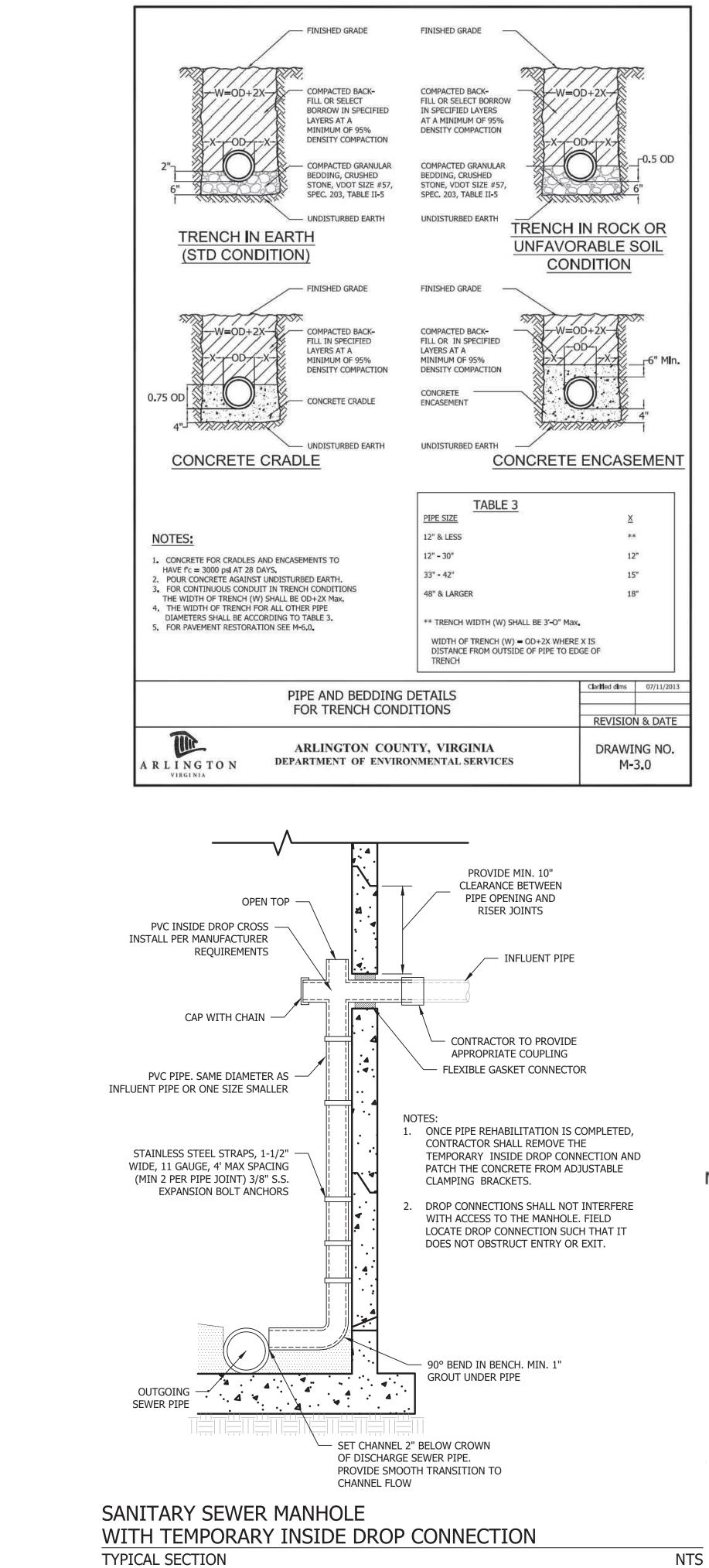
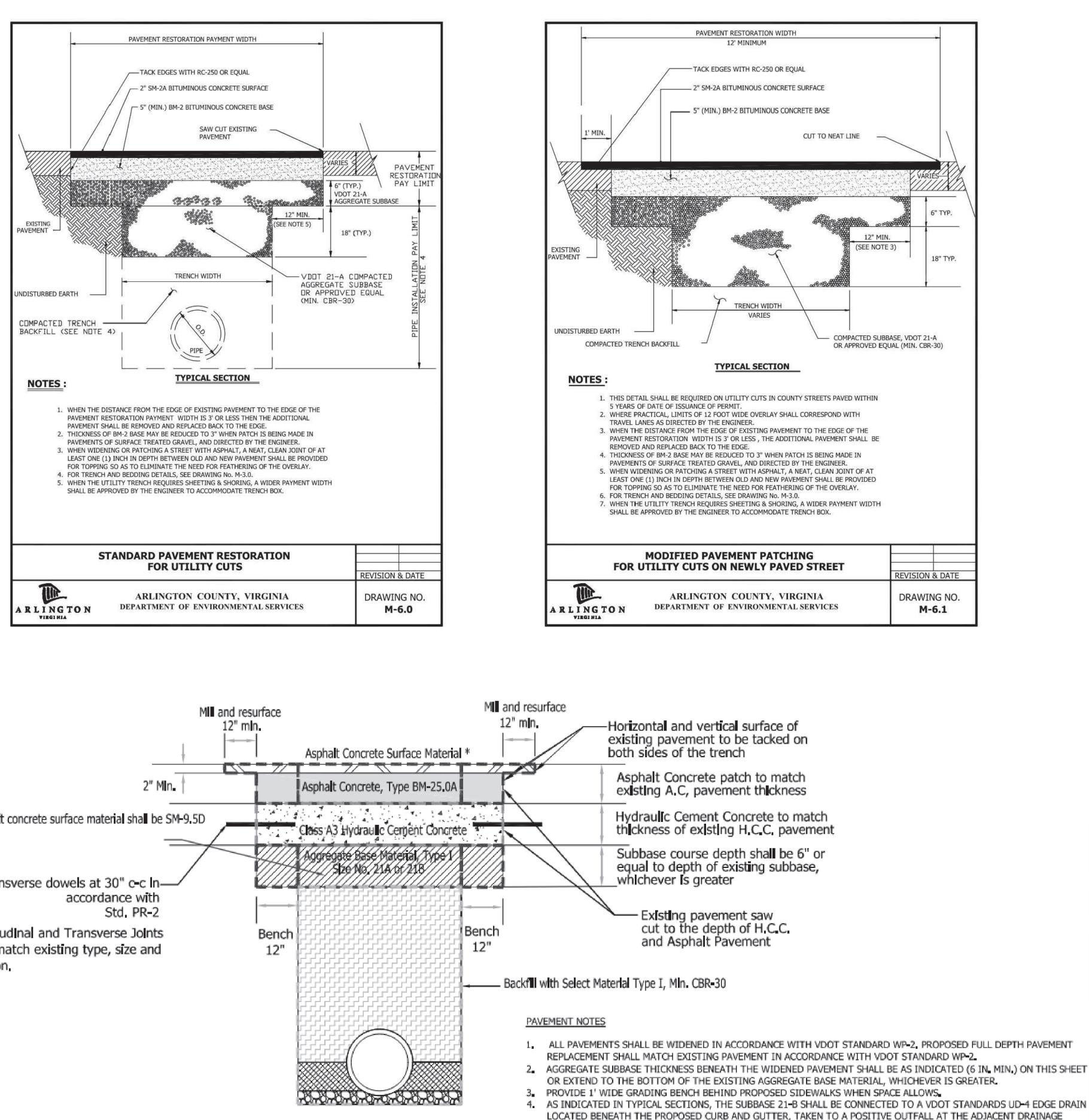
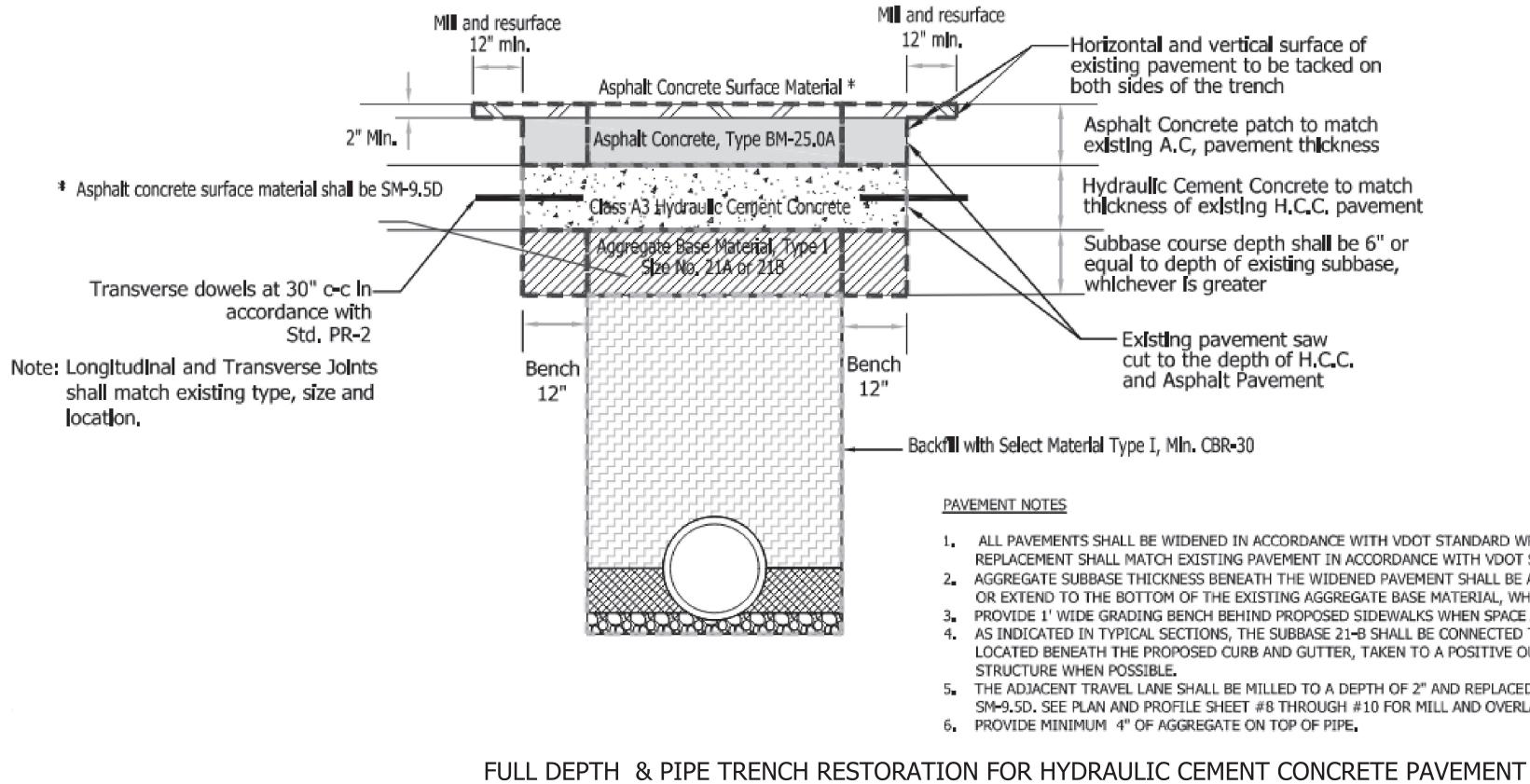


ARLINGTON VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES Water Sewer Streets Bureau 4200 28th St S, TWA 1st Fl Arlington, VA 22202 Phone: 703.228.7865 Fax: 703.228.6585 COPYRIGHT © 2022 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED NEALTH OF Danil Hilroj DANIEL G. GILROY Lic. No. 0402022914 12/7/2022 SSIONAL -APPROVALS DATE 12/13/2022 DESIGNENGINEER TEAM SUPERVISOR CONSTRUCTION MANAGEMENT SUPERVISOR 12/14/22 WATER, SEWER, STREETS BUREAU CHIEF Dennis M. Leach 12/14/22 TRANSPORTATION DIRECTOR Nicole Dean 12/15/2022 PROJECT MANAGER REVISIONS DATE S AIL ш \square DESIGNED: R. PANNEERSELVAM DRAWN: J. SOSA CHECKED: D. GILROY PLOTTED: DECEMBER 7 2022 **CDM Smi** 10560 Arrowhead Drive, Suite 500

SPOUT RUN DEEP SEWER REHABILITATION



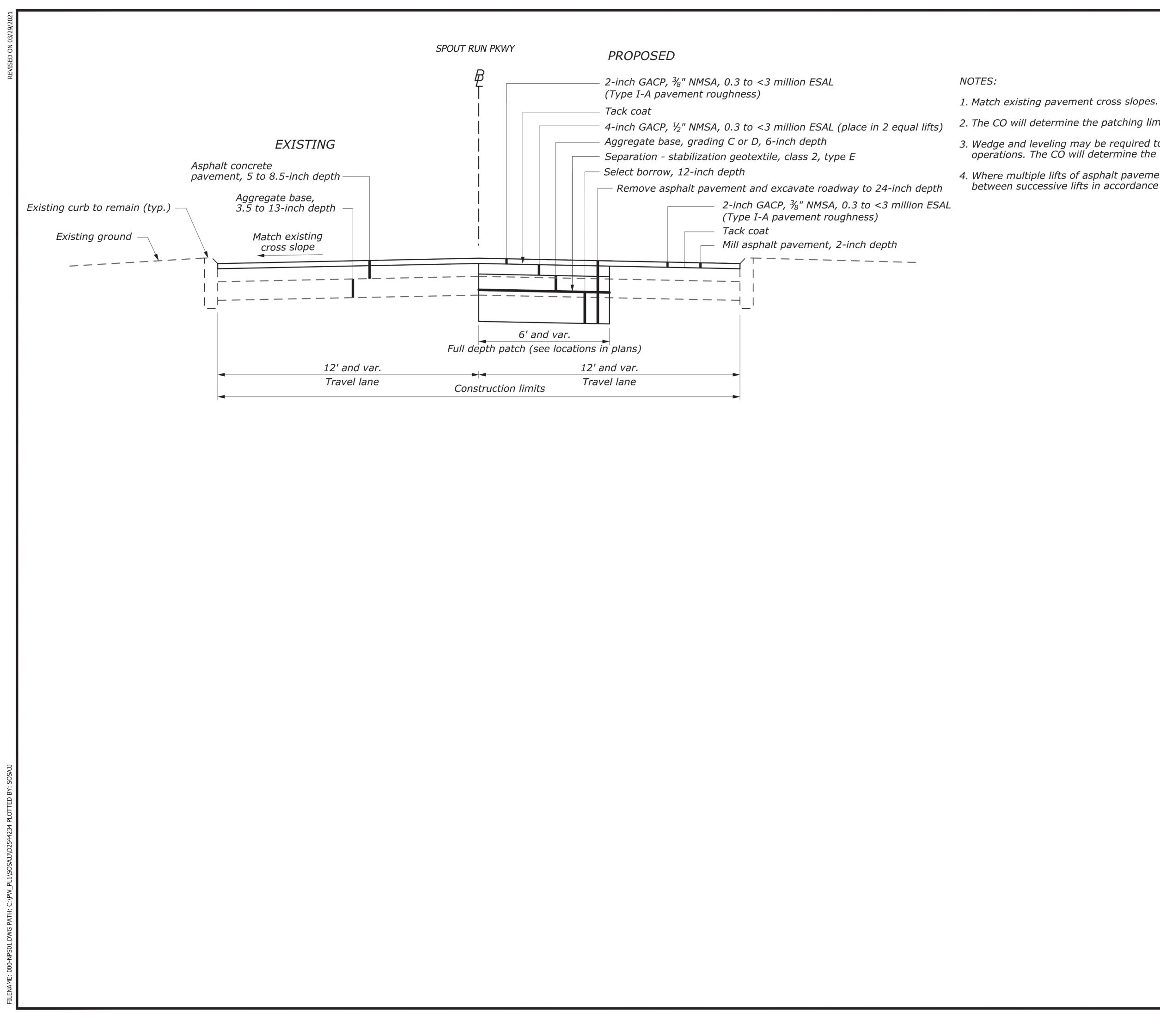




WITH ASPHALT CONCRETE OVERLAY

5. THE ADJACENT TRAVEL LANE SHALL BE MILLED TO A DEPTH OF 2" AND REPLACED WITH 2" ASPHALT CONCRETE TYPE SM-9.5D. SEE PLAN AND PROFILE SHEET #8 THROUGH #10 FOR MILL AND OVERLAY LIMITS.

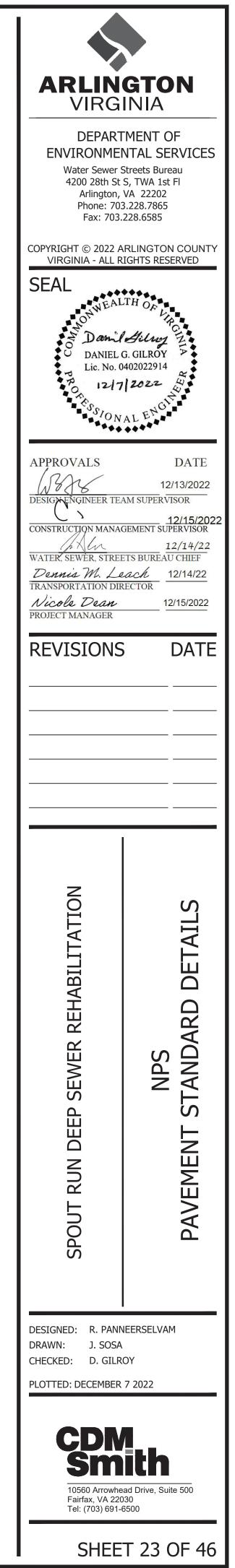
ARLINGTON VIRGINIA			
DEPARTMENT OF ENVIRONMENTAL SERVICES Water Sewer Streets Bureau 4200 28th St S, TWA 1st Fl Arlington, VA 22202 Phone: 703.228.7865 Fax: 703.228.6585			
COPYRIGHT © 2022 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED			
SEAL			
SEAL ONWEALTH OF LIP Daniel Silver 12			
DANIEL G. GILROY			
TSSIONAL ENGIN			
APPROVALS DATE			
DESIGNENGINEER TEAM SUPERVISOR			
CONSTRUCTION MANAGEMENT SUPERVISOR			
Dennis M. Leach 12/14/22 TRANSPORTATION DIRECTOR			
Nicole Dean 12/15/2022 PROJECT MANAGER			
REVISIONS DATE			
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SPOUT RUN DEEP SEWER REHABILITATION DETAILS IV			
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DESIGNED: R. PANNEERSELVAM DRAWN: J. SOSA			
CHECKED: D. GILROY			
PLOTTED: DECEMBER 7 2022			
PLOTTED: DECEMBER 7 2022			

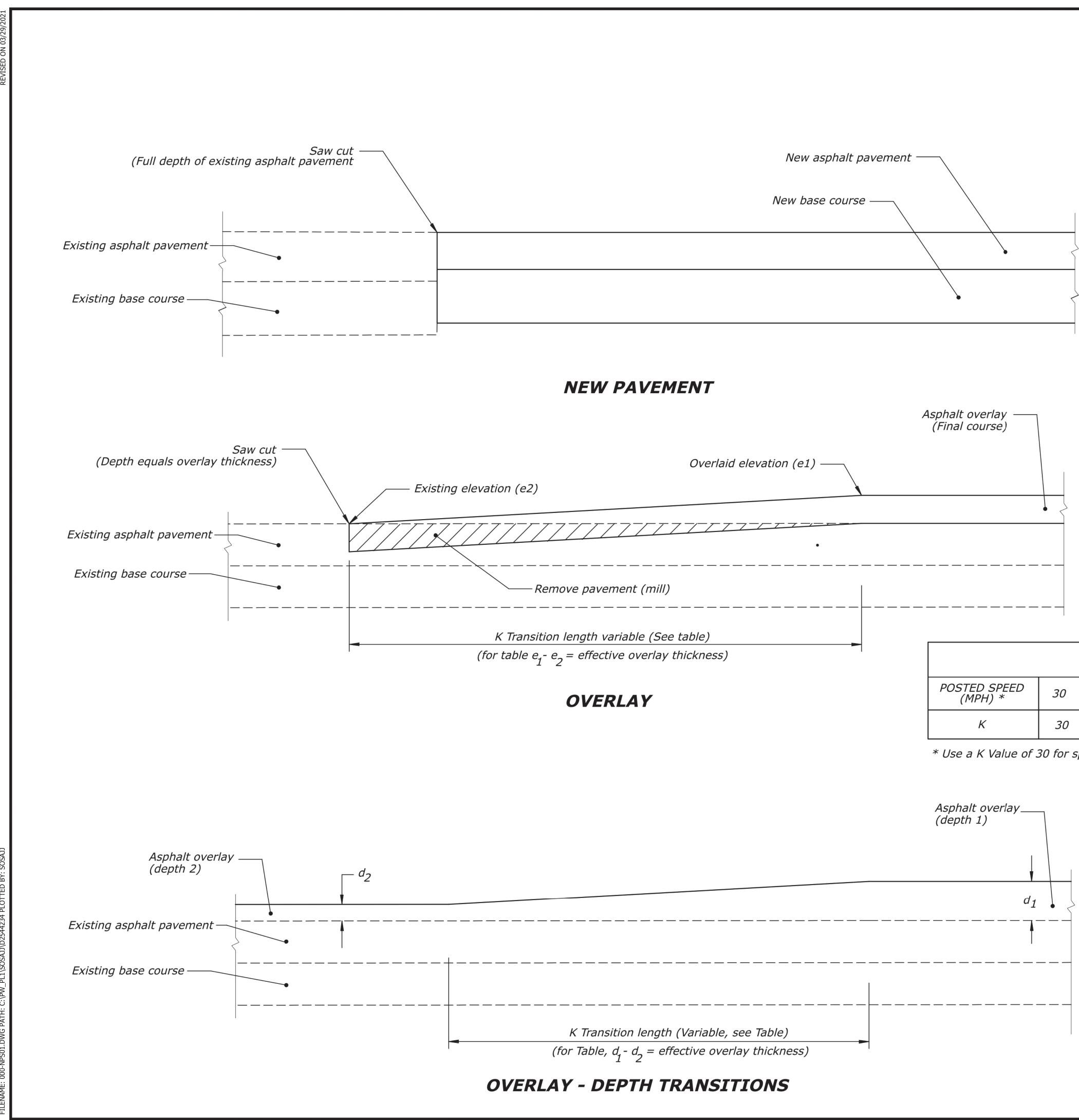


2. The CO will determine the patching limits.

3. Wedge and leveling may be required to fill surface depressions found after milling operations. The CO will determine the wedge and levelling limits.

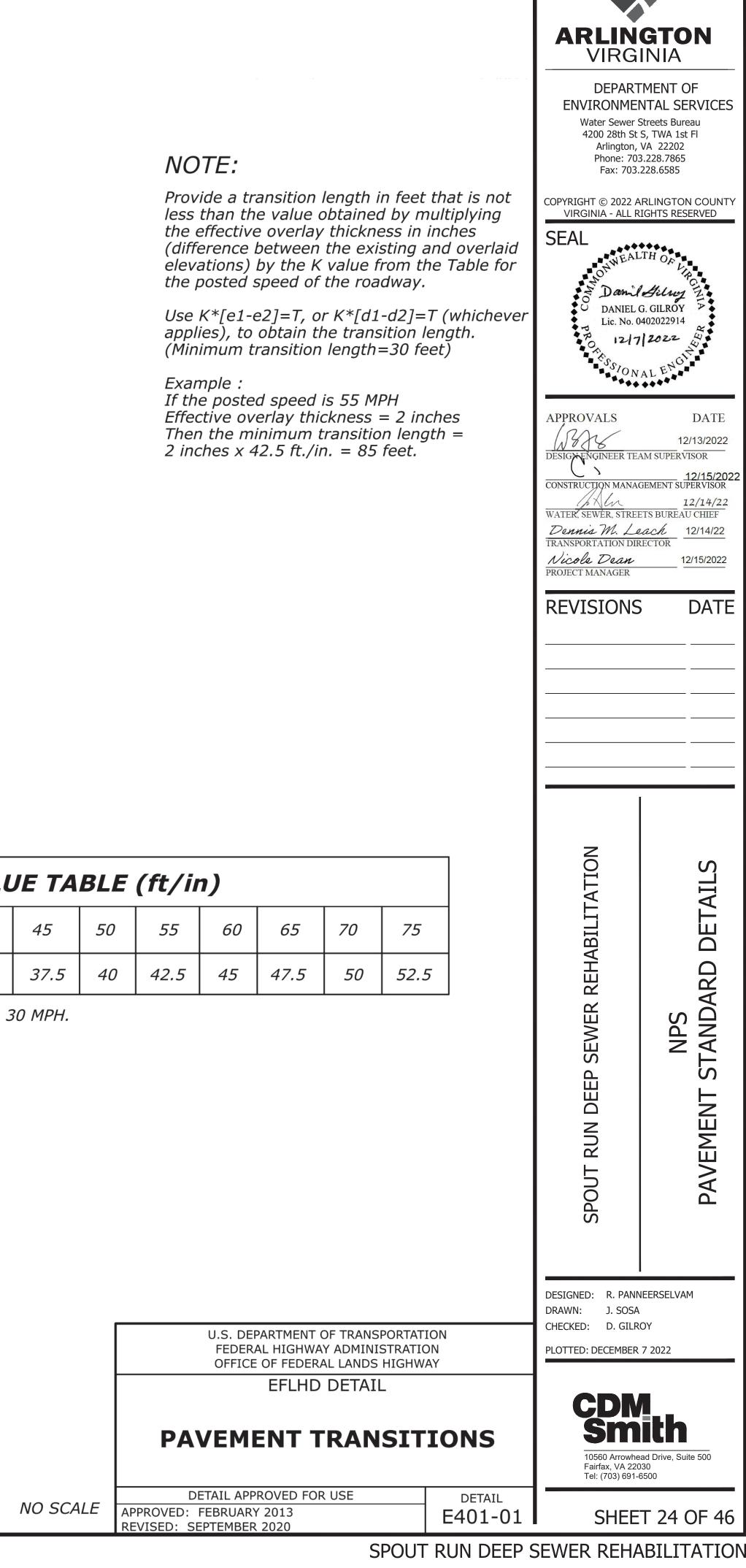
4. Where multiple lifts of asphalt pavement are required, apply an asphalt tack coat between successive lifts in accordance with Section 412.

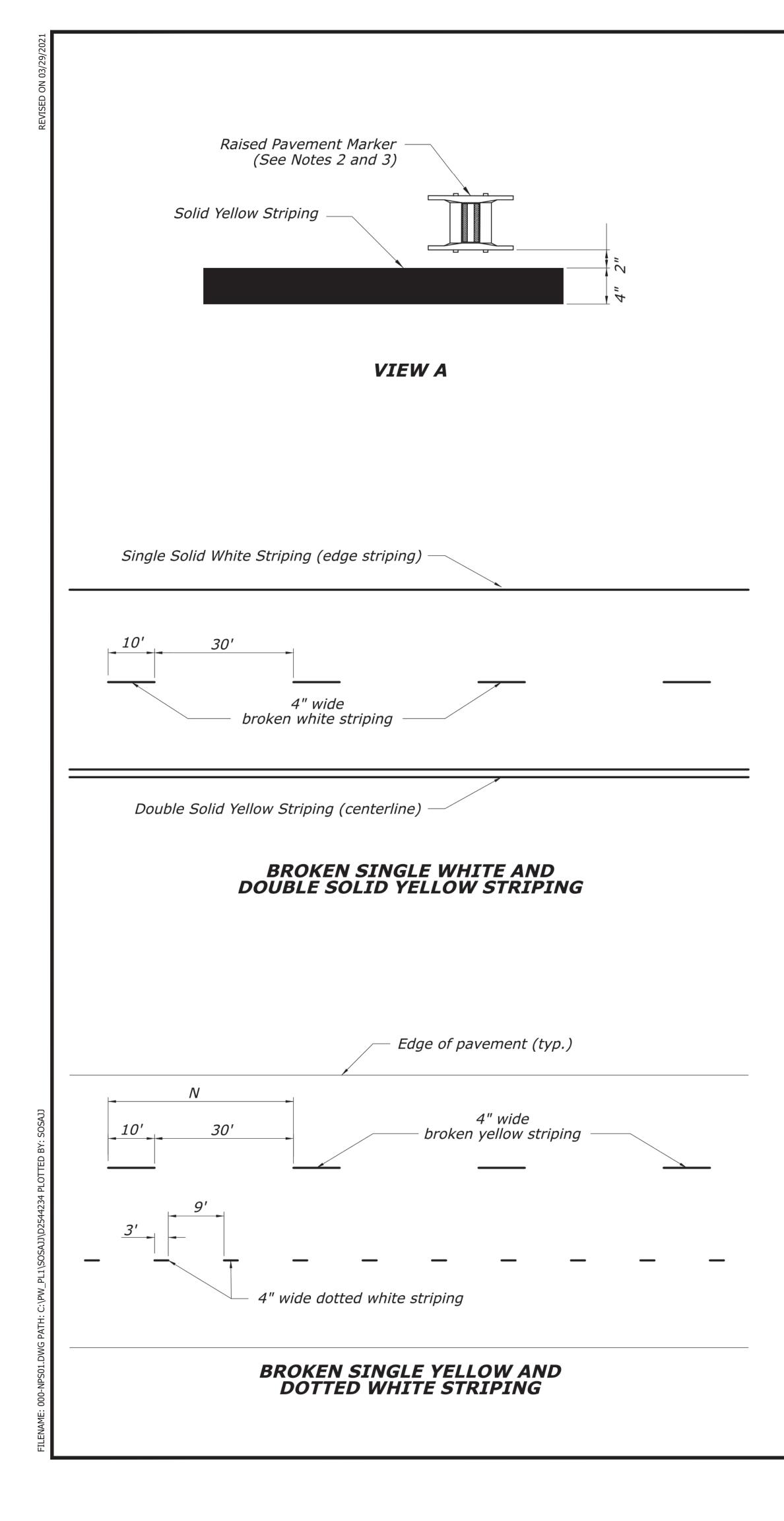


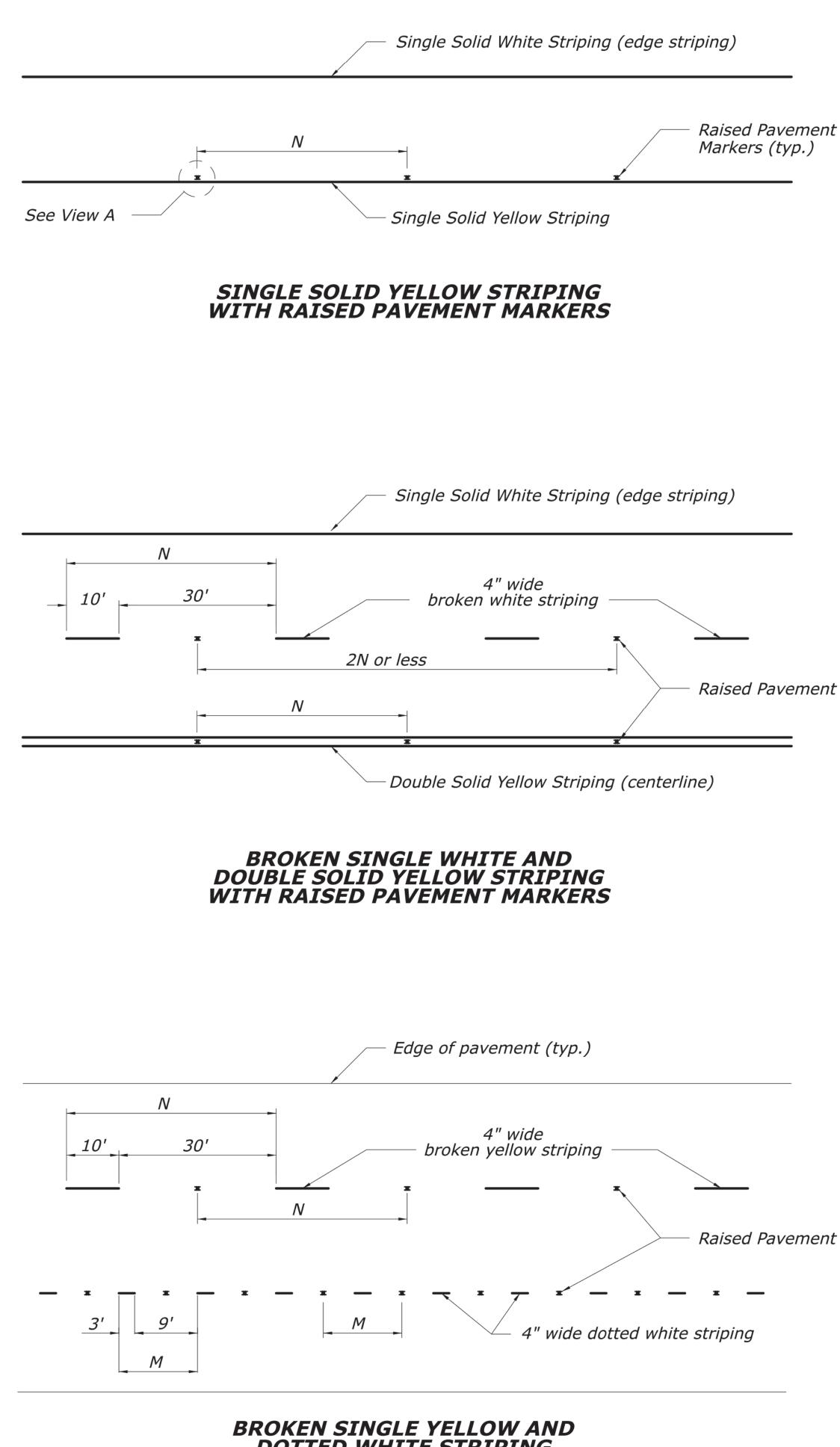


		K	VALL
POSTED SPEED (MPH) *	30	35	40
К	30	32.5	35

* Use a K Value of 30 for speeds less than 30 MPH.







DOTTED WHITE STRIPING WITH RAISED PAVEMENT MARKERS

			ARLIN	
NOTES: 1. Install striping in accord	dance witi	h the	DEPART	MENT OF NTAL SERVICES Streets Bureau S, TWA 1st Fl VA 22202 3.228.7865
"Manual on Uniform Tra Devices" (MUTCD), late 2. When raised pavement required, space and ins with the MUTCD and as Detail or as directed by 3. When raised pavement required, see Detail E63	st edition markers tall in acc shown in the CO. markers	are ordance this	• •	IGHTS RESERVED TH OF LIP Gilley IZ G. GILROY 402022914 ZOZZZ AL ENCITION DATE 12/13/2022
үр.)			CONSTRUCTION MANAGE WATER, SEWER, STREE Dennis M. Le TRANSPORTATION DIR Nicole Dean PROJECT MANAGER	GEMENT SUPERVISOR $12/14/22$ TS BUREAU CHIEFach $12/14/22$ ECTOR $12/15/2022$
ν <i>p.)</i>			SPOUT RUN DEEP SEWER REHABILITATION	NPS PAVEMENT STANDARD DETAILS
U.S. DEPARTMENT OF TRAN FEDERAL HIGHWAY ADMIN			DESIGNED: R. PANN DRAWN: J. SOSA CHECKED: D. GILR PLOTTED: DECEMBER	
OFFICE OF FEDERAL LAND	S HIGHWAY			, 2022
PAVEMENT MA WITH AND WI RAISED PAVEMEN	RKING	Т	CDN SSM 10560 Arrowhe Fairfax, VA 220 Tel: (703) 691-6	ad Drive, Suite 500 30
DETAIL APPROVED FOR USE		DETAIL		

NOTES:

- 1. Install striping in accordance w "Manual on Uniform Traffic Con Devices" (MUTCD), latest editio
- 2. When raised pavement markers required, space and install in ac with the MUTCD and as shown Detail or as directed by the CO.
- *3. When raised pavement markers required, see Detail E634-02.*

APPROVED: MAY 2011

REVISED: SEPTEMBER 2020

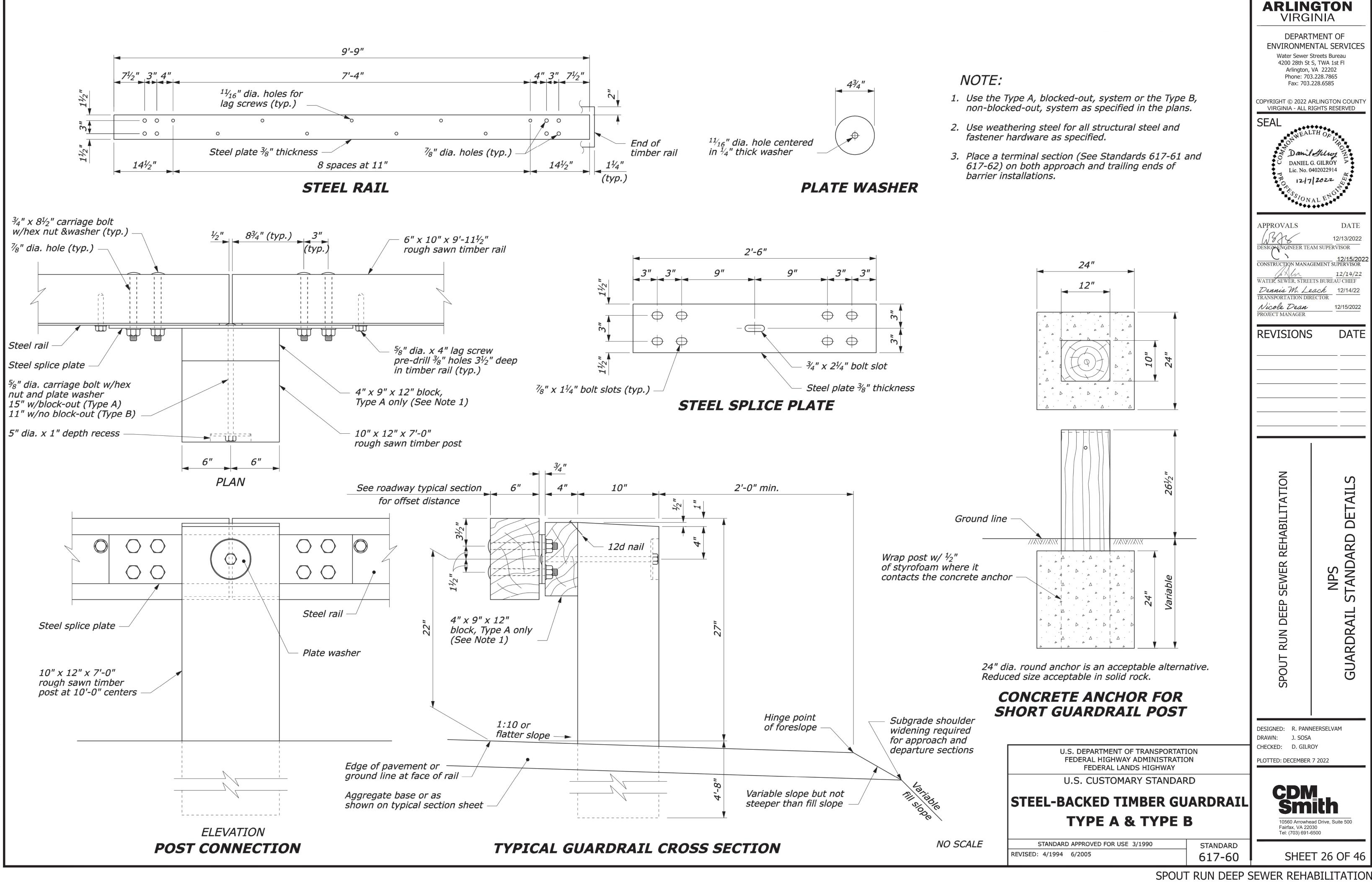
Raised Pavement Markers (typ.)

Raised Pavement Markers (typ.)

NO SCALE

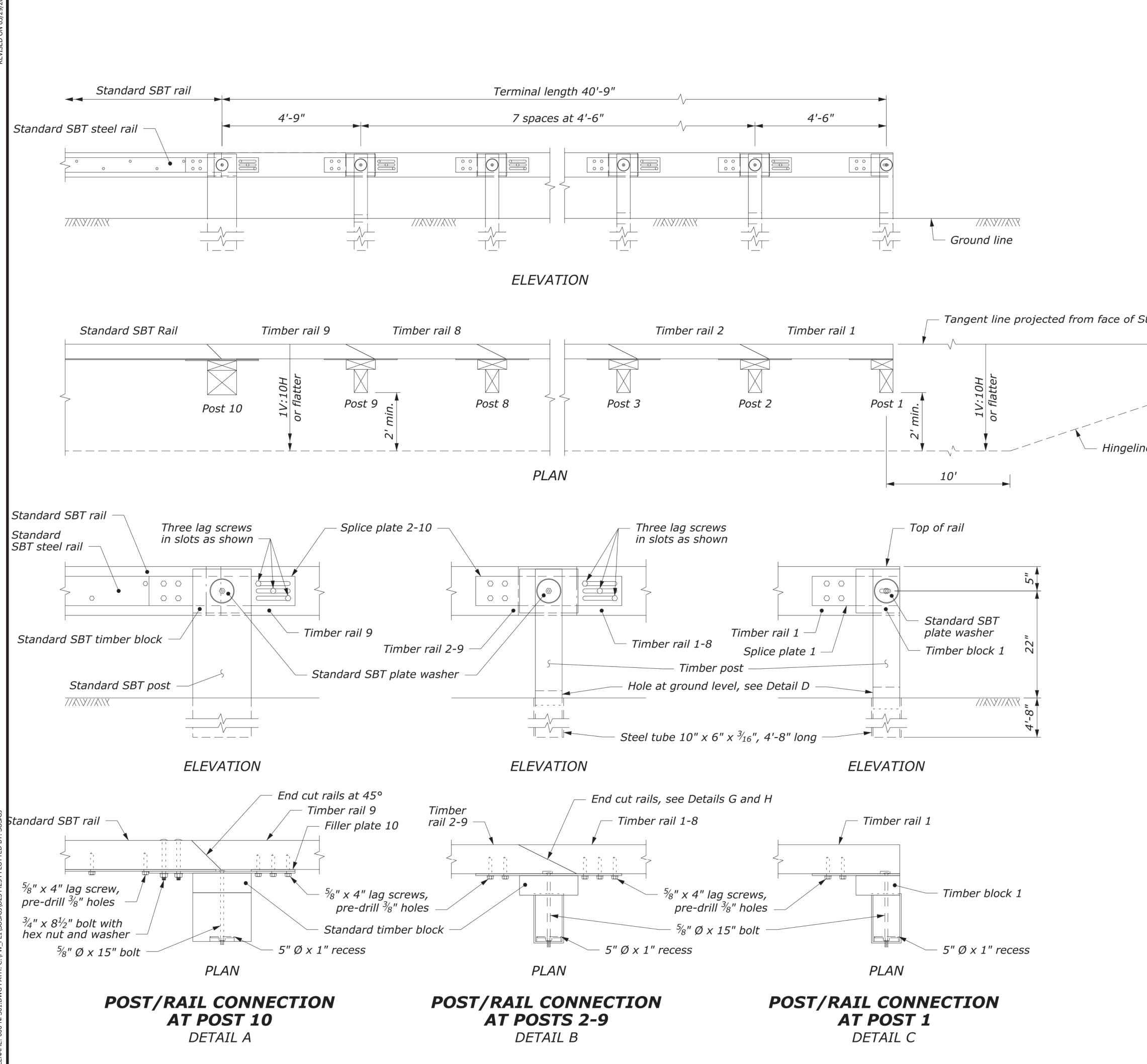
SHEET 25 OF 46

E634-03









SPOUT RUN DEEP SEWER REHABILITATION

			SEAL ONNEALTH OF Daniel G. GILRON Lic. No. 0402022914 DANIEL G. GILRON	
tandard SB1	r Rail			DATE 2/13/2022
10 10 ne of foreslop	 		WATER, SEWER, STREETS BUREA Dennis M. Leach TRANSPORTATION DIRECTOR	<u>12/15/2022</u> JPERVISOR 12/14/22
			SPOUT RUN DEEP SEWER REHABILITATION	GUARDRAIL STANDARD DETAILS
	U.S. DEPARTMENT OF TRANS FEDERAL HIGHWAY ADMINI OFFICE OF FEDERAL LANDS	STRATION	DESIGNED: R. PANNEERSELV/ DRAWN: J. SOSA CHECKED: D. GILROY PLOTTED: DECEMBER 7 2022	AM
	OFFICE OF FEDERAL LANDS EFLHD DETAIL TL-2 END TERM FOR STEEL-BA TIMBER GUARD Sheet 1 of	- IINAL CKED DRAIL	CCDM SSMith 10560 Arrowhead Drive, S Fairfax, VA 22030 Tel: (703) 691-6500	
NO SCALE	REVISED: 4/2016 1/2018 9/2020	DETAIL ET 617-	69 SHEET 27	OF 46

NOTE: See Standard 617-60 for standard SBT guardrail details.

ARLINGTON

VIRGINIA

DEPARTMENT OF

ENVIRONMENTAL SERVICES

Water Sewer Streets Bureau 4200 28th St S, TWA 1st Fl

Arlington, VA 22202

Phone: 703.228.7865 Fax: 703.228.6585

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SEAL

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TRANSPORTATION MANAGEMENT PLAN (TMP)

(TYPE A - CATEGORY I & II)

- PROJECT IS A "TYPE A" TMP PROJECT. THIS PROJECT IS TRENCHLESS REHABILITATION OF THE EXISTING SPOUT RUN DEEP 33-INCH SANITARY SEWER PIPELINES (FROM MANHOLE 750 TO MANHOLE 740) THAT RUNS FROM EAST BOUND OF SPOUT RUN PARKWAY, ACROSS INTERSTATE I-66 TO NORTH NASH STREET. IN ORDER TO REHABILITATE THE PIPELINE, A TEMPORARY BYPASS PUMPING PIPELINE IS REQUIRED AND PROVIDED WITH THIS PROJECT.
- 2. THE PROPOSED WORK WILL REQUIRE OPEN CUT ROAD CROSSING, RESTORATION OF PAVEMENT, AND REMOVING ONE TRAVEL LANE DURING WORKING CONSTRUCTION.
- 3. FOR ROADWAYS IN NATIONAL PARK SERVICE AREA AND VDOT RIGHT-OF-WAY AREAS, THE WORKING HOURS ARE AS FOLLOWS:

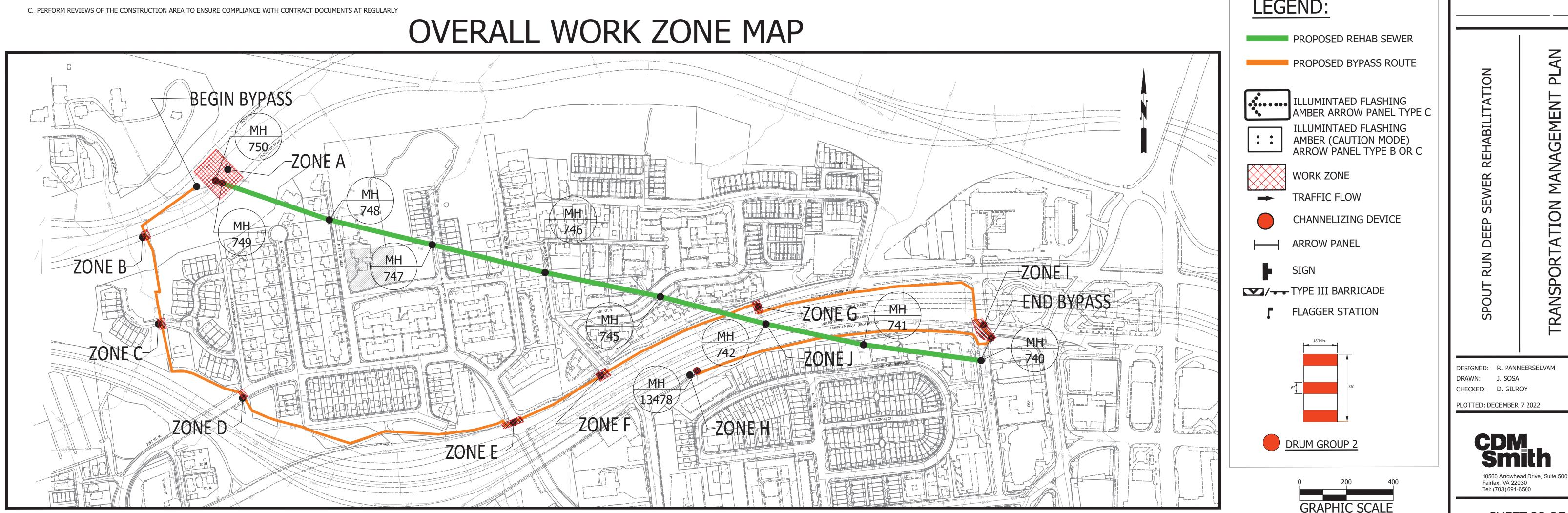
LANE CLOSURES (URBAN OTHER PRINCIPAL ARTERIAL)				
	MON. TO THU.	FRIDAY	SATURDAY	SUNDAY
DAY TIME	9:30 AM TO 3:00 PM	9:30 AM TO 2:00 PM	NOT ALLOWED	NOT ALLOWED
NIGHT TIME	10:00 PM TO 5:00AM	*10:00PM TO 5:00AM	*10:00PM TO 5:00AM	10:00 PM TO 5:00AM

*EXEMPTION REQUEST REQUIRED

4. FOR WORK DONE ON ARLINGTON COUNTY RIGHT-OF-WAY AREAS, THE WORKING HOURS WITHIN ARE AS FOLLOW: LANE CLOSURES (MINOR ARTERIAL)

		(,	
	MON. TO FRI.	SATURDAY	SUNDAY
DAY TIME	9:00 AM TO 4:00 PM	NOT ALLOWED	NOT ALLOWED
NIGHT TIME	9:00 PM TO 7:00AM	9:00 PM TO 10:00AM	9:00 PM TO 10:00AM

- BEFORE AND AFTER WORKING HOURS, ALL TRAVEL LANES SHALL BE OPENED TO THE MOTORISTS.
- 6. 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.
- MAINTENANCE OF TRAFFIC (MOT) PLAN WHICH INCLUDES THE SEQUENCE OF CONSTRUCTION (SOC) WAS REVIEWED AND APPROVED BY THE ARLINGTON COUNTY TRANSPORTATION ENGINEERING AND OPERATION (TE&O) BUREAU. THE MOT PLAN CONTAINED TYPES OF SIGNAGES AND BARRICADES USED, AND RECOMMENDED PHASES AND SEQUENCES OF CONSTRUCTION. FOR TMP, MOT & SOC, SEE PLAN SHEET 29 OF 46 TO 42 OF 46.
- 8. NO DRIVEWAY ENTRANCES ARE BEING AFFECTED BY THE PROPOSED WORK ALONG VDOT R-O-W.
- 9. CUSTIS TRAIL WILL BE AFFECTED BY THE PROPOSED WORK. SEE MOT PLAN SHEET 36 OF 46 FOR LOCATIONS.
- 10. THE CONTRACTOR SHALL COORDINATE WITH ARLINGTON COUNTY TRANSIT BUREAU (703-228-3049) AT LEAST 4 WEEKS PRIOR TO COMMENCEMENT OF WORK FOR APPROVAL, IF TRANSIT IS AFFECTED.
- 11. THE CONTRACTOR SHALL RETAIN PEDESTRIAN ACCESS TO THE BUS STOPS LOCATED WITHIN THE CONSTRUCTION ZONE FOR THE DURATION OF THE PROJECT.
- 12. THE CONTRACTOR SHALL
 - A. DESIGNATE A PERSON ASSIGNED TO THE PROJECT WHO WILL HAVE THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TMP/MOT/SOC AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PERMIT WORK. THIS PERSON SHALL COORDINATE WITH THE ARLINGTON COUNTY CONSTRUCTION MANAGER FOR THE DURATION OF THE PROJECT.
 - B. 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.



- PROTECTION OF VEHICULAR TRAFFIC.
- THE ENGINEER.
- 19. PUBLIC COMMUNICATION PLAN THE CONTRACTOR SHALL BE RESPONSIBLE FOR:

20. TRANSPORTATION OPERATION PLANS

DELAYS.

- HISHAM WAHDAN COUNTY CONSTRUCTION MANAGER 703-228-7628

- ARLINGTON COUNTY POLICE 703-558-2222
- EMERGENCY CALL 911
- VIRGINIA STATE POLICE 703-803-8660

SCHEDULED INTERVALS AT THE DIRECTION OF THE ENGINEER. CONTRACTORS SHALL MAINTAIN AN APPROVED COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.

15. THIS TMP/MOT/SOC PLAN IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IF THE CONTRACTOR IS TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL

16. ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED UP TO EXISTING PAVEMENT OR NEWLY CONSTRUCTED PAVEMENT SURFACE FOR THE SAFETY AND

17. 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.

18. EACH PHASE OF CONSTRUCTION SHALL BE COMPLETED PRIOR TO THE START OF THE NEXT PHASE UNLESS OTHERWISE DIRECTED BY

A. NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR OF SCHEDULED WORK PLANS AT LEAST 48 HOURS PRIOR TO BEGINNING EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.

B. NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR, REGIONAL OPERATION MANAGER AND THE PUBLIC AFFAIRS STAFF OF ANY UNSCHEDULED TRAFFIC DELAYS THAT MAY OCCUR.

C. INSTALLING VARIABLE MESSAGE SIGNBOARDS (VMS) WITH PROJECT START DATE INFORMATION APPROXIMATELY 500' BEFORE AND AFTER THE PROJECT SITE LIMIT THREE (3) WEEKS IN ADVANCE PRIOR TO START OF ANY ROADWORK AND LANE CLOSURE.

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

A. NOTIFYING THE VDOT REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) 48 HOURS IN ADVANCE IN ORDER TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC.

B. HAVING THE LIST OF LOCAL EMERGENCY RESPONSE AGENCIES AVAILABLE AT THE WORK SITE AT ALL TIMES.

C. IMMEDIATELY REPORTING ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.

D. NOTIFY THE PROJECT'S CONSTRUCTION MANAGER AND CORRESPONDING ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC

E. WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE IMPLEMENTED AND NECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE ACCIDENTS.

F. EMERGENCY CONTACTS DURING THE DURATION OF THE PROJECTS ARE THE FOLLOWING:

• BI WU - COUNTY DESIGN ENGINEER TEAM SUPERVISOR - 703-228-6539

• DES R-O-W PERMITTING SECTION - 703-228-4798 • ARLINGTON COUNTY TRANSIT BUREAU - 703-228-3049

• WATER, SEWER AND STREET OPERATION - 703-228-6555

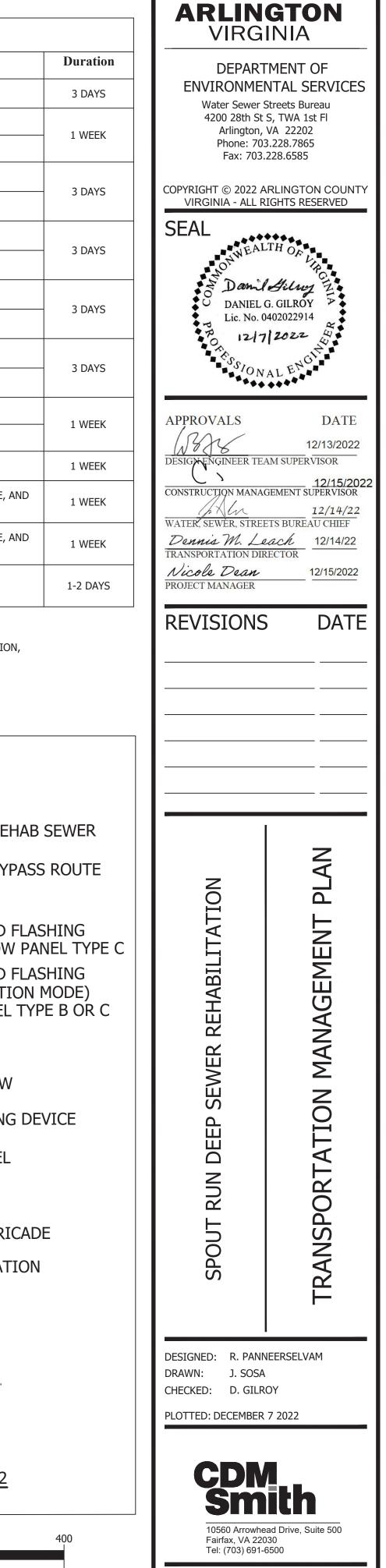
ARLINGTON COUNTY FIRE - 703-228-3362

• VDOT NORTHERN VIRGINIA TRAFFIC OPERATION CENTER - 800-367-7623

VDOT TRO.	JECT CONSTRUCTION	WORK ZONE TABLE	
Zone	TTC #	Comments	Durati
ZONE A	A - TTC-17.2	INSTALL ACCESS AREA BY UTILIZING TTC-17.2 ALONG NB & SB SPOUT RUN PKWY	3 DAY
	B1 - TTC-17.2	OPEN CUT INSIDE TRAVEL LANE BY UTILIZING TTC-17.2 ALONG NB SPOUT RUN PKWY	
ZONE B	B2 - TTC-16.2	OPEN CUT OUTSIDE TRAVEL LANE BY UTILIZING TTC-16.2 ALONG NB SPOUT RUN PKWY	1 WEEK
ZONE C	C1 - TTC-23.2 & TTC-35.1	OPEN CUT NB LANE BY UTILIZING TTC-23.2 ALONG NB 21ST CT N & TTC-35.1 FOR SIDEWALK DIVERSION	- 3 DAYS
ZUNE C	C2 - TTC 23.2 & TTC-35.1	OPEN CUT SB LANE BY UTILIZING TTC-23.2 ALONG SB 21ST CT N & TTC-35.1 FOR SIDEWALK DIVERSION	- 3 DAT
	D1 - TTC-23.2 & TTC-36.2	OPEN CUT SB LANE BY UTILIZING TTC-23.2 ALONG SB 21ST ST N & TTC-36.2 FOR SIDEWALK & TRAIL DETOUR OPERATION	2 DAV
ZONE D	D2 - TTC-23.2 TTC-35.1	OPEN CUT NB LANE BY UTILIZING TTC-23.2 ALONG NB 21ST ST N & TTC-36.2 FOR SIDEWALK DIVERSION	3 DAYS
20115 5	E1 - TTC-28.2 & TTC-36.2	OPEN CUT SB LANE BY UTILIZING TTC-28.2 ALONG SB N SCOTT ST & TTC-36.2 FOR SIDEWALK DETOUR OPERATION	2 5 4 1
ZONE E	E2 - TTC-28.2 & TTC-36.2	OPEN CUT NB LANE BY UTILIZING TTC-28.2 ALONG NB N SCOTT ST & TTC-36.2 FOR SIDEWALK DETOUR OPERATION	3 DAYS
	F1 - TTC-23.2 & TTC-36.2	OPEN CUT SB LANE BY UTILIZING TTC-28.2 ALONG SB N QUINN ST & TTC-36.2 FOR SIDEWALK DETOUR OPERATION	2.54
ZONE F	F2 - TTC-23.2 & TTC-36.2	OPEN CUT NB LANE BY UTILIZING TTC-28.2 ALONG NB N QUINN ST & TTC-36.2 FOR SIDEWALK DETOUR OPERATION	- 3 DAY:
ZONE G	G1 - TTC-18.2	OPEN CUT OUTSIDE LANE BY UTILIZING TTC-18.2 ALONG WB LANGSTON BLVD	- 1 WEE
ZONE G	G2 - TTC-17.2	OPEN CUT INSIDE LANE BY UTILIZING TTC-17.2 ALONG WB LANGSTON BLVD	
ZONE H	H - TTC-16.2 & TTC-35.1	OPEN CUT OUTSIDE LANE BY UTILIZING TTC-16.2 ALONG EB LANGSTON BLVD & TTC-35.1 FOR SIDEWALK DIVERSION	1 WEE
ZONE I	I1 - TTC-18.2, TTC-30.2 & TTC-36.2	OPEN CUT ROADWAY BY UTILIZING TTC-28.2 ON EB LANGSTON BLVD, TTC-30.2 AT THE INTERSECTION WITH POLICE ASSISTANCE, AND TTC-36.2 FOR SIDEWALK DETOUR OPERATION	1 WEE
LUINE I	I2 - TTC-18.2, TTC-30.2 & TTC-36.2	OPEN CUT ROADWAY BY UTILIZING TTC-18.2 ON EB LANGSTON BLVD, TTC-30.2 AT THE INTERSECTION WITH POLICE ASSISTANCE, AND TTC-36.2 FOR SIDEWALK DETOUR	1 WEE
ZONE J	J-TTC-7.1	CLOSE INSIDE SHOULDER WITH BARRIER AND LANE SHIFT OPERATION BY UTILIZING TTC-7.1 FOR MANHOLE 742 ON I-66	1-2 DA

NOTE:

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



SHEET 28 OF 46 SPOUT RUN DEEP SEWER REHABILITATION

MAINTENANCE OF TRAFFIC NOTES

1. CONSTRUCTION WORK INCLUDES AN OPEN CUT CONSTRUCTION AND FUTURE REMOVAL OF APPROXIMATELY 25 LINEAR FEET OF 18-INCH TEMPORARY BYPASS PIPING AND 33-INCH PIPE REHABILITATION CROSSING SPOUT RUN PARKWAY. CONSTRUCTION WORK ALSO INCLUDES AN OPEN CUT CONSTRUCTION NEAR THE INTERSECTION OF LANGSTON BOULEVARD AND NORTH SCOTT STREET, LANGSTON BOULEVARD AND NORTH QUINN STREET, LANGSTON BOULEVARD CROSSING, AND LANGSTON BOULEVARD AND NORTH NASH STREET. TRAFFIC CONTROL DEVICES, TEMPORARY PAVEMENT MARKINGS AND TEMPORARY ASPHALT CONCRETE WHERE REQUIRED SHALL BE INSTALLED FOR ALL PHASES. CONTRACTOR SHALL FOLLOW THE TRAFFIC CONTROL PLANS DURING THE REMOVAL OF TEMPORARY BYPASS PIPING AND PUMPING.

2. TRAFFIC CONTROL DEVICES AND SAFETY MEASURES SHALL COMPLY WITH THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT'S GUIDELINES FOR TEMPORARY TRAFFIC CONTROL AND FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

3. THE CONTRACTOR SHALL FURNISH, INSTALL AND OPERATE MIN. 2 (TWO) PORTABLE VARIABLE MESSAGE SIGNS WITH CLOSURE INFORMATION AHEAD OF WORK AREA 3 WEEKS PRIOR TO CLOSURE.

4. THE CONTRACTOR SHALL COVER ANY EXISTING SIGN WHICH IS NOT APPLICABLE, AS DIRECTED BY THE TRAFFIC AUTHORITY.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH VDOT AND ANY OTHER CONTRACTORS IN THE AREA

6. THE CONTRACTOR SHALL NOT DISTURB OR REMOVE ANY TRAFFIC CONTROL SIGNS, PARKING METERS OR COVER ANY OTHER TRAFFIC CONTROL DEVICE WITHOUT PRIOR PERMISSION FROM THE TRAFFIC ENGINEERING DIVISION AT (703) 228-6512. ANY TRAFFIC SIGNAL CONDUIT, CABLE OR TRAFFIC DETECTION DEVICES DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE COUNTY.

7. AT THE END OF WORK DAY, ALL EXCAVATIONS SHALL BE FILLED WITH BASE ASPHALT AND SHALL BE OPENED FOR TRAFFIC.

8. MAINTENANCE OF TRAFFIC PLANS AND DETAILS SHOWN HERE SHALL BE FOLLOWED BY THE CONTRACTOR DURING CONSTRUCTION. SHOULD THE CONTRACTOR DESIRE TO FOLLOW AN ALTERNATE PLAN THEY SHALL SUBMIT THE PLAN PRIOR TO CONSTRUCTION TO VDOT.

9. THE CONTRACTOR SHALL CONTACT ARLINGTON COUNTY, DEPARTMENT OF TRANSPORTATION PRIOR TO INSTALLATION OF PERMANENT PAVEMENT MARKINGS.

10. THE CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKING IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.

11. ONE LANE OF TRAFFIC SHALL BE OPEN DURING CONSTRUCTION WORK HOURS.

12. TRAFFIC CONTROL PLANS ARE BASED ON VDOT TTC-16.2, TTC-17.2, TTC-23.2, TTC-28.2 & TTC-36.2 (2011 EDITION REVISION 2.1).

13. CONSTRUCTION WORK IS DIVIDED INTO THE FOLLOWING PHASES:

PHASE 1 WILL TEMPORARILY CLOSE THE INNER TRAVEL LANE HEADING NORTHEAST ON NORTH SPOUT RUN PARKWAY TO GEORGE WASHINGTON MEMORIAL PARKWAY DURING CONSTRUCTION WORK HOURS FOR BYPASS PUMP MAINTENANCE AND TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

PHASE 2 WILL TEMPORARILY CLOSE THE OUTER TRAVEL LANE HEADING NORTHEAST ON NORTH SPOUT RUN PARKWAY TO GEORGE WASHINGTON MEMORIAL PARKWAY DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION

PHASE 3 WILL TEMPORARILY CLOSE THE INNER TRAVEL LANE HEADING NORTHEAST ON NORTH SPOUT RUN PARKWAY TO GEORGE WASHINGTON MEMORIAL PARKWAY DURING CONSTRUCTION WORK HOURS FOR PIPE REHABILITATION WORK AREA.

PHASE 4 WILL TEMPORARILY CLOSE THE INNER TRAVEL LANE HEADING SOUTHWEST ON NORTH SPOUT RUN PARKWAY TO NORTH KIRKWOOD ROAD DURING CONSTRUCTION WORK HOURS FOR BYPASS PUMP MAINTENANCE.

PHASE 5 WILL TEMPORARILY CLOSE THE NORTHWESTERN PART OF LANGSTON BOULEVARD AND NORTH SCOTT STREET INTERSECTION DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

PHASE 6 WILL TEMPORARILY CLOSE THE NORTHEASTERN PART OF LANGSTON BOULEVARD AND NORTH SCOTT STREET INTERSECTION AND NORTHWESTERN PART OF LANGSTON BOULEVARD AND NORTH QUINN STREET INTERSECTION DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

PHASE 7 WILL TEMPORARILY CLOSE THE NORTHEASTERN PART OF LANGSTON BOULEVARD AND NORTH QUINN STREET INTERSECTION DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

PHASE 8 WILL TEMPORARILY CLOSE THE TWO OUTER TRAVEL LANES HEADING WEST CROSSING LANGSTON BOULEVARD DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

PHASE 9 WILL TEMPORARILY CLOSE THE INNER TRAVEL LANE HEADING WEST CROSSING LANGSTON BOULEVARD DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

PHASE 10 WILL TEMPORARILY CLOSE THE NORTHWESTERN PART OF LANGSTON BOULEVARD AND NORTH NASH STREET INTERSECTION DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

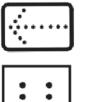
PHASE 11 WILL TEMPORARILY CLOSE THE SOUTHEASTERN PART OF LANGSTON BOULEVARD AND NORTH NASH STREET INTERSECTION DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING VIA OPEN-CUT INSTALLATION.

PHASE 12 WILL TEMPORARILY CLOSE SOME PORTION OF THE OUTER LANE OF LANGSTON BOULEVARD WESTBOUND LANES AND OUTER LANE OF LANGSTON BOULEVARD EASTBOUND LANES DURING CONSTRUCTION WORK HOURS FOR TEMPORARY BYPASS PIPING. SIDEWALKS WILL BE TEMPORARILY CLOSED ALONG NORTH NASH STREET AND LANGSTON BOULEVARD EASTBOUND LANES FOR TEMPORARY BYPASS PIPING.

14. FOR COUNTY AND STREET CROSSINGS, CONTRACTOR SHALL FOLLOW VDOT'S REQUIREMENTS FOR TRAFFIC CONTROL.

15. PEDESTRIAN AND BICYCLE TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH VDOT'S TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE MANUAL (JANUARY 2016 EDITION).

LEGEND:



ILLUMINTAED FLASHING AMBER (CAUTION MODE) ARROW PANEL TYPE B OR C

AREA UNDER CONSTRUCTION

ILLUMINTAED FLASHING

AMBER ARROW PANEL TYPE C



September 2019

TRAFFIC FLOW

CHANNELIZING DEVICE

ARROW PANEL

TYPE III BARRICADE

SIGN

Page 6H-5

DRUM GROUP 2

Table 6H-2, Taper Length Criteria and Taper Length Chart

Limit ≤ 3 3	Two D L	Merging Shifting Shoulder o-Way Traffic ownstream .= Taper Lengt	h, W= Wid	See		
Limit ≤ 3 3	Two D L	Shoulder o-Way Traffic ownstream	h, W= Wid	⅓ 50 Feet Minim 50 Feet Minim	L Minimum um,100 Feet M	
Limit ≤ 3 3	Two D L	o-Way Traffic ownstream	h, W= Wid	50 Feet Minim 50 Feet Minim	um,100 Feet N	
Limit ≤ 3 3	D L d Speed	ownstream	h, W= Wid	50 Feet Minim		
Limit ≤ 3 3	L d Speed		h, W= Wio		um,100 Feet M	Antoineuron
Limit ≤ 3 3	d Speed	.= Taper Lengt	h, W= Wid	th of Offset, S= Pos		laximum
Limit ≤ 3 3					ted Speed Lim	it
≤ 3 3	(man la)		Width	of Offset (Feet)		Bernarka
3	t (mpn)	9	10	11	12	Remarks
3	25	95	105	115	125	L= S ² W/60
	30	135	150	165	180	
4	35	185	205	225	245	
	40	240	270	295	320	"
4	45	405	450	495	540	L=SW
5	50	450	500	550	600	
5	55	495	550	605	660	
6	60	540	600	660	720	
6	65	585	650	715	780	
7	70	630	700	770	840	
Limite	ed Access h	ighways shall u	use a 1000	' merging taper regar	dless of the po	sted speed.
		ull lane width s	hifts on L oph and a	imited Access Highw	avs shall use a	a 750' shifting ta

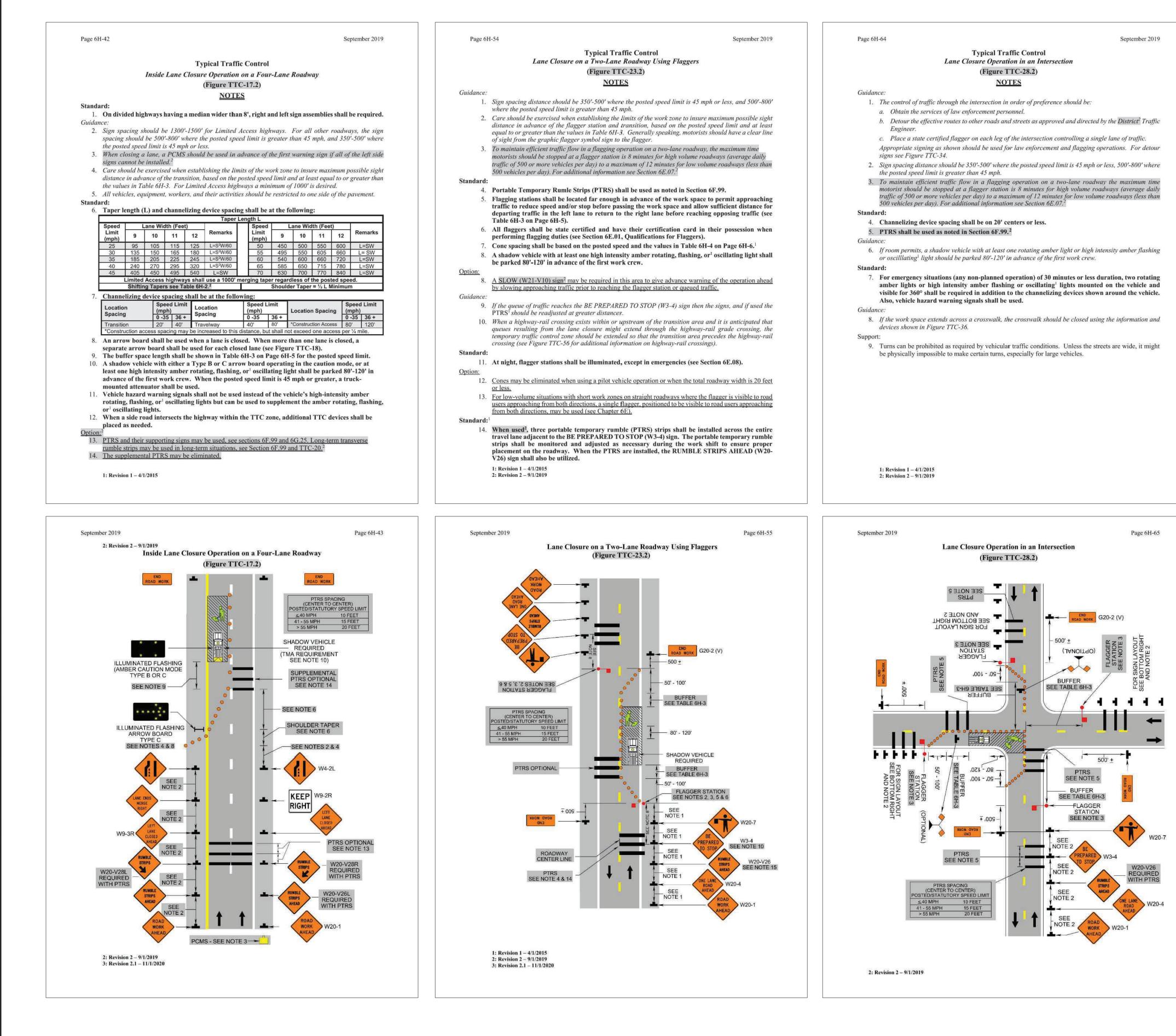
Table (II.2. Length of the Length dinal Duffer Course)

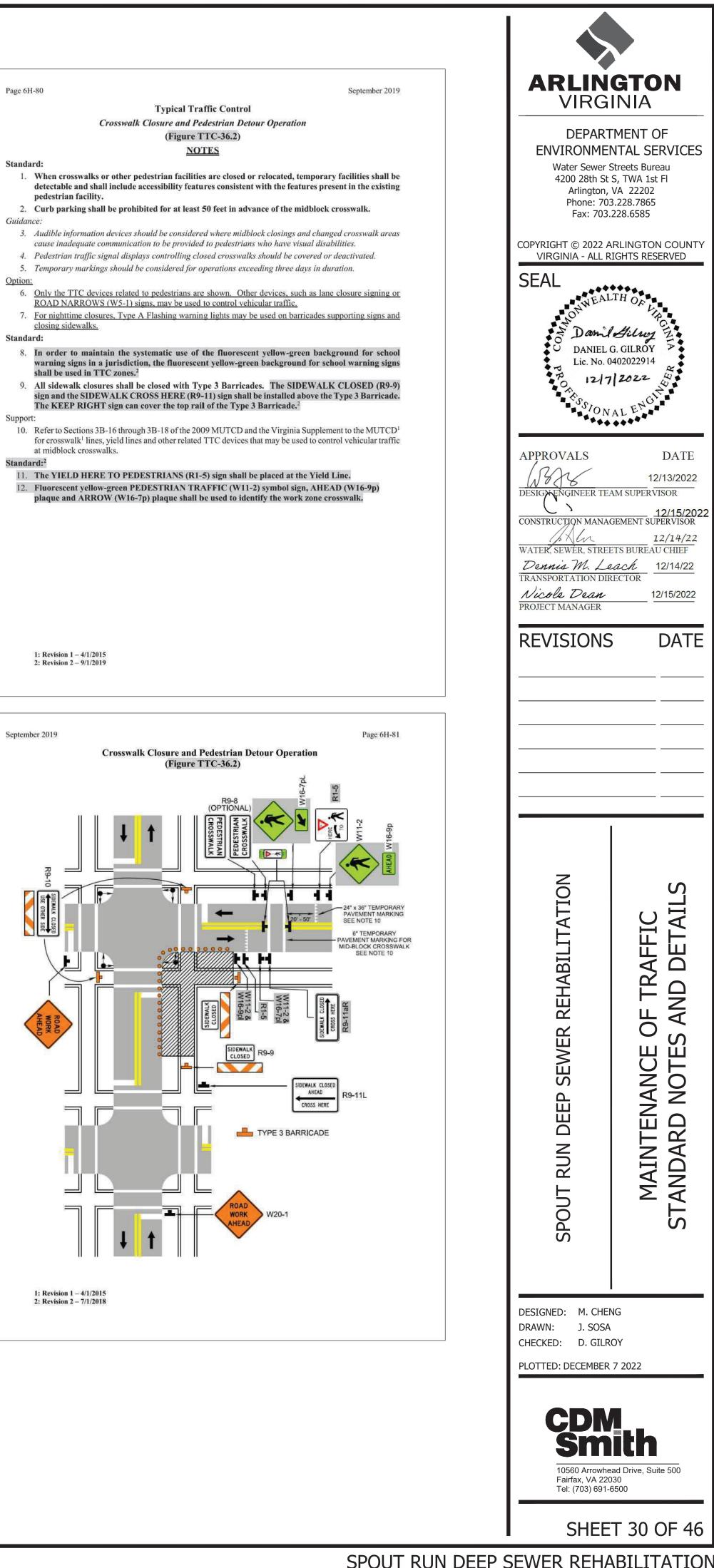
Posted Speed Limit (mph)	Distance (Feet)
<u>≤</u> 20	115 – 120
25	155 – 165 ¹
30	200 - 210
35	250 - 260
40	305 - 325 ¹
45	360 - 380
50	425 – 445
55	$500 - 530^{1}$
60	570 - 600 ¹
65	645 - 675
70	730 – 760

1: Revision 1 - 4/1/20152: Revision 2 - 9/1/2019

Page 6H-40 Septembe Typical Traffic Control <i>Outside Lane Closure Operation on a Four-Lane Roadway</i>	ARLINGT	
(Figure TTC-16.2) NOTES	DEPARTMEN	-
Standard: 1. On divided highways having a median wider than 8', right and left sign assemblies shall be required.	ENVIRONMENTAL Water Sewer Streets	
 Guidance: 2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' wh the posted speed limit is 45 mph or less. 3. When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left st signs cannot be installed.² 	Phone: 703.228.7	202 7865
 4. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired. 	COPYRIGHT © 2022 ARLING	
 5. All vehicles, equipment, workers, and their activities should be restricted to one side of the paveme Standard: 6. Taper length (L) and channelizing device spacing shall be at the following: 		RESERVED
Taper Length L Speed Limit (mph) Lane Width (Feet) Speed I 10 Lane Width (Feet) Remarks 25 95 105 115 125 L=S ² W/60 50 450 500 550 600 L=S ² 30 135 150 165 180 L=S ² W/60 55 495 550 600 L=S ² 35 185 205 225 245 L=S ² W/60 60 540 600 660 720 L=S ² 40 240 270 295 320 L=S ² W/60 65 585 650 715 780 L=S ² 45 405 450 495 540 L=S ² 70 630 700 770 840 L=S ² Limited Access highways shall use a 1000' merging taper regardless of the posted speed. Shoulder Taper = ½ L Minimum Shoulder Taper = ½ L Minimum 7. Channelizing device spacing shall be at the following: Shoulder Taper = ½ L Minimum 5 5	w w w w w w w w	2914 ~
Channelizing Device Spacing Location Speed Limit (mph) Location Speed Limit (mph) Speed Limit (mph) Location Speed Limit (mph) Location Spacing Speed Limit (mph) Location Spacing Location Spacing		
	APPROVALS APPROVALS DESIGNENGINEER TEAM SUR CONSTRUCTION MANAGEMEN WATER, SEWER, STREETS BU Dennis M. Leach TRANSPORTATION DIRECTOR Nicole Dean PROJECT MANAGER	$\frac{12/15/202}{11 \text{ SUPERVISOR}}$ $\frac{12/14/22}{12/14/22}$ REAU CHIEF $\frac{12/14/22}{12/14/22}$ $\frac{12/15/2022}{12/15/2022}$
2. Revision 2 = 2(1/201)	REVISIONS	DATE
<complex-block><figure></figure></complex-block>		MAINTENANCE OF TRAFFIC NOTES LEGEND AND DETAILS
	DESIGNED: M. CHENG DRAWN: J. SOSA CHECKED: D. GILROY	
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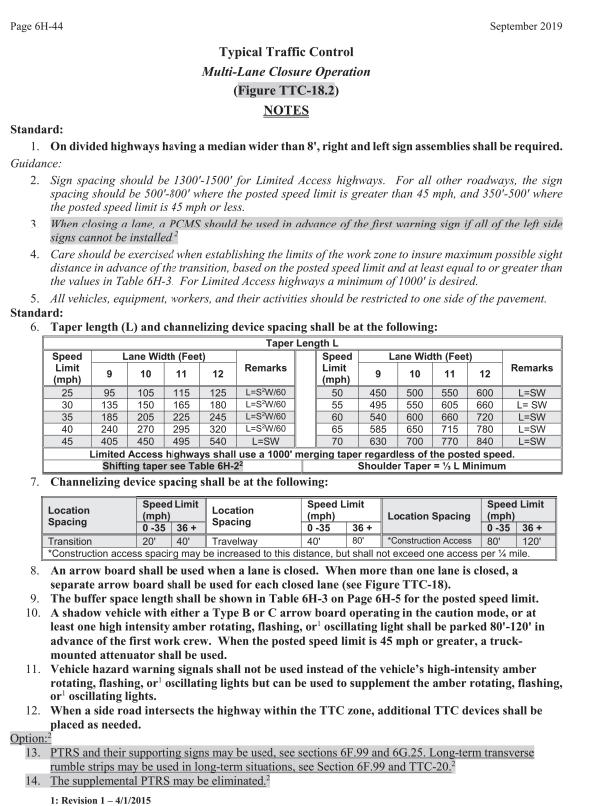




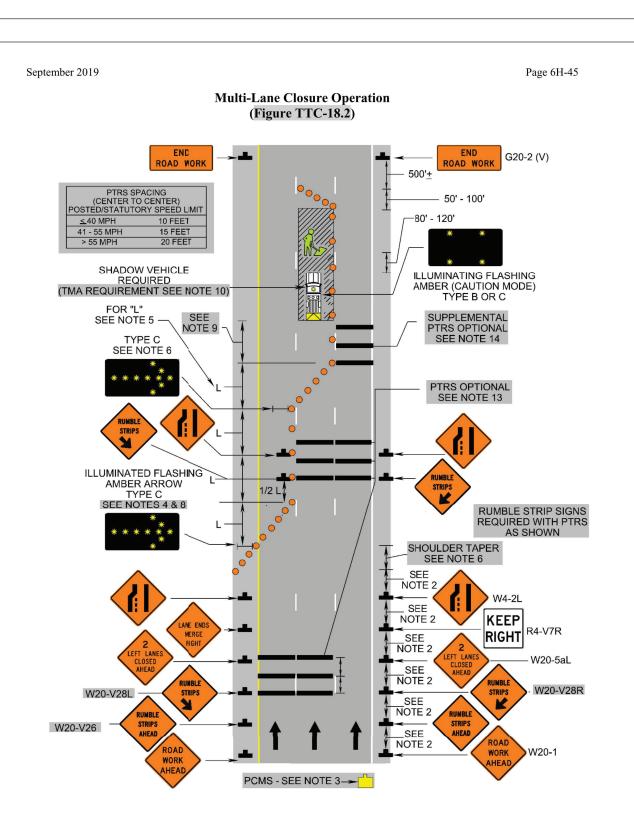
SPOUT RUN DEEP SEWER REHABILITATION

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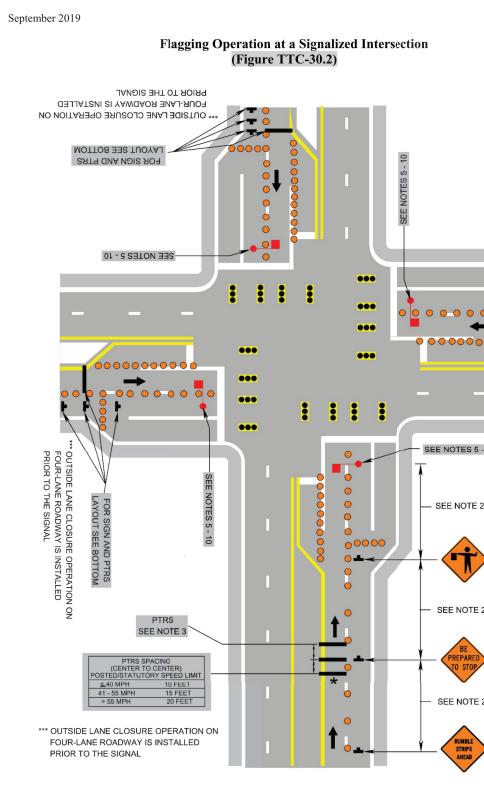
1: Revision 1 – 4/1/2015 2: Revision 2 – 9/1/2019



2: Revision 2 – 9/1/2019 3: Revision 2.1 -11/1/2020

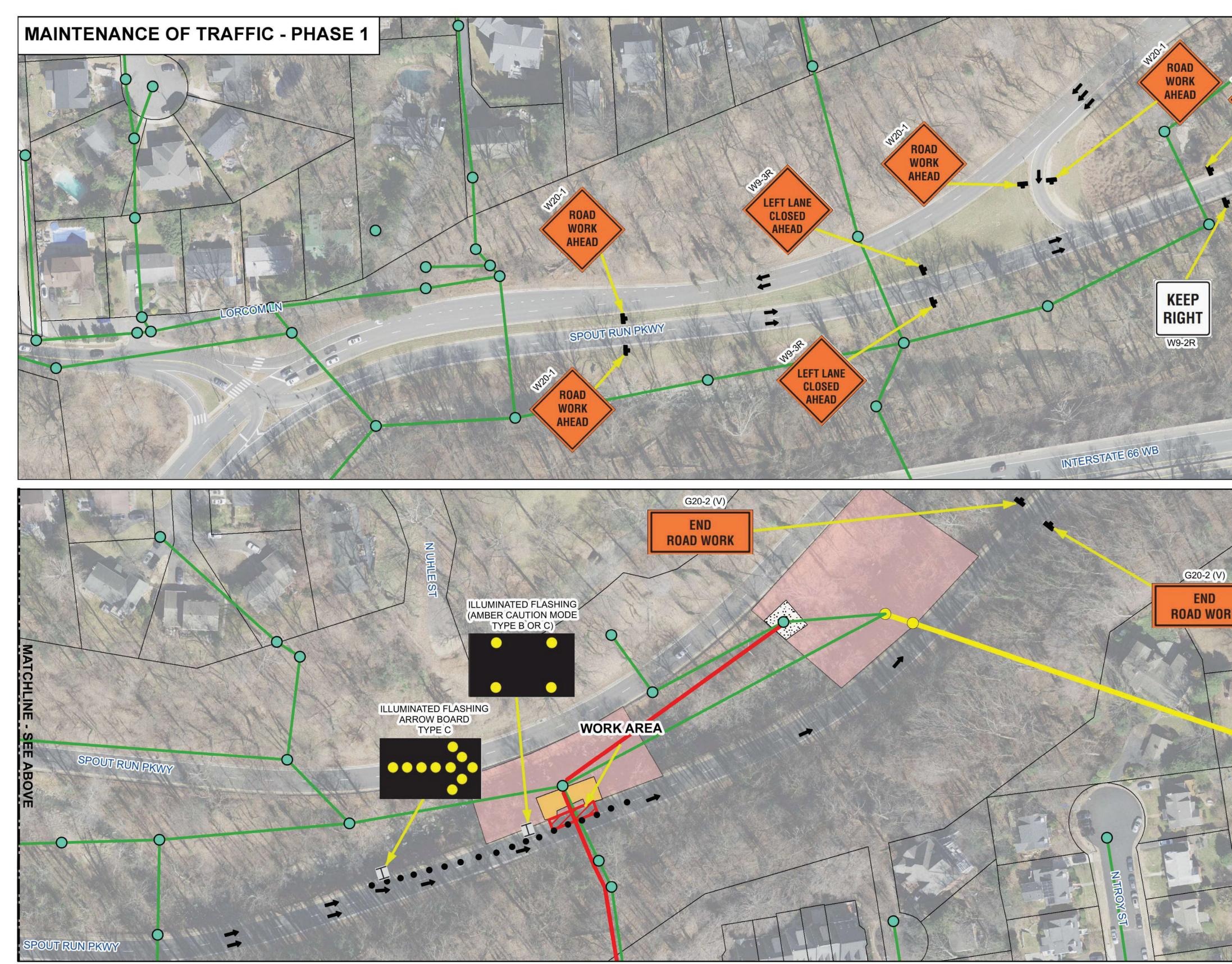
Page 6H	I-68
	Typical Traffic Control
	Flagging Operation at a Signalized Intersection
	(Figure TTC-30.2)
	NOTES
Guidan	
1.	 The control of traffic through the intersection in order of preference should be: a. Obtain the services of law enforcement personnel with the approved signing as show b. Divert the effective routes to other roads and streets as approved and directed by the
2.	Engineer. c. Place a state certified flagger on each leg of the intersection with the approved signs Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, the posted speed limit is greater than 45 mph. For urban streets sign spacing distance 275' where the posted speed limit is 30 to 35 mph, and 100' -200' where the posted spee less.
3.	To maintain efficient traffic flow in a flagging operation on a two-lane roadway the max motorist should be stopped at a flagger station is 8 minutes for high volume roadways (a traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume road 500 vehicles per day). For additional information see Section $6E.07.^2$
4.	When law enforcement officers or flaggers are used to control movement at the signal portable temporary rumble strips and signing as shown ² should be used when the expected last longer than 3 hours. ²
tanda	rd:
5.	For flagging operations, ¹ a stationary lane closure shall be installed in advance or intersection for all approaches with two or more lanes for through traffic.
6.	For flagging operations, ¹ all turn lanes at the intersection shall be closed.
7.	Electrical power supply to signals shall be turned off while flaggers are controlling the intersection.
8.	To prevent accidental intrusion into the flagger station, cone spacing shall not exceed from the graphic flagger sign to the flagger station. Cones shall be installed in the perpendicular to traffic, prior to the flagging station.
9.	A lead flagger shall be assigned to control all flagger operations. One flagger shall control each approach of the intersection. Flaggers shall alternate right-of-way to t traffic moves through the intersection one approach at a time.
10.	Flagger stations shall be illuminated during planned night time work operations w of horizontal luminance of 5-foot candles (50 lux) (see Section 6E.08).
11.	On divided highways having a median wider than 8', right and left sign assemblies sh
Option	
12.	PTRS may be incorporated into the advanced warning area of lane closures on multi-lar
13.	Section 6F.99 and TTC-16. ² RIGHT TURN LANE CLOSED AHEAD (W20-V13R) and/or LEFT TURN LANE CL
1.4	(W20-V13L) sign(s) may be used when closing the turn lanes.
14.	For a high volume of turning movements, additional traffic control devices, such as sig LEFT TURN (R3-2), NO RIGHT TURN (R3-1), RIGHT TURN LANE CLOSED AHEA
15.	and/or LEFT TURN LANE CLOSED AHEAD (W20-V13L)), cones and vehicles may be Traffic signals may be on the flash mode when traffic through the intersection when cor
	enforcement officer. ¹ Travel and turn lanes may remain open if a law enforcement officer is controlling tra

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

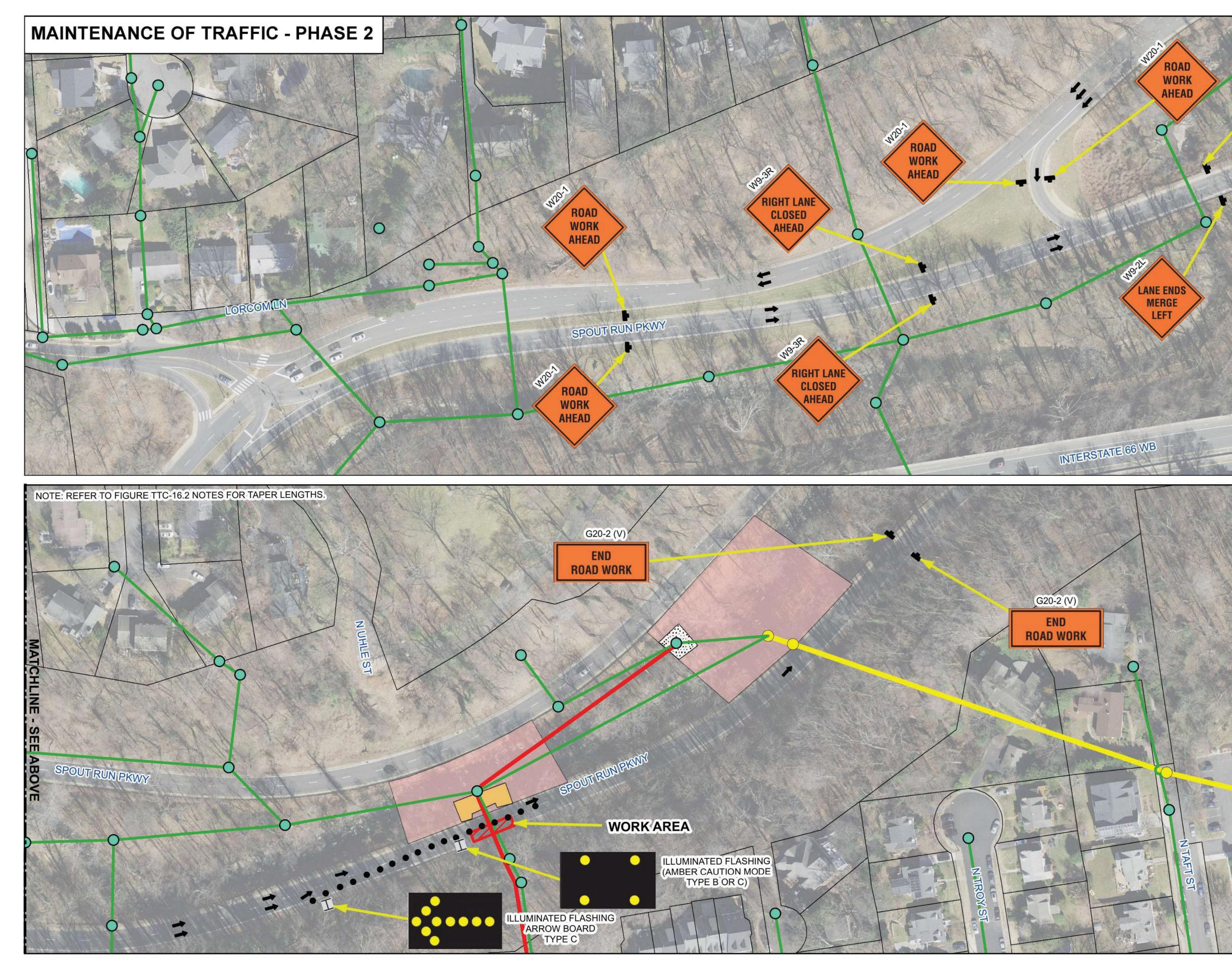


2: Revision 2 – 9/1/2019

September 2019		ARLINGTON VIRGINIA		
		DEPART ENVIRONME	MENT OF	
wn ² . e District ² Traffic ning as shown.		Water Sewer Streets Bureau 4200 28th St S, TWA 1st Fl Arlington, VA 22202 Phone: 703.228.7865 Fax: 703.228.6585		
, 500'-800' where e should be 225'- eed is 25 mph or ximum time		COPYRIGHT © 2022 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED		
average daily adways (less than alize intersection,		SEAL		
ed operation will of the signalized		Danil Hilroy Z DANIEL G. GILROY		
g traffic through ed 10' on centers		Lic. No. 0402022914		
the closed lane, l be stationed to traffic such that		SSIONAL ENGLI		
vith a minimum hall be required.		APPROVALS	DATE 12/13/2022	
ne roadways, see LOSED AHEAD		DESIGNENGINEER TE		
gns (graphic NO AD (W20-V13R) be used. ntrolled by a law		WATER, SEWER, STREETS BUREAU CHIEF		
affic through the		Dennis M. Leach <u>12/14/22</u> TRANSPORTATION DIRECTOR <u>12/15/2022</u> <u>Nicole Dean</u> <u>12/15/2022</u> PROJECT MANAGER		
		REVISIONS	DATE	
Page 6H-69				
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