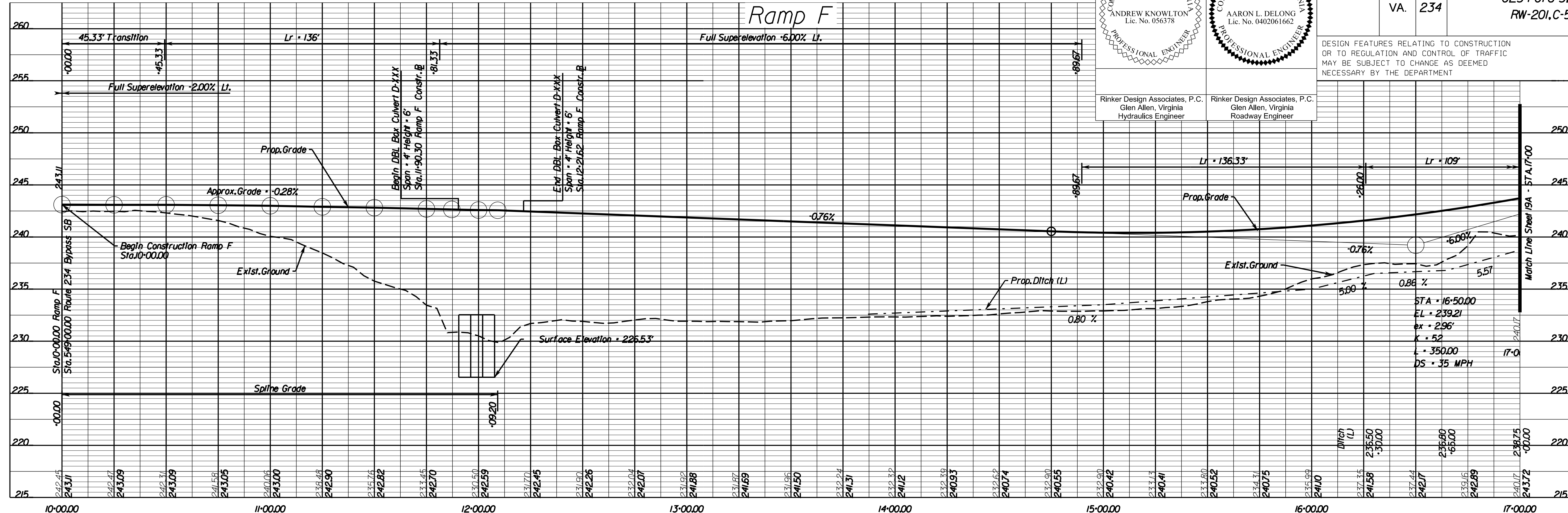


Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	19A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT: 0234-076-323
SHEET NO.: 19A

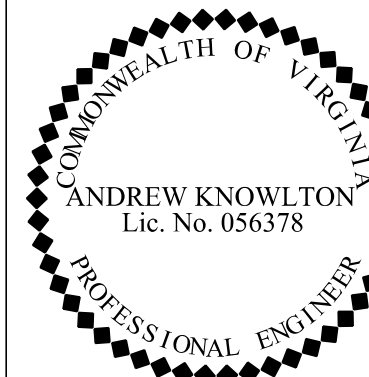
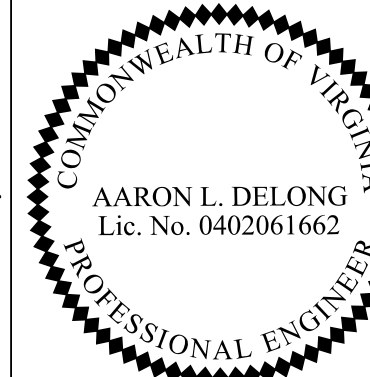
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

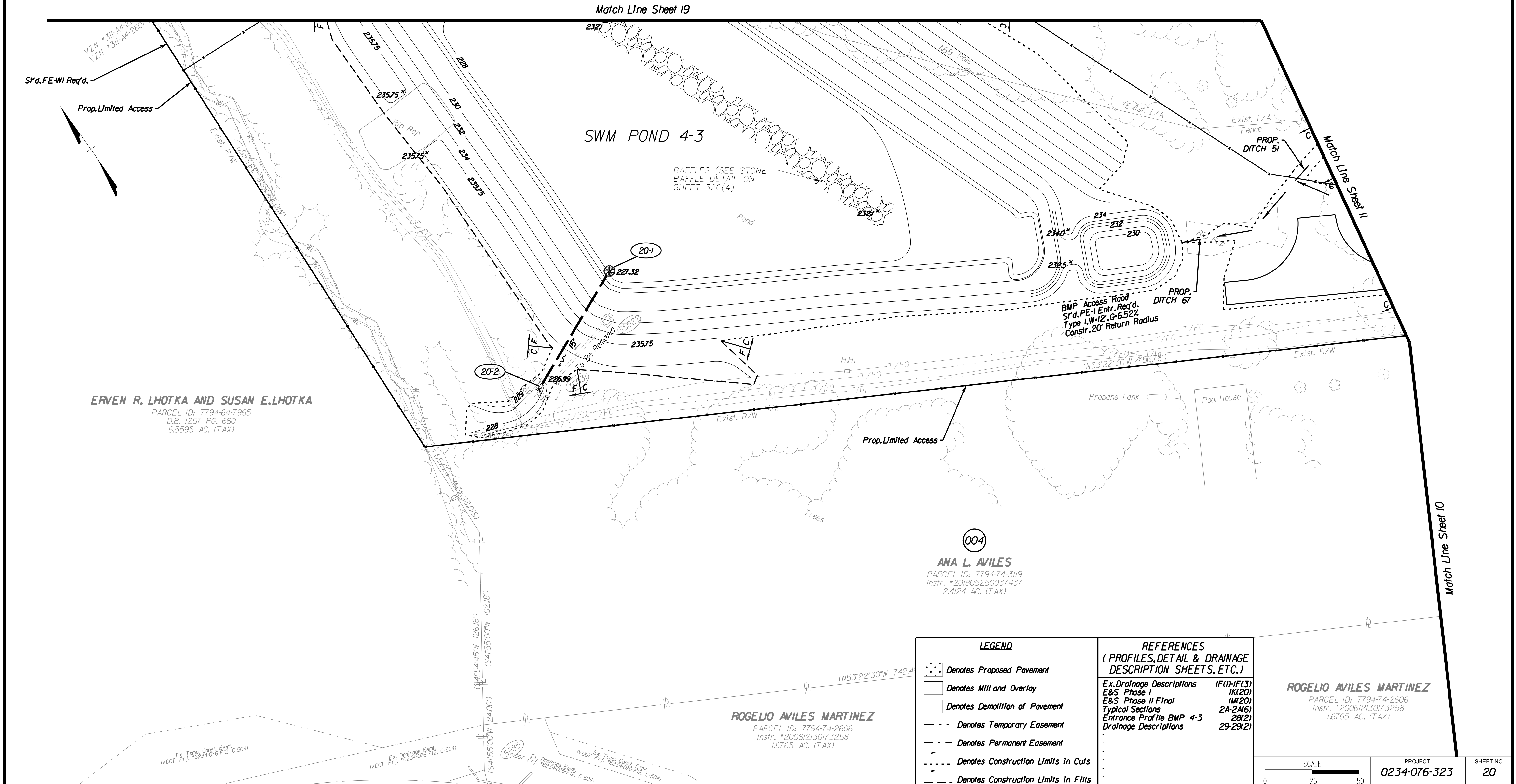
By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER	 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER
Rinker Design Associates, P.C. Glen Allen, Virginia Hydraulics Engineer	Rinker Design Associates, P.C. Glen Allen, Virginia Roadway Engineer

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	20

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



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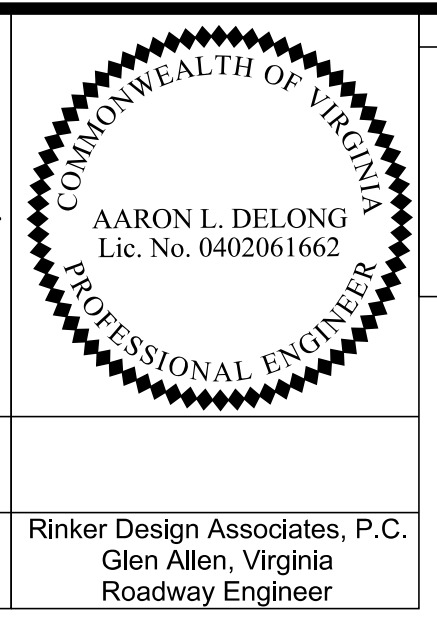
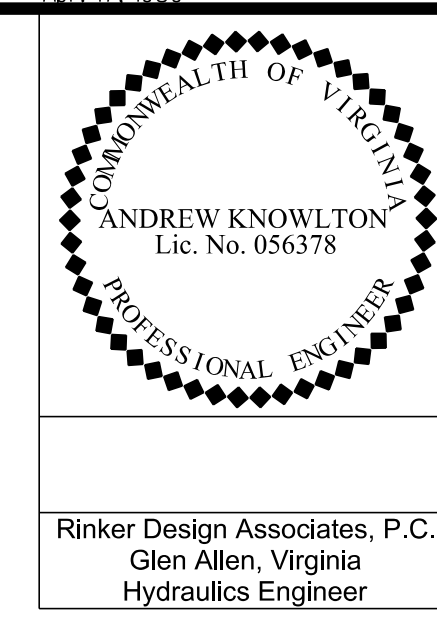
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	21

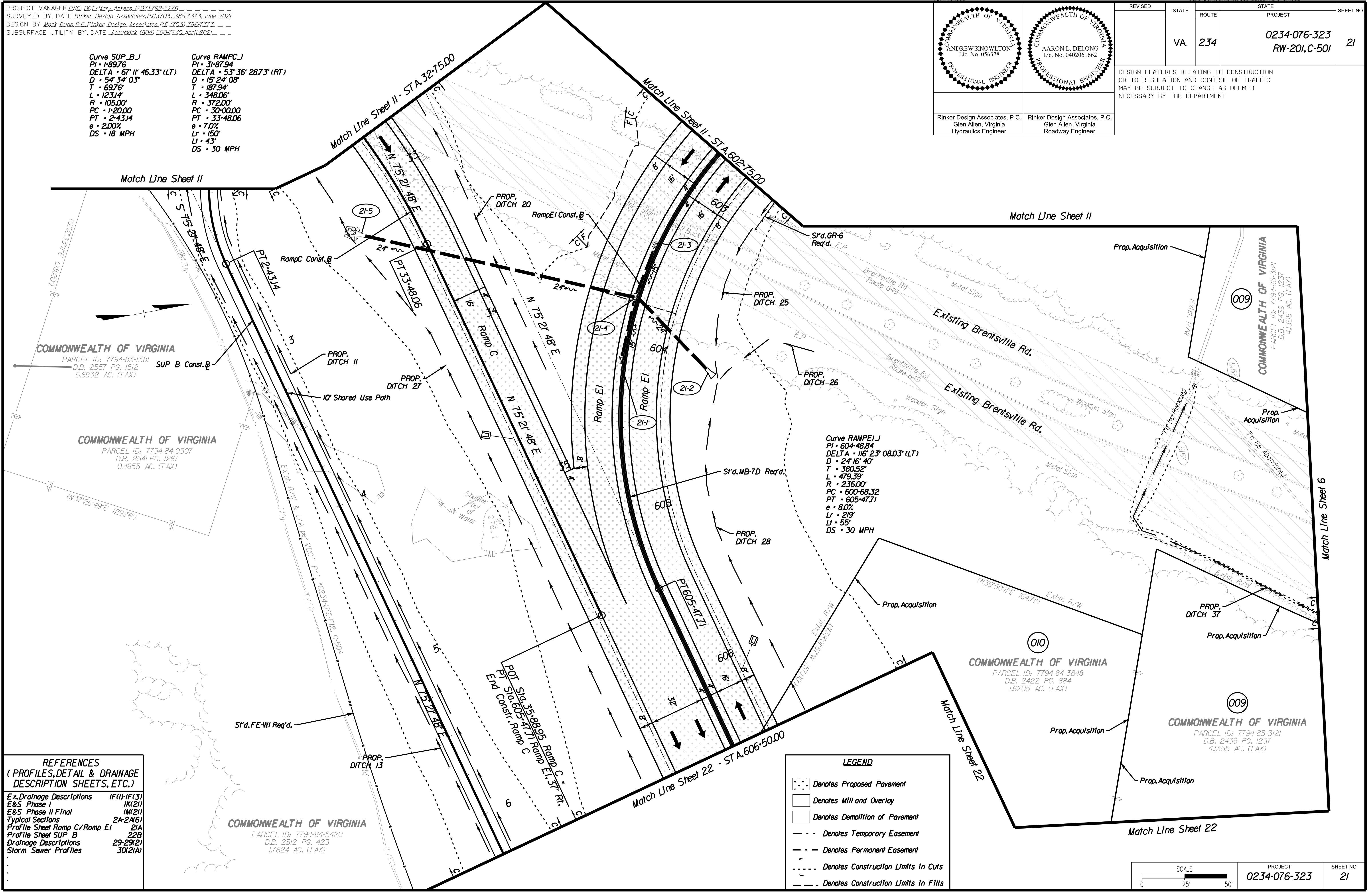
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

Curve SUP_B/J
PI • 1897.6
DELTA • 67° 11' 46.33" (LT)
D • 54' 34' 03"
T • 697.6'
L • 123.14'
R • 105.00'
PC • 120.00'
PT • 243.14'
e • 2.00%
DS • 18 MPH

Curve RAMP_C/I
PI • 3187.94
DELTA • 53° 36' 28.73" (RT)
D • 15' 24' 08"
T • 187.94'
L • 348.06'
R • 372.00'
PC • 3000.00'
PT • 3348.06'
e • 7.0%
Lr • 150'
Ll • 43'
Ds • 30 MPH



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase I	IK(2)
E&S Phase II Final	IK(2)
Typical Sections	2A-2M(6)
Profile Sheet Ramp C/Ramp EI	21A
Profile Sheet SUP B	22B
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(2)A

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 21
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THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

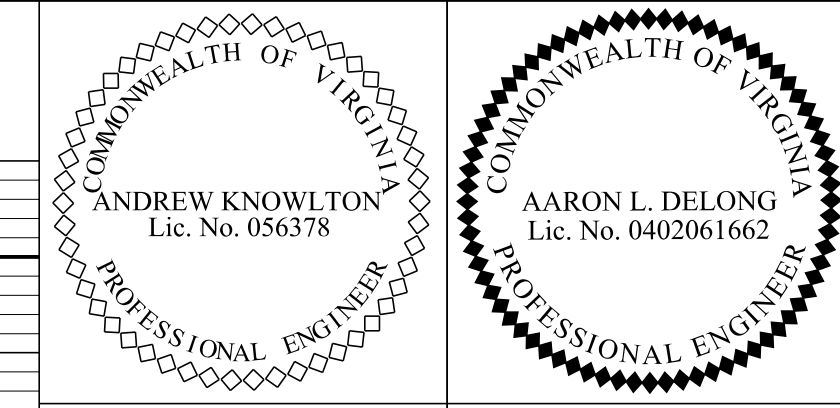
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 20, 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7740, April 20, 2021

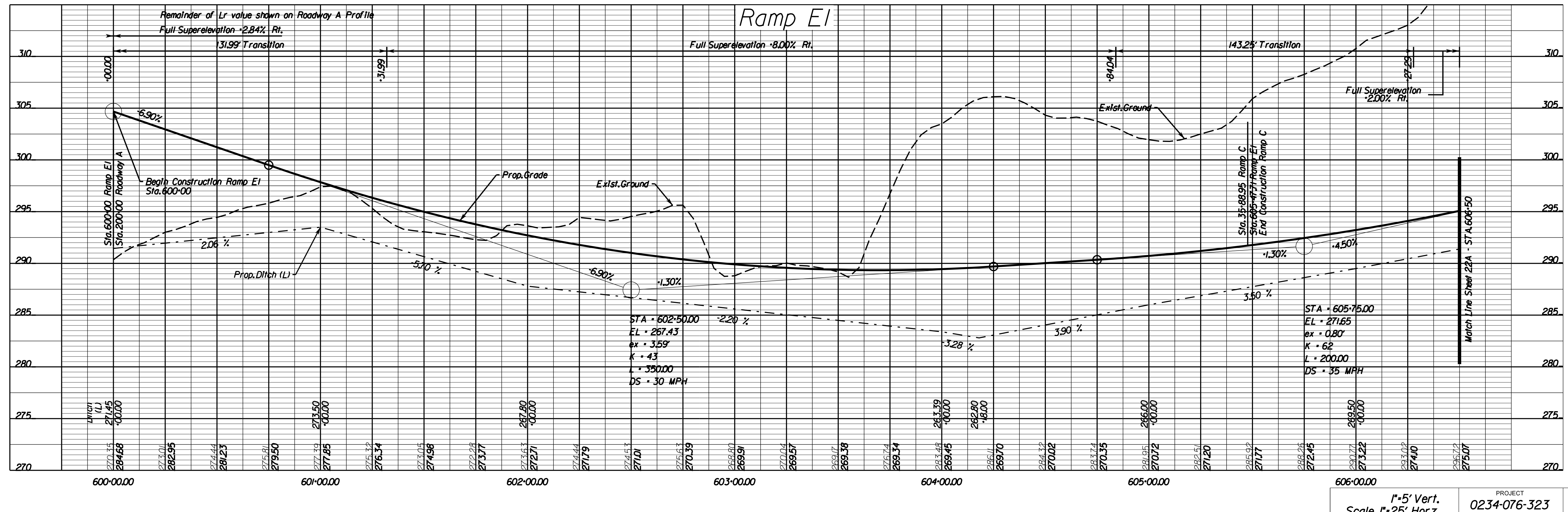
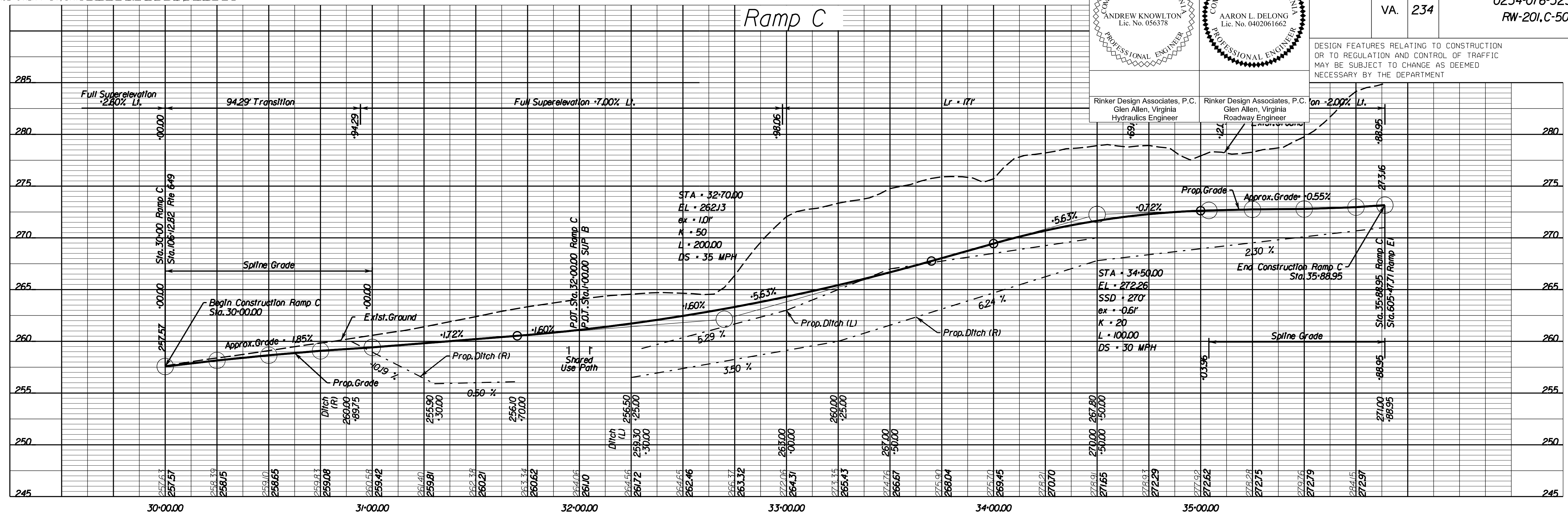


REVISION	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	21A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

1"=5' Vert.
Scale 1"=25' Horz.

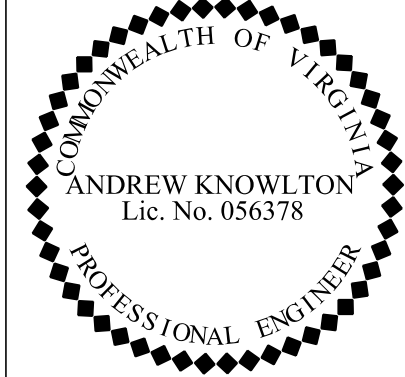
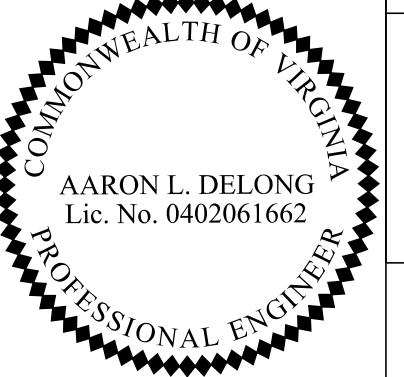
PROJECT
0234-076-323

SHEET NO.
21A

11/5/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated 10/17/1980
LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

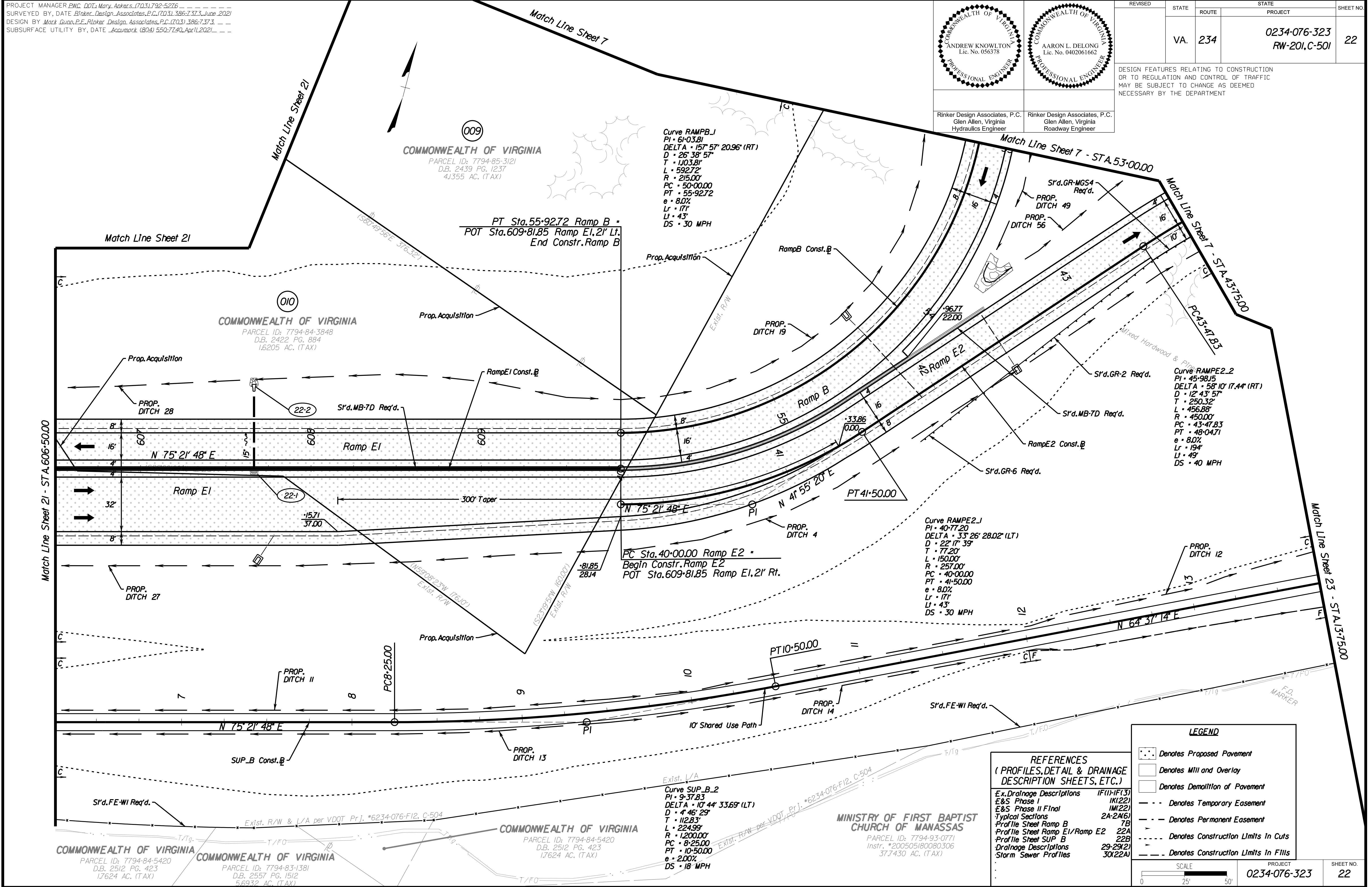
PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER	 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER	REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
			VA.	234		0234-076-323 RW-201.C-501	22

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(1)-IF(3)
E&S Phase I	IK(22)
E&S Phase II Final	IM(22)
Typical Sections	2A-2A(6)
Profile Sheet Ramp B	7B
Profile Sheet Ramp E1/Ramp E2	22A
Profile Sheet SUP B	22B
Drainage Descriptions	29-29(2)
Storm Sewer Profiles	30(22A)

SCALE: 0 25' 50'

PROJECT: 0234-076-323

SHEET NO.: 22

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

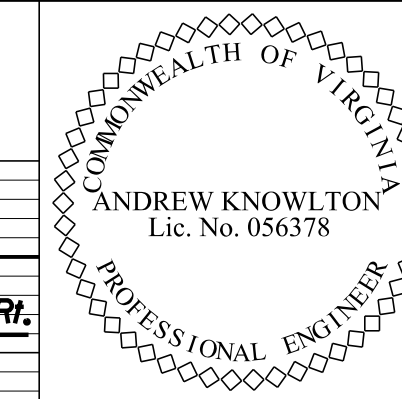
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE Blnker_Design_Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

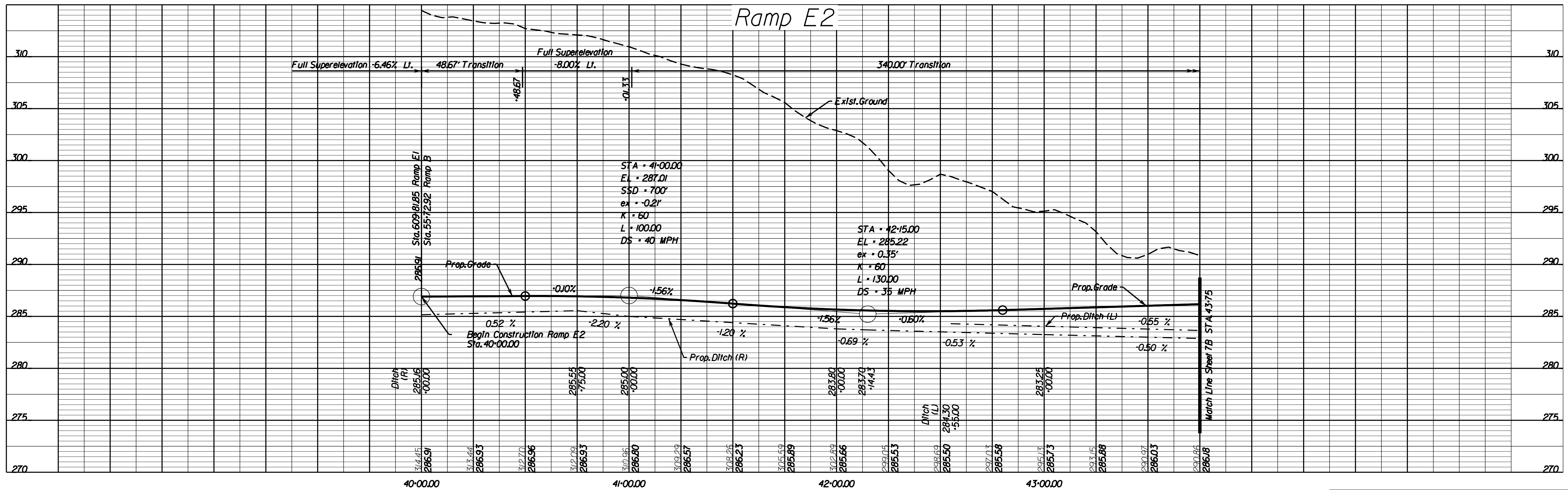
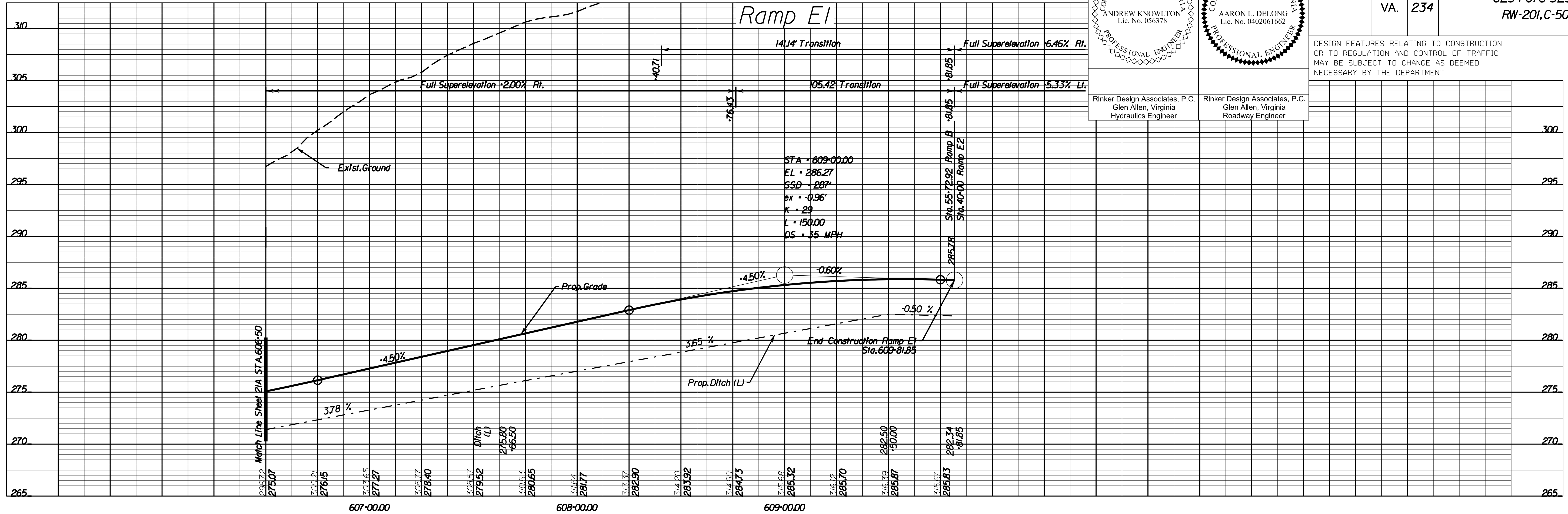


REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	22A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



11/5/2021

Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 22A

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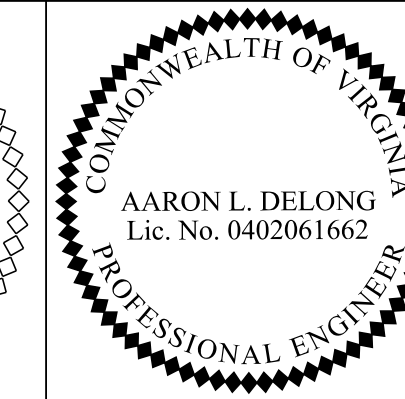
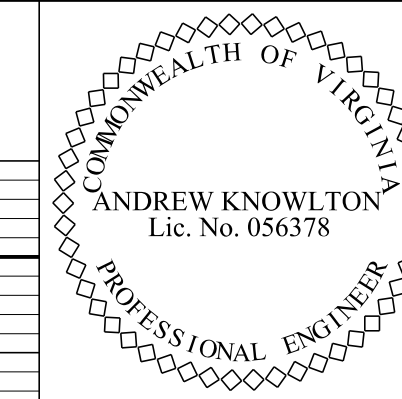
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker, Design, Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker, Design, Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: Accumark (804) 550-7740, April 2021

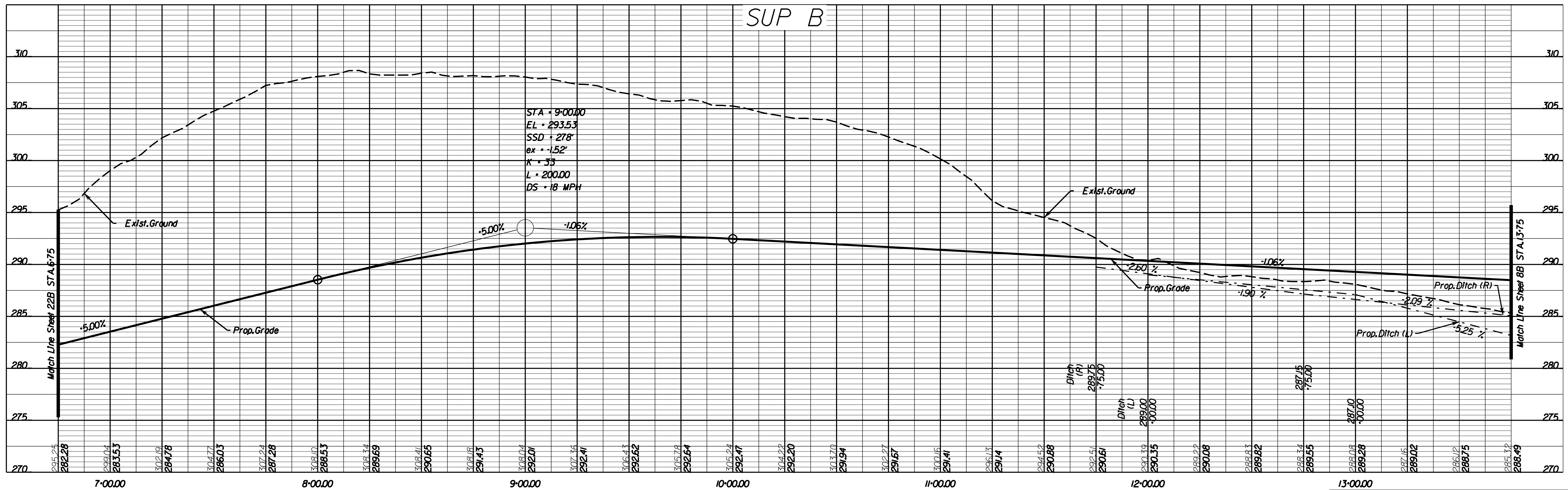
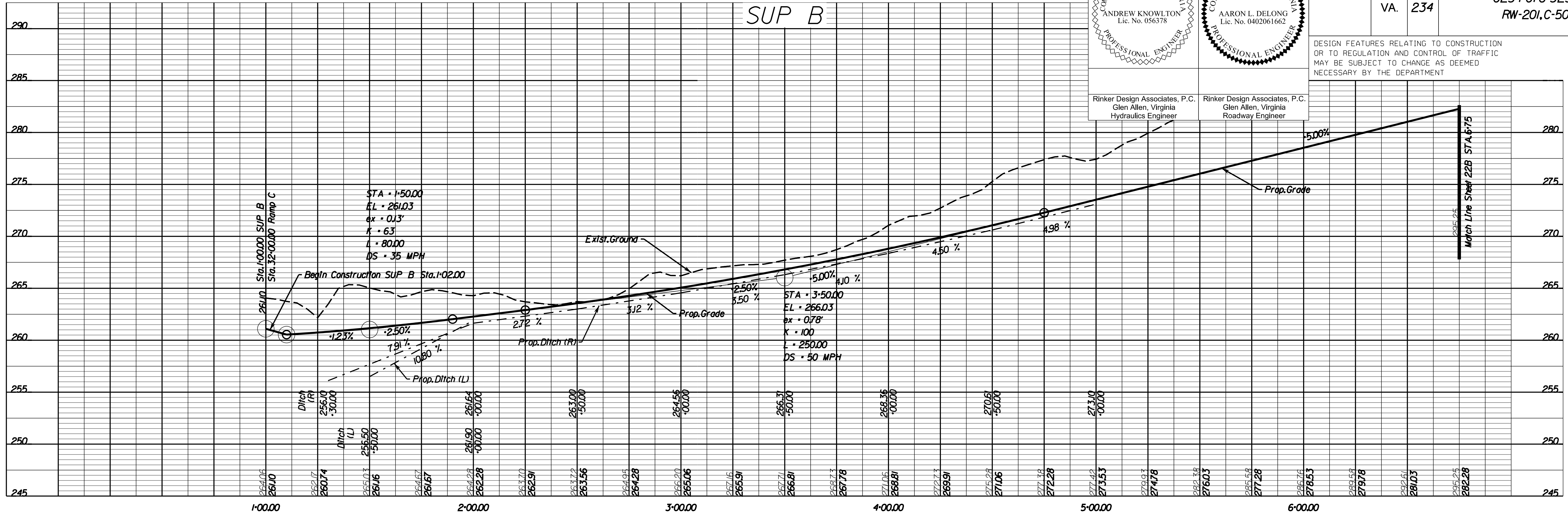


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	22B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



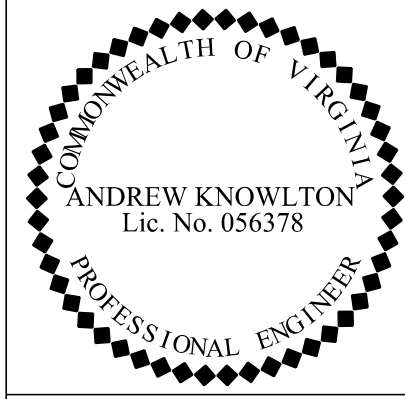

Scale 1"=5' Vert.
Scale 1"=25' Horz.
PROJECT 0234-076-323
SHEET NO. 22B

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

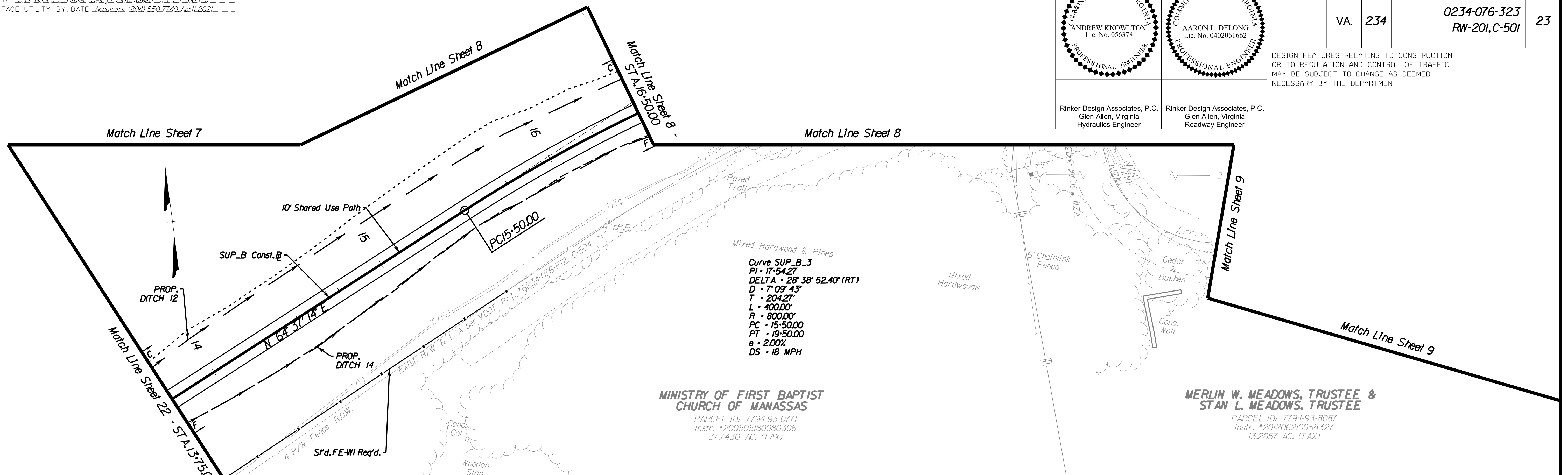
11/5/2021

PROJECT MANAGER BWC DOT: Mary Akers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

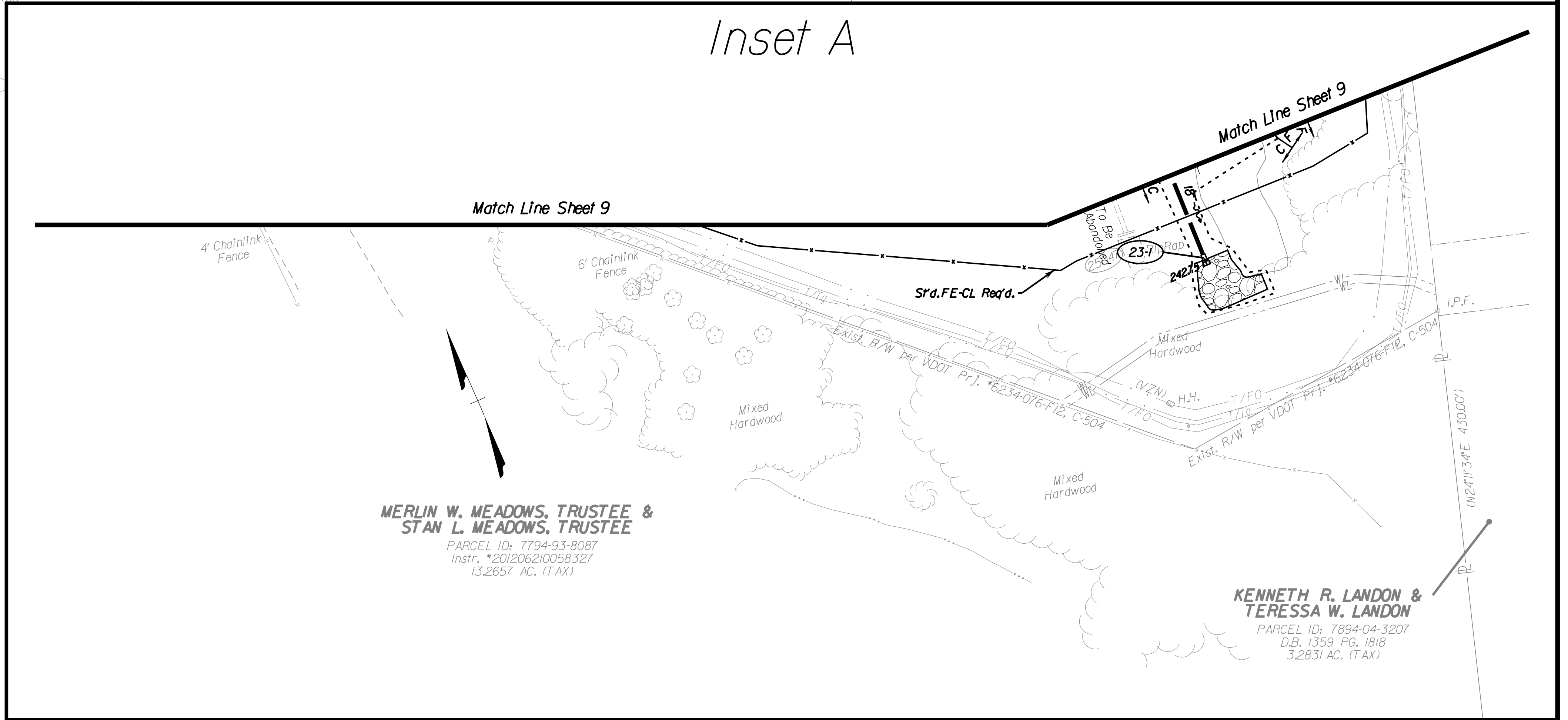
 ANDREW KNOWLTON Lic. No. 056378 PROFESSIONAL ENGINEER	 AARON L. DELONG Lic. No. 0402061662 PROFESSIONAL ENGINEER

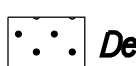

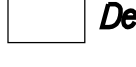


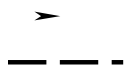
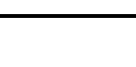
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201, C-501	23

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Curve SUP_B_3
 PI • 17+54.27
 DELTA • 28° 38' 52.40" (RT)
 D • 7' 09" 43"
 T • 204.27'
 L • 400.00'
 R • 800.00'
 PC • 15+50.00
 PT • 19+50.00
 e • 2.00%
 DS • 18 MPH



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	LEGEND
Ex. Drainage Descriptions IF(1)-IF(3)	 Denotes Proposed Pavement
E&S Phase I IK(2,3)	 Denotes Mill and Overlay
E&S Phase II Final IM(2,3)	 Denotes Demolition of Pavement
Typical Sections 2A-24(6)	 Denotes Temporary Easement
Profile Sheet SUP B 8B	 Denotes Permanent Easement
Drainage Descriptions 29-29(2)	 Denotes Construction Limits In Cuts
	 Denotes Construction Limits In Fills

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 23
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11/5/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated Apr. 17, 1980

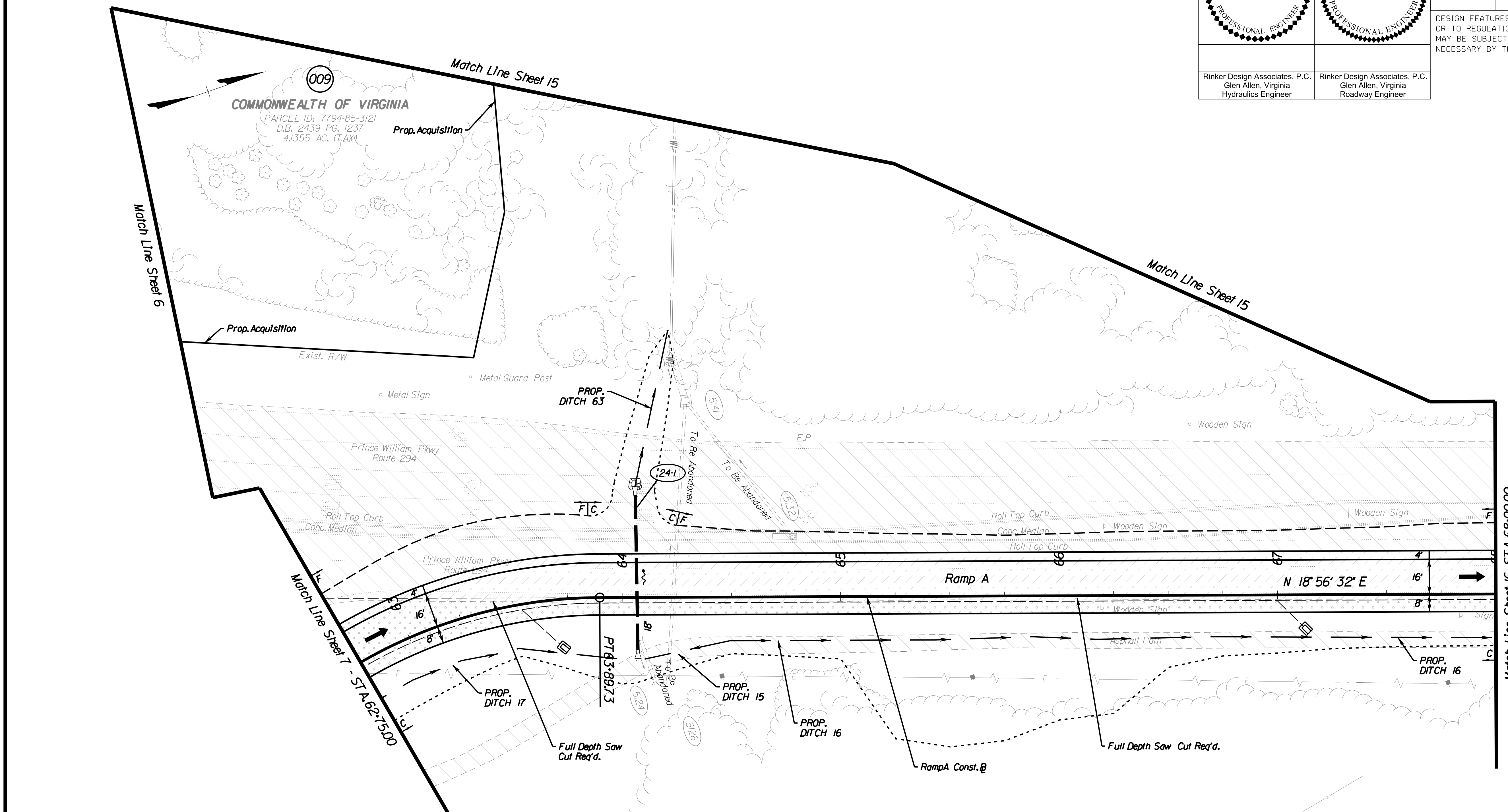
LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	24

NOTE: ELEMENTS ON THIS SHEET ARE WHOLLY CONTAINED WITHIN EXISTING LIMITED ACCESS

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	LEGEND
Ex. Drainage Descriptions IF(1)-IF(3)	Denotes Proposed Pavement
E&S Phase I IK(24)	Denotes Mill and Overlay
E&S Phase II Final IM(24)	Denotes Demolition of Pavement
Typical Sections 2A-2(A6)	Denotes Temporary Easement
Profile Sheet Ramp A 24A	Denotes Permanent Easement
Drainage Descriptions 29-29(2)	Denotes Construction Limits In Cuts
Storm Sewer Profiles 30(24A)	Denotes Construction Limits In Fills
Ditch Profiles 30(24B)	

Curve RAMP A
PI = 62+69.26
DELTA = 101° 29' 57.30" (RT)
D = 26° 02' 37"
T = 269.26'
L = 389.73'
R = 220.00'
PC = 60+00.00
PT = 63+89.73
e = 8.0%
Lr = 17'
Li = 43'
DS = 30 MPH

SCALE 0 25 50'	PROJECT 0234-076-323	SHEET NO. 24
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11/5/2021

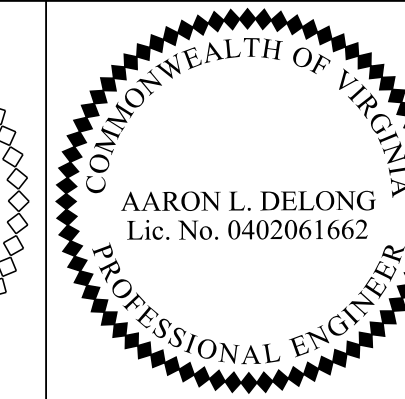
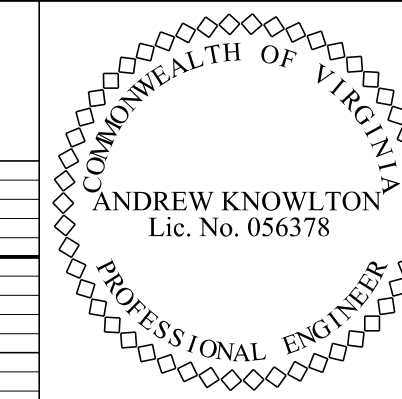
LIMITED ACCESS HIGHWAY

By Resolution of Highway Commission dated
Apr. 17, 1980

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

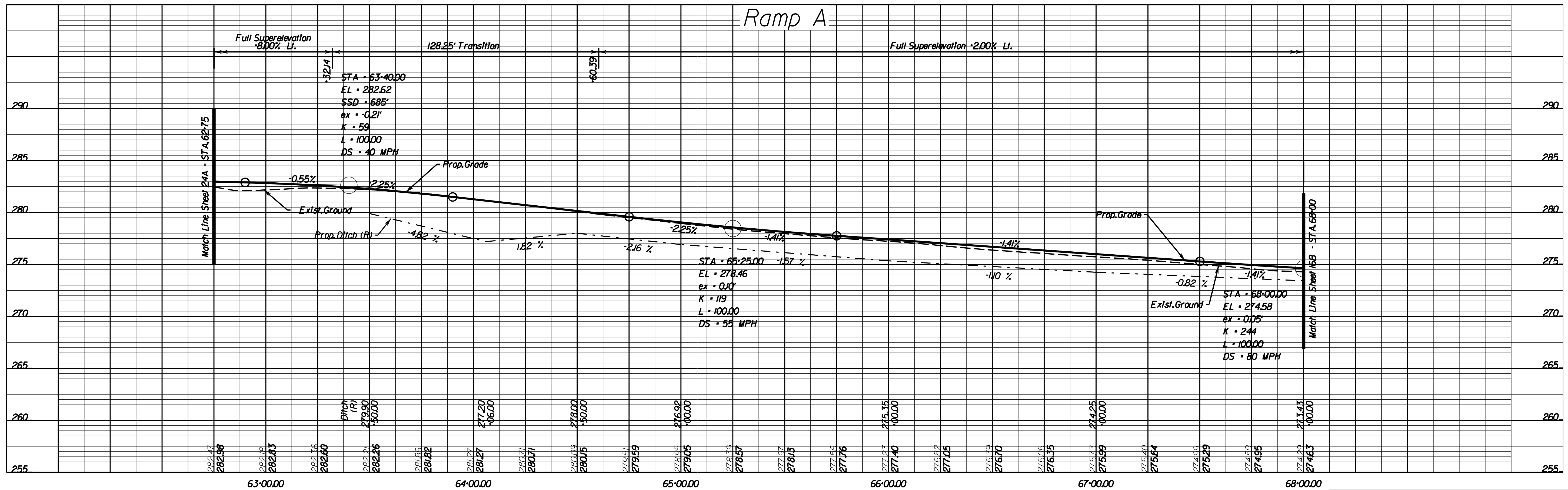
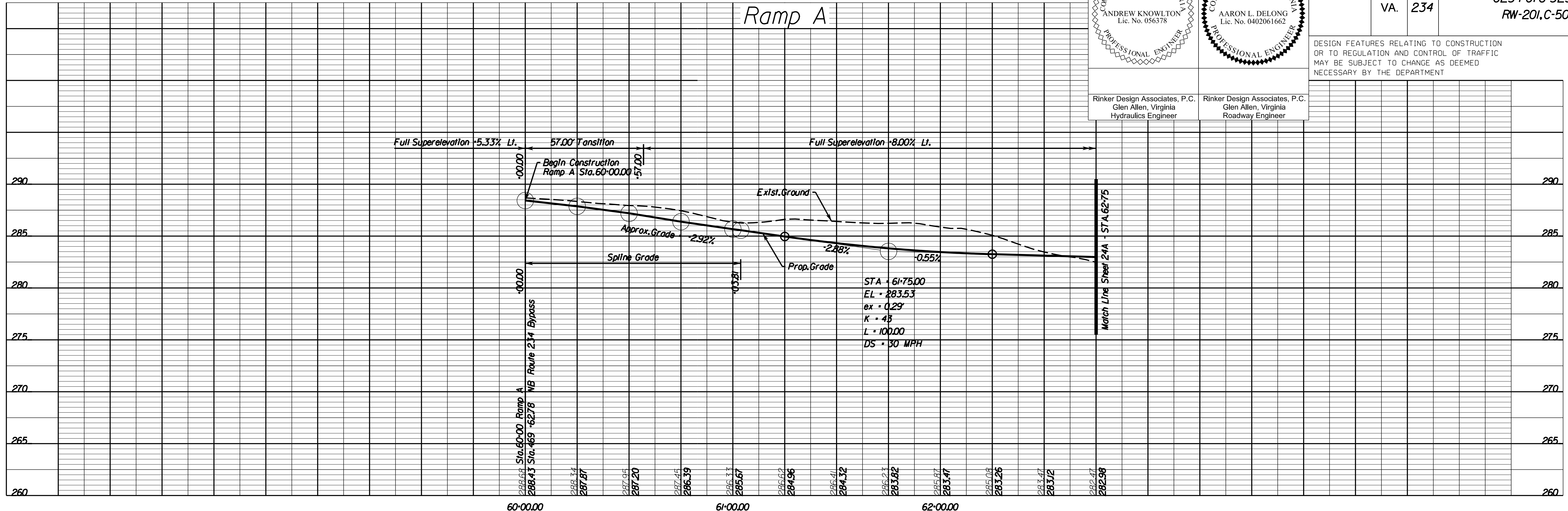


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	24A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



11/5/2021

1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
24A

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LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated
June 20, 1991, amended dated Nov. 15, 1993

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guano, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

ANDREW KNOWLTON
Lic. No. 056378
PROFESSIONAL ENGINEER

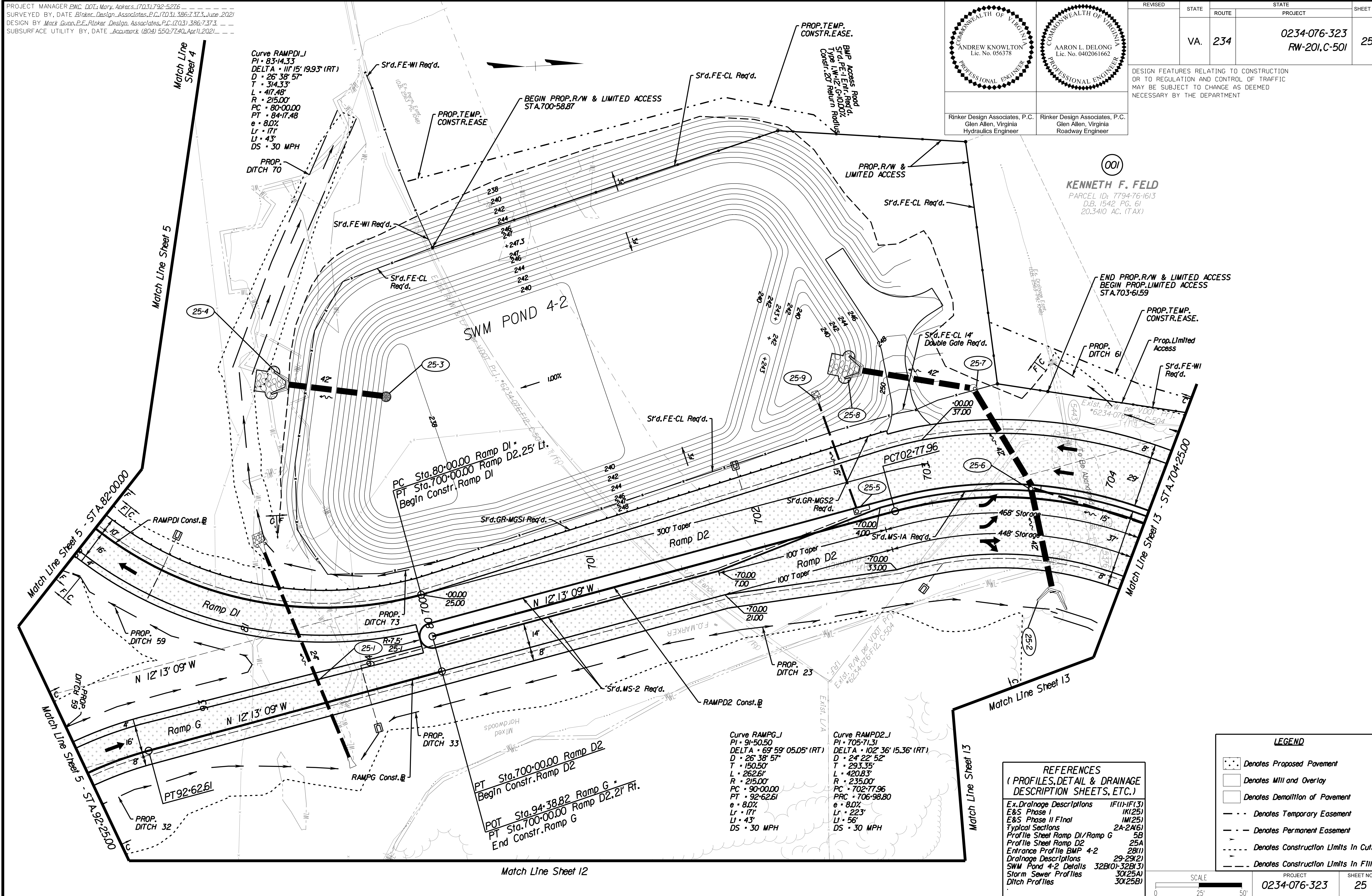
Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

AARON L. DELONG
Lic. No. 0402061662
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

REVISION	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	25

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



001
KENNETH F. FELD
PARCEL ID: 7794-76-1613
D.B. 1542 PG. 61
20.3410 AC. (TAX)

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Ex. Drainage Descriptions	IF(11)F(13)
E&S Phase I	IK(25)
E&S Phase II Final	IM(25)
Typical Sections	2A-24(6)
Profile Sheet Ramp D1/Ramp G	5B
Profile Sheet Ramp D2	25A
Entrance Profile BMP 4-2	28(1)
Drainage Descriptions	29-29(2)
SWM Pond 4-2 Details	32B(1)-32B(3)
Storm Sewer Profiles	30(25A)
Ditch Profiles	30(25B)

LEGEND

- Denotes Proposed Pavement
- Denotes Mill and Overlay
- Denotes Demolition of Pavement
- Denotes Temporary Easement
- Denotes Permanent Easement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills

SCALE	PROJECT	SHEET NO.
0 25 50'	0234-076-323	25

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

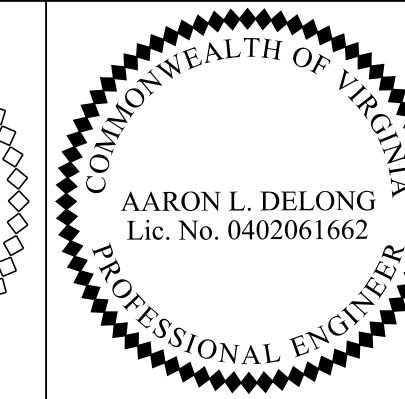
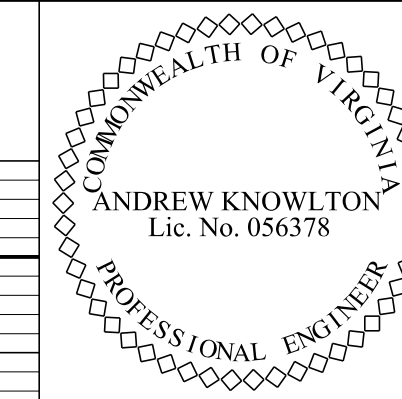
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/5/2021

LIMITED ACCESS HIGHWAY

LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE: AccuMark (804) 550-7740, April 2021

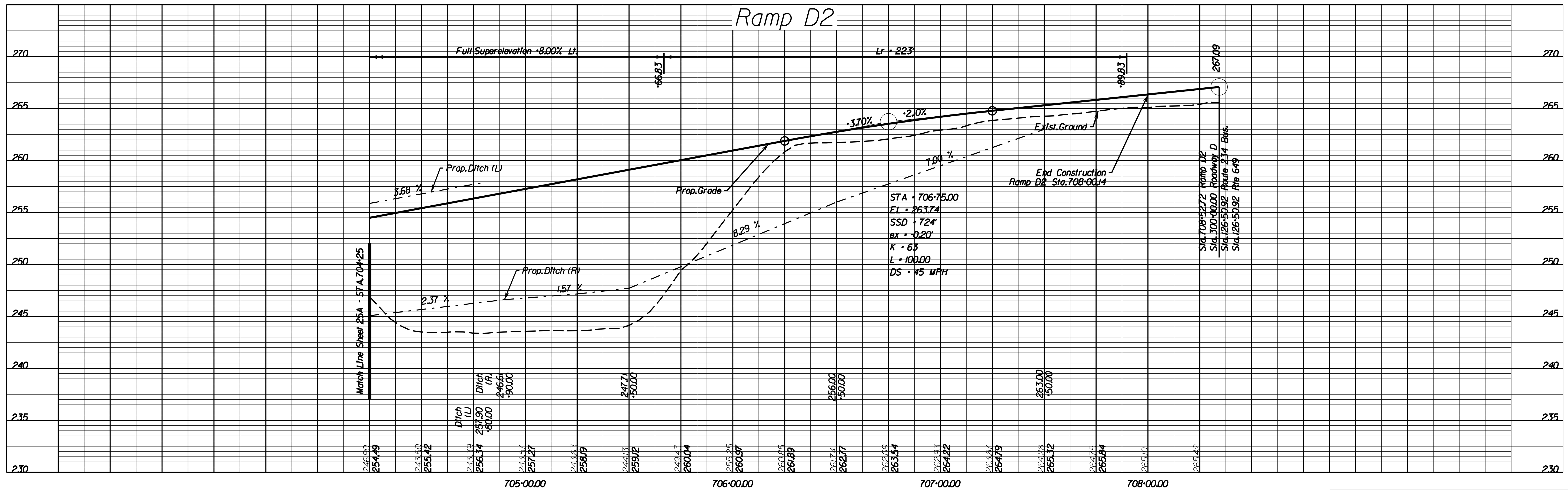
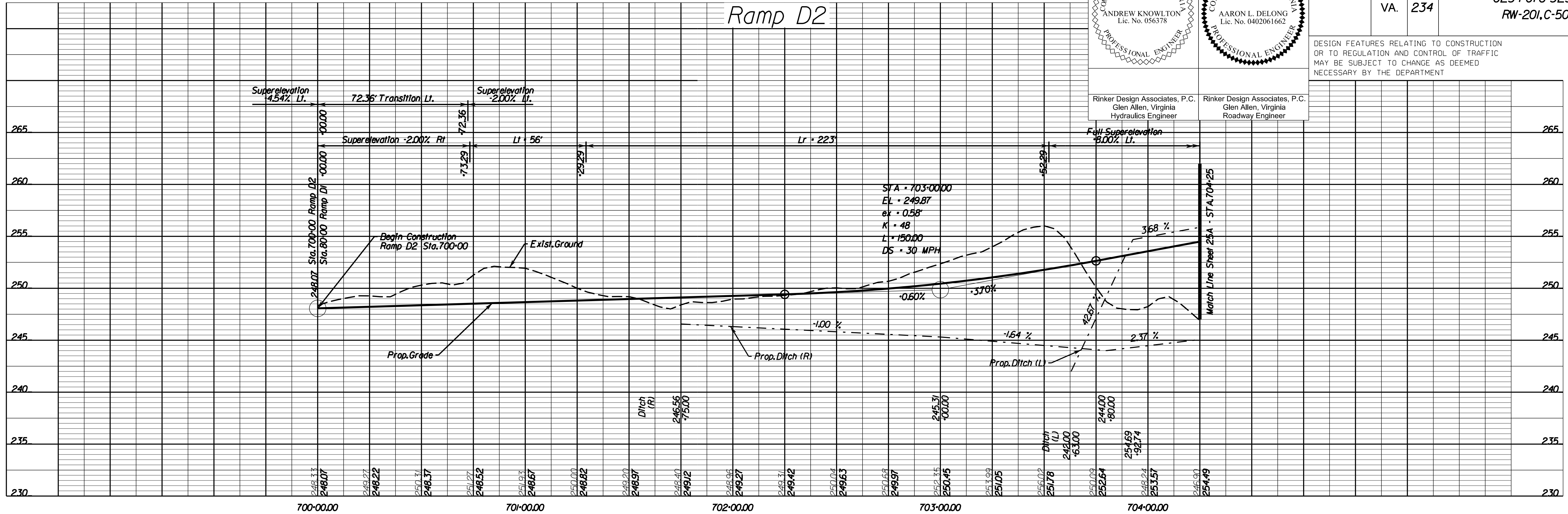


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	25A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Glen Allen, Virginia
Hydraulics Engineer

Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer



Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT 0234-076-323
SHEET NO. 25A

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11/5/2021

LIMITED ACCESS HIGHWAY By Resolution of Highway Commission dated
 Apr. 17, 1980

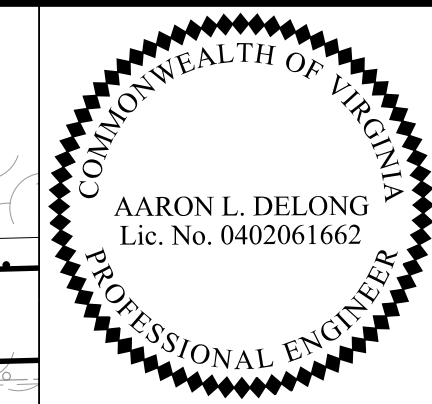
LIMITED ACCESS HIGHWAY

PROJECT MANAGER BWC, DOT, Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April 2021

ENTRANCE PROFILES

BMP 4-1 Entrance

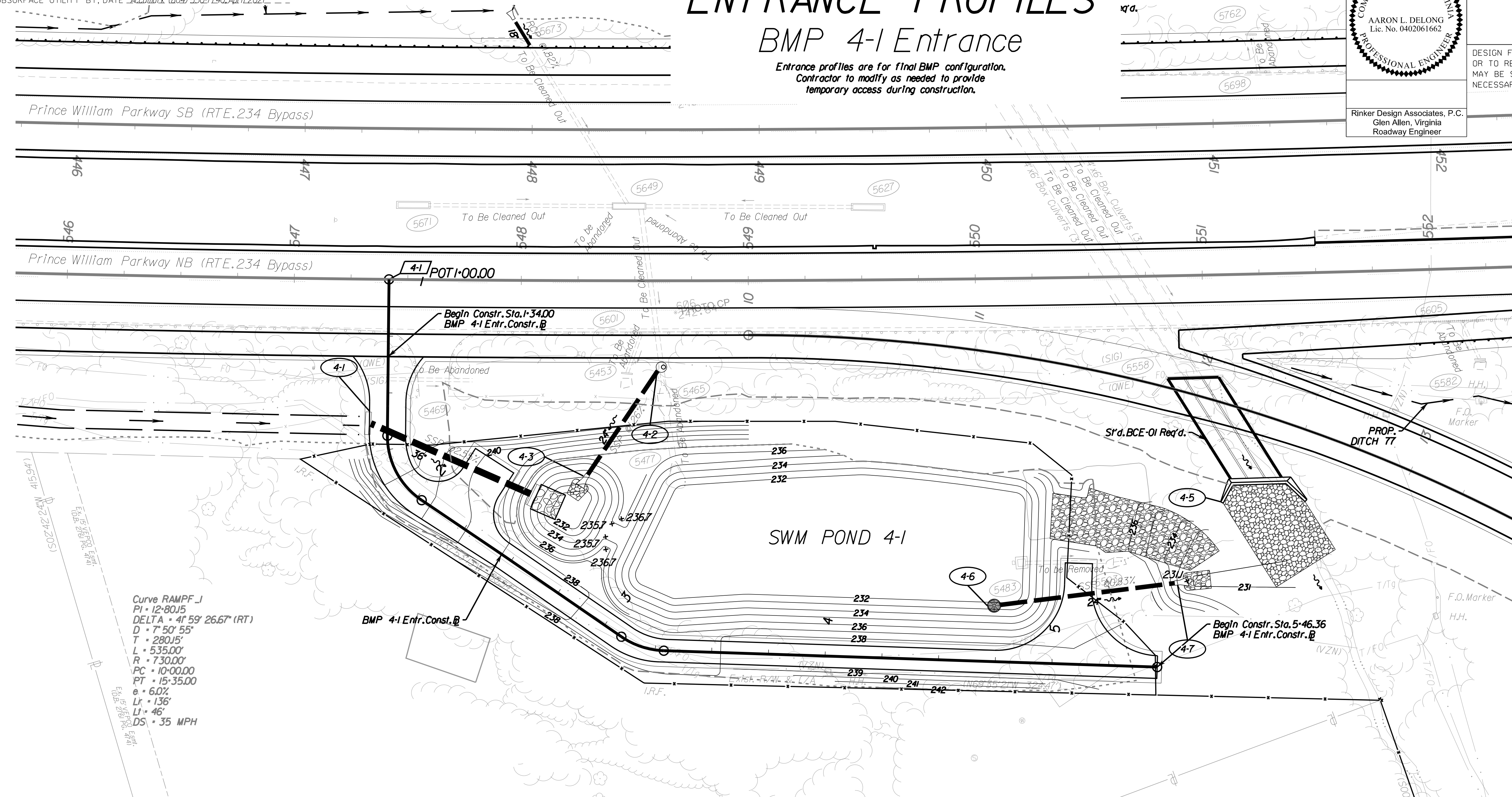
Entrance profiles are for final BMP configuration.
 Contractor to modify as needed to provide
 temporary access during construction.



Rinker Design Associates, P.C.
 Glen Allen, Virginia
 Roadway Engineer

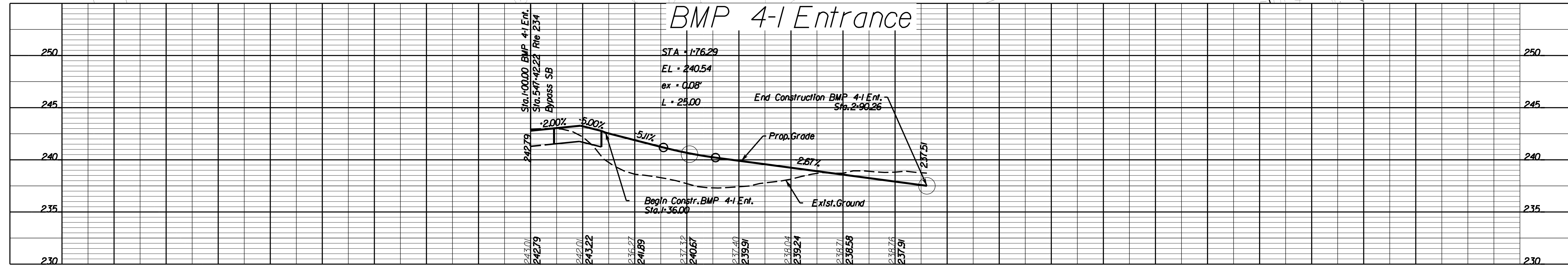
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	28

DESIGN FEATURES RELATING TO CONSTRUCTION
 OR TO REGULATION AND CONTROL OF TRAFFIC
 MAY BE SUBJECT TO CHANGE AS DEEMED
 NECESSARY BY THE DEPARTMENT



BMP 4-1 Access Road
 Std. CG-9D Entr. Req'd.
 Type 1, W=12', G= 9.70%
 Constr. 20' Return Radius

4-1 P.O.T. Sta. 547+50.49 Route 234 Bypass SB
 P.O.T. Sta. 1+00.00 BMP 4-1 Entrance
 D = 90'00"00" Rt.



Scale 1"=5' Vert.
 Scale 1"=25' Horiz.

PROJECT 0234-076-323

SHEET NO. 28

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND
 ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

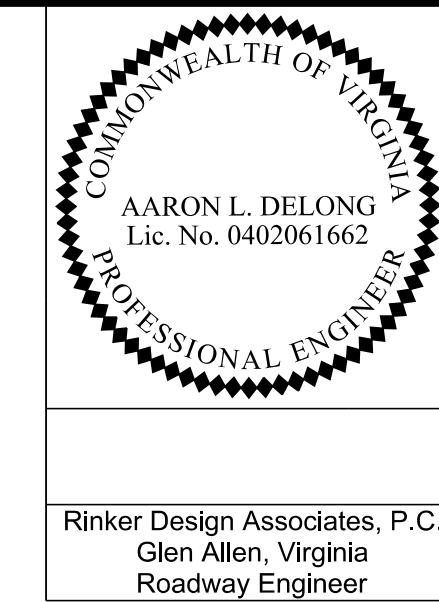
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY
 AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

ENTRANCE PROFILES

BMP 4-2 Entrance

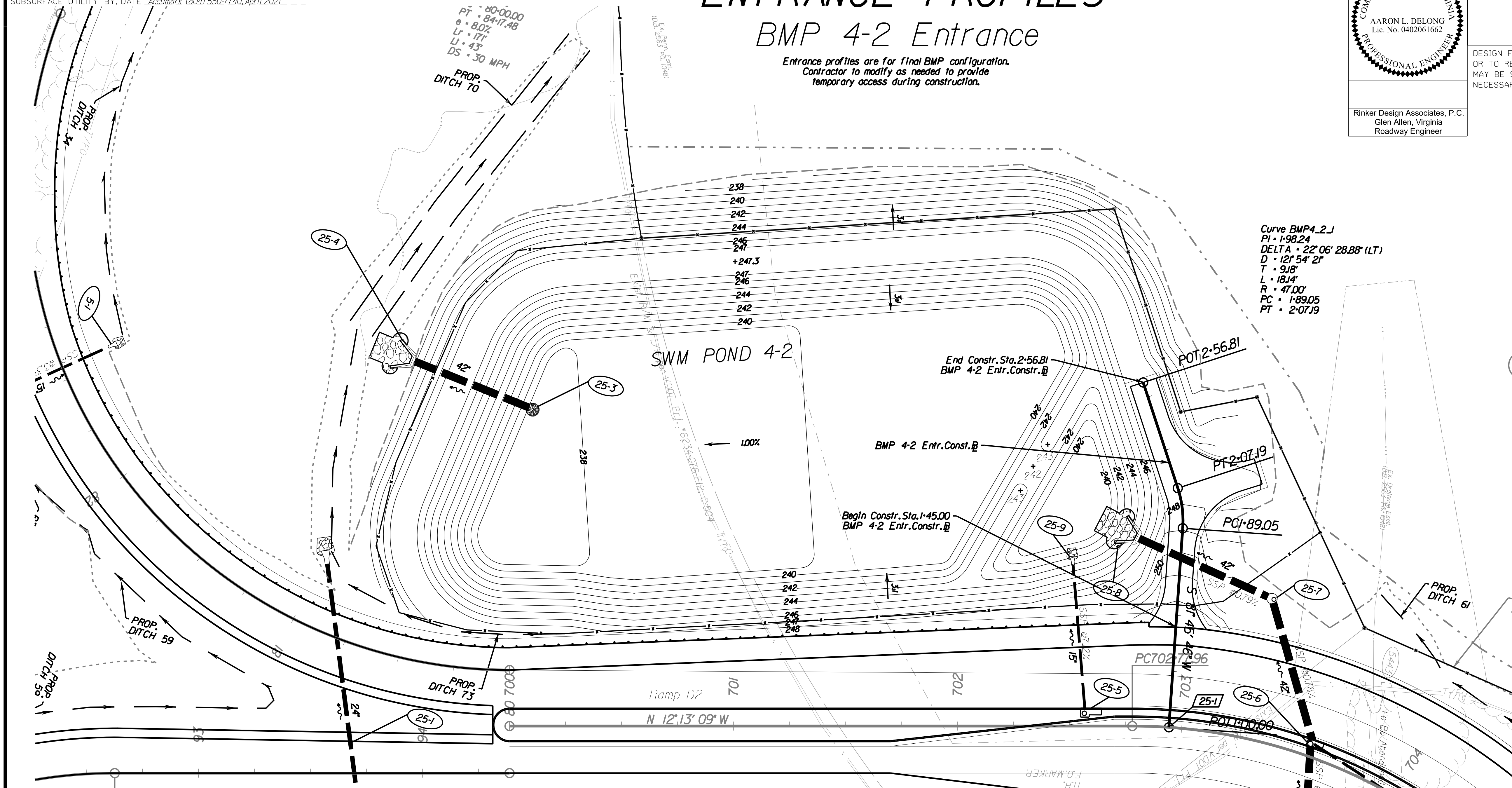
Entrance profiles are for final BMP configuration.
Contractor to modify as needed to provide
temporary access during construction.



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

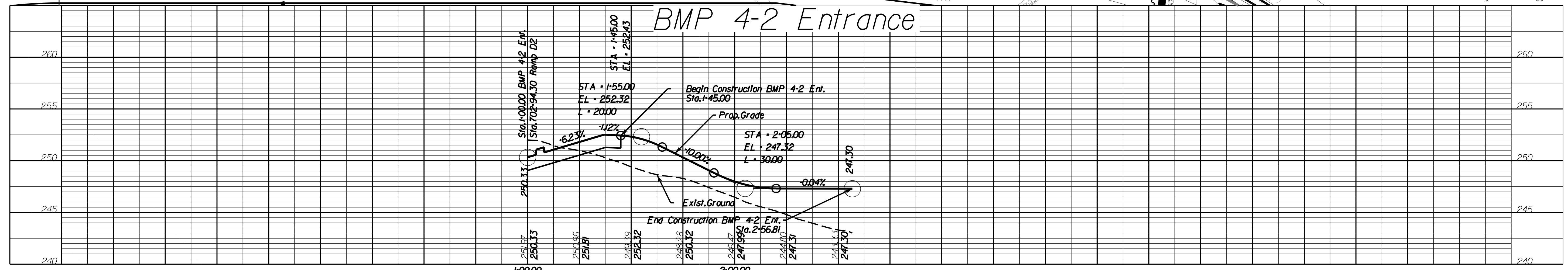
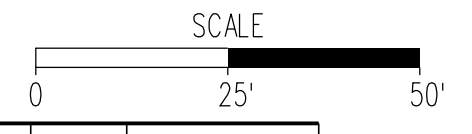
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	28(1)

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT



BMP 4-2 Access Road
Std. PE-1 Entr. Req'd.
Type 1, W=12', G=10.00%
Constr. 20' Return Radius

25-1 P.O.T. Sta. 702+94.30 Ramp D2
P.O.T. Sta. 1+00.00 BMP 4-2 Entrance
D = 9'02" 44' Rt.



Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT 0234-076-323
SHEET NO. 28(1)

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ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY
AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

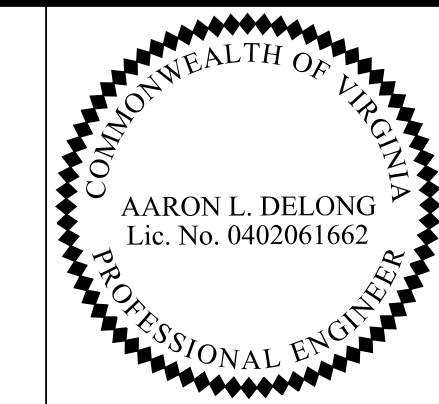
11/1/2021

PROJECT MANAGER *BWC DOT: Mary Ankers (703) 792-5276*
 SURVEYED BY, DATE *Blinker Design Associates, P.C. (703) 386-7373, June 2021*
 DESIGN BY *Mark Guon, P.E., Rinker Design Associates, P.C. (703) 386-7373*
 SUBSURFACE UTILITY BY, DATE *Accumark (804) 550-7740, April 2021*

ENTRANCE PROFILES

BMP 4-3 Entrance

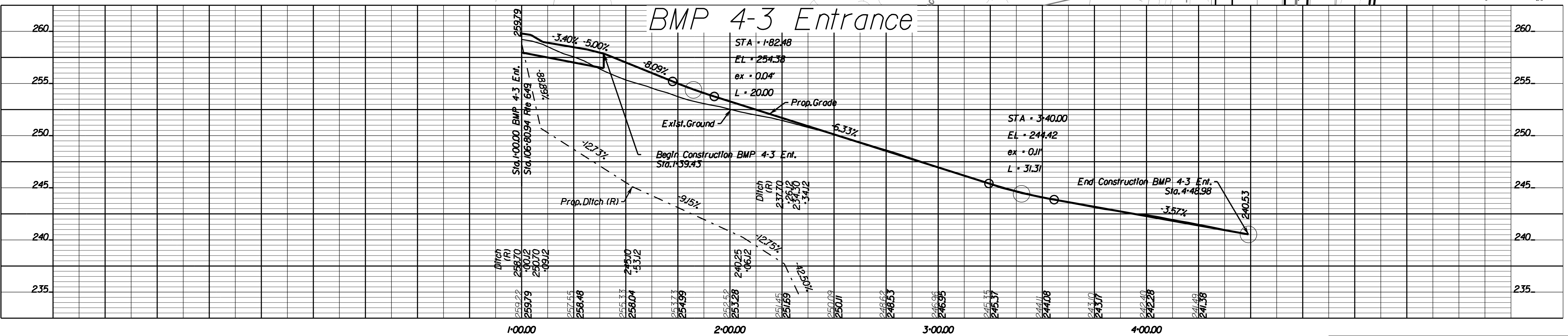
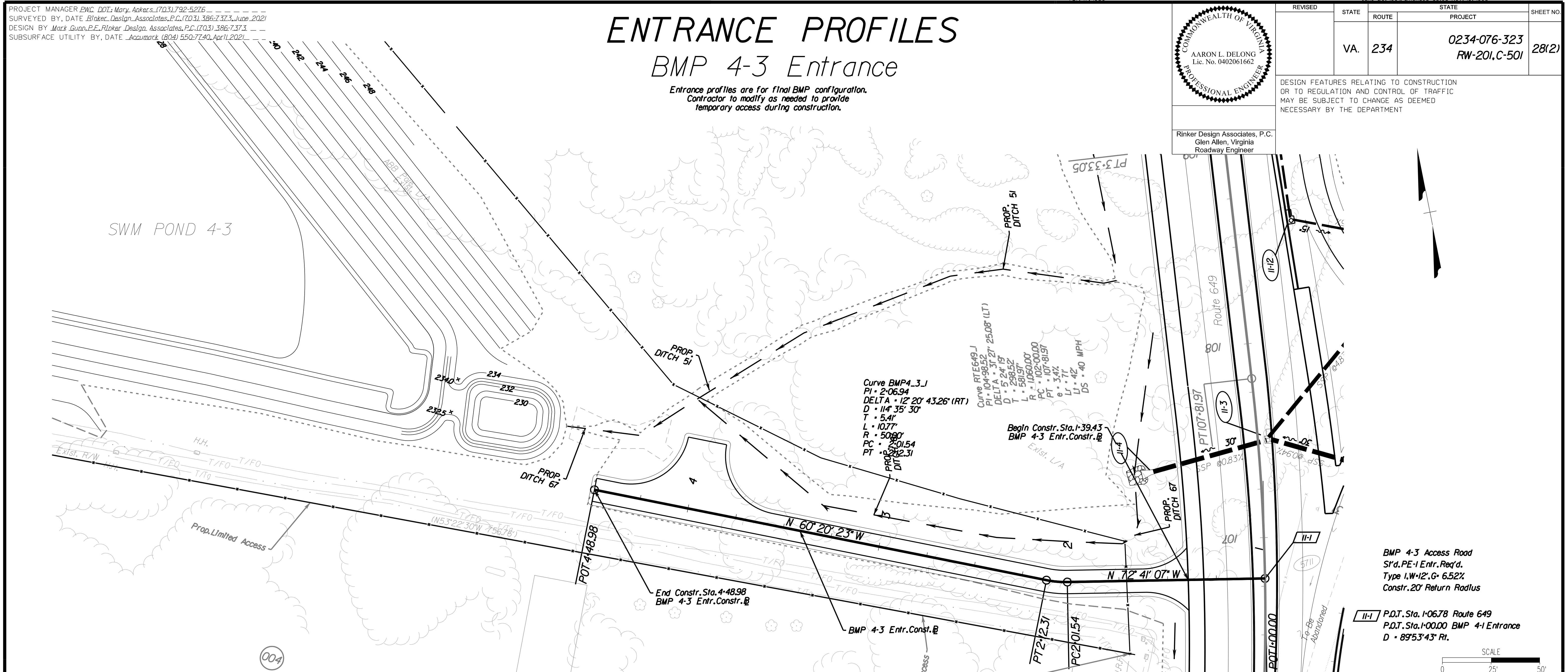
Entrance profiles are for final BMP configuration.
 Contractor to modify as needed to provide
 temporary access during construction.



Rinker Design Associates, P.C.
 Glen Allen, Virginia
 Roadway Engineer

STATE	ROUTE	PROJECT	SHEET NO.
VA.	234	0234-076-323 RW-201,C-501	28(2)

DESIGN FEATURES RELATING TO CONSTRUCTION
 OR TO REGULATION AND CONTROL OF TRAFFIC
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 NECESSARY BY THE DEPARTMENT



Scale 1"=5' Vert.
 Scale 1"=25' Horz.

PROJECT	0234-076-323	SHEET NO.	28(2)
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11/1/2021

LIMITED ACCESS HIGHWAY

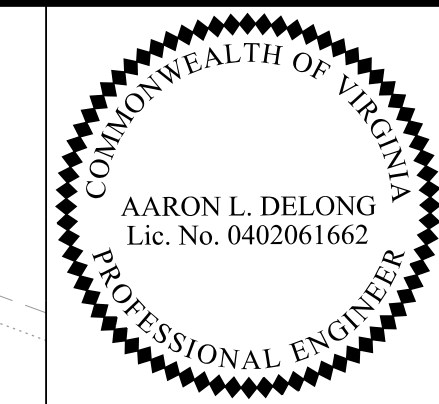
LIMITED ACCESS HIGHWAY

PROJECT MANAGER: BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY: DATE: Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY: Mark Guan, P.E., Rinker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY: BY DATE: AccuMark (804) 550-7740, April 2021

ENTRANCE PROFILES

BMP 6-2 Entrance

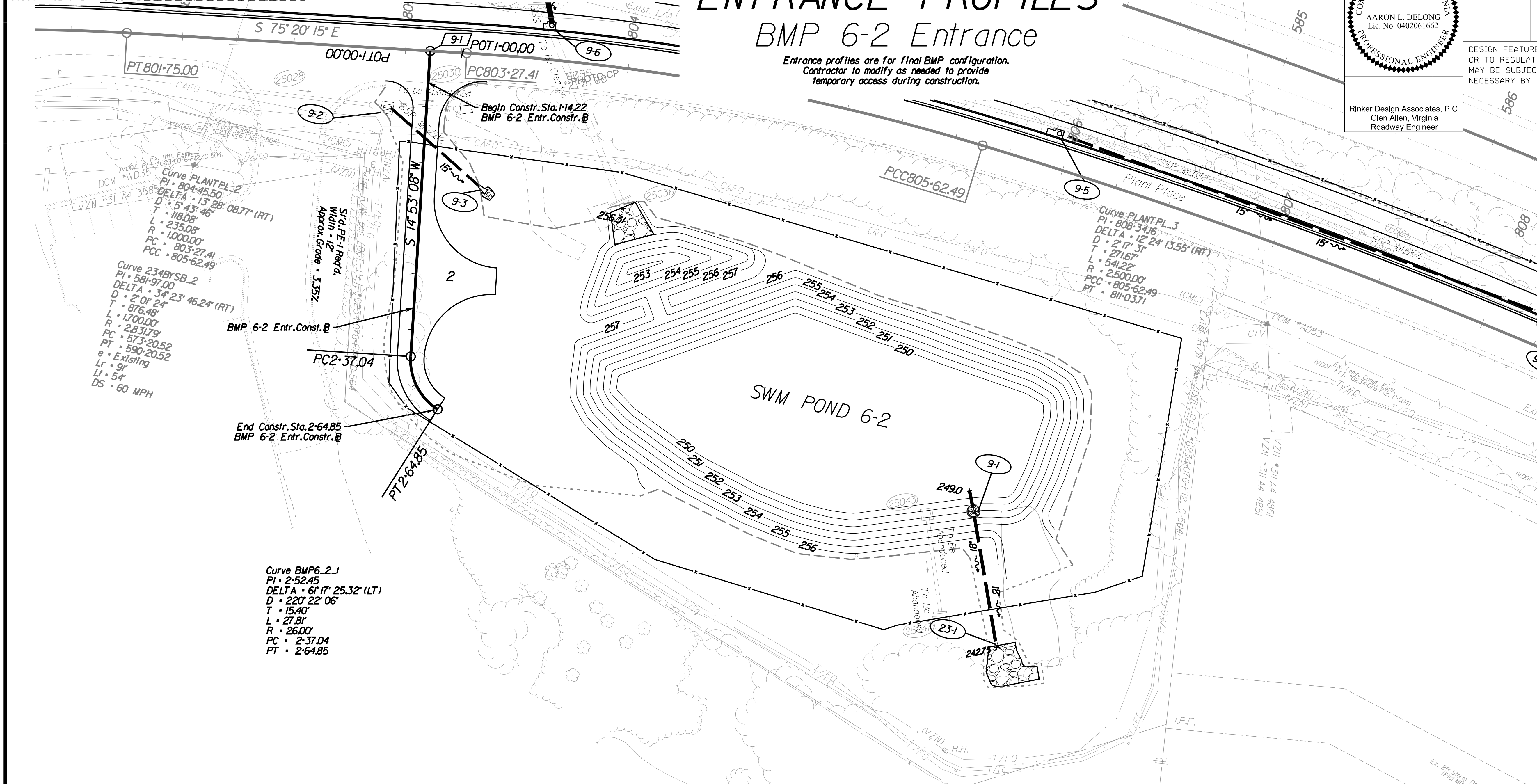
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Contractor to modify as needed to provide temporary access during construction.



Rinker Design Associates, P.C.
Glen Allen, Virginia
Roadway Engineer

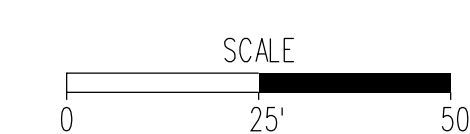
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	28(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

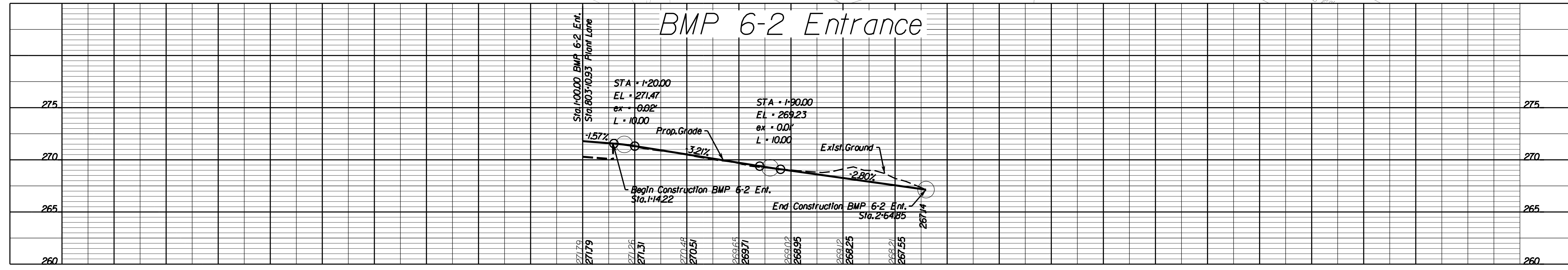


BMP 6-2 Access Road
Std. PE-1 Entr. Req'd.
Type 1, W-12', G+ 2.08%
Constr. 20' & 12' Return Radius

9-1 P.O.T. Sta. 803+10.93 Plant Lane
P.O.T. Sta. 1+00.00 BMP 6-2 Entrance
D = 90'00"00" RI.



BMP 6-2 Entrance



Scale 1"=5' Vert.
Scale 1"=25' Horz.

PROJECT
0234-076-323

SHEET NO.
28(3)

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PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-5276
SURVEYED BY, DATE Rinker_Design_Associates, P.C. (703) 386-7373, June, 2021
DESIGN BY Mark_Gunn, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April, 2021

Preliminary Signage Plan

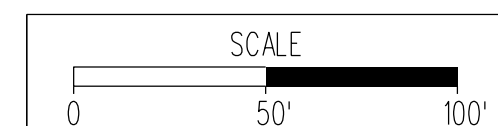
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	34(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



Match Line Sheet 34(2) - STA 539+00



PROJECT 0234-076-323

SHEET NO. 34(1)

PH PLAN

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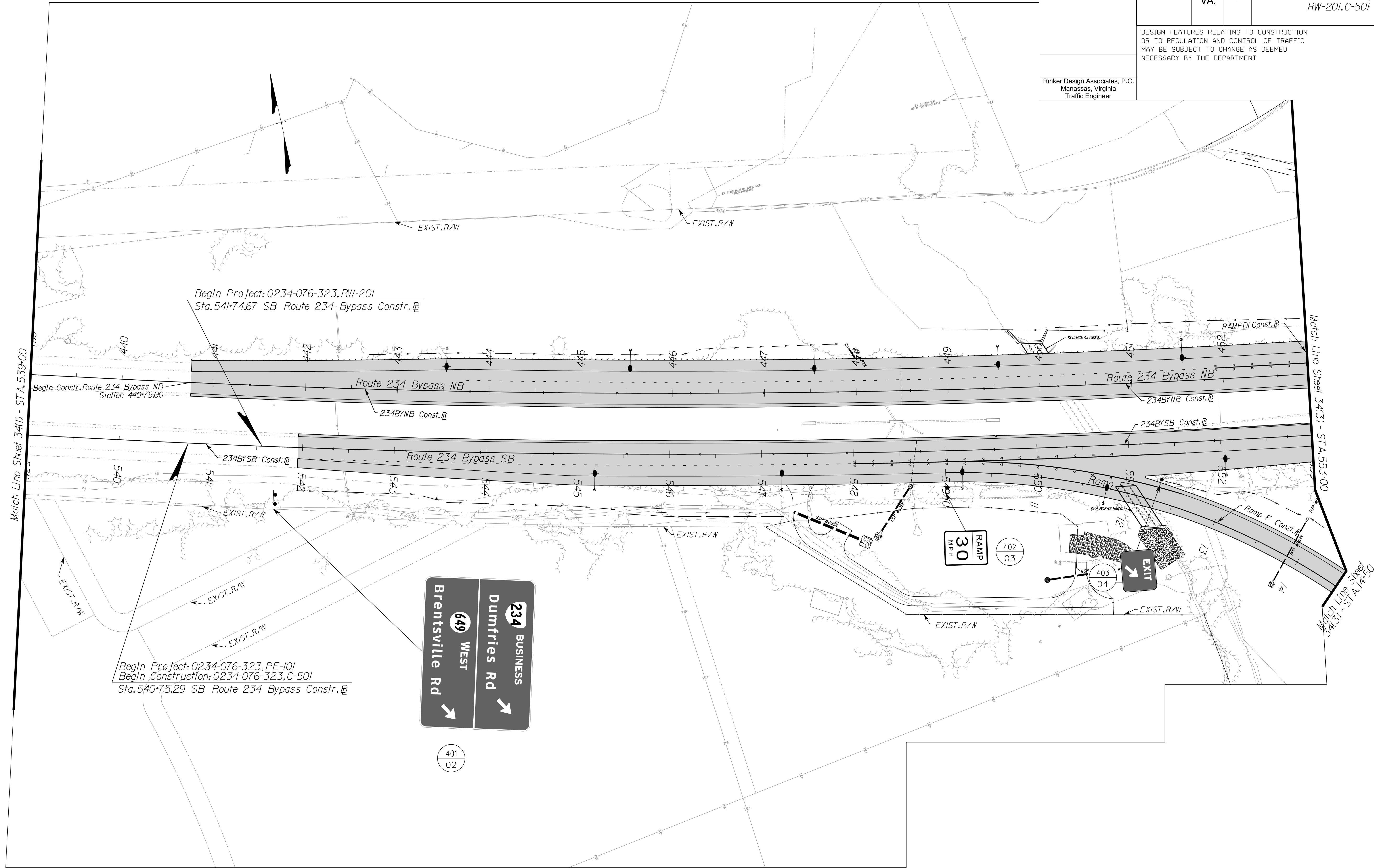
PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E.,Rinker_Design_Associates_P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE Accumark_(804)550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	34(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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Manassas, Virginia
Traffic Engineer



11/1/2021

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 34(2)
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PH
PLAN

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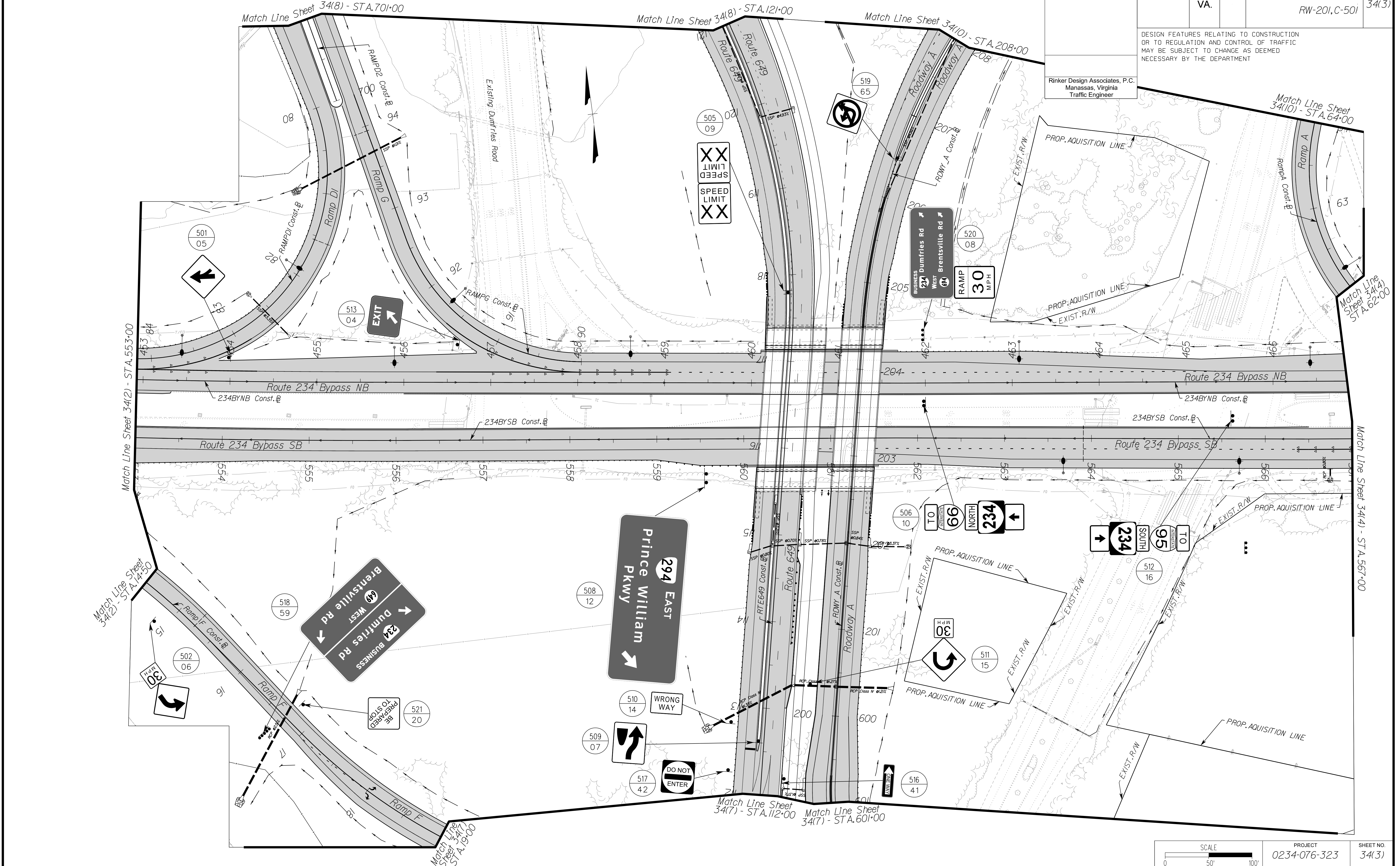
PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-5276
 SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
 DESIGN BY Mark_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE Acumark (804) 550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	34(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer



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SCALE 0 50' 100'

PROJECT 0234-076-323

SHEET NO. 34(3)

11/1/2021

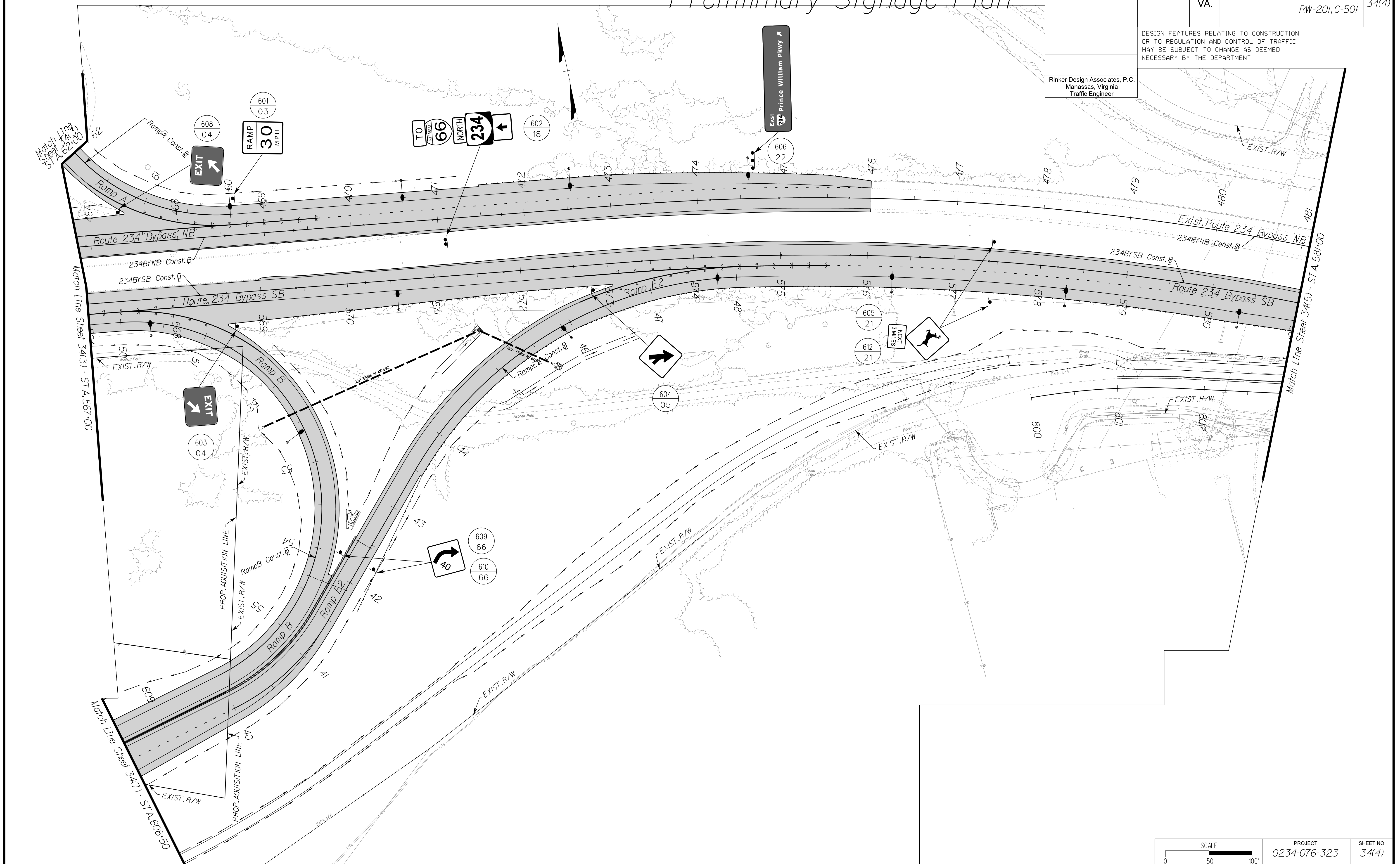
PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-5276
 SURVEYED BY, DATE Rinker_Design_Associates, P.C. (703) 386-7373, June, 2021
 DESIGN BY Mack_Gunn, P.E., Rinker_Design_Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark, (804) 550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	34(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



PH
PLAN

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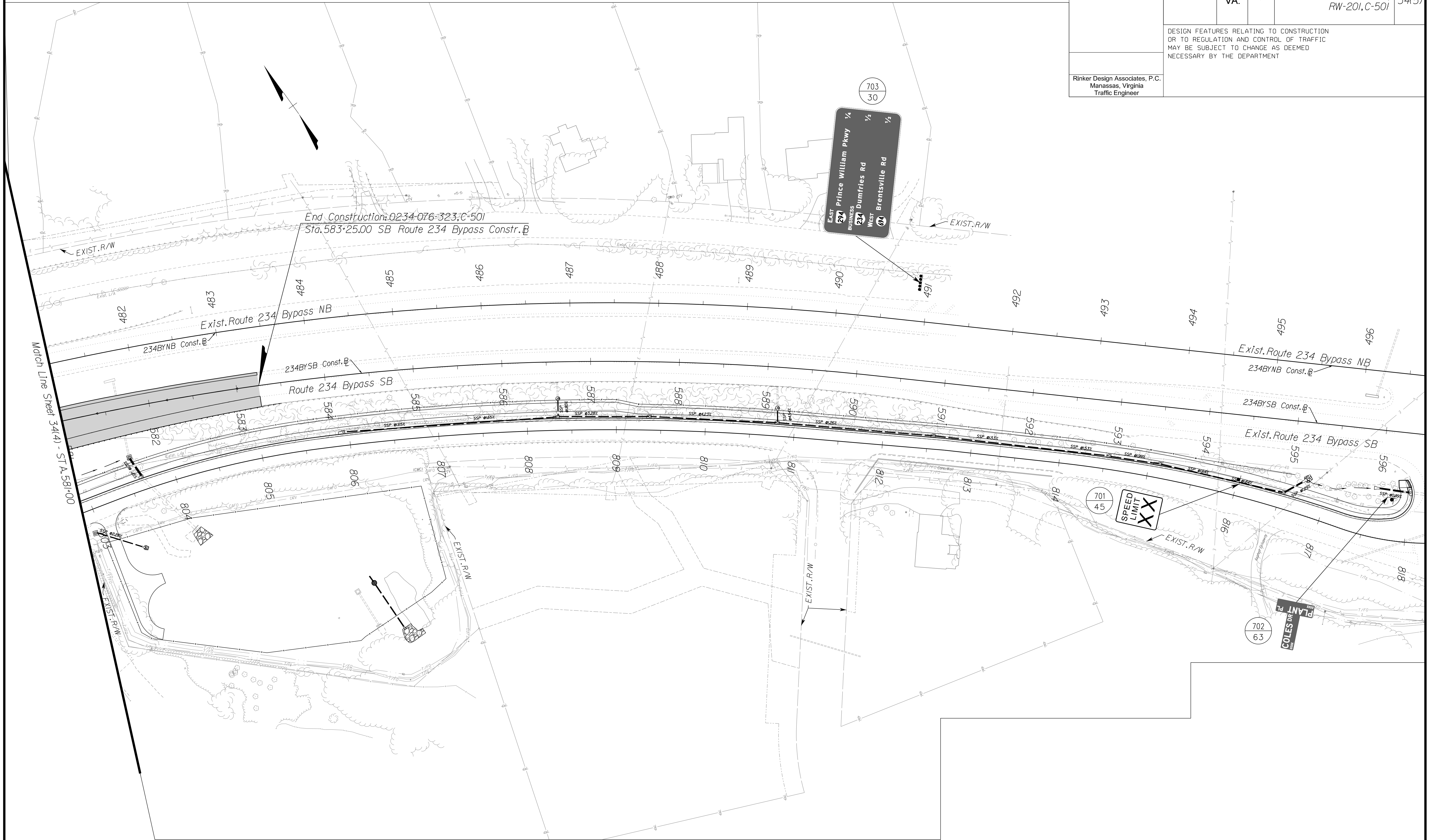
PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 34(4)
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PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	34(5)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Rinker Design Associates, P.C. Manassas, Virginia Traffic Engineer					



11/1/2021

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 34(5)
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PH
PLAN

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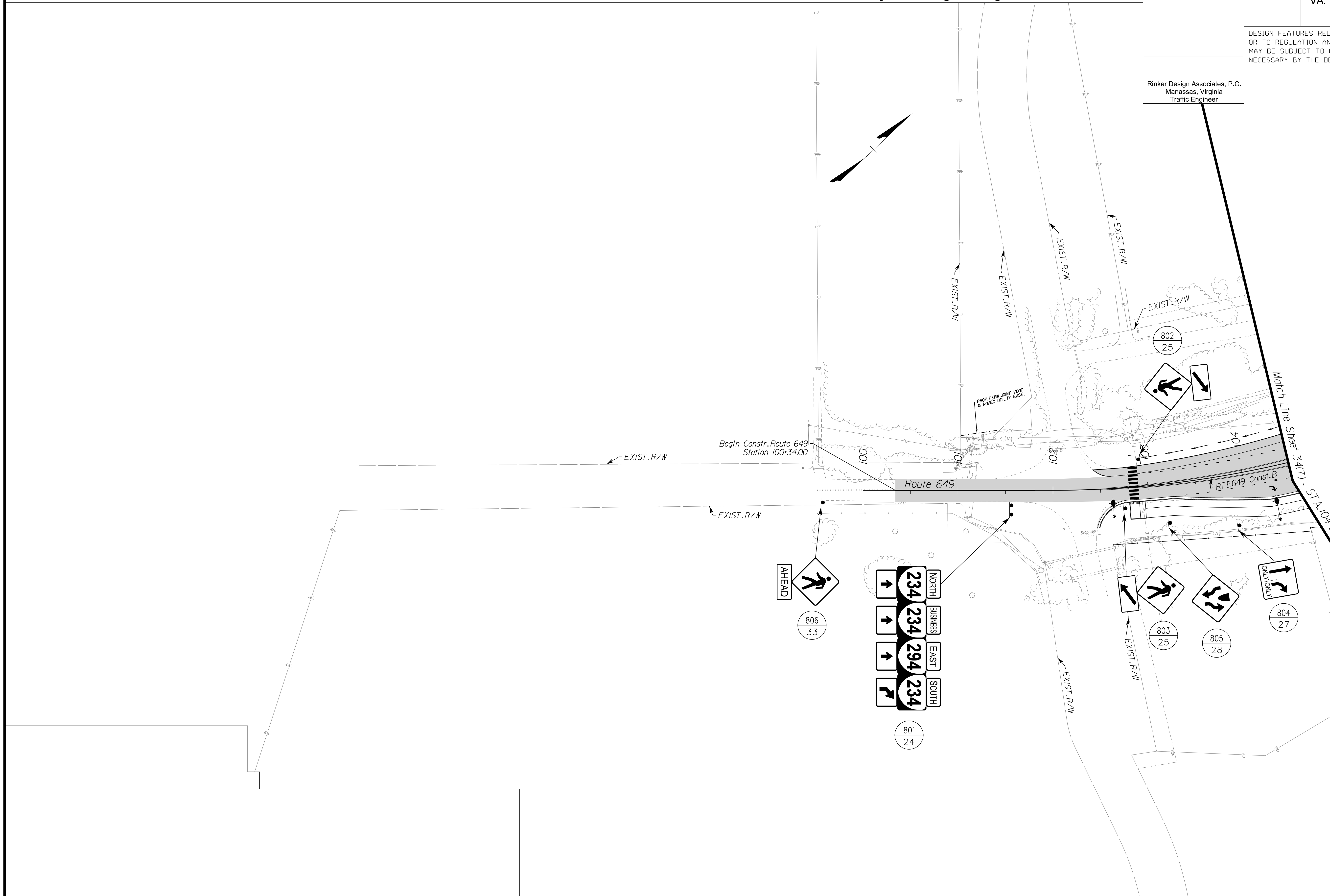
PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E.,Rinker_Design_Associates_P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE AccuMark_(804)550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	34(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



PH PLAN

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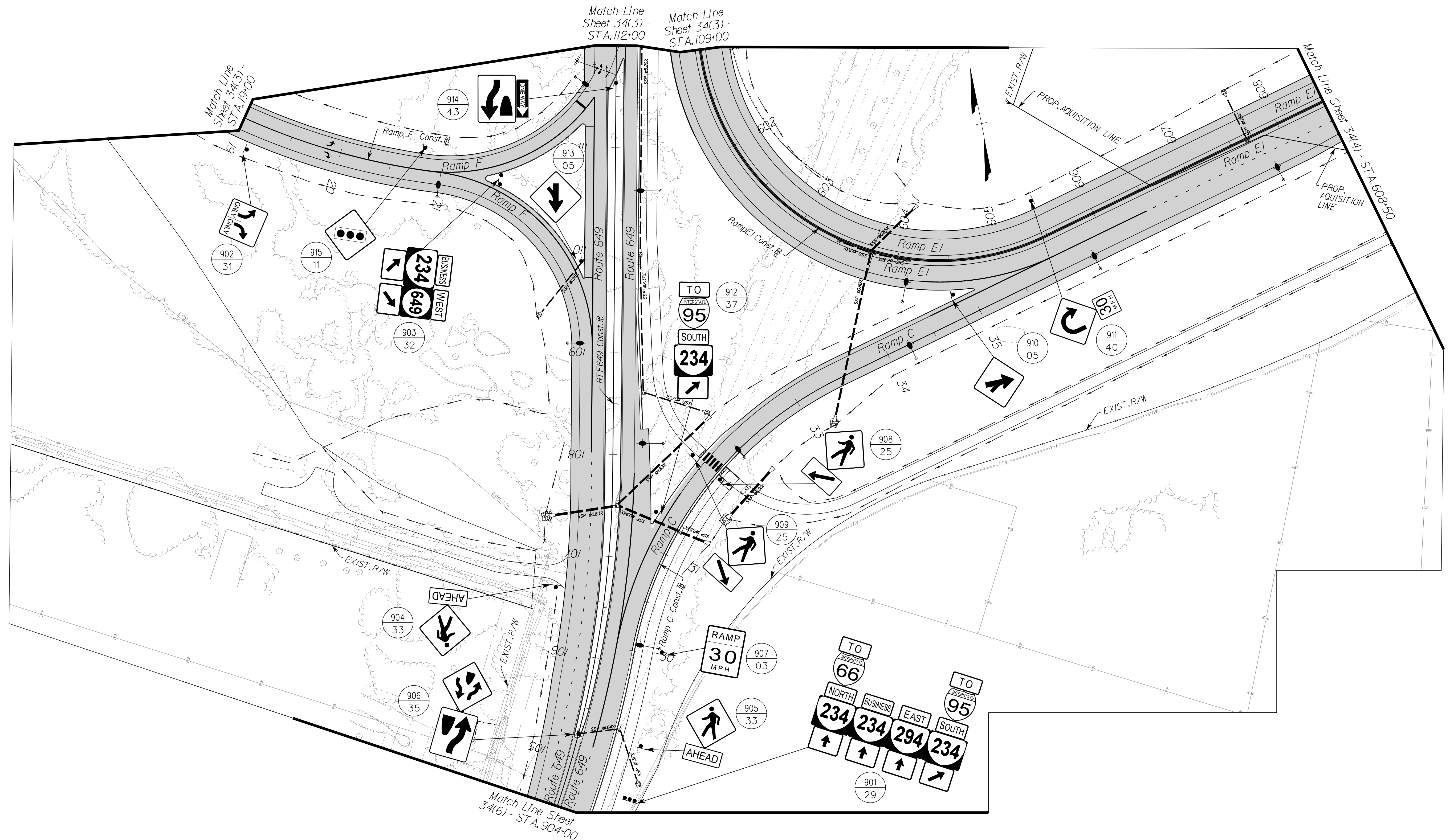
PROJECT MANAGER PWC_DOT_Macy_Ankers (703) 792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	34(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



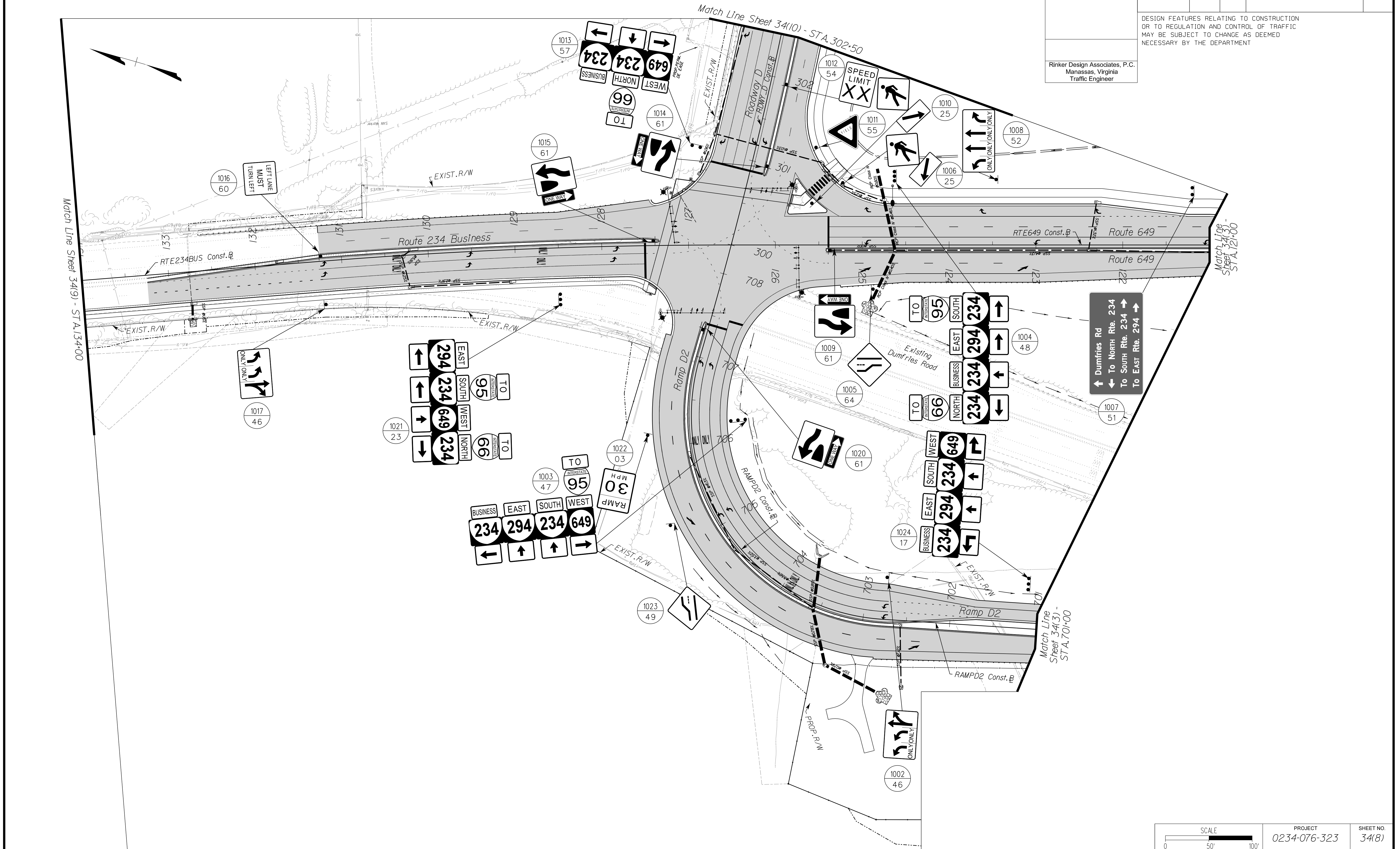
PROJECT MANAGER PWC_DOT_Macy_Ankers (703) 792-5276
 SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
 DESIGN BY Mark_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	34(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer



PH
PLAN

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SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. 34(8)

11/5/2021

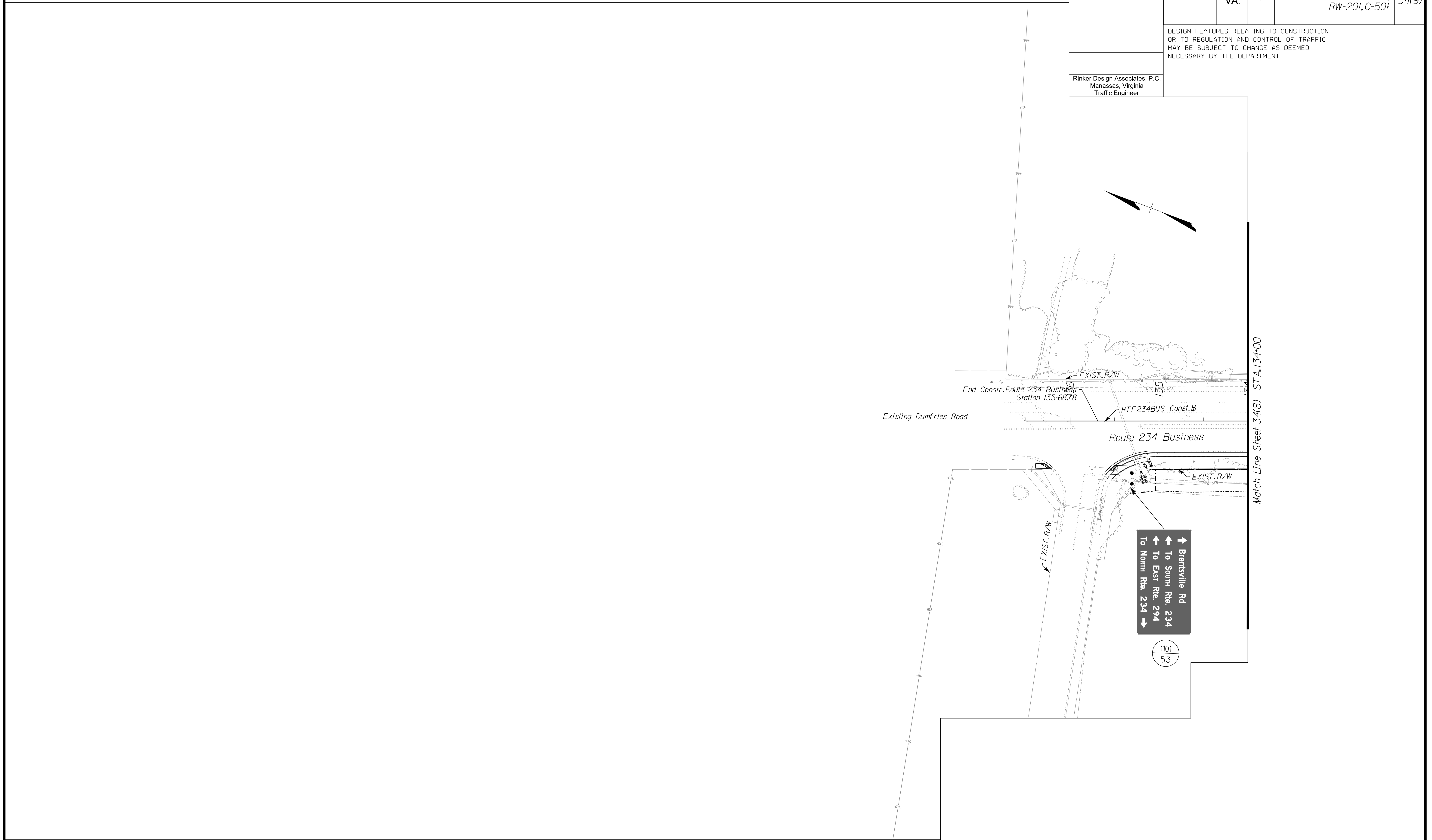
PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	34(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 34(9)
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PH
PLAN

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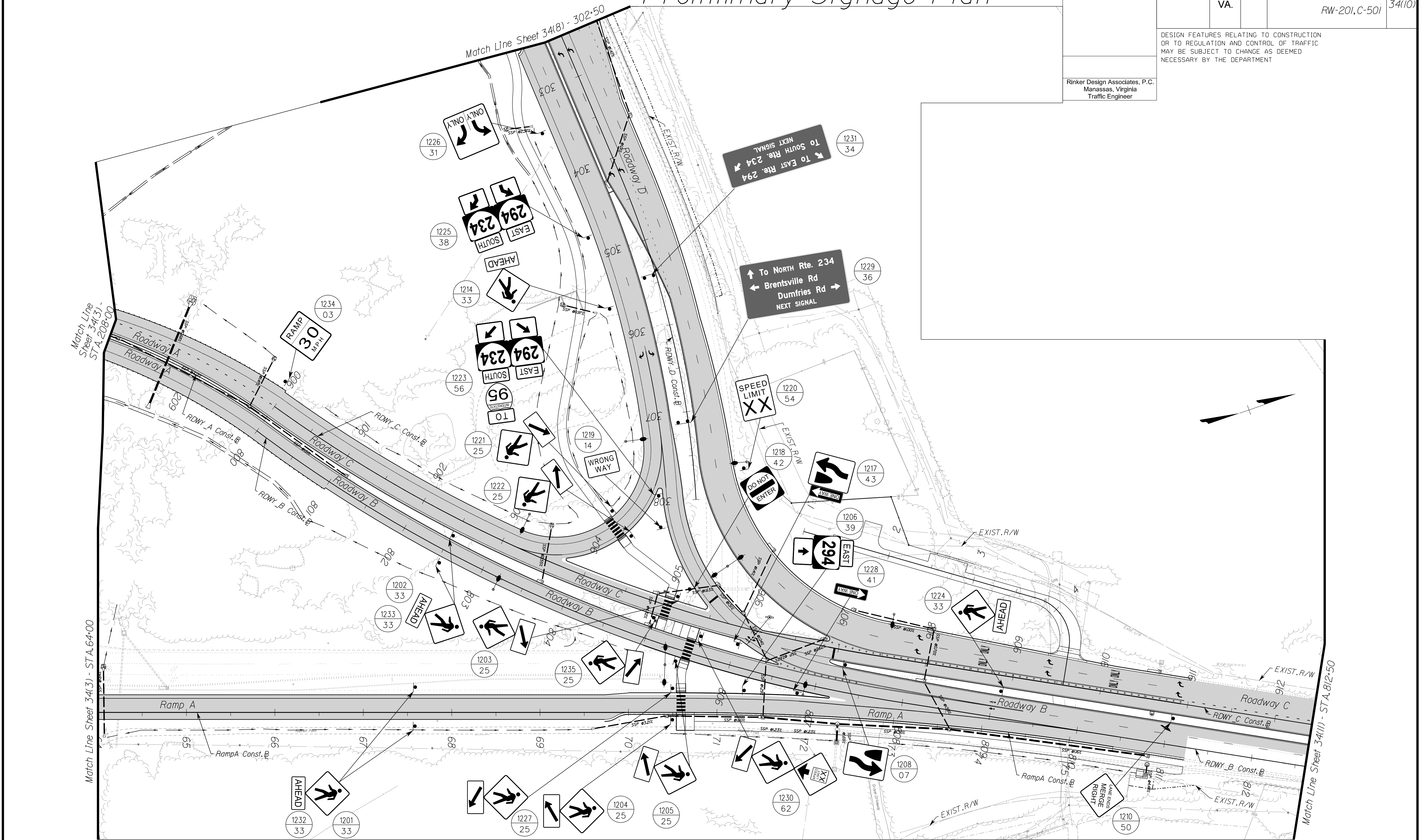
PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-5276
 SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
 DESIGN BY Mark_Guon_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	34(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer



11/1/2021

PH PLAN

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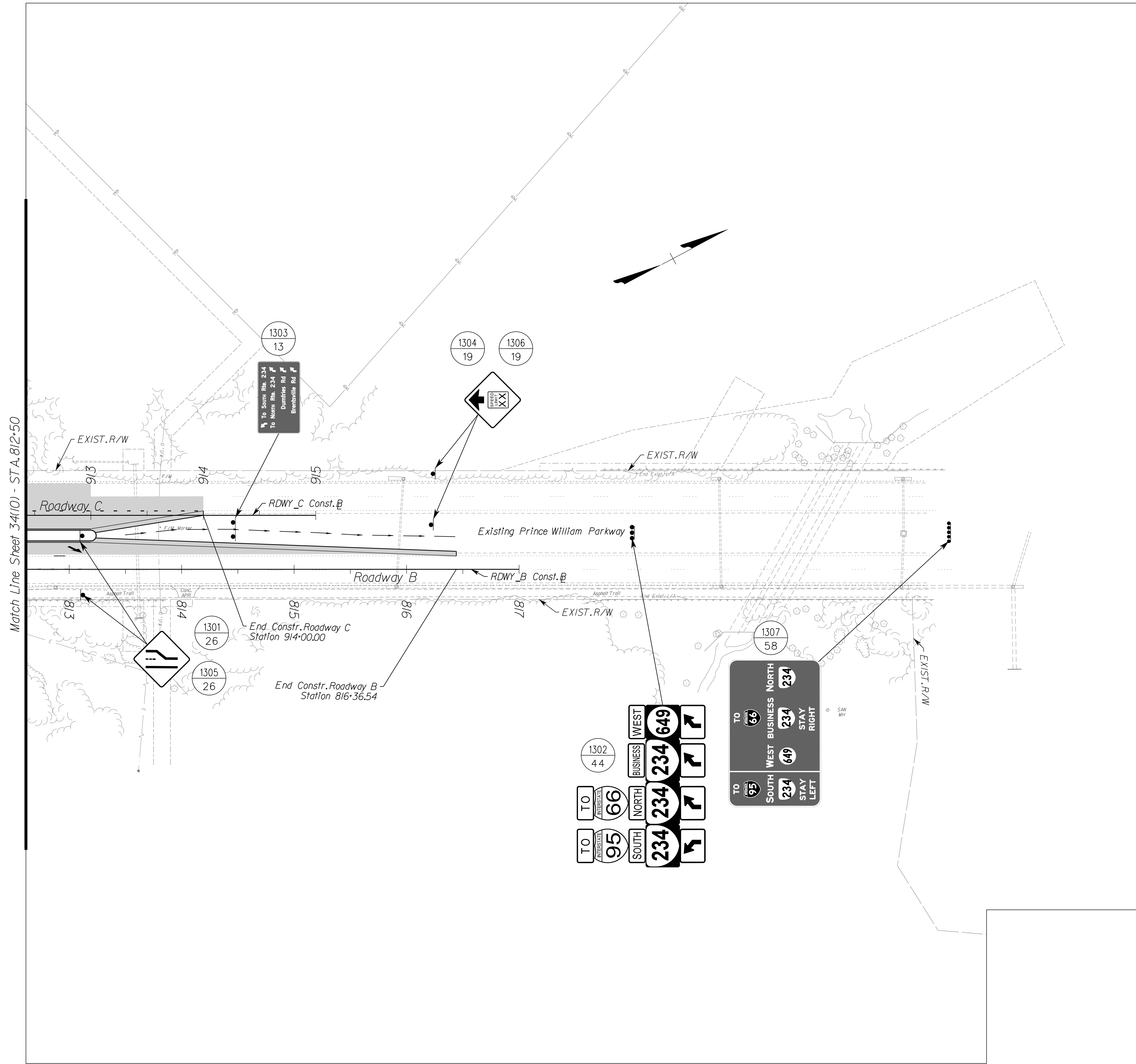
SCALE 0 50' 100'

PROJECT 0234-076-323 SHEET NO. 34(10)

PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates,P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Guon,P.E.,Rinker_Design_Associates,P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE AccuMark_(804)550-7740, April, 2021

Preliminary Signage Plan

REVISED	STATE		SHEET NO.
	ROUTE	PROJECT	
	VA.	0234-076-323 RW-201,C-501	34(11)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT			
Rinker Design Associates, P.C. Manassas, Virginia Traffic Engineer			



11/1/2021

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 34(11)
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PH
PLAN

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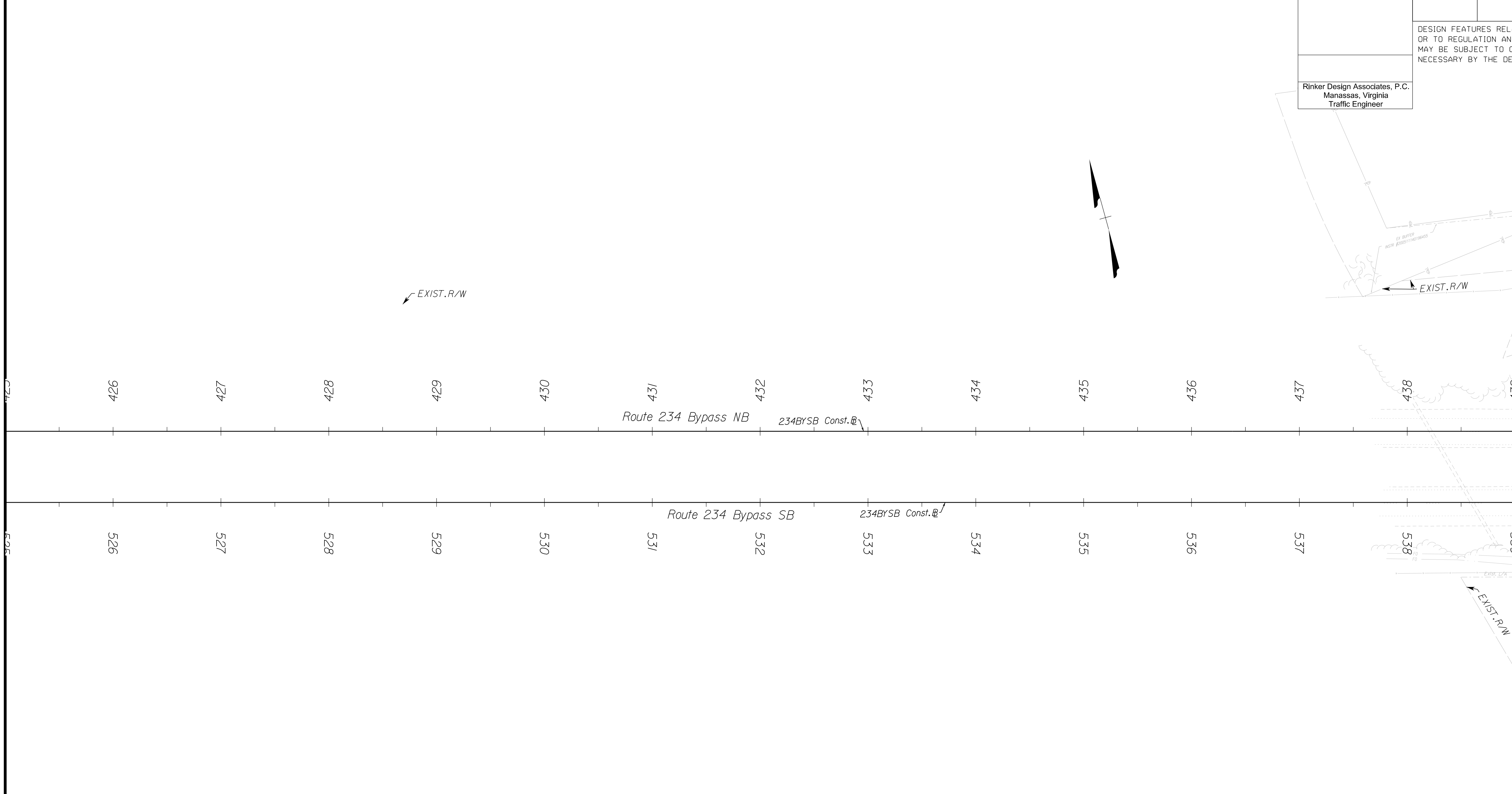
PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates,P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Guon,P.E.,Rinker_Design_Associates,P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE AccuMark_(804)550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	35(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



PH
PLAN

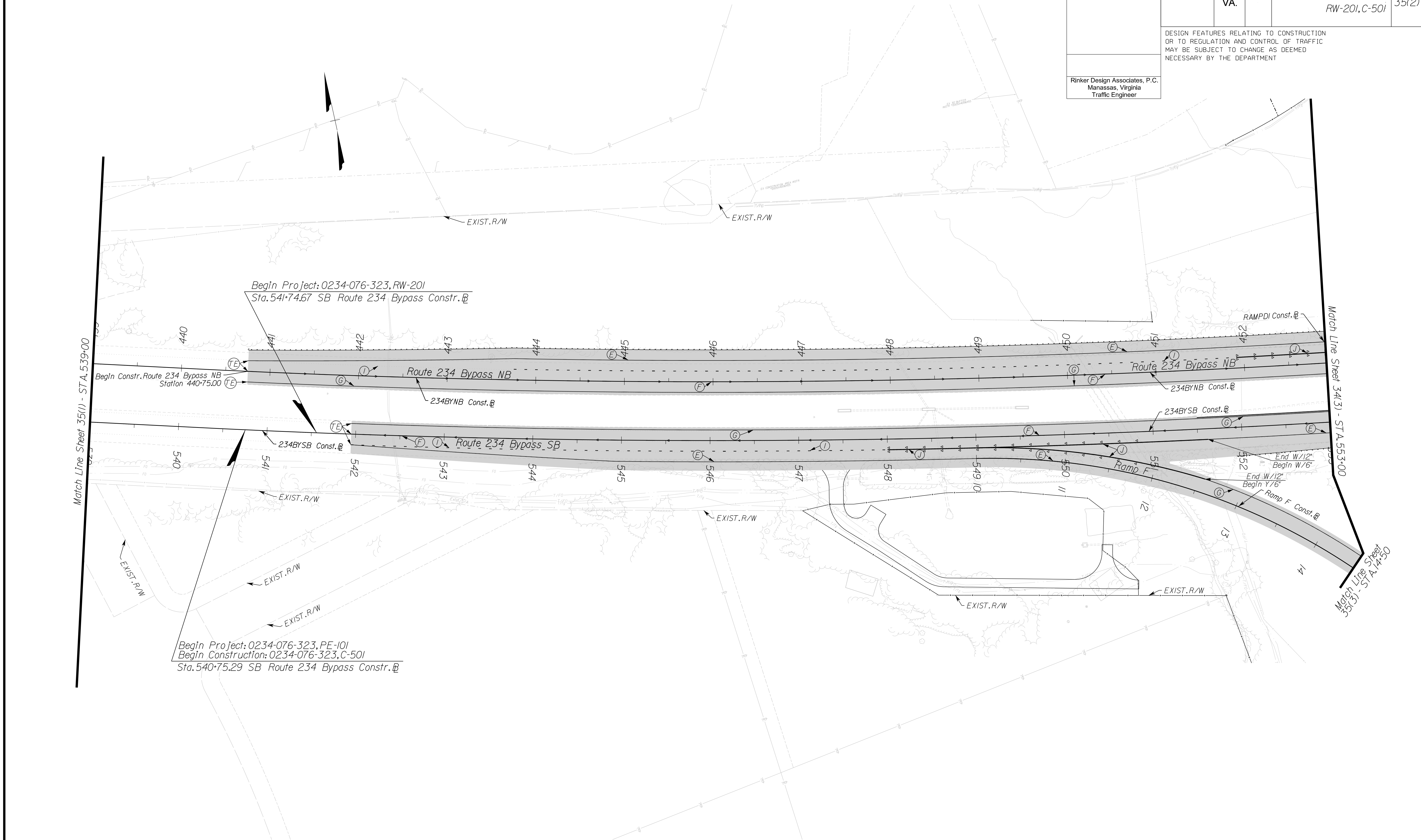
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PROJECT MANAGER EWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates,P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Gunn,P.E.,Rinker_Design_Associates,P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE AccuMark_(804)550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	35(2)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Rinker Design Associates, P.C. Manassas, Virginia Traffic Engineer					



11/1/2021

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 35(2)
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PH PLAN

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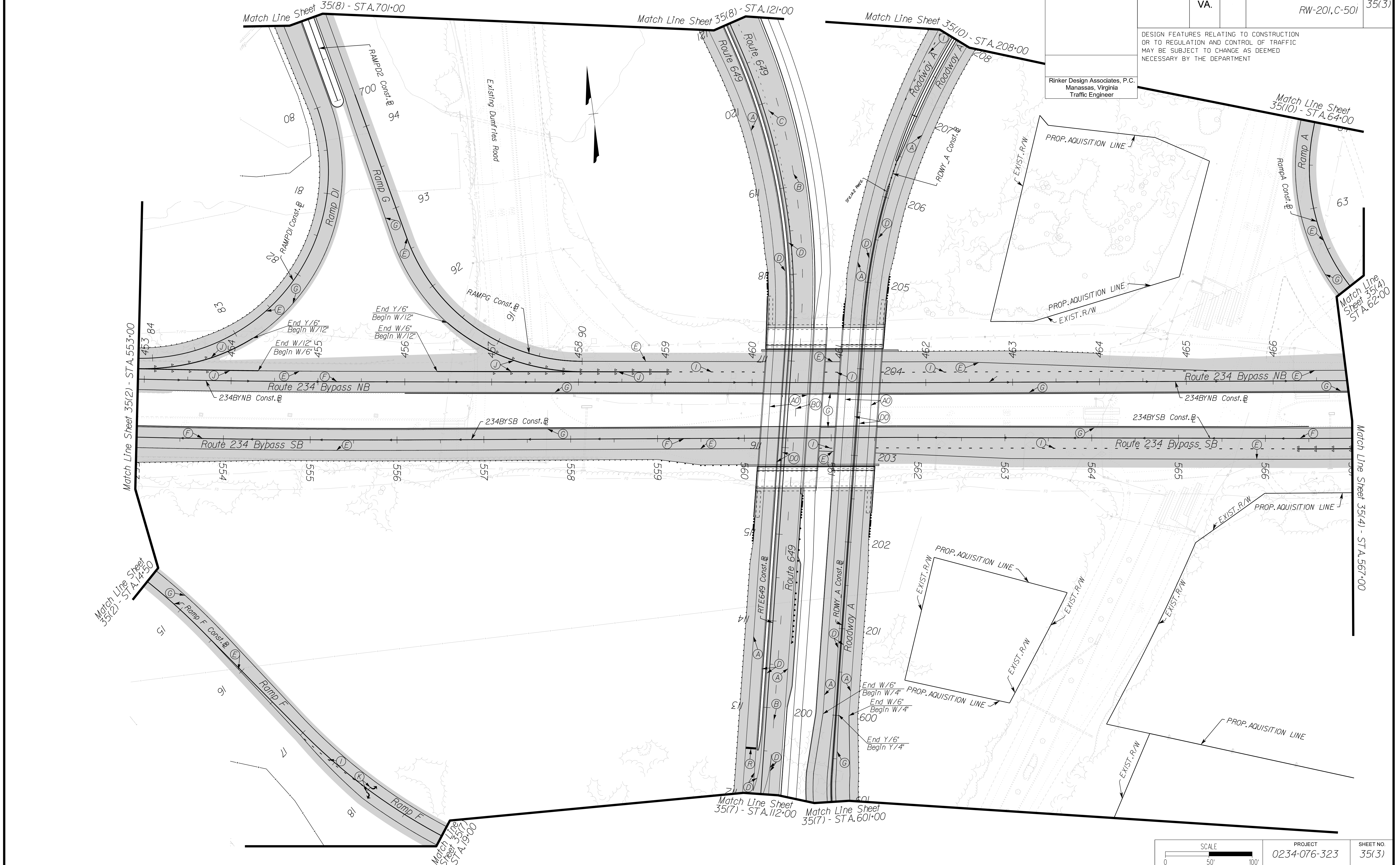
PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E.,Rinker_Design_Associates_P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE Acumark_(804)550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	35(3)

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Manassas, Virginia
Traffic Engineer



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SCALE 0 50' 100'

PROJECT	0234-076-323	SHEET NO.	35(3)
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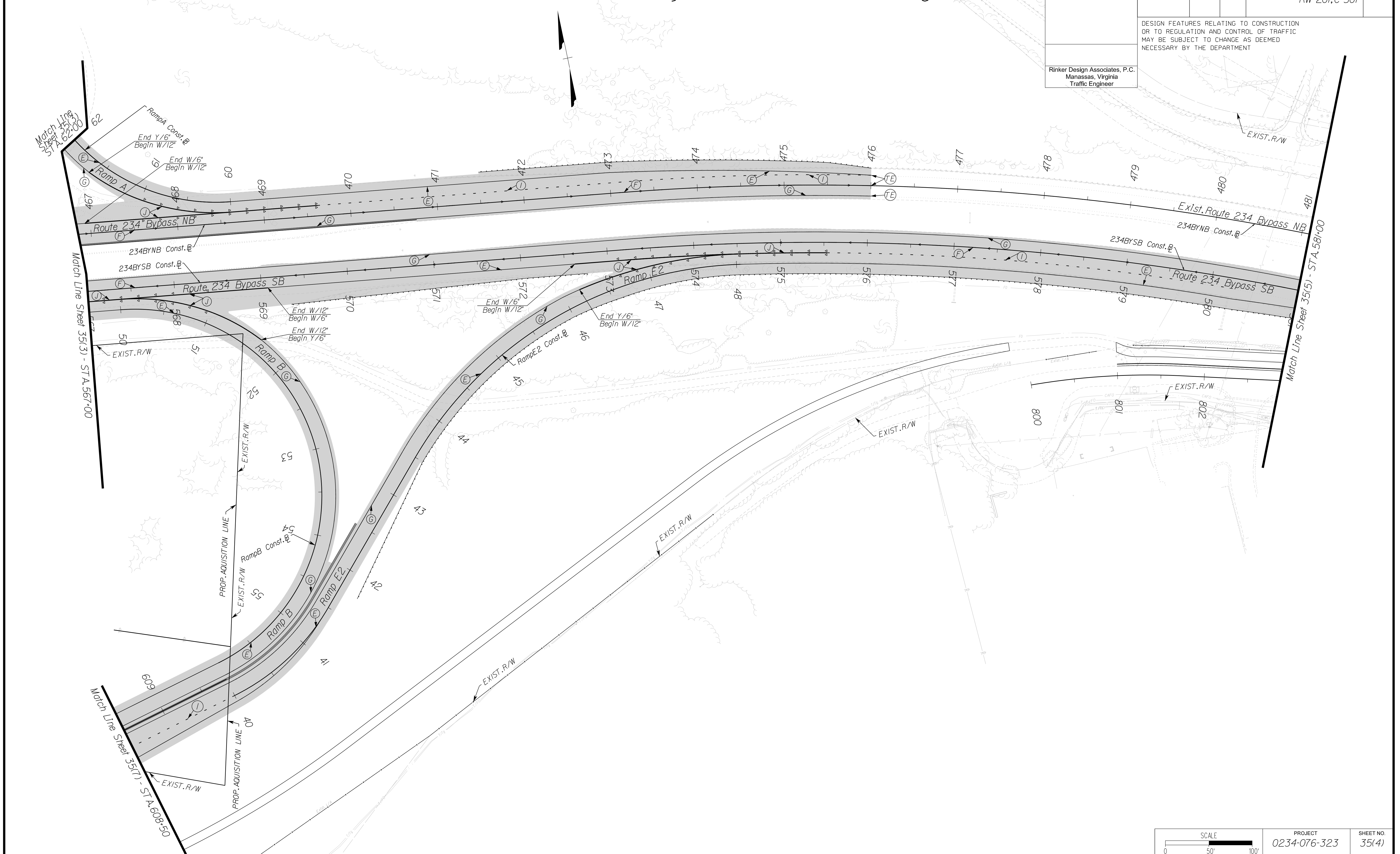
PROJECT MANAGER PWC_DOT_Macy_Ankers (703) 792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
DESIGN BY Mack_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	35(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



PH PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

SCALE 0 50' 100'

PROJECT	0234-076-323	SHEET NO.	35(4)
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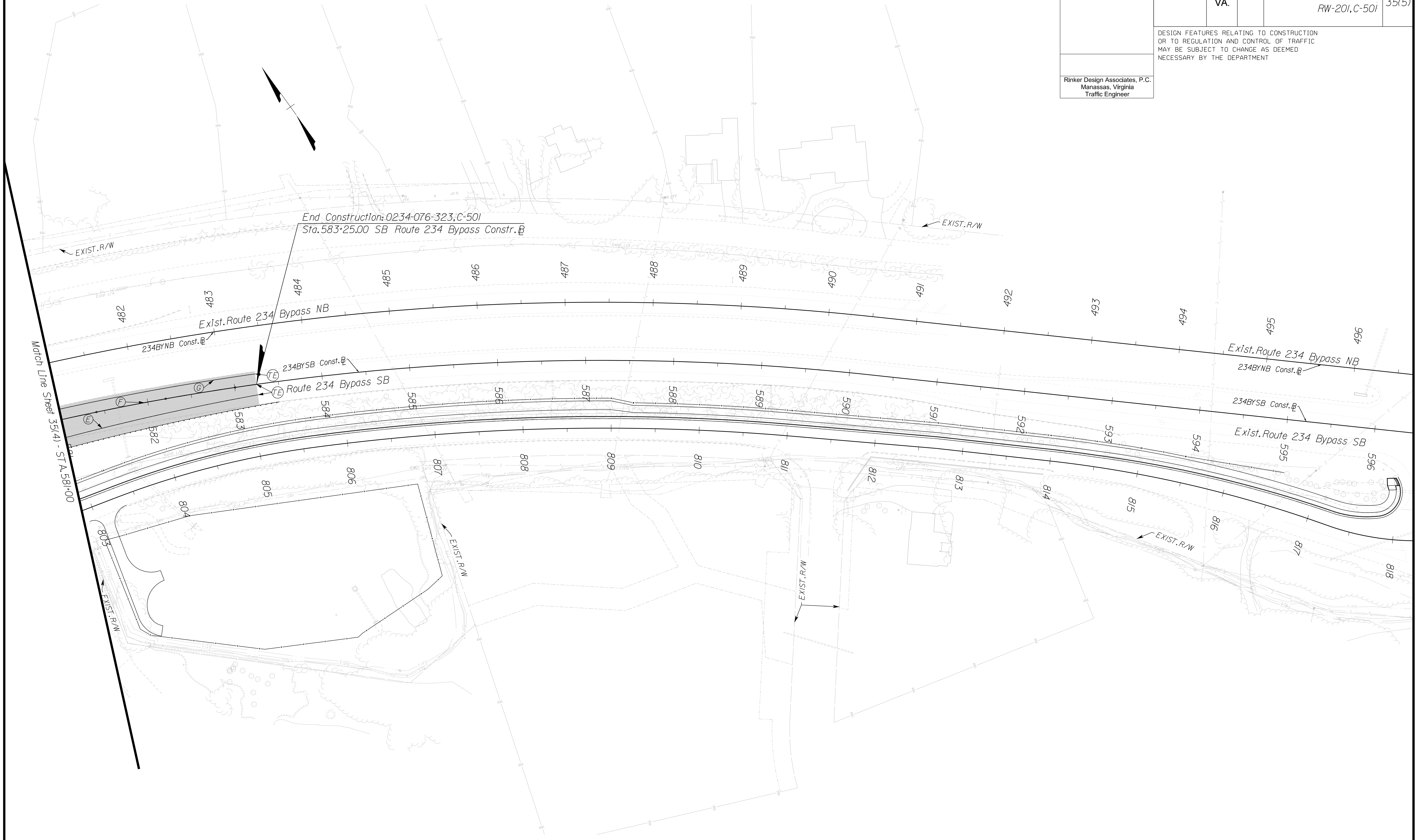
PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	35(5)

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Manassas, Virginia
Traffic Engineer



11/1/2021

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 35(5)
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SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201, C-501	35(6)

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SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 35(6)
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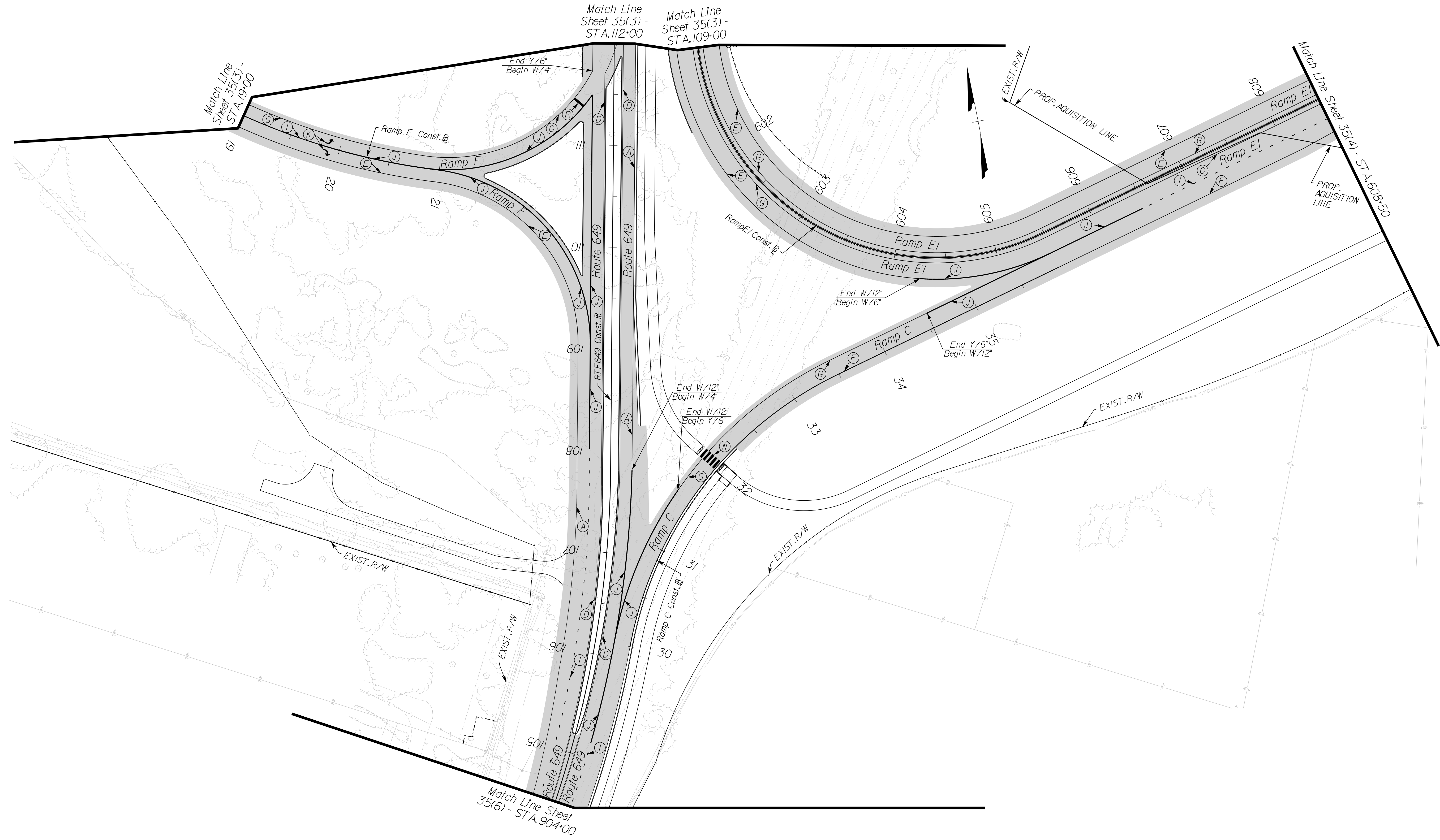
PROJECT MANAGER EWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E.,Rinker_Design_Associates_P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE AccuMark_(804)550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE		SHEET NO.
	ROUTE	PROJECT	
	VA.	0234-076-323 RW-201,C-501	35(7)

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Manassas, Virginia
Traffic Engineer



11/1/2021

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 35(7)
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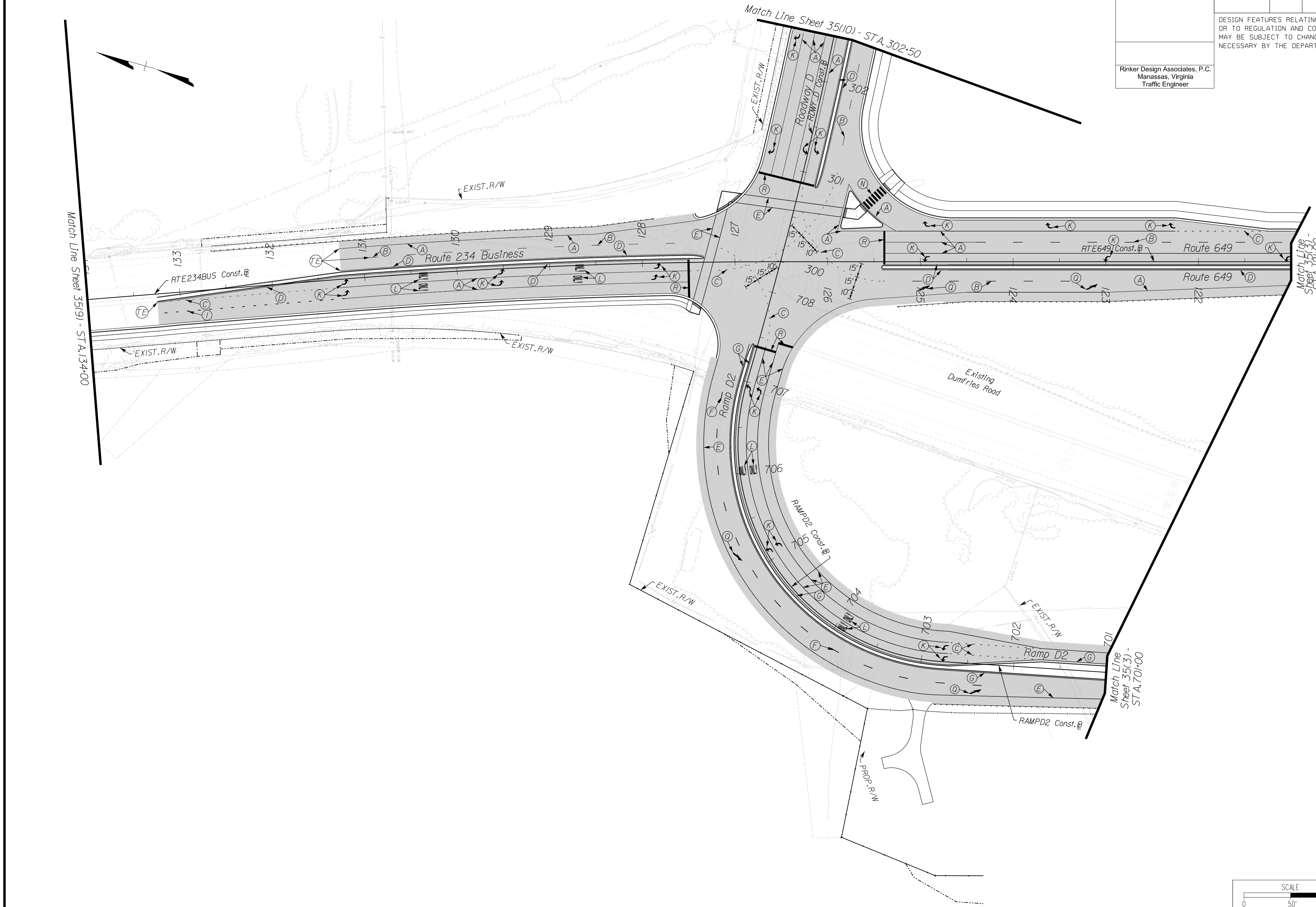
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Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	35(8)

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SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 35(8)
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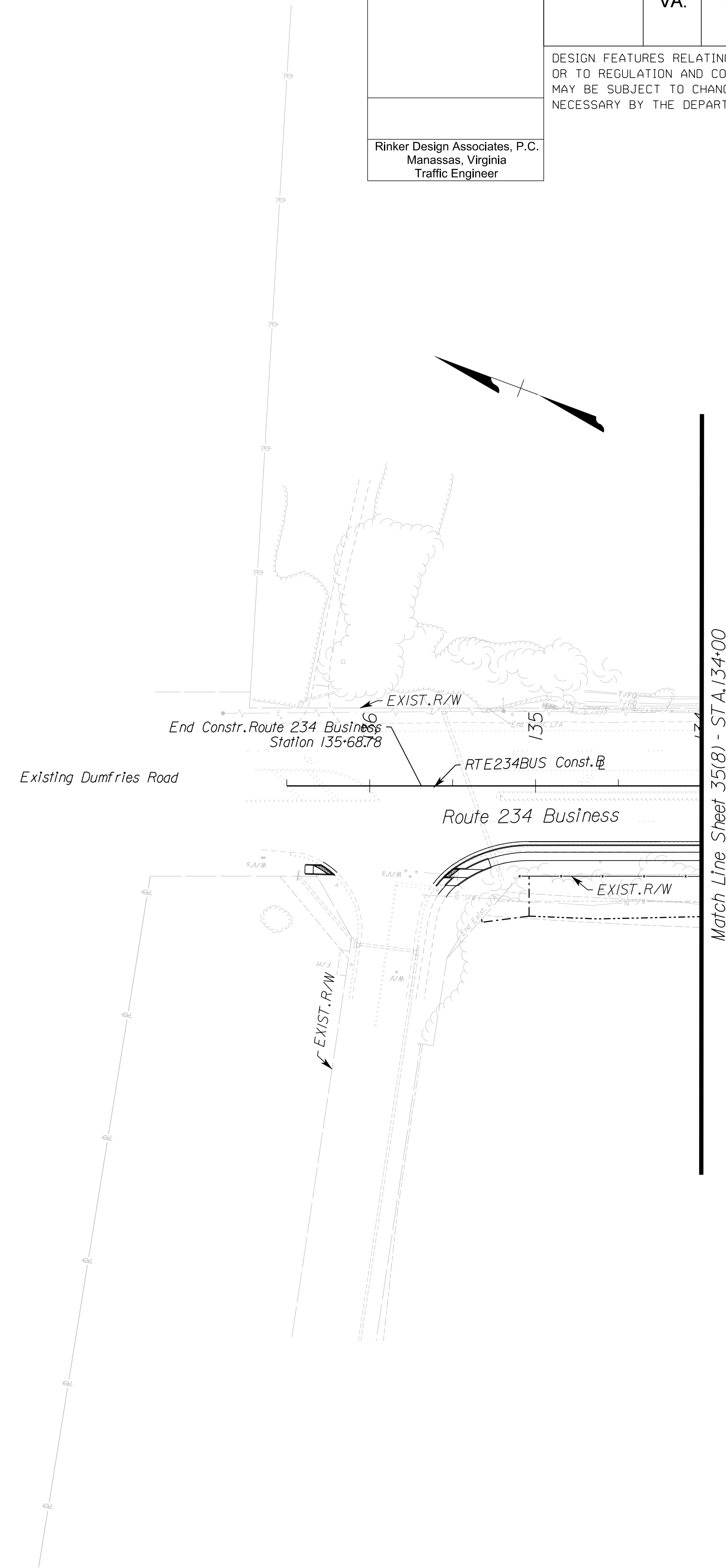
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SUBSURFACE UTILITY BY, DATE AccuMark_(804)550-7740,April,2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	35(9)

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Manassas, Virginia
Traffic Engineer



**** Pavement Marking Legend ****

A Type B, Class I, White, 4" Width	L Type B, Class I, White, "Only" Pavement Marking
A0 Type B, Class I, with Black Contrast, White, 4" Width	M Type B, Class I, Yellow, 4" Width, Double Line, 4" Spacing
B Type B, Class I, White, 4" Width, 10' Long, 30' Spacing	N Type B, Class I, White, 24" Width, 24" Spacing
B0 Type B, Class I, with Black Contrast, White, 4" Width, 10' Long, 30' Spacing	P Type B, Class I, White, 6" Width, 2' Long, 6' Spacing
C Type B, Class I, White, 4" Width, 2' Long, 6' Spacing	Q Type B, Class I, White, Lane Reduction Arrow
D Type B, Class I, Yellow, 4" Width	R Type B, Class I, White, 24" Width
D0 Type B, Class I, with Black Contrast, Yellow, 4" Width	S Type B, Class I, White, 8" Width, Double Line, 4" Spacing
E Type B, Class I, White, 6" Width	TE Denotes Tie to Existing Pavement Marking
F Type B, Class I, White, 6" Width, 10' Long, 30' Space	▽ Snow-Plowable, Raised Pavement Marker, One-Sided
G Type B, Class I, Yellow, 6" Width	○ 3' Yellow Pylon, Spaced @ 8' Intervals O/C
H Type B, Class I, White, 8" Width	■ Shading Denotes Areas of New Surface Pavement / Concrete
I Type B, Class I, White, 8" Width, 3' Long, 9' Spacing	- - - Denotes Proposed Temporary Easement
J Type B, Class I, White, 12" Width	- - - Denotes Proposed Permanent Easement
K Type B, Class I, White, Turn Lane Use Arrow	

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 35(9)
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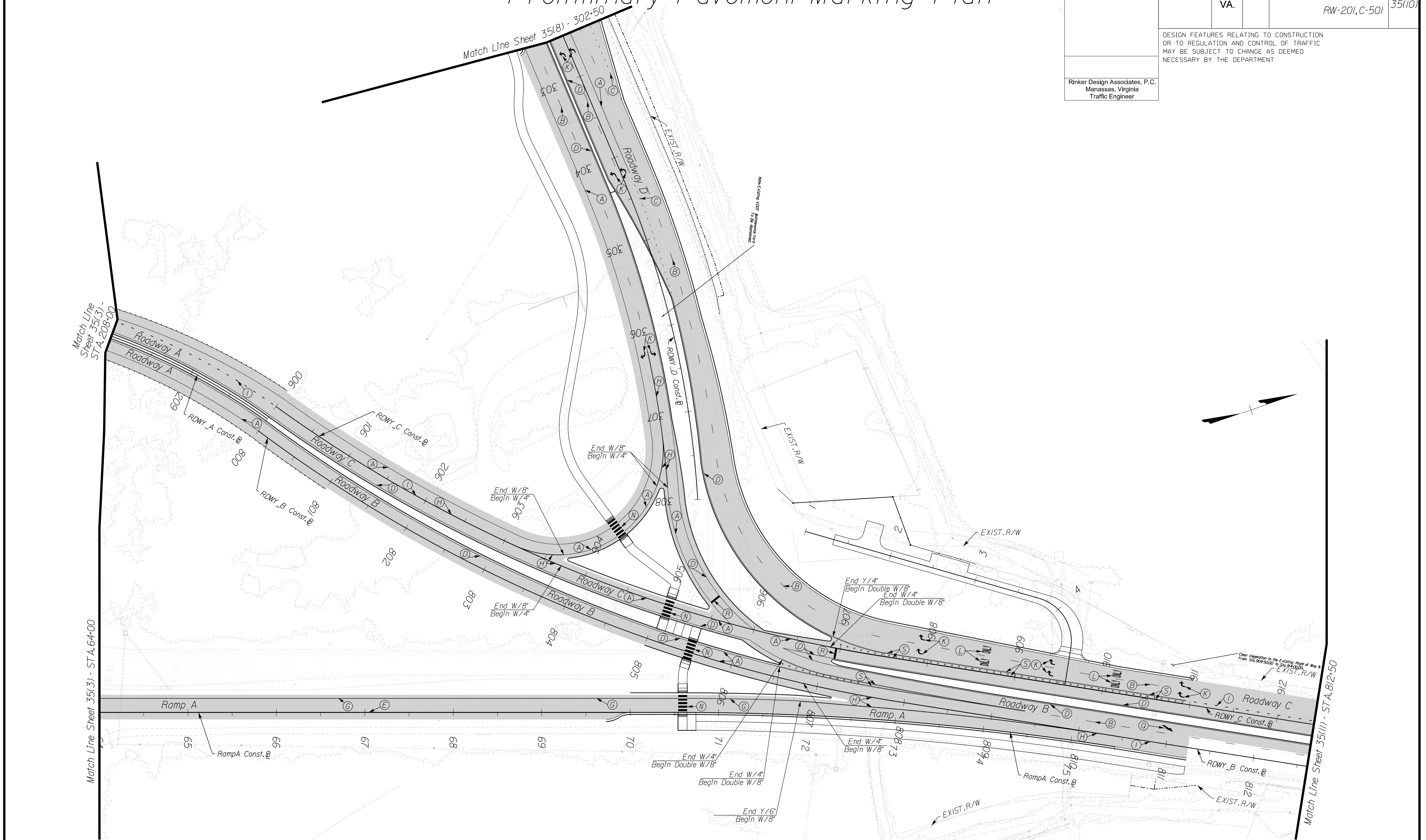
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SURVEYED BY, DATE Rinker_Design_Associates_P.C. (703) 386-7373, June, 2021
DESIGN BY Mark_Gunn_P.E., Rinker_Design_Associates_P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	35(10)

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Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



11/1/2021

SCALE 0 50' 100'	PROJECT 0234-076-323	SHEET NO. 35(10)
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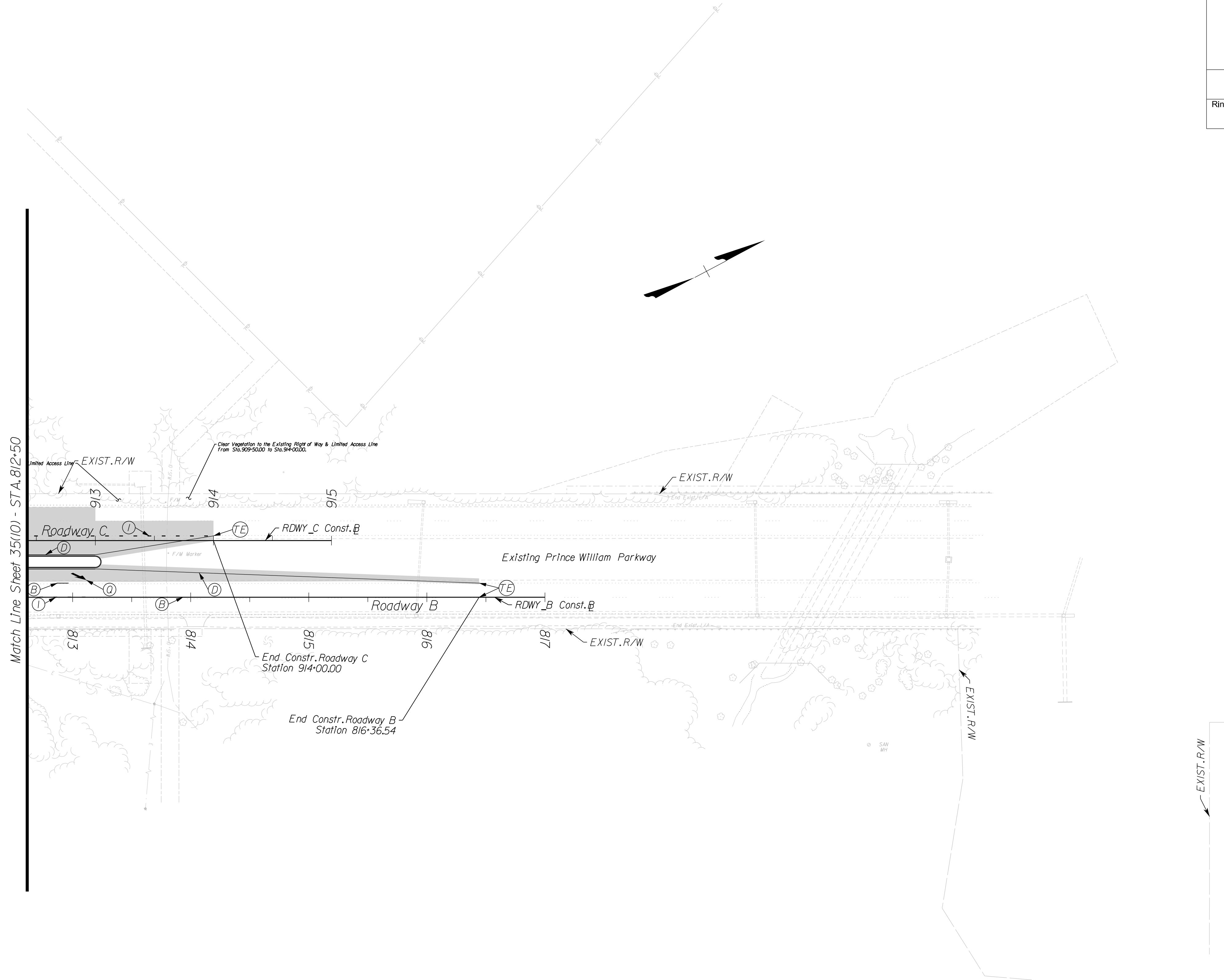
PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-5276
SURVEYED BY, DATE Rinker_Design_Associates_P.C.(703)386-7373, June, 2021
DESIGN BY Mark_Guon_P.E.,Rinker_Design_Associates_P.C.(703)386-7373
SUBSURFACE UTILITY BY, DATE AccuMark_(804)550-7740, April, 2021

Preliminary Pavement Marking Plan

REVISED	STATE		SHEET NO.
	ROUTE	PROJECT	
	VA.	0234-076-323 RW-201,C-501	35(11)

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Manassas, Virginia
Traffic Engineer



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PROJECT MANAGER BWC DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Btker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Btker, Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accumark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	36(1)

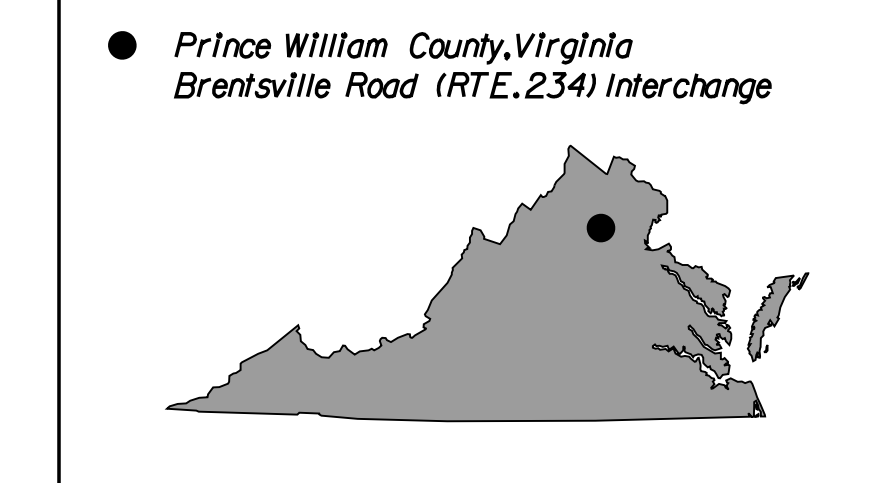
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Roadway Lighting Index of Sheets and Project Location Map

Roadway Lighting Plan Overall Legend

- Prop. Decorative Luminaire → → Exst. Decorative Luminaire
- Prop. Underbridge Luminaire → → Exst. Underbridge Luminaire
- Prop. Signal Luminaire → → Exst. Signal Luminaire
- Prop. Roadway Luminaire (High Watt) → → Exst. Roadway Luminaire
- Prop. Roadway Luminaire LED Upgrade → → Prop. Roadway Luminaire
- Prop. Luminaire Arm → → Exst. Luminaire Arm
- Prop. Bored Conduit → → Exst. Lighting Conduit
- Prop. Conduit → → Exst. Lighting Conduit
- Prop. Control Center → → Exst. Control Center
- Prop. CCW → → Exst. CCW
- Prop. Transformer Cabinet, Meter, Safety Switch → → Exst. Transformer Cabinet, Meter, Safety Switch
- Prop. Light Pole → → Exst. Light Pole
- Prop. Light Pole Foundation → → Exst. Light Pole Foundation
- St'd. JB-S2 Req'd. → → Exst. Junction Box

PROJECT LOCATION



PROJECT LOCATION:
From: 0.426 Mi. West of Brentsville Road (Route 649)
To: 0.464 Mi. East of Brentsville Road (Route 649)

PROJECT LIGHTING AREA

The Brentsville Road (Rte. 234) Interchange Project has been designed in accordance with RP-8-18 to include all thru lane traffic pavement as shown in the plans along the Rte. 234 Construction Baseline.

PROJECT LOCATION

From: 0.426 Mi. West of Brentsville Road (Route 649)
To: 0.464 Mi. East of Brentsville Road (Route 649)

PROJECT SHEET INDEX

Sheet No. 36(1)	.....	Roadway Lighting Index of Sheets and Project Location Map
Sheet No. 36(1A)	.....	Roadway Lighting Plan General Notes
** Sheet No. 36(1B)	.....	Roadway Lighting Design Criteria & Statistical Calculations
Sheet No. 36(1C)	.....	Roadway Lighting Luminaire Specifications
** Sheet No. 36(2)	.....	Roadway Lighting Conduit Design Legend
** Sheet No. 36(2A)	.....	Roadway Lighting Pole Schedule
** Sheet No. 36(2B)	.....	Roadway Lighting Pole Schedule
** Sheet No. 36(2C)	.....	Roadway Lighting VDOT Panelboards
Sheet No. 36(2D)	.....	Roadway Lighting Plan Typicals
Sheet No. 36(3)	.....	Plan Sheet
Sheet No. 36(4)	.....	Plan Sheet
Sheet No. 36(5)	.....	Plan Sheet
Sheet No. 36(6)	.....	Plan Sheet
Sheet No. 36(7)	.....	Plan Sheet
Sheet No. 36(8)	.....	Plan Sheet
Sheet No. 36(9)	.....	Plan Sheet
Sheet No. 36(10)	.....	Plan Sheet
Sheet No. 36(11)	.....	Plan Sheet
Sheet No. 36(12)	.....	Not Used
Sheet No. 36(13)	.....	Plan Sheet
Sheet No. 36(14)	.....	Not Used
Sheet No. 36(15)	.....	Not Used
Sheet No. 36(16)	.....	Plan Sheet
Sheet No. 36(17)	.....	Plan Sheet
Sheet No. 36(18)	.....	Not Used
Sheet No. 36(19)	.....	Plan Sheet
Sheet No. 36(20)	.....	Not Used
Sheet No. 36(21)	.....	Plan Sheet
Sheet No. 36(22)	.....	Plan Sheet
Sheet No. 36(23)	.....	Not Used
Sheet No. 36(24)	.....	Not Used
Sheet No. 36(25)	.....	Not Used

** Indicates plan sheets not Included in this submission

Pole Callout Information

Pole XX, St'd. LP-1 Req'd. → Pole Number & Foundation Type
Sta. 123+15.00, 100.00' RT → Station Number of the Pole Location,
Brentsville Road BL → & Offset Distance RT. (Right) or LT. (Left)
of Referred Base Line
Roadway Base Line

Roadway Lighting

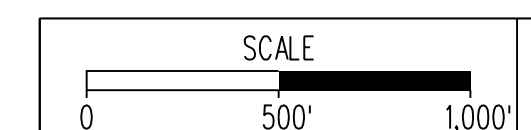
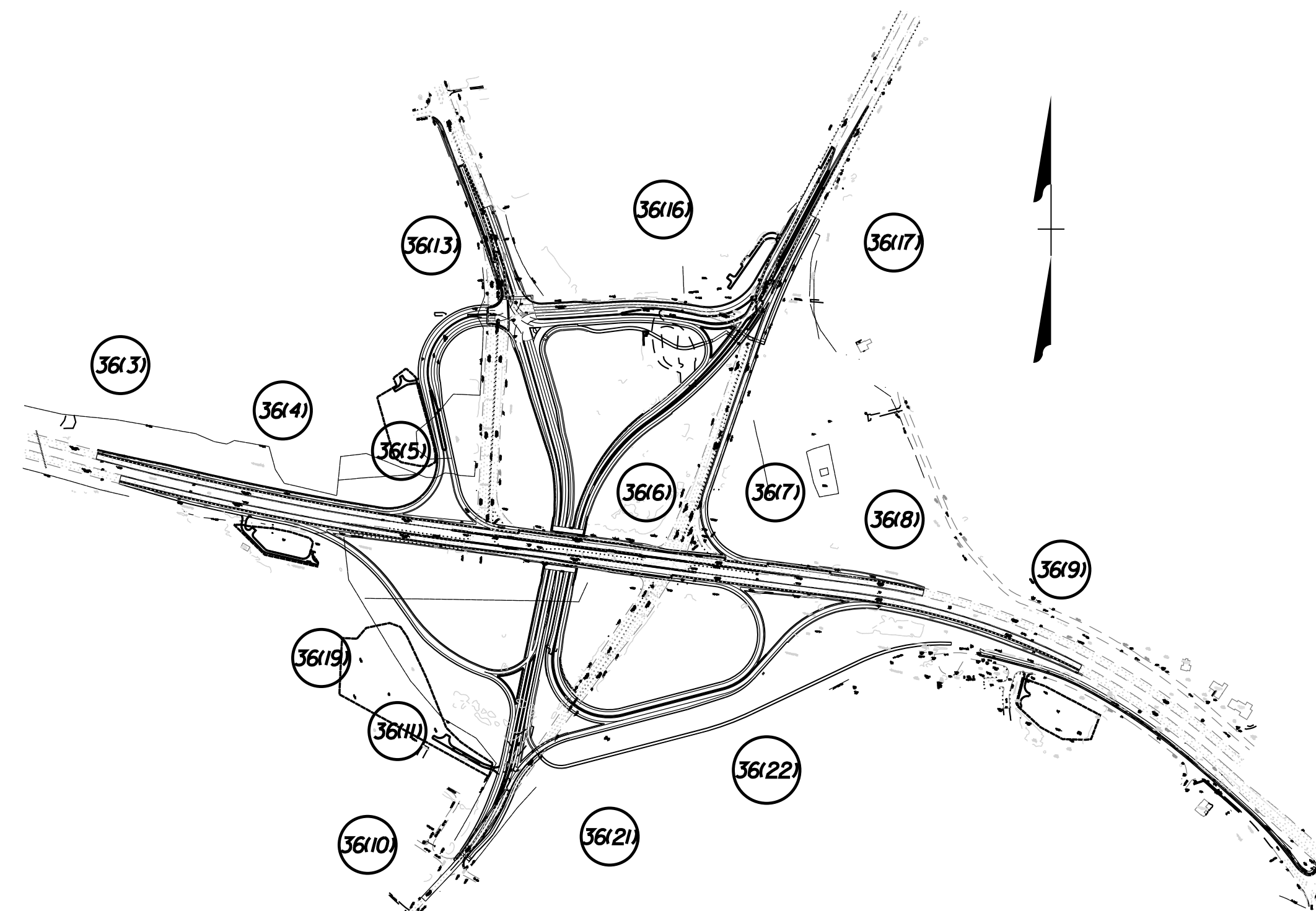
Lamp Wattage → 204W - 10 - 40
Arm Length →
Mounting Height →
Phase → X - X - X
Load Center →
Circuit →

Underbridge Lighting

Luminaire Number → XX
Underbridge Luminaire → UBL - 180W - 16
Lamp Wattage →
Mounting Height →
Phase → X - X - X
Load Center →
Circuit →

SUBSURFACE UTILITY OWNERS:

- 1 - PWCSA
Maureen Knight
(703) 335-8933
- 2 - Verizon
William "Bill" Lacy
(703) 369-9571
- 3 - FiberLight, LLC
Karl Straatman
(410) 979-0384
- 4 - Zayo Communications
Kris Kobylski
(571) 220-4813
- 5 - Summit IG
(703) 443-1956
- 6 - Metro Duct Systems Of Va
Christopher Hunt
(703) 479-0305
- 7 - Comcast
Doug Wright
(434) 951-3843
- 8 - NOVEC
(703) 392-1519
- 9 - Washington Gas
(703) 750-1000



PROJECT 0234-076-323
SHEET NO. 36(1)

PROJECT MANAGER BWC DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guano, P.E., Binker, Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	36(1A)

Roadway Lighting General Notes

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

LIGHTING GENERAL NOTES:

CONDUIT:

- Conduit locations are diagrammatic. Field adjustments shall be made as required to stay within the limits of construction, out of ditch lines, away from guardrail, away from fence posts, and to clear obstructions.
- All non-bored conduits shall be installed with standard ECI-1.
- All proposed conduit bypassing light pole foundations shall have a 3 ft. preferred clearance and a 1 ft. minimum clearance from edge of foundation.
- Not used.
- Wiring for Project lighting shall be contained in conduit separate from all other utilities. The conduit connecting a power source to an adjacent junction box shall be a minimum of four (4) inches in diameter. All other conduit, including extensions from junction boxes to a light support base, shall be a minimum of two (2) inches in diameter.
- All Prop. Conduit shall be installed per VDOT S'd, ECI-1 & ECI-2.
- All pipe sleeves, if required, shall be installed in accordance with VDOT Standard ECI-1 and/or ECI-2.
- Conduits shall be installed with radius offsets (5' minimum radius) to bypass drainage inlets, manholes, and other obstructions.
- Conduits shall be installed a minimum of 5 ft. behind guardrail posts.
- Conduits shall be installed a minimum of 5 ft. clear of shoulder edge when no guardrail is installed, or as directed by the engineer.
- At locations where proposed conduit shall cross existing conduit, the Contractor shall hand-dig the trench and shall take adequate care not to damage the existing conduit or the contents thereof. These conditions shall apply at all such conduit crossings except those locations where proposed conduit will cross conduit designated to be abandoned.

POLES:

- All existing light poles and luminaires are to be removed unless otherwise noted.
- Light pole bolt circle and anchor bolt diameters in foundations shall be sized per VDOT standard
- Mounting heights shown on the plans shall be adhered to within a tolerance of 1 ft., and shall in no case be less than the mounting heights shown. Mounting height must be measured from luminaire to surface of the same roadway that its baseline was used to define pole location.
- The Contractor is responsible for determining final pole length needed for each proposed luminaire in order to attain the designed luminaire mounting height as specified in the plans. As shown on sheet 28(2A) and 28(2B), this Delta is between the roadway finished grade (below the proposed luminaire) and top of the pole foundation. The Estimated Delta's have been shown from cross section data. The contractor is responsible for determining final pole heights prior to ordering. See sheet 36(2D) thru 36(2F) for mounting height typical details.
- All lighting standards shall be provided with identification tags bearing the circuit, phase, and control center number in addition to all other identification requirements as specified in Section 700 of the VDOT Road & Bridge Specifications.
- Existing lighting pole identification tags and decals shall be removed and replaced per general notes 4 and 5, all service panels shall be provided with identification decals on the control center cabinet.
- All lighting poles shall be equipped with anchor bolt covers.
- Lighting poles that are placed behind guardrails, retaining walls and/or concrete barriers shall be installed on non-breakaway transformer bases.
- Lighting poles that are not protected by guardrail, retaining walls, or median barriers shall be installed on breakaway transformer bases.
- Light poles installed on barrier or walls shall be installed without transformer bases as shown on the plans.
- Transformer bases shall include bolt covers.
- Transformer bases shall be calculated into the total pole length to achieve the required light fixture mounting height.
- Transformer bases shall be equipped with hinged covers that include a locking mechanism and shall comply with VDOT standard pole type.

JUNCTION BOXES:

- Station and offset references in junction box labels are based on the construction baseline as light pole label of the nearest proposed light pole.
- All VDOT maintained junction junction box covers shall have the following depressed text on its surface "VDOT ELEC".
- All in-barrier junction boxes shall be 8"x8"x1'-4" if in bridge structure parapet or 20"x10"x6" if in at-grade concrete barrier. Face of cover shall be flush with face of parapet or concrete barrier.
- All junction boxes and manholes shall be provided with a means for drainage.
- Areas around cabinets, junction boxes, and manholes on slopes shall be graded as approved by the Engineer.

ELECTRICAL:

- Conductor cables terminating in junction boxes or light poles shall be test capped and have a stack of 3 ft. per conductor.
- Contractor shall rebalance existing panel phase loads in existing lighting control centers as necessary
- All splice kit fuses shall be 20 amps and rated for a minimum of 600v service. cable connectors shall be compression type, applied by means of a compression tool. connectors shall be fabricated from high strength copper alloy.
 - Each cable connector kit shall be furnished with all component parts described under the various listed types, each kit shall contain sufficient silicone compound to lubricate metal parts and the housing for each assembly along with complete installation instructions.
 - All housings shall be made of water resistant synthetic rubber suitable for burial in the ground or exposure to sun light, each housing shall form a watertight seal around the cable at the point of disconnection and between the insert body and enveloping housing.
 - All copper pins, sockets, and fuse contacts shall have a minimum conductivity of 90 percent. the crimpable portion shall be fully annealed while the rest of the device is maintained in its original state.
 - Plastic sleeves shall be rigid, molded insulating plastic material of sufficient outside diameter to form a watertight fit with its related housing, wall thickness shall be 0.10 inch maximum, and sleeve lengths of 4 inches and 7 inches shall be available.
- The equipment grounding conductor (egc) shall be the same size as the largest power conductor.
- Installation of electrical services shall be coordinated with local power company.
- All lighting equipment grounding shall be provided per VDOT standard 1310.20 and 1312.90. all ground rods utilized in this project shall meet the current VDOT Road and Bridge Specifications. Ground rods shall be installed in all proposed junction boxes.
- Equipment grounding conductors in conduit entering and exiting light pole foundations shall terminate at the ground lug at base of light pole.
- All conductors in junction boxes, poles and equipment enclosures shall be provided with individual brass tags, die stamped with service panel number, phase(s) and circuit identifications. conductors shall be neatly arranged and supported on cable racks.
- All wiring shall terminate in control panels with insulated lugs and be properly labeled, conforming to wiring diagrams furnished by the Engineer.
- All conductors shall be color-coded as required in the specifications. Certified conductor test reports shall be approved by the Engineer prior to installation.
- The location of the light pole foundation ground rod shall be marked on the top surface of the foundation by a recessed arrow and the initial "G" formed in the concrete. The ground rod shall typically be placed to the left of the lighting pole foundation as observed from the pole handhole.
- Ground rods shall be connected to the ground wire utilizing an exothermic weld.
- Conductors in junction boxes, manholes, and all equipment enclosures shall be neatly arranged and laced with approved cable ties.
- The Contractor shall be responsible to return all disturbed areas and fencing to their original state at the completion of all work. Disturbed areas shall be seeded in accordance with Section 603 of the Specifications.
- Roadway lighting shall be in accordance with the American National Standard Practice for Roadway Lighting ANSI/IESNA RP-8-18. See Sheet 28(1B) for additional information. Separate contracts will be ongoing within the limits of the project. The Contractor shall not hinder the work being performed by other contractors and shall cooperate and coordinate the work of this project with the other contractors.
- *8 AWG wire is the smallest wire size allowed in any feeder or branch circuit. The lighting system will require equipment grounding conductors in non-metallic conduits in accordance with Article 250 of the NEC. Lighting system grounding conductors shall be the same size as the largest power conductor within the non-metallic conduit.
- All prop. junction boxes shall be in accordance with the VDOT S'd, JB-S1, JB-S2, or JB-S3, unless specified otherwise in the plans.

MISC:

- All luminaires to be installed shall either meet or exceed the average maintained uniformity, and veiling luminance ratio results of the luminaire manufacturer and model no. used in the photometric analysis.
- Installation of conduits, junction boxes, and anchor bolts specified to be installed into barriers and/or wall shall be coordinated by the electrical contractor with the contractor installing the barrier and/or wall and approved by the field engineer.
- Contractor shall test pit to identify any potential underground utility conflicts prior to installing all proposed lighting equipment foundations and prior to boring or jacking all conduits.
- The contractor shall document and be responsible for the condition of existing materials including poles, conduits and conductors prior to reuse. The contractor shall immediately notify the department of any defective material prior to being sent to storage. Any replacement of defective material must be approved by the vdot engineer.
- All soil removed for junction boxes, foundations, etc. must be covered with erosion control matting to prevent erosion. Soil not used for backfill must be removed on the same working day.
- All trenching must be backfilled and restored to its original condition on the same working day in which trenching occurred. Areas which are not reseeded, mulched or sodded must be covered with erosion control matting to prevent erosion. All soil not used for backfill must be removed on the same working day.
- Contractor to coordinate all work with other contractors to avoid conflicts with other work. Conduits are to avoid bridge piers, abutments, guardrails, foundations, and other civil works.
- Conduits at mse walls need to be coordinated with mse wall installer.
- The contractor shall inspect and verify all existing equipment proposed to be relocated and/or reused such that performance specifications are met and materials, including but not limited to light poles, foundations and luminaires are structurally sound for relocation and/or reuse.
- All above ground structures located behind guardrail shall comply with minimum clearances per current VDOT standard to account for w beam barrier deflection. If site constraints prevent the installation of light poles to be installed outside zone of barrier deflection, then the light poles shall be installed on breakaway transformer bases.
- Contractor shall include a copy of the as-built lighting plans in all proposed lighting control center cabinets. The panel schedule shall include all pole numbers for poles with luminaires that are associated with each circuit. The pole numbers shall match the pole numbers on the identification tag installed on each light pole.
- Refer to bridge plans for bridge junction box details.
- Not used.
- Install vibration resistant sockets for all structure mounted lights.
- Certain utilities within the vicinity of this Project area are shown on the plans. The utilities shown are not guaranteed to be complete or accurately located. The Contractor is responsible for locating all existing utilities and lighting systems before proceeding with the work.
- Contractor shall be responsible for installation of all components including, but not limited to, wiring, control centers, light poles, luminaires, junction boxes, light pole foundations, conduit, pipe sleeves, and luminaires complete with all accessories and miscellaneous hardware required for proper installation as described within the 19 sheet series.

PROJECT MANAGER BWC DOT-Mary-Ankers (703)792-5276
SURVEYED BY, DATE Blake Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Gunn, P.E., Blake Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Table with columns: REVISED, STATE, ROUTE, PROJECT, SHEET NO. Values: VA., 0234-076-323 RW-201,C-501, 36(1C)

Roadway Lighting
Luminaire Specifications

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

AGI-32 Photometric Report for Prop. Roadway Luminaires

Photometric Report (Type C)
AGI32 logo
File: ARCH-L-AP72-280-D-U-T4W.ies
Classification: Road Classification: Type IV, Medium, N.A. (deprecated)
Polar Candela Curves: 1) 45 - 225 Horizontal, 2) 75 Vertical

Photometric Report (Type C)
AGI32 logo
File: ARCH-L-AP72-280-D-U-T4W.ies
Classification: Road Classification: Type IV, Medium, N.A. (deprecated)
LCS Summary: Luminaire Lumens, Uplight, Back, Front

Streetworks
AGI32 logo
File: ARCH-L-AP72-280-D-U-T4W-4N7-T4W-4N7
Type: 280W
Includes photometric diagrams and data tables.

Streetworks
AGI32 logo
File: ARCH-L-AP72-280-D-U-T4W-4N7-T4W-4N7
Type: 280W
Includes photometric diagrams and data tables.

Streetworks
AGI32 logo
File: ARCH-L-AP72-280-D-U-T4W-4N7-T4W-4N7
Type: 280W
Includes photometric diagrams and data tables.

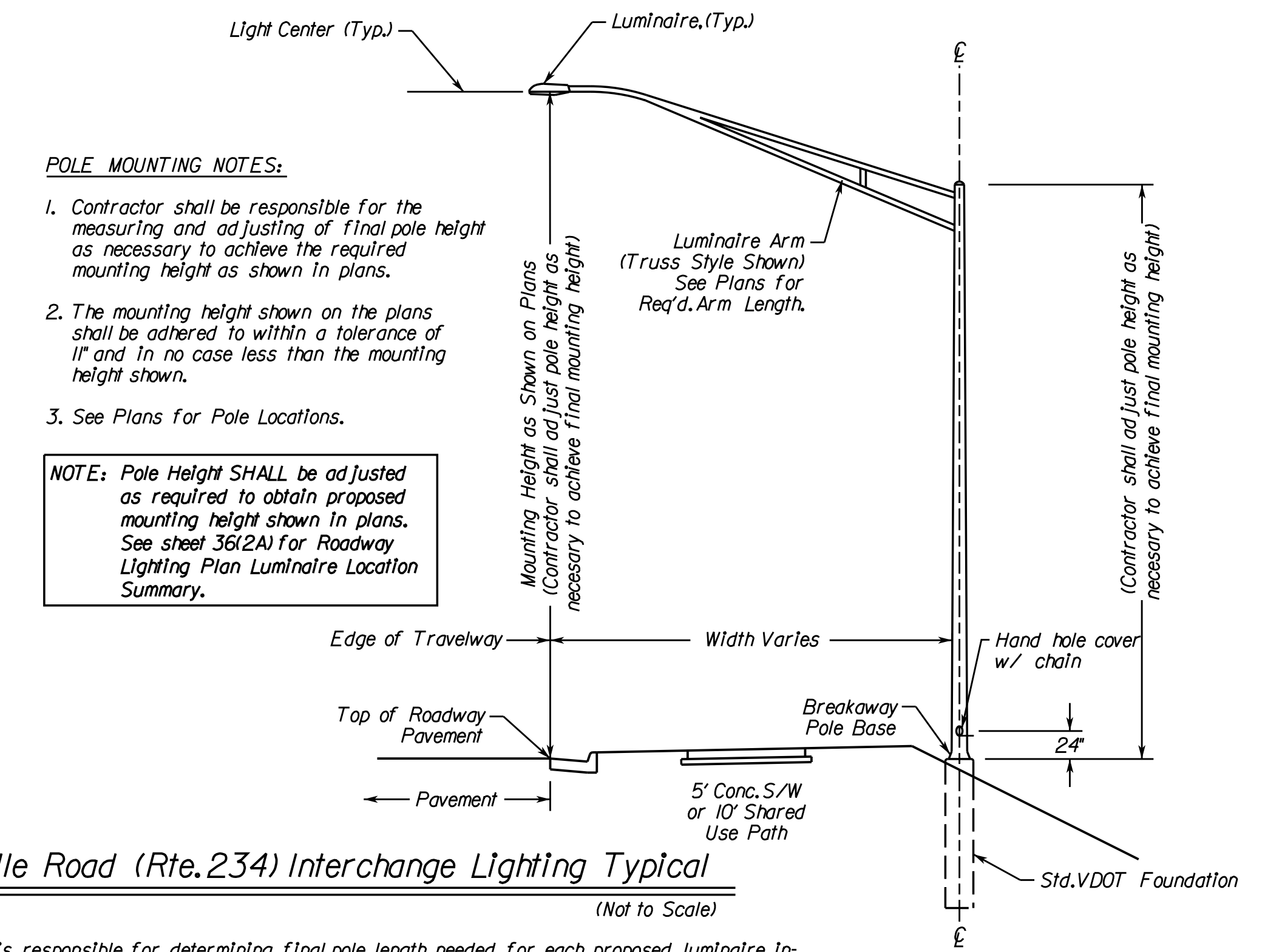
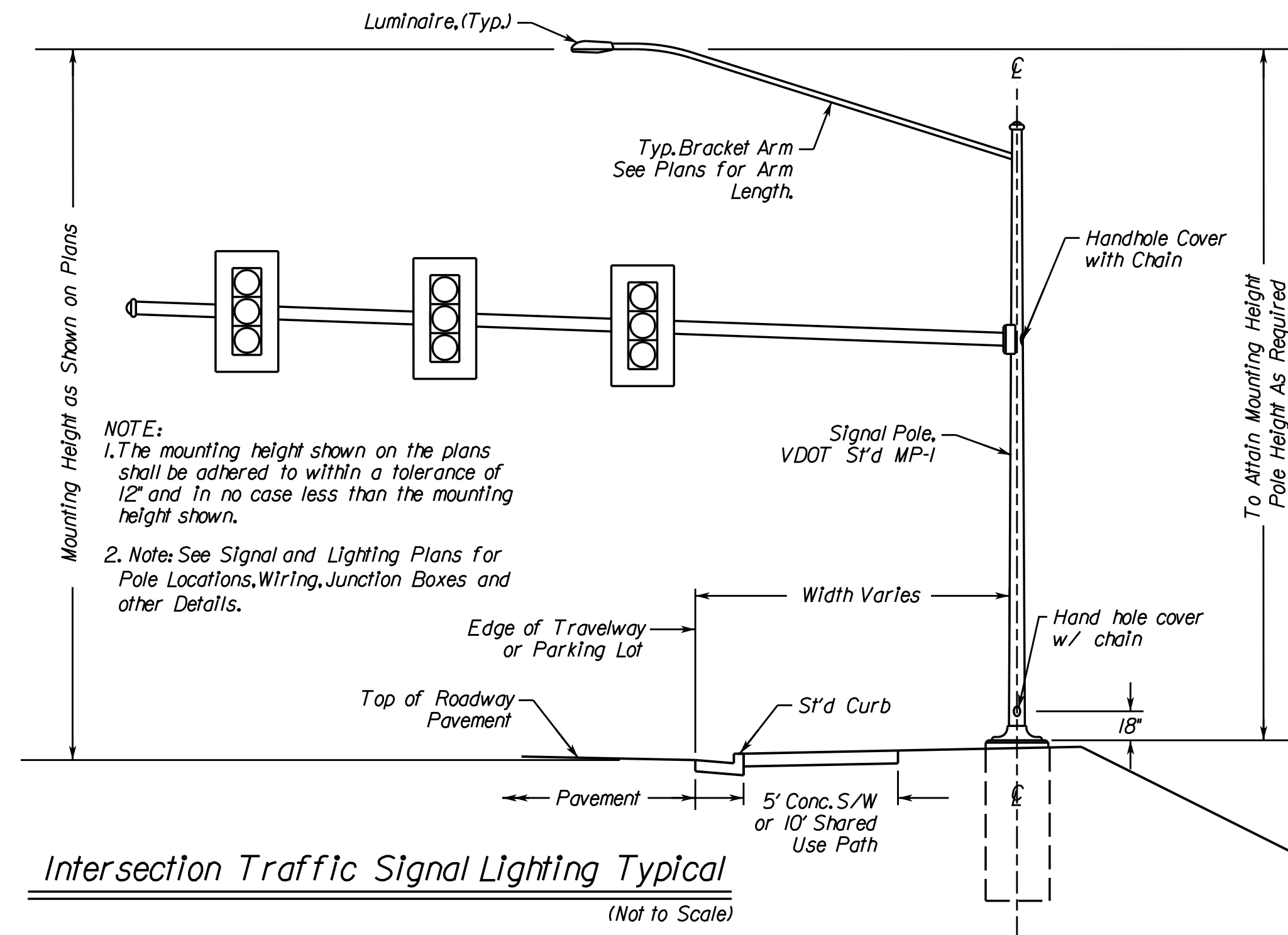
Streetworks
AGI32 logo
File: ARCH-L-AP72-280-D-U-T4W-4N7-T4W-4N7
Type: 280W
Includes photometric diagrams and data tables.

PROJECT MANAGER BWC DOT, Mary Akers (703) 792-5276
 SURVEYED BY, DATE Blaker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guon, P.E., Blaker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

Roadway Lighting Typicals

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201, C-501	36(2D)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



NOTE:
 The Contractor is responsible for determining final pole length needed for each proposed luminaire in order to attain the designed luminaire mounting height as specified in the plans. As shown on sheet 19(1), this Delta is between the roadway finished grade (below the proposed luminaire) and top of the pole foundation. The Estimated Delta's have been shown from cross section data. The contractor is responsible determining final pole heights prior to ordering. See sheet 18(____) & 18(____) for mounting height typical details.

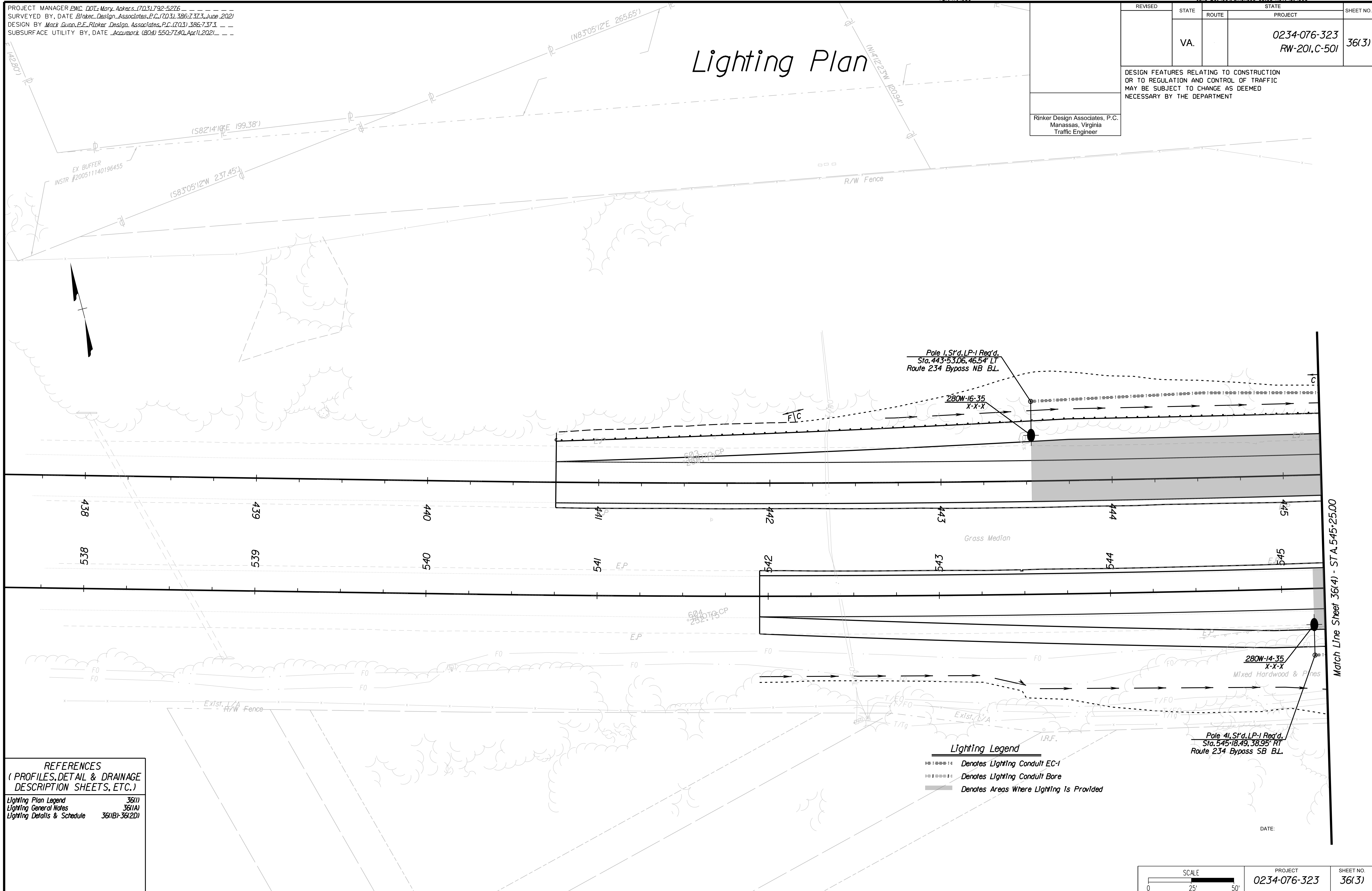
PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guano, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	36(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer

Lighting Plan



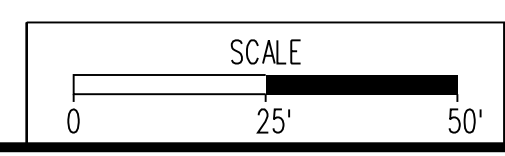
REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)

Lighting Legend

- x---x--- Denotes Lighting Conduit EC-1
- .---.--- Denotes Lighting Conduit Bore
- Denotes Areas Where Lighting Is Provided

DATE:



PROJECT	0234-076-323
SHEET NO.	36(3)

PH
PLAN

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

PROJECT MANAGER BWC DOT: Mary Acker (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guo, P.E., Binker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	36(4)

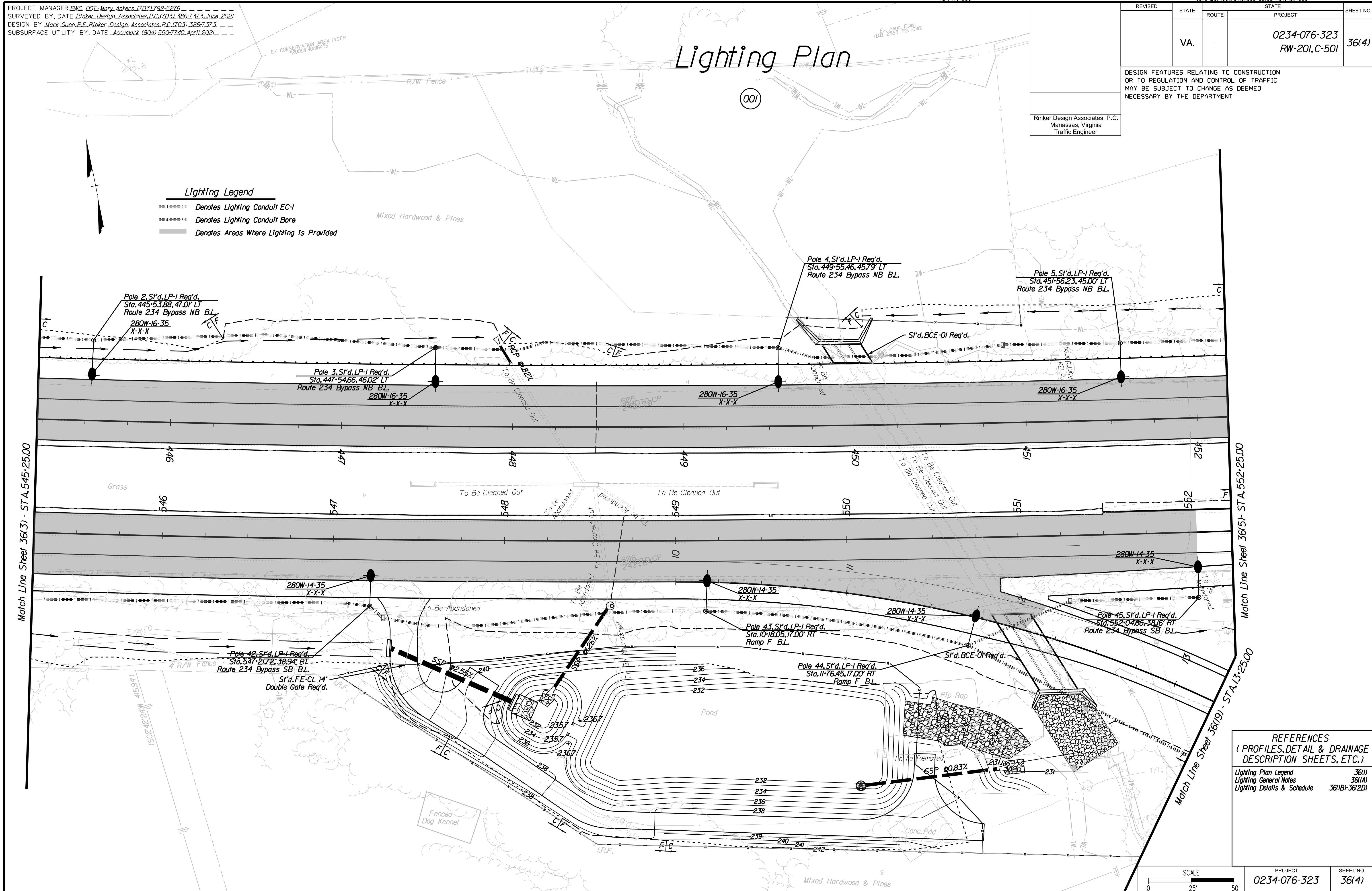
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer

Lighting Plan

Lighting Legend

- Denotes Lighting Conduit EC-1
- Denotes Lighting Conduit Bore
- Denotes Areas Where Lighting Is Provided



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)

SCALE	PROJECT	SHEET NO.
0 25' 50'	0234-076-323	36(4)

PH
PLAN

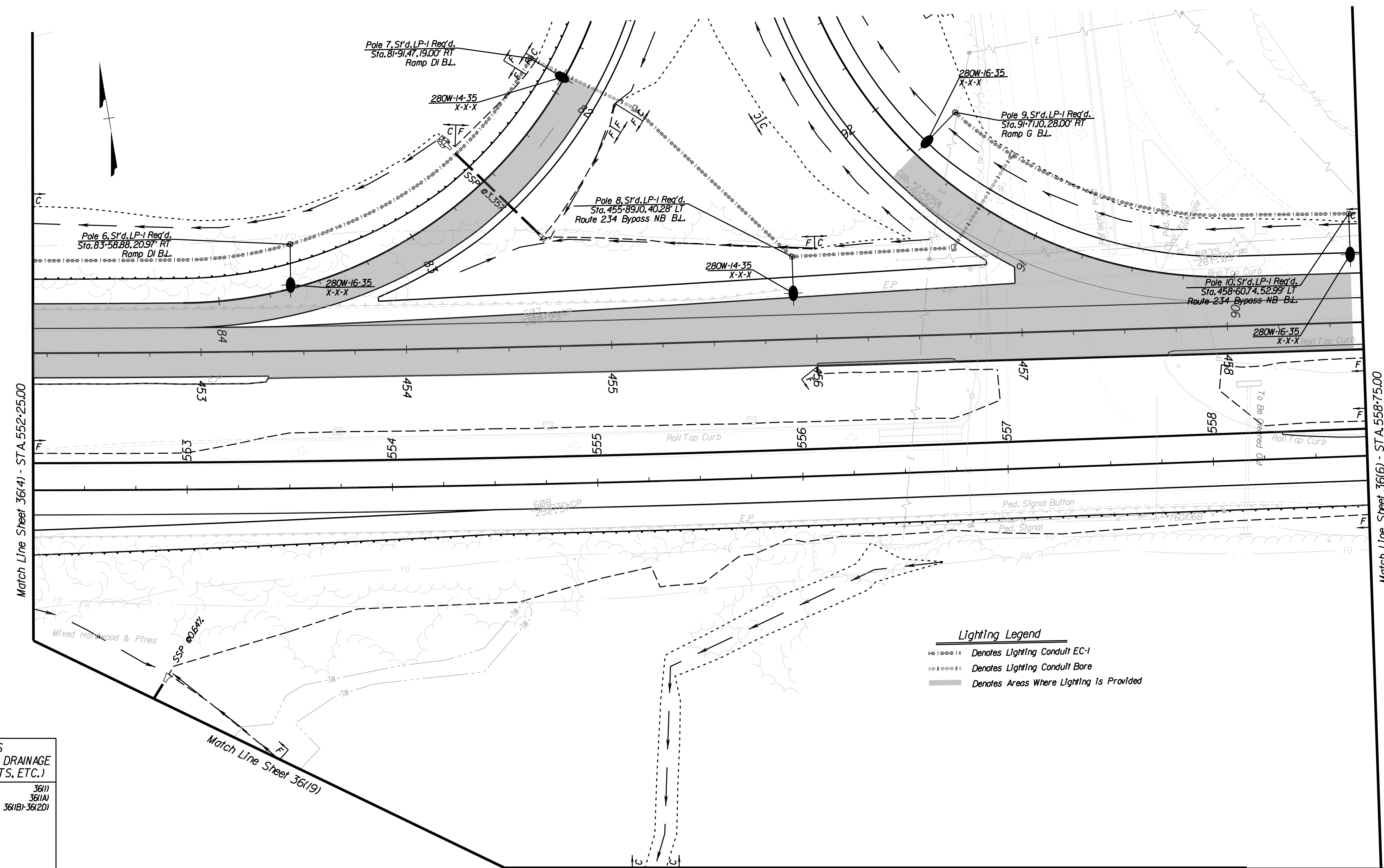
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guo, P.E. Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	36(5)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Rinker Design Associates, P.C. Manassas, Virginia Traffic Engineer					

Lighting Plan



Lighting Legend
 - - - - - Denotes Lighting Conduit EC-1
 ===== Denotes Lighting Conduit Bore
 [Shaded Area] Denotes Areas Where Lighting Is Provided

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)

SCALE 0 25' 50'	PROJECT 0234-076-323	SHEET NO. 36(5)
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PH
PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

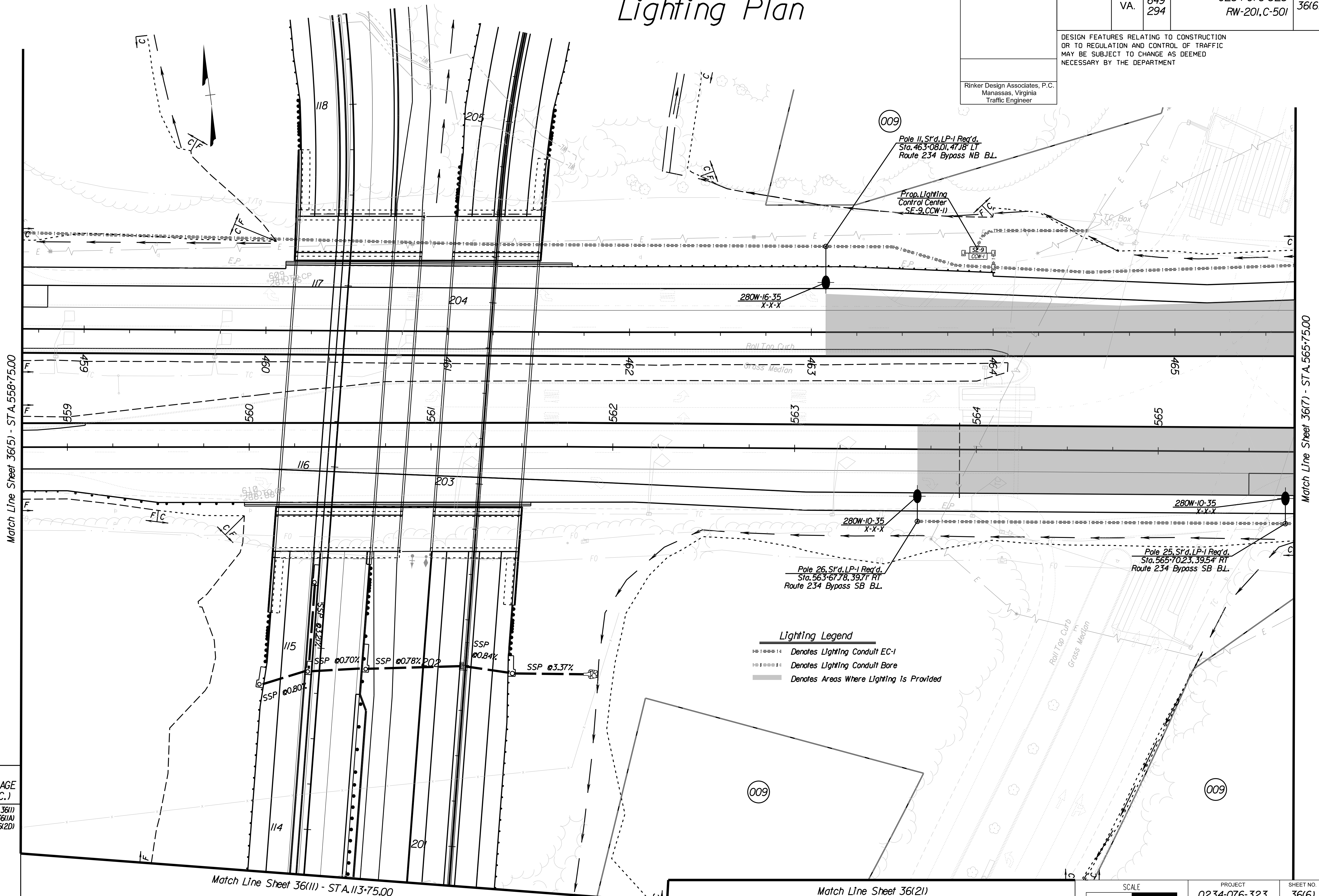
PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	649 294		0234-076-323 RW-201,C-501	36(16)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer

Lighting Plan

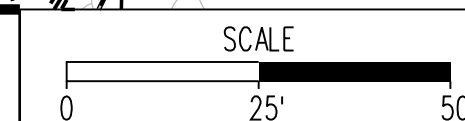


REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend 36(1)
Lighting General Notes 36(1A)
Lighting Details & Schedule 36(1B)-36(2D)

Match Line Sheet 36(11) - STA. 113+75.00

Match Line Sheet 36(21)



PROJECT
0234-076-323

SHEET NO.
36(16)

PH
PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

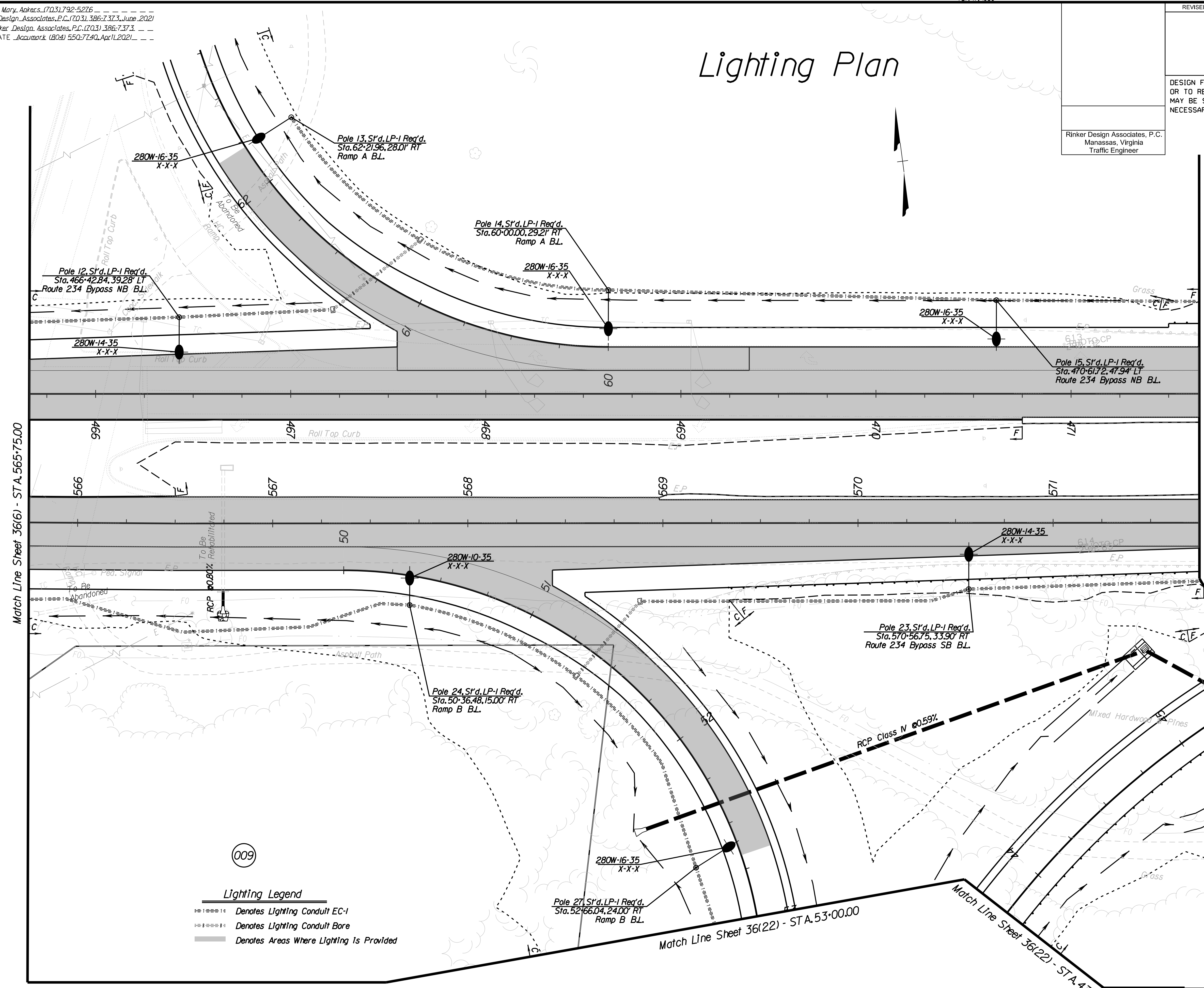
PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	36(7)

Lighting Plan

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer



REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)

Lighting Legend

	Denotes Lighting Conduit EC-1
	Denotes Lighting Conduit Bore
	Denotes Areas Where Lighting is Provided

SCALE	PROJECT	SHEET NO.
0 25' 50'	0234-076-323	36(7)

PH PLAN

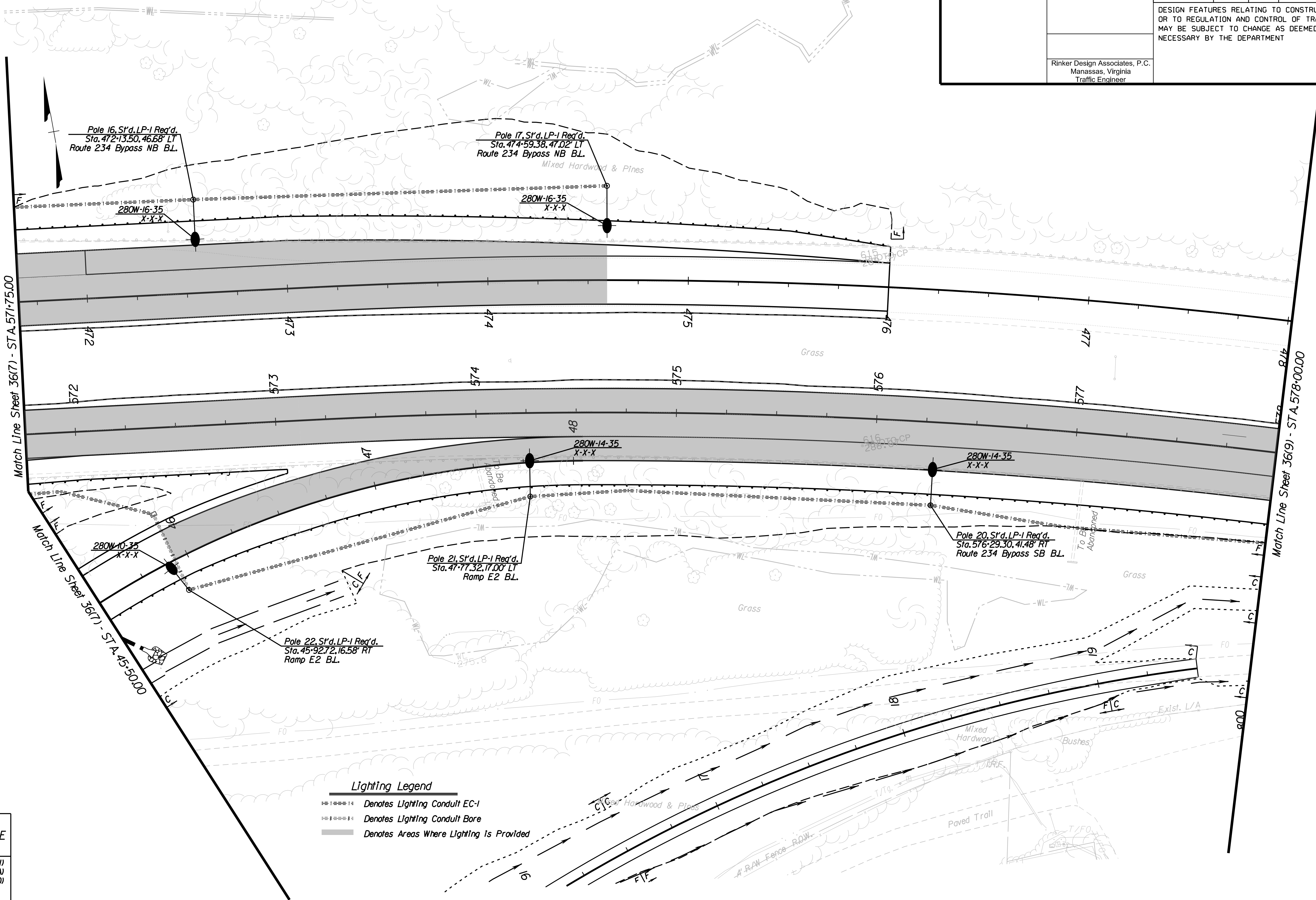
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT: Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

REVISED	STATE	STATE	SHEET NO.
	VA.	PROJECT	
	ROUTE	PROJECT	
	234	0234-076-323 RW-201,C-501	36(8)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT			
Rinker Design Associates, P.C. Manassas, Virginia Traffic Engineer			

Lighting Plan



Lighting Legend
 - - - - - Denotes Lighting Conduit EC-1
 - - - - - Denotes Lighting Conduit Bore
 [Shaded Area] Denotes Areas Where Lighting is Provided

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

- Lighting Plan Legend 36(1)
- Lighting General Notes 36(1A)
- Lighting Details & Schedule 36(1B)-36(2D)

SCALE 0 25' 50'

PROJECT 0234-076-323 SHEET NO. 36(8)

PH PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

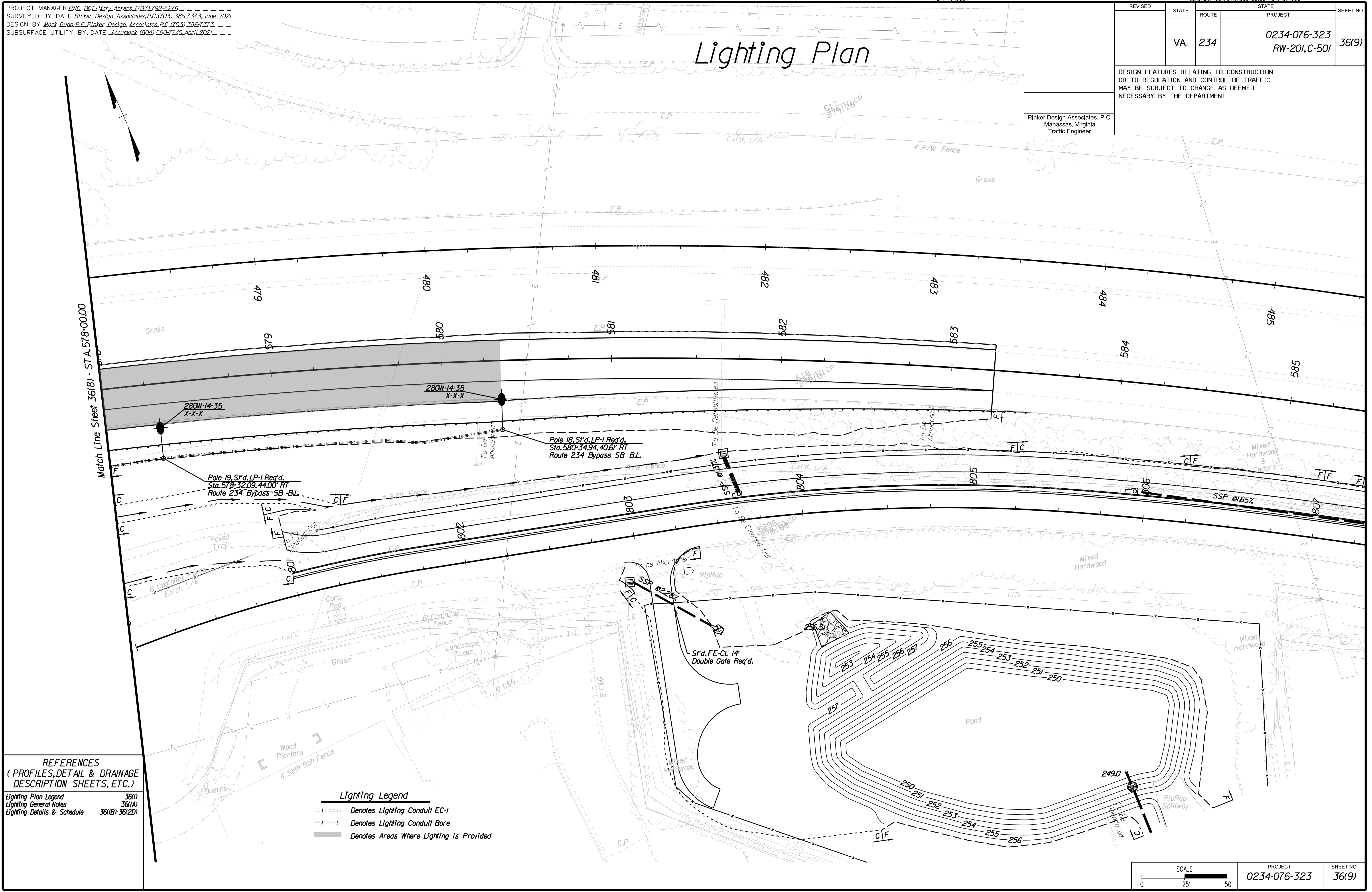
PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker, Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Binker, Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234		0234-076-323 RW-201,C-501	36(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer

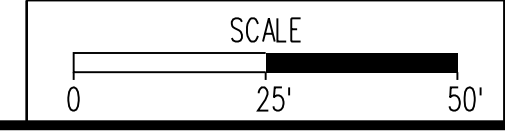
Lighting Plan



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

- Lighting Plan Legend 36(1)
- Lighting General Notes 36(A)
- Lighting Details & Schedule 36(B)-36(D)

- Lighting Legend**
- Denotes Lighting Conduit EC-1
 - Denotes Lighting Conduit Bore
 - Denotes Areas Where Lighting is Provided



PROJECT	0234-076-323	SHEET NO.	36(9)
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PH
PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

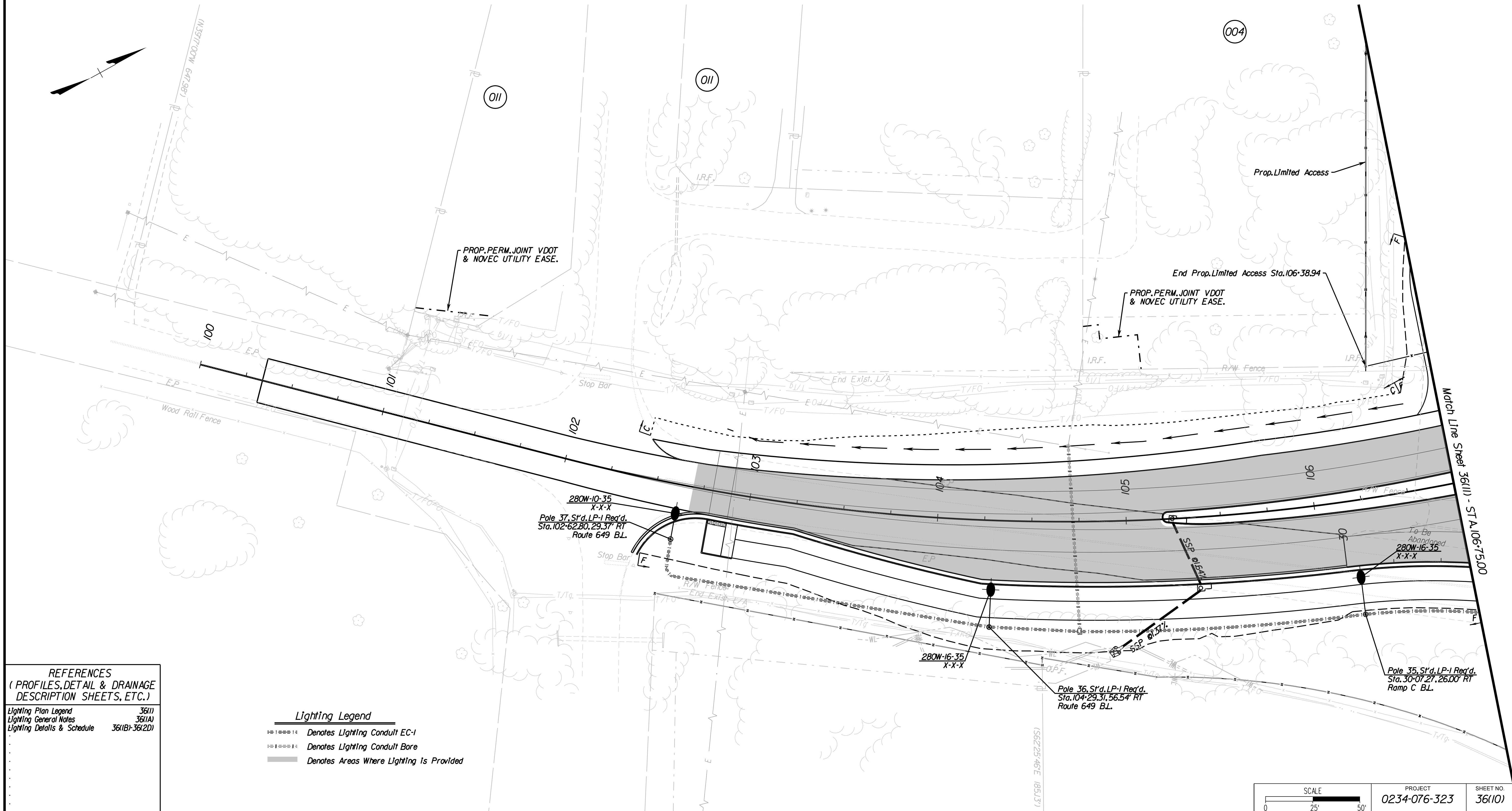
PROJECT MANAGER BWC DOT, Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mark Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE Acumark (804) 550-7240, April 2021

Lighting Plan

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	649	0234-076-323 RW-201,C-501	36(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer



REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

- Lighting Plan Legend 36(1)
- Lighting General Notes 36(1A)
- Lighting Details & Schedule 36(1B)-36(2D)

Lighting Legend

- ==== Denotes Lighting Conduit EC-1
- ===== Denotes Lighting Conduit Bore
- Denotes Areas Where Lighting Is Provided

SCALE 0 25' 50'

PROJECT 0234-076-323 SHEET NO. 36(10)

PH
PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

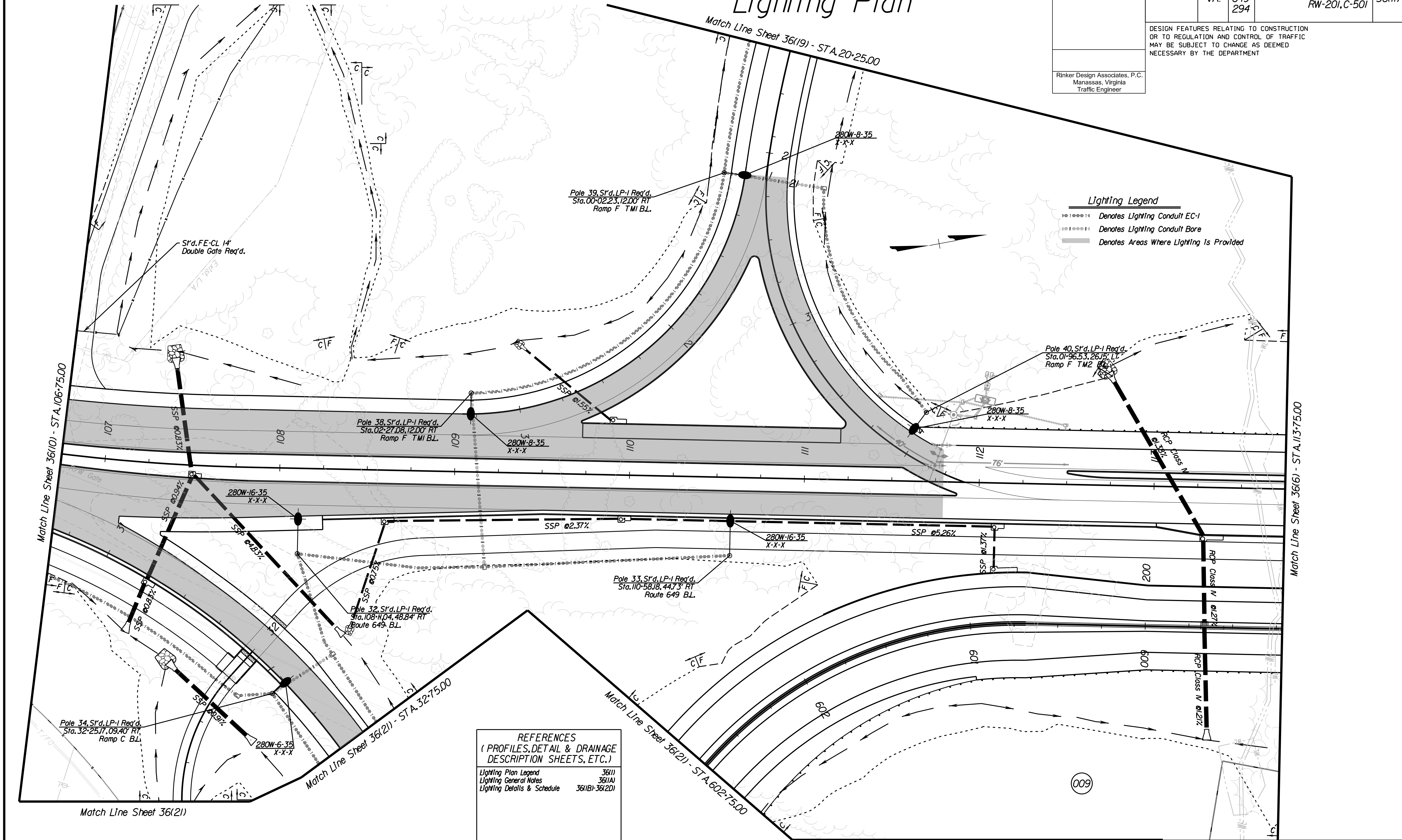
PROJECT MANAGER BWC, DOT, Mary, Ankers (703)792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234 649 294	0234-076-323 RW-201,C-501	36(11)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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Lighting Plan



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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

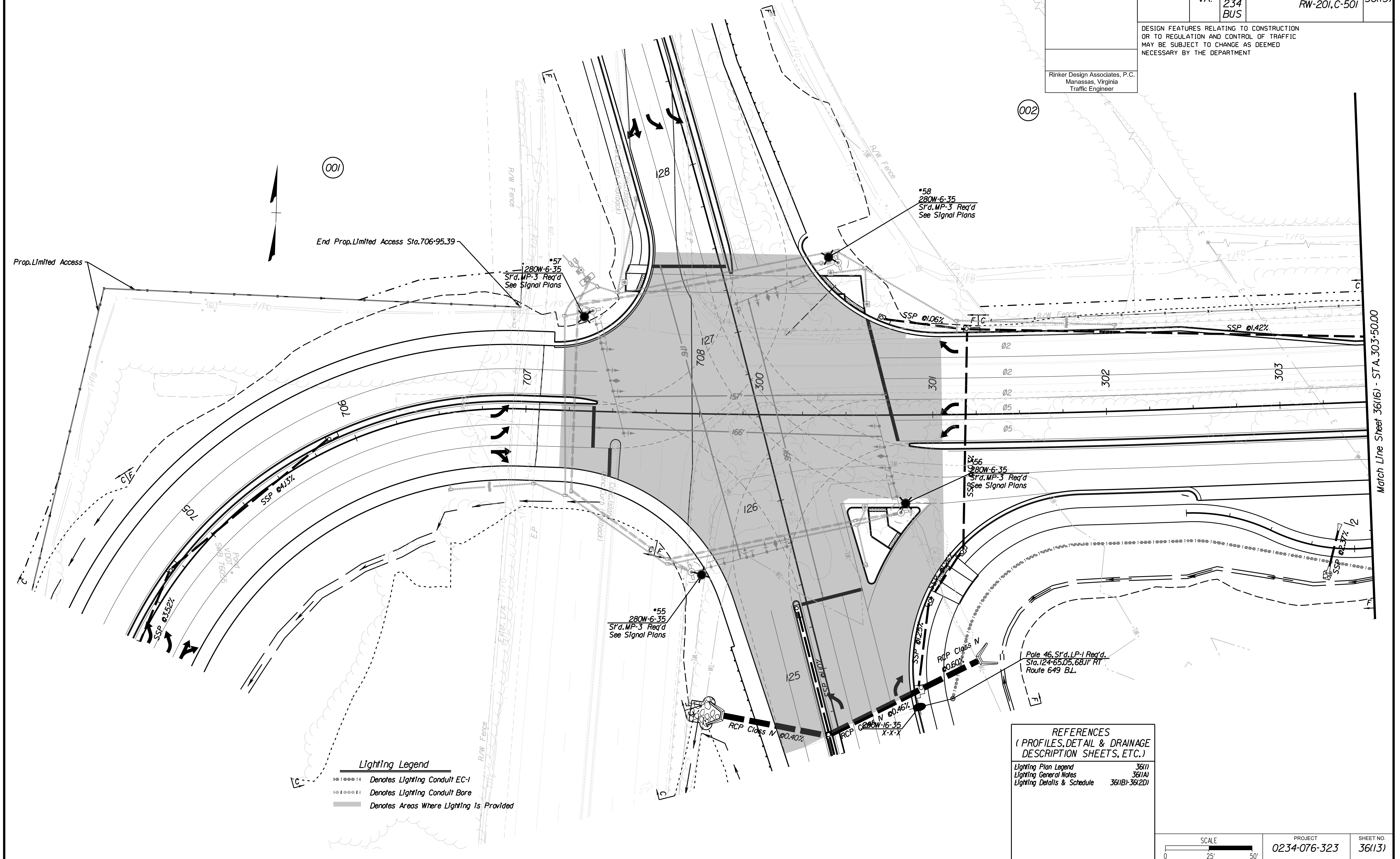
PROJECT MANAGER BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Lighting Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	234 649 234 BUS		0234-076-323 RW-201, C-501	36(13)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer



Lighting Legend

- ==== Denotes Lighting Conduit EC-1
- ===== Denotes Lighting Conduit Bore
- Denotes Areas Where Lighting Is Provided

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)

SCALE: 0 25' 50'

PROJECT	0234-076-323	SHEET NO.	36(13)
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PH PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

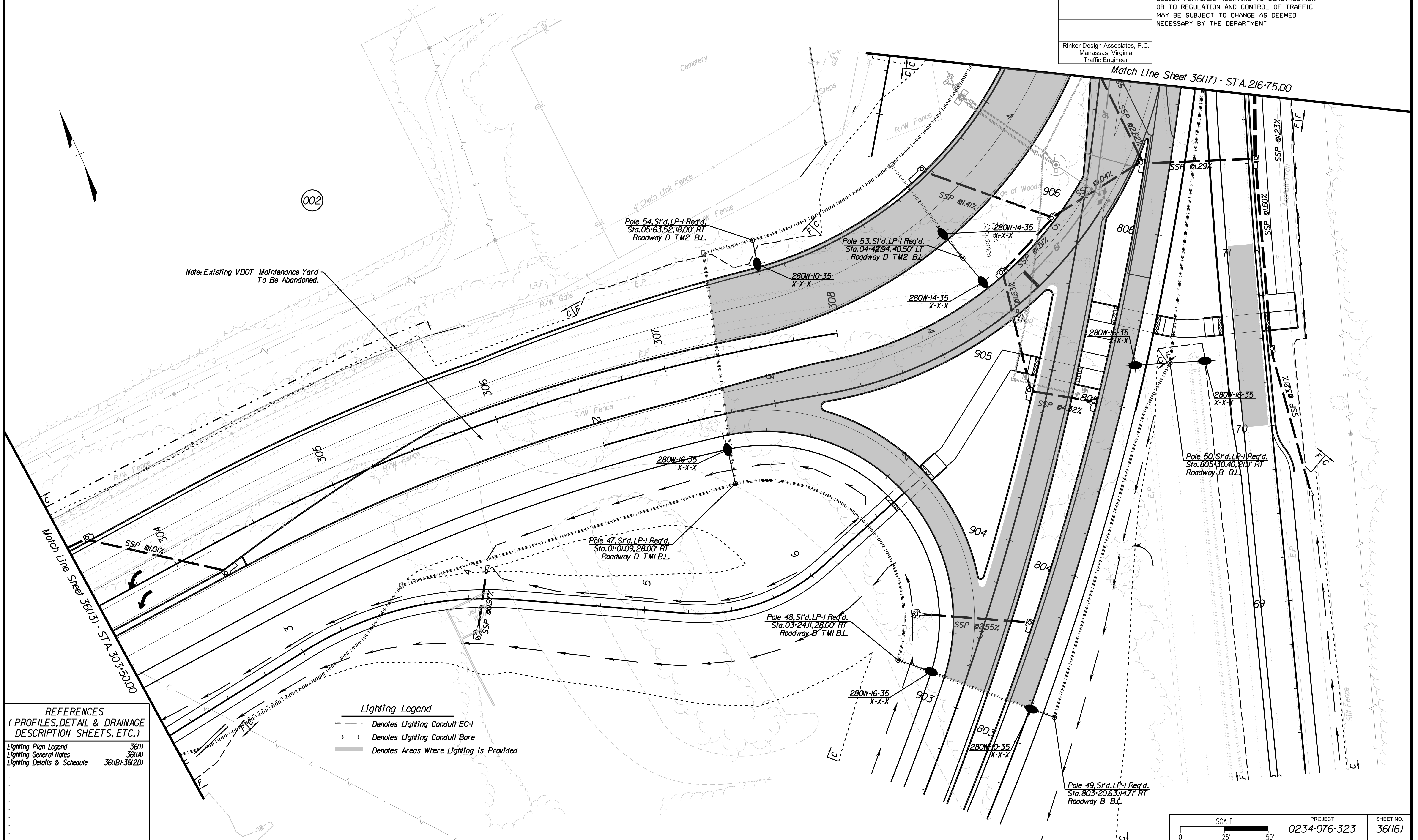
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	294 BRAD CEM		0234-076-323 RW-201,C-501	36(16)

Lighting Plan

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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 Manassas, Virginia
 Traffic Engineer

Match Line Sheet 36(17) - STA. 216+75.00



Note: Existing VDOT Maintenance Yard To Be Abandoned.

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)

Lighting Legend

	Denotes Lighting Conduit EC-1
	Denotes Lighting Conduit Bore
	Denotes Areas Where Lighting Is Provided

SCALE	PROJECT	SHEET NO.
0 25' 50'	0234-076-323	36(16)

PH PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC, DOT, Mary Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mark Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	294	0234-076-323 RW-201,C-501	36(17)

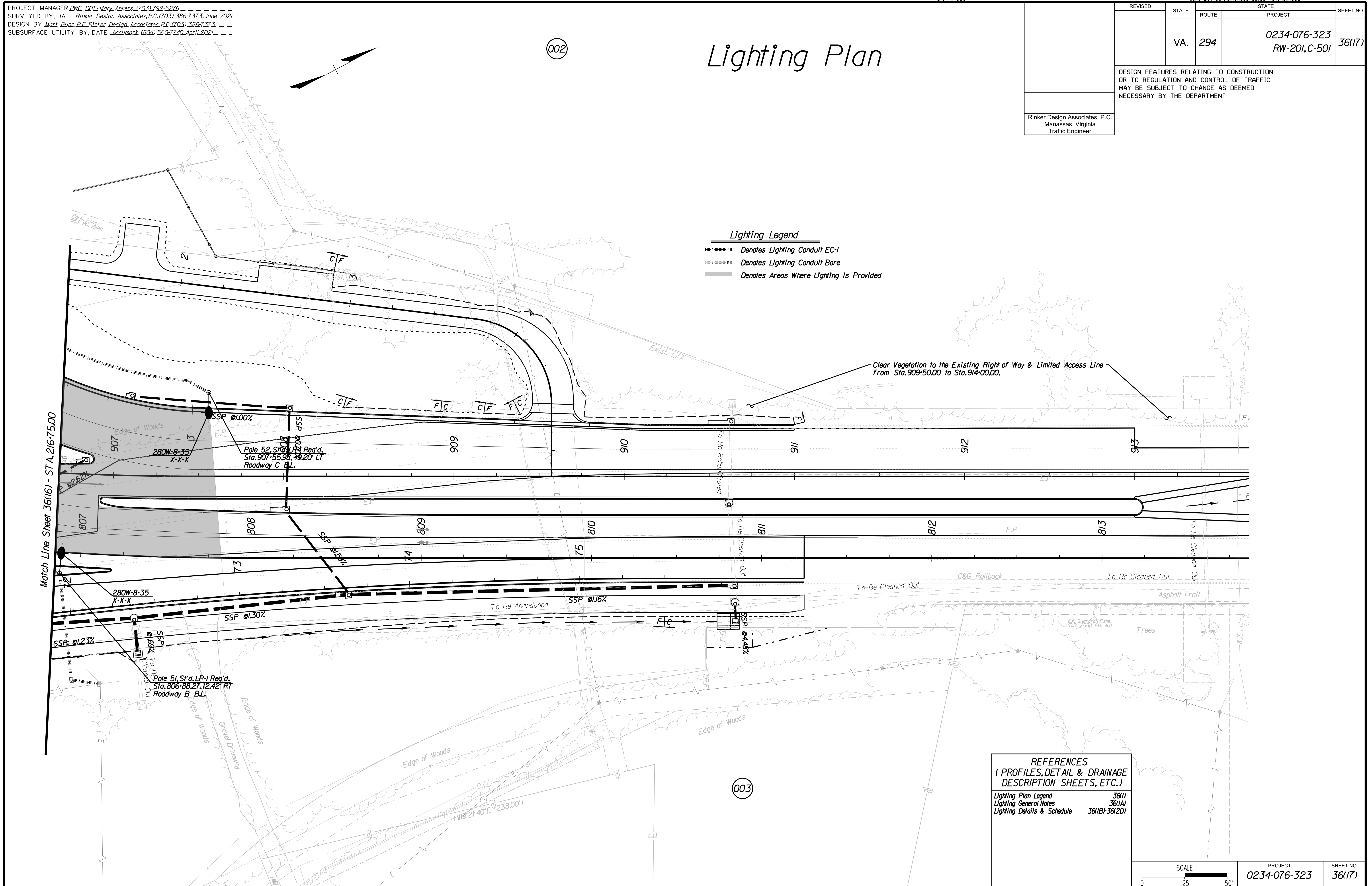
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer

Lighting Plan

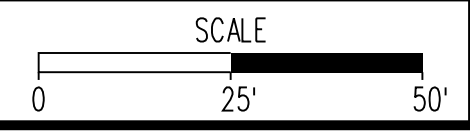
Lighting Legend

- Denotes Lighting Conduit EC-1
- Denotes Lighting Conduit Bare
- Denotes Areas Where Lighting Is Provided



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)



PROJECT	SHEET NO.
0234-076-323	36(17)

PH
PLAN

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PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

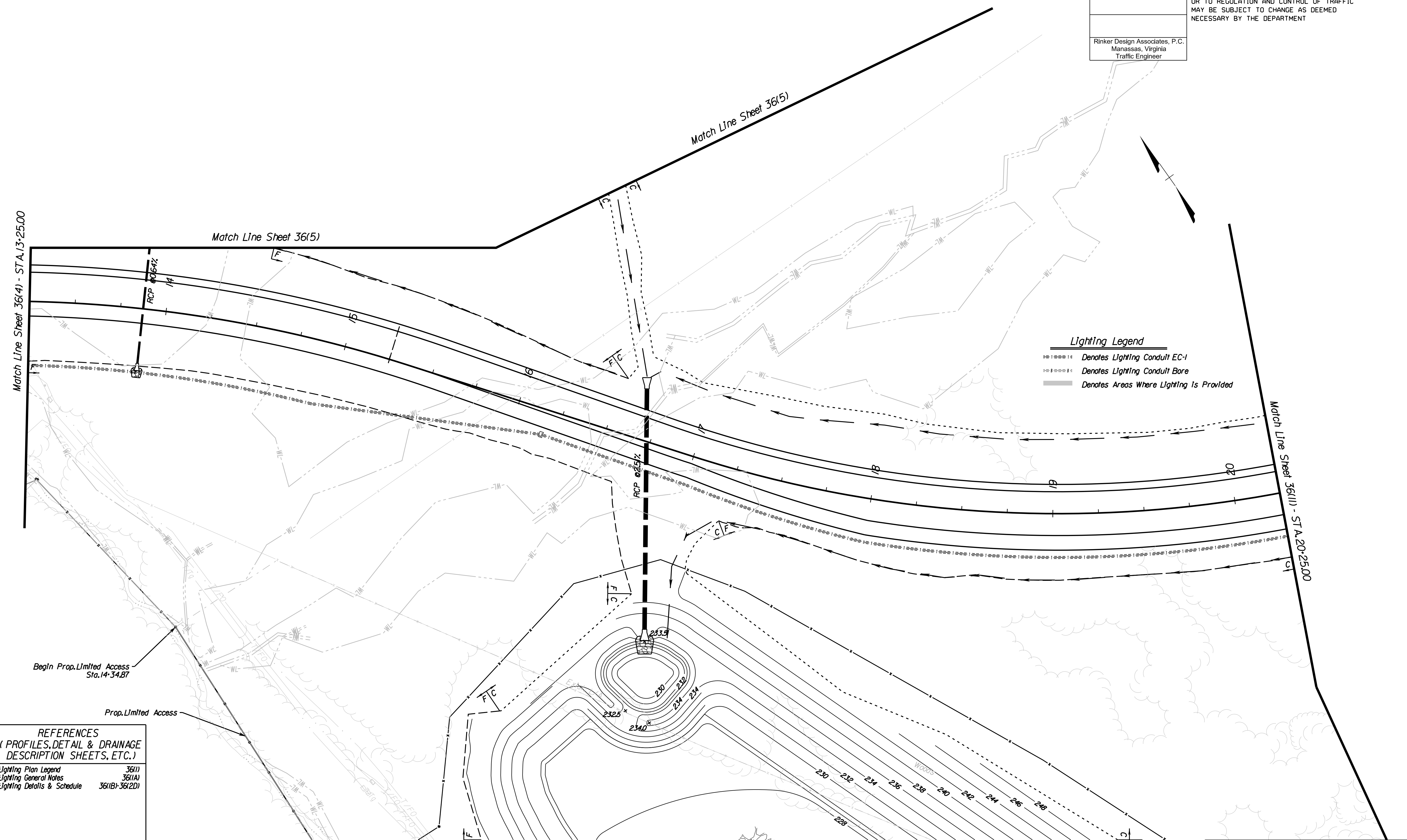
PROJECT MANAGER BWC DOT, Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Gunn, P.E., Rinker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7240, April 2021

Lighting Plan

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	36(19)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer



Lighting Legend
 - - - - - Denotes Lighting Conduit EC-1
 - - - - - Denotes Lighting Conduit Bore
 [Shaded Area] Denotes Areas Where Lighting Is Provided

Match Line Sheet 36(4) - STA. 13+25.00

Match Line Sheet 36(5)

Match Line Sheet 36(11) - STA. 20+25.00

Begin Prop. Limited Access Sta. 14+34.87

Prop. Limited Access

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend 36(1)
 Lighting General Notes 36(1A)
 Lighting Details & Schedule 36(1B)-36(2D)

SCALE
 0 25' 50'

PROJECT 0234-076-323
 SHEET NO. 36(19)

PH
 PLAN

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

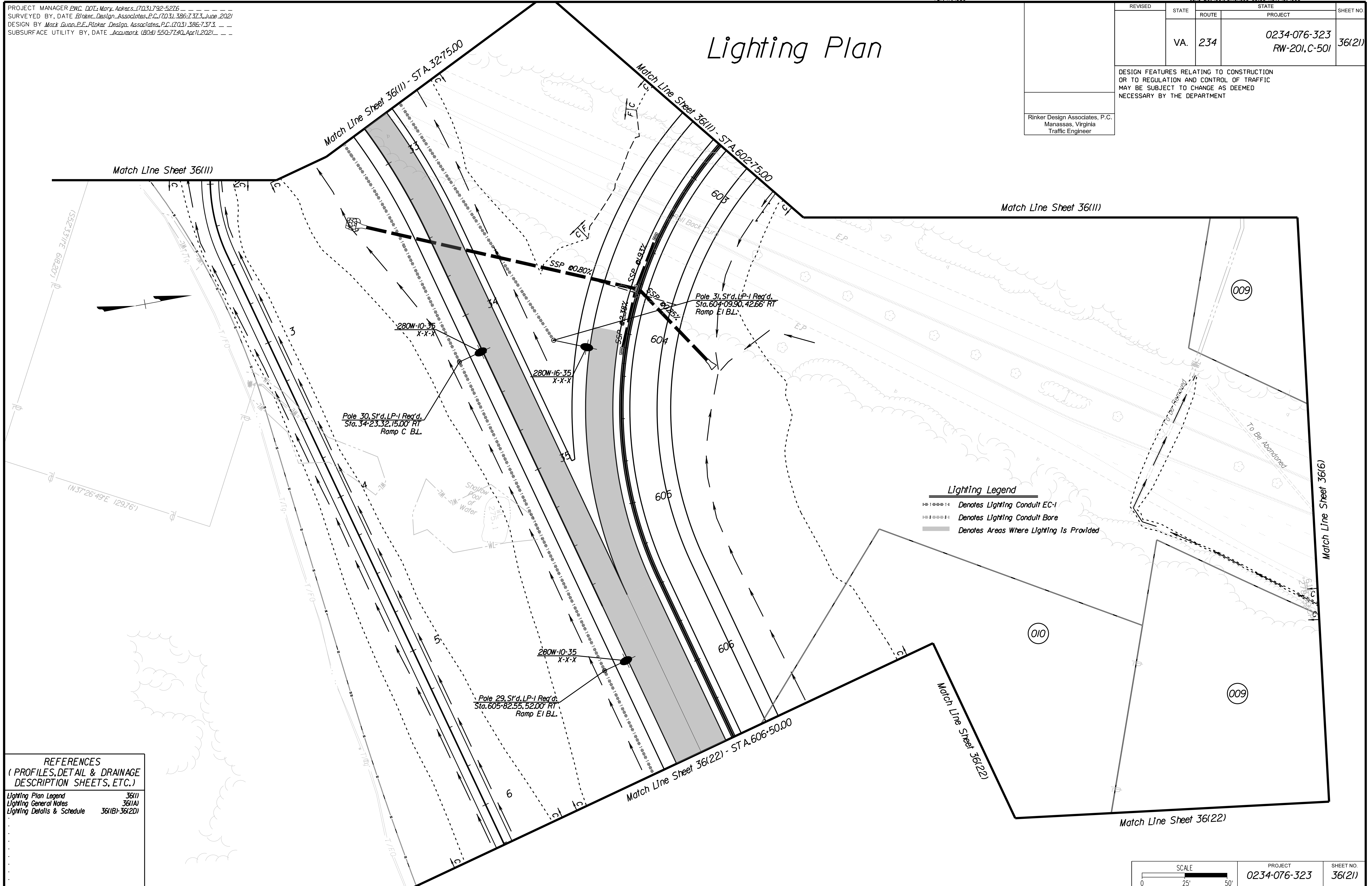
PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Gunn, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7740, April 2021

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201,C-501	36(21)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer

Lighting Plan



Lighting Legend
 - - - - - Denotes Lighting Conduit EC-1
 - - - - - Denotes Lighting Conduit Bare
 [Shaded Area] Denotes Areas Where Lighting Is Provided

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Lighting Plan Legend	36(1)
Lighting General Notes	36(1A)
Lighting Details & Schedule	36(1B)-36(2D)

SCALE 0 25' 50'	PROJECT 0234-076-323	SHEET NO. 36(21)
--------------------	-------------------------	---------------------

PH
PLAN

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

11/1/2021

PROJECT MANAGER BWC, DOT, Mary, Ankers (703) 792-5276
SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
DESIGN BY Mack Guan, P.E., Binker Design Associates, P.C. (703) 386-7373
SUBSURFACE UTILITY BY, DATE Accurmark (804) 550-7740, April 2021

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

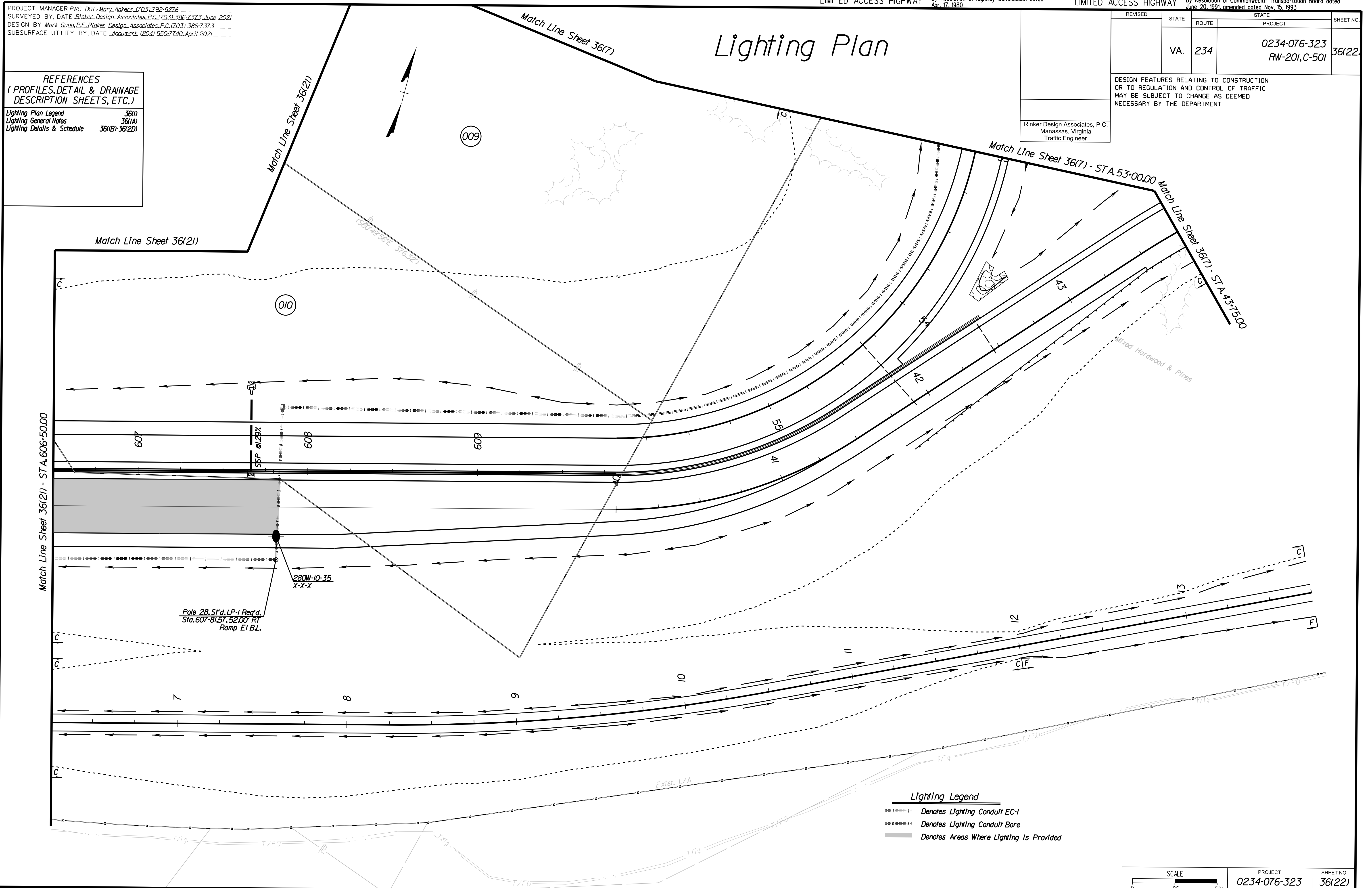
Lighting Plan Legend 36(1)
Lighting General Notes 36(1A)
Lighting Details & Schedule 36(1B)-36(2D)

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	234	0234-076-323 RW-201, C-501	36(22)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Manassas, Virginia
Traffic Engineer

Lighting Plan



Lighting Legend

- Denotes Lighting Conduit EC-1
- Denotes Lighting Conduit Bore
- Denotes Areas Where Lighting Is Provided

SCALE 0 25' 50'	PROJECT 0234-076-323	SHEET NO. 36(22)
--------------------	-------------------------	---------------------

PH PLAN THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

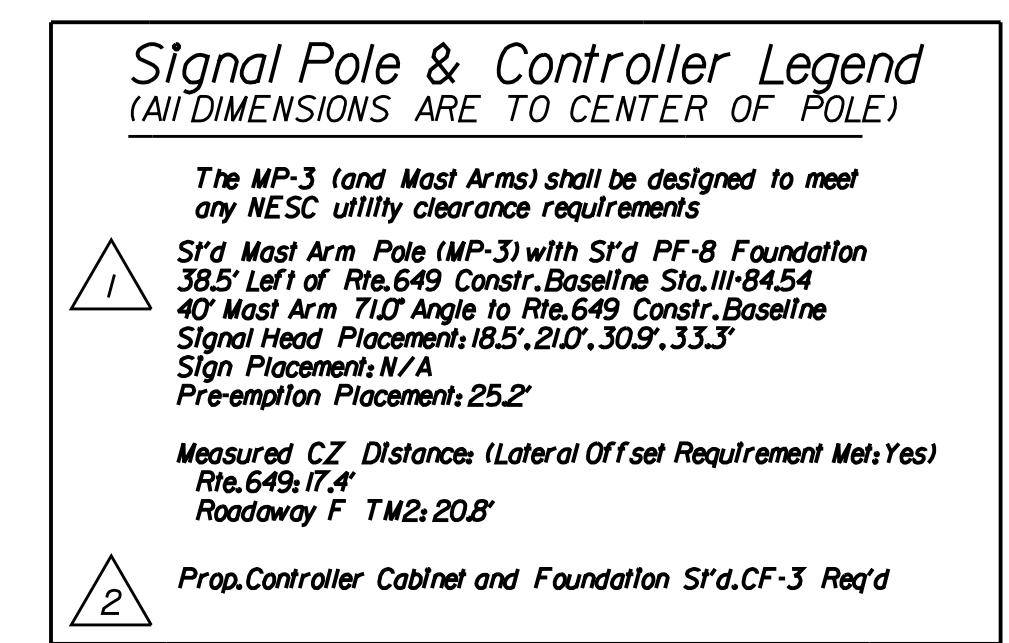
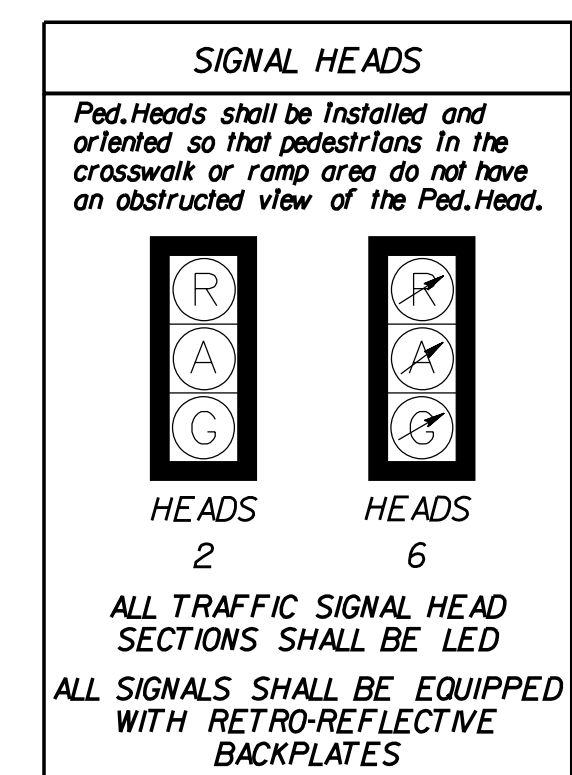
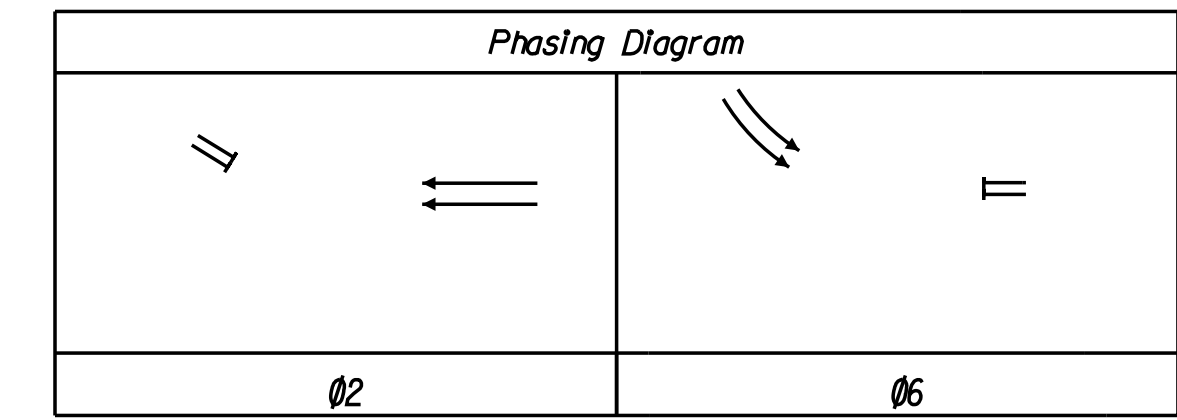
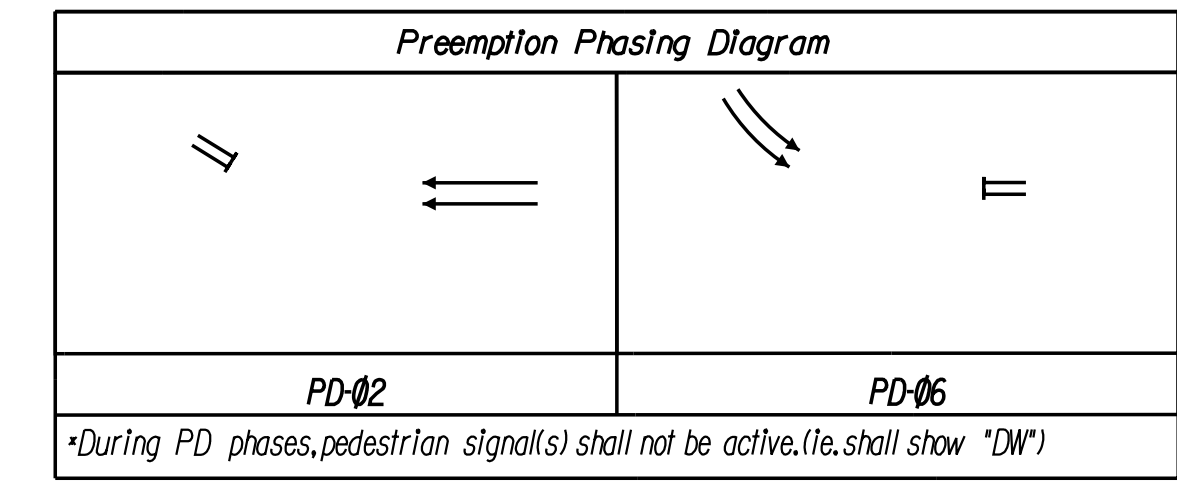
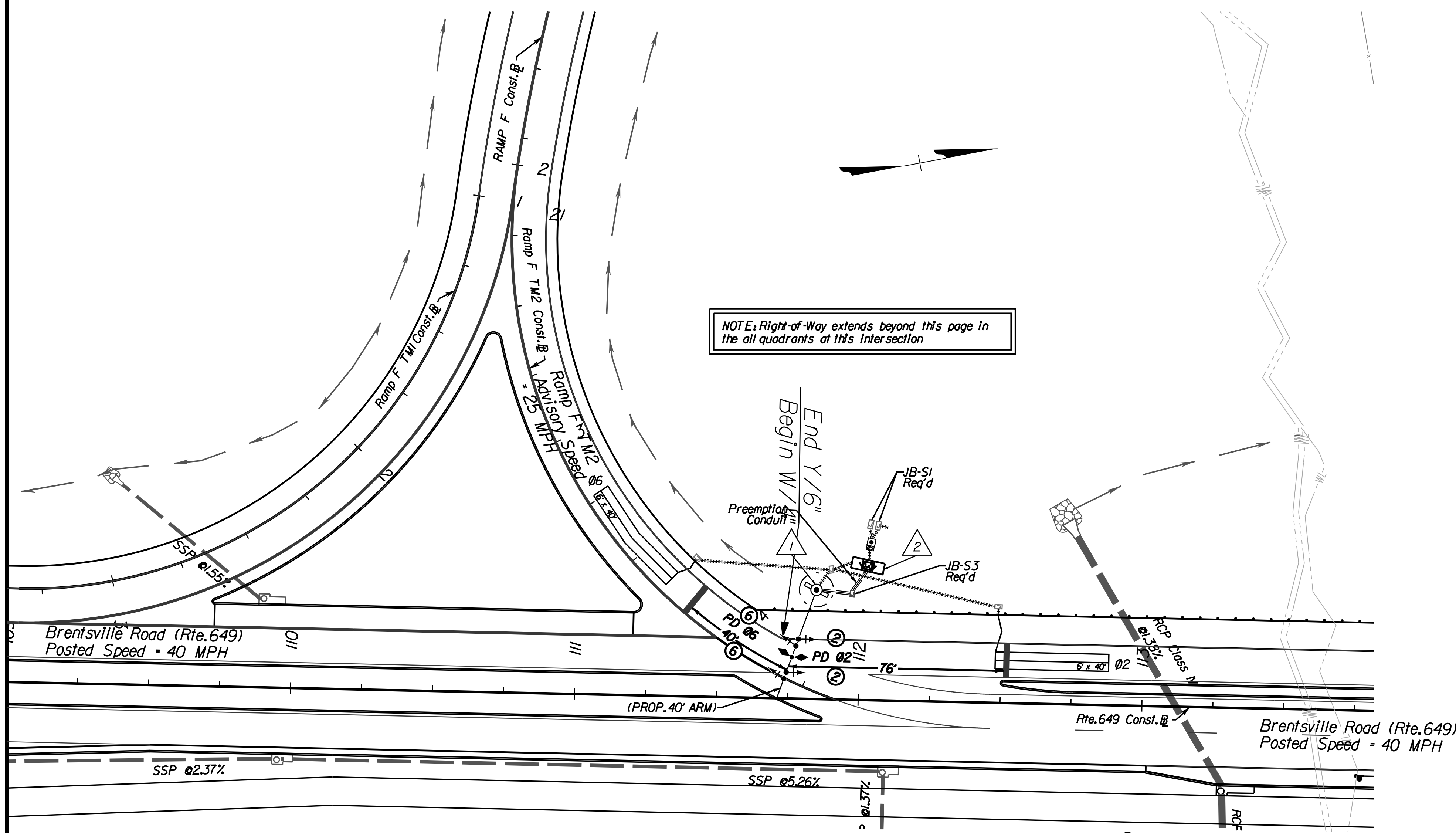
PROJECT MANAGER BWC DOT-Mary Ankers (703)792-5276
 SURVEYED BY, DATE Blaker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guon, P.E., Blaker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Preliminary Traffic Signal Plan

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201, C-501	37(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer

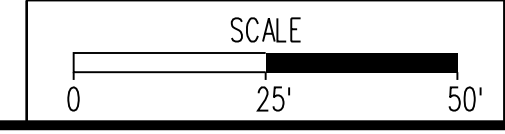


NOT PROVIDED WITH THIS SUBMISSION

- General Notes for Signals
- Cable and Conduit Runs
- Color Sequence Chart
- Initial Timing Chart
- Non-Standard Sign Details
- POWER/COMM Connection (to be coordinated at UFI)

ROUTE 234-BRENTSVILLE ROAD
 INTERCHANGE PROJECT
 Brentsville Road (Rte. 649) & Ramp F
 PROPOSED SIGNAL INSTALLATION PLAN
 Prince William County, Virginia

DATE:	July 2021
PROJECT	0234-076-323
SHEET NO.	37(3)



PH
PLAN

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

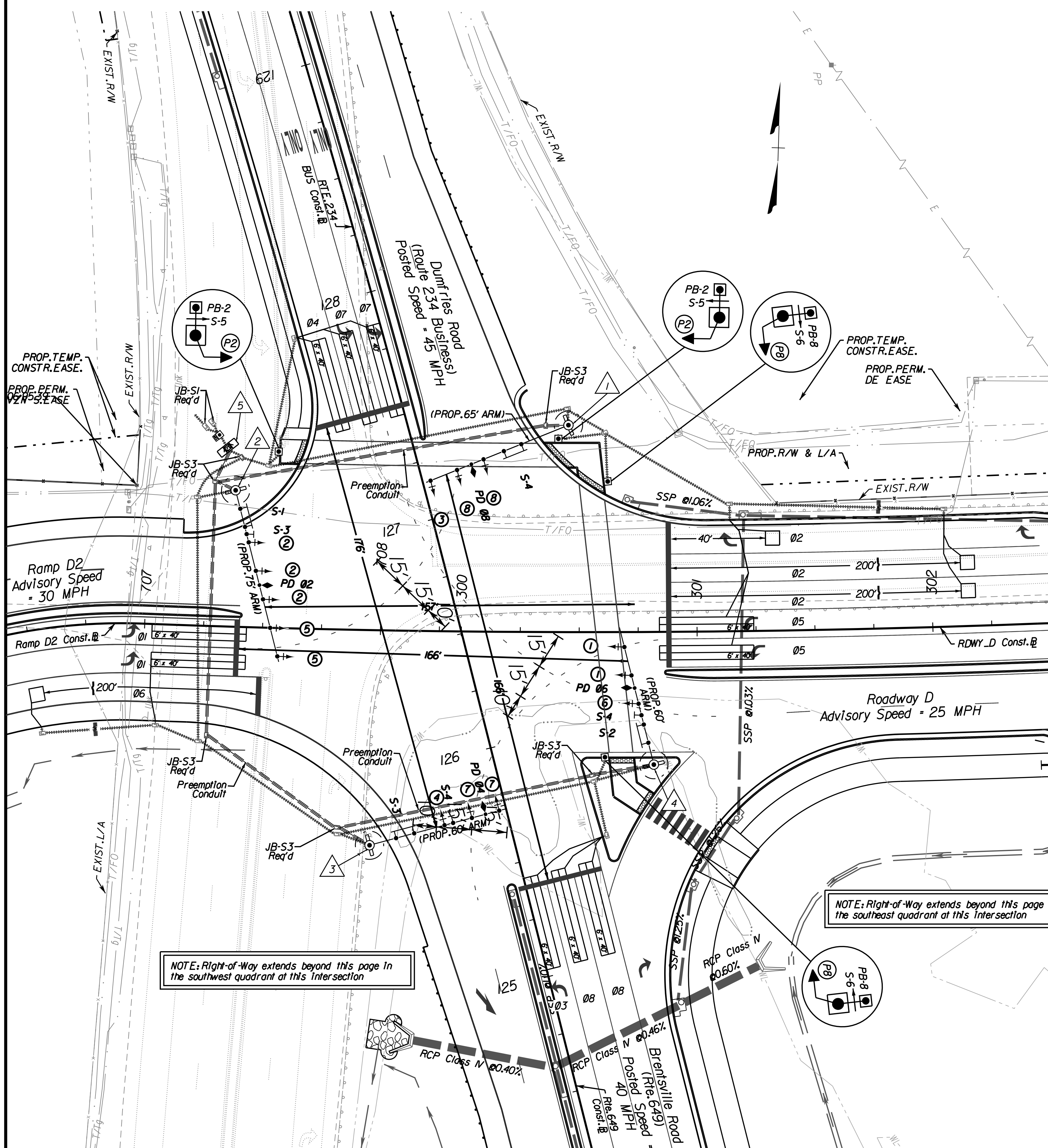
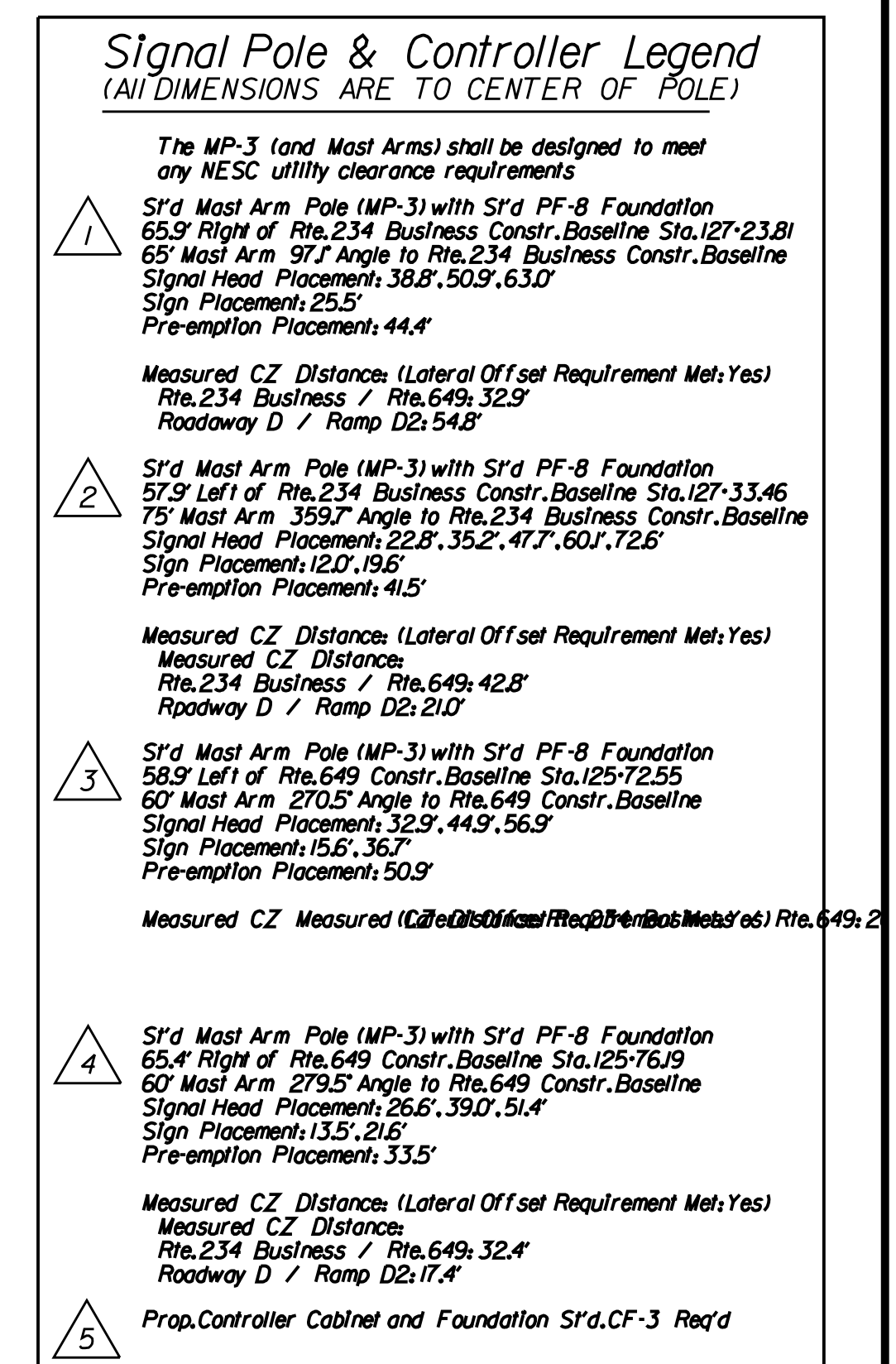
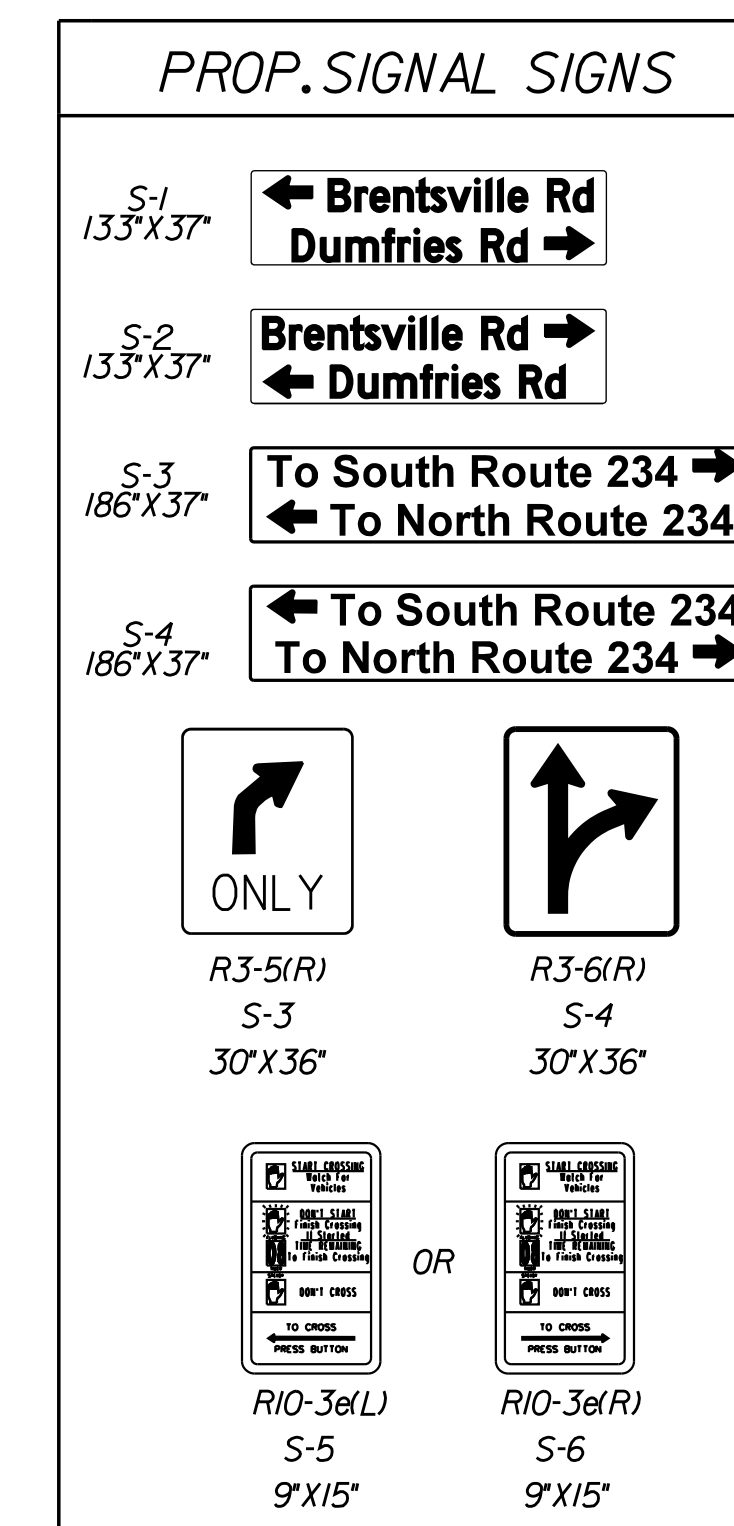
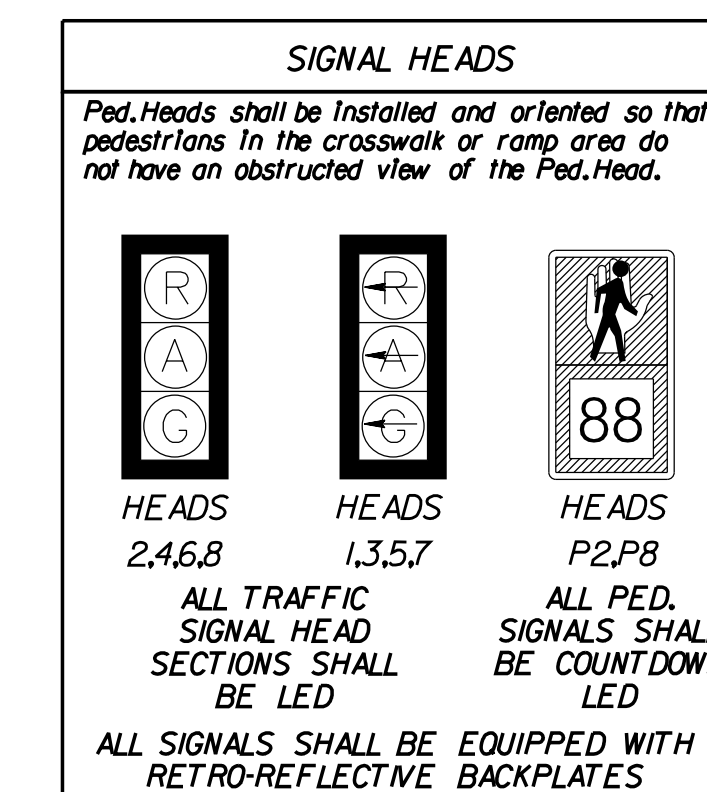
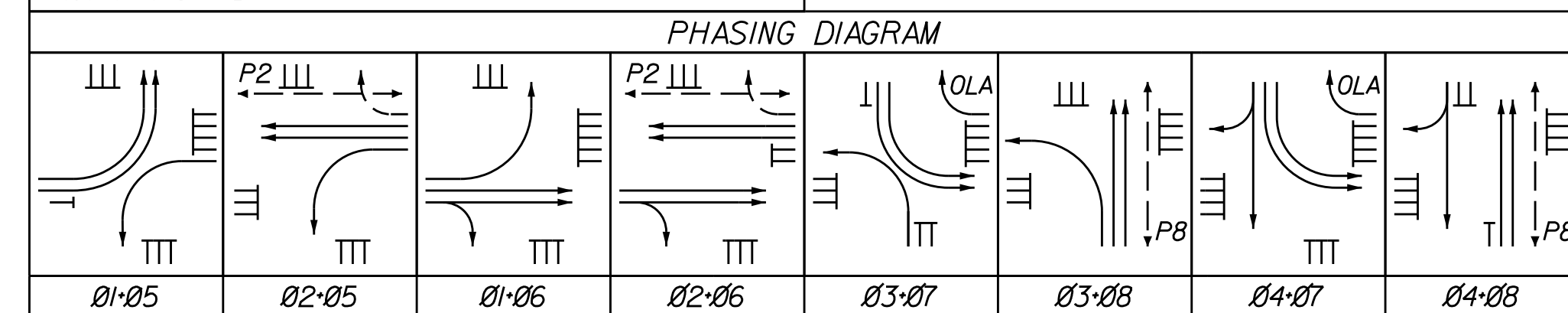
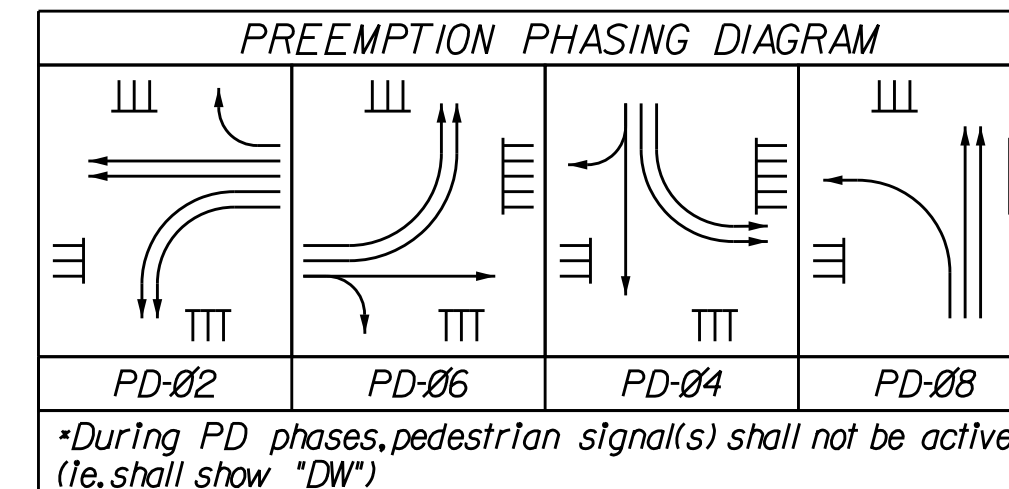
PROJECT MANAGER BWC DOT, Mary, Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Guon, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Preliminary Traffic Signal Plan

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0234-076-323 RW-201,C-501	37(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
 Manassas, Virginia
 Traffic Engineer



NOT PROVIDED WITH THIS SUBMISSION

- General Notes for Signals
- Cable and Conduit Runs
- Color Sequence Chart
- Initial Timing Chart
- Non-Standard Sign Details
- POWER/COMM Connection (to be coordinated at UFI)

ROUTE 234-BRENTSVILLE ROAD INTERCHANGE PROJECT
 Brentsville Road (Rte. 649) & Ramp D2
 PROPOSED SIGNAL INSTALLATION PLAN
 Prince William County, Virginia

DATE: July 2021

PROJECT: 0234-076-323 SHEET NO: 37(4)

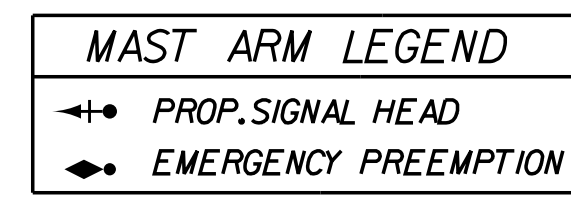
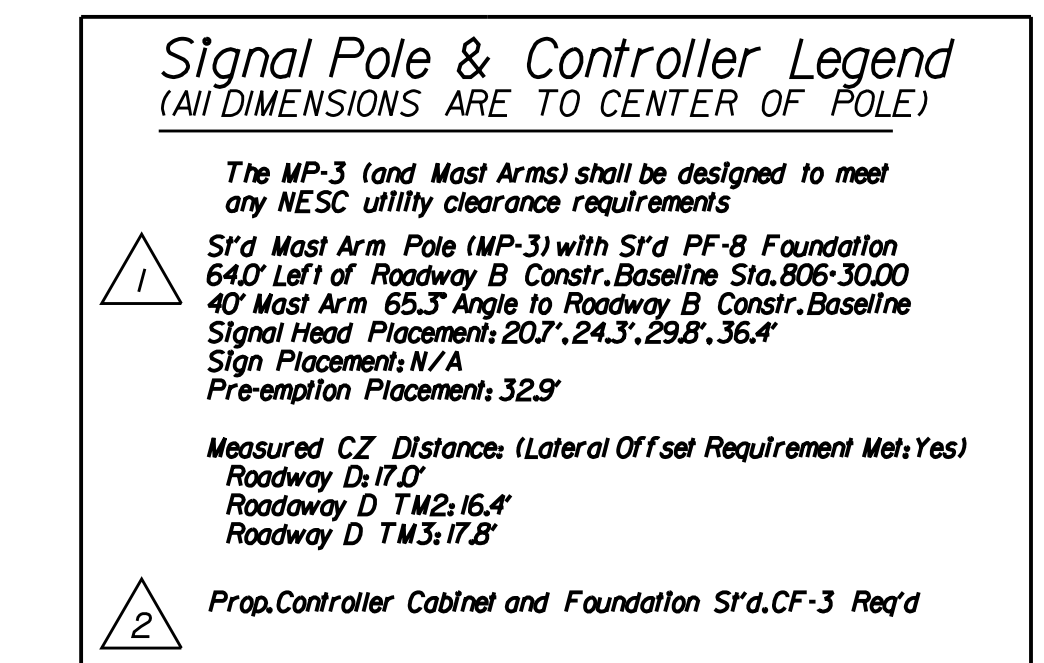
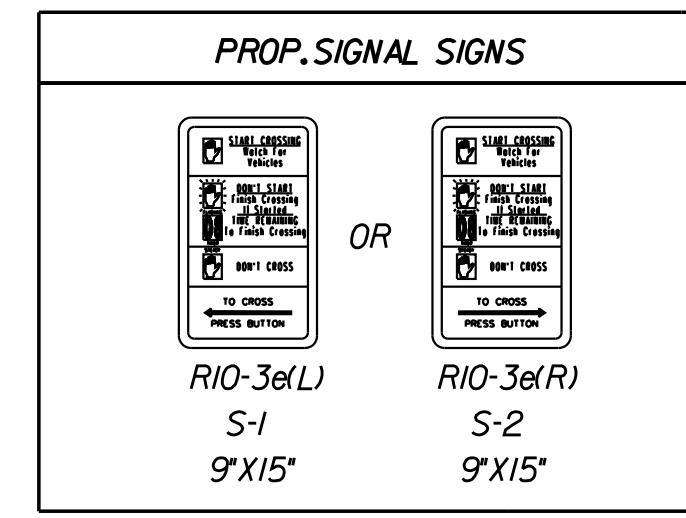
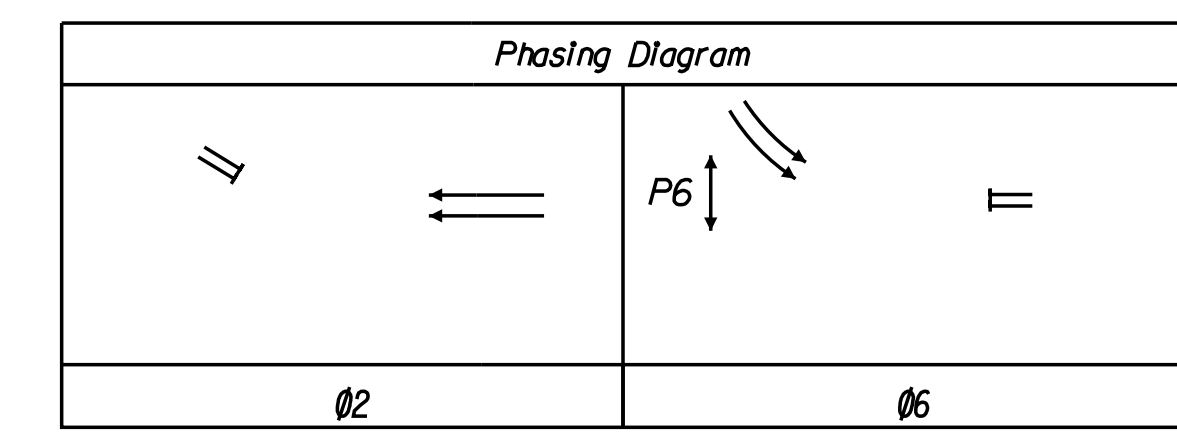
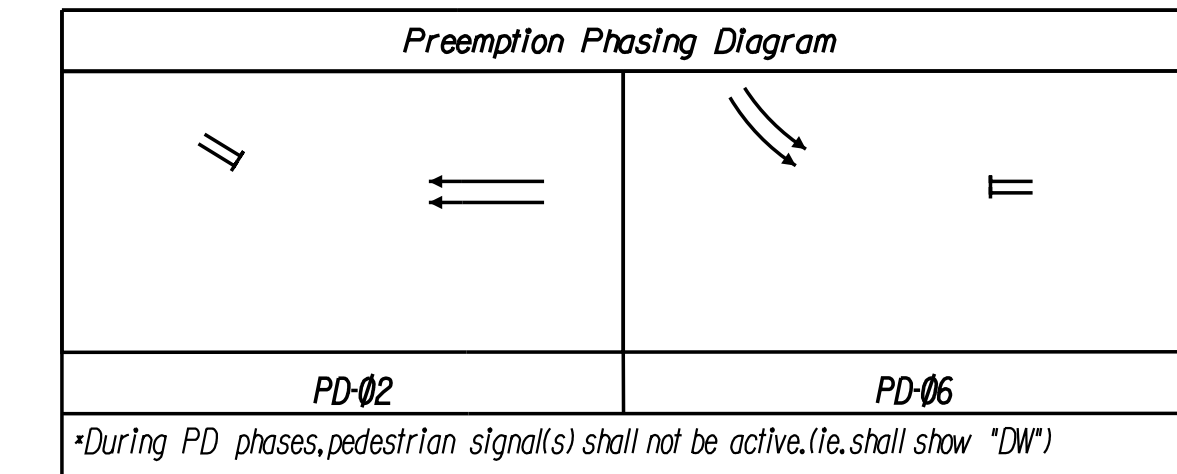
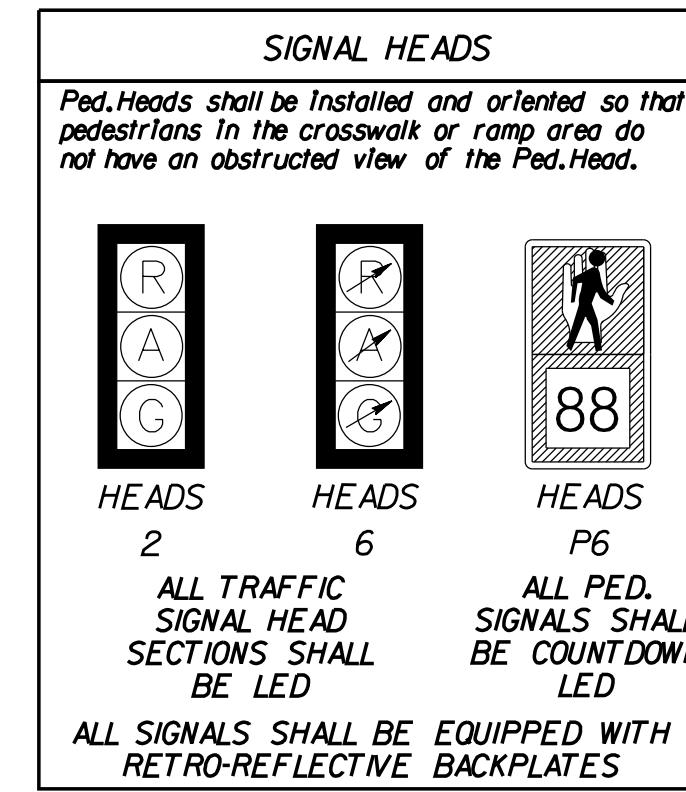
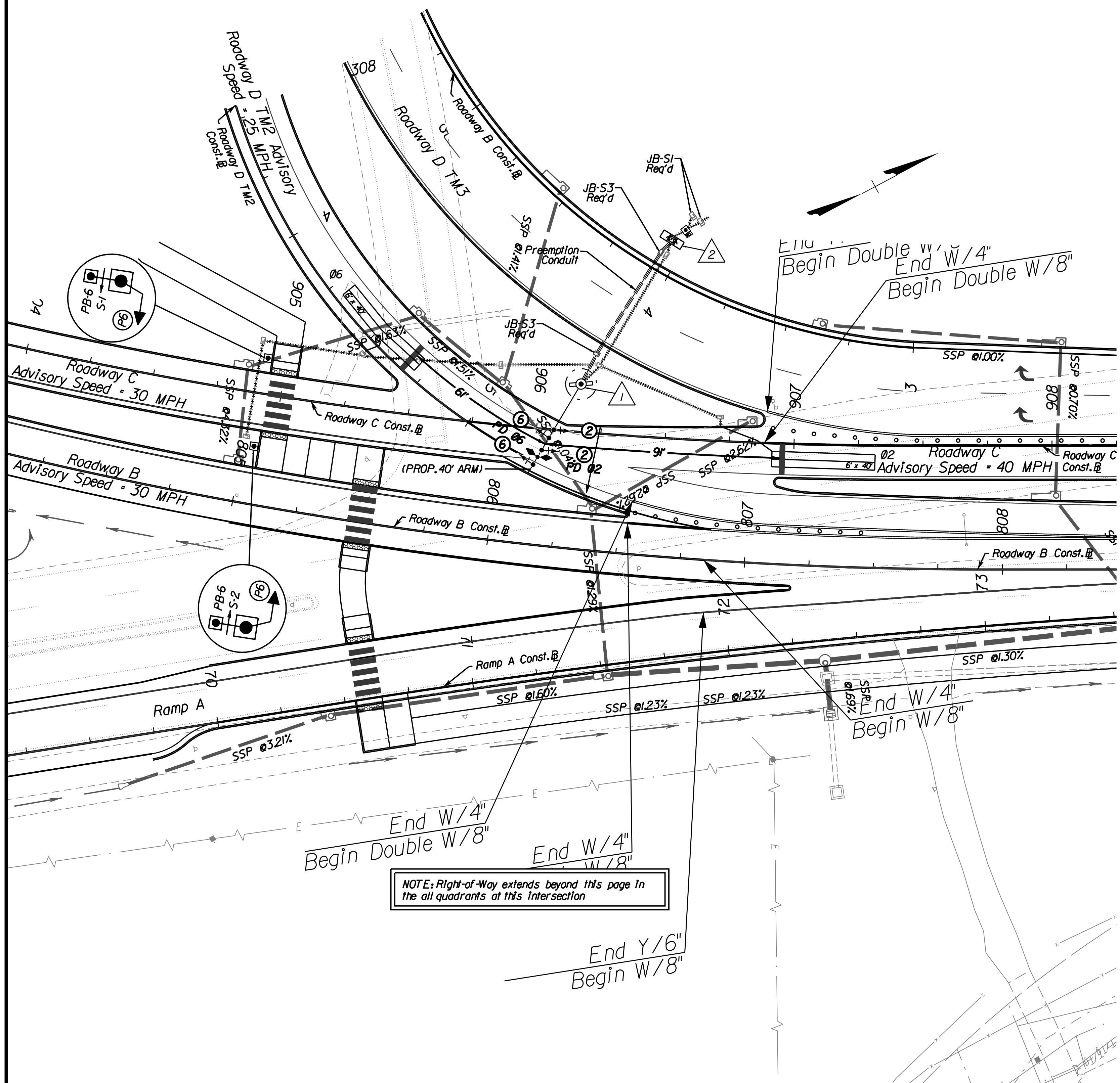
PH PLAN THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.

PROJECT MANAGER BWC DOT, Mary Ankers (703) 792-5276
 SURVEYED BY, DATE Binker Design Associates, P.C. (703) 386-7373, June 2021
 DESIGN BY Mack Gunn, P.E., Binker Design Associates, P.C. (703) 386-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (804) 550-7240, April 2021

Preliminary Traffic Signal Plan

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0234-076-323 RW-201,C-501	37(5)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Rinker Design Associates, P.C. Manassas, Virginia Traffic Engineer				



NOT PROVIDED WITH THIS SUBMISSION

- General Notes for Signals
- Cable and Conduit Runs
- Color Sequence Chart
- Initial Timing Chart
- Non-Standard Sign Details
- POWER/COMM Connection (to be coordinated at UFI)

ROUTE 234-BRENTSVILLE ROAD
 INTERCHANGE PROJECT
 Roadway C & Ramp D
 PROPOSED SIGNAL INSTALLATION PLAN
 Prince William County, Virginia

DATE: July 2021

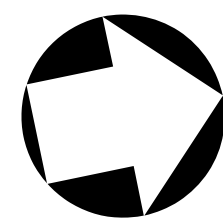
SCALE: 0 25' 50'

PROJECT: 0234-076-323 SHEET NO: 37(5)

PH PLAN

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

PRELIMINARY EASEMENTS FOR UTILITY RELOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGES AS PROJECT DESIGN IS FINALIZED.



STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT	ROUTE PROJECT	I
NBIS Number: 00000000031537		649 0234-076-323, B661	
Federal Oversight Code: NFO		UPC No. 118626	
		FHWA Construction and Scour Code: X231-SN	

DESIGN EXCEPTIONS:

None.

GENERAL NOTES:

- Width: 14'-0" SUP, 27'-0" roadway (NBL), 4'-0" raised median, 21'-0" roadway (SBL), and overall width 67'-1" face of railing to face of fence curb.
- Span layout: 145' single steel plate girder span
- Capacity: HL-93 loading.
- Specifications:
 - Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.
 - Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.
 - Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions.

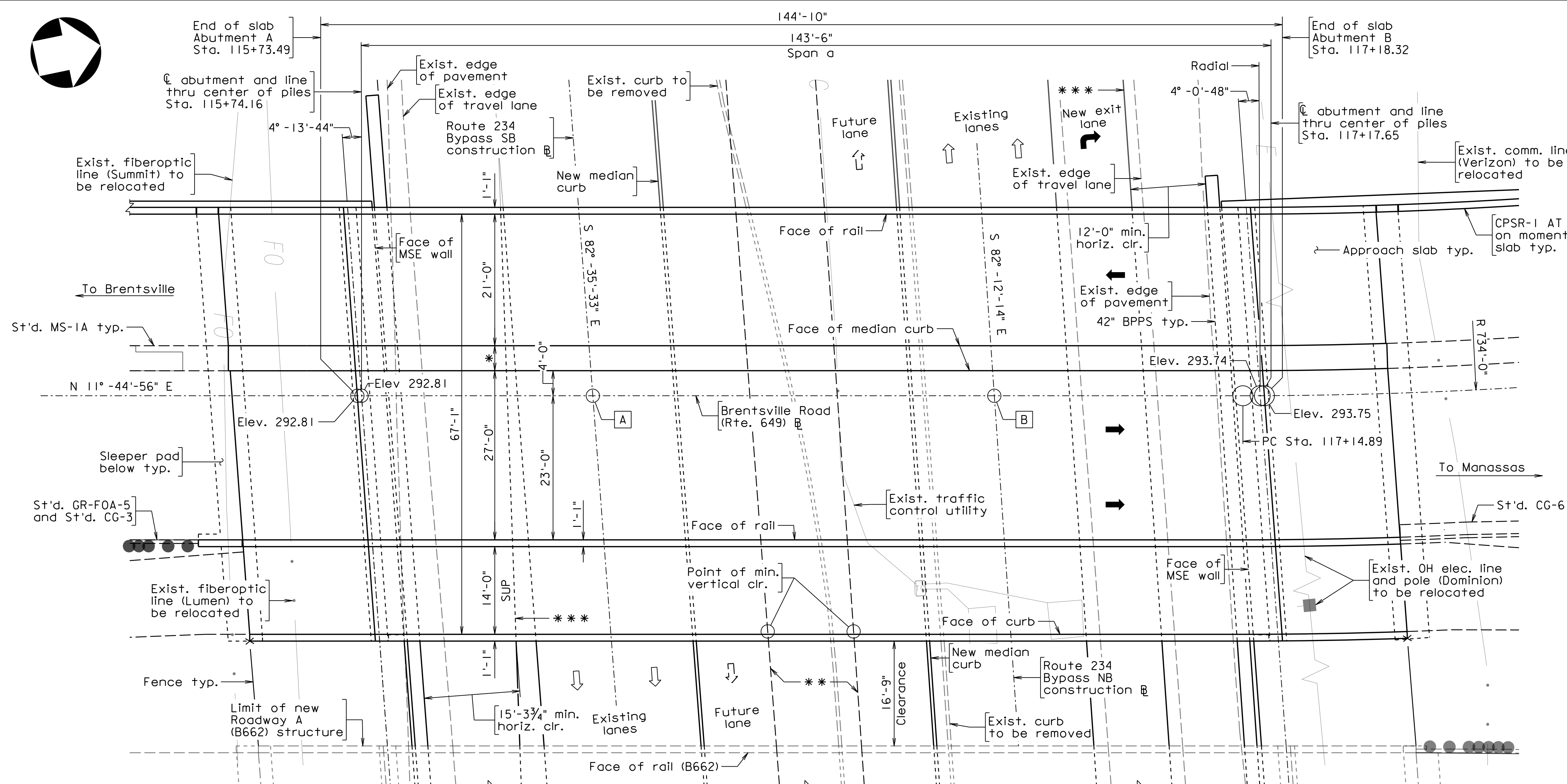
These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Architectural treatment shall be per the project special provisions.

All structural steel, including bearings, shall be ASTM A709 Grade 50W and shall be unpainted.

All H-piles shall be ASTM A709 Grade 50 steel. Pile points conforming to ASTM A148 Grade 90-60 shall be provided for all H-piles.

Concrete in superstructure, including railings, terminal walls, and integral backwalls shall be Low Shrinkage Class A4 Modified. In abutments (except as noted), use Class A3 concrete.



- * 4'-0" median
- ** Edge of future travel lane
- *** Edge of travel lane
- **** Estimated top of grade of future widening

- Tie station:
- A POT Sta. 116+11.09 Brentsville Road (Rte. 649) @ PI Sta. 560+47.85 Route 234 Bypass SB construction @ Δ = 85°-39'-32" rt.
 - B POT Sta. 116+75.20 Brentsville Road (Rte. 649) @ PI Sta. 460+43.44 Route 234 Bypass NB construction @ Δ = 86°-02'-50" rt.

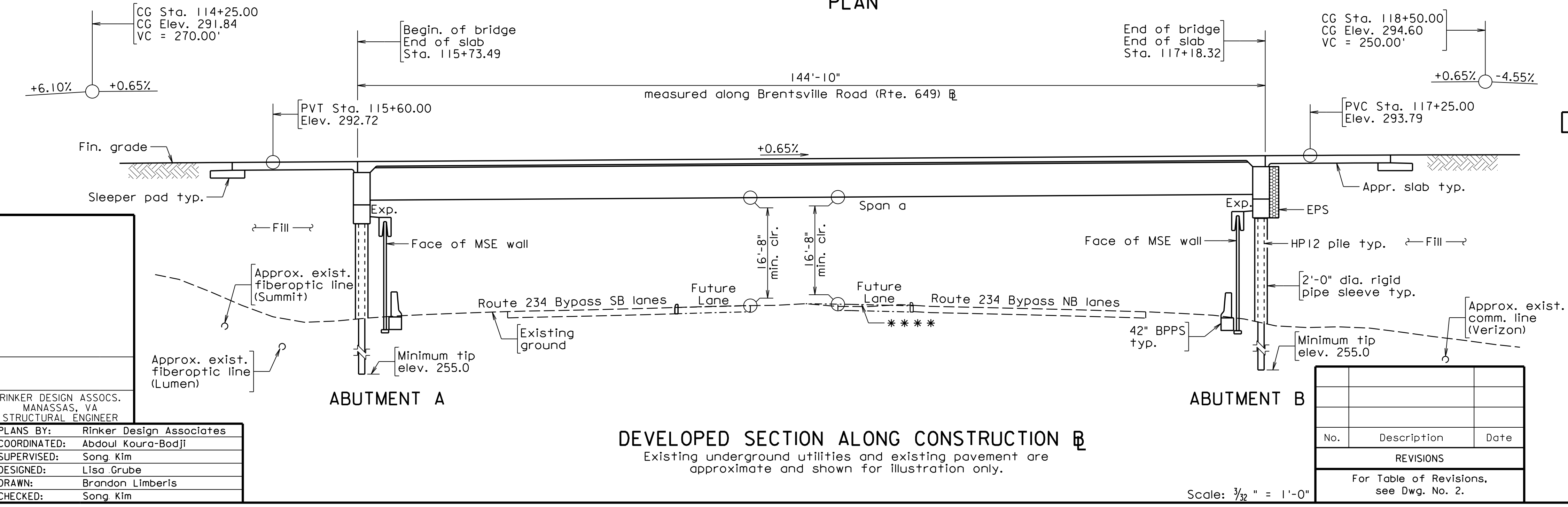
PRELIMINARY PLANS
THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION

VDOT
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE ON
ROUTE 649 (BRENTSVILLE ROAD)
OVER ROUTE 234 BYPASS
PRINCE WILLIAM COUNTY
3.55 MI. SOUTH OF ROUTE 28
PROJ. 0234-076-323, B661

Recommended for Approval: _____ Date _____
Wagman Heavy Civil

Approved: _____ Date _____
Chief Engineer



RINKER DESIGN ASSOCS. MANASSAS, VA STRUCTURAL ENGINEER	
PLANS BY:	Rinker Design Associates
COORDINATED:	Abdoul Koura-Bodji
SUPERVISED:	Song Kim
DESIGNED:	Lisa Grube
DRAWN:	Brandon Limberis
CHECKED:	Song Kim

DEVELOPED SECTION ALONG CONSTRUCTION @
Existing underground utilities and existing pavement are approximate and shown for illustration only.

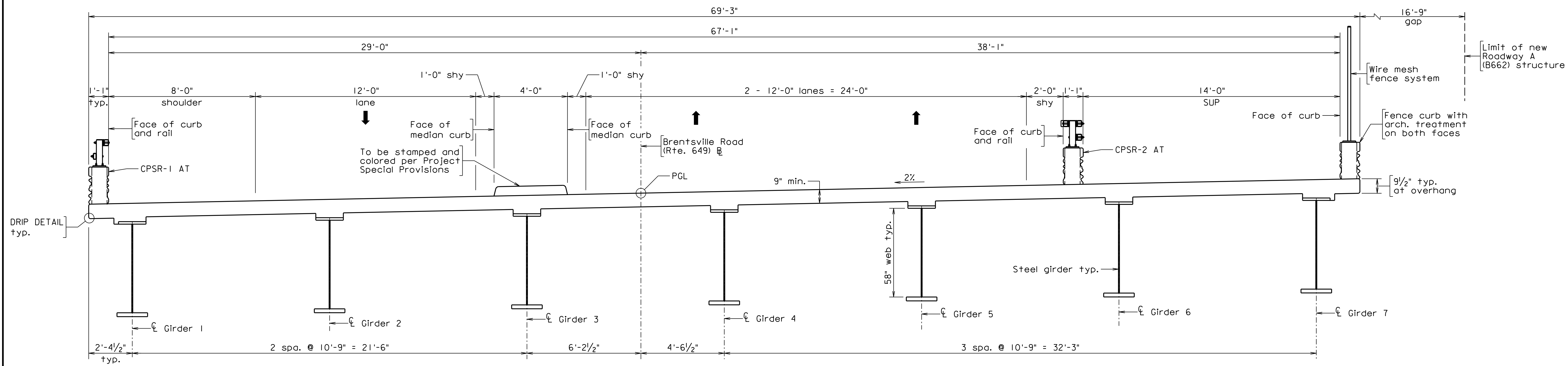
REVISIONS		
No.	Description	Date

For Table of Revisions, see Dwg. No. 2.

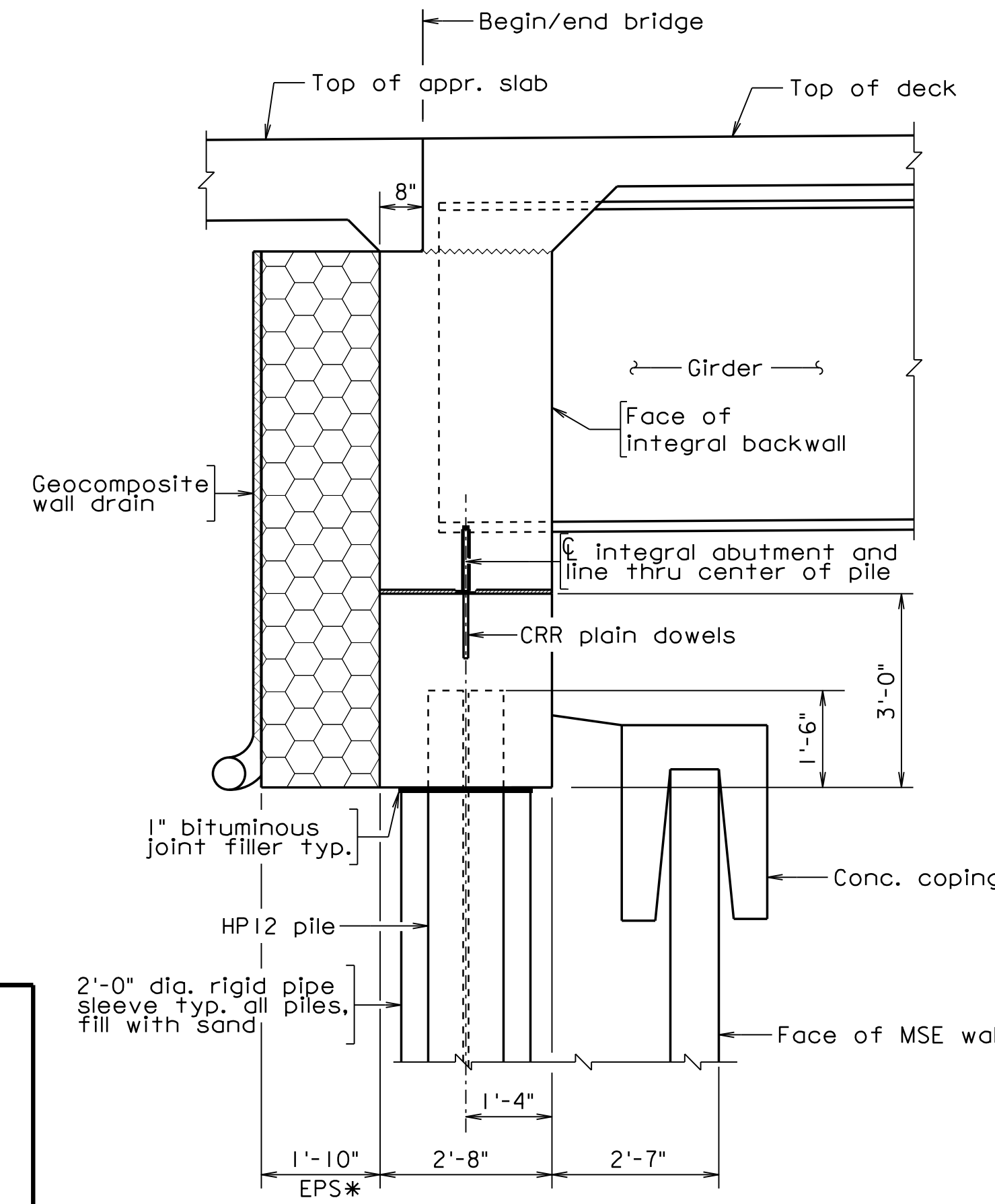
Scale: 3/32" = 1'-0"

307-22-001 (TITLE-RTE. 649).dgn

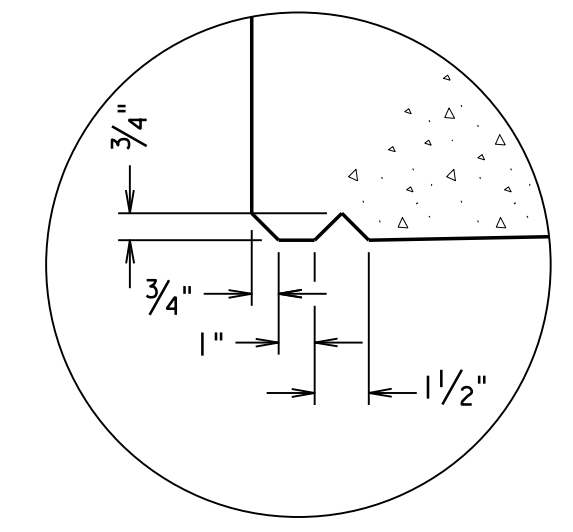
STATE	FEDERAL AID	STATE	SHEET NO.
ROUTE	PROJECT	ROUTE	PROJECT
VA. ---	---	649	0234-076-323, B661
			2



TRANSVERSE SECTION
 Looking upstation
 The horizontal dimensions are measured normal to Brentsville Road (Rte. 649) ☒



DETAIL I - TYPICAL ABUTMENT
 Scale: 1/2" = 1'-0"
 * Abutment B only



DRIP DETAIL
 Not to scale

NOTES:
 Architectural treatment shall be provided on both faces of bridge railings as shown.
 Steel girder details such as holes for abutment rebars, shear studs, high strength bolts, intermediate cross frames, and connection plates are not shown for clarity.

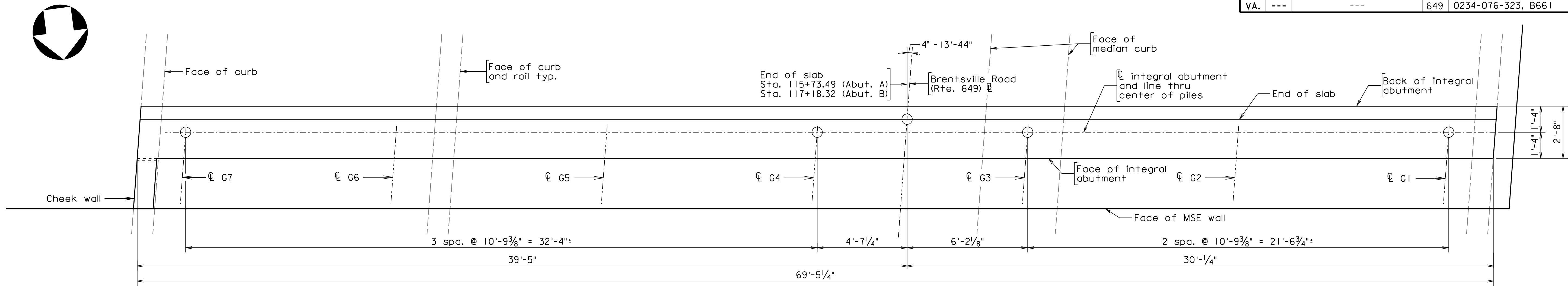
PRELIMINARY PLANS
 THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
TRANSVERSE SECTION AND DETAILS			
No.	Description	Date	Revisions
Designed: LKC	Date	Plan No.	Sheet No.
Drawn: BSM	Oct. 2021	307-22	2 of 5
Checked: SK			

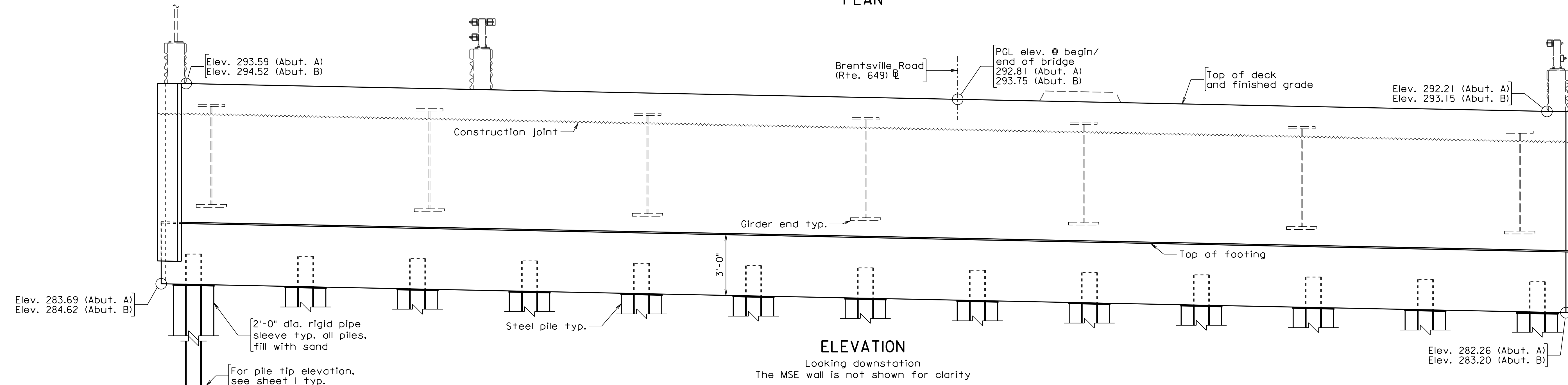
307-22-002 [TRANS].dgn

RINKER DESIGN ASSOCIATES
 MANASSAS, VA.
 STRUCTURAL ENGINEER

Scale: 3/8" = 1'-0" © 2021, Commonwealth of Virginia

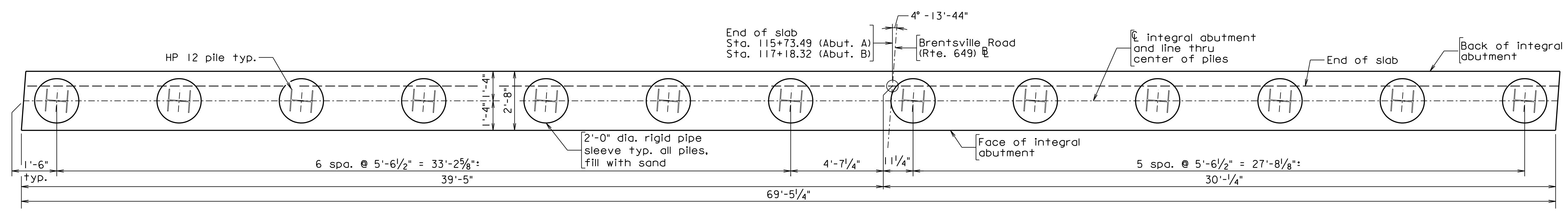


PLAN



ELEVATION

Looking downstation
The MSE wall is not shown for clarity



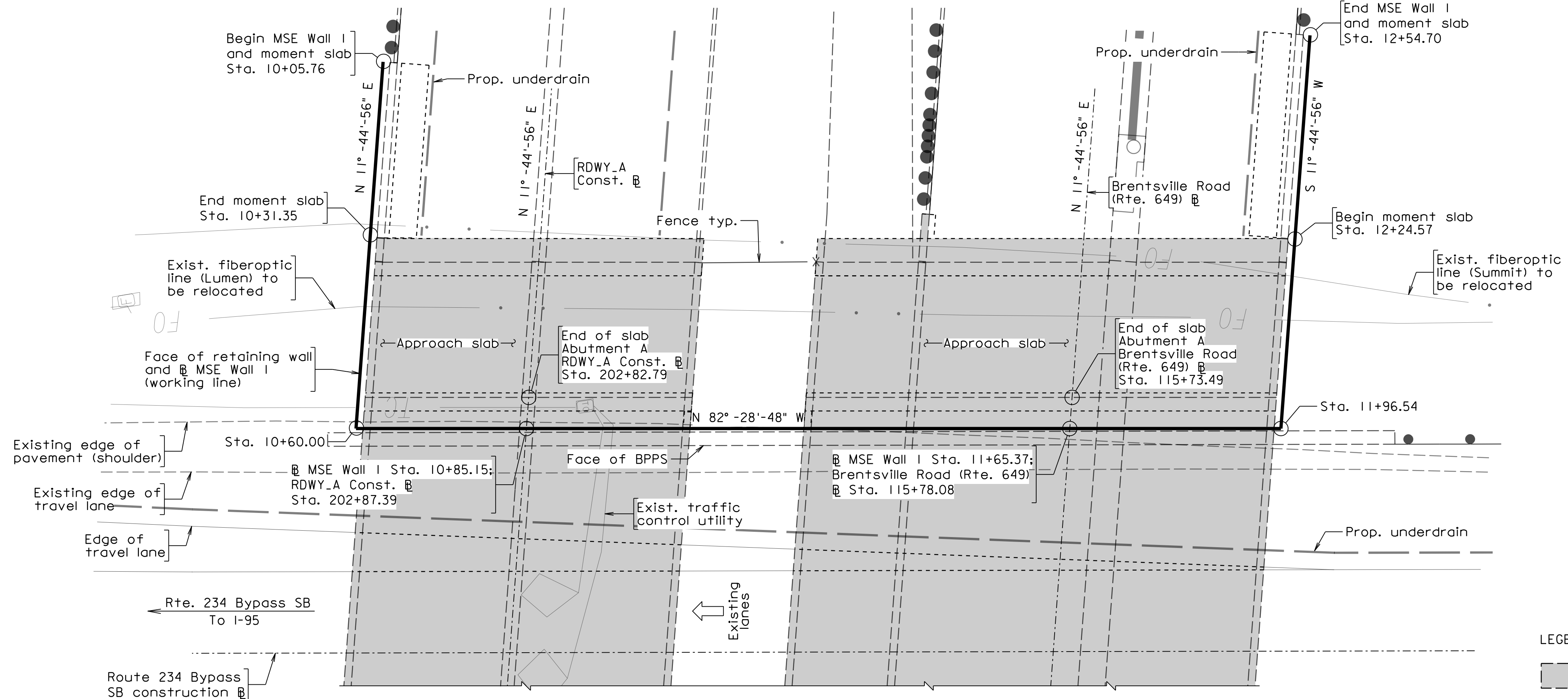
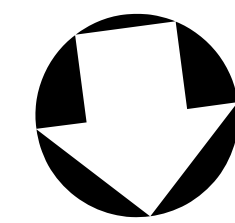
FOOTING PLAN

NOTES:
Abutment A PLAN, ELEVATION, and FOOTING PLAN are shown.
Abutment B PLAN, ELEVATION, and FOOTING PLAN are similar.
Stations are measured along Brentsville Road (Rte. 649) @.

PRELIMINARY PLANS
THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION

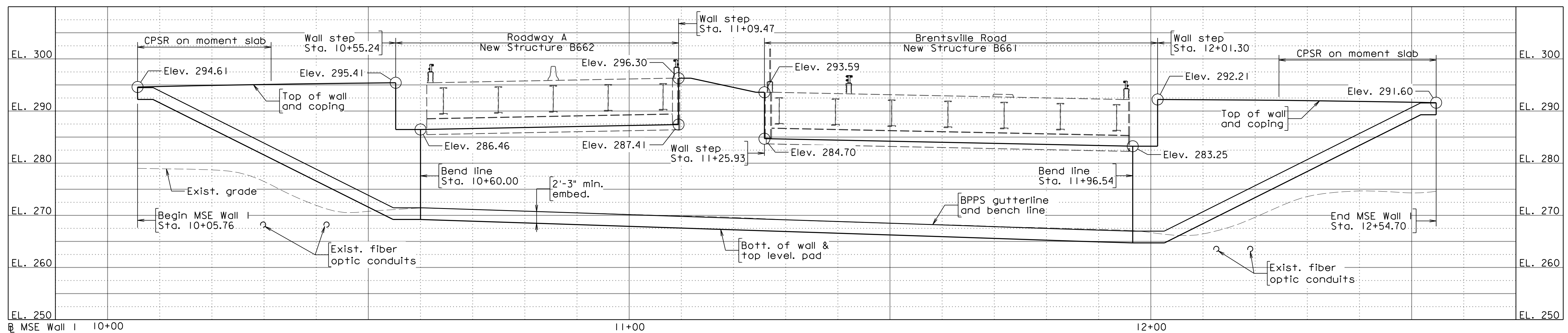
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ABUTMENT PLAN, ELEVATION AND FOOTING PLAN			
No.	Description	Date	Revisions
Designed: LKC	Date	Plan No.	Sheet No.
Drawn: BSC	Oct. 2021	307-22	3 of 5
Checked: ...			

307-22-003 [ABUT. 649].dgn



LEGEND:
 Limits of proposed bridge.

PLAN



DEVELOPED ELEVATION
 Looking downstation

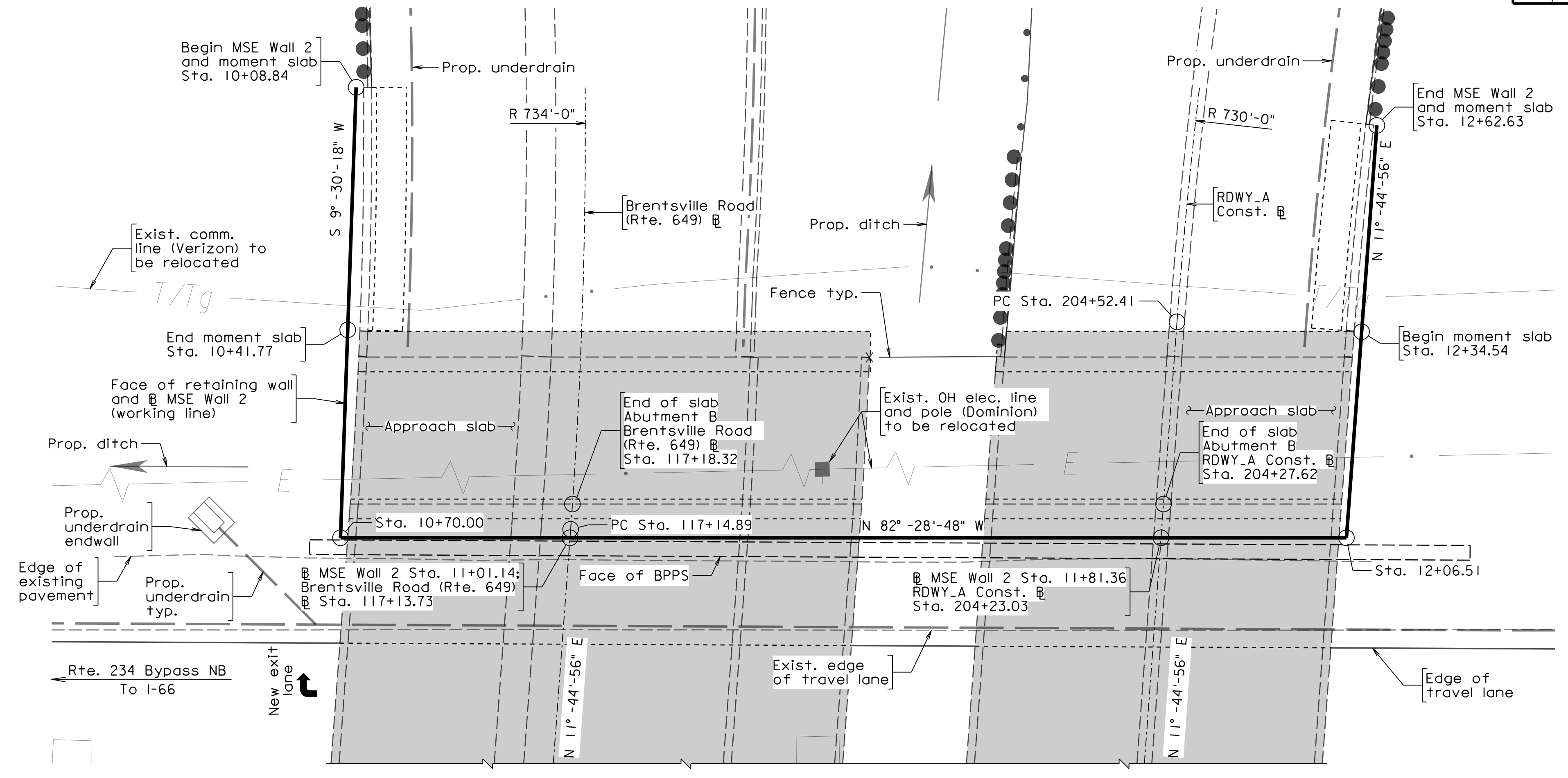
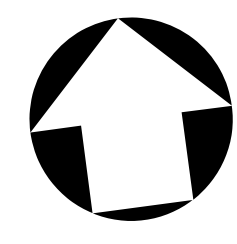
NOTES:
 Vertical position information of existing utilities is for information only.

PRELIMINARY PLANS
 THESE PLANS ARE NOT TO
 BE USED FOR CONSTRUCTION

No.		Description	Date	COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION		
				STRUCTURE AND BRIDGE DIVISION		
Revisions				MSE WALL I PLAN AND DEVELOPED ELEVATION		
				Designed: LKC	Date: Oct. 2021	Plan No. 307-22	Sheet No. 4 of 5

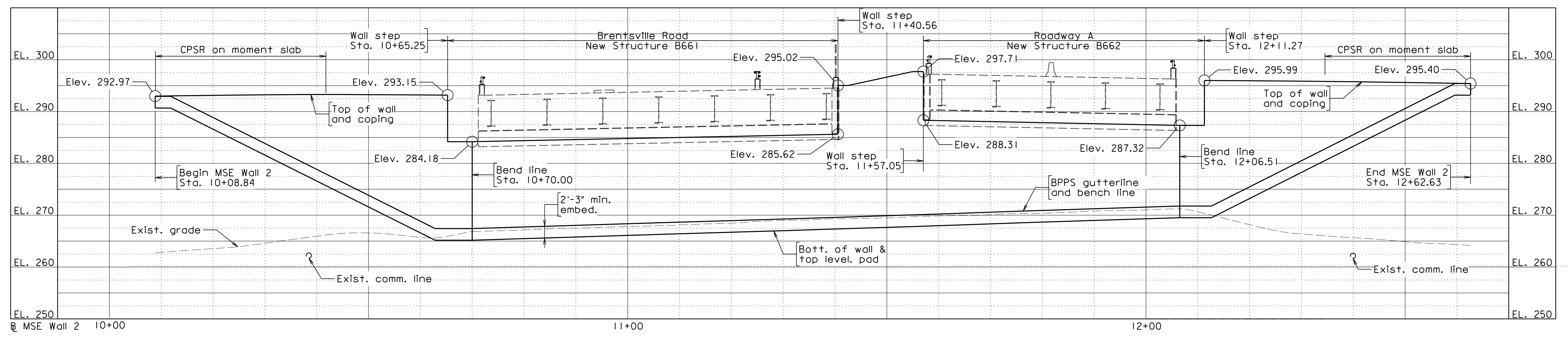
307-22-004 [MSE_1].dgn

STATE	ROUTE	FEDERAL AID	PROJECT	ROUTE	PROJECT	SHEET NO.
VA.	---	---	---	649	0234-076-323, B661	5



LEGEND:
 Limits of proposed bridge.

PLAN



DEVELOPED ELEVATION

Looking upstation

NOTES:
 Vertical position information of existing utilities is for information only.

PRELIMINARY PLANS
 THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
MSE WALL 2 PLAN AND DEVELOPED ELEVATION					
No.	Description	Date	Designed: LKC	Date	Plan No.
			Drawn: BSM	Oct. 2021	307-22
			Checked: JSM		5 of 5
Revisions					

Scale: 1/32" = 1'-0" © 2021, Commonwealth of Virginia

307-22-005 [MSE_2].dgn

RINKER DESIGN ASSOCIATES
 MANASSAS, VA.
 STRUCTURAL ENGINEER

STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT	ROUTE PROJECT	1
NBIS Number: 00000000031536		UPC No. 118626	
Federal Oversight Code: NFO		FHWA Construction and Scour Code: X231-SN	

DESIGN EXCEPTIONS:
None.

GENERAL NOTES:
Width: 22'-0" roadway (NBL), 2'-0" BMB-3A, 22'-0" roadway (SBL), and overall width 46'-0" face to face of railings.
Span layout: 145' single steel plate girder span
Capacity: HL-93 loading.
Specifications:
Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.
Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.
Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.
Architectural treatment shall be per the project special provisions.
All structural steel, including bearings, shall be ASTM A709 Grade 50W and shall be unpainted.
All H-piles shall be ASTM A709 Grade 50 steel. Pile points conforming to ASTM A148 Grade 90-60 shall be provided for all H-piles.
Concrete in superstructure, including railings, terminal walls, and integral backwalls shall be Low Shrinkage Class A4 Modified. In abutments (except as noted), use Class A3 concrete.

PRELIMINARY PLANS
THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION

Tie station:
A POT Sta. 203+20.55 RDWY.A Const. @
PI Sta. 561+28.08 Route 234 Bypass SB construction @
Δ = 85°-39'-32" rt.
B POT Sta. 203+84.11 RDWY.A Const. @
PI Sta. 461+23.63 Route 234 Bypass NB construction @
Δ = 86°-02'-50" rt.

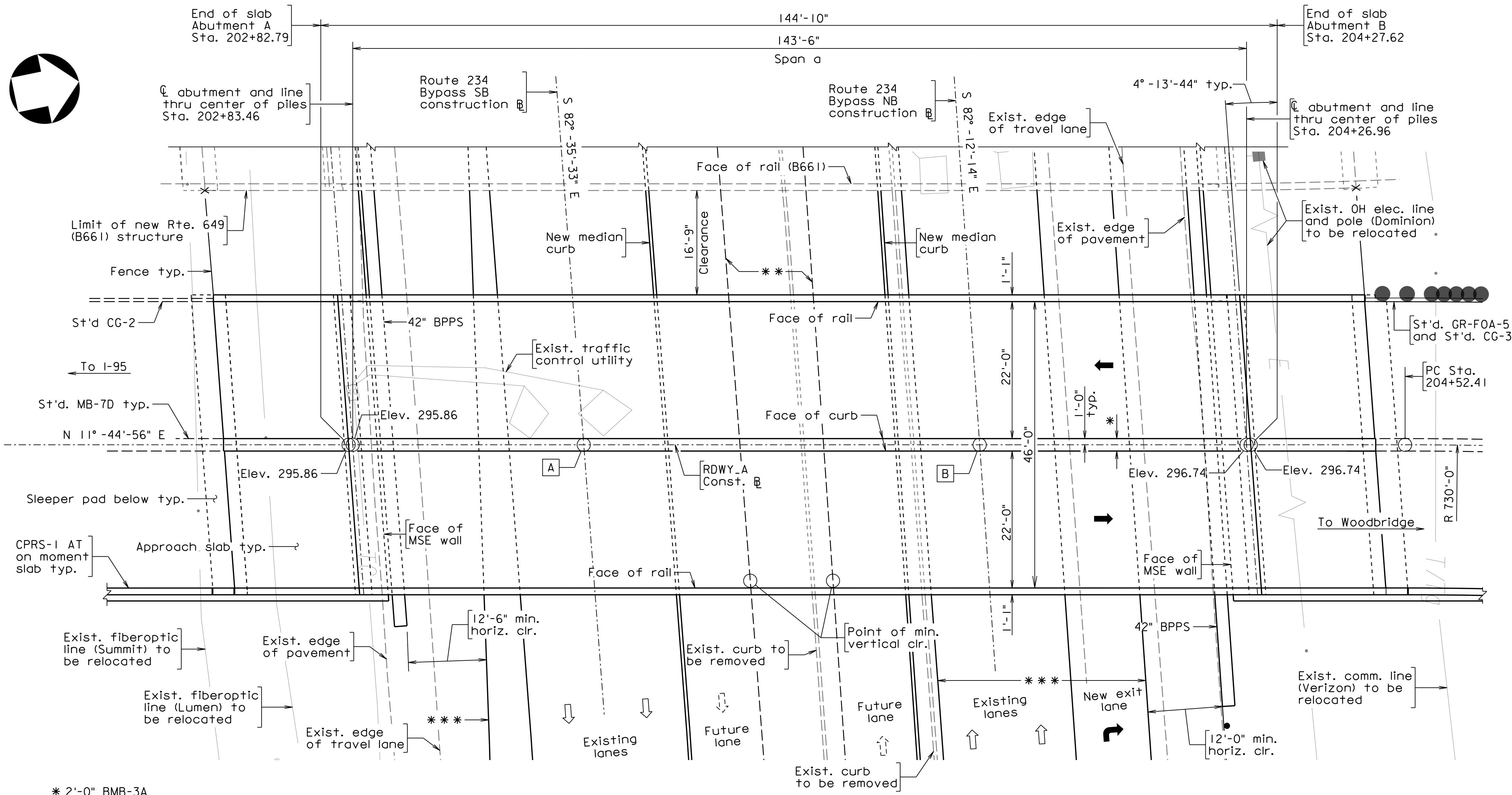
VDOT
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE ON
ROADWAY A
OVER ROUTE 234 BYPASS
PRINCE WILLIAM COUNTY
3.55 MI. SOUTH OF ROUTE 28
PROJ. 0234-076-323, B662

Recommended for Approval: _____ Date _____
Wagman Heavy Civil

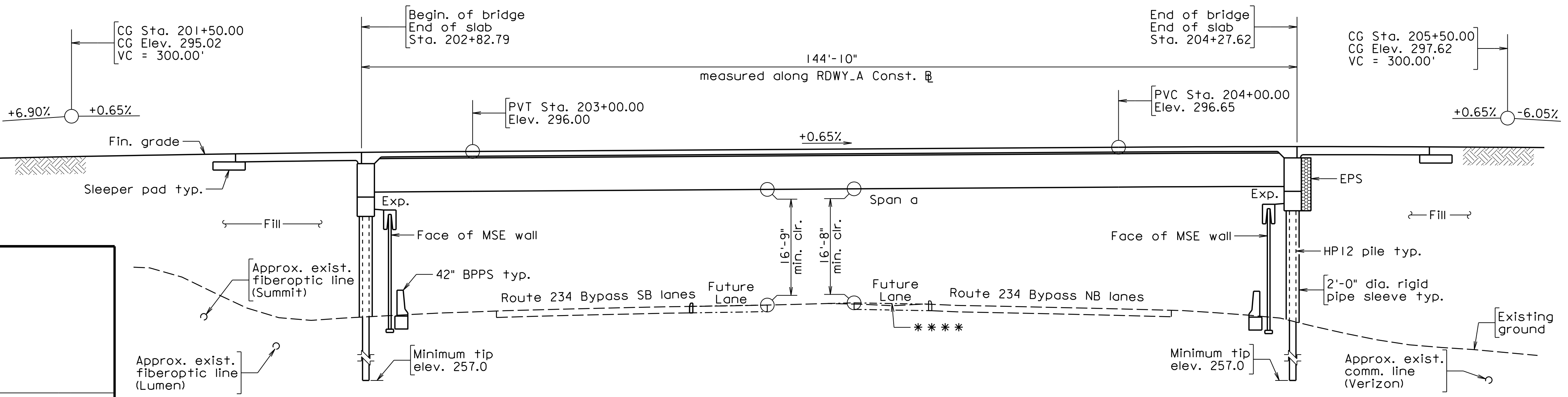
Approved: _____ Date _____
Chief Engineer

Date: October 12, 2021 © 2021, Commonwealth of Virginia Sheet No. 1 of 3



PLAN

- * 2'-0" BMB-3A
- ** Edge of future travel lane
- *** Edge of travel lane
- **** Estimated top of grade of future widening



ABUTMENT A

DEVELOPED SECTION ALONG CONSTRUCTION @

ABUTMENT B

Existing underground utilities and existing pavement are approximate and shown for illustration only.

No.	Description	Date
REVISIONS		
For Table of Revisions, see Dwg. No. 2.		

Scale: 3/32" = 1'-0"

307-21_001 TITLE-RWDY_A1.dgn

RINKER DESIGN ASSOCS. MANASSAS, VA STRUCTURAL ENGINEER	
PLANS BY:	Rinker Design Associates
COORDINATED:	Abdoul Koura-Bodji
SUPERVISED:	Song Kim
DESIGNED:	Lisa Grube
DRAWN:	Brandon Limberis
CHECKED:	Song Kim

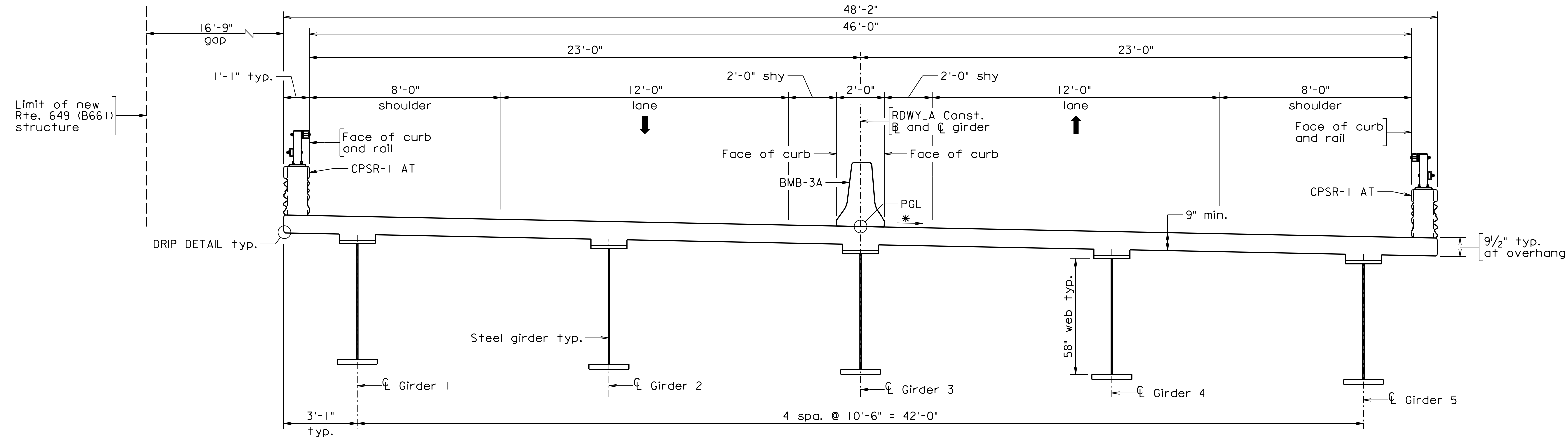
STATE	FEDERAL AID		STATE		SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.	
VA.	---	294	0234-076-323, B662	2	

NOTES:

Architectural treatment shall be provided on both faces of bridge railings as shown.

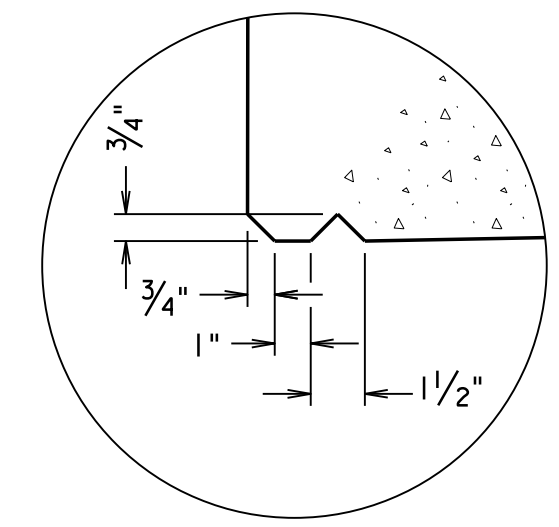
Steel girder details such as holes for abutment rebars, shear studs, high strength bolts, intermediate cross frames, and connection plates are not shown for clarity.

* Cross slope varies: 2.0% full superelevation from Sta. 200+11.26 to Sta. 204+09.82, and superelevation transition from Sta. 204+09.82 to Sta. 205+02.74 (2.0% to 5.20% full superelevation with the pivot at PGL).



TRANSVERSE SECTION

Looking upstation
The horizontal dimensions are measured normal to RDWY.A Const. @.



DRIP DETAIL
Not to scale

307-21_002 [TRANS].dgn

PRELIMINARY PLANS
THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION

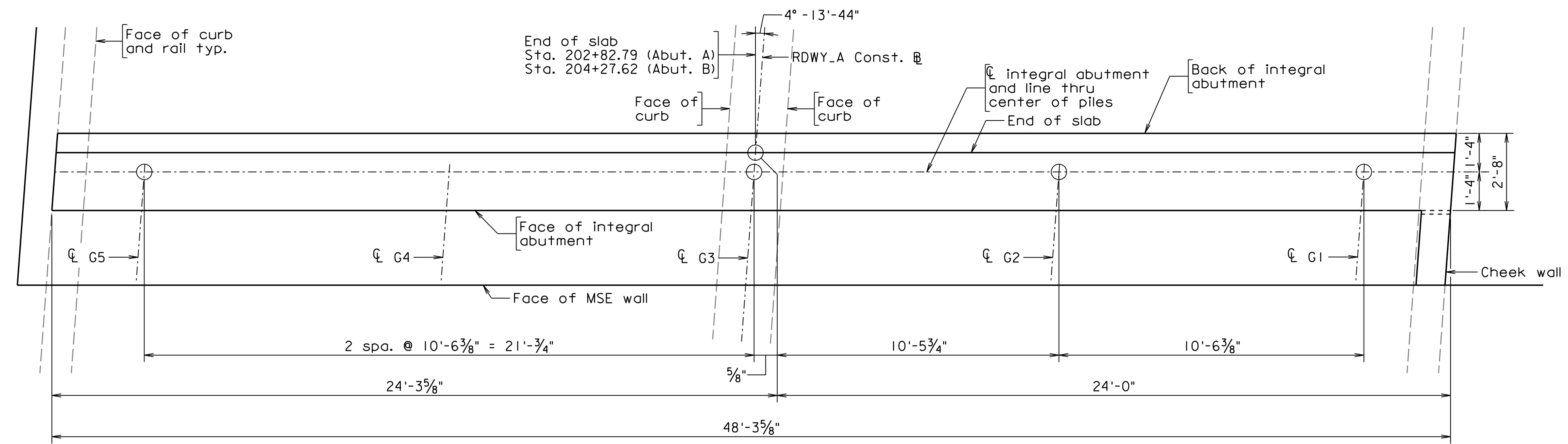
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION				
STRUCTURE AND BRIDGE DIVISION				
TRANSVERSE SECTION AND DETAILS				
No.	Description	Date	Designed: LKC	Date
			Drawn: BSC	Plan No.
			Checked: SK	Sheet No.
Revisions			Oct. 2021	307-21
				2 of 3

RINKER DESIGN ASSOCIATES
MANASSAS, VA.
STRUCTURAL ENGINEER

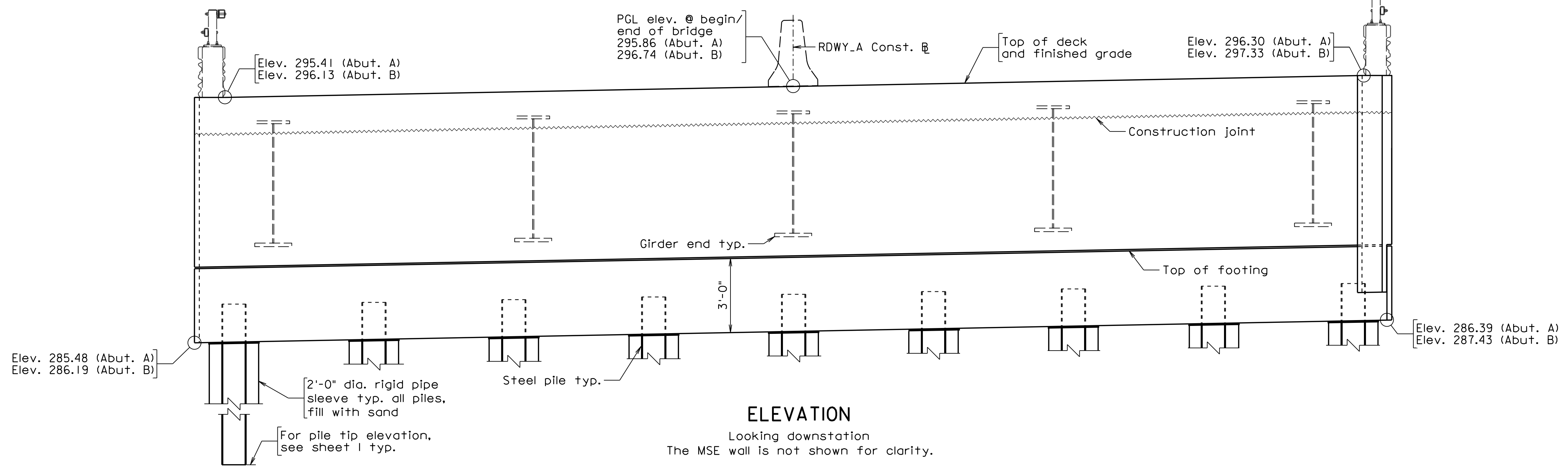
Scale: 3/8" = 1'-0" © 2021, Commonwealth of Virginia

STATE	FEDERAL AID	STATE	SHEET NO.
ROUTE	PROJECT	ROUTE	PROJECT
VA. ---	---	294	0234-076-323, B662

NOTES:
 Abutment A PLAN, ELEVATION, and FOOTING PLAN are shown.
 Abutment B PLAN, ELEVATION, and FOOTING PLAN are similar.
 Stations are measured along RDWY_A const. @.

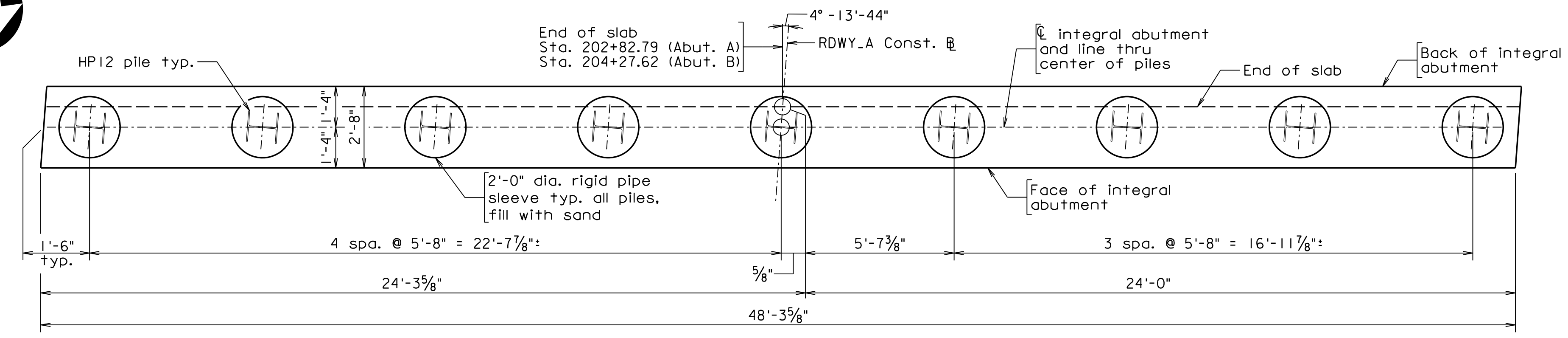


PLAN

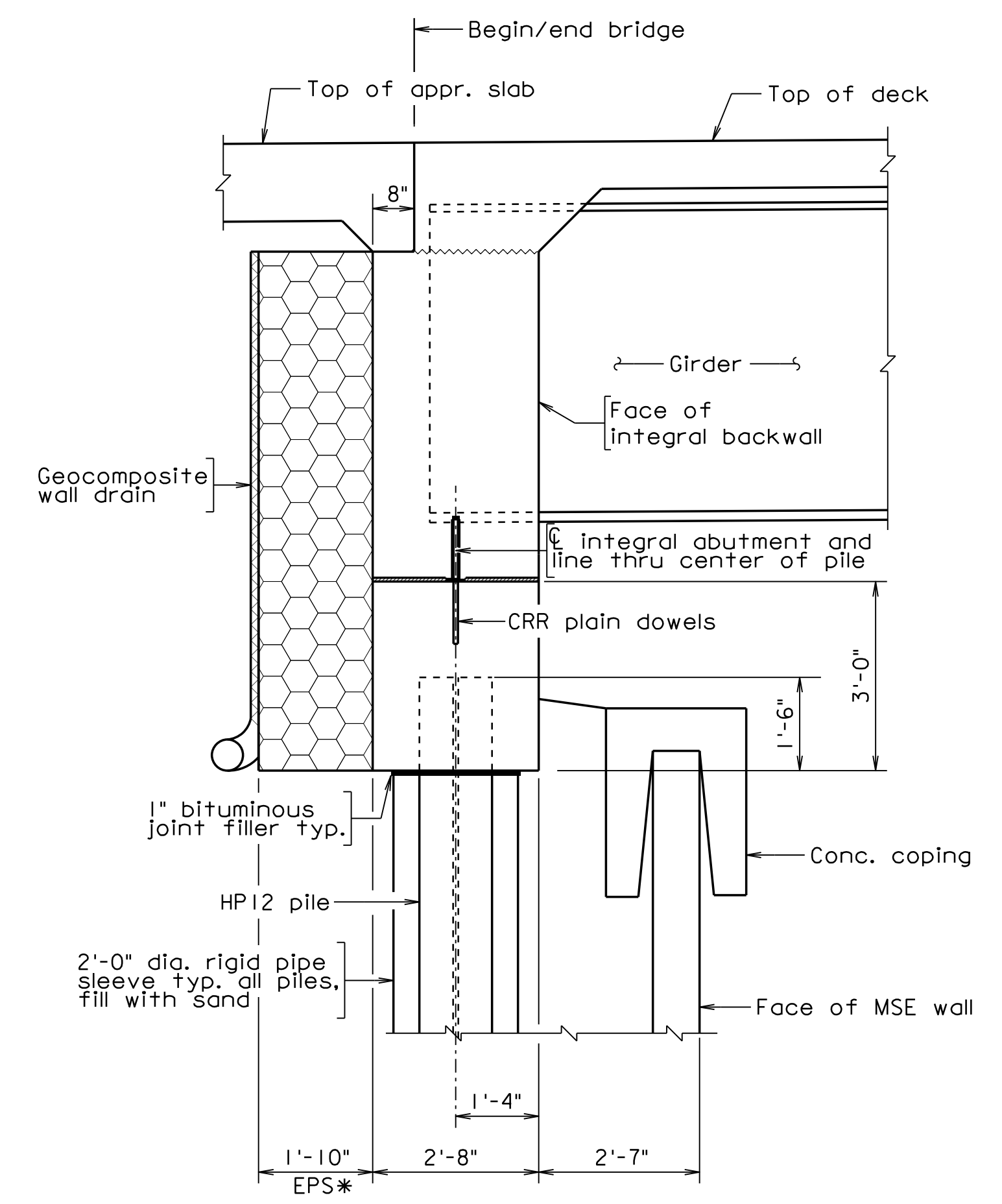


ELEVATION

Looking downstation
 The MSE wall is not shown for clarity.



FOOTING PLAN



DETAIL I - TYPICAL ABUTMENT
 Scale: 1/2" = 1'-0"
 * Abutment B only

PRELIMINARY PLANS

THESE PLANS ARE NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA
 DEPARTMENT OF TRANSPORTATION
 STRUCTURE AND BRIDGE DIVISION

ABUTMENT PLAN, ELEVATION AND FOOTING PLAN

No.	Description	Date	Designed: LKC	Date	Plan No.	Sheet No.
			Drawn: BJC	Oct. 2021	307-21	3 of 3
			Checked: JSC			
Revisions						

307-21_003 [ABUT-RWDY_A].dgn

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 STRUCTURAL ENGINEER

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