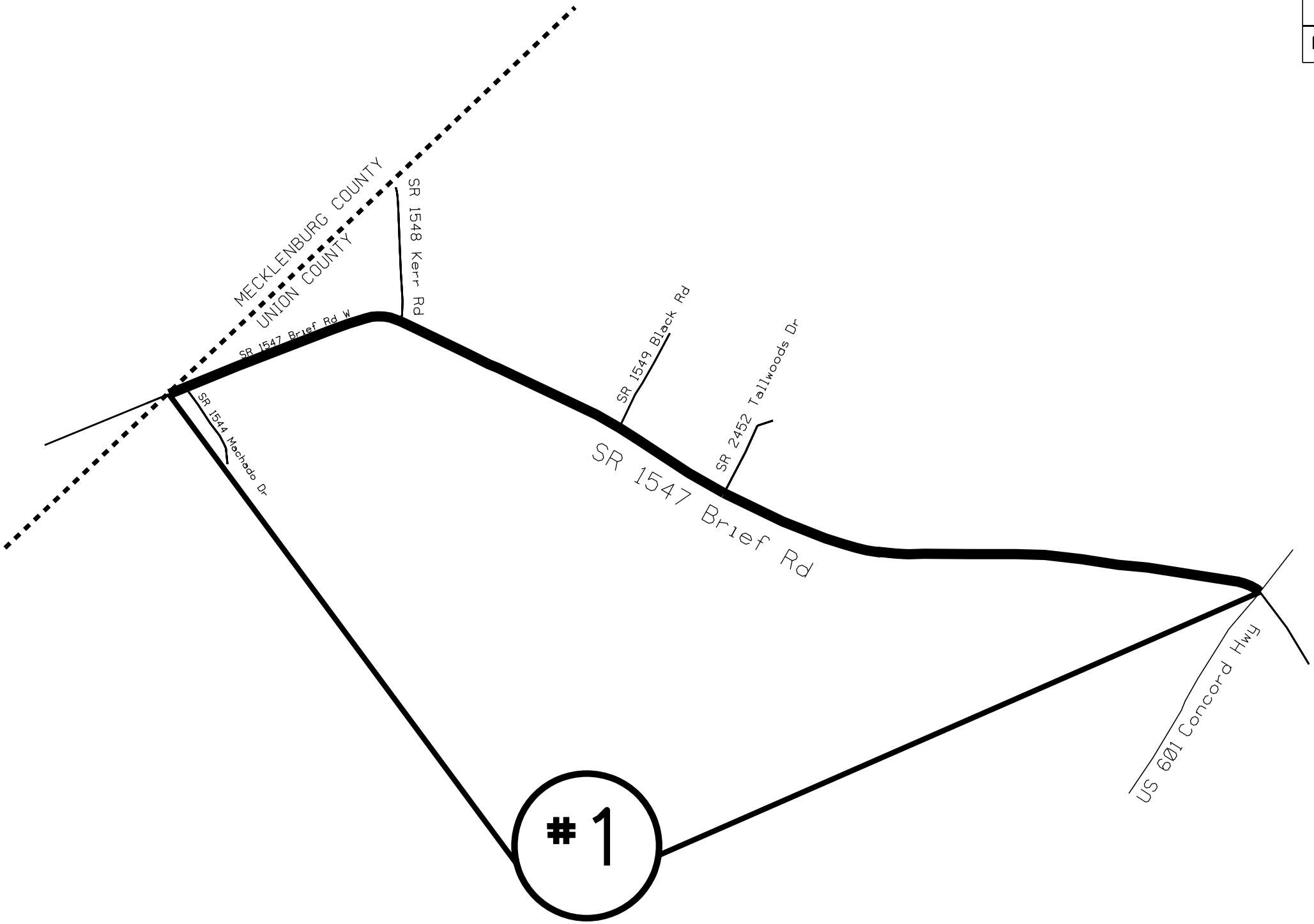


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	1	
F.A. PROJECT NO.			



ENLARGED MUNICIPAL AND SUBURBAN AREAS  
UNION COUNTY  
NORTH CAROLINA  
PREPARED BY THE  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 3

MAP #1 SR 1547 BRIEF RD  
2.03 MILES  
FROM US 601  
TO MECKLENBURG COUNTY LINE

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	2	
F.A. PROJECT NO.			



ENLARGED MUNICIPAL AND SUBURBAN AREAS

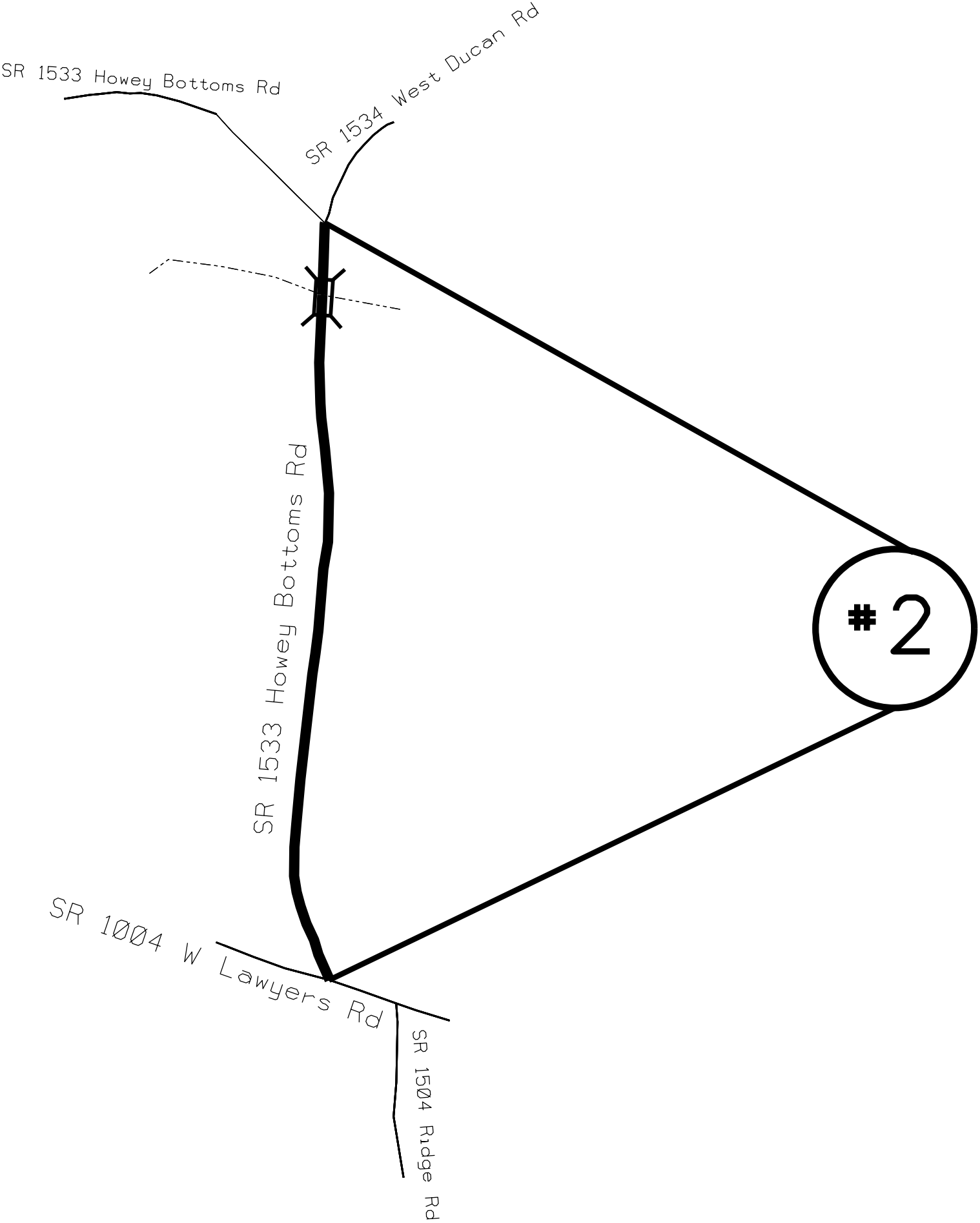
UNION COUNTY

NORTH CAROLINA

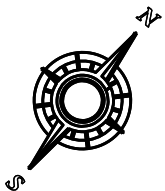
PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 3

MAP #2 SR 1533 HOWEY BOTTOMS RD  
.87 MILES  
FROM SR 1004 LAWYERS RD  
TO NC 218



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	3	
F.A. PROJECT NO.			



ENLARGED MUNICIPAL AND SUBURBAN AREAS

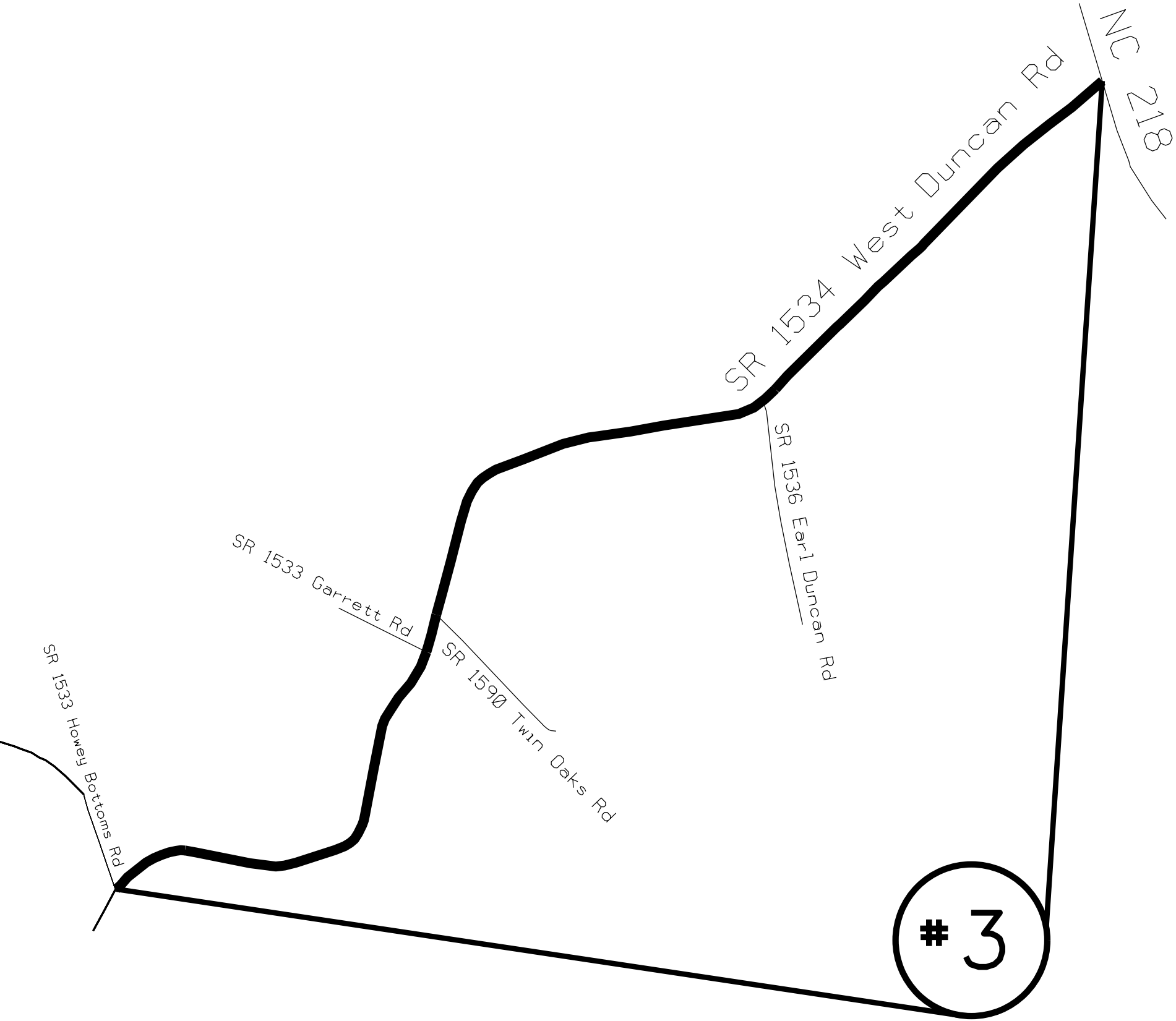
UNION COUNTY

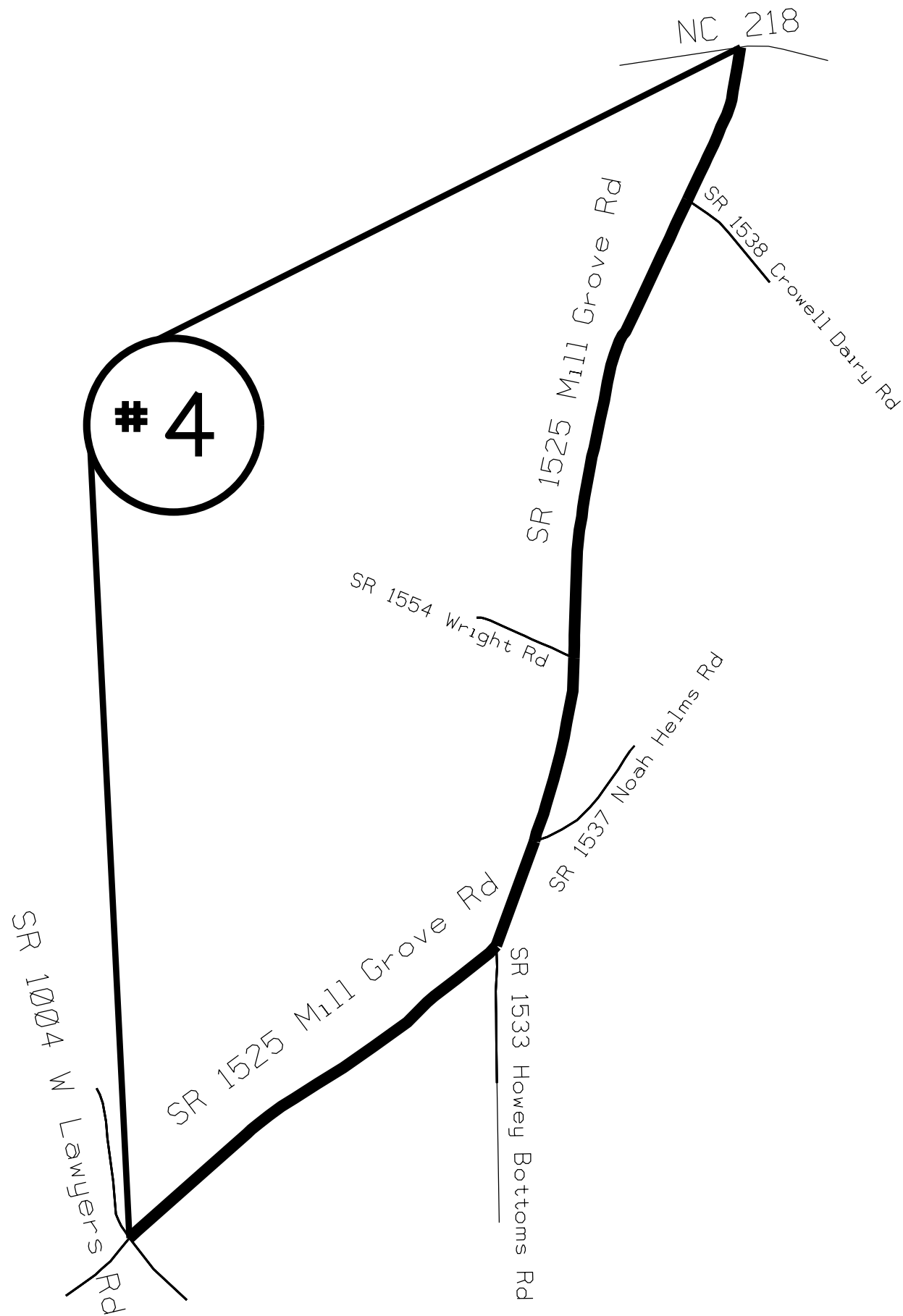
NORTH CAROLINA

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 3

MAP #3 SR 1534 WEST DUNCAN RD  
2.48 MILES  
FROM SR 1533 HOWEY BOTTOMS RD  
TO NC 218





STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	4	
F.A. PROJECT NO.			



ENLARGED MUNICIPAL AND SUBURBAN AREAS

UNION COUNTY

NORTH CAROLINA

PREPARED BY THE  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 3

MAP #4 SR 1525 MILL GROVE RD  
2.85 MILES  
FROM SR 1004 LAWYERS RD  
TO NC 218

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	5	
F.A. PROJECT NO.			



ENLARGED MUNICIPAL AND SUBURBAN AREAS

UNION COUNTY

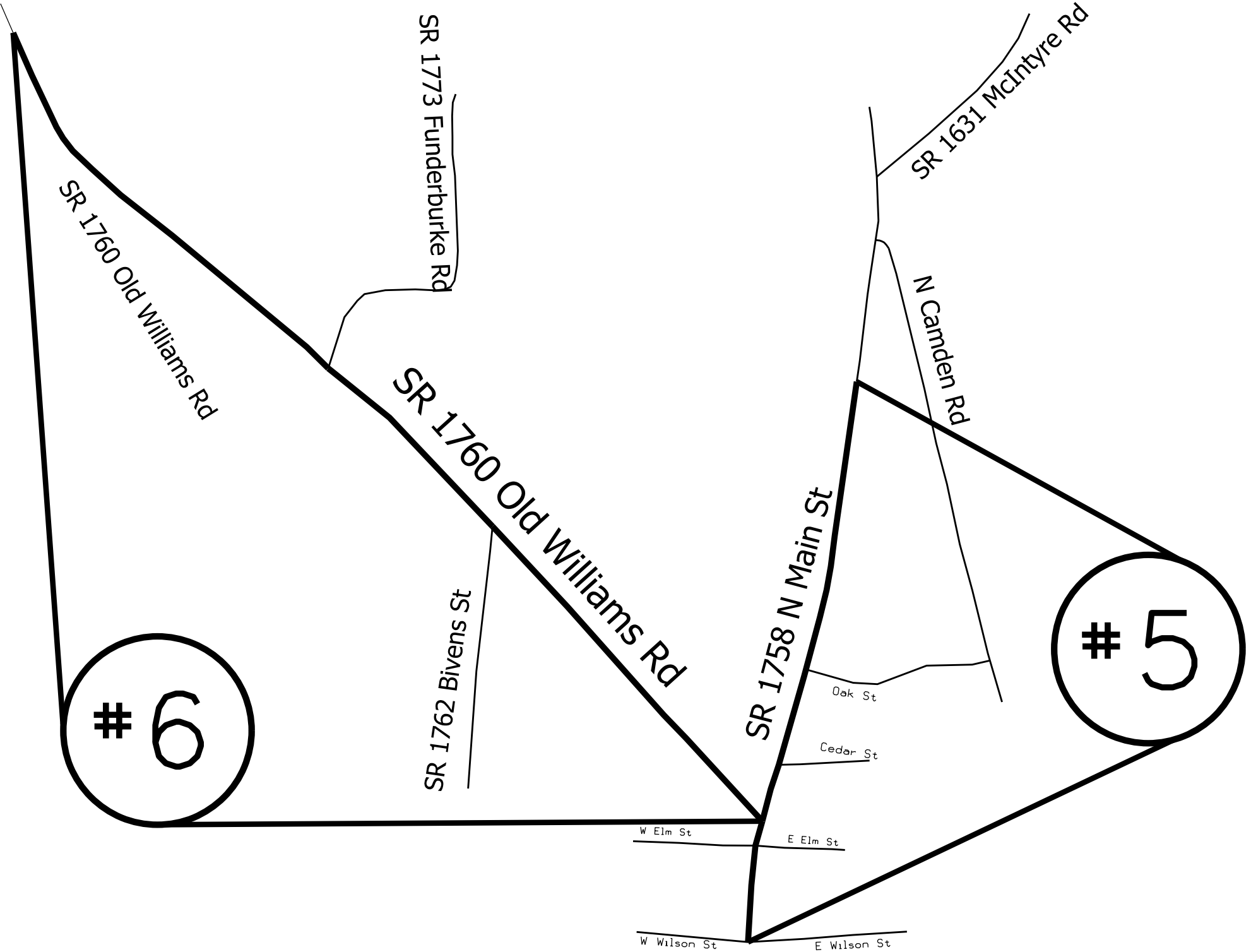
NORTH CAROLINA

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 3

MAP #5 SR 1758 N MAIN ST  
.64 MILES  
FROM WILSON ST  
TO PVMT JOINT AT MUNICIPAL LIMITS

MAP #6 SR 1760 OLD WILLIAMS RD  
1.08 MILES  
FROM SR 1758 N MAIN ST  
TO PVMT JOINT AT CUL DE SAC



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	6	
F.A. PROJECT NO.			



ENLARGED MUNICIPAL AND SUBURBAN AREAS

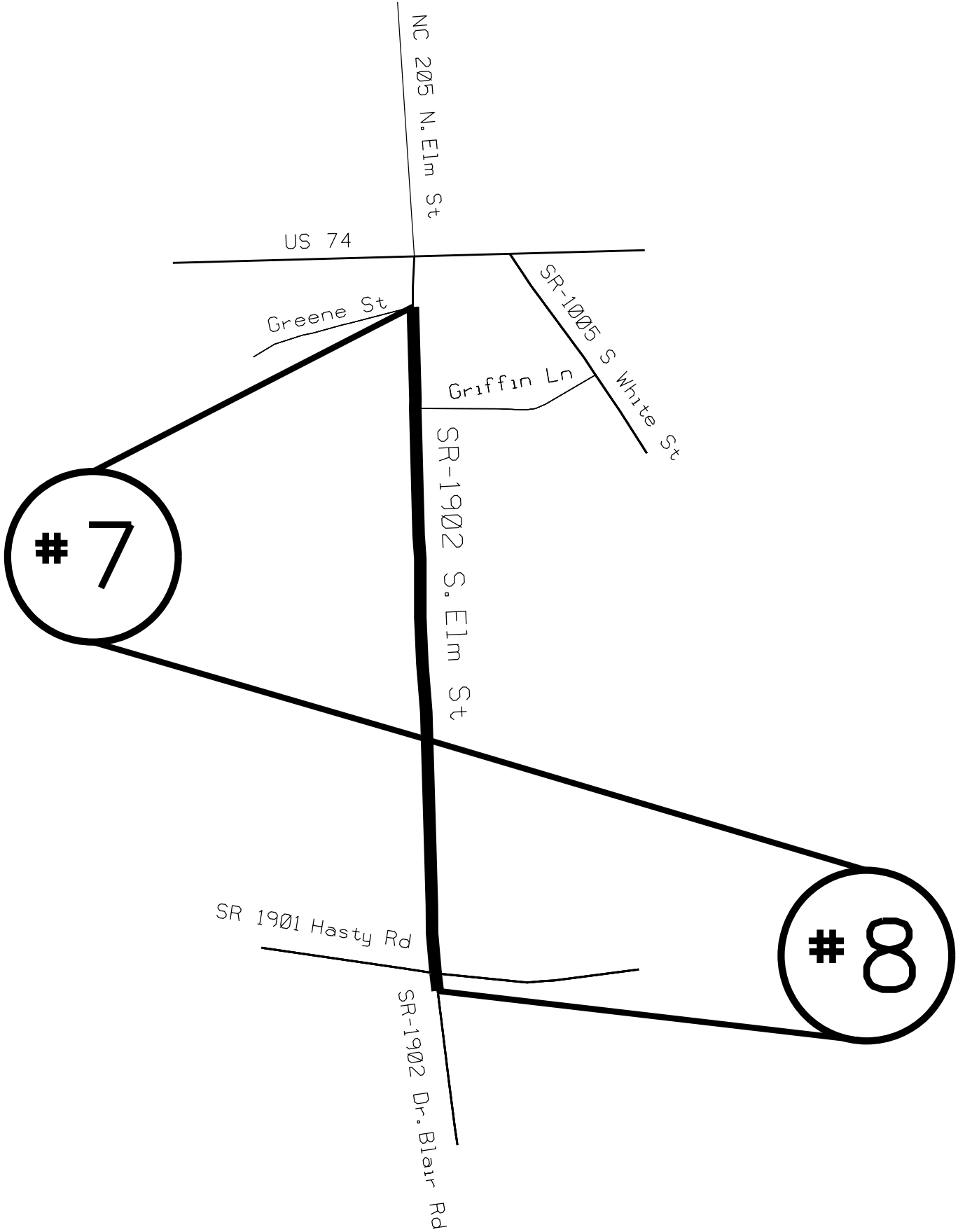
# UNION COUNTY

NORTH CAROLINA

PREPARED BY THE  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 3

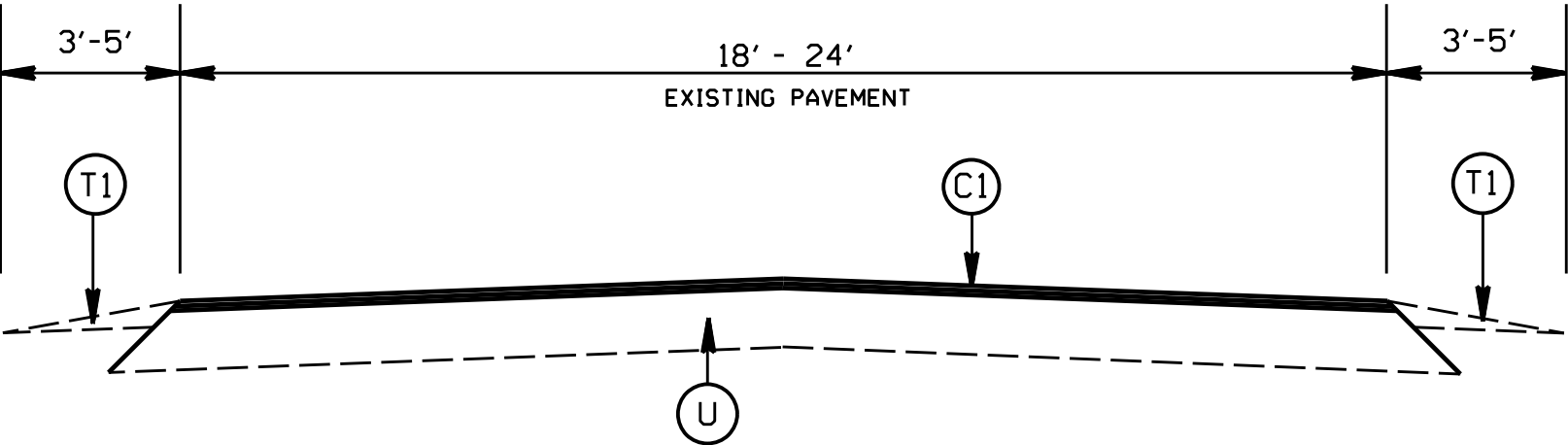
MAP #7 SR 1902 ELM ST  
.35 MILES  
FROM GREENE ST  
TO MILE POST 0.40

MAP #8 SR 1902 ELM ST  
.25 MILES  
FROM MILE POST .40  
TO MILE POST 0.65 SR 1902 DR BLAIR RD





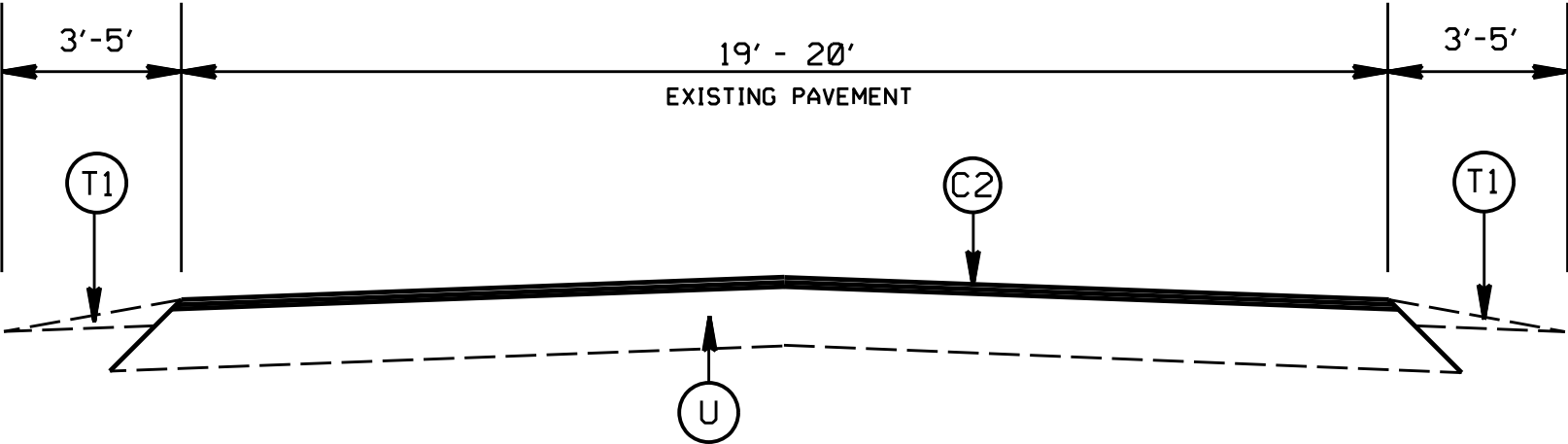
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	8	
F.A. PROJECT NO.			




TYPICAL SECTION NO. 1  
SR 1547 BRIEF RD (MAP 1)  
SR 1525 MILL GROVE RD (MAP 4)  
SR 1758 N MAIN ST (MAP 5)  
APPROX. STA 36+05 TO 43+79  
SR 1760 OLD WILLIAMS RD (MAP 6)  
APPROX. STA 37+58 TO 66+55  
SR 1902 S ELM ST (MAP 8)  
SR 1901 HASTY RD (MAPS 9 & 10)

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING PAVEMENT, 1.5" DEPTH.

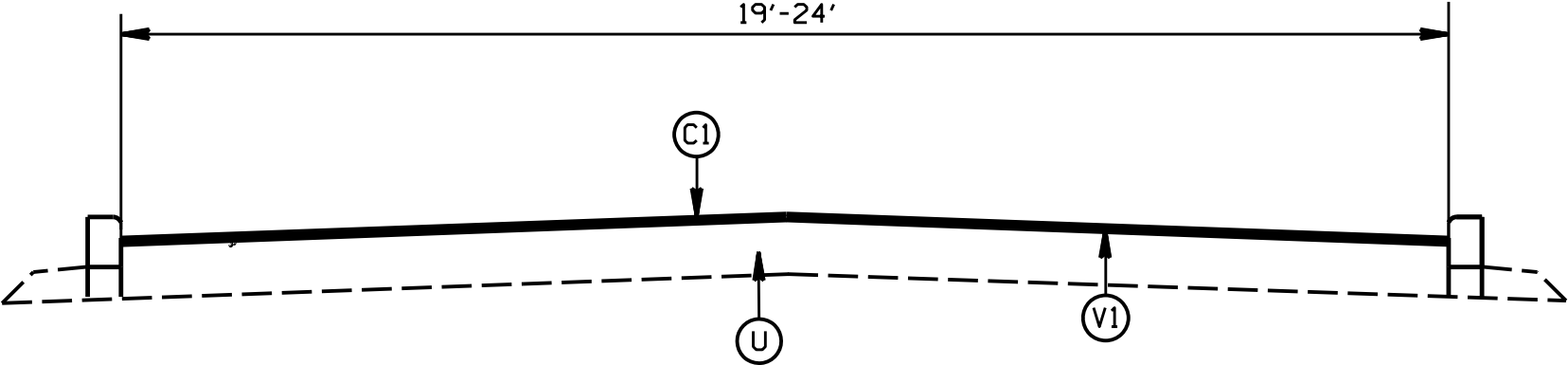


TYPICAL SECTION NO. 2  
SR 1533 HOWEY BOTTOMS RD (MAP 2)  
APPROX. STA 10+00 TO 50+73  
APPROX. STA 52+53 TO 56+10  
SR 1534 WEST DUCAN RD (MAP 3)

2025 UNION COUNTY RESURFACING			REVISIONS	
SCALE	NA			
DATE	11/23			
DWG. BY	AJB			
DESIGN BY	AJB			
APPROVED	CLA			



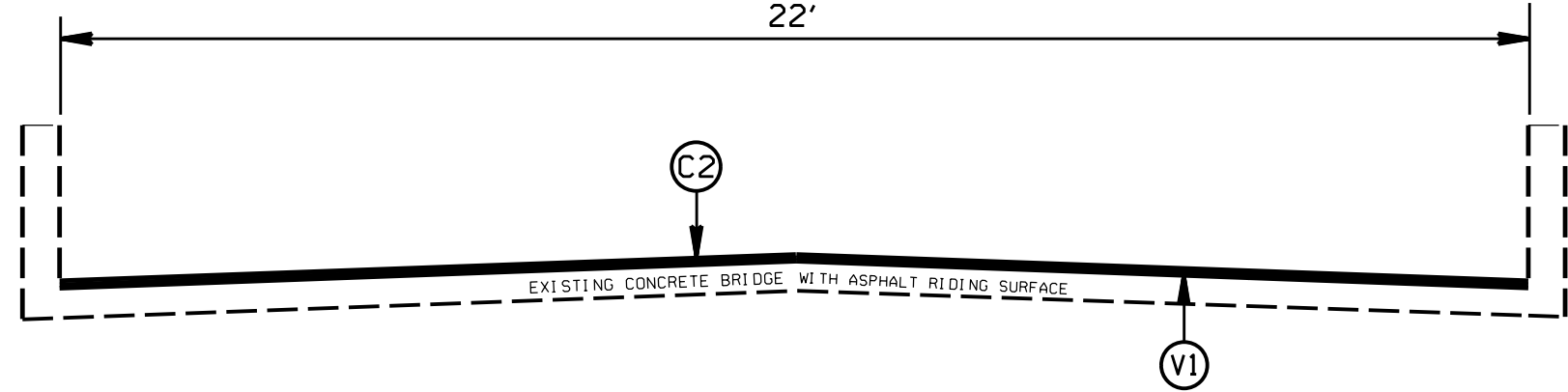
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	9	
F.A. PROJECT NO.			




TYPICAL SECTION NO. 3  
SR 1758 N MAIN ST (MAP 5)  
APPROX. STA 10+00 TO 36+05  
SR 1760 OLD WILLIAMS RD (MAP 6)  
APPROX. STA 10+00 TO 37+58  
SR 1902 S ELM ST (MAP 7)

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING PAVEMENT, 1.5" DEPTH.




TYPICAL SECTION NO. 4  
SR 1533 HOWEY BOTTOMS RD (MAP 2)  
APPROX STA 50+73 TO 52+53

2025 UNION COUNTY RESURFACING			
SCALE	NA		REVISIONS
DATE	11/23		
DWG. BY	AJB		
DESIGN BY	AJB		
APPROVED	CLA		

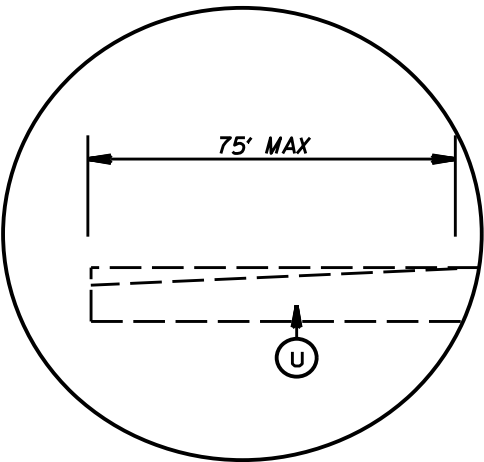
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	10	
F.A. PROJECT NO.			

# PROJECT NOTES:

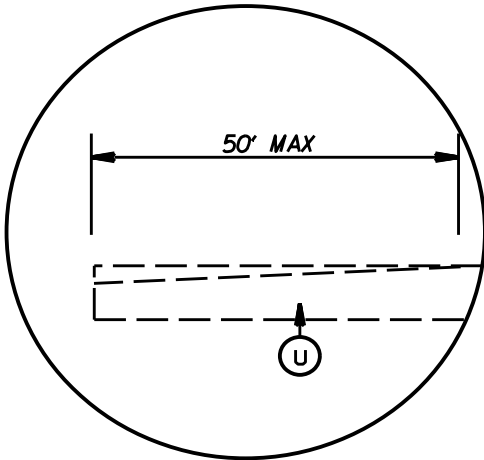
- 1.DEPTH OF PATCHING WILL BE AS DIRECTED BY THE ENGINEER.
- 2.SHOULDER RECONSTRUCTION WILL BE AS DIRECTED BY THE ENGINEER.
- 3.MILL AS NEEDED TO ALLOW PROPER ASPHALT TIE IN TO EXISITNG CONCRETE ISLAND ON MAP 1 (BRIEF RD SR 1547).
- 4.MAP 2 (HOWEY BOTTOMS RD SR 1533), INCIDENTAL MILLING WILL NOT BE PAID FOR TAPERS TO 1.5" MILLING FOR THE BRIDGE (TYPICAL 4).TAPERS WILL BE PAID AS 1.5" MILLING.
5. RETROFIT EXISITNG CURB RAMPS ON MAP 6 OLD WILLIAMS RD SR 1760.
6. MILLED RUMBLE STRIPS TO BE INSTALLED ON MAPS 1,4,9 AND 10, SEE SPECIAL PROVISIONS AND MILLED/SINUSOIDAL RUMBLE STRIP DETIAL SHEET, TYPICAL SECTION NO.1

<div> <div>2025</div> <div>UNION COUNTY RESURFACING</div> </div>			
SCALE	-NA-		REVISIONS
DATE	01/20		
DWG. BY	AMO		
DESIGN BY	AMO		
APPROVED	CLA		

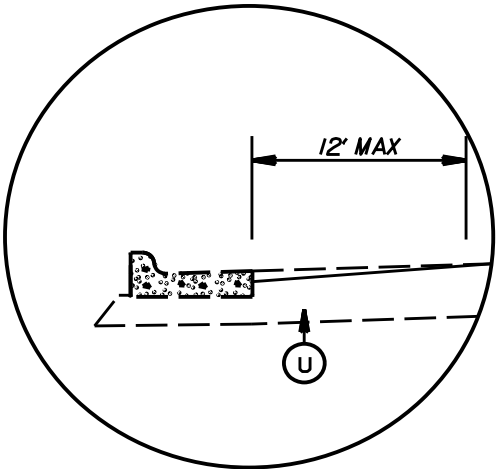
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	11	



DETAIL FOR INCIDENTAL MILLING (0' TO 1.5')

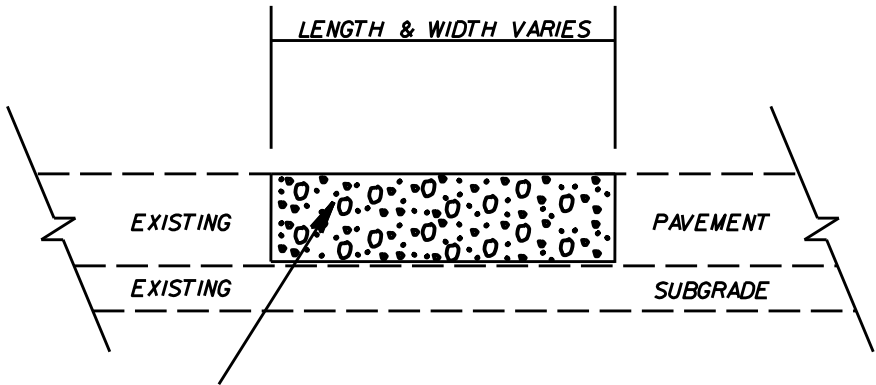


DETAIL FOR INCIDENTAL MILLING (0' TO 1.0')



DETAIL FOR PROFILE MILLING

PATCHING DETAIL



RATE IS VARIABLE AND SHALL BE AS DIRECTED BY THE ENGINEER.  
ASPHALT TYPE 119.0C SHALL BE PLACED.

PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(T1)	SHOULDER RECONSTRUCTION
(U)	EXISTING PAVEMENT
(V1)	MILLING OF EXISTING PAVEMENT, 1.5" DEPTH.

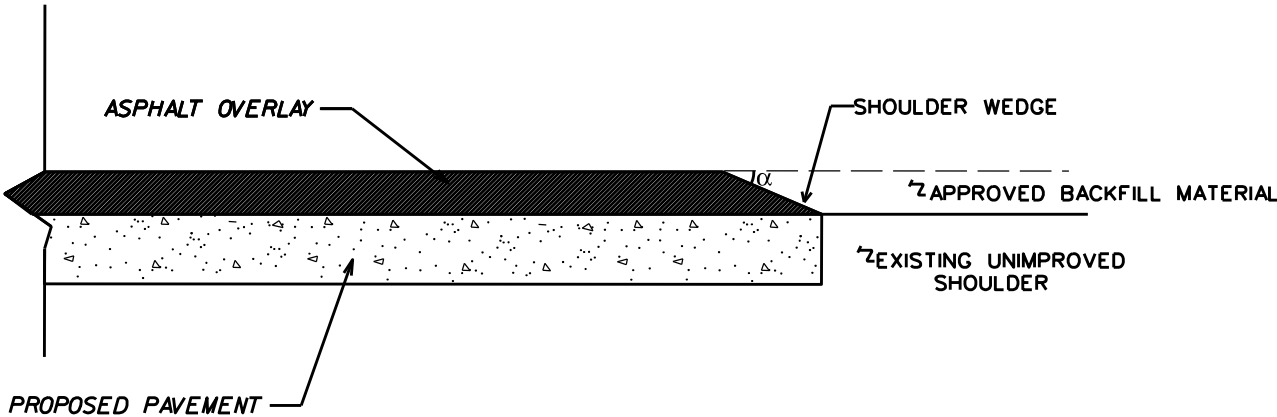
2025  
UNION COUNTY RESURFACING

SCALE	DATE	DWG. BY	DESIGN BY	APPROVED	REVISIONS
-NA-	1/20	AMO	AMO	CLA	

NOTES:

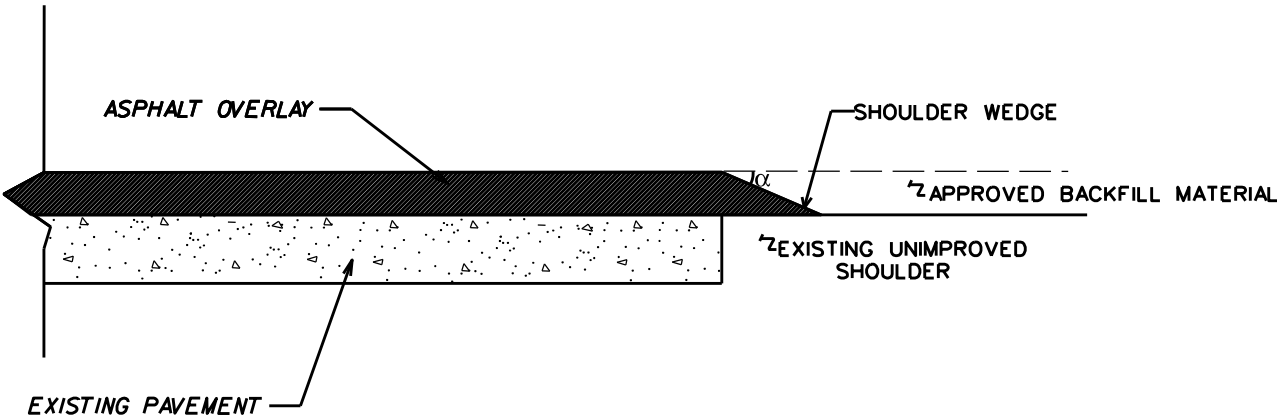
- 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	12	
F.A. PROJECT NO.			



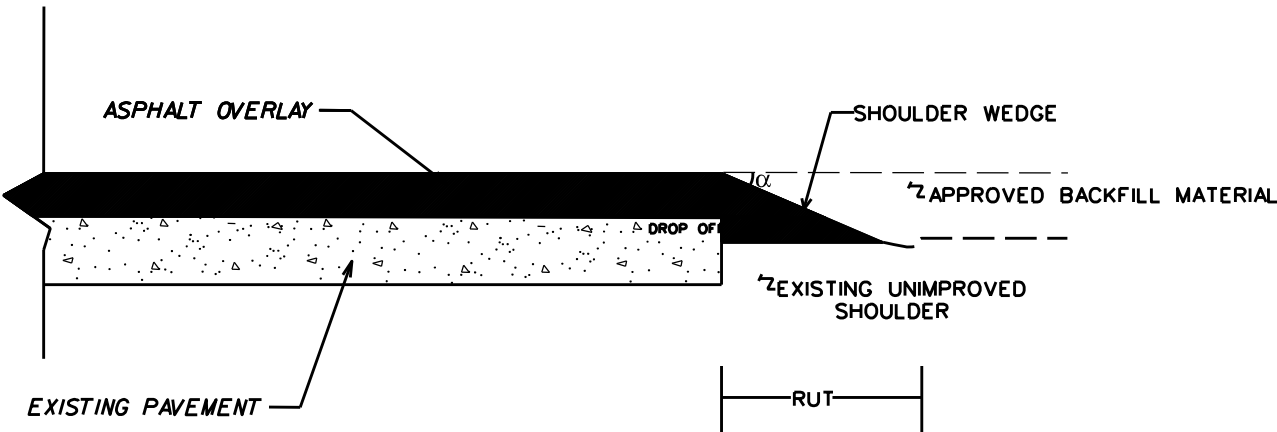
SHOULDER WEDGE DETAIL

(RESURFACING PROJECTS W/ WIDENING OR WITH EXISTING PAVED SHOILDER HAVING NO DROPOFFS)




SHOULDER WEDGE DETAIL

(RESURFACING PROJECTS W/ NO WIDENING)

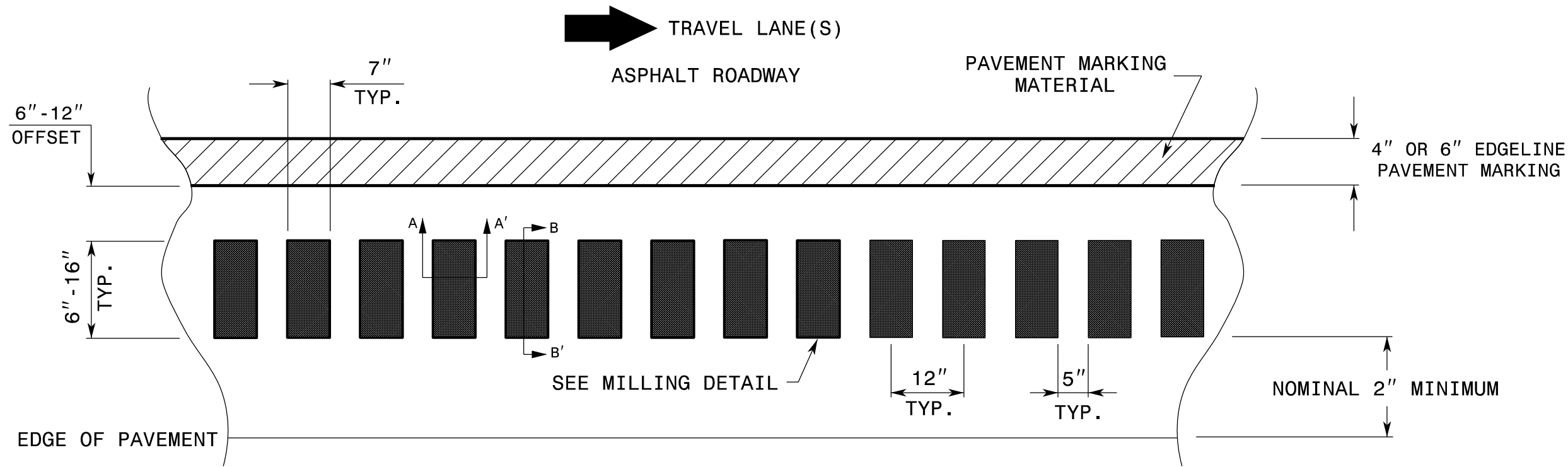


SHOULDER WEDGE DETAIL  
(RESURFACING ADJACENT TO RUTTED SHOULDER)

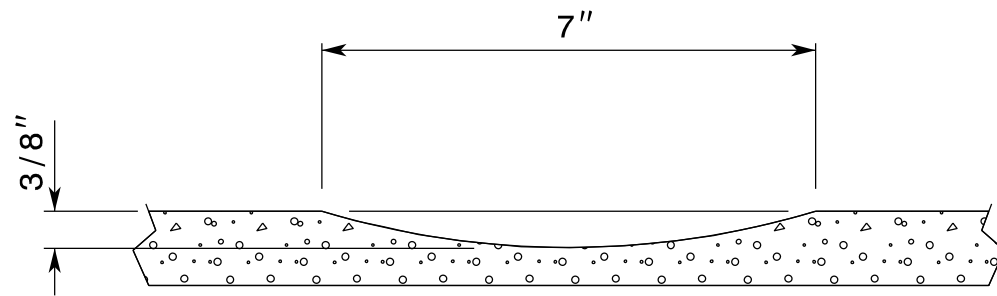
$\alpha$  = 30 DEGREES

SHOULDER WEDGE DETAILS			
SCALE	-NA-		REVISIONS
DATE	08/18		
DWG. BY	AMO		
DESIGN BY	AMO		
APPROVED	CLA		

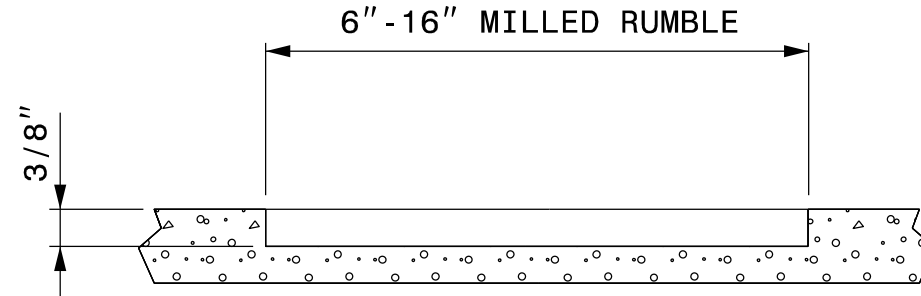
See Table 1 within Rumble Strip  
Policy for Design Guidance



MILLING DETAIL:



SECTION A-A'



SECTION B-B'

PLAN VIEW

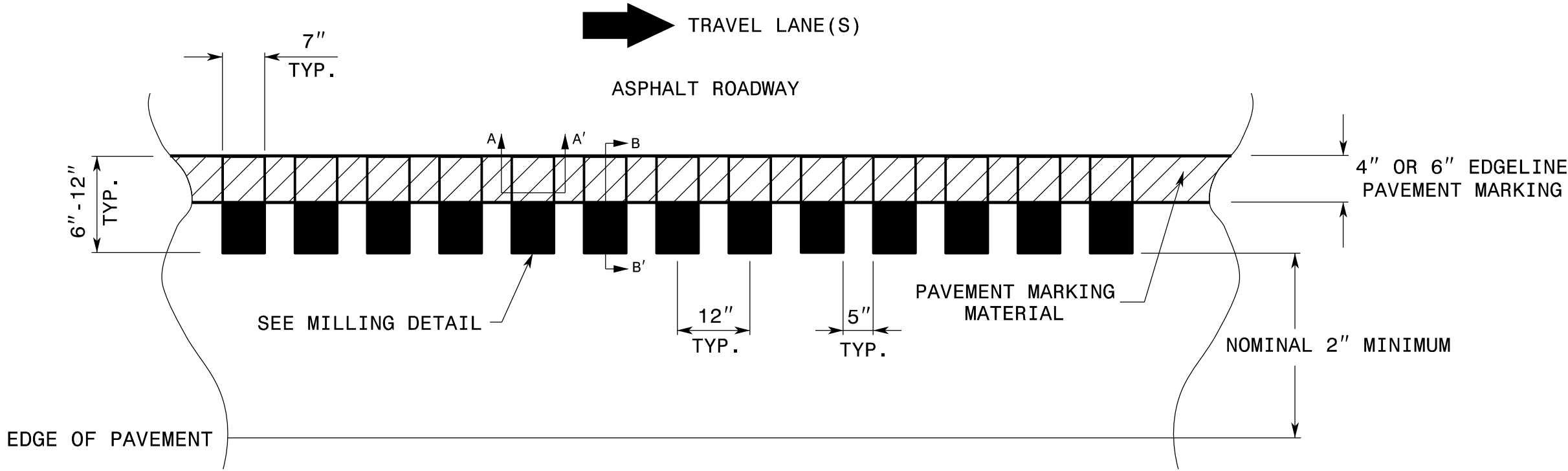


	DEPTH	
LOCATION	MIL	INCHES
a	62.5	$\frac{1}{16}$ "
b	125	$\frac{1}{8}$ "
c	219	$\frac{7}{32}$ "
d	344	$\frac{11}{32}$ "
e	375	$\frac{3}{8}$ "

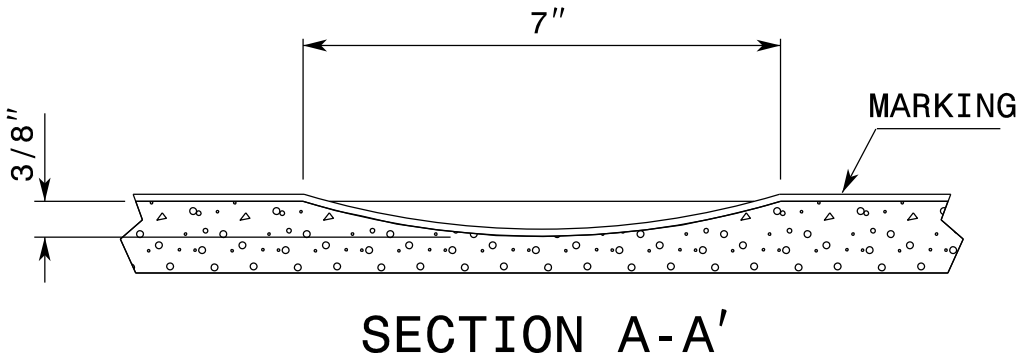
NOTES:

1) Specification in table taken from MNDOT Research Project Final Report 2016-23: *Sinusoidal Rumble Strip Design Optimization Study* By: Terhaar et al. June 2016

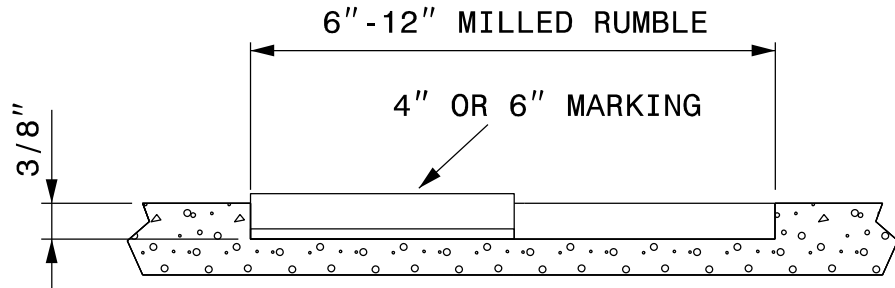
See Table 1 within Rumble Strip  
Policy for Design Guidance



MILLING DETAIL:



SECTION A-A'



SECTION B-B'

REFERENCE DRAWING ID: Trad.Stripe

NOTES:

- 1) USING A VACUUM, REMOVE ALL DEBRIS FROM THE MILLINGS JUST PRIOR TO PLACING ANY PAVEMENT MARKINGS.
- 2) ENSURE GLASS BEADS ARE SPREAD UNIFORMLY OVER THE ENTIRE SURFACE OF THE PAVEMENT MARKING MATERIAL.

PLAN VIEW



	DEPTH	
LOCATION	MIL	INCHES
a	62.5	$\frac{1}{16}$ "
b	125	$\frac{1}{8}$ "
c	219	$\frac{7}{32}$ "
d	344	$\frac{11}{32}$ "
e	375	$\frac{3}{8}$ "

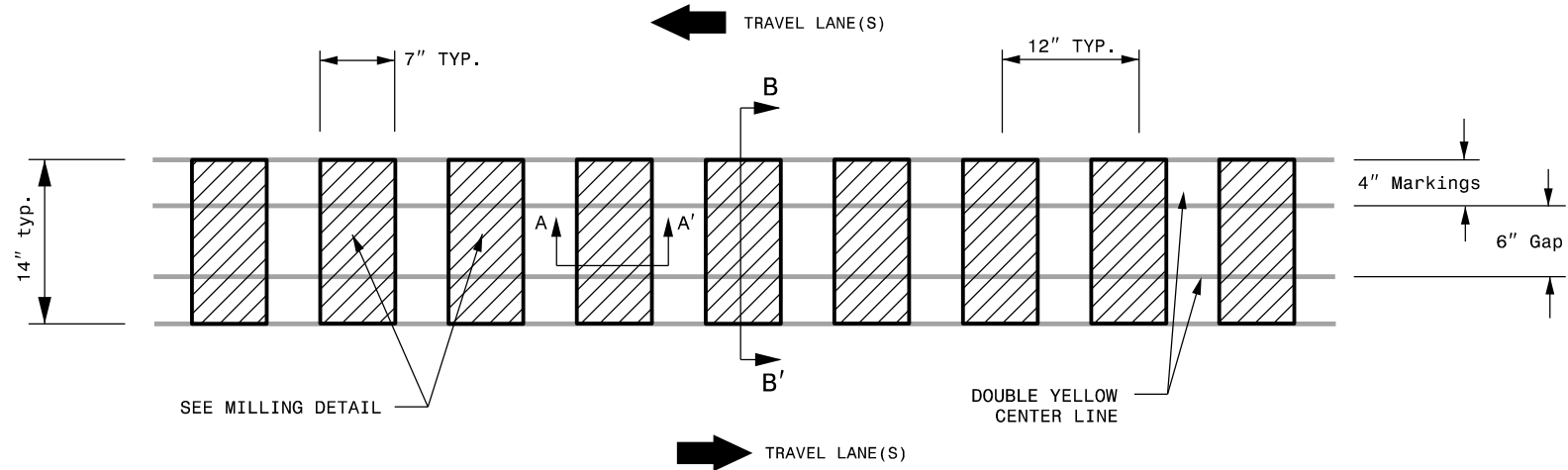
NOTES:

- SHEET 4 OF 7**

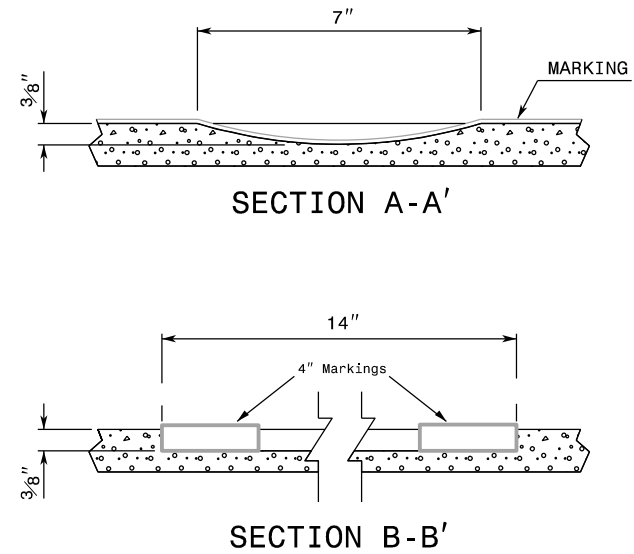


See Table 2 within Rumble Strip  
Policy for Design Guidance

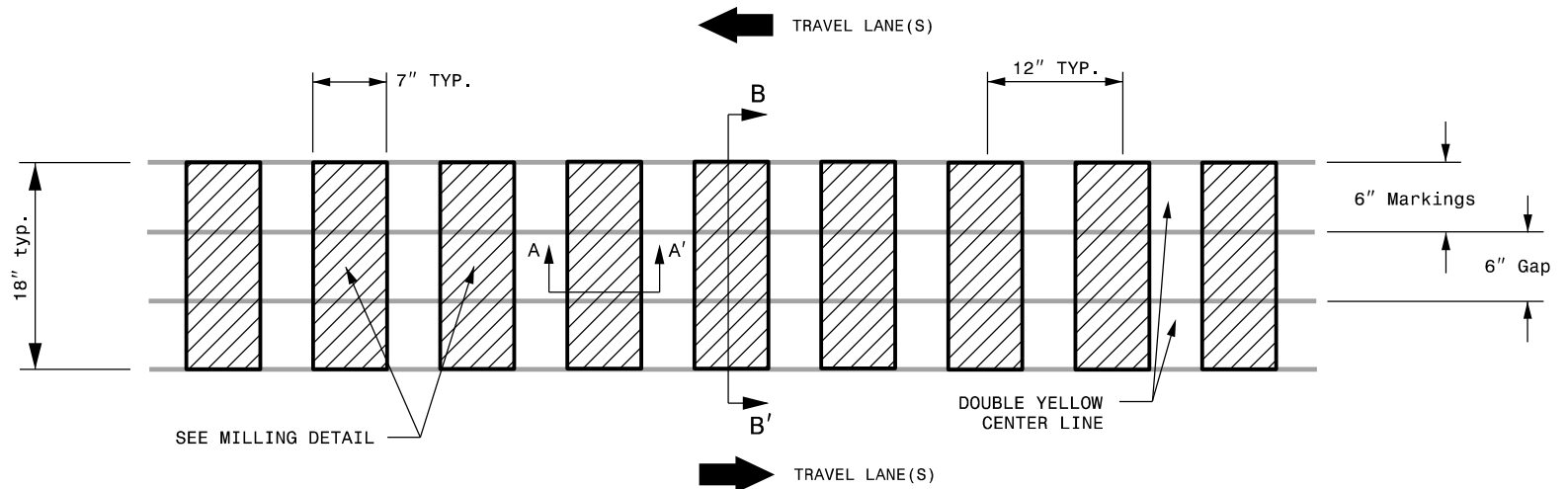
If 4" Markings will be used:



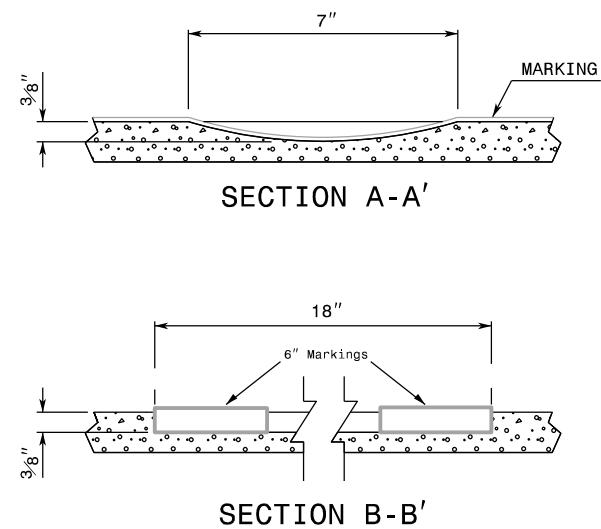
MILLING DETAIL - 4" Markings



If 6" Markings will be used:



MILLING DETAIL - 6" Markings

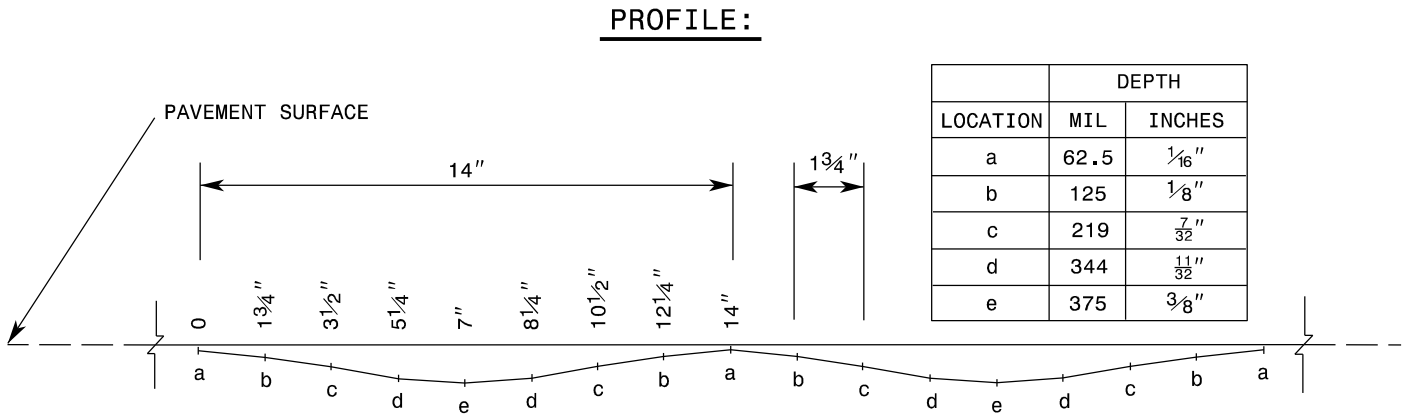
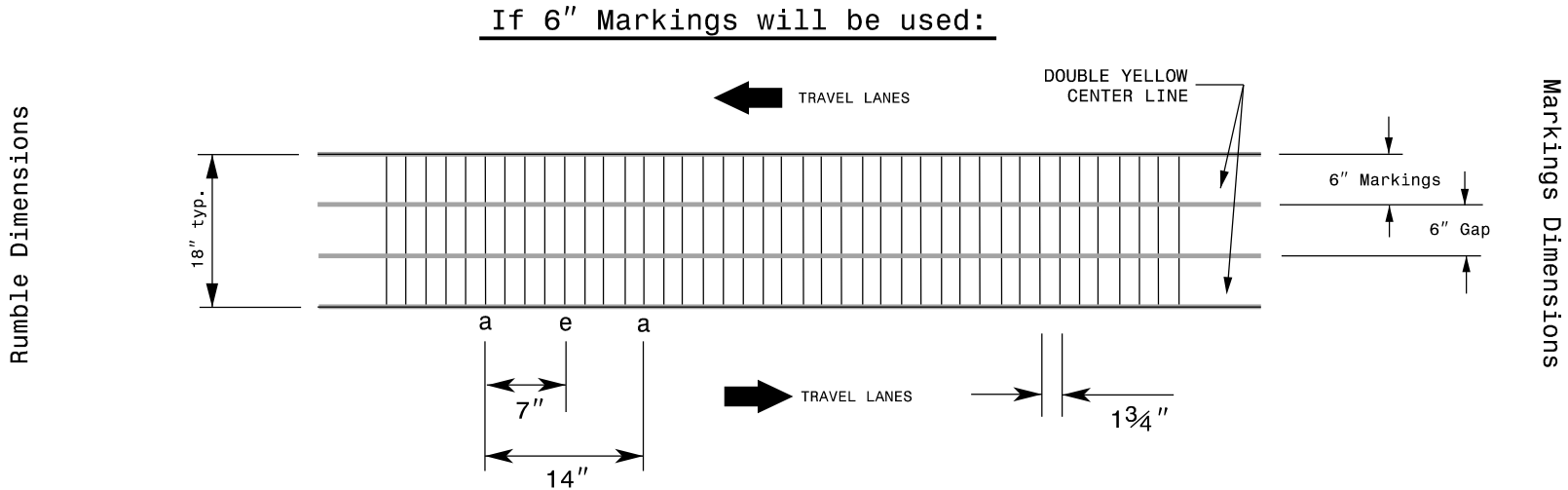
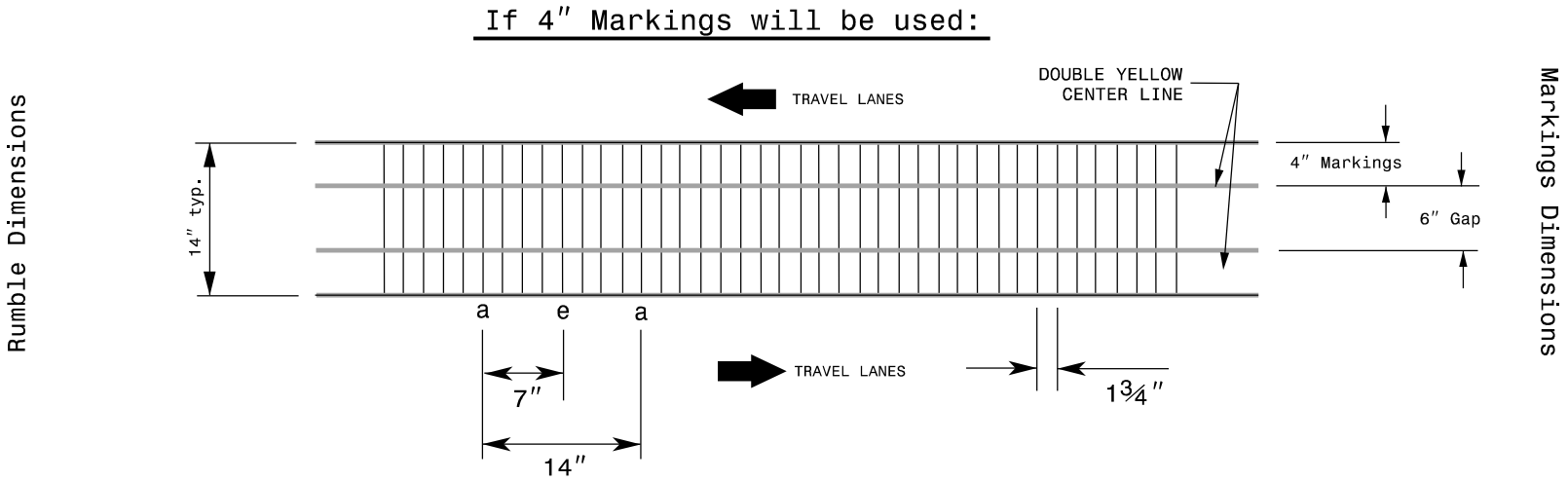


REFERENCE DRAWING ID: Trad.CL

NOTES:

- 1) USING A VACUUM, REMOVE ALL DEBRIS FROM THE MILLINGS JUST PRIOR TO PLACING ANY PAVEMENT MARKINGS.
- 2) ENSURE GLASS BEADS ARE SPREAD UNIFORMLY OVER THE ENTIRE SURFACE OF THE PAVEMENT MARKING MATERIAL.

See Table 2 within Rumble Strip  
Policy for Design Guidance

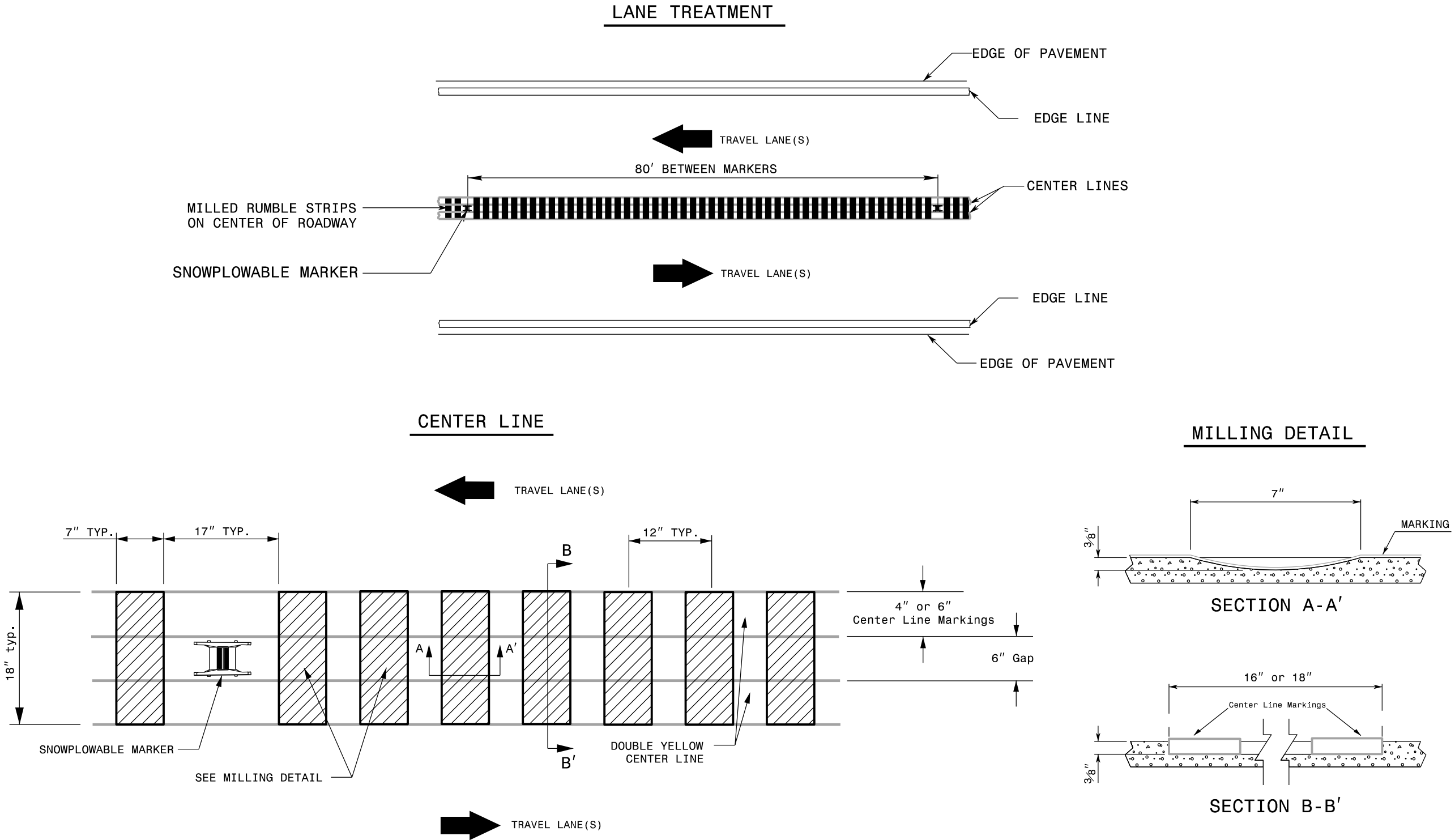


REFERENCE DRAWING ID: Sin.CL

NOTES:

- 1) Specification in table taken from MNDOT Research Project Final Report 2016-23: *Sinusoidal Rumble Strip Design Optimization Study By: Terhaar et. al. June 2016*
- 2) USING A VACUUM, REMOVE ALL DEBRIS FROM THE MILLINGS JUST PRIOR TO PLACING ANY PAVEMENT MARKINGS.
- 3) ENSURE GLASS BEADS ARE SPREAD UNIFORMLY OVER THE ENTIRE SURFACE OF THE PAVEMENT MARKING MATERIAL.

See Table 2 within Rumble Strip  
Policy for Design Guidance

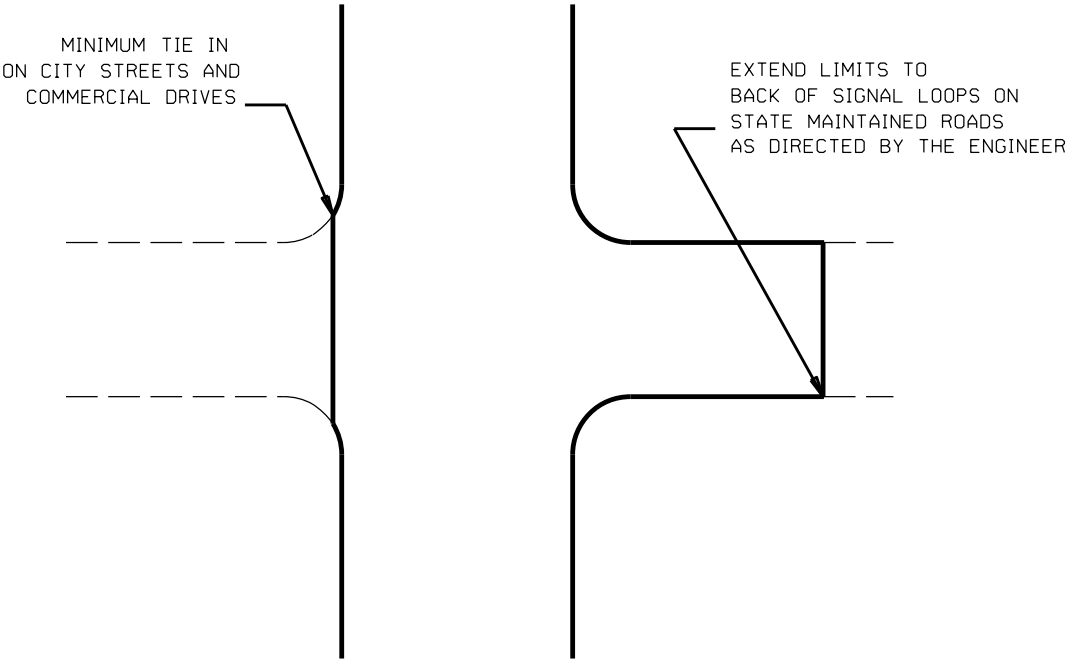


REFERENCE DRAWING ID: Trad.CL with Snowplowable Markers

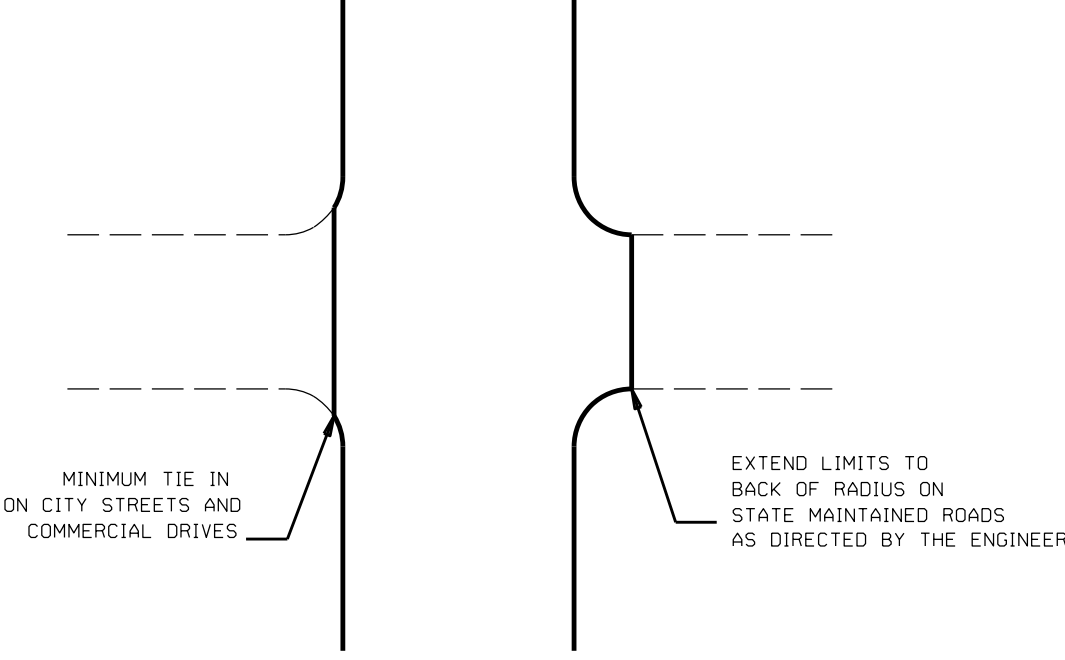
NOTES:

- 1) USING A VACUUM, REMOVE ALL DEBRIS FROM THE MILLINGS JUST PRIOR TO PLACING ANY PAVEMENT MARKINGS.
- 2) ENSURE GLASS BEADS ARE SPREAD UNIFORMLY OVER THE ENTIRE SURFACE OF THE PAVEMENT MARKING MATERIAL.
- 3) INSTALL SNOWPLOWABLE MARKERS AT APPROXIMATELY 80' INCREMENTS. DO NOT MILL RUMBLE STRIPS IN SECTION WHERE SNOWPLOWABLE MARKERS ARE INSTALLED.





TYPICAL DETAIL OF PROJECT LIMITS AT  
SIGNALIZED Y LINES



TYPICAL DETAIL OF PROJECT LIMITS AT  
UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)		
Extend paving limits to back of radius or loop on the following intersections:		
MAP*	STREET NAME	COMMENTS
MAP 1	SR 2451 TALLWOOD DR	
MAP 1	SR 1549 BLACK RD	
MAP 1	SR 1548 KERR RD	
MAP 2	SR 1533 HOWEY BOTTOMS RD	HOWEY BOTTOMS RD AT W DUCAN RD
MAP 3	SR 1535 GARRETT RD	
MAP 3	SR 1590 TWIN OAKS RD	
MAP 4	SR 1533 HOWEY BOTTOMS	
MAP 4	SR 1537 NOAH HELMS RD	
MAP 4	SR 1554 WRIGHT RD	
MAP 4	SR 1538 CROWELL DAIRY RD	
MAP 6	SR 1762 BIVENS ST	
MAP 6	SR 1773 FUNDERBURK RD	
MAP 9	SR 1966 CM JAMES RD	
MAP 10	SR 1977 GREEN ACERS RD	

# WATTLE WITH POLYACRYLAMIDE DETAIL

## NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

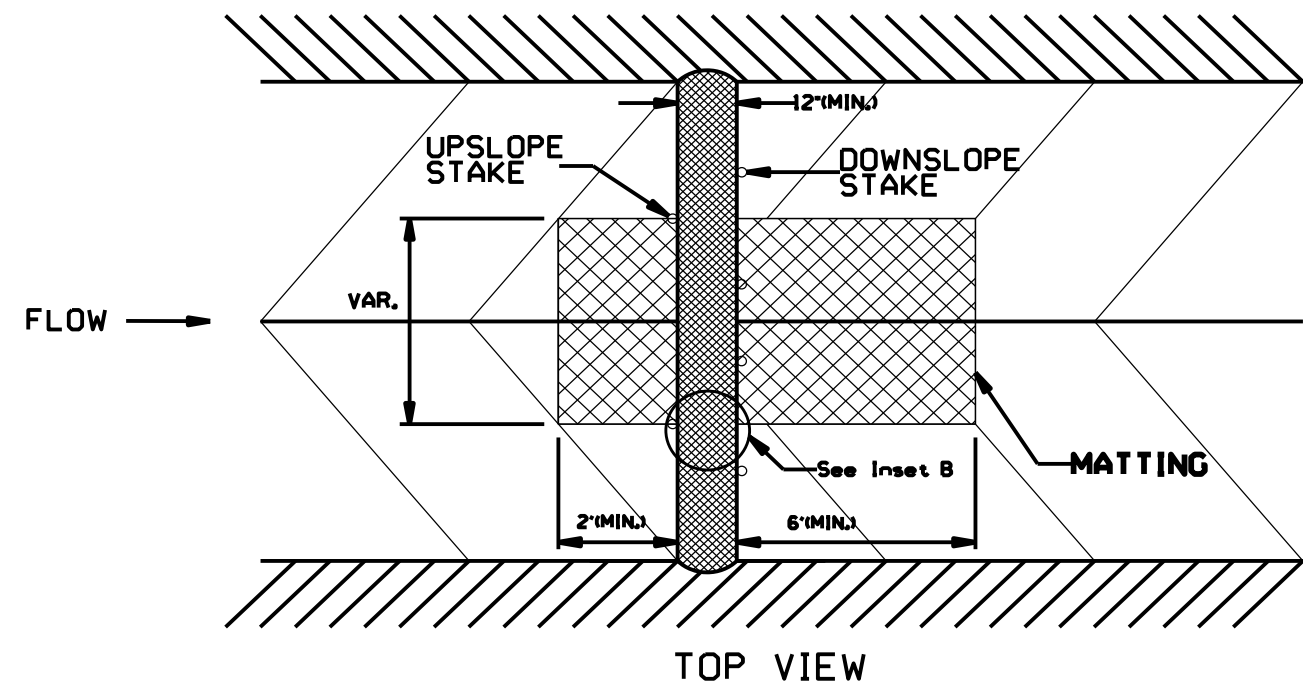
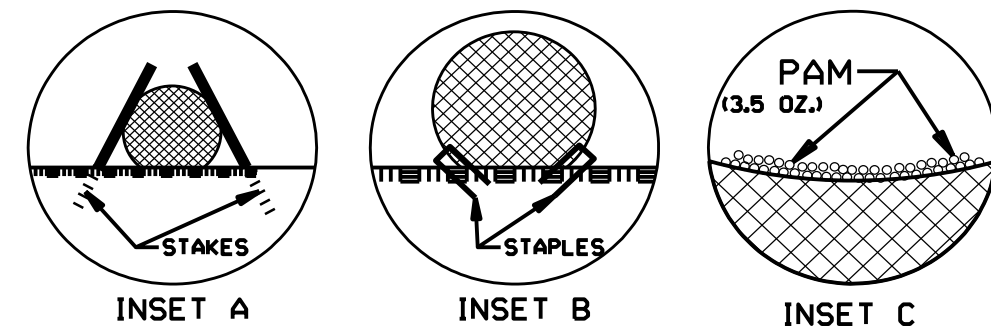
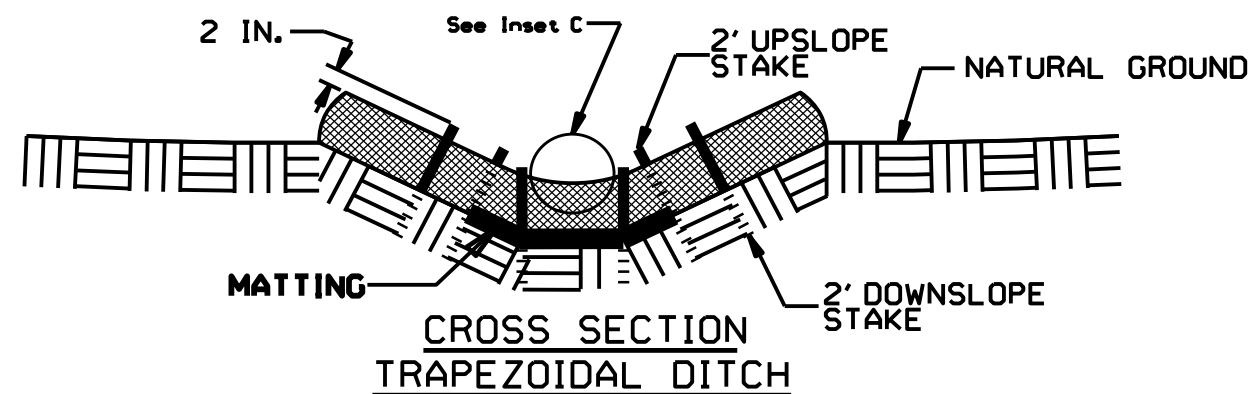
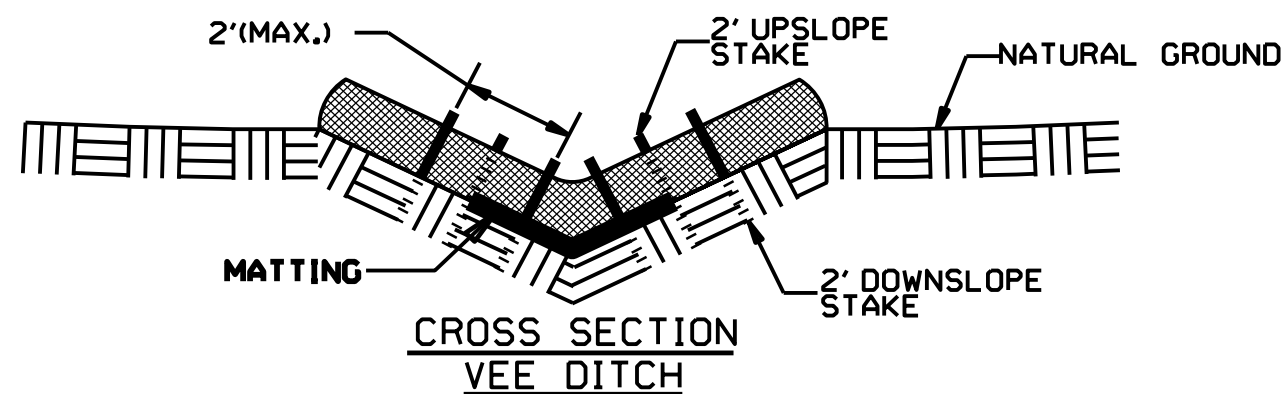
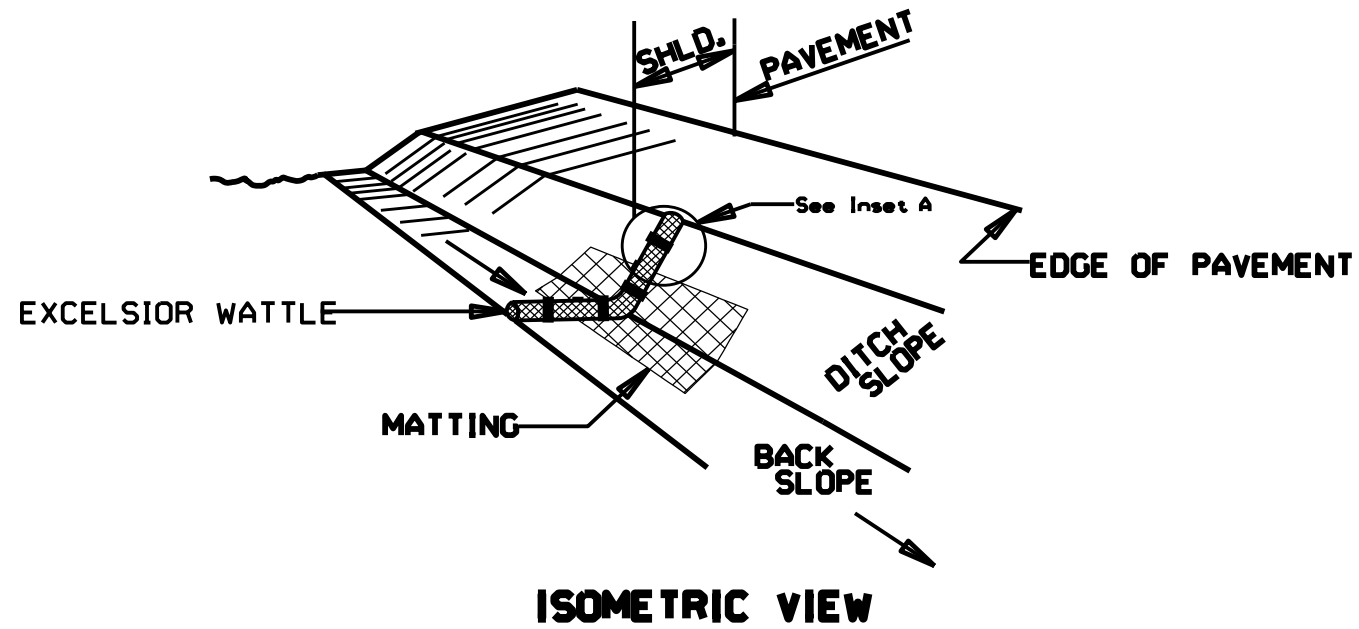
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

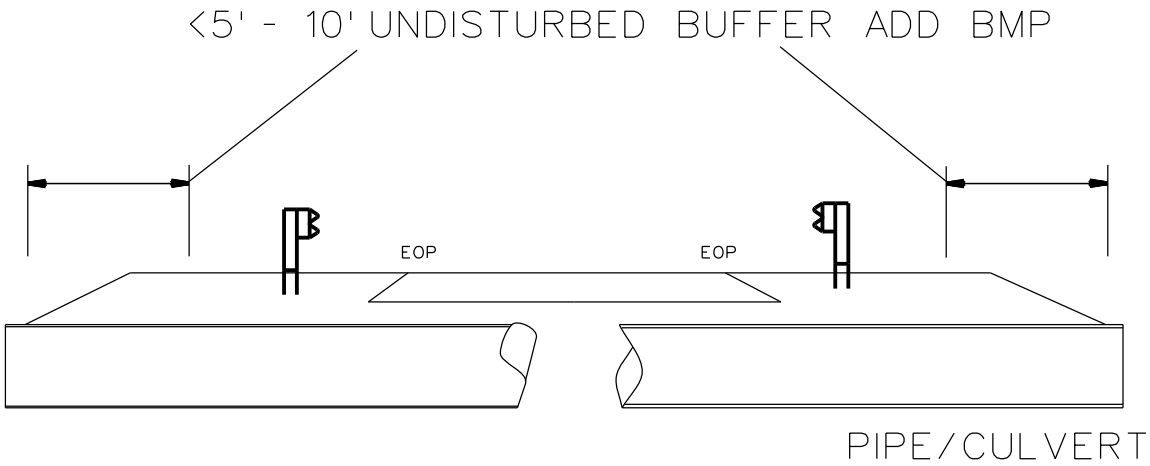
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



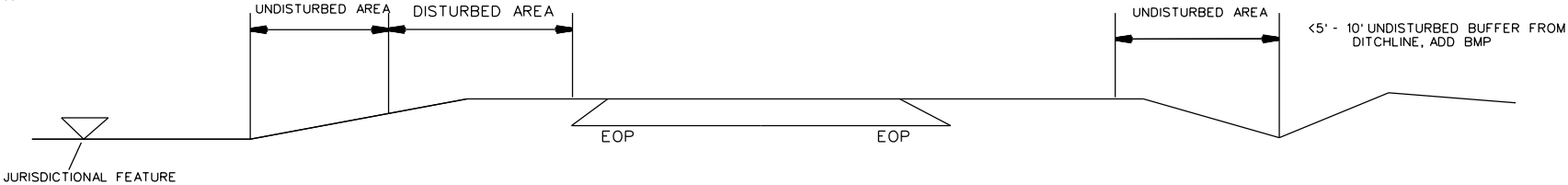
NOTES: LESS THAN 5' - 10' UNDISTURBED BUFFER FROM ROW, DITCHLINE, WATER FEATURE, OR DRAINAGE INLET, ADD BMP.

BMP OPTIONS: WATTLE OR SILT FENCE

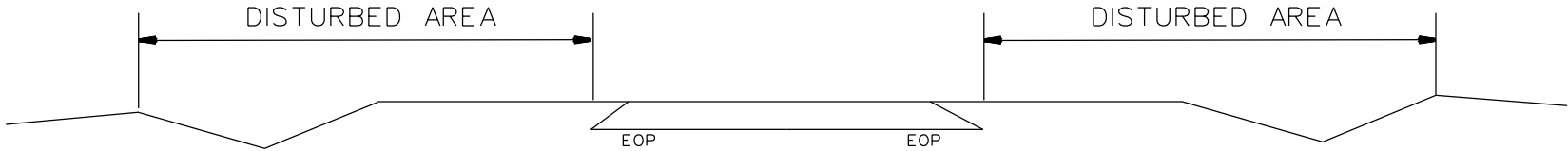


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.15.20901	EC2	
F.A. PROJECT NO.			

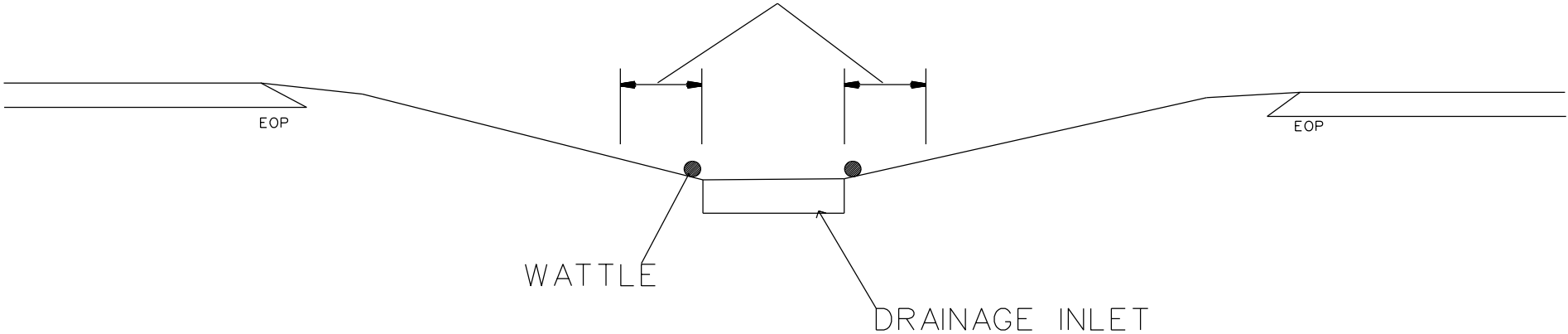
<5' - 10' UNDISTURBED BUFFER FROM JURISDICTIONAL FEATURE  
ADD BMP



USE BMP'S IF SHOULDERS AND/OR FRONTSLOPES AND/OR DITCHLINE AND/OR BACKSLOPES ARE DISTURBED



<5' - 10' UNDISTURBED BUFFER FROM INLET, ADD WATTLE



EROSION CONTROL DETAIL

SCALE	-NA-
DATE	1/20
DWG. BY	AMC
DESIGN BY	AMC
APPROVED	CLA



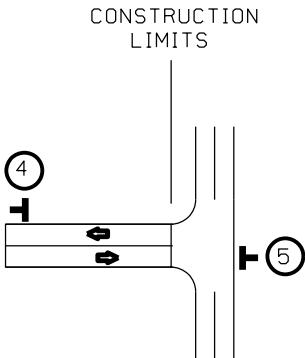
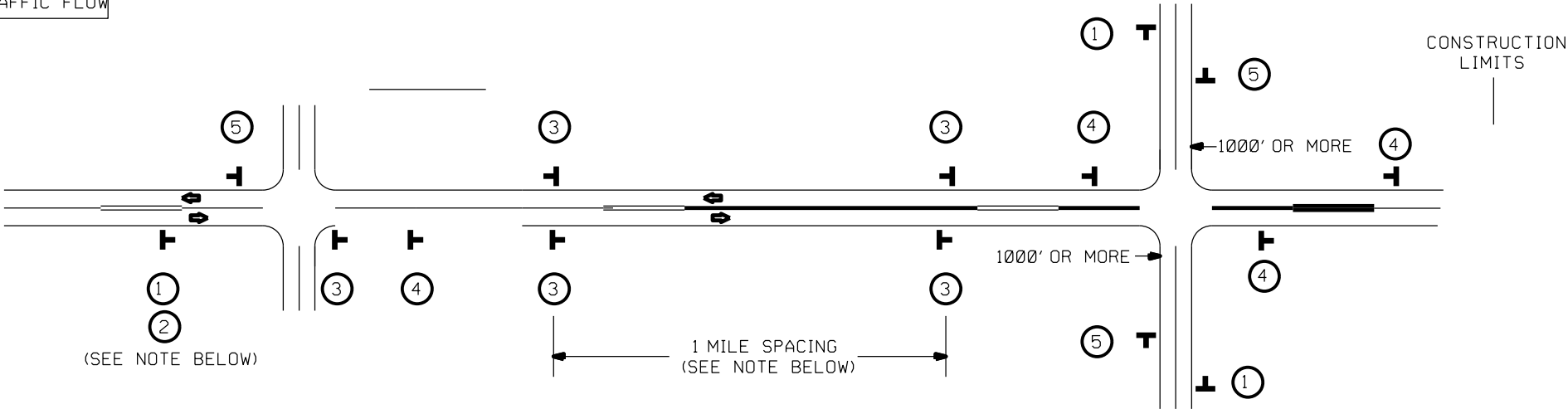
REVISIONS	

SIGNING FOR RESURFACING PROJECTS

LEGEND

STATIONARY SIGN




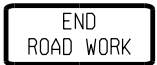
DIRECTION OF TRAFFIC FLOW



TEE INTERSECTION

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<div>1</div> <div>2</div> <div> NEXT W7-3aP XX MILES 24" X 18"</div>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.
	<div>3</div> <div> SP 13107 48" X 48"</div>	
	<div>4</div> <div> SP 13106 48" X 48"</div>	<div>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</div> <div>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</div> <div>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</div> <div>- FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH.</div> <div>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</div> <div>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</div>
	<div>5</div> <div> G20-2 A 48" X 24"</div>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE

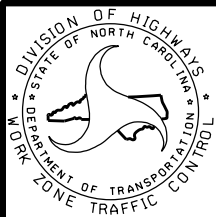
2) SUBDIVISION ROADS

3) DEAD END ROADS



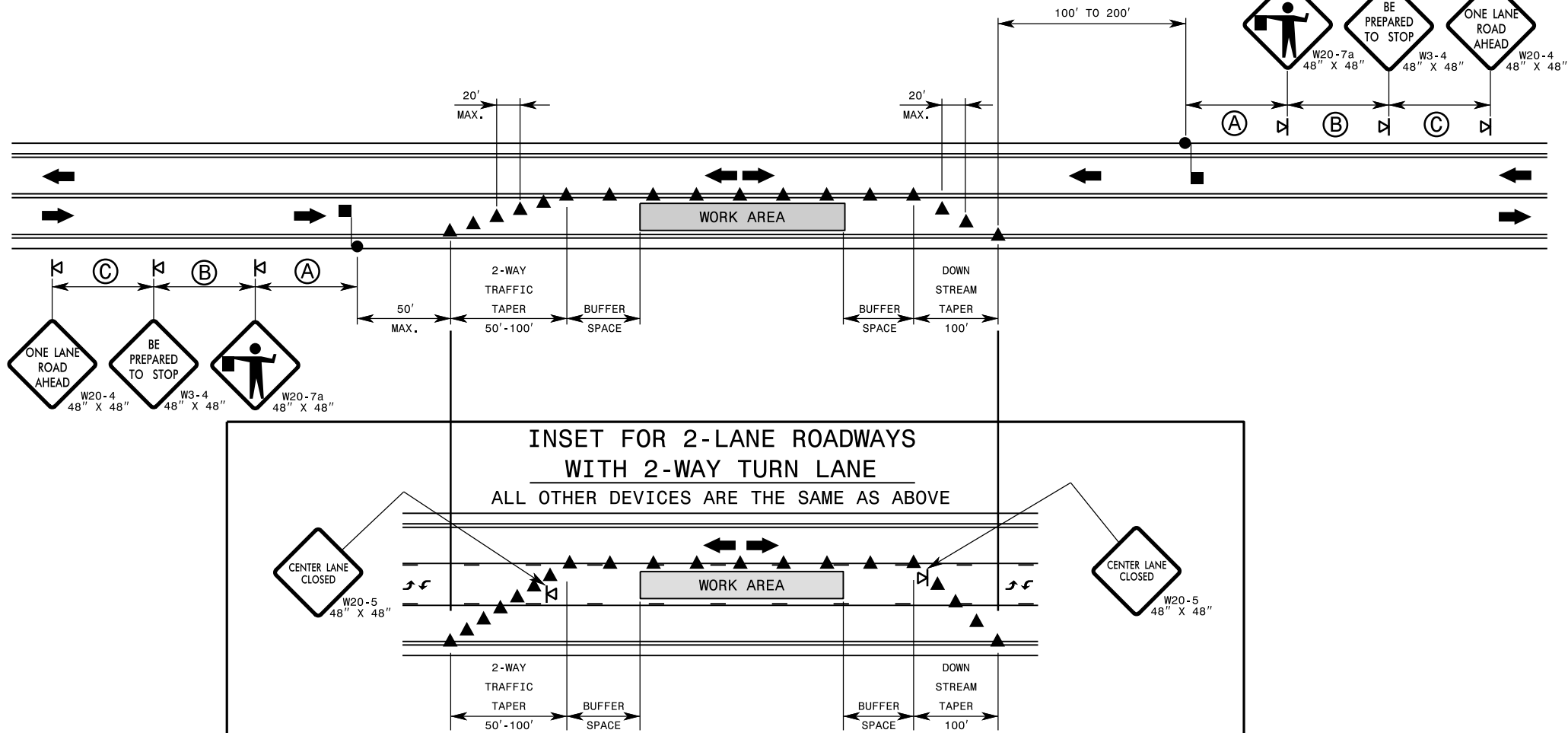
MAPS LESS  
THAN 2 MILES

FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2-LANE ROADWAY  
RESURFACING





**GENERAL NOTES FOR FLAGGING OPERATIONS**

- 1- REFER TO RSD. 1101.11, SHEETS 1 & 4, FOR "L" DISTANCE AND SIGN SPACING.
- 2- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
- 3- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- FOR POSTED SPEED LIMITS BELOW 45 MPH, CHANNELIZING DEVICE SPACING SHALL BE 20 FEET IN THE TAPERS AND THE SHIFTS AND 40 FEET IN THE TANGENTS. FOR POSTED SPEED LIMITS GREATER THAN OR EQUAL TO 45 MPH, CHANNELIZING DEVICE SPACING SHALL BE 40 FEET IN THE TAPERS AND THE SHIFTS AND 80 FEET IN THE TANGENTS.
- 5- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO RSD. 1101.11, SHEET 2).
- 6- DO NOT STOP ALL DIRECTIONS OF TRAFFIC FOR MORE THAN 5 MINUTES AT A TIME.
- 7- DRUMS OR SKINNY DRUMS MAY BE USED IN LIEU OF CONES. REFER TO RSD. 1180.01 FOR SKINNY DRUM REQUIREMENTS.
- 8- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. SUPPLEMENT FLAGGERS LOCATED AT INTERSECTIONS WITH FLAGGER AHEAD SIGNS (W20-7A) PLACED APPROXIMATELY 250 FT. IN ADVANCE OF THE FLAGGER. FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND USE LAW ENFORCEMENT.
- 9- REFER TO THE CURRENT MUTCD FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.
- 10- DO NOT EXCEED A 1 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.

- 11- IF VEHICLE QUEUES WILL REACH WITHIN 100' OF EITHER SIDE OF ACTIVE RAILROAD TRACKS, PROVIDE A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER TO PREVENT VEHICLES FROM STOPPING WITHIN THE GRADE CROSSING. PROVIDE OFFICER OR FLAGGER EVEN IF AUTOMATIC WARNING MEASURES ALREADY EXIST.
- 12- THIS DETAIL IS APPLICABLE FOR OPERATIONS IN PLACE FOR 72 HOURS OR LESS. FOR LONGER DURATION OPERATIONS, SIGNING AND PAVEMENT MARKINGS MAY NEED TO BE ALTERED.

**GENERAL NOTES FOR PILOT CAR OPERATIONS**

- 1- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
- 2- IF ROADWAY WIDTH IS LESS THAN 22 FEET (EOP TO EOP), CONES MAY NOT BE REQUIRED ALONG WORK AREA, AND AT THE DISCRETION OF THE ENGINEER, CONES MAY BE OMITTED ALONG THE WORK AREA IF USING A PILOT CAR.
- 3- CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.
- 4- MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.
- 5- UNLESS APPROVED BY THE ENGINEER, DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- 6- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.

**LEGEND**

- FLAGGER
- CONE
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.10.15.20901	SOQ 1	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGI	N	END	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1519000000-E	1520000000-E	1523000000-E	1524000000-E	1575000000-E	1704000000-E	1840000000-E	2612300000-N	2830000000-N	2845000000-N	6000000000-E	6071002000-E	6071010000-E
								MP	MP	INCIDENTAL	SHOULDER	AGGREGATE	1½" MILLING	INCIDENTAL	SURFACE	LEVELING	SURFACE	LEVELING	ASPHALT	PATCHING	6" CENTERLINE	RETROFIT	ADJ. OF	ADJ. OF METER	TEMPORARY	FLOCCULANT	WATTLE			
								MP	MP	STONE BASE	RECONSTRUCTI	SHOULDER	SY	MP	TONS	ON	BORROW	SY	TONS	TONS	TONS	TONS	TONS	EA	OR VALVE BOX	SILT FENCE	LB	LF		
								MI	FT				TONS	SMI	TON	SY	SY	TONS	TONS	TONS	TONS	TONS	TONS	LF	EA	EA	EA	LF	LB	LF
2025CPT.10.15.20901	Union	1	SR-1547 / W BRIEF RD ROUTE ID # 40001547090	FROM US 601 TO MECKLENBURG COUNTY LINE MP 6.68 TO MP 8.71		2	2WU	2.03	21	6.68	8.71		160	4.06	563		1,625	2,394	711		251	1,015	10,718					304	1	304
TOTAL FOR MAP NO. 1								2.03					160	4.06	563		1,625	2,394	711		251	1,015	10,718					304	1	304
2025CPT.10.15.20901	Union	2	SR-1533 / HOWEY BOTTOMS RD ROUTE ID # 40001533090	FROM SR 1004 LAWYERS RD TO SR 1634 WESTS DUCAN RD MP 0.0 TO MP 0.87		2	2WU	0.87	20	0	0.87		70	1.74	241	400	428		987	305	110	696						131		131
TOTAL FOR MAP NO. 2								0.87					70	1.74	241	400	428		987	305	110	696						131		131
2025CPT.10.15.20901	Union	3	SR-1534 / WEST DUNCAN RD ROUTE ID # 40001534090	FROM SR 1533 HOWEY BOTTOMS RD TO SR 1535 GARRETT RD MP 0.00 TO MP 0.83		2	2WU	2.48	18	0	2.48		170	4.96	688		726		2,614	868	313	2,232						372		372
TOTAL FOR MAP NO. 3								2.48					170	4.96	688		726		2,614	868	313	2,232						372		372
2025CPT.10.15.20901	Union	4	SR-1525 / MILL GROVE RD ROUTE ID # 40001525090	FROM SR 1004 LAWYERS RD TO NC 218 MP 2.50 TO MP 5.35		2	2WU	2.85	19.5	2.5	5.35		30	5.70	790		1,119	3,034	998		330	1,425	15,048					428	1	428
TOTAL FOR MAP NO. 4								2.85					30	5.70	790		1,119	3,034	998		330	1,425	15,048					428	1	428
2025CPT.10.15.20901	Union	5	SR-1758 N MAIN ST ROUTE ID # 40001758090	FROM WILSON ST TO PVMT JOINT AT CITYL LIMITS MP 3.51 TO MP 2.87		2	2WU	0.64	34	3.51	2.87			0.30	42	7,271	183	895			78	400			10	10	96		96	
TOTAL FOR MAP NO. 5								0.64						0.30	42	7,271	183	895			78	400			10	10	96		96	
2025CPT.10.15.20901	Union	6	SR-1760 / OLD WILLIAMS RD ROUTE ID # 40001260090	FROM SR 1756 N MAIN ST TO PVMT JOINT AT CUL DE SAC MP 0.02 TO MP 1.10		2	2WU	1.08	22	0	1.1			1.12	155	8,607	240	1,340	162		116	378		3	2	3	162		162	
TOTAL FOR MAP NO. 6								1.08						1.12	155	8,607	240	1,340	162		116	378		3	2	3	162		162	
2025CPT.10.15.20901	Union	7	SR-1902 / S ELM ST ROUTE ID 40001902090	FROM GREENE ST TO END OF CURB MP 0.05 TO MP 0.40		2	2WU	0.35	24	0.05	0.4			0.04	6	4,819		437			48	400			5				53	
TOTAL FOR MAP NO. 7								0.35						0.04	6	4,819		437			48	400			5				53	
2025CPT.10.15.20901	Union	8	SR-1902 / S ELM ST ROUTE ID # 40001902090	FROM MP 0.40 SR 1902 S ELM ST TO MP 0.65 SR 1902 DR BLAIR RD MP.40 TO MP.65		2	2WU	0.25	19	0.4	0.65		5	0.50	72		250	301	90		38	250					38		38	
TOTAL FOR MAP NO. 8								0.25					5	0.50	72		250	301	90		38	250					38		38	
2025CPT.10.15.20901	Union	9	SR-1901 / HASTY RD ROUTE ID # 40001901090	FROM SR 1740 W MAIN ST TO SR 1902 DR BLAIR RD MP 0.01 TO MP 0.79		2	2WU	0.78	18	0.01	0.79		50	1.56	216		239	773	273		88	400	4,324				117		117	
TOTAL FOR MAP NO. 9								0.78					50	1.56	216		239	773	273		88	400	4,324				117		117	
2025CPT.10.15.20901	Union	10	SR-1901 / HASTY RD ROUTE ID # 40001901090	FROM SR 1902 DR BLAIR RD TO SR 1005 WHITE STORE RD MP.80 TO MP 1.25		2	2WU	0.45	18	0.8	1.25		15	0.90	125		230	456	158		55	300	2,376				68		68	
TOTAL FOR MAP NO. 10								0.45					15	0.90	125		230	456	158		55	300	2,376				68		68	
TOTAL FOR PROJ NO. 2025CPT.10.15.20901								11.78					500	20.88	2,898	21,097	5,040	9,630	2,392	3,601	1,173	1,427	7,496	32,466	3	17	13	1,716	2	1,769
			GRAND TOTAL					11.78					500	20.88	2,898	21,097	5,040	9,630	2,392	3,601	1,173	1,427	7,496	32,466	3	17	13	1,716	2	1,769

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.10.15.20901	SOQ 2	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	4413000000-E	4457000000-N	4685000000-E		4687000000-E	4688000000-E		4695000000-E	4709000000-E	4720000000-E		4810000000-E	
								MI	FT			SF	LS	LF	LF	LF	LF	LF	LF	LF	EA	EA	LF	LF
2025CPT.10.15.20901	Union	1	SR-1547 / W BRIEF RD ROUTE ID # 40001547090	FROM US 601 TO MECKLENBURG COUNTY LINE MP 6.68 TO MP 8.71		2	2WU	2.03	21	6.68	8.71	227	0.10			207	17,234	21,436			8	5		
TOTAL FOR MAP NO. 1								2.03				227	0.10			207	17,234	21,436			8	5		
2025CPT.10.15.20901	Union	2	SR-1533 / HOWEY BOTTOMS RD ROUTE ID # 40001533090	FROM SR 1004 LAWYERS RD TO SR 1634 WESTS DUCAN RD MP 0.0 TO MP 0.87		2	2WU	0.87	20	0	0.87	97	0.10										1,844	18,440
TOTAL FOR MAP NO. 2								0.87				97	0.10										1,844	18,440
2025CPT.10.15.20901	Union	3	SR-1534 / WEST DUNCAN RD ROUTE ID # 40001534090	FROM SR 1533 HOWEY BOTTOMS RD TO SR 1535 GARRETT RD MP 0.00 TO MP 0.83		2	2WU	2.48	18	0	2.48	278	0.10										52,376	52,376
TOTAL FOR MAP NO. 3								2.48				278	0.10										52,376	52,376
2025CPT.10.15.20901	Union	4	SR-1525 / MILL GROVE RD ROUTE ID # 40001525090	FROM SR 1004 LAWYERS RD TO NC 218 MP 2.50 TO MP 5.35		2	2WU	2.85	19.5	2.5	5.35	319	0.10			28,000	30,096							
TOTAL FOR MAP NO. 4								2.85				319	0.10			28,000	30,096							
2025CPT.10.15.20901	Union	5	SR-1758 N MAIN ST ROUTE ID # 40001758090	FROM WILSON ST TO PVMT JOINT AT CITYL LIMITS MP 3.51 TO MP 2.87		2	2WU	0.64	34	3.51	2.87	72	0.10	846	6,758			120	402					
TOTAL FOR MAP NO. 5								0.64				72	0.10	846	6,758			120	402					
2025CPT.10.15.20901	Union	6	SR-1760 / OLD WILLIAMS RD ROUTE ID # 40001260090	FROM SR 1756 N MAIN ST TO PVMT JOINT AT CUL DE SAC MP 0.02 TO MP 1.10		2	2WU	1.08	22	0	1.1	121	0.10										11,664	9,072
TOTAL FOR MAP NO. 6								1.08				121	0.10										11,664	9,072
2025CPT.10.15.20901	Union	7	SR-1902 / S ELM ST ROUTE ID 40001902090	FROM GREENE ST TO END OF CURB MP 0.05 TO MP 0.40		2	2WU	0.35	24	0.05	0.4	39	0.10										720	720
TOTAL FOR MAP NO. 7								0.35				39	0.10										720	720
2025CPT.10.15.20901	Union	8	SR-1902 / S ELM ST ROUTE ID # 40001902090	FROM MP 0.40 SR 1902 S ELM ST TO MP 0.65 SR 1902 DR BLAIR RD MP .40 TO MP .65		2	2WU	0.25	19	0.4	0.65	29	0.10										5,180	5,068
TOTAL FOR MAP NO. 8								0.25				29	0.10										5,180	5,068
2025CPT.10.15.20901	Union	9	SR-1901 / HASTY RD ROUTE ID # 40001901090	FROM SR 1740 W MAIN ST TO SR 1902 DR BLAIR RD MP 0.01 TO MP 0.79		2	2WU	0.78	18	0.01	0.79	87	0.10			16,472	16,472							
TOTAL FOR MAP NO. 9								0.78				87	0.10			16,472	16,472							
2025CPT.10.15.20901	Union	10	SR-1901 / HASTY RD ROUTE ID # 40001901090	FROM SR 1902 DR BLAIR RD TO SR 1005 WHITE STORE RD MP .80 TO MP 1.25		2	2WU	0.45	18	0.8	1.25	50	0.10			9,504	9,504							
TOTAL FOR MAP NO. 10								0.45				50	0.10			9,504	9,504							
TOTAL FOR PROJ NO. 2025CPT.10.15.20901								11.78				1,319	1.00	846	6,758	207	71,210	77,508	120	402	8	5	71,784	85,676
														7,604			148,718				13		157,460	
GRAND TOTAL								11.78				1,319	1.0	846	6,758	207	71,210	77,508	120	402	8	5	71,784	85,676
														7,604			148,718				13		157,460	