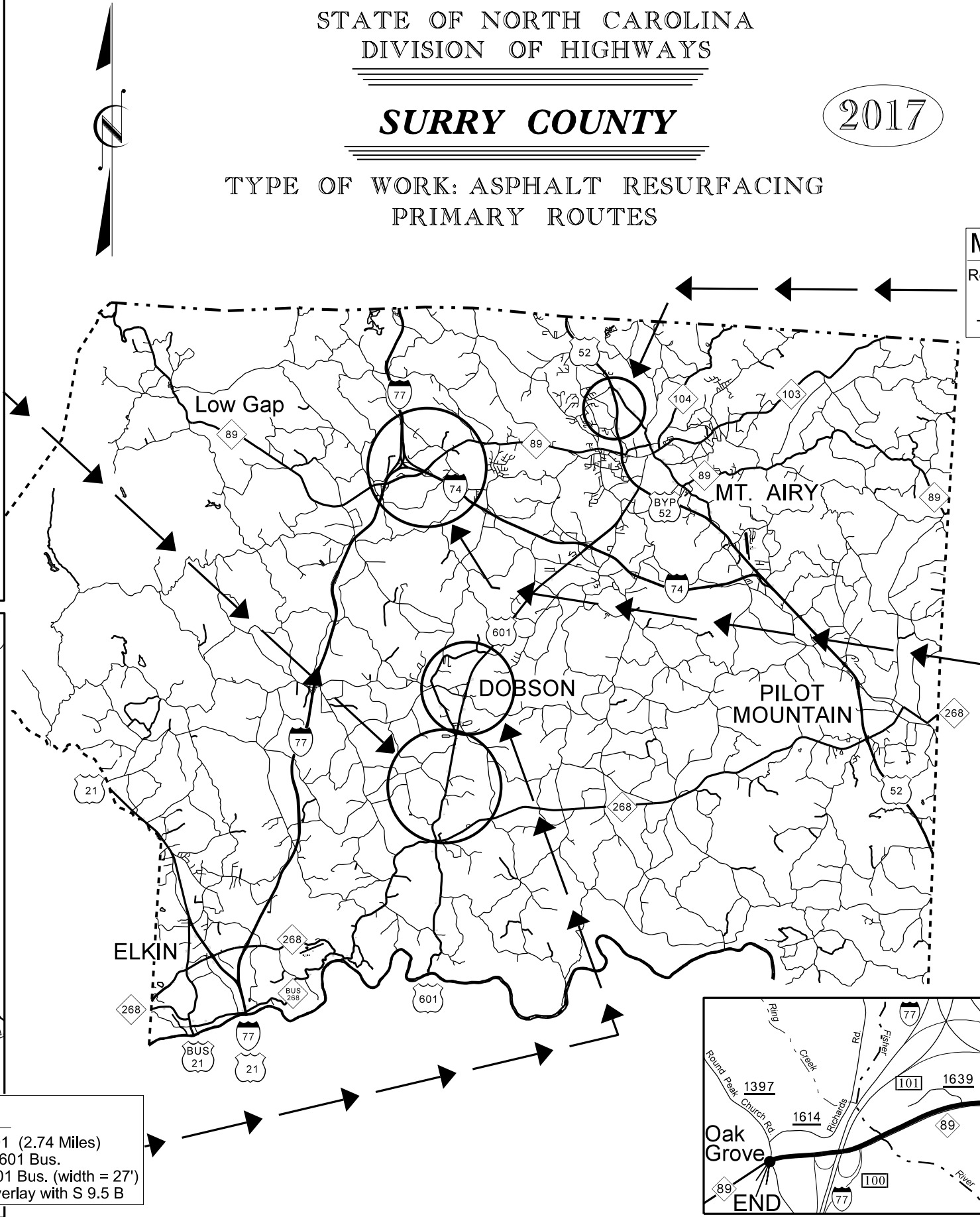


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**SURRY COUNTY**

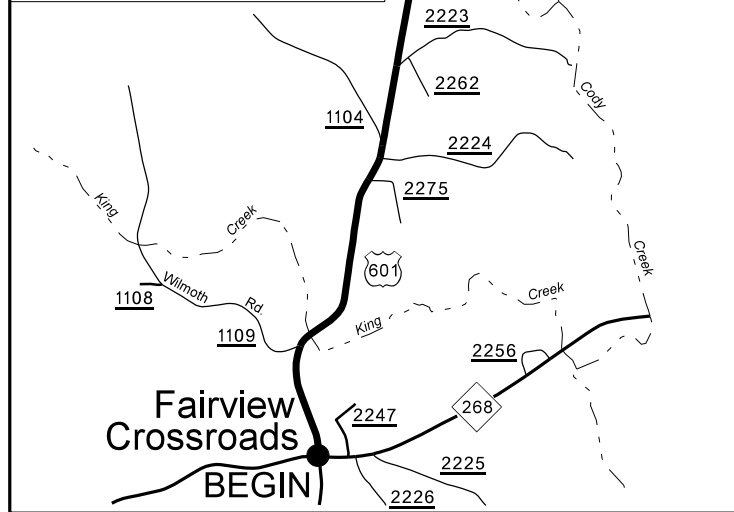
2017

TYPE OF WORK: ASPHALT RESURFACING  
PRIMARY ROUTES



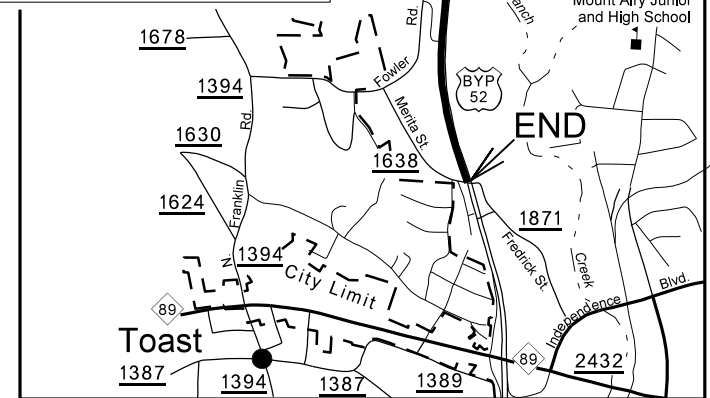
**MAP #1**

Route = US 601 (3.35 Miles)  
Begin at NC 268.  
End at US 601 Bus. (width = 22')  
Type: 1.5" Overlay with SF 9.5 A



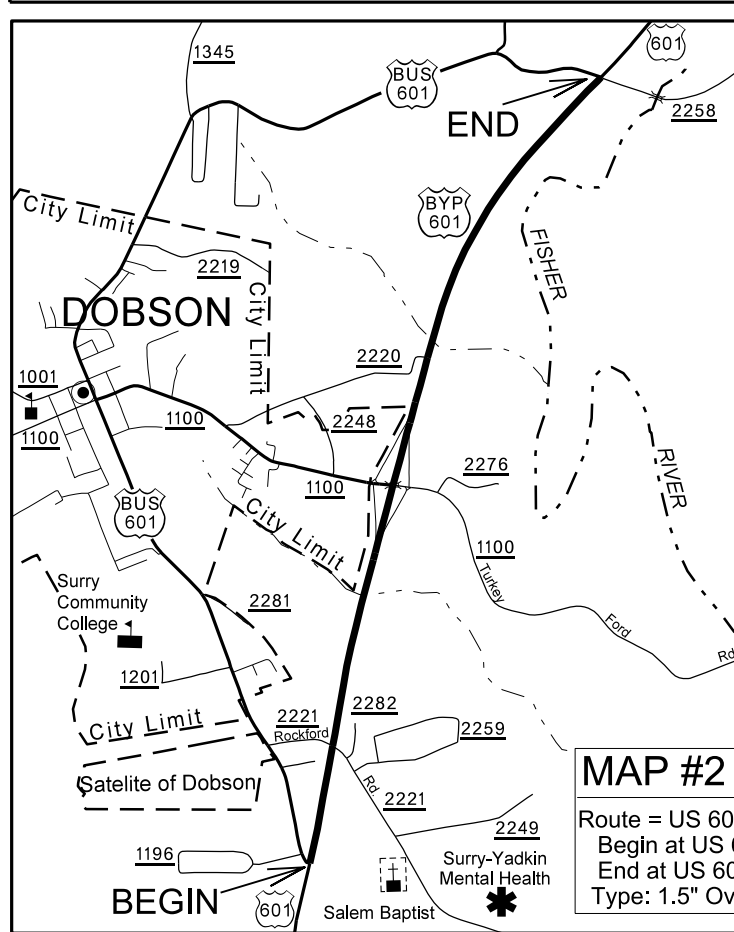
**MAP #3**

Route = SB US 52 (1.81 Miles)  
Begin at Const. Joint at SR 1640  
End at SR 1638 (width = 27')  
Type: 1.5" Overlay with S 9.5 C



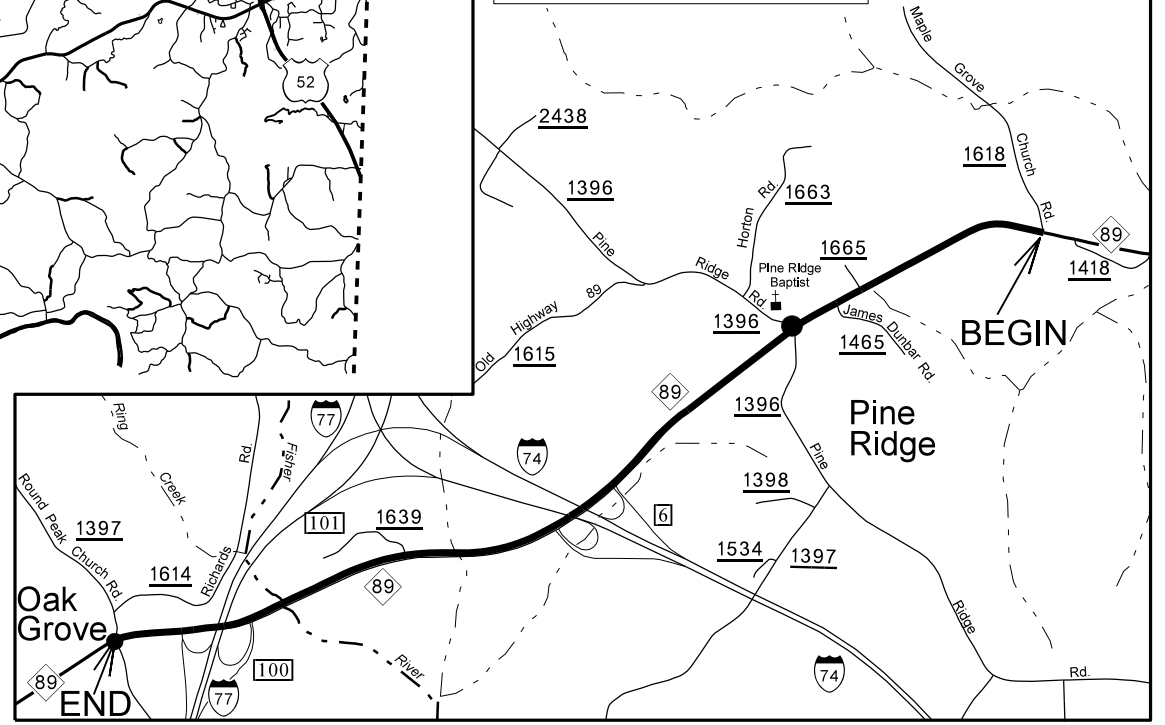
**MAP #2**

Route = US 601 (2.74 Miles)  
Begin at US 601 Bus.  
End at US 601 Bus. (width = 27')  
Type: 1.5" Overlay with S 9.5 B



**MAP #4**

Route = NC 89 (3.45 Miles)  
Begin at SR 1618  
End at SR 1397 (width = 33')  
Type: 1.5" Overlay with S 9.5 C

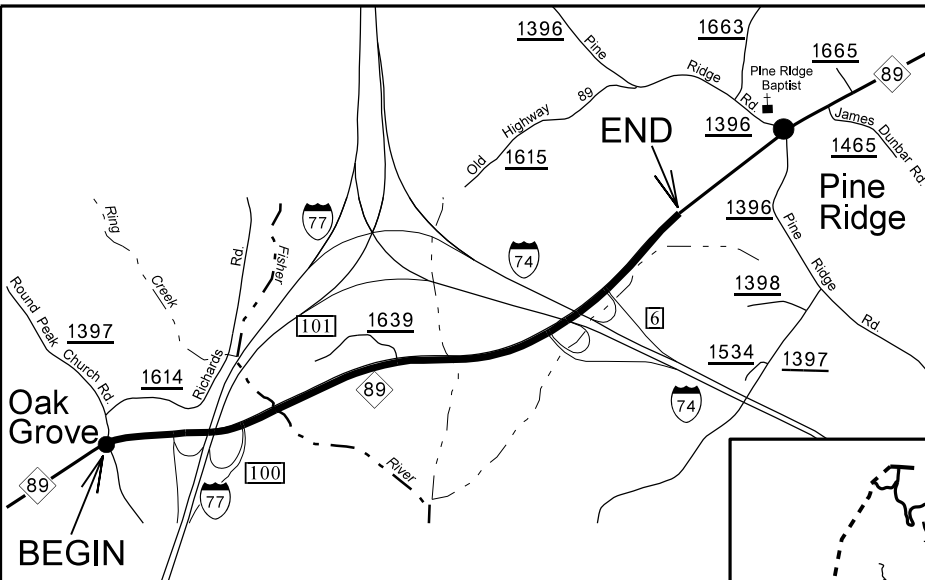


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

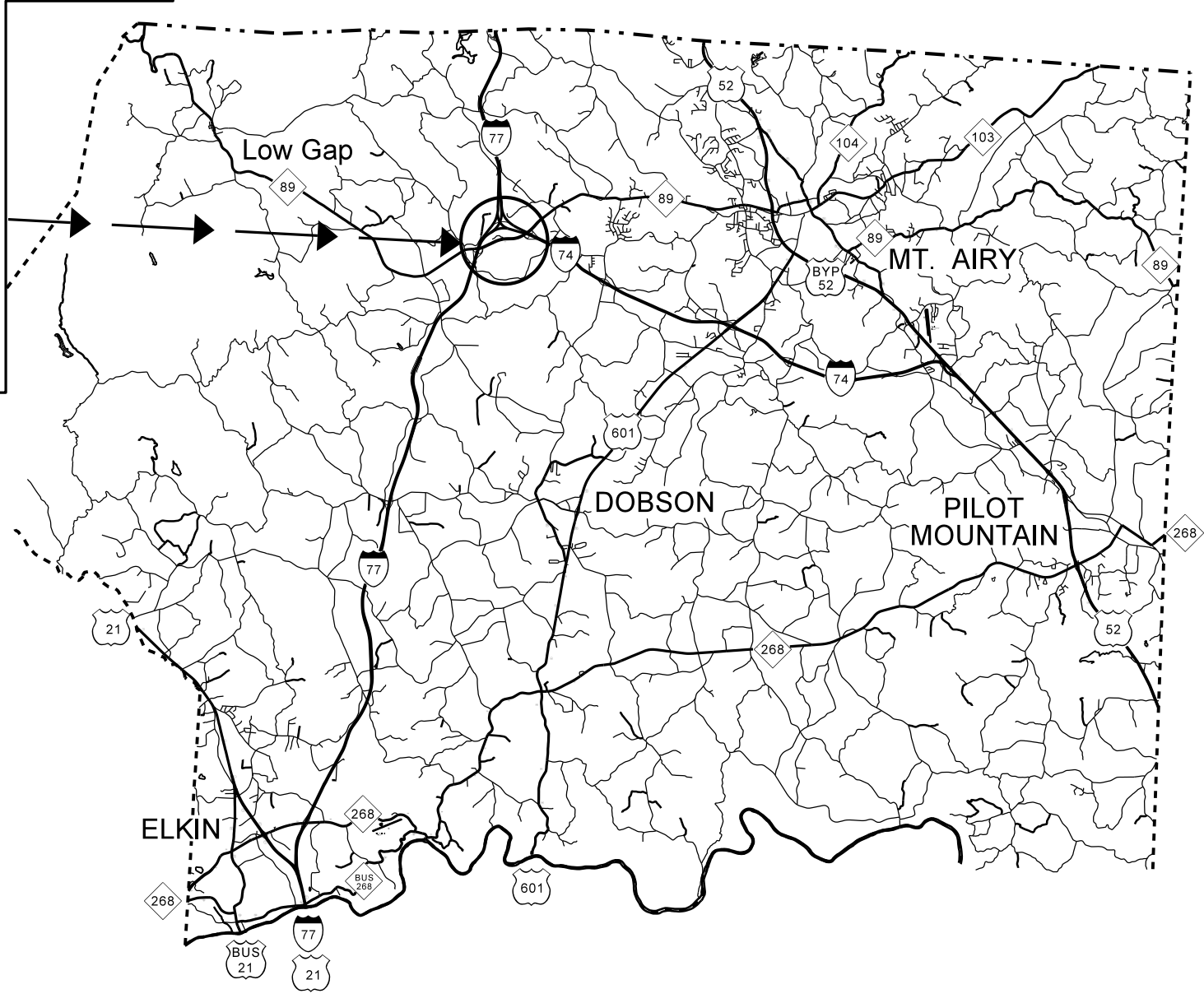
**SURRY COUNTY**

2017

TYPE OF WORK: ASPHALT RESURFACING  
PRIMARY ROUTES

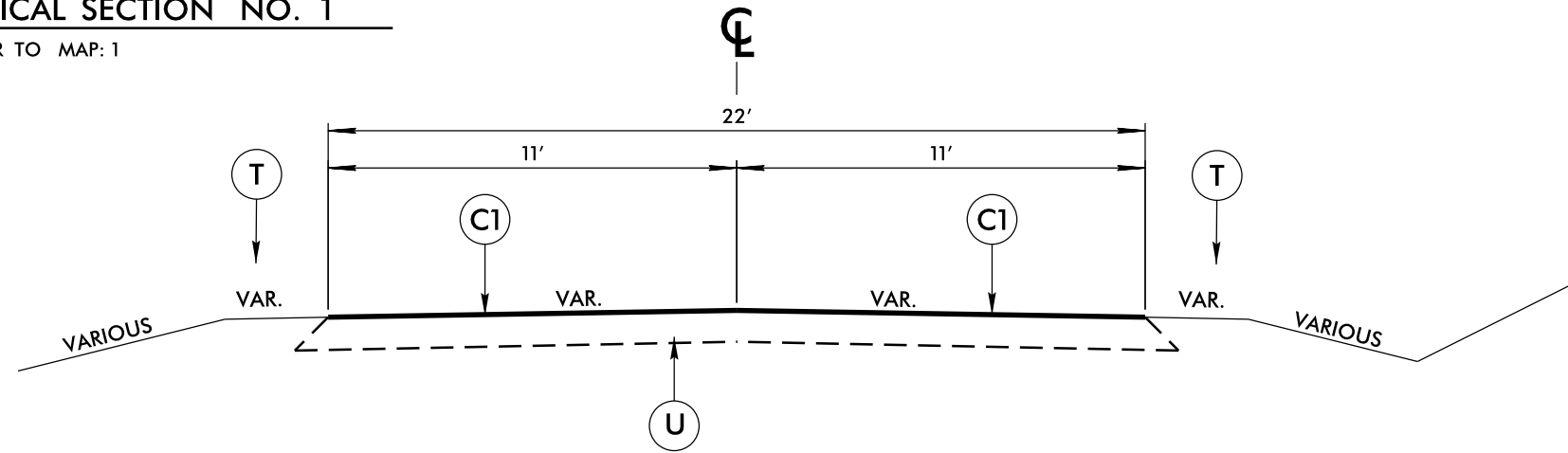


**MAP #5**  
Route = NC 89 (2.02 Miles)  
Begin at SR 1397.  
End at End of 4-Lane. (width = 33 feet)  
Type: 1.5" Overlay with S 9.5 C



**TYPICAL SECTION NO. 1**

REFER TO MAP: 1

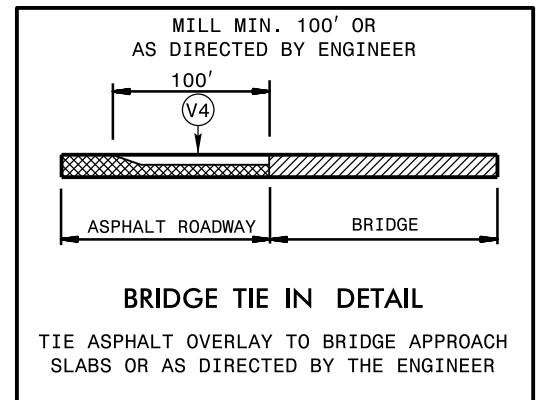
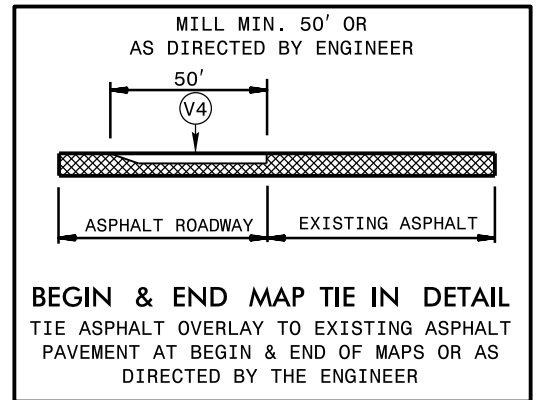
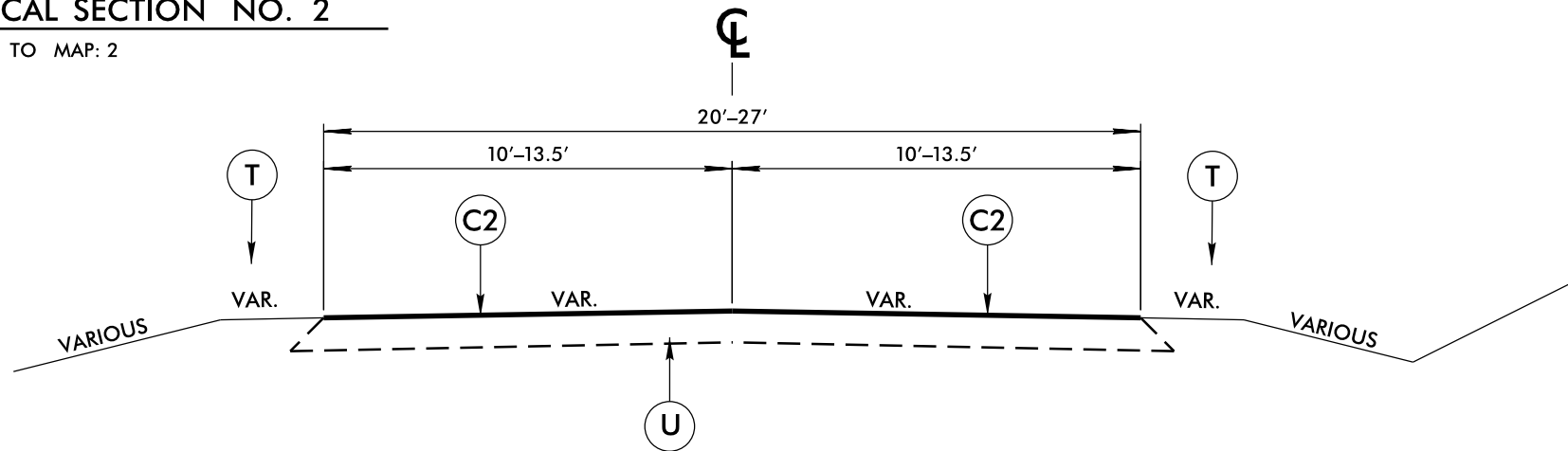


**PAVEMENT SCHEDULE**

C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V4	MILL AT DEPTH OF 1-1/2"

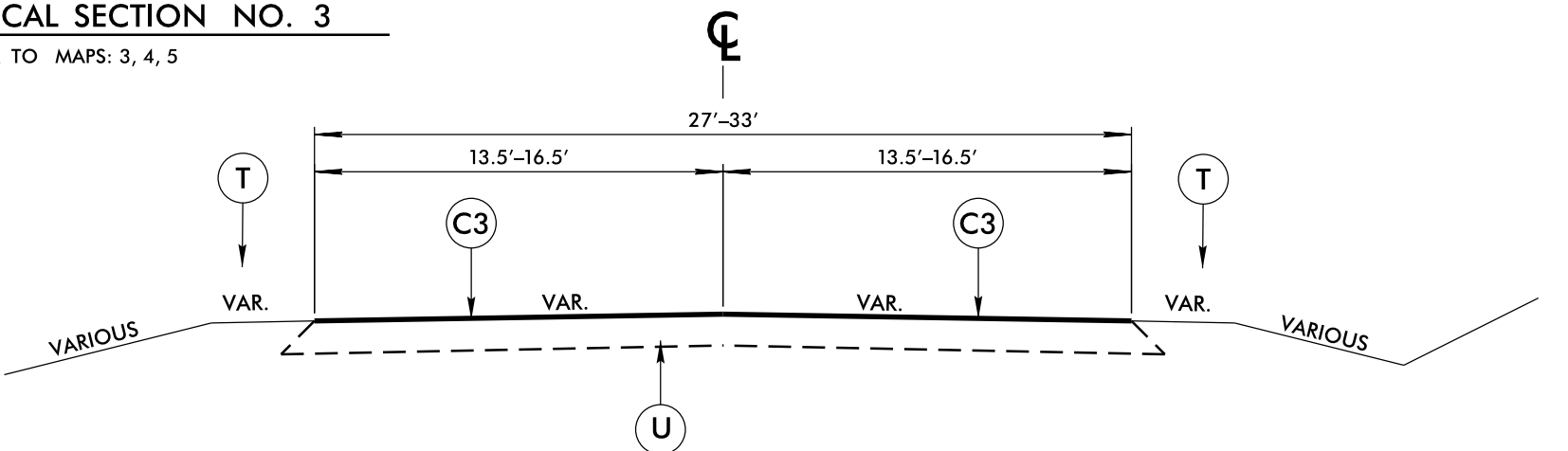
**TYPICAL SECTION NO. 2**

REFER TO MAP: 2



**TYPICAL SECTION NO. 3**

REFER TO MAPS: 3, 4, 5

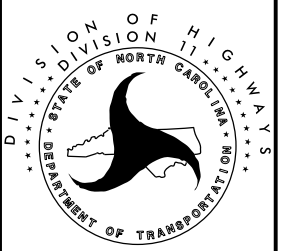


**SURRY COUNTY  
PRIMARY ROADS  
ASPHALT RESURFACING**

DIVISION II, DISTRICT I

REVISIONS	INIT.	DATE

**N.C. DEPARTMENT of TRANSPORTATION  
DIVISION of HIGHWAYS  
DIVISION ELEVEN**



SCALE: N/A DATE: 03/2016

PREPARED BY: S.B. DARNELL

REVIEWED BY: J.D. WOOD

REVIEWED BY:

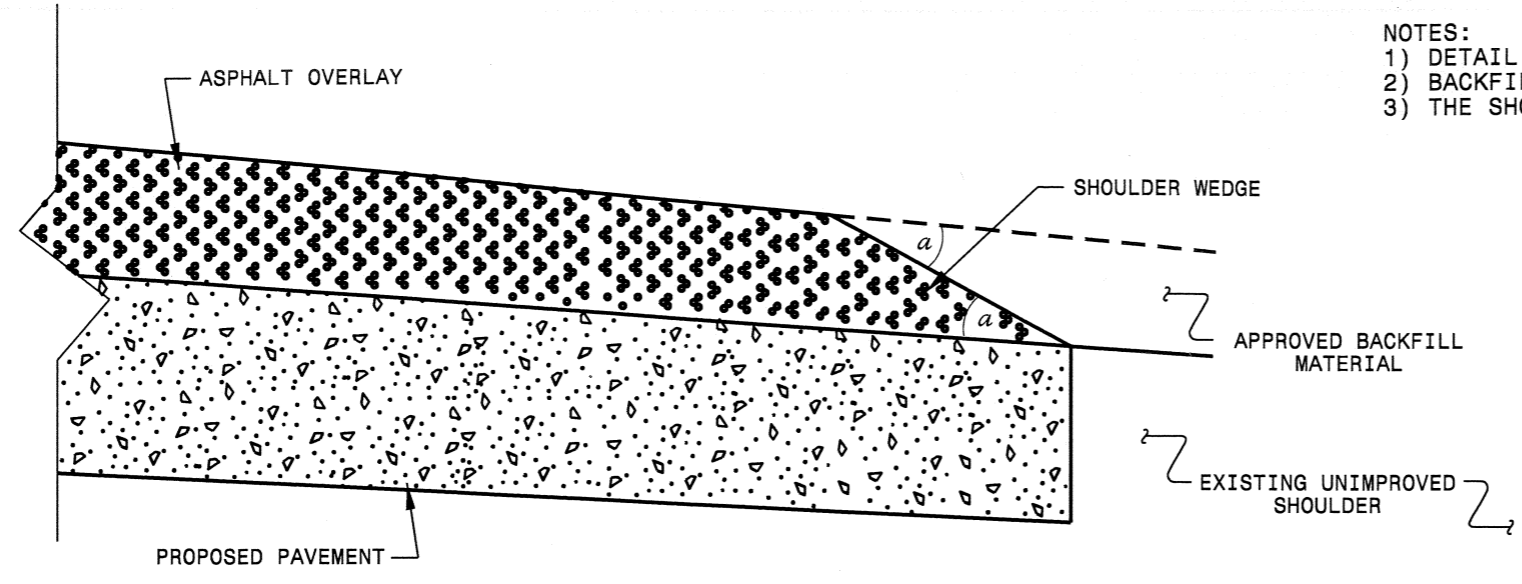
PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.11.12.10861		

### SUMMARY OF QUANTITIES

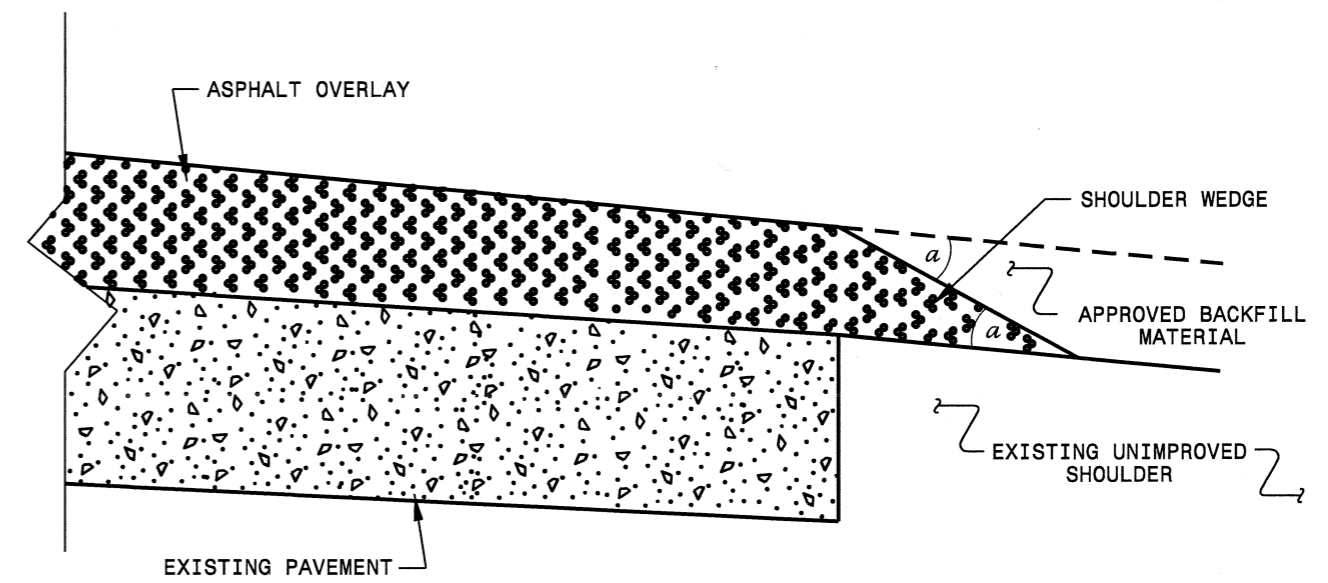
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH M	WIDTH FT	BORROW EXCAVATION CY	SHOULDER RECONSTRUCTION SM	3" MILLING SY	1" MILLING SY	1½" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	SEED & MULCHING AC
2017CPT.11.12.10861	Surry	1	US 601	FROM NC 268 TO US 601 BUS	1	2	2WU	NO	NO	3.35	22	657	6.70	6,128				168			4,114	276	150	1.51
2017CPT.11.12.10861	Surry	2	US 601	FROM US 601 BUS TO US 601 BUS	2	2	2WU	NO	NO	2.74	27	537	5.48		150		300	137	4,155			249	100	
2017CPT.11.12.10861	Surry	3	US 52 SBL	FROM CON. JOINT N. OF US 52 BUS TO SR 1638	3	2	MD	NO	NO	1.81	27	355	3.62							3,095		183	100	0.81
2017CPT.11.12.10861	Surry	4	NC 89	FROM SR 1618 TO SR 1397	3	2	MD	NO	NO	3.45	33	676	6.90			1,852	1,467	173		6,415		378	100	1.55
2017CPT.11.12.10861	Surry	5	NC 89	FROM SR 1397 TO END FOUR LANE	3	2	MD	NO	NO	2.02	33	396	4.04			1,852	1,833	101		3,953		233	100	0.91
<b>TOTAL FOR PROJ NO. 2017CPT.11.12.10861</b>										<b>13.37</b>		<b>2,621</b>	<b>26.74</b>	<b>6,128</b>	<b>150</b>	<b>3,704</b>	<b>3,600</b>	<b>579</b>	<b>4,155</b>	<b>13,463</b>	<b>4,114</b>	<b>1,319</b>	<b>550</b>	<b>4.78</b>
<b>GRAND TOTAL</b>										<b>13.37</b>		<b>2,621</b>	<b>26.74</b>	<b>6,128</b>	<b>150</b>	<b>3,704</b>	<b>3,600</b>	<b>579</b>	<b>4,155</b>	<b>13,463</b>	<b>4,114</b>	<b>1,319</b>	<b>550</b>	<b>4.78</b>



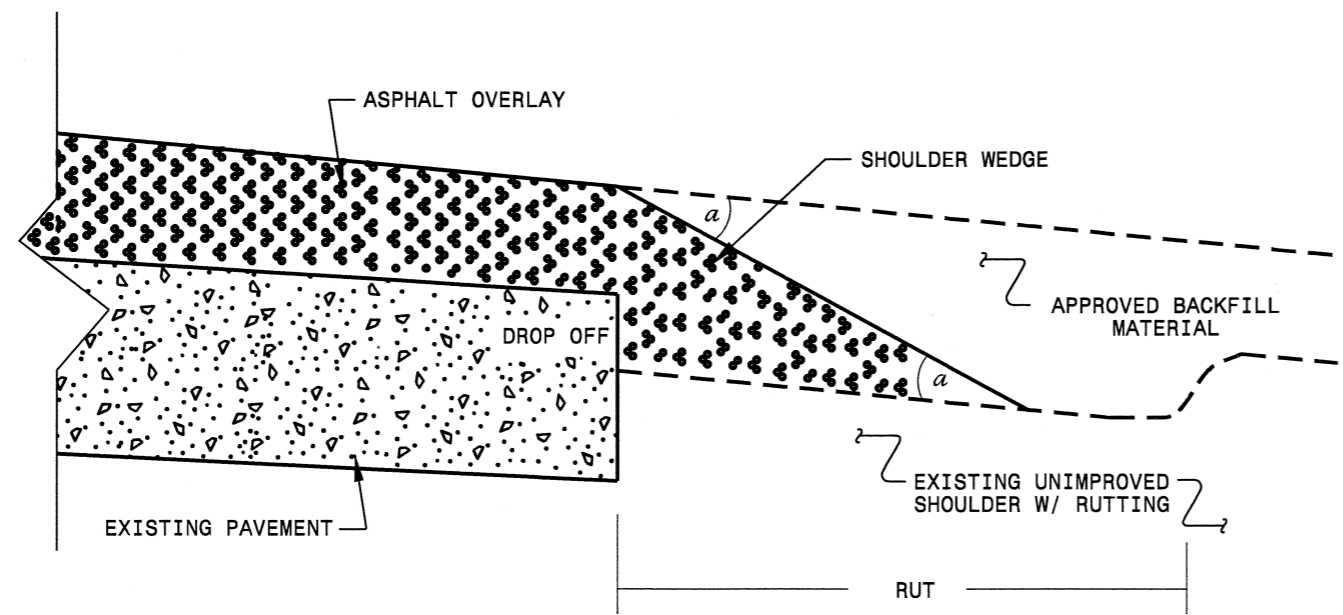
- NOTES:  
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.  
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.  
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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°

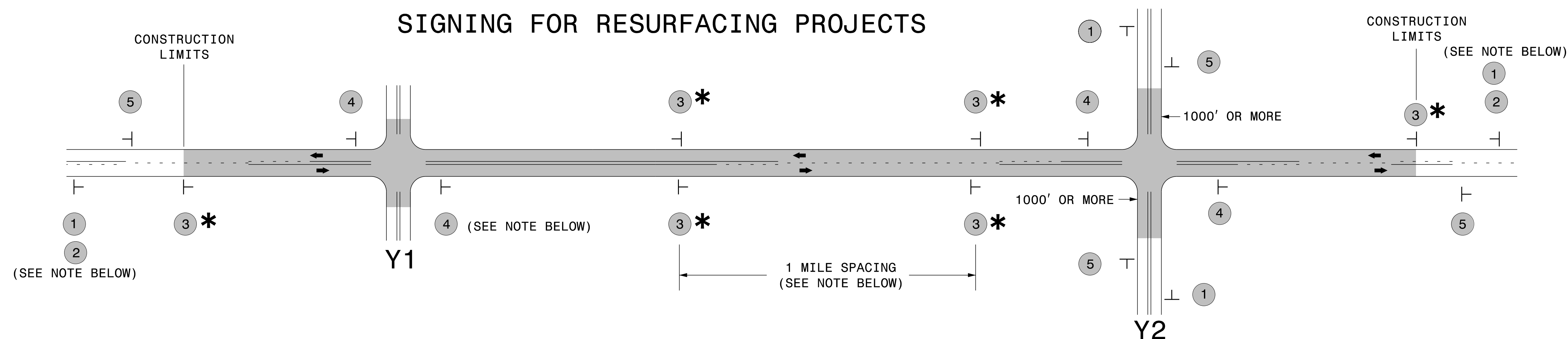
CONTRACT STANDARDS  
 AND DEVELOPMENT UNIT  
 Office 919-707-6950 FAX 919-250-4119

**SHOULDER WEDGE  
 DETAILS**

ORIGINAL BY: T.SPELL DATE: 7-19-11  
 MODIFIED BY: DATE: 10/18/12  
 CHECKED BY: DATE:  
 FILE SPEC.: s:\user\details\stand\shoulderwedgedetail.dgn

SYSTEMS CONSULTANTS  
 CONSULTANTS

## 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		<p style="text-align: center;"><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></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 style="text-align: center;">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> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>W20-1 48" X 48"</p> </div> <div style="text-align: center;"> <p>W20-7 A 48" X 48"</p> </div> </div> <p style="text-align: center;">PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
3 *		<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 SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>
4		<p>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.</p>
5		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>

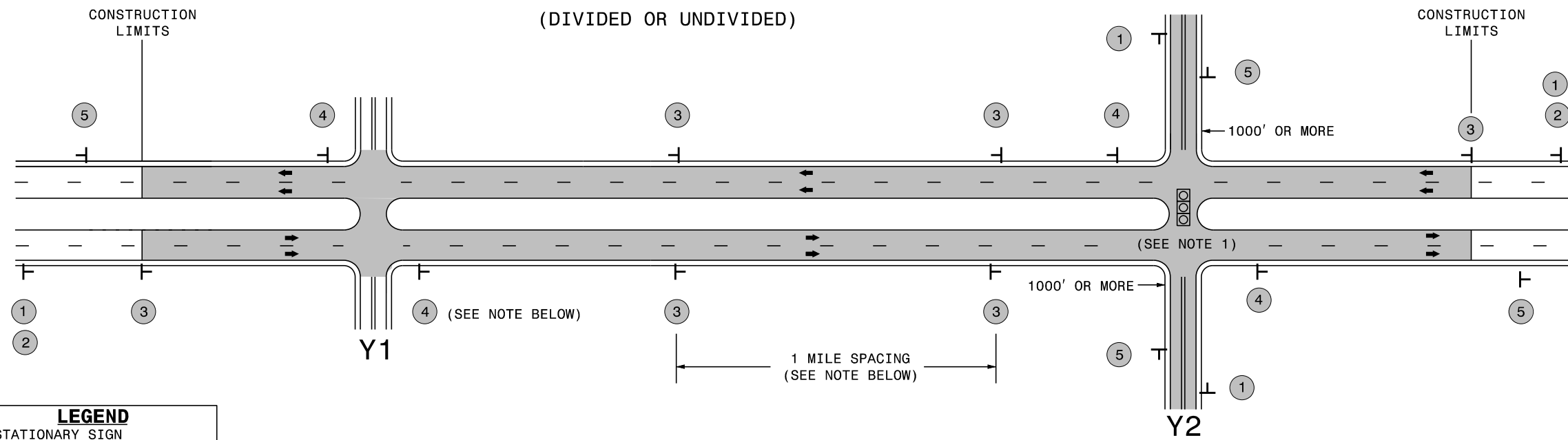
### \* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:  
STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



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

## SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION		
1 2		<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>
3		<p>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>
4		<p>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.</p>
5		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>

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.



PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.

**NOTES:**

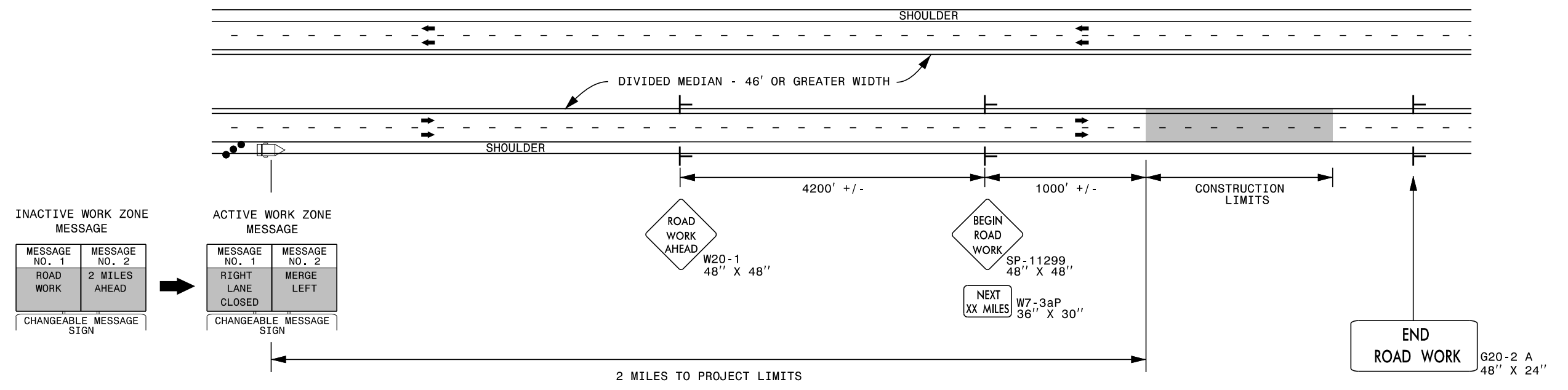
- 1) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.

**RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS W/ SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)**

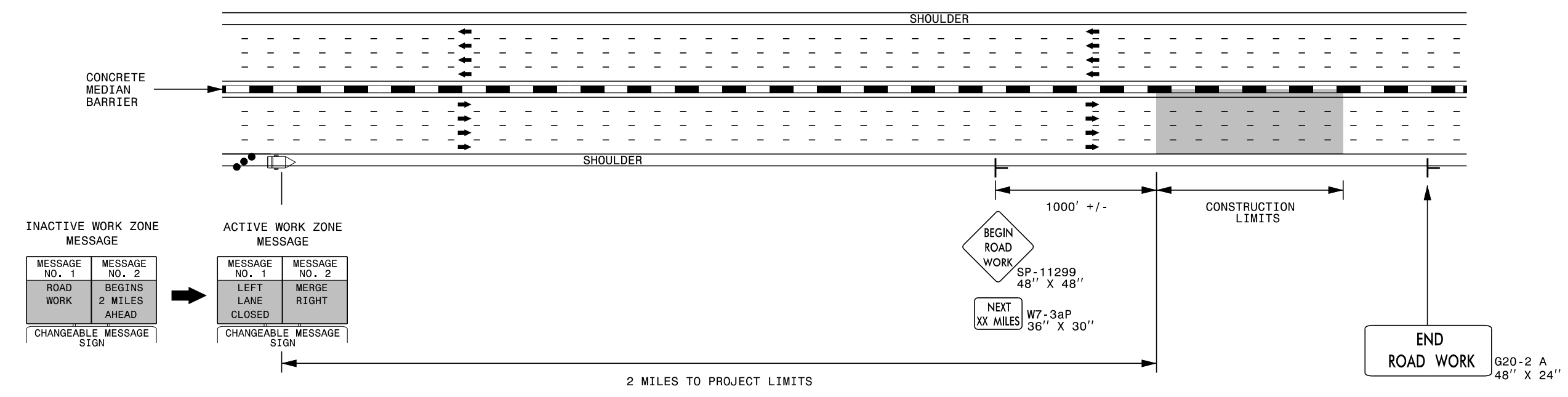
2/24/2014 S:\TMU\WZTC\Resurfacing\2013Documents\New\_Procedures\_05\_09\_2013\Resurfacing\_AdvWarn\_UrSu\_Shldr.dgn User:rmgarrrett



## DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



## DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

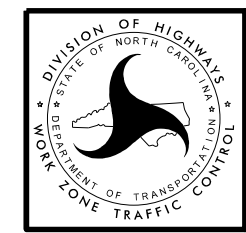


### NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 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) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

### LEGEND

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM



**RESURFACING ADVANCE  
WARNING SIGNS FOR  
HIGH SPEED FACILITIES  
≥ 60 MPH**

10/3/2013 S:\T\U\W\ZTC\Resurfacing\2013\Documents\New\_Procedures\_05\_09\_2013\Resurfacing\_AdvWarn\_HSpd.dgn User:frmgarratt