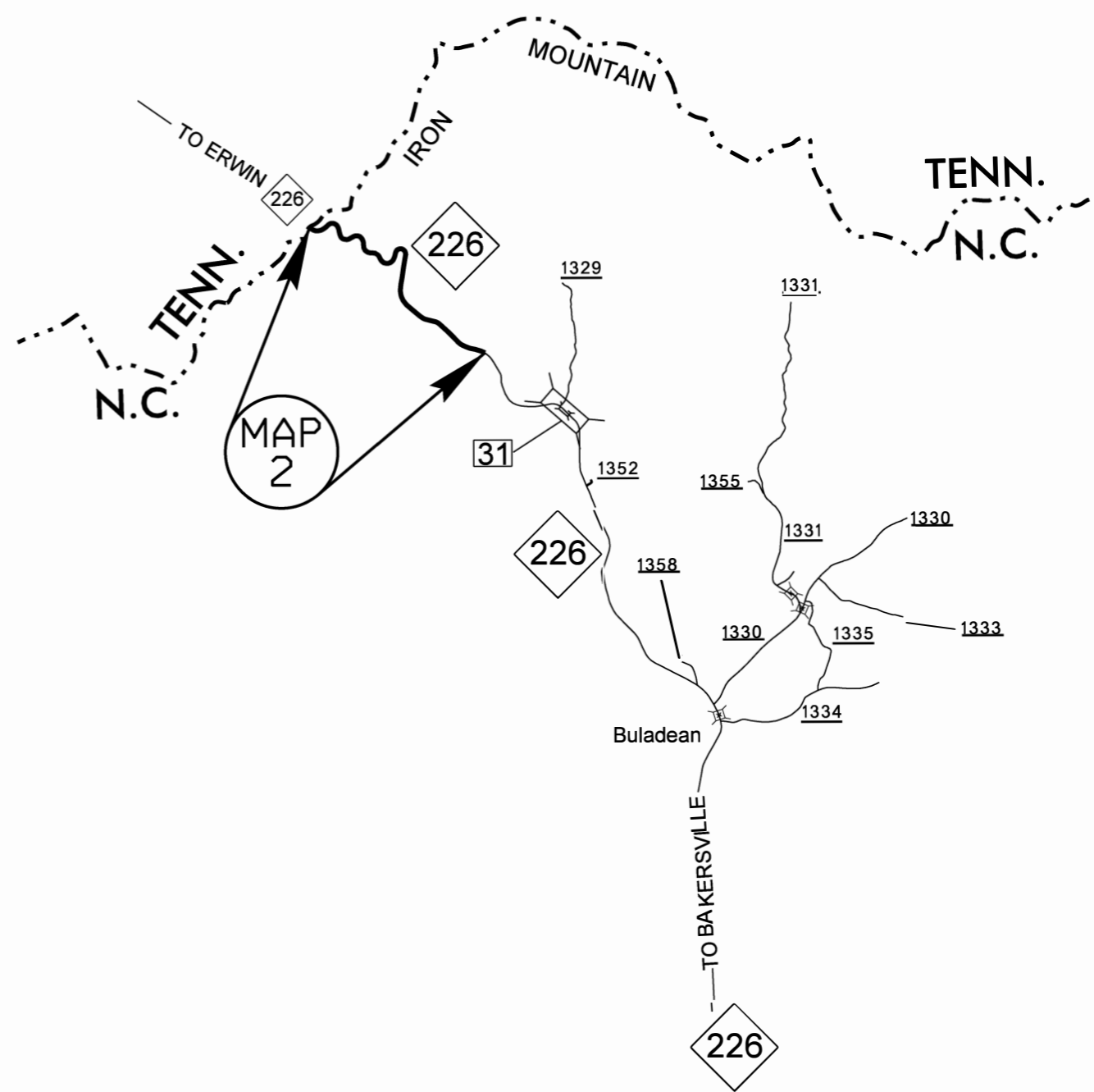
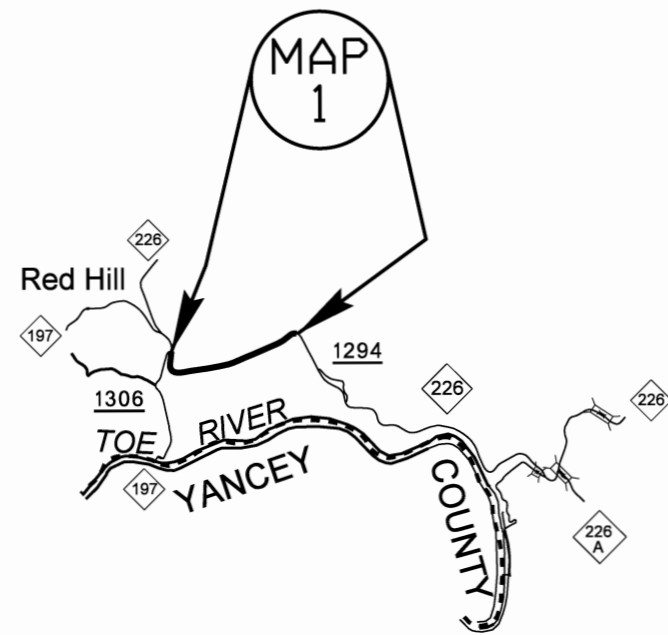
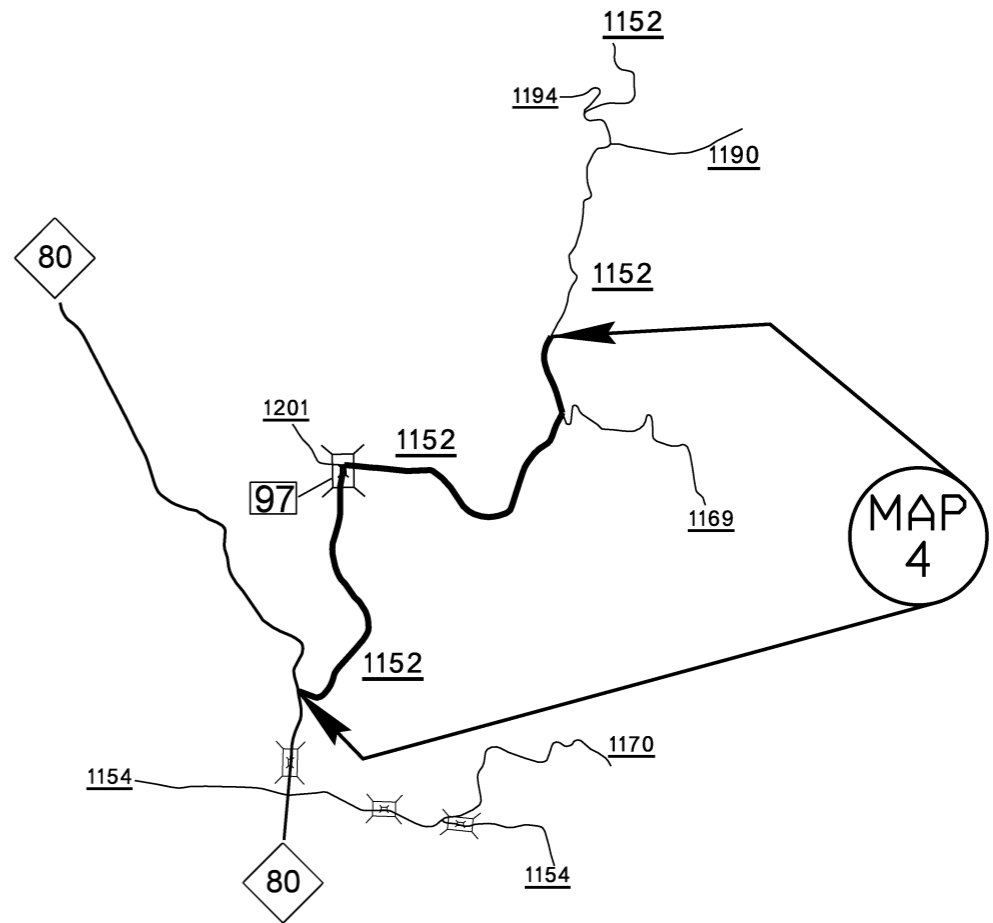
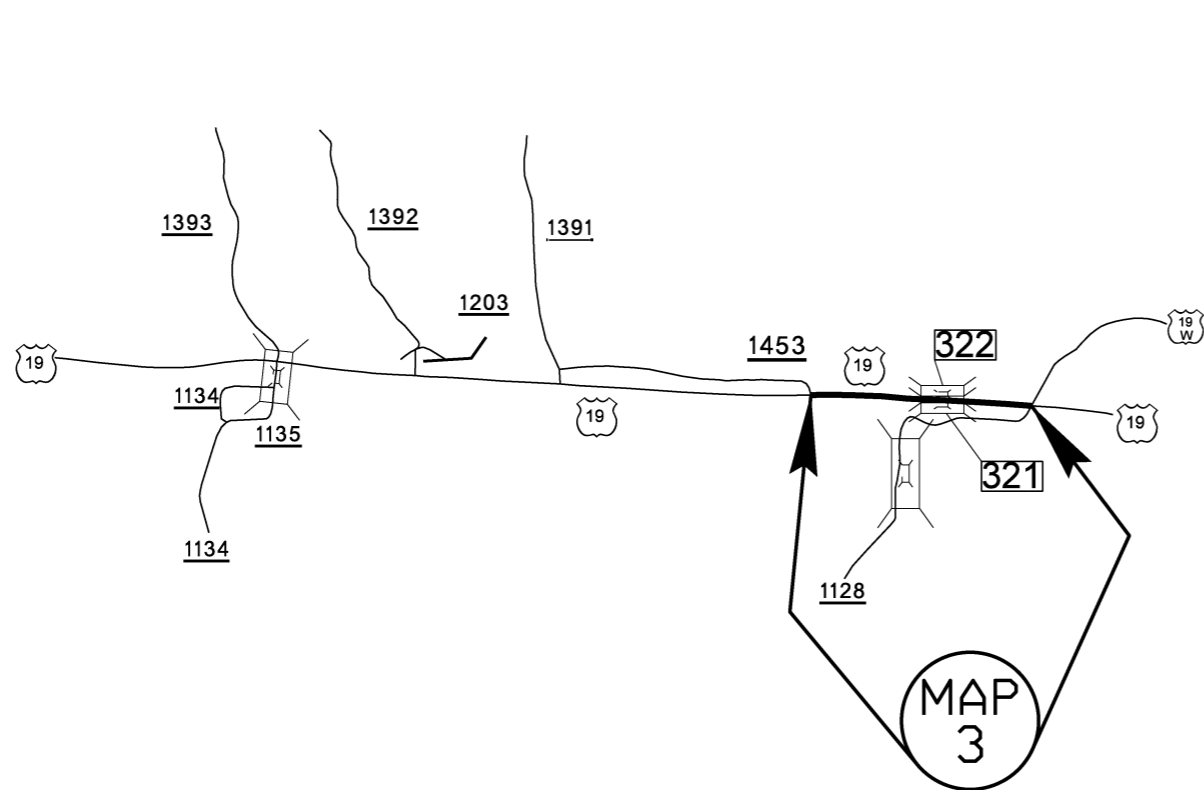


PROJECT NO.	SHEET NO.	TOTAL SHEETS
2022CPT.13.05.10611, 2022CPT.13.07.11001, 2022CPT.13.07.21001	<b>1</b>	<b>13</b>

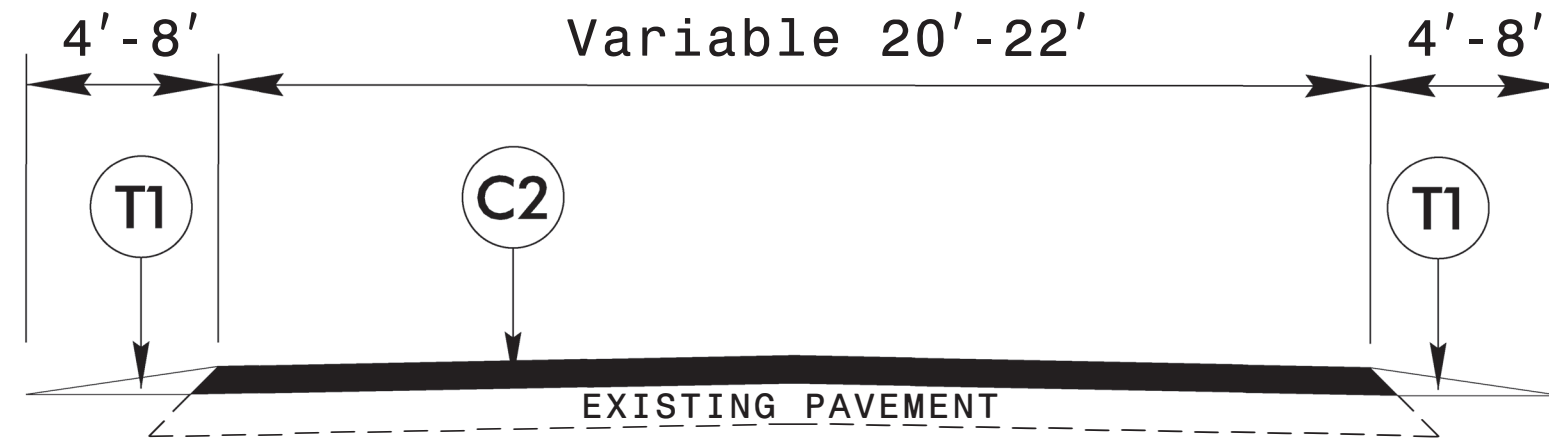


**MITCHELL COUNTY**

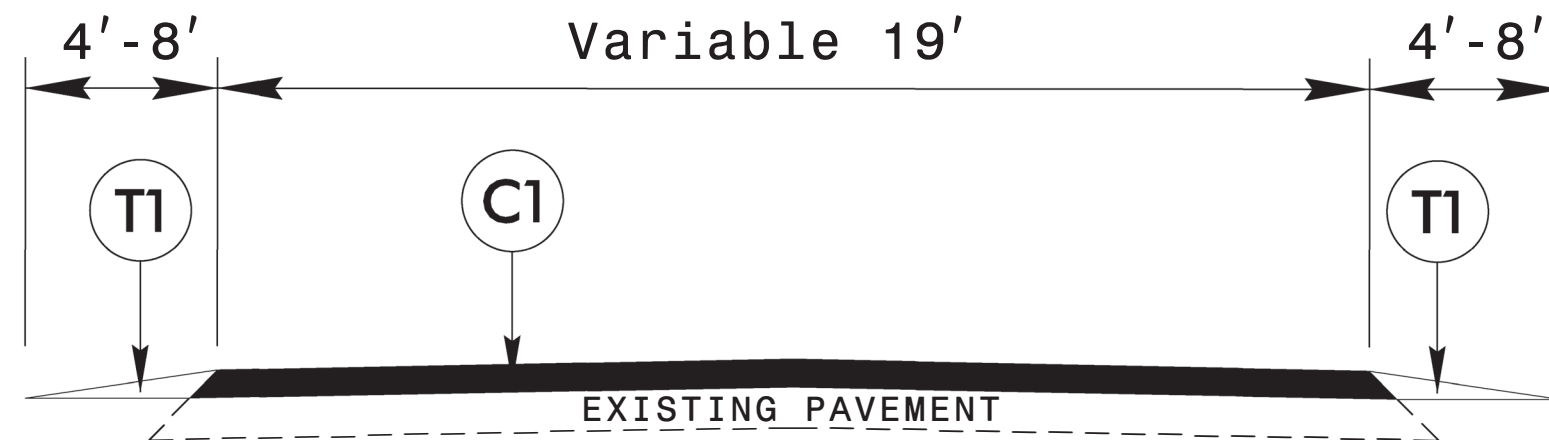
<i>PROJECT NO.</i>	<i>SHEET NO.</i>	<i>TOTAL SHEETS</i>
2022CPT.13.05.10611, 2022CPT.13.07.11001, 2022CPT.13.07.21001	<b>2</b>	<b>13</b>



**YANCEY COUNTY**

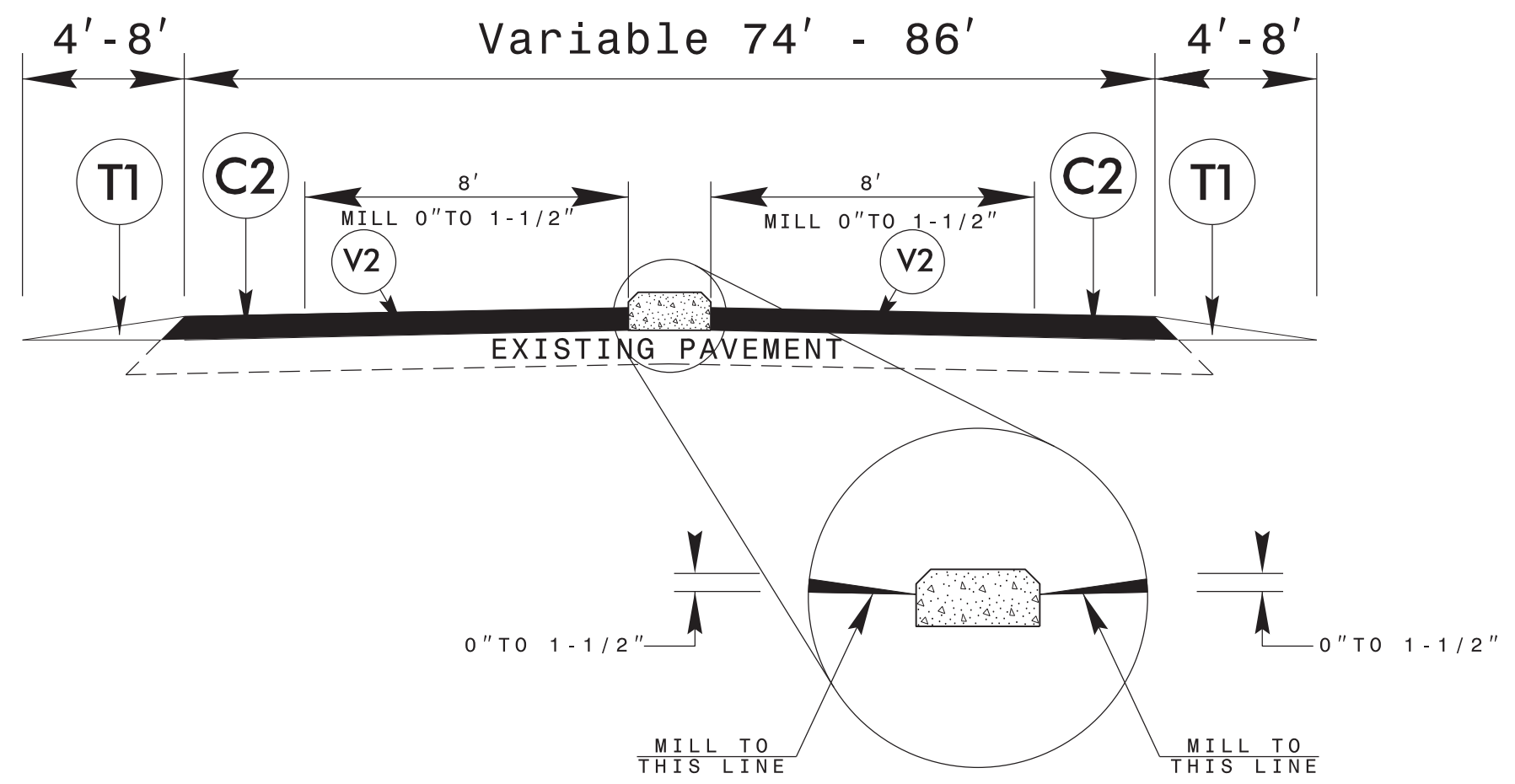


**TYPICAL SECTION #1**



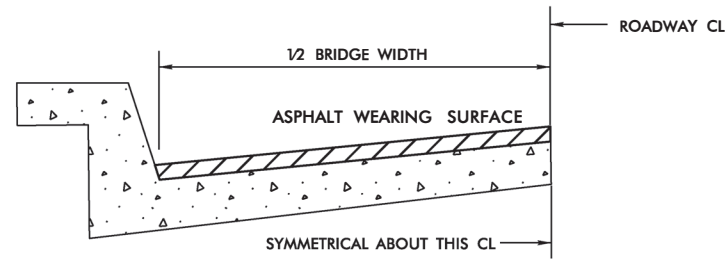
**TYPICAL SECTION #2**

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
T1	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH



**TYPICAL SECTION #3**

PAVEMENT SCHEDULE	
C2	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD
T1	SHOULDER RECONSTRUCTION
V2	MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH



**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".

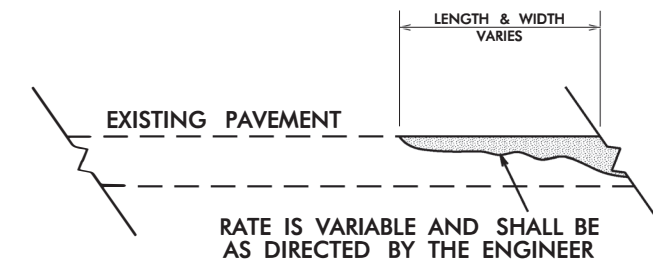
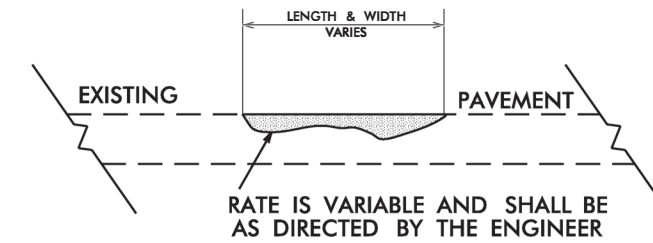
**NOTES**

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.

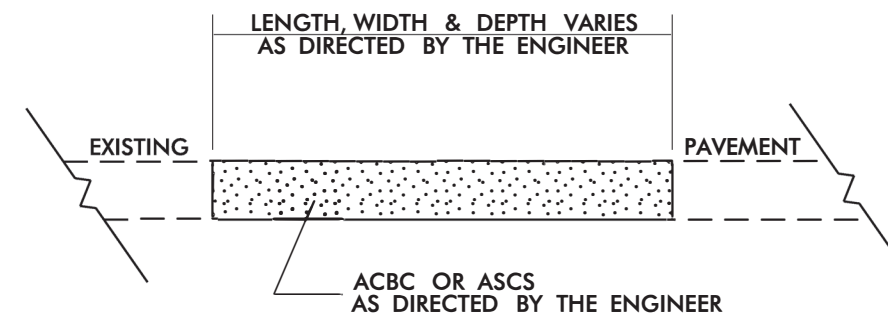
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.

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.

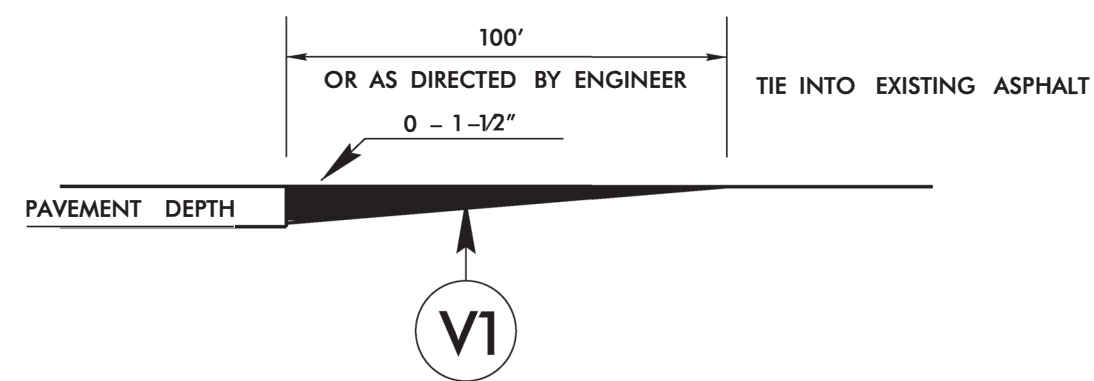


**DETAIL SHOWING METHOD OF WEDGING**



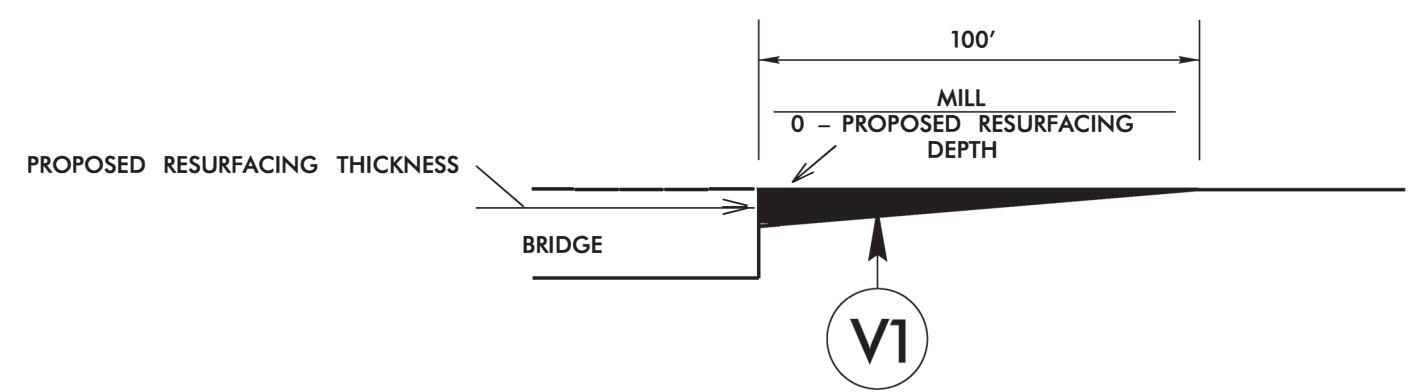
**PATCHING EXISTING PAVEMENT**

6/2/09  
 I6-APR-2021 12:51  
 S:\DDC\Resurfacing\2022 Supplemental Resurfacing\Mitchell and Yancey CR\Typicals and Details\Mitchell and Yancey.dwg  
 Supplemental Resurfacing  
 \$\$\$\$



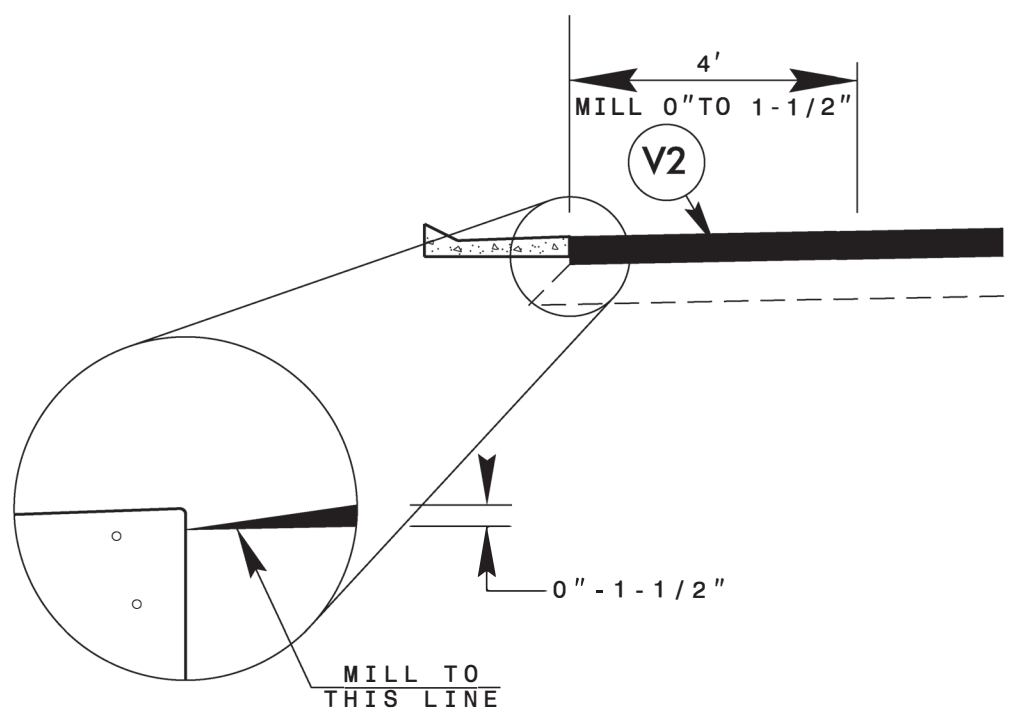
**DETAIL TO TIE INTO EXIST PAVEMENT**

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.



**MILLING DETAIL AT BRIDGE APPROACHES**

WHERE BRIDGES WILL NOT BE RESURFACED. THIS WILL BE PAID FOR AS INCIDENTAL MILLING. USE AT BRIDGE NUMBER: 321 AND 322 MAP 3, AND 97 MAP 4.



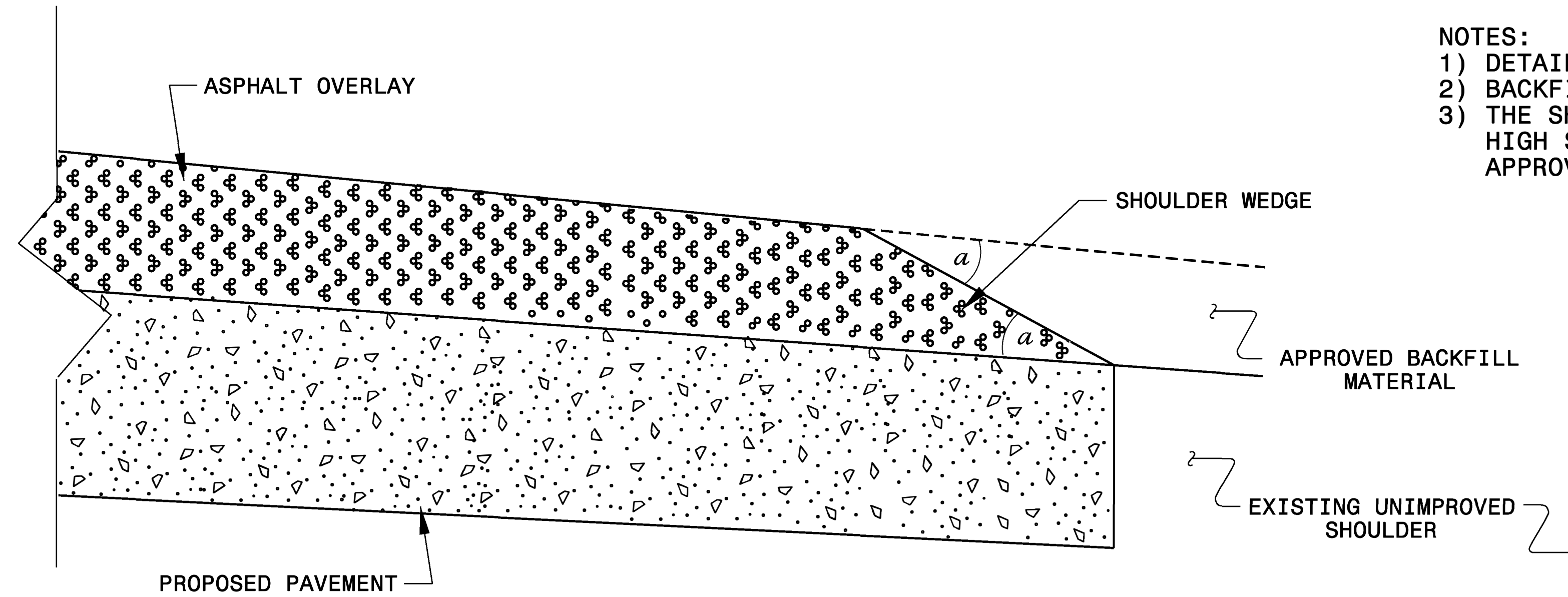
**CONCRETE GUTTER MILLING DETAIL**

CONCRETE GUTTER LOCATED ON THE OUTSIDE EDGE OF PAVEMENT IN VARIOUS LOCATIONS OF MAP 3

6/2/99  
 16-APR-2021 13:08  
 S:\DDC\T\Resurfacing\2022 Supplemental Resurfacing\Mitchell and Yancey CR\Typicals and Details\Mitchell and Yancey-ddc-SupplementalRES-Typ.dgn  
 \$\$\$\$15687406\$\$\$\$

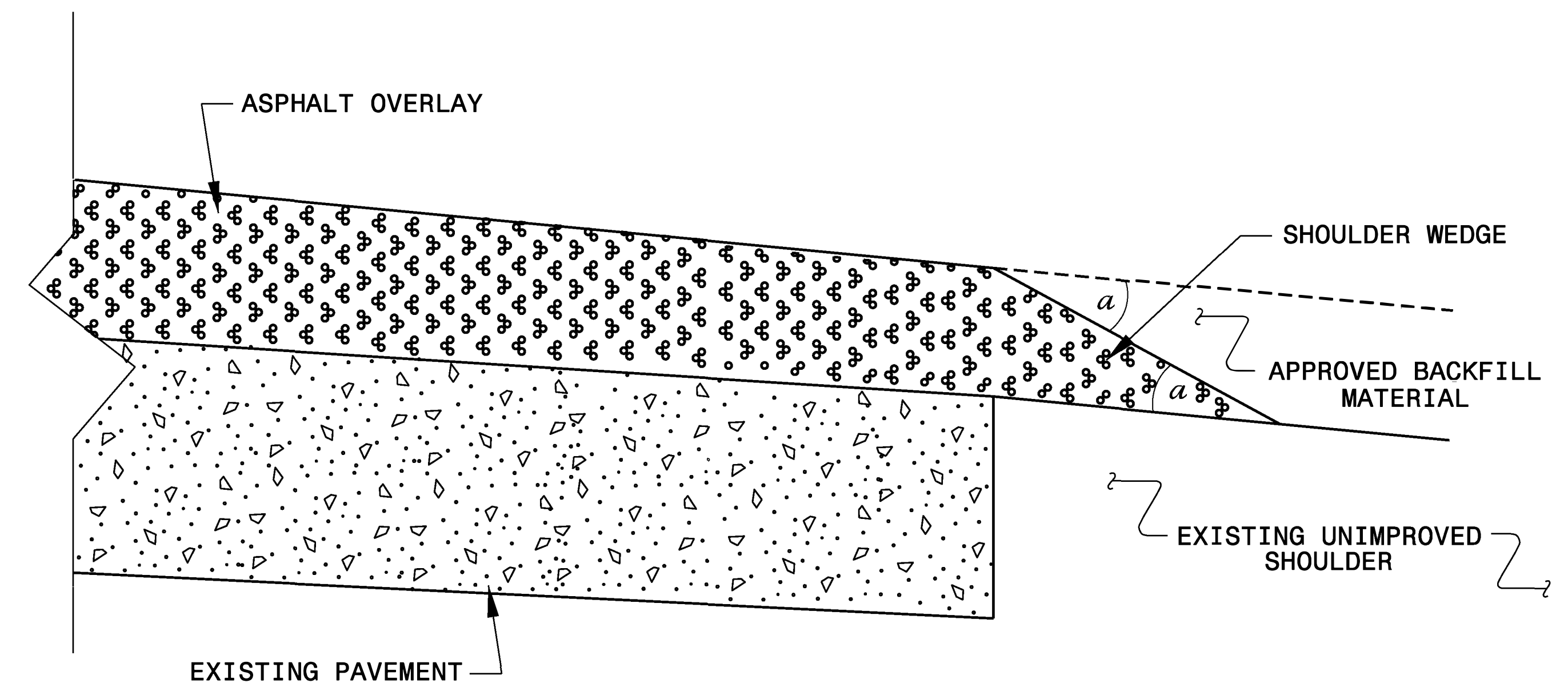
**NOTES:**

- 1) DETAIL DOES NOT APPLY TO OGAFD AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



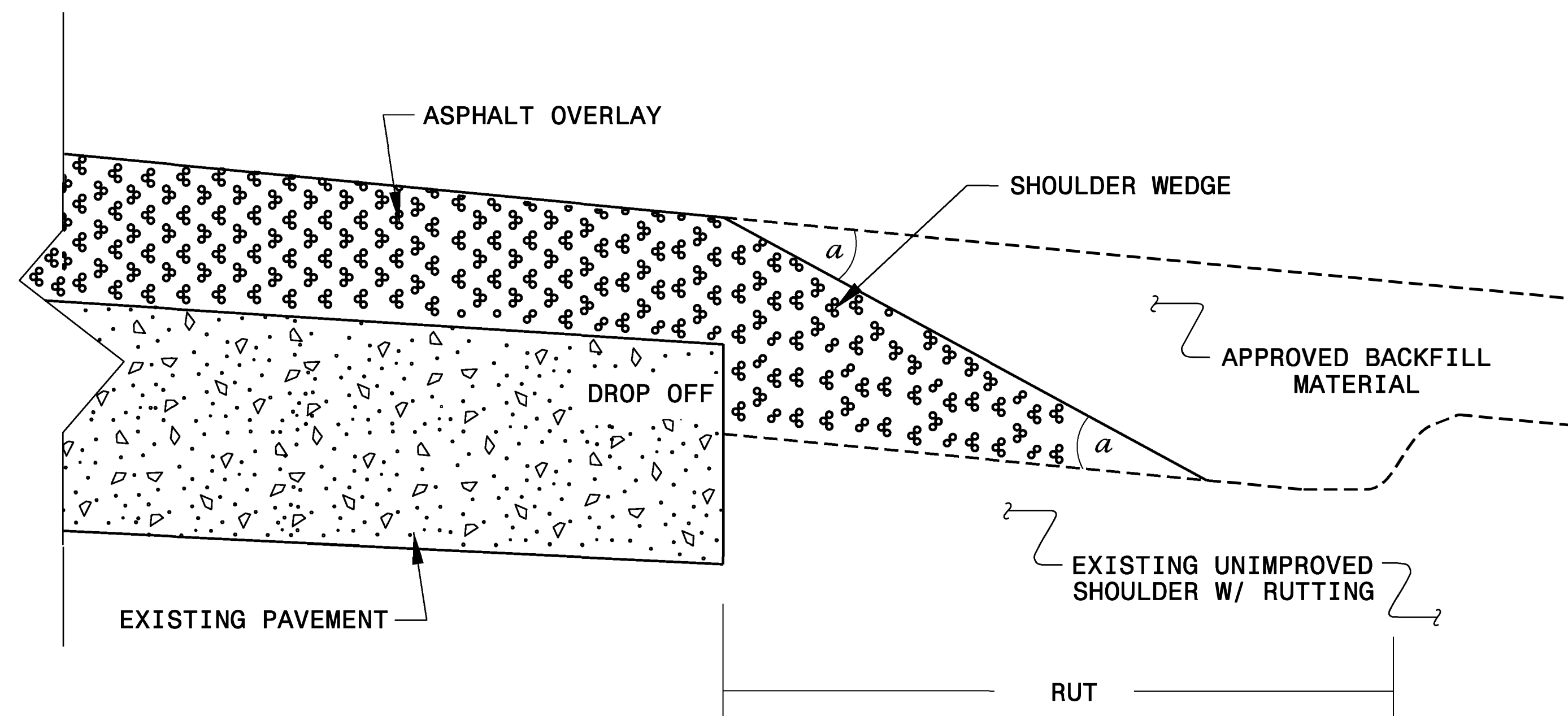
**SHOULDER WEDGE DETAIL**

(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: 2/2/16
CHECKED BY:	DATE:
FILE SPEC.: s:\usr\details\stand\shoulderwedgedetail.dgn	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

12-SEP-2018 10:10 S:\Contracts\Projects\Resurfacing Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn Jhowerton AT USD-212595

PROJECT NO.	SHEET NO.	TOTAL NO.
2022CPT.13.05.10611	8	13
2022CPT.13.07.11001, 2022CPT.13.07.21001		

### SUMMARY OF QUANTITIES

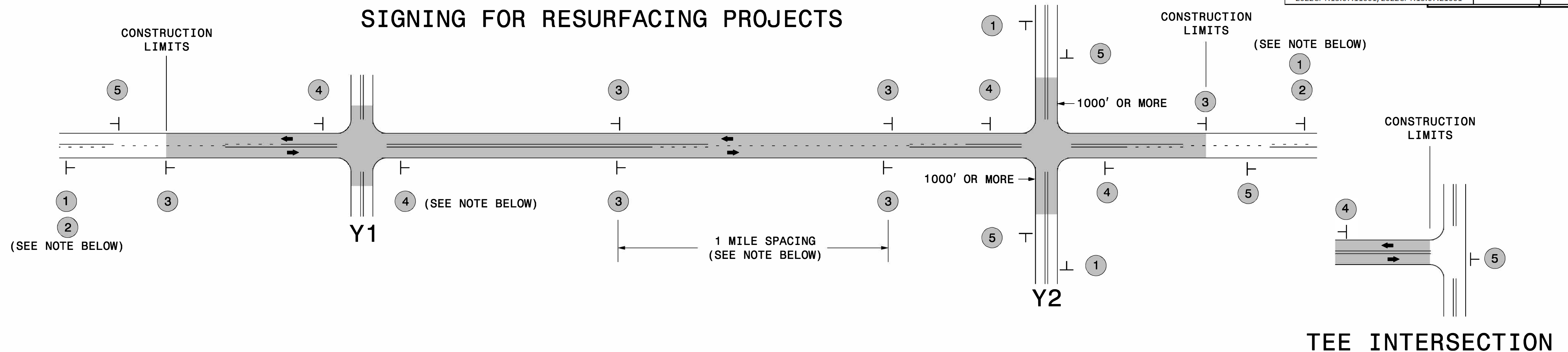
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	1220000000-E	1245000000-E	1260000000-E	1308000000-E	1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	
												INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	MILLING ASPHALT PAVEMENT, 0" TO 1-1/2" 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	
												TON	SMI	TON	SY	SY	TON	TON	TON	TON	
2022CPT.13.05.10611	Mitchell	1	NC 226	FROM .3MI NORTH OF SR 1294 TO NC 197 (MP 19.47 - MP 20.35)	1	2	2WU	NO	NO	0.9	22	42	1.66	234		490		1,079	65	400	
2022CPT.13.05.10611	Mitchell	2	NC 226	FROM BRIDGE NO. 31 +0.84 MILES TO TENN STATE LINE (MP 29.99 - MP 31.16)	1	2	2WU	NO	NO	1.17	20	59	2.34	304		444		1,276	77	600	
<b>TOTAL FOR PROJ NO. 2022CPT.13.05.10611</b>												<b>2.07</b>	<b>101</b>	<b>4.00</b>	<b>538</b>		<b>934</b>		<b>2,355</b>	<b>142</b>	<b>1,000</b>
2022CPT.13.07.11001	Yancey	3	US 19	FROM SR 1453 TO US 19W (MP 4.07- MP 4.47)	3	4	MD	NO	NO	0.4	72	20	0.80	210	3,150	2,810		1,564	94	200	
<b>TOTAL FOR PROJ NO. 2022CPT.13.07.11001</b>												<b>0.4</b>	<b>20</b>	<b>0.80</b>	<b>210</b>	<b>3,150</b>	<b>2,810</b>		<b>1,564</b>	<b>94</b>	<b>200</b>
2022CPT.13.07.21001	Yancey	4	SR 1152 (BLUE ROCK RD)	FROM SR 1190 BLUE BRANCH +.80 MILES TO NC 80 (MP 2.45 - MP 4.69)	2	2	2WU	NO	NO	2.24	19	112	4.48	583		660	2,327		156	500	
<b>TOTAL FOR PROJ NO. 2022CPT.13.07.21001</b>												<b>2.24</b>	<b>112</b>	<b>4.48</b>	<b>583</b>		<b>660</b>	<b>2,327</b>		<b>156</b>	<b>500</b>
<b>GRAND TOTAL</b>												<b>4.71</b>	<b>233</b>	<b>9.28</b>	<b>1,331</b>	<b>3,150</b>	<b>4,404</b>	<b>2,327</b>	<b>3,919</b>	<b>392</b>	<b>1,700</b>

### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4725000000-E			4810000000-E		4890000000-E				4895000000-N	
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) LT ARROW	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) RT ARROW	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) STR ARROW	PAINT PAVEMENT MARKING LINES (4") WHITE	PAINT PAVEMENT MARKING LINES (4") YELLOW	POLYUREA PAVEMENT MARKING LINES (4", 20 MILS) WHITE (STANDARD GLASS BEADS)	POLYUREA PAVEMENT MARKING LINES (4", 20 MILS) YELLOW (STANDARD GLASS BEADS)	POLYUREA PAVEMENT MARKING LINES (6", 20 MILS) WHITE (STANDARD GLASS BEADS)	POLYUREA PAVEMENT MARKING LINES (6", 20 MILS) YELLOW (STANDARD GLASS BEADS)	THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS) WHITE	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKERS
										SF	LS	EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	
2022CPT.13.05.10611	Mitchell	1	NC 226	FROM .3MI NORTH OF SR 1294 TO NC 197 (MP 19.47 - MP 20.35)	1	2	2WU	0.9	22	96	1						9,504	9,504			86	
2022CPT.13.05.10611	Mitchell	2	NC 226	FROM BRIDGE NO. 31 +0.84 MILES TO TENN STATE LINE (MP 29.99 - MP 31.16)	1	2	2WU	1.17	20	144	1						12,355	12,355			130	
<b>TOTAL FOR PROJ NO. 2022CPT.13.05.10611</b>										<b>2.07</b>	<b>2</b>						<b>21,859</b>	<b>21,859</b>			<b>216</b>	
																	<b>43,718</b>					
2022CPT.13.07.11001	Yancey	3	US 19	FROM SR 1453 TO US 19W (MP 4.07- MP 4.47)	3	4	MD	0.4	72	50	1	6	2	8					6,295	535	57	80
<b>TOTAL FOR PROJ NO. 2022CPT.13.07.11001</b>										<b>0.4</b>	<b>1</b>	<b>6</b>	<b>2</b>	<b>8</b>					<b>6,295</b>	<b>535</b>	<b>57</b>	<b>80</b>
													<b>16</b>					<b>6,887</b>				
2022CPT.13.07.21001	Yancey	4	SR 1152 (BLUE ROCK RD)	FROM SR 1190 BLUE BRANCH +.80 MILES TO NC 80 (MP 2.45 - MP 4.69)	2	2	2WU	2.24	19	256	1				47,309	47,309						
<b>TOTAL FOR PROJ NO. 2022CPT.13.07.21001</b>										<b>2.24</b>	<b>1</b>				<b>47,309</b>	<b>47,309</b>						
															<b>94,618</b>							
<b>GRAND TOTAL</b>										<b>4.71</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>47,309</b>	<b>47,309</b>	<b>21,859</b>	<b>21,859</b>	<b>6,295</b>	<b>535</b>	<b>57</b>	<b>296</b>
												<b>16</b>			<b>94,618</b>		<b>50,605</b>					



# SIGNING FOR RESURFACING PROJECTS

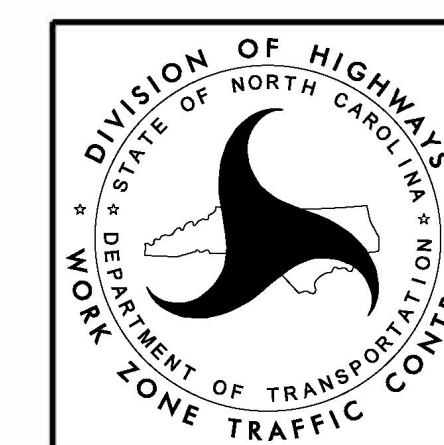


LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

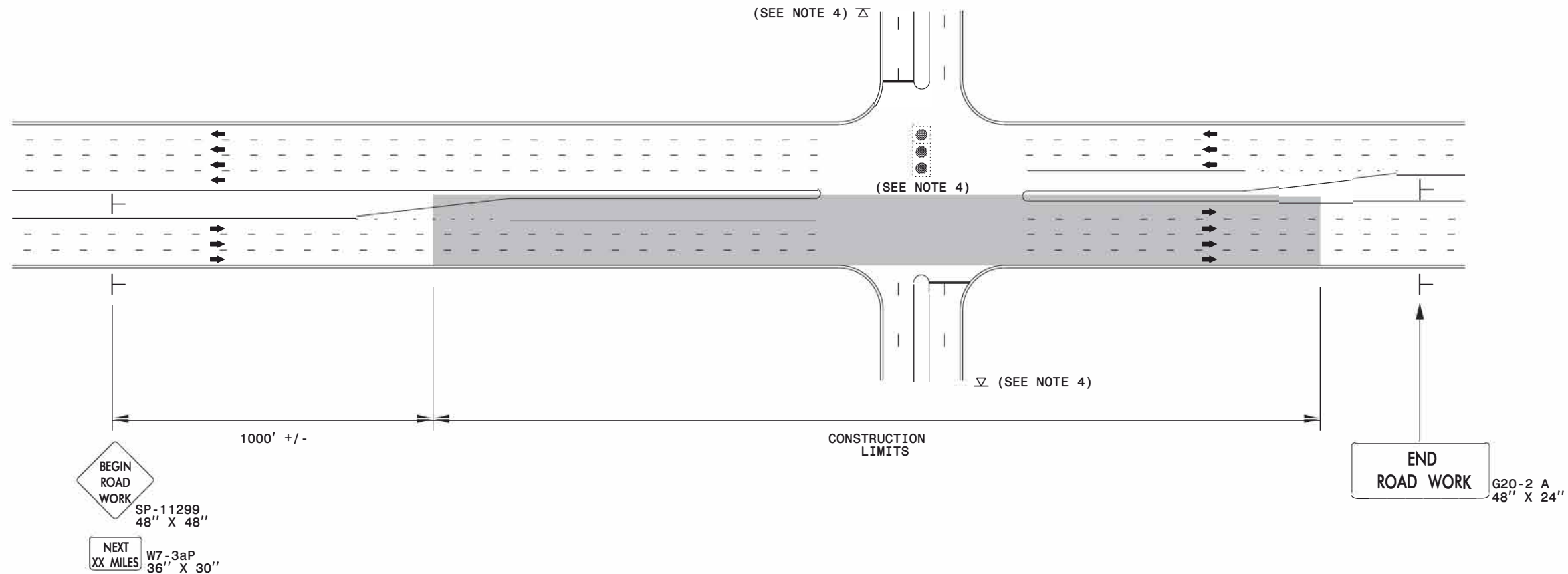
## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	2	3	4	5	
			<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#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)</p>	<p>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</p> <p>- AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>	<p>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</p> <p>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</p> <p>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</p> <p>- 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.</p> <p>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p> <p>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>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.</p>
						<p></p> <p></p> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>



RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS

## URBAN / SUBURBAN WORKZONES



### NOTES:

- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

### LEGEND

- ┆ STATIONARY SIGN
- ➔ DIRECTION OF TRAFFIC FLOW



**RESURFACING ADVANCE  
WARNING SIGNS FOR  
URBAN / SUBURBAN  
FACILITIES**



SIGN NUMBER: SP13106  
 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

SYMBOL	X	Y	WID	HT

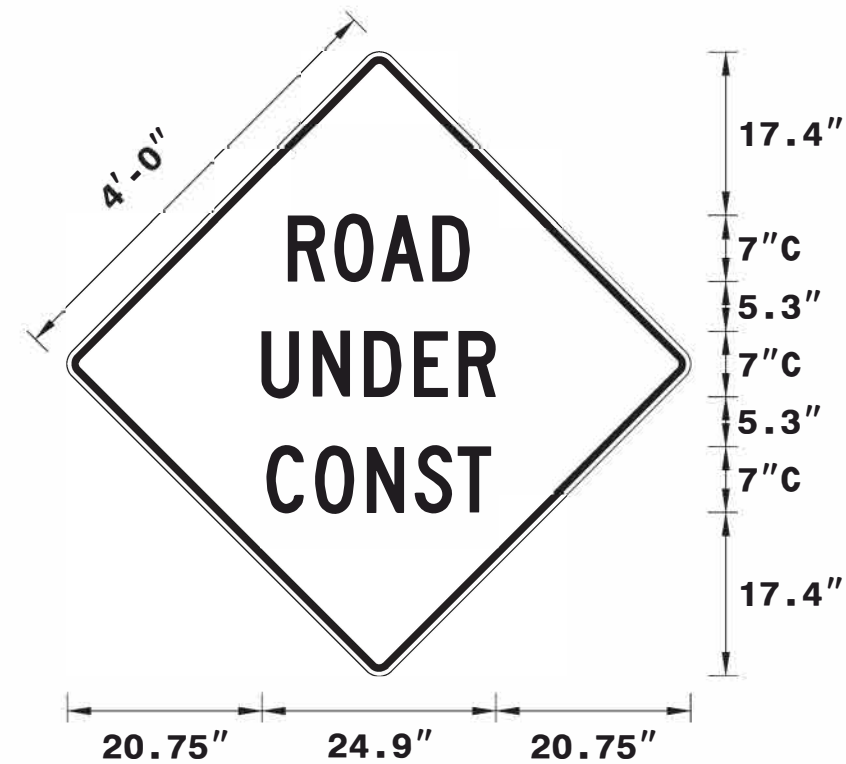
SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16.00 Sq.Ft.

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

NO. Z BARS:  
 LENGTH:

MAT'L: 0.080" (2.0 mm) ALUMINUM

PROJECT NO.	SHEET NO.	TOTAL NO.
2022CPT.13.05.10611	12	13
2022CPT.13.07.11001, 2022CPT.13.07.21001		



Spacing Factor is 1 unless specified otherwise

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.

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size Text Length
	R	O	A	D									C 2000
23.5	5	5	5.5	3.9	23.5								19.3
	U	N	D	E	R								C 2000
20.7	5.5	5.5	5.3	4.8	3.9	20.7							24.9
	C	O	N	S	T								C 2000
21.2	5.2	5.5	5.1	4.6	3.6	21.2							23.9

