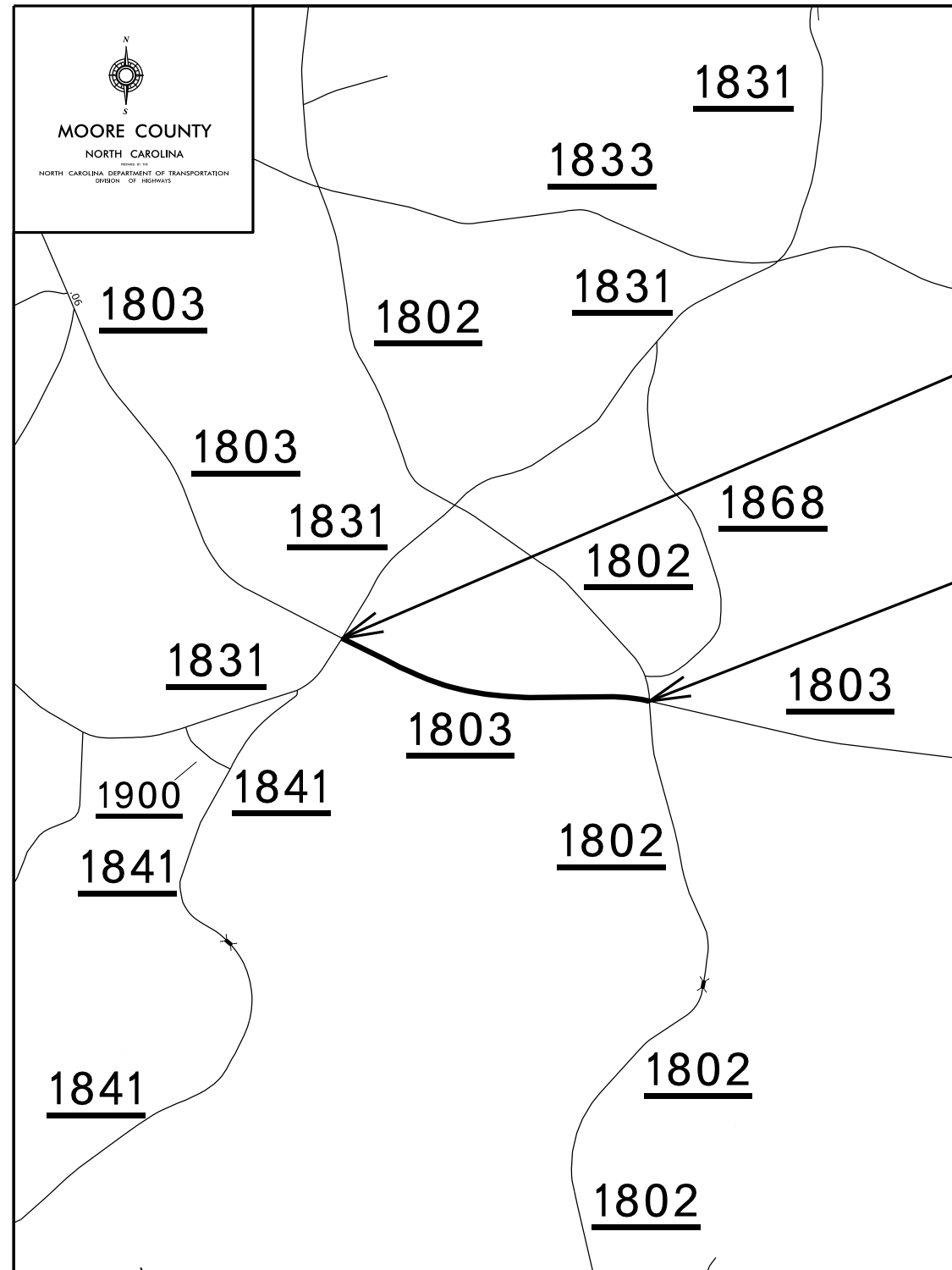
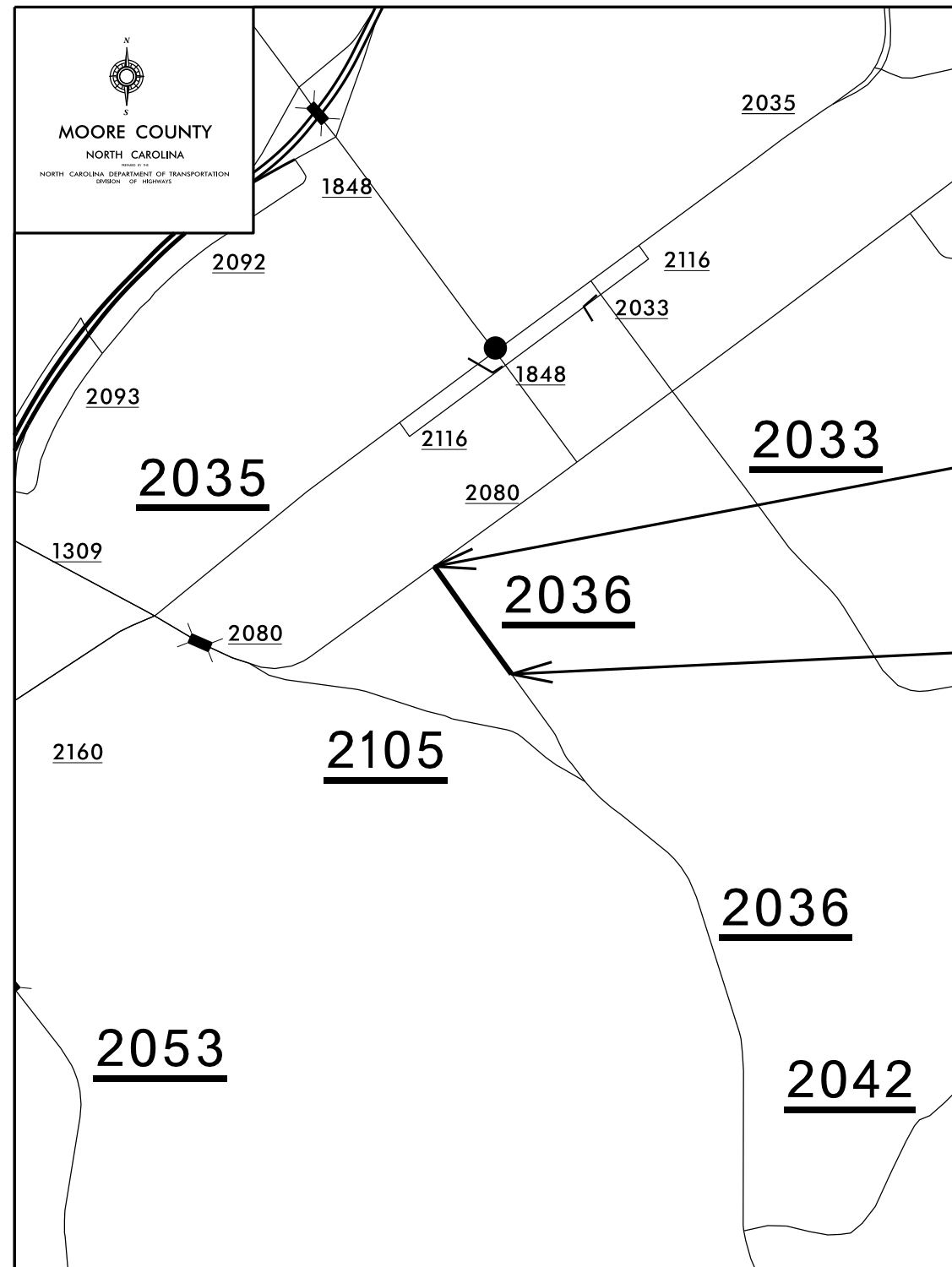


MOORE COUNTY RESURFACING

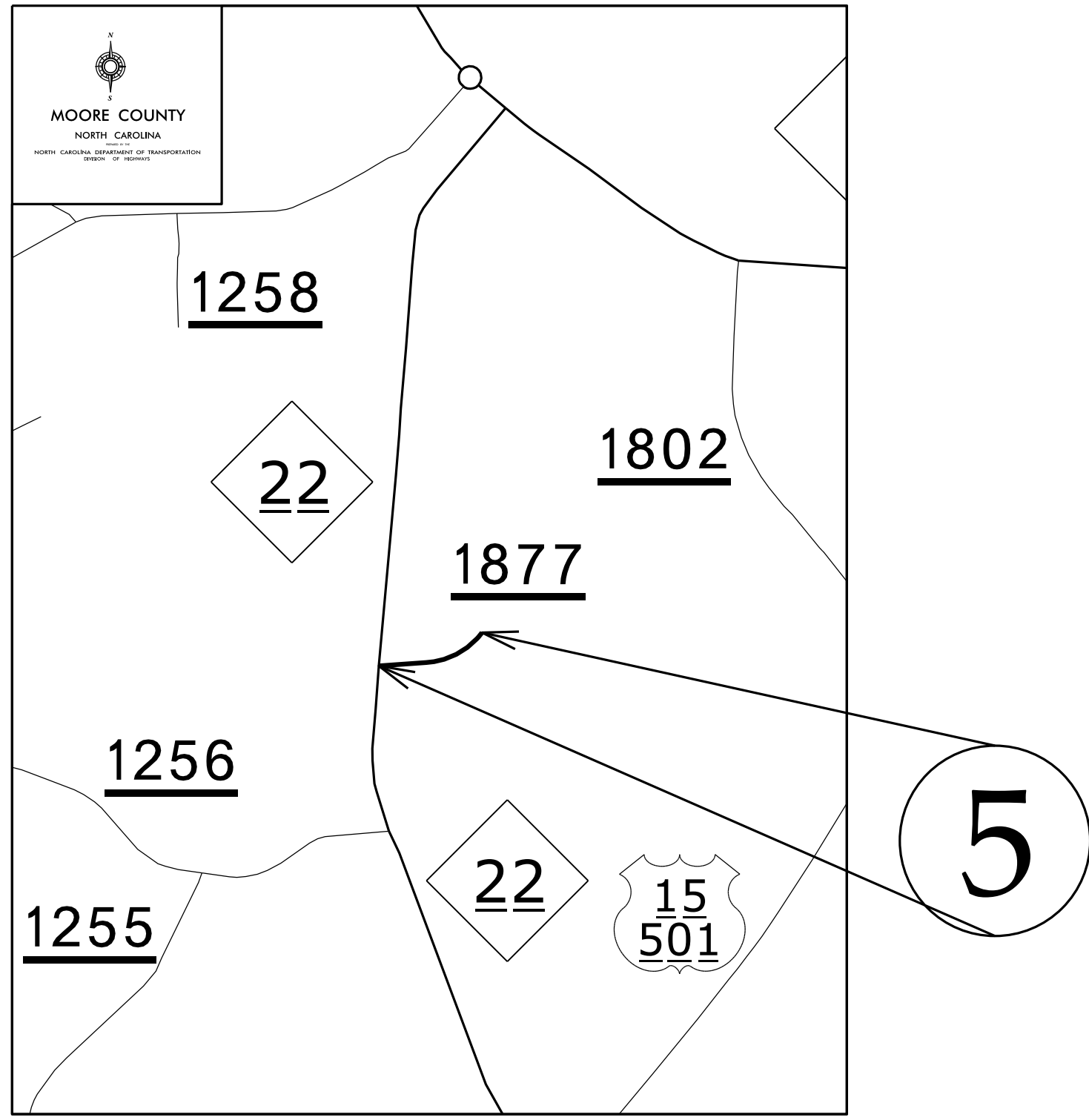
Map 2



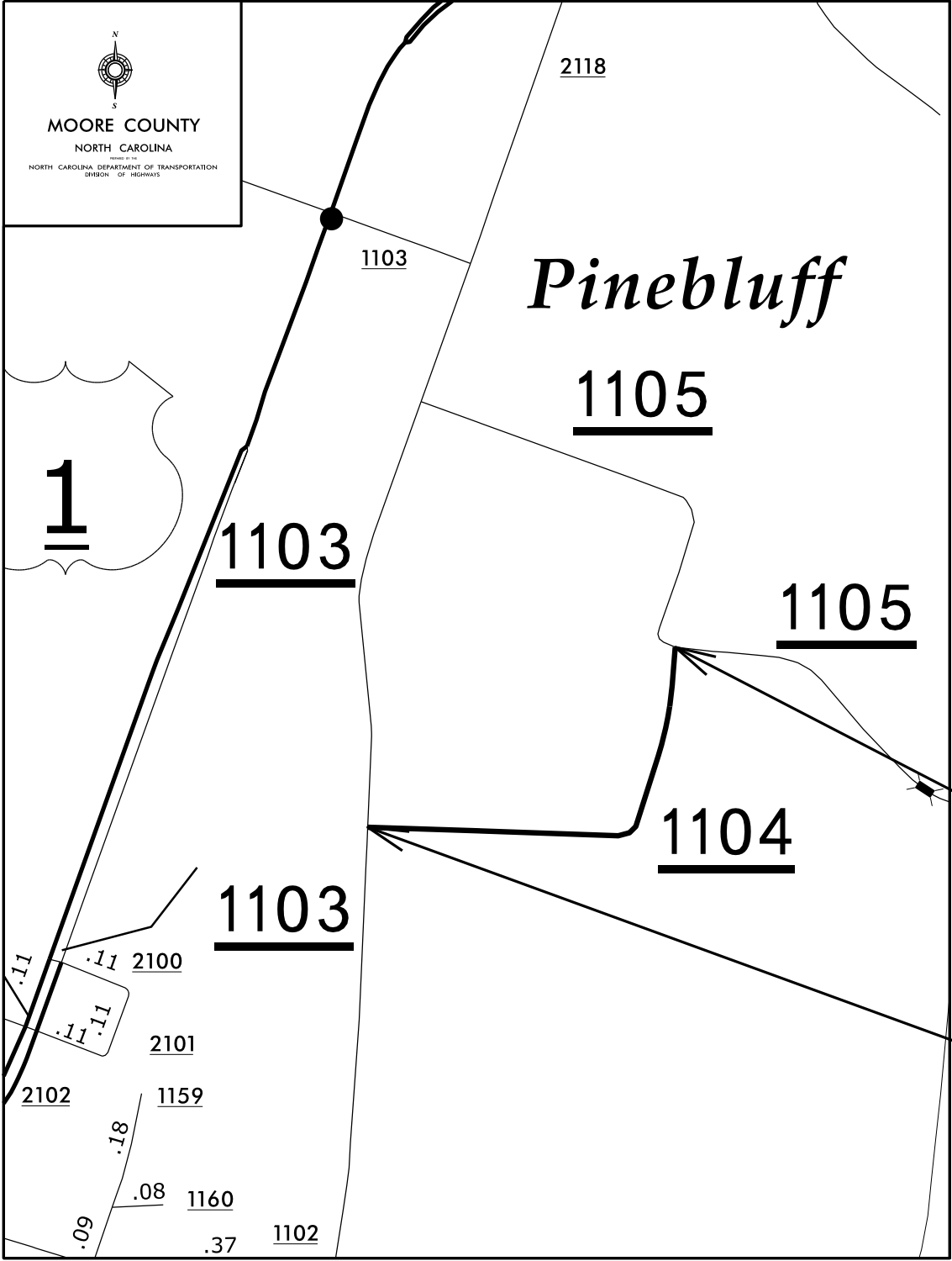
Map 4



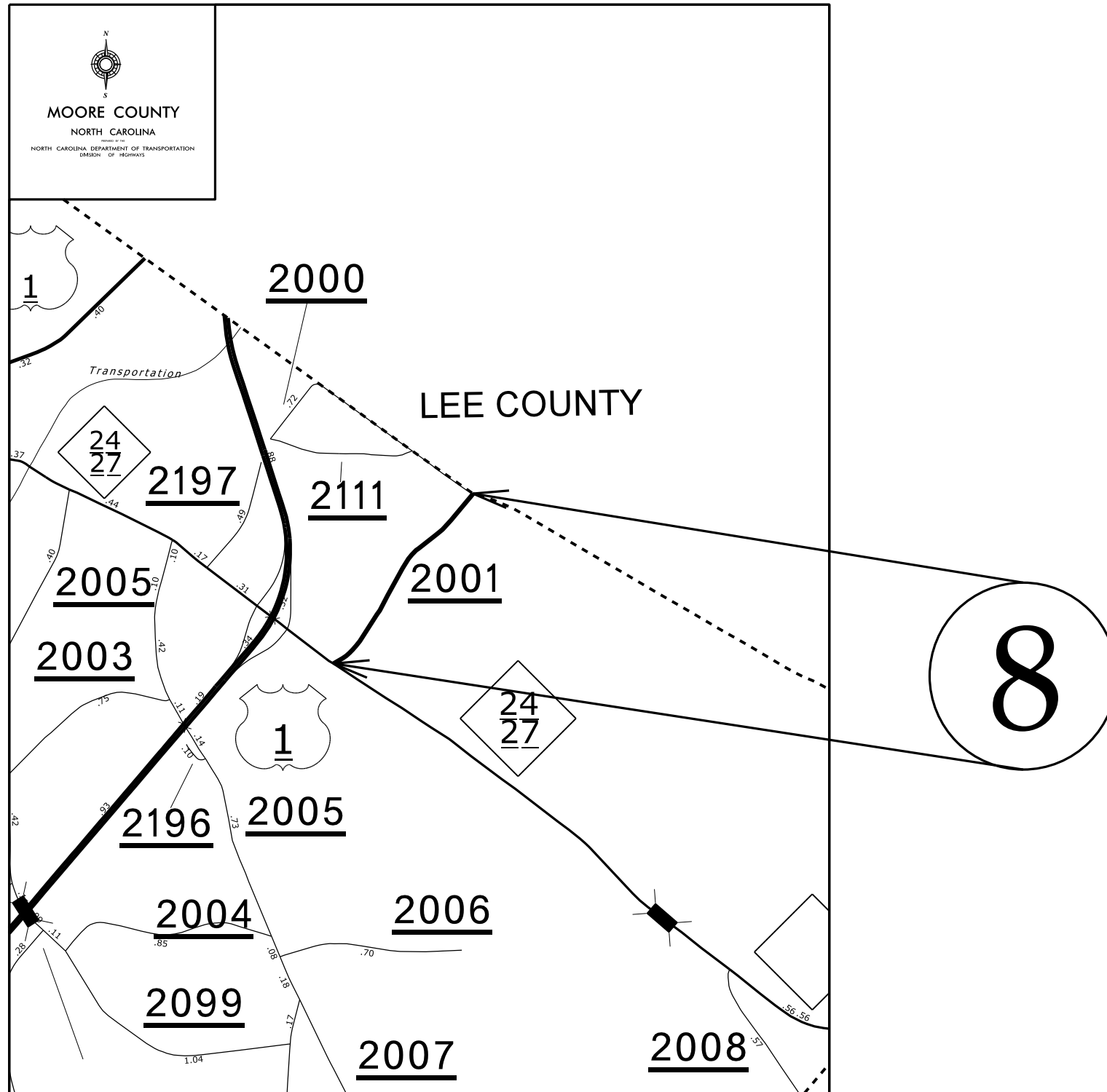
Map 5



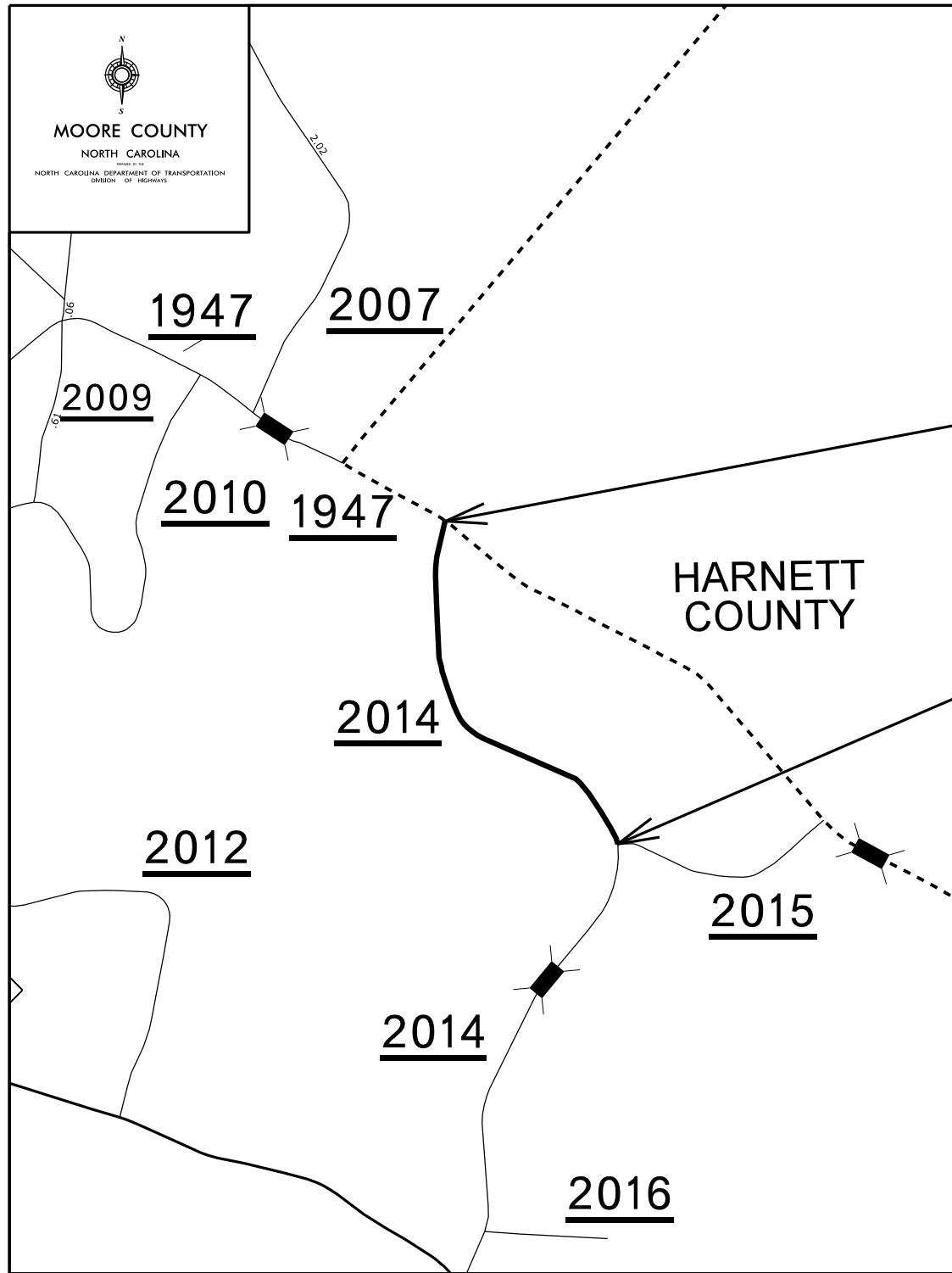
Map 6



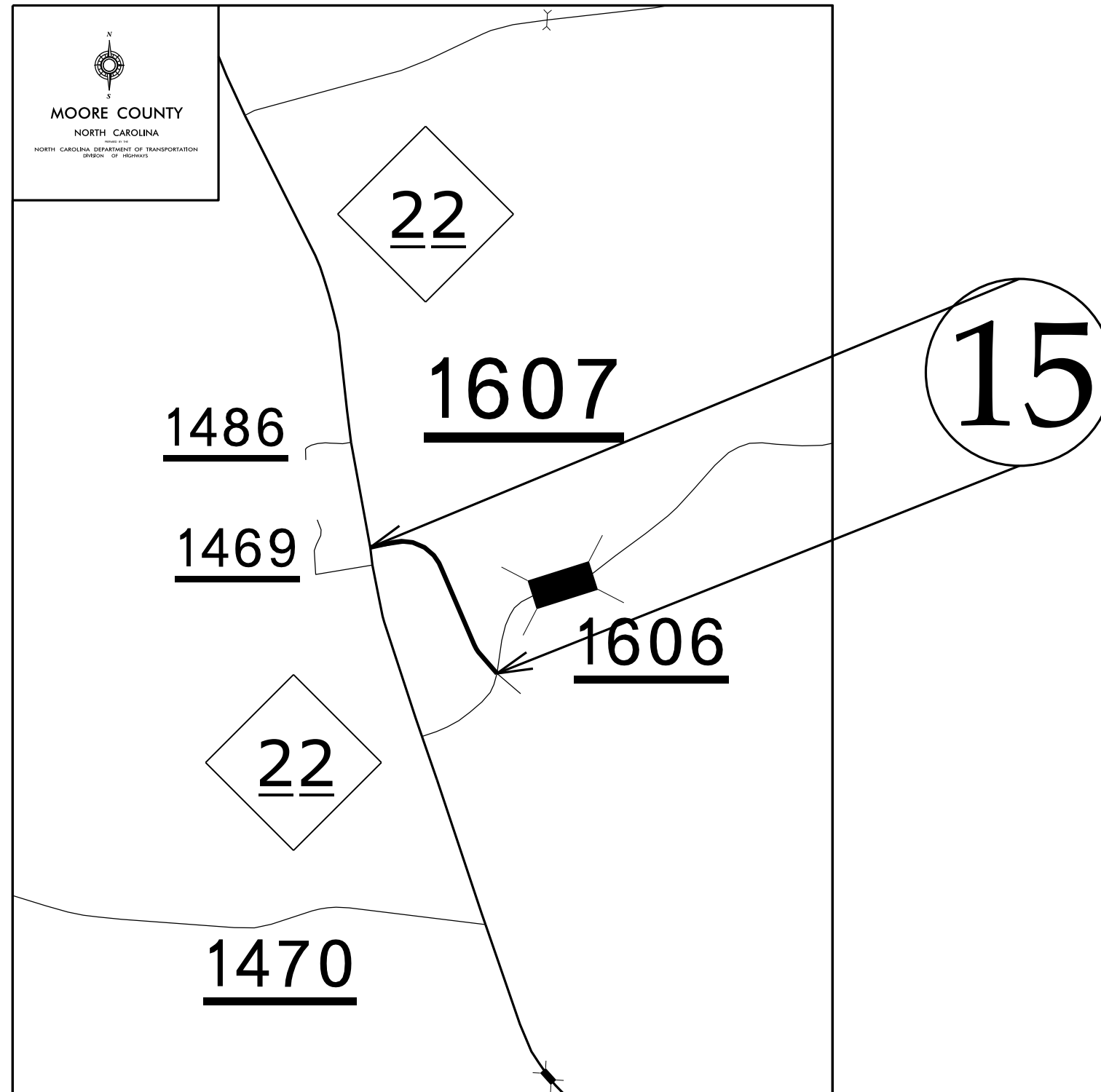
Map 8



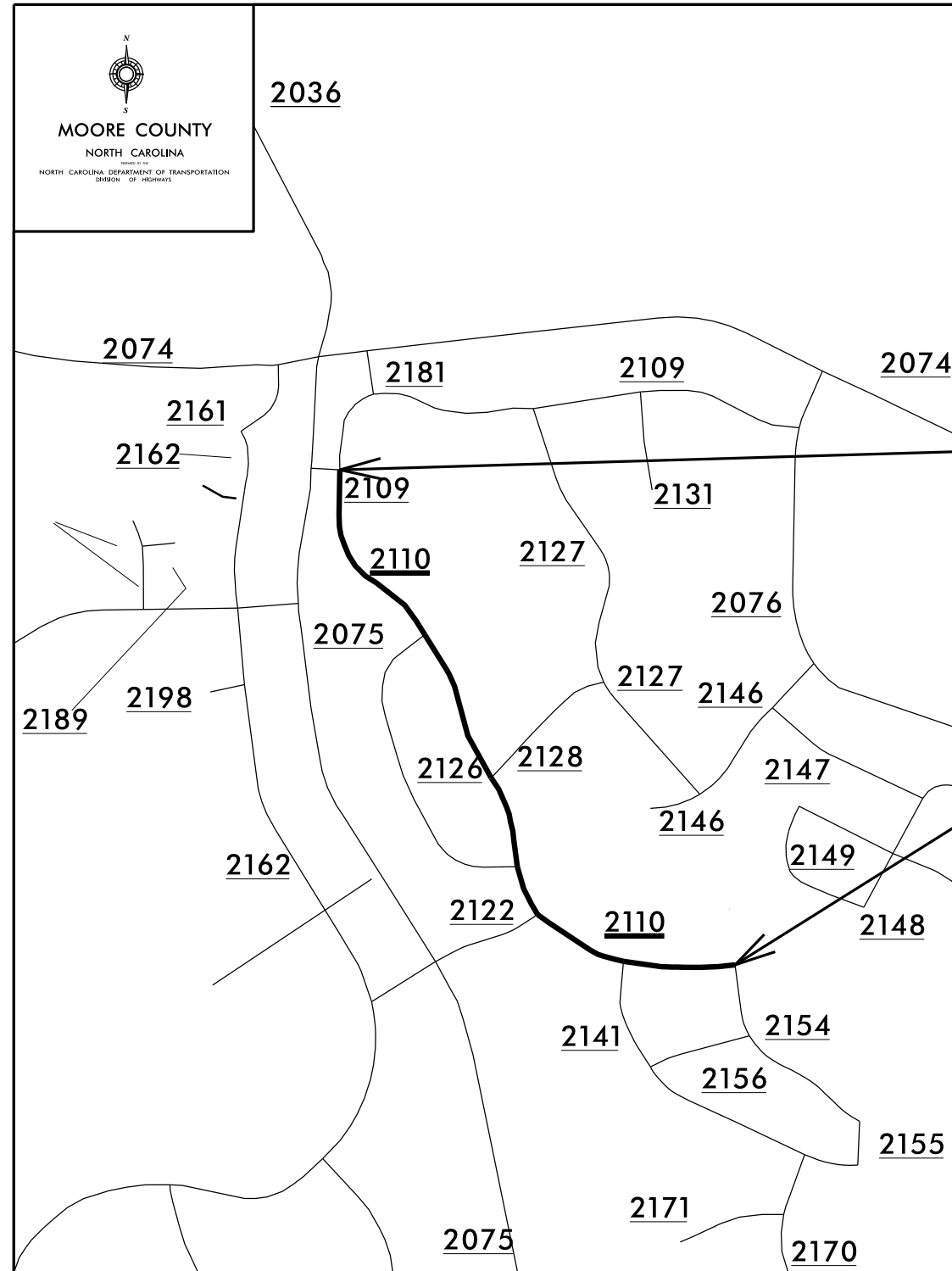
Map 9



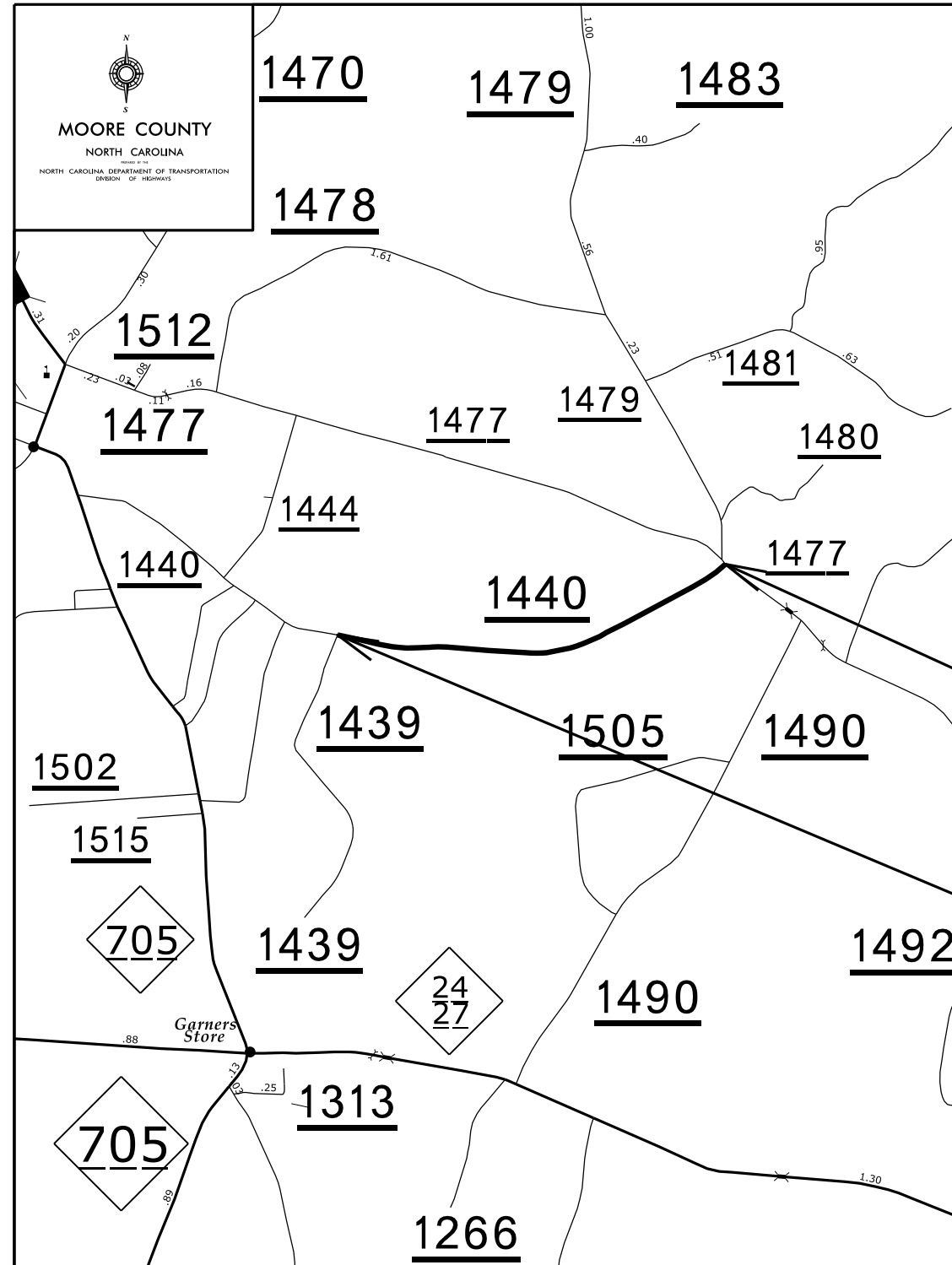
Map 15



Map 16

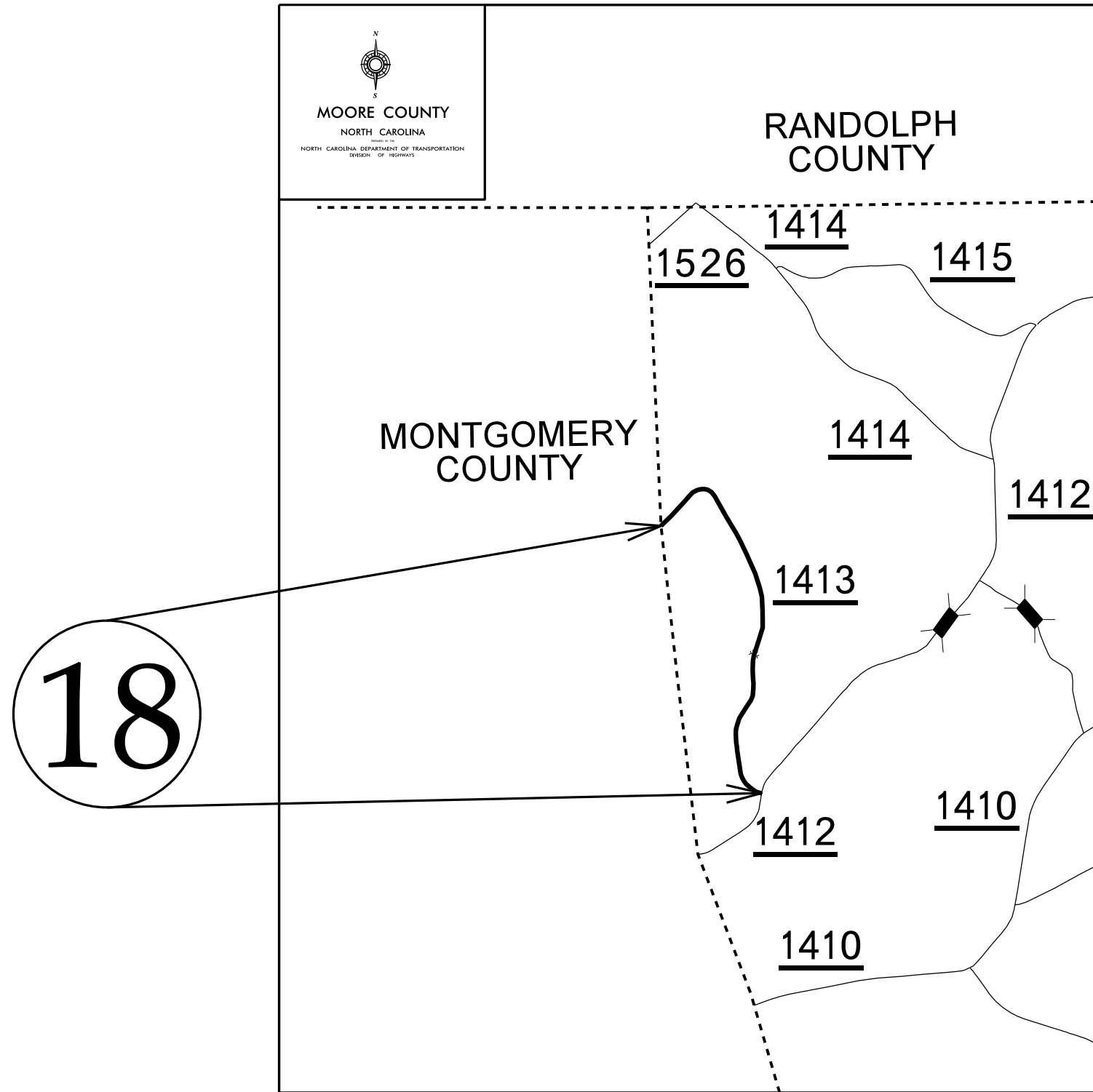


Map 17



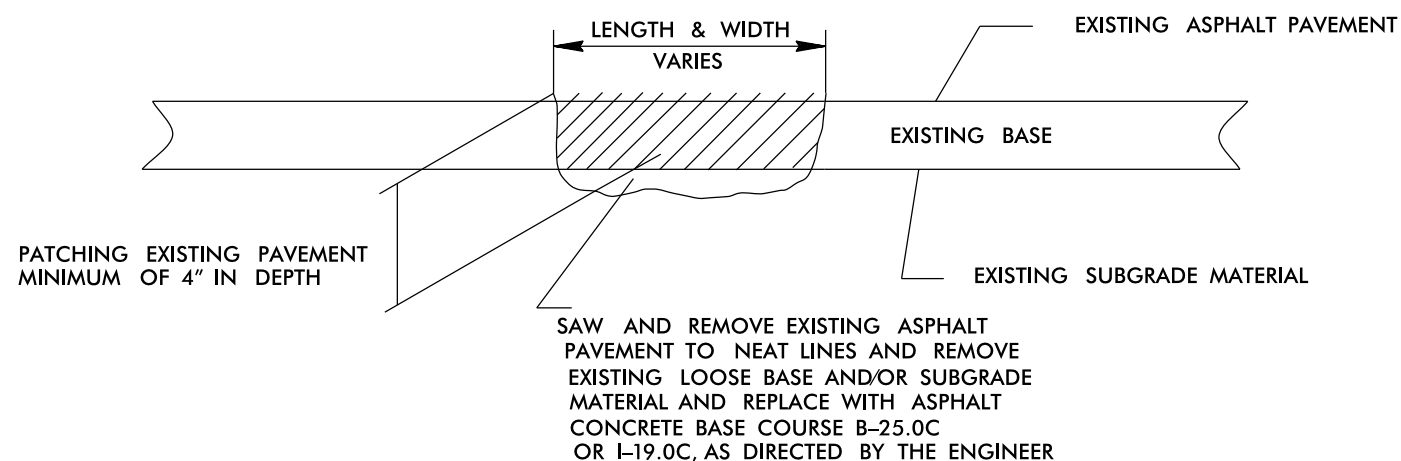
17

Map 18

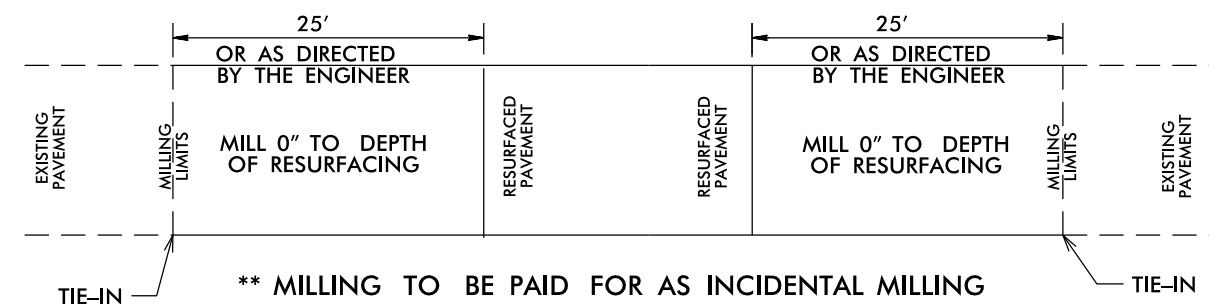


DETAILS

DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING



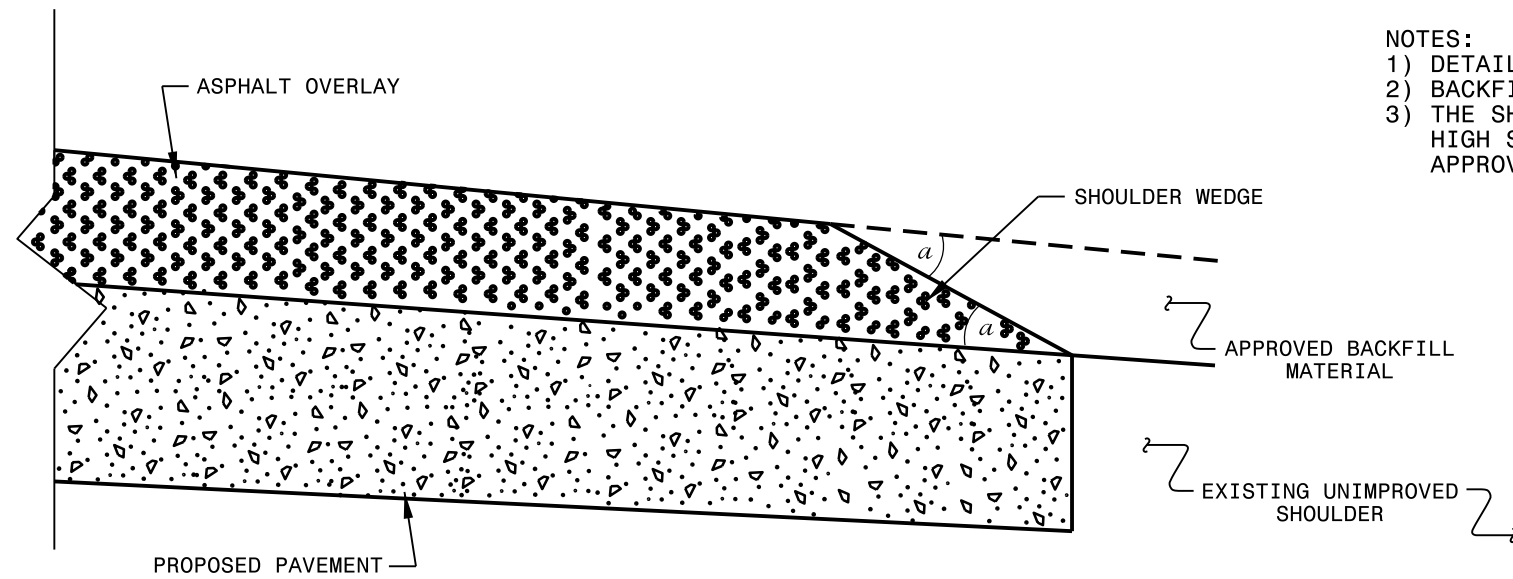
PAVEMENT TIE-IN DETAIL



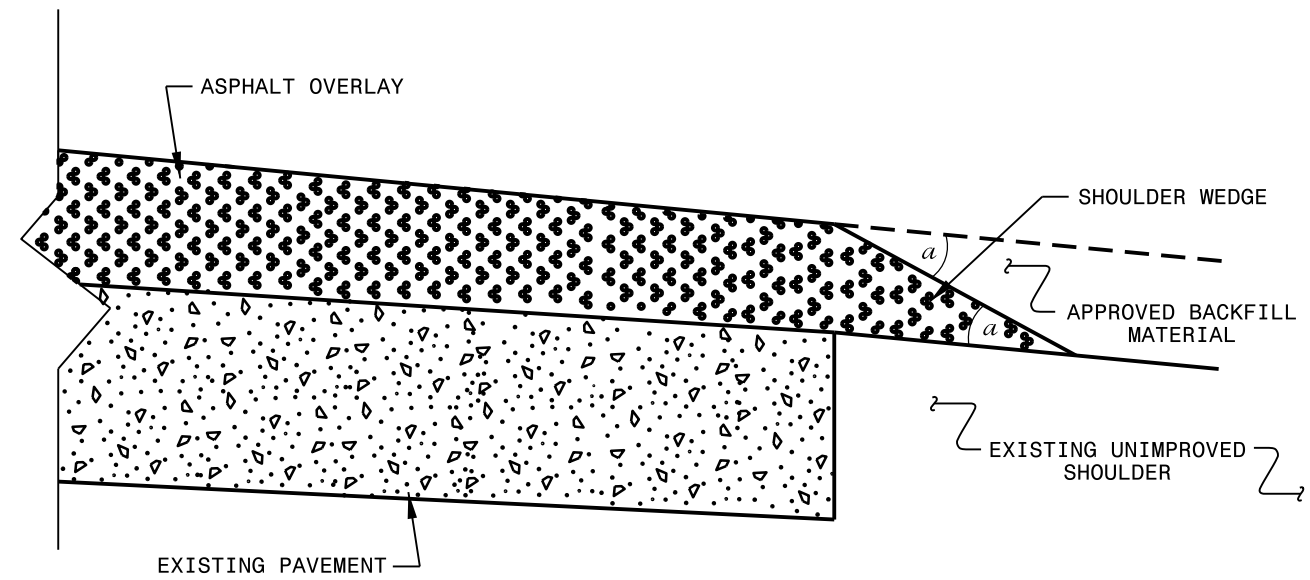
PROJECT NOTES

- PAINT MARKINGS INCLUDED FOR MILLING ON MAP 4.
- ONE COAT OF PAINT MARKINGS TO BE APPLIED ON MAPS 2 and 5-18. PERMANENT MARKINGS TO BE HANDLED ON A LATER PROJECT.
- PAINT MARKINGS AND LINE REMOVAL INCLUDED FOR BRIDGE ON MAP 7.

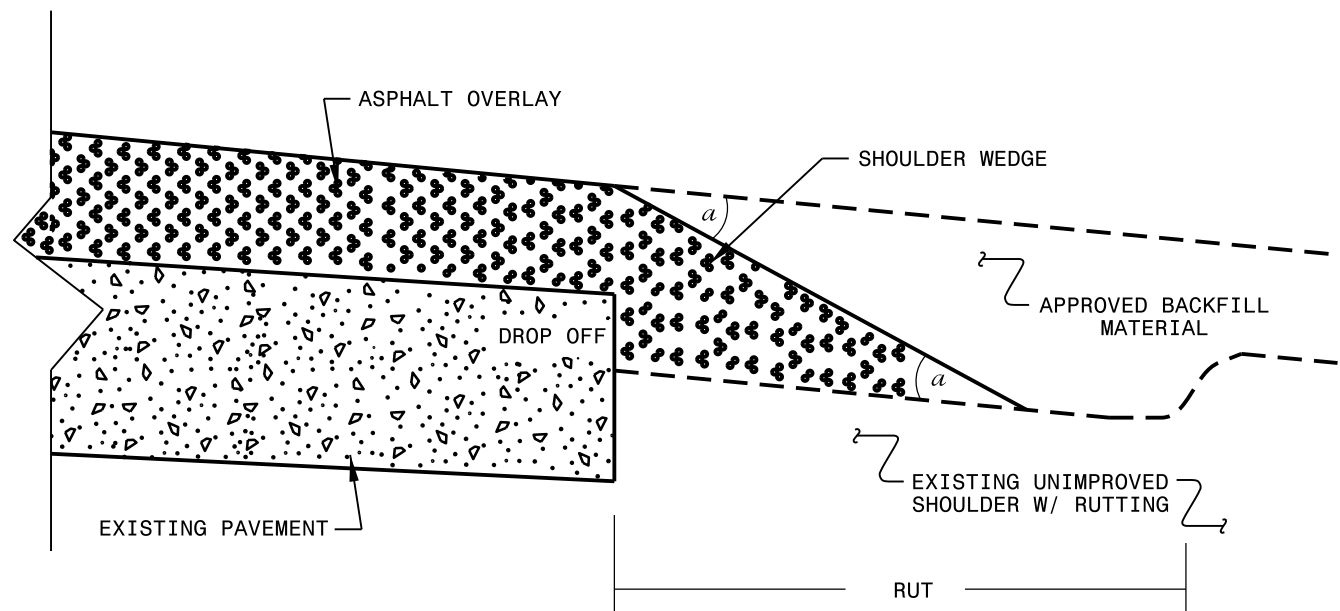
- NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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)

- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT		
Office 919-707-6950 FAX 919-250-4119		
SHOULDER WEDGE DETAILS		
ORIGINAL BY: T.SPELL	DATE: 7-19-11	
MODIFIED BY:	DATE: 2/2/16	
CHECKED BY:	DATE:	
FILE SPEC.: szusr/details/stand/shoulderwedgedetail.dgn		

PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.08.02.10631, 2024CPT.08.02.20631	24	

SUMMARY OF QUANTITIES

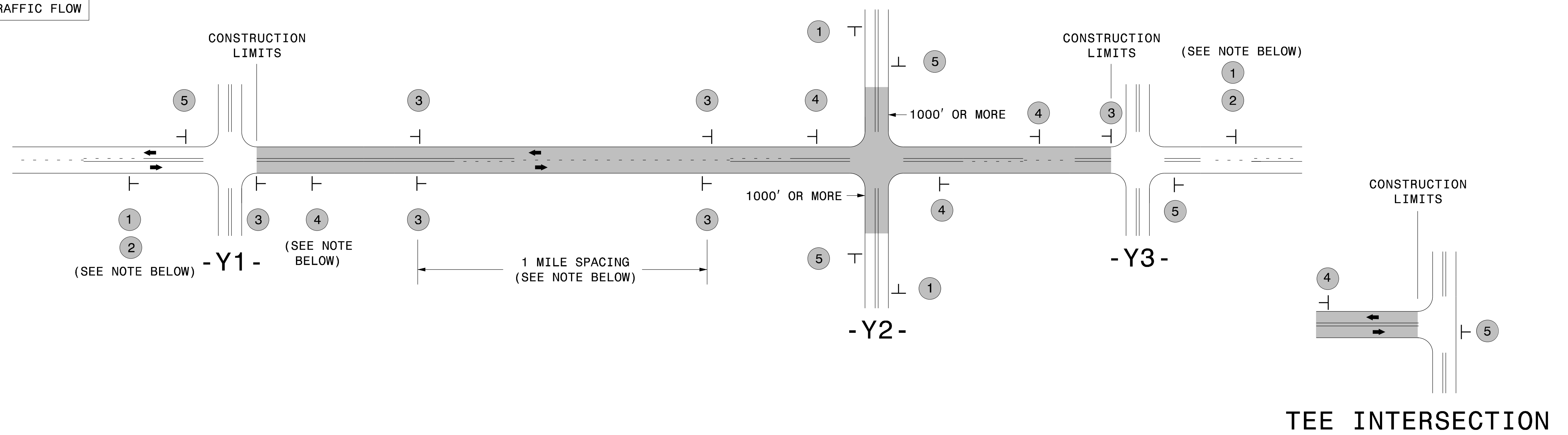
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BEGIN MP	END MP	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1503000000-E	1519000000-E	1575000000-E	1704000000-E	1891000000-E	2830000000-N	2845000000-N	7444000000-E	7456000000-E									
														SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1.5" MILLING	1.0" MILLING	INCIDENTAL MILLING	INTERMEDIATE COURSE, 119.0C	SURFACE COURSE, \$9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	GENERIC PAVING ITEM - LATEX MODIFIED MICROSURFACING, TYPE II	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE (14-2 PAIR)								
														MI	FT																				
2024CPT.08.02.10631	Moore	1	NC-73	FROM MONTGOMERY COUNTY LINE AT DROWNING CREEK TO WEST SIDE OF R/R TRACKS 175' WEST OF HWY 211	4	2	2WU	NO	NO	6.05	25	0	6.05								8	165	98,091												
TOTAL FOR MAP NO. 1														6.05									8	165	98,091										
TOTAL FOR PROJ NO. 2024CPT.08.02.10631														6.05		0	6.05						8	165	98,091										
2024CPT.08.02.20631	Moore	2	SR-1803 / VASS-CARTHAGE RD	FROM SR 1831 (FARM LIFE SCHOOL RD) TO SR 1802 (NIAGARA-CARTHAGE RD)	1	2	2WU	NO	NO	1.02	24	3.89	4.91	2.04	300.00			230		1,370															
TOTAL FOR MAP NO. 2														1.02				2.04	300.00			230		1,370											
2024CPT.08.02.20631	Moore	3	SR-2036 / E INDIANA AVE	FROM COUNTRY CLUB DR END OF CURB TO SR 2074 (FORT BRAGG RD)	1	2	2WU	NO	NO	1.54	25	0.21	1.75	3.08	470.00					1,975	5	100		9	1										
TOTAL FOR MAP NO. 3														1.54				3.08	470.00					1,975	5	100		9	1						
2024CPT.08.02.20631	Moore	4	SR-2036 / E INDIANA AVE	FROM SR 2080 (S MAY ST) TO END OF CURB AT COUNTRY CLUB DRIVE	2	2	2WU	NO	NO	0.19	32	0.02	0.21			3,800				325	21			7	3										
TOTAL FOR MAP NO. 4														0.19						3,800			325	21			7	3							
2024CPT.08.02.20631	Moore	5	SR-1877 / PINEHURST AVE	FROM NC 22 TO CARTHAGE CITY LIMITS	1	2	2WU	NO	NO	0.2	20	0	0.2	0.40	60.00			270		214	14	10													
TOTAL FOR MAP NO. 5														0.2				0.40	60.00			270		214	14	10									
2024CPT.08.02.20631	Moore	6	SR-1104 / PINEBLUFF CEMETERY RD	FROM SR 1103 (CURRANT ST EXT) TO SR 1105 (PINEBLUFF LAKE RD)	1	2	2WU	NO	NO	0.7	20	0	0.7	1.40	200.00			200		784	54	60													
TOTAL FOR MAP NO. 6														0.7				1.40	200.00			200		784	54	60									
2024CPT.08.02.20631	Moore	7	SR-1841 / RAYS BRIDGE RD	FROM SR 1831 (FARM LIFE SCHOOL RD) TO NC 22	1	2	2WU	NO	NO	2.89	20	0	2.89	3.95	570.00			500		3,234	210	60													
TOTAL FOR MAP NO. 7														2.89				3.95	570.00			500		3,234	210	60									
2024CPT.08.02.20631	Moore	8	SR-2001 / BASS RD	FROM LEE COUNTY LINE TO NC 24	1	2	2WU	NO	NO	0.85	20	0	0.85	1.70	240.00			1,200		952	64	50													
TOTAL FOR MAP NO. 8														0.85				1.70	240.00			1,200		952	64	50									
2024CPT.08.02.20631	Moore	9	SR-2014 / MCLAUCHLIN RD	FROM HARNETT COUNTY LINE TO SR 2015 (MURDOCK C RD)	1	2	2WU	NO	NO	1.345	22	0.005	1.35	2.69	380.00			90		1,584	103	60													
TOTAL FOR MAP NO. 9														1.345				2.69	380.00			90		1,584	103	60									
2024CPT.08.02.20631	Moore	10	SR-1864 / JAMES ST	FROM PVMT JOINT AT US 1 BRIDGE TO US 1 BUS	1	2	2WU	NO	NO	0.455	20	1.315	1.77	0.91	130.00			450		488	35	75		9	300	300									
TOTAL FOR MAP NO. 10														0.455				0.91	130.00			450		488	35	75		9	300	300					
2024CPT.08.02.20631	Moore	11	SR-1864 / JAMES ST	FROM US 1 BUS TO END OF STATE MAINT.	3	2	2WU	NO	NO	0.07	20	1.78	1.85	0.14	50.00			130		75	13	40			300	300									
TOTAL FOR MAP NO. 11														0.07				0.14	50.00			130		75	13	40		300	300						
2024CPT.08.02.20631	Moore	12	SR-1640 / KELLY PLANTATION RD	FROM BEGINNING OF PVMT 650' NORTH OF HINSON RD TO PVMT JT AT BRIARPATCH DR	1	2	2WU	NO	NO	1.68	20	0.51	2.19	3.36	480.00	200	360			1,800	122	100													
TOTAL FOR MAP NO. 12														1.68				3.36	480.00	200	360			1,800	122	100									
2024CPT.08.02.20631	Moore	13	SR-1665 / MYRICK RD	FROM NC 22 TO SR 1640 (KELLY PLANTATION RD)	1	2	2WU	NO	NO	1.09	20	0.02	1.11	2.18	320.00			200		1,168	79	60													
TOTAL FOR MAP NO. 13														1.09				2.18	320.00			200		1,168	79	60									
2024CPT.08.02.20631	Moore	14	SR-1628 / COOL SPRINGS RD	FROM PVMT JOINT AT MP 3.54 TO SR 1629 (PUTNAM-GLENDON RD)	1	2	2WU	NO	NO	0.29	20	3.54	3.83	0.58	100.00			180		353	24	25													
TOTAL FOR MAP NO. 14														0.29				0.58	100.00			180		353	24	25									
2024CPT.08.02.20631	Moore	15	SR-1607 / FRIESON RD	FROM NC 22 TO SR 1606 (RIVER RD)	1	2	2WU	NO	NO	0.37	20	0	0.37	0.74	115.00			375		450	29	70													
TOTAL FOR MAP NO. 15														0.37				0.74	115.00			375		450	29	70									
2024CPT.08.02.20631	Moore	16	SR-2110 / S GLENWOOD TRL	FROM ACCESS ST TO SR 2154 (TARTAN TRL)	1	2	2WU	NO	NO	0.83	20	0.01	0.84	1.66	245.00			88		889	60	50													
TOTAL FOR MAP NO. 16														0.83				1.66	245.00			88		889	60	50									
2024CPT.08.02.20631	Moore	17	SR-1440 / E HEMP ST	FROM SR 1477 (PLANK RD) TO SR 1439 (RUSHWOOD RD)	1	2	2WU	NO	NO	1.34	20	1.01	2.35	2.68	390.00			180		1,475	99	75													
TOTAL FOR MAP NO. 17														1.34				2.68	390.00			180		1,475	99	75									
2024CPT.08.02.20631	Moore	18	SR-1413 / HANCOCK RD	FROM MOORE COUNTY LINE TO SR 1412 (UPPER RD)	1	2	2WU	NO	NO	1.51	20	0	1.51	3.02	475.00			200		1,618	112	150													
TOTAL FOR MAP NO. 18														1.51				3.02	475.00			200		1,618	112	150									
TOTAL FOR PROJ NO. 2024CPT.08.02.20631														16.37		12.31	28.68	30.53	4,525.00	3,800	200	4,523	130	18,754	1,044	985		16	13	600	600				
GRAND TOTAL																		22.42		12.31	34.73	30.53	4,525.00	3,800	200	4,523	130	18,754	1,052	1,150	98,091	16	13	600	600

SIGNING FOR RESURFACING PROJECTS

LEGEND

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

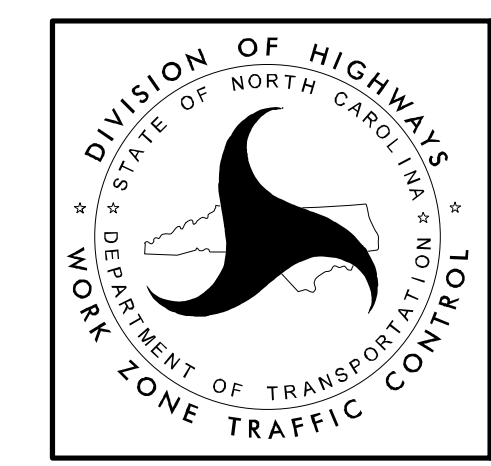
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> LESS THAN 1000' OF RESURFACING ALONG -Y- LINE SUBDIVISION ROADS DEAD END ROADS <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 style="text-align: center;"> W20-1 48" X 48" </div> <div style="text-align: center;"> W20-7 A 48" X 48" </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	2	 NEXT XX MILES W7-3aP 24" X 18"	#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)	
	3	 SP 13107 48" X 48"	<ul style="list-style-type: none"> PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER. 	
	4	 SP 13106 48" X 48"	<ul style="list-style-type: none"> THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. 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. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE. 	
	5	 END ROAD WORK G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

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

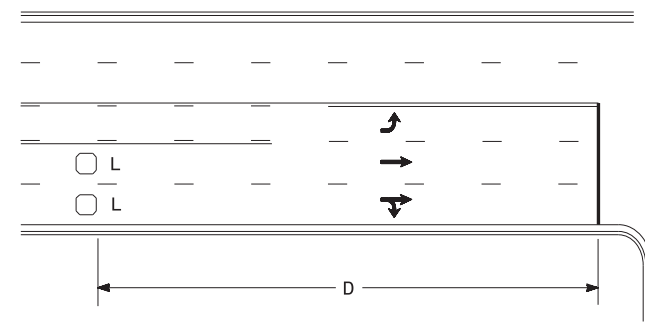
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



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

5/15/2017 S:\TMU\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn User:kadai

High Speed Detection (≥40 mph)

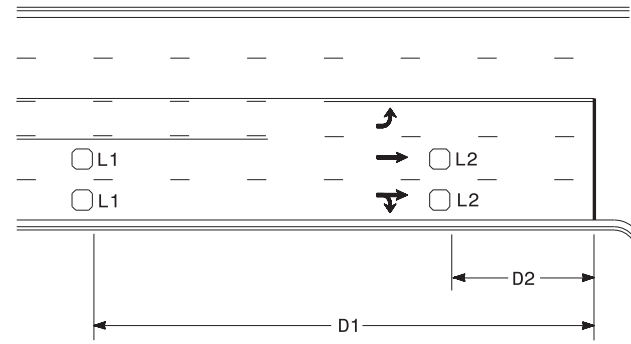


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR

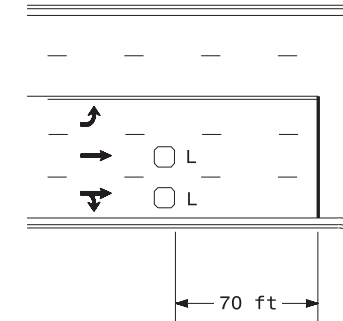


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

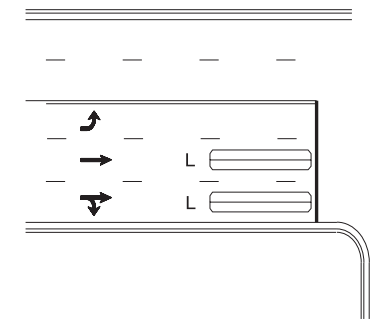
"Stretch" Operation

Low Speed Detection (≤35 mph)



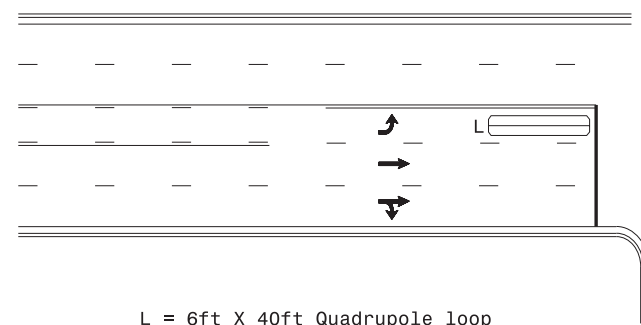
L = 6ft X 6ft
Wired in series

OR



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

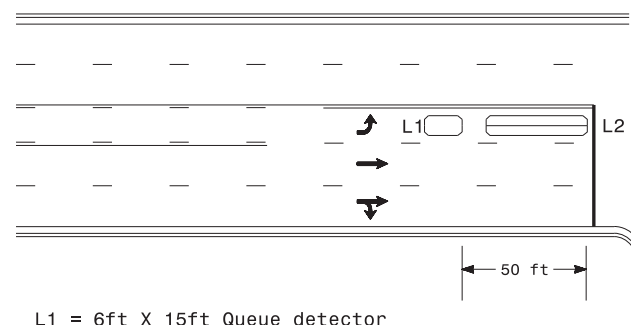
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

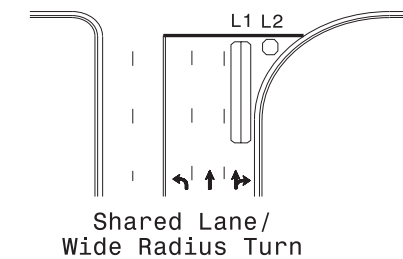
OR



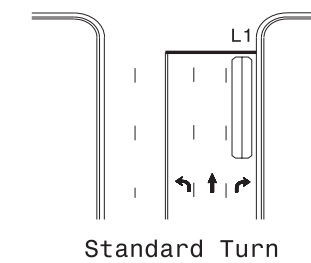
L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

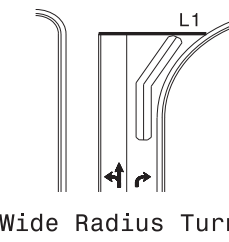
Right Turn Lane Detection



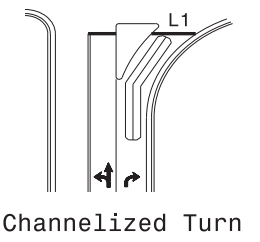
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

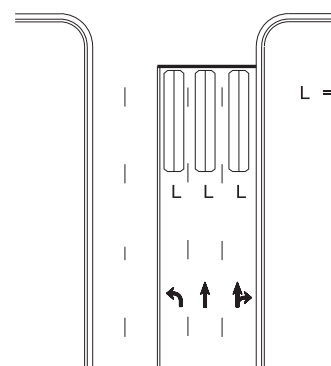


Wide Radius Turn



Channelized Turn

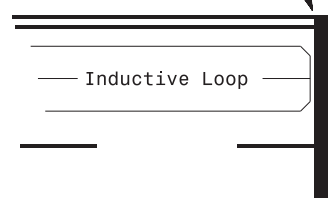
Side Street Detection



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

750 N. Greenfield Pkwy, Garner, NC 27529

Prepared in the Offices of:

TRANSPORTATION MOBILITY AND SAFETY DIVISION
STATE OF NORTH CAROLINA
STATE OF LAMAR COUNTY
Signal Design Section

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
029904
JASON P. GALLOWAY

Typical Signal Loop Locations	
PLAN DATE: September 2020	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
SCALE: N/A	REVISIONS: INIT. DATE

9/8/2020
DATE
SIG. INVENTORY NO.