

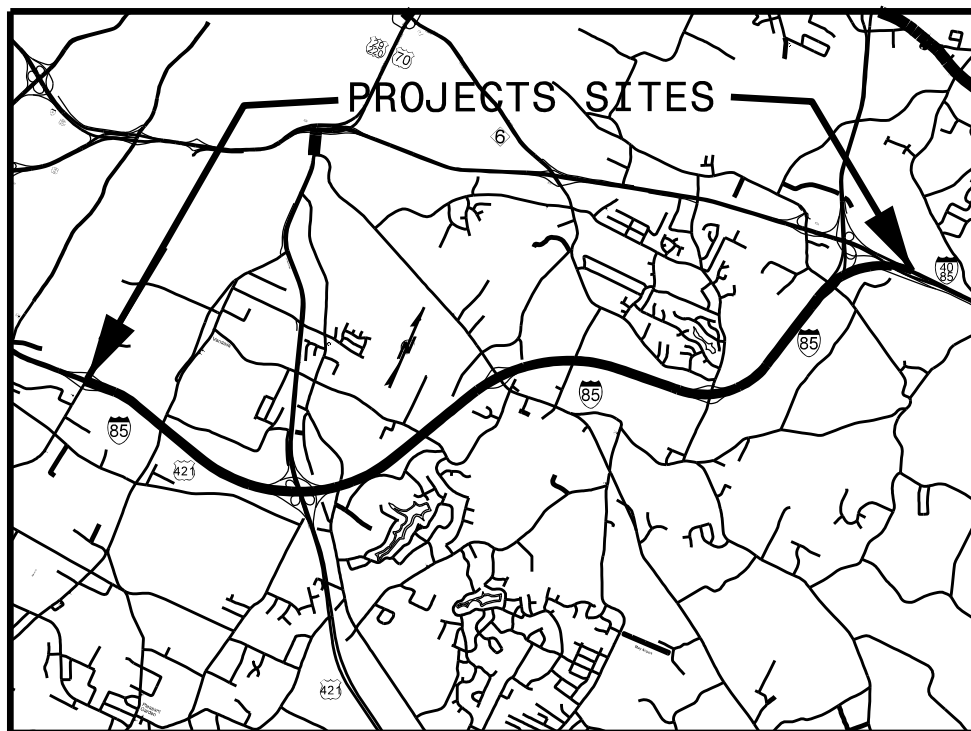
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09/08/99
 CONTRACT: C203785
 TIP PROJECT: I-5790 & I-5855
 \$\$\$SYTIME\$\$\$\$\$
 \$\$\$DGN\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

VICINITY



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
GUILFORD COUNTY

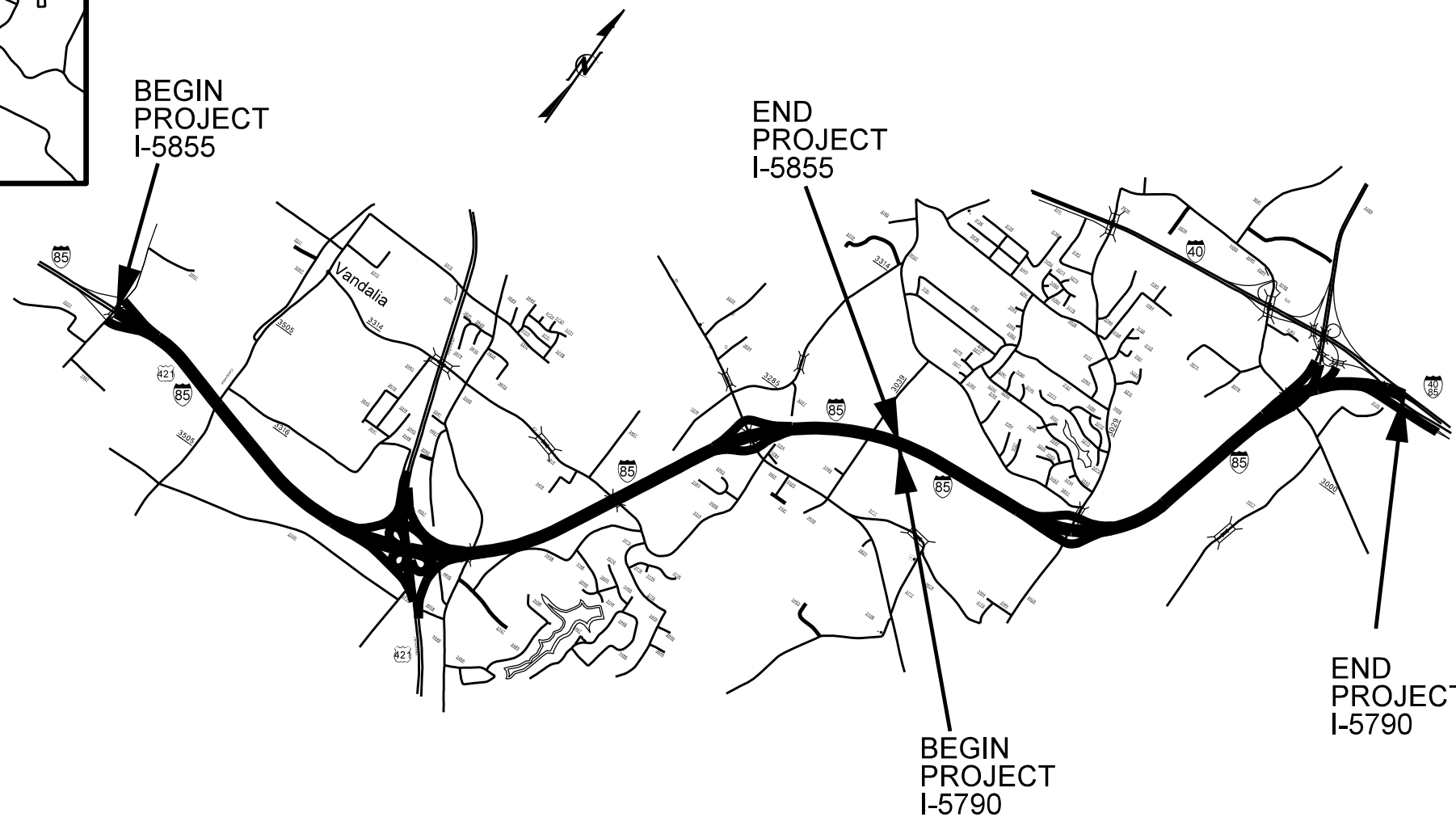
LOCATION: I-85 FROM S. ELM EUGENE STREET TO I-40
 IN GREENSBORO

TYPE OF WORK: PAVEMENT AND BRIDGE REHABILITATION

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5790 & I-5855	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
53030.1.1	NHPIM-0085(4)	I-5790 (PE)	
53030.3.1	NHPIM-0085(4)	I-5790 (CONST)	
53059.1.1	NHPIM-0085(8)	I-5855 (PE)	
53059.3.1	NHPIM-0085(8)	I-5855 (CONST)	

BEGIN PROJECT I-5855

END PROJECT I-5855



GRAPHIC SCALES
 NOT TO SCALE

DESIGN DATA

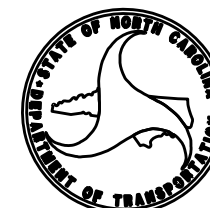
PROJECT LENGTH

I-5790 = 3.335 miles
 I-5855 = 5.436 miles
 Total Project Length = 8.771

Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

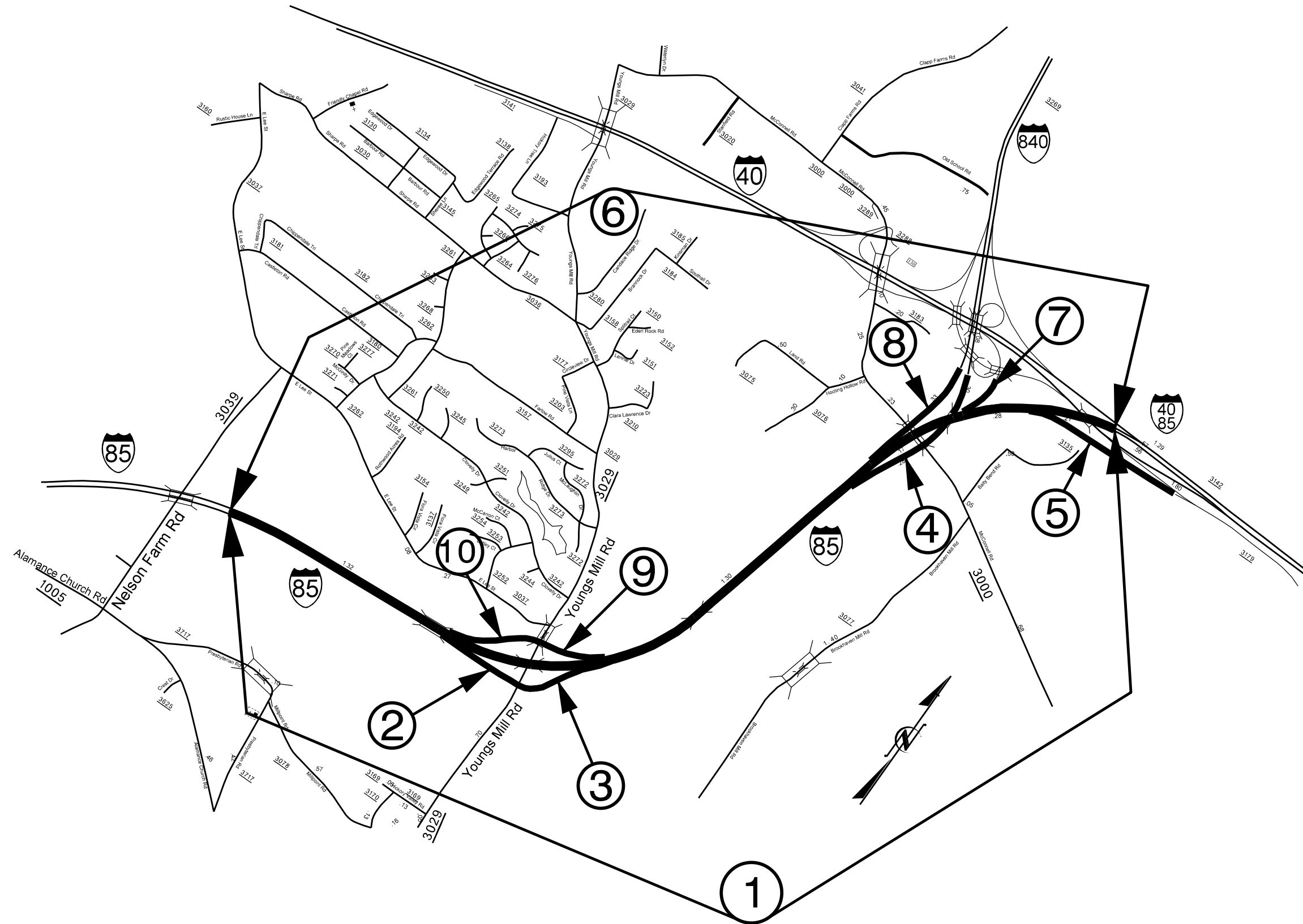
LETTING DATE:
 March 15, 2016



GUILFORD COUNTY

I - 5790

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5790 I-5855	2	



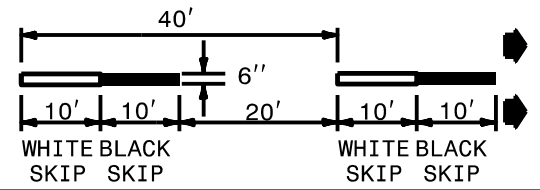
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PAVEMENT SCHEDULE

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVG. RATE OF 168 LBS PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. APPROX. 1½" S9.5C AT AN AVG. RATE OF 168 LBS PER SQ. YD.
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING ASPHALT SHOULDER
R	EXISTING CONCRETE STRUCTURE
U	EXISTING PAVEMENT
V1	3" MILLING FOR PATCHING
V2	MILLED RUMBLE STRIP
V3	MILLING ASPHALT PAVEMENT 1½" DEPTH
Y	PROPOSED DIAMOND GRINDING

BLACK - WHITE COMBINATION 10' WHITE SKIP LINES 10' BLACK SKIP LINES

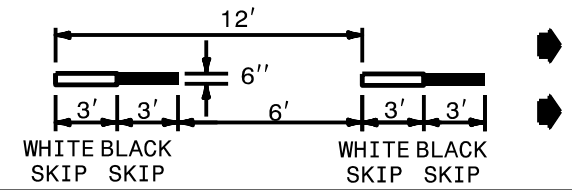
FOR USE ON CONCRETE PAVEMENTS TO PROVIDE CONTRAST FOR THE WHITE LANE LINE, ALONG THRU LANES AND RAMP LANES.



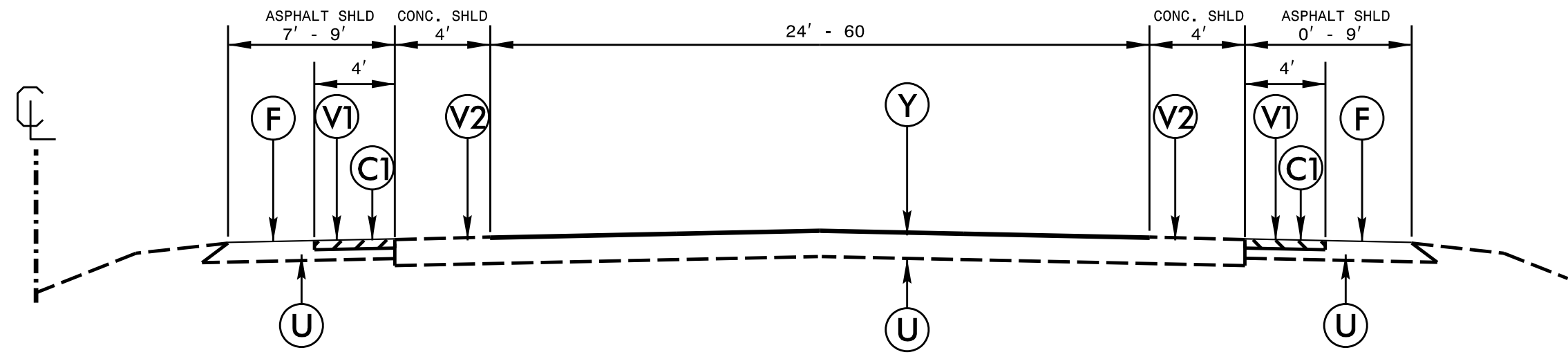
NOTE:
6" LINE REMOVAL SHALL BE USED TO REMOVE 100% OF THE 6" TEMPORARY PAINT ON THE CONCRETE SURFACE BY GRINDING METHOD ONLY. ALSO 6" LINE REMOVAL BY GRINDING SHALL BE USED IN THE AREA OF THE BLACK CONTRAST FOR SURFACE PREPARATION.

BLACK - WHITE COMBINATION 3' MINI WHITE SKIP LINES 3' MINI BLACK SKIP LINES

FOR USE ON CONCRETE PAVEMENTS TO PROVIDE CONTRAST FOR THE WHITE LANE LINE, ALONG THRU LANES AND RAMP LANES.



NOTE:
6" LINE REMOVAL SHALL BE USED TO REMOVE 100% OF THE 6" TEMPORARY PAINT ON THE CONCRETE SURFACE BY GRINDING METHOD ONLY. ALSO 6" LINE REMOVAL BY GRINDING SHALL BE USED IN THE AREA OF THE BLACK CONTRAST FOR SURFACE PREPARATION.



TYPICAL SECTION NO. 1

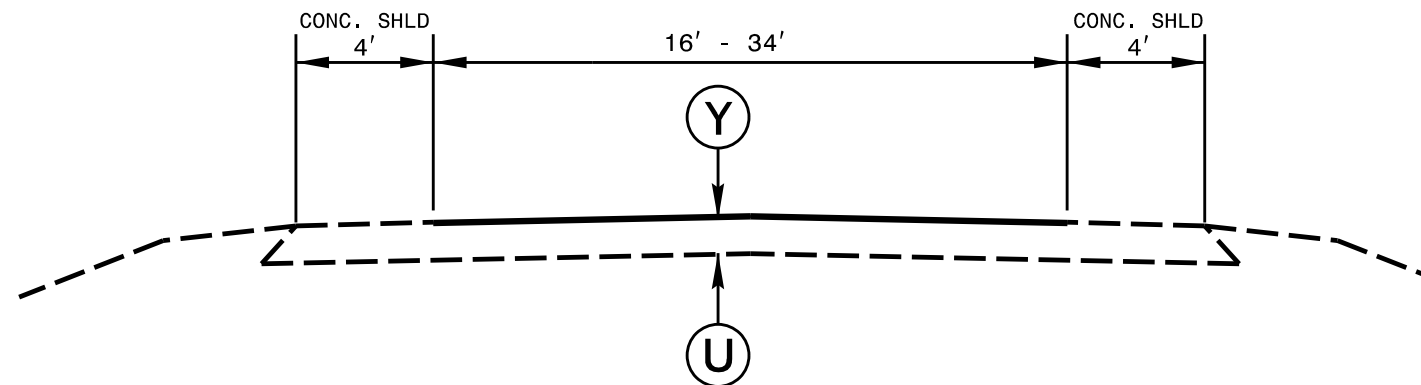
TO BE USED ON MAPS 1, 4, 6, 11, 20

CONTRACTOR SHALL PERFORM MILL/FILL OPERATION ON SHOULDER BEFORE DIAMOND GRINDING TO AVOID TACK AND DEBRIS ON FINAL CONCRETE PAVEMENT SURFACE. (SEE 3" MILLING DETAILS)

DIAMOND GRIND EXISTING TRAVEL LANES, AUXILIARY LANES AND RAMPS INCLUDING GORE AREAS

DIAMOND GRINDING OPERATION SHALL BE PERFORMED AFTER ALL CONCRETE REPAIRS ARE COMPLETE AND PRIOR TO JOINT SEALING OPERATION

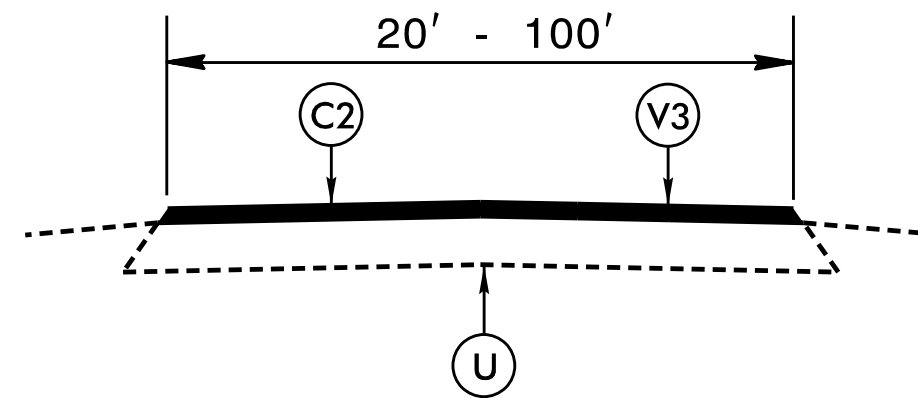
MAP 4: STA. 19+03 TO STA. 36+76



TYPICAL SECTION NO. 2

TO BE USED ON MAPS 2, 3, 9, 10, 18, 19, 22

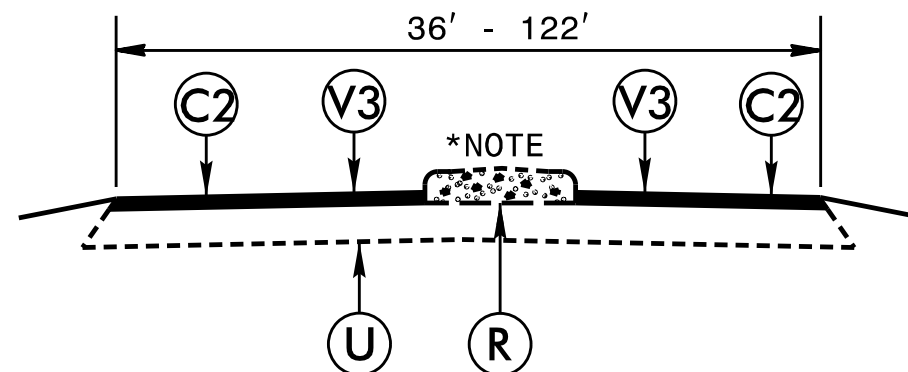
- MAP 2: STA. 10+00 TO STA. 21+34
- MAP 3: STA. 10+00 TO STA. 21+43
- MAP 9: STA. 11+25 TO STA. 17+88
- MAP 10: STA. 10+00 TO STA. 22+02
- MAP 18: STA. 10+00 TO STA. 20+84
- MAP 19: STA. 10+00 TO STA. 20+19
- MAP 21: STA. 10+00 TO STA. 20+00
- MAP 22: STA. 10+00 TO STA. 70+33



TYPICAL SECTION NO. 4

TO BE USED ON MAPS 3, 10, 19, 22

- MAP 3: STA. 9+40 TO STA. 10+00
- MAP 10: STA. 8+50 TO STA. 10+00
- MAP 19: STA. 9+30 TO STA. 10+00
- MAP 22: STA. 9+35 TO STA. 10+00



* NOTE: TRAFFIC ISLAND AT END OF RAMP

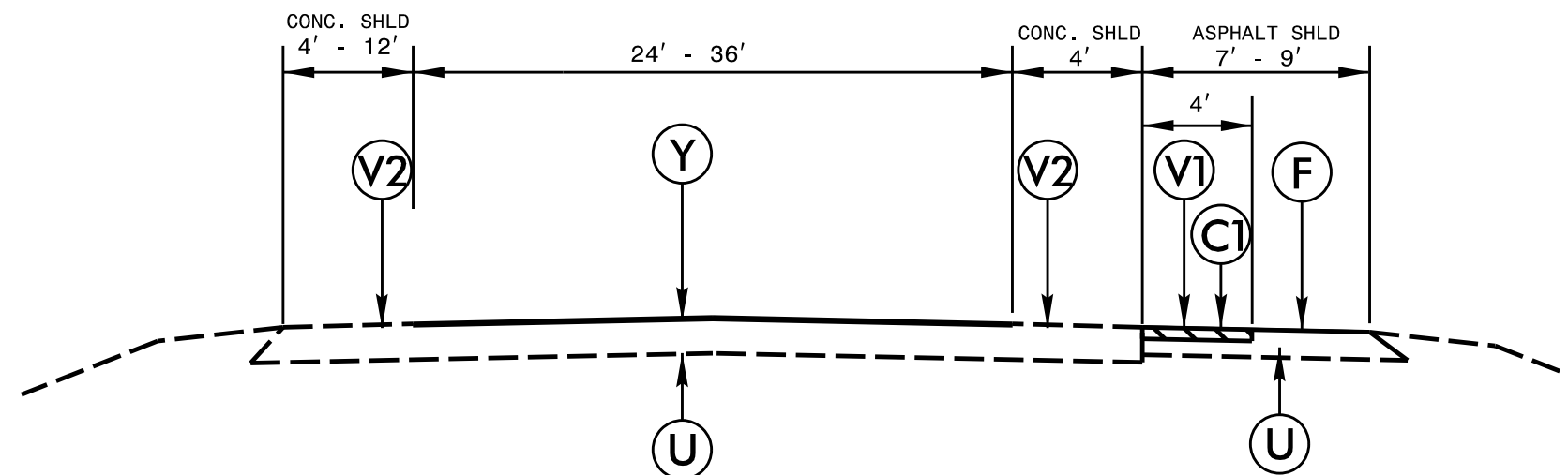
TYPICAL SECTION NO. 3

TO BE USED ON MAPS 2, 9, 18, 21

- MAP 2: STA. 21+34 TO STA. 22+19
- MAP 9: STA. 17+88 TO STA. 18+22
- MAP 18: STA. 20+84 TO STA. 21+39
- MAP 21: STA. 20+00 TO STA. 20+60

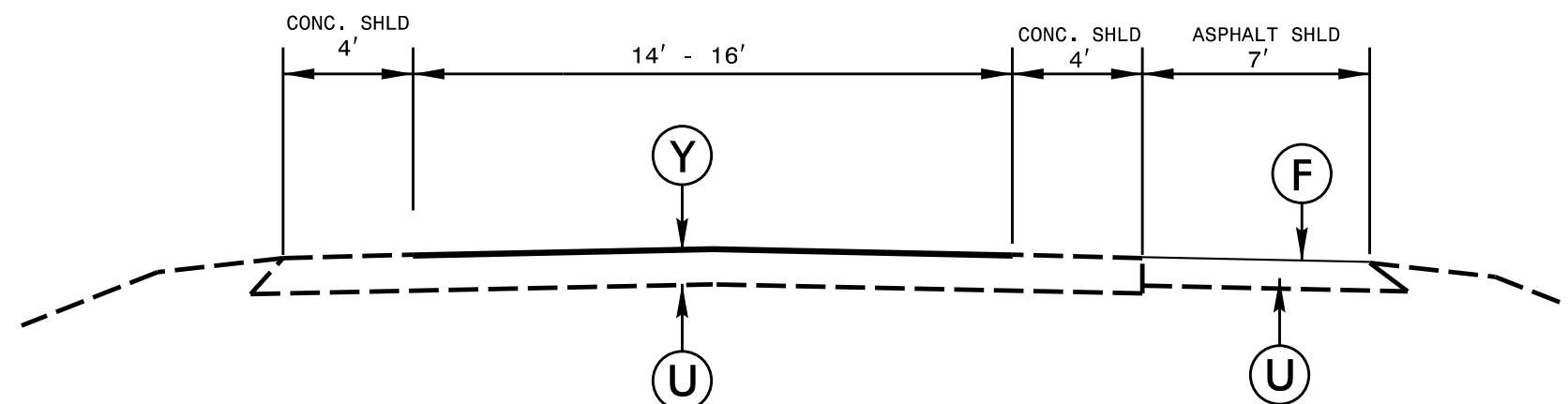
PAVEMENT SCHEDULE

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVG. RATE OF 168 LBS PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. APPROX. 1½" S9.5C AT AN AVG. RATE OF 168 LBS PER SQ. YD.
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING ASPHALT SHOULDER
R	EXISTING CONCRETE STRUCTURE
U	EXISTING PAVEMENT
V1	3" MILLING FOR PATCHING
V2	MILLED RUMBLE STRIP
V3	MILLING ASPHALT PAVEMENT 1½" DEPTH
Y	PROPOSED DIAMOND GRINDING



TYPICAL SECTION NO. 5

TO BE USED ON MAPS 4, 8
MAP 4: STA. 10+00 TO STA. 19+03

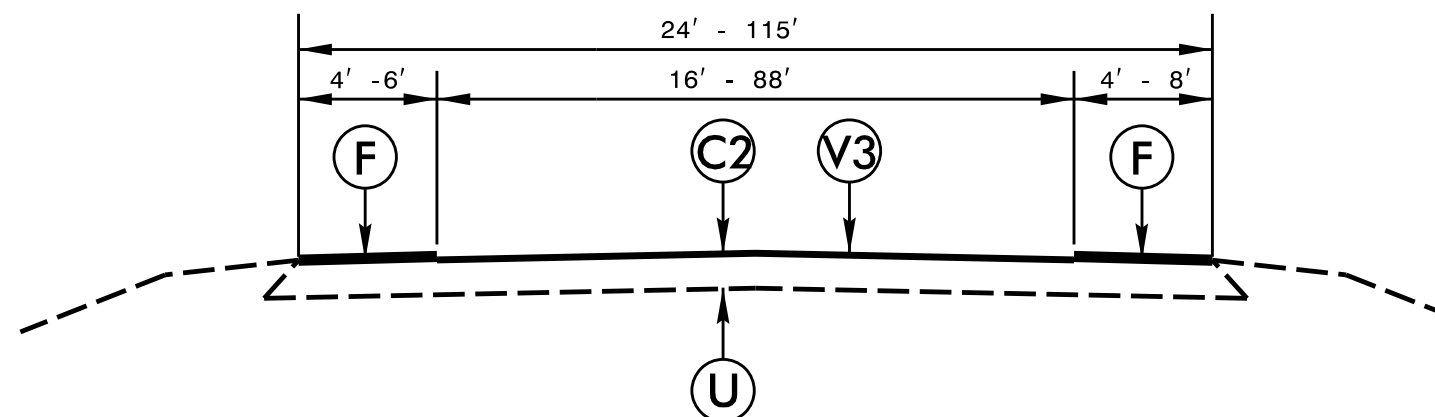


TYPICAL SECTION NO. 6

TO BE USED ON MAPS 5, 7, 9
MAP 9: STA. 10+00 TO STA. 11+25

PAVEMENT SCHEDULE

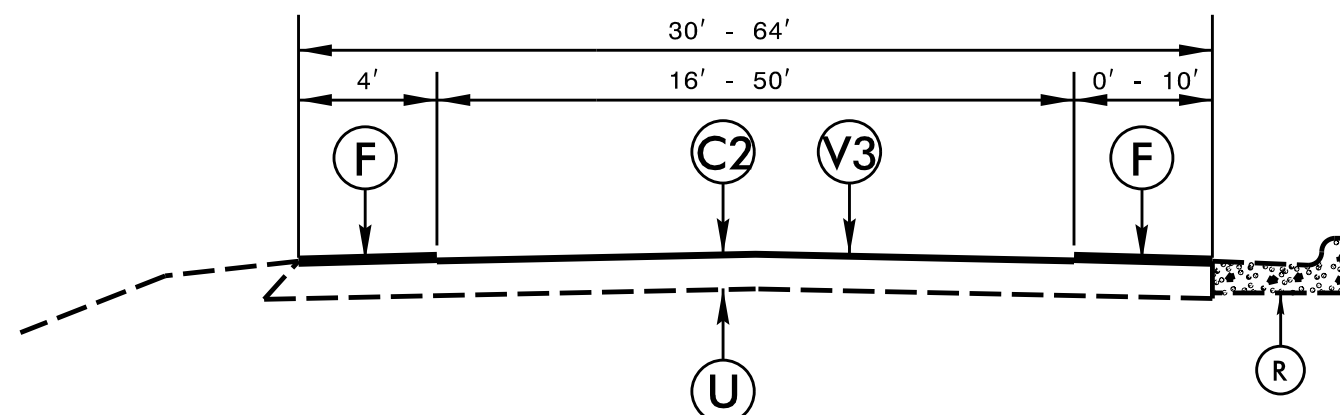
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVG. RATE OF 168 LBS PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. APPROX. 1½" S9.5C AT AN AVG. RATE OF 168 LBS PER SQ. YD.
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING ASPHALT SHOULDER
R	EXISTING CONCRETE STRUCTURE
U	EXISTING PAVEMENT
V1	3" MILLING FOR PATCHING
V2	MILLED RUMBLE STRIP
V3	MILLING ASPHALT PAVEMENT 1½" DEPTH
Y	PROPOSED DIAMOND GRINDING



TYPICAL SECTION NO. 7

TO BE USED ON MAPS 12 THRU 17, 24, 27, 28

- MAP 13: STA. 17+22 TO STA. 32+42
- MAP 14: STA. 16+66 TO STA. 51+42
- MAP 15: STA. 10+00 TO STA. 10+85
- MAP 16: STA. 10+00 TO STA. 10+85
- MAP 17: STA. 19+30 TO STA. 20+14

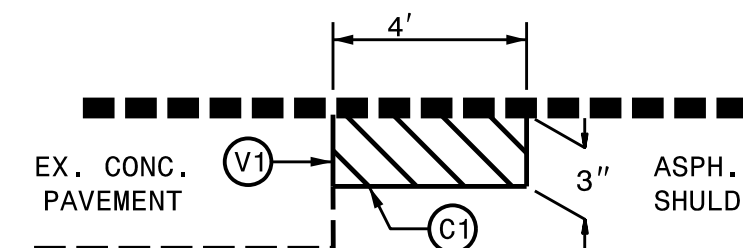


TYPICAL SECTION NO. 8

TO BE USED ON MAPS 13 THRU 17, 23, 25, 26

- MAP 13: STA. 10+00 TO STA. 17+22
- MAP 14: STA. 10+00 TO STA. 16+66
- MAP 15: STA. 10+85 TO STA. 21+70
- MAP 16: STA. 10+85 TO STA. 20+56
- MAP 17: STA. 10+00 TO STA. 19+30

3" MILLING FOR PATCHING DETAIL 1

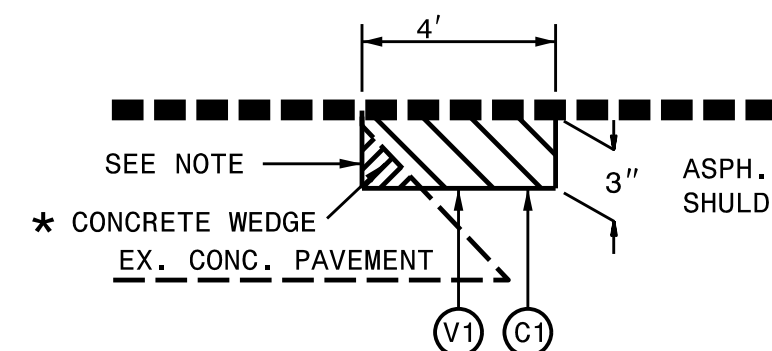


MILL EXISTING ASPHALT PAVEMENT 3" IN DEPTH AND FILL WITH SURFACE COURSE, TYPE S9.5B AT LOCATIONS AS DIRECTED BY THE ENGINEER.

TO BE USED IN CONJUNCTION WITH MAPS 1, 4, 6 AND 8

- MAP 1: 3" MILLING = 15851 SYD
SURFACE COURSE, TYPE S9.5B = 2663 TONS
- MAP 4: 3" MILLING = 2409 SYD
SURFACE COURSE, TYPE S9.5B = 405 TONS
- MAP 6: 3" MILLING = 15844 SYD
SURFACE COURSE, TYPE S9.5B = 2662 TONS
- MAP 8: 3" MILLING = 1570 SYD
SURFACE COURSE, TYPE S9.5B = 264 TONS

3" MILLING FOR PATCHING DETAIL 2



NOTE: CONTRACTOR SHALL SAW CUT 3" DEPTH PRIOR TO MILLING OPERATION. SAW CUT IS INCIDENTAL TO MILLING OPERATION

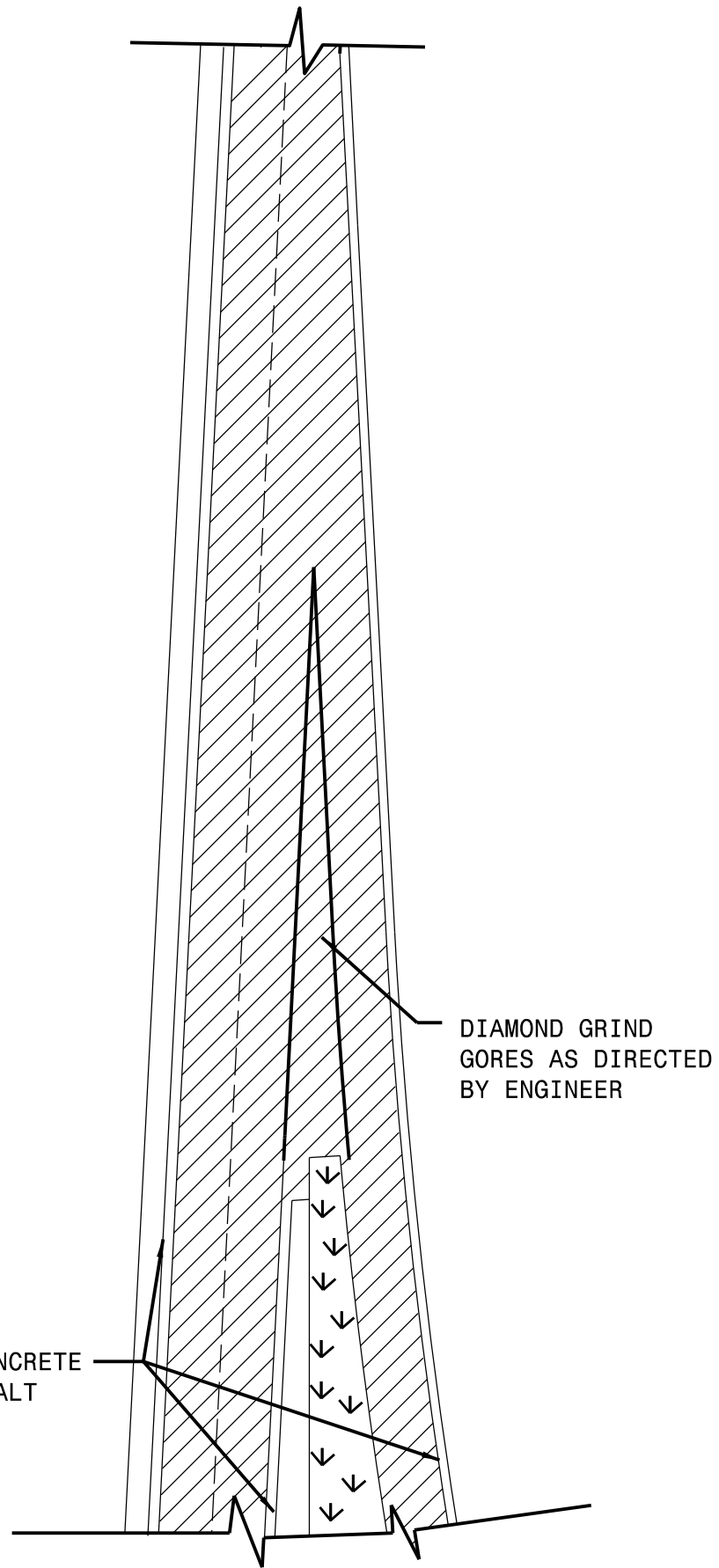
* CONCRETE WEDGE SHALL BE REMOVED

TO BE USED ON MAPS 11 AND 20

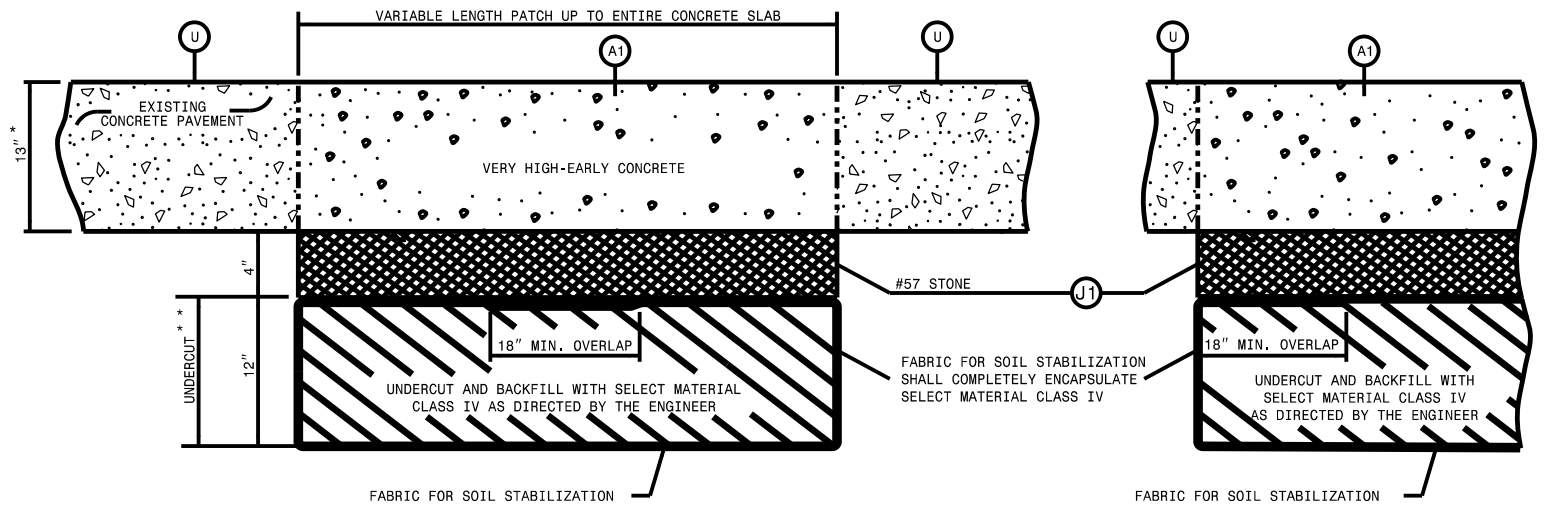
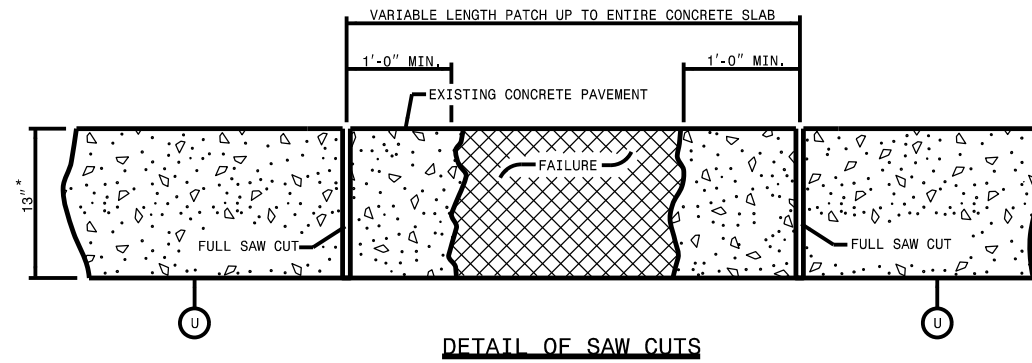
- MAP 11: STA. 25+41 TO STA. 244+74
- MAP 20: STA. 84+32 TO STA. 296+97

PAVEMENT SCHEDULE

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVG. RATE OF 168 LBS PER SQ. YD. IN EACH OF TWO LAYERS	R	EXISTING CONCRETE STRUCTURE	V2	MILLED RUMBLE STRIP
C2	PROP. APPROX. 1½" S9.5C AT AN AVG. RATE OF 168 LBS PER SQ. YD.	U	EXISTING PAVEMENT	V3	MILLING ASPHALT PAVEMENT 1½" DEPTH
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING ASPHALT SHOULDER	V1	3" MILLING FOR PATCHING	Y	PROPOSED DIAMOND GRINDING



DETAIL FOR LIMITS OF MILLING AND DIAMOND GRINDING AT GORE AREAS



DETAIL OF CONCRETE PAVEMENT REPAIR

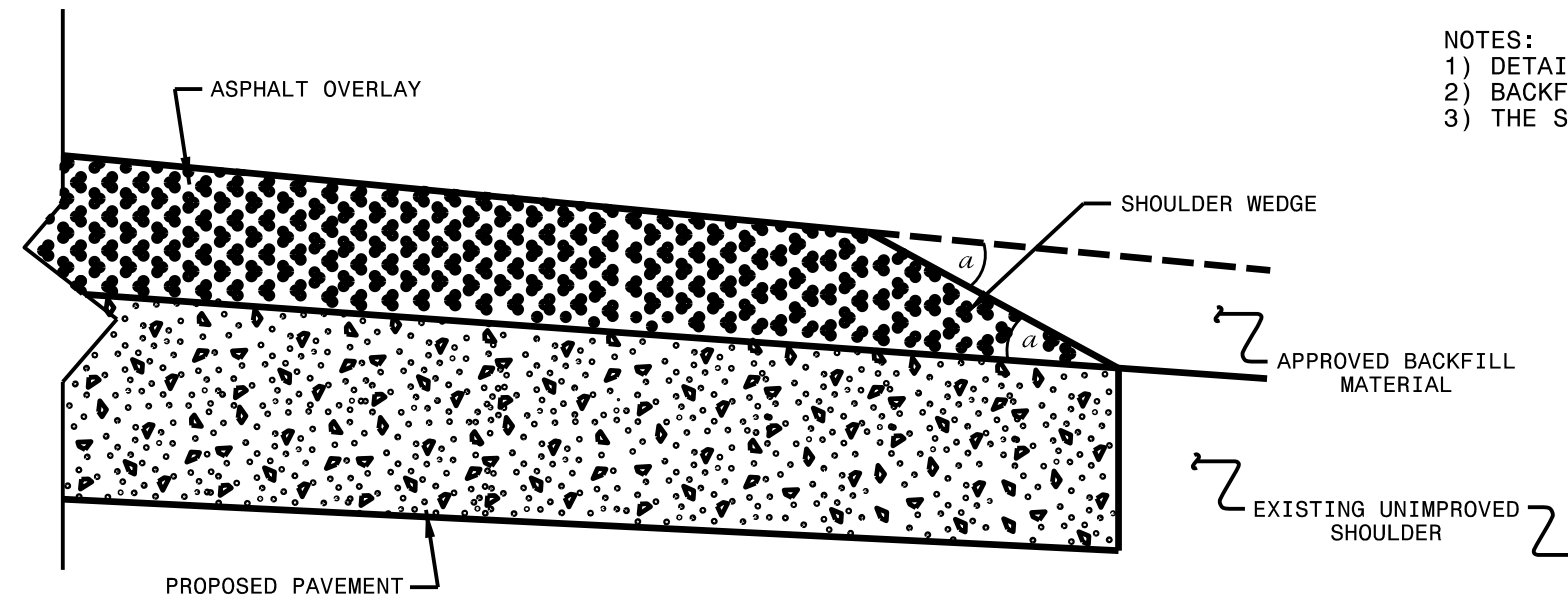
* DIMENSIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED
 ** UNDERCUT REQUIRED IN AREAS AS DIRECTED BY THE ENGINEER

PAVEMENT SCHEDULE	
A1	13" VERY HIGH-EARLY CONCRETE
J1	#57 STONE
U	EXISTING PAVEMENT

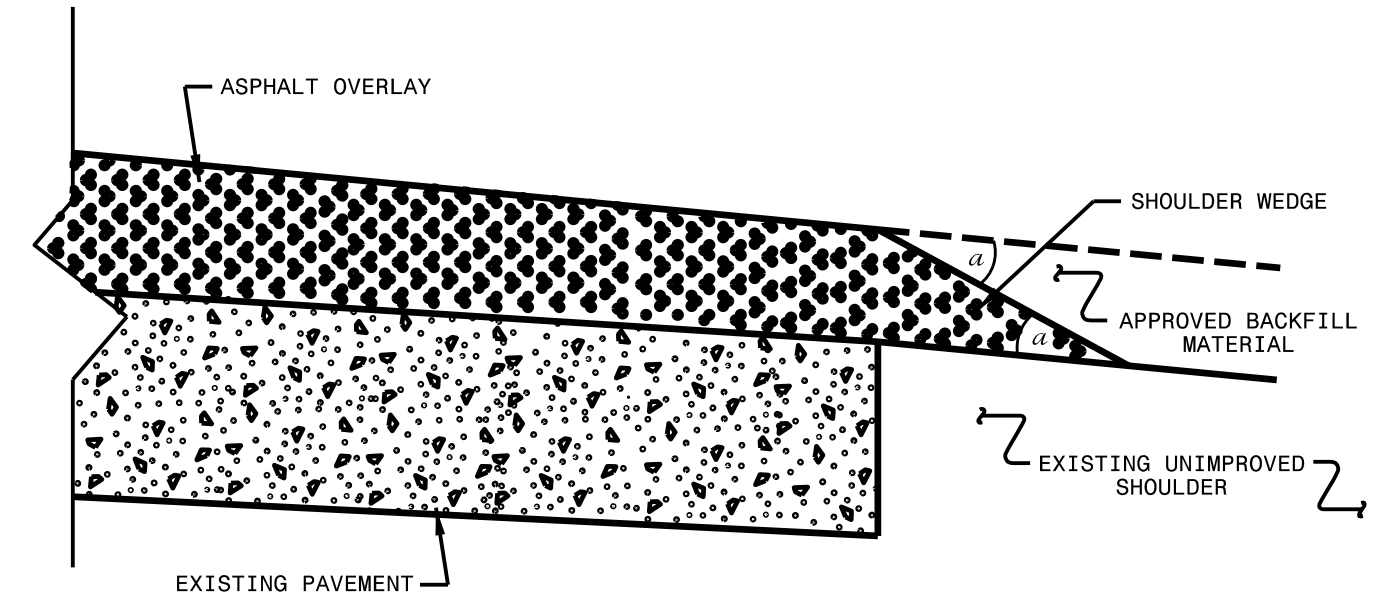
Refer to the North Carolina Department of Transportation "Partial and Full Depth Repair Manual" when Replacing Slabs and when Repairing Concrete Pavement.

DETAIL FOR REPAIR OF CONCRETE PAVEMENT

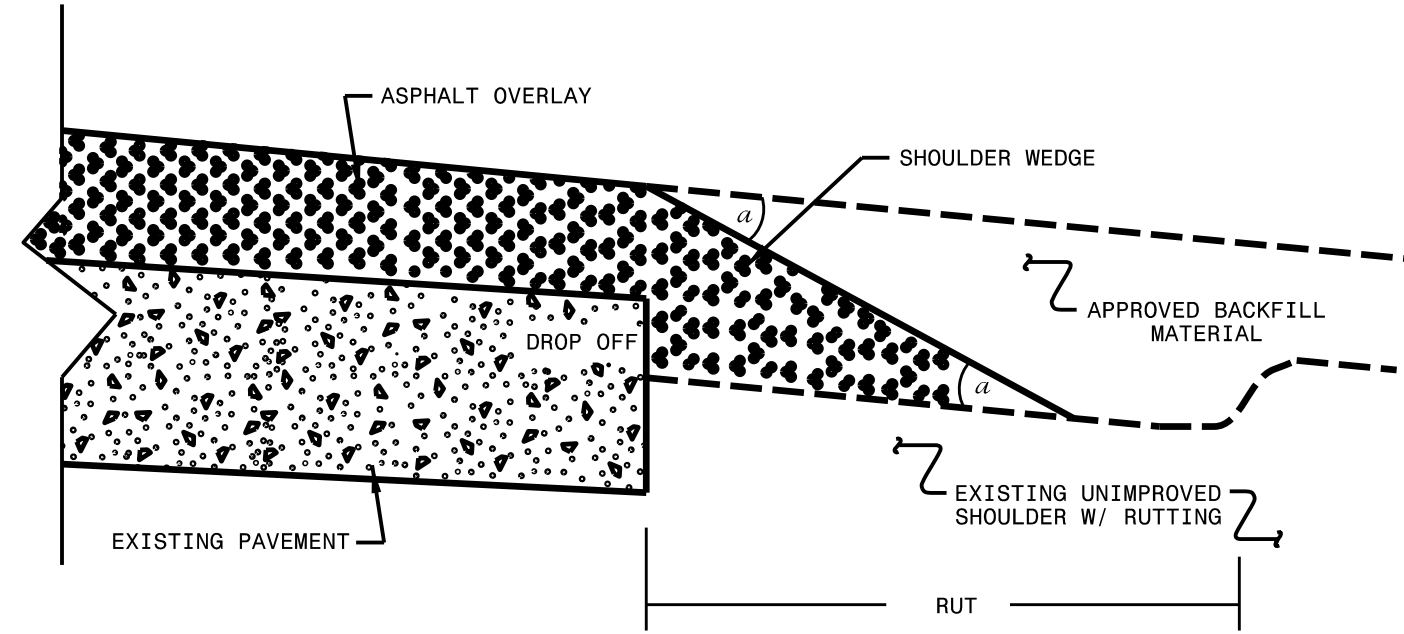
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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:	10/16/12
CHECKED BY:		DATE:	
FILE SPEC.:	s:\usr\details\stand\shoulderwedgedetail.dgn		

\$\$\$\$SYTIME\$\$\$\$
 \$\$\$USERNAME\$\$\$

PROJECT NO.	SHEET NO.	TOTAL NO.
I-5790, I-5855	11	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	REPAIR OF JOINTED CONCRETE PAVEMENT SLAB SYD	GEOTEXTILE FOR SOIL STABILIZATION SY	#57 STONE TON	SHALLOW UNDERCUT CY	CLASS IV SUBGRADE STABILIZATION TON	INCIDENTAL STONE BASE TONS	MILLING ASPHALT PAVEMENT, 1½" DEPTH SY	ASPHALT CONC SURFACE COURSE, TYPE S9.5C TON	ASPHALT BINDER FOR PLANT MIX TONS	AC PLANT MIX (REPAIR) TONS	3" PATCHING EXISTING PAVEMENT TON	PATCHING CONCRETE PAVEMENT SPALLS SF	ASPHALT SURFACE TREATMENT, FOG SEAL SY	JOINT CONSTRUCTION, REPAIR & SEALING LF	JOINT REPAIR LB	DIAMOND GRINDING PCC SY	MILLED RUMBLE STRIPS IN EXISTING PCC SHOULDERS LF	PORTABLE LIGHTING LS	INDUCTIVE LOOP SAW CUT LF				
I-5855	Guilford	16	OFF LOOP TO US 421 NB	FROM I-85 NB COLLECTOR RAMP TO US 421 NB	7	1		NO	NO	0.016	16							150	13	1			75											
					8	1		NO	NO	0.184	16							1,727	146	9			432											
TOTAL FOR MAP NO. 16										0.2								1,877	159	10			507											
I-5855	Guilford	17	ON RAMP TO I-85 NB COLLECTOR RAMP	FROM US 421 NB TO I-85 NB COLLECTOR RAMP	8	1		NO	NO	0.176	16							1,652	140	8			1,446											
					7	1		NO	NO	0.016	16							150	13	1			103											
TOTAL FOR MAP NO. 17										0.192								1,802	153	9			1,549											
I-5855	Guilford	18	OFF RAMP TO ALAMANCE CHURCH ROAD	FROM I-85 NB TO ALAMANCE CH RD	2	1		NO	NO	0.205	24						125						15		3,527		2,056							
					3	2		NO	NO	0.01	58																							
TOTAL FOR MAP NO. 18										0.215								125	340	29	2		15		3,527		2,056							
I-5855	Guilford	19	ON RAMP TO I-85 NB	FROM ALAMANCE CH RD TO I-85 NB	4	1		NO	NO	0.013	67							511	43	3														
					2	2		NO	NO	0.196	24																							
TOTAL FOR MAP NO. 19										0.209								125	511	43	3				2,574		1,517							
I-5855	Guilford	20	I-85 SOUTHBOUND	FROM SOUTH OF YOUNG'S MILL RD TO ELM-EUGENE (11.07 - 16.48)	1	4	MD	NO	NO	5.435	48	273	546	82	91	246							4,341	1,150	57,394	148,875	130,846	57,394						
TOTAL FOR MAP NO. 20										5.435															4,341	1,150	57,394	148,875	130,846	57,394				
I-5855	Guilford	21	OFF RAMP TO ALAMANCE CHURCH ROAD	FROM I-85 SB TO ALAMANCE CH RD	2	1		NO	NO	0.189	24												15		3,265		1,922							
					3	2		NO	NO	0.011	78																							
TOTAL FOR MAP NO. 21										0.2								88	503	42	2		15		3,265		1,922							
I-5855	Guilford	22	ON RAMP TO I-85 SB	FROM ALAMANCE CH RD TO I-85 SB	4	1		NO	NO	0.012	60							422	36	2														
					2	2		NO	NO	0.167	24							100																
TOTAL FOR MAP NO. 22										0.179								100	422	36	2				2,819		1,566							
I-5855	Guilford	23	OFF RAMP TO US 421 NB	FROM I-85 SB TO US 421 NB	8	1		NO	NO	0.421	16								3,952	335	20			3,211										
TOTAL FOR MAP NO. 23										0.421									3,952	335	20			3,211										
I-5855	Guilford		ON RAMP TO I-85 SB	FROM US 421 NB TO I-85 SB	7	1		NO	NO	0.04	16							93	376	32	2			188										
					7	1		NO	NO	0.047	20																							
					7	2		NO	NO	0.056	30																							
					7	2		NO	NO	0.041	38																							
					7	2		NO	NO	0.106	24																							
					7	2		NO	NO	0.062	35																							
					7	2		NO	NO	0.174	24																							
					7	2		NO	NO	0.058	38																							
					7	2		NO	NO	0.101	24																							
					7	4		NO	NO	0.046	38																							
					7	4		NO	NO	0.125	36																							
					7	3		NO	NO	0.022	30																							
TOTAL FOR MAP NO. 24										0.878								93	12,246	1,034	61			6,474										
I-5855	Guilford	25	OFF LOOP TO US 421 SB	FROM I-85 SB TO US 421 SB	8	1		NO	NO	0.18	16																							
TOTAL FOR MAP NO. 25										0.18								21	1,690	143	8			422										
I-5855	Guilford	26	ON RAMP TO I-85 SB	FROM US 421 SB TO I-85 SB	8	1		NO	NO	0.199	16																							
TOTAL FOR MAP NO. 26										0.199									1,868	158	9			1,634										
I-5855	Guilford	27	OFF RAMP TO ELM-EUGENE	FROM I-85 SB TO ELM-EUGENE	7	1		NO	NO	0.011	16																							
					7	1		NO	NO	0.019	16																							
					7	1		NO	NO	0.073	22																							
					7	1		NO	NO	0.019	34																							
					7	1		NO	NO	0.052	40																							
					7	1		NO	NO	0.019	74																							
TOTAL FOR MAP NO. 27										0.193								85	3,647	315	19			938										
I-5855	Guilford	28	COLLECTOR RAMP TO I-85 SB/NB	FROM US 421 SB TO I-85 SB/NB	7	2		NO	NO	0.033	32																							
					7	2		NO	NO	0.203	16																							
					7	2		NO	NO	0.027	31																							
					7	2		NO	NO	0.13	30																							
					7	2		NO	NO	0.011	31																							
					7	2		NO	NO	0.164	16																							
TOTAL FOR MAP NO. 28										0.568									7,044	594	35			3,123										
TOTAL FOR PROJ NO. I-5855										16.15			607	1,213	182	202	546	914	53,566	4,534	267	12	8,682	2,179	141,192	308,832	135.90	269,059	114,814	0.61	600			
GRAND TOTAL										25.1			879	1,758	264	293	791	1,184	56,203	4,756	280	74	14,676	3,255	220,909	521,620	250.7	444,692	194,081	1.0	600			

