
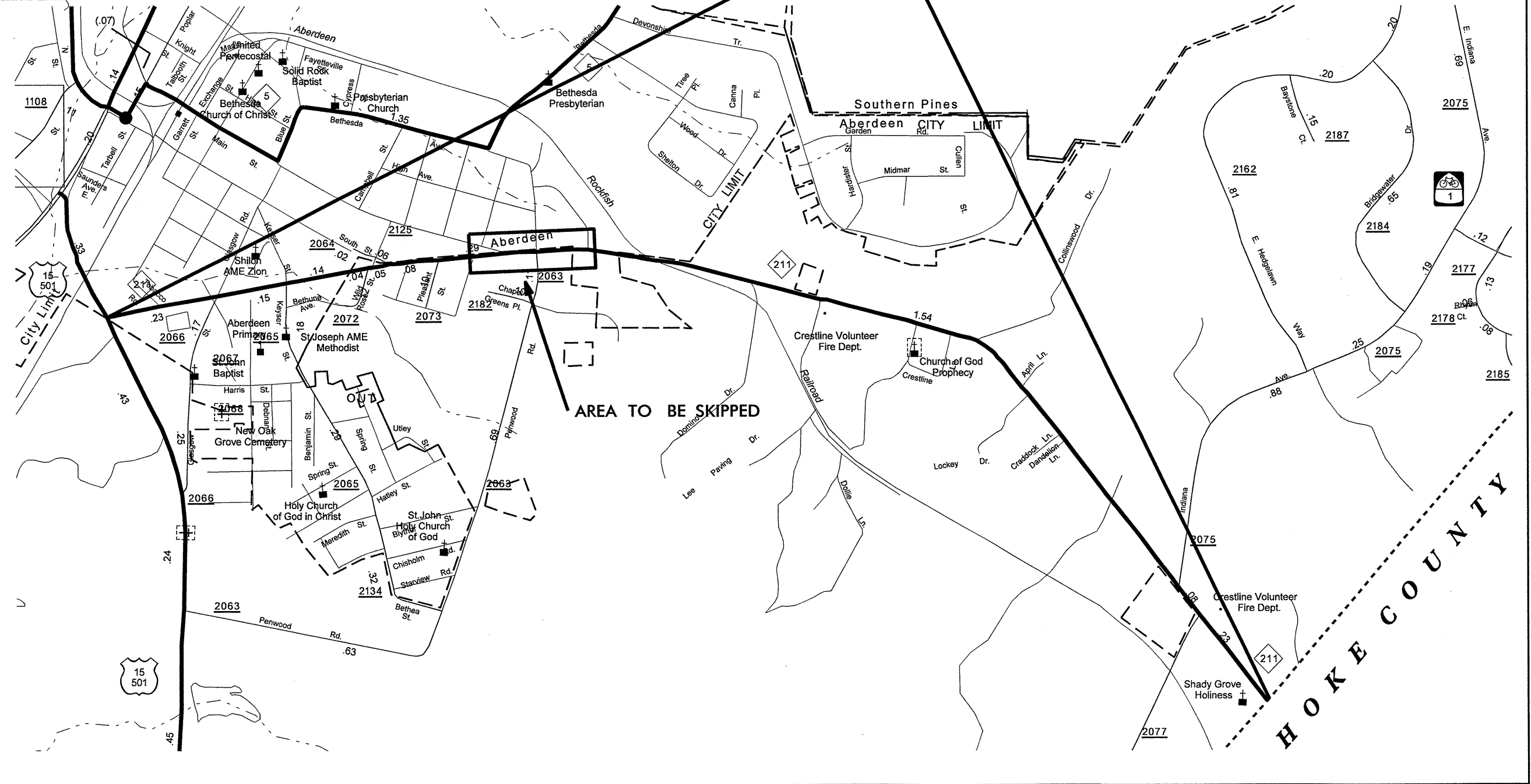
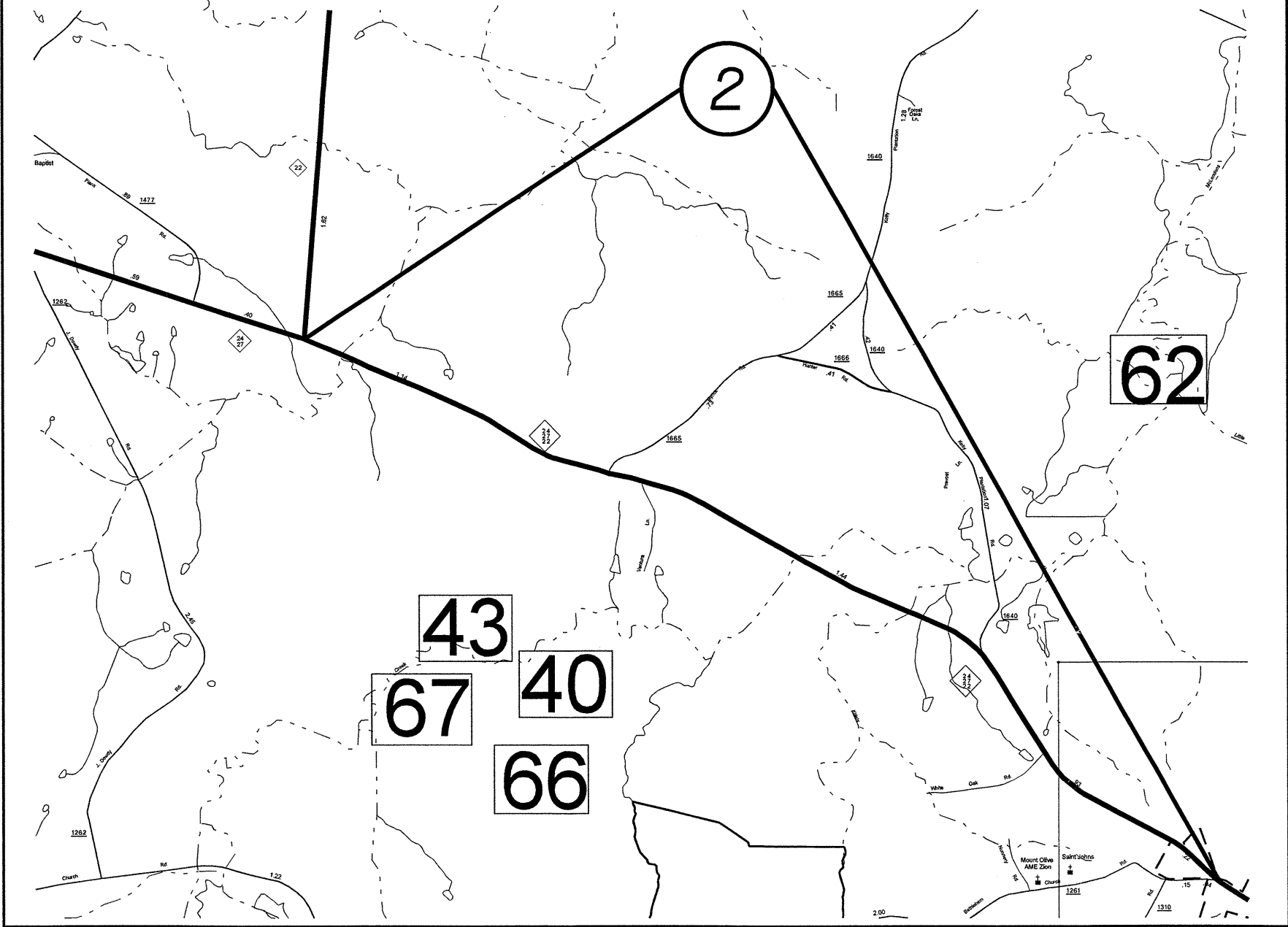
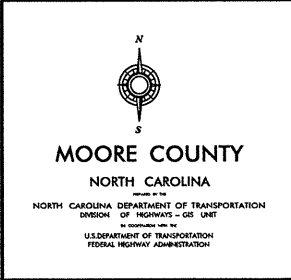



WBS ELEMENT	SHEET NO.
BCR.10631.15, 8CR.20631.15	1

MOORE COUNTY
NORTH CAROLINA

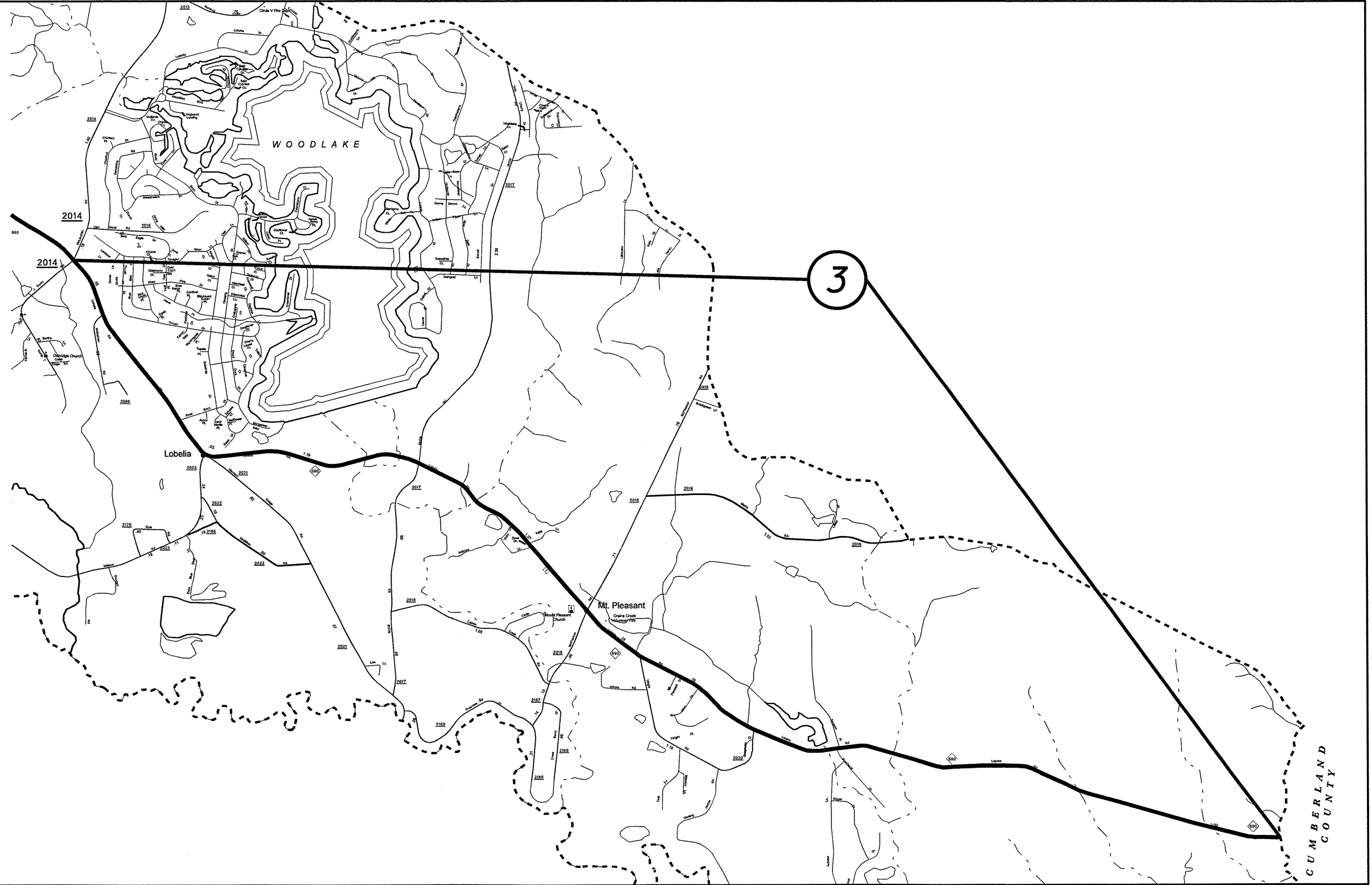
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

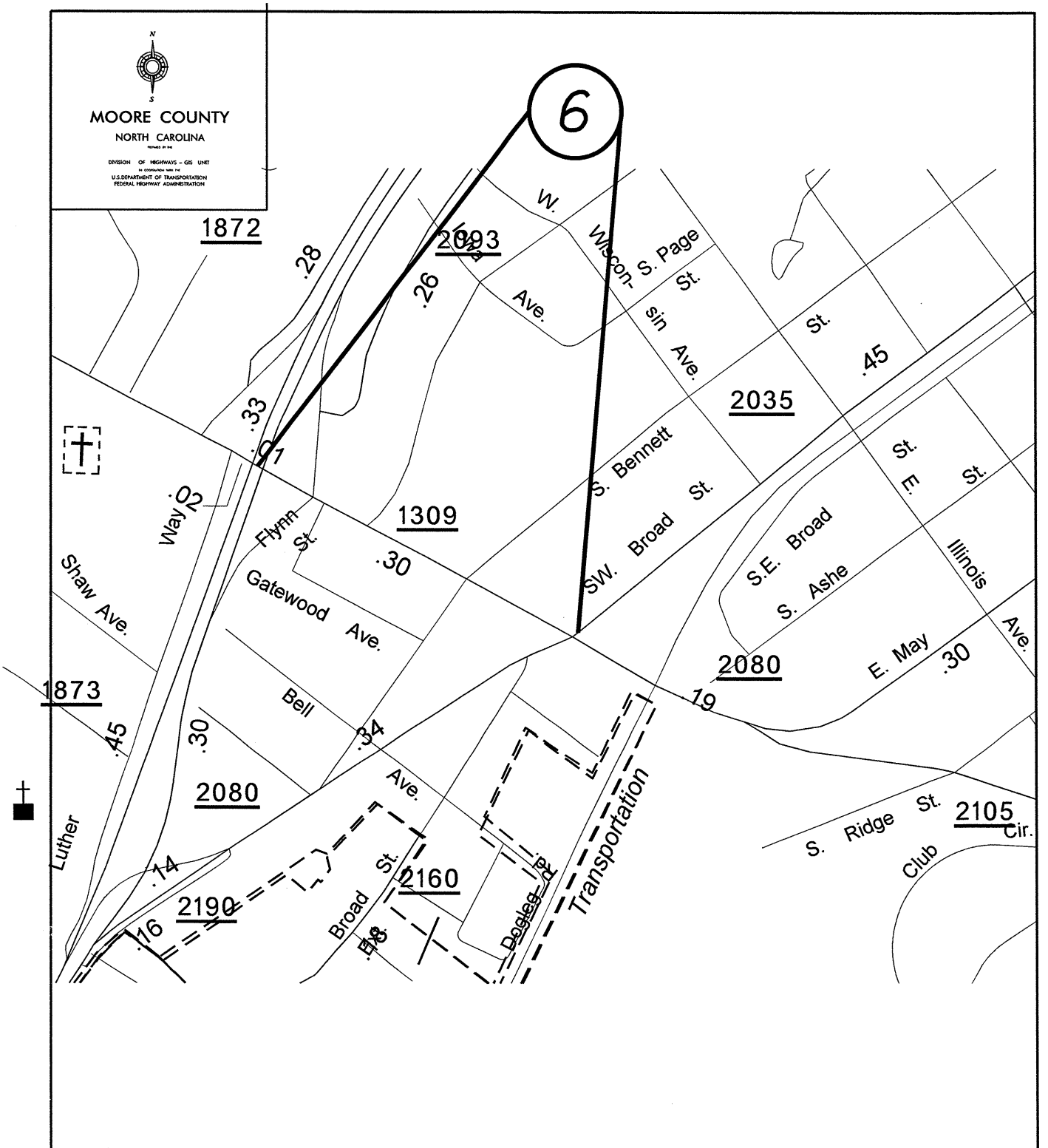
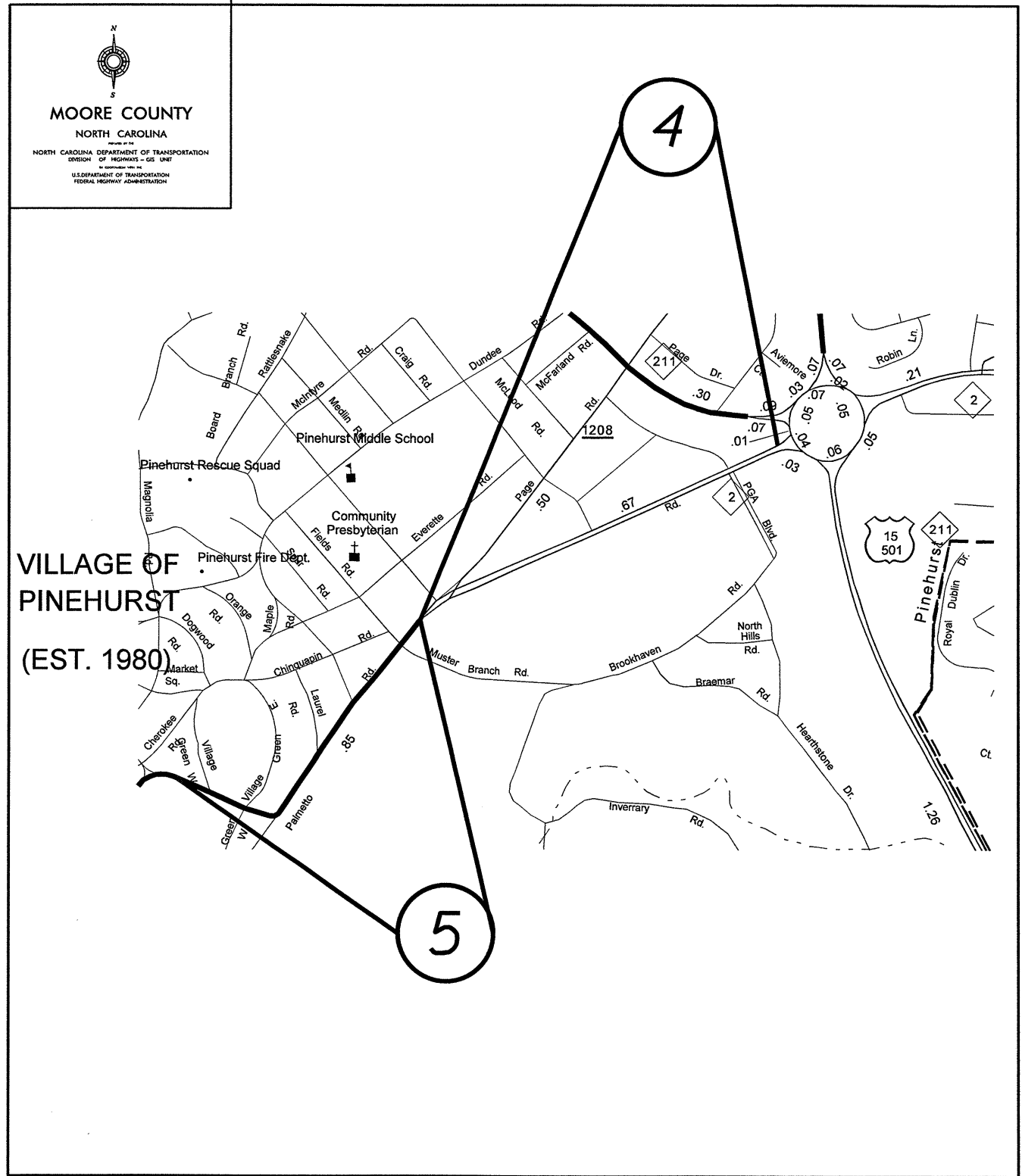




MOORE COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GS UNIT
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



CUMBERLAND
COUNTY

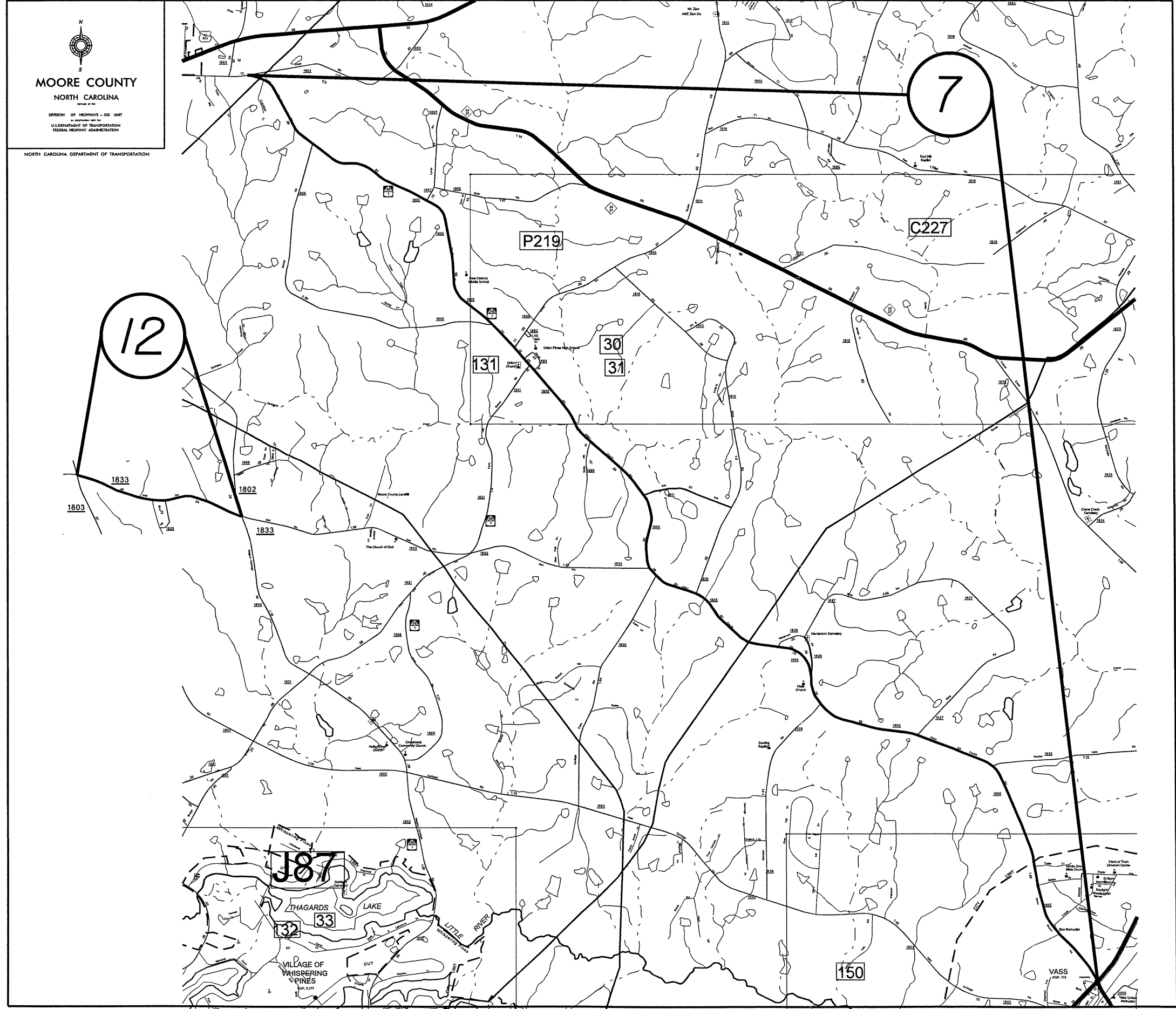


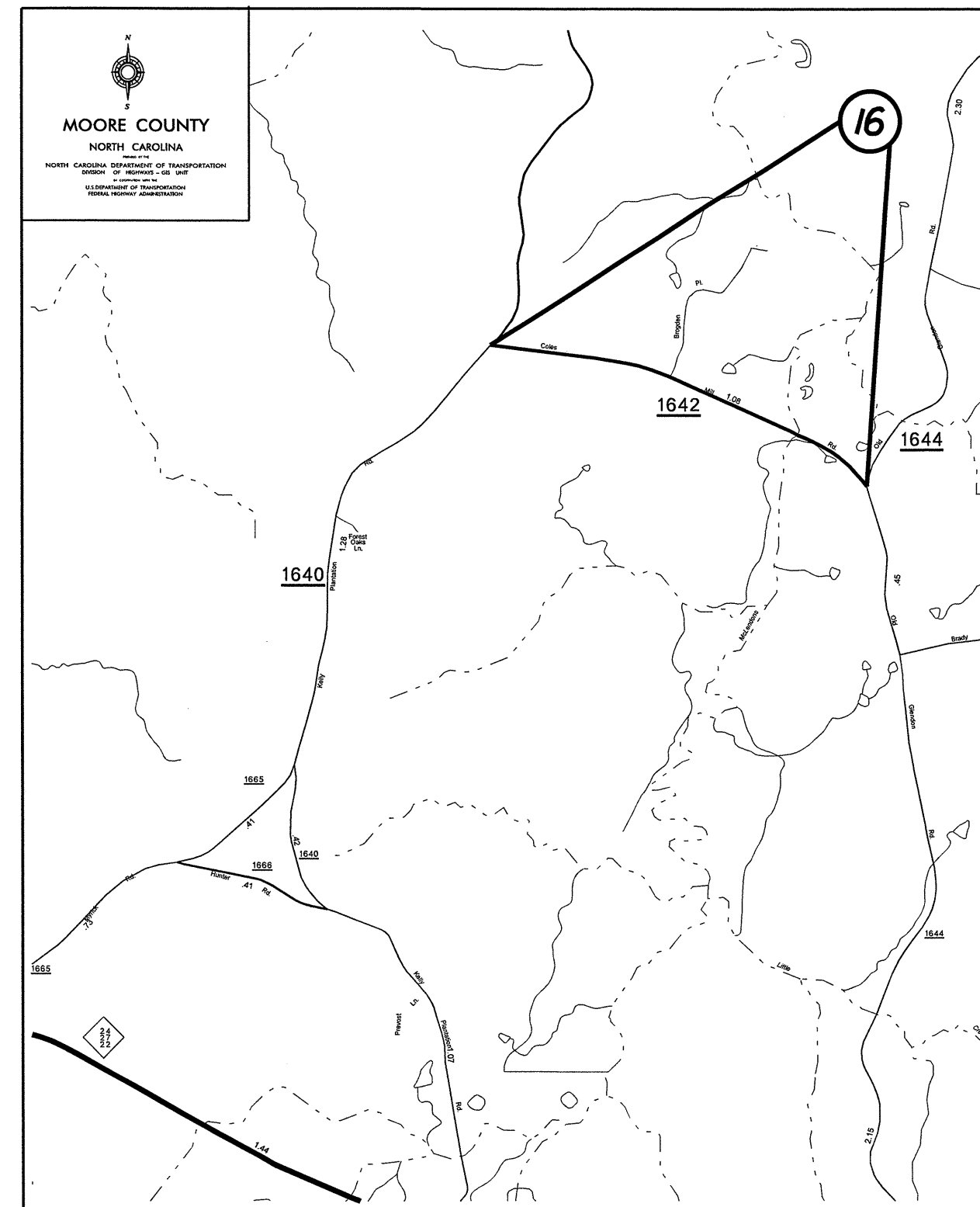
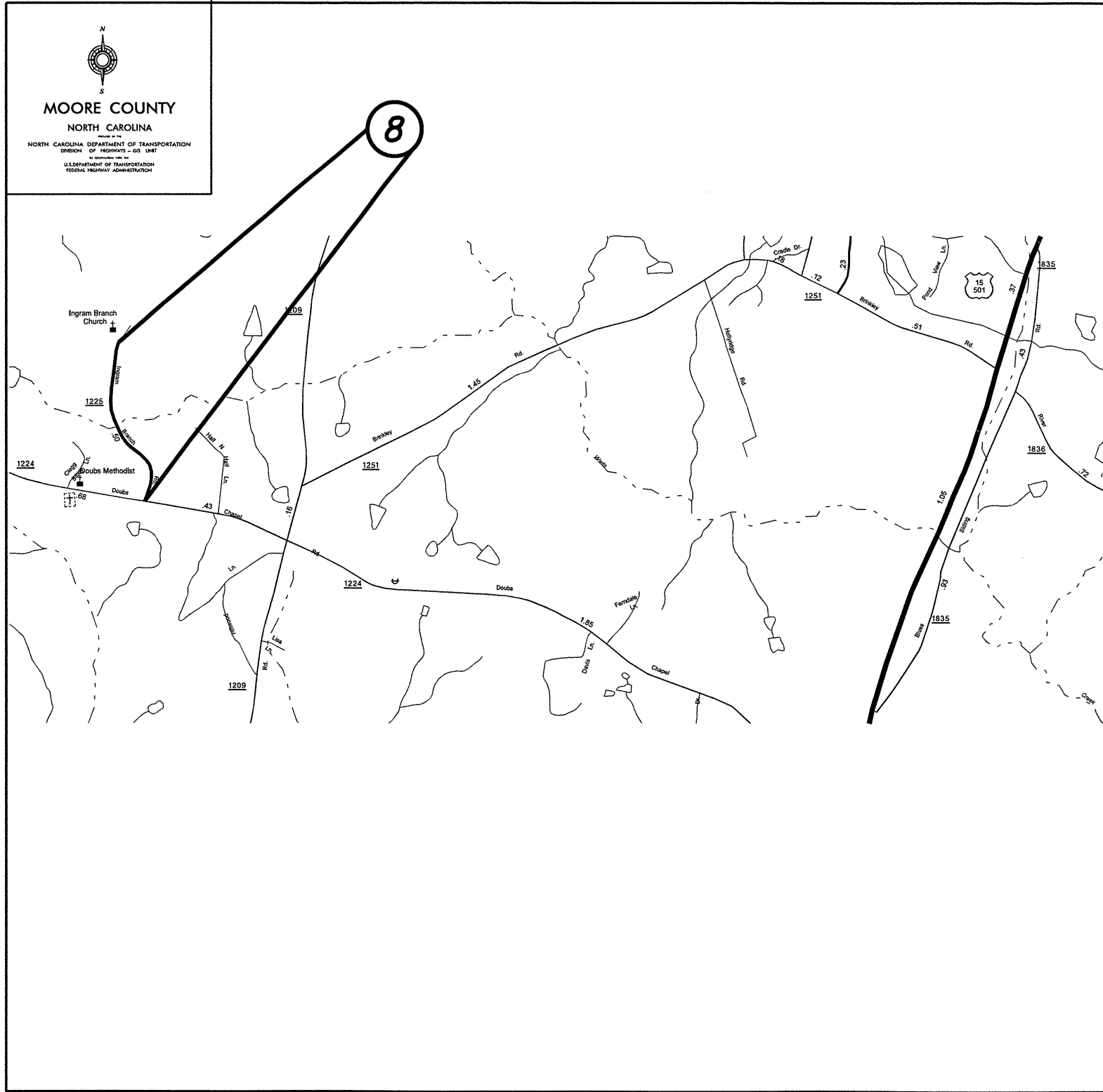
WBS ELEMENT	SHEET NO.
8CR.10631.15, 8CR.20631.15	5

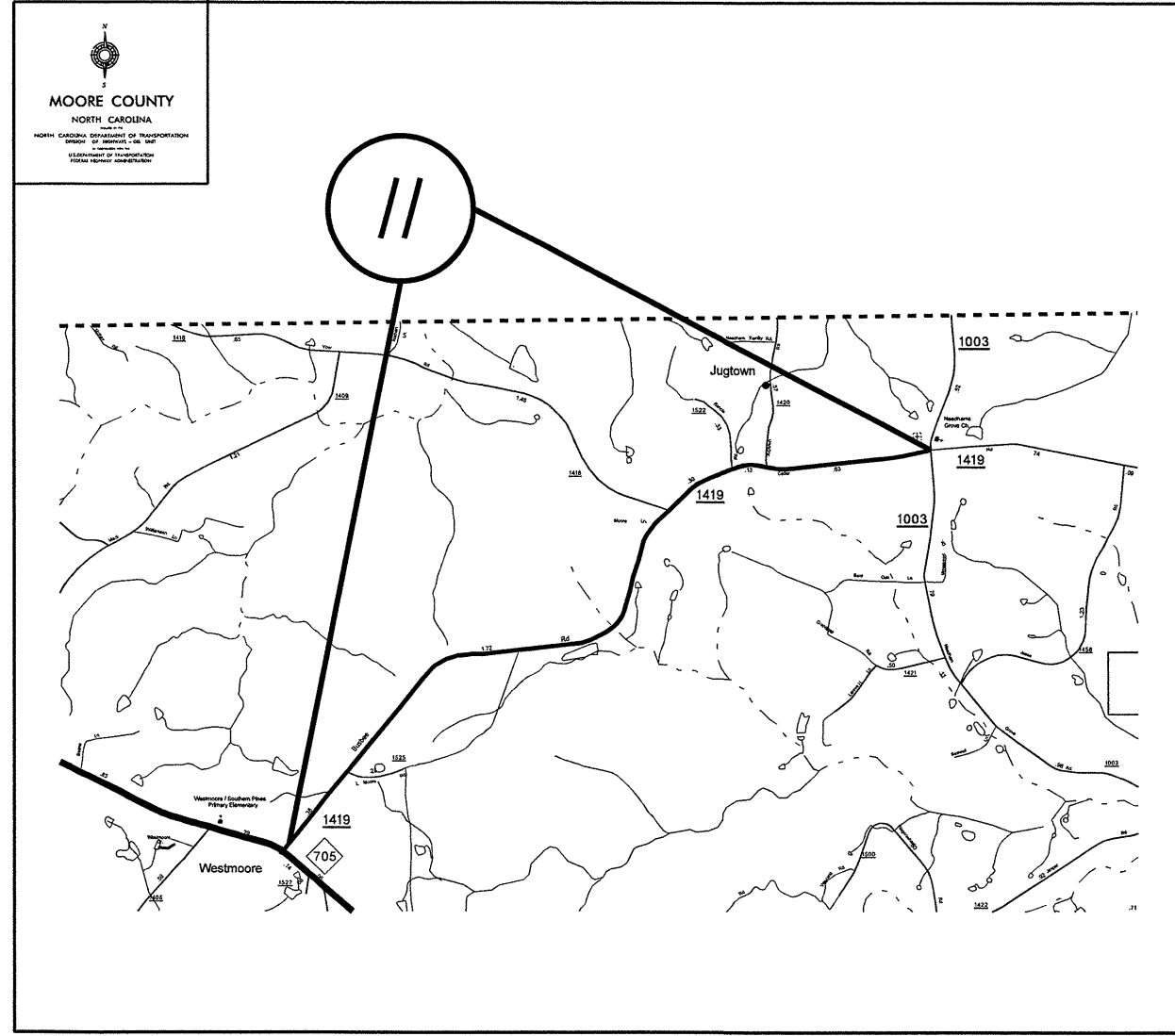
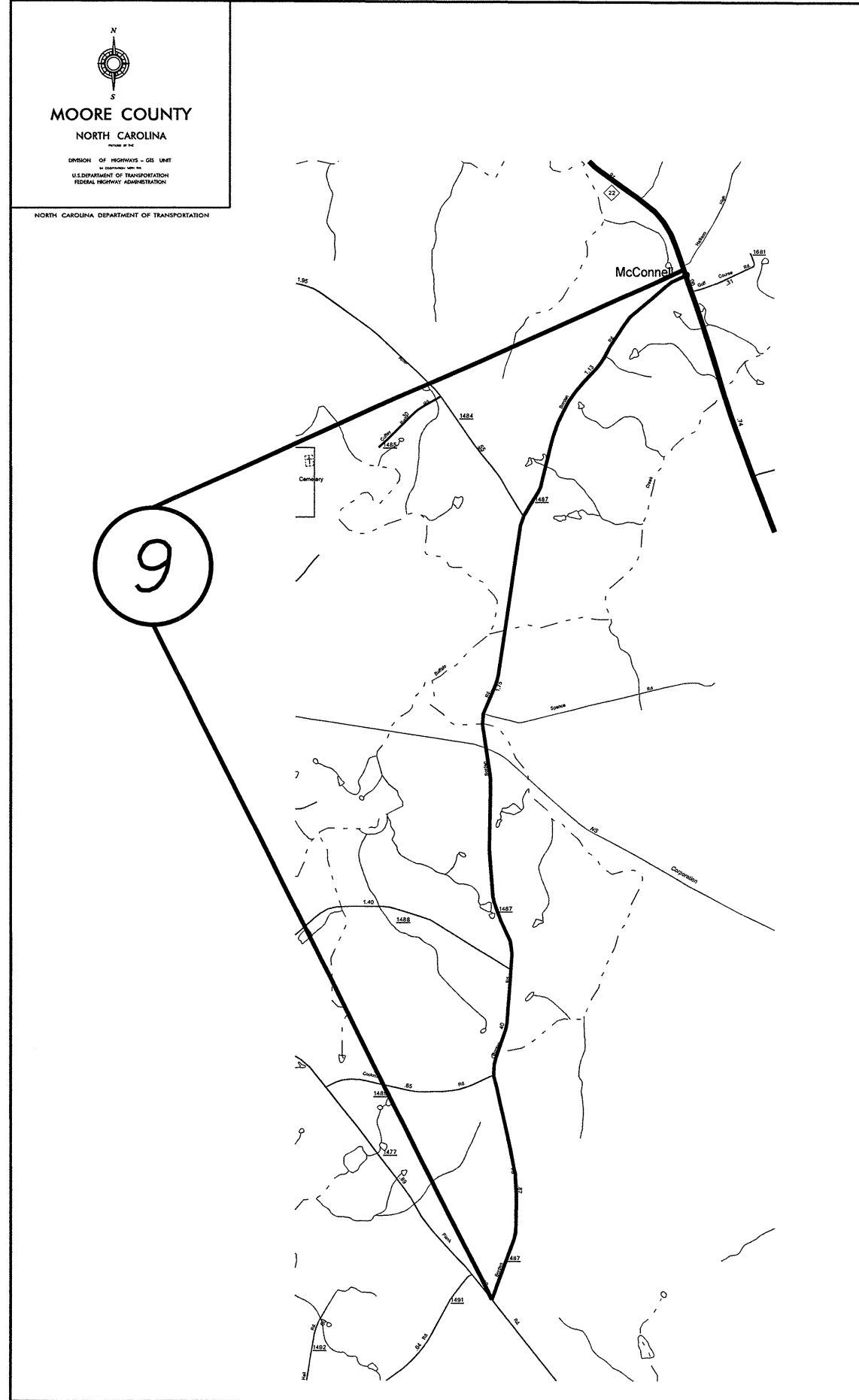
MOORE COUNTY
 NORTH CAROLINA

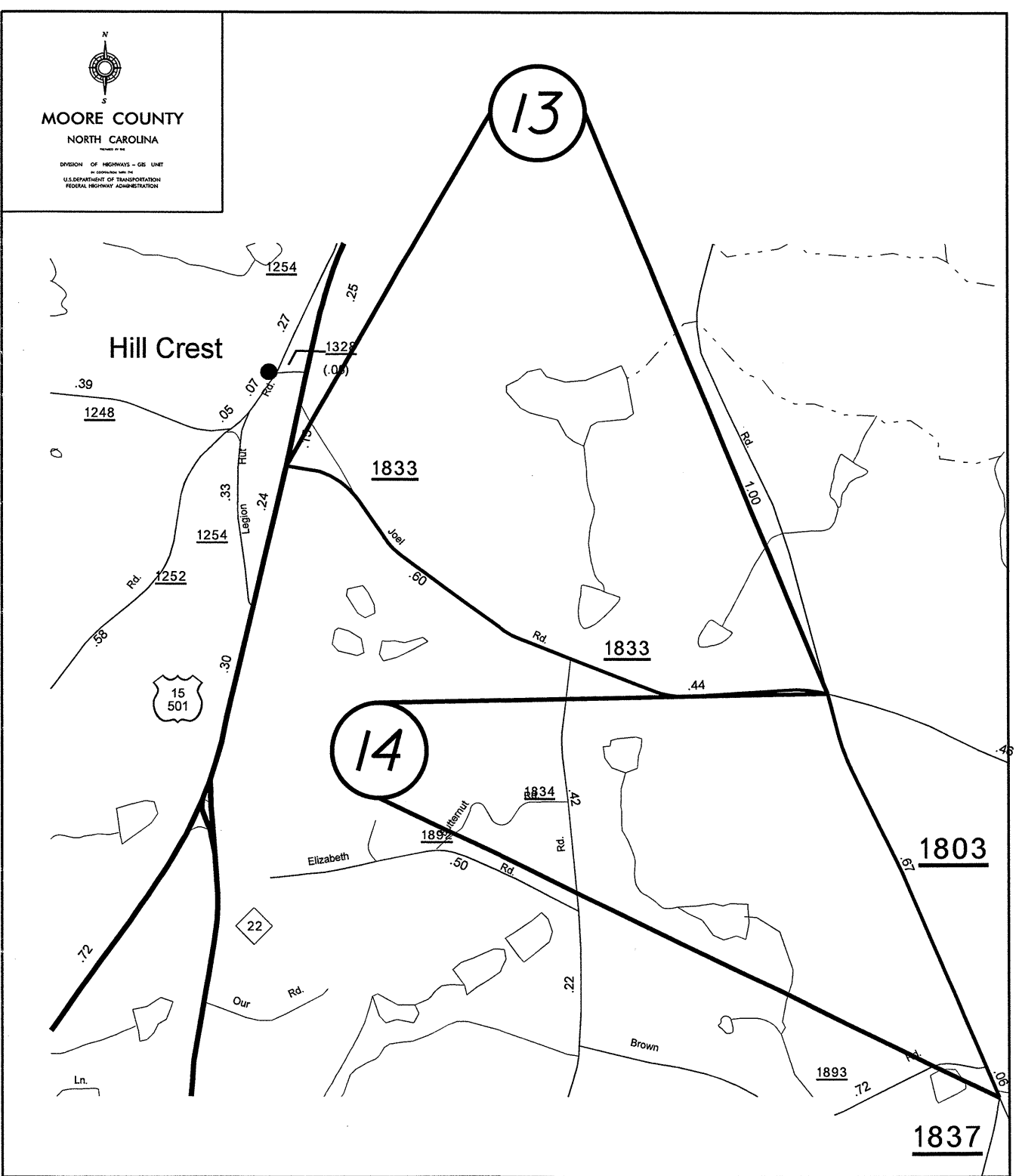
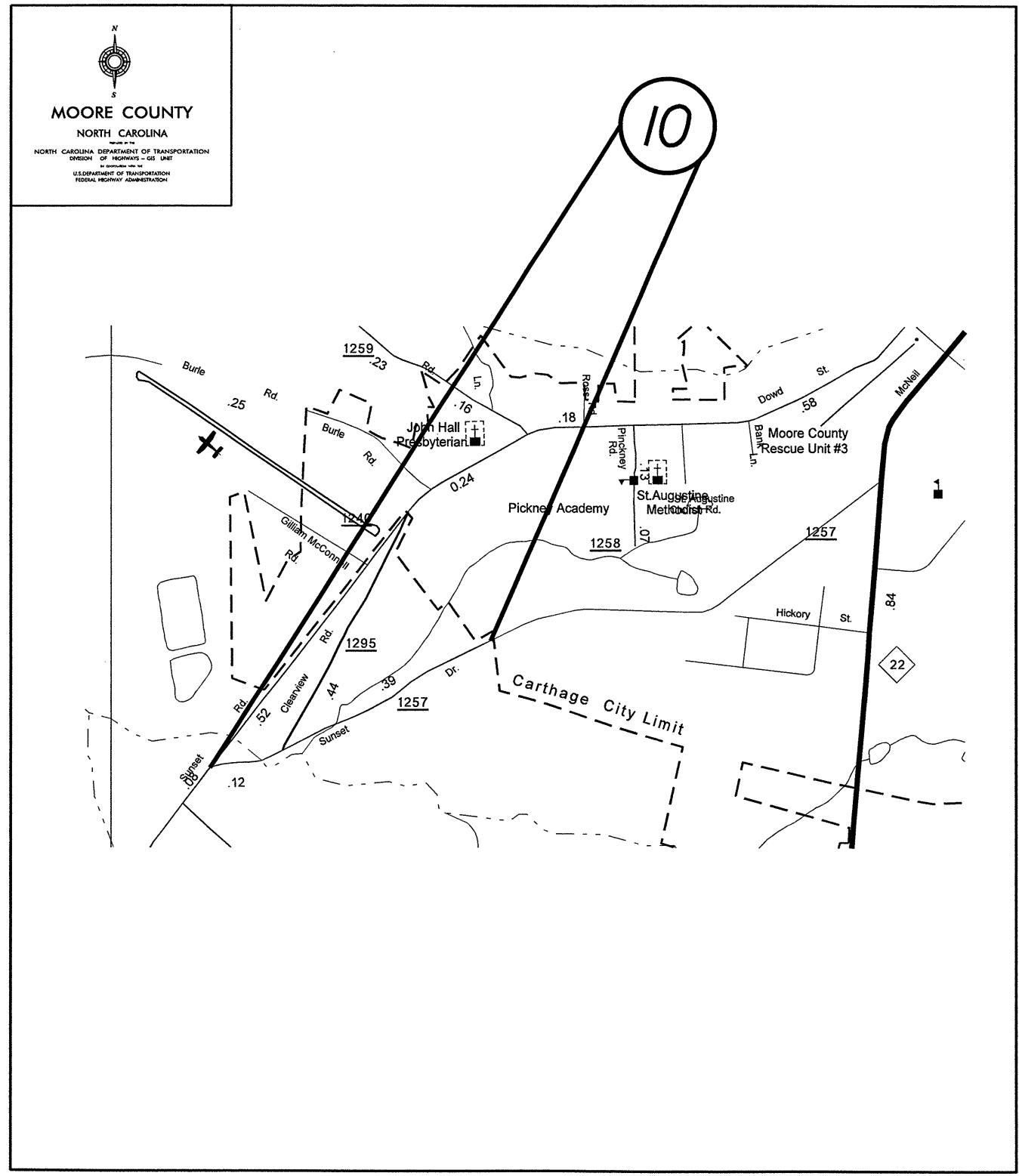
DIVISION OF HIGHWAYS - GIS UNIT
 IN COOPERATION WITH THE
 U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

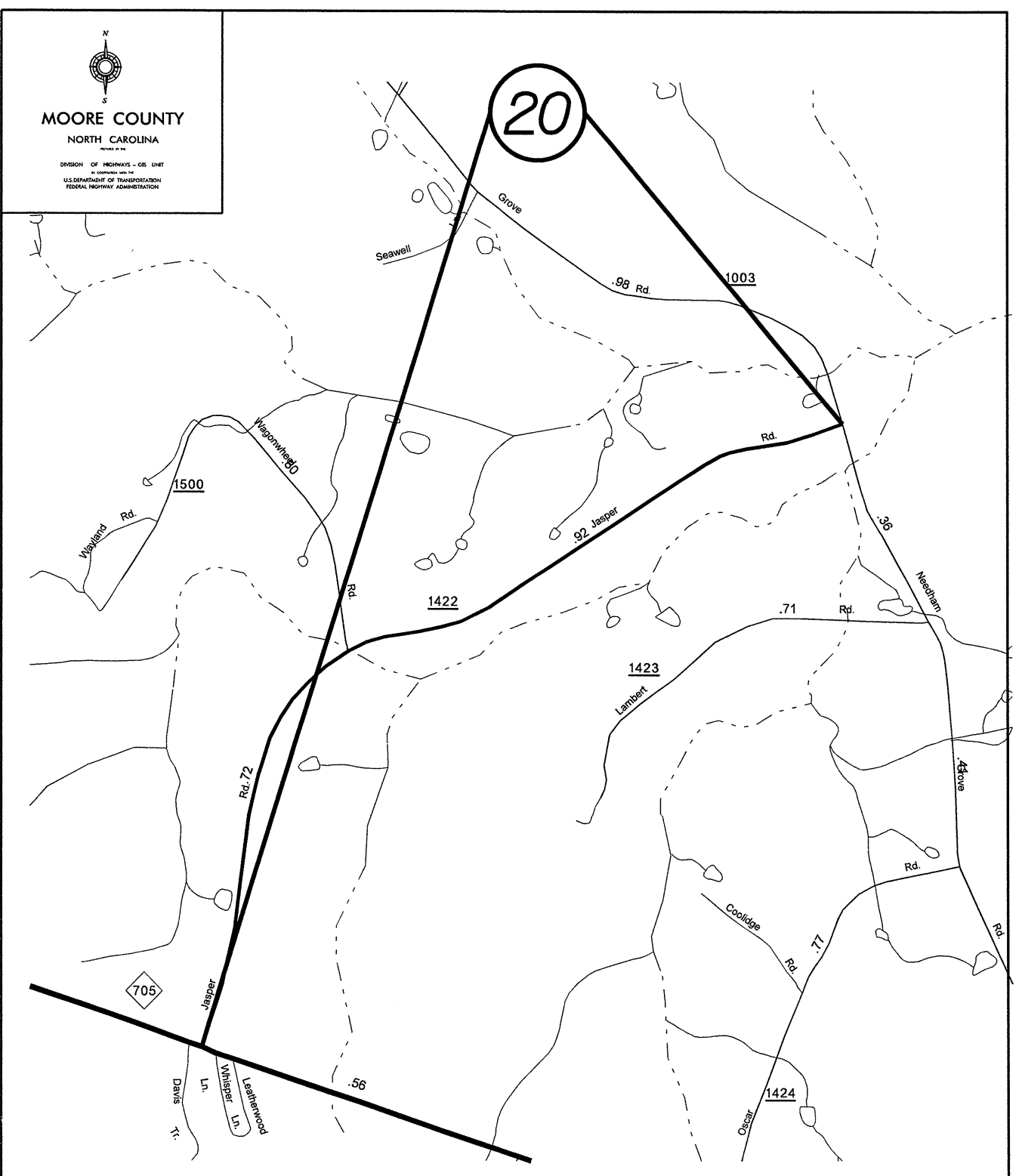
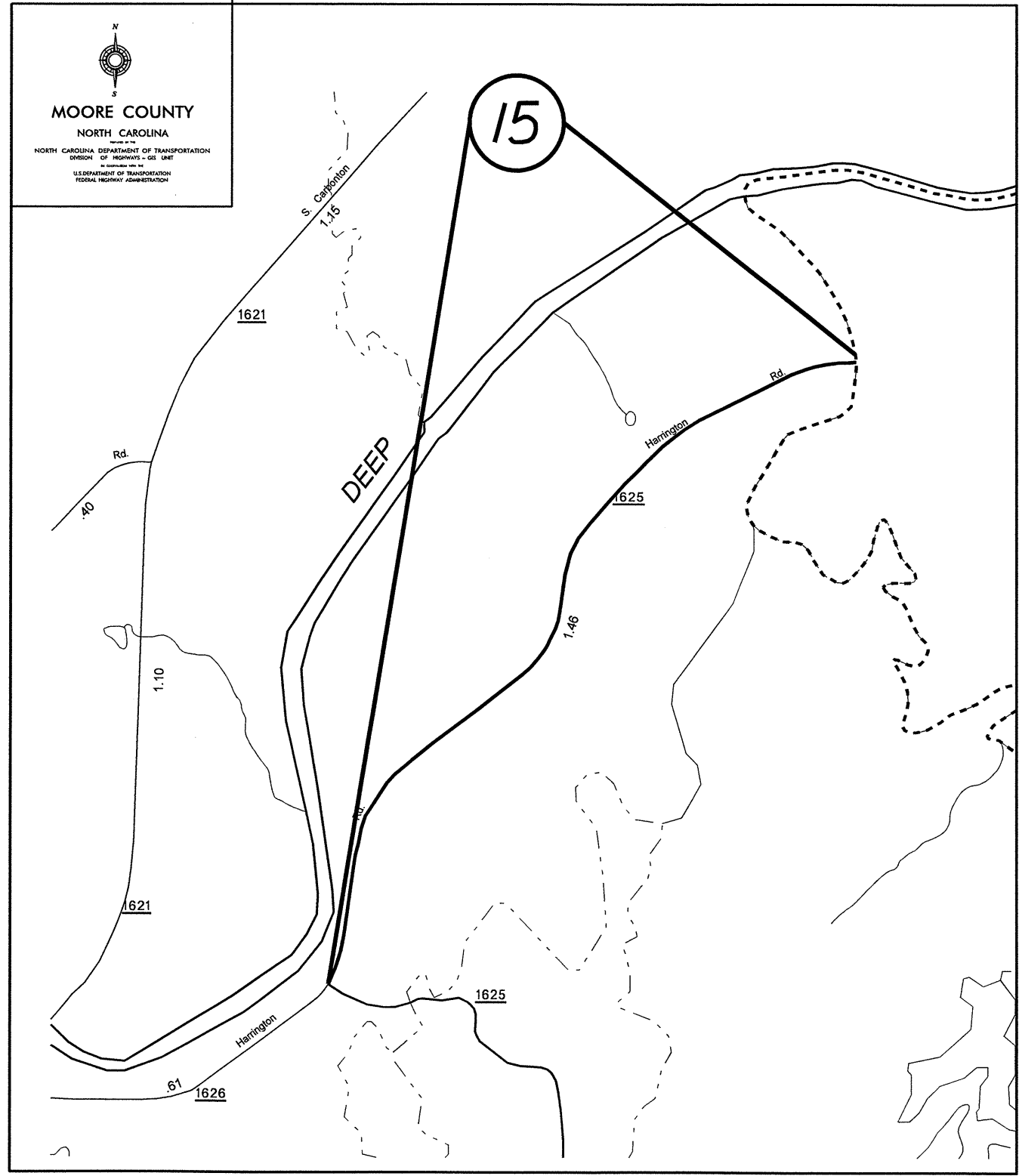
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION



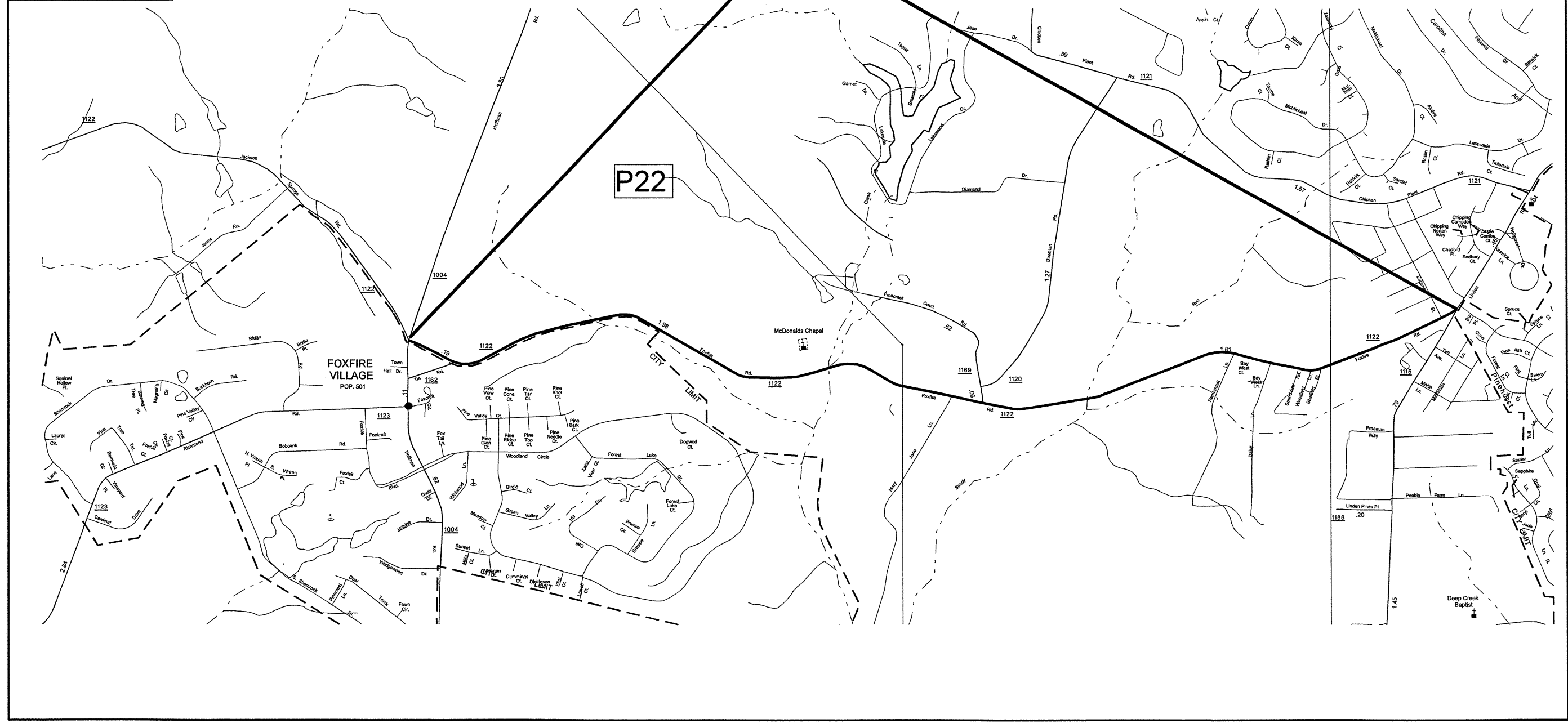







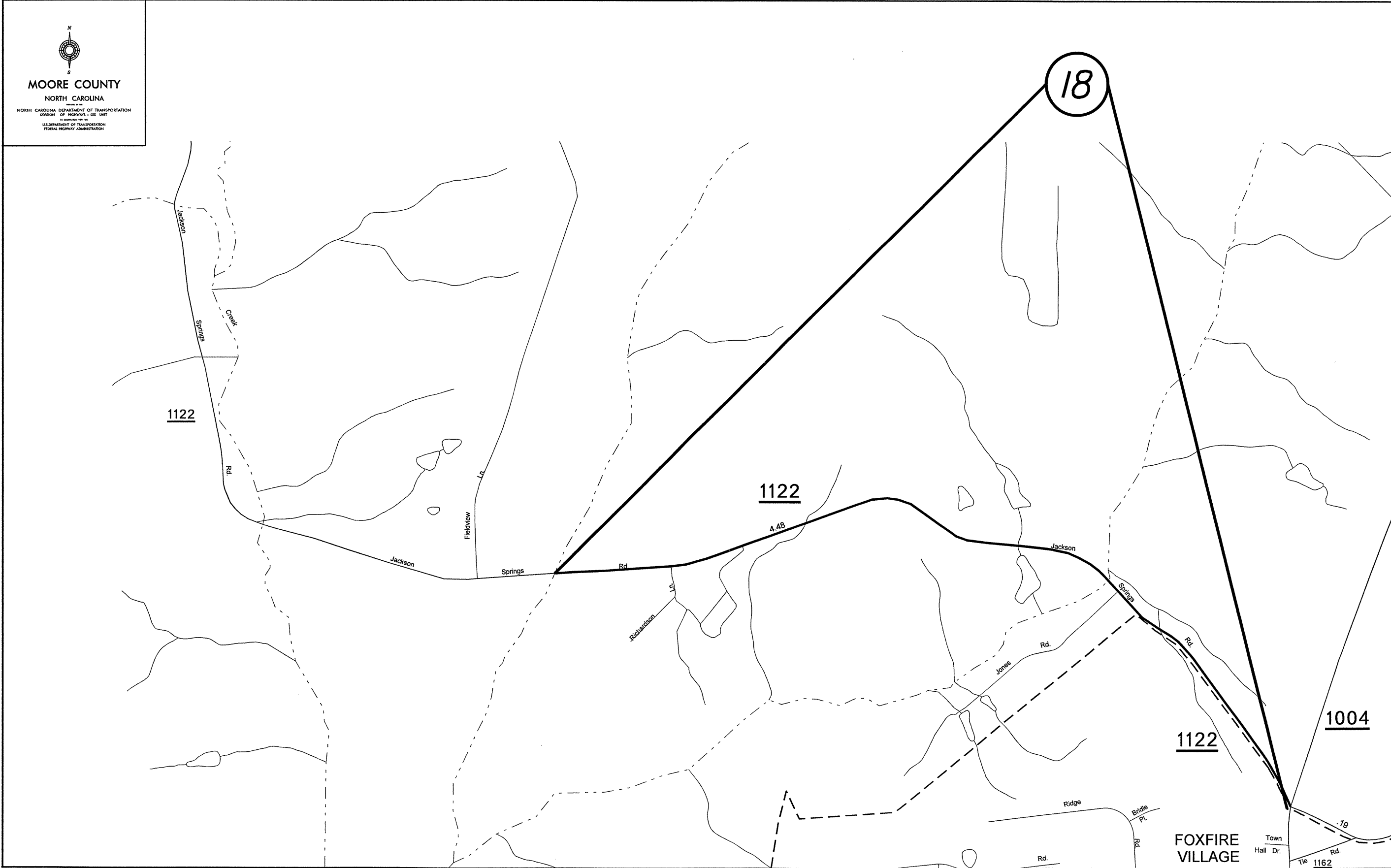


MOORE COUNTY
 NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS - GIS UNIT
 FEDERAL HIGHWAY ADMINISTRATION





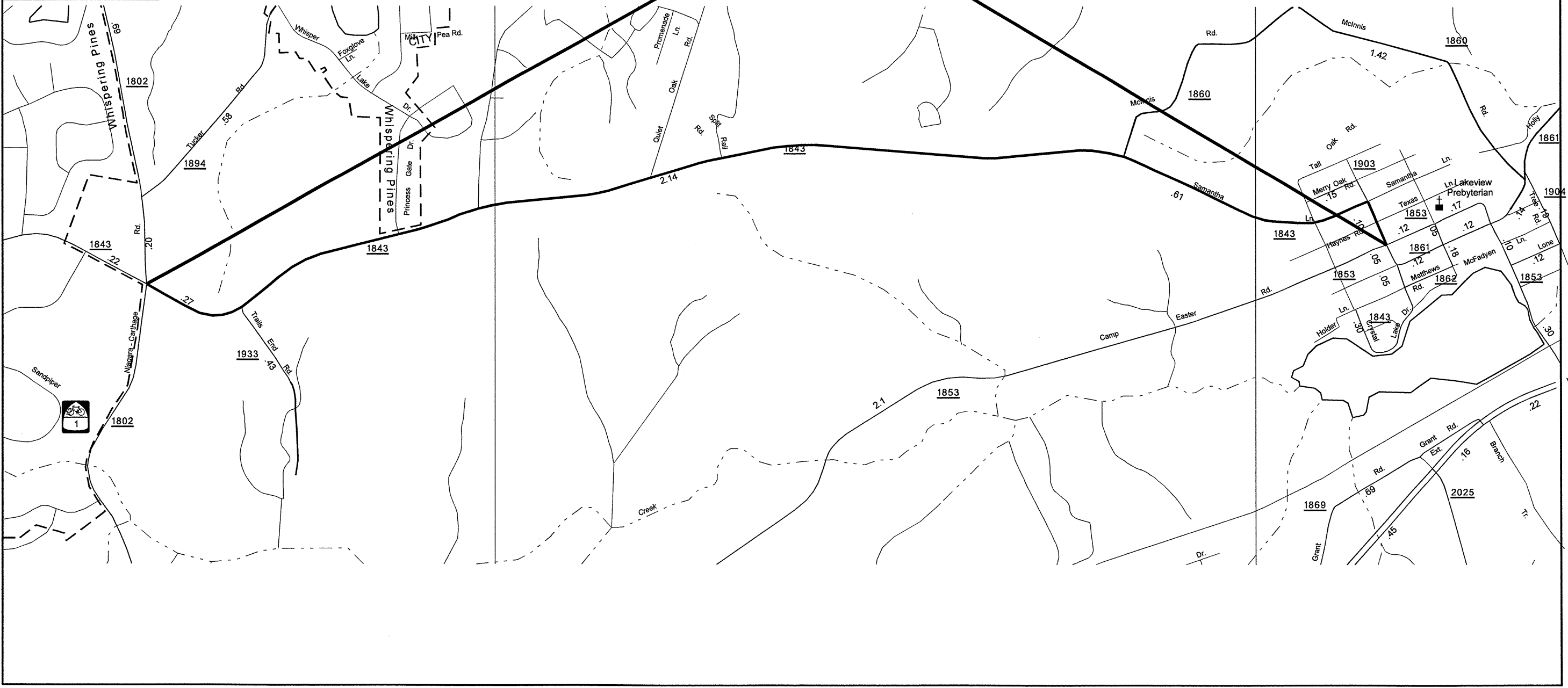
MOORE COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT
IN PARTNERSHIP WITH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



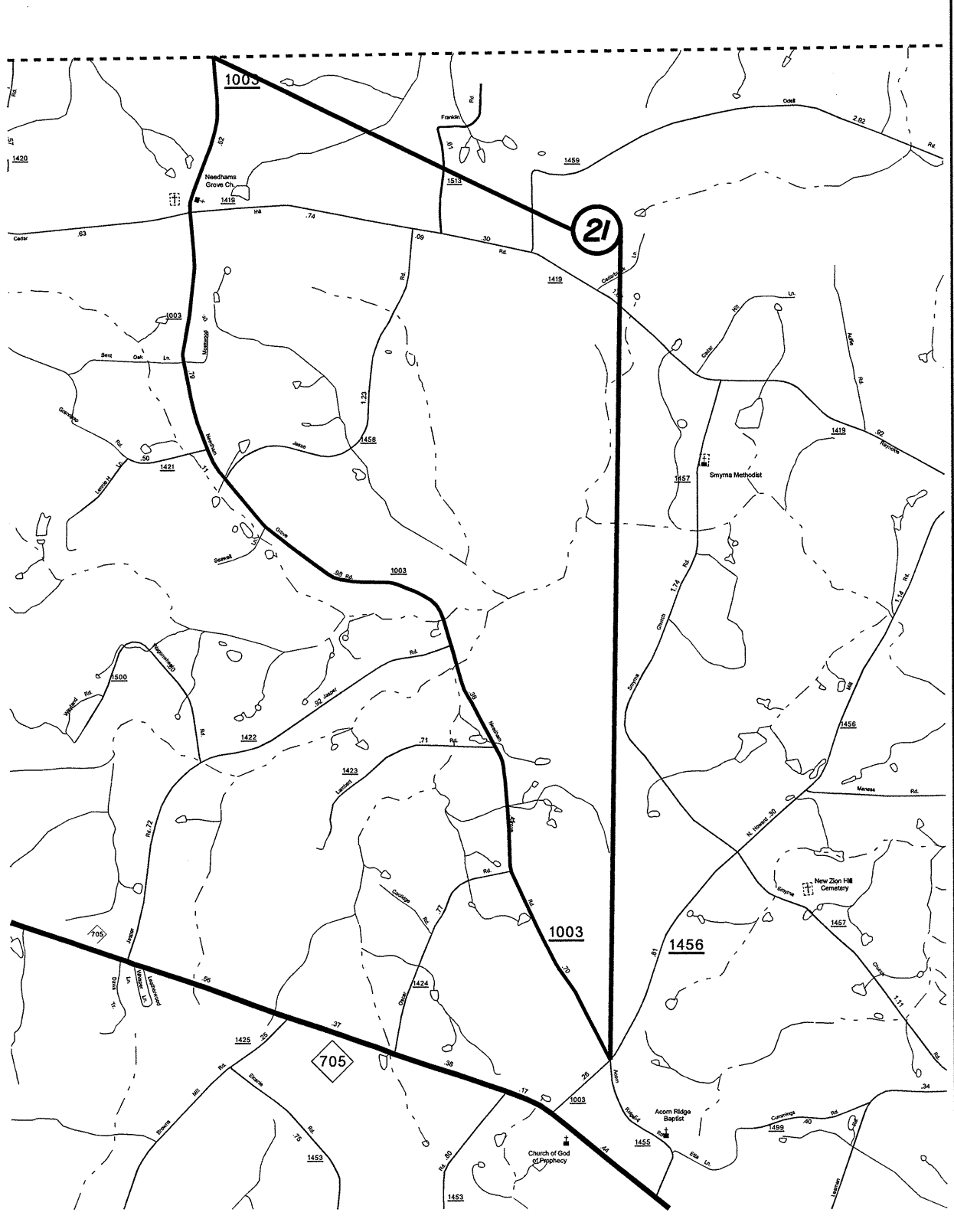
19

MOORE COUNTY
NORTH CAROLINA

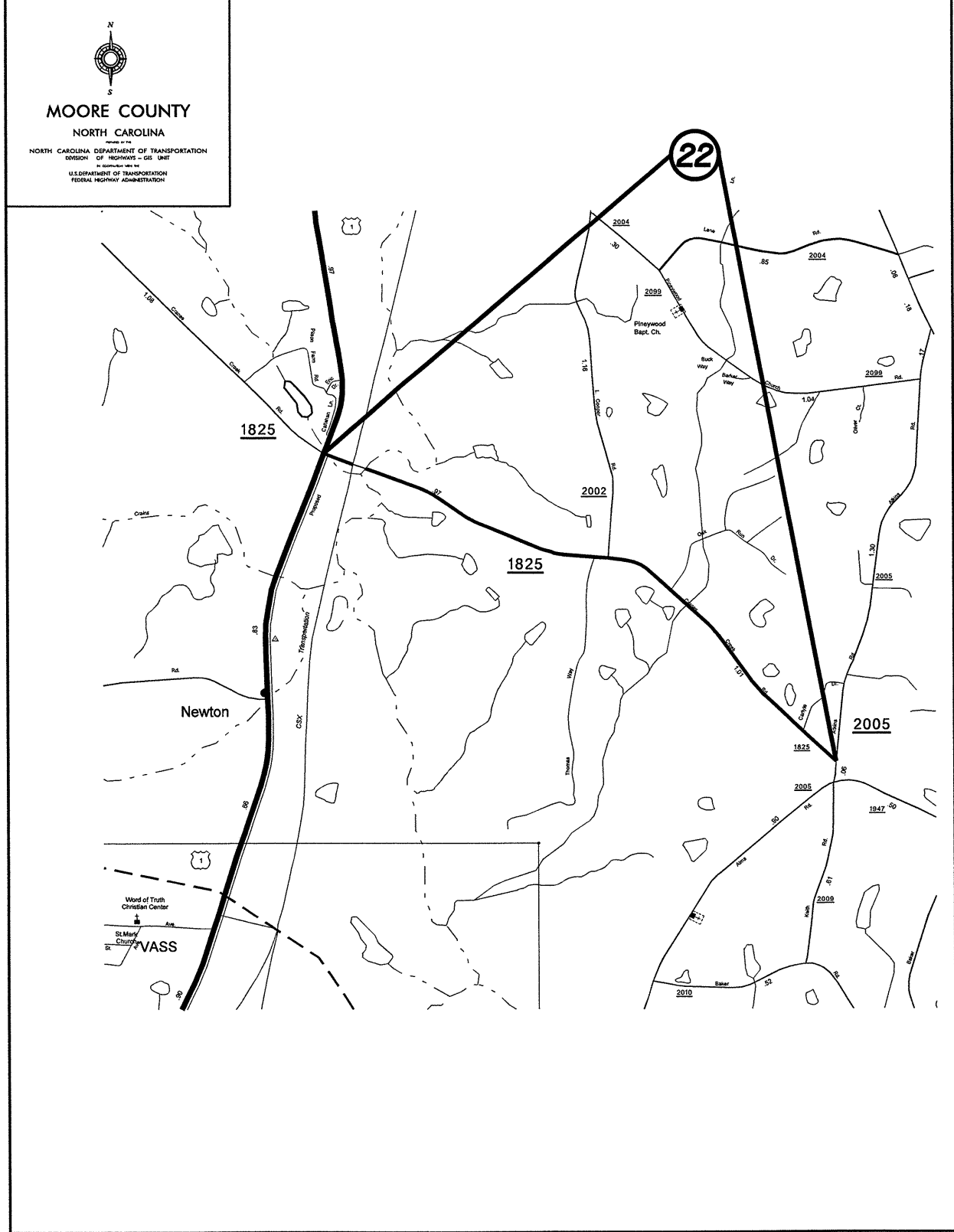
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GS UNIT
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

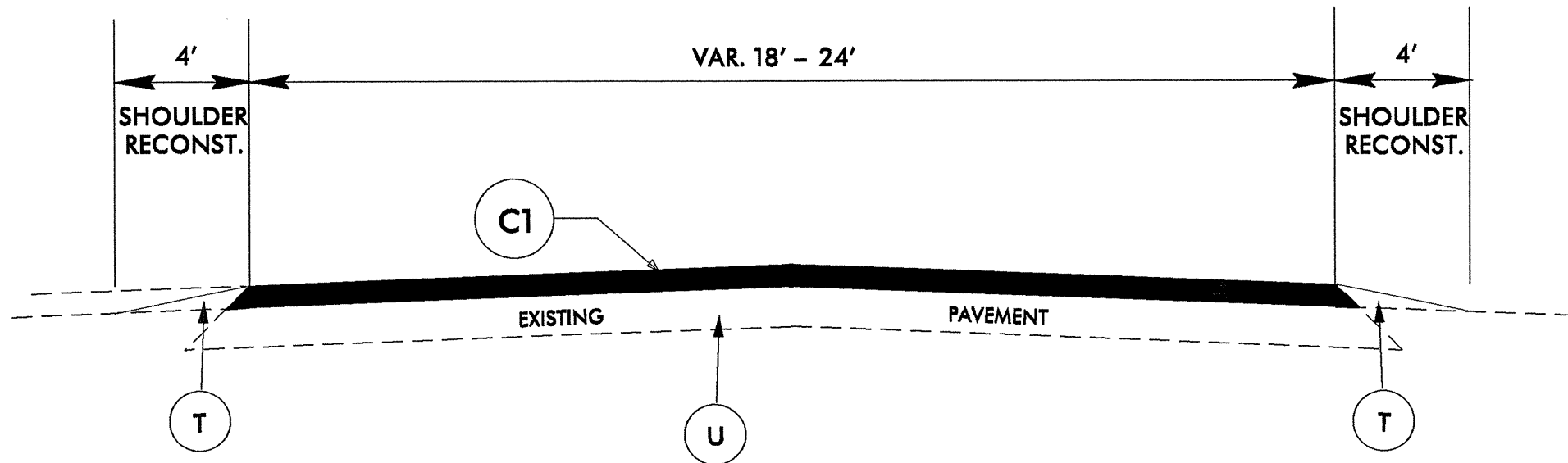


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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

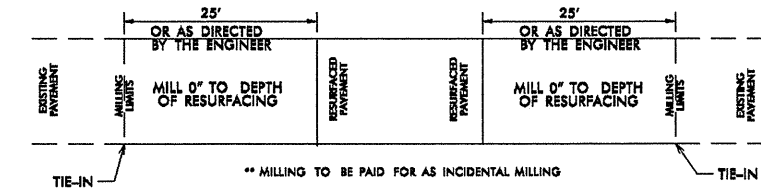


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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT
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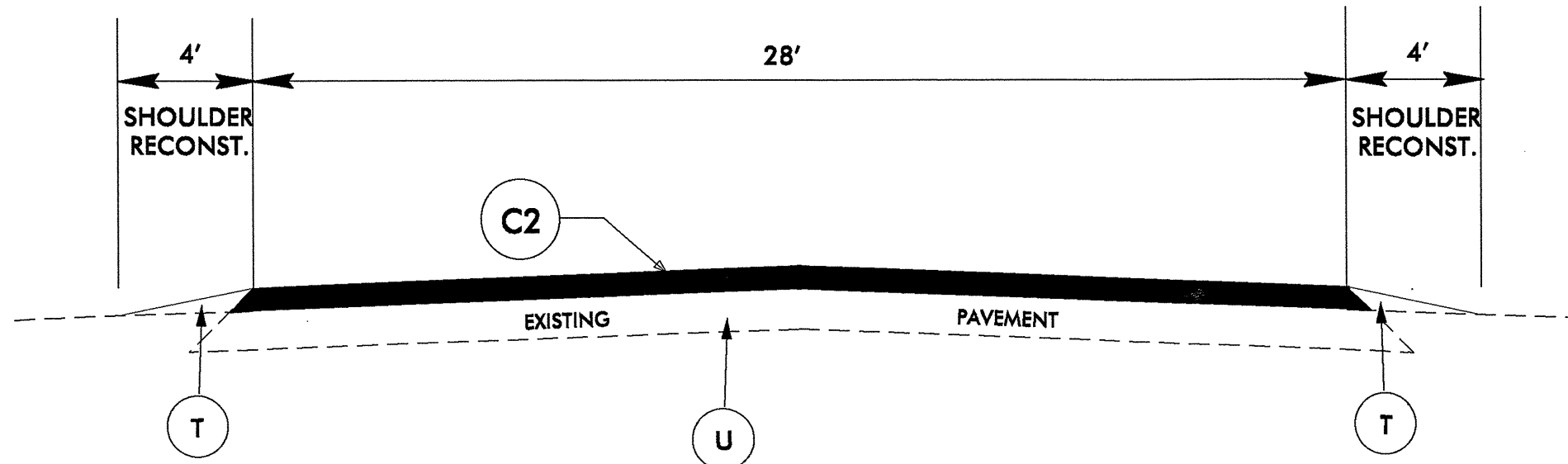


TYPICAL SECTION NO. 1

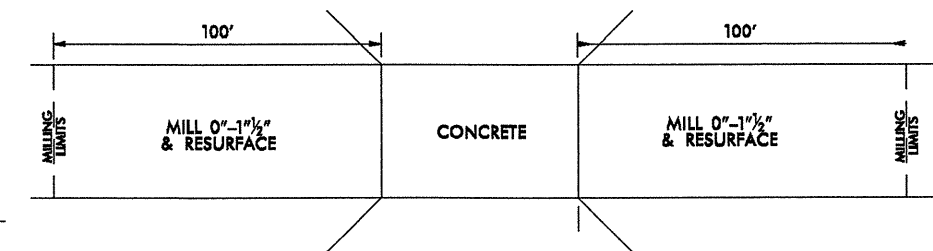


PAVEMENT TIE-IN DETAIL

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 2" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT

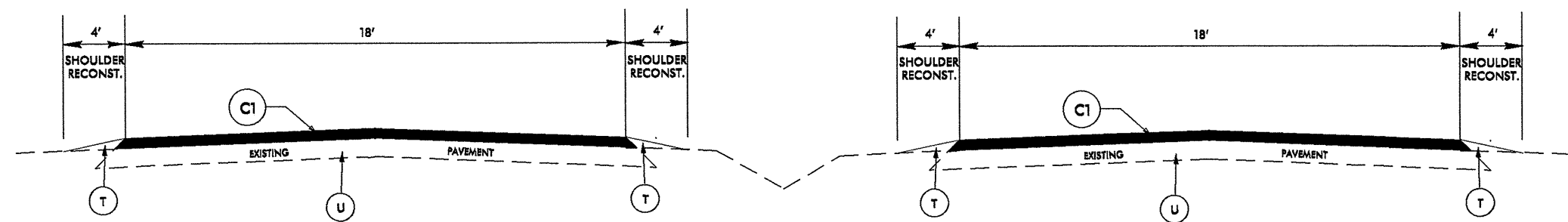


TYPICAL SECTION NO. 2

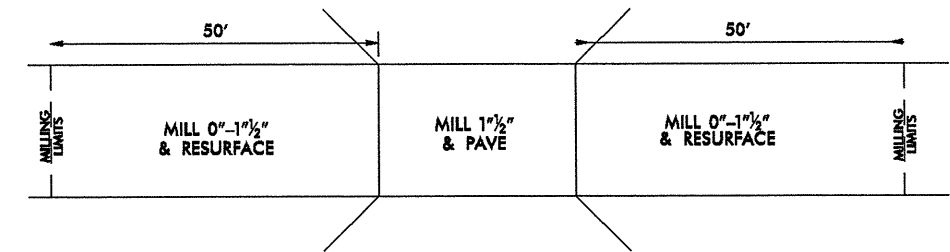


**BRIDGE DRAWING FOR
NC 2427 Map #2 (Bridge No. 43)
SR 1825 Map #22 (Bridge No. 7)**

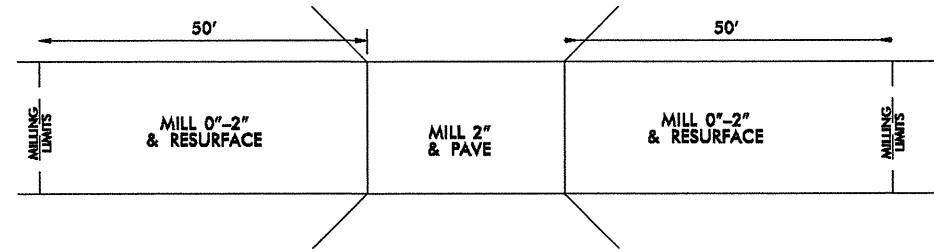
** MILLING TO BE PAID FOR UNDER INCIDENTAL MILLING



TYPICAL SECTION NO. 3



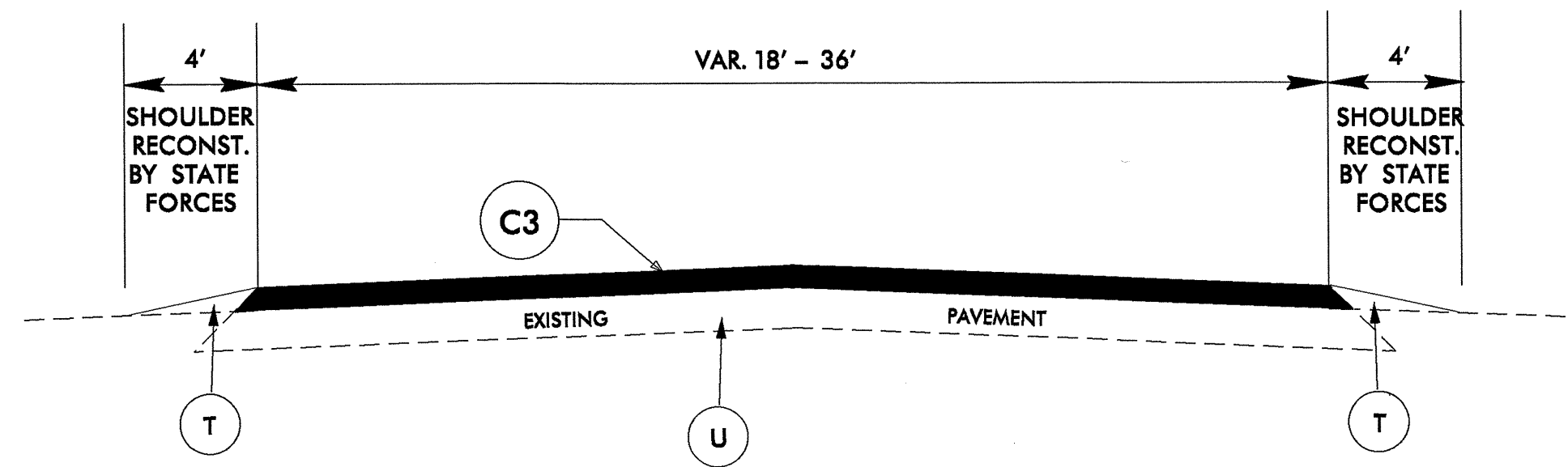
** MILLING FOR THIS DETAIL TO BE PAID UNDER INCIDENTAL MILLING



** MILLING FOR THIS DETAIL TO BE PAID UNDER INCIDENTAL MILLING

BRIDGE DRAWING FOR
 NC 690 Map #3 (Bridge Nos. 200 & 194)
 SR 1642 Map #16 (Bridge No. 64)
 SR 1122 Map #18 (Bridge No. 25)

BRIDGE DRAWING FOR
 NC 24/27 Map #2 (Bridge Nos. 40 & 54)



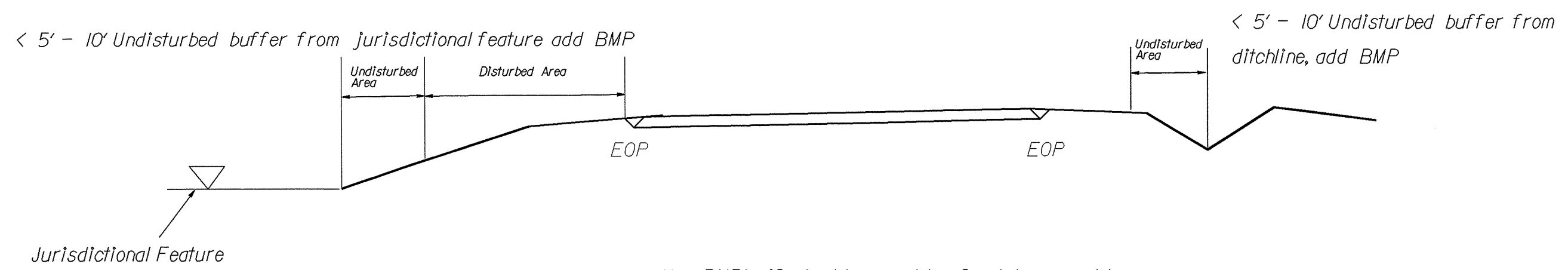
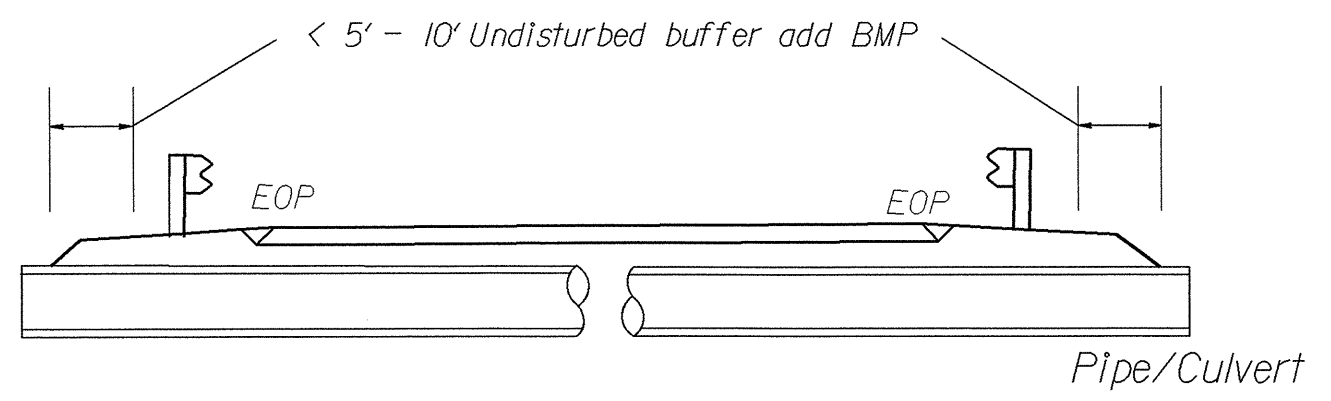
TYPICAL SECTION NO. 4

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 2" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT

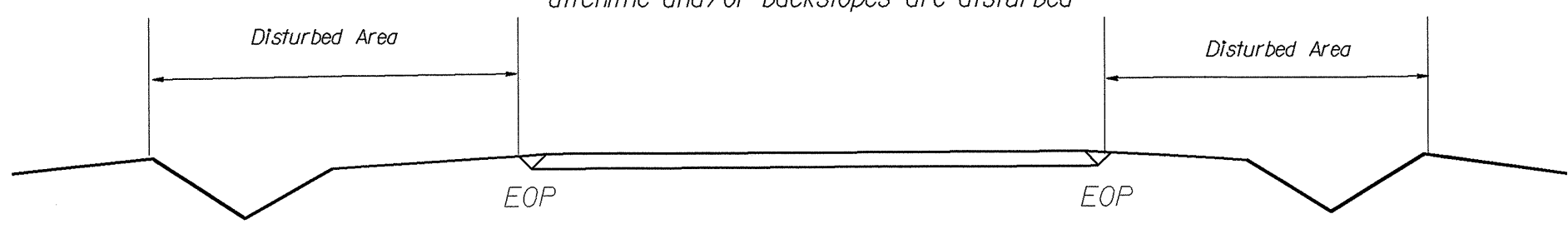
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

EROSION CONTROL DETAIL

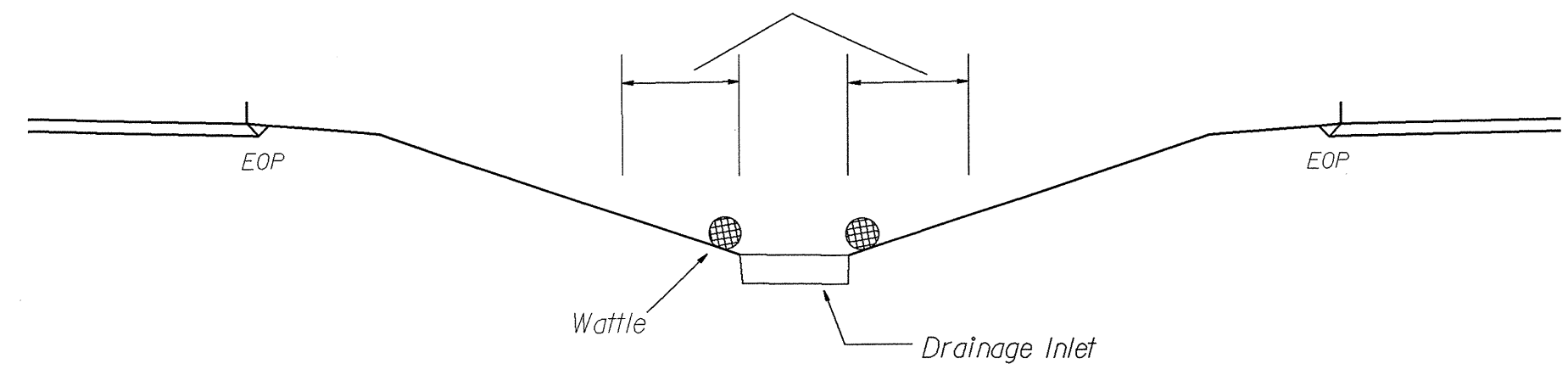
BMP Options: Wattle or Silt Fence



Use BMP's if shoulders and/or front slopes and/or ditchline and/or backslopes are disturbed



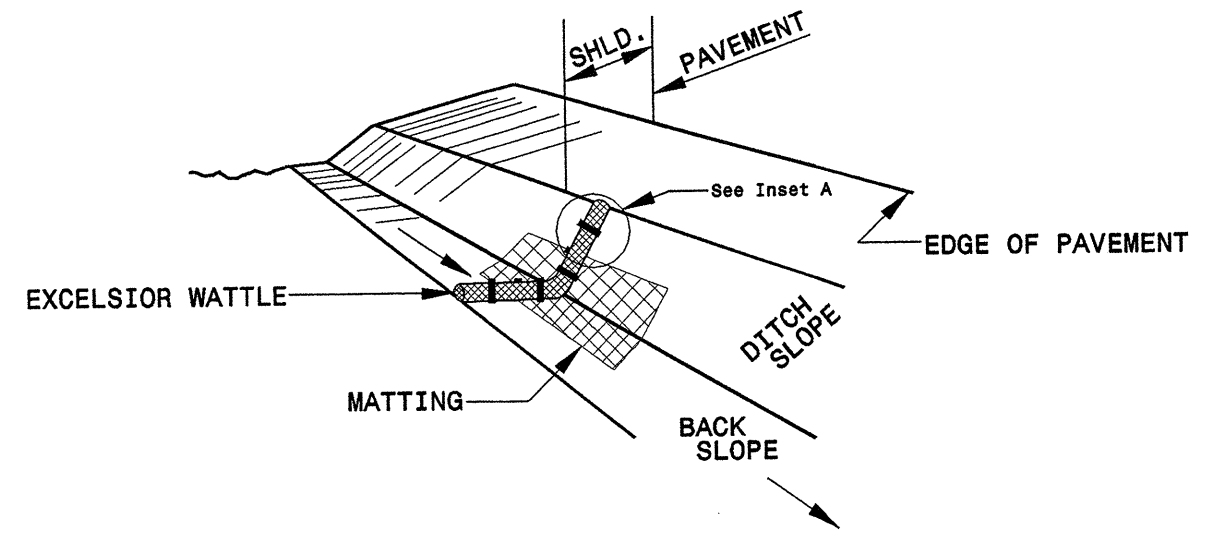
< 5' - 10' Undisturbed buffer from inlet, add wattle



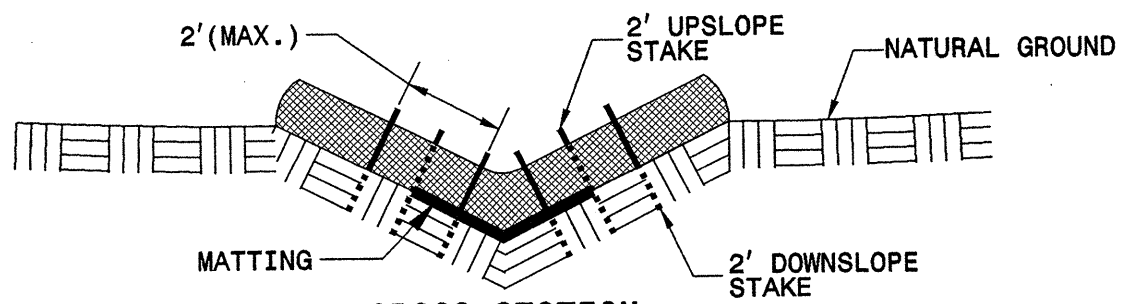
NOT TO SCALE

PROJECT REFERENCE NO. BCR.10631.15.ETC	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

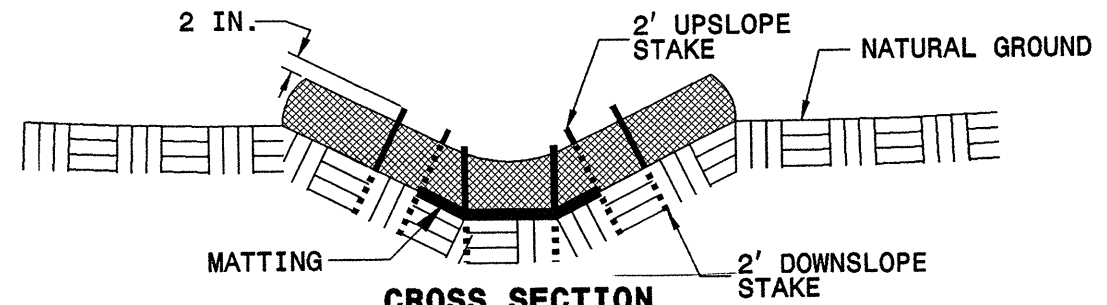
WATTLE DETAIL



ISOMETRIC VIEW

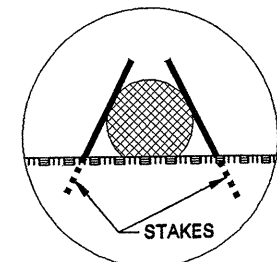


**CROSS SECTION
VEE DITCH**

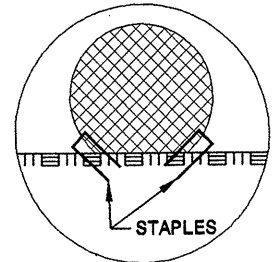


**CROSS SECTION
TRAPEZOIDAL DITCH**

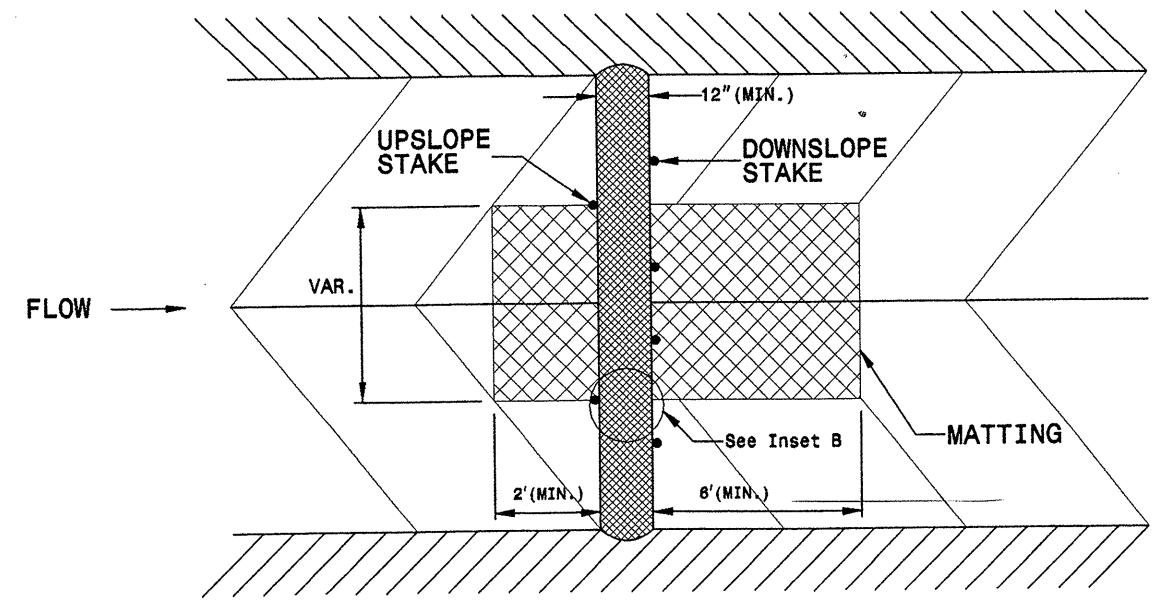
- NOTES:**
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 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.



INSET A



INSET B



TOP VIEW

PROJECT NO.	SHEET NO.	TOTAL NO.
8CR.10631.15, 8CR.20631.15	18	19

SUMMARY OF QUANTITIES

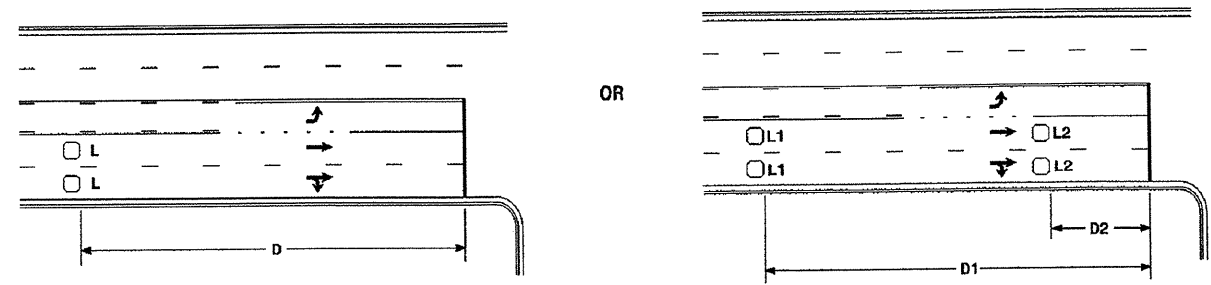
PROJECT NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	PG 64-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	EROSION CONTROL STONE, CLASS B TON	SEDIMENT CONTROL STONE TON	TEMPORARY MULCHING ACR	MATTING (EROSION CONTROL) SY	WATTLE LF	SEED & MULCHING AC	SEED FOR REPAIR SEEDING LB	FERT. FOR REPAIR SEEDING TON	INDUCTIVE LOOP SAW CUT LF	
8CR.10631.15	Moore	1	NC 211	FROM US 15/501 TO HOKE CO. LINE-SKIP JOB AT PEE DEE ROAD	1	NO	2.70	24	385	230	5.87	560	4,250		255	35			294					50	4.23	147	1		
TOTAL FOR MAP NO. 1							2.70		385	230	5.87	560	4,250		255	35			294					50	4.23	147	1		
		2	NC 24/27	FROM NC 22 TO SR 1261	2	NO	3.75	28	495	185	7.58	1,297	7,435		446	313			375	94.0	94	4	30	60	5.51	188	1		
TOTAL FOR MAP NO. 2							3.75		495	185	7.58	1,297	7,435		446	313			375	94.0	94	4	30	60	5.51	188	1		
		3	NC 690	FROM SR 2014 TO CUMBERLAND CO. LINE	1	NO	7.96	24	1060	460	15.92	1,680	10,870		652	400			796					120	11.85	398	2		
TOTAL FOR MAP NO. 3							7.96		1,060	460	15.92	1,680	10,870		652	400			796					120	11.85	398	2		
		4	NC 2	FROM CONST. JT AT TRAFFIC CIRCLE TO END OF FOUR LANE SECTION	3	NO	0.64	36	170	90	2.58	400	1,335		80	20			129					20	1.88	65	1		
TOTAL FOR MAP NO. 4							0.64		170	90	2.58	400	1,335		80	20			129					20	1.88	65	1		
		5	NC 2	FROM END OF FOUR LANE SECTION TO CONST. JT	1	NO	0.55	18	70	25	1.10	120	540		32	20			55					10	0.80	28	1		
TOTAL FOR MAP NO. 5							0.55		70	25	1.10	120	540		32	20			55					10	0.80	28	1		
TOTAL FOR PROJ NO. 8CR.10631.15							15.6		2,180	990	33.05	4,057	24,430		1,465	788			1,649	94.0	94	4	30	260	24.27	826	6		
8CR.20631.15	Moore	6	SR 1309	FROM US 1 TO SR 2035	4	NO	0.28	36				600		580	38	15	2	2											2,000.00
TOTAL FOR MAP NO. 6							0.28					600		580	38	15	2	2											2,000.00
		7	SR 1805	FROM US 1 TO WCL CARTHAGE-DO NOT PAVE BRIDGE PROJECT OR SCHOOL PROJECT	4	NO	8.86	22		650		3,800		10,690	695	20		2											
TOTAL FOR MAP NO. 7							8.86			650		3,800		10,690	695	20		2											
		8	SR 1225	FROM SR 1229 TO DEAD END	4	NO	0.55	18		60		40		530	34	45													
TOTAL FOR MAP NO. 8							0.55			60		40		530	34	45													
		9	SR 1487	FROM SR 1477 TO NC 22	4	NO	4.13	20		350		667		4,545	295	450													
TOTAL FOR MAP NO. 9							4.13			350		667		4,545	295	450													
		10	SR 1257	FROM SR 1240 TO WCL CARTHAGE	4	NO	0.52	20		15				560	36	20													
TOTAL FOR MAP NO. 10							0.52			15				560	36	20													
		11	SR 1419	FROM NC 705 TO SR 1003	4	NO	3.13	22		305		300		3,885	253	500													
TOTAL FOR MAP NO. 11							3.13			305		300		3,885	253	500													
		12	SR 1833	FROM 15-501 TO SR 1803	4	NO	0.99	20		250		200		1,050	68	15													
TOTAL FOR MAP NO. 12							0.99			250		200		1,050	68	15													
		13	SR 1833	FROM SR 1803 TO SR 1802	4	NO	1.12	20		165		200		1,150	75	10													
TOTAL FOR MAP NO. 13							1.12			165		200		1,150	75	10													
		14	SR 1803	FROM SR 1833 TO SR 1837	4	NO	2.22	20		125		1,000		2,430	158	25													
TOTAL FOR MAP NO. 14							2.22			125		1,000		2,430	158	25													
		15	SR 1625	FROM SR 1626 TO LEE CO. LINE	4	NO	1.45	18		120		120		1,500	98	15													
TOTAL FOR MAP NO. 15							1.45			120		120		1,500	98	15													
		16	SR 1642	FROM SR 1640 TO SR 1644	4	NO	1.04	20		55		633		1,120	73	20													
TOTAL FOR MAP NO. 16							1.04			55		633		1,120	73	20													
		17	SR 1122	FROM SR 1115 TO SR 1004	4	NO	3.98	24		230		320		4,955	322	20													
TOTAL FOR MAP NO. 17							3.98			230		320		4,955	322	20													
		18	SR 1122	FROM SR 1004 TO BRIDGE	4	NO	2.98	20		170		233		3,200	208	40													
TOTAL FOR MAP NO. 18							2.98			170		233		3,200	208	40													
		19	SR 1843	FROM SR 1802 TO SR 1853	4	NO	3.09	22		355		500		3,545	230	10													
TOTAL FOR MAP NO. 19							3.09			355		500		3,545	230	10													
		20	SR 1422	FROM NC 705 TO SR 1003	4	NO	1.62	20		140		200		1,780	116	228													
TOTAL FOR MAP NO. 20							1.62			140		200		1,780	116	228													
		21	SR 1003	FROM SR 1456 TO RANDOLPH CO. LINE	4	NO	3.87	22		295		810		5,015	326	335													
TOTAL FOR MAP NO. 21							3.87			295		810		5,015	326	335													
		22	SR 1825	FROM SR 2005 TO PVT JT EAST OF US 1 BYPASS	4	NO	1.18	20		20		220		1,320	86	20													
TOTAL FOR MAP NO. 22							1.18			20		220		1,320	86	20													
TOTAL FOR PROJ NO. 8CR.20631.15							41.01			3,305		9,843		47,855	3,111	1,788	2	4											2,000.00
GRAND TOTAL							56.81		2,180	4,295	33.05	13,900	24,430	47,855	4,576	2,576	2	4	1,649	94.0	94	4	30	260	24.27	826	6	2,000.00	

PROJECT NO.	SHEET NO.	TOTAL NO.
8CR.10631.15, 8CR.20631.15	19	19

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4589000000-N	4685000000-E		4686000000-E		4695000000-E		4705000000-E		4710000000-E		4721000000-E					4725000000-E		4810000000-E		4900000000-N	
					TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4" X 120 M YELLOW THERMO	4" X 120 M WHITE THERMO	8" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	16" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO RXR 120 M	THERMO MSG SCHOOL 120 M	THERMO MSG ONLY 120 M	THERMO MSG SOUTH 15/501	THERMO RT ARROW 90 M	THERMO LT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & LT ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	YELLOW & YELLOW MARKERS	
NO		NO			LS	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
8CR.10631.15	Moore	1	NC 211	FROM US 15/501 TO HOKE CO. LINE-SKIP JOB AT PEE DEE ROAD	*	33,000		27,390		800	500	100	450	4	12			3	15	9					208	
TOTAL FOR MAP NO. 1						33,000		27,390		800	500	100	450	4	12			3	15	9					208	
		2	NC 24/27	FROM NC 22 TO SR 1261	*	40,000		27,019																	248	
TOTAL FOR MAP NO. 2						40,000		27,019																		248
		3	NC 690	FROM SR 2014 TO CUMBERLAND CO. LINE	*	43,000		61,640					30												525	
TOTAL FOR MAP NO. 3						43,000		61,640					30													525
		4	NC 2	FROM CONST. JT AT TRAFFIC CIRCLE TO END OF FOUR LANE SECTION	*	6,800	6,800		1,420							4	11	1					8	5	86	
TOTAL FOR MAP NO. 4						6,800	6,800		1,420							4	11	1					8	5	86	
		5	NC 2	FROM END OF FOUR LANE SECTION TO CONST. JT	*	5,800		5,800																	37	
TOTAL FOR MAP NO. 5						5,800		5,800																		37
TOTAL FOR PROJ NO. 8CR.10631.15						128,600	6,800	121,849	1,420	800	500	100	480	4	12	4	11	4	15	9	8	5				1,104
						135,400		123,269		1,300						31										
8CR.20631.15	Moore	6	SR 1309	FROM US 1 TO SR 2035	*	3,000	2,642						100						6	4					38	
TOTAL FOR MAP NO. 6						3,000	2,642						100							6	4					38
		7	SR 1805	FROM US 1 TO WCL CARTHAGE-DO NOT PAVE BRIDGE PROJECT OR SCHOOL PROJECT	*	96,600		74,064					360		36				1	1					585	
TOTAL FOR MAP NO. 7						96,600		74,064					360		36					1	1					585
		8	SR 1225	FROM SR 1229 TO DEAD END	*																					
TOTAL FOR MAP NO. 8																										
		9	SR 1487	FROM SR 1477 TO NC 22	*							100	110	4											87,236	
TOTAL FOR MAP NO. 9												100	110	4												87,236
		10	SR 1257	FROM SR 1240 TO WCL CARTHAGE	*																				11,000	
TOTAL FOR MAP NO. 10																										11,000
		11	SR 1419	FROM NC 705 TO SR 1003	*																				66,000	
TOTAL FOR MAP NO. 11																										66,000
		12	SR 1833	FROM 15-501 TO SR 1803	*																				21,000	
TOTAL FOR MAP NO. 12																										21,000
		13	SR 1833	FROM SR 1803 TO SR 1802	*																				23,600	
TOTAL FOR MAP NO. 13																										23,600
		14	SR 1803	FROM SR 1833 TO SR 1837	*																				46,900	
TOTAL FOR MAP NO. 14																										46,900
		15	SR 1625	FROM SR 1626 TO LEE CO. LINE	*																				30,624	
TOTAL FOR MAP NO. 15																										30,624
		16	SR 1642	FROM SR 1640 TO SR 1644	*																				22,000	
TOTAL FOR MAP NO. 16																										22,000
		17	SR 1122	FROM SR 1115 TO SR 1004	*																				84,000	
TOTAL FOR MAP NO. 17																										84,000
		18	SR 1122	FROM SR 1004 TO BRIDGE	*																				63,000	
TOTAL FOR MAP NO. 18																										63,000
		19	SR 1843	FROM SR 1802 TO SR 1853	*																				66,000	
TOTAL FOR MAP NO. 19																										66,000
		20	SR 1422	FROM NC 705 TO SR 1003	*																				34,160	
TOTAL FOR MAP NO. 20																										34,160
		21	SR 1003	FROM SR 1456 TO RANDOLPH CO. LINE	*																				82,636	
TOTAL FOR MAP NO. 21																										82,636
		22	SR 1825	FROM SR 2005 TO PVT JT EAST OF US 1 BYPASS	*																				25,200	
TOTAL FOR MAP NO. 22																										25,200
TOTAL FOR PROJ NO. 8CR.20631.15						99,600	2,642	74,064		100	570		4	36						7	5					663,320
						102,242		74,064																		1,230,684
GRAND TOTAL					1	228,200	9,442	195,913	1,420	800	500	200	1,050	8	48	4	11	4	22	14	8	5				663,320
						237,642		197,333		1,300						71				53						1,230,684

High Speed Detection [≥40 mph (64 km/hr)]



Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

L = 6ft X 6ft (1.8m X 1.8m)
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

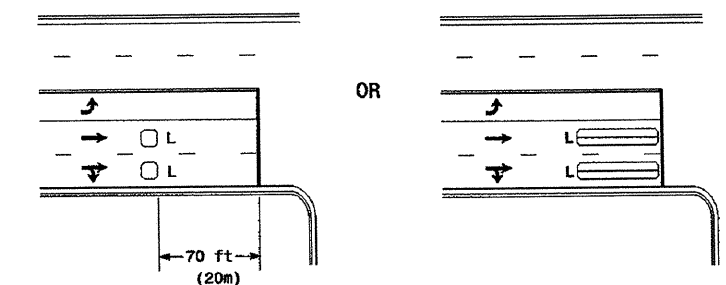
Volume Density Operation

Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

L1 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series
L2 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series

"Stretch" Operation

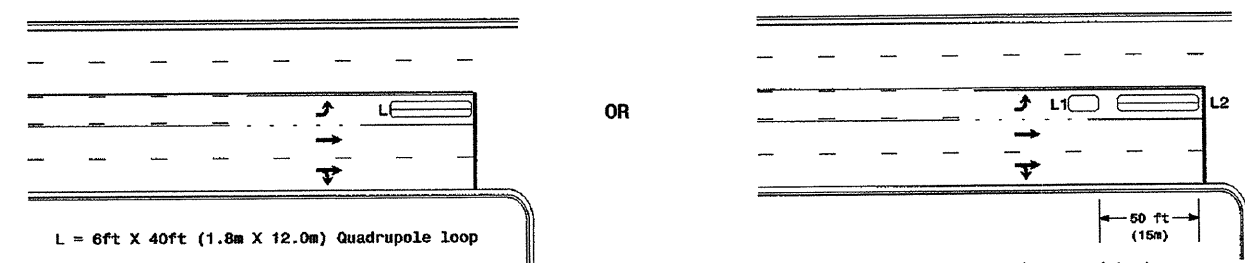
Low Speed Detection [≤35 mph (56 km/hr)]



L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

L = 6ft X 40ft (1.8m X 12.0m)
Quadrupole loop, wired separately

Left Turn Lane Detection



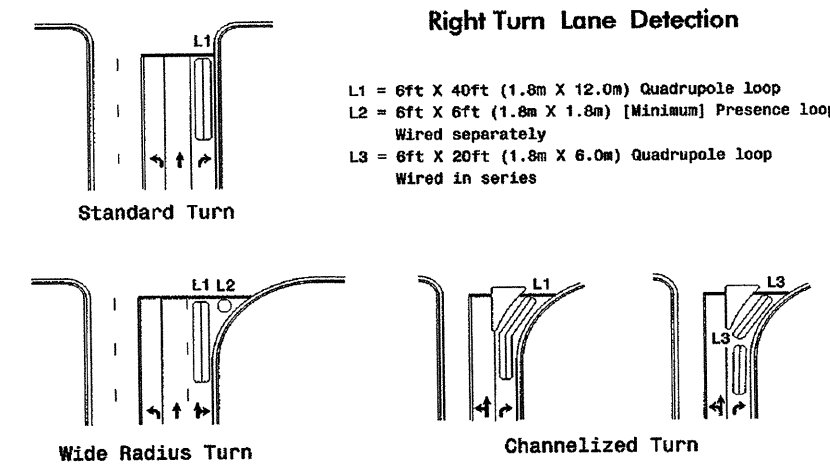
L = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

L1 = 6ft X 15ft (1.8m X 4.6m) Queue detector
L2 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

Presence Loop Detection

Queue Loop Detection

Right Turn Lane Detection



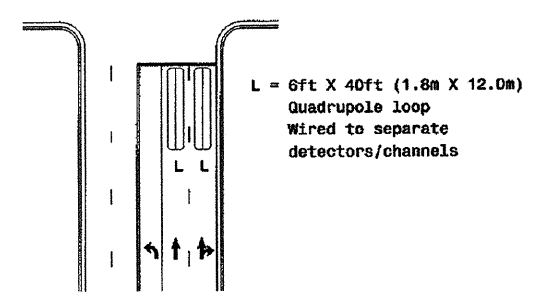
L1 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop
L2 = 6ft X 6ft (1.8m X 1.8m) [Minimum] Presence loop
Wired separately
L3 = 6ft X 20ft (1.8m X 6.0m) Quadrupole loop
Wired in series

Standard Turn

Wide Radius Turn

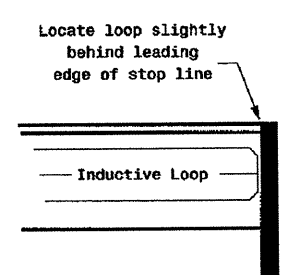
Channelized Turn

Side Street Detection



L = 6ft X 40ft (1.8m X 12.0m)
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 when stop line is
greater than 15' (4.5m) from edge
of intersecting roadway; or, when
loop detects a permissive or
protected/permissive left turn.

Recommended Number of Turns

Single 6' X 6' (1.8m X 1.8m)
loop (wired separately):

Length of Lead-in ft (m)	Number of Turns
< 250 (75)	3
250-375 (75-115)	4
375-525 (115-160)	5
> 525 (160)	6

Quadrupole loops: Use 2-4-2 turns
6' X 15' (1.8m X 4.6m) Loops:
Lead-in < 150' (45 m), use 2 turns
Lead-in > 150' (45 m), use 3 turns

	Typical Loop Locations		
	PLAN DATE: June 2006 PREPARED BY: P. L. Alexander SCALE: N/A	REVIEWED BY: DATE:	

STATE OF NORTH CAROLINA
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 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

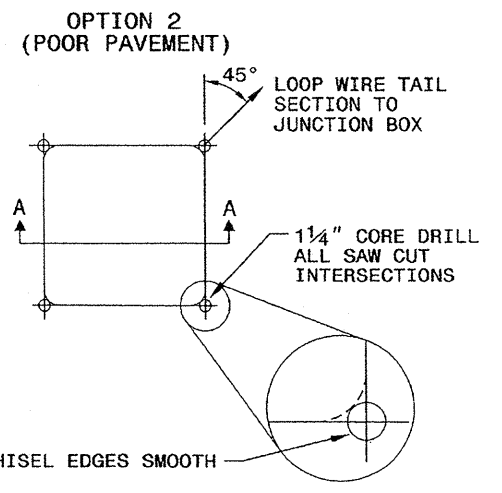
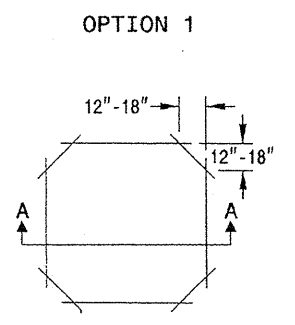
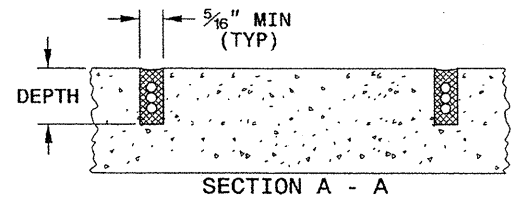
SHEET 1 OF 3
1725D01

CONVENTIONAL 4-SIDED LOOP

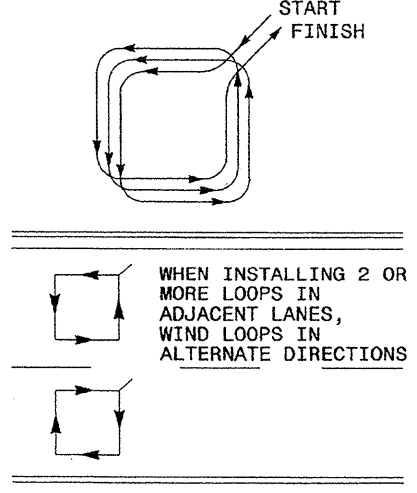
SAW CUT OPTIONS

SAW SLOT DEPTH CHART

DEPTH (IN)	NO. OF WIRE TURNS				
	2	3	4	5	6
CONCRETE	2.0	2.0	2.5	2.5	3.0
ASPHALT	2.0	2.5	3.0	3.0	3.0



LOOP WINDING METHOD



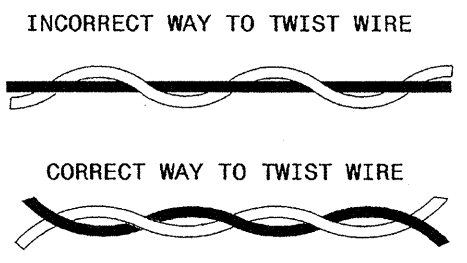
11-08

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ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
1725D01

LOOP WIRE TWISTING METHOD

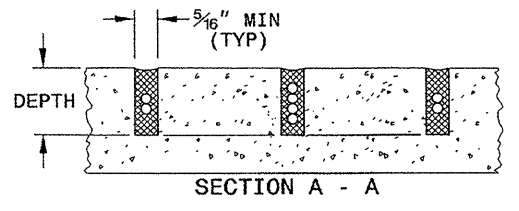
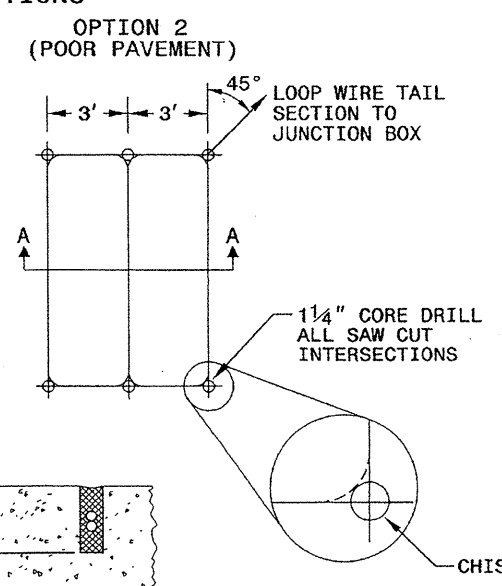
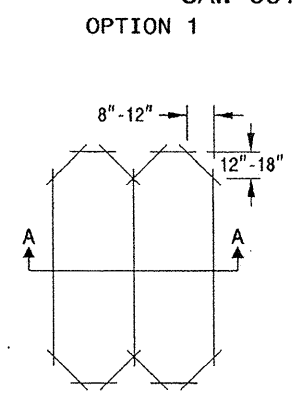


NOTES

1. OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
2. MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
3. WIRE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL IN SERIES.
4. LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS OR APPROVED BY ENGINEER.

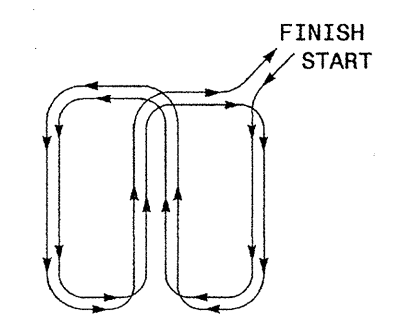
QUADRUPOLE LOOP

SAW CUT OPTIONS



DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

LOOP WINDING METHOD



See Plate for Title

Prepared in the Offices of:

750 N. Greenfield Parkway
 Garner, NC 27529

SEAL

SIGNATURE: *Michael J. Dean* 11/24/08
 DATE

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 NORTH CAROLINA
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 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

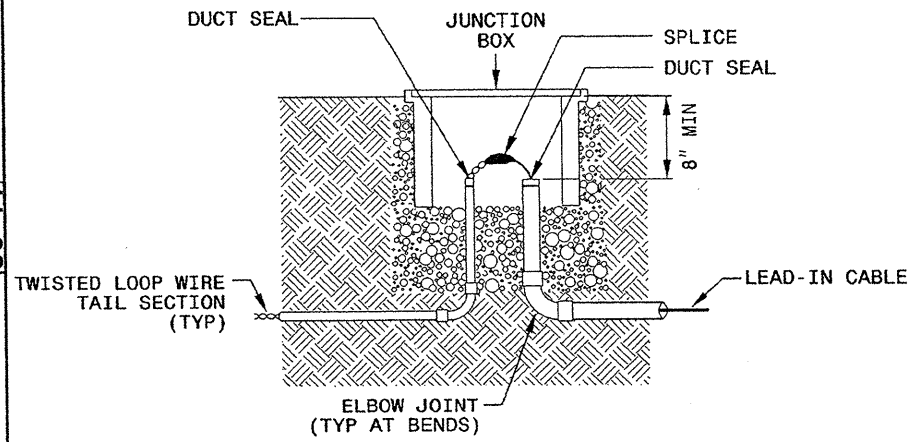
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ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 LOOP WIRE DETAILS

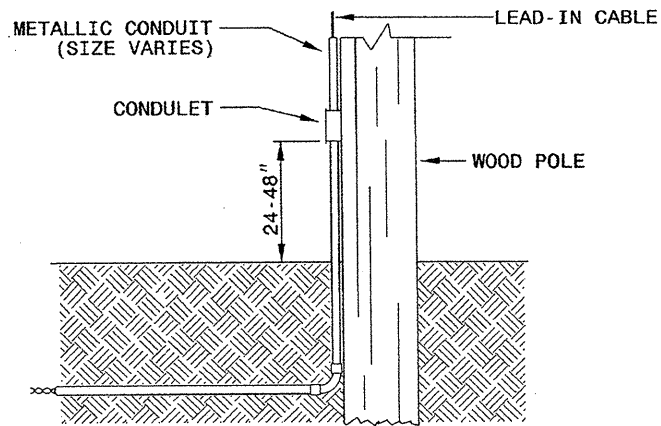
SHEET 2 OF 3
1725D01

LOOP WIRE SPLICE POINT DETAILS

LOOP WIRE AT JUNCTION BOX



LOOP WIRE AT POLE

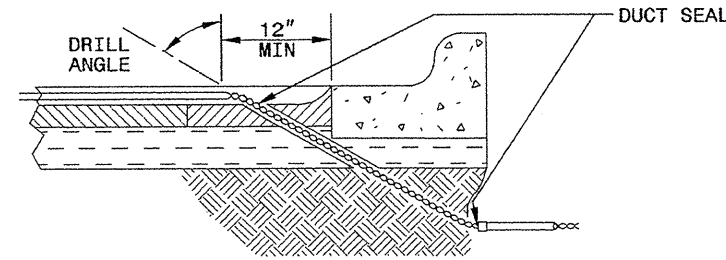


NOTE

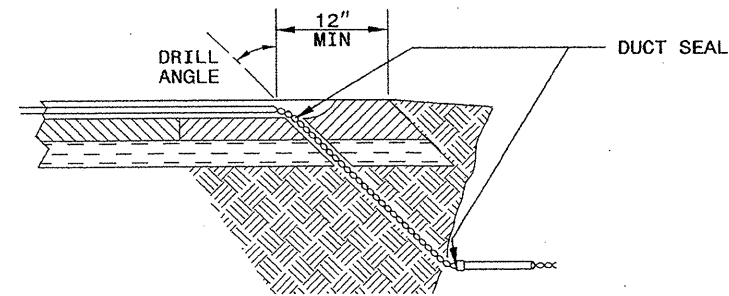
SPLICE ALL LOOP WIRE TAIL SECTIONS/LEAD-IN CABLE IN JUNCTION BOXES OR APPROVED CONDULETS.

LOOP WIRE PAVEMENT EDGE DETAILS

LOOP WIRE AT CURB & GUTTER SECTION



LOOP WIRE AT PAVEMENT SECTION



NOTES

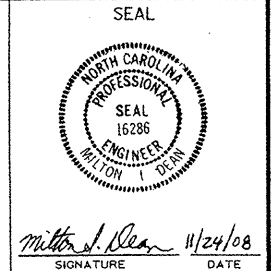
1. DO NOT EXCAVATE UNDER CURB AND GUTTER SECTIONS FOR CONDUIT INSTALLATION.
2. TWIST LOOP WIRE TAIL SECTIONS FROM WHERE LOOP WIRE TAIL LEAVES SAW CUT TO JUNCTION BOX, INCLUDING THROUGH CONDUIT.
3. BEFORE SEALING LOOPS, INSTALL DUCT SEAL WHERE LOOP WIRE TAIL SECTION LEAVES SAW CUT IN PAVEMENT AND AT ENTRANCE OF CONDUIT TO JUNCTION BOX.

11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 LOOP WIRE DETAILS

SHEET 2 OF 3
1725D01

See Plate for Title



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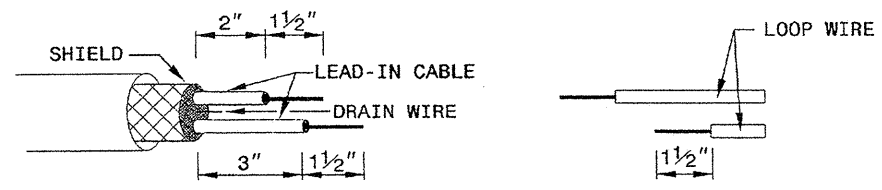
STATE OF NORTH CAROLINA
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11-08

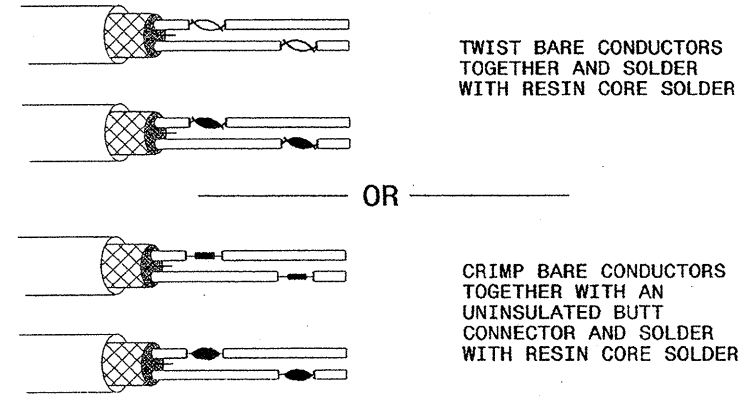
ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3
1725D01

STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE

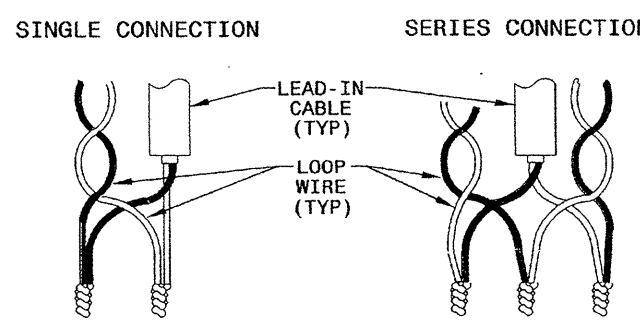


STEP 2. CONNECT AND SOLDER

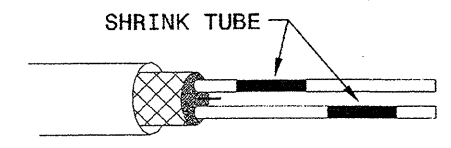


BOND SHIELD DRAIN WIRE AT SPLICE SECTIONS (DO NOT GROUND)

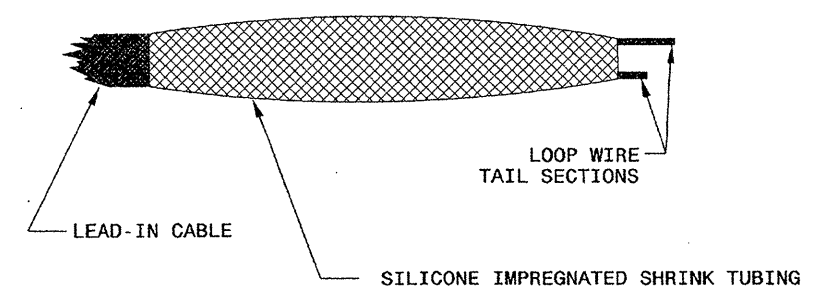
LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS



STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY



STEP 4. ENVIRONMENTALLY PROTECT SPLICE



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11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3
1725D01

See Plate for Title

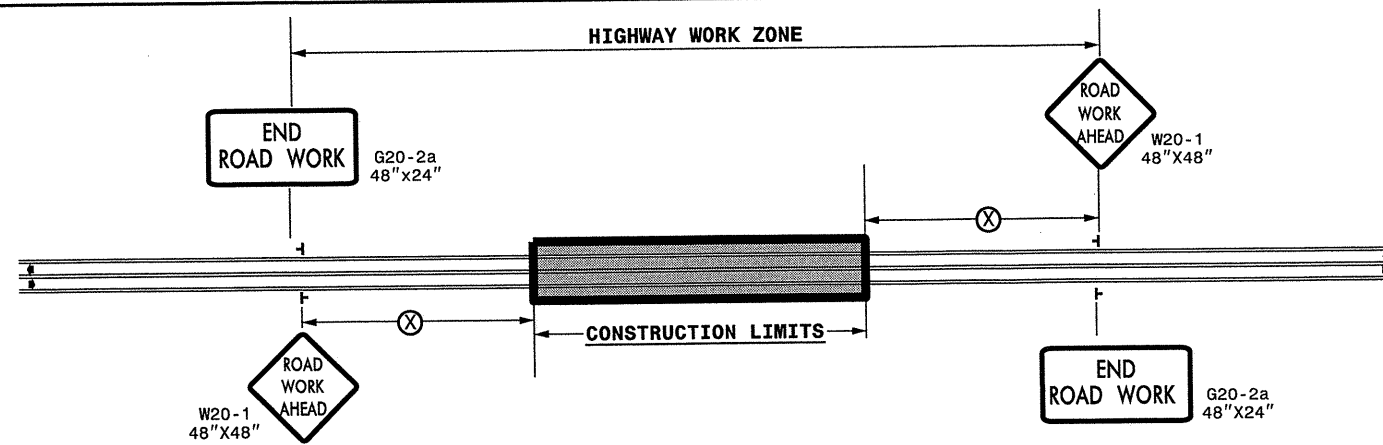


SEAL

Milton Dean 11/24/08
 SIGNATURE DATE

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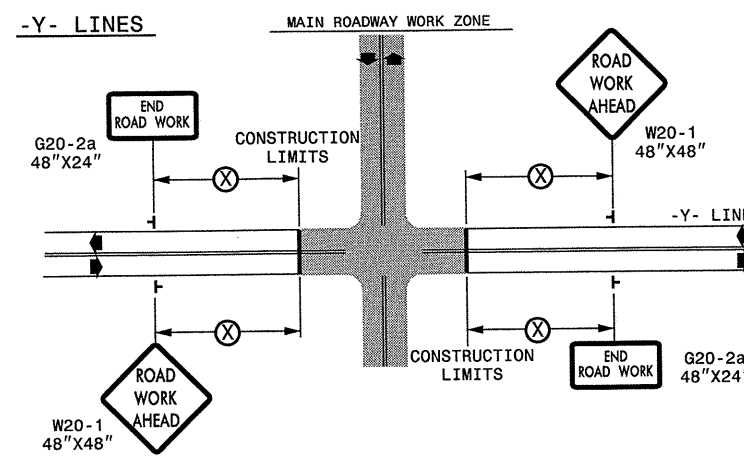
TWO-WAY UNDIVIDED ** (L-LINES)



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
≤ 50	500'
≥ 55	1000'

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DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.


DETAIL DRAWING FOR
TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

SHEET 1 OF 1

LEGEND

┆ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

APPROVED: _____ DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS		
SEAL	SCALE: NONE		
	DATE: _____		REVISIONS
	DWG. BY: _____		7-98 10/01
	DESIGN BY: _____		10-98 03/04
REVIEWED BY: _____	01/01 11/04	CAD FILE	

06-DEC-2009 11:50 AM C:\PROGRAMS\WTC\CC\MS&S Division\Share\Resur\Facing\2010Central\201_Div08_C202674A-B_8CR.10631.15x2.2way_Undiv.&Urban_Frways_stationary.dgn
 bpschoenbauer AT WTC244737

