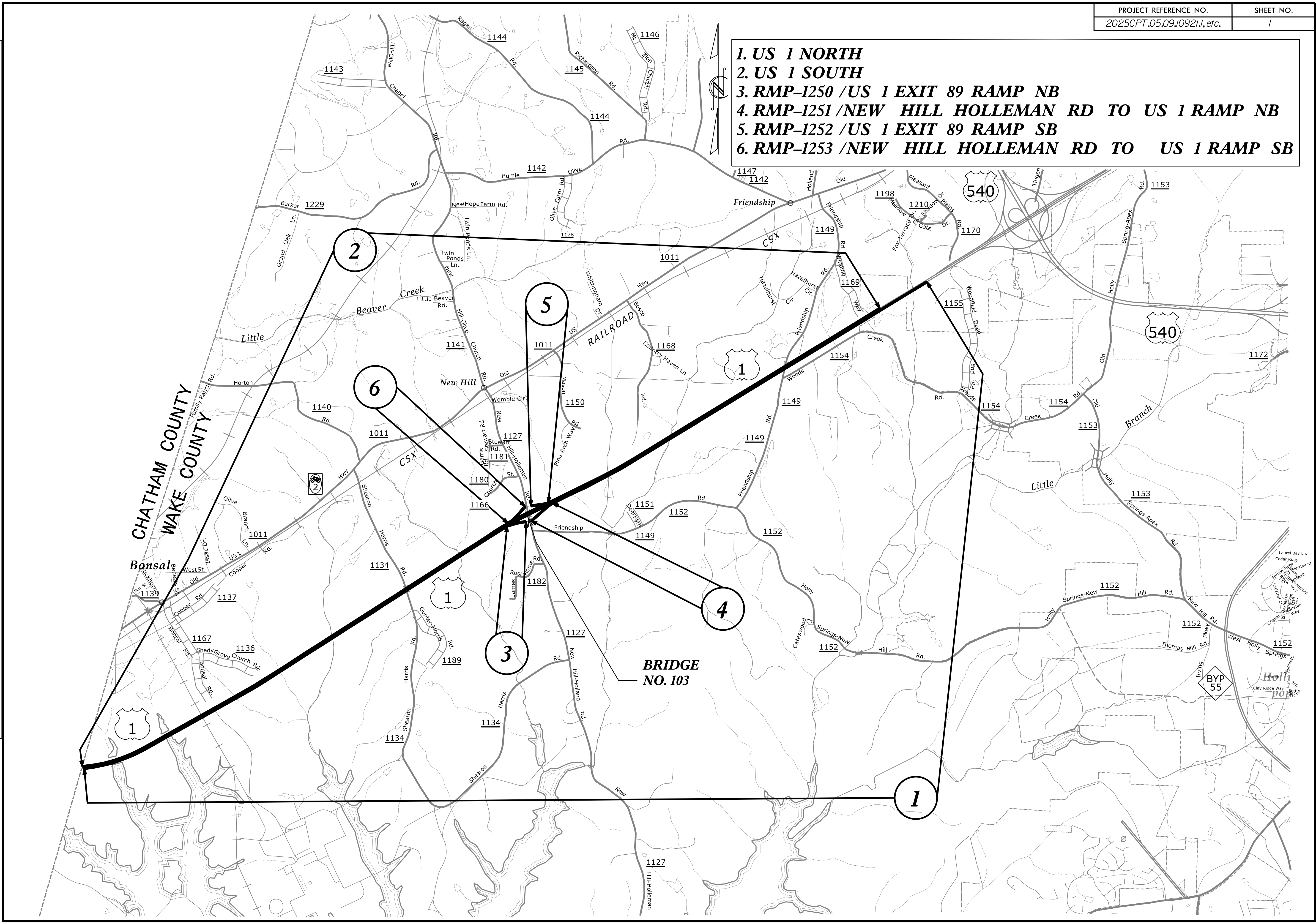


1. US 1 NORTH
2. US 1 SOUTH
3. RMP-1250 /US 1 EXIT 89 RAMP NB
4. RMP-1251 /NEW HILL HOLLEMAN RD TO US 1 RAMP NB
5. RMP-1252 /US 1 EXIT 89 RAMP SB
6. RMP-1253 /NEW HILL HOLLEMAN RD TO US 1 RAMP SB



**BRIDGE
NO. 103**

**CHATHAM COUNTY
WAKE COUNTY**

1

2

6

3

5

4

1

1

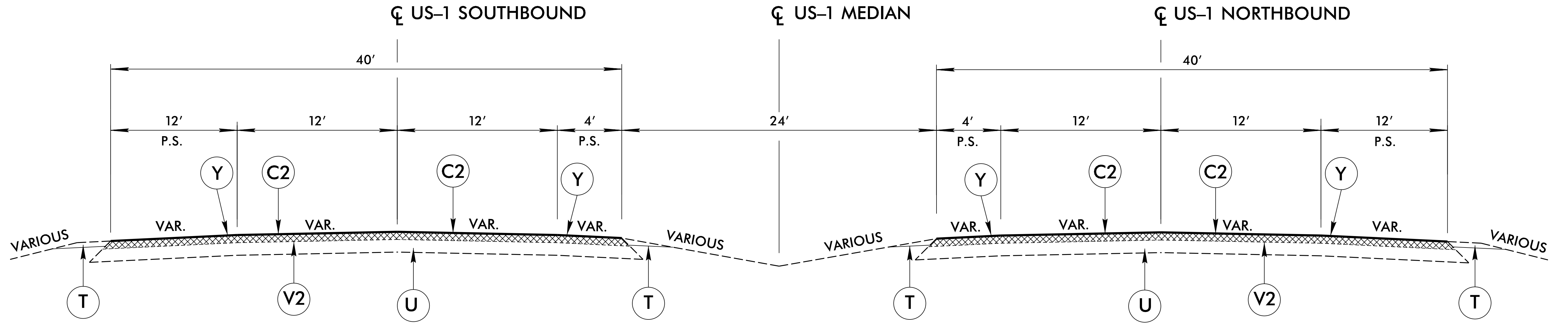
540

**BYP
55**

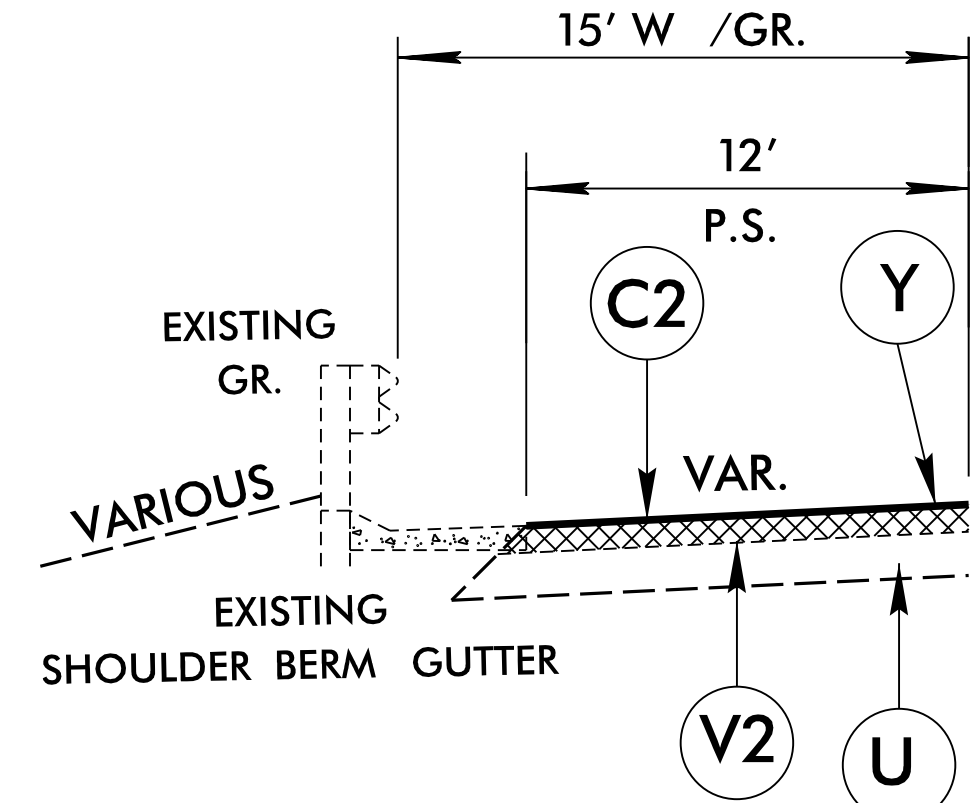
8/17/99

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 2"
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
Y	MILLED RUMBLE STRIPS

PROJECT REFERENCE NO.	SHEET NO.
2025CPT.05.09J0921J, etc.	2

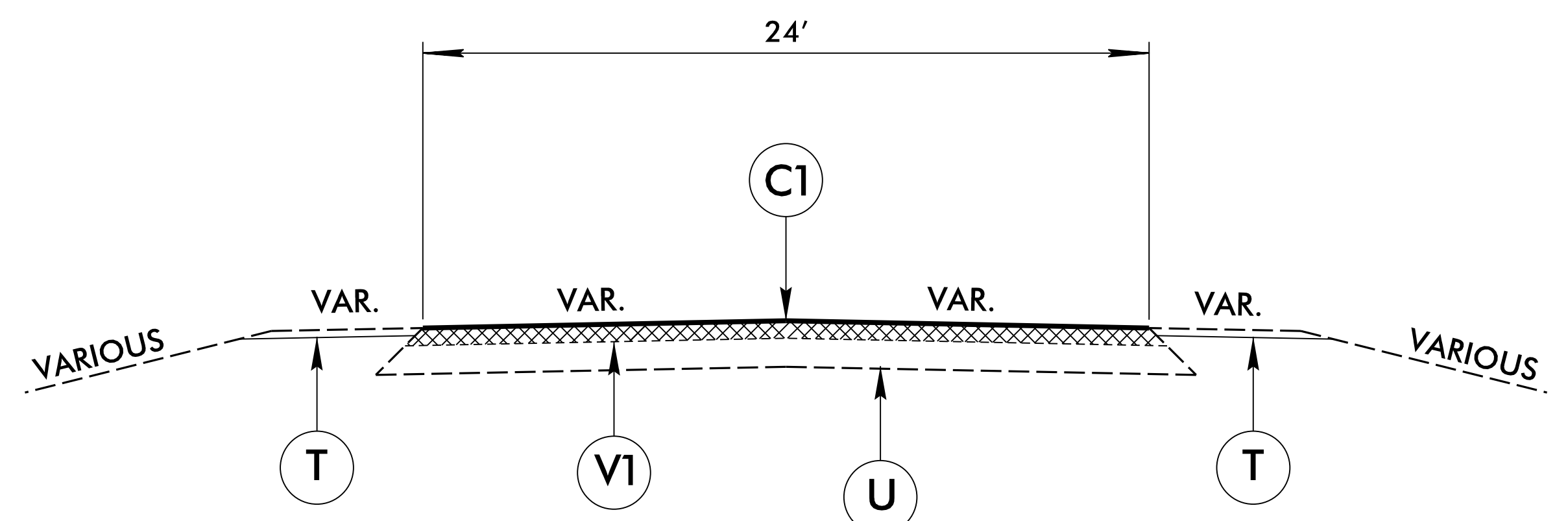


TYPICAL SECTION NO. 1



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

MAP 1
US-1 NORTHBOUND
SHOULDER BERM GUTTER SECTION - 2650' +/-
MAP 2
US-1 SOUTHBOUND
SHOULDER BERM GUTTER SECTION - 3970' +/-



TYPICAL SECTION NO. 2

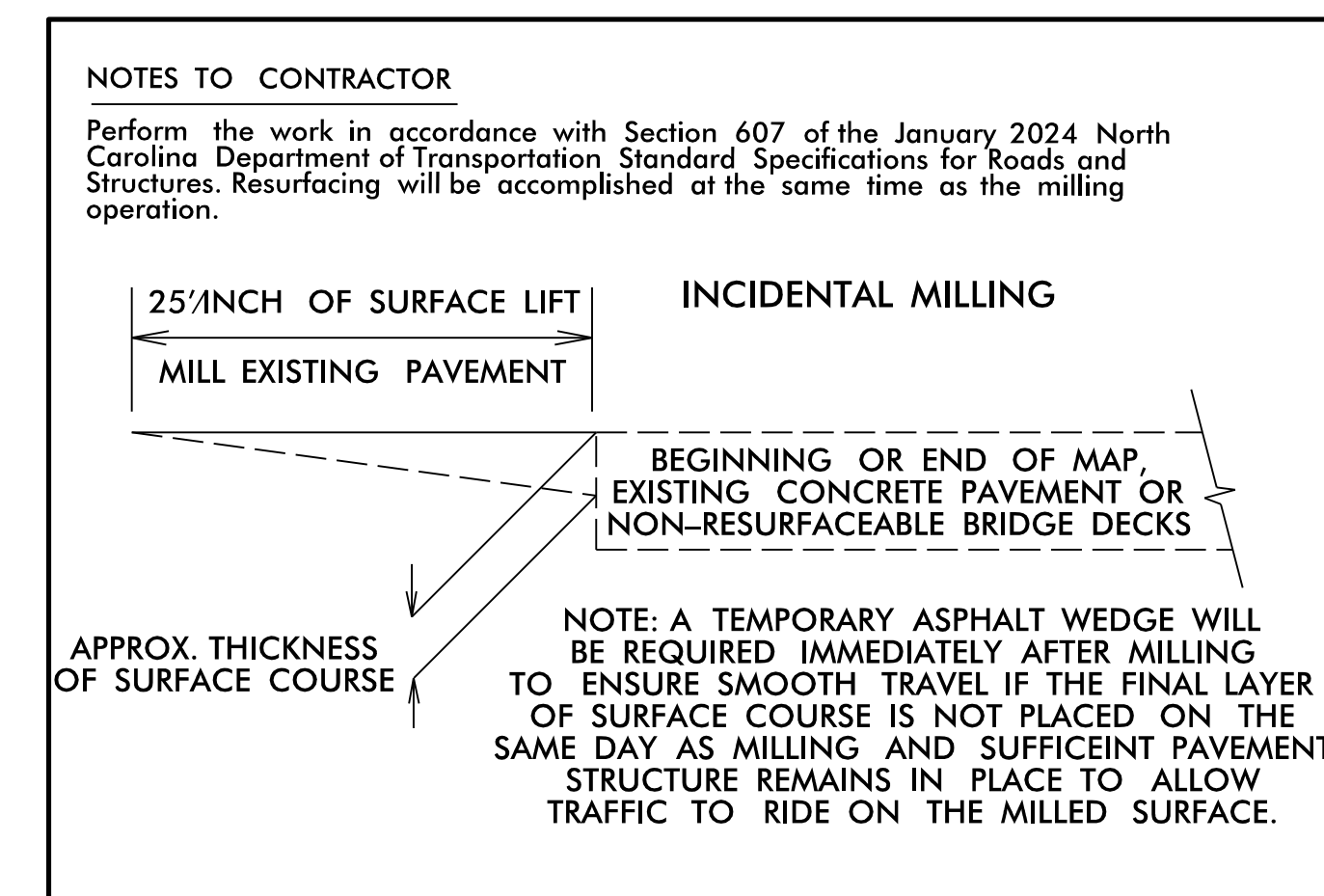
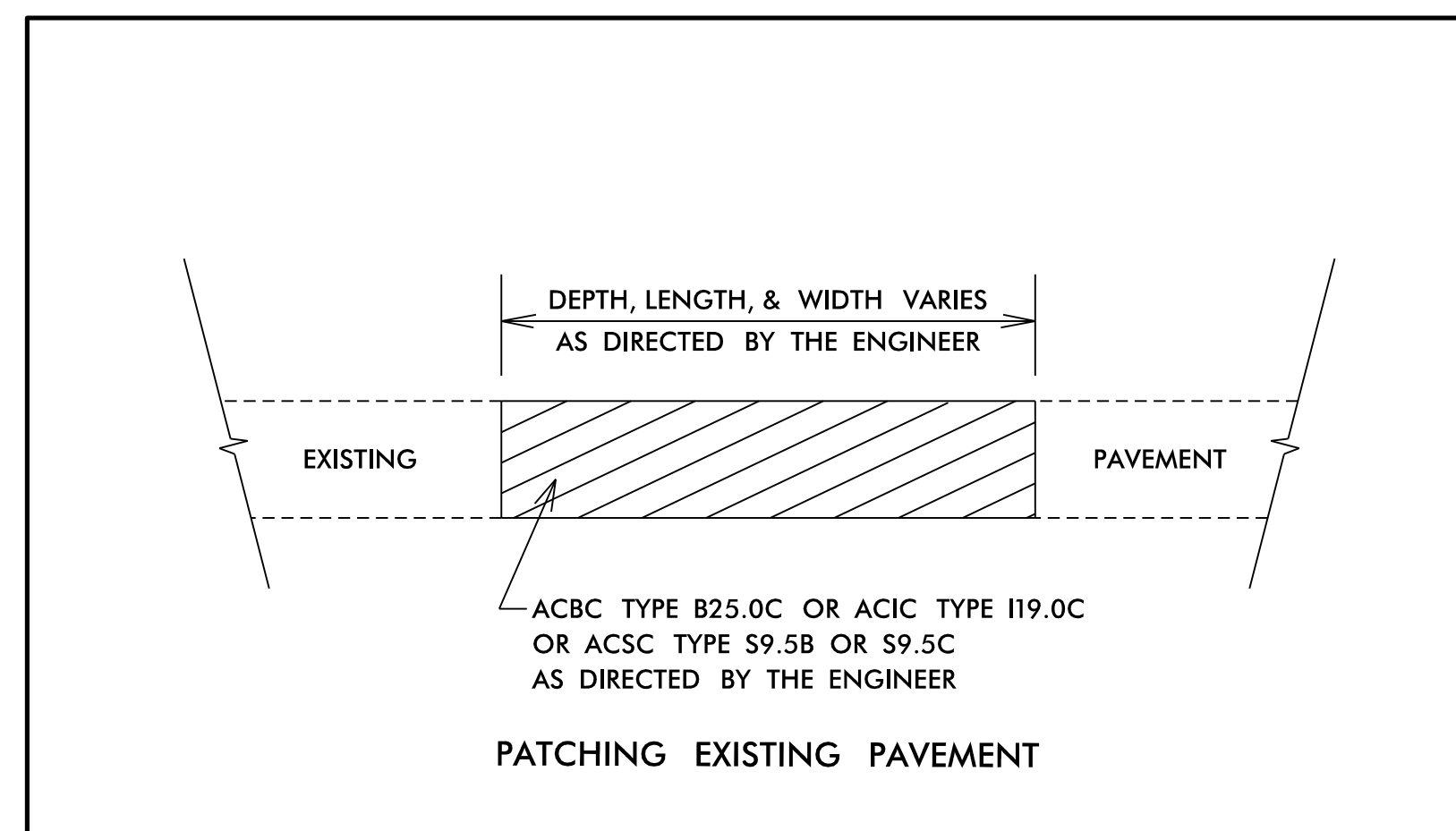
NOTES

ALL UNPAVED S.R. 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.
 BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

Note:

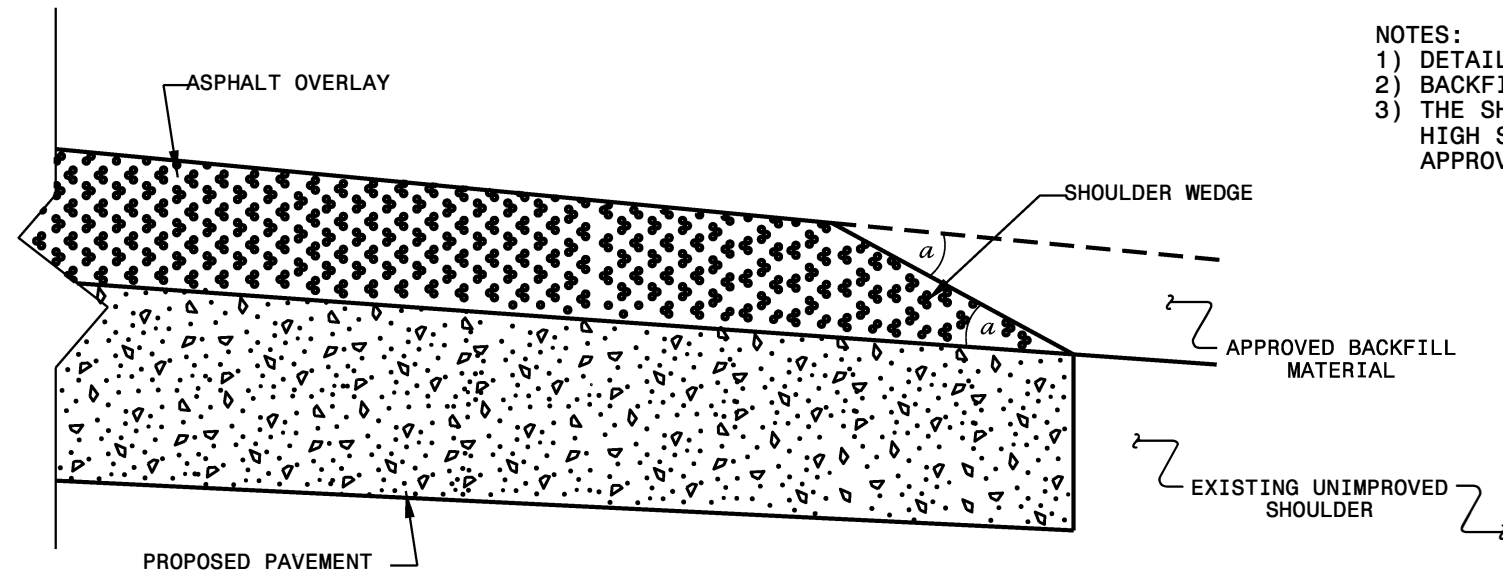
The median guardrail shall be removed, the shoulder graded to provide for positive water flow from the roadway, and the guardrail re-set in sections that will allow completion in one work session. The newly placed median guardrail shall be tied in with the existing median guardrail and functional prior to opening the lane to traffic each day in accordance with ICT #1.

The outside shoulder guardrail shall only be removed, graded, and replaced for shoulder grading as needed for positive water flow from the pavement where shoulder berm gutter does not exist. Any guardrail that is removed shall be replaced and functional each work session in accordance with ICT #1.



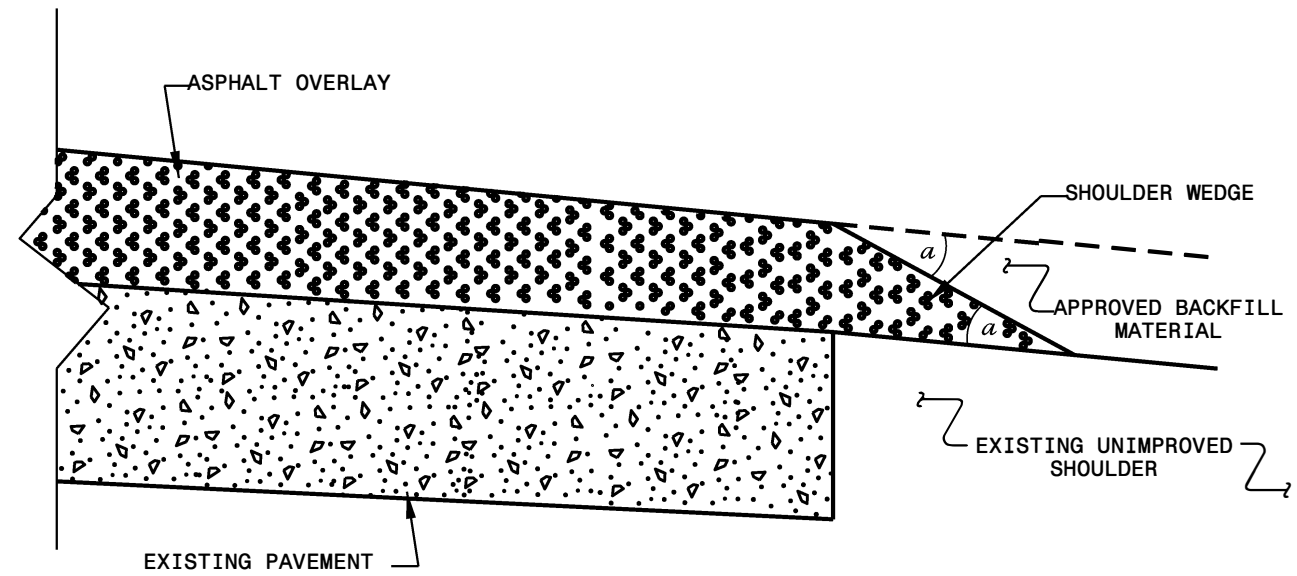
NOTES:

- 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, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



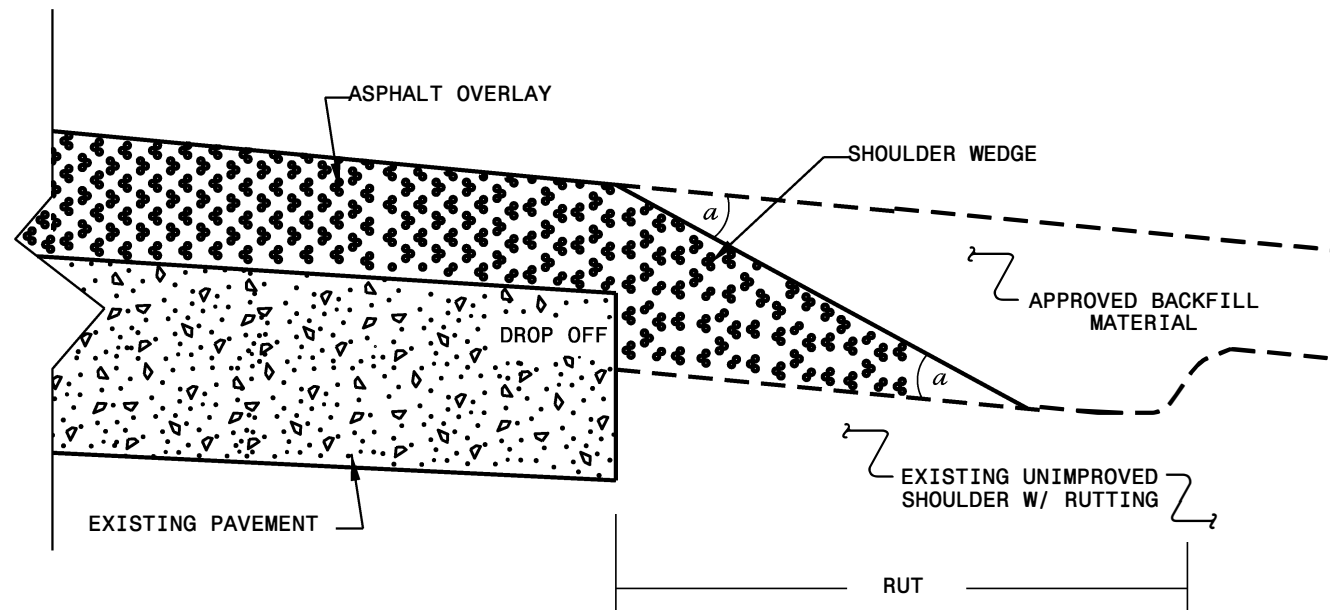
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)

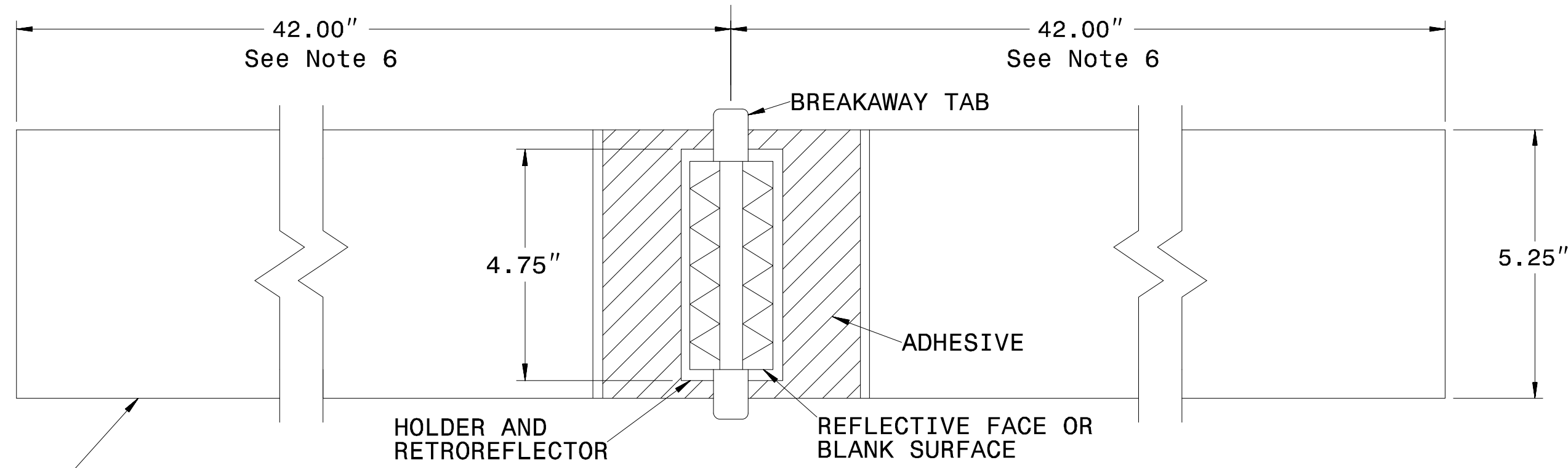


SHOULDER WEDGE DETAIL

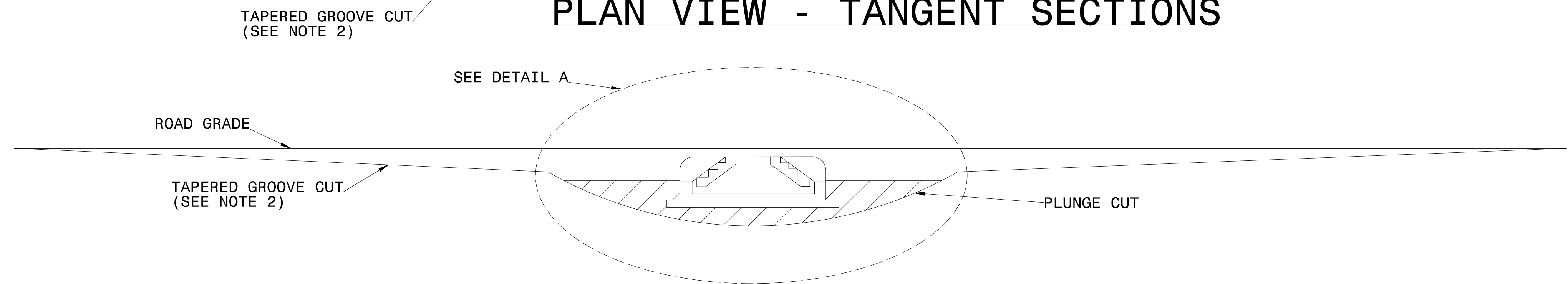
(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

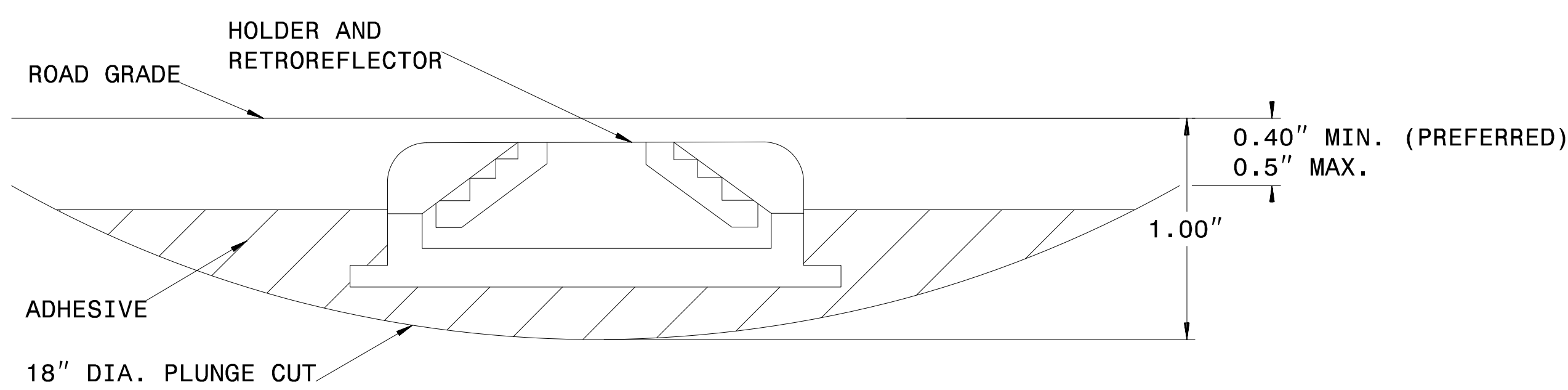
CONTRACT STANDARDS AND DEVELOPMENT UNIT			
Office 919-707-6950		FAX 919-250-4119	
SHOULDER WEDGE DETAILS			
ORIGINAL BY: T. SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 2/2/16		
CHECKED BY:	DATE:		
FILE SPEC.: s:\usr\details\stand\shoulderwedgedetail.dgn			



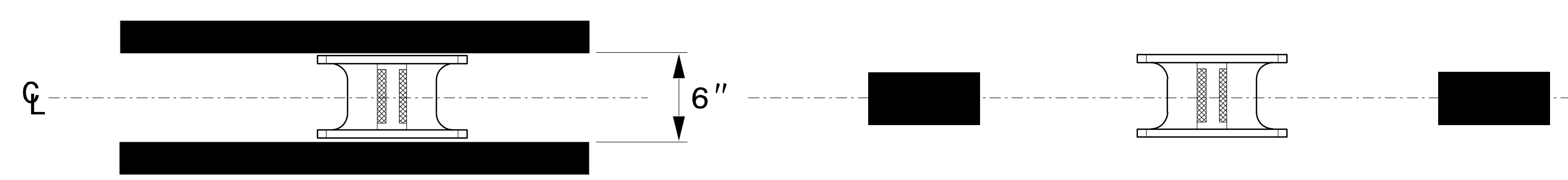
PLAN VIEW - TANGENT SECTIONS



PROFILE VIEW



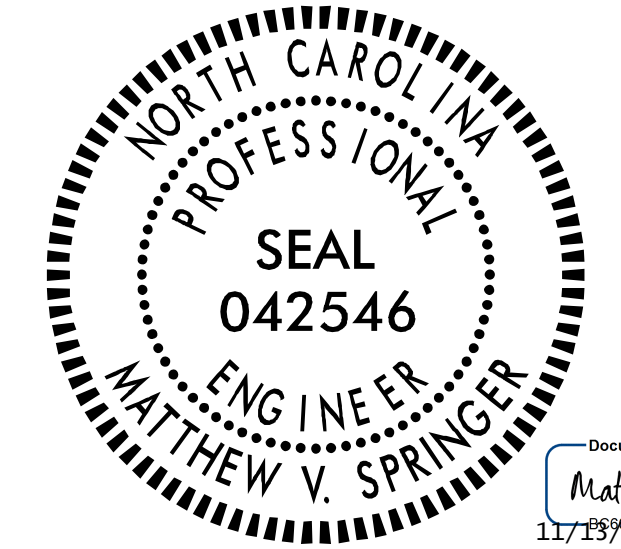
DETAIL A



MARKER SPACING

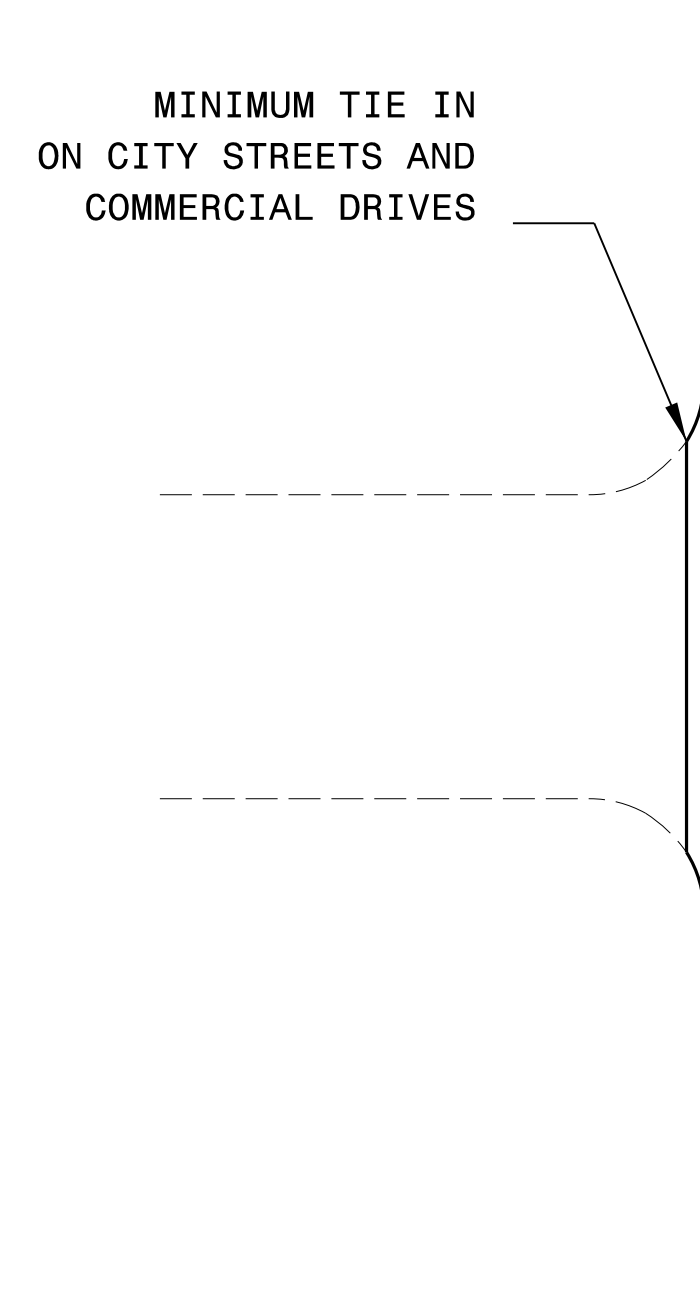
NOTES:

1. ALL GROOVE EDGES SHALL BE AT LEAST 2 INCHES FROM ANY SEAM OR PAVEMENT JOINT
2. GROOVE CUTS MAY BE TAPERED OR BEVELED. TAPERED CUTS SHALL START AT ROAD LEVEL ON EACH END AND TAPER AT A FIXED RATE AS SHOWN ON THE PROFILE VIEW. BEVELED GROOVE CUTS SHALL BE 0.5" MAXIMUM DEPTH (0.4" PREFERRED), AND SHALL BE 0.4" MINIMUM DEPTH AT BOTH ENDS OF THE PLUNGE CUT.
3. GROOVE AND PLUNGE CUT SHALL BE CLEAN AND DRY PRIOR TO PLACEMENT OF ADHESIVE.
4. THE EPOXY ADHESIVE SHALL BE THOROUGHLY MIXED UNTIL IT IS UNIFORM IN COLOR, AND APPLIED IN COLOR, AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. MARKER SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE BREAKWAY TABS RESTING ON THE PAVEMENT SURFACE. THE EPOXY SHALL BE FILLED TO THE LEVEL OF THE TOP OF THE MARKER HOLDER. EPOXY SHALL NOT TOUCH THE RETROREFLECTOR.
6. TOTAL GROOVE LENGTH MAY BE SHORTENED TO 54" ON SHARP CURVES IF APPROVED BY THE ENGINEER. GROOVES SHALL NOT OVERLAP WITH LOOP DETECTOR WIRES.

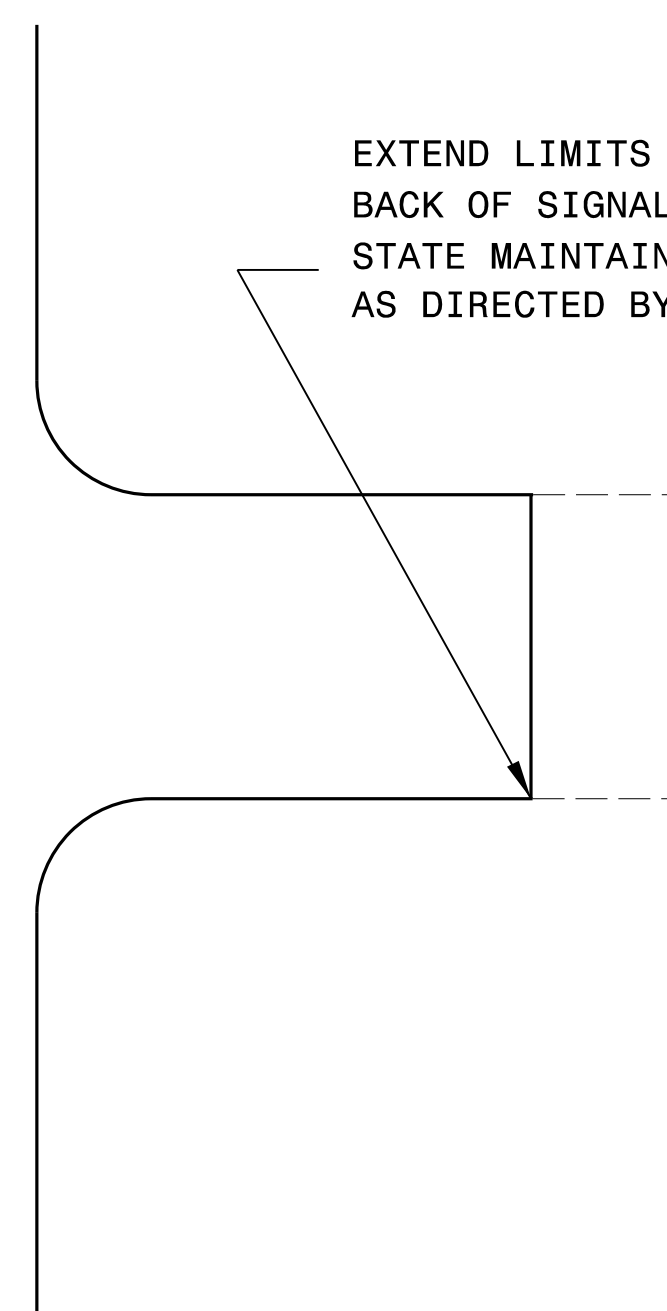


DocuSigned by:
Matthew V. Springer PE
11/13/2024 9:44:03

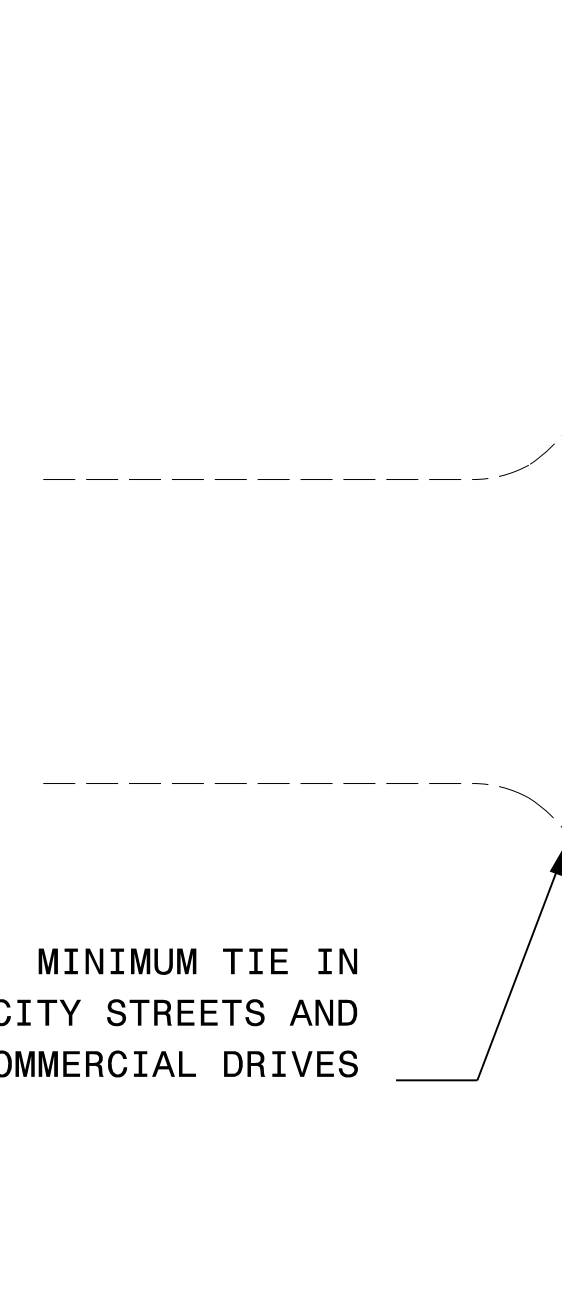
CONTRACTS STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-8950 FAX 919-250-4119	
DETAIL OF INLAID CRADLE MARKER	
ORIGINAL BY: rgwatson	DATE: 02-06-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	



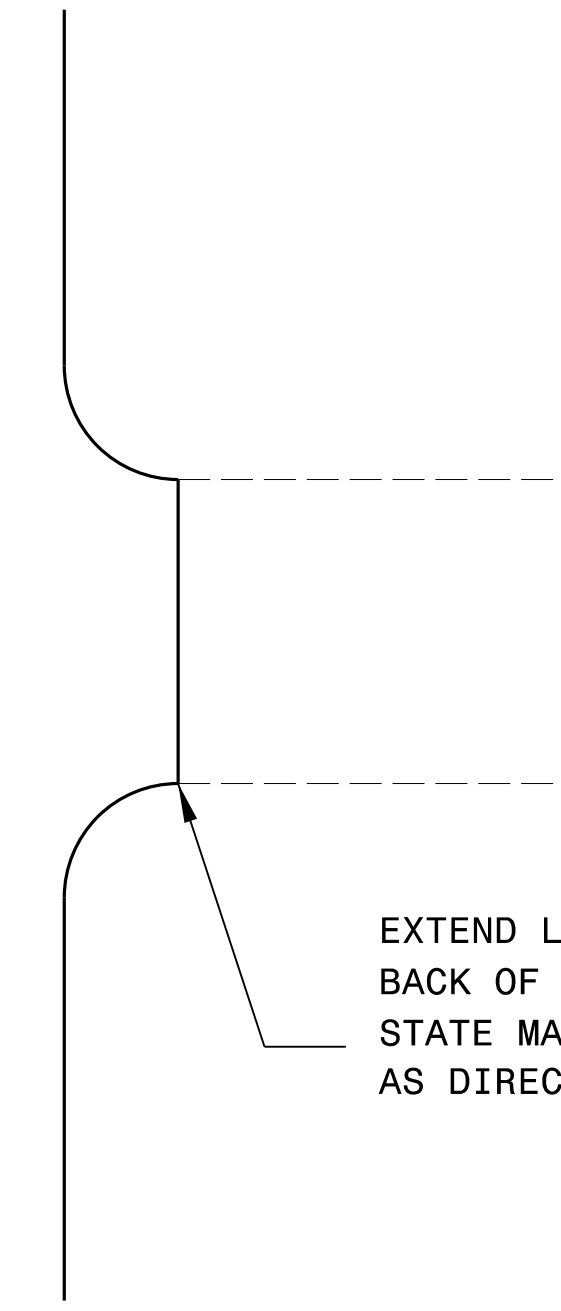
MINIMUM TIE IN
ON CITY STREETS AND
COMMERCIAL DRIVES



EXTEND LIMITS TO
BACK OF SIGNAL LOOPS ON
STATE MAINTAINED ROADS
AS DIRECTED BY THE ENGINEER



MINIMUM TIE IN
ON CITY STREETS AND
COMMERCIAL DRIVES



EXTEND LIMITS TO
BACK OF RADIUS ON
STATE MAINTAINED ROADS
AS DIRECTED BY THE ENGINEER

TYPICAL DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES

TYPICAL DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)

Extend paving limits to back of radius
or loop on the following intersections:

MAP#	STREET NAME	COMMENTS
N/A		

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.05.09.10921.1. 5.109211F	7	

SUMMARY OF QUANTITIES

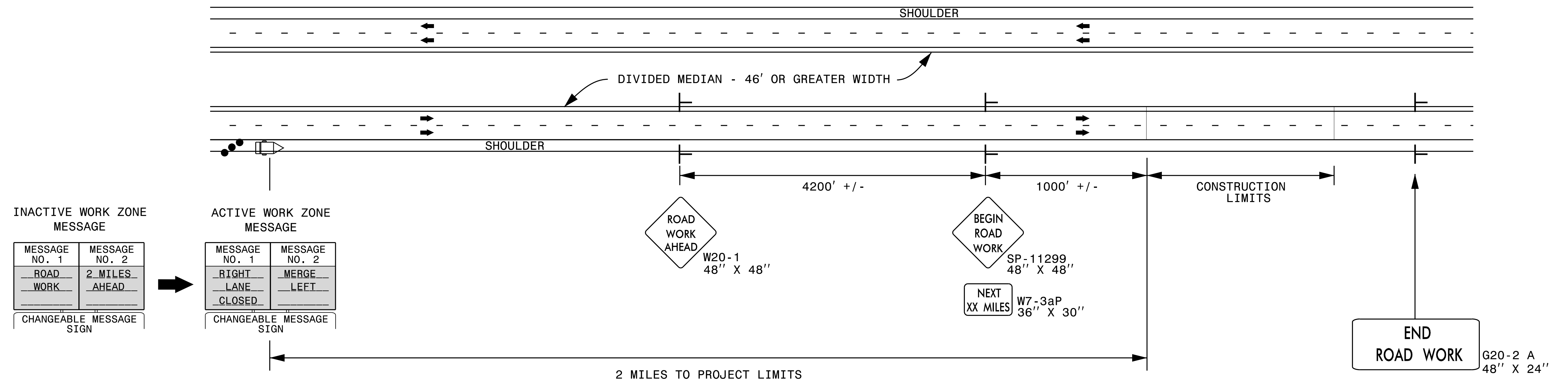
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1523000000-E	1575000000-E	1704000000-E	1841000000-E	2484000000-E	3210000000-N	3287000000-N	3345000000-E	4600000000-N			5255000000-N						
										INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	2" MILLING	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	MILLED RUMBLE STRIPS (ASPHALT CONCRETE), 16"	GEN DRAINAGE ITEM, CLEAR EXIST SHLDR BERM GUTTER	GUARDRAIL ANCHOR UNIT - CAT-1	GUARDRAIL ANCHOR UNITS, TYPE TL-3	REMOVE & RESET EXISTING GUARDRAIL	GEN TC ITEM - SINGLE LANE CLOSURE	GEN TC ITEM - CONNCTED LANE CLOSURE SYSTEM	GEN TC ITEM - RAMP/LOOP CLOSURES	PORTABLE LIGHTING					
									MI	FT	TONS	SMI	TON	SY	SY	SY	TONS	TON	TONS	LF	LF	EA	EA	LF	EA	EA	EA	LS				
2025CPT.05.09.10921.1	Wake	1	US-1 N / US 1 HWY	FROM SR 1134 TO PAVEMENT JOINT	1	2	2WD	6.465	40		9.35	1,649	147,935		822	17,182	1,014	15	68,358						48.00	1	4	1.00				
2025CPT.05.09.10921.1	Wake	2	US-1 S / US 1 HWY	FROM PAVEMENT JOINT TO CHATHAM CO	1	2	2WD	6.1	40		8.80	1,552	140,281		878	16,304	963	15	64,550						45.00	1	4					
2025CPT.05.09.10921.1	Wake	3	RMP-1250 / US 1 EXIT 89 RAMP NB	FROM US 1 NORTH TO SR 1127	2	1		0.156	24	10	0.31	55		2,844	200	264	16	8	50													
2025CPT.05.09.10921.1	Wake	4	RMP-1251 / NEW HILL HOLLEMAN RD TO US1 RAMP NB	FROM SR 1127 TO US 1 NORTH	2	1		0.202	24	10	0.40	71		4,046	200	368	22															
2025CPT.05.09.10921.1	Wake	5	RMP-1252 / US 1 EXIT 89 RAMP SB	FROM US 1 SOUTH TO SR 1127	2	1		0.152	24	10	0.30	54		2,345	200	221	13															
2025CPT.05.09.10921.1	Wake	6	RMP-1253 / NEW HILL HOLLEMAN RD TO US1 RAMP SB	FROM CHATHAM CO TO US 1 SOUTH	2	1		0.168	24	10	0.34	59		3,601	200	330	19															
TOTAL FOR PROJ NO. 2025CPT.05.09.10921.1																																
5.109211F	Wake	1	US-1 N / US 1 HWY	FROM SR 1134 TO PAVEMENT JOINT	1	2	2WD	6.465	40											2,650.00	1.00	1.00	45,892.00	42.00								
5.109211F	Wake	2	US-1 S / US 1 HWY	FROM PAVEMENT JOINT TO CHATHAM CO	1	2	2WD	6.1	40											3,970.00	1.00	1.00	39,263.00	38.00								
TOTAL FOR PROJ NO. 5.109211F																																
GRAND TOTAL																																
									25.808		40	19.50	3,440	288,216	12,836	2,500	34,669	2,047	38	132,958	6,620.00	2.00	2.00	85,155.00	173.00	2	8	1.00				

PROJECT NO.	SHEET NO.	TOTAL NO.
025CPT.05.09.10921.1, 5.109211	8	

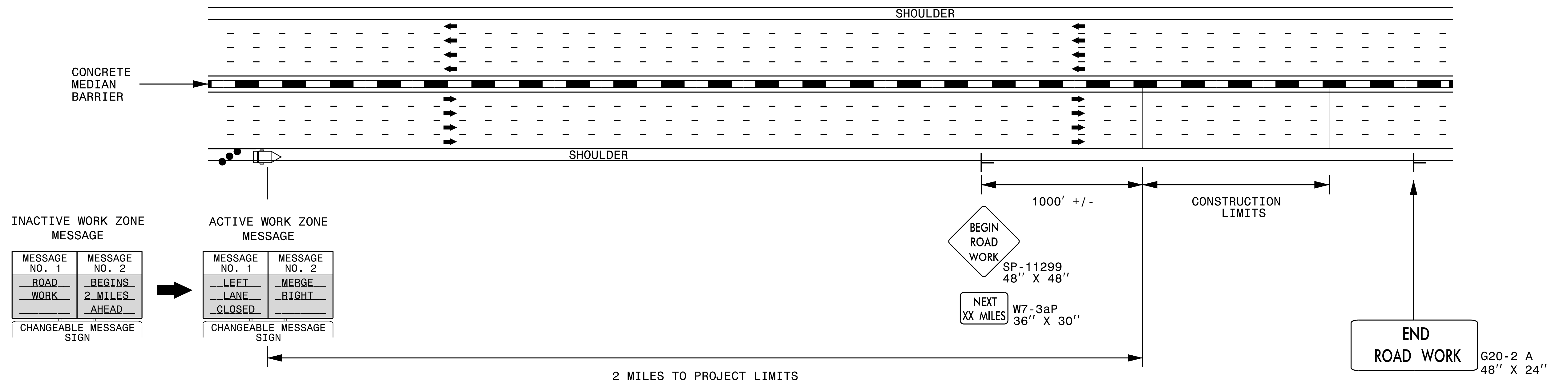
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4400000000-E	4423000000-N	4424000000-N	4434000000-N	4510000000-N	4688000000-E	4700000000-E	4725000000-E			4895000000-N													
										STATIONARY WORK ZONE SIGN	WORK ZONE DIGITAL SPEED LIMIT SIGNS	WORK ZONE PRESENCE LIGHTING	SEQUENTIAL FLASHING WARNING LIGHTS	LAW ENFORCEMEN T	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO	12" X 90 M WHITE THERMO	THERMO MERGE ARROW 90 M	WRONG-WAY RAMP ARROW 90 M	THERMO STR ARROW 90 M	INLAID CRADLE MARKERS												
										MI	FT	SF	EA	EA	EA	HR	LF	LF	LF	EA	EA	EA	EA										
2025CPT.05.09.10921.1	Wake	1	US-1 N / US 1 HWY	FROM SR 1134 TO PAVEMENT JOINT	1	2	2WD	6.465	40	224	5	14	12	1,232	47,460	37,600	1,120	3			590												
2025CPT.05.09.10921.1	Wake	2	US-1 S / US 1 HWY	FROM PAVEMENT JOINT TO CHATHAM CO	1	2	2WD	6.1	40	224	5	14	12	1,163	44,720	35,510	1,280	3			560												
2025CPT.05.09.10921.1	Wake	3	RMP-1250 / US 1 EXIT 89 RAMP NB	FROM US 1 NORTH TO SR 1127	2	1		0.156	24						480	490			1		14												
2025CPT.05.09.10921.1	Wake	4	RMP-1251 / NEW HILL HOLLEMAN RD TO US1 RAMP NB	FROM SR 1127 TO US 1 NORTH	2	1		0.202	24						690	690				1													
2025CPT.05.09.10921.1	Wake	5	RMP-1252 / US 1 EXIT 89 RAMP SB	FROM US 1 SOUTH TO SR 1127	2	1		0.152	24						430	430			1		14												
2025CPT.05.09.10921.1	Wake	6	RMP-1253 / NEW HILL HOLLEMAN RD TO US1 RAMP SB	FROM CHATHAM CO TO US 1 SOUTH	2	1		0.168	24						600	600				1													
TOTAL FOR PROJ NO. 2025CPT.05.09.10921.1															13.243			448	10	28	24	2,395	94,380	75,320	2,400	6	2	2	1,178				
															169,700						10												
5.109211F	Wake	1	US-1 N / US 1 HWY	FROM SR 1134 TO PAVEMENT JOINT	1	2	2WD	6.465	40					462																			
5.109211F	Wake	2	US-1 S / US 1 HWY	FROM PAVEMENT JOINT TO CHATHAM CO	1	2	2WD	6.1	40					418																			
TOTAL FOR PROJ NO. 5.109211F															12.565							880											
GRAND TOTAL															25.808							448	10	28	24	3,275	94,380	75,320	2,400	6	2	2	1,178
																								169,700						10			

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.

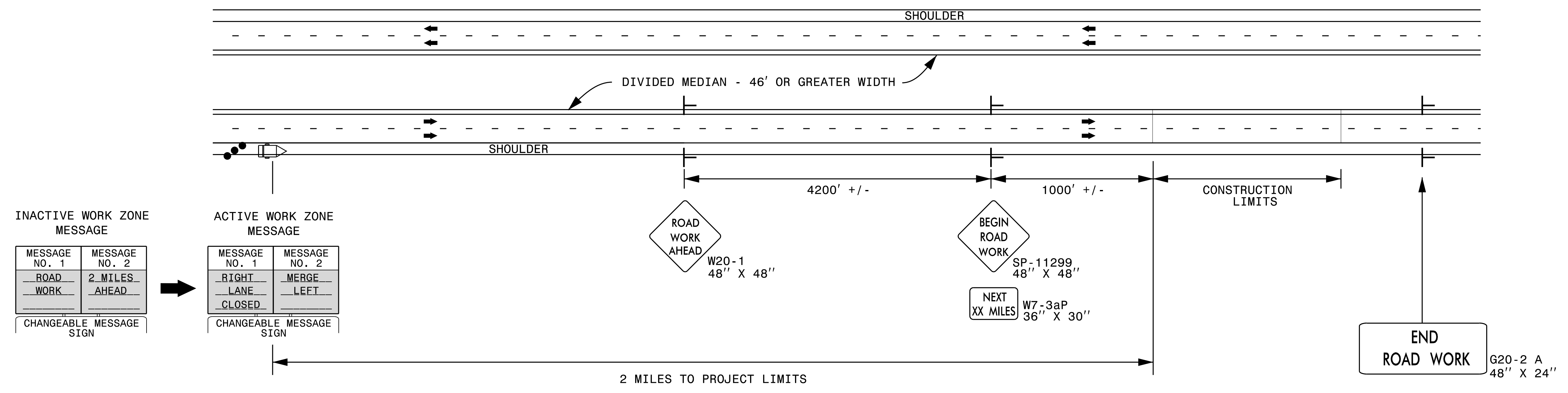
LEGEND

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

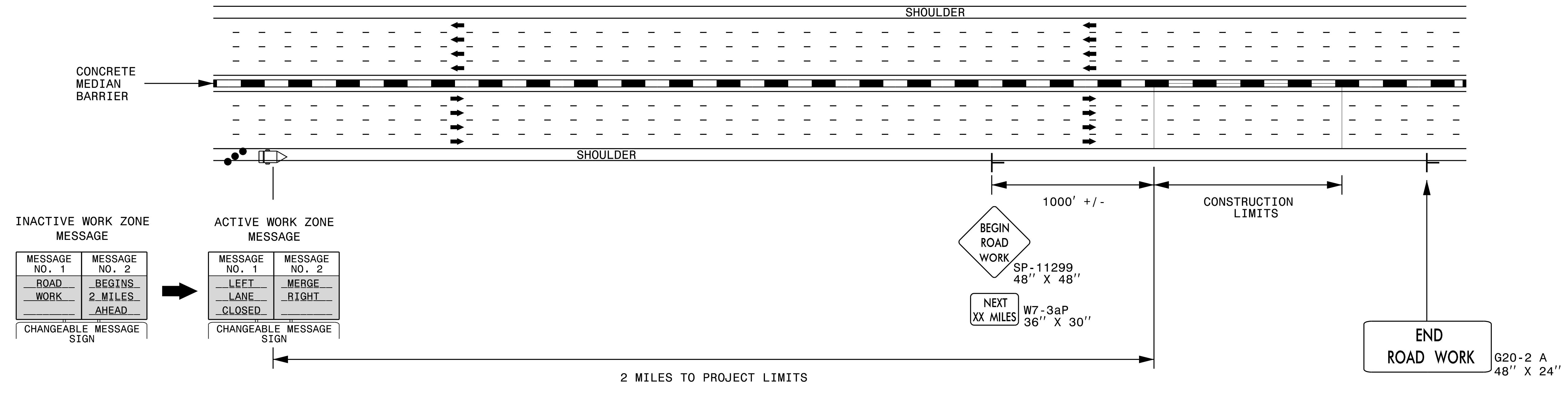


**RESURFACING ADVANCE
WARNING SIGNS FOR
HIGH SPEED FACILITIES
≥ 60 MPH**

DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



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

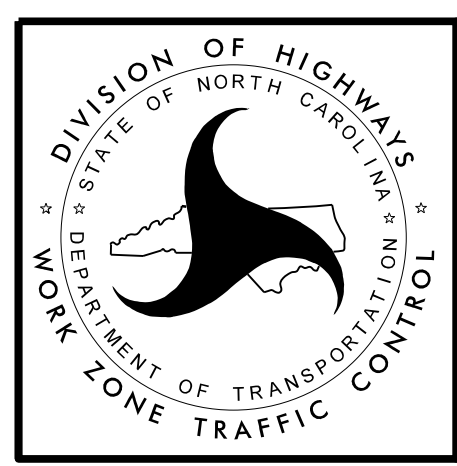


NOTES:

- 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