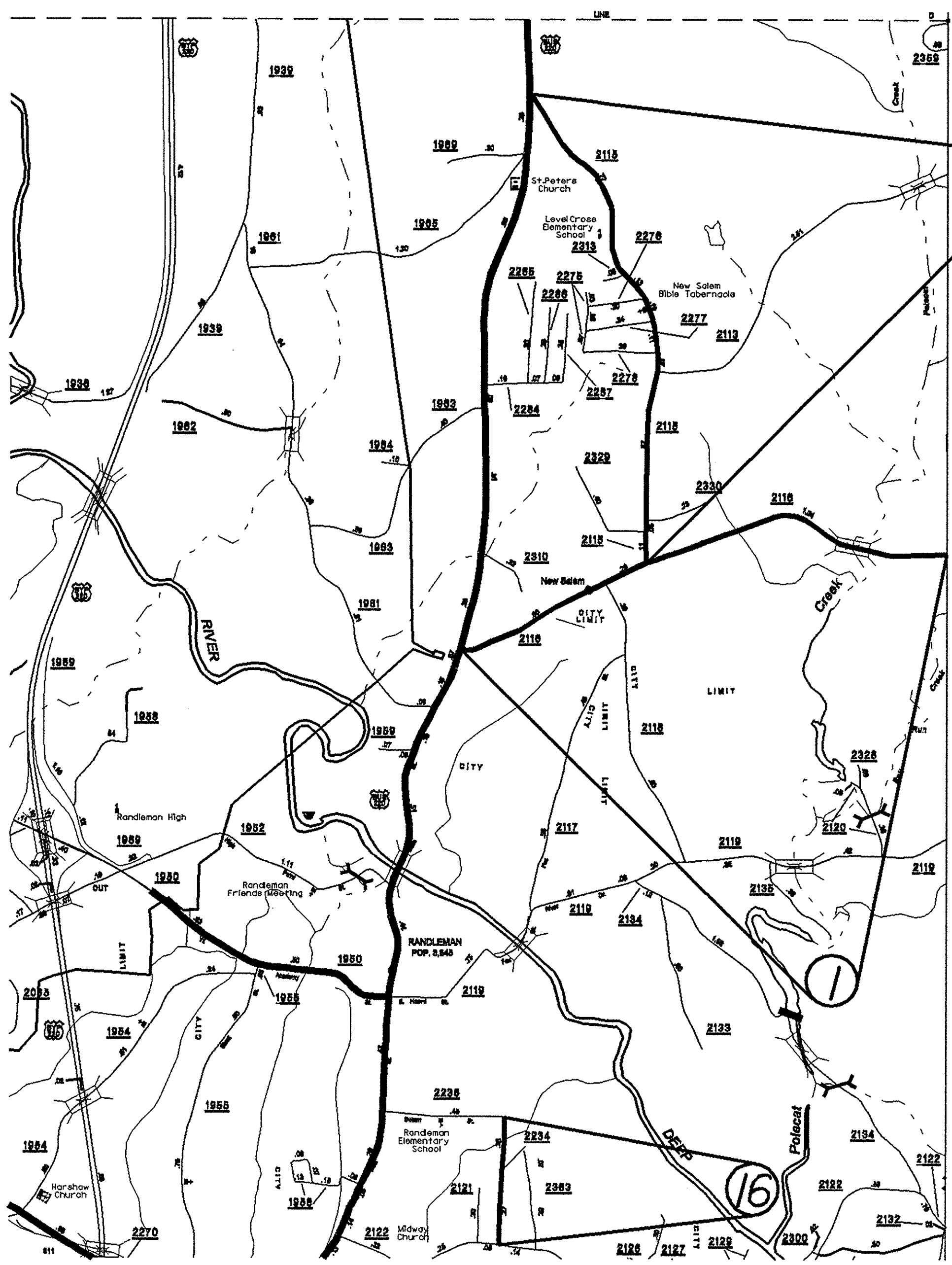
WBS ELEMENT	SHEET NO.
8C.076113, 8CR.10761.8, 8CR.20761.8	1

RANDOLPH COUNTY

NORTH CAROLINA

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS – GIS UNIT

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

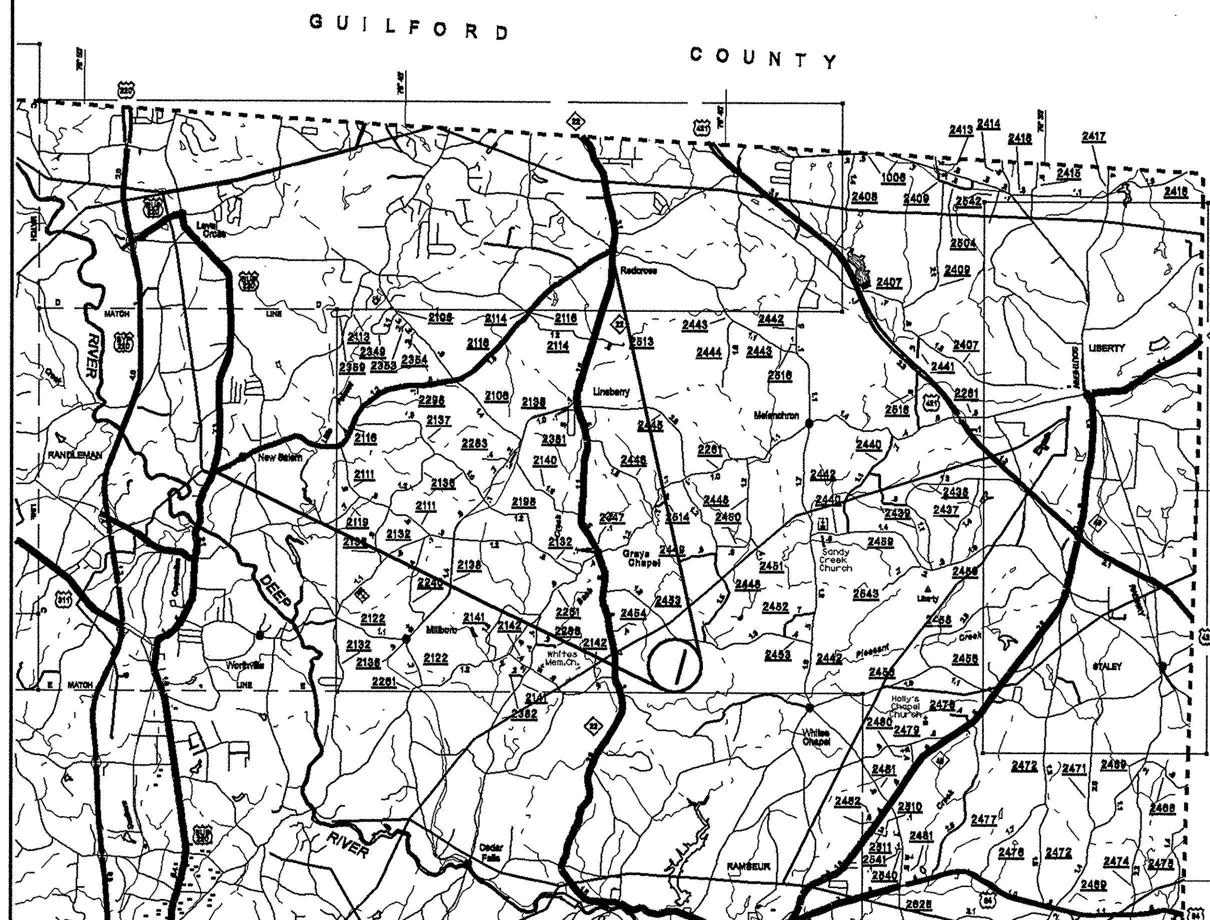


RANDOLPH COUNTY

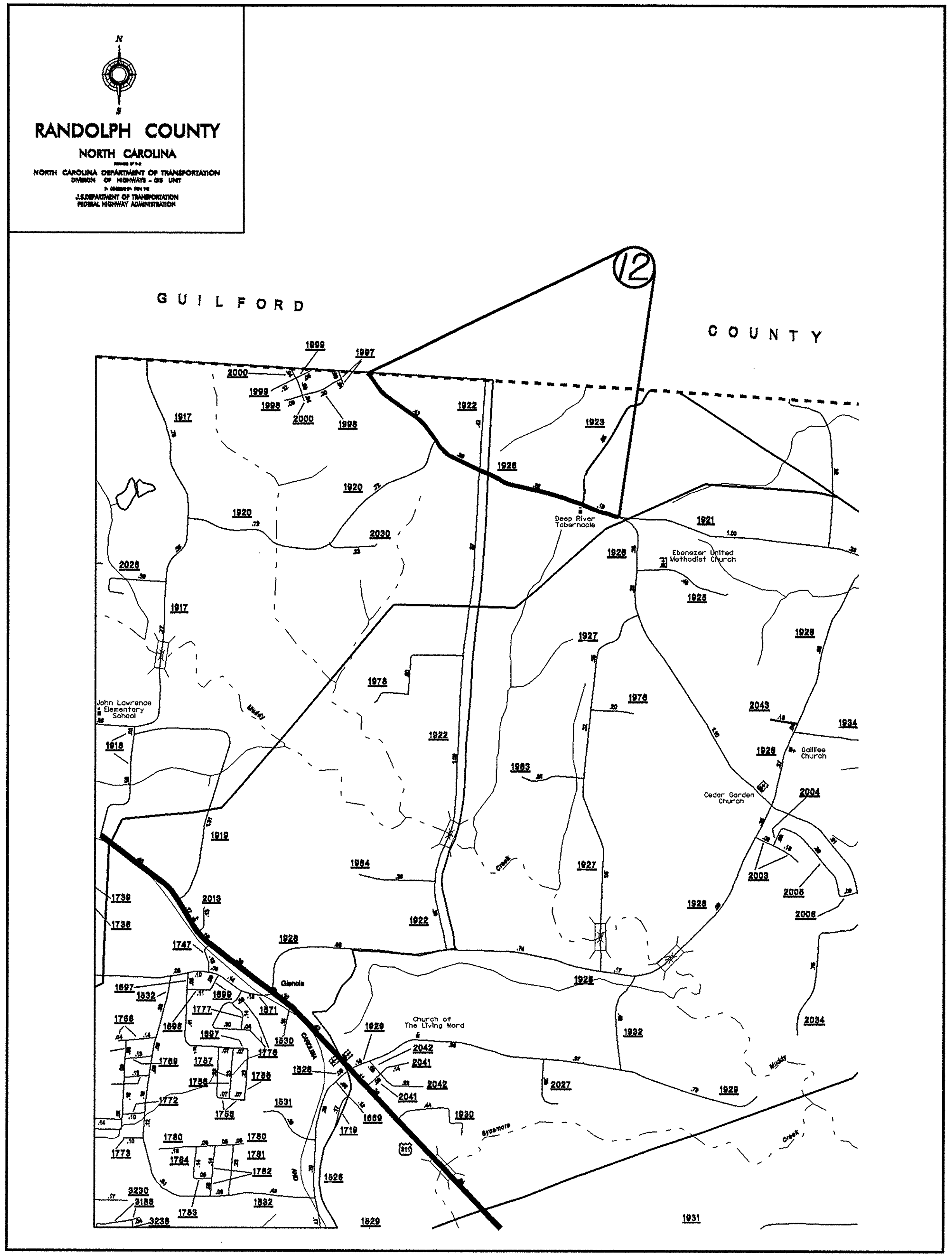
NORTH CAROLINA

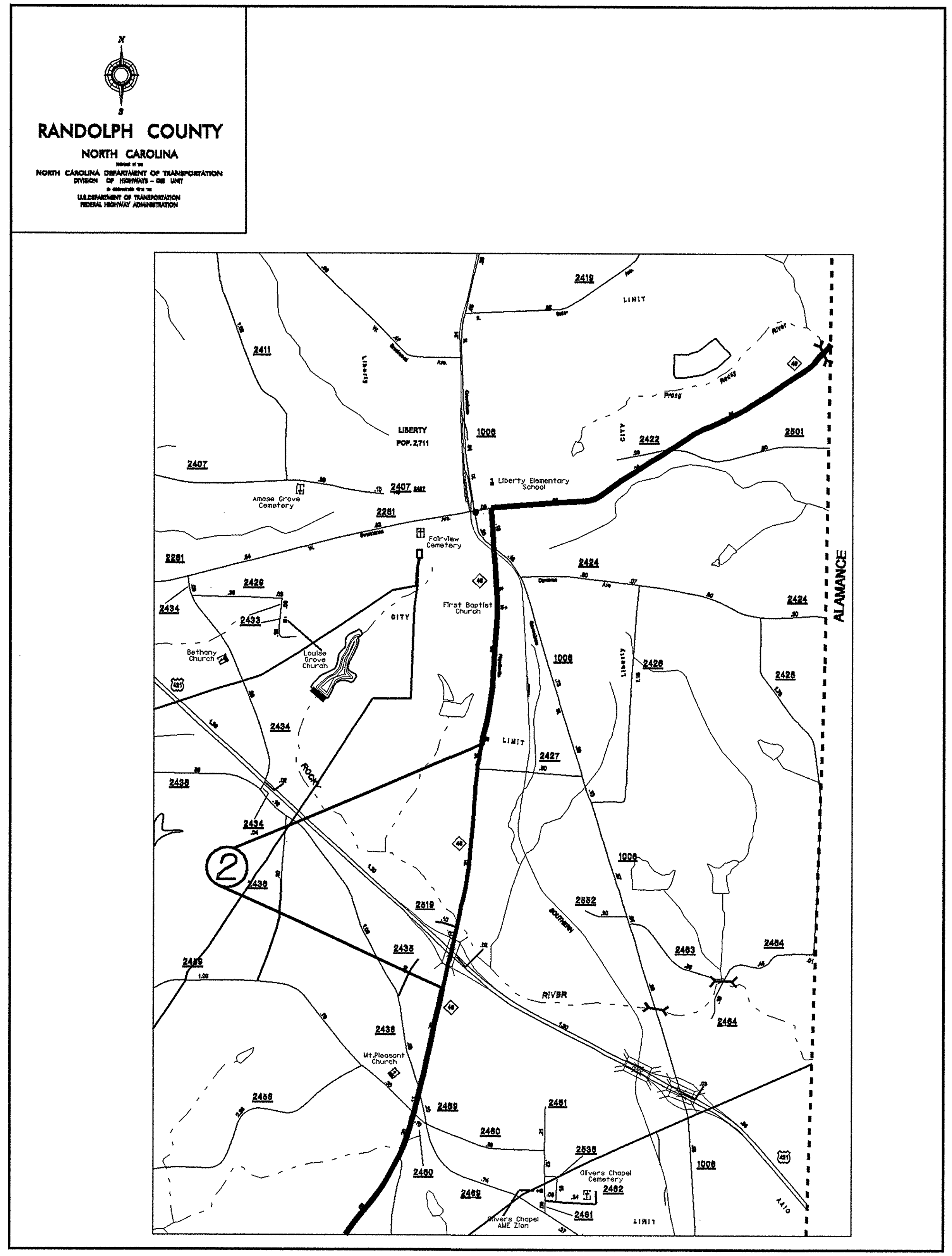
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS – GIS UNIT

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



WBS ELEMENT	SHEET NO.
8C.076113, 8CR.10761.8, 8CR.20761.8	2





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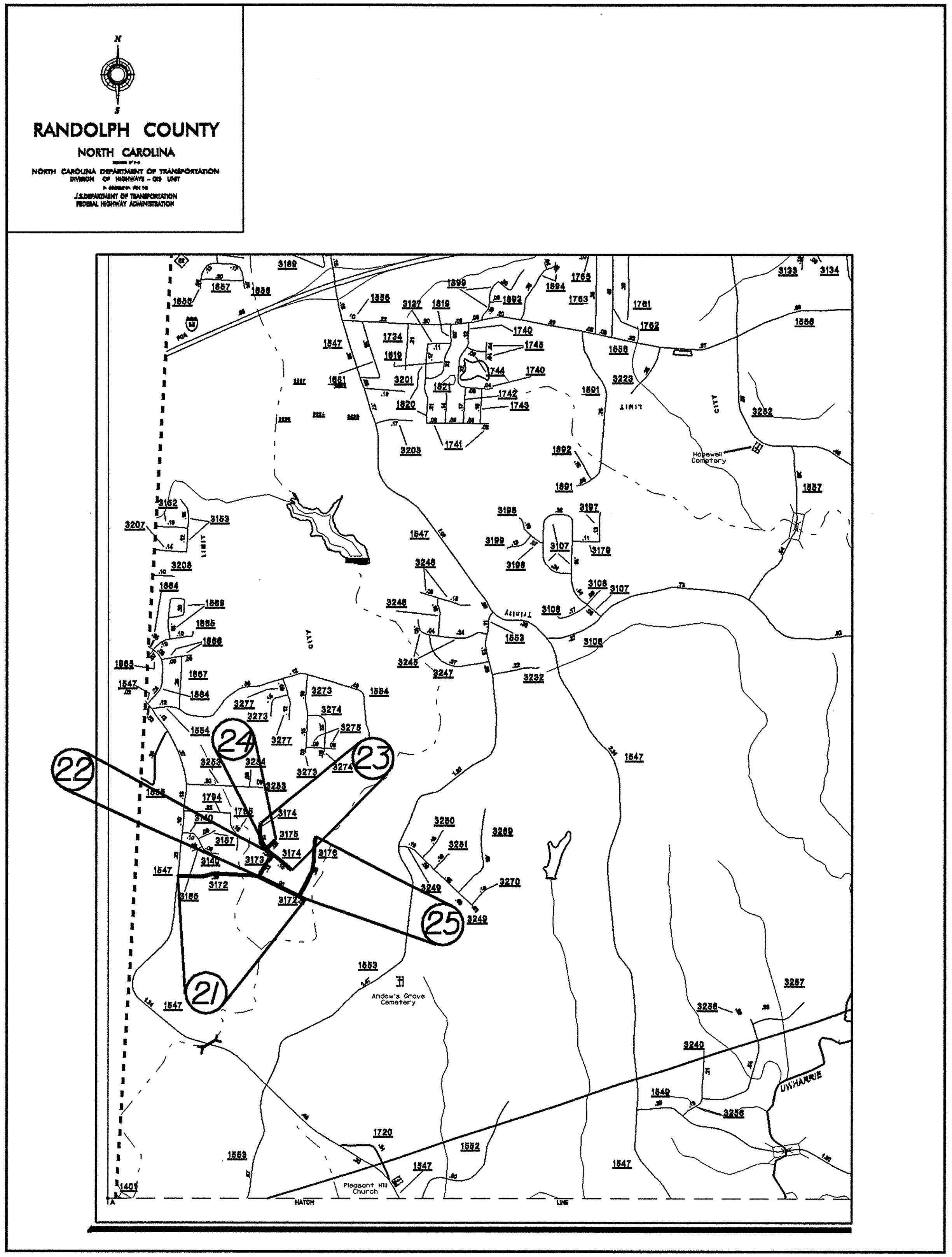
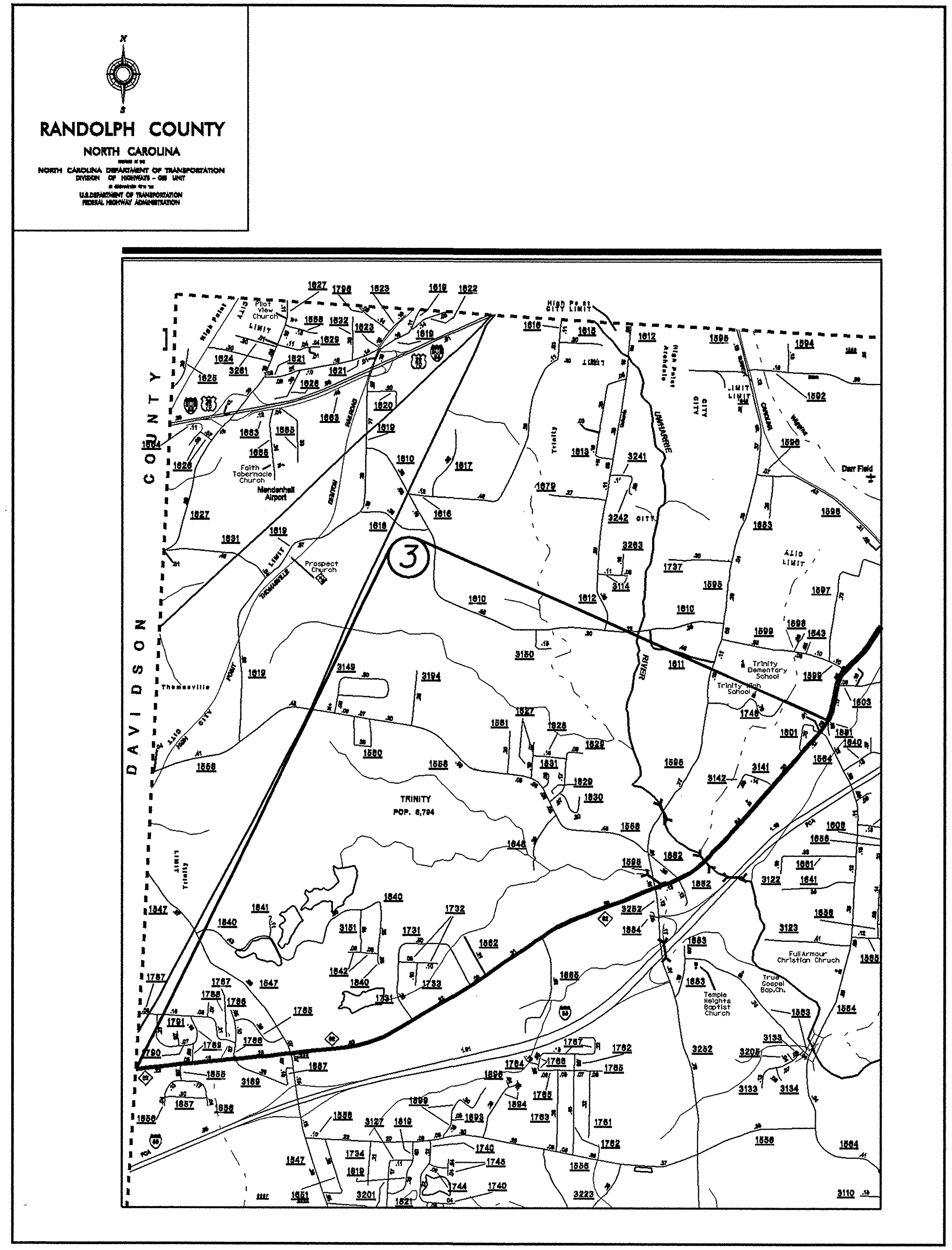
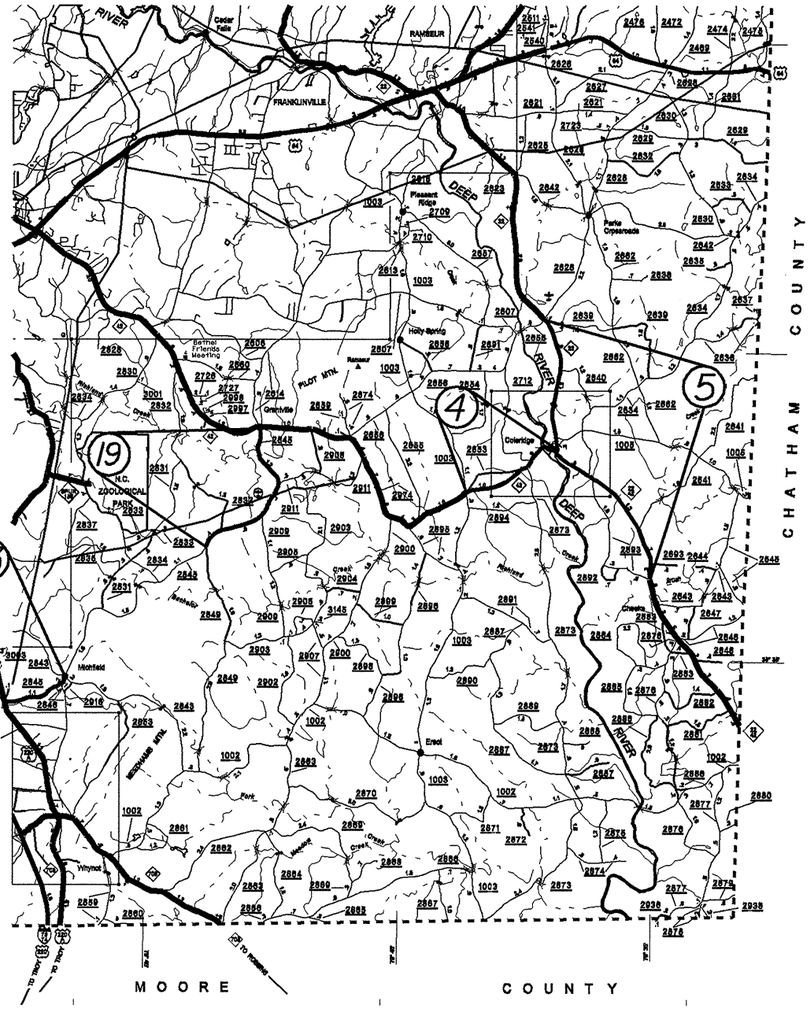
WBS ELEMENT	SHEET NO.
8C.076113, 8CR.10761.8, 8CR.20761.8	3



N
S
RANDOLPH COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
21
22
23
24
25
Hopewell Cemetery
Andew's Grove Cemetery
Pleasant Hill Church
UWHARRIE
MATCH
LINE



N
S
RANDOLPH COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
3
DAVIDSON COUNTY
TRINITY
POP. 6,794
Thomasville
Faith Tabernacle Church
Mendenhall Airport
Prospect Church
Trinity Elementary School
Trinity High School
Fullarmour Christian Church
Temple Heights Baptist Church
Darr Field
UWHARRIE



040397

WBS ELEMENT	SHEET NO.
8C.076113, 8CR.10761.8, 8CR.20761.8	4

RANDOLPH COUNTY

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

RANDOLPH COUNTY

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

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WBS ELEMENT	SHEET NO.
BC.076113, 8CR.10761.8, 8CR.20761.8	5

N

S

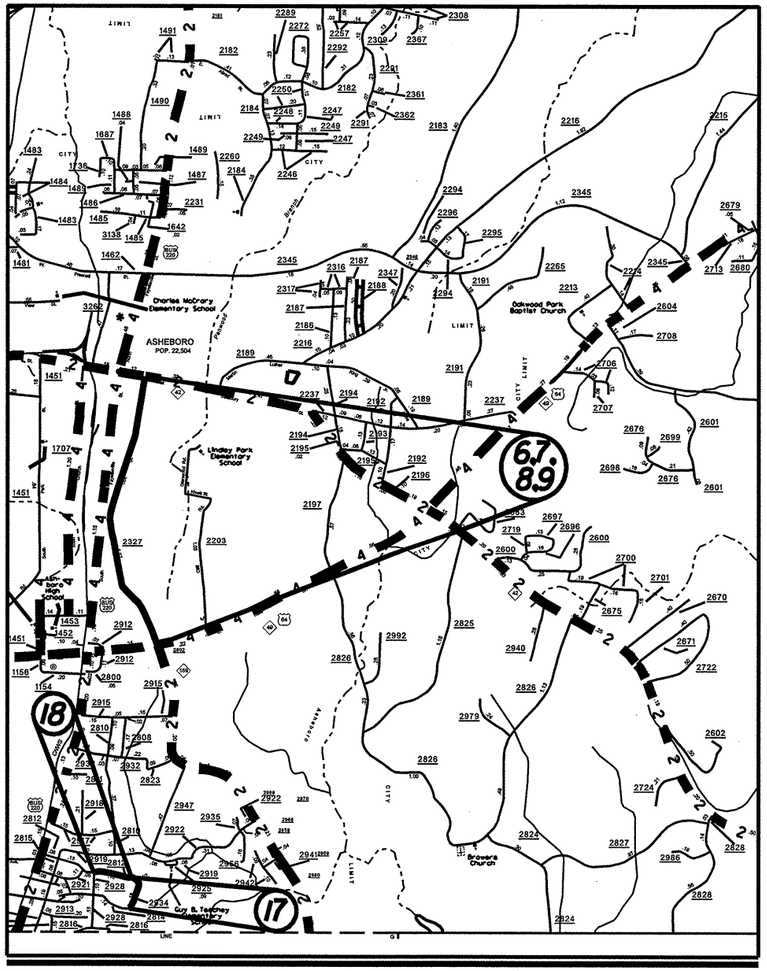
RANDOLPH COUNTY

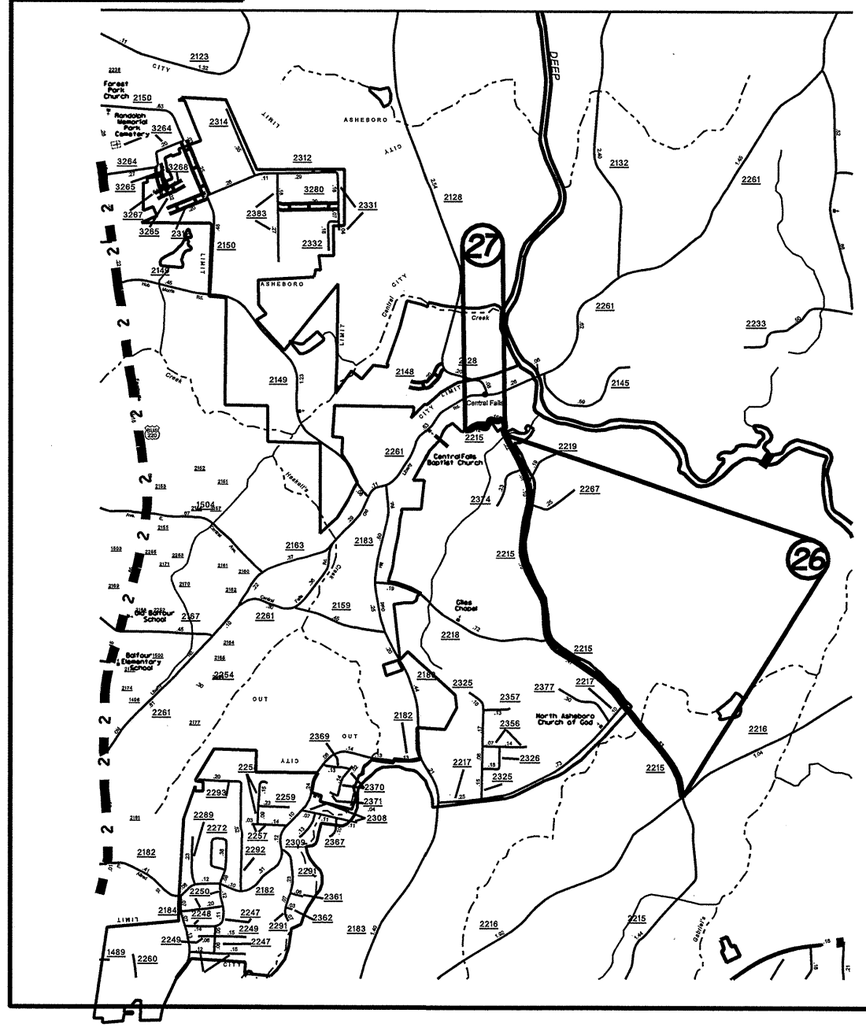
NORTH CAROLINA

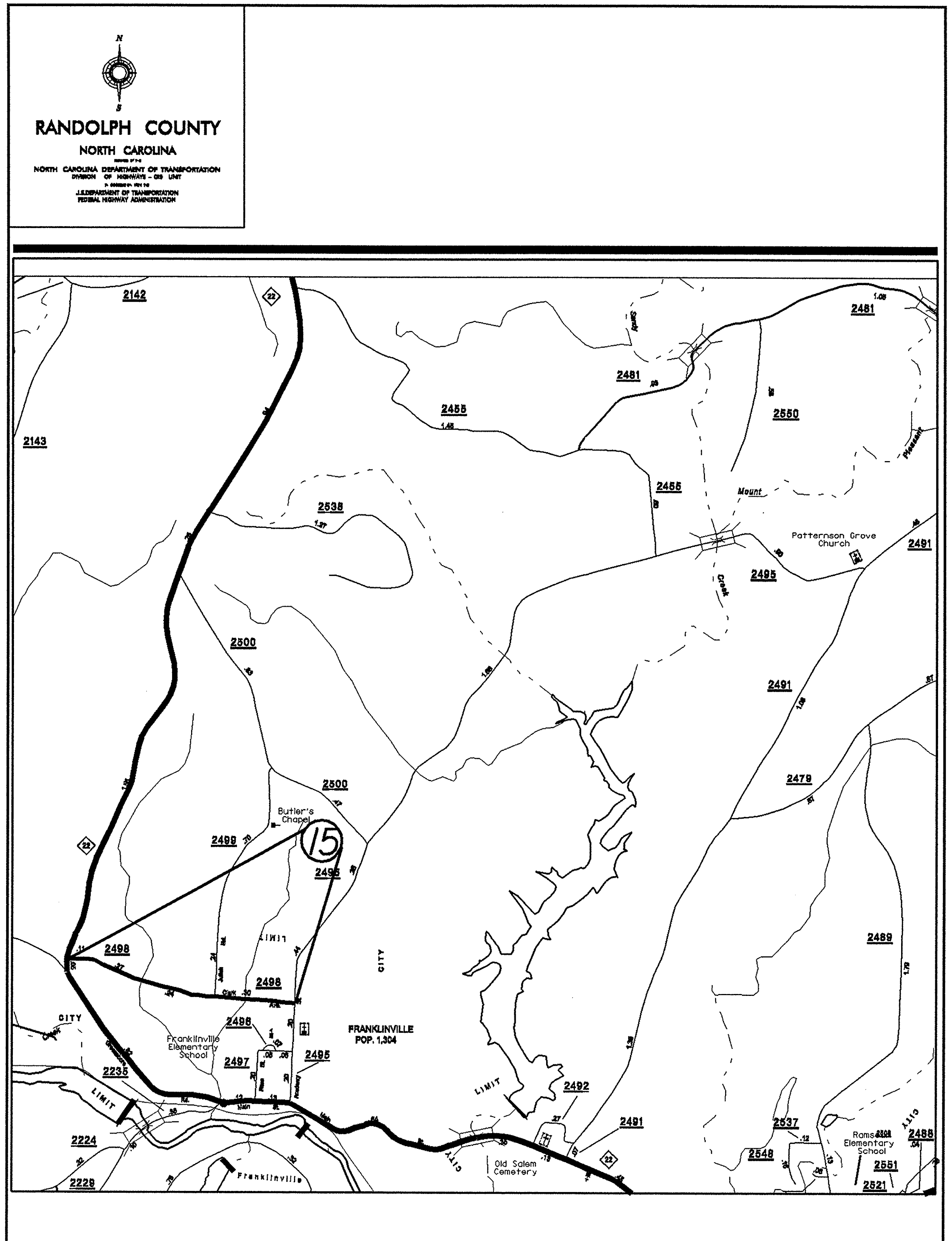
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT

IN COOPERATION WITH THE

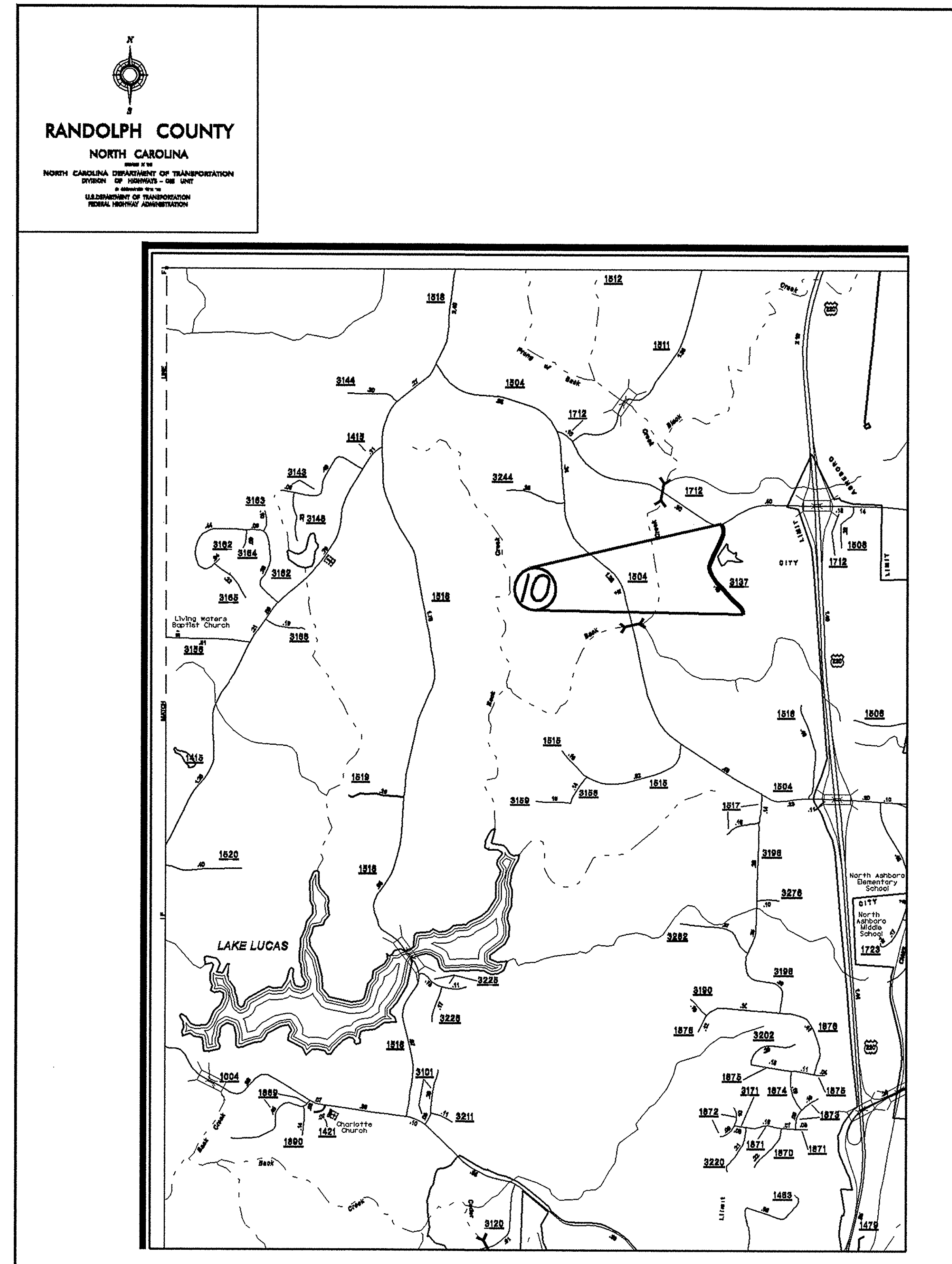
U.S.DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION





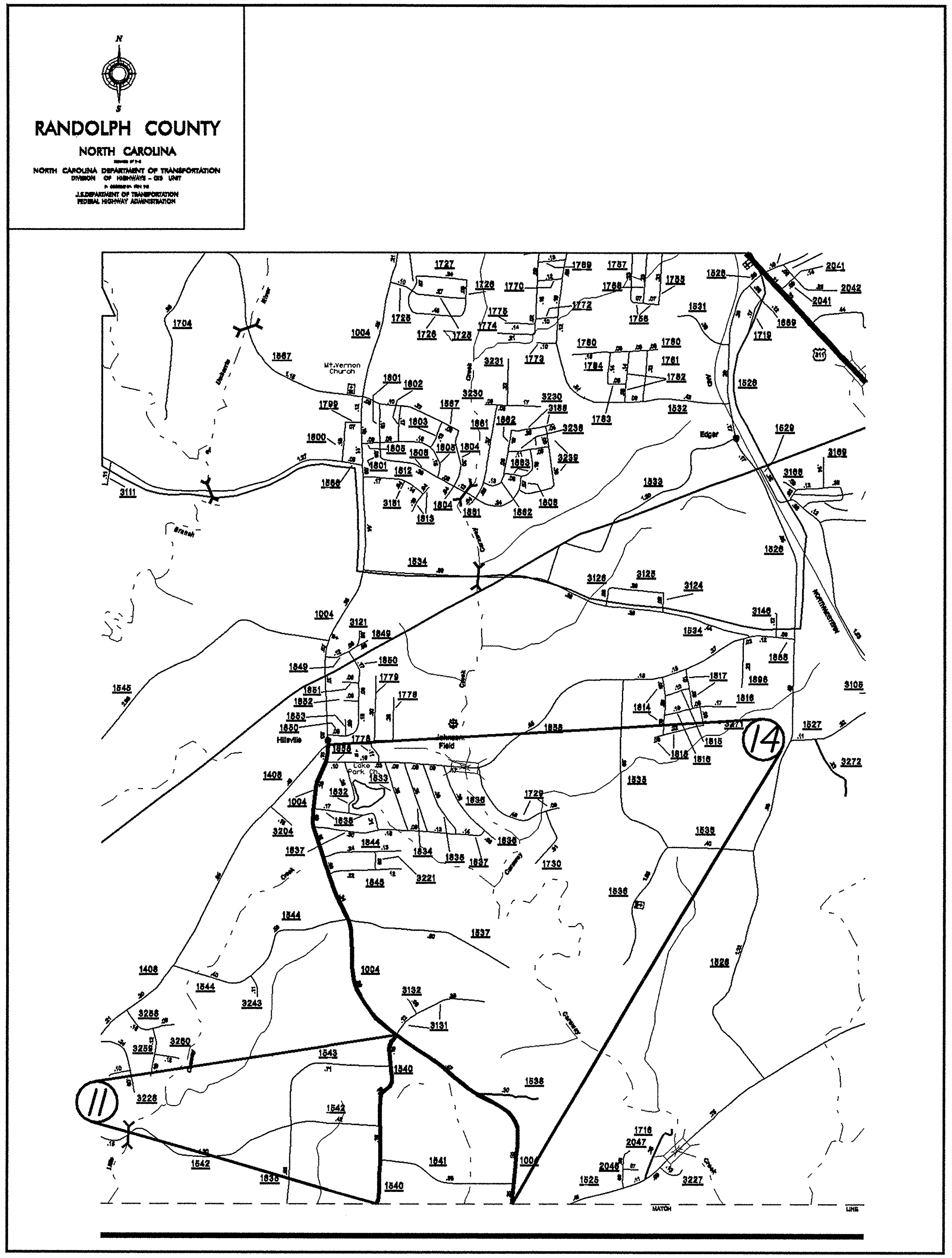


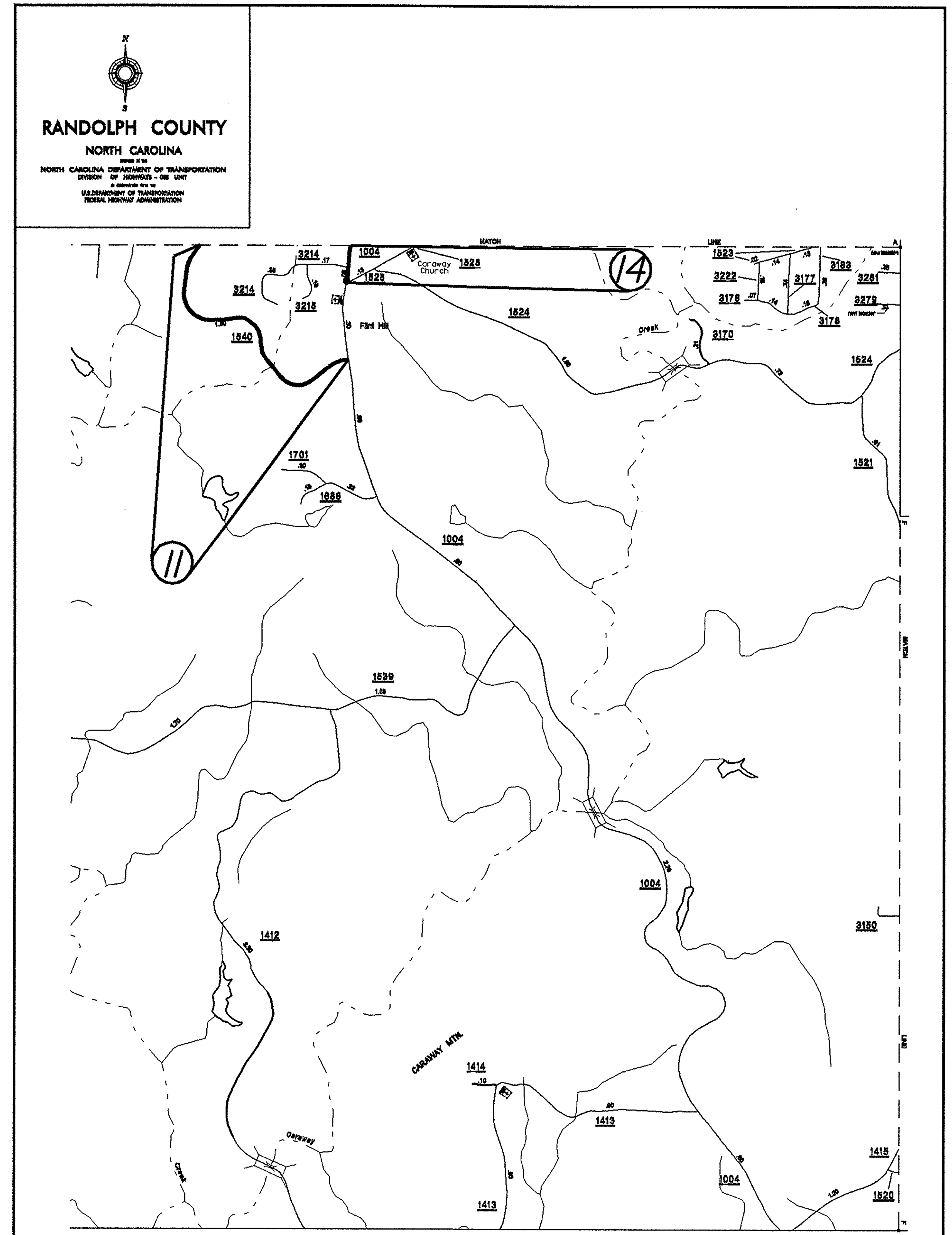
RANDOLPH COUNTY
NORTH CAROLINA
2142
2143
2481
2455
2550
2538
2455
Mount
Patterson Grove Church
2491
2495
Creek
2500
2491
2479
2500
Butler's Chapel
15
2499
2495
2498
2498
2489
CITY
LIMIT
2498
Franklinville Elementary School
2497
2495
FRANKLINVILLE
POP. 1,304
2492
2491
2235
2224
2229
Franklinville
Old Salem Cemetery
2537
2548
Ramseur Elementary School
2488
2551
2521



RANDOLPH COUNTY
NORTH CAROLINA
1812
1818
1811
3144
1804
1712
1712
3244
1818
10
1804
3137
CITY
1712
Living Waters Baptist Church
1816
1806
1818
1819
3159
3158
1818
1817
1804
1820
1818
3198
LAKE LUCAS
North Asheboro Elementary School
North Asheboro Middle School
3278
3282
1723
3198
3228
3226
3190
1876
3202
1878
1004
1818
3101
3211
1875
1874
1872
Charlotte Church
1421
1890
1871
1870
1871
3220
3120
1483
1479

WBS ELEMENT	SHEET NO.
BC.076113, BCR.10761.8, BCR.20761.8	7





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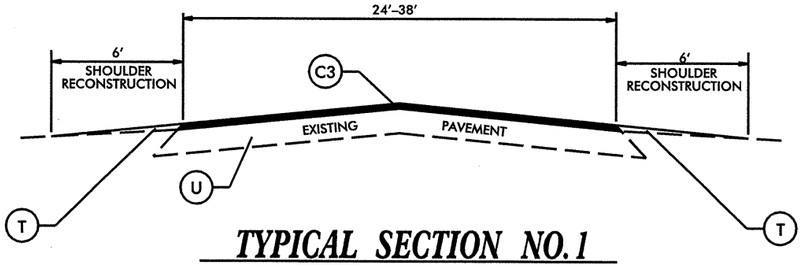
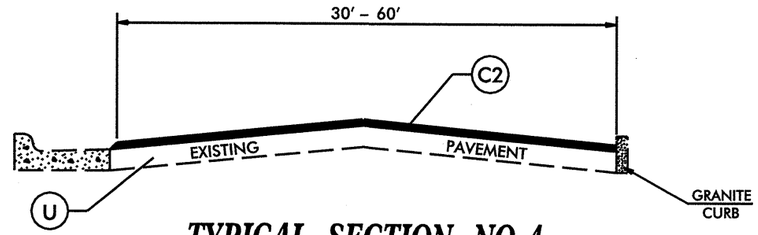
WBS ELEMENT	SHEET NO.
8C.076113, 8CR.10761.8 8CR.20761.8	8



TYPICAL SECTION NO. 1



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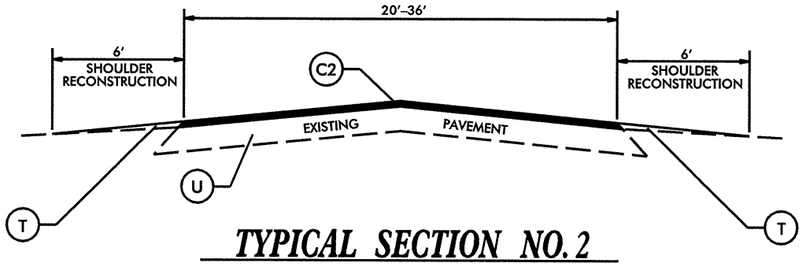
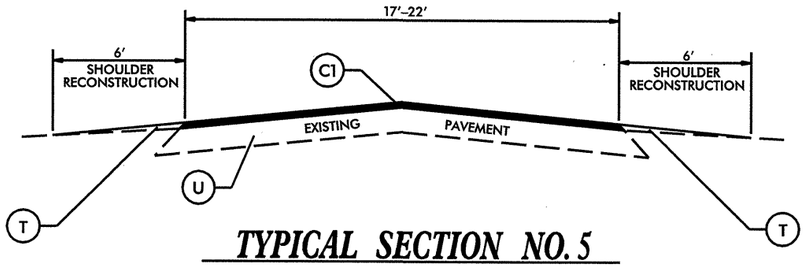
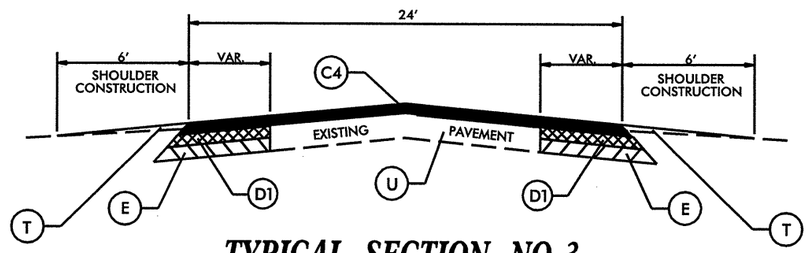


TYPICAL SECTION NO. 2



TYPICAL SECTION NO. 5

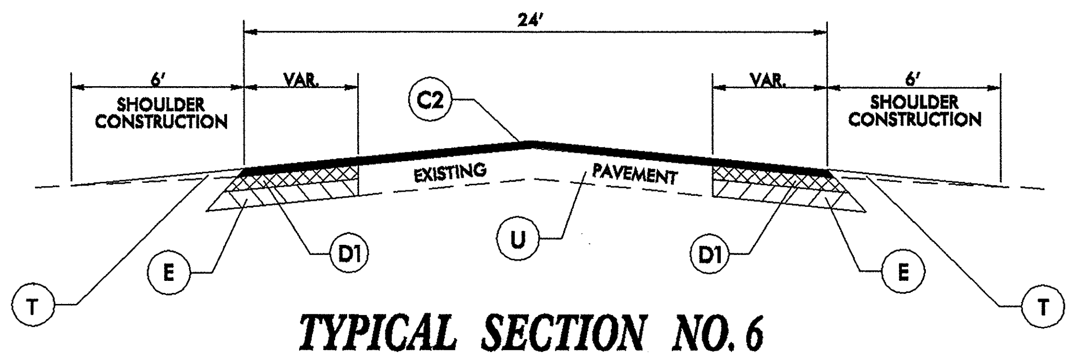


TYPICAL SECTION NO. 3

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5"ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 3.0"ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

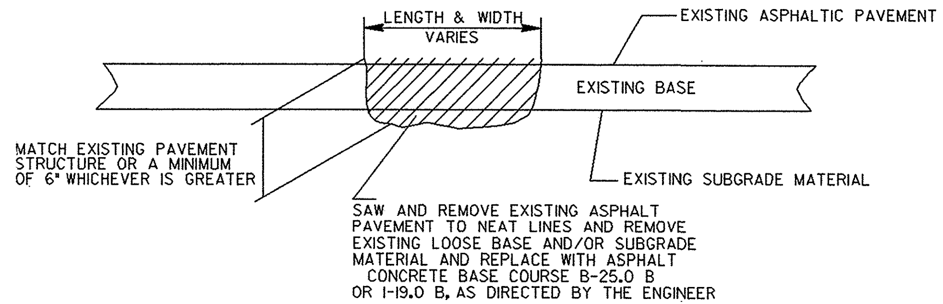
$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$

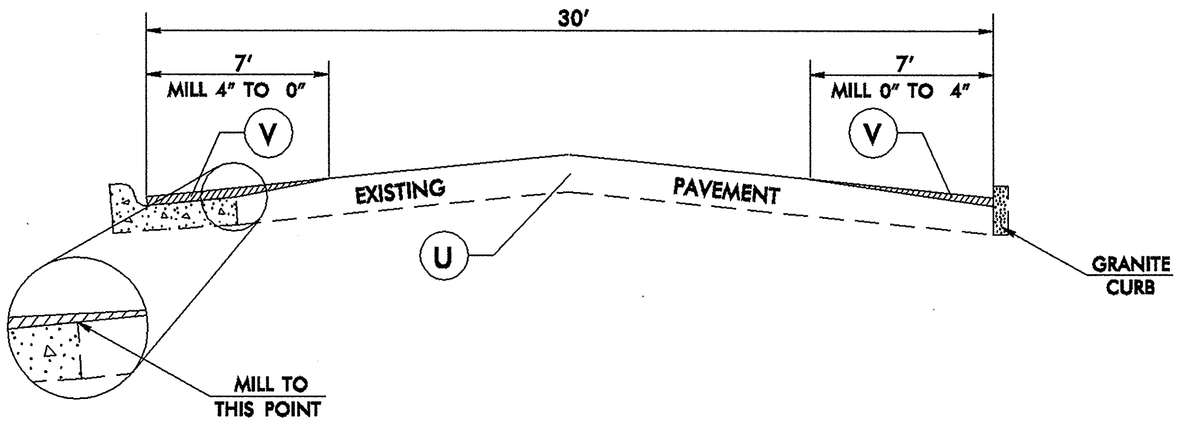


TYPICAL SECTION NO. 6

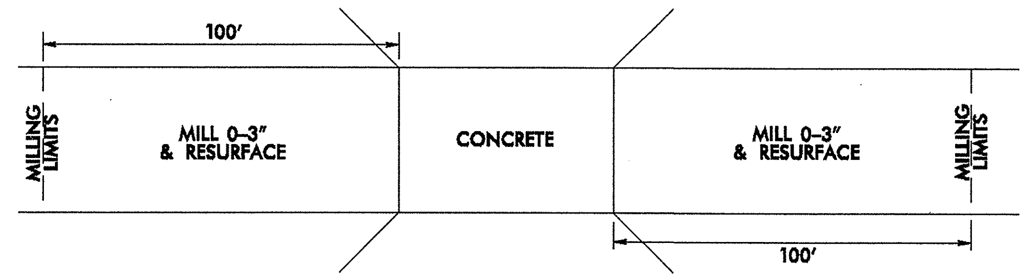
DETAILS OF REPAIRING EXISTING PAVEMENT PRIOR TO RESURFACING

DETAIL NO. 1



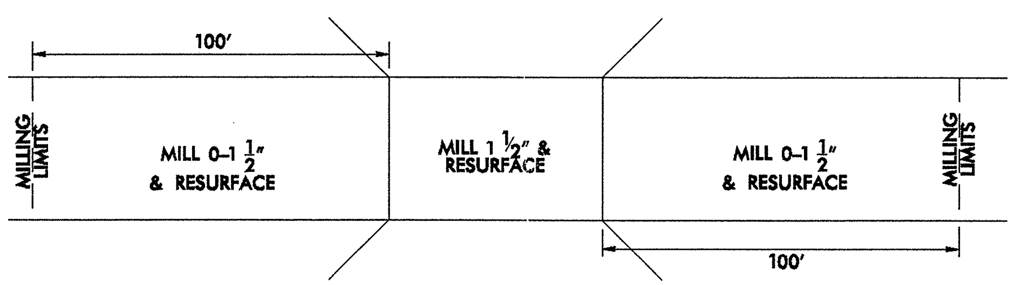


TYPICAL SECTION NO. 7
CURB AND GUTTER MILLING



BRIDGE DRAWING FOR SR 2116, NC 42, & SR 2215
Use for Map No.1,4,& 26

* MILLING SHALL BE PAID FOR UNDER INCIDENTAL MILLING



BRIDGE DRAWING FOR SR 2845
Use for Map No.19

* MILLING SHALL BE PAID FOR UNDER INCIDENTAL MILLING

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5"ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 3.0"ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING 0" - 4" IN DEPTH

PROJECT NO.	SHEET NO.	TOTAL NO.
8C.076113, 8CR.10761.8, ETC	10	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TONS	SHOULDER CONSTRUCTION SMI	SHOULDER RECONSTRUCTION SMI	0" TO 4"" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, SF9.5A TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	PG 64-22 PLANT MIX TONS	PG 70-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	WHEELCHAIR RAMPS EA	ADJUST DROP INLET EA	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA	INDUCTIVE LOOP LF	SEED & MULCHING AC
8C.076113	Randolph	1	SR 2116	FROM US 220 BUS TO NC 22	3	7.07	24	141	14.14			533	5,485	3,165		17,745		1,449		260						8.48
TOTAL FOR PROJ NO. 8C.076113						**7.07**		**141**	**14.14**			**533**	**5,485**	**3,165**		**17,745**		**1,449**		**260**						**8.48**
8CR.10761.8	Randolph	2	NC 49	FROM BEGIN PAVED SHLD TO SCL LIBERTY	1	1.14	24 - 38	14		2.28		944					1,780		107							1.37
		3	NC 62	FROM SR 1748 TO DAVIDSON CO. LINE	2	3.82	24	76		7.64		100				4,970		298		200				2		4.58
		4	NC 42	FROM NC 22 TO SR 1003	2	1.99	20	40		3.98		444				2,075		125		50						2.39
		5	NC 22	FROM SR 2893 TO SR 2628	2	5.7	20	64		11.4		100				5,940		356		300						6.84
TOTAL FOR PROJ NO. 8CR.10761.8						**12.65**		**194**	**0**	**25.3**		**1588**				**12,985**	**1,780**	**779**	**107**	**550**				**2**		**15.18**
8CR.20761.8	Randolph	6	SR 2327	FROM NC 42 TO WORTH STREET	4	0.11	36					120				200		12					4	5		
		7	SR 2327	FROM WORTH STREET TO STOWE AVE	4 & 7	0.93	30				7638					1,381		83			8	4	23	15	300	
		8	SR 2327	FROM STOWE AVENUE TO DORSETT STREET	4	0.33	31									520		31					5			
		9	SR 2327	FROM DORSETT STREET TO US 64	4	0.05	60					100				150		9					1	6		
		10	SR 3137	FROM SR 1712 TO DEAD END	5	0.5	18	10		1		80			450			29		10						0.60
		11	SR 1540	FROM SR 1004 TO SR 1004 (LOOP ROAD)	5	1.97	20	39		3.94		90			2,040			133		75						2.36
		12	SR 1926	FROM GUILFORD CO TO SR 1921	5	1.45	18	29		2.9		80			1,360			88		200						1.74
		13	SR 2845	FROM SR 2843 TO US 220 ALT	5	1.3	22	26		2.6		100			1,490			97		25						1.56
		14	SR 1004	FROM SR 1408 TO SR 1525	2	2.76	20	55		5.52		100				2,875		173		400				2		3.31
		15	SR 2498	FROM SR 2495 TO NC 22	5	0.86	18	17		1.72		80			810			53		125				2		1.03
		16	SR 2234	FROM SR 2236 TO SR 2122	5	0.47	18	9		0.94		80			420			27		50						0.56
		17	SR 2934	FROM SR 2812 TO PAVEMENT WIDENING	5	0.16	18	3		0.32		80			145			9		10						0.19
		18	SR 2812	FROM SR 2928 TO SR 2934	5	0.18	19	4		0.36		90			170			11		10						0.22
		19	SR 2845	FROM NC 42 TO SR 2849	5	3.11	22	62		6.22		489			3,560			214		200						3.73
		20	SR 2115	FROM SR 2116 TO US 220 BUS	6	1.85	24	37	3.7			100	1,435	830		2,310		139		200						2.22
		21	SR 3172	FROM SR 1547 TO END PAVEMENT	5	0.63	20	13		1.26		100			660			43		75						0.76
		22	SR 3173	FROM SR 3172 TO SR 3174	5	0.12	20	2		0.24		100			120			8		5						0.14
		23	SR 3174	FROM DEAD END TO DEAD END	5	0.29	18	6		0.58		80			265			17		100						0.35
		24	SR 3175	FROM SR 3174 TO DEAD END	5	0.06	18	1		0.12		80			55			4		10						0.07
		25	SR 3176	FROM SR 3172 TO DEAD END	5	0.3	20	6		0.6		50			300			20		5						0.36
		26	SR 2215	FROM SR 2216 TO SCL ASHEBORO	2	2.03	24	41		4.06		80				2,535		152		400						2.44
		27	SR 2215	FROM SCL ASHEBORO TO END C & G	4	0.15	30					80				225		14		25			4	2		
TOTAL FOR PROJ NO. 8CR.20761.8						**19.61**		**360**	**3.7**	**32.38**	**7638**	**2159**	**1,435**	**830**	**11,845**	**10,196**		**1,366**		**1,925**	**8**	**4**	**37**	**32**	**300**	**21.64**
GRAND TOTAL						**39.33**		**695**	**17.84**	**57.68**	**7638**	**4280**	**6,920**	**3,995**	**11,845**	**40,926**	**1,780**	**3,594**	**107**	**2,735**	**8**	**4**	**37**	**34**	**300**	**45.30**

PROJECT NO.	SHEET NO.	TOTAL NO.
8C.076113, 8CR.10761.8, ETC	11	

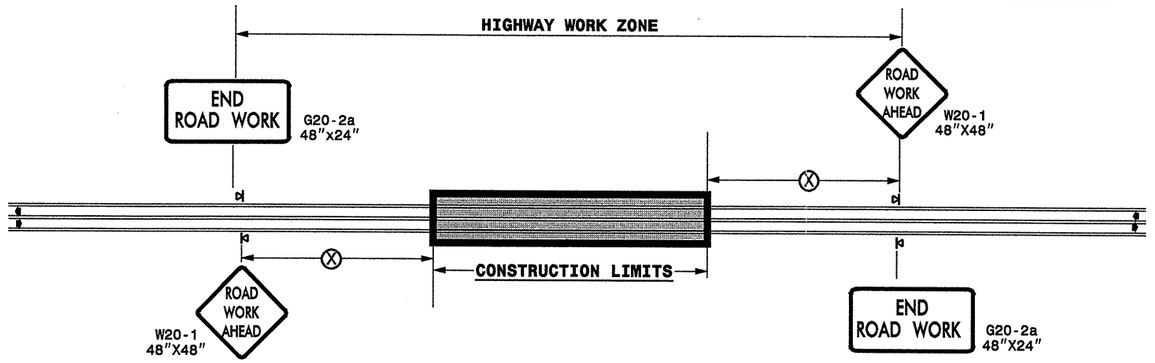
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E 4" X 90 M WHITE THERMO LF	4686000000-E 4" X 120 M YELLOW THERMO LF	4686000000-E 4" X 120 M WHITE THERMO LF	4697000000-E 8" X 120 M WHITE THERMO LF	4695000000-E 8" X 90 M YELLOW THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO MSG STOP 120 M EA	4721000000-E THERMO MSG AHEAD 120 M EA	4721000000-E THERMO MSG SCHOOL 120 M EA	4725000000-E THERMO RT ARROW 90 M EA	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO STR ARROW 90 M EA	4725000000-E THERMO STR & RT ARROW 90 M EA	4810000000-E 4" WHITE PAINT LF	4810000000-E 4" YELLOW PAINT LF	4900000000-N YELLOW & YELLOW MARKERS EA	4900000000-N CYAN & RED MARKERS EA	4905000000-N SNOW PLOWABLE MARKERS EA
8C.076113	Randolph	1	SR 2116	FROM US 220 BUS TO NC 22	76,073	60,802					4	5							75,000	467		
TOTAL FOR PROJ NO. 8C.076113					**76,073**	**60,802**					**4**	**5**							**75,000**	**467**		
						60,802						**9**							**75,000**		**467**	
8CR.10761.8	Randolph	2	NC 49	FROM BEGIN PAVED SHLD TO SCL LIBERTY	12,266	12,038	400		1,500	50				3	5	4						106
		3	NC 62	FROM SR 1748 TO DAVIDSON CO. LINE	41,103	29,796			1,000	400				4	11	4	4					287
		4	NC 42	FROM NC 22 TO SR 1003	21,412	17,114																66
		5	NC 22	FROM SR 2893 TO SR 2628	61,332	49,020				100			12									376
TOTAL FOR PROJ NO. 8CR.10761.8					**136,113**	**107,968**	**400**		**2,500**	**550**			**12**	**7**	**16**	**8**	**4**					**835**
						108,368						**12**			**35**							
8CR.20761.8	Randolph	6	SR 2327	FROM NC 42 TO WORTH STREET		1,162	200	240		48					1		1			15	5	
		7	SR 2327	FROM WORTH STREET TO STOWE AVE		9,821	4,910	480	100	96										123	5	
		8	SR 2327	FROM STOWE AVENUE TO DORSETT STREET		3,485														44		
		9	SR 2327	FROM DORSETT STREET TO US 64		528	600			48				1	4	2				7	10	
		10	SR 3137	FROM SR 1712 TO DEAD END																		
		11	SR 1540	FROM SR 1004 TO SR 1004 (LOOP ROAD)														21,197	21,197			
		12	SR 1926	FROM GUILFORD CO TO SR 1921														15,602	15,602	96		
		13	SR 2845	FROM SR 2843 TO US 220 ALT														13,988	13,988	86		
		14	SR 1004	FROM SR 1408 TO SR 1525	29,698	23,736														182		
		15	SR 2498	FROM SR 2495 TO NC 22														9,254	9,254			
		16	SR 2234	FROM SR 2236 TO SR 2122														5,057	5,057			
		17	SR 2934	FROM SR 2812 TO PAVEMENT WIDENING																		
		18	SR 2812	FROM SR 2928 TO SR 2934																		
		19	SR 2845	FROM NC 42 TO SR 2849														33,464	33,464	205		
		20	SR 2115	FROM SR 2116 TO US 220 BUS	19,906	19,536				100			12							244		
		21	SR 3172	FROM SR 1547 TO END PAVEMENT																		
		22	SR 3173	FROM SR 3172 TO SR 3174																		
		23	SR 3174	FROM DEAD END TO DEAD END																		
		24	SR 3175	FROM SR 3174 TO DEAD END																		
		25	SR 3176	FROM SR 3172 TO DEAD END																		
		26	SR 2215	FROM SR 2216 TO SCL ASHEBORO	21,843	21,843														134		
		27	SR 2215	FROM SCL ASHEBORO TO END C & G		1,614				20										20		
TOTAL FOR PROJ NO. 8CR.20761.8					**71,447**	**81,724**	**5,710**	**720**	**100**	**312**			**12**	**1**	**5**	**2**	**1**	**98,562**	**98,562**	**1,154**	**20**	
						87,434						**12**			**9**			**197,124**		**1,174**		
GRAND TOTAL					**283,633**	**250,494**	**6,110**	**720**	**2,600**	**862**	**4**	**5**	**24**	**8**	**21**	**10**	**5**	**98,562**	**173,562**	**1,621**	**20**	**835**
						256,604						**33**			**44**			**272,124**		**1,641**		

WBS Elements: 8C.076113,
8CR.10761.8 & 8CR.20761.8

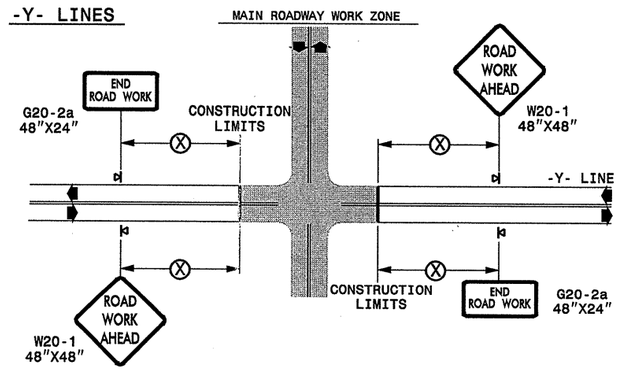
PROJ. REFERENCE NO.	SHEET NO.
See to the left	TCP-1

TWO-WAY UNDIVIDED ** (L-LINES)



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

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.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE PORTABLE WORK ZONE SIGNS ONLY WITH PORTABLE WORK ZONE SIGN STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER. PORTABLE WORK ZONE SIGNS MAY BE ROLL UP OR APPROVED COMPOSITE.
- PROVIDE PORTABLE WORK ZONE SIGN STANDS, PORTABLE SIGNS AND SIGN SHEETING WHICH ARE LISTED ON THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCT LIST OR ACCEPTED AS TRAFFIC QUALIFIED BY THE TRAFFIC CONTROL UNIT.
- ** 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.

LEGEND

- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW

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

DETAIL DRAWING FOR TWO-WAY UNDIVIDED WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED:_____ DATE:_____

SEAL

DETAIL DRAWING
FOR TWO-WAY UNDIVIDED
ADVANCED WORK ZONE WARNING SIGNS

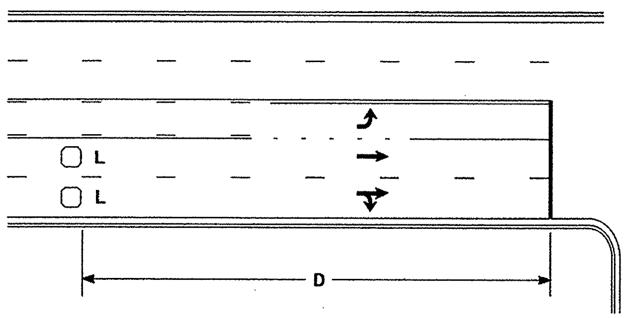
SCALE: NONE	REVISIONS	
DATE:	7-98	10/01
DWG. BY:	10-98	03/04
DESIGN BY:	01/01	11/04
REVIEWED BY:	CADD FILE	

DIVISION OF HIGHWAYS — TRAFFIC ENGINEERING BRANCH

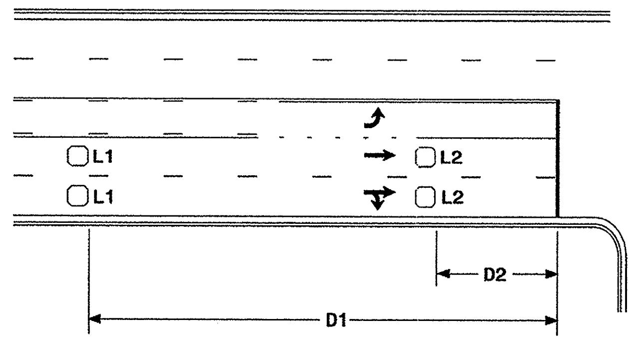
30-OCT-2007 21:06
\\DOT\DFSROOT01\GROUPS-WZTCCC\designgroup4\resurfacing\resurfacing2007\dlv08\c201946_8c076il3etc_2wayundivurbfrwys1july2006.dgn
dseymore AT WZTC237502

PROJECT REFERENCE NO.	SHEET NO.
	SIG 1

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



OR



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)

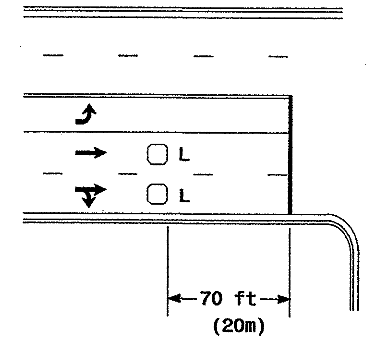
L1 = 6ft X 6ft (1.8m X 1.8m) Wired in series

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

"Stretch" Operation

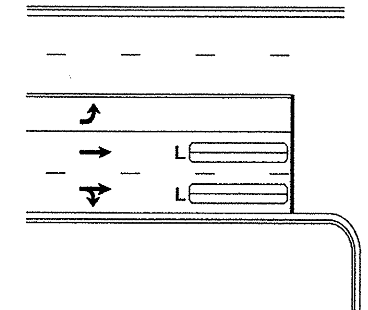
Low Speed Detection
[≤35 mph (56 km/hr)]

8C.076113, 8CR.10761.8 & 8CR.20761.8



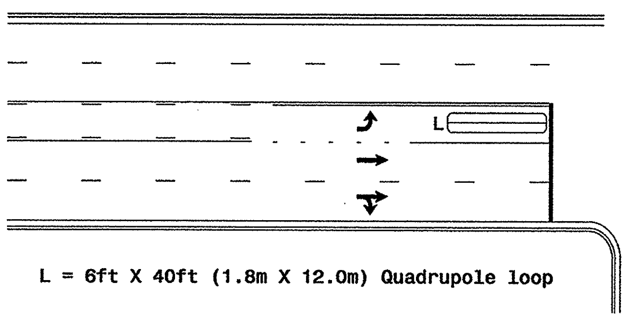
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



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

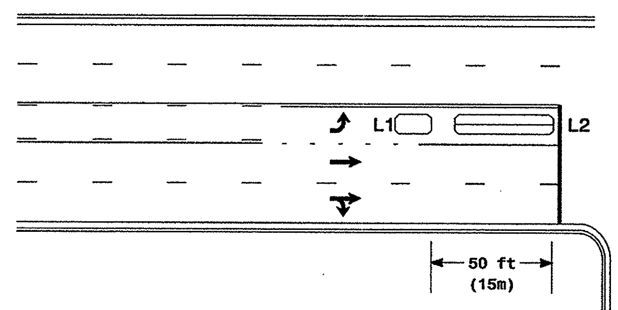
Left Turn Lane Detection



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

Presence Loop Detection

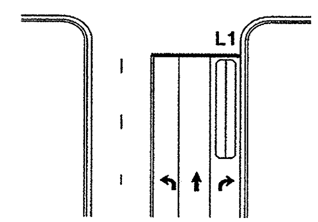
OR



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

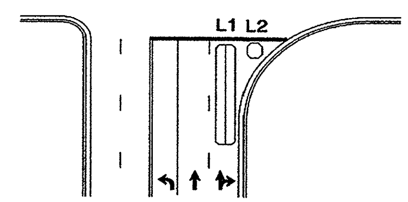
Queue Loop Detection

Right Turn Lane Detection

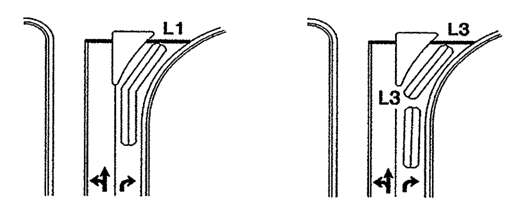


Standard Turn

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

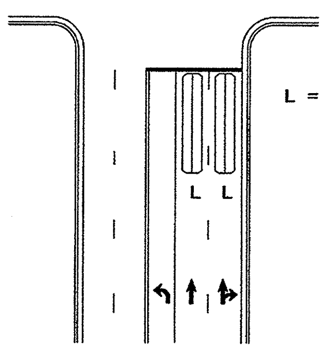


Wide Radius Turn



Channelized Turn

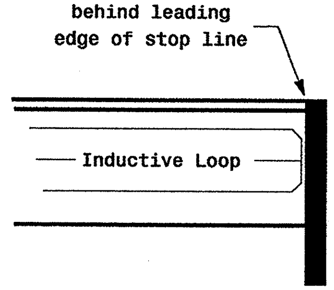
Side Street Detection



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

Prepared in the Offices of: Traffic Engineering and Safety Systems Branch, Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

Typical Loop Locations

PLAN DATE:	June 2006	REVIEWED BY:
PREPARED BY:	P L Alexander	REVIEWED BY:

SCALE
N/A

REVISIONS: Revise pavement markings

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23486 PAMELA ALEXANDER
6/6/06
SIGNATURE DATE
SIG. INVENTORY NO.

PROJECT REFERENCE NO.	SHEET NO.
	Sig. 2

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

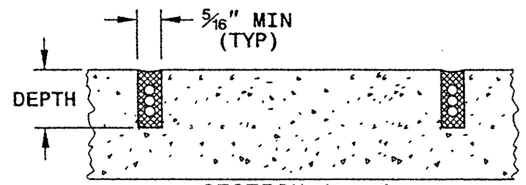
5-07

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

CONVENTIONAL 4-SIDED LOOP

SAW SLOT DEPTH CHART

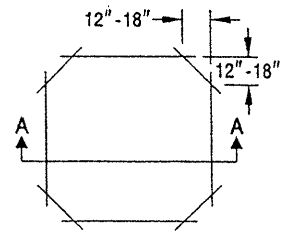
DEPTH (IN)	NO. OF WIRE TURNS 2	3	4	5	6
CONCRETE	2.0	2.0	2.5	2.5	3.0
ASPHALT	2.0	2.5	3.0	3.0	3.0



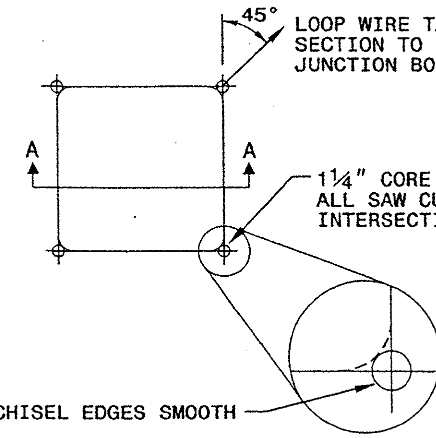
SECTION A - A

SAW CUT OPTIONS

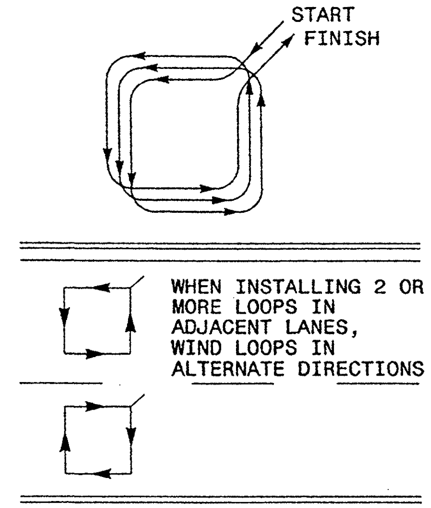
OPTION 1



OPTION 2
(POOR PAVEMENT)



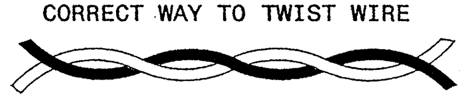
LOOP WINDING METHOD



LOOP WIRE TWISTING METHOD

INCORRECT WAY TO TWIST WIRE

CORRECT WAY TO TWIST WIRE



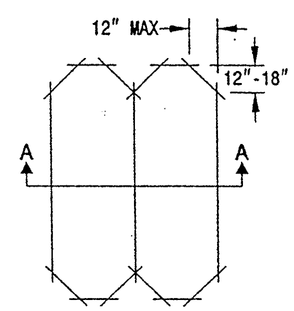
NOTES

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.

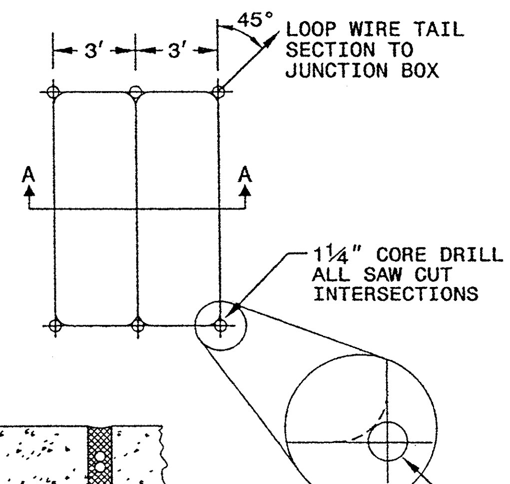
QUADRUPOLE LOOP

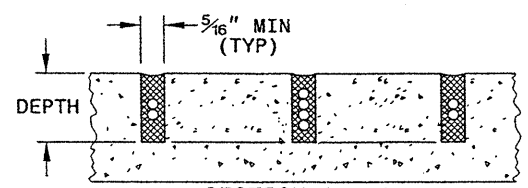
SAW CUT OPTIONS

OPTION 1



OPTION 2
(POOR PAVEMENT)

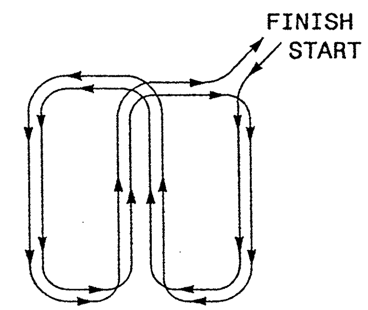




SECTION A - A

DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

LOOP WINDING METHOD



SHEET 1 OF 3
1725D01

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

5-07

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
1725D01

See Plate for Title

Prepared in the Offices of:
Intelligent Transportation Systems & Signals Unit
750 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 016286 ENGINEER MILTON I. DEAN

SIGNATURE 9/5/07 DATE

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

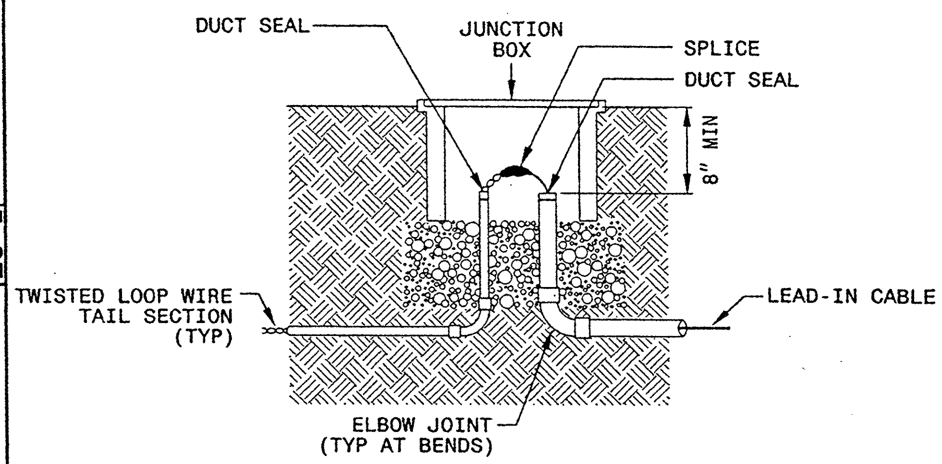
5-07

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
LOOP WIRE DETAILS

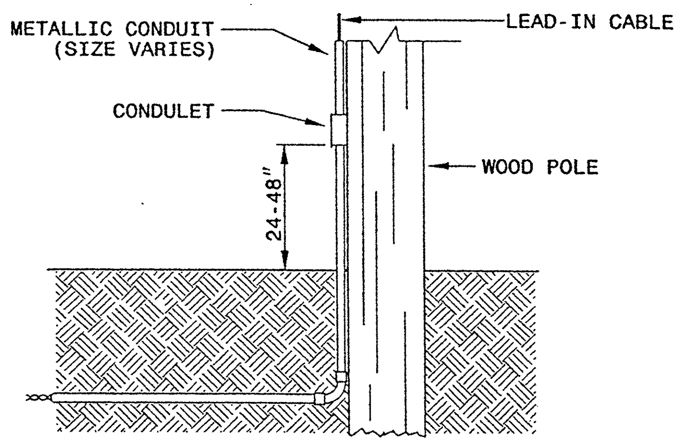
SHEET 2 OF 3
1725D01

LOOP WIRE SPLICE POINT DETAILS

LOOP WIRE AT JUNCTION BOX



LOOP WIRE AT POLE

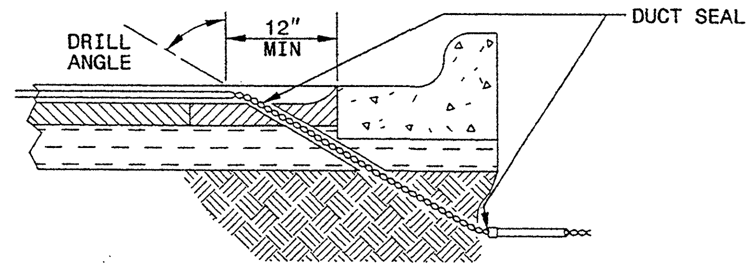


NOTE

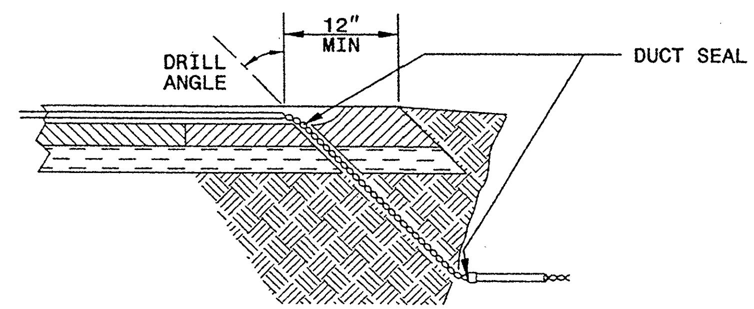
SPLICE ALL LOOP WIRE TAIL SECTIONS/LEAD-IN CABLE IN JUNCTION BOXES OR APPROVED CONDULETS.

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.

5-07

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

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
LOOP WIRE DETAILS

SHEET 2 OF 3
1725D01

See Plate for Title

Prepared in the Offices of:
Intelligent Transportation Systems & Signals Unit
750 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 016286 ENGINEER MILTON I. DEAN
SIGNATURE Milton I. Dean DATE 9/5/07

05-SEP-2007 14:00
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mzlittle

PROJECT REFERENCE NO.	SHEET NO.
	Sig. 4

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

5-07

ENGLISH DETAIL DRAWING FOR

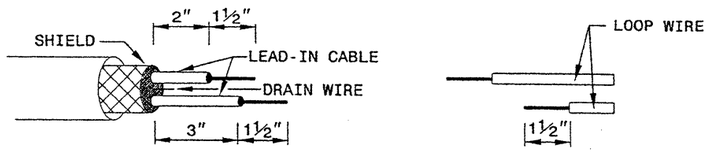
INDUCTION DETECTION LOOPS

SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

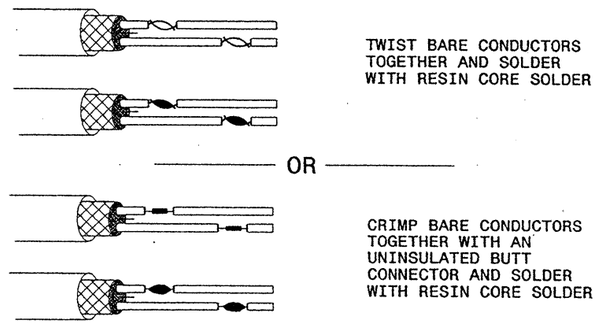
SHEET 3 OF 3

1725D01

STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE

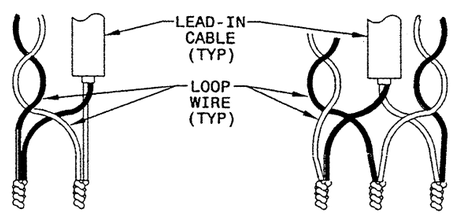


STEP 2. CONNECT AND SOLDER

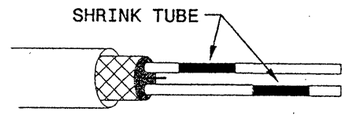


BOND SHIELD DRAIN WIRE AT SPLICE SECTIONS (DO NOT GROUND)

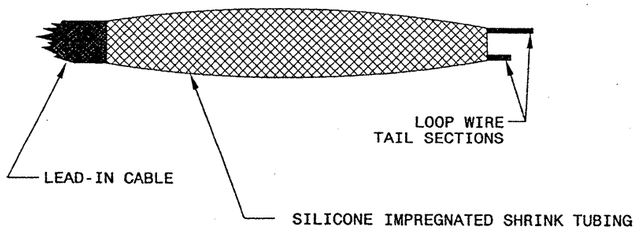
LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS



STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY



STEP 4. ENVIRONMENTALLY PROTECT SPLICE



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

5-07

ENGLISH DETAIL DRAWING FOR

INDUCTIVE DETECTION LOOPS

SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3

1725D01

See Plate for Title

Prepared in the Offices of:
Intelligent Transportation Systems & Signals Unit
750 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 016286 ENGINEER MILTON I. DEAN
SIGNATURE 9/5/07 DATE

05-SEP-2007 14:01
c:\documents and settings\mlittle.dot\desktop\standard metal pole sheets\1725D103_may2307.dgn
mlittle