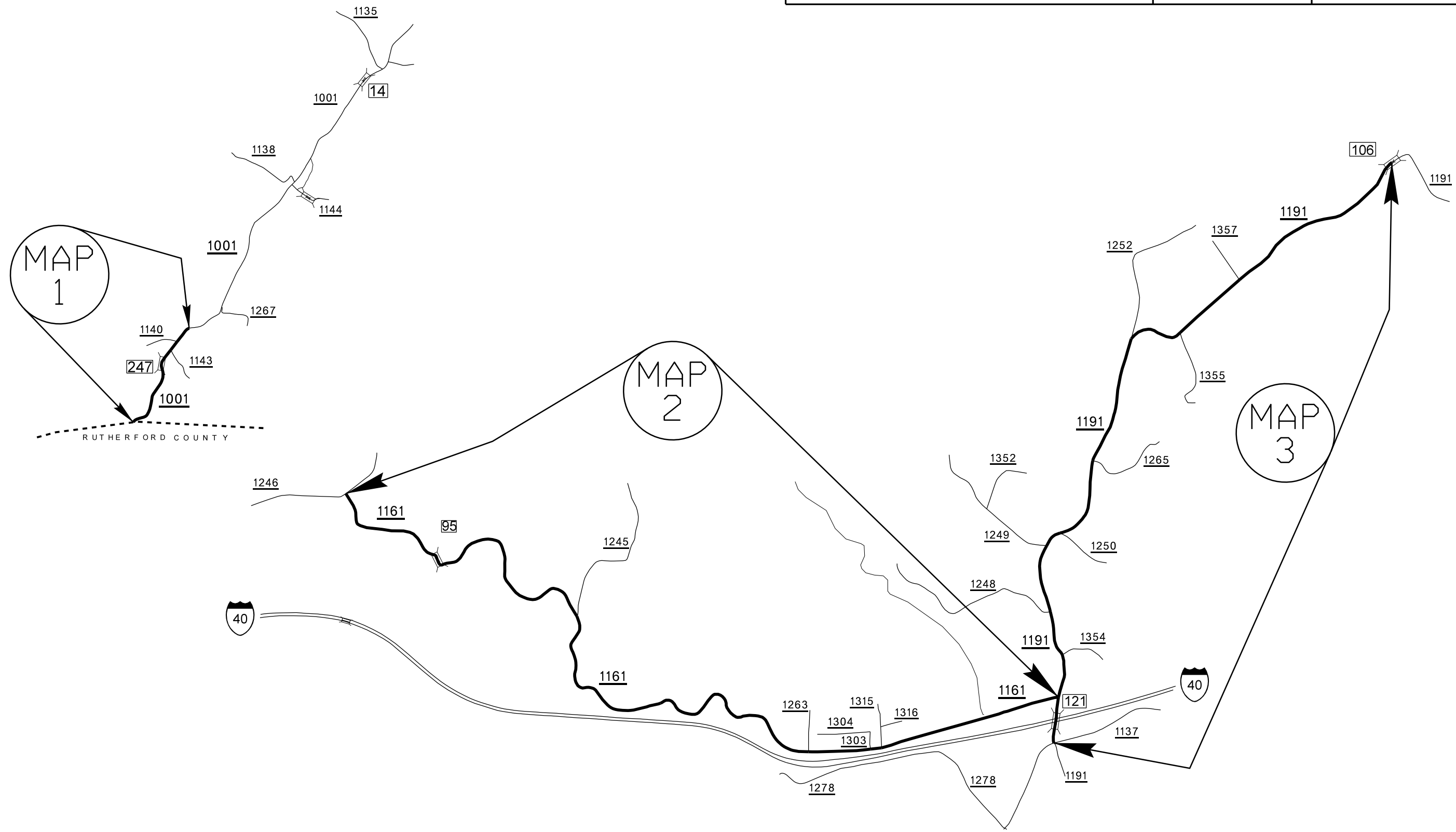
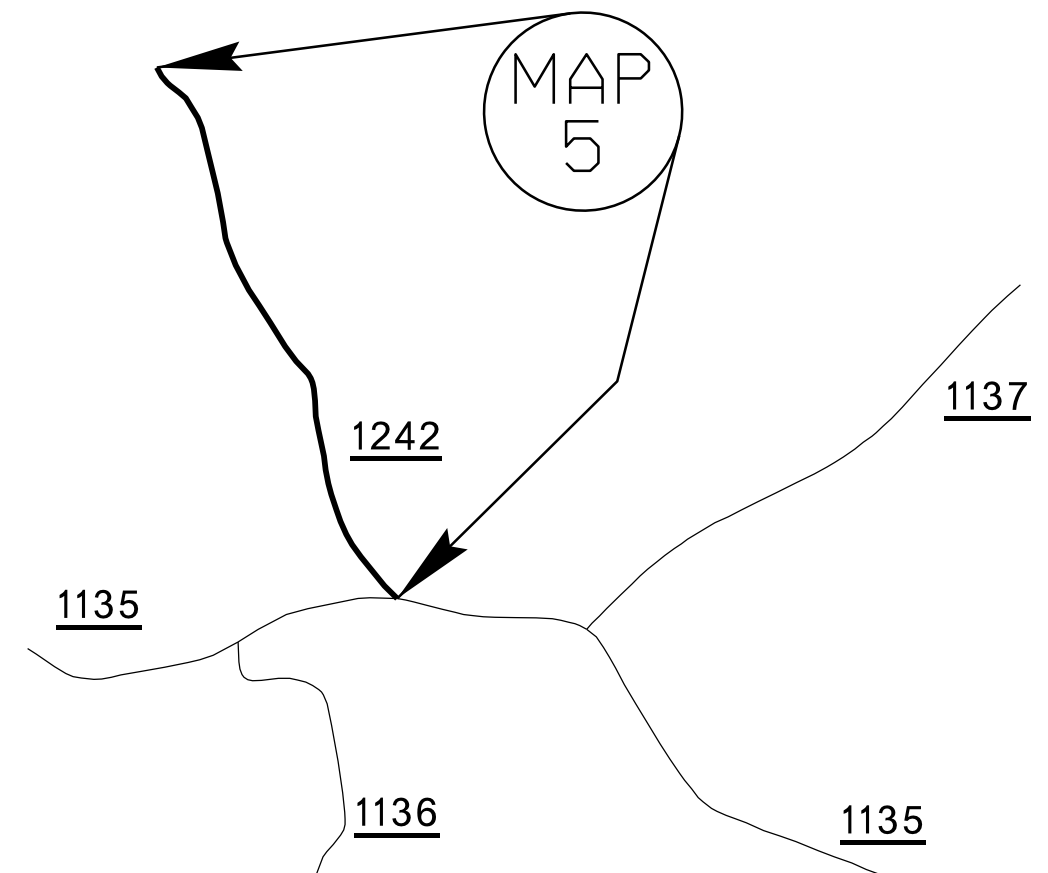
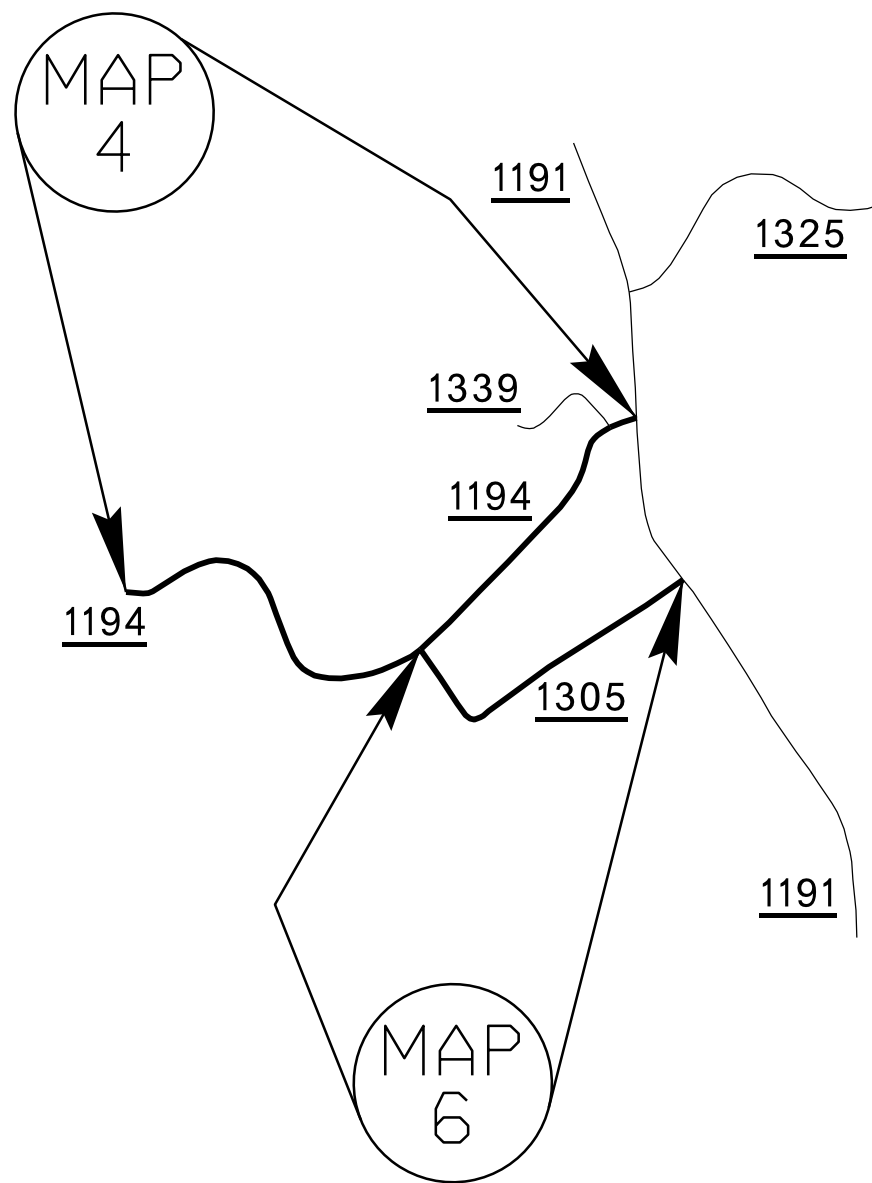


<i>PROJECT NO.</i>	<i>SHEET NO.</i>	<i>TOTAL SHEETS</i>
2022CPT.13.04.20591	<b>1</b>	<b>11</b>

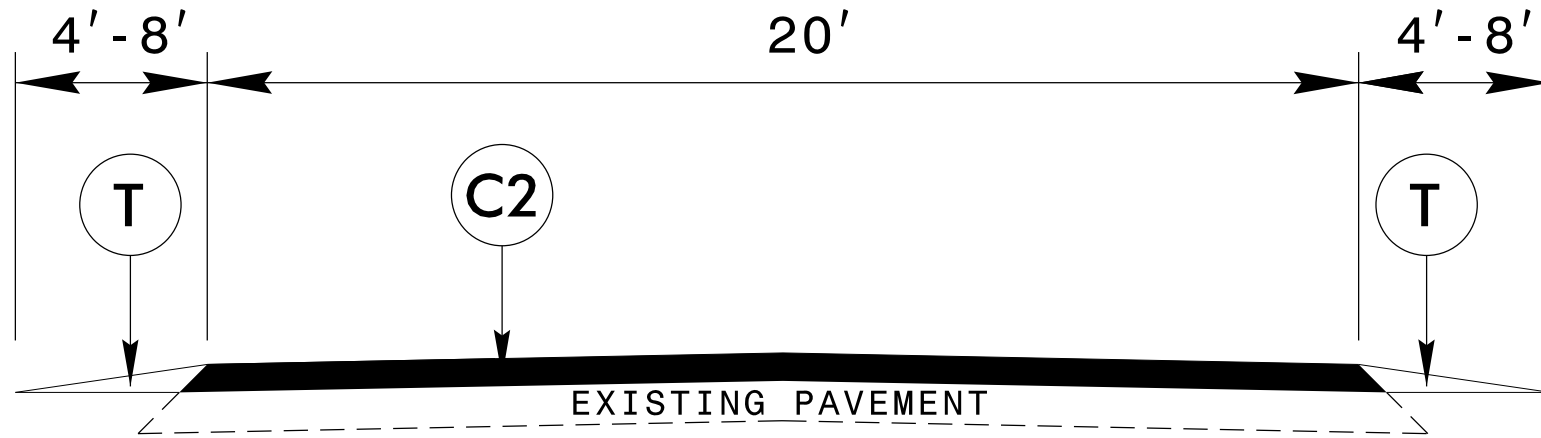


**MCDOWELL COUNTY**

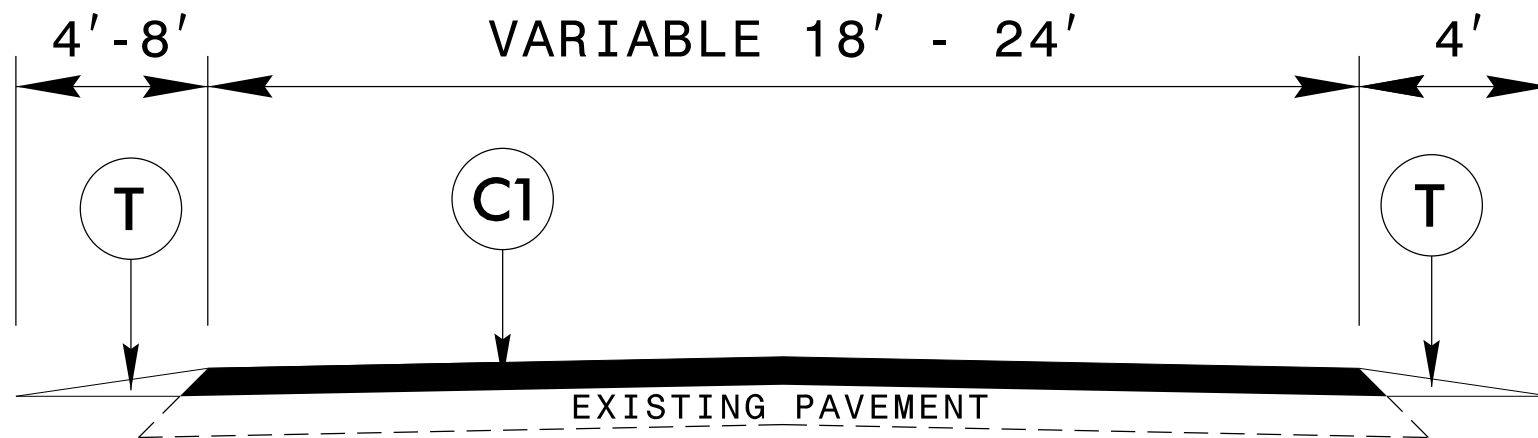
<i>PROJECT NO.</i>	<i>SHEET NO.</i>	<i>TOTAL SHEETS</i>
2022CPT.13.04.20591	<b>2</b>	<b>11</b>



***MCDOWELL COUNTY***



**TYPICAL SECTION #1**



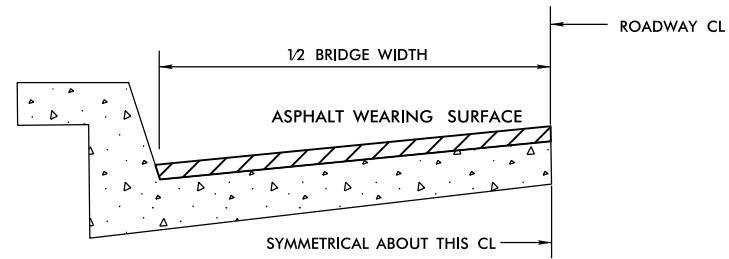
**TYPICAL SECTION #2**

**PAVEMENT SCHEDULE**

C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
C2	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD
T	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH

6/2/09

I2-OCT-2021 10:59 S:\DDC\Resurfacing\2022 Resurfacing\District 1\McDowell CR\McDowell Secondary Maps And Typical\2022\McDowell-ddc-typ-details.dgn



**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. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1/2", S9.5B 1", S9.5C,D 1.5" - 2". ULTRA-THIN HOT MIX ASPHALT - TYPE A 3/4", ULTRA-THIN HOT MIX ASPHALT - TYPE B 5/8", ULTRA-THIN HOT MIX ASPHALT - TYPE C 1/2". THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1", S9.5B 1.5", S9.5C,D 2". ULTRA-THIN HOT MIX ASPHALT - TYPE A 3/4", ULTRA-THIN HOT MIX ASPHALT - TYPE B 5/8", ULTRA-THIN HOT MIX ASPHALT - TYPE C 1/2".

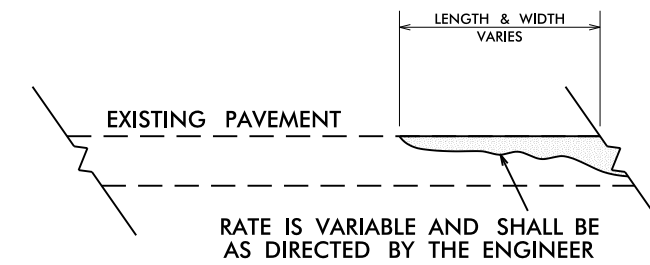
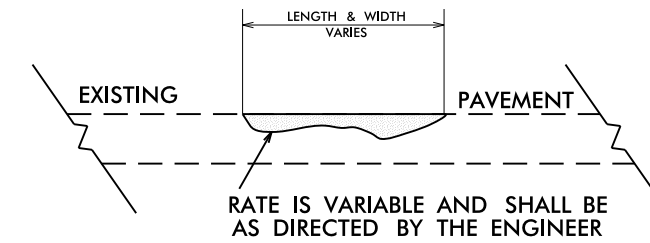
**NOTES**

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.

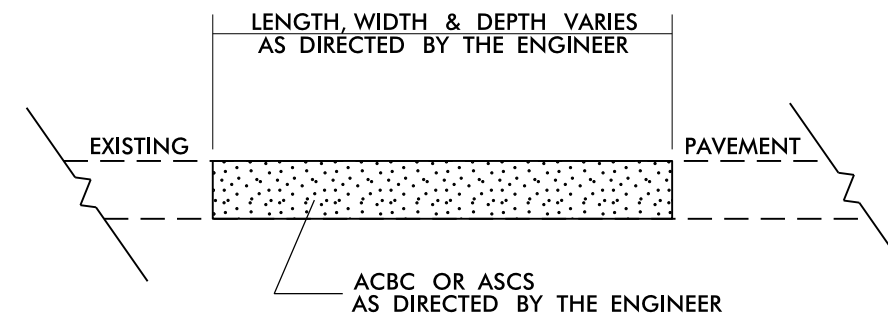
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.

SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.

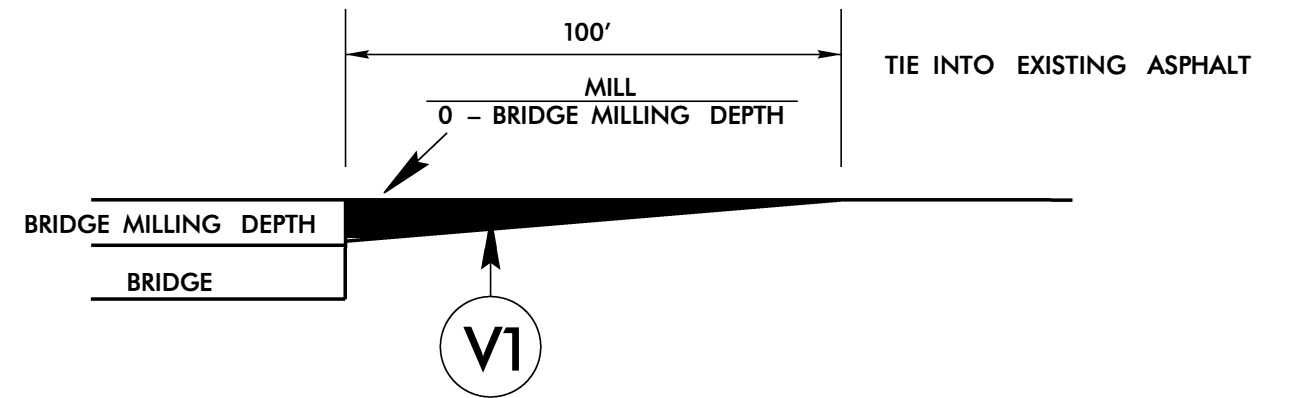
BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



**DETAIL SHOWING METHOD OF WEDGING**

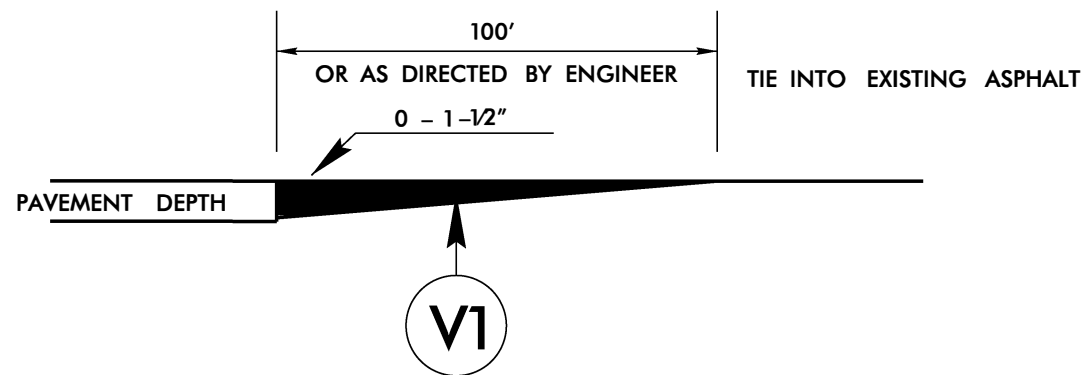


**PATCHING EXISTING PAVEMENT**



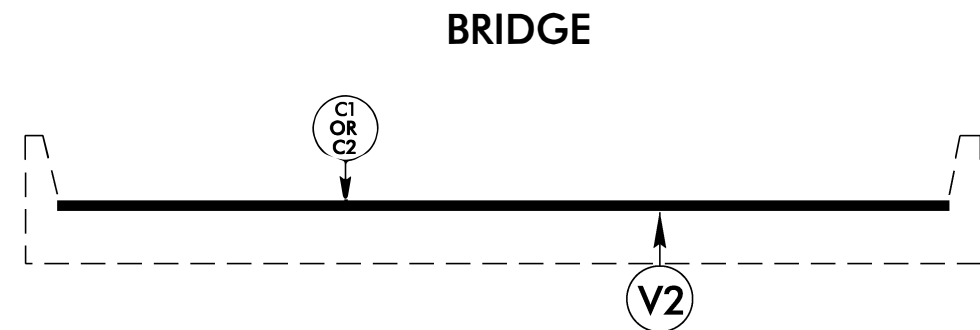
**MILLING DETAIL AT BRIDGE APPROACHES**

WHERE BRIDGES WILL BE MILLED THEN RESURFACED. THIS WILL BE PAID FOR AS INCIDENTAL MILLING. USE AT BRIDGE NUMBER: 247 AND MAP 1, 95 MAP 2, AND 106 AND 121 MAP 3.



**DETAIL TO TIE INTO EXIST PAVEMENT**

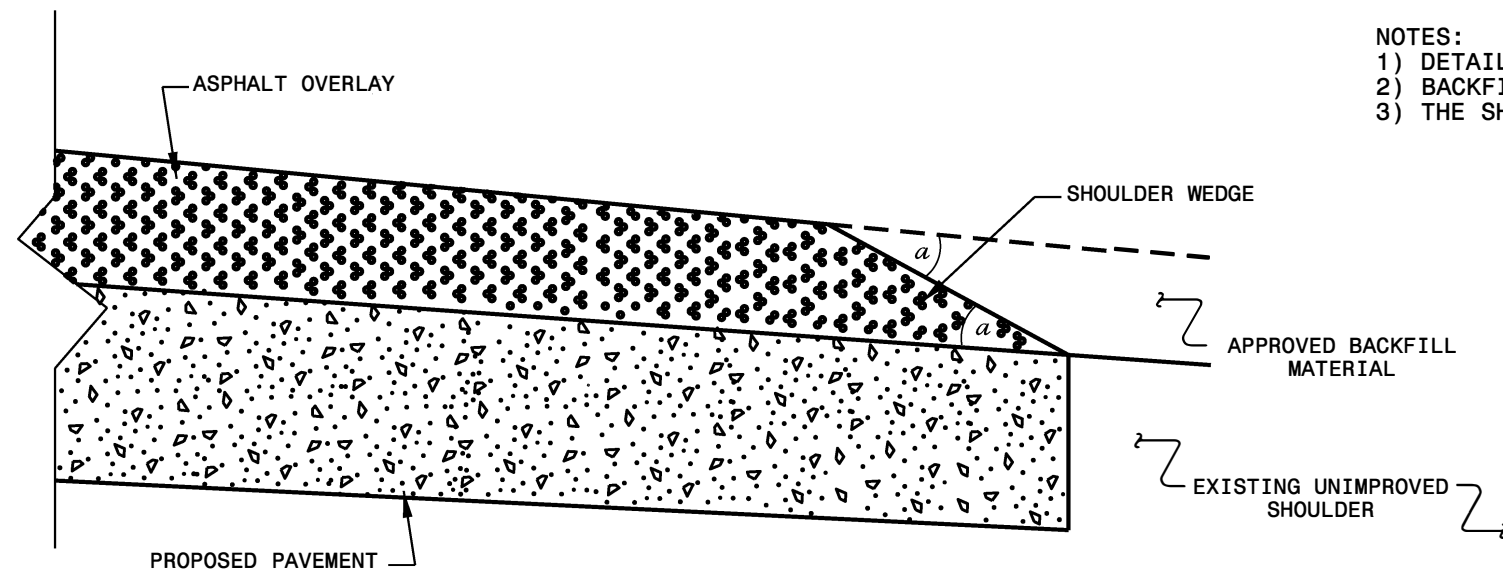
THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT HE WILL BE REQUIRED TO MILL THE EXISTING ASPHALT PAVEMENT TO ENSURE A PROPER TIE-IN WITH THE EXISTING SURFACE AT THE BEGINNING, END AND Y LINES OF EACH MAP TO BE RESURFACED WITH ASPHALT CONC SURFACE COURSE, TYPE S9.5C. THIS WILL BE PAID FOR AS INCIDENTAL MILLING.



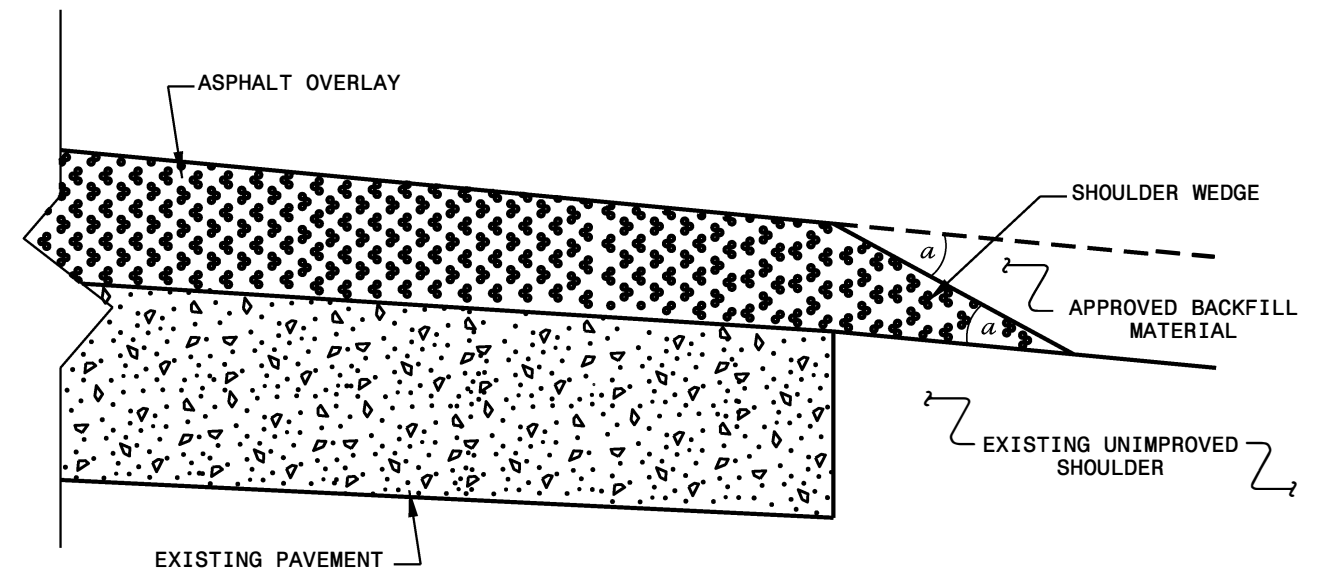
**BRIDGE DETAIL**

BRIDGE NUMBER 247 MAP 1, 95 MAP 2, AND 106 AND 121 MAP 3. MILL 1-1/2" OFF EXISTING PAVEMENT SEE MAP FOR BRIDGE LOCATION.

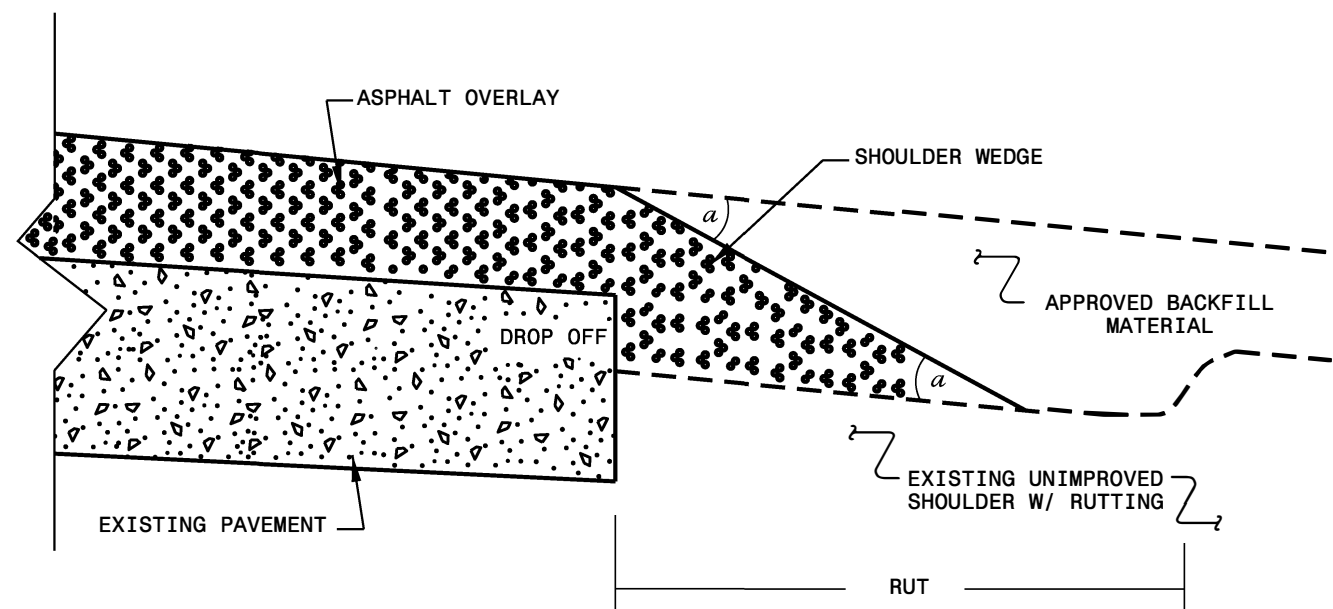
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ Widening or  
 with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ NO Widening)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to  
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>SHOULDER WEDGE DETAILS</b>	
ORIGINAL BY: T.SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/16/12
CHECKED BY:	DATE:
FILE SPEC.: susr/dot/113/stand/shoulderwed_detail.dwg	

SECTION  
 USER NAME  
 DATE  
 TIME

PROJECT NO.	SHEET NO.	TOTAL NO.
2022CPT.13.04.20591	7	11

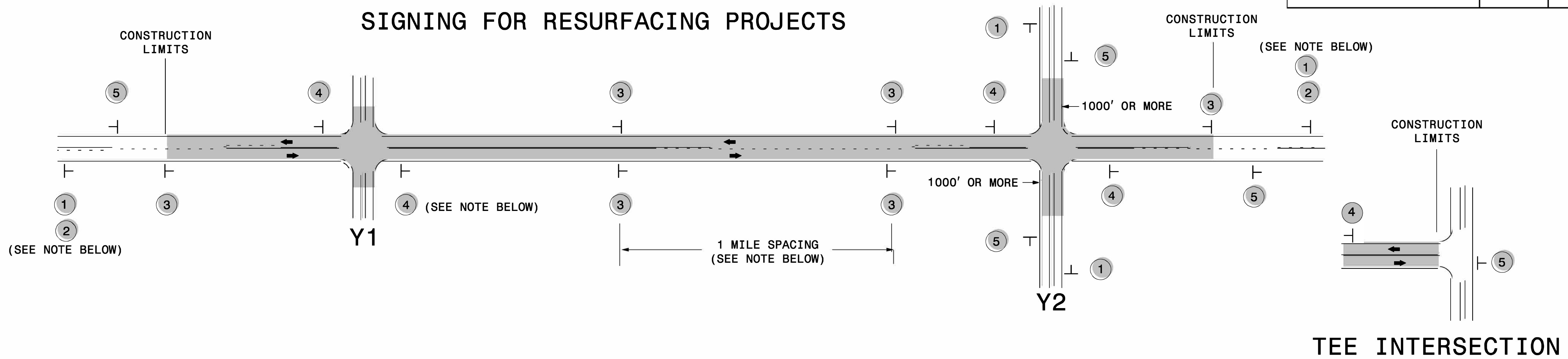
### SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	1220000000-E	1245000000-E	1260000000-E	1297000000-E		1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	
												INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH	MILLING ASPHALT PAVEMENT, 2" DEPTH	INCIDENTAL MILLING	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	
											MI	FT	TON	SMI	TON	SY	SY	SY	TON	TON	TON	TON
2022CPT.13.04.20591	McDowell	1	SR 1001 (MONTFORD COVE RD)	FROM RUTHERFORD COUNTY LINE TO MP 1.06 (MP 0.00 TO MP 1.06)	1	2	2WU	NO	NO	2.12	20	106	2.23	566			571		1,084	65	293	
2022CPT.13.04.20591	McDowell	2	SR 1161 (LYTLE MTN. RD)	FROM SR 1191 TO SR 1246 (MP 0.00 - MP 3.68)	2	2	2WU	NO	NO	3.64	19	182	7.20	936	508		422	3,517		236	963	
2022CPT.13.04.20591	McDowell	3	SR 1191 (NIX CREEK RD)	FROM BRIDGE 580106 TO SR 1137 (MP 1.49 - MP 4.47)	2	2	2WU	NO	NO	2.98	21.5	149	6.03	784		706	533	3,064		205	1,012	
2022CPT.13.04.20591	McDowell	4	SR 1194 (MCKINNEY RD)	FROM SR 1191 TO DEAD END (MP 0.00 - MP 0.67)	2	2	2WU	NO	NO	0.67	19	33	1.36	177					643		43	291
2022CPT.13.04.20591	McDowell	5	SR 1242 (LOWER HAW BRANCH RD)	FROM SR 1135 TO DEAD END (MP 0.00 - MP 0.57)	2	2	2WU	NO	NO	0.56	18	28	1.12	146					574		38	326
2022CPT.13.04.20591	McDowell	6	SR 1305 (SUNSET DR)	FROM SR 1194 TO SR 1191 (MP 0.00 - MP 0.33)	2	2	2WU	NO	NO	0.31	18	16	0.62	82					276		18	43
<b>TOTAL FOR PROJ NO. 2022CPT.13.04.20591</b>											<b>10.28</b>		<b>514</b>	<b>18.56</b>	<b>2,691</b>	<b>508</b>	<b>706</b>	<b>1,526</b>	<b>8,074</b>	<b>1,084</b>	<b>605</b>	<b>2,928</b>
<b>GRAND TOTAL</b>											<b>10.28</b>		<b>514</b>	<b>18.56</b>	<b>2,691</b>	<b>508</b>	<b>706</b>	<b>1,526</b>	<b>8,074</b>	<b>1,084</b>	<b>605</b>	<b>2,928</b>

### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	4413000000-E	4457000000-N	4810000000-E		4895000000-N	
												WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	PAINT PAVEMENT MARKING LINES (4") WHITE	PAINT PAVEMENT MARKING LINES (4") YELLOW	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKERS	
											MI	FT	SF	LS	LF	LF	EA
2022CPT.13.04.20591	McDowell	1	SR 1001 (MONTFORD COVE RD)	FROM RUTHERFORD COUNTY LINE TO MP 1.06 (MP 0.00 TO MP 1.06)	1	2	2WU	NO	NO	2.12	20	119					109
2022CPT.13.04.20591	McDowell	2	SR 1161 (LYTLE MTN. RD)	FROM SR 1191 TO SR 1246 (MP 0.00 - MP 3.68)	2	2	2WU	NO	NO	3.64	19	408					
2022CPT.13.04.20591	McDowell	3	SR 1191 (NIX CREEK RD)	FROM BRIDGE 580106 TO SR 1137 (MP 1.49 - MP 4.47)	2	2	2WU	NO	NO	2.98	21.5	334					
2022CPT.13.04.20591	McDowell	4	SR 1194 (MCKINNEY RD)	FROM SR 1191 TO DEAD END (MP 0.00 - MP 0.67)	2	2	2WU	NO	NO	0.67	19	75					
2022CPT.13.04.20591	McDowell	5	SR 1242 (LOWER HAW BRANCH RD)	FROM SR 1135 TO DEAD END (MP 0.00 - MP 0.57)	2	2	2WU	NO	NO	0.56	18	63					
2022CPT.13.04.20591	McDowell	6	SR 1305 (SUNSET DR)	FROM SR 1194 TO SR 1191 (MP 0.00 - MP 0.33)	2	2	2WU	NO	NO	0.31	18	35					
<b>TOTAL FOR PROJ NO. 2022CPT.13.04.20591</b>											<b>10.28</b>		<b>1,034</b>	<b>1</b>	<b>176,374</b>	<b>168,963</b>	<b>109</b>
<b>GRAND TOTAL</b>											<b>10.28</b>		<b>1,034</b>	<b>1</b>	<b>176,374</b>	<b>168,963</b>	<b>109</b>

# SIGNING FOR RESURFACING PROJECTS



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	2	3	4	5	
			PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.			
			#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)			
			- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.			
			- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.			
					NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS: 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS  WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.	
					 W20-1 48" X 48"  W20-7 A 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.	

**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**







**SIGN NUMBER:** SP13107  
**TYPE:** STATIONARY  
**QUANTITY:** SEE PLANS

**BACKG COLOR:** Fluorescent Orange  
**COPY COLOR:** Black

**DESIGN BY:** B. RASHID  
**PROJECT ID:**

**CHECKED BY:** AIA  
**DIV:**

**DATE:** Apr 26, 2013

PROJECT NO.	SHEET NO.	TOTAL NO.
2022CPT.13.04.20591	11	11

**SIGN WIDTH:** 4'-0"  
**HEIGHT:** 4'-0"  
**TOTAL AREA:** 16.00 Sq.Ft.

SYMBOL	X	Y	WID	HT

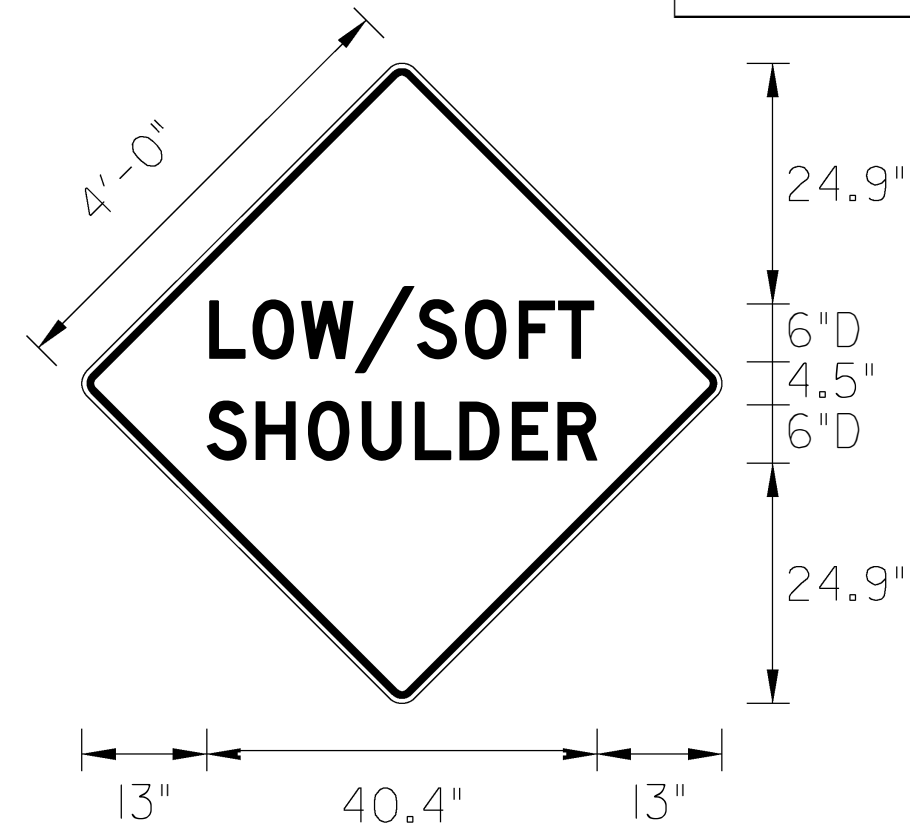
**BORDER TYPE:** INSET  
**RECESS:** 0.75"  
**WIDTH:** 1.25"  
**RADII:** 3"

**MAT'L:** 0.080" (2.0 mm) ALUMINUM

**NO. Z BARS:**  
**LENGTH:**

**USE NOTES: 1,2**

- Legend and border shall be direct applied black non-reflective sheeting.
- Background shall be NC GRADE B fluorescent orange retroreflective sheeting.



Spacing Factor is 1 unless specified otherwise

**LETTER POSITIONS**

Letter spacings are to start of next letter											Series/Size	
											Text Length	
	L	O	W	/	S	O	F	T				D 2000
13.2	4.5	5	5.5	6.5	5	5.6	4.1	3.7	13.2			39.9
	S	H	O	U	L	D	E	R				D 2000
13	5.1	5.4	5.6	5.5	4.6	5.4	4.7	4.1	13			40.4