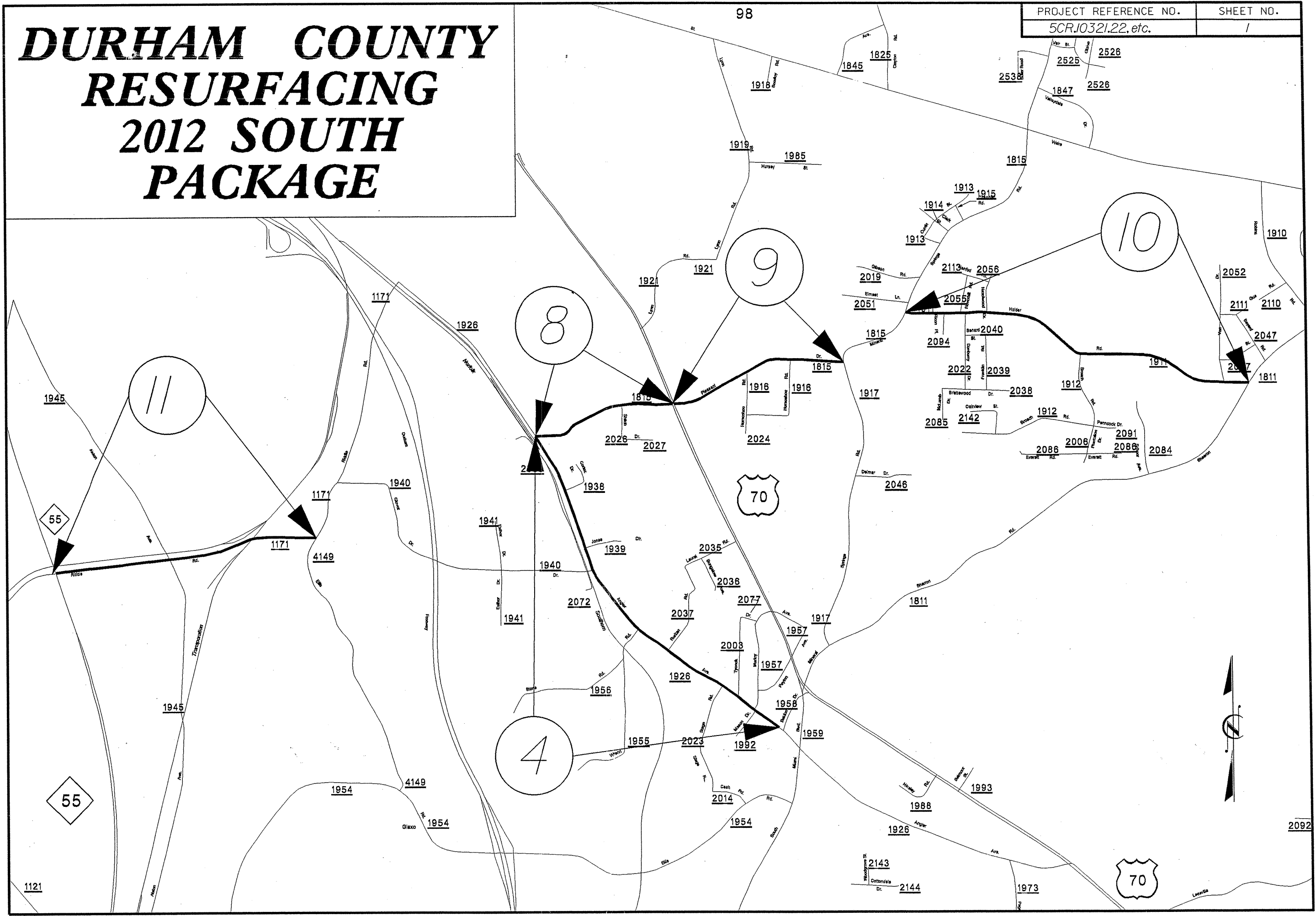
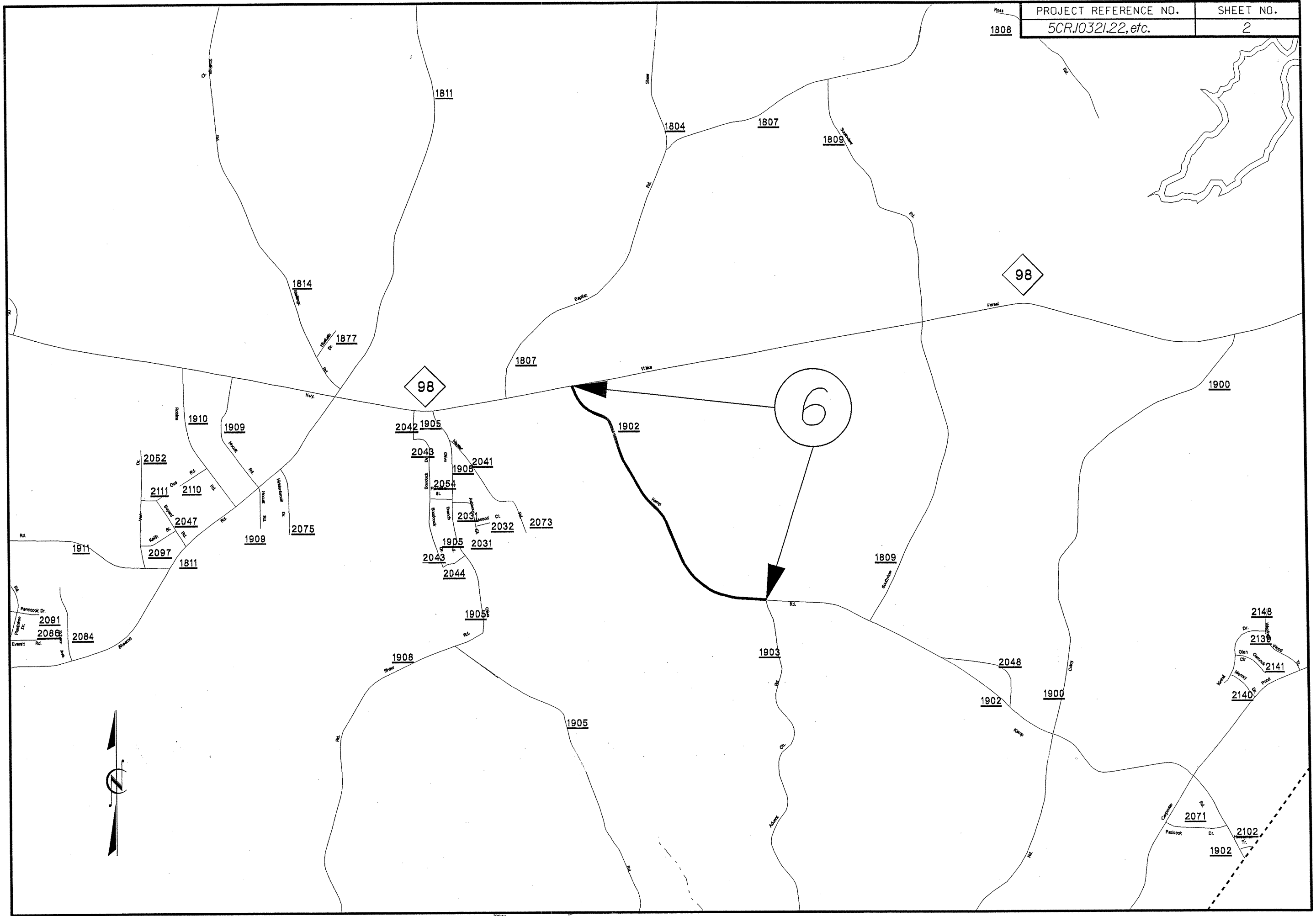
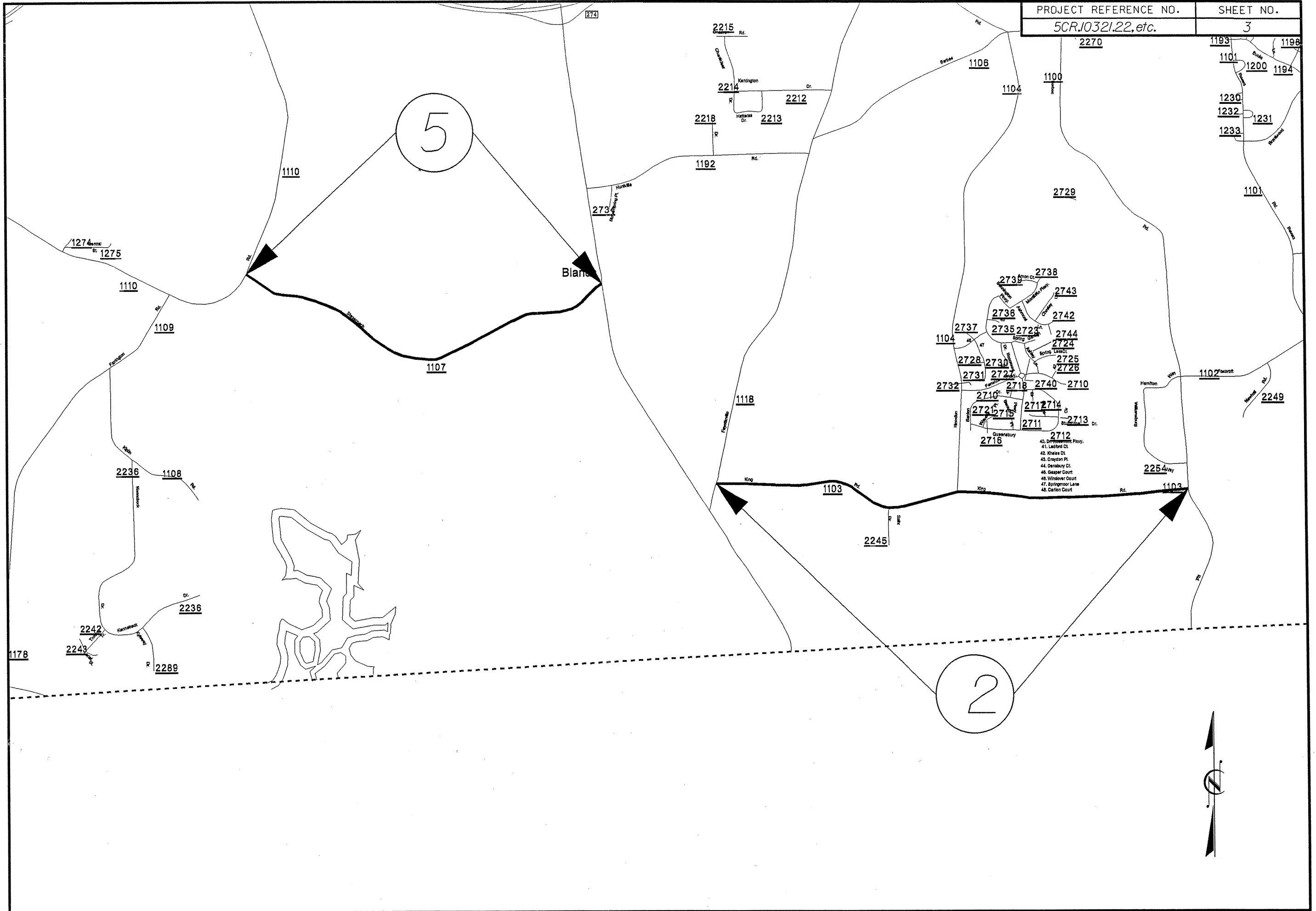


# DURHAM COUNTY RESURFACING 2012 SOUTH PACKAGE







5

2

- 40. Droversway Flwy.
- 41. Leoford Ct.
- 42. Oxalis Dr.
- 43. Croyton Pl.
- 44. Denebury Ct.
- 45. Gaspar Court
- 46. Windsor Court
- 47. Springmoor Lane
- 48. Carlton Court

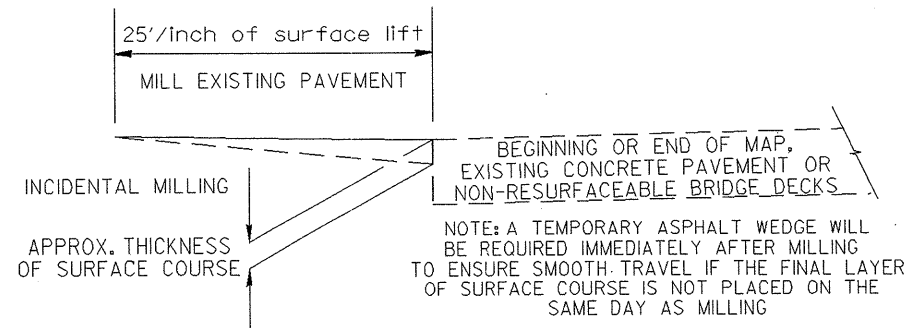
Blair





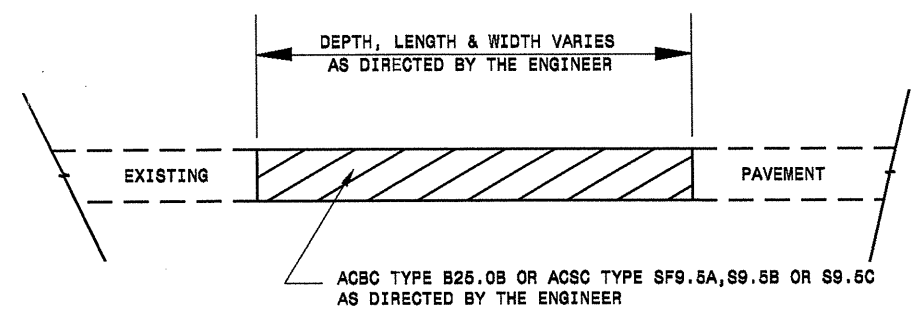
# PAVEMENT SCHEDULE

C	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E	5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
V1	2½" MILLING
V2	1½" MILLING



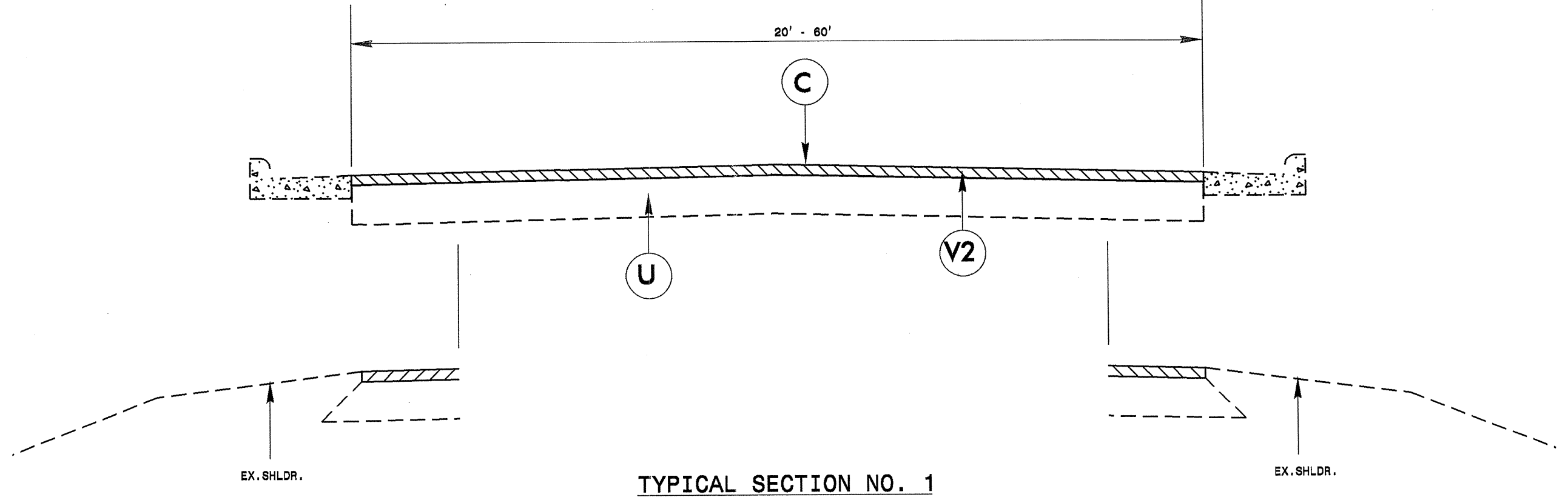
### NOTES

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



### PATCHING EXISTING PAVEMENT

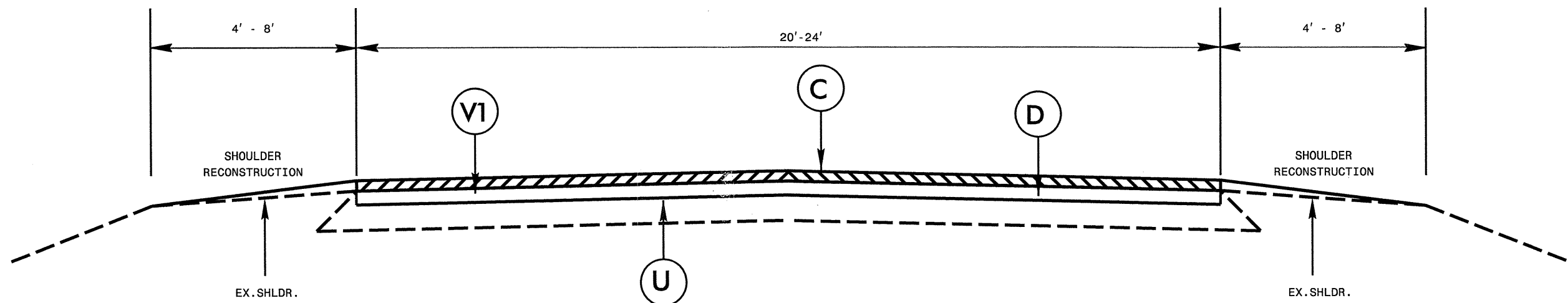
PATCHING TO BE PERFORMED PRIOR TO MILL AND FILL OPERATION



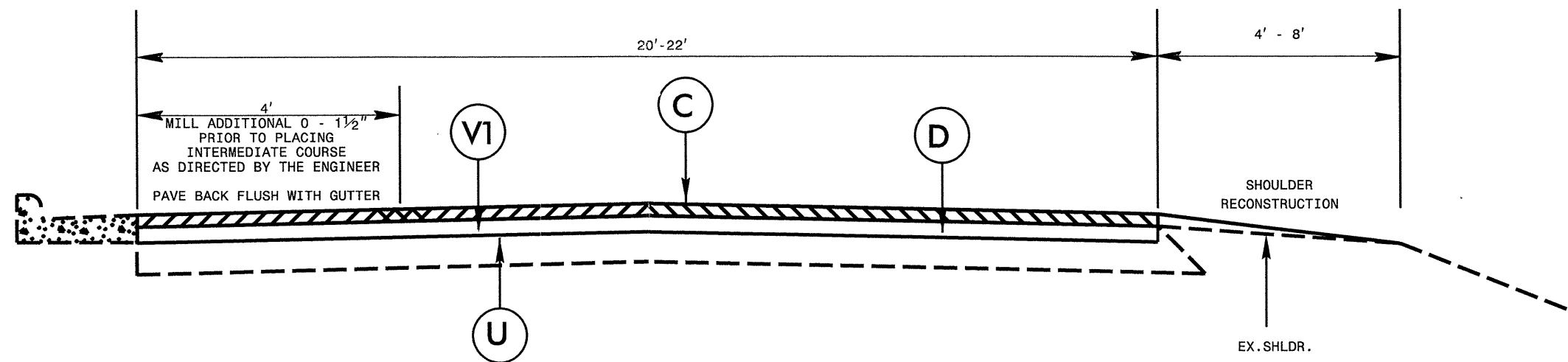
# PAVEMENT SCHEDULE

PROJECT REFERENCE NO. 5CR1032122, etc. SHEET NO. 6

C	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E	5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
V1	2½" MILLING
V2	1½" MILLING



TYPICAL SECTION NO. 2

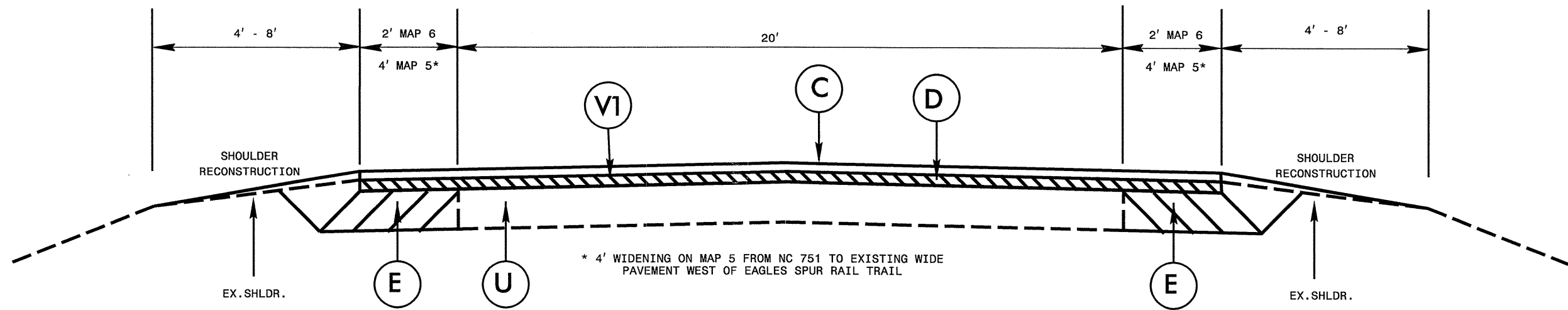


TYPICAL SECTION NO. 3

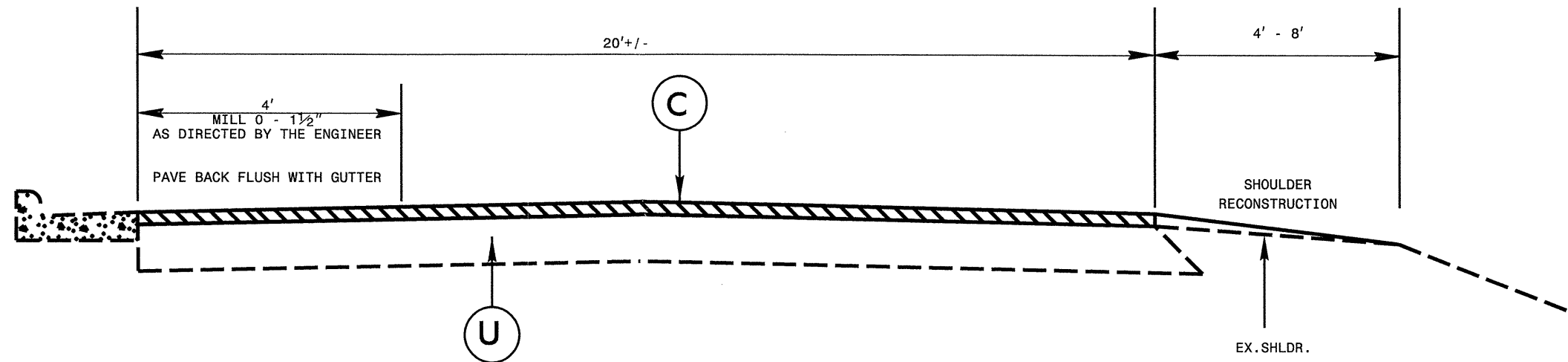
# PAVEMENT SCHEDULE

PROJECT REFERENCE NO. **SCRJ032/22.e/c.** SHEET NO. **7**

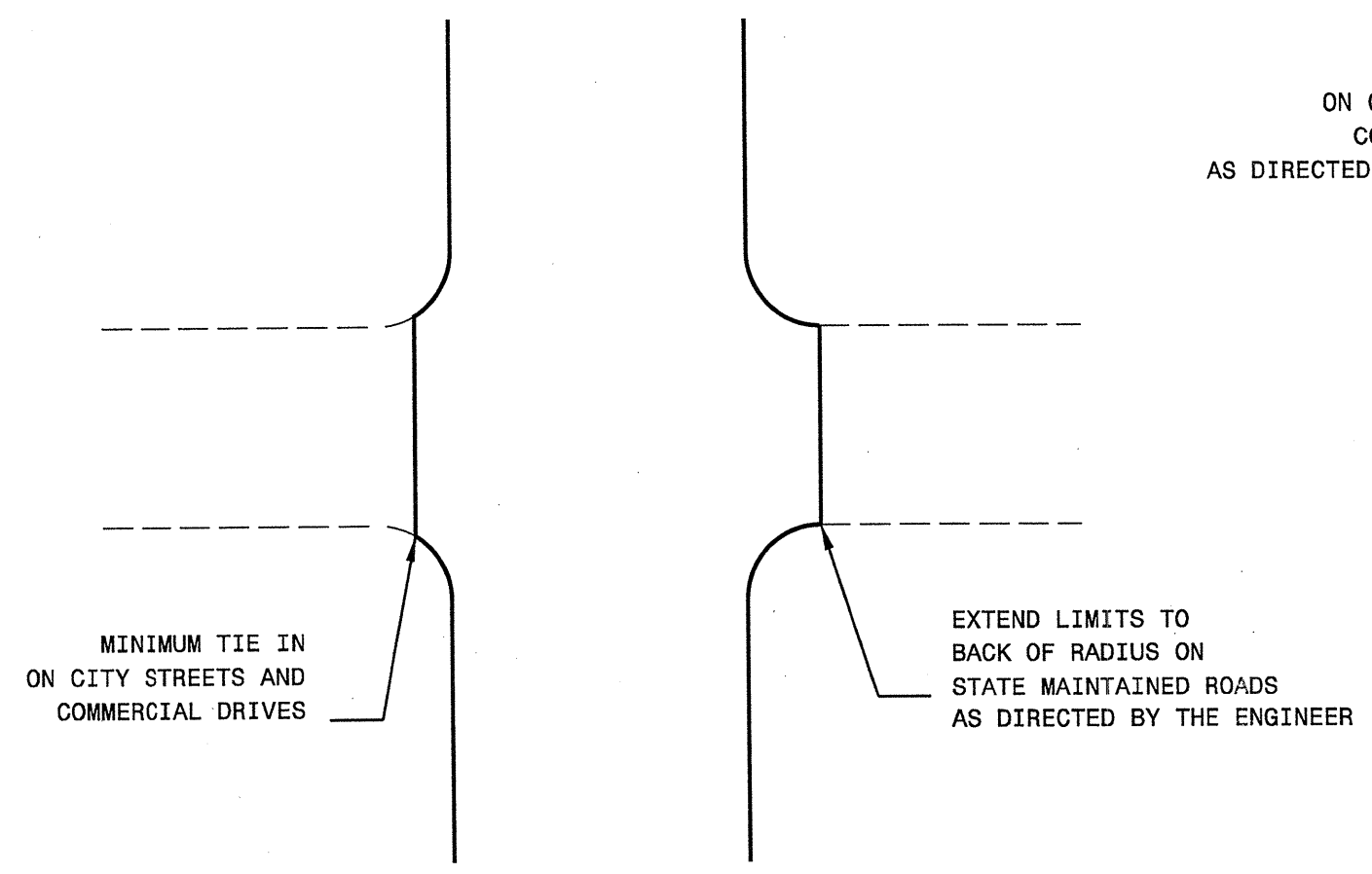
C	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E	5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
V1	2½" MILLING
V2	1½" MILLING



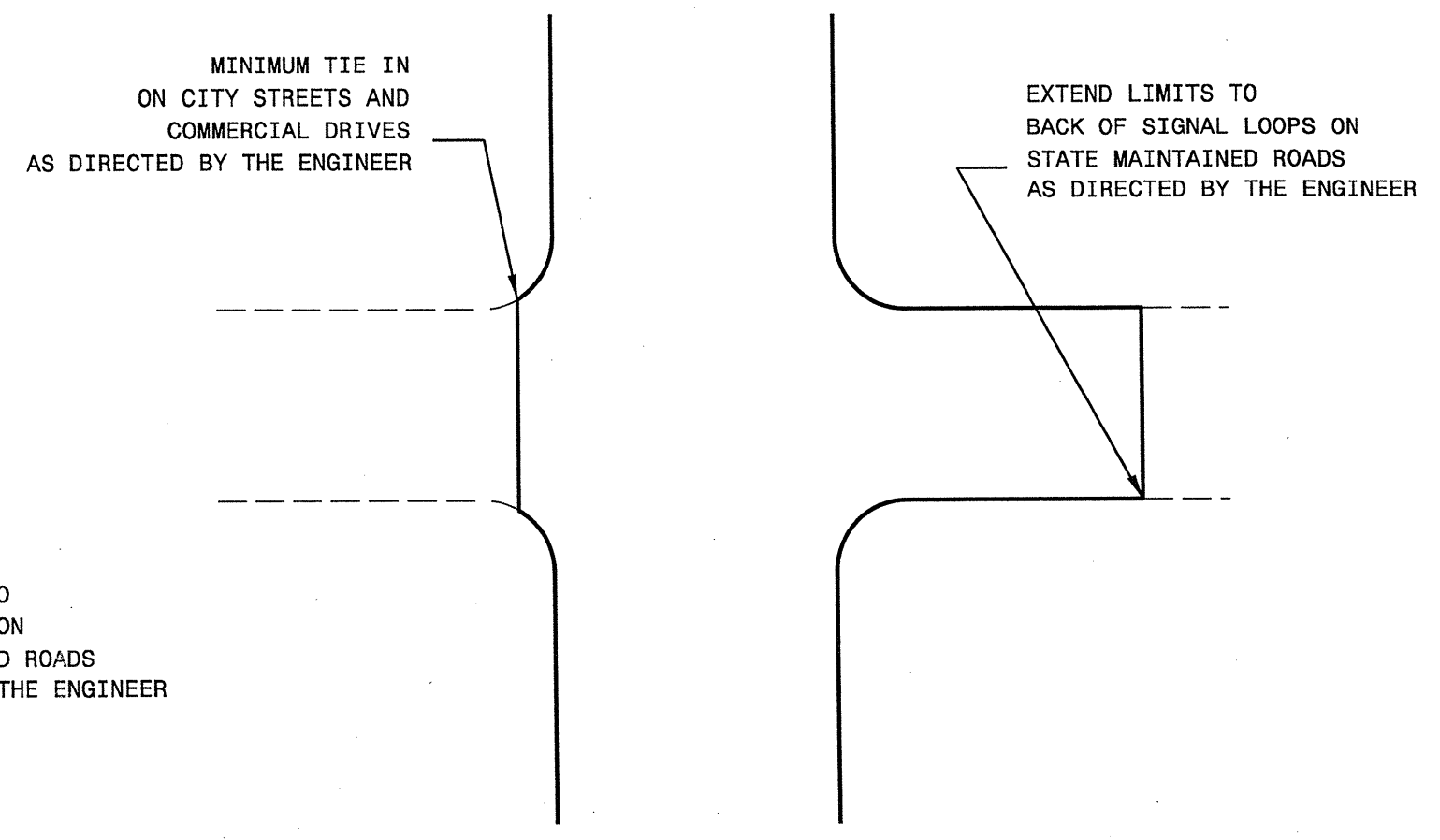
**TYPICAL SECTION NO. 4**



**TYPICAL SECTION NO. 5**



DETAIL OF PROJECT LIMITS AT  
UNSIGNALIZED Y LINES



DETAIL OF PROJECT LIMITS AT  
SIGNALIZED Y LINES



PROJECT NO.	SHEET NO.	TOTAL NO.
5CR.10321.22, 5CR.20321.22	9	

### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	AGGREGATE SHOULDER BORROW ALLOWED	LENGTH MI	WIDTH FT	BORROW CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1 1/2" MILLING SY	2.5" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTER-MEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TONS	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	INDUCTIVE LOOP LF	LEAD-IN CABLE (18-4) LF		
5CR.10321.22	Durham	1	NC 54	FROM 55 TO PAVEMENT JOINT JUST WEST OF DAVIS DR. (EXCLUDING BRIDGE PROJECT AT TRIANGLE EXPRESSWAY)	1	NO	NO	1.5	60				53,067						4,914	295	300	7	2				1,350	500		
<b>TOTAL FOR MAP NO. 1</b>								<b>1.5</b>					<b>53,067</b>						<b>4,914</b>	<b>295</b>	<b>300</b>	<b>7</b>	<b>2</b>				<b>1,350</b>	<b>500</b>		
<b>TOTAL FOR PROJ NO. 5CR.10321.22</b>								<b>1.5</b>					<b>53,067</b>							<b>4,914</b>	<b>295</b>	<b>300</b>	<b>7</b>	<b>2</b>				<b>1,350</b>	<b>500</b>	
5CR.20321.22	Durham	2	SR1103 - SCOTT KING RD.	FROM SR1118 - FAYETTEVILLE RD. TO SR1100 - GRANDALE RD.	2	NO	NO	1.95	20	390	200	3.90		22,880		220		3,734	2,297	317	100	2		283	710	2.83				
		3	SR1945 - SOUTH ALSTON AVE.	FROM NC54 TO SR2028 - TW ALEXANDER	3	NO	NO	1.4	20	224	112	2.24		16,427	1,324	755		3,507	2,159	298	100	4	1	324	810	3.24	408			
		4	SR1926 - ANGIER AVE.	FROM SR1959 - MIAMI BLVD. TO SR 1815 - PLEASANT DR	3	NO	NO	1.55	22	298	149	3.10		21,425	292	600		3,234	1,990	275	100	1		217	550	2.17				
		5	SR1107 - STAGECOACH	FROM NC751 TO SR1110 - FARRINGTON RD.	1,3,4	NO	NO	1.65	20	313	157	3.13	4,000	21,086	396	360	496	3,214	2,329	316	100	3		228	570	2.28	408			
		6	SR1902 - KEMP RD.	FROM NC98 TO SR1903 - VIRGIL RD.	4	NO	NO	1.25	24	250	125	2.50		14,667		333	966	2,656	1,635	268	100			181	460	1.81				
		7	SR1977 - SEDWICK RD.	FROM RAILROAD TO SR1945 - ALSTON AVE.	2	NO	NO	0.45	24	90	45	0.90		6,336		125		956	588	81	100	1		65	170	0.65				
		8	SR1815 - PLEASANT DR.	FROM SR1926 - ANGIER AVE. TO US70	5	NO	NO	0.57	20	105	53	1.05			211	316		694	42	285	7	1	76	190	0.76					
		9	SR1815 - PLEASANT DR.	FROM US70 TO SR1917 - MINERAL SPRINGS RD.	3	NO	NO	0.72	22	142	71	1.42		8,331	45	376		1,277	785	108	100	1	3	103	260	1.03				
		10	SR1911 - HOLDER RD.	FROM SR1917 - MINERAL SPRINGS RD. TO SR1811 - SHERRON RD.	3	NO	NO	1.46	20	285	143	2.85		17,365	164	670		2,716	1,670	231	100	2		207	520	2.07				
		11	SR1171 - RIDDLE RD.	FROM NC55 TO ELLIS RD.	2	NO	NO	1.07	20	214	107	2.14		12,555		468		2,100	1,292	178	100	10	3	155	390	1.55	408			
<b>TOTAL FOR PROJ NO. 5CR.20321.22</b>								<b>12.07</b>		<b>2,311</b>	<b>1,162</b>	<b>23.23</b>	<b>4,000</b>	<b>141,072</b>	<b>2,432</b>	<b>4,223</b>	<b>1,462</b>	<b>23,394</b>	<b>15,439</b>	<b>2,114</b>	<b>1,185</b>	<b>31</b>	<b>8</b>	<b>1,839</b>	<b>4,630</b>	<b>18.39</b>	<b>1,224</b>			
<b>GRAND TOTAL</b>								<b>13.57</b>		<b>2,311</b>	<b>1,162</b>	<b>23.23</b>	<b>57,067</b>	<b>141,072</b>	<b>2,432</b>	<b>4,223</b>	<b>1,462</b>	<b>23,394</b>	<b>20,353</b>	<b>2,409</b>	<b>1,485</b>	<b>38</b>	<b>10</b>	<b>1,839</b>	<b>4,630</b>	<b>18.39</b>	<b>2,574</b>	<b>500</b>		

PROJECT NO.	SHEET NO.	TOTAL NO.
5CR.10321.22, 5CR.20321.22	10	

## THERMOPLASTIC AND PAINT QUANTITIES

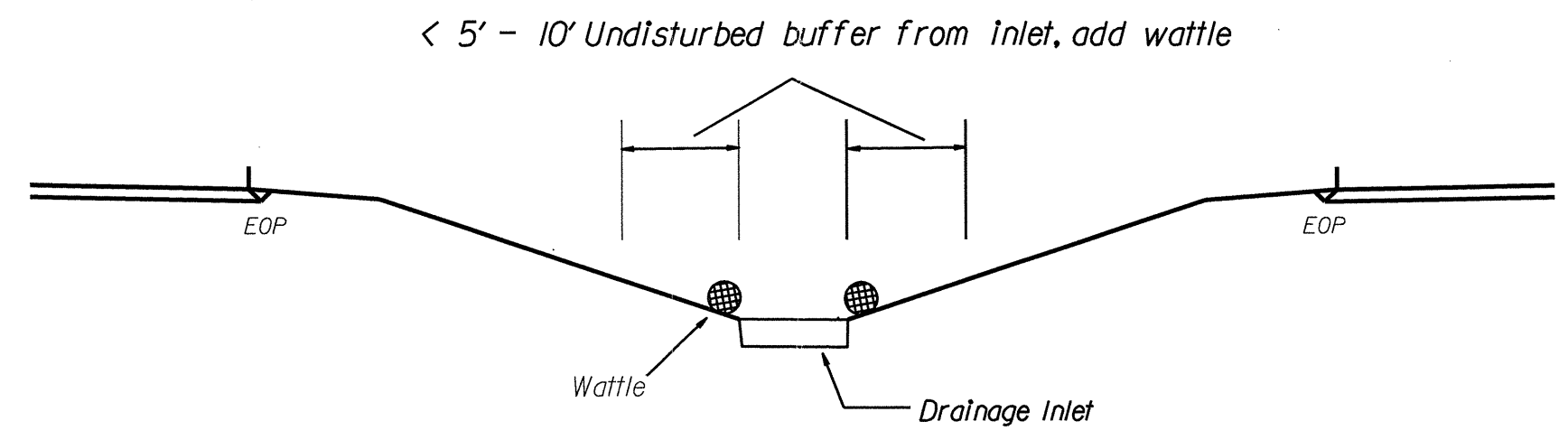
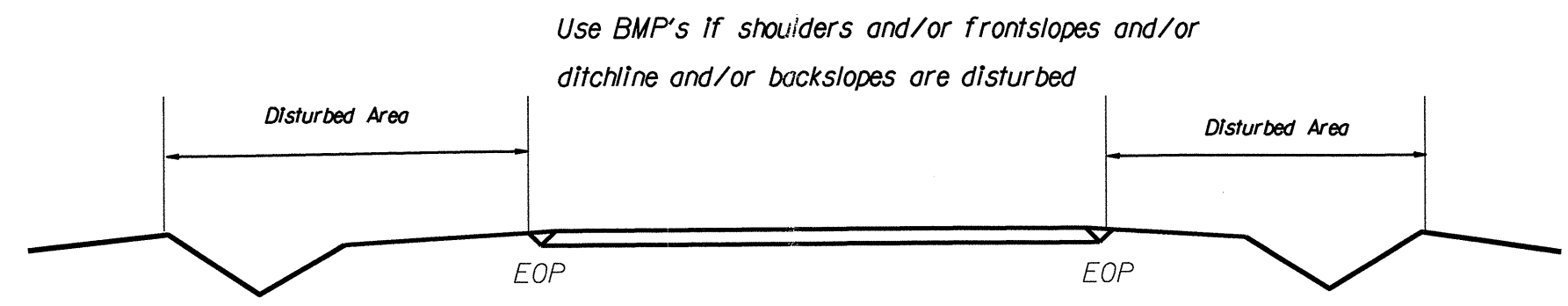
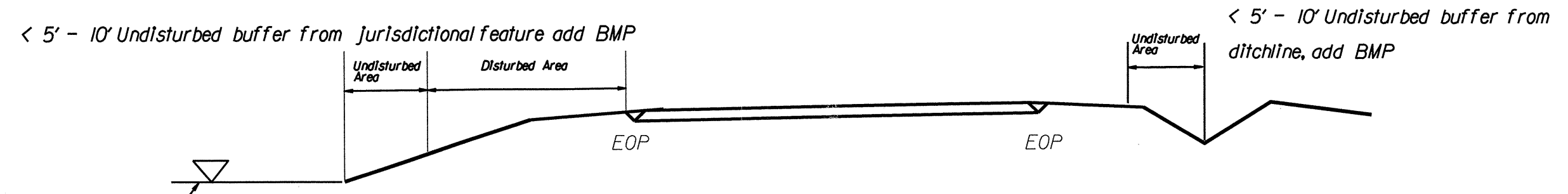
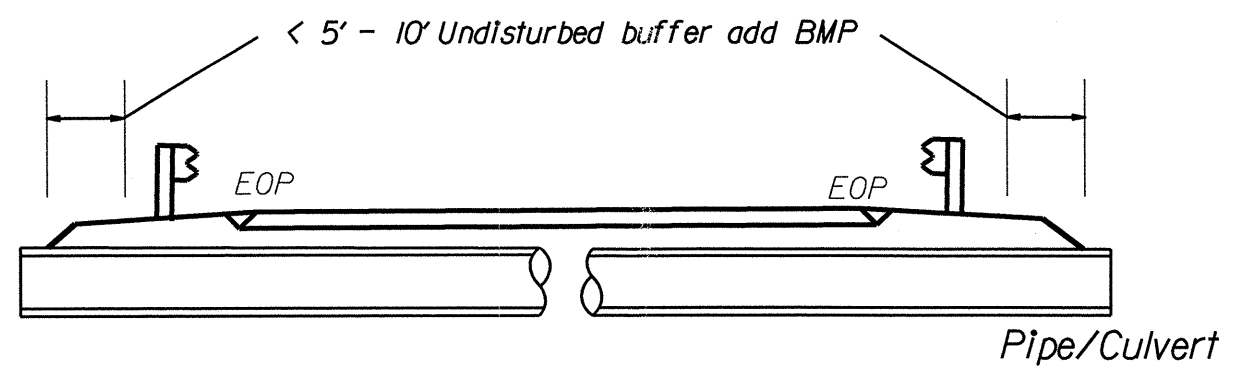
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4685000000-E	4686000000-E	4695000000-E	4697000000-E	4705000000-E	4710000000-E	4721000000-E			4725000000-E							
							4" X 90 M WHITE THERMO LF	4" X 120 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	8" X 90 M YELLOW THERMO LF	8" X 120 M WHITE THERMO LF	16" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG ONLY 120 M EA	THERMO RXR 120 M EA	THERMO MSG SCHOOL 120 M EA	THERMO RT ARROW 90 M EA	THERMO STR ARROW 90 M EA	THERMO LT ARROW 90 M EA	THERMO STR & RT ARROW 90 M EA			
5CR.10321.22	Durham	1	NC54	FROM 55 TO PAVEMENT JOINT JUST WEST OF DAVIS DR. (EXCLUDING BRIDGE PROJECT AT TRIANGLE EXPRESSWAY)	1.5	60	550	5,000	19,800							4	8		3	28	52	12	
TOTAL FOR MAP NO. 1					1.5		550	5,000	19,800							4	8		3	28	52	12	
TOTAL FOR PROJ NO. 5CR.10321.22					1.5		550	5,000	19,800							4	8		3	28	52	12	
							24,800						12			95							
5CR.20321.22	Durham	2	SR1103 - SCOTT KING RD.	FROM SR1118 - FAYETTEVILLE RD. TO SR1100 - GRANDALE RD.	1.95	20	20,592	250	20,337	110												3	
		3	SR1945 - SOUTH ALSTON AVE.	FROM NC54 TO SR2028 - TW ALEXANDER	1.4	20		1,215	17,444	500								12	2			17	3
		4	SR1926 - ANGIER AVE.	FROM SR1959 - MIAMI BLVD. TO SR 1815 - PLEASANT DR	1.55	22	15,712		17,618	150												2	1
		5	SR1107 - STAGECOACH RD.	FROM NC751 TO SR1110 - FARRINGTON RD.	1.65	20	16,534	280	18,742	110									2			3	
		6	SR1902 - KEMP RD.	FROM NC98 TO SR1903 - VIRGIL RD.	1.25	24	13,200		13,200														
		7	SR1977 - SEDWICK RD.	FROM RAILROAD TO SR1945 - ALSTON AVE.	0.45	24	4,752		4,752			50	35					2					
		8	SR1815 - PLEASANT DR.	FROM SR1926 - ANGIER AVE. TO US70	0.57	20	5,544	58	6,518	100												1	1
		9	SR1815 - PLEASANT DR.	FROM US70 TO SR1917 - MINERAL SPRINGS RD.	0.72	22	7,603		7,603														
		10	SR1911 - HOLDER RD.	FROM SR1917 - MINERAL SPRINGS RD. TO SR1811 - SHERRON RD.	1.46	20	15,043		16,217													1	
		11	SR1171 - RIDDLE RD.	FROM NC55 TO ELLIS RD.	1.07	20	11,299	114	11,899	40		100	145					4				1	2
TOTAL FOR PROJ NO. 5CR.20321.22					12.07		110,279	1,917	134,330	1,010		150	540					6	12		4	28	7
							136,247						18			39							
GRAND TOTAL					13.57		110,829	6,917	154,130	1,010	300	350	990	4	14	12	7	28	80	19			
							161,047						30			134							

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4810000000-E		4820000000-E		4830000000-E	4835000000-E	4840000000-N		4845000000-N				4900000000-N					
							4" WHITE PAINT LF	4" YELLOW PAINT LF	8" WHITE PAINT LF	8" YELLOW PAINT LF	16" WHITE PAINT LF	24" WHITE PAINT LF	PAINT MSG RXR EA	PAINT MSG ONLY EA	PAINT LT ARROW EA	PAINT STR ARROW EA	PAINT RT ARROW EA	PAINT STR & RT ARROW EA	CRYSTAL & RED MARKERS EA	YELLOW & YELLOW MARKERS EA				
5CR.10321.22	Durham	1	NC54	FROM 55 TO PAVEMENT JOINT JUST WEST OF DAVIS DR. (EXCLUDING BRIDGE PROJECT AT TRIANGLE EXPRESSWAY)	1.5	60	5,550	19,800	300													275	198	
TOTAL FOR MAP NO. 1					1.5		5,550	19,800	300														275	198
TOTAL FOR PROJ NO. 5CR.10321.22					1.5		5,550	19,800	300														275	198
							25,350		300				12		95				473					
5CR.20321.22	Durham	2	SR1103 - SCOTT KING RD.	FROM SR1118 - FAYETTEVILLE RD. TO SR1100 - GRANDALE RD.	1.95	20	20,842	20,337		110												10	194	
		3	SR1945 - SOUTH ALSTON AVE.	FROM NC54 TO SR2028 - TW ALEXANDER	1.4	20																52	165	
		4	SR1926 - ANGIER AVE.	FROM SR1959 - MIAMI BLVD. TO SR 1815 - PLEASANT DR	1.55	22		17,618		150												8	125	
		5	SR1107 - STAGECOACH RD.	FROM NC751 TO SR1110 - FARRINGTON RD.	1.65	20	16,814	18,742		110												13	135	
		6	SR1902 - KEMP RD.	FROM NC98 TO SR1903 - VIRGIL RD.	1.25	24	13,200	13,200															80	
		7	SR1977 - SEDWICK RD.	FROM RAILROAD TO SR1945 - ALSTON AVE.	0.45	24	4,752	4,752				50	35										60	
		8	SR1815 - PLEASANT DR.	FROM SR1926 - ANGIER AVE. TO US70	0.57	20	5,602	6,518		100			43									3	53	
		9	SR1815 - PLEASANT DR.	FROM US70 TO SR1917 - MINERAL SPRINGS RD.	0.72	22	7,603	7,603					20										48	
		10	SR1911 - HOLDER RD.	FROM SR1917 - MINERAL SPRINGS RD. TO SR1811 - SHERRON RD.	1.46	20	15,169	16,217														2	126	
		11	SR1171 - RIDDLE RD.	FROM NC55 TO ELLIS RD.	1.07	20	11,413	11,899		40	100	145										5	80	
TOTAL FOR PROJ NO. 5CR.20321.22					12.07		95,395	116,886		510	150	370	6									93	1,066	
							212,281		510				6		17				1,159					
GRAND TOTAL					13.57		100,945	136,686	300	510	350	820	14	4	63	28	5	16	368	1,264				
							237,631		810				18		112				1,632					

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

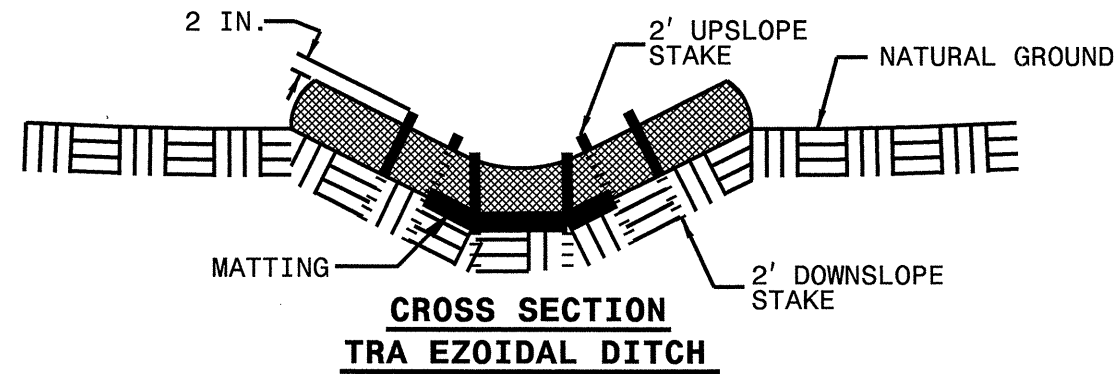
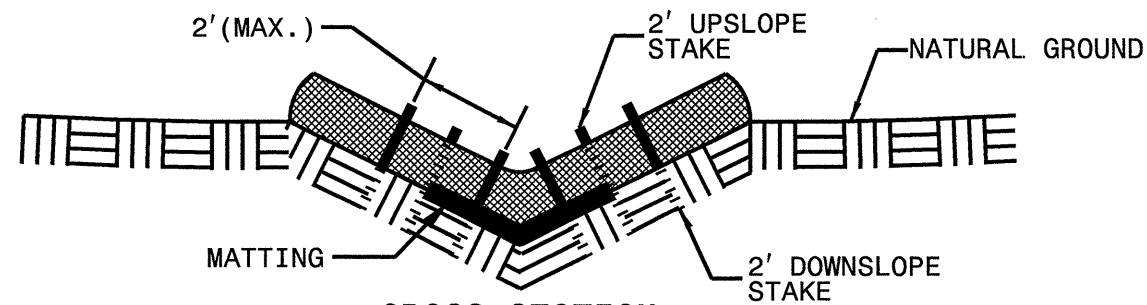
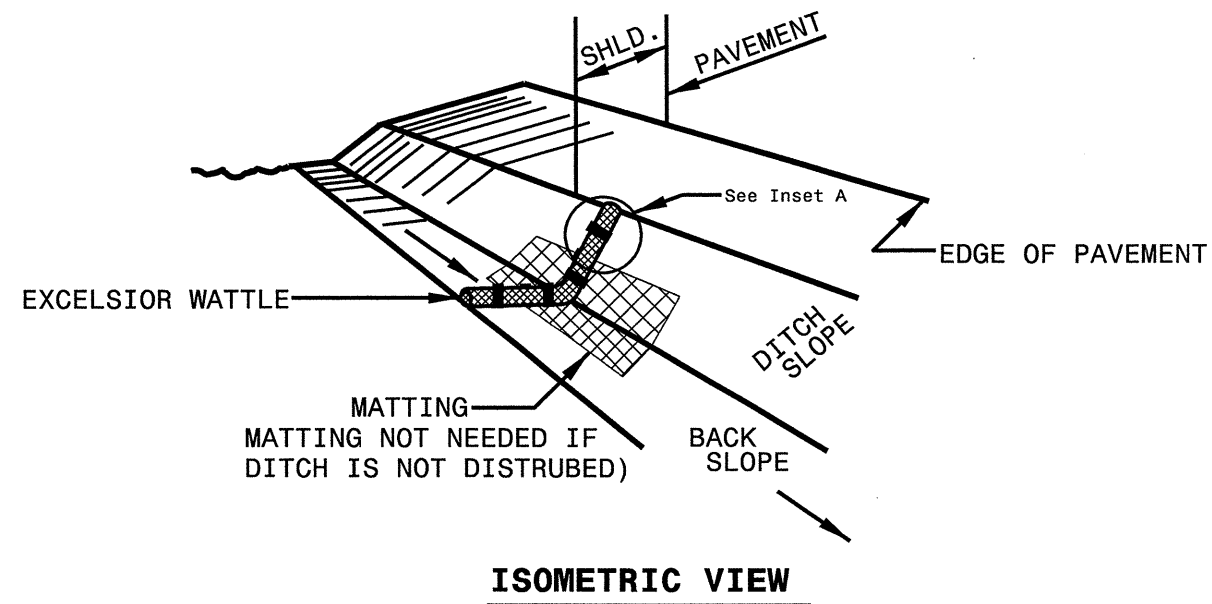
BMP Options: Wattle, Silt Fence, or Hardened Aggregate

# EROSION CONTROL DETAIL



NOT TO SCALE

# WATTLE DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

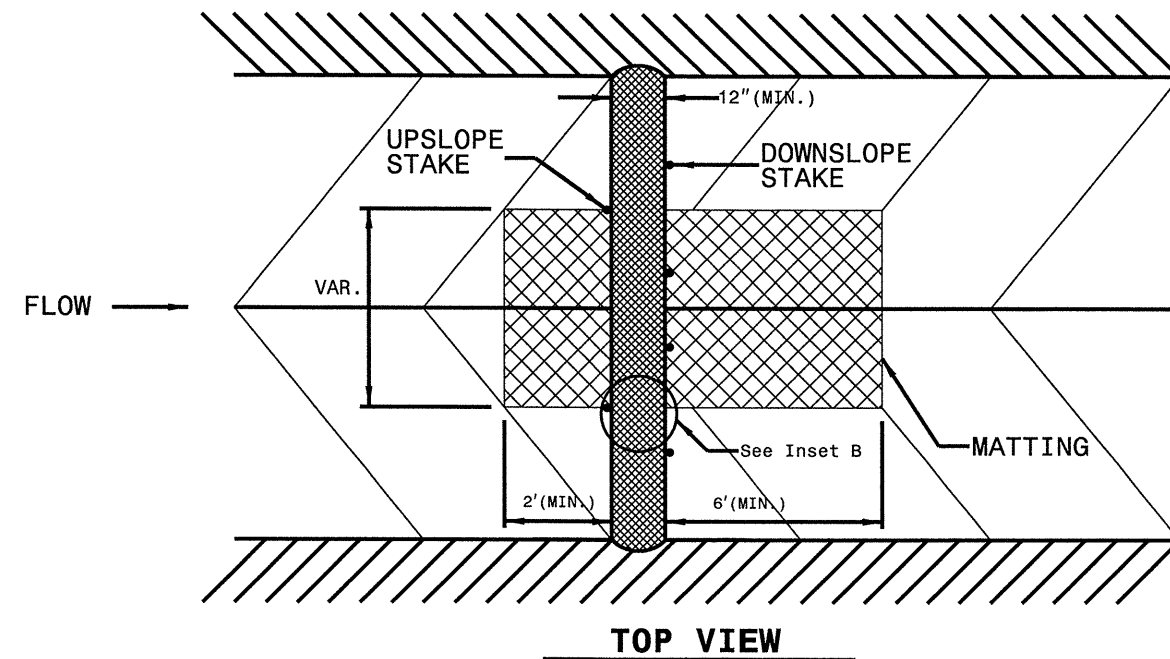
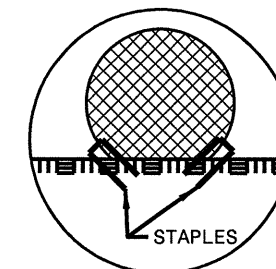
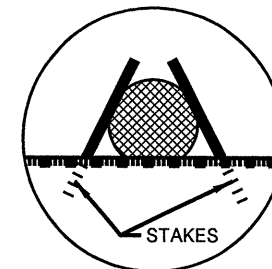
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.

IF DITCH WILL BE DISTURBED, INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.





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

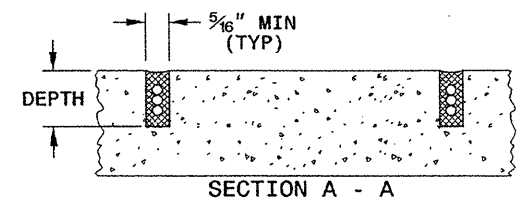
11-08

INDUCTIVE DETECTION LOOPS  
ENGLISH DETAIL DRAWING FOR

SHEET 1 OF 3  
1725D01

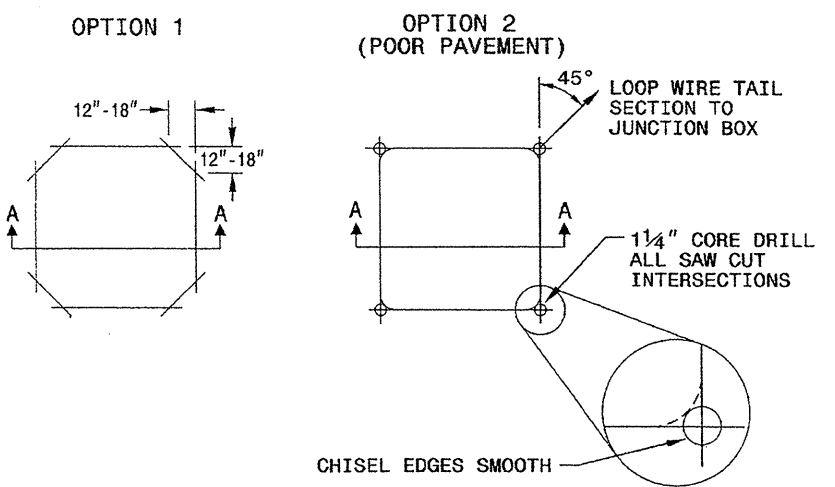
**SAW SLOT DEPTH CHART**

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

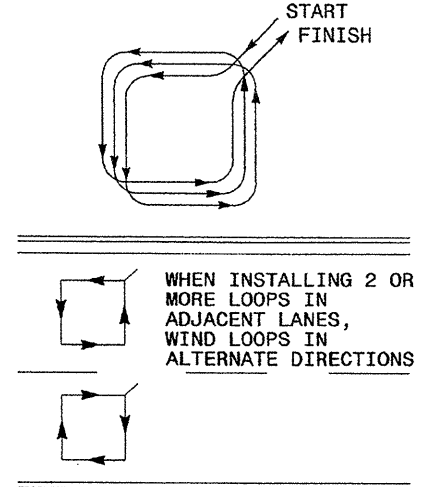


**CONVENTIONAL 4-SIDED LOOP**

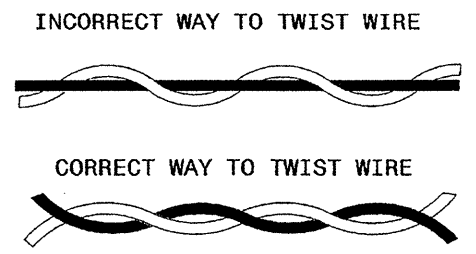
**SAW CUT OPTIONS**



**LOOP WINDING METHOD**



**LOOP WIRE TWISTING METHOD**

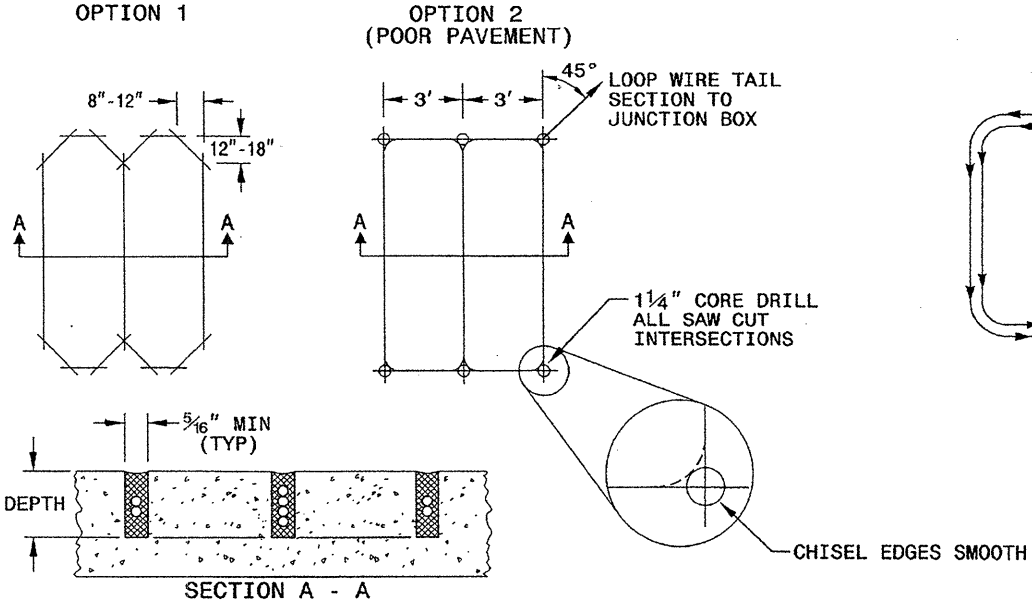


**NOTES**

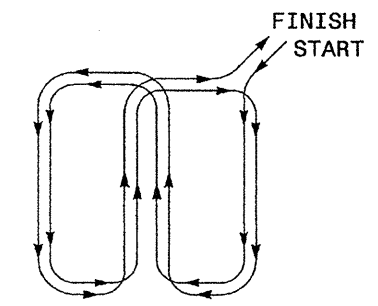
1. OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
2. MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
3. WIRE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL IN SERIES.
4. LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS OR APPROVED BY ENGINEER.

**QUADRUPOLE LOOP**

**SAW CUT OPTIONS**



**LOOP WINDING METHOD**



DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

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

11-08

INDUCTIVE DETECTION LOOPS  
ENGLISH DETAIL DRAWING FOR

SHEET 1 OF 3  
1725D01

See Plate for Title

Prepared in the Office of:

Intelligent Transportation Systems & Signals Unit  
750 N. Greenfield Parkway  
Garner, NC 27529

SEAL

MILTON I. DEAN  
ENGINEER  
16286  
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL

SIGNATURE: *Milton I. Dean* DATE: 4/24/08

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

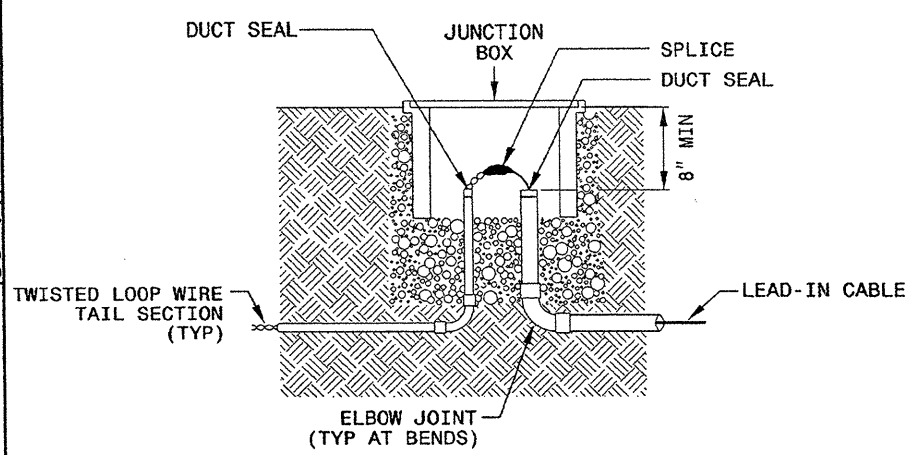
11-08

ENGLISH DETAIL DRAWING FOR  
**INDUCTIVE DETECTION LOOPS**  
LOOP WIRE DETAILS

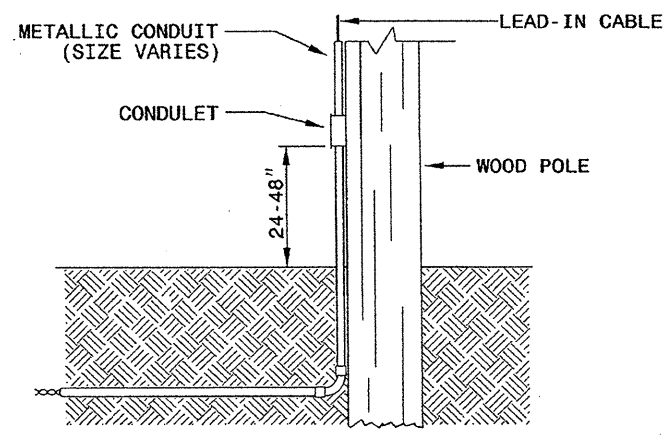
SHEET 2 OF 3  
**1725D01**

**LOOP WIRE SPLICE POINT DETAILS**

**LOOP WIRE AT JUNCTION BOX**



**LOOP WIRE AT POLE**

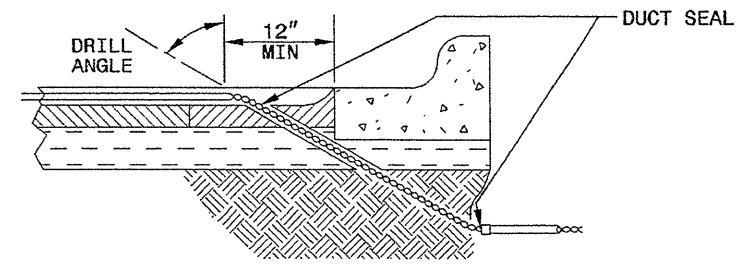


**NOTE**

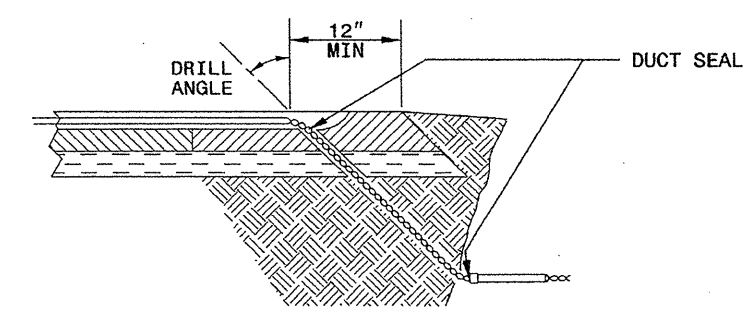
SPLICE ALL LOOP WIRE TAIL SECTIONS/LEAD-IN CABLE IN JUNCTION BOXES OR APPROVED CONDULETS.

**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**

See Plate for Title

Prepared in the Offices of:

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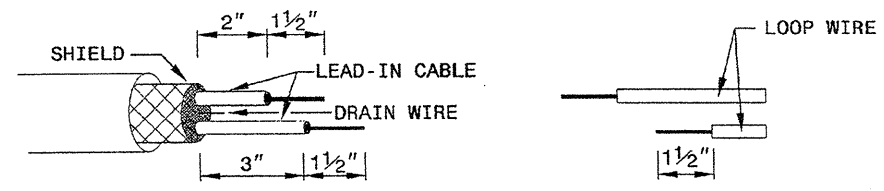
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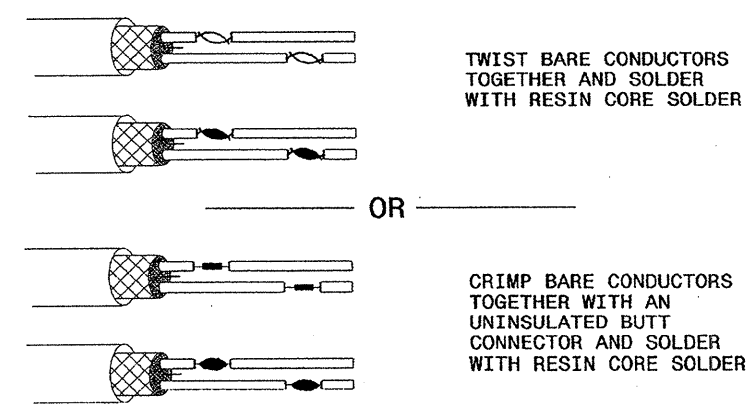
ENGLISH DETAIL DRAWING FOR  
**INDUCTIVE DETECTION LOOPS**  
 SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3  
**1725D01**

**STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE**

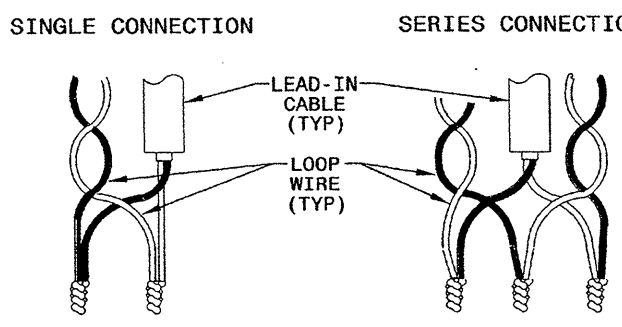


**STEP 2. CONNECT AND SOLDER**

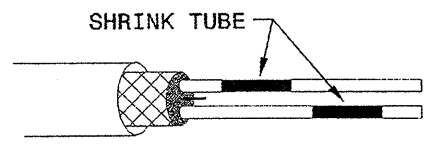


BOND SHIELD DRAIN WIRE AT SPLICE SECTIONS (DO NOT GROUND)

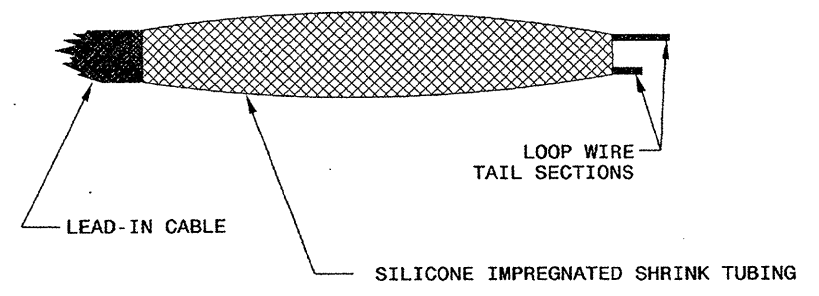
**LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS**



**STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY**



**STEP 4. ENVIRONMENTALLY PROTECT SPLICE**



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 SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3  
**1725D01**

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