

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10411.25, ETC.	1	7
F.A. PROJ. NO.			

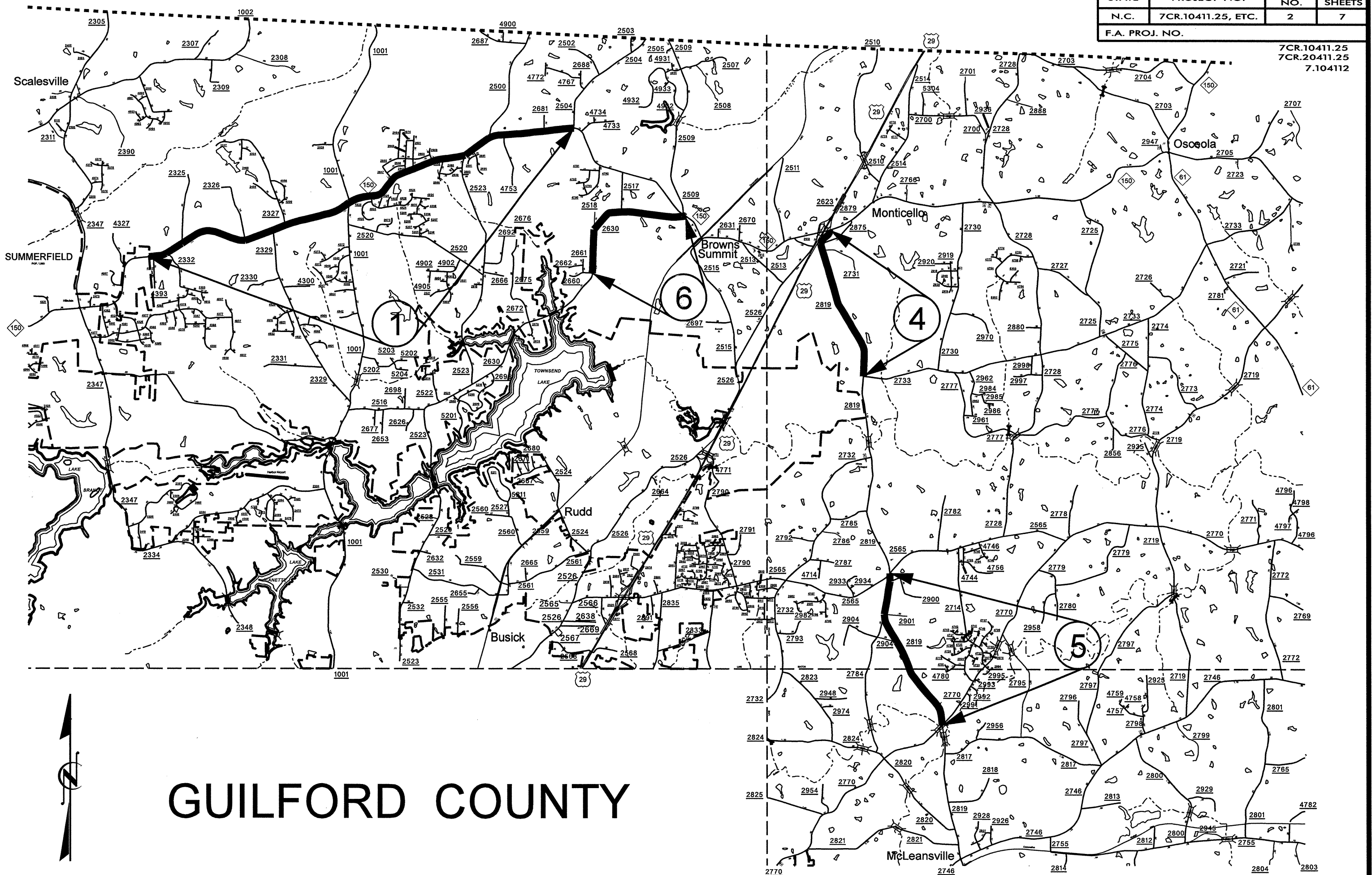
7CR.10411.25
7CR.20411.25
7.104112

GUILFORD COUNTY



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10411.25, ETC.	2	7
F.A. PROJ. NO.			

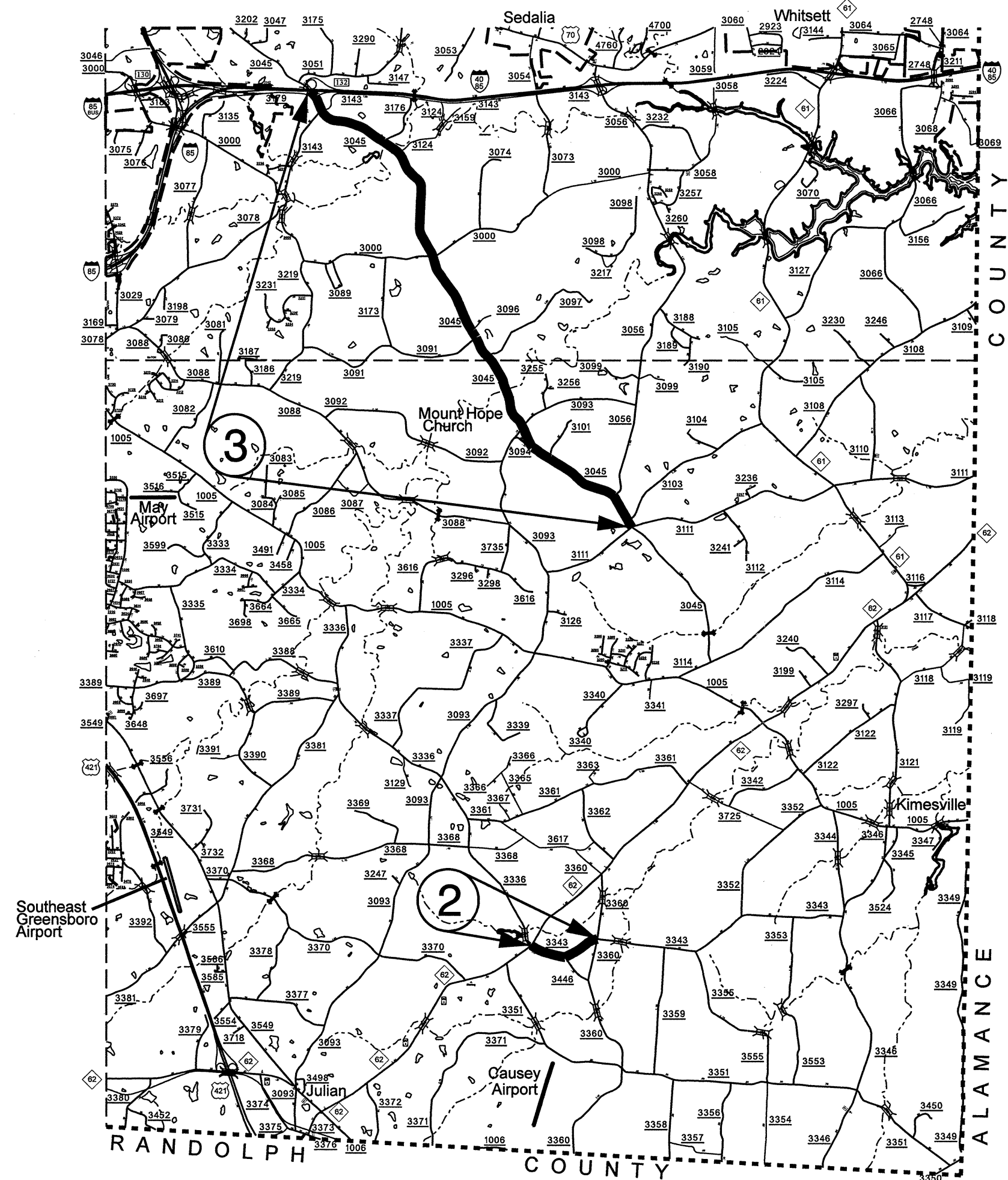
7CR.10411.25
7CR.20411.25
7.104112



GUILFORD COUNTY

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10411.25, ETC.	3	7
F.A. PROJ. NO.			

7CR.10411.25
7CR.20411.25
7.104112

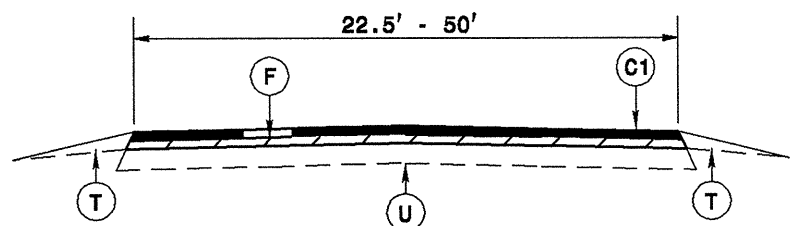


GUILFORD COUNTY



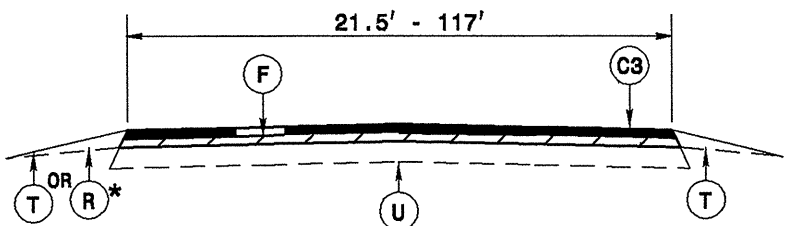
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10411.25, ETC.	4	7

7CR.10411.25
7CR.20411.25
7.104112



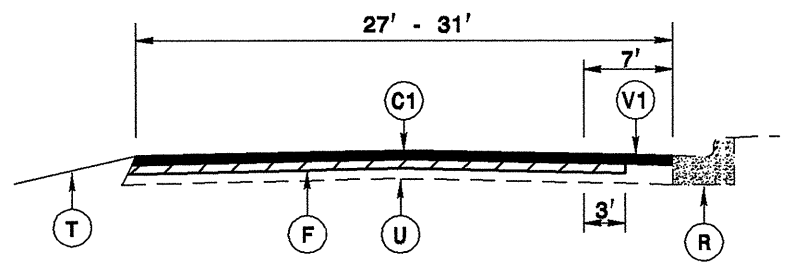
TYPICAL SECTION NO. 1

TO BE USED ON: DO NOT PAVE - BRIDGES
MAP 1 STA. 000+00 TO STA. 079+55 MAP 3 STA. 06+70 TO STA. 10+40
STA. 089+63 TO STA. 296+42 MAP 5 STA. 07+93 TO STA. 11+80



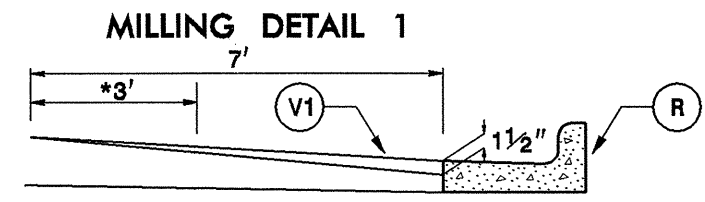
TYPICAL SECTION NO. 5

TO BE USED ON:
MAP 3
* R TO BE USED STA. 299+51 TO STA. 301+61



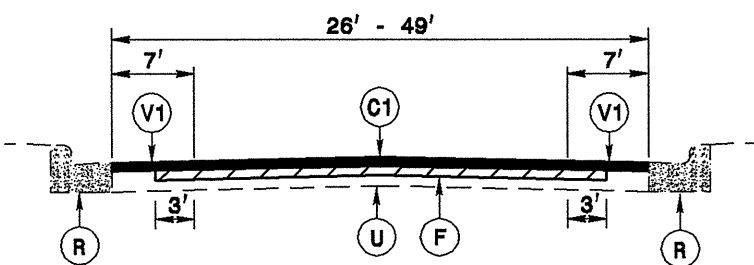
TYPICAL SECTION NO. 2

TO BE USED ON:
MAP 1 STA. 79+55 TO STA. 80+50



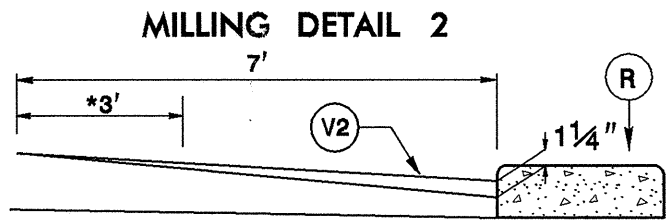
* IF 78M SEAL IS INVOLVED OVERLAP 3' MILL EXISTING ASPHALT PAVEMENT 0-1 1/2" AT LOCATIONS AS DIRECTED BY THE ENGINEER

NOTE: TO BE USED IN CONJUNCTION WITH
TS. NO. 2 & 3 ON MAP 1
TS. NO. 5 ON MAP 3



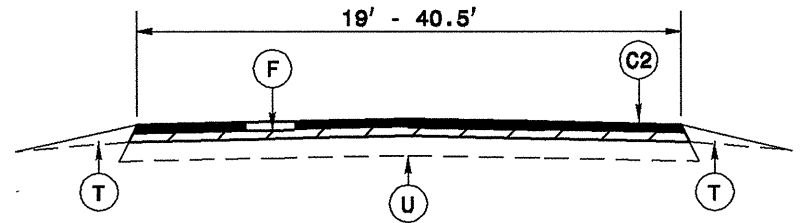
TYPICAL SECTION NO. 3

TO BE USED ON:
MAP 1 STA. 80+50 TO STA. 89+63



* IF 78M SEAL IS INVOLVED OVERLAP 3' MILL EXISTING ASPHALT PAVEMENT 0-1 1/4" AND OVERLAP MILLING WITH 3' OF 78M SEAL

NOTE:
TO BE USED IN CONJUNCTION WITH
TS. NO. 4 ON MAP 4



TYPICAL SECTION NO. 4

TO BE USED ON:
MAPS 2, 4, 5 AND 6

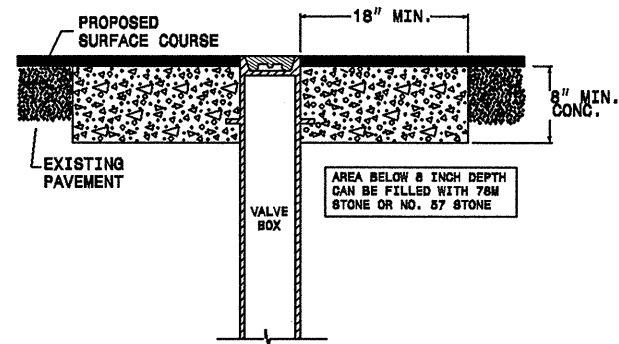
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YD.
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F	AST MAT COAT, 78M
R	EXISTING CONCRETE CURB & GUTTER OR CONCRETE ISLAND
T	SHOULDER RECONSTRUCTION, AS DIRECTED BY THE ENGINEER.
U	EXISTING PAVEMENT.
V1	0 - 1 1/2" MILLING FOR 7 FT FROM THE FRONT OF THE GUTTER TO THE ROADWAY
V2	0 - 1 1/4" MILLING FOR 7 FT FROM THE FRONT OF THE GUTTER TO THE ROADWAY

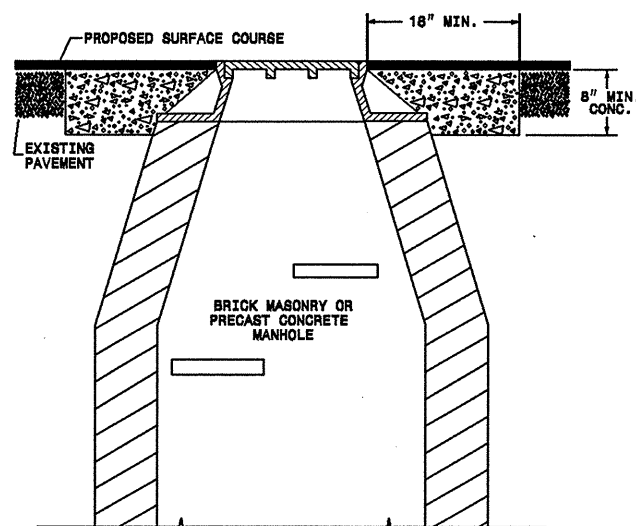
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STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10411.23, 7CR.20411.23	5	7

STANDARD CONCRETE ENCASMENT FOR MANHOLE & VALVE CASTINGS IN PAVEMENT
DETAIL DRAWING NO. 858.01

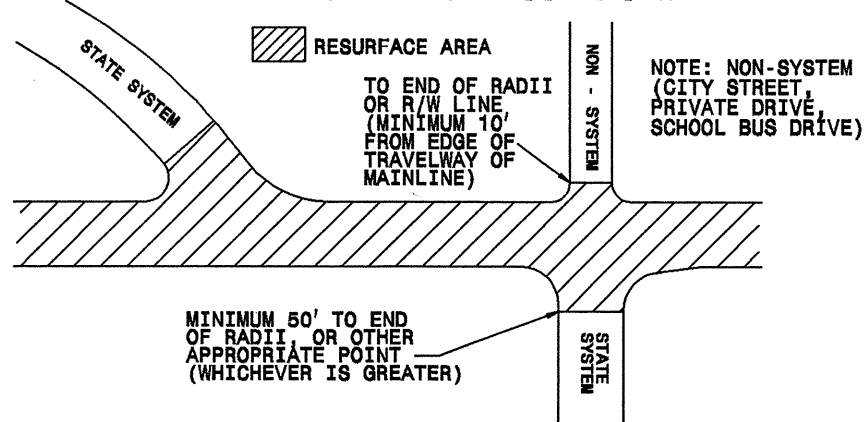


USE RAPID SET GROUT, MORTAR, OR CONCRETE CLASS B CONCRETE MAY BE USED WHEN ADJUSTMENTS ARE NOT IN THE TRAVEL LANE.

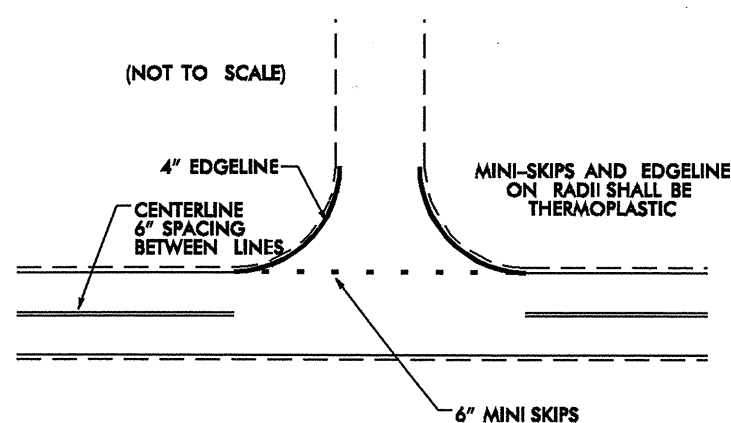


- NOTES:
- MORTAR SHALL BE MIXED TO NCDOT SPECIFICATIONS.
 - ALL FAULTY EXISTING BRICKWORK TO BE REMOVED AND REPLACED WITH NEW BRICK MASONRY.
 - EXCAVATION FOR THE ADJUSTMENT SHALL BE SHEER CUT ON ALL SIDES.
 - RAPID SET GROUT, MORTAR, OR CONCRETE SHALL BE USED

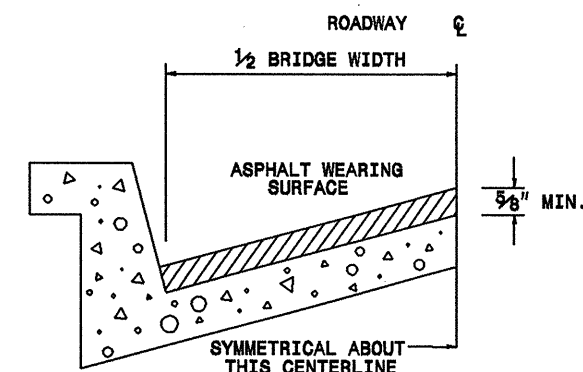
PAVING DETAIL 2
MAIN LINE IS BEING RESURFACED



STRIPING DETAIL
NON-SIGNALIZED / NON-CURB & GUTTER INTERSECTIONS



NOTE: MINI SKIPS SHALL BE PLACED ON A 10' CYCLE, CONTAINING AN 8' SPACE AND 2' SKIP. THE WIDTH OF THE SKIP SHALL BE 6'.



BRIDGE HALF TYPICAL SECTION

FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN. THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

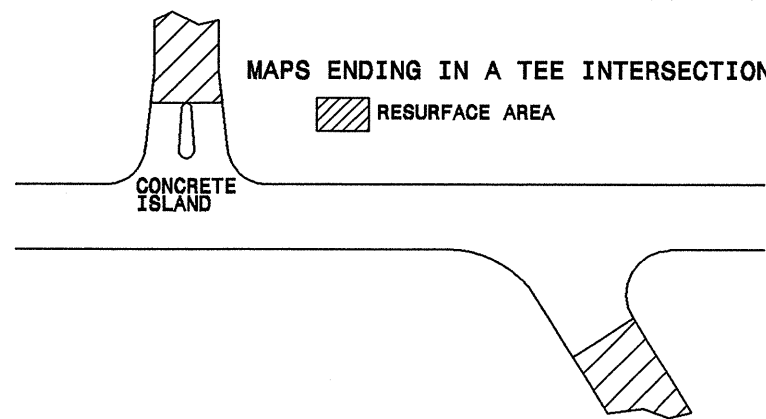
NOTES

ALL UNPAVED S.R. ROUTES TO BE SURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
ALL PAVED S.R. ROUTES TO BE RESURFACED TO END OF RADDII, OR AS DIRECTED BY THE ENGINEER. EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES. BRIDGES TO BE RESURFACED AT LOCATIONS AND DEPTH AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R	EXISTING CONCRETE CURB & GUTTER OR CONCRETE ISLAND
C2	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YD.	T	SHOULDER RECONSTRUCTION, AS DIRECTED BY THE ENGINEER.
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
F	AST MAT COAT, 78M	V1	0 - 1 1/2" MILLING FOR 7 FT FROM THE FRONT OF THE GUTTER TO THE ROADWAY
		V2	0 - 1 1/4" MILLING FOR 7 FT FROM THE FRONT OF THE GUTTER TO THE ROADWAY

PAVING DETAIL 1
MAIN LINE IS NOT BEING RESURFACED



PROJECT NO.	SHEET NO.	TOTAL NO.
7CR.10411.25, 7CR.20411.25, 7.104112	6	7

SUMMARY OF QUANTITIES

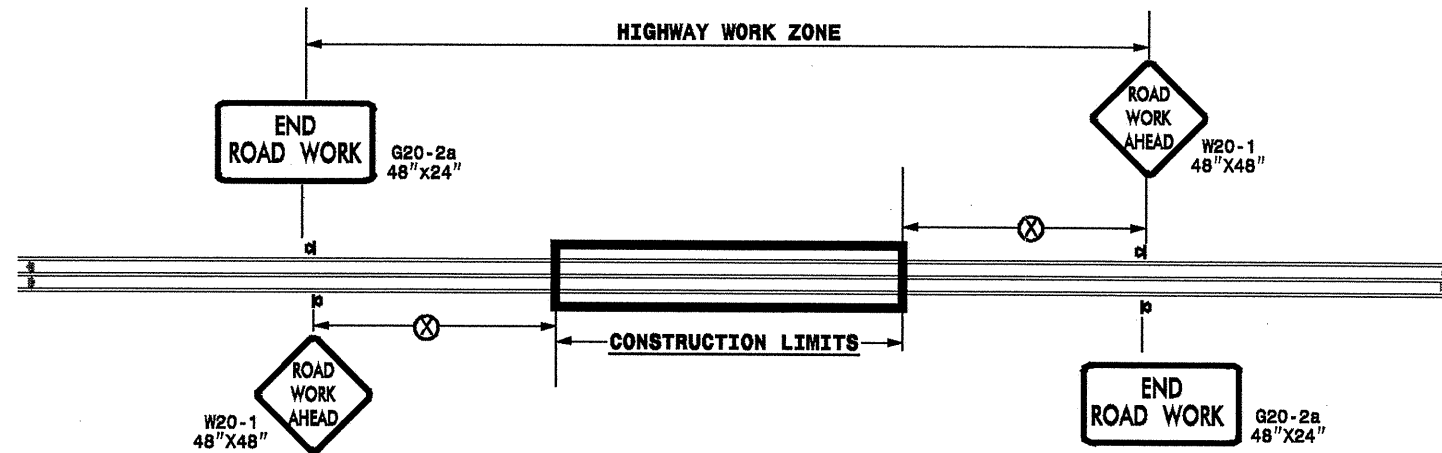
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	BORROW EXCAVATION CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAVEMENT, 0" TO 1-1/4" DEPTH SY	MILLING ASPHALT PAVEMENT, 0" TO 1-1/4" DEPTH SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	PG 64-22 PLANT MIX TONS	AST MAT COAT 78M SY	ADJ. OF MANHOLES EA	SEED & MULCHING AC	RESIDENTIAL SEEDING AC	TRENCHING (PAVED) (1)(2") LF	TRENCHING (UNPAVED) (1)(2") LF	PULL BOX (STANDARD) EA	2" RISER W/ WEATHERHEAD EA	INDUCTIVE LOOP SAW CUT LF	LEAD-IN CABLE (14-2) LF										
7CR.10411.25	Guilford	1	NC 150	FROM SUMMERFIELD CITY LIMITS TO JOINT EAST OF SR 2504 (FAIR GROVE CHURCH ROAD)	1	NO	1.149	23	46	320	2.30			192	1,329		80	15,504			0.21	0.63															
					1	NO	0.044	23-36	2		0.09							64		4	762			0.01	0.02												
					1	NO	0.106	36	4		0.21							229		14	2,239			0.02	0.06												
					1	NO	0.041	23-36	2		0.08							60		4	710			0.01	0.02												
					1	NO	0.165	23	7		0.33							188		11	2,226			0.03	0.09												
					1 & 2	NO	0.021	23-31							0.01		148			29		2	268														
					3	NO	0.027	31-42									222			49		3	451														
					3	NO	0.054	42-49									444			201		12	1,188	1				100	4	2	450	900					
					3	NO	0.037	36-37									304			67		4	619														
					3	NO	0.021	32-36									172			35		2	320														
					3	NO	0.028	26-32									230			40		2	345														
					3	NO	0.006	26-29									49			8		0	69														
					1	NO	0.031	23-26					1		0.06				40		2	473			0.01	0.02											
					1	NO	0.676	22-22.5					27		1.34				755		45	8,824			0.12	0.37											
					1	NO	0.102	2.5-32					4		0.20				138		8	1,631			0.02	0.06											
					1	NO	0.063	32-36					3		0.13				146		9	1,257			0.01	0.03											
					1	NO	0.120	22.5-36					5		0.24				174		10	2,059			0.02	0.07											
					1	NO	0.029	22.5					1		0.06				32		2	383			0.01	0.02											
					1	NO	0.023	35.5					1		0.05				40		2	479															
					1	NO	0.027	30.5-35.5					1		0.05				44		3	523															
					1	NO	0.032	30.5-34					1		0.06				51		3	605			0.01	0.02											
					1	NO	0.031	34					1		0.06				52		3	618			0.01	0.02											
					1	NO	0.824	22.5					33		1.65				944		57	10,877			0.15	0.45											
					1	NO	0.024	22.5-25					1		0.05				28		2	335															
					1	NO	0.009	25-27							0.02				32		2	137															
					1	NO	0.063	27-36					3		0.13				98		6	1,164			0.01	0.03											
					1	NO	0.176	36					7		0.35				380		23	4,256			0.03	0.10											
					1	NO	0.019	47					1		0.04				44		3	524															
					1	NO	0.045	31-47					2		0.09				87		5	1,030			0.01	0.02											
					1	NO	0.027	26-31					1		0.05				38		2	451															
1	NO	0.019	24-26					1		0.04				24		1	279																				
1	NO	0.061	24					2		0.12				73		4	859			0.01	0.03																
1	NO	1.351	22.5					54		2.70				1,551		93	17,833			0.25	0.74																
1	NO	0.166	22.5-24.5					7		0.33				196		12	2,289			0.03	0.09																
TOTAL FOR MAP NO. 1							5.617		218	320	10.84	1,569		388	7,263	435	81,587	1	0.98	2.96			100	4	2	450	900										
TOTAL FOR PROJ NO. 7CR.10411.25							5.617		218	320	10.84	1,569		388	7,263	435	81,587	1	0.98	2.96			100	4	2	450	900										
7CR.20411.25	Guilford	2	SR 3343 (COBLE CHURCH ROAD)	FROM NC 62 TO SR 3360 (BOWMAN DAIRY ROAD)	4	NO	0.660	20	13	33	0.66					585	38	7,744		0.12	0.12																
TOTAL FOR MAP NO. 2							0.700		14	33	0.70				623	40	8,291		0.12	0.13																	
7.104112	Guilford	1	NC 150	FROM SR 3111 (HOLT STORE ROAD) TO I-40/I-85	5	NO	1.356	21.5	55	233	2.71	163		179		1,538	100	17,104			0.49	0.49															
					5	NO	0.179	21.5-22.5	7		0.36								192	12	2,310			0.07	0.07												
					5	NO	0.169	22.5-24	7		0.34								265	17	2,305			0.06	0.06												
					5	NO	0.197	22.5-24	8		0.39								223	14	2,687			0.07	0.07												
					5	NO	0.195	22.5																													
					5	NO	2.780	22.5-30	111		5.56				219				3,644	237	42,812			1.01	1.01												
					5	NO	0.021	30											31	2																	
					5	NO	0.004	27-30			0.01								6	0	67																
					5	NO	0.144	22.5-27	6		0.29				219				235	15	2,091	2		0.05	0.05												
					5	NO	0.030	22.5-28	1		0.06								37	2	445			0.01	0.01												
					5	NO	0.034	28-46.5	1		0.07								62	4	743			0.01	0.01												
					5	NO	0.025	46.5-48	1		0.05								57	4	693			0.01	0.01												
					5	NO	0.043	48	2		0.09								100	7	1,211			0.02	0.02												
					5	NO	0.021	48-49.5	1		0.04								50	3	601			0.01	0.01												
					5	NO	0.041	49-49.5	2		0.08								98	6	1,186			0.01	0.01												
					5	NO	0.021	48-49	1		0.04								49	3	598			0.01	0.01												
					5	NO	0.343	48	14		0.69								799	52	9,659			0.12	0.12												
					5	NO	0.070	48-65	3		0.14								231	15	2,320			0.03	0.03												
					5	NO	0.049	65	2		0.10				163				154	10	1,581			0.02	0.02	100	560	6	2	450	1,600						
					5	NO	0.008	65-71			0.02								26	2	319																
					5	NO	0.058	71-95	2		0.12								233	15	2,824			0.02	0.02												
					5	NO	0.012	95-117			0.02							883		77	5	746															
					TOTAL FOR MAP NO. 3							5.800		224	233	11.18	326		1,500	8,107	525	92,302	2	2.02	2.02	100	560	6	2	450	1,600						
					7.104112	Guilford	4	SR 2819 (MCLEANSVILLE ROAD)	FROM SR 2773 (TURNER-SMITH ROAD) TO NC 150	4	NO	1.663	20	33		1.66						1,393	91	19,513													
										4	NO	0.057	23-25	1		0.06								55	4	803											
										4	NO	0.060	25-40.5	1		0.06								110	7	1,155											
										4	NO	0.051	37-38	1		0.05				420				77	5	1,100											
					TOTAL FOR MAP NO. 4							1.831		36	1.83						1,635	107	22,571														
					7.104																																

PROJECT NO. 7CR.10411.25, 7CR.20411.25 7.104112	SHEET NO. 7	TOTAL NO. 7
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THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E	4686000000-E			4690000000-E	4695000000-E	4710000000-E	4721000000-E					4725000000-E		4810000000-E		4905000000-N		
					4" X 90 M WHITE THERMO LF	4" X 120 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	6" X 120 M WHITE THERMO LF	8" X 90 M YELLOW THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG SCHOOL 120 M EA	THERMO MSG ONLY 120 M EA	THERMO LT ARROW 90 M EA	THERMO STR ARROW 90 M EA	THERMO RT ARROW 90 M EA	THERMO MERGE LEFT ARROW 90 M EA	THERMO STR & RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	SNOWPLOWABLE PAVEMENT MARKERS - Y/Y EA	SNOWPLOWABLE PAVEMENT MARKERS - C/R EA		
7CR.10411.25	Guilford	1	NC 150	FROM SUMMERFIELD CITY LIMITS TO JOINT EAST OF SR 2504 (FAIR GROVE CHURCH ROAD)	57,442	2,088	58,682	288	891	364	12			16	10	6							
TOTAL FOR PROJ NO. 7CR.10411.25					57,442	2,088	58,682	288	891	364	12			16	10	6							
					60,770						12			32									
7CR.20411.25	Guilford	2	SR 3343 (COBLE CHURCH ROAD)	FROM NC 62 TO SR 3360 (BOWMAN DAIRY ROAD)				38												14,776	13,987		
"	"	3	SR 3045 (MT. HOPE CHURCH ROAD)	FROM SR 3111 (HOLT STORE ROAD) TO I-40/I-85	59,174	2,042	52,528	528	390	183		12		9	10	3		2	6				
"	"	4	SR 2819 (MCLEANSVILLE ROAD)	FROM SR 2773 (TURNER-SMITH ROAD) TO NC 150				68												38,680	27,828		
"	"	5	SR 2819 (MCLEANSVILLE ROAD)	FROM SR 2770 (HUFFINE MILL ROAD) TO SR 2565 (HICONE ROAD)				110												40,800	31,793		
"	"	6	SR 2630 (DOGGET ROAD)	FROM SR 2660 (LITCHFIELD ROAD) TO NC 150				48												34,896	28,033		
TOTAL FOR PROJ NO. 7CR.20411.25					59,174	2,042	52,528	792	390	183		12		9	10	3		2	6	129,152	101,641		
					54,570							12		30						230,793			
7.104112	Guilford	1	NC 150																			471	130
TOTAL FOR PROJ NO. 7.104112																						471	130
																						601	
GRAND TOTAL					116,616	4,130	111,210	1,080	1,281	547		12	12	25	20	9		2	6	129,152	101,641	471	130
					115,340							24		62						230,793		601	

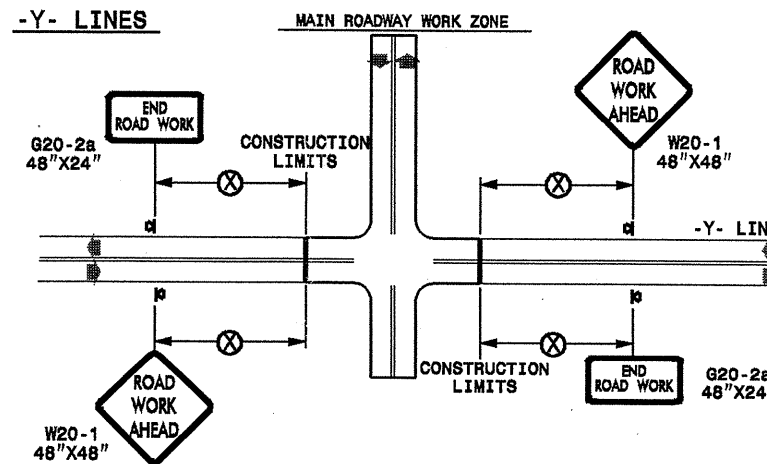
TWO-WAY UNDIVIDED ** (L-LINES)



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

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

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



DETAIL DRAWING
FOR TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCE 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

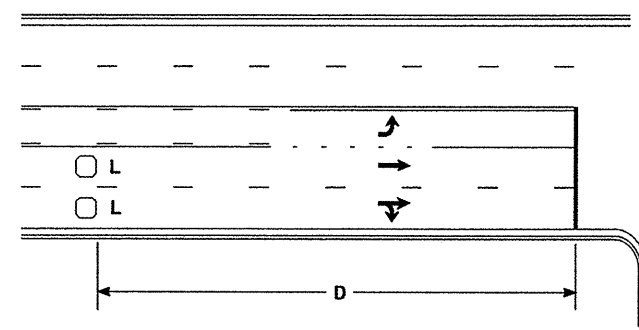
➔ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

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

16-DEC-2009 19:03
 S:\Signing\resur-fg\sig_030509\Resur-fg\sig_030509-01\07\C202560A-C-710412x3-Gulford.nc150m6\C202560A-C-710412x3-2wayundivurbfrwysJuly2006-portable.dgn
 AT WZTC237502
 pesymore

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

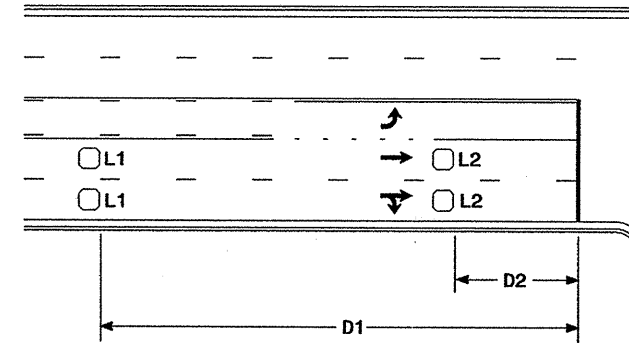


Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

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

OR

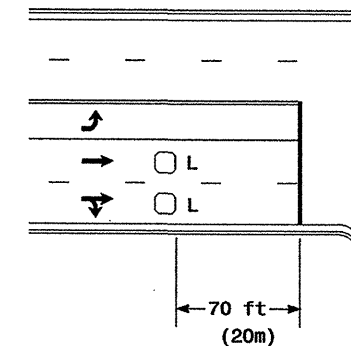


Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

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

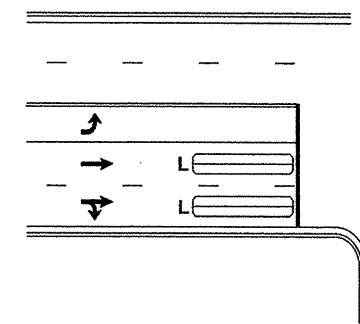
"Stretch" Operation

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



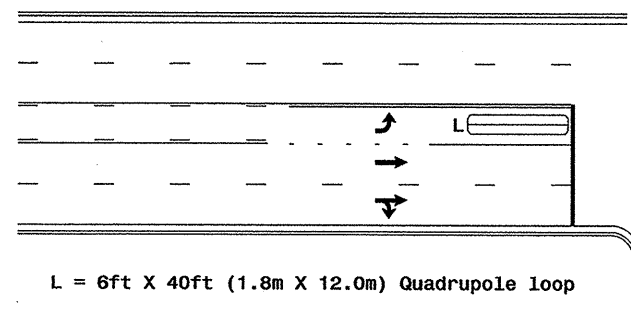
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



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

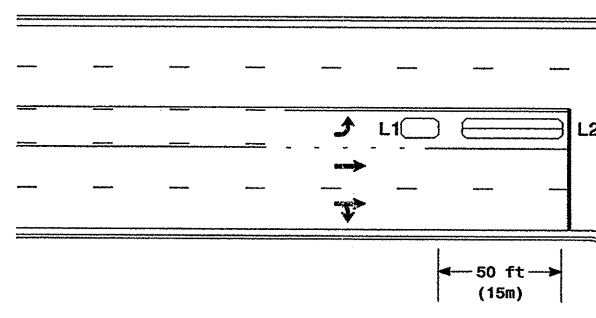
Left Turn Lane Detection



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

Presence Loop Detection

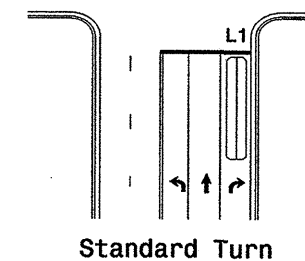
OR



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

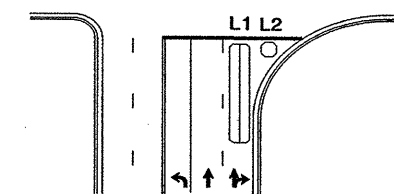
Queue Loop Detection

Right Turn Lane Detection

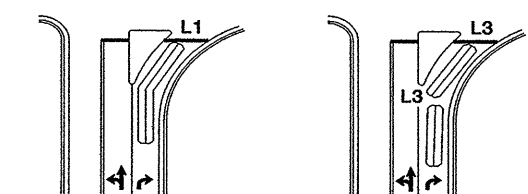


Standard Turn

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

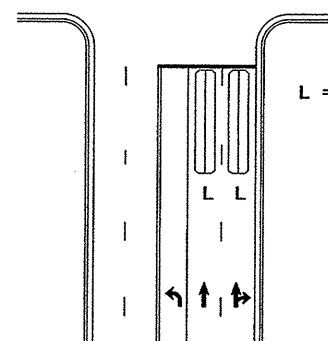


Wide Radius Turn



Channelized Turn

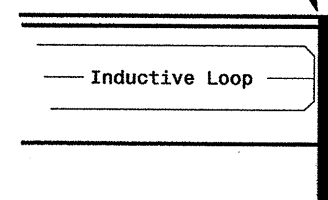
Side Street Detection



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:
The University of North Carolina
Department of Transportation
Traffic and Geometric Section
122 N. McDowell St., Raleigh, NC 27603

SCALE
N/A

Typical Loop Locations

PLAN DATE: June 2006
PREPARED BY: P L Alexander
REVISIONS: Revise pavement markings

REVIEWED BY: [Signature]
INITIALS: [Signature]
DATE: 12/11/06

SEAL
NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
P L ALEXANDER
23488

SIGNATURE: [Signature]
DATE: 12/11/06
SIG. INVENTORY NO.

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

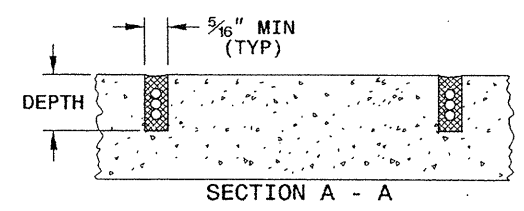
11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
1725D01

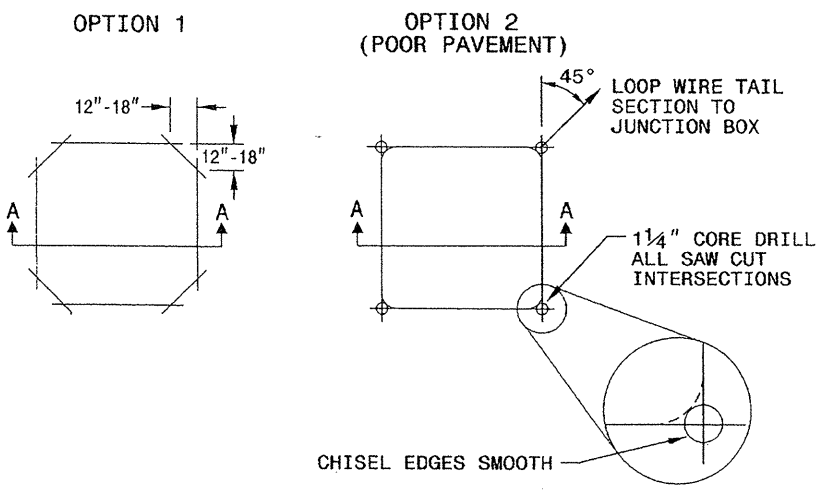
SAW SLOT DEPTH CHART

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	

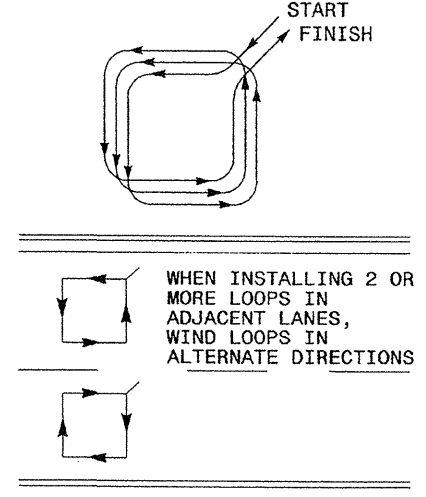


CONVENTIONAL 4-SIDED LOOP

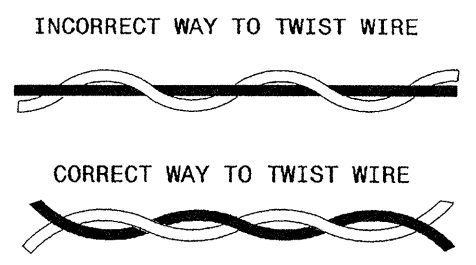
SAW CUT OPTIONS



LOOP WINDING METHOD



LOOP WIRE TWISTING METHOD

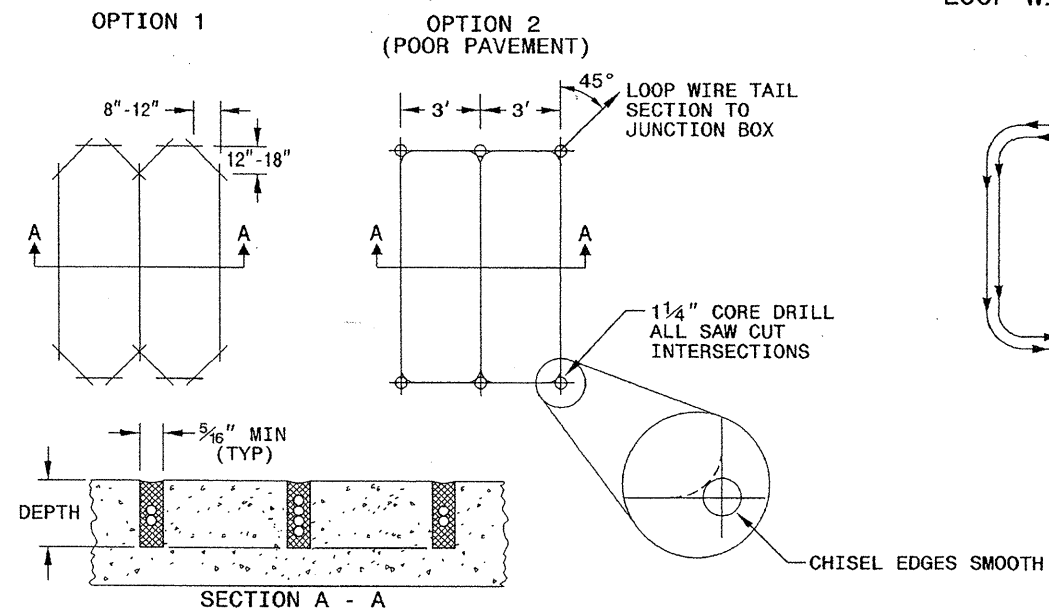


NOTES

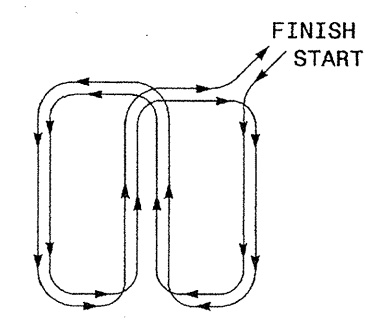
1. OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
2. MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
3. WIRE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL IN SERIES.
4. LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS OR APPROVED BY ENGINEER.

QUADRUPOLE LOOP

SAW CUT OPTIONS



LOOP WINDING METHOD



DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

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DIVISION OF HIGHWAYS
RALEIGH, N.C.

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ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
1725D01

See Plate for Title

Prepared in the Office of:

750 N. Greenfield Parkway
Garner, NC 27529

SEAL

Milton I. Dean 4/24/08
SIGNATURE DATE

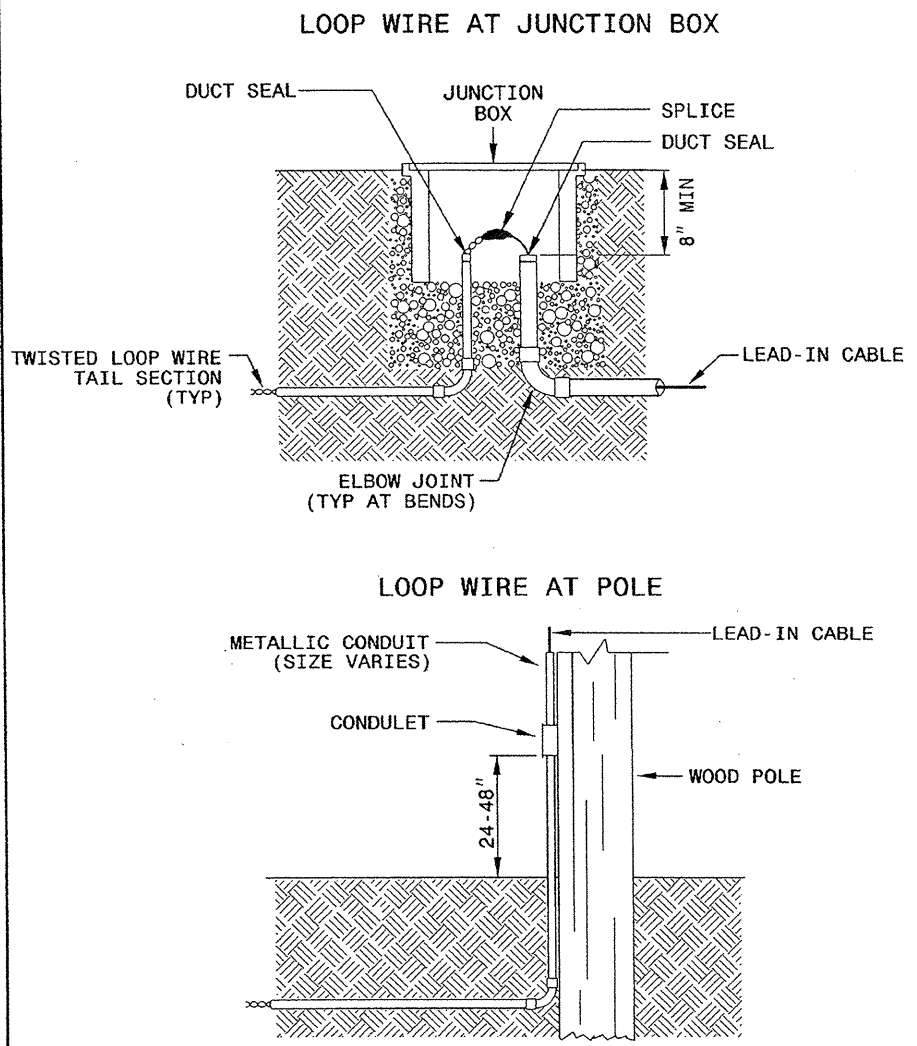
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STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

11-08
 ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 LOOP WIRE DETAILS

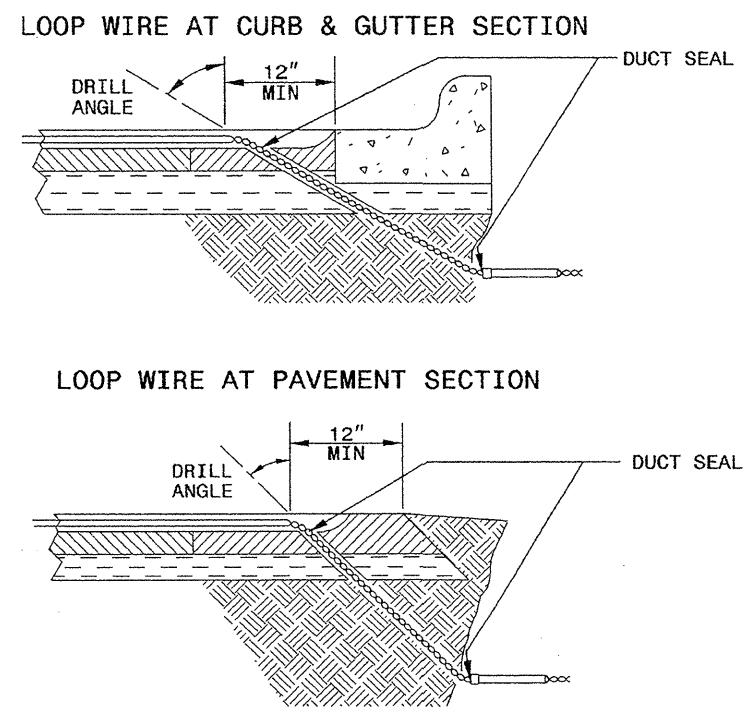
SHEET 2 OF 3
1725D01

LOOP WIRE SPLICE POINT DETAILS



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

LOOP WIRE PAVEMENT EDGE DETAILS



- 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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 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:

750 N. Greenfield Parkway
 Garner, NC 27529

SEAL

Milton A. Dean 11/24/08
 SIGNATURE DATE

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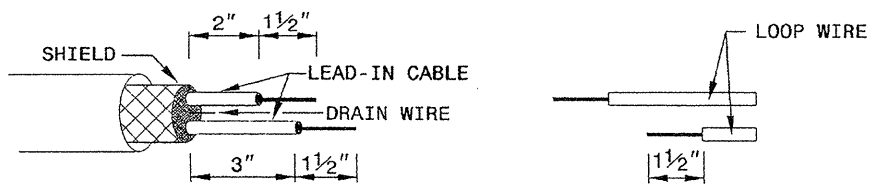
STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

11-08

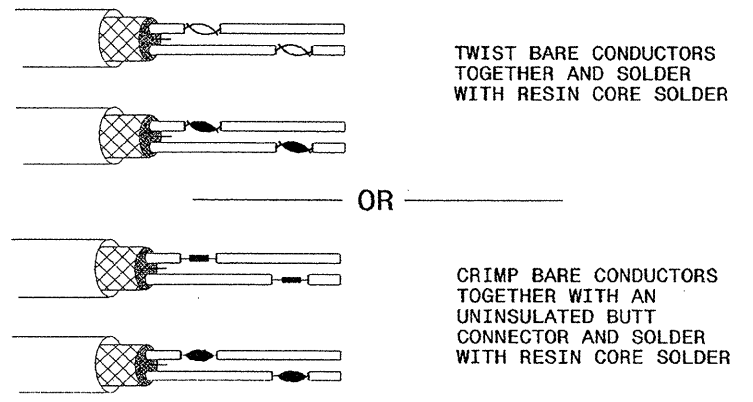
ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
 SPlicing FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3
1725D01

STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE

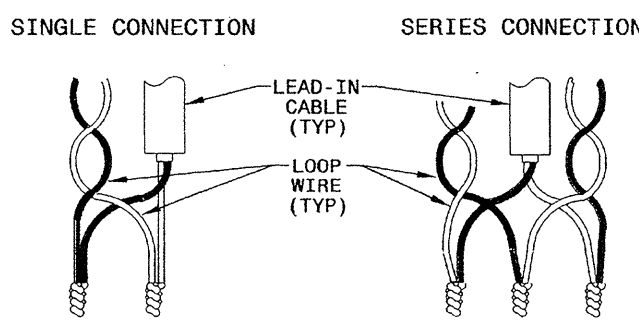


STEP 2. CONNECT AND SOLDER

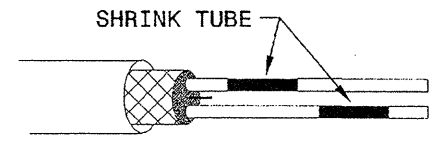


BOND SHIELD DRAIN WIRE AT SPLICE SECTIONS (DO NOT GROUND)

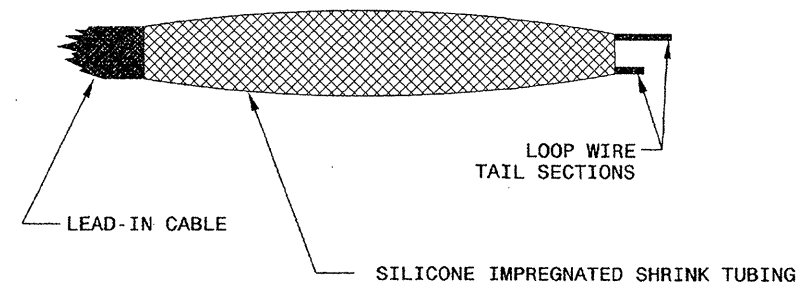
LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS



STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY



STEP 4. ENVIRONMENTALLY PROTECT SPLICE



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 RALEIGH, N.C.

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

SHEET 3 OF 3
1725D01

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 Garner, NC 27529

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Milton Dean 11/24/08
 SIGNATURE DATE

24-Nov-2008 08:16
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