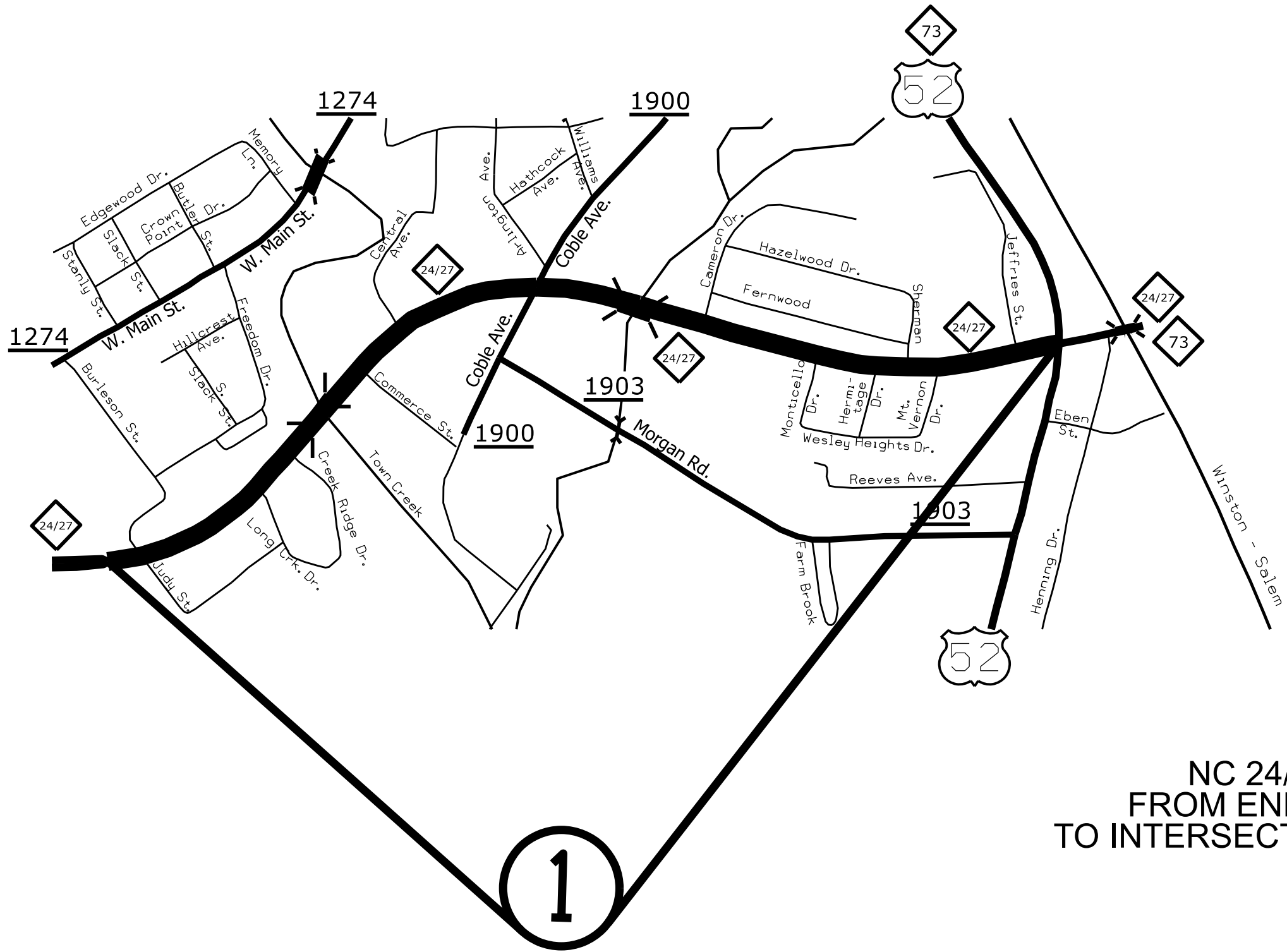
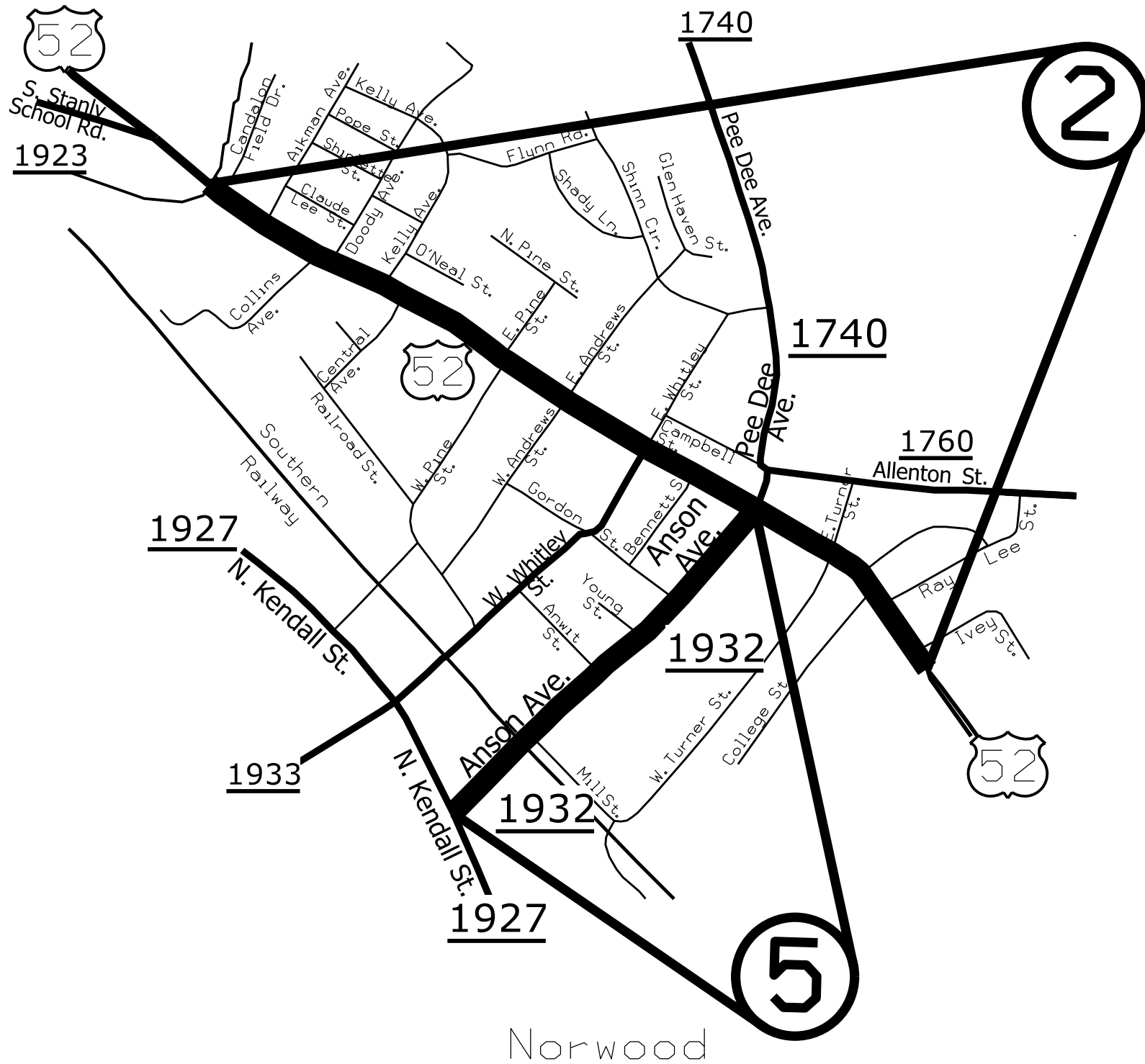


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	1	14
F.A. PROJECT NO.			



ENLARGED MUNICIPAL AND SUBURBAN AREAS  
**STANLY COUNTY**  
 NORTH CAROLINA  
PREPARED BY: IHE  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 1

**MAP # 1**  
 NC 24/27 BYPASS WEST 1.28 MILES  
 FROM END OF DIVIDED HIGHWAY (MP 15.62)  
 TO INTERSECTION OF US 52 AND NC 24/27 (MP 16.90)



Norwood

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	2	14
F.A. PROJECT NO.			

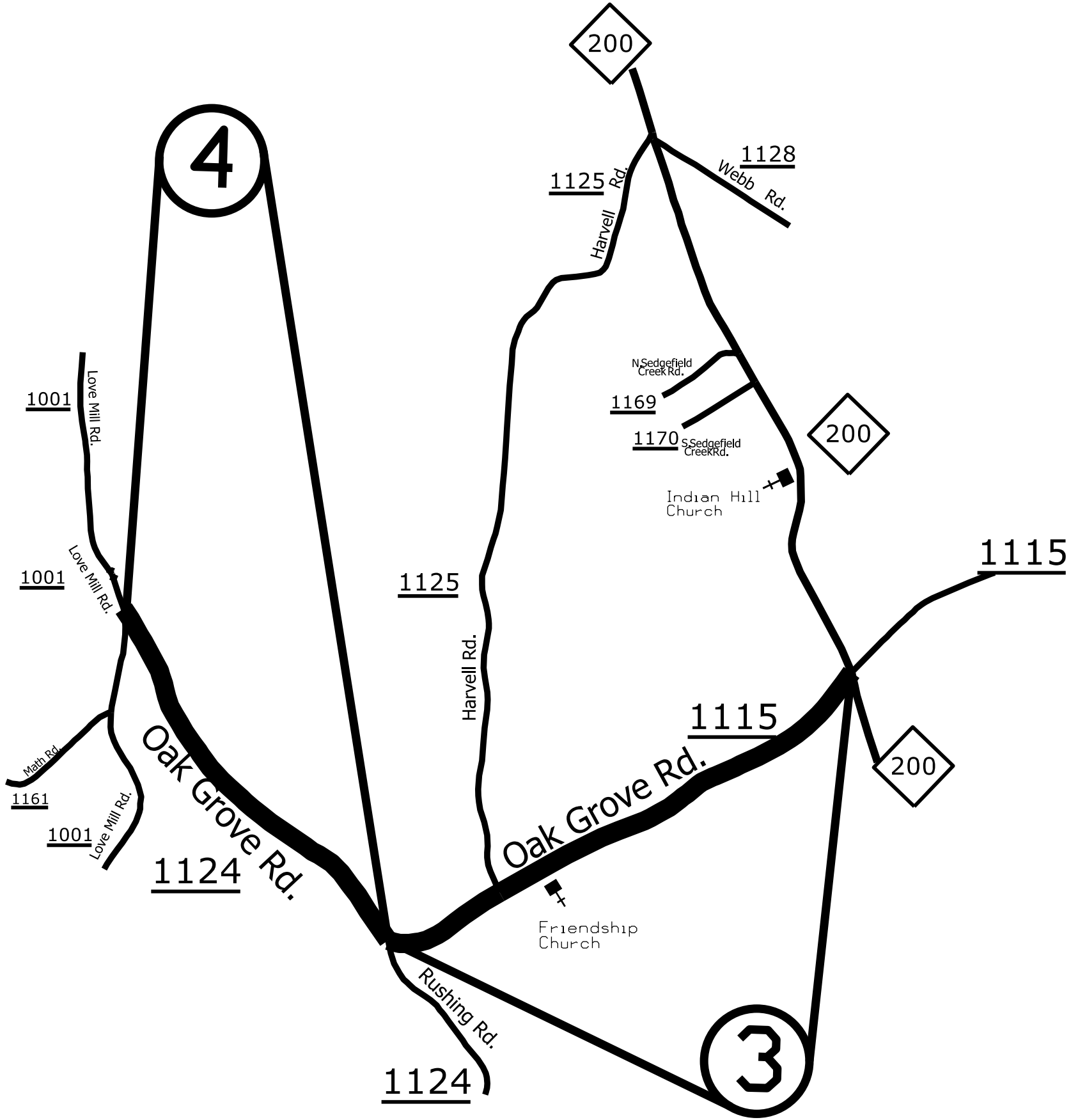


ENLARGED MUNICIPAL AND SUBURBAN AREAS  
**STANLY COUNTY**  
 NORTH CAROLINA  
PREPARED BY THE  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 1

**MAP # 2**  
 US 52 1.10 MILES  
 FROM DRIVEWAY PAST SCHOOL (MP 1.90)  
 TO END CURB AND GUTTER (MP 3.00)

**MAP # 5**  
 SR 1932 - ANSON AVENUE 0.48 MILES  
 FROM US 52 (MP 0.00)  
 TO SR 1927 (N. KENDALL STREET) (MP 0.48)

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	3	14
F.A. PROJECT NO.			



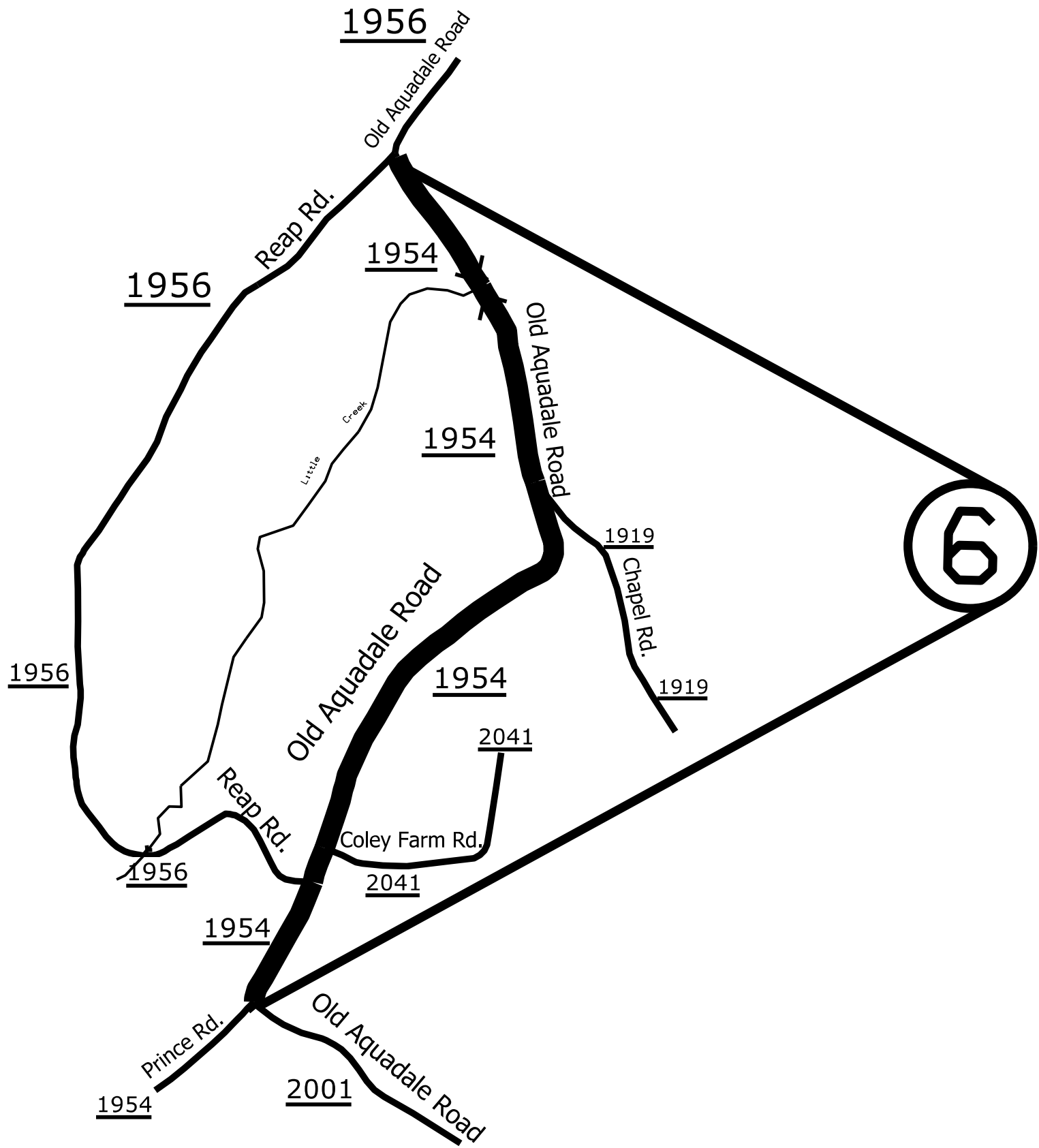
ENLARGED MUNICIPAL AND SUBURBAN AREAS  
**STANLY COUNTY**  
 NORTH CAROLINA

PREPARED BY THE  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 1

**MAP # 3**  
 SR 1115 - OAK GROVE ROAD 1.20 MILES  
 FROM NC 200 (MP 6.91)  
 TO SR 1124 (OAK GROVE ROAD) (MP 8.11)

**MAP # 4**  
 SR 1124 - OAK GROVE ROAD 0.95 MILES  
 FROM SR 1001 LOVE MILL ROAD) (MP 0.00)  
 TO SR 1115 - OAK GROVE ROAD (MP 0.95)

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	4	14
F.A. PROJECT NO.			

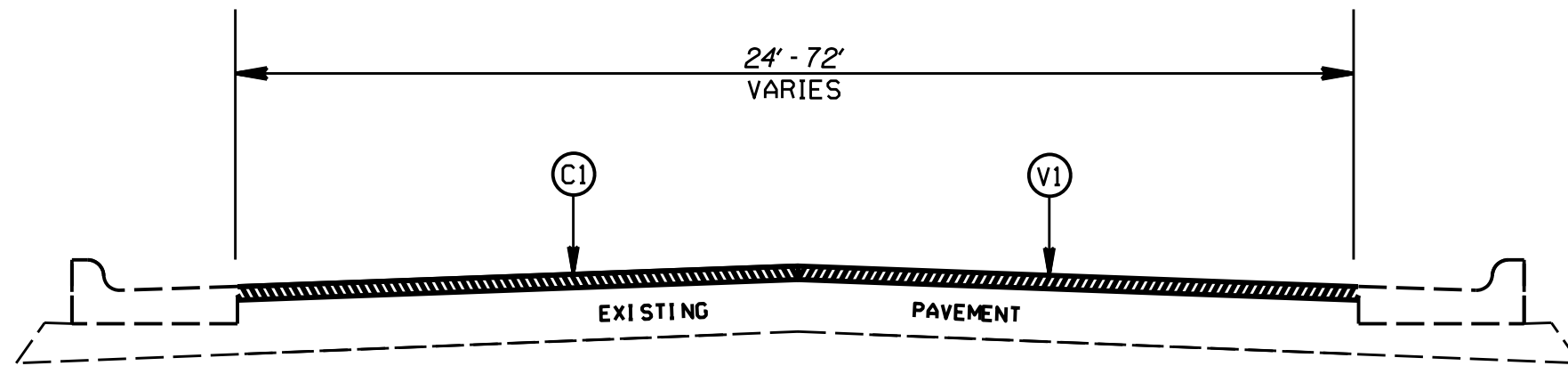


ENLARGED MUNICIPAL AND SUBURBAN AREAS  
**STANLY COUNTY**  
 NORTH CAROLINA  
PREPARED BY THE  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 1

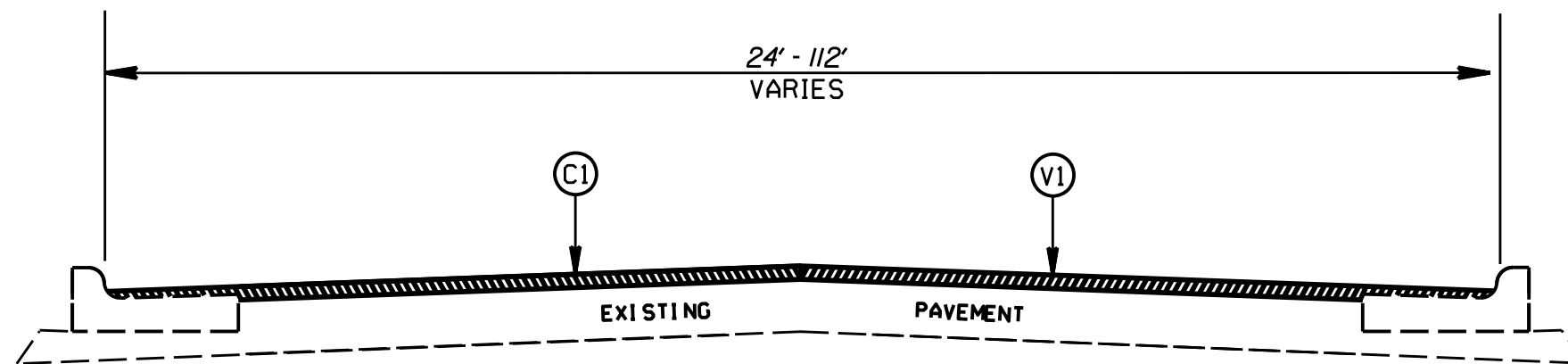
**MAP # 6**  
 SR 1954 - OLD AQUADALE ROAD 2.00 MILES  
 FROM SR 1954 (PRINCE ROAD) (MP 1.72)  
 TO SR 1956 (REAP ROAD) (MP 3.72)

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	5	14
F.A. PROJECT NO.			

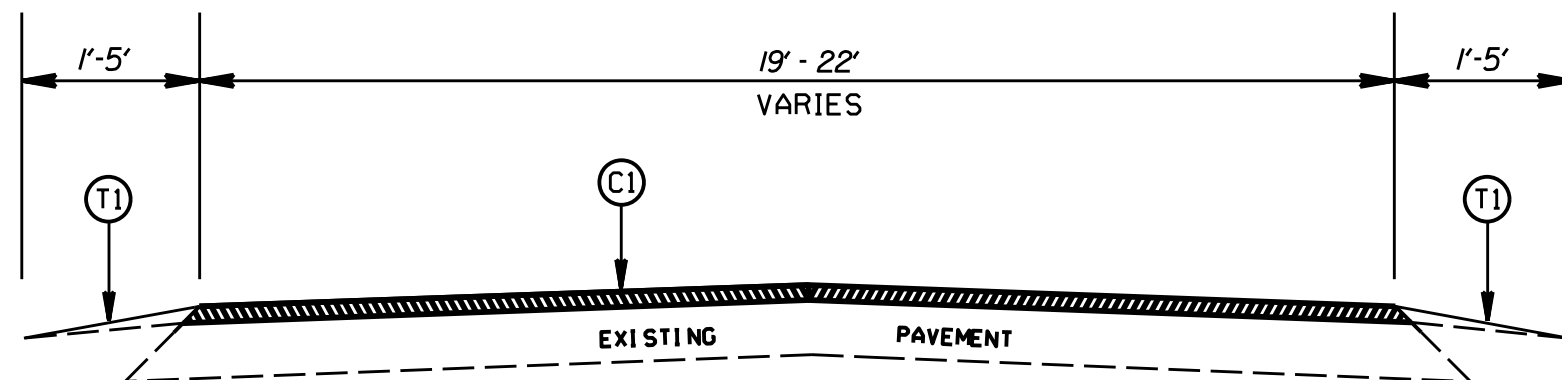
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YDS.
T1	SHOULDER RECONSTRUCTION
V1	MILLING OF EXISTING PAVEMENT, 1.50"
V2	PROFILE MILLING OF EXISTING ASPHALT, 0"-1.50" (8' WIDTH)



TYPICAL SECTION NO. 1  
MAP 1 - NC 24/27 BYPASS WEST  
MAP 2 - US 52




TYPICAL SECTION NO. 2  
MAP 2 - US 52  
MAP 5 - SR 1932 - ANSON AVENUE

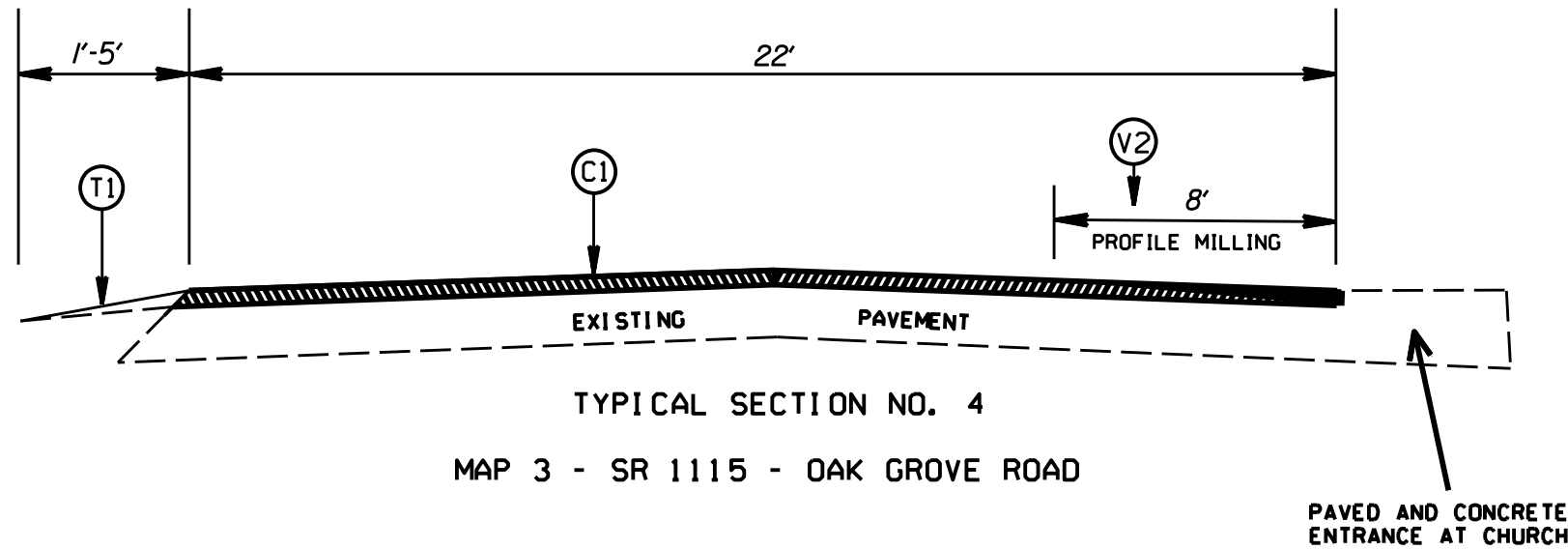


TYPICAL SECTION NO. 3  
MAP 3 - SR 1115 - OAK GROVE ROAD  
MAP 4 - SR 1124 - OAK GROVE ROAD  
MAP 6 - SR 1954 - OLD AQUADALE ROAD

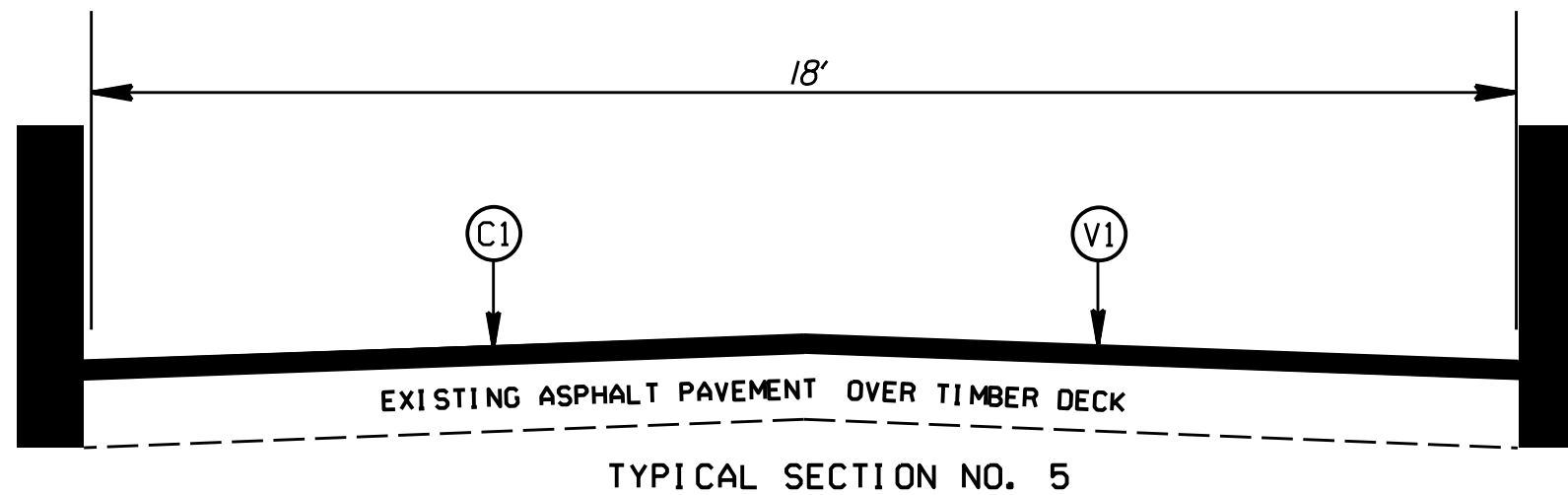
NOTES:  
1. LEVELING COURSE TO BE PLACED AS DIRECTED BY THE ENGINEER

SCALE		-NA-		REVISIONS	
DATE		2/18			
DWG. BY		JAB			
DESIGN BY		JAB			
APPROVED		JAB			

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	6	14
F.A. PROJECT NO.			



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YDS.
T1	SHOULDER RECONSTRUCTION
V1	MILLING OF EXISTING PAVEMENT, 1.50"
V2	PROFILE MILLING OF EXISTING ASPHALT, 0"-1.50" (8' WIDTH)



MAP 6 - SR 1954 - OLD AQUADALE ROAD  
(NOTE: MILL DECK AND ADDITIONAL 50' OFF EACH END OF BRIDGE FOR TOTAL OF 172 LF)

NOTES:

1. LEVELING COURSE TO BE PLACED AS DIRECTED BY THE ENGINEER

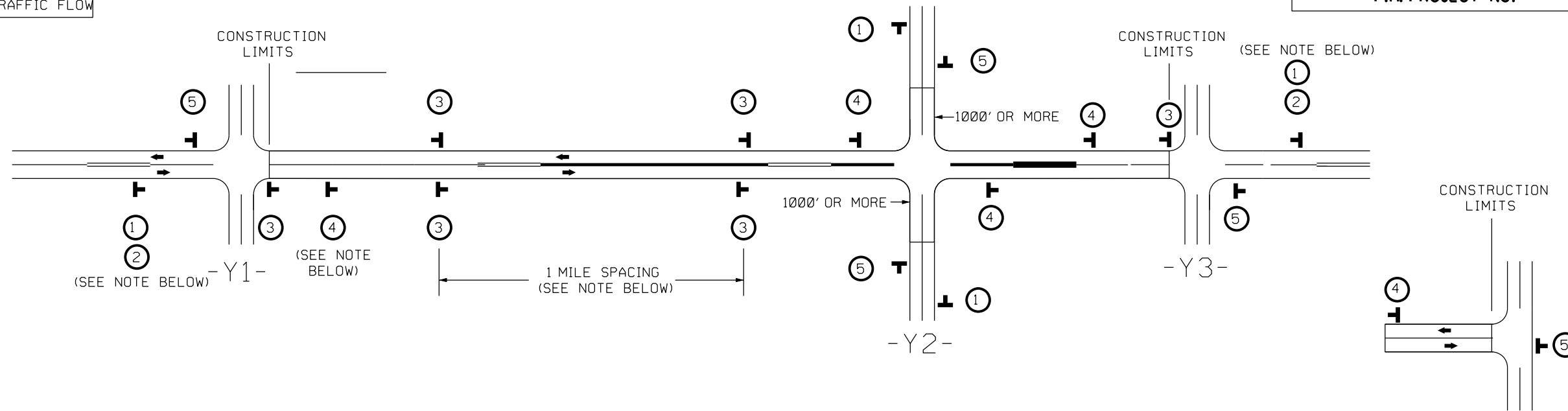
STANLY COUNTY  
RESURFACING FALL 2023

SCALE	-NA-		REVISIONS
DATE	2/18		
DWG. BY	JAB		
DESIGN BY	JAB		
APPROVED	JAB		

# SIGNING FOR RESURFACING PROJECTS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	7	14
F.A. PROJECT NO.			

LEGEND	
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW



## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div>                       W20-1 48" X 48"                      PLACED 500' IN ADVANCE OF FLAGGER.                 </div> <div>                       W20-7 A 48" X 48"                      PLACED 250' IN ADVANCE OF FLAGGER.                 </div> </div>	
				<p>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</p> <p>- AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>
				<p>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</p> <p>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</p> <p>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</p> <p>- 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.</p> <p>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p> <p>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</p>
				<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

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 WARNING SIGNS.

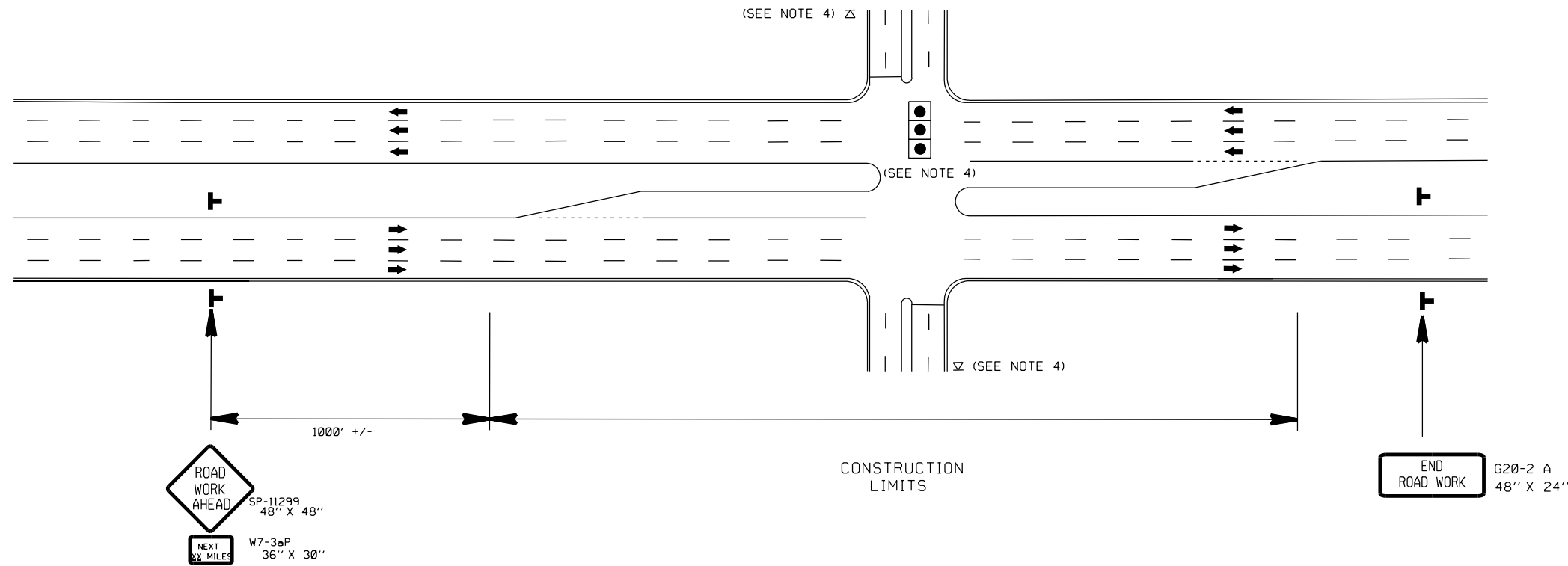


ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

URBAN / SUBURBAN WORKZONES

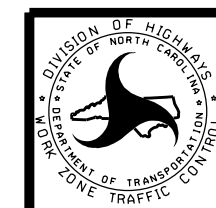
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	8	14
F.A. PROJECT NO.			

LEGEND	
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW



NOTES:

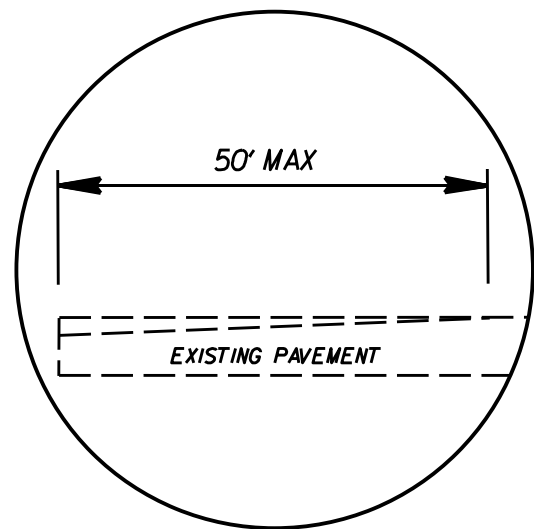
- 1) 48" X 48" SIZED SIGNS (SP-11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO, "ROUGH ROAD" (W8-8), "UNEVEN LANES (W8-11), "GROOVED PAVEMENT" (W8-15) w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OR WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.



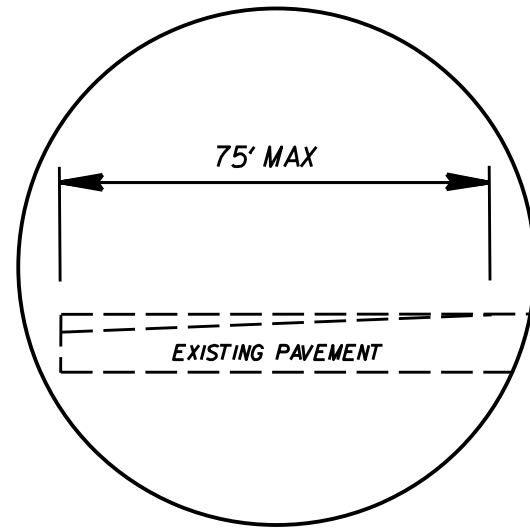
RESURFACING  
ADVANCE WARNING SIGNS  
FOR URBAN / SUBURBAN  
FACILITIES



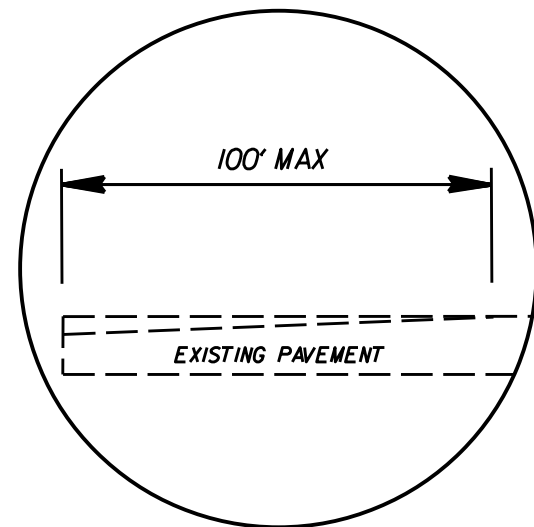
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	9	14
F.A. PROJECT NO.			



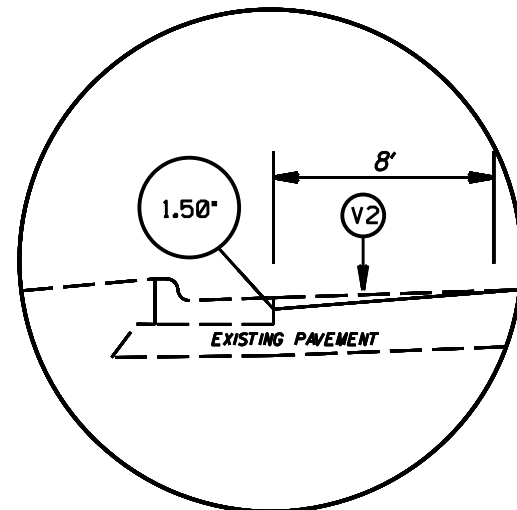
DETAIL FOR INCIDENTAL MILLING (0' TO 1.0')  
TIE-IN



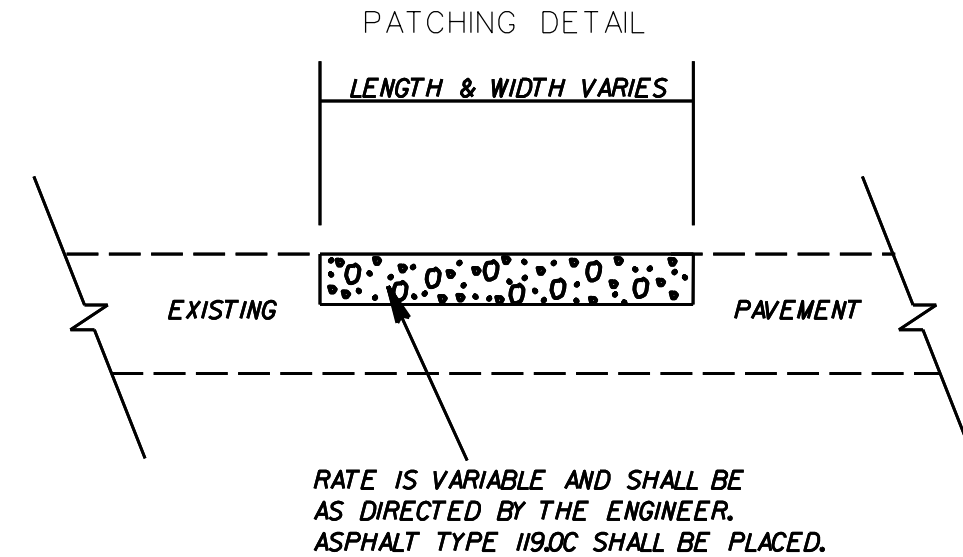
DETAIL FOR INCIDENTAL MILLING (0' TO 1.5')  
TIE-IN



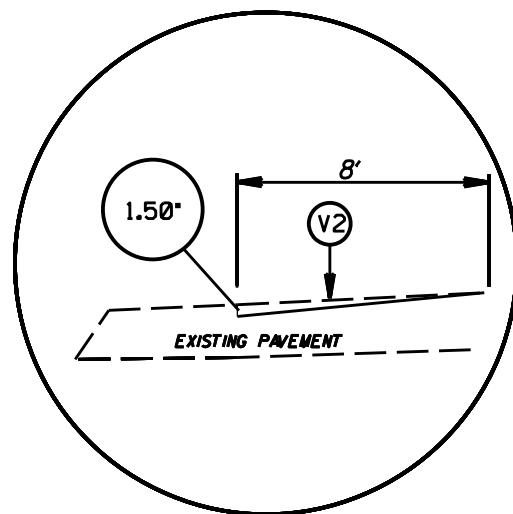
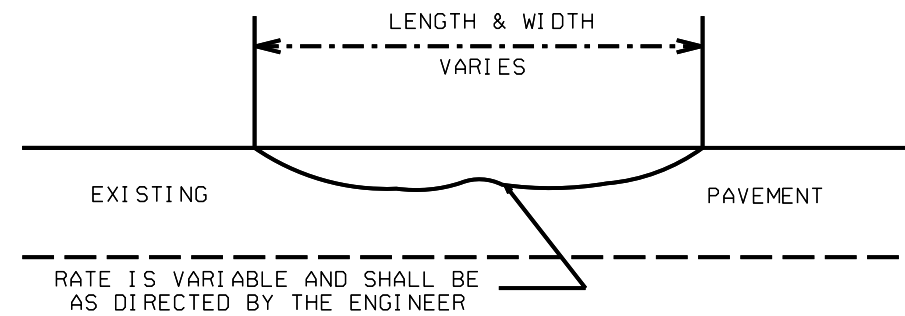
DETAIL FOR INCIDENTAL MILLING (0' TO 2.0')  
TIE-IN



DETAIL FOR PROFILE MILLING (0' TO 1.50')



TYPE S9.5B OR S9.5C (LEVELING COURSE)



DETAIL FOR PROFILE MILLING (0' TO 1.50')

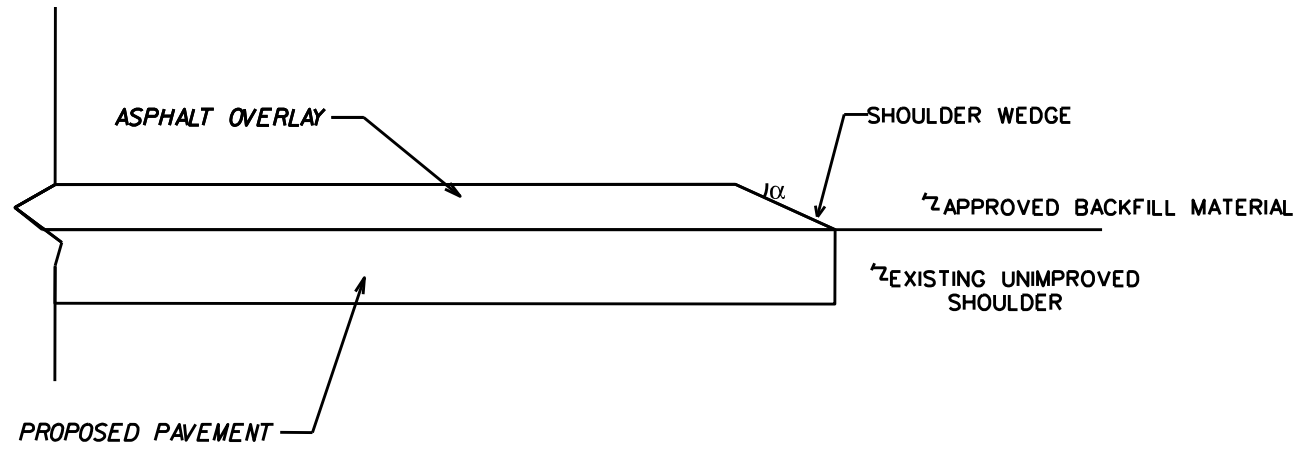
PATCHING, LEVELING, MILLING,  
PROFILE MILLING DETAILS

SCALE	NA		REVISIONS
DATE	10/21		
DWG. BY	JWH		
DESIGN BY	JWH		
APPROVED	JWH		

**NOTES:**

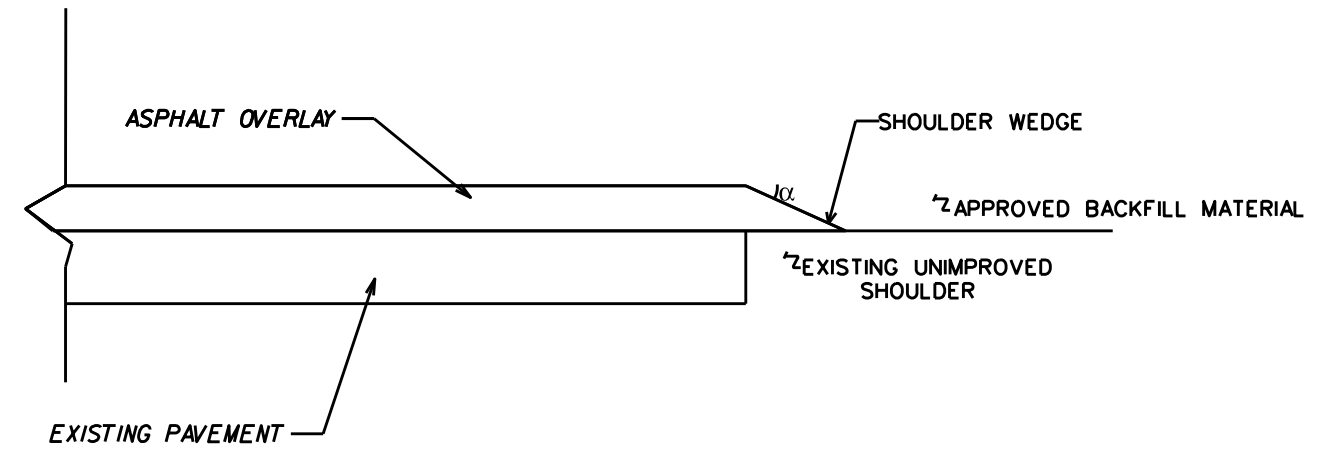
- 1) DETAIL DOES NOT APPLY TO OGAF C AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	10	14
F.A. PROJECT NO.			



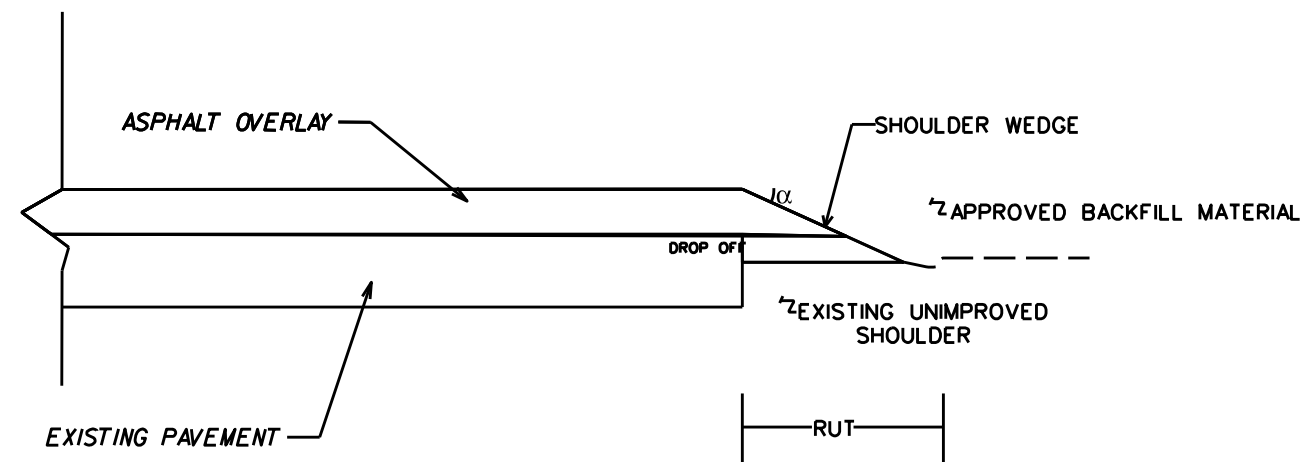
SHOULDER WEDGE DETAIL

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



SHOULDER WEDGE DETAIL

(RESURFACING PROJECTS W/ NO WIDENING)



SHOULDER WEDGE DETAIL

(RESURFACING ADJACENT TO RUTTED SHOULDER)

$\alpha = 30$  DEGREES

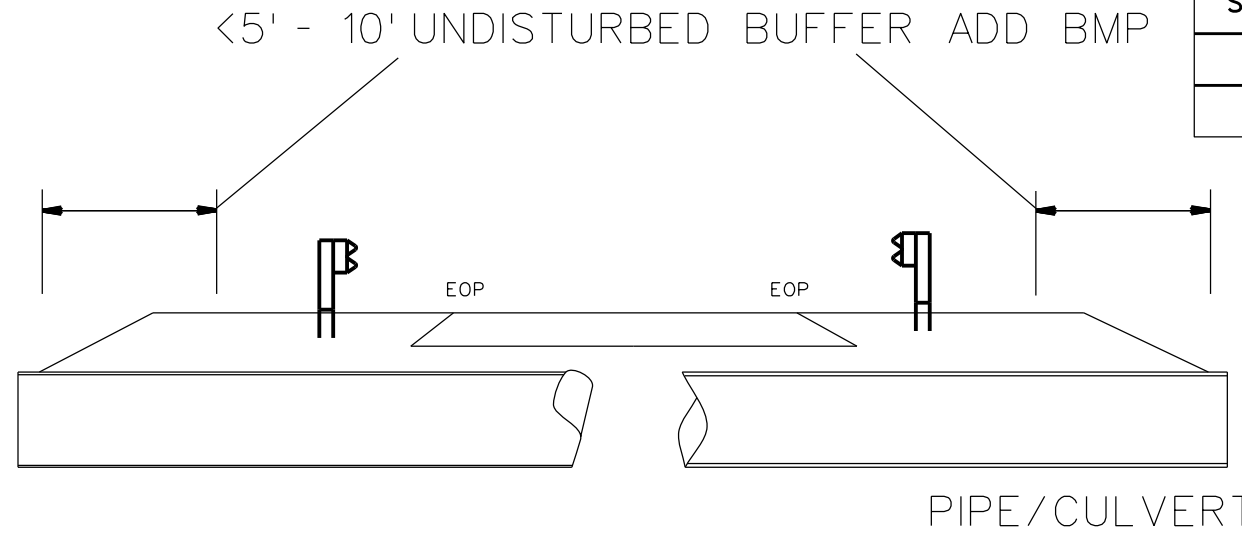
SHOULDER WEDGE DETAILS		
SCALE	-N/A-	REVISIONS
DATE	2/18	
DWG. BY	JAB	
DESIGN BY	JAB	
APPROVED	JAB	



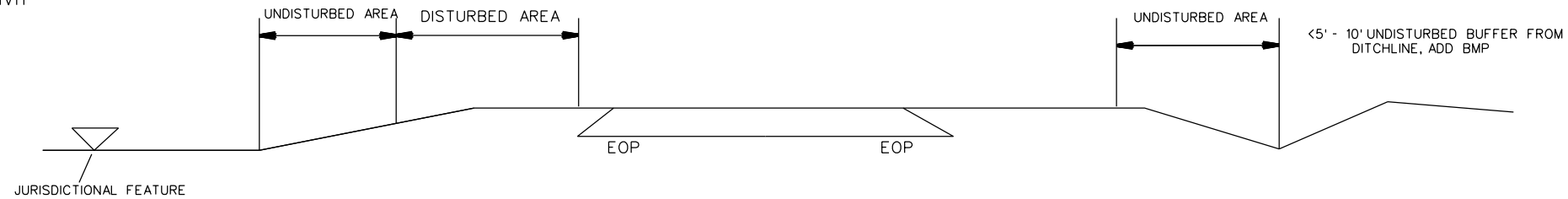
NOTES: LESS THAN 5' - 10' UNDISTURBED BUFFER FROM ROW, DITCHLINE, WATER FEATURE, OR DRAINAGE INLET, ADD BMP.

BMP OPTIONS: WATTLE OR SILT FENCE

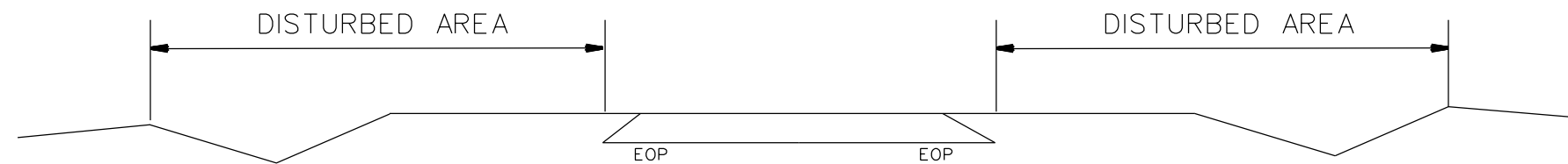
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	11	14
F.A. PROJECT NO.			



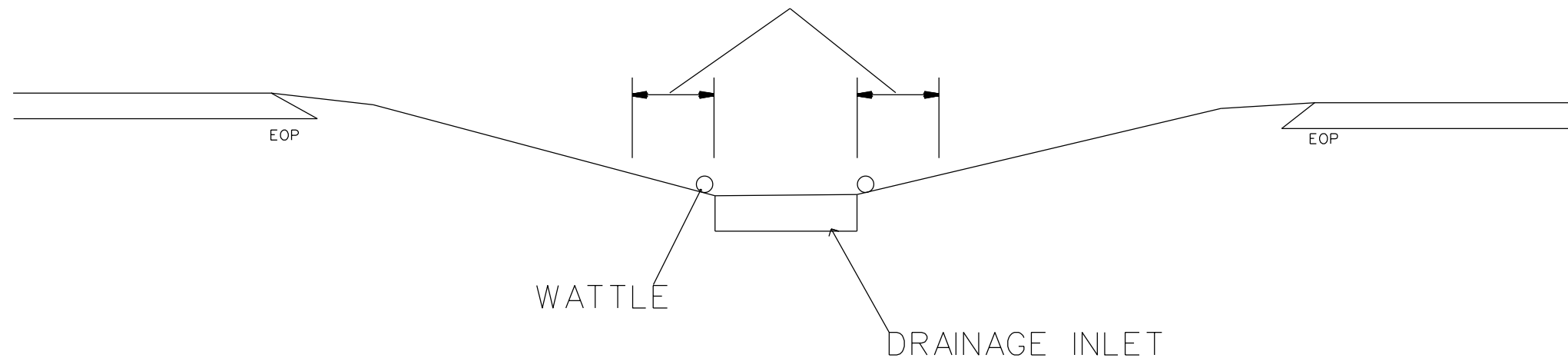
<5' - 10' UNDISTURBED BUFFER FROM JURISDICTIONAL FEATURE ADD BMP



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

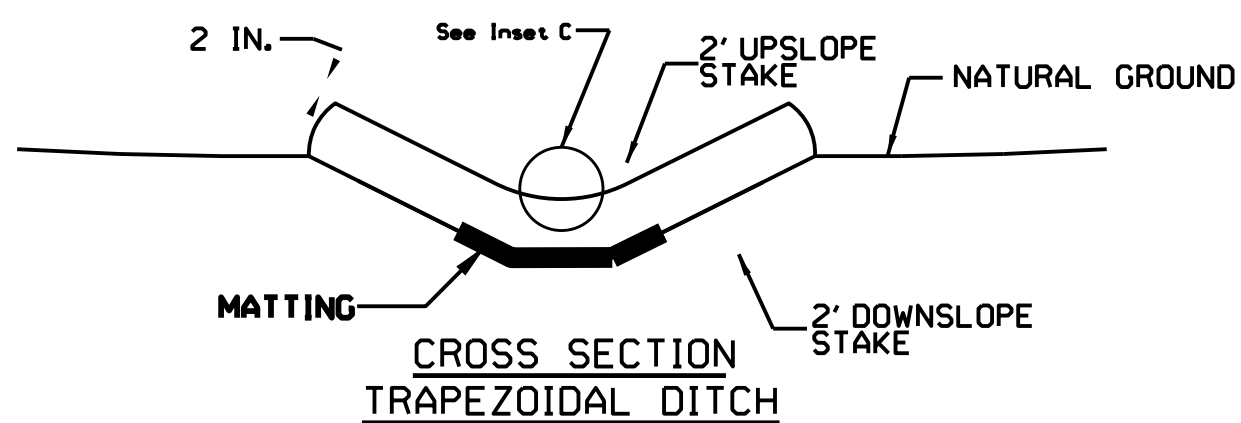
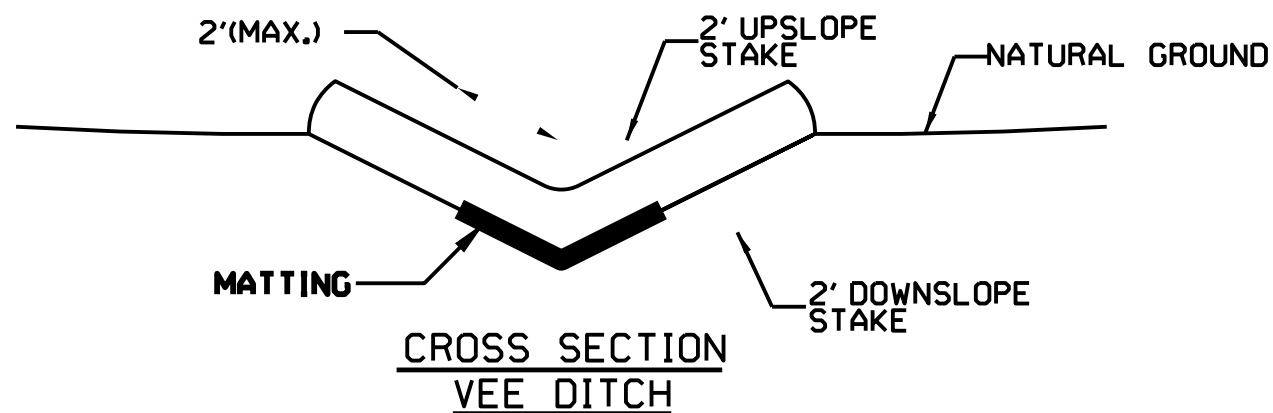
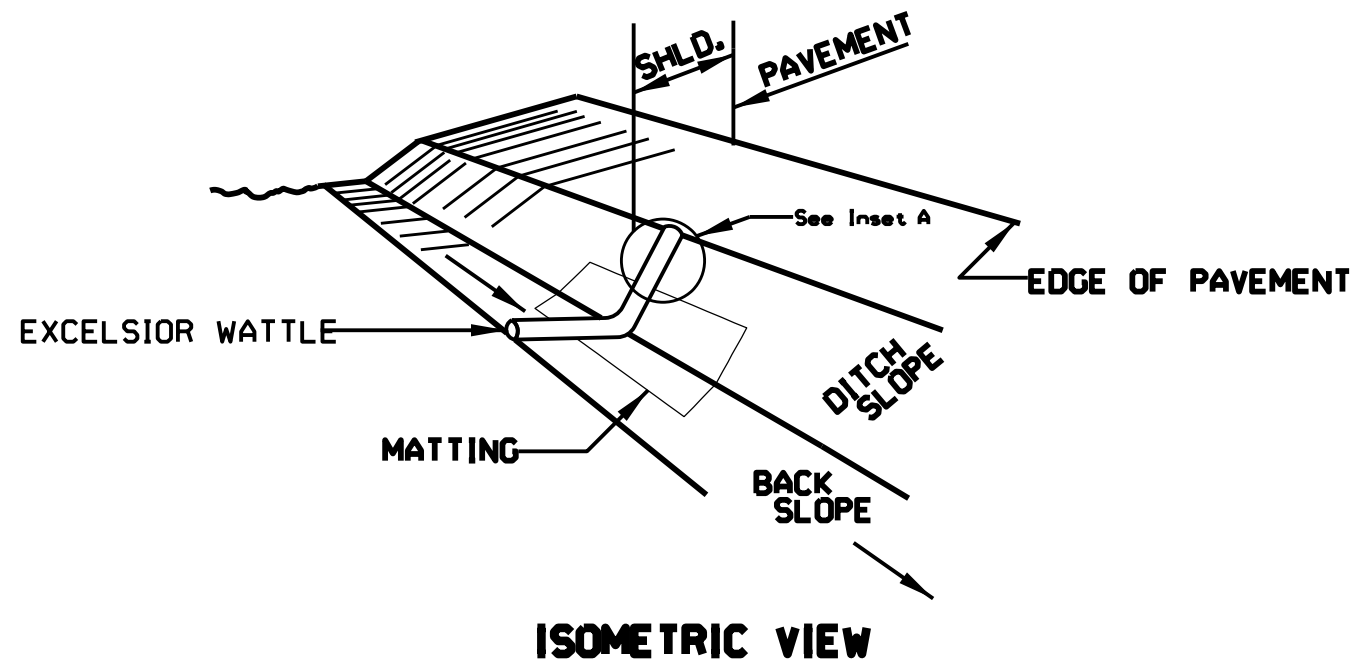
SCALE	-NA-
DATE	2/18
DWG. BY	JAB
DESIGN BY	JAB
APPROVED	JAB



REVISIONS	

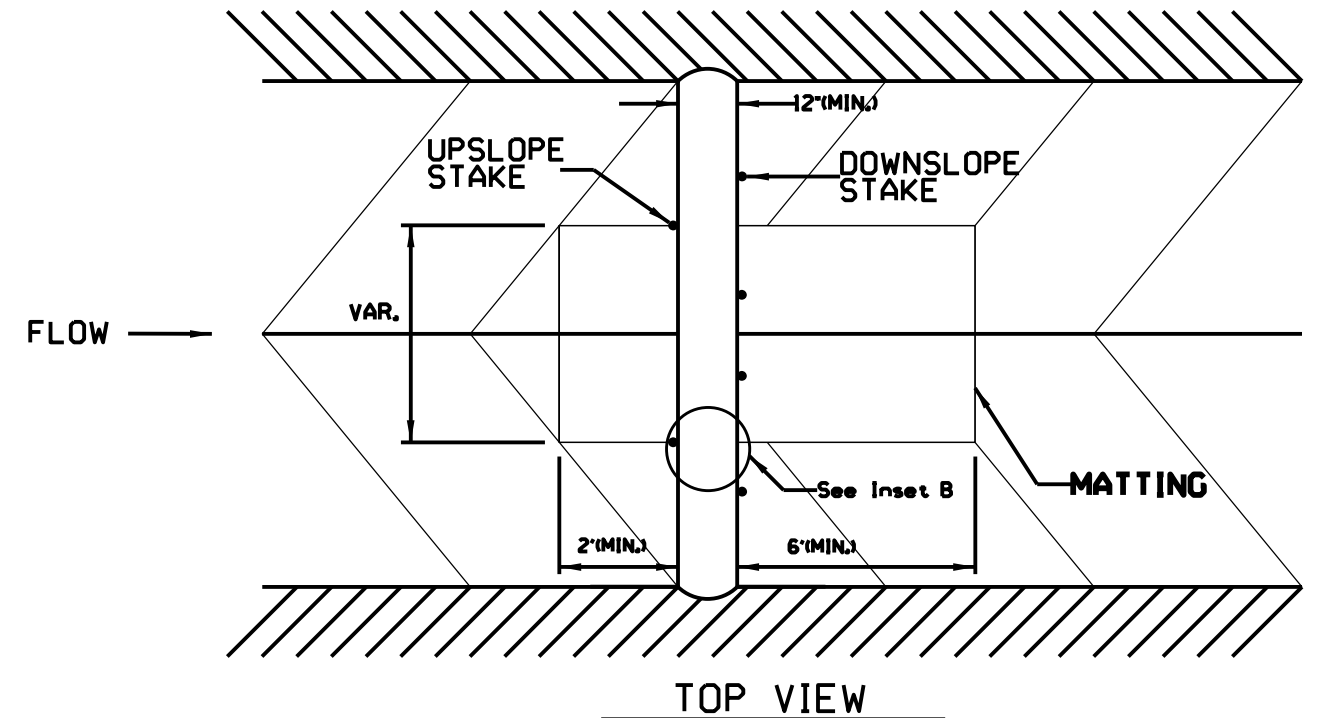
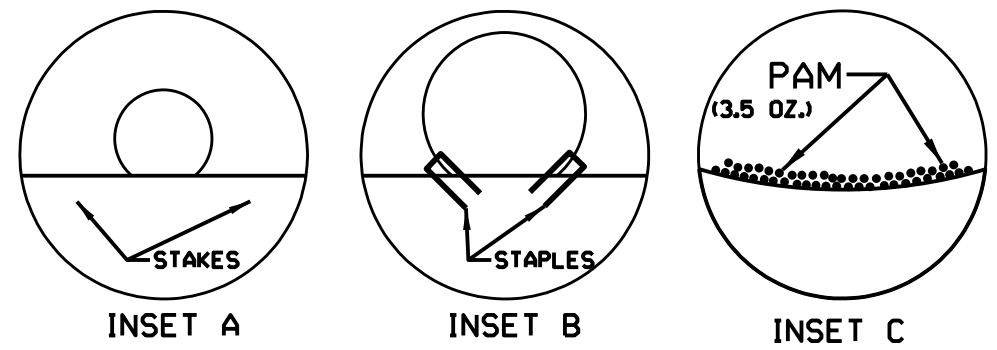
# WATTLE WITH POLYACRYLAMIDE DETAIL

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2024CPT.10.08.10841 2024CPT.10.08.20841	12	14
F.A. PROJECT NO.			



**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.



PROJECT NO. 2024CPT.10.08.10841, 2024CPT.10.08.20841	SHEET NO. 13	TOTAL NO. 14
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### SUMMARY OF QUANTITIES

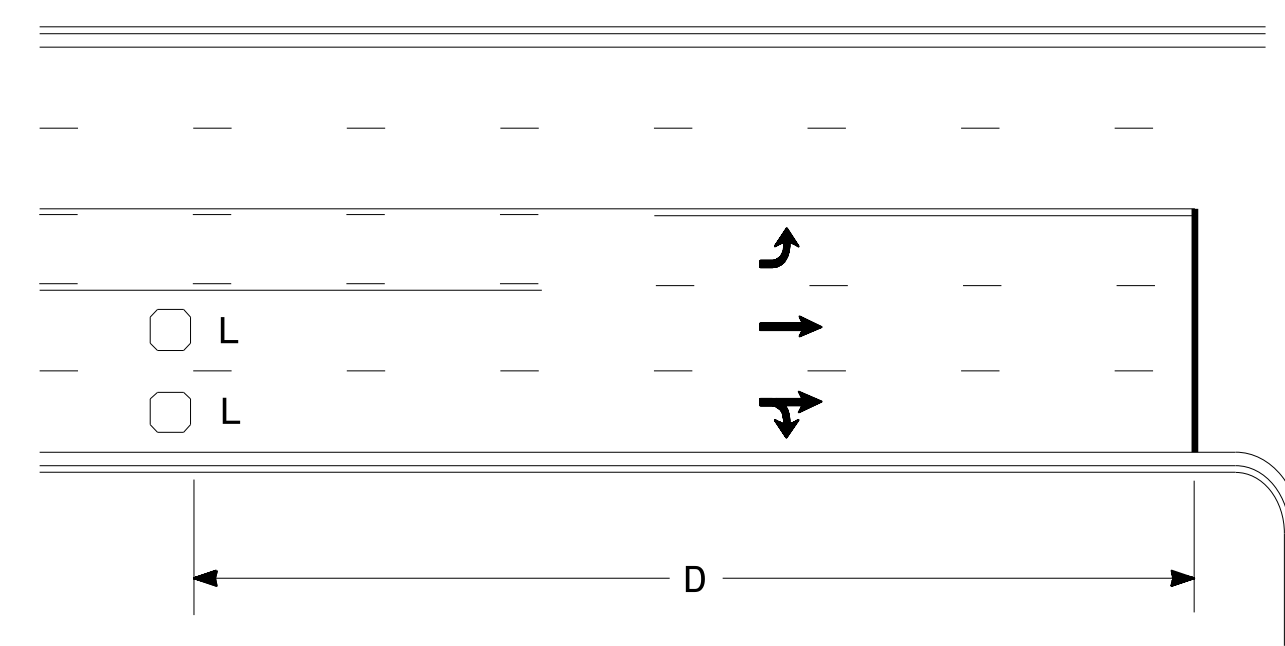
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BEGIN MP	END MP	010600000-E	122000000-E	124500000-E	129700000-E	130800000-E	133000000-E	152300000-E	152400000-E	157500000-E	170400000-E	261200000-E	283000000-N	284500000-N	525500000-N	607101000-E	607102000-E	608400000-E	744400000-E							
														BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTI ON	1½" MILLING	0" TO 1-1/2" MILLING	INCIDENTAL MILLING	SURFACE COURSE, 59.5C	LEVELING COURSE, 59.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	6" DRIVEWAYS	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX	PORTABLE LIGHTING	WATTLE	POLYACRYLAMIDE (PAM)	SEED & MULCHING	INDUCTIVE LOOP							
														CY	TONS	SMI	SY	SY	SY	TONS	TONS	TONS	TONS	SY	EA	EA	LS	LF	LB	AC	LF							
2024CPT.10.08.10841	Stanly	1	NC-24-27 BYPASS W 30000024084	FROM END OF DIVIDED HIGHWAY (MP 15.62) TO INTERSECTION OF US 52 AND NC24/27 (MP 16.90)	1	2		NO	NO	1.28	60	15.62	16.9				42,948		3,460	4,488		280	320		4	4	0.60					2,550						
<b>TOTAL FOR MAP NO. 1</b>																	42,948		3,460	4,488		280	320		4	4	0.60					2,550						
2024CPT.10.08.10841	Stanly	2	US-52 20000052084	FROM DRIVEWAY PAST SCHOOL (MP 1.90) TO END CURB AND GUTTER (MP 3.00)	1,2	2		NO	NO	1.10	38	1.9	3				26,607		513	2,662		181	495		9	11	0.40					1,100						
<b>TOTAL FOR MAP NO. 2</b>																	26,607		513	2,662		181	495		9	11	0.40						1,100					
<b>TOTAL FOR PROJ NO. 2024CPT.10.08.10841</b>																	69,555		3,973	7,150		461	815		13	15	1.00							3,650				
2024CPT.10.08.20841	Stanly	3	SR-1115 - OAK GROVE RD 40001115084	FROM NC 200 (MP 6.91) TO SR 1124 (OAK GROVE ROAD) (MP 8.11)		2		NO	NO	1.20	22	6.91	8.11	140	135	2.40			936	1,570	540	150	540	198					100	1	0.9							
<b>TOTAL FOR MAP NO. 3</b>																	140		135	2.40		936	1,570	540	150	540	198					100	1	0.9				
2024CPT.10.08.20841	Stanly	4	SR-1124 - OAK GROVE RD 40001124084	FROM SR 1001 (LOVE MILL ROAD) (MP 0.00) TO SR 1115 (OAK GROVE ROAD) (MP 0.95)		2		NO	NO	0.95	22	0	0.95	80	55	1.90			712	1,250	430	115	334	72					140	1	0.7							
<b>TOTAL FOR MAP NO. 4</b>																	80		55	1.90		712	1,250	430	115	334	72					140	1	0.7				
2024CPT.10.08.20841	Stanly	5	SR-1932 - ANSON AVE 40001932084	FROM US 52 (MP 0.00) TO SR 1927 (N. KENDALL STREET) (MP 0.48)	2	2		NO	NO	0.48	34	0	0.48				9,356		418	1,020		71	216		8	9						550						
<b>TOTAL FOR MAP NO. 5</b>																	9,356		418	1,020		71	216		8	9								550				
2024CPT.10.08.20841	Stanly	6	SR-1954 - OLD AQUADALE RD 40001954084	FROM SR 1954 (PRINCE ROAD) (MP 1.72) TO SR 1956 (REAP ROAD) (MP 3.72)	3,5	2		NO	NO	2.00	19	1.72	3.72	150	150	4.00	344	40	1,840	2,267	500	206	900	36					300	1	1.5							
<b>TOTAL FOR MAP NO. 6</b>																	2.00		150	150	4.00	344	40	1,840	2,267	500	206	900	36					300	1	1.5		
<b>TOTAL FOR PROJ NO. 2024CPT.10.08.20841</b>																	4.63		370	340	8.30	9,700	40	3,906	6,107	1,470	542	1,990	306	8	9			540	3	3.1		550
<b>GRAND TOTAL</b>																	7.01		370	340	8.30	79,255	40	7,879	13,257	1,470	1,003	2,805	306	21	24	1.00	540	3	3.1		4,200	

PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.10.08.10841, 2024CPT.10.08.20841	14	14

### 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	4510000000-N	4685000000-E		4695000000-E		4700000000-E	4704000000-E	4709000000-E	4720000000-E		4725000000-E				4770000000-E	4810000000-E		4835000000-E	4890000000-E	4905100000-N			
												WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	12" X 90 M YELLOW THERMO	16" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO MSG SCHOOL 90 M	THERMO RXR 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE II (4")	4" WHITE PAINT	4" YELLOW PAINT	24" WHITE PAINT	CONTRAST COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE II (9")	NON-CAST IRON SNOWPLOWABLE MARKER			
								MI	FT									EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA		
2024CPT.10.08.10841	Stanly	1	NC-24-27 BYPASS W 30000024084	FROM END OF DIVIDED HIGHWAY (MP 15.62) TO INTERSECTION OF US 52 AND NC24/27 (MP 16.90)	1	2		1.28	60	15.62	16.9	126.0	0.18	80.00	5,275	14,350			56		284			39	4	9	5	950.00	5,275	14,350	284	200.00	630			
<b>TOTAL FOR MAP NO. 1</b>								<b>1.28</b>				<b>126.0</b>	<b>0.18</b>	<b>80.00</b>	<b>5,275</b>	<b>14,350</b>			<b>56</b>		<b>284</b>			<b>39</b>	<b>4</b>	<b>9</b>	<b>5</b>	<b>950</b>	<b>5,275</b>	<b>14,350</b>	<b>284</b>	<b>200</b>	<b>630</b>			
2024CPT.10.08.10841	Stanly	2	US-52 20000052084	FROM DRIVEWAY PAST SCHOOL (MP 1.90) TO END CURB AND GUTTER (MP 3.00)	1,2	2		1.10	38	1.9	3		0.16	80.00	1,803	14,008		812	116		416	6		38			5	495	9,350	174		195				
<b>TOTAL FOR MAP NO. 2</b>								<b>1.10</b>				<b>0.16</b>	<b>80.00</b>	<b>1,803</b>	<b>14,008</b>		<b>812</b>	<b>116</b>		<b>416</b>	<b>6</b>		<b>38</b>			<b>5</b>	<b>495</b>	<b>9,350</b>	<b>174</b>		<b>195</b>					
<b>TOTAL FOR PROJ NO. 2024CPT.10.08.10841</b>								<b>2.38</b>				<b>126.0</b>	<b>0.34</b>	<b>160.00</b>	<b>7,078</b>	<b>28,358</b>		<b>812</b>	<b>116</b>	<b>56</b>		<b>700</b>			<b>6</b>	<b>77</b>	<b>4.00</b>	<b>9</b>	<b>10</b>	<b>950</b>	<b>5,770</b>	<b>23,700</b>	<b>458</b>	<b>200</b>	<b>825</b>	
														<b>35,436</b>				<b>928</b>						<b>6</b>			<b>100</b>			<b>29,470</b>						
2024CPT.10.08.20841	Stanly	3	SR-1115 - OAK GROVE RD 40001115084	FROM NC 200 (MP 6.91) TO SR 1124 (OAK GROVE ROAD) (MP 8.11)		2		1.20	22	6.91	8.11	144.0	0.17	0.00							32							25,556	25,356							
<b>TOTAL FOR MAP NO. 3</b>								<b>1.20</b>				<b>144.0</b>	<b>0.17</b>	<b>0.00</b>									<b>32</b>							<b>25,556</b>	<b>25,356</b>					
2024CPT.10.08.20841	Stanly	4	SR-1124 - OAK GROVE RD 40001124084	FROM SR 1001 (LOVE MILL ROAD) (MP 0.00) TO SR 1115 (OAK GROVE ROAD) (MP 0.95)		2		0.95	22	0	0.95	128.0	0.14	0.00							40							20,480	20,380							
<b>TOTAL FOR MAP NO. 4</b>								<b>0.95</b>				<b>128.0</b>	<b>0.14</b>	<b>0.00</b>									<b>40</b>							<b>20,480</b>	<b>20,380</b>					
2024CPT.10.08.20841	Stanly	5	SR-1932 - ANSON AVE 40001932084	FROM US 52 (MP 0.00) TO SR 1927 (N. KENDALL STREET) (MP 0.48)	2	2		0.48	34	0	0.48		0.07	20.00	70	4,906	75			96	154		4													
<b>TOTAL FOR MAP NO. 5</b>								<b>0.48</b>				<b>0.07</b>	<b>20.00</b>	<b>70</b>	<b>4,906</b>	<b>75</b>					<b>96</b>	<b>154</b>		<b>4</b>												
2024CPT.10.08.20841	Stanly	6	SR-1954 - OLD AQUADALE RD 40001954084	FROM SR 1954 (PRINCE ROAD) (MP 1.72) TO SR 1956 (REAP ROAD) (MP 3.72)	3,5	2		2.00	19	1.72	3.72	224.0	0.28	0.00														43,400	42,900							
<b>TOTAL FOR MAP NO. 6</b>								<b>2.00</b>				<b>0.28</b>	<b>0.00</b>																<b>43,400</b>	<b>42,900</b>						
<b>TOTAL FOR PROJ NO. 2024CPT.10.08.20841</b>								<b>4.63</b>				<b>496.0</b>	<b>0.56</b>	<b>20.00</b>	<b>70</b>	<b>4,906</b>	<b>75</b>					<b>96</b>	<b>226</b>		<b>4.00</b>					<b>89,436</b>	<b>88,636</b>					
														<b>4,976</b>			<b>75</b>							<b>4</b>					<b>178,072</b>							
<b>GRAND TOTAL</b>								<b>7.01</b>				<b>622.0</b>	<b>1.00</b>	<b>180.00</b>	<b>7,148</b>	<b>33,264</b>	<b>887</b>	<b>116</b>	<b>56</b>	<b>96</b>	<b>926</b>	<b>6</b>	<b>4.00</b>	<b>77</b>	<b>4</b>	<b>9</b>	<b>10</b>	<b>950</b>	<b>95,206</b>	<b>112,336</b>	<b>458</b>	<b>200</b>	<b>825</b>			
														<b>40,412</b>			<b>1,003</b>				<b>10</b>			<b>100</b>				<b>207,542</b>								

### High Speed Detection (≥40 mph)

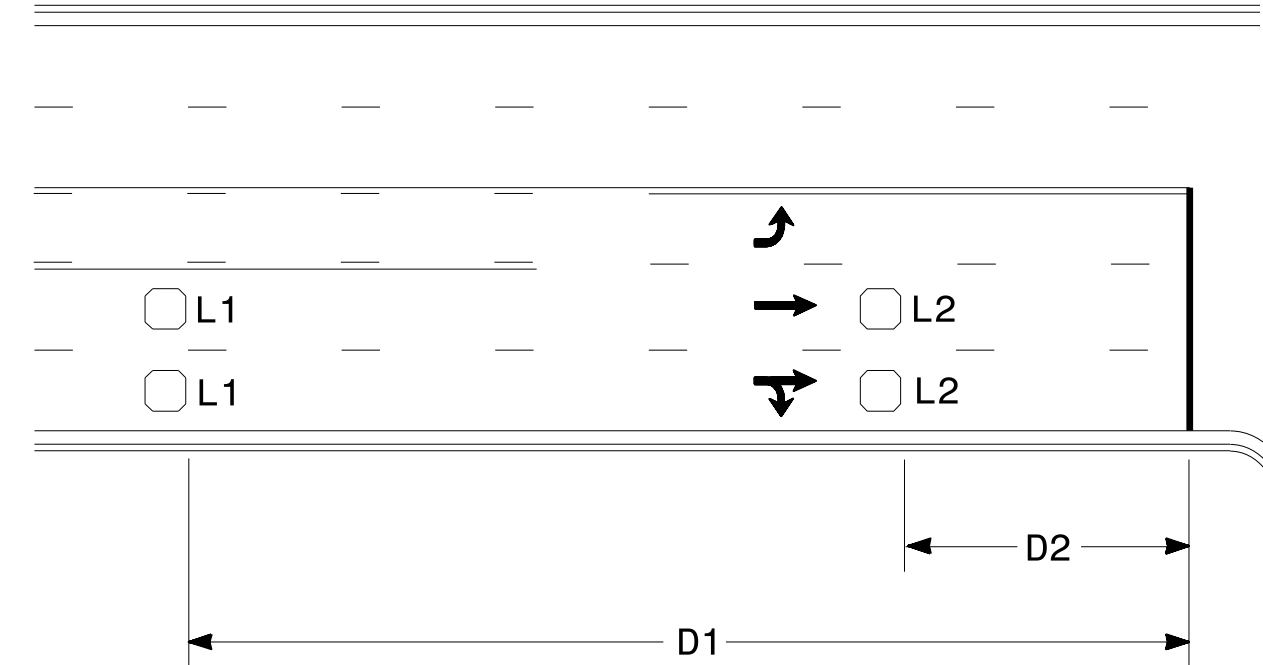


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft  
Wired in series for TS1  
Controllers  
Wired separately for TS2,  
170, and 2070L Controllers

Volume Density Operation

OR

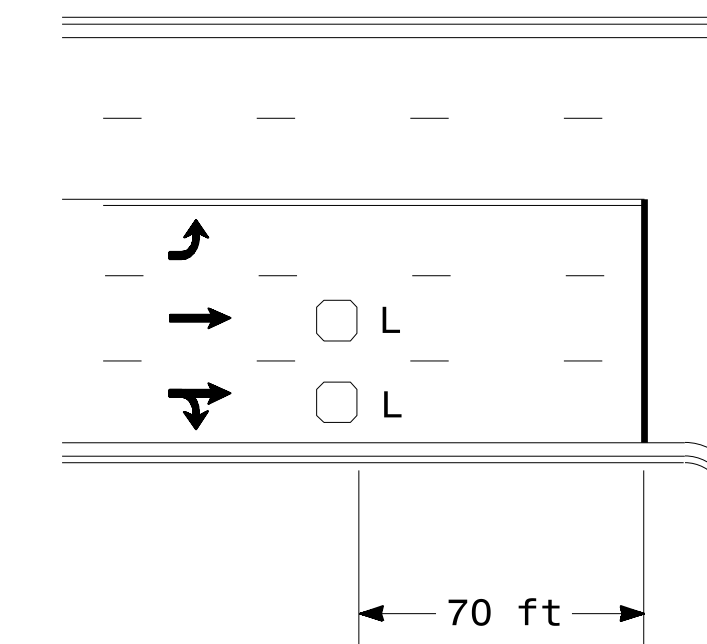


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft  
Wired in series  
L2 = 6ft X 6ft  
Wired in series

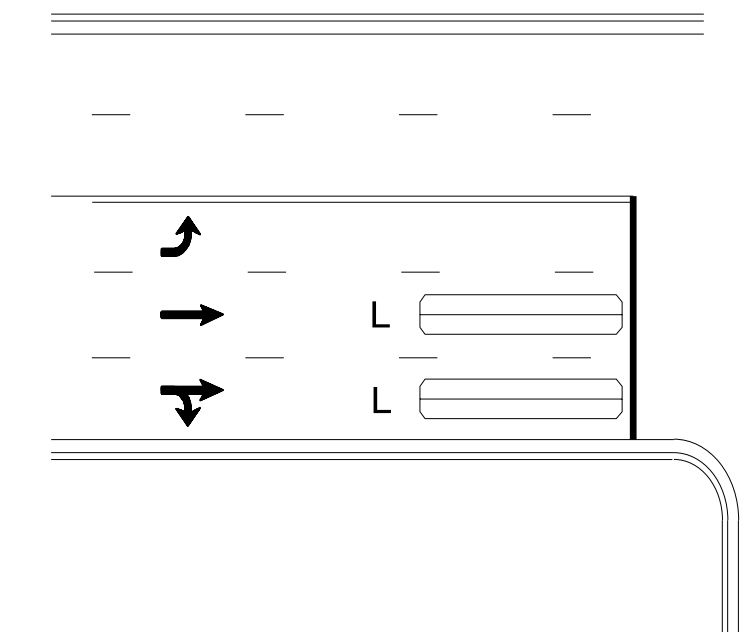
"Stretch" Operation

### Low Speed Detection (≤35 mph)



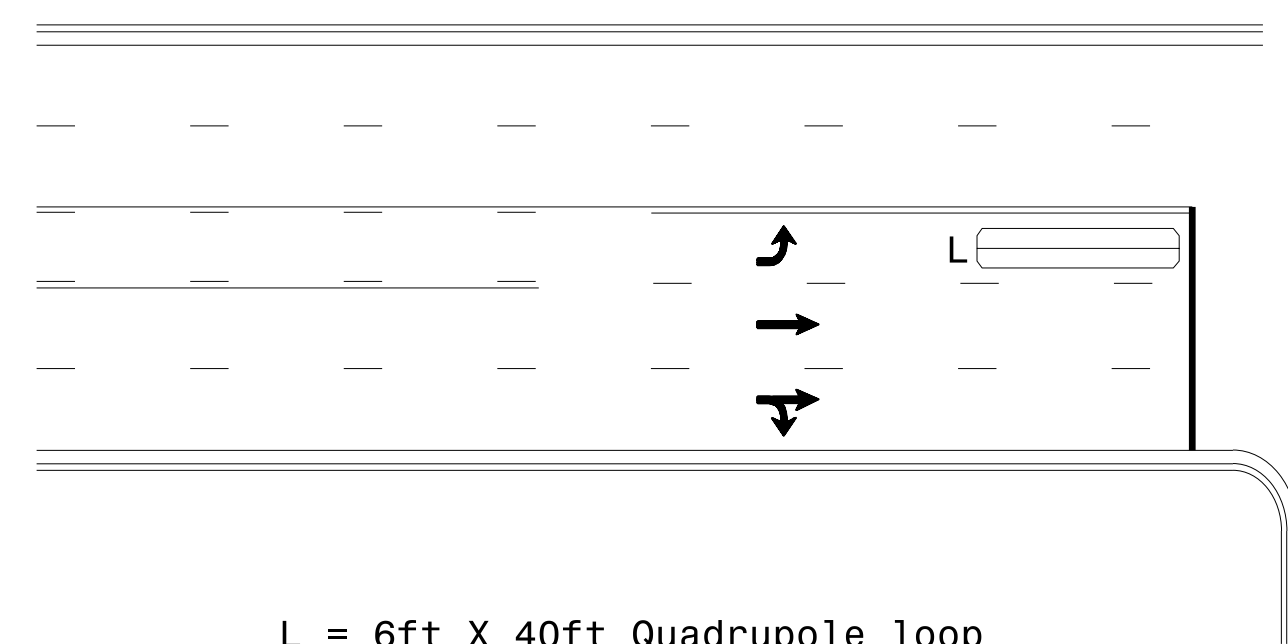
L = 6ft X 6ft  
Wired in series

OR



L = 6ft X 40ft  
Quadrupole loop, wired separately

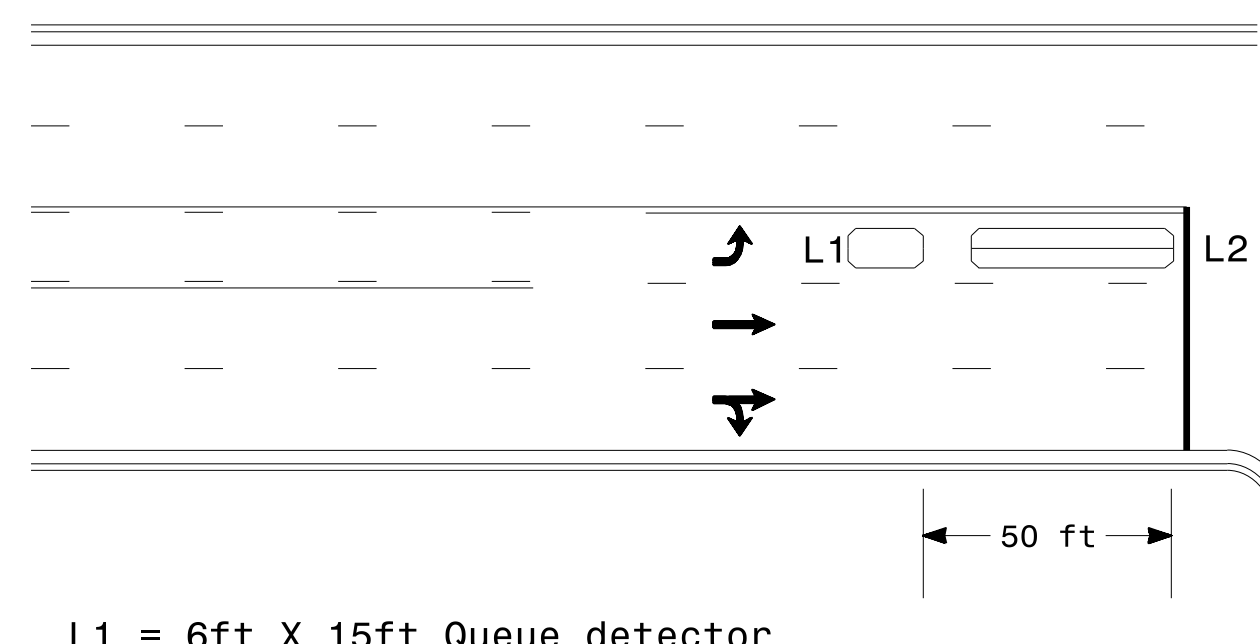
### Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

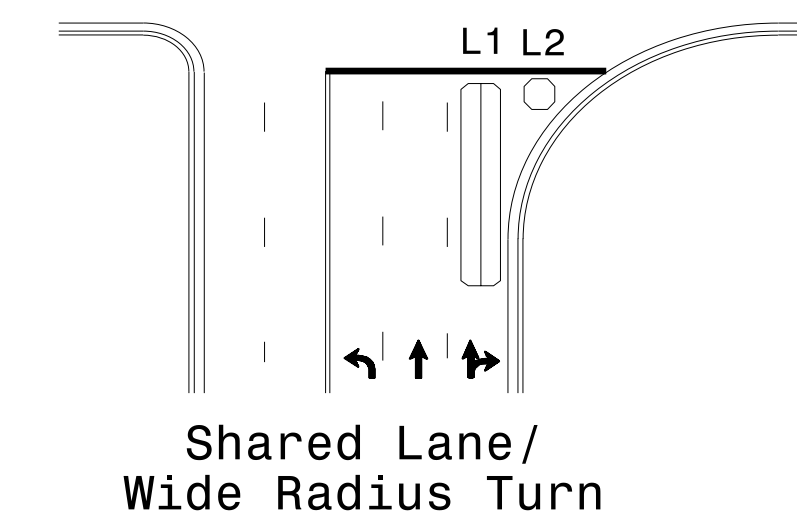
OR



L1 = 6ft X 15ft Queue detector  
L2 = 6ft X 40ft Quadrupole loop

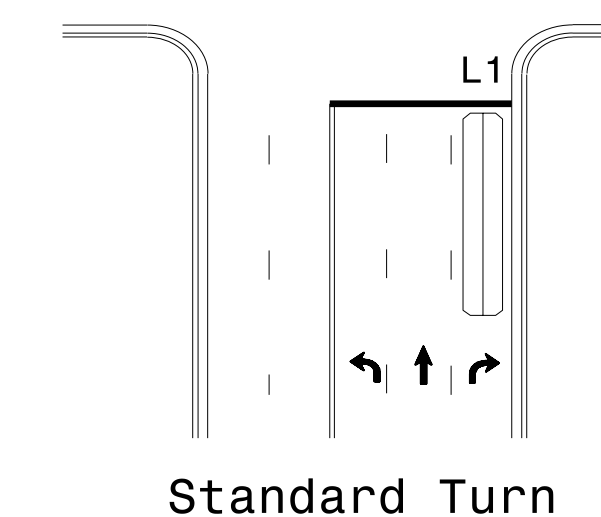
Queue Loop Detection

### Right Turn Lane Detection

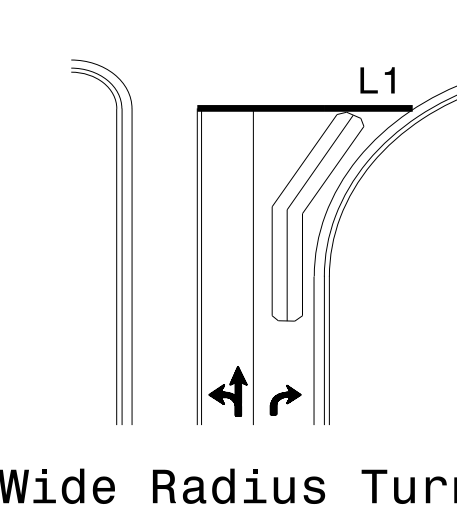


Shared Lane/  
Wide Radius Turn

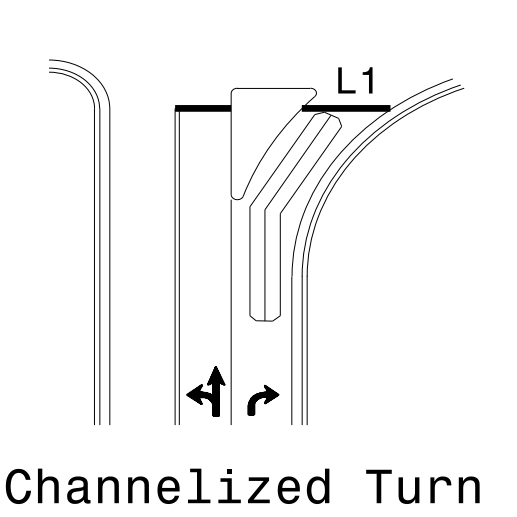
L1 = 6ft X 40ft Quadrupole loop  
L2 = 6ft X 6ft [Minimum] Presence loop  
Wired separately



Standard Turn

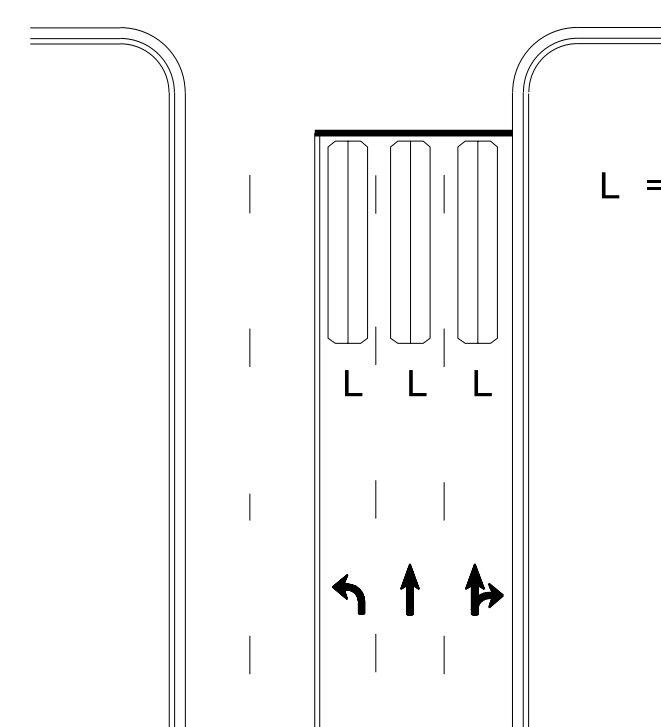


Wide Radius Turn



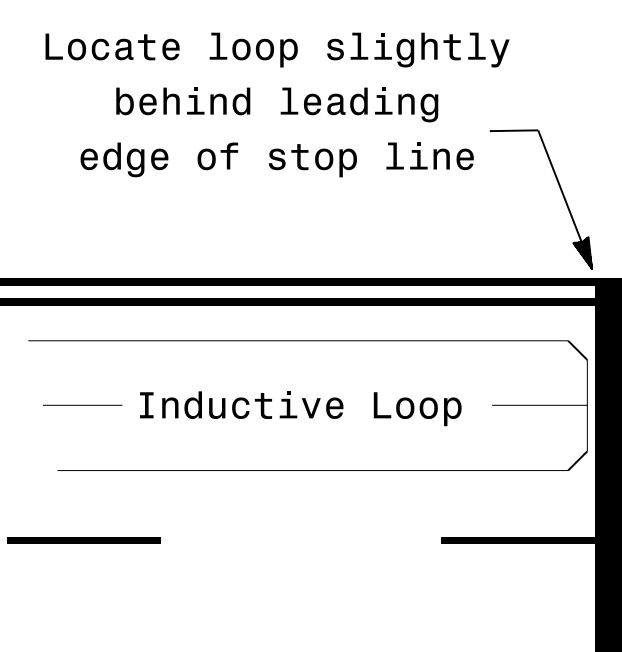
Channelized Turn

### Side Street Detection



L = 6ft X 40ft  
Quadrupole loop  
Wired to separate  
detectors/channels

### Presence Loop Placement at Stop Lines



Locate loop slightly  
behind leading  
edge of stop line

Note:  
Loop may be located in advance  
of stop line under any of the  
following conditions:  
1) stop line is greater than 15'  
from edge of intersecting  
roadway  
2) loop detects a permissive or  
protected/permissive left turn  
3) for an exclusive right turn  
lane

### Recommended Number of Turns

Single 6' X 6' loop  
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops:  
Lead-in < 150', use 2 turns  
Lead-in > 150', use 3 turns

<p>Prepared In the Offices of: TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS, INC. SIGNAL DESIGN SECTION 750 N. Greenfield Pkwy, Garner, NC 27529</p>	<p>Typical Signal Loop Locations</p>		<p>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER PAMELA L. ALEXANDER 23489</p>
	<p>PLAN DATE: January 2015</p>	<p>REVIEWED BY: JPG</p>	
<p>PREPARED BY: PLA</p>	<p>REVIEWED BY:</p>	<p>REVISIONS</p>	<p>INIT. DATE</p>
<p>SIG. INVENTORY NO.</p>			<p>1/30/2015</p>