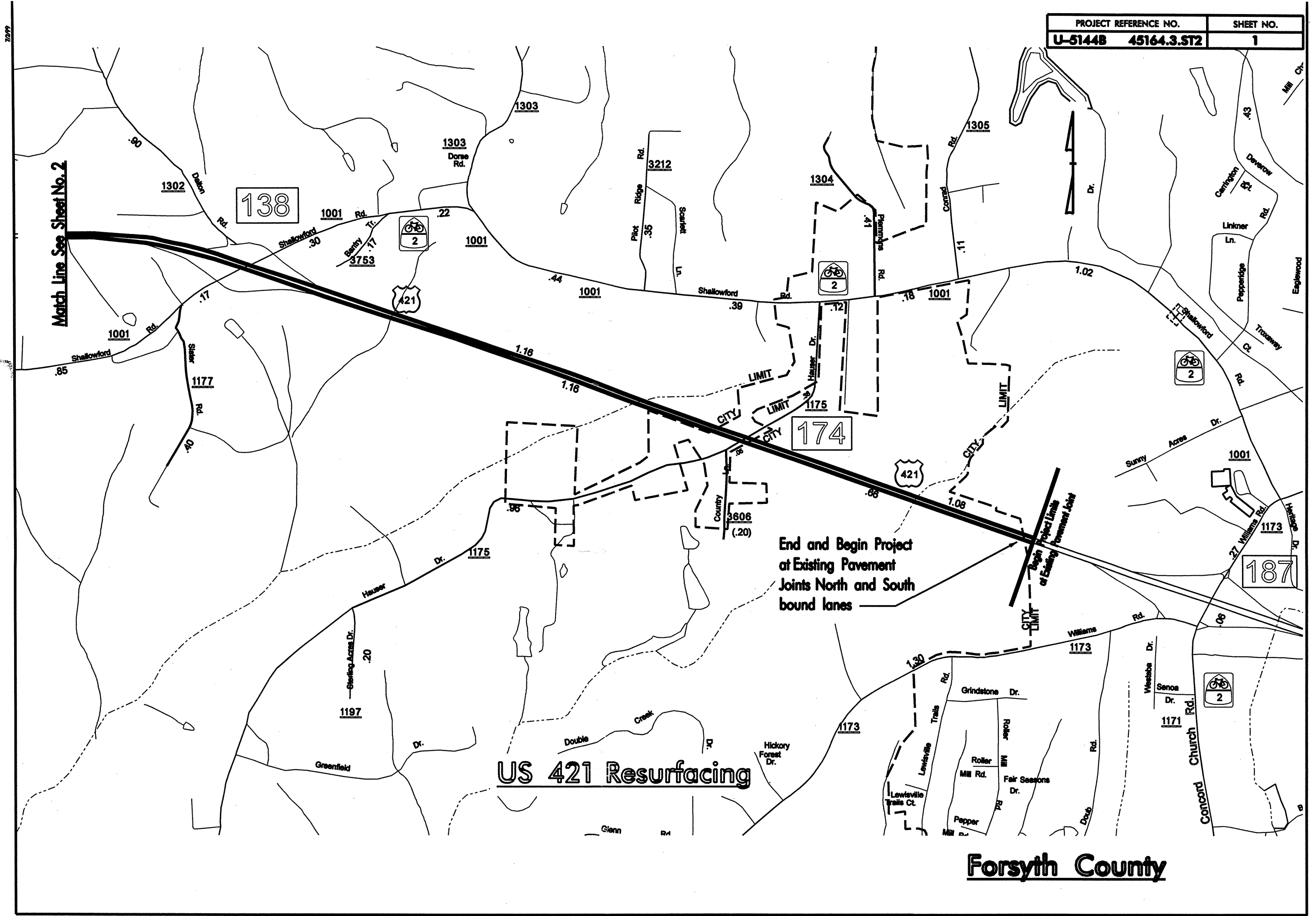
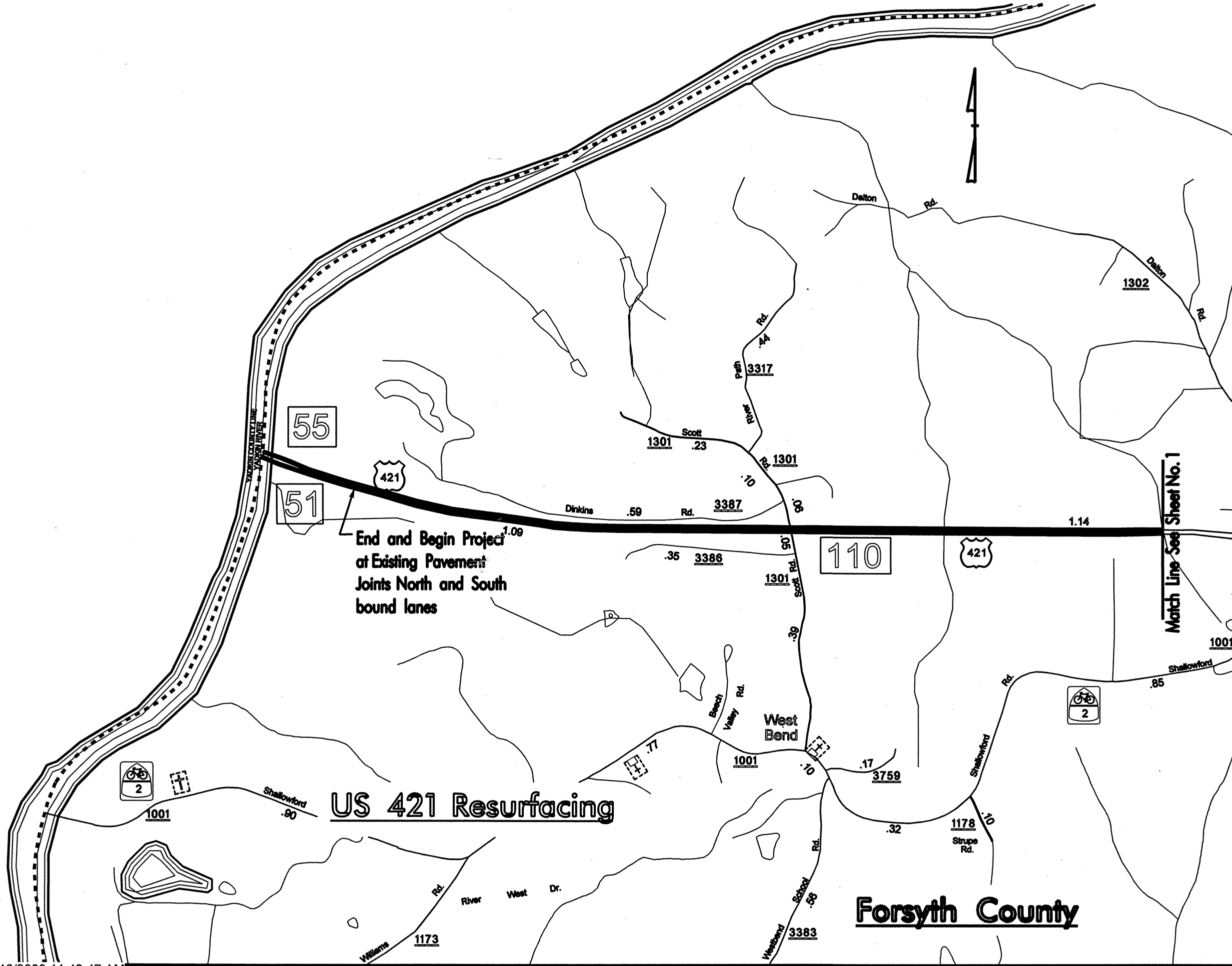


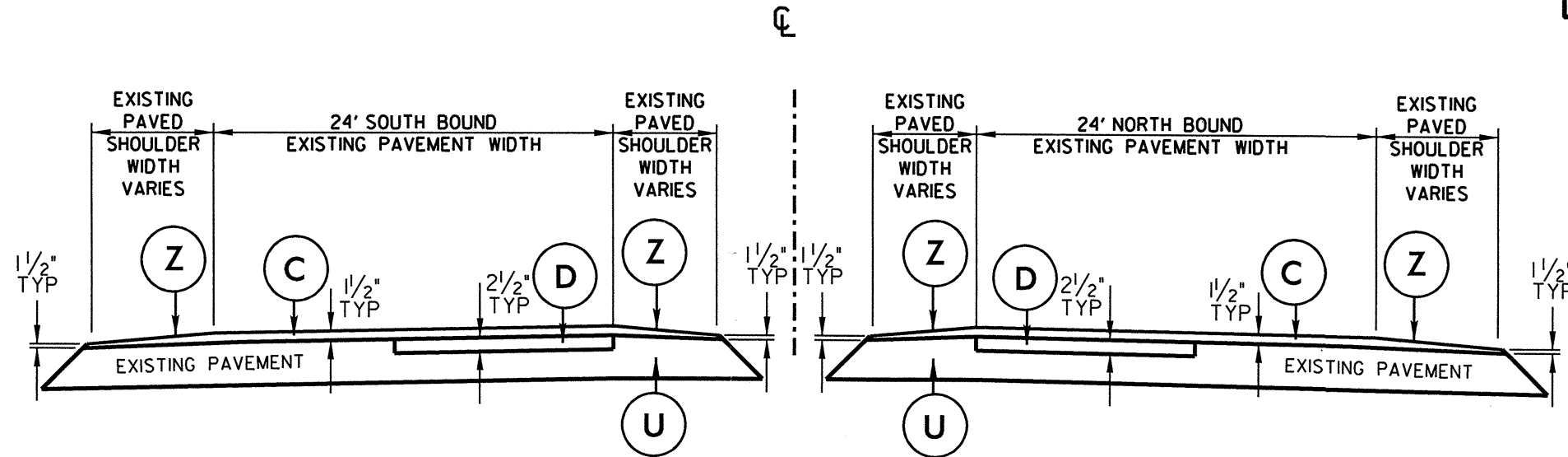
PROJECT REFERENCE NO.	SHEET NO.
U-5144B 45164.3.ST2	1



**US 421 Resurfacing**

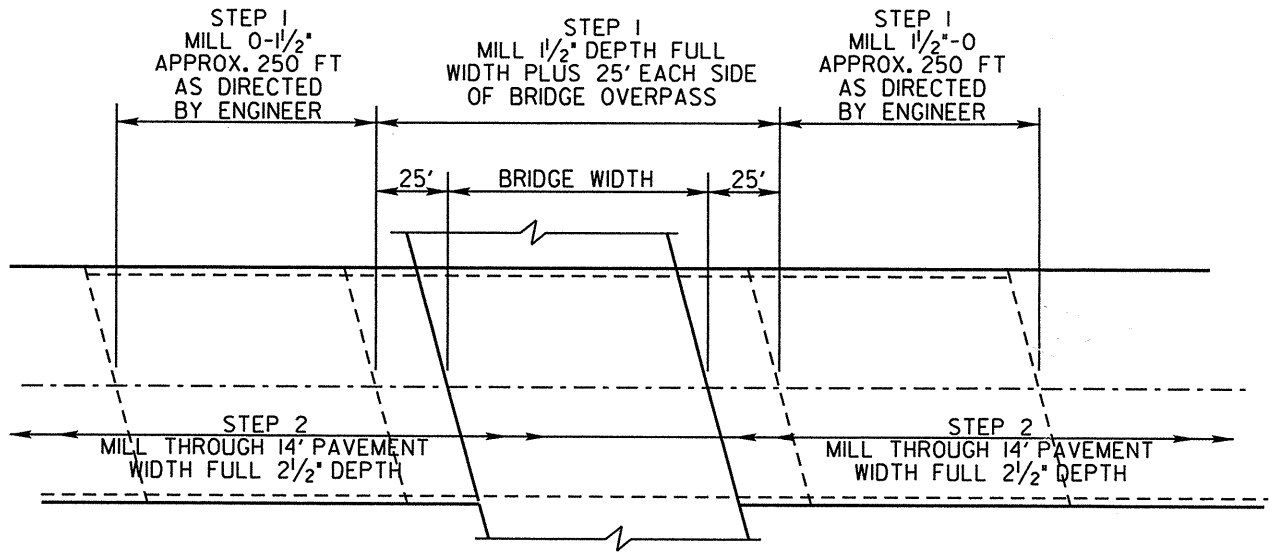
**Forsyth County**





NOTE:  
SEE MILLING DETAILS  
CONTRACTOR TO TAPER SURFACE  
COURSE TO A THICKNESS OF  
1 1/2" AT EXISTING EDGE OF  
SHOULDERS (TYP)

**TYPICAL SECTION NO.1**



**MILLING ASPHALT PAVEMENT  
AT BRIDGE OVERPASS APPROACHES  
PLAN VIEW**

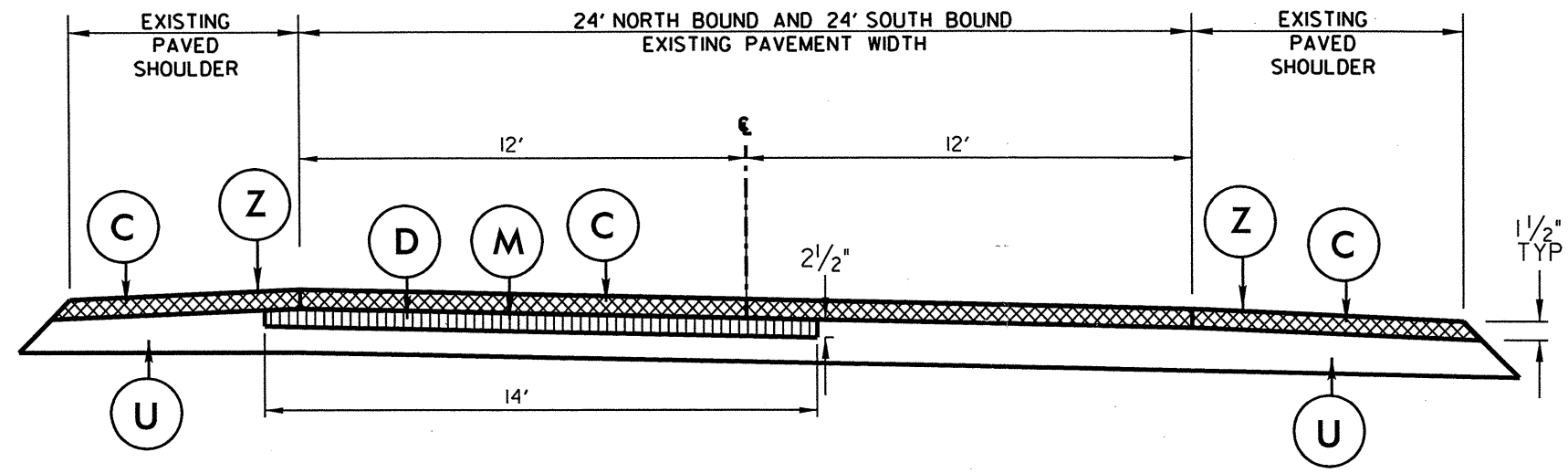
NOTE:  
MILLING SEQUENCE:

- STEP 1 MILL 1 1/2" DEPTH FULL WIDTH PLUS 25' EACH SIDE OF BRIDGE OVERPASS  
MILL 0-1 1/2" EACH SIDE OF BRIDGE OVERPASS APPROACHES A DISTANCE OF 250' AS DIRECTED IN DETAIL
- STEP 2 MILL 14' WIDTH FULL 2 1/2" DEPTH FROM BEGINNING OF MAP TO 250' FROM YADKIN BRIDGE APPROACHES  
BOTH NORTH AND SOUTH BOUND LANES PAVE BACK WITH 2 1/2" INTERMEDIATE COURSE, TYPE I19.0C
- STEP 3 OVERLAY ENTIRE FULL WIDTH OF PAVEMENT WITH 1 1/2" SURFACE COURSE TYPE S9.5C ENTIRE LENGTH OF  
MAP SO AS TO STAGGER LONGITUDINAL JOINTS.

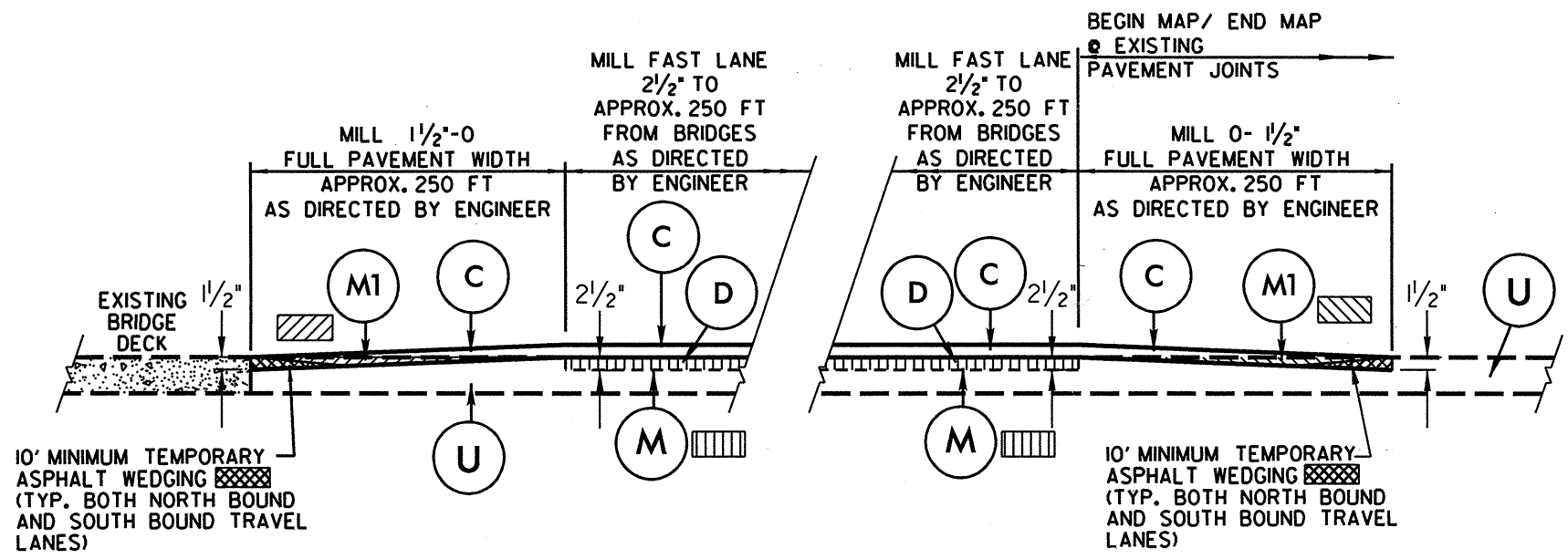
PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
M	MILLING , 2 1/2" DEPTH.
M1	VARIABLE DEPTH MILLING , 0" TO 1 1/2" DEPTH.
U	EXISTING PAVEMENT
Z	MILLED RUMBLE STRIPS

7/2/99

PROJECT REFERENCE NO.	SHEET NO.
U-5144B 45164.3.ST2	4



### MILLING SEQUENCE DETAIL TYPICAL NORTH AND SOUTH BOUND TRAVEL LANES



### MILLING DETAIL BRIDGE APPROACHES AT YADKIN RIVER

### MILLING DETAIL TIE-IN

NOTE:  
MILLING SEQUENCE:

- STEP 1 MILL 1 1/2" DEPTH FULL WIDTH PLUS 25' EACH SIDE OF BRIDGE OVERPASS  
MILL 0-1 1/2" EACH SIDE OF BRIDGE OVERPASS APPROACHES A DISTANCE OF 250' AS DIRECTED IN DETAIL
- STEP 2 MILL 14' WIDTH FULL 2 1/2" DEPTH FROM BEGINNING OF MAP TO 250' FROM YADKIN BRIDGE APPROACHES  
BOTH NORTH AND SOUTH BOUND LANES PAVE BACK WITH 2 1/2" INTERMEDIATE COURSE, TYPE I19.0C
- STEP 3 OVERLAY ENTIRE FULL WIDTH OF PAVEMENT WITH 1 1/2" SURFACE COURSE TYPE S9.5C ENTIRE LENGTH OF  
MAP SO AS TO STAGGER LONGITUDINAL JOINTS.

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
M	MILLING, 2 1/2" DEPTH.
M1	VARIABLE DEPTH MILLING, 0" TO 1 1/2" DEPTH.
U	EXISTING PAVEMENT
Z	MILLED RUMBLE STRIPS

PROJECT NO.	SHEET NO.
U-5144B 45164.3.ST2	5

## SUMMARY OF QUANTITIES

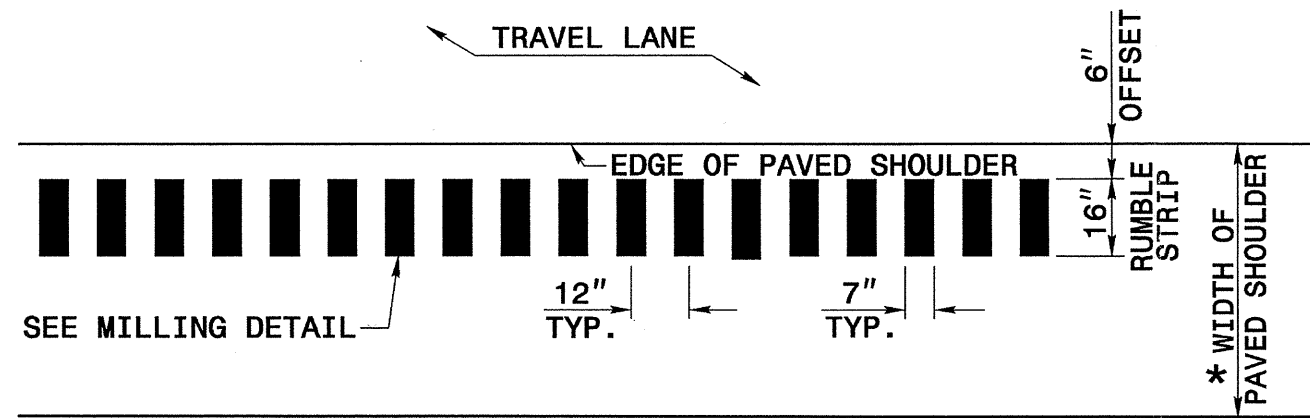
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	BORROW EXCAVATION CY	SHOULDER RECONSTRUCTION SMI	1/2" MILLING SY	MILLING ASPHALT PAVEMENT, 2 1/2" DEPTH SY	0" TO 1/2" MILLING SY	INTERMEDIATE COURSE, 119.0C TONS	SURFACE COURSE, S9.5C TONS	ASPHALT BINDER GRADE PG 64-22 TONS	ASPHALT BINDER GRADE PG 70-22 TON	MILLED RUMBLE STRIPS (ASPHALT CEMENT CONCRETE) LF
U-5144B 45164.3.ST2	Forsyth	1	US 421 NORTH BOUND LANE	FROM PVT JT NORTH OF SR 1175 WILLIAMS ROAD TO YADKIN COUNTY LINE	1	NO	4.093	32	164	8.19	1034	31681	7112	5348	7,128	251	428	43,222
<b>TOTAL FOR MAP NO. 1</b>							4.093			8.19	1034	31681	7112	5348	7,128	251	428	43,222
		2	US 421 SOUTH BOUND LANE	FROM YADKIN COUNTY LINE PVT JT NORTH OF SR 1175 WILLIAMS ROAD	1	NO	4.068	32	163	8.14	1034	31475	7112	5315	7,084	250	425	42,958
<b>TOTAL FOR MAP NO. 2</b>							4.068			8.14	1034	31475	7112	5315	7,084	250	425	42,958
<b>TOTAL FOR PROJ NO. U-5144B</b>							8.161		327	16.33	2068	63156	14224	10663	14,212	501	853	86,180
<b>GRAND TOTAL</b>							8.161		327	16.33	2068	63156	14224	10663	14,212	501	853	86,180

## THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4510000000-N	4589000000-N	4688000000-E		4690000000-E	4700000000-E	4815000000-E		4905000000-N
					LAW ENFORCEMENT HR	GENERIC TRAFFIC CONTROL ITEM LS	6" X 90 M WHITE THERMO LF	6" X 90 M YELLOW THERMO LF	6" X 120 M WHITE THERMO LF	12" X 90 M WHITE THERMOLF LF	6" WHITE PAINT LF	6" YELLOW PAINT LF	SNOW PLOWABLE MARKERS EA
U-5144B 45164.3.ST2	Forsyth	1	US 421 NORTH BOUND LANE	FROM PVT JT NORTH OF SR 1175 WILLIAMS ROAD TO YADKIN COUNTY LINE	160	1	21,811	21,811	5,492	890	54,606	43,622	315
<b>TOTAL FOR MAP NO. 1</b>					160	1	21,811	21,811	5,492	890	54,606	43,622	315
		2	US 421 SOUTH BOUND LANE	FROM YADKIN COUNTY LINE PVT JT NORTH OF SR 1175 WILLIAMS ROAD	160		21,679	21,679	5,490	770	54,338	43,358	312
<b>TOTAL FOR MAP NO. 2</b>					160		21,679	21,679	5,490	770	54,338	43,358	312
<b>TOTAL FOR PROJ NO. U-5144B</b>					320	1	43,490	43,490	10,982	1,660	108,944	86,980	627
<b>GRAND TOTAL</b>					320	1	43,490	43,490	10,982	1,660	108,944	86,980	627

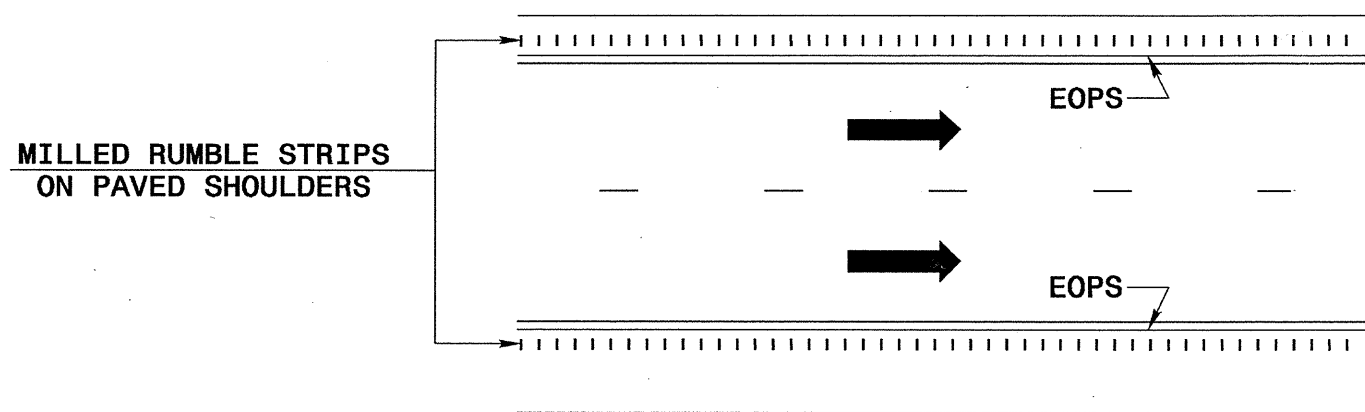
**Forsyth County 2010 US 421 Resurfacing Bridge Listing**

Sheet No.	Route No.	Route Name	Bridge No.	Feature Intersected	Floor Construction	Clear Roadway Width (Ft)	Horizontal Clearance Under (Ft)	Vertical Clearance Under	Length (Ft)	Posting	Recommended Treatment, From Bridge Maintenance
1	US 421 NBL/SBL	SR 1175 HAUSER ROAD	174	US 421	N/A	N/A	N/A	14FT 10 IN	N/A	N/A	Maintain Bridge Clearance
1	US 421 NBL/SBL	SR 1001 SHALLOWFORD ROAD	138	US 421	N/A	N/A	N/A	14FT 03 IN	N/A	N/A	Maintain Bridge Clearance
2	US 421 NBL/SBL	SR 1301 SCOTT ROAD	110	US 421	N/A	N/A	N/A	14FT 04 IN	N/A	N/A	Maintain Bridge Clearance
2	US 421 NBL	US 421	55	YADKIN RIVER	7 1/2 RC SLAB	28	N/A	N/A	621	N/A	Do NOT Pave Bridge. Mill Approach 250'
2	US 421 SBL	US 421	51	YADKIN RIVER	8 1/4 RC SLAB	40	N/A	N/A	621	N/A	Do NOT Pave Bridge. Mill Approach 250'

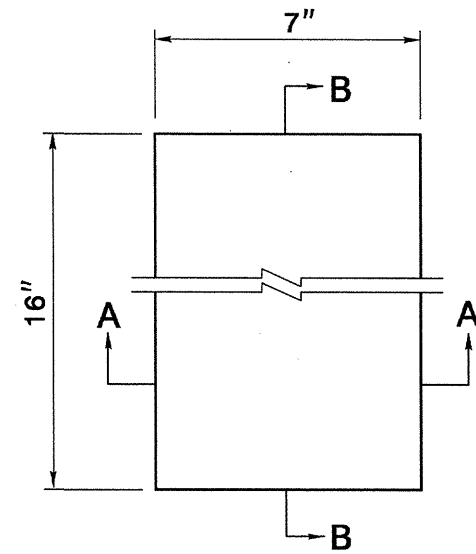


\* FOR WIDTHS SEE TYPICAL SECTIONS AND PLAN SHEETS

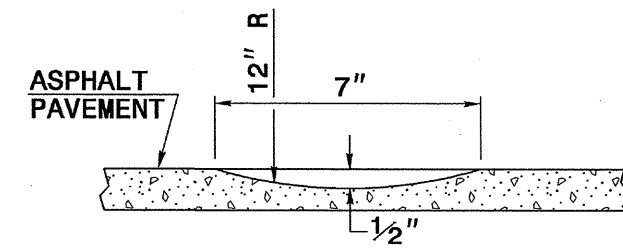
**PLAN VIEW  
 PAVED SHOULDER**



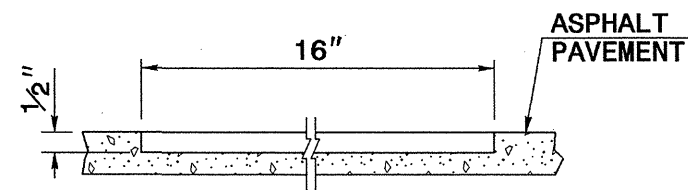
**LANE TREATMENT**



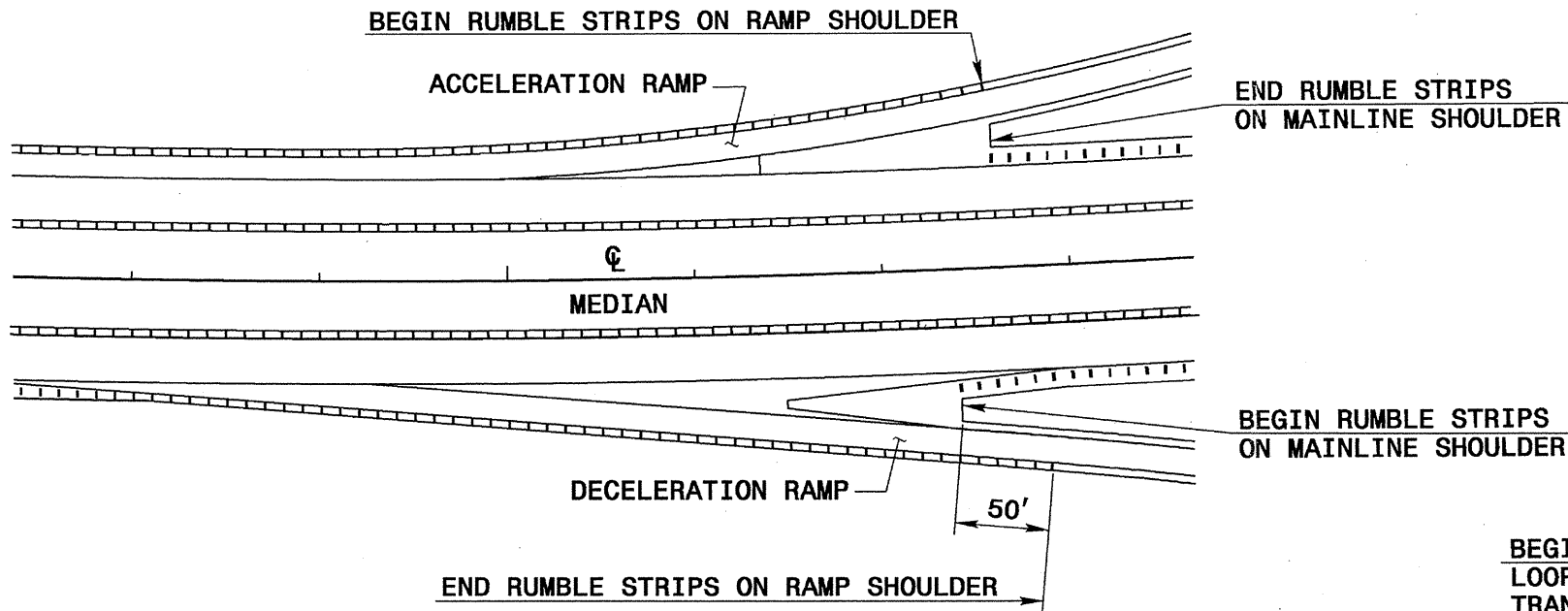
**PLAN VIEW  
 MILLING DETAIL**



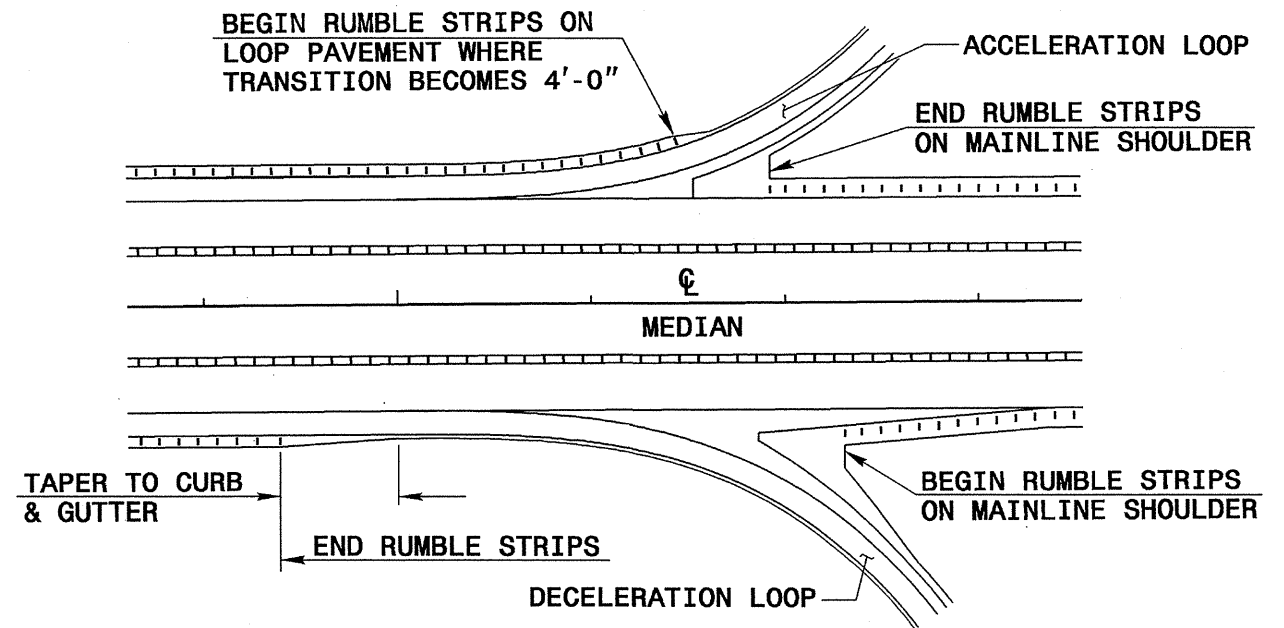
**SECTION A-A**



**SECTION B-B**

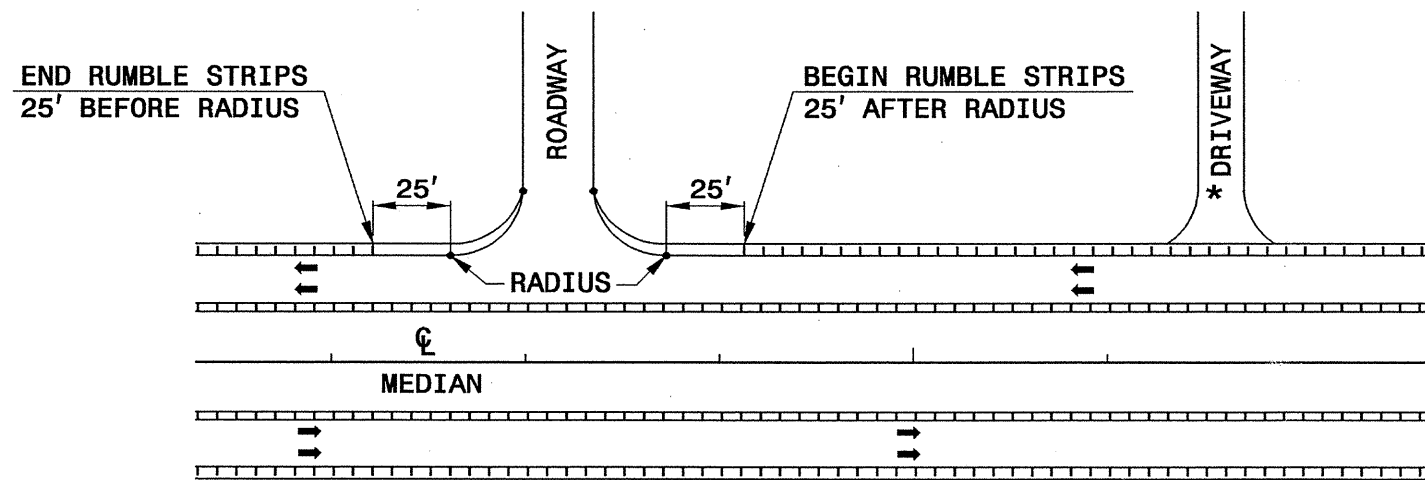


**TREATMENT AT RAMP TERMINALS**



**TREATMENT AT LOOP TERMINALS**

\* TERMINATE AT DRIVEWAYS AS DIRECTED BY THE ENGINEER.

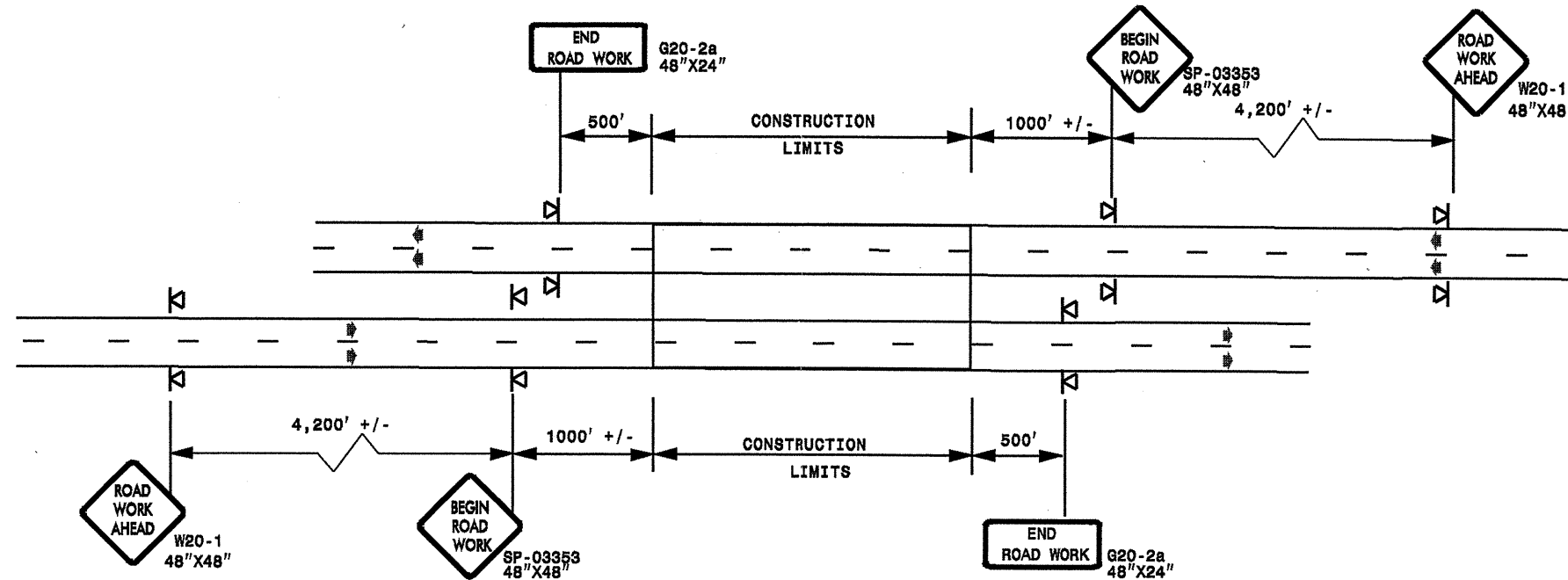


**TREATMENT AT INTERSECTIONS**  
 (ROADWAY OR DRIVEWAY)



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

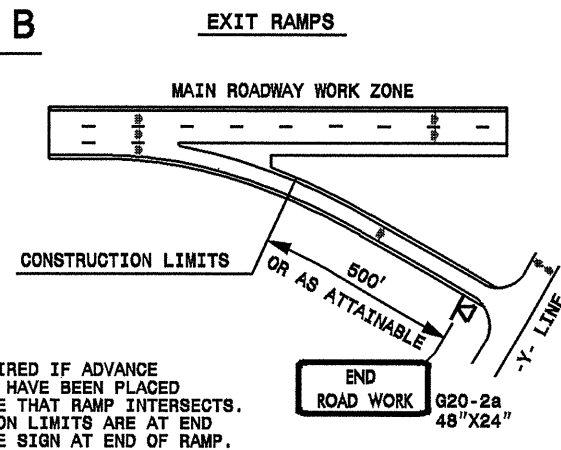
#### DETAIL A



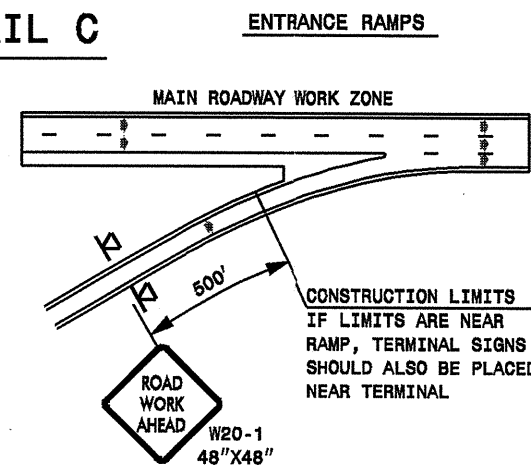
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

### ROADWAYS INTERSECTING ALONG FREEWAY WORK ZONE (Y-LINES)

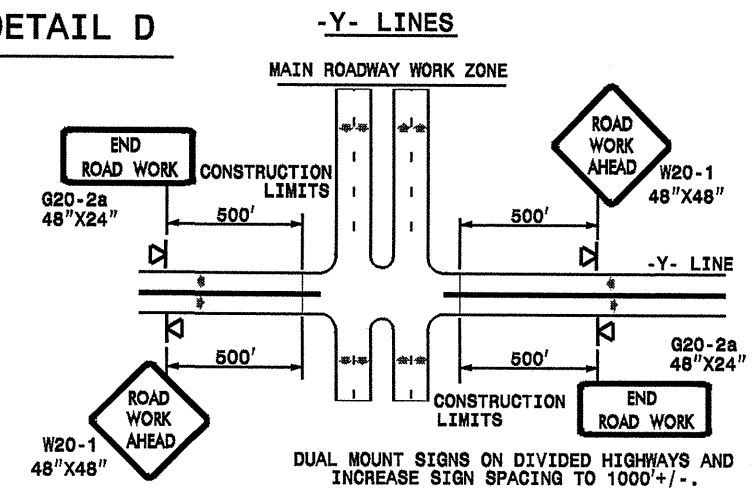
#### DETAIL B



#### DETAIL C



#### DETAIL D



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

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.


#### 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 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 FREEWAYS 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: _____	CHECKED: _____		

30-OCT-2009 12:58  
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