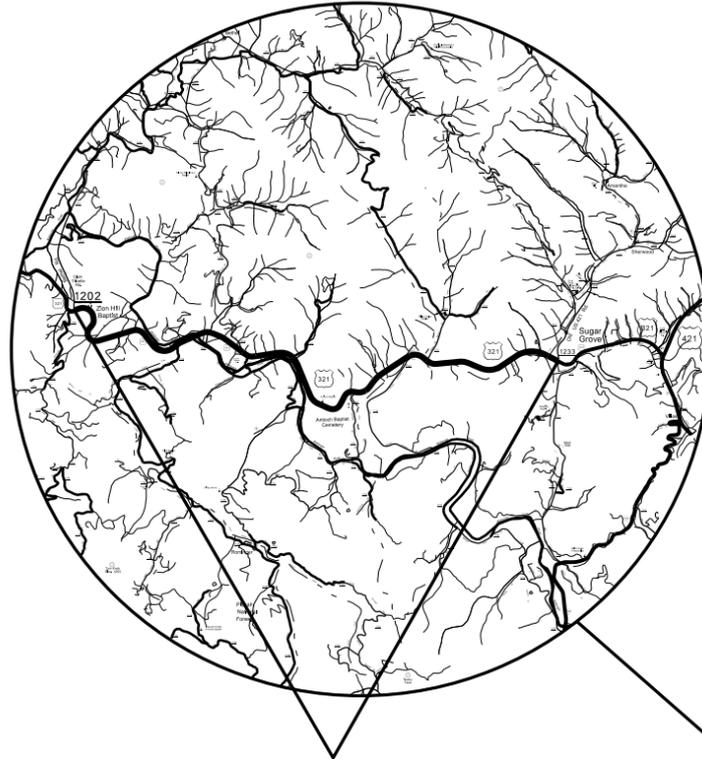


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

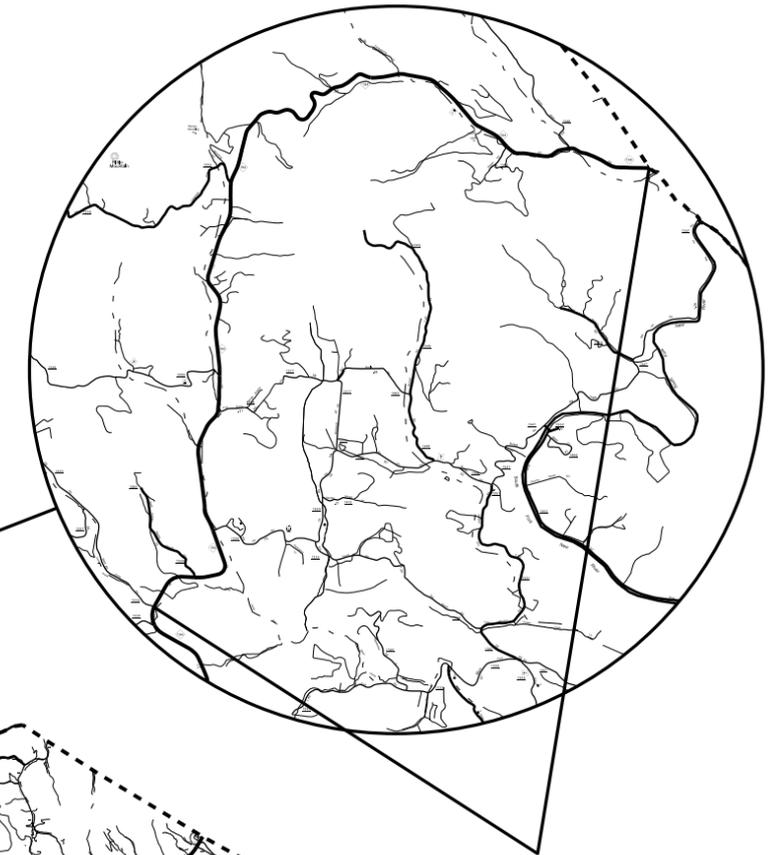
WATAUGA COUNTY

PRIMARY ASPHALT RESURFACING

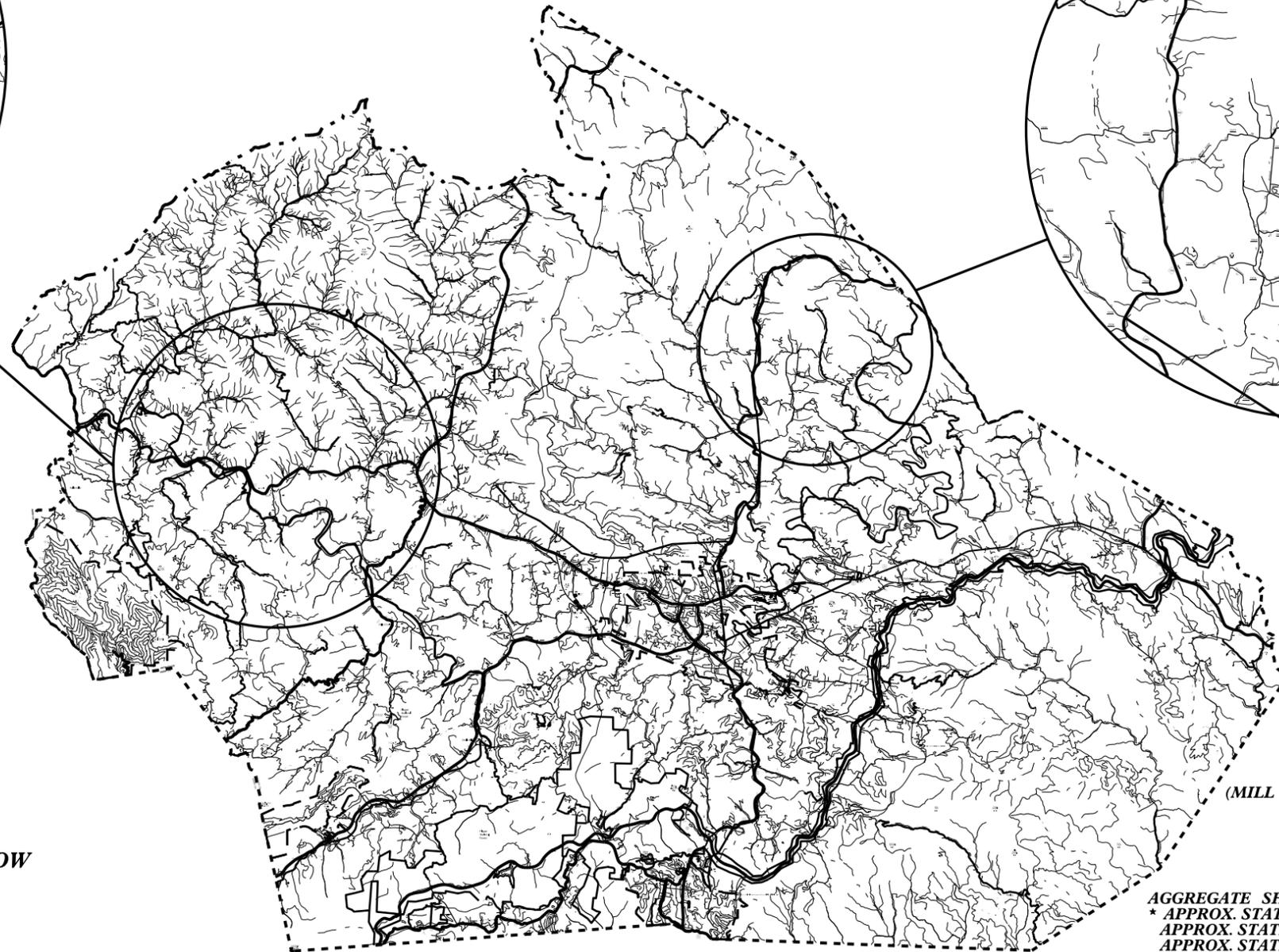


MAP #2
US 321 (5.70 MILES)
FROM SR 1233 TO SR 1202
TYPE: SF9.5A

- ASB TO BE PLACED:**
- * APPROX. STATION 4+50 TO 6+50 RIGHT AND LEFT
 - APPROX. STATION 161+00 TO 163+00 RIGHT AND LEFT
 - APPROX. STATION 199+50 TO 201+50 RIGHT AND LEFT
 - APPROX. STATION 207+50 TO 209+50 RIGHT AND LEFT
 - APPROX. STATION 227+80 TO 229+80 RIGHT AND LEFT
 - * LIVE STREAMS: SEE DETAIL
 - APPROX. STATION 58+00 TO 64+00 LEFT
 - APPROX. STATION 79+00 TO 82+50 LEFT

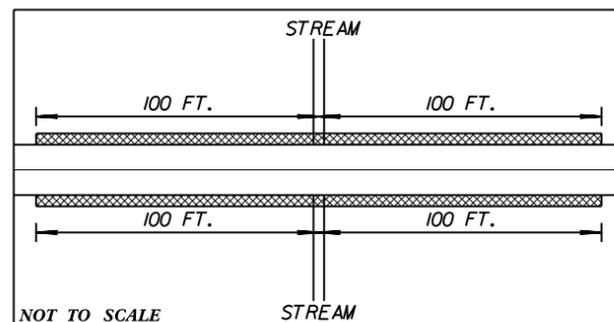


MAP #1
NC 194 (6.62 MILES)
FROM SR 1335 TO ASHE COUNTY LINE
TYPE: SF9.5A



(MILL INTERSECTIONS / BRIDGE APPROACHES)

***DETAIL FOR AGGREGATE SHOULDER BORROW AT STREAM CROSSING**



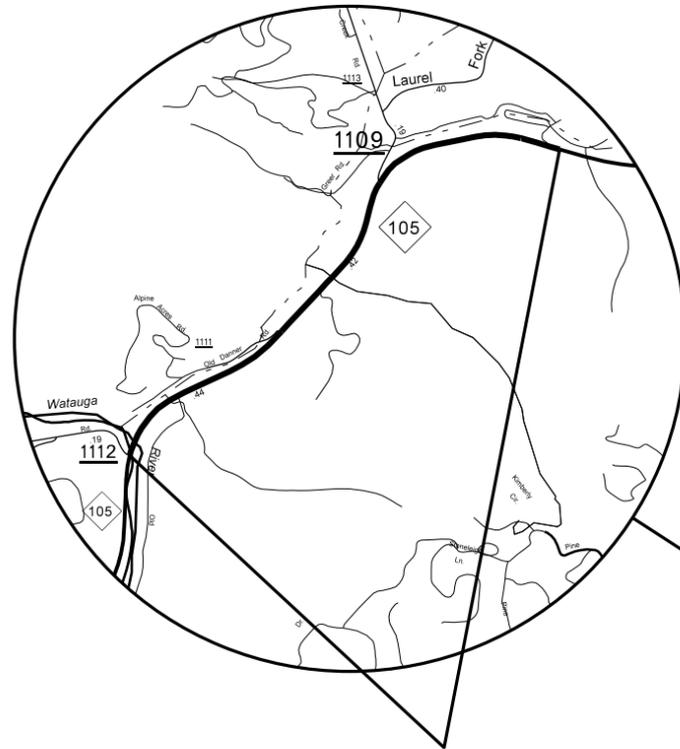
 HATCHED AREA SHOWS PLACEMENT OF AGGREGATE SHOULDER BORROW

- AGGREGATE SHOULDER BORROW TO BE PLACED:**
- * APPROX. STATION 12+00 TO 14+00 RIGHT AND LEFT
 - APPROX. STATION 57+00 TO 59+00 RIGHT AND LEFT
 - APPROX. STATION 71+00 TO 73+00 RIGHT AND LEFT
 - APPROX. STATION 89+00 TO 91+00 RIGHT AND LEFT
 - APPROX. STATION 123+50 TO 125+50 RIGHT AND LEFT
 - APPROX. STATION 191+50 TO 193+50 RIGHT AND LEFT
 - APPROX. STATION 218+95 TO 220+95 RIGHT AND LEFT
 - APPROX. STATION 224+50 TO 226+50 RIGHT AND LEFT
 - APPROX. STATION 236+50 TO 238+50 RIGHT AND LEFT
 - APPROX. STATION 238+00 TO 240+00 RIGHT AND LEFT
 - APPROX. STATION 244+00 TO 246+00 RIGHT AND LEFT
 - APPROX. STATION 251+50 TO 253+50 RIGHT AND LEFT
 - APPROX. STATION 318+50 TO 320+50 RIGHT AND LEFT
 - * LIVE STREAMS: SEE DETAIL
 - APPROX. STATION 5+50 RIGHT AND LEFT
 - APPROX. STATION 45+00 TO 50+00 RIGHT
 - APPROX. STATION 78+00 TO 84+00 RIGHT
 - APPROX. STATION 146+00 TO 149+00 LEFT
 - APPROX. STATION 149+00 TO 155+00 RIGHT
 - APPROX. STATION 173+00 TO 176+00 LEFT
 - APPROX. STATION 300+00 TO 314+00 RIGHT

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

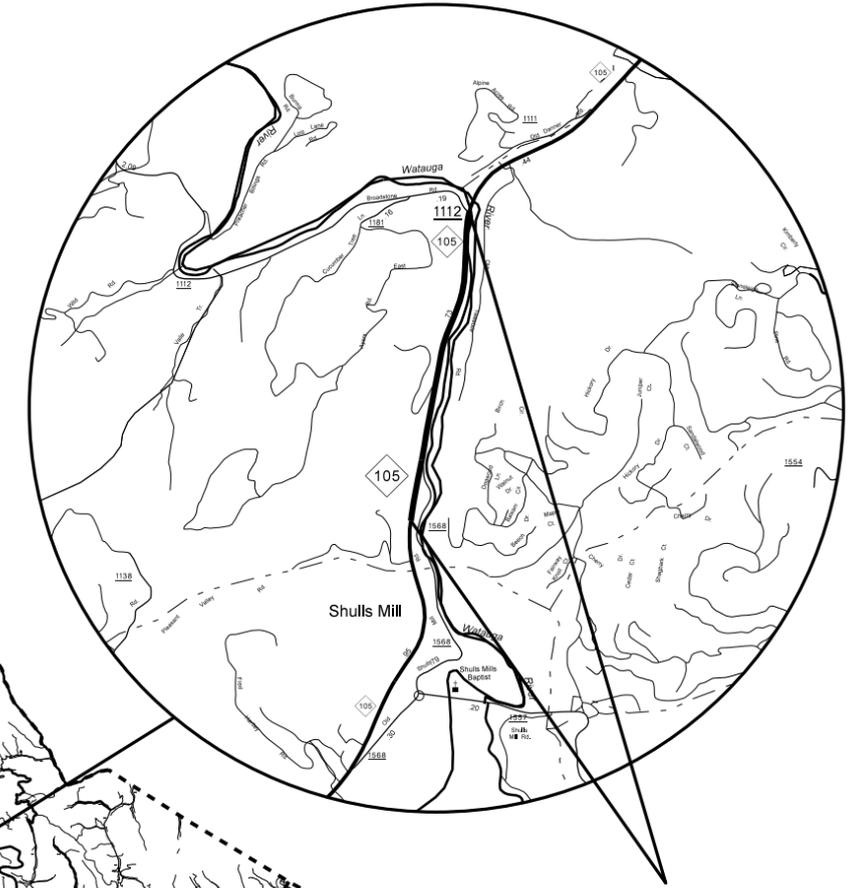
WATAUGA COUNTY

PRIMARY ASPHALT RESURFACING

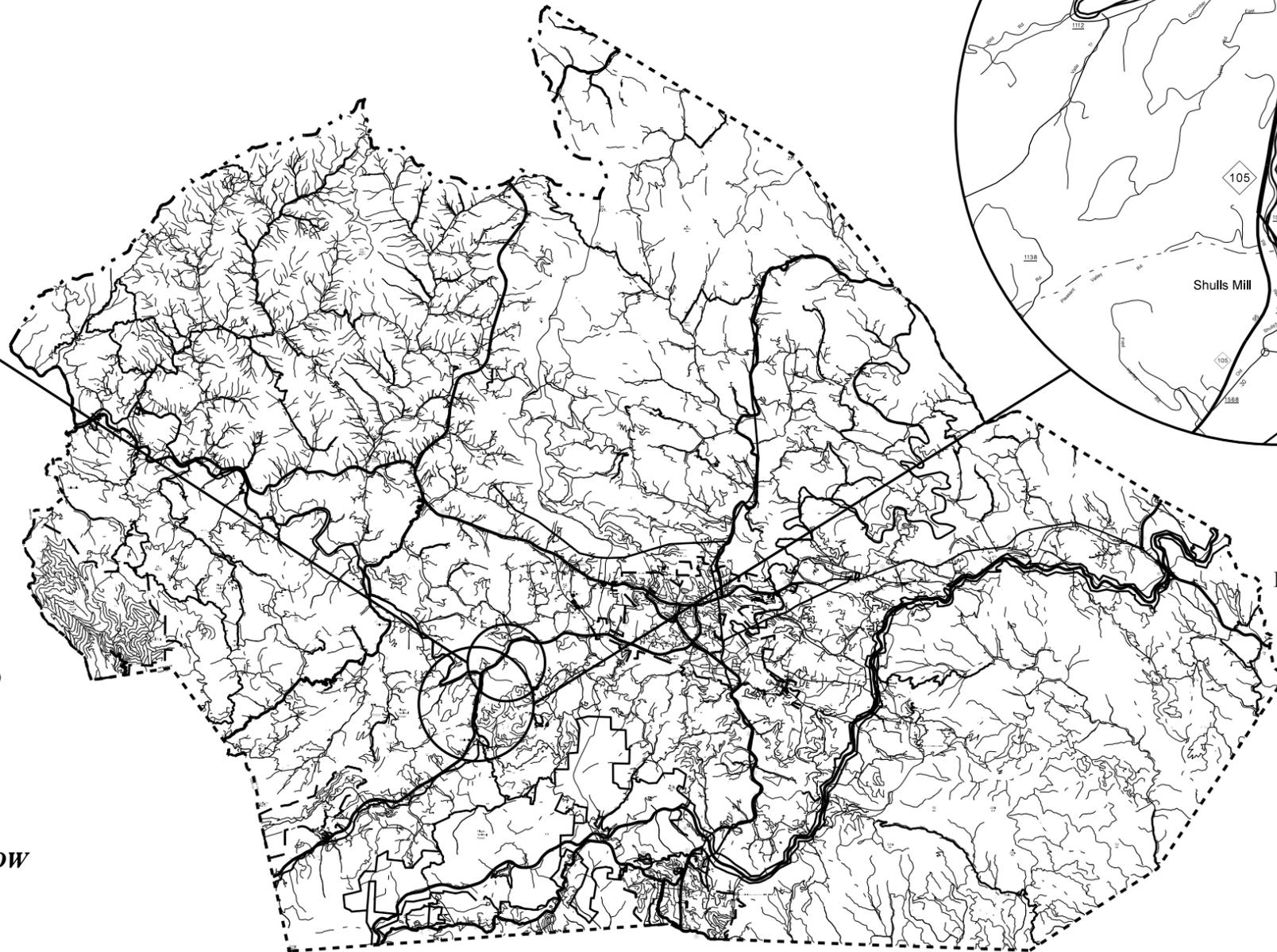


MAP #3
NC 105 (1.29 MILES)
FROM END 3 LANE
(0.4 MI NORTH OF SR 1109)
TO SR 1112

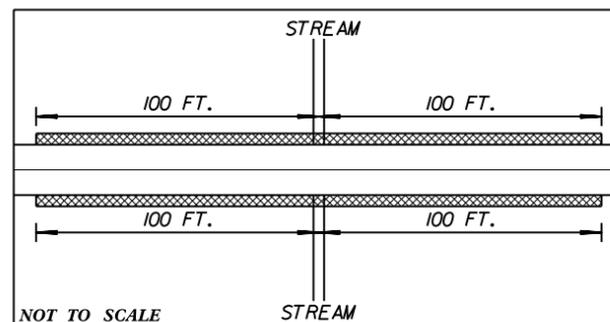
(MILL BRIDGE DECK & BRIDGE APPROACHES)
(MILL APPROX. 800' FOR C&G ON SR 1112)



MAP #4
NC 105 (0.87 MILES)
FROM SR 1112 TO BEGIN 3 LANE
(0.2 MI SOUTH OF SR 1568)

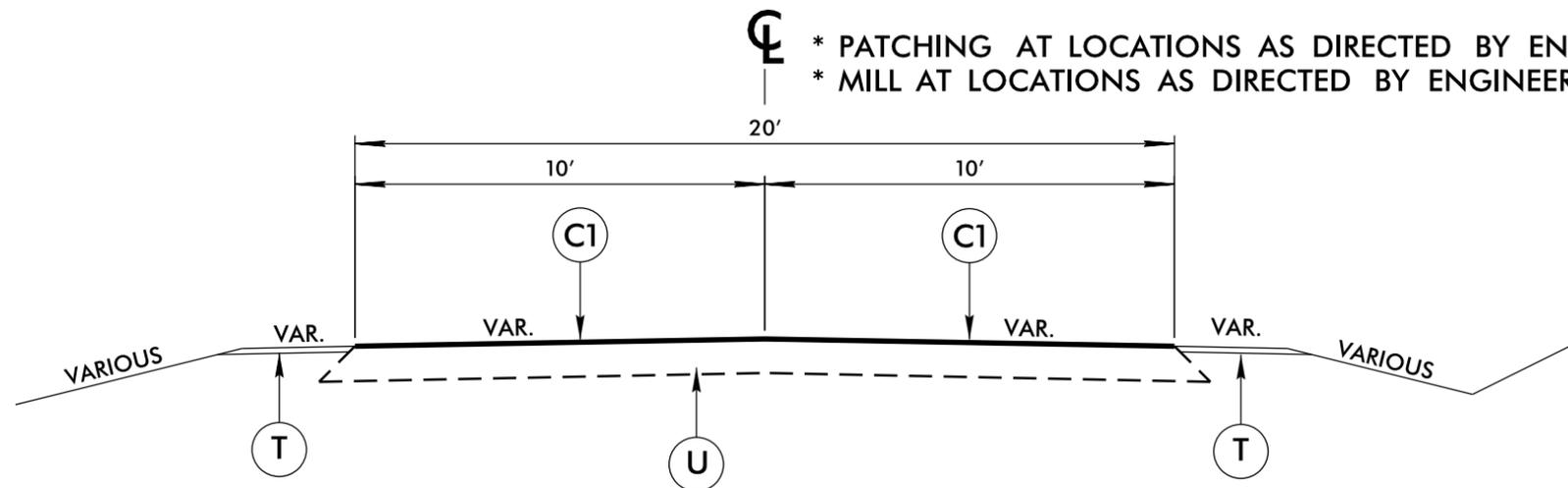


***DETAIL FOR AGGREGATE SHOULDER BORROW AT STREAM CROSSING**



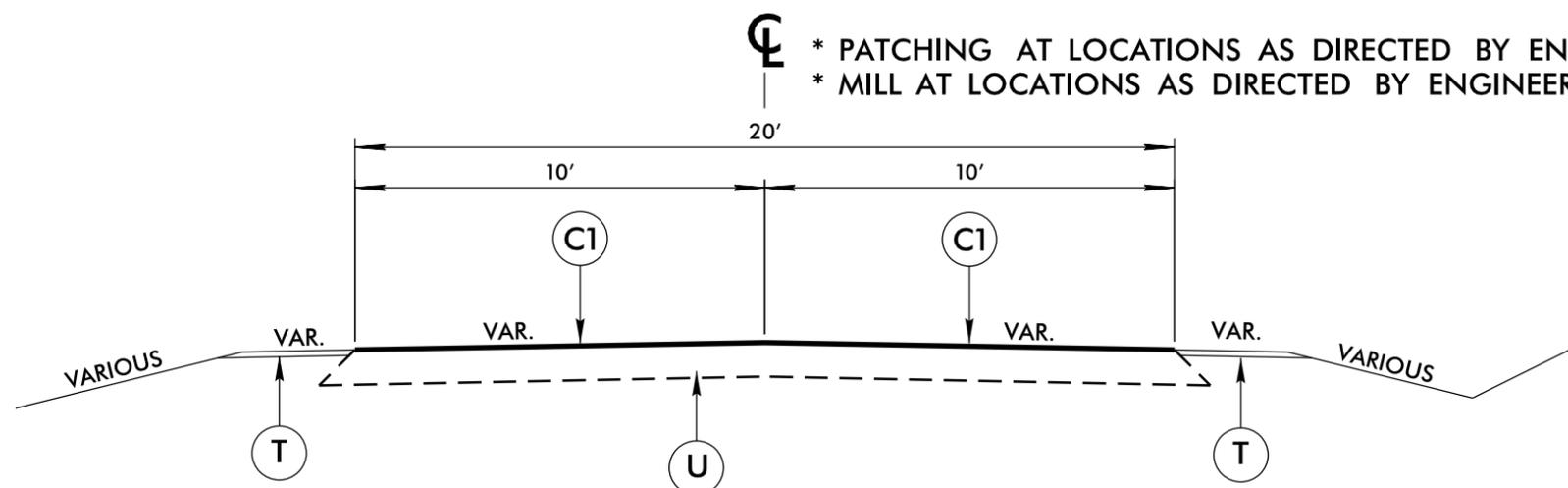
NOT TO SCALE
HATCHED AREA SHOWS PLACEMENT OF AGGREGATE SHOULDER BORROW

8/17/99



TYPICAL SECTION NO. 1

* MAP 1 - NC 194 FROM SR 1335 TO ASHE COUNTY LINE

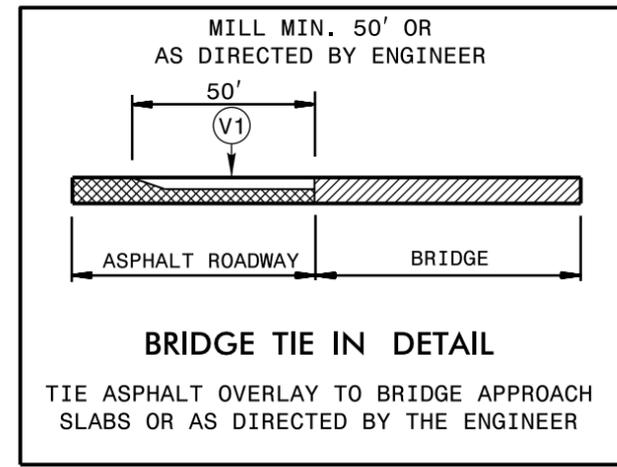
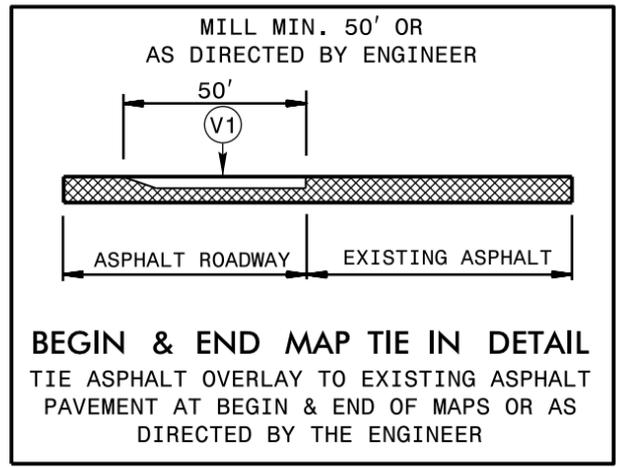


TYPICAL SECTION NO. 2

* MAP 2 - US 321 FROM SR 1233 TO SR 1202

NOTE: Mill Bridge Approaches per Bridge Tie-In Detail.
Mill Intersections as directed by the Engineer.

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 SF9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	INCIDENTAL MILLING
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 0" - 1 1/2"



**WATAUGA COUNTY
PRIMARY RESURFACING**

DIVISION II

REVISIONS	INT.	DATE

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

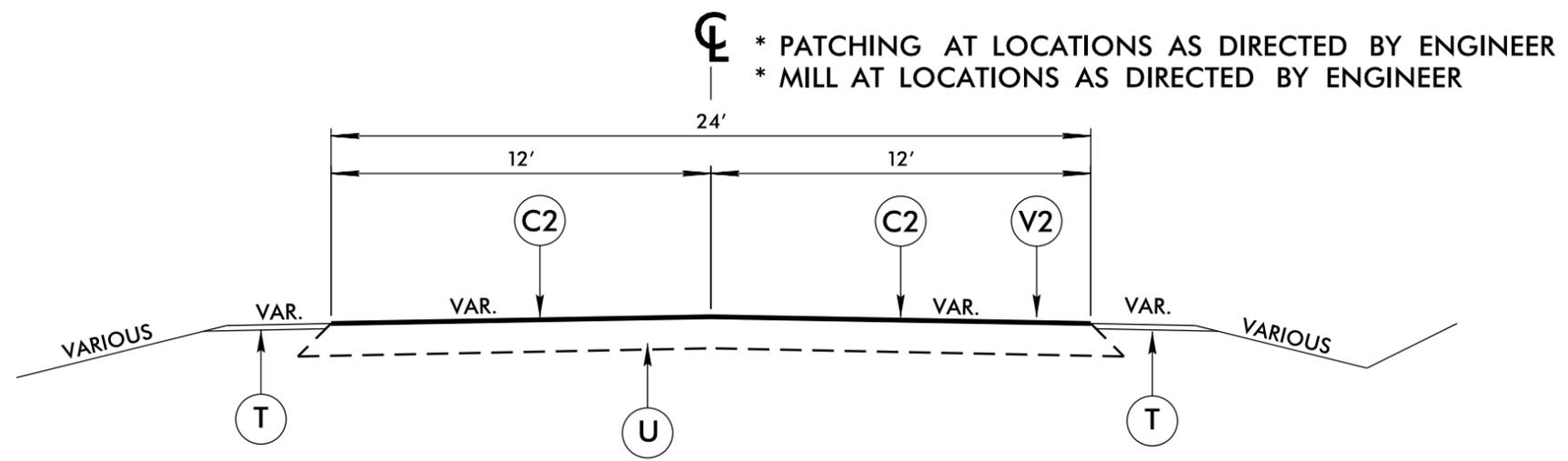
SCALE: N/A DATE: 08/2014

PREPARED BY: CHAD SHEETS

REVIEWED BY:

REVIEWED BY:

8/17/99



TYPICAL SECTION NO. 3

- * MAP 3 - NC 105 FROM END 3 LANE (0.4 MI NORTH OF SR 1109) TO SR 1112
- * MAP 4 - NC 105 FROM SR 1112 TO BEG 3 LANE (0.2 MI SOUTH OF SR 1568)

NOTE: Mill Bridge Approaches per Bridge Tie-In Detail.
 Mill Bridge Deck over Watauga River.
 *V2 - Mill Curb & Gutter area on SR 1112 as directed by the Engineer.
 Width varies to 46' for turn lanes.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	INCIDENTAL MILLING
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 0" - 1½"

WATAUGA COUNTY PRIMARY RESURFACING		
DIVISION II		
REVISIONS	INT.	DATE
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION ELEVEN		SCALE: N/A DATE: 08/2014 PREPARED BY: CHAD SHEETS REVIEWED BY:

PROJECT NO.	SHEET NO.	TOTAL NO.
11CR.10951.22		

SUMMARY OF QUANTITIES

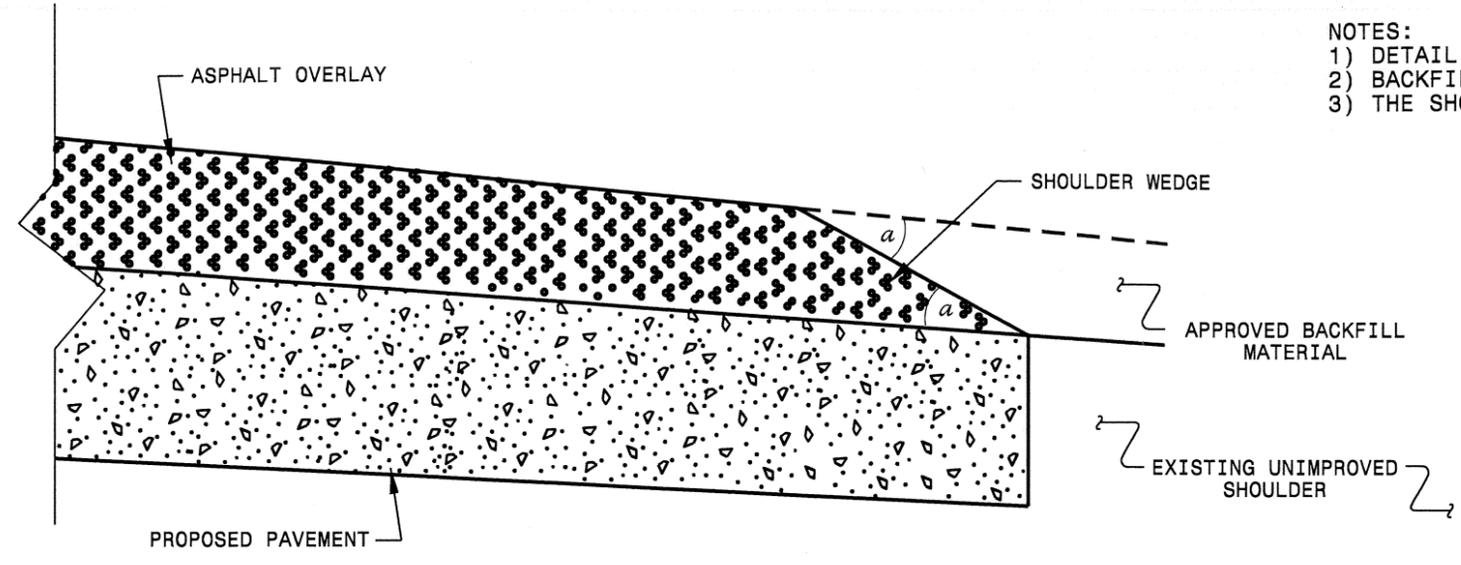
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH M	WIDTH FT	BORROW EXCAVATION CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SM	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	PORTABLE LIGHTING LS	SEED & MULCHING AC	PAVED TRENCHING (2,2") LF	UNPAVED TRENCHING (2, 2") LF	JUNCTION BOX (STANDARD SIZE) EA	INDUCTIVE LOOP LF	LEAD-IN CABLE LF
11CR.10951.22	Watauga	1	NC 194	FROM SR 1335 TO ASHE COUNTY LINE	1	2	2WU	NO	NO	6.62	20	1,324	200	13.24		450	6,850	459	1,500		4.80						
11CR.10951.22	Watauga	2	US 321	FROM SR 1233 TO SR 1202	2	2	2WU	NO	NO	5.7	22	1,140	200	11.40		3,500	6,450	432	1,600		4.00						
11CR.10951.22	Watauga	3	NC 105	FROM END 3 LANE (0.4 MI NORTH OF SR 1109) TO SR 1112	3	2	2WU	NO	NO	1.29	24	258	75	2.58	1,000	1,500	1,900	114	400	1.00	0.90	100	100	1	375	1,200	
11CR.10951.22	Watauga	4	NC 105	FROM SR 1112 TO BEGIN 3 LANE (0.2 MI SOUTH OF SR 1568)	3	2	2WU	NO	NO	0.87	24	174	50	1.74		245	1,180	71	300	*	0.60						
TOTAL FOR PROJ NO. 11CR.10951.22										14.48		2,896	525	28.96	1,000	5,695	3,080	13,300	1,076	3,800	1.00	10.30	100	100	1	375	1,200
GRANDTOTAL										14.48		2,896	525	28.96	1,000	5,695	3,080	13,300	1,076	3,800	1.00	10.30	100	100	1	375	1,200

PROJECT NO.	SHEET NO.	TOTAL NO.
11CR.10951.22		

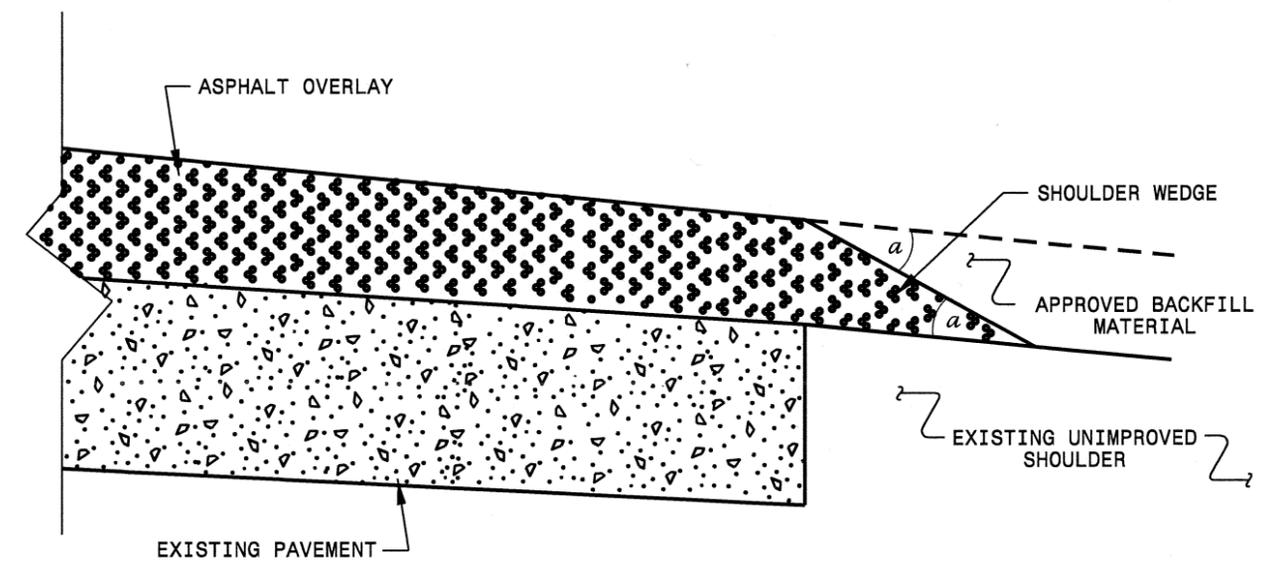
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4810000000-E		4820000000-E	4835000000-E	4845000000-N		4905000000-N
										WORK ZONE ADVANCE/GENERAL WARNING SIGNS	TEMPORARY TRAFFIC CONTROL	4" WHITE PAINT	4" YELLOW PAINT	8" YELLOW PAINT	24" WHITE PAINT	PAINT LT ARROW	PAINT RT ARROW	SNOW PLOWABLE MARKERS
										SF	LS	LF	LF	LF	LF	EA	EA	EA
11CR.10951.22	Watauga	1	NC 194	FROM SR 1335 TO ASHE COUNTY LINE	1	2	2WU	6.62	20	214	1	139,815	139,815					440
11CR.10951.22	Watauga	2	US 321	FROM SR 1233 TO SR 1202	2	2	2WU	5.7	22	214	*	115,000	112,000					380
11CR.10951.22	Watauga	3	NC 105	FROM END 3 LANE (0.4 MI NORTH OF SR 1109) TO SR 1112	3	2	2WU	1.29	24	118	*	27,245	27,245	350	120	6	6	170
11CR.10951.22	Watauga	4	NC 105	FROM SR 1112 TO BEGIN 3 LANE (0.2 MI SOUTH OF SR 1568)	3	2	2WU	0.87	24	118	*	18,375	18,375		24			115
TOTAL FOR PROJ NO. 11CR.10951.22								14.48		664	1	300,435	297,435	350	144	6	6	1,105
												597,870		12				
GRANDTOTAL								14.48		664	1	300,435	297,435	350	144	6	6	1,105
												597,870		12				

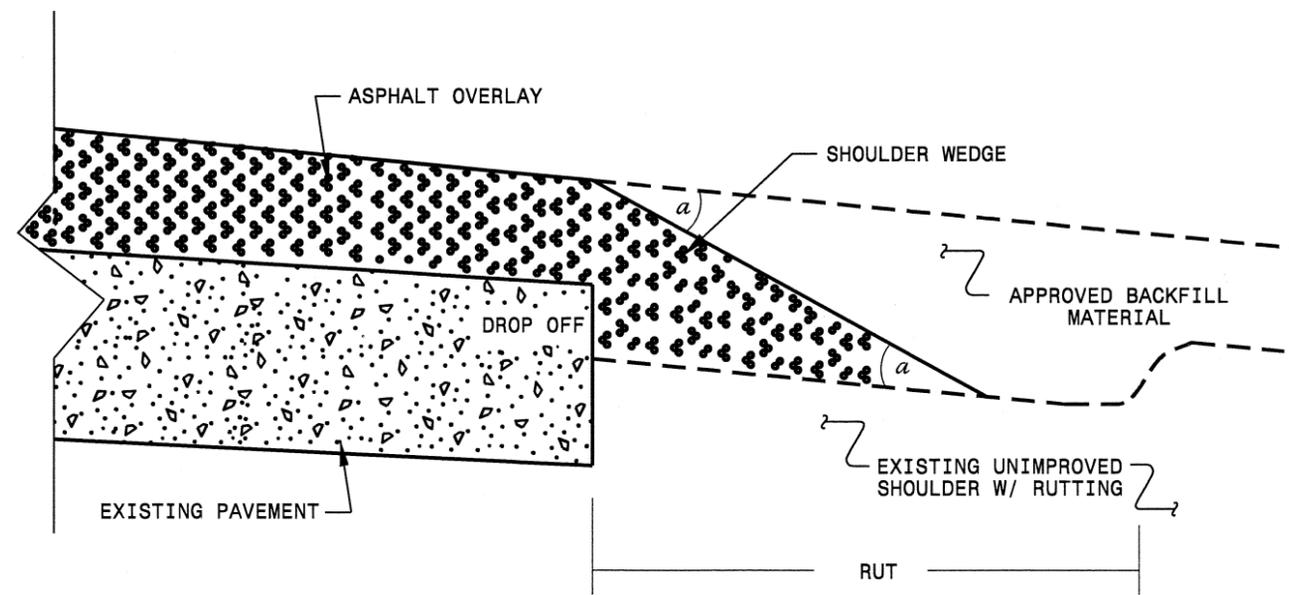
- NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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°

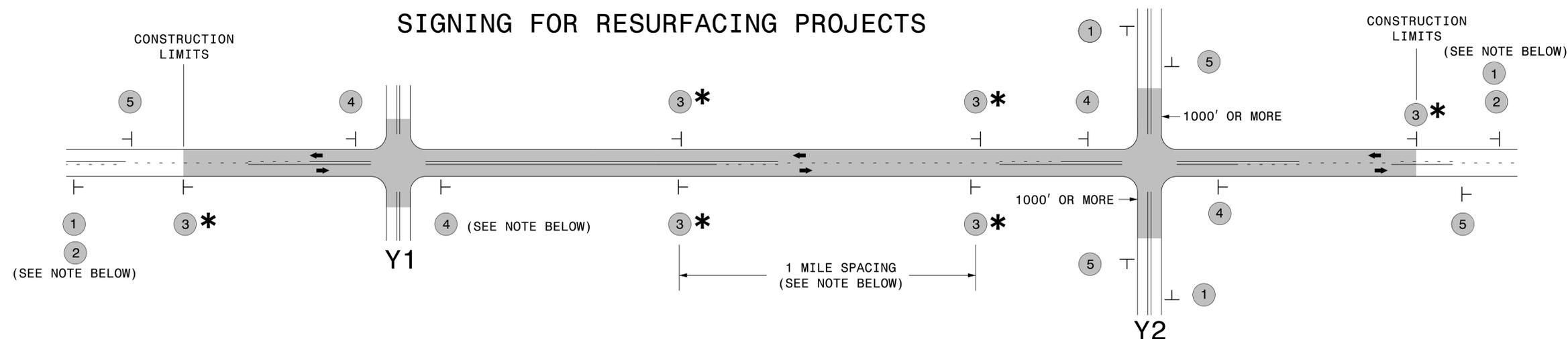
CONTRACT STANDARDS
 AND DEVELOPMENT UNIT
 Office 919-707-6950 FAX 919-250-4119

**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

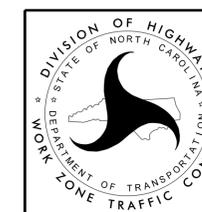
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	1	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <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> <div style="display: flex; justify-content: space-around;"> <div> W20-1 48" X 48" </div> <div> W20-7 A 48" X 48" </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	2	 W7-3aP 24" X 18"	#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)	
	3 *	 SP 13107 48" X 48"	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.	
	4	 SP 13106 48" X 48"	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.	
5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

* 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