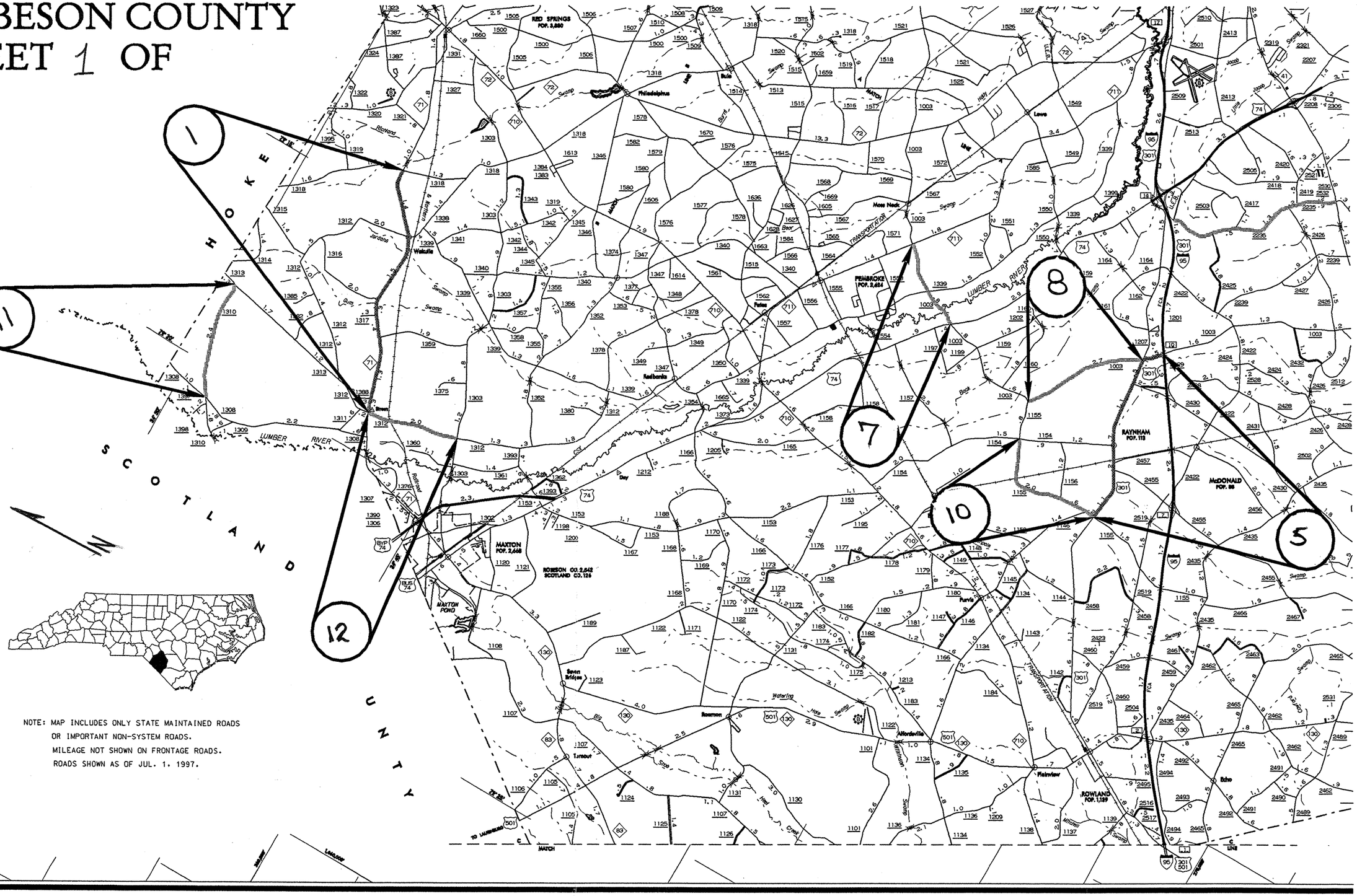
ROBESON COUNTY
SHEET 1 OF



NOTE: MAP INCLUDES ONLY STATE MAINTAINED ROADS
OR IMPORTANT NON-SYSTEM ROADS.
MILEAGE NOT SHOWN ON FRONTAGE ROADS.
ROADS SHOWN AS OF JUL. 1, 1997.

DIVISION OF HIGHWAYS
RALEIGH, NORTH CAROLINA, 27611

REVISED
7-1-97 RLN

ROBESON COUNTY
SHEET 2 OF

CUMBERLAND COUNTY

HOKE COUNTY

BLADEN

N

FAIRTON POP. 392

LUMBER BRIDGE POP. 108

RENNERT POP. 226

RED SPRINGS POP. 3,880

ST. PAULS POP. 2,144

Oakland

Tolarsville

Powell

Shannon

Philadelphus

Lowe

Kingsdale

Warwick Pond

LUMBERTON POP. 11,943

LUMBER RIVER

TRANSPORTATION

TO RAEFORD

TO MAXTON

TO WACCAMAW

TO LAURINBURG

9

14

15

17

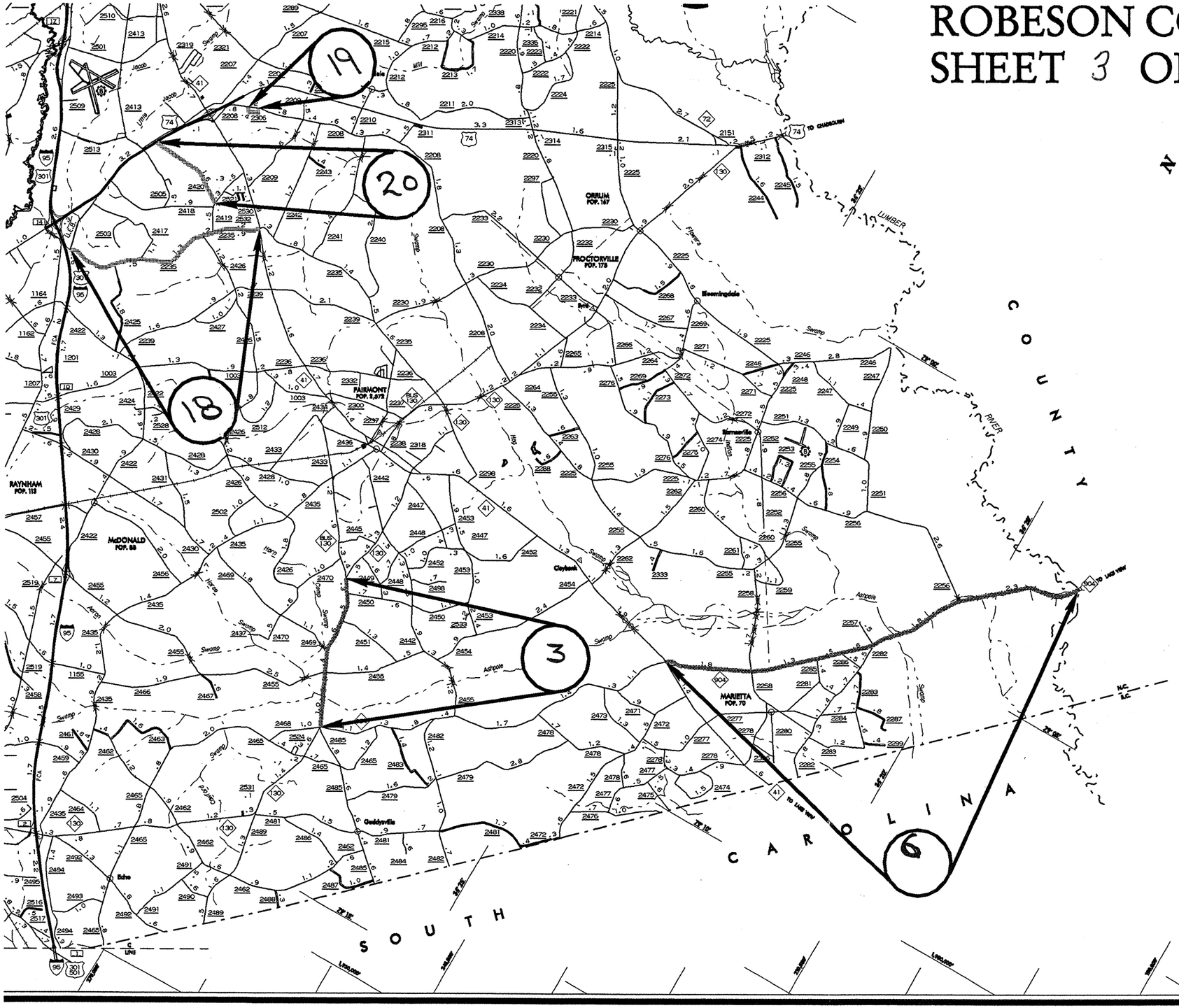
16

4

13

2

ROBESON COUNTY
SHEET 3 OF



- CANAL
- NARROW STREAM
- WIDE STREAM
- DAM WITH LOCK
- DAM
- RESERVOIR,POND,OR LAKE
- COMMUNITY AND TOWN CENTER
- COUNTY SEAT
- SCHOOL
- COLLEGE OR UNIVERSITY
- HOSPITAL
- CHURCH
- CHURCH WITH CEMETERY
- CEMETERY
- PATROL STATION
- CORRECTIONAL OR PENAL INSTN.
- HIGHWAY GARAGE OR MAINT. YARD
- HIGHWAY DIV. OR DIST. OFFICE
- WEIGHT STATION
- MONUMENT-SMALL HISTORICAL SITE
- LIGHTHOUSE
- MOUNTAIN PEAK
- REST AREA
- TRIANGULATION STATION
- COAST GUARD STATION
- MILITARY AIRFIELD
- COMMERCIAL OR MUNICIPAL FIELD
- HANGAR ON FIELD
- LANDING STRIP
- MARKED AUXILIARY FIELD

ROBESON COUNTY

NORTH CAROLINA

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS – GIS UNIT

IN COOPERATION WITH THE

U.S.DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

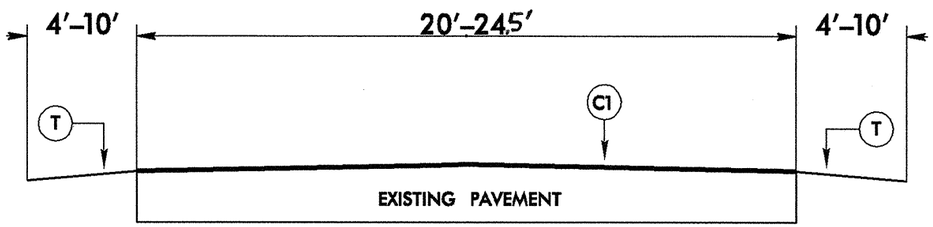
10,000 FOOT GRID BASED ON NORTH CAROLINA PLANE COORDINATE SYSTEM
POLYCONIC PROJECTION

SHEET 1 OF 4

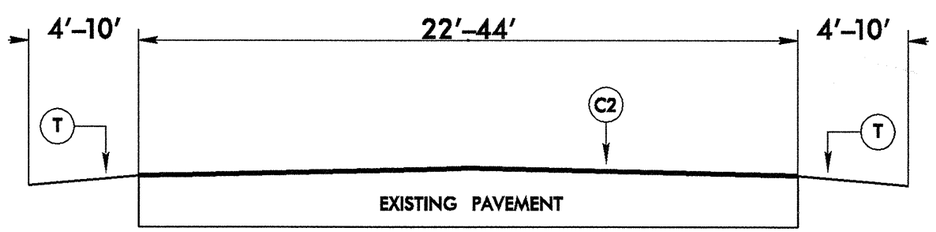
DIVISION 6 | DISTRICT 1 | ROBESON COUNTY | NORTH CAROLINA

ROBESON COUNTY

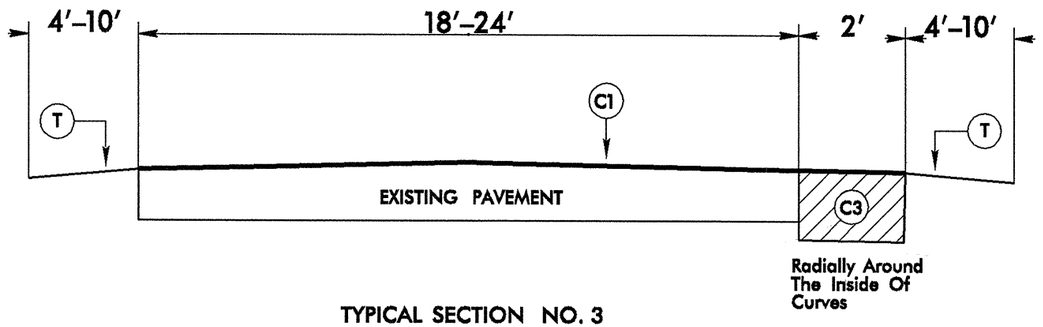
SHEET 4 OF



TYPICAL SECTION NO. 1

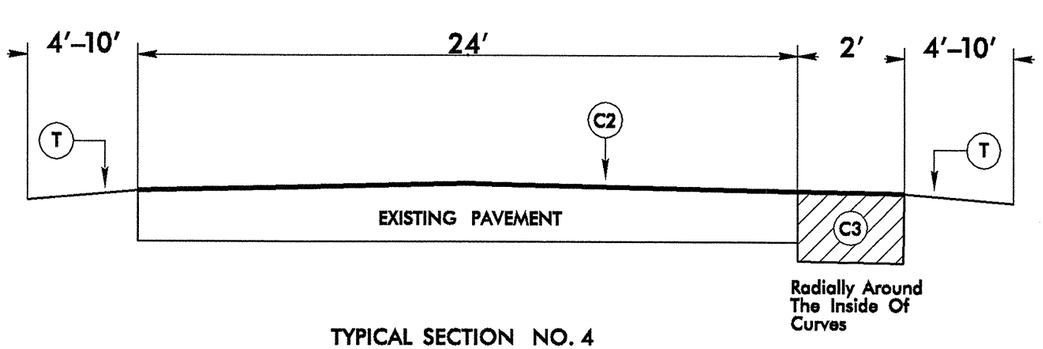


TYPICAL SECTION NO. 2



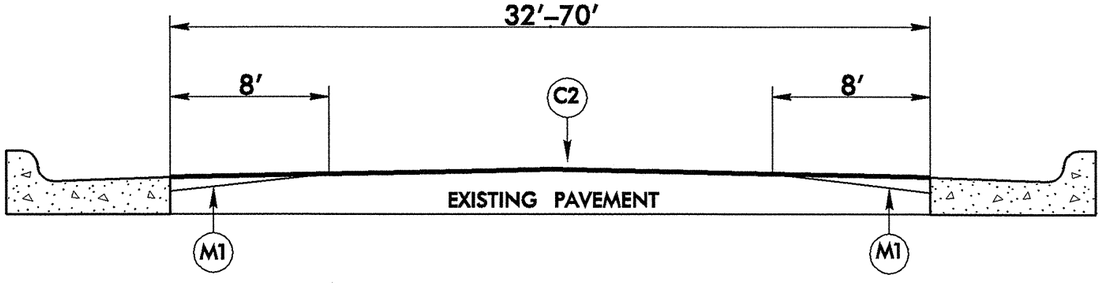
TYPICAL SECTION NO. 3

NOTE: Includes 2 Ft. widening of the inside radius of all curves,or as directed by the Engineer. See TYPICAL SECTION NO. 7

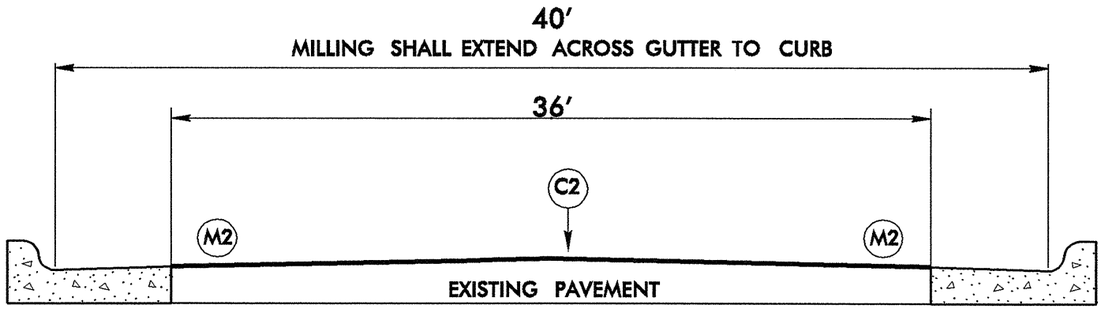


TYPICAL SECTION NO. 4

NOTE: Includes 2 Ft. widening of the inside radius of all curves,or as directed by the Engineer. See TYPICAL SECTION NO. 7



TYPICAL SECTION NO. 5



TYPICAL SECTION NO. 6

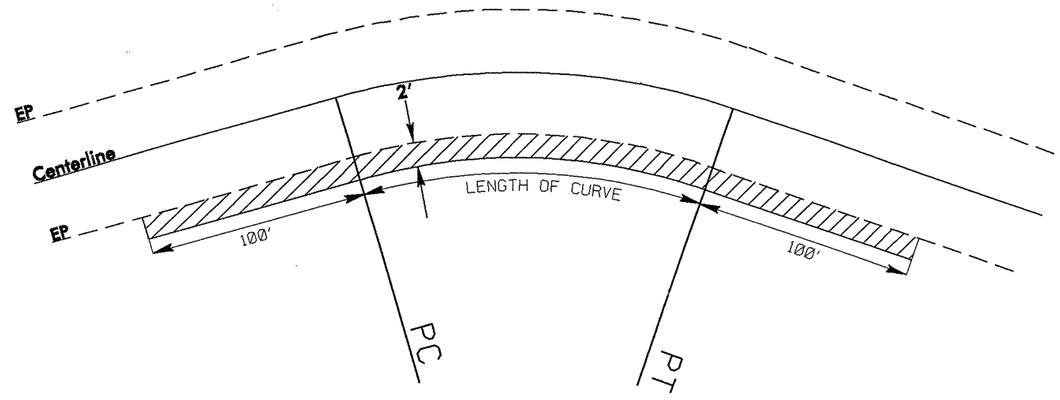
ROBESON COUNTY

SHEET 5 OF

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 138 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 5 " ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
M1	MILLING BITUMINOUS PAVEMENT 0-1½" DEPTH. MILLING AT EDGE OF CURB AND GUTTER SHALL EXTEND BELOW LIP OF C&G BY THE THICKNESS OF THE PROPOSED OVERLAY.
M2	MILLING BITUMINOUS PAVEMENT 1½" IN DEPTH ACROSS ENTIRE SECTION. MILLING SHALL EXTEND INTO C&G AS DIRECTED BY THE ENGINEER.
T	SHOULDER RECONSTRUCTION WILL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

MILLING SHALL BE PERFORMED AT BRIDGES AND RAILROAD APPROACHES AS DIRECTED BY THE ENGINEER



TYPICAL SECTION NO. 7

NOTE: 2 Ft. widening of inside radius of curves, as directed by the Engineer

PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10781.27, 6CR.20781.27	6	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	2" RISER W/WEATHER HEAD EA	JUNCTION BOX (STANDARD) EA	TRENCHING (UNPAVED) FT	TRENCHING (PAVED) FT	2" PVC CONDUIT FT	1" PVC CONDUIT FT	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1½" MILLING SY	0.0" TO 1.5" MILLING SY	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE SF9.5A TONS	PG 64-22 PLANT MIX TONS	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	SEED & MULCHING AC	INDUCTIVE LOOP LF	LEAD-IN CABLE LF
6CR.10781.27	Robeson	1	NC 71	FROM SR 1312 MP 3.60 TO SR 1318 MP 8.85	2	5.25	26.5							126	10.50				6,881.00		413.00			13.00		
		2	NC 72	FROM CONT JT @ I-95 MP 16.12 TO NC 211 MP 12.02	6	1.2	36	10	15	650	100	500	150			25,344.00			2,141.00		128.00	18.00	4.00		5,700	900
		"	"		5	2.8	48										26,283.00		6,648.00		399.00	20.00	34.00			
TOTAL FOR MAP NO. 2						4		10	15	650	100	500	150	0		25,344.00	26,283.00		8,789.00		527.00	38.00	38.00		5,700	900
		3	NC 130	FROM BUS NC 130 MP 25.75 TO NC 904 MP 22.80	2	2.8	26							67	5.60				3,638.00		218.00			7.00		
		4	NC 211	FROM CONT JT @ SR 1530 MP 17.12 TO CONT JT @ SR 1003 MP 13.44	2	3.9	27							94	7.80				5,252.00		315.00			9.00		
		5	US 301	FROM SR 1155 MP 7.81 TO I-95 MP 11.83	2	4	25							96	8.00				5,016.00		301.00			10.00		
		6	NC 904	FROM NC 41 MP 6.93 TO COLUMBUS CO LINE MP 14.95	2	8	25							192	16.00				9,944.00		597.00			19.00		
TOTAL FOR PROJ NO. 6CR.10781.27						**27.95**		**10**	**15**	**650**	**100**	**500**	**150**	**575**	**47.90**	**25,344.00**	**26,283.00**		**39,520.00**		**2,371.00**	**38.00**	**38.00**	**58.00**	**5,700**	**900**
6CR.20781.27	Robeson	7	SR 1003	FROM US 74 MP 10.9 TO NC 711 MP 12.78	4	1.88	24							45	3.76		141.00	63.00	2,249.00		138.00		1.00	5.00		
		8	SR 1003	FROM US 301 MP 5.78 TO SR 1155 MP 8.46	1	2	24.5							48	4.00					1,984.00	129.00			5.00		
		9	SR 1004	FROM NC 41 MP 0.0 TO SR 1935 MP 2.72	2	2.8	24							67	5.60				3,387.00		203.00			7.00		
		10	SR 1155	FROM US 301 MP 3.12 TO SR 1154 MP 5.86	3	2.8	20							67	5.60			94.00		2,277.00	152.00			7.00		
		11	SR 1310	FROM SR 1308 MP 0.89 TO SR 1313 MP 3.34	3	2.45	23							59	4.90			82.00		2,281.00	152.00			6.00		
		12	SR 1312	FROM NC 71 MP 6.24 TO SR 1303 MP 8.18	3	1.9	23							46	3.80			64.00		1,769.00	118.00			5.00		
		13	SR 1550	FROM NC 711 MP 2.49 TO NC 72 MP 3.87	3	1	24							24	2.00		141.00	33.00		982.00	66.00		1.00	2.00		
		14	SR 1956	FROM SR 1959 MP 1.60 TO SR 1004 MP 3.26	3	1.66	18							40	3.32			56.00		1,210.00	82.00			4.00		
		15	SR 1997	FROM CONST JT @ NC 211 MP 1.03 TO CONST JT S. OF SR 1005 MP 2.63	5	0.6	60	5	6	500	100	600	70				5,632.00		1,787.00		107.00	2.00	6.00		5,200	800
		"	"		5	1	70										9,387.00		3,550.00		213.00	11.00	16.00			
TOTAL FOR MAP NO. 15						1.6		5	6	500	100	600	70	0			15,019.00		5,337.00		320.00	13.00	22.00		5,200	800
		16	SR 2115	FROM SR 2117 MP 2.44 TO SR 1002 MP 4.14	3	1.7	24							41	3.40			57.00		1,672.00	112.00		3.00	4.00		
		17	SR 2136	FROM SR 2115 MP 0.0 TO SR 2115 MP 0.47	1	0.47	20							11	1.00					381.00	25.00			1.00		
		18	SR 2235	FROM NC 41 MP 5.0 TO US 74 CONST LIMITS MP 8.50	3	3.5	18.5							84	7.00			117.00		2,663.00	178.00			8.00		
		19	SR 2306	FROM SR 2208 MP 0.0 TO SR 2208 MP 0.36	1	0.55	20							13	0.80					445.00	29.00			1.00		
		20	SR 2420	FROM US 74 MP 0.0 TO SR 2419 MP 1.61	3	1.5	21							38	3.20			54.00		1,275.00	86.00			4.00		
TOTAL FOR PROJ NO. 6CR.20781.27						**25.81**		**5**	**6**	**500**	**100**	**600**	**70**	**583**	**48.38**		**15,301.00**	**620.00**	**10,973.00**	**16,939.00**	**1,790.00**	**13.00**	**27.00**	**59.00**	**5,200**	**800**
GRAND TOTAL						**53.76**		**15**	**21**	**1150**	**200**	**1100**	**220**	**1158**	**96.28**	**25,344.00**	**41,584.00**	**620.00**	**50,493.00**	**16,939.00**	**4,161.00**	**51.00**	**65.00**	**117.00**	**10,900**	**1,700**

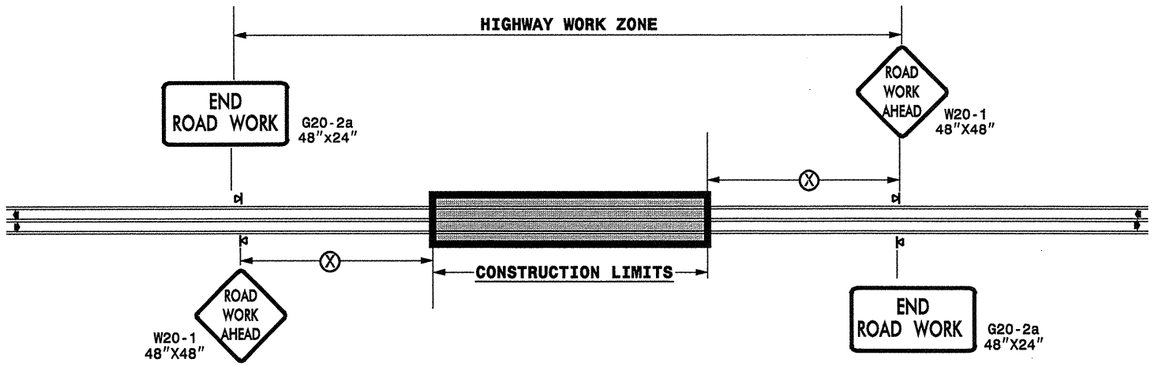
PROJECT NO.	SHEET NO.	TOTAL NO.
6CR.10781.27, 6CR.20781.27	7	

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	4695000000-E 8" X 90 M WHITE THERMO LF	4697000000-E 8" X 120 M YELLOW THERMO LF	4705000000-E 16" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO RXR 120 M EA	4721000000-E THERMO MSG ONLY 120 M EA	4721000000-E THERMO MSG SCHOOL 120 M EA	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4725000000-E THERMO STR ARROW 90 M EA	4725000000-E THERMO STR & LT 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	1840000000-E 4" 240 MIL RUMBLE STRIPS FT
6CR.10781.27	Robeson	1	NC 71	FROM SR 1312 MP 3.60 TO SR 1318 MP 8.85	58,000	40,000																380		
		2	NC 72	FROM CONT JT @ I-95 MP 16.12 TO NC 211 MP 12.02	500	46,000	3,000	1,000	250	450	1,000	18	28		65	12	21	2	41	2,000	48,000	700		
		"	"																					
TOTAL FOR MAP NO. 2					500	46,000	3,000	1,000	250	450	1,000	18	28		65	12	21	2	41	2,000	48,000	700		
		3	NC 130	FROM BUS NC 130 MP 25.75 TO NC 904 MP 22.80	31,000	24,000																200		
		4	NC 211	FROM CONT JT @ SR 1530 MP 17.12 TO CONT JT @ SR 1003 MP 13.44	22,000	20,000	200		400						2							30	10	
		5	US 301	FROM SR 1155 MP 7.81 TO I-95 MP 11.83	43,000	31,000																275		
		6	NC 904	FROM NC 41 MP 6.93 TO COLUMBUS CO LINE MP 14.95	85,000	66,000					25											275		550
TOTAL FOR PROJ NO. 6CR.10781.27					**239,500**	**227,000**	**3,200**	**1,000**	**650**	**450**	**1,025**	**18**	**28**		**67**	**12**	**21**	**2**	**41**	**2,000**	**48,000**	**1,860**	**10**	**550**
						230,200							**46**				**143**				**50,000**			
6CR.20781.27	Robeson	7	SR 1003	FROM US 74 MP 10.9 TO NC 711 MP 12.78	20,000	17,000																130		
		8	SR 1003	FROM US 301 MP 5.78 TO SR 1155 MP 8.46	29,000	23,000																190		
		9	SR 1004	FROM NC 41 MP 0.0 TO SR 1935 MP 2.72	31,000	25,000					30											200		
		10	SR 1155	FROM US 301 MP 3.12 TO SR 1154 MP 5.86																60,000	48,000			
		11	SR 1310	FROM SR 1308 MP 0.89 TO SR 1313 MP 3.34																52,000	44,000			
		12	SR 1312	FROM NC 71 MP 6.24 TO SR 1303 MP 8.18																40,000	34,000	140		
		13	SR 1550	FROM NC 711 MP 2.49 TO NC 72 MP 3.87						50	25	2								22,000	18,600			
		14	SR 1956	FROM SR 1959 MP 1.60 TO SR 1004 MP 3.26																38,000	28,000			
		15	SR 1997	FROM CONST JT @ NC 211 MP 1.03 TO CONST JT S. OF SR 1005 MP 2.63	4,000	22,000	7,000	300			500		8	12	55	30	30		3			450	525	
		"	"																					
TOTAL FOR MAP NO. 15					4,000	22,000	7,000	300			500		8	12	55	30	30		3			450	525	
		16	SR 2115	FROM SR 2117 MP 2.44 TO SR 1002 MP 4.14	18,000	14,500																125		
		17	SR 2136	FROM SR 2115 MP 0.0 TO SR 2115 MP 0.47																				
		18	SR 2235	FROM NC 41 MP 5.0 TO US 74 CONST LIMITS MP 8.50																75,000	62,000			
		19	SR 2306	FROM SR 2208 MP 0.0 TO SR 2208 MP 0.36																				
		20	SR 2420	FROM US 74 MP 0.0 TO SR 2419 MP 1.61																35,000	27,000			
TOTAL FOR PROJ NO. 6CR.20781.27					**102,000**	**101,500**	**7,000**	**300**		**50**	**555**	**2**	**8**	**12**	**55**	**30**	**30**		**3**	**322,000**	**261,600**	**1,235**	**525**	
						108,500							**22**				**118**				**583,600**			
GRAND TOTAL					**341,500**	**328,500**	**10,200**	**1,300**	**650**	**500**	**1,580**	**20**	**36**	**12**	**122**	**42**	**51**	**2**	**44**	**324,000**	**309,600**	**3,095**	**535**	**550**
						338,700							**68**				**261**				**633,600**			

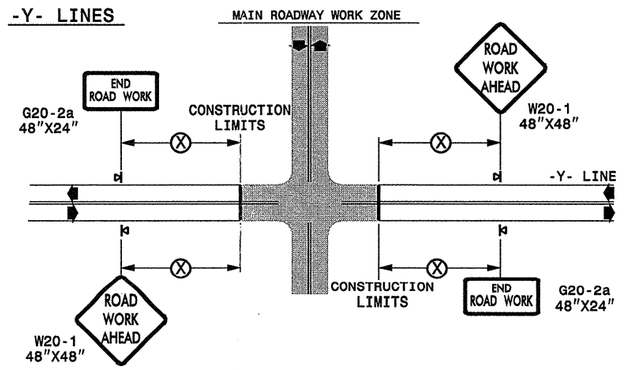
PROJ. REFERENCE NO.	SHEET NO.
6CR.10781.27	TCP-1

TWO-WAY UNDIVIDED ** (L-LINES)



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING Ⓧ
≤ 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

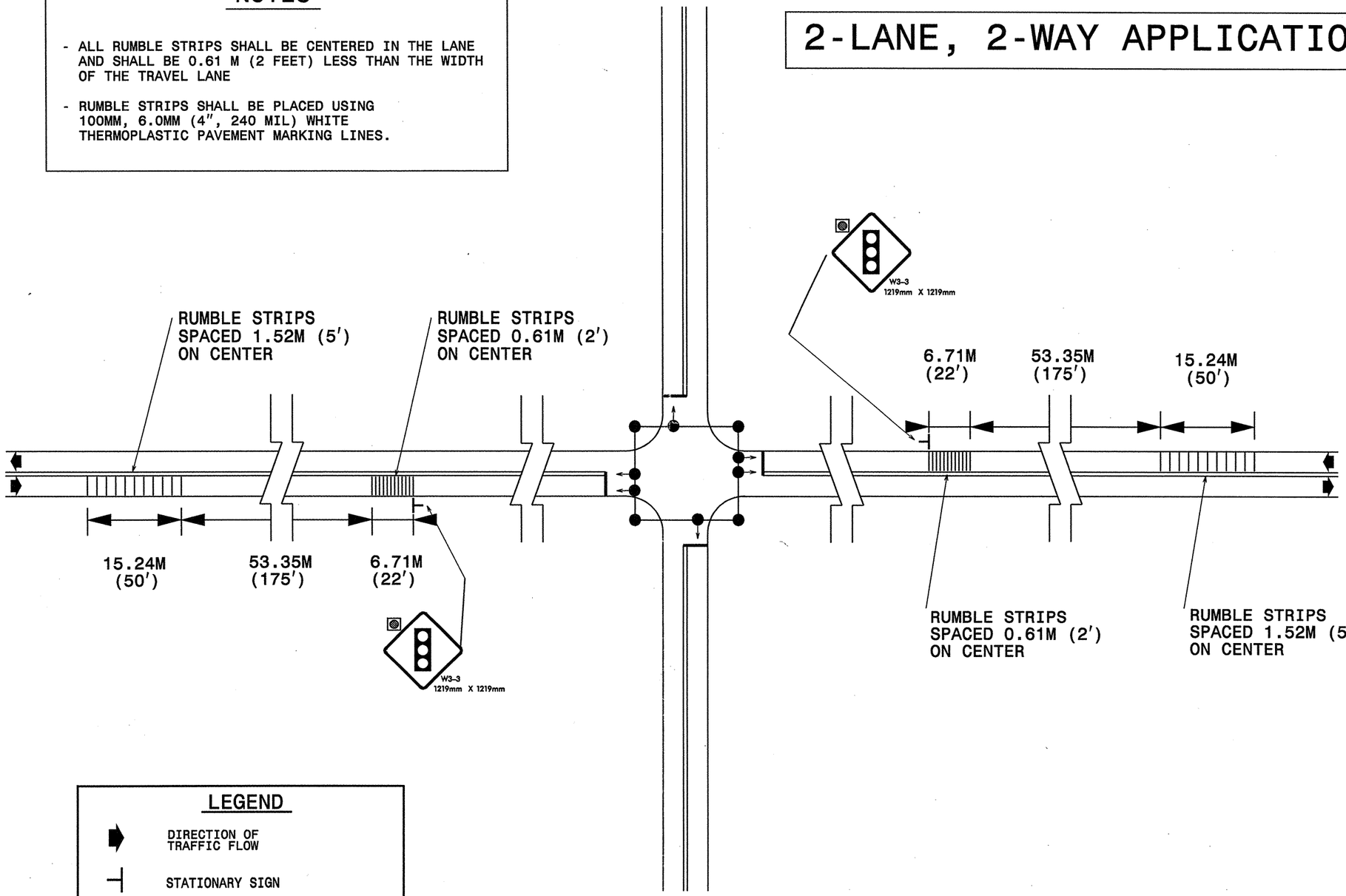
SCALE: NONE	REVISIONS	
DATE:	7-98	10/01
DWG. BY:	10-98	03/04
DESIGN BY:	01/01	11/04
REVIEWED BY:	CADD FILE	

PROJ. REFERENCE NO.	SHEET NO.
6CR.10781.27	

NOTES

- ALL RUMBLE STRIPS SHALL BE CENTERED IN THE LANE AND SHALL BE 0.61 M (2 FEET) LESS THAN THE WIDTH OF THE TRAVEL LANE
- RUMBLE STRIPS SHALL BE PLACED USING 100MM, 6.0MM (4", 240 MIL) WHITE THERMOPLASTIC PAVEMENT MARKING LINES.

2-LANE, 2-WAY APPLICATION



LEGEND

- DIRECTION OF TRAFFIC FLOW
- STATIONARY SIGN
- WHITE RUMBLE STRIPS 100MM,6.0MM (4"WIDE, 240MILS) THERMOPLASTIC
- SIGNAL POLE
- SIGNAL HEAD

SHEET OF

APPROVED:_____ DATE:_____

SEAL

THERMOPLASTIC RUMBLE STRIP PLACEMENT

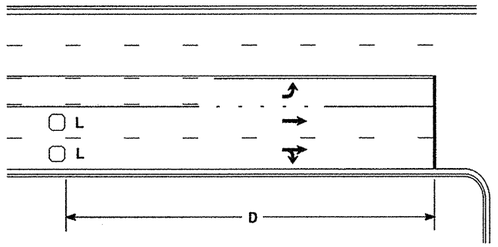
SCALE:	NONE
DATE:	04-23-98
DWG. BY:	MMM
DESIGN BY:	MMM
REVIEWED BY:	GLG

DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH TRAFFIC CONTROL

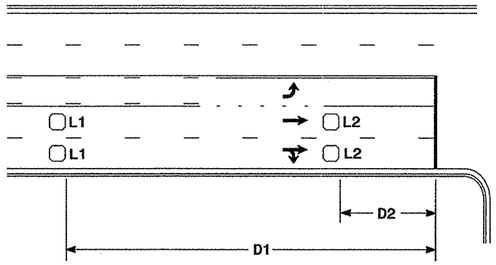
REVISIONS	
CADD FILE	mp/mrsdlhl/12358d/loc10/rumble.dgn

PROJECT REFERENCE NO.	SHEET NO.
6CR.10781.27	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

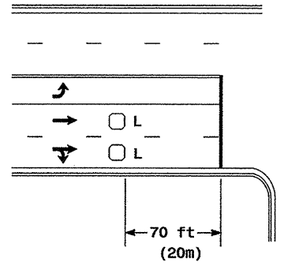
Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

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

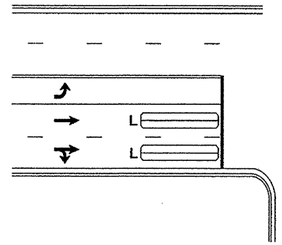
L2 = 6ft X 6ft (1.8m X 1.8m) Wired in series

"Stretch" Operation

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



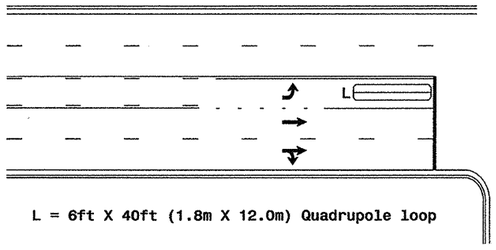
OR



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

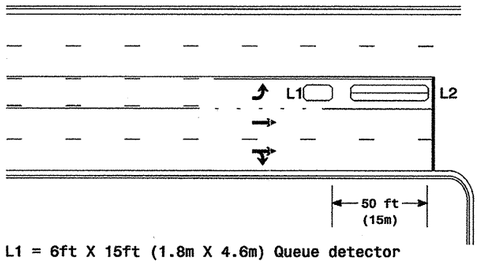
Left Turn Lane Detection



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

Presence Loop Detection

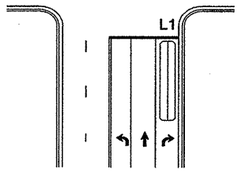
OR



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

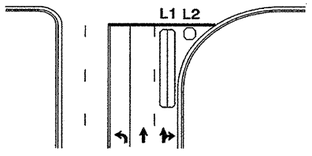
Queue Loop Detection

Right Turn Lane Detection

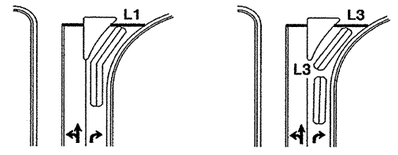


Standard Turn

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

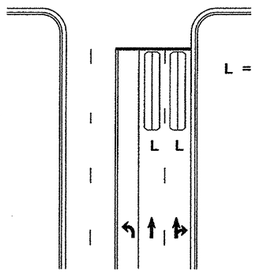


Wide Radius Turn



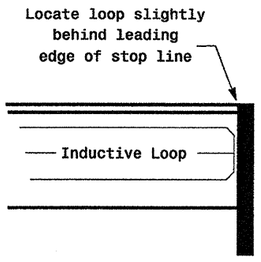
Channelized Turn

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



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 Traffic Safety Branch
Traffic Engineering and Safety Systems Section
NCDEPARTMENT OF TRANSPORTATION
122 N. McDonald St., Raleigh, NC 27603

Typical Loop Locations

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

REVISIONS	INIT.	DATE
Revise pavement markings	pla	12/19/06

SCALE
N/A

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 23488 ENGINEER PHILIP L ALEXANDER

SIGNATURE DATE 6/6/08

SIG. INVENTORY NO.

19-DEC-2006 14:29
c:\projects\signals\ab_turn in\misc\loop\typical2006.dgn
palexander

PROJECT REFERENCE NO.	SHEET NO.
	Sig.

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DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

5-07

ENGLISH DETAIL DRAWING FOR

INDUCTIVE DETECTION LOOPS

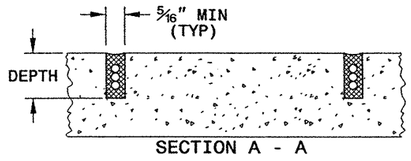
SHEET 1 OF 3

1725D01

CONVENTIONAL 4-SIDED LOOP

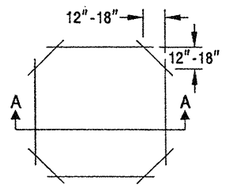
SAW SLOT DEPTH CHART

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

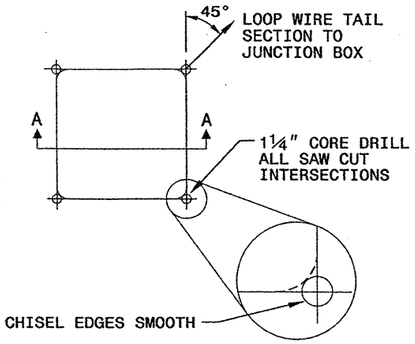


SAW CUT OPTIONS

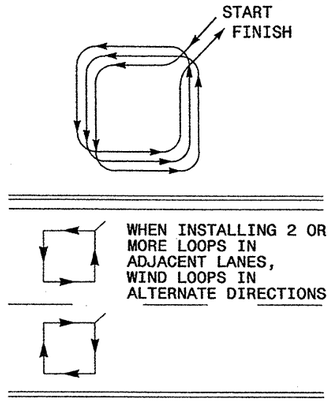
OPTION 1



OPTION 2 (POOR PAVEMENT)



LOOP WINDING METHOD



LOOP WIRE TWISTING METHOD

INCORRECT WAY TO TWIST WIRE

CORRECT WAY TO TWIST WIRE

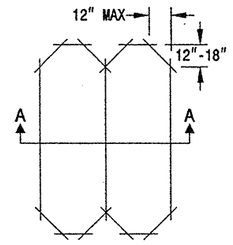
NOTES

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.

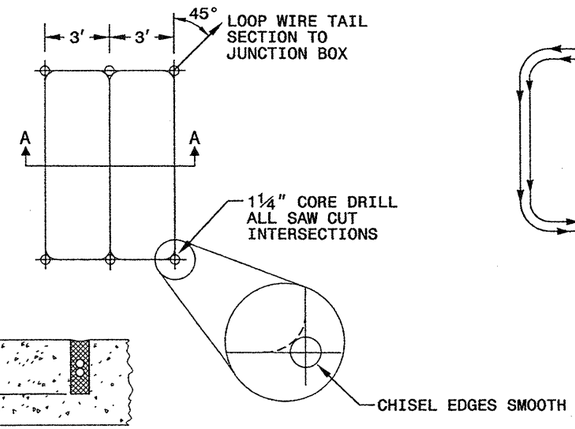
QUADRUPOLE LOOP

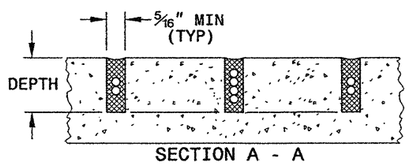
SAW CUT OPTIONS

OPTION 1



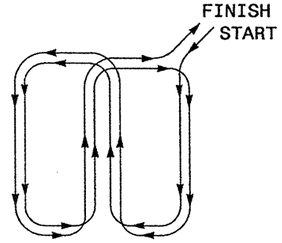
OPTION 2 (POOR PAVEMENT)





DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

LOOP WINDING METHOD



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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
STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION
750 N. Greenfield Parkway
Garner, NC 27529

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 016286 ENGINEER MILTON I. DEAN

Milton I. Dean 9/5/07
SIGNATURE DATE

PROJECT REFERENCE NO.	SHEET NO.
	Sig.

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DEPT. OF TRANSPORTATION
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RALEIGH, N.C.

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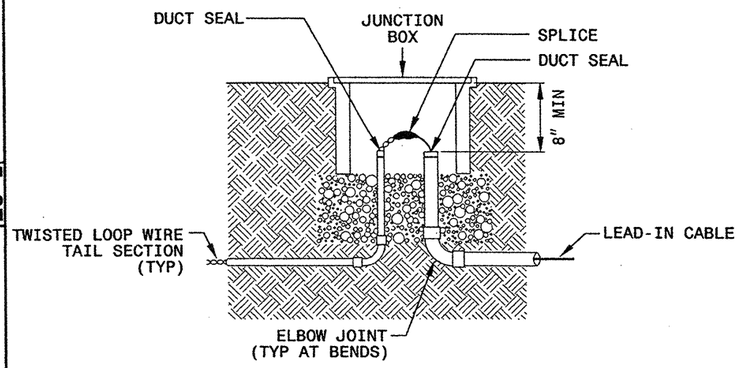
ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
LOOP WIRE DETAILS

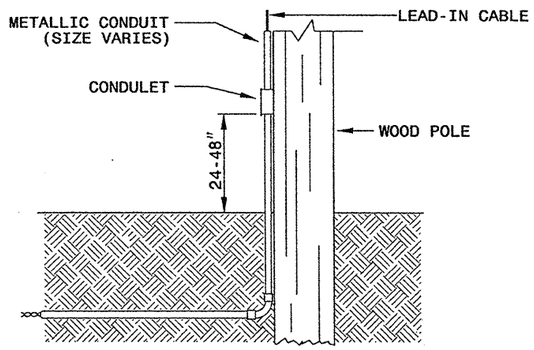
SHEET 2 OF 3
1725D01

LOOP WIRE SPLICE POINT DETAILS

LOOP WIRE AT JUNCTION BOX



LOOP WIRE AT POLE

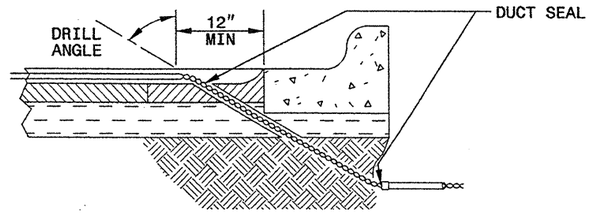


NOTE

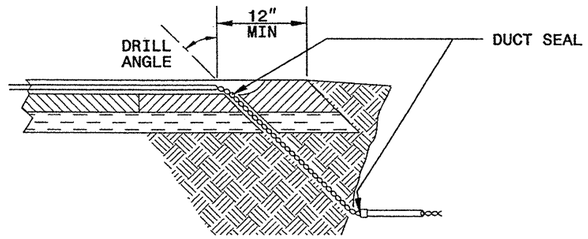
SPLICE ALL LOOP WIRE TAIL SECTIONS/LEAD-IN CABLE IN JUNCTION BOXES OR APPROVED CONDULETS.

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.

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ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
LOOP WIRE DETAILS

SHEET 2 OF 3
1725D01

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Prepared in the Offices of:
Intelligent Transportation Systems & Signals Unit
STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION
750 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
016286
ENGINEER
MILTON I. DEAN

Milton I. Dean 9/5/07
SIGNATURE DATE

05-SEP-2007 14:00
c:\documents and settings\mzmiittle.dot\desktop\standard metal pole sheets\1725102_moy2307.dgn
zmiittle

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	Sig.

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DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

5-07

ENGLISH DETAIL DRAWING FOR

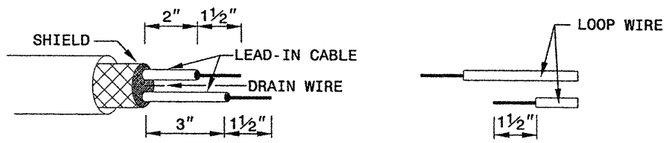
INDUCTION DETECTION LOOPS

SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

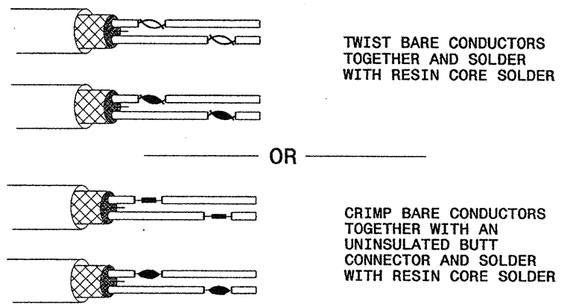
SHEET 3 OF 3

1725D01

STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE



STEP 2. CONNECT AND SOLDER



TWIST BARE CONDUCTORS TOGETHER AND SOLDER WITH RESIN CORE SOLDER

OR

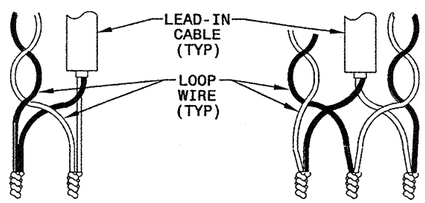
CRIMP BARE CONDUCTORS TOGETHER WITH AN UNINSULATED BUTT CONNECTOR AND SOLDER WITH RESIN CORE SOLDER

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

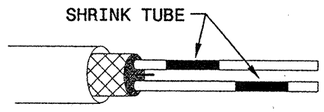
LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS

SINGLE CONNECTION

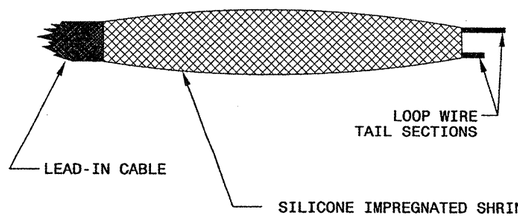
SERIES CONNECTION



STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY



STEP 4. ENVIRONMENTALLY PROTECT SPLICE



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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

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Intelligent Transportation Systems & Signals Unit
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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\mdean\desktop\standard metal pole sheets\1725d103_mov2307.dgn
mdean