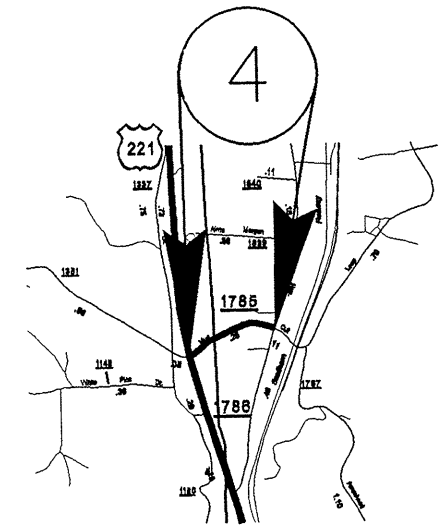
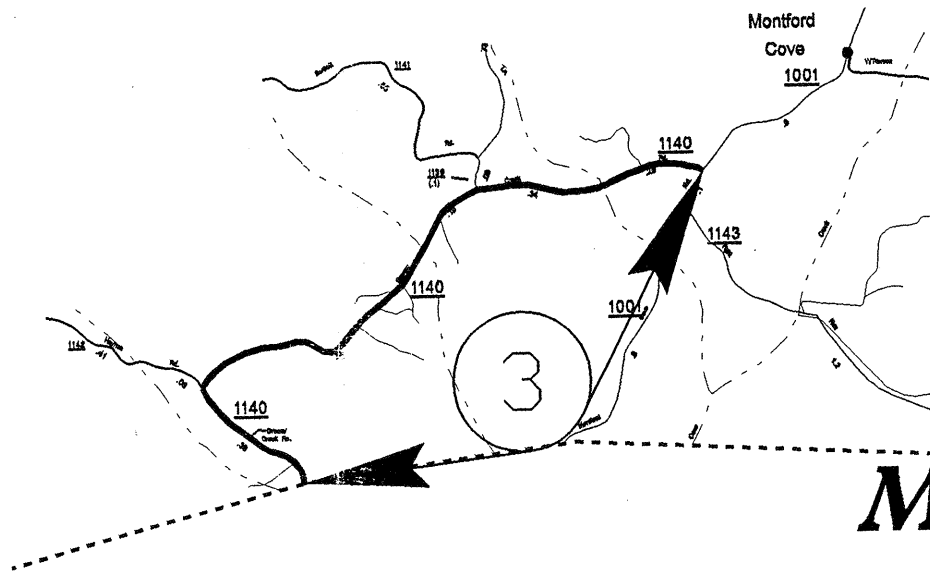
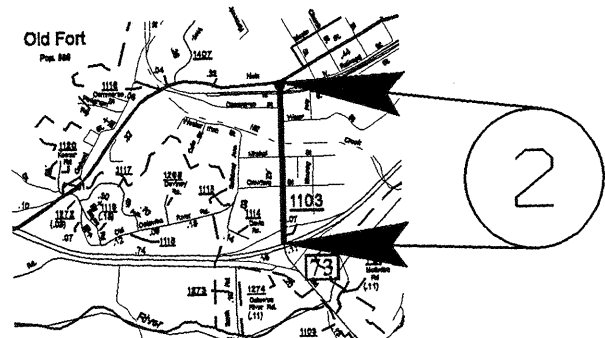
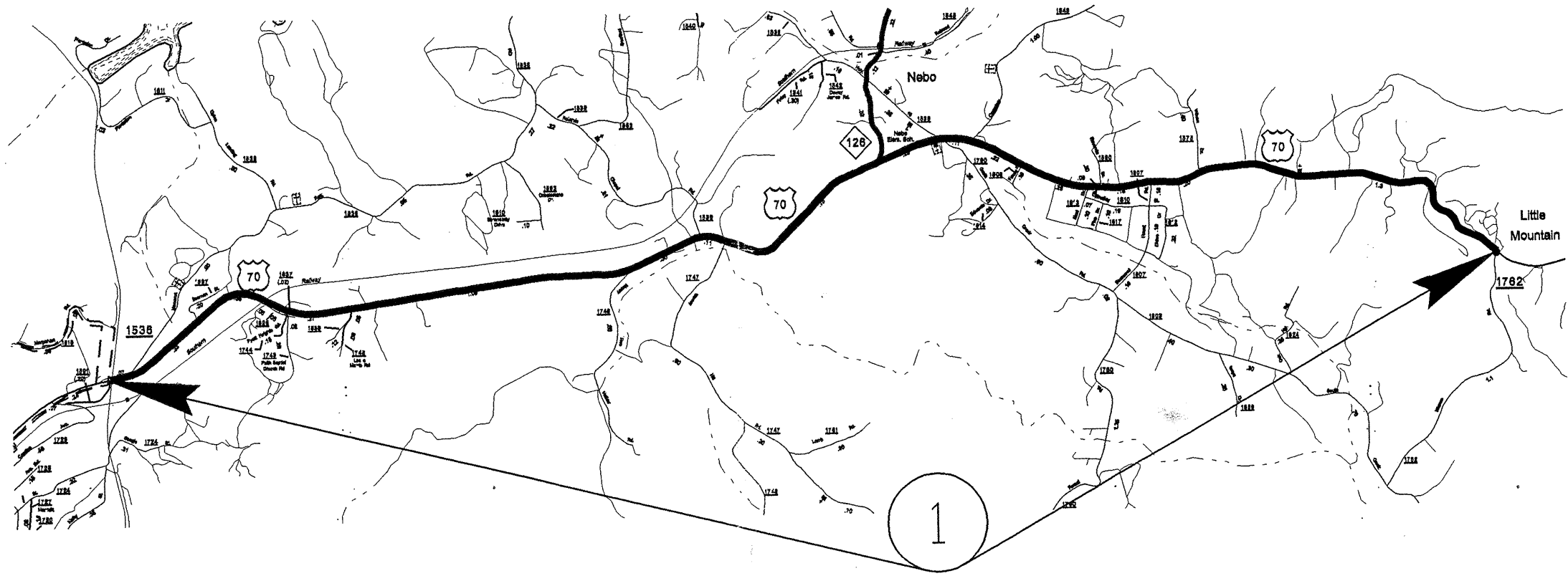
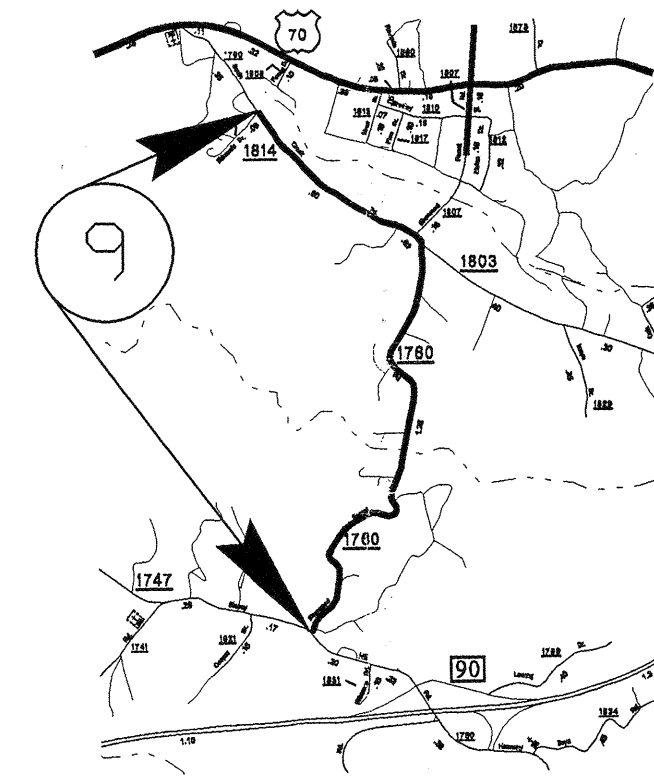
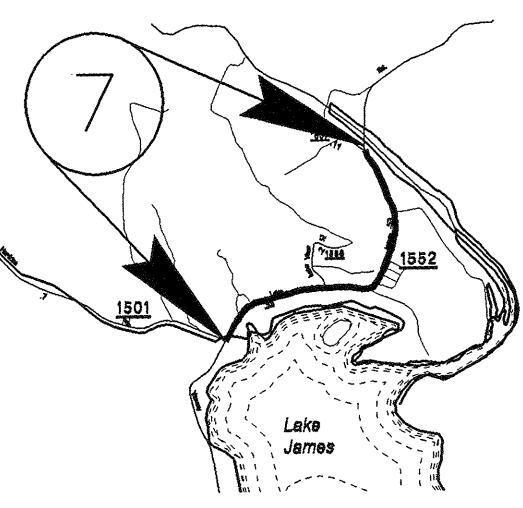
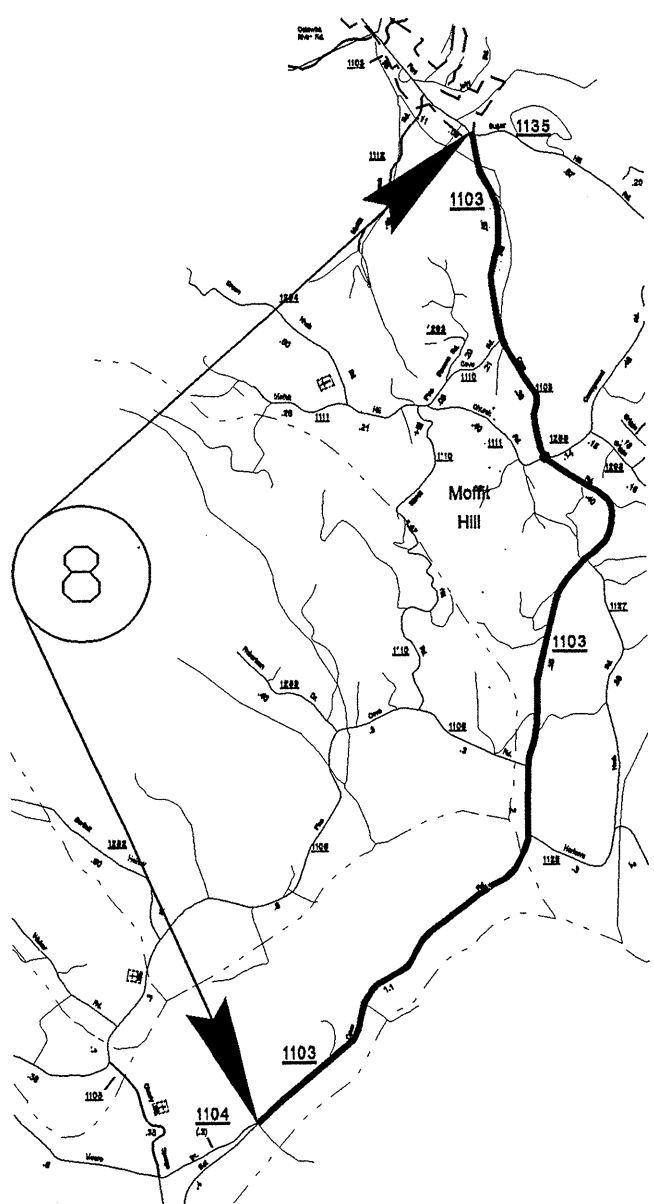
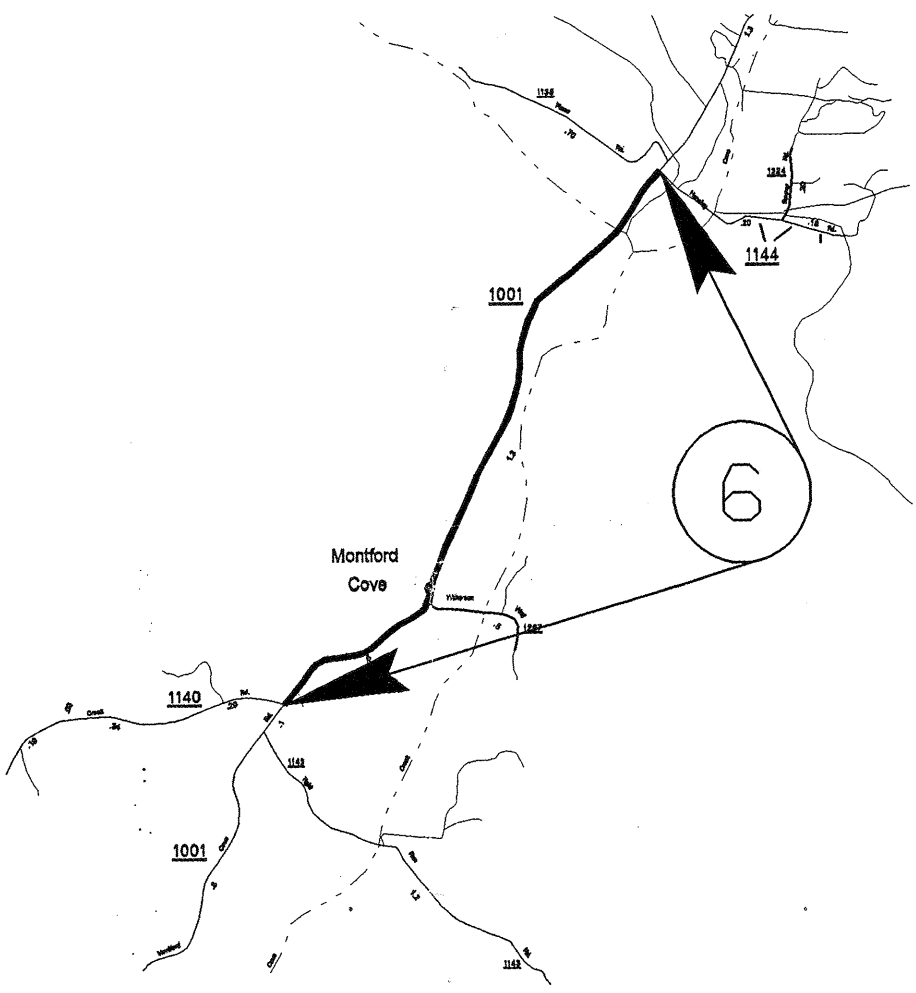
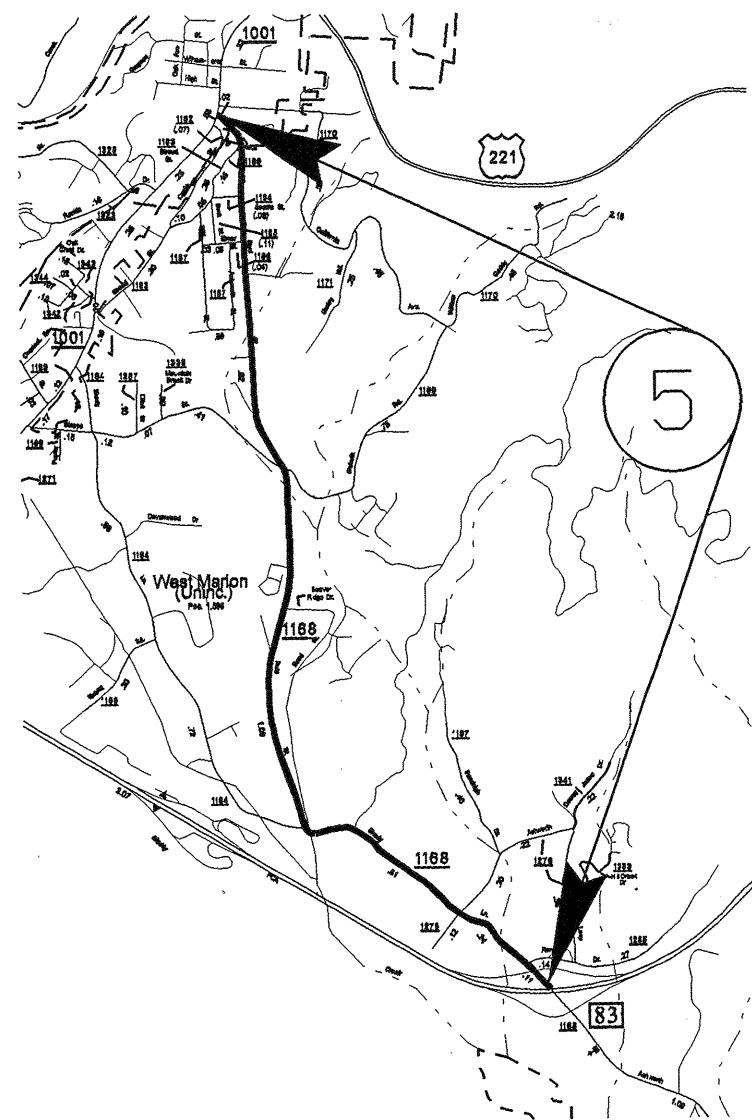


PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.5, 13CR.20591.4	1	



**MCDOWELL COUNTY**

PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.5, 13CR.20591.4	2	



# MCDOWELL COUNTY

PROJECT NO.	SHEET NO.	TOTAL NO.
13CR.10591.5, 13CR.20591.4	3	

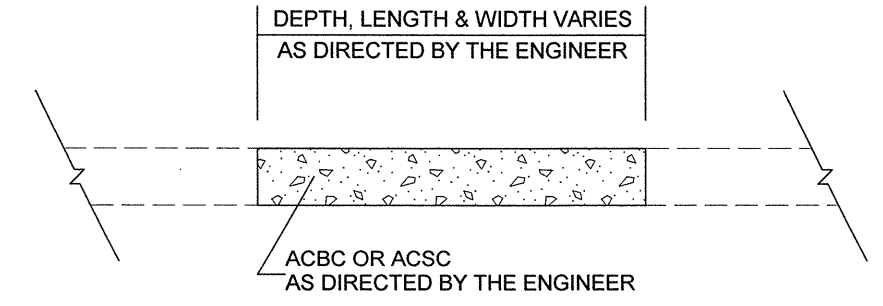
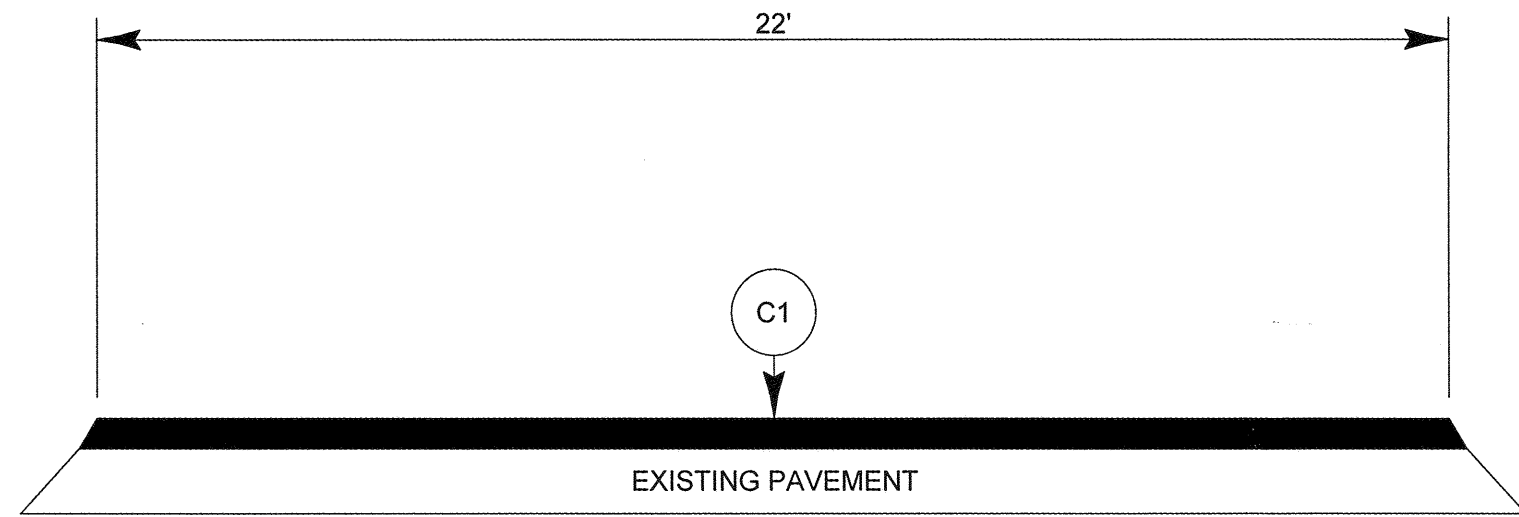
## SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TONS	1½" MILLING SY	SURFACE COURSE, SF9.5A TON	PG 64-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	ULTRATHIN HOT MIX ASPHALT, TYPE B TON	APPLICATION OF ULTRATHIN HOT MIX ASPHALT SY	PG 70-28 PLANT MIX TON	MILLING JOINTS EA	WHEELCHAIR RAMPS EA	CATCH BASIN EA	MANHOLES EA	METER OR VALVE BOX EA
13CR.10591.5	McDowell	1	US 70	MARION EAST CITY LIMITS TO SR 1762	1	5.84	22	292				327	2,644	75,375	153	130				
<b>TOTAL FOR PROJ NO. 13CR.10591.5</b>						<b>5.84</b>		<b>292</b>				<b>327</b>	<b>2,644</b>	<b>75,375</b>	<b>153</b>	<b>130</b>				
13CR.20591.4	McDowell	2	SR 1103	I-40 TO US 70	2	0.44	48	22	12,390	1127	73	10					16	10	5	3
		3	SR 1140	SR 1001 TO RUTH. CO. LINE	3	2.05	19	102		2087	136	75								
		4	SR 1785	US 221 TO SR 1786	3	0.27	20	14		289	19	30								
		5	SR 1168	I-40 TO SR 1001	3	2.84	18	142		2741	178	220								
		6	SR 1001	SR 1140 TO SR 1144	3	1.9	18	95		1833	119	40								
		7	SR 1552	SR 1501 TO NEW PVMT BEFORE BRIDGE	3	0.92	18	46		888	58	50								
		8	SR 1103	SR 1104 TO SR 1135	3	3.3	18	165		3184	207	175								
		9	SR 1760	SR 1747 TO SR 1814	3	1.85	18	93		1785	116	170								
<b>TOTAL FOR PROJ NO. 13CR.20591.4</b>						<b>13.57</b>		<b>679</b>	<b>12,390</b>	<b>13,934</b>	<b>906</b>	<b>770</b>					<b>16</b>	<b>10</b>	<b>5</b>	<b>3</b>
<b>GRAND TOTAL</b>						<b>19.41</b>		<b>971</b>	<b>12,390</b>	<b>13,934</b>	<b>906</b>	<b>1097</b>	<b>2,644</b>	<b>75,375</b>	<b>153</b>	<b>130</b>	<b>16</b>	<b>10</b>	<b>5</b>	<b>3</b>

## THERMOPLASTIC AND PAINT QUANTITIES

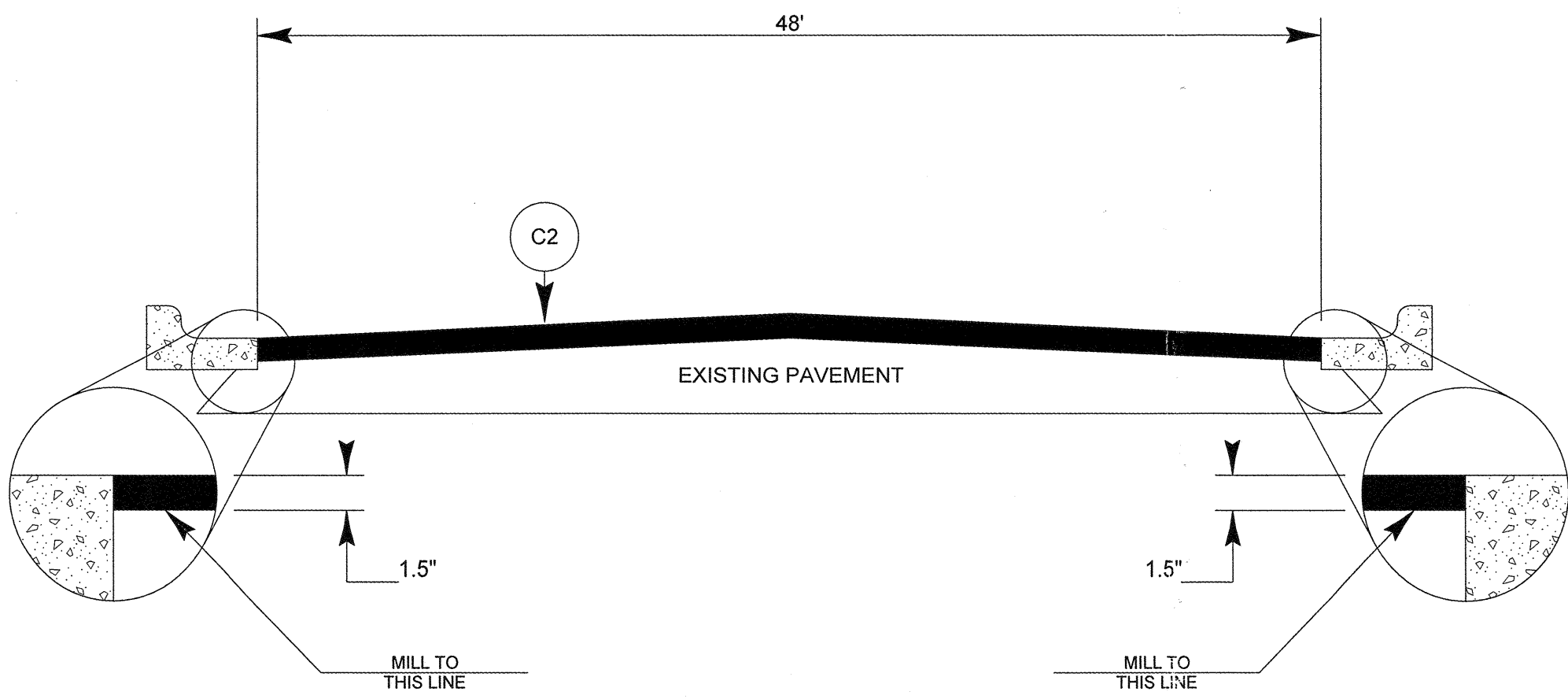
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4685000000-E	4686000000-E			4697000000-E	4705000000-E	4710000000-E	4721000000-E			4725000000-E		4810000000-E	
					4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	8" X 120 M WHITE THERMO LF	16" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO RXR 120 M EA	THERMO MSG SCHOOL 120 M EA	THERMO MSG ONLY 120 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	
13CR.10591.5	McDowell	1	US 70	MARION EAST CITY LIMITS TO SR 1762	61,670	61,670				200								
<b>TOTAL FOR PROJ NO. 13CR.10591.5</b>					<b>61,670</b>	<b>61,670</b>				<b>200</b>								
13CR.20591.4	McDowell	2	SR 1103	I-40 TO US 70		4,646	1,162	384	200	224	8	12	4	1	3			
		3	SR 1140	SR 1001 TO RUTH. CO. LINE												43,296	43,296	
		4	SR 1785	US 221 TO SR 1786												5,702	5,702	
		5	SR 1168	I-40 TO SR 1001						36		12				59,981	59,981	
		6	SR 1001	SR 1140 TO SR 1144												40,128	40,128	
		7	SR 1552	SR 1501 TO NEW PVMT BEFORE BRIDGE												19,430	19,430	
		8	SR 1103	SR 1104 TO SR 1135												69,696	69,696	
		9	SR 1760	SR 1747 TO SR 1814												39,072	39,072	
<b>TOTAL FOR PROJ NO. 13CR.20591.4</b>						<b>4,646</b>	<b>1,162</b>	<b>384</b>	<b>200</b>	<b>260</b>	<b>8</b>	<b>24</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>277,305</b>	<b>277,305</b>	
<b>GRAND TOTAL</b>					<b>61,670</b>	<b>66,316</b>	<b>1,162</b>	<b>384</b>	<b>200</b>	<b>460</b>	<b>8</b>	<b>24</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>277,305</b>	<b>277,305</b>	

PROJECT NO. 13CR.10591.5, 13CR.20591.4	SHEET NO. 4	TOTAL SHEETS 5
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PATCHING EXISTING PAVEMENT

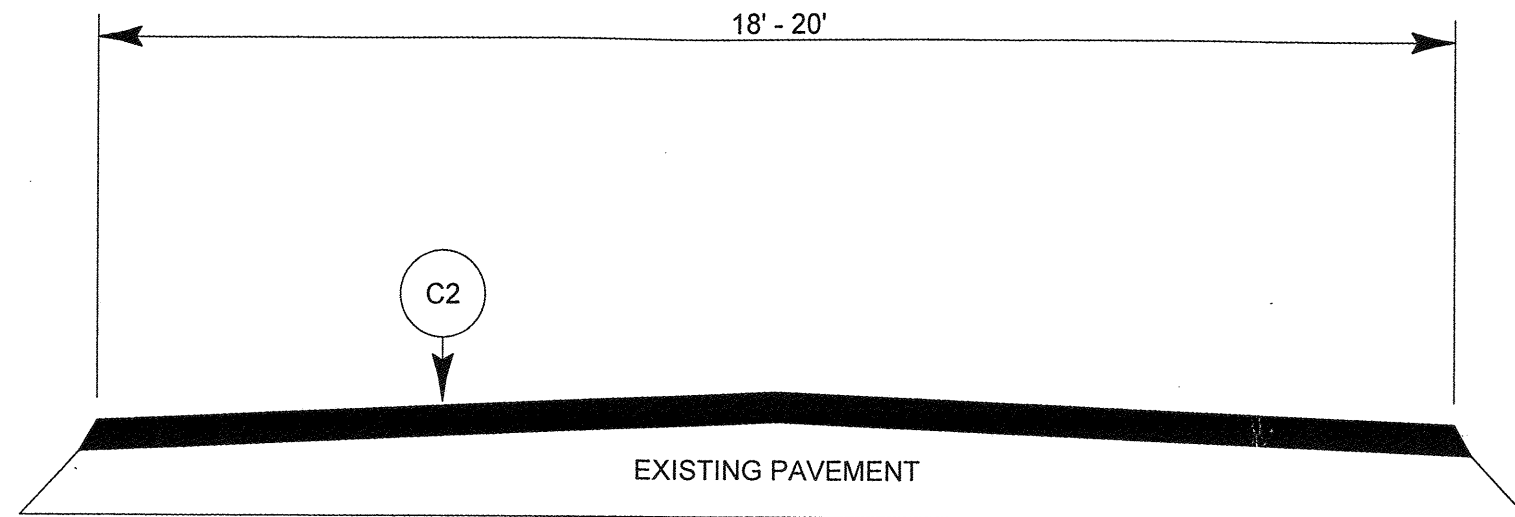
TYPICAL SECTION NO. 1



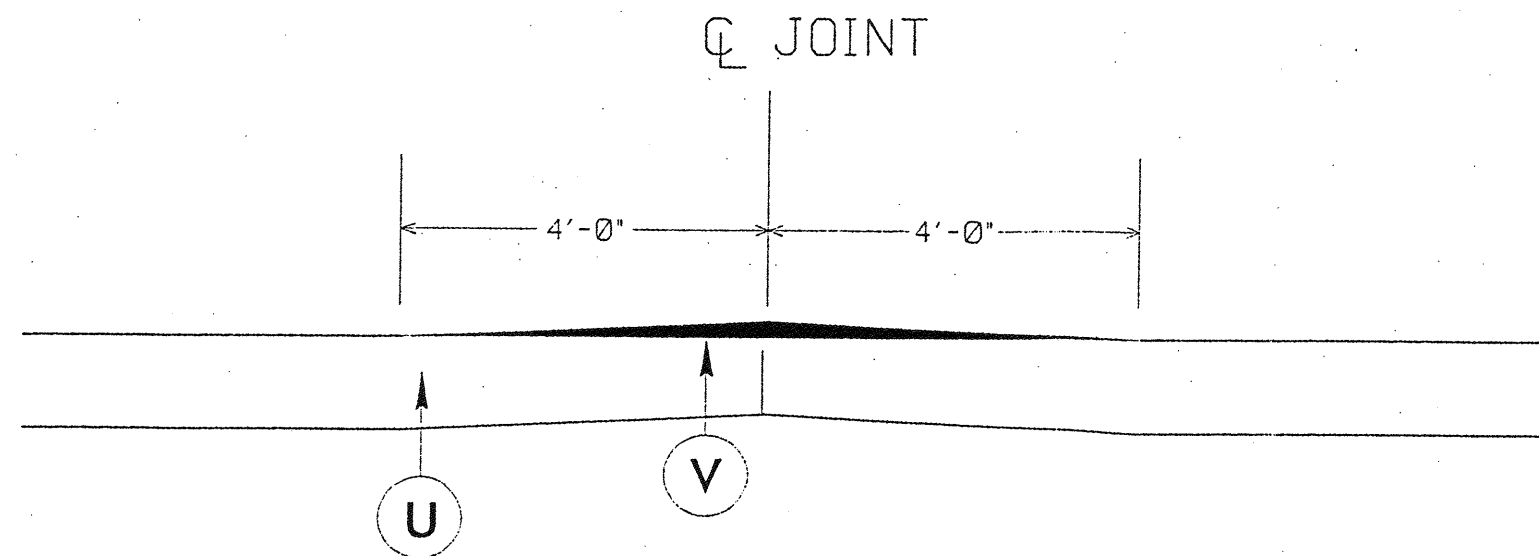
TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 5/8" OF ULTRATHIN HOT MIX, TYPE B, AT AN AVERAGE RATE OF 70 LBS PER SQ YD
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
U	EXISTING CONCRETE WITH VARIABLE DEPTH ASPHALT OVERLAY
V	MILLING BITUMINOUS PAVEMENT AT A VARIABLE DEPTH

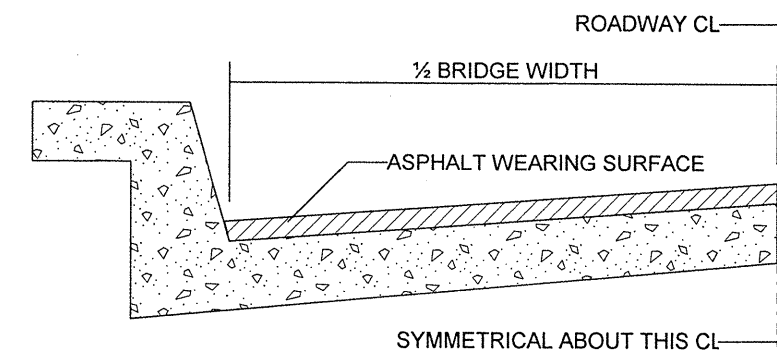
PROJECT NO.	SHEET NO.	TOTAL SHEETS
13CR.10591.5, 13CR.20591.4	5	5



TYPICAL SECTION NO. 3



JOINT REPAIR DETAIL  
TO BE USED ON MAP #1



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 1½" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

NOTES

ALL UNPAVED 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.  
 SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.  
 BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER

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 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

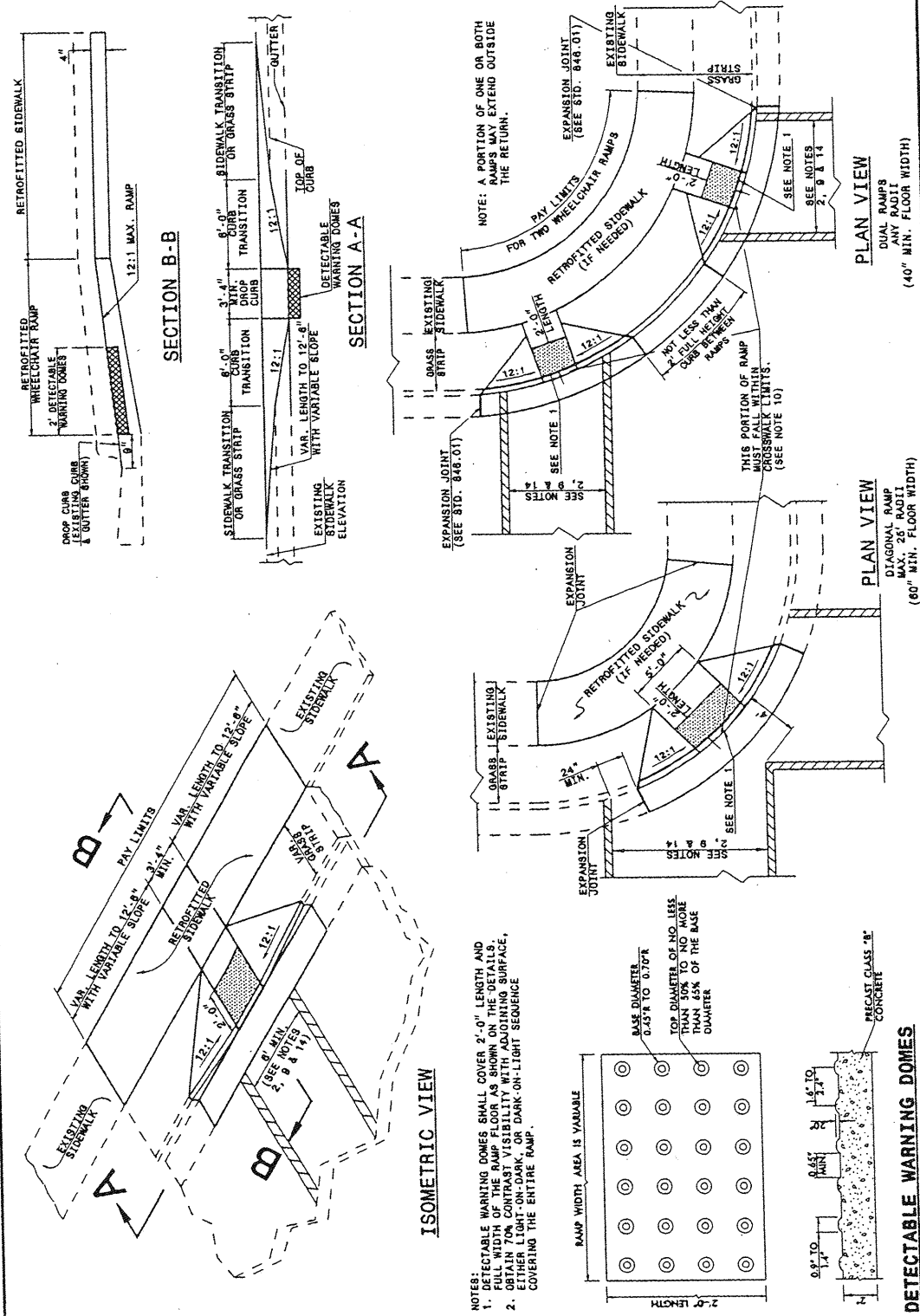
ENGLISH DETAIL DRAWING FOR  
**WHEELCHAIR RAMP AND EXISTING SIDEWALK  
 WITH GRASS STRIP**  
 CURB CUT

SHEET 1 OF 5  
**848D06**

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

ENGLISH DETAIL DRAWING FOR  
**WHEELCHAIR RAMP AND EXISTING SIDEWALK  
 WITH GRASS STRIP**  
 CURB CUT

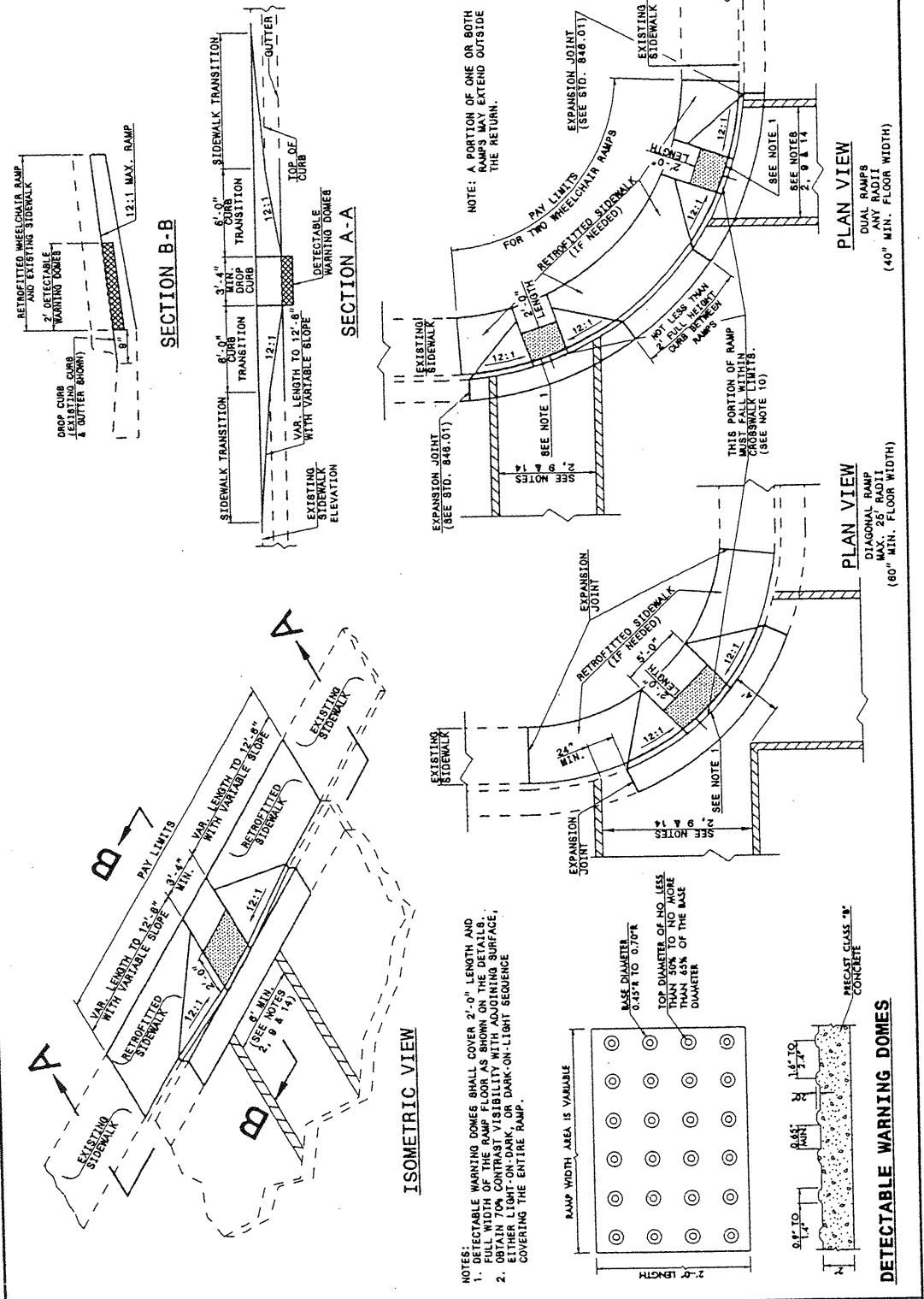
SHEET 1 OF 5  
**848D06**



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

ENGLISH DETAIL DRAWING FOR  
**WHEELCHAIR RAMP AND EXISTING SIDEWALK  
 ADJACENT TO CURB**  
 CURB CUT

SHEET 2 OF 5  
**848D06**



PROJECT SERVICES UNIT  
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 Office 919-250-4128 FAX 919-250-4119

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 MODIFIED BY: E.E. WARD DATE: 09-06-05  
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PROJECT REFERENCE NO. 13CR.10591.5  
 SHEET NO. 6  
 13CR.20591.4

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

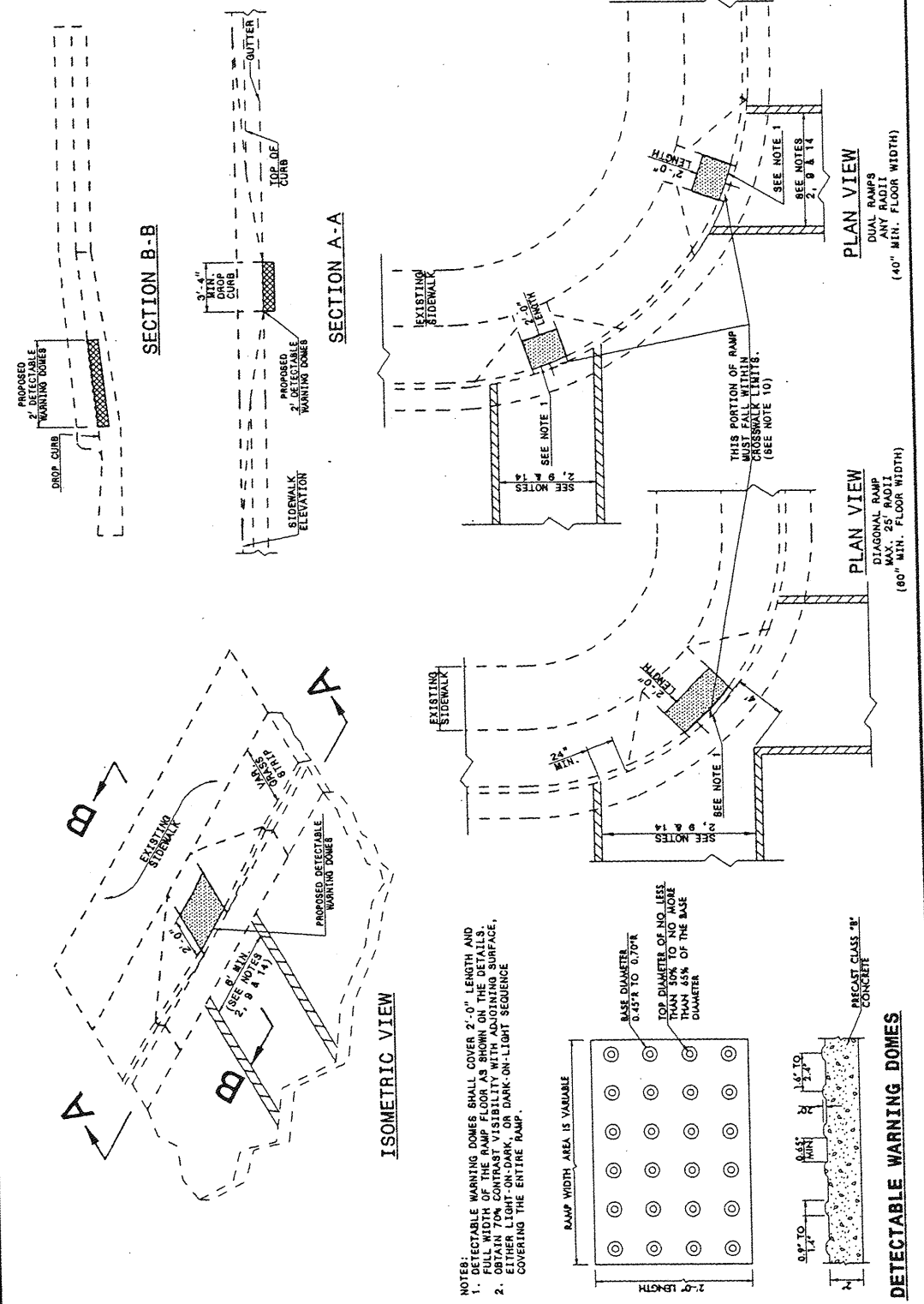
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**RETROFITTING DETECTABLE WARNING DOMES  
 ONTO EXISTING WHEELCHAIR RAMP**  
 CURB CUT

SHEET 3 OF 5  
**848D06**

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

ENGLISH DETAIL DRAWING FOR  
**RETROFITTING DETECTABLE WARNING DOMES  
 ONTO EXISTING WHEELCHAIR RAMP**  
 CURB CUT

SHEET 3 OF 5  
**848D06**



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 RALEIGH, N.C.

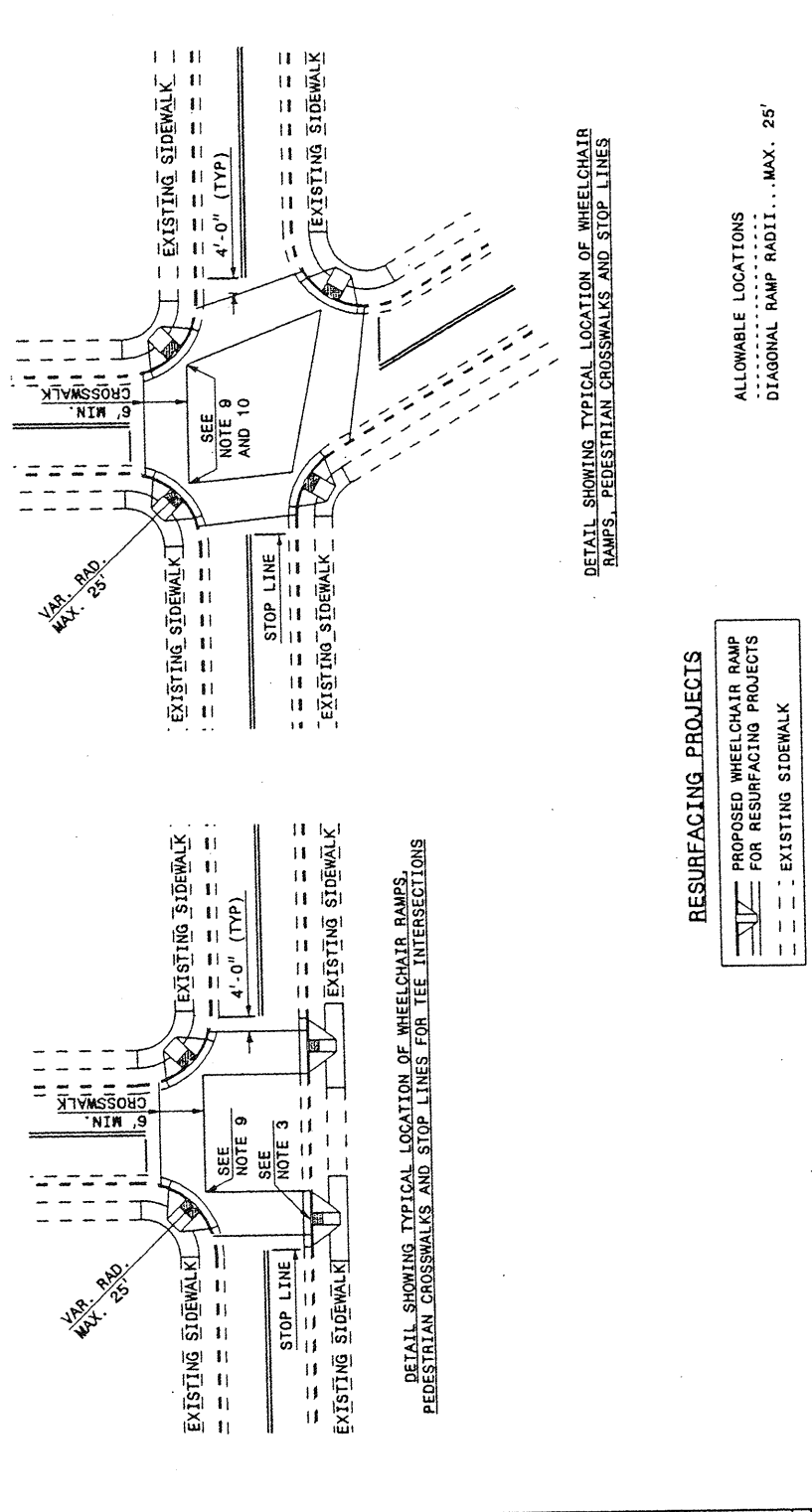
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**WHEELCHAIR RAMP**  
 CURB CUT

SHEET 4 OF 5  
**848D06**

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

ENGLISH DETAIL DRAWING FOR  
**WHEELCHAIR RAMP**  
 CURB CUT

SHEET 4 OF 5  
**848D06**



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

ENGLISH DETAIL DRAWING FOR  
WHEELCHAIR RAMP AND EXISTING SIDEWALK  
CURB CUT

SHEET 5 OF 5  
848D06

NOTES:

- CONSTRUCT THE WALKING SURFACE WITH SLIP RESISTANCE AND A 70% CONTRASTING COLOR TO THE SIDEWALK.
- CROSSWALK WIDTHS AND CONFIGURATION VARY, BUT MUST CONFORM TO TRAFFIC DESIGN STANDARDS.
- NORTH CAROLINA GENERAL STATUTE 136-44.14 REQUIRES THAT ALL STREET CURBS BEING CONSTRUCTED OR RECONSTRUCTED FOR MAINTENANCE PROCEDURES, TRAFFIC OPERATIONS, REPAIRS, CORRECTION OF UTILITIES OR ALTERED FOR ANY REASON AFTER SEPTEMBER 1, 1973 SHALL PROVIDE WHEELCHAIR RAMPS FOR THE PHYSICALLY DISABLED AT ALL INTERSECTIONS WHERE BOTH CURB AND GUTTER AND SIDEWALKS ARE PROVIDED AND AT OTHER POINTS OF PEDESTRIAN FLOW.
- IN ADDITION, SECTION 228 OF THE 1973 FEDERAL AID HIGHWAY SAFETY ACT REQUIRES PROVISION OF CURB RAMPS ON ANY CURB CONSTRUCTION AFTER JULY 1, 1976 WHETHER A SIDEWALK IS PROPOSED INITIALLY OR IS PLANNED FOR A FUTURE DATE.
- THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990 EXTENDS TO INDIVIDUALS WITH DISABILITIES, COMPREHENSIVE CIVIL RIGHTS PROTECTIONS SIMILAR TO THOSE PROVIDED TO PERSONS ON THE BASIS OF RACE, SEX, NATIONAL ORIGIN AND RELIGION UNDER THE CIVIL RIGHTS ACT OF 1964. THESE CURB RAMPS HAVE BEEN DESIGNED TO COMPLY WITH THE CURRENT ADA STANDARDS.
- PROVIDE WHEELCHAIR RAMPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. LOCATE WHEELCHAIR RAMPS AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. WHERE TWO RAMPS ARE INSTALLED PLACE NOT LESS THAN 2 FEET OF FULL HEIGHT CURB BETWEEN THE RAMPS. PLACE DUAL RAMPS AS NEAR PERPENDICULAR TO THE TRAVEL LANE BEING CROSSED AS POSSIBLE.
- DO NOT EXCEED 0.08 (12:1) SLOPE ON THE WHEELCHAIR RAMP IN RELATIONSHIP TO THE GRADE OF THE STREET.
- CONSTRUCT WHEELCHAIR RAMPS 40" (3'-4") OR GREATER FOR DUAL RAMPS AND 60" (5'-0") OR GREATER FOR DIAGONAL RAMPS.
- USE CLASS "B" CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NON-SKID TYPE SURFACE.
- PLACE A 1/2" EXPANSTION JOINT WHERE THE CONCRETE WHEELCHAIR RAMP JOINS THE CURB AND AS SHOWN ON STD. DWG. 848.01.
- PLACE THE INSIDE PEDESTRIAN CROSSWALK LINES NO CLOSER IN THE INTERSECTION BY BISECTING THE INTERSECTION RADIUS, WITH ALLOWANCE OF A 4' CLEAR ZONE IN THE VEHICULAR TRAVELWAY WHEN ONE RAMP IS INSTALLED. (SEE NOTE 14)
- COORDINATE THE CURB CUT AND THE PEDESTRIAN CROSSWALK LINES SO THE FLOOR OF THE WHEELCHAIR RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES. PLACE DIAGONAL RAMPS WITH FLARED SIDES SO 24" OF FULL HEIGHT CURB FALLS WITHIN THE CROSSWALK MARKINGS ON EACH SIDE OF THE FLARES.
- CONSTRUCT THE PEDESTRIAN CROSSWALK A MINIMUM OF 6 FEET. A CROSSWALK WIDTH OF 10 FEET OR GREATER IS DESIRABLE.
- USE STOP LINES, NORMALLY PERPENDICULAR TO THE LANE LINES, WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN OR OTHER LEGAL REQUIREMENT. AN UNUSUAL APPROACH SKEW MAY REQUIRE THE PLACEMENT OF THE STOP LINE TO BE PARALLEL TO THE INTERSECTING ROADWAY.
- TERMINATE PARKING A MINIMUM OF 20 FEET BACK OF PEDESTRIAN CROSSWALK.
- PLACE ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.

STATE OF  
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ENGLISH DETAIL DRAWING FOR  
WHEELCHAIR RAMP AND EXISTING SIDEWALK  
CURB CUT

SHEET 5 OF 5  
848D06

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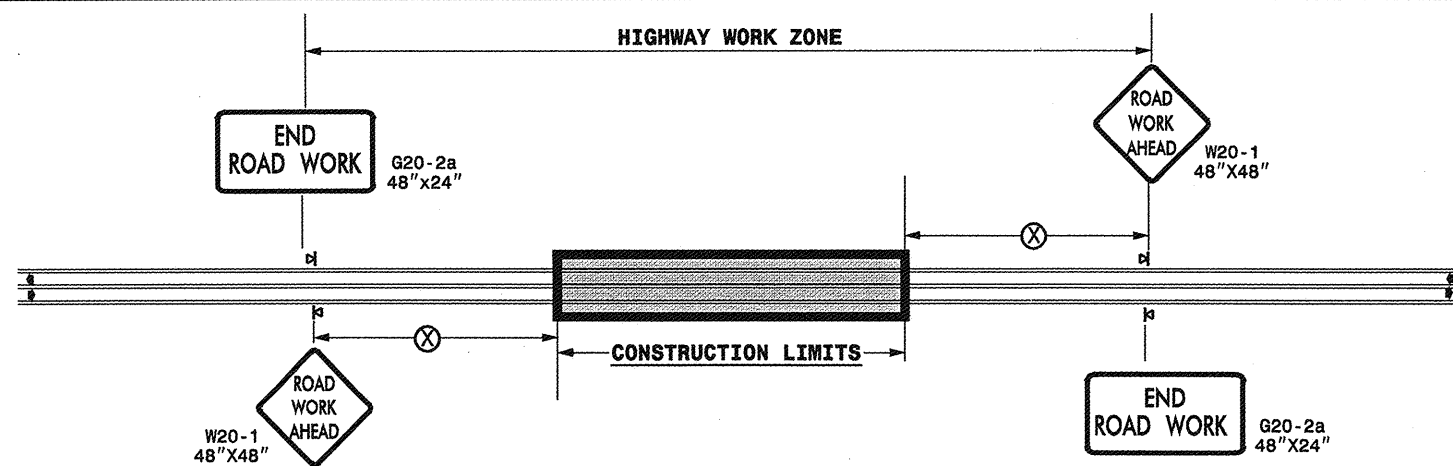
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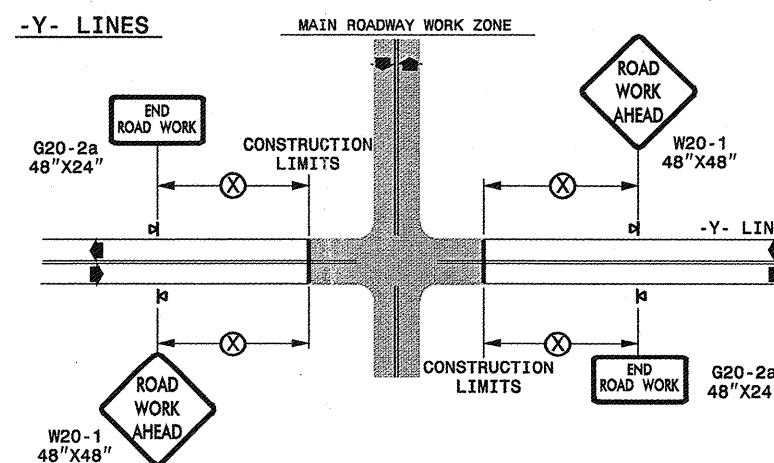
**TWO-WAY UNDIVIDED \*\* (L-LINES)**



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

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**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

DETAIL DRAWING  
FOR TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED ADVANCED WORK ZONE WARNING SIGNS									
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