

C 201710
Richmond

PROJECT NO.	SHEET NO.	TOTAL NO.
8CR.10771.6, 8CR.20771.6	1	10

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1½" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	SURFACE COURSE, SF9.5A TON	PG 64-22 PLANT MIX TONS	PG 70-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	2'-6" CURB & GUTTER LF	WHEELCHAIR RAMP-RETROFIT EA	WHEELCHAIR RAMPS EA	ADJUST CATCH BASIN EA	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA	SEED & MULCHING AC						
8CR.10771.6	Richmond	1	US 74 BUS	EB - FROM US 74 BYPASS TO END DIVIDED HWY	10.11	3.6	32-50	160	6.84		200		6,500			390	60								5.40						
				WB FROM CURB AND GUTTER TO WCL HAMLET	10.12	1.08	28-50	130	2.16		200		1,960				118	25										2.00			
				EB FROM WCL HAMLET END OF CURB AND GUTTER	10.12	1.08	27-39	130	2.16		200		1,775				107	25											2.00		
				FROM END OF CURB AND GUTTER TO NC 177	14	0.32	53					9950	100				880		53	15						7		5			
				WB FROM ECL ROCKINGHAM WEST FOR 0.80 MI	10.12	0.8	29	50	1.6					200			1,540			92	15								1.20		
				EB FROM ECL ROCKINGHAM WEST FOR 0.80 MI	10.12,13	0.8	27	50	1.4					200			1,680			101	15						1	1	1.20		
TOTAL FOR PROJ NO. 8CR.10771.6						7.68		520	14.16	9,950	1,100		14,335			861	155					8	6	6	11.80						
8CR.20771.6	Richmond	7	SR 1704	FROM NC 177 TO PAVEMENT JOINT	1.2	0.22	25	10	0.14		100		350			21		25	50	1			1	2		0.10					
				FROM SR 1423 TO SR1423	3	0.76	11	35	1.52		100				350		23		15										1.10		
				FROM SR 1650 TO PVT. JT.	1.4,9	1.12	31	50	1.4		1,000				1,805		108		25	100	2		9	8	10	2		0.80			
				FROM SR 1114 TO SR 1108	1.4,6	0.92	22	30	1.24		3900	100			1,230		74		15	150			1	1		4		0.90			
				FROM US 220 TO END MAINT.	8	0.26	26					100					19		10	300			9								
				FROM US 74 BUS. TO SR 1125	5	0.34	16	20	0.68			100					230		15											0.50	
				US 74 BUS. TO END OF PVT.	5	0.11	16	10	0.22			100					100		7											0.20	
				FROM SR 1128 TO SR 1129	5	0.08	16	10	0.16			100					60		4												0.10
				FROM SR 1128 TO END OF PVT.	5	0.05	16	5	0.1			100					40		3												0.10
				FROM SR 1424 TO SR 1441	1	1.84	22	95	3.68			100				2,080			125		25									2.70	
				FROM NC 73 TO MONT. CO. LINE	7	3.6	22	180	7.2			100		2,200	4,100				341											5.20	
TOTAL FOR PROJ NO. 8CR.20771.6						9.3		445	16.34	3900	2,000	2,200	9,565		1,080	740		155	600	3	18	17	15	8	11.70						
GRAND TOTAL						16.98		965	30.5	13850	3,100	2,200	9,565	14,335	1,080	740	861	310	600	3	18	17	23	14	23.50						

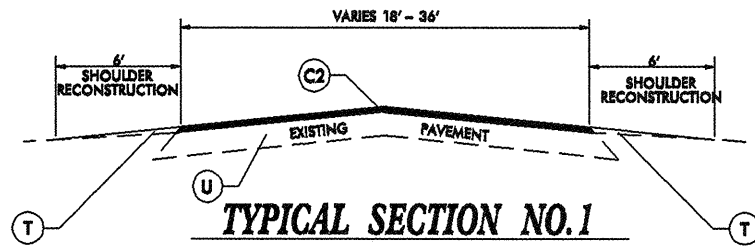
PROJECT NO.	SHEET NO.	TOTAL NO.
8CR.10771.6, 8CR.20771.6	2	10

THERMOPLASTIC AND PAINT QUANTITIES

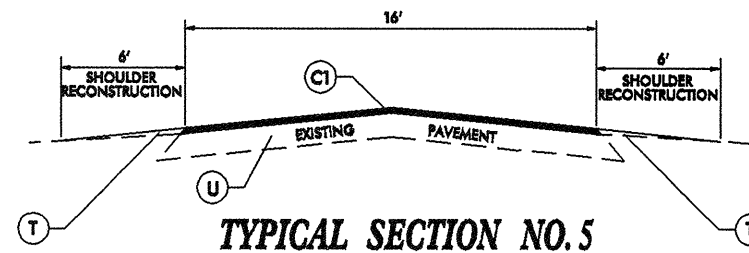
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E		4686000000-E			4695000000-E	4710000000-E	4721000000-E		4725000000-E			4810000000-E		4900000000-N	4900000000-N	
					4" X 90 M WHITE THERMO LF	4" X 90 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	8" X 120 M WHITE THERMO LF	8" X 90 M YELLOW THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG ONLY 120 M EA	THERMO MSG SCHOOL 120 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	THERMO STR ARROW 90 M EA	THERMO STR & RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	CYAN & RED MARKERS EA	YELLOW & YELLOW MARKERS EA
8CR.10771.6	Richmond	1	US 74 BUS	EB - FROM US 74 BYPASS TO END DIVIDED HWY	19,800	19,100	9,325							19	4				405		
		2	US 74 BUS	WB FROM CURB AND GUTTER TO WCL HAMLET	5,710	5,710	3,500			200	45								260		
		3	US 74 BUS	EB FROM WCL HAMLET END OF CURB AND GUTTER	5,950	5,950	3,345				85								260		
		4	US 74 BUS	FROM END OF CURB AND GUTTER TO NC 177			1,250	4,180						26	12	6			260		
		5	US 74 BUS	WB FROM ECL ROCKINGHAM WEST FOR 0.80 MI	4,435	4,250	3,775				135			11	2	8			250		
		6	US 74 BUS	EB FROM ECL ROCKINGHAM WEST FOR 0.80 MI	4,400	4,250	5,125				90			14	15	4			310		
TOTAL FOR PROJ NO. 8CR.10771.6					40,295	39,260	26,320	4,180		200	355	8		70	33	18			1,745		
					79,555		30,500					8		121							
8CR.20771.6	Richmond	7	SR 1704	FROM NC 177 TO PAVEMENT JOINT							50							1,500	4,700		
		8	SR 1554	FROM SR 1423 TO SR1423																	
		9	SR 1648	FROM SR 1650 TO PVT. JT.										5				3	16,000	17,750	
		10	SR 1109	FROM SR 1114 TO SR 1108															13,500	15,000	
		11	SR 1312	FROM US 220 TO END MAINT.					52		100									5,500	
		12	SR 1128	FROM US 74 BUS. TO SR 1125																	
		13	SR 1129	US 74 BUS. TO END OF PVT.																	
		14	SR 1207	FROM SR 1128 TO SR 1129																	
		15	SR 1192	FROM SR 1128 TO END OF PVT.																	
		16	SR 1434	FROM SR 1424 TO SR 1441															39,000	29,250	
		17	SR 1005	FROM NC 73 TO MONT. CO. LINE	38,800			29,100													
TOTAL FOR PROJ NO. 8CR.20771.6					38,800			29,100	52		150	18		5			3	70,000	72,200		320
					38,800		29,152					18		8				142,200			
GRAND TOTAL					79,095	39,260	26,320	33,280	52	200	505	8	18	75	33	18	3	70,000	72,200	1,745	320
					118,355		59,600					26		129				142,200			

2065

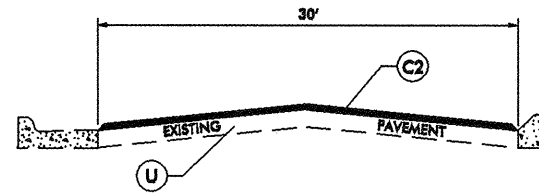
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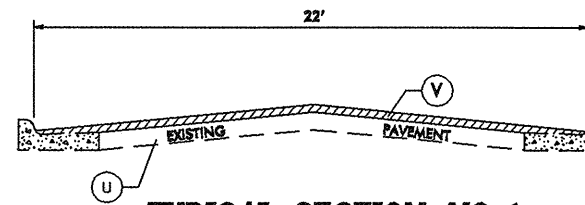
TYPICAL SECTION NO.1



TYPICAL SECTION NO.5

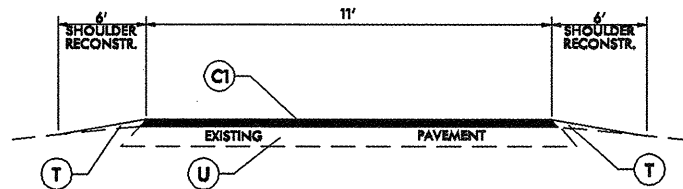


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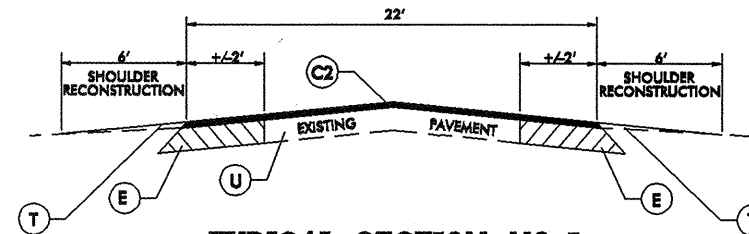


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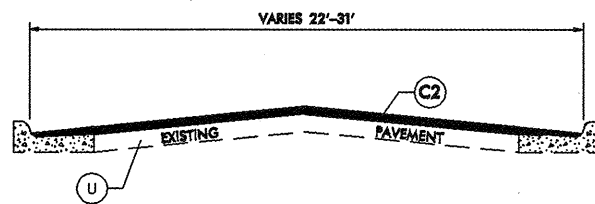
* AFTER MILLING, CONTRACTOR SHALL REFER TO TYP. #4 FOR SURFACE TREATMENT



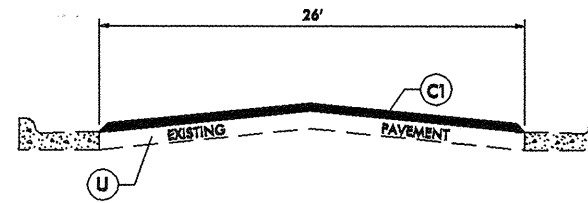
TYPICAL SECTION NO.3



TYPICAL SECTION NO.7

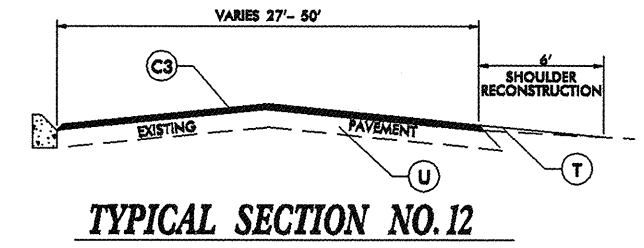
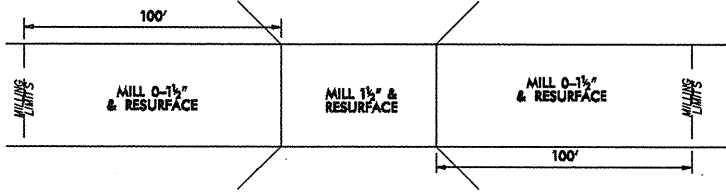
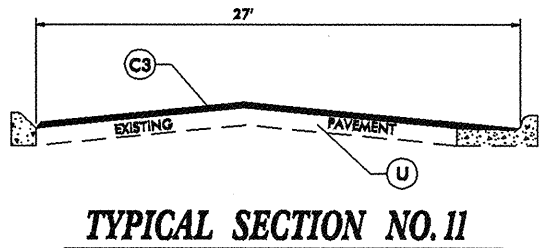
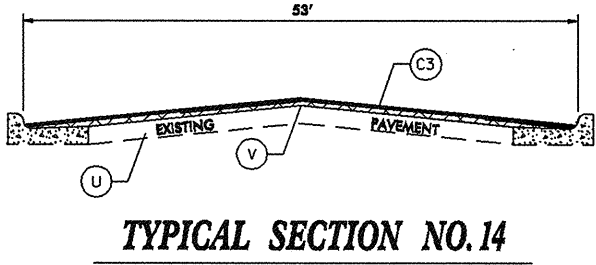
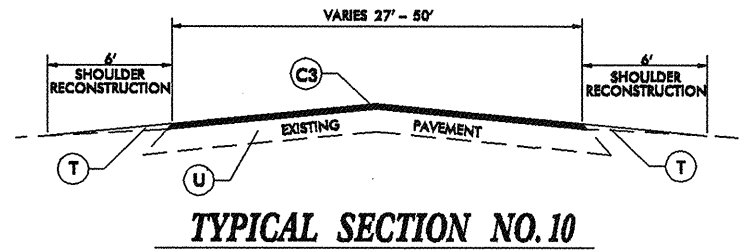
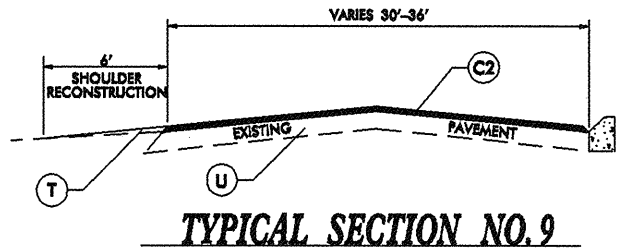


TYPICAL SECTION NO.4



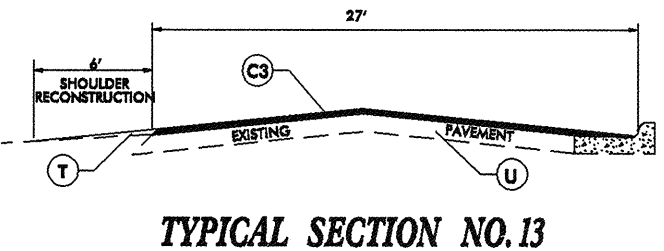
TYPICAL SECTION NO.8

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A AT AN AVERAGE RATE OF 137.5 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. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING EXISTING PAVEMENT 1½" IN DEPTH

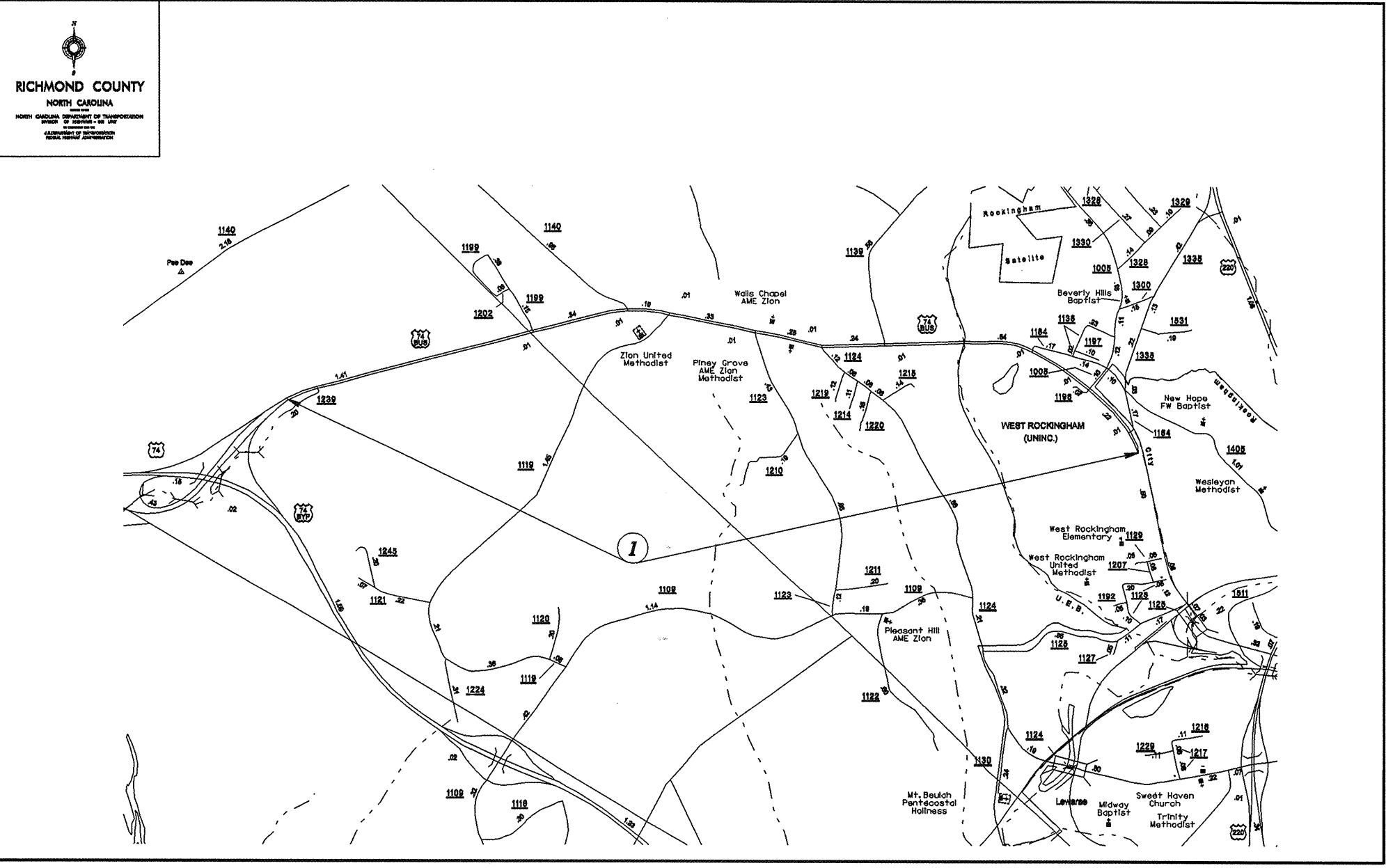


BRIDGE DRAWING FOR SR 1648
 Use for Map No. 9

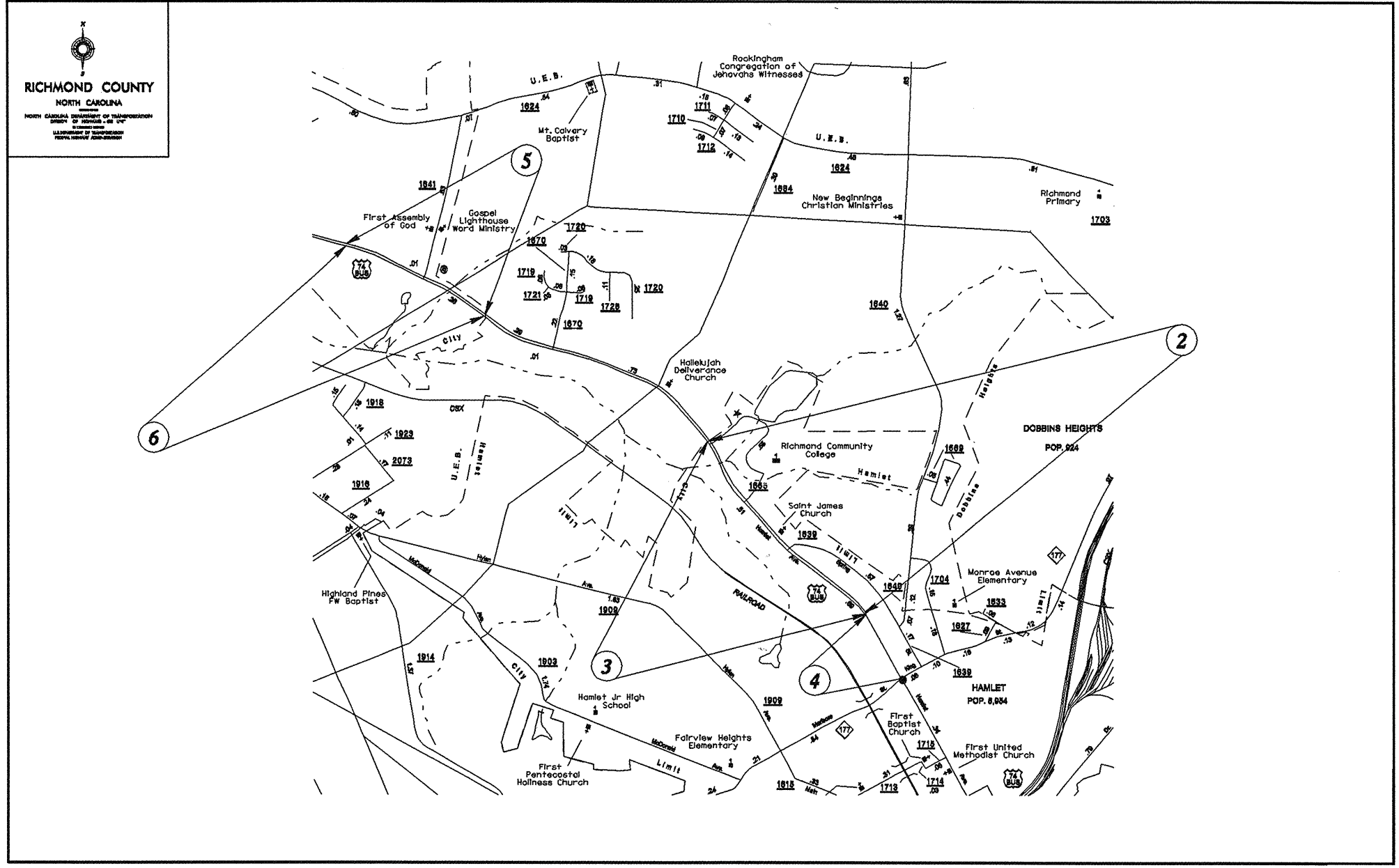
* MILLING SHALL BE PAID FOR UNDER INCIDENTAL MILLING

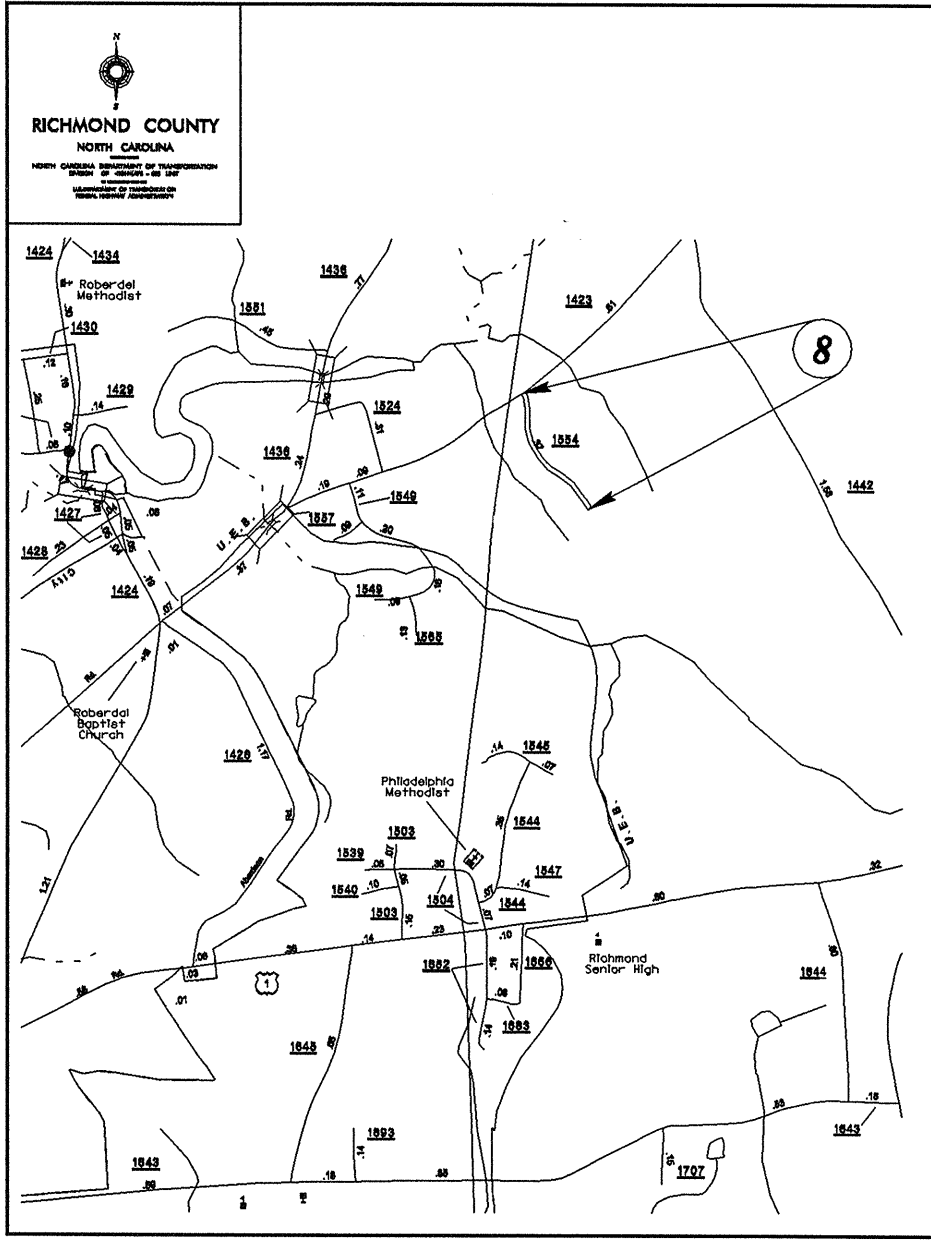
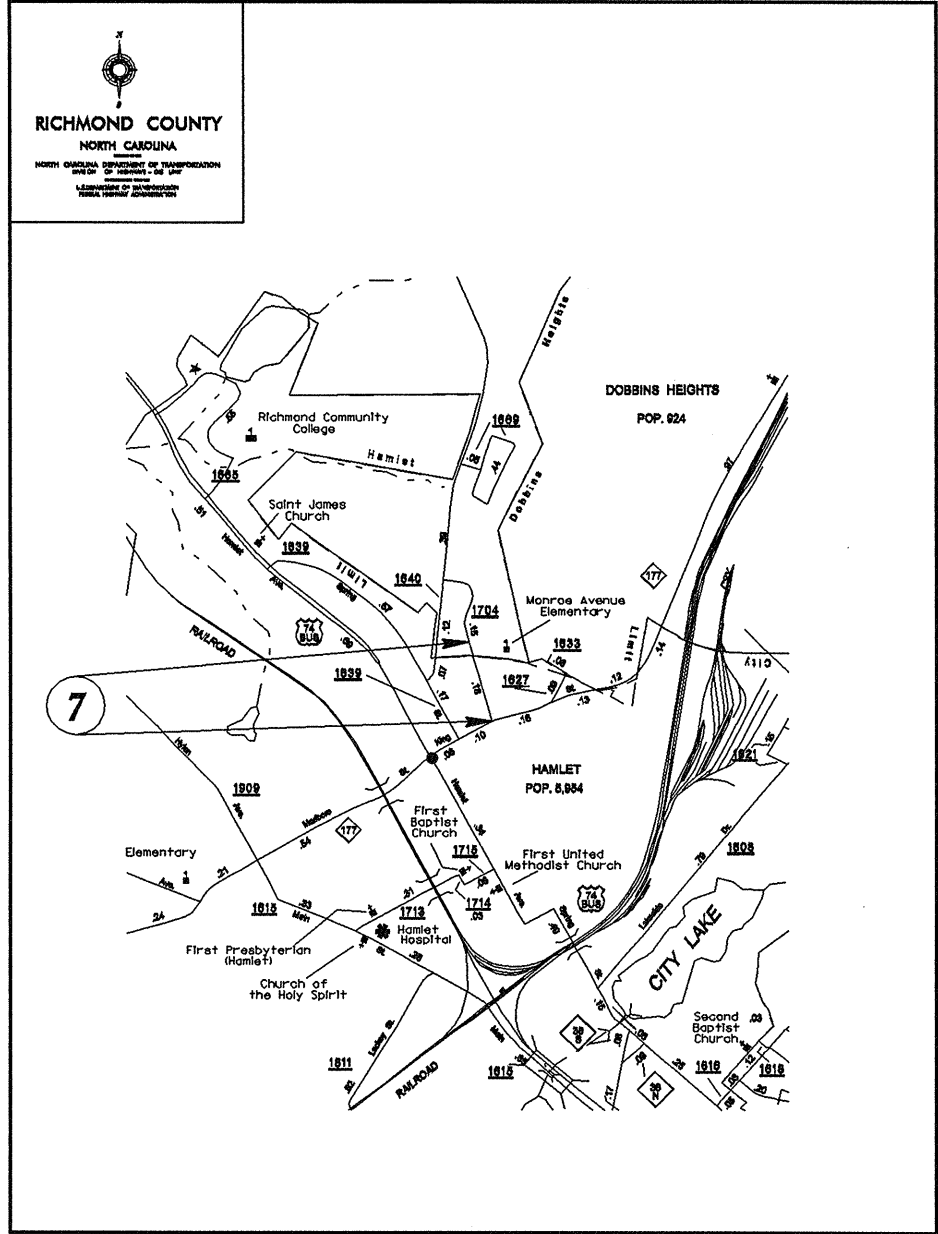


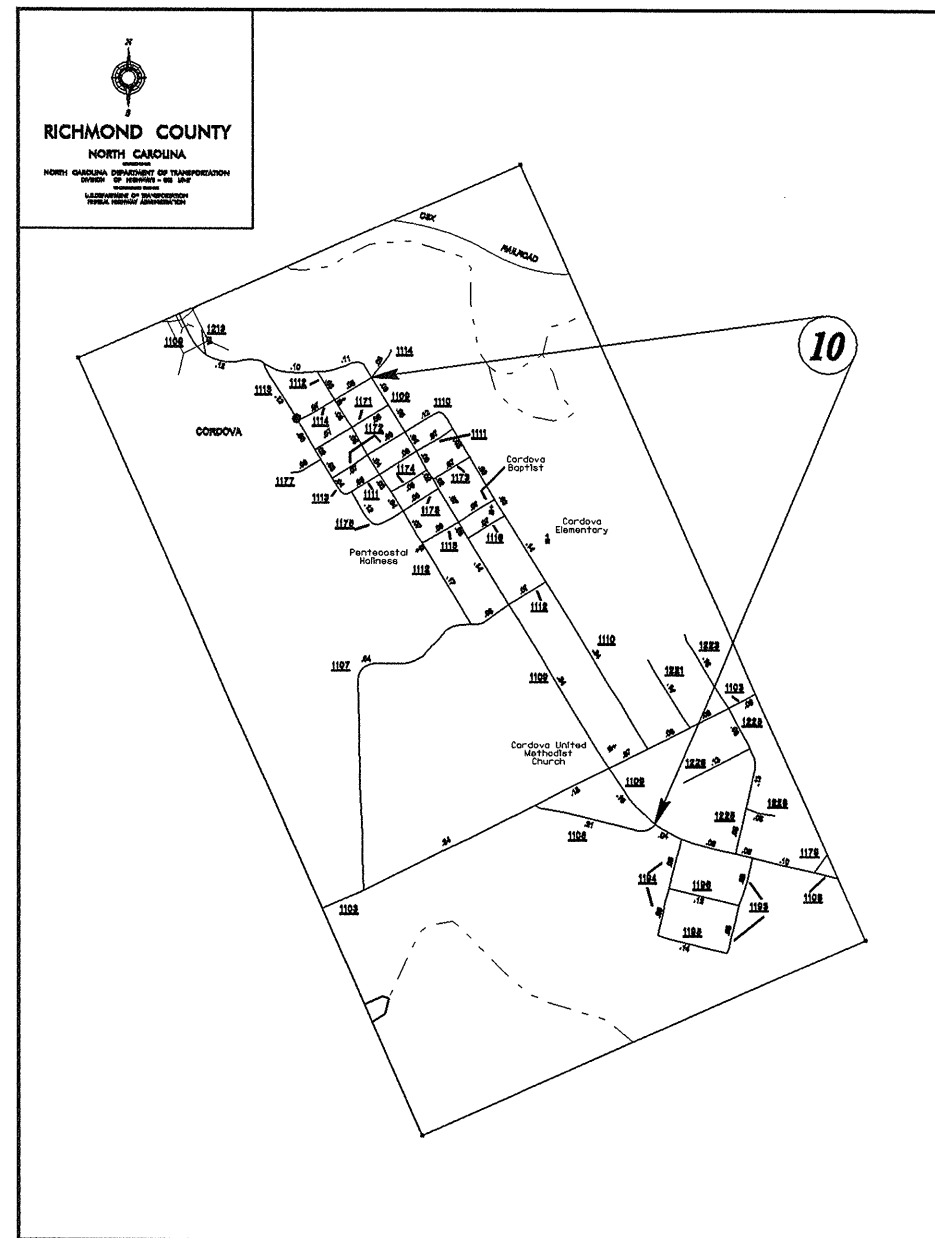
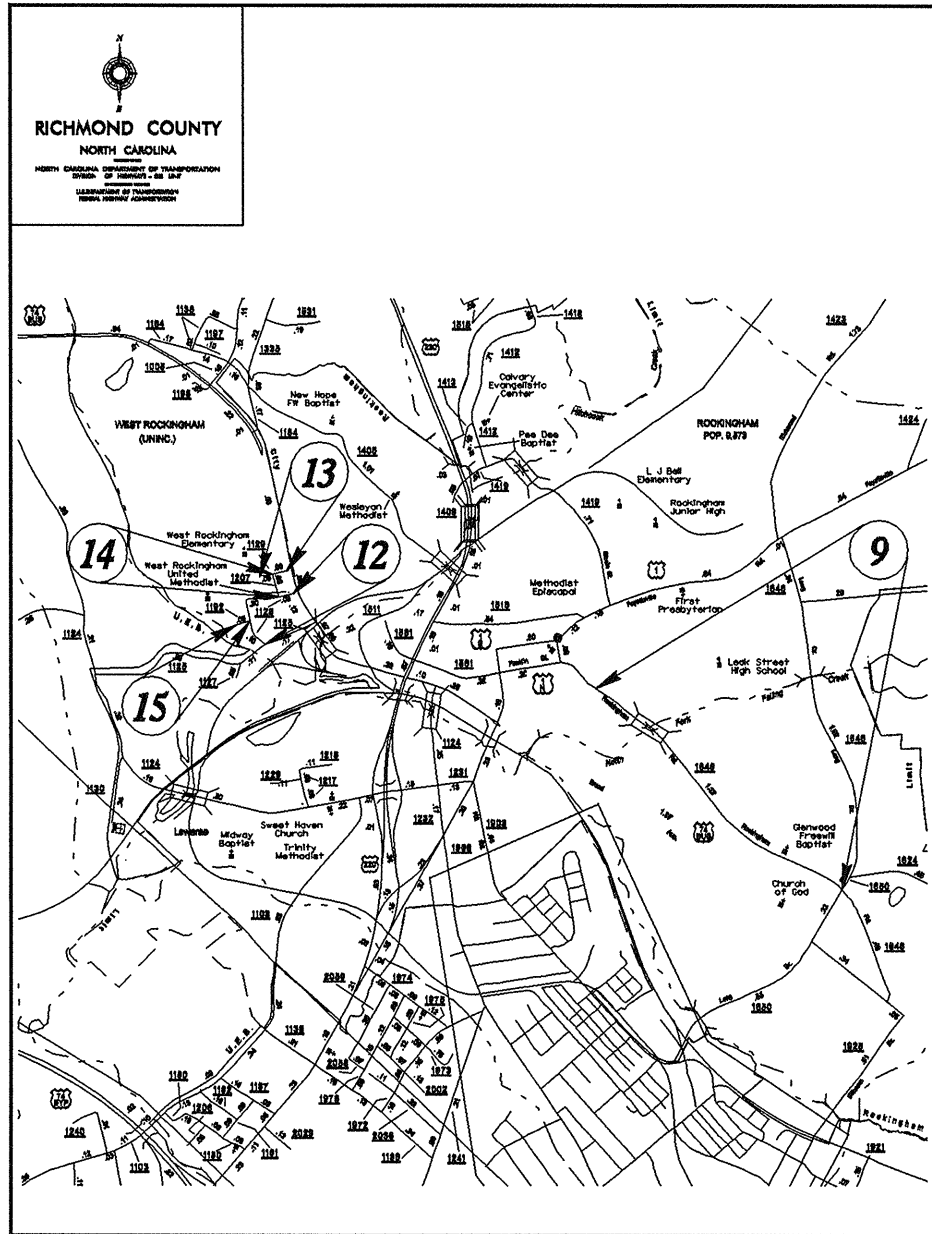
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SP9.5A AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SP9.5B AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SP9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING EXISTING PAVEMENT 1 1/2" IN DEPTH



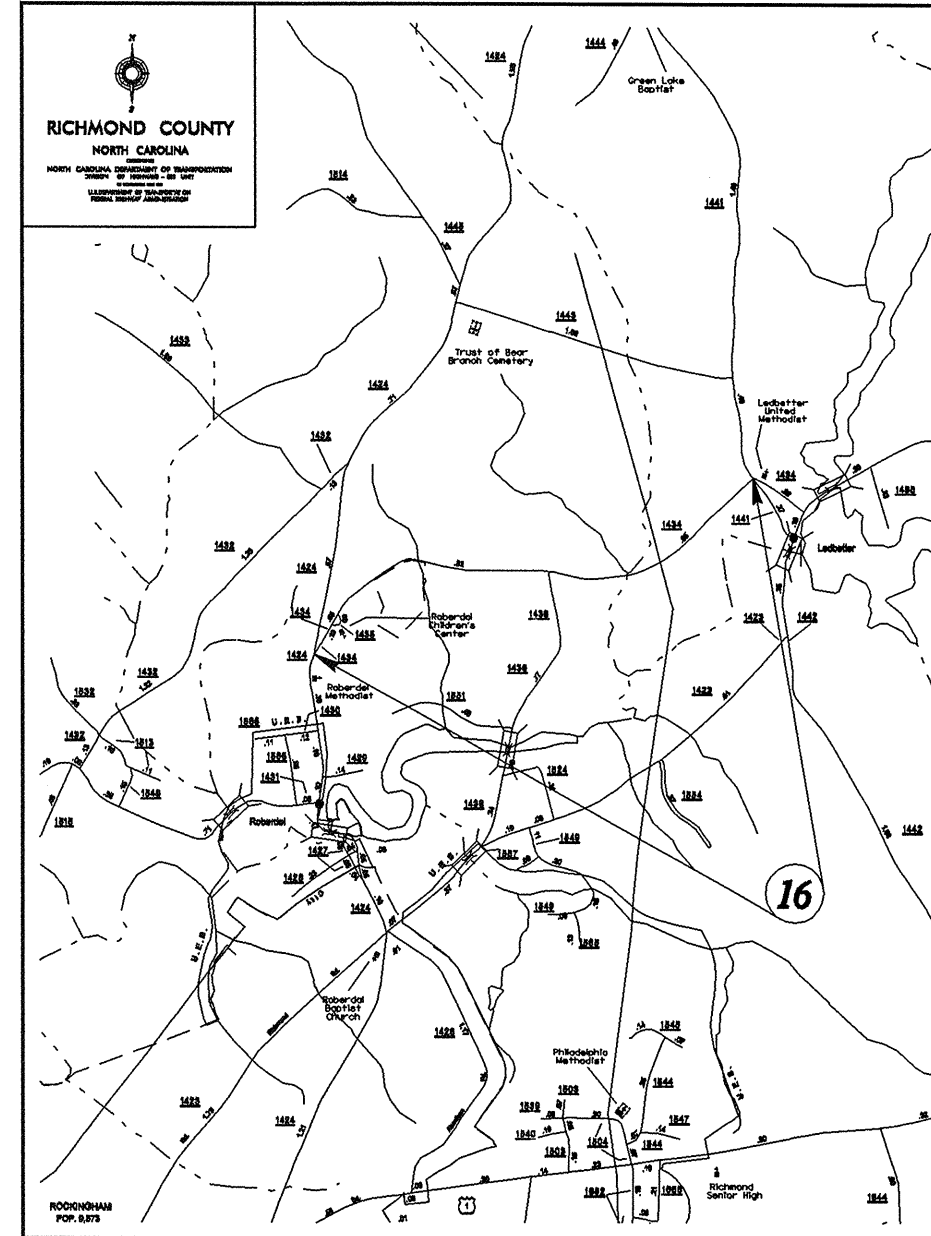
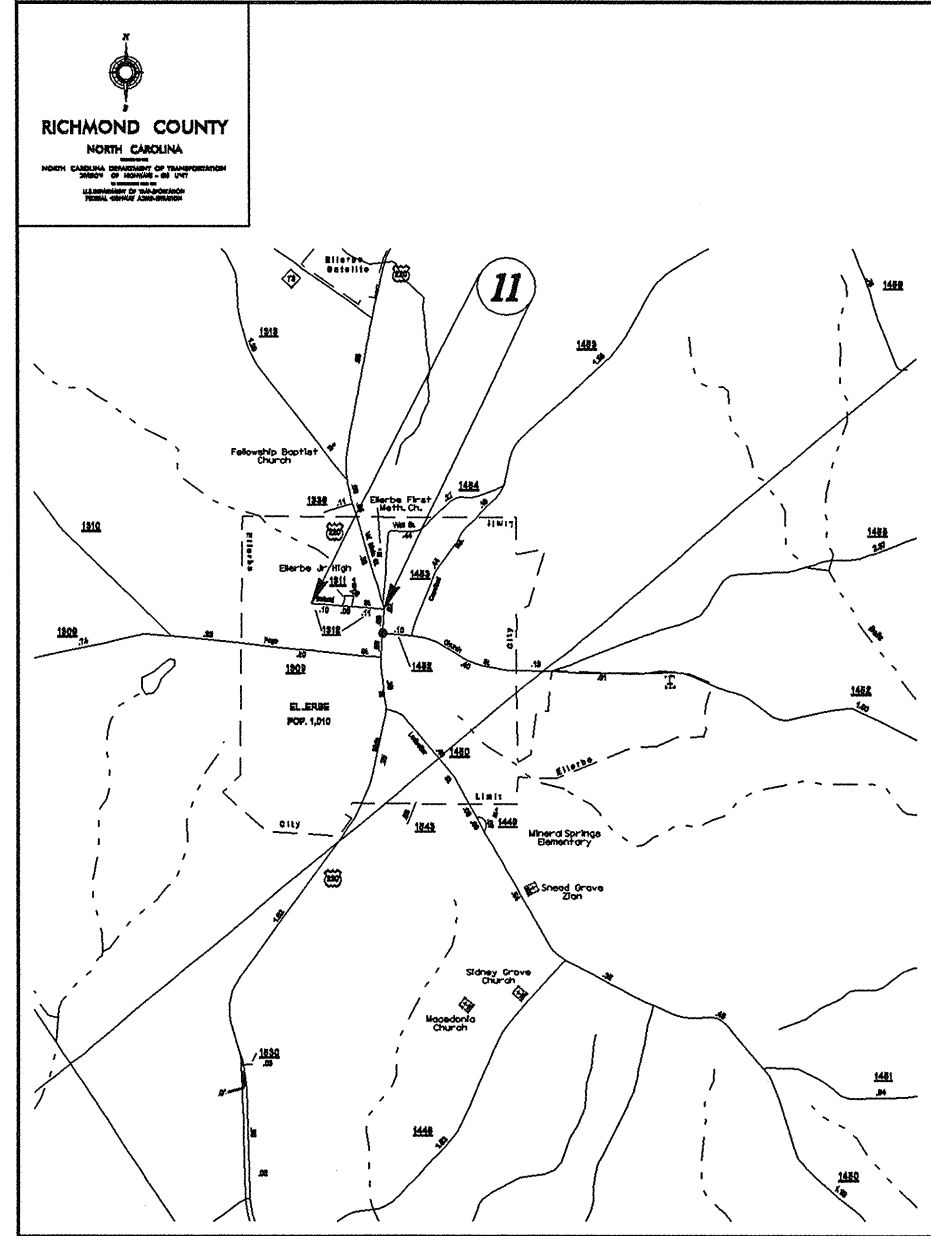
WBS ELEMENT	SHEET NO.
8CR.10771.6, 8CR.20771.6	6

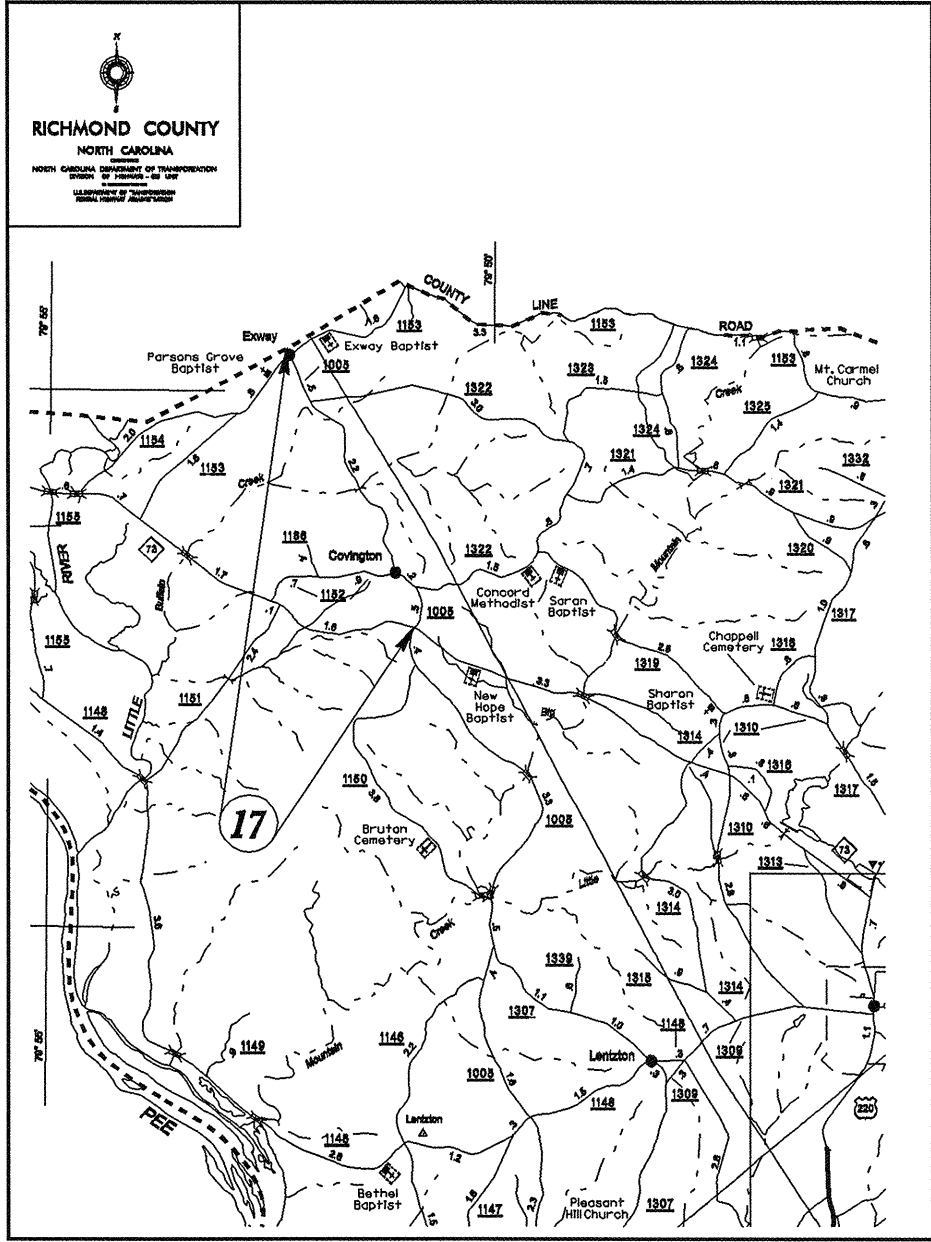




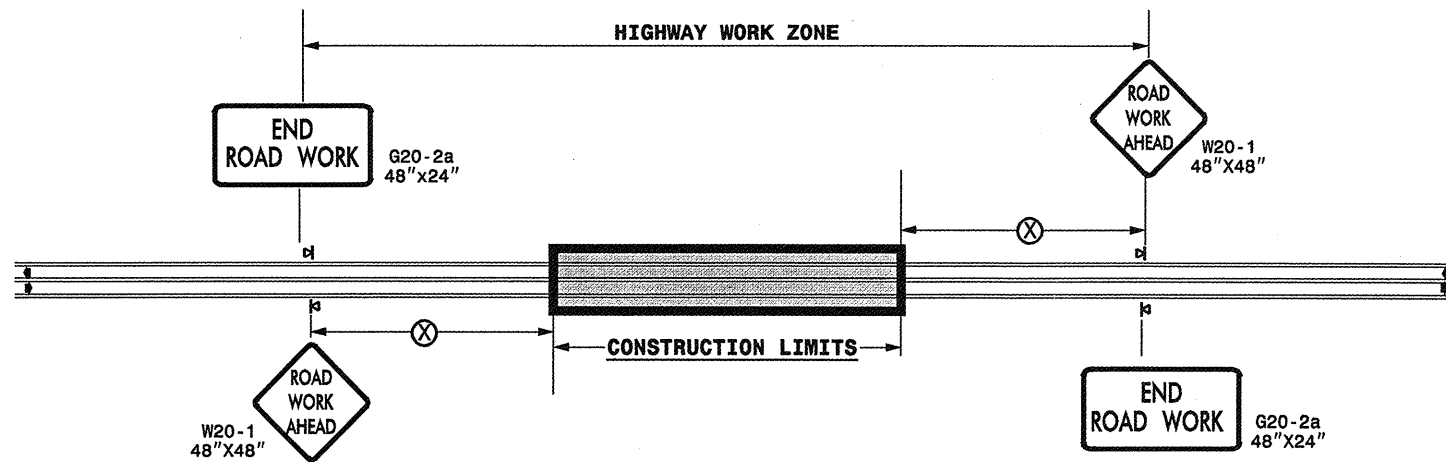


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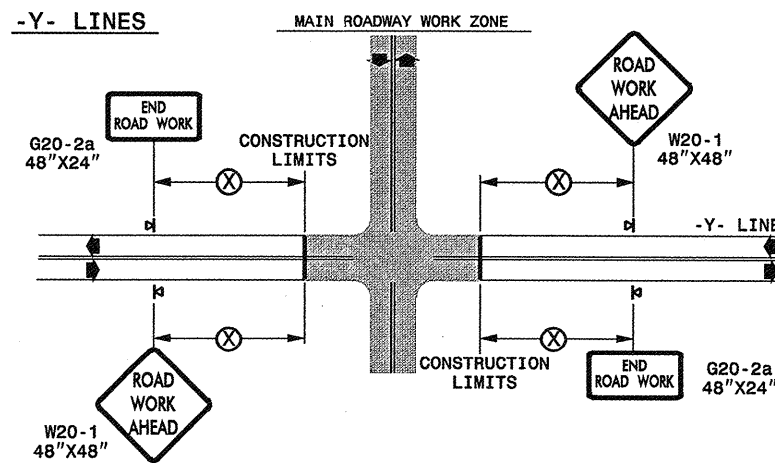
TWO-WAY UNDIVIDED ** (L-LINES)



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)



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

SHEET 1 OF 1

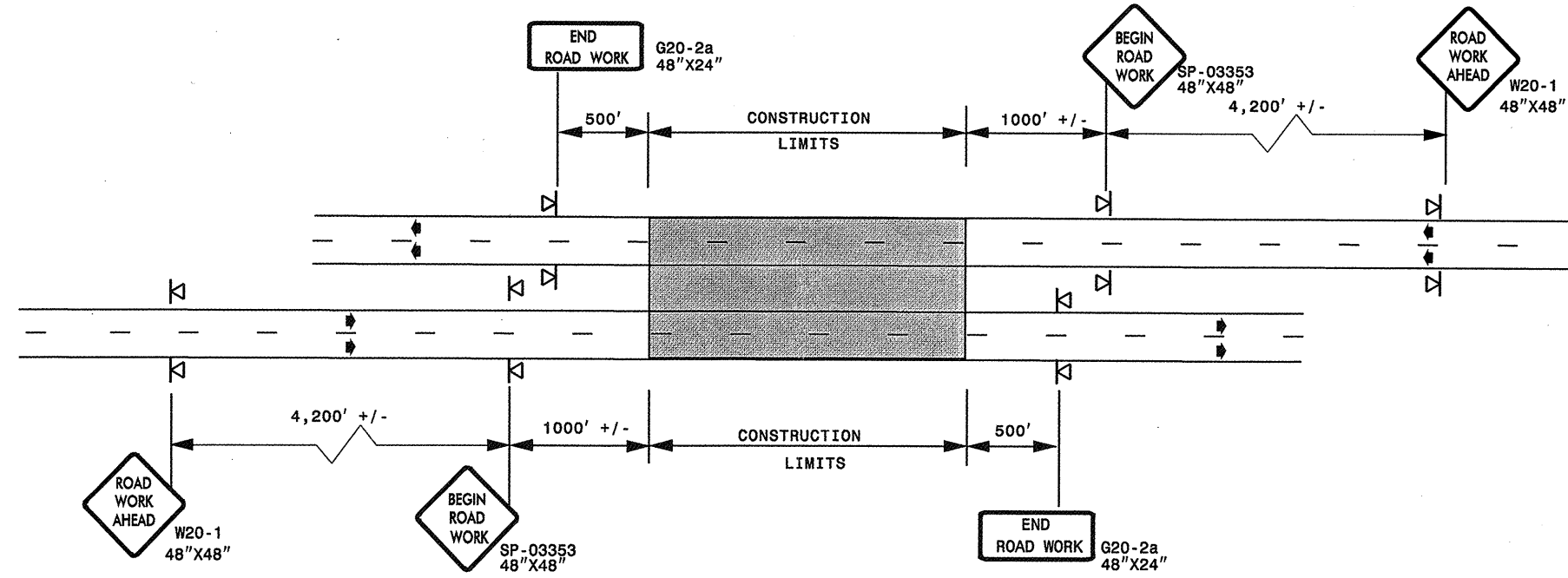
DETAIL DRAWING
FOR TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

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

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ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

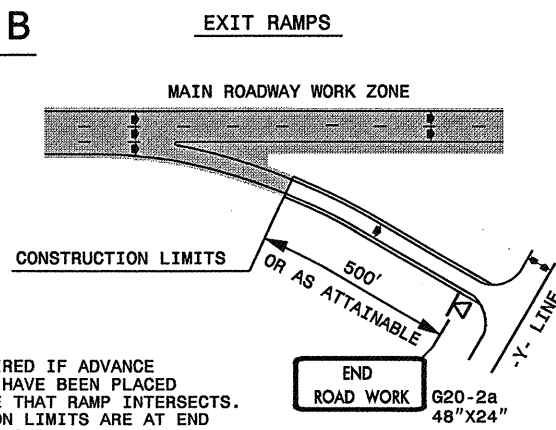
DETAIL A



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

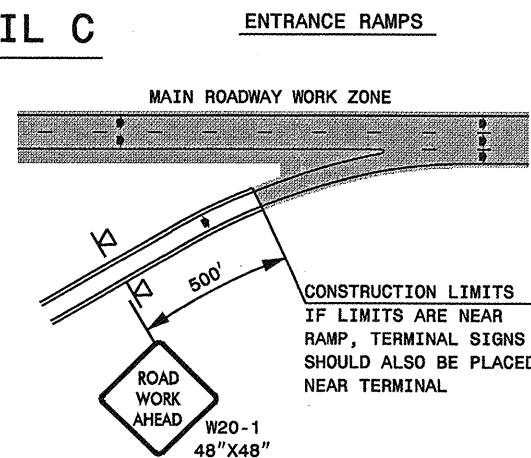
ROADWAYS INTERSECTING ALONG FREEWAY WORK ZONE (Y-LINES)

DETAIL B



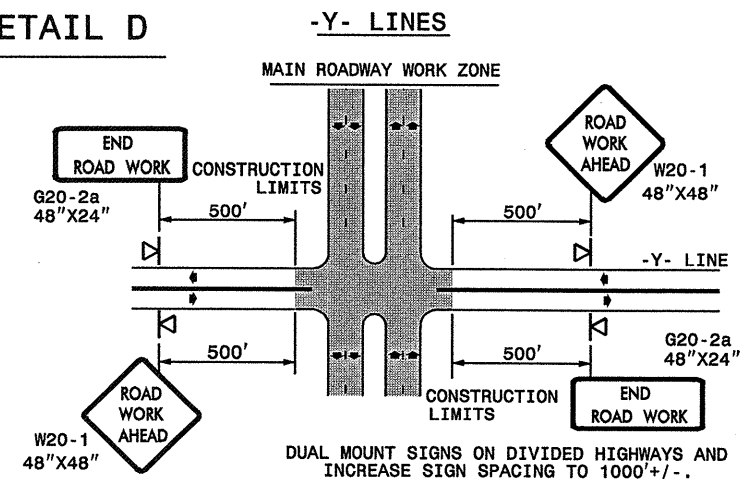
NOTE:
SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

DETAIL C



CONSTRUCTION LIMITS IF LIMITS ARE NEAR RAMP, TERMINAL SIGNS SHOULD ALSO BE PLACED NEAR TERMINAL.

DETAIL D



DUAL MOUNT SIGNS ON DIVIDED HIGHWAYS AND INCREASE SIGN SPACING TO 1000' +/-.

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 MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

- ◁ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW

**DETAIL DRAWING
FOR FREEWAYS
WORK ZONE WARNING SIGNS
(SHORT-DURATION LANE CLOSURES)**

SHEET 1 OF 1

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR FREEWAYS WORK ZONE WARNING SIGNS									
SEAL	SCALE: NONE	 <table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td>7-98</td> <td>10/01</td> </tr> <tr> <td>10-98</td> <td>03/04</td> </tr> <tr> <td>01/01</td> <td>11/04</td> </tr> </table>		REVISIONS		7-98	10/01	10-98	03/04	01/01	11/04
	REVISIONS										
	7-98			10/01							
	10-98			03/04							
01/01	11/04										
DATE: _____	DESIGN BY: _____										
DWG. BY: _____	REVIEWED BY: _____										
DESIGN BY: _____	REVIEWED BY: _____										

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desy more AT WZTC206427

SP 03353

SIGN NUMBER: SP-03353	BACKG COLOR: Fluorescent Orange	DESIGN BY: CL DOWNEY	CHECKED BY: CHECKED	STD #: W20-1
TYPE: A	COPY COLOR: Black	PROJECT ID: ALL PROJECTS	DIV: DIV	DATE: Aug 20, 2003
QUANTITY: 1				

SIGN WIDTH: 4'-0"	HEIGHT: 4'-0"	TOTAL AREA: 16.0 Sq.Ft.
BORDER TYPE: FLUSH	RECESS: 0.59"	WIDTH: 0.75"
	RADII: 1.38"	

SYMBOL	X	Y	WID	HT

BORDER
R=1.38"
TH=0.75"
IN=0.59"

LETTER POSITIONS

Letter spacings are to start of next letter

Letter	B	E	G	I	N	Word	Series/Size
B	22.4	5.3	4.8	5.4	2.5	3.8	22.4
E							
G							
I							
N							
Word							
BEGIN							C7 21.6
R	23.4	5	5.2	5.8	3.8	23.4	C7 19.6
O							
A							
D							
Word							
WORK							C7 21.2
W	22.6	6.4	5.6	5.2	4	22.6	
O							
R							
K							

Spacing Factor is 1 unless specified otherwise

FILENAME: SPECTHAK NORTH CAROLINA D.O.T. SIGN DETAIL

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

DETAIL DRAWING FOR
WORK ZONE SIGNS
BEGIN ROAD WORK

GENERAL NOTES FOR SIGN SP-03353 "BEGIN ROAD WORK"

- SIGN SP-03353 "BEGIN ROAD WORK" ONLY APPLIES TO FULL CONTROL AND PARTIAL CONTROL OF ACCESS ROADWAYS
- WHEN USED, INSTALL SIGN SP-03353 "BEGIN ROAD WORK" ACCORDING TO DETAIL FOR FREEWAY WORK ZONE SIGNS

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR ADVANCED WORK ZONE WARNING SIGN DESIGNS	
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	DATE: 0803		04/04
	DWG. BY:		1104
	DESIGN BY:		
REVIEWED BY:		CADD FILE	

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