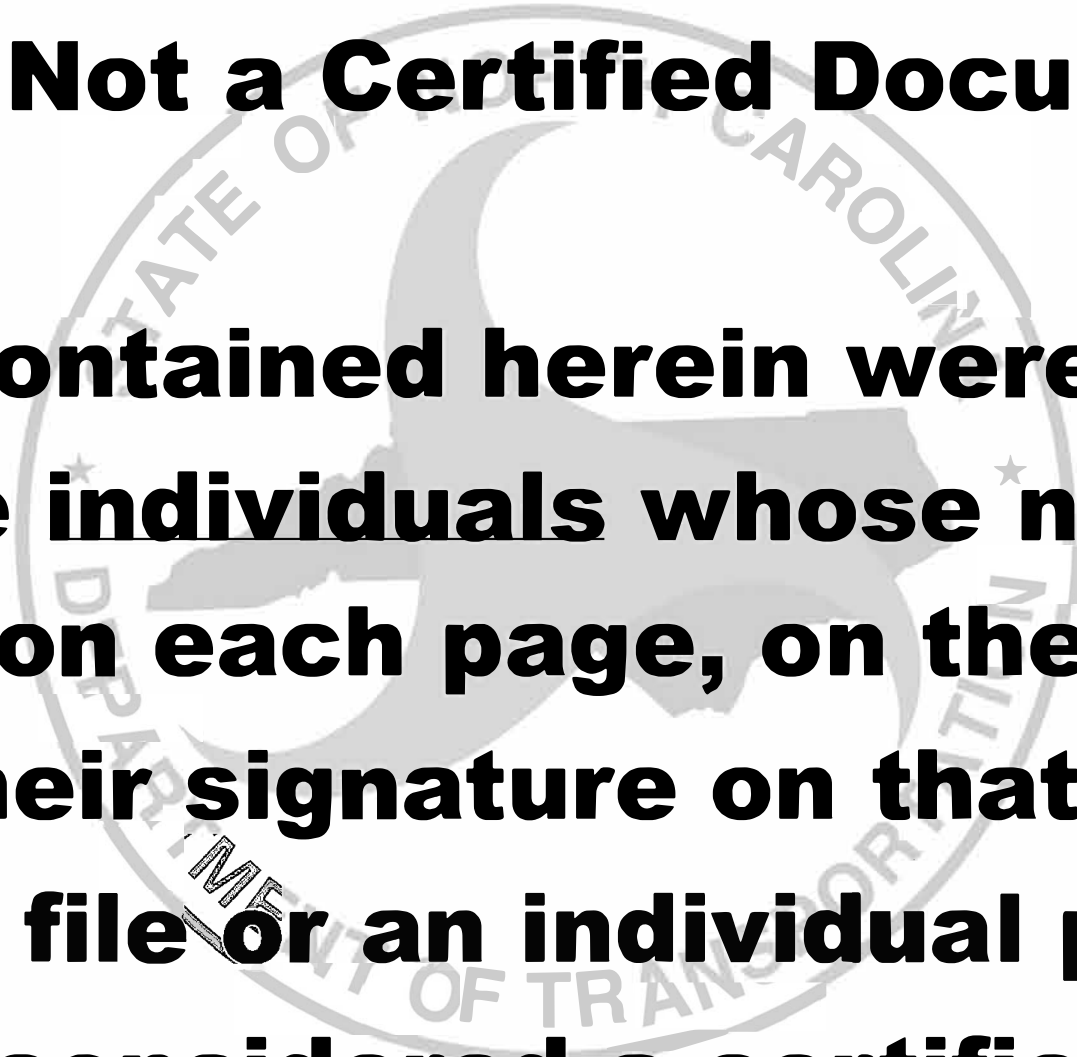


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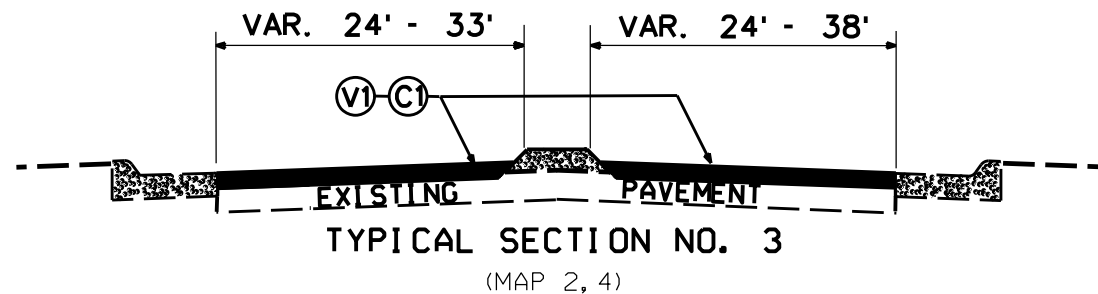
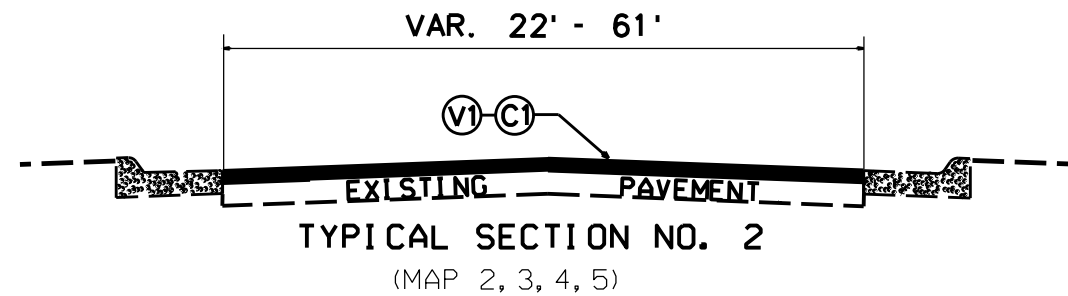
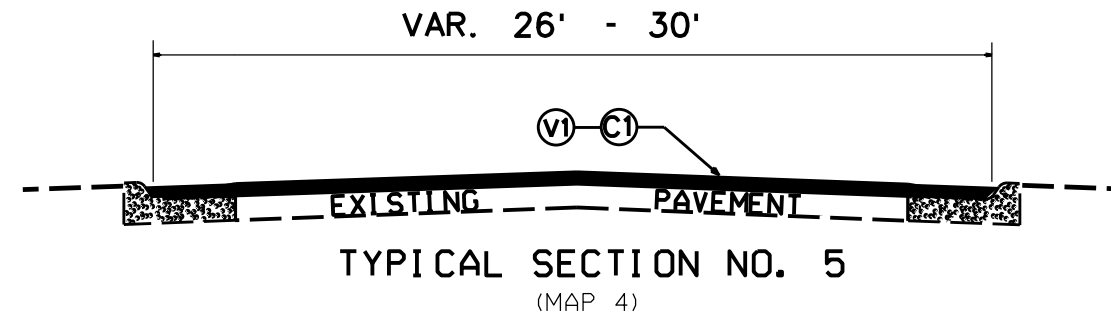
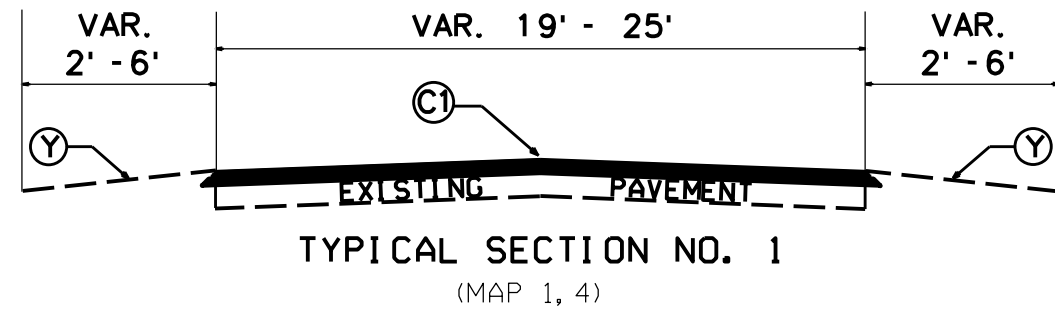
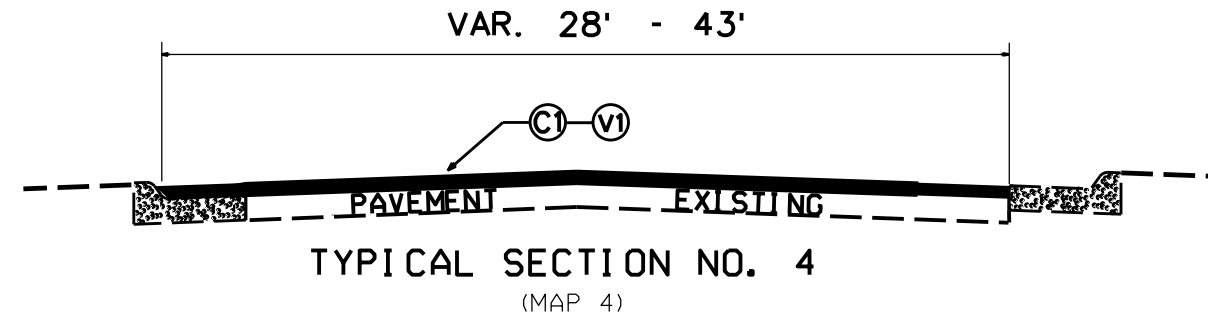


PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT APPROX. 1-1/2" AS DIRECTED BY ENGINEER
Y	SHOULDER RECONSTRUCTION
Z	INCIDENTAL MILLING AS DIRECTED BY THE ENGINEER.

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
GASTON COUNTY 2025-2026	4	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2026CPT. 1 2. 04. 20361		

NOTES:

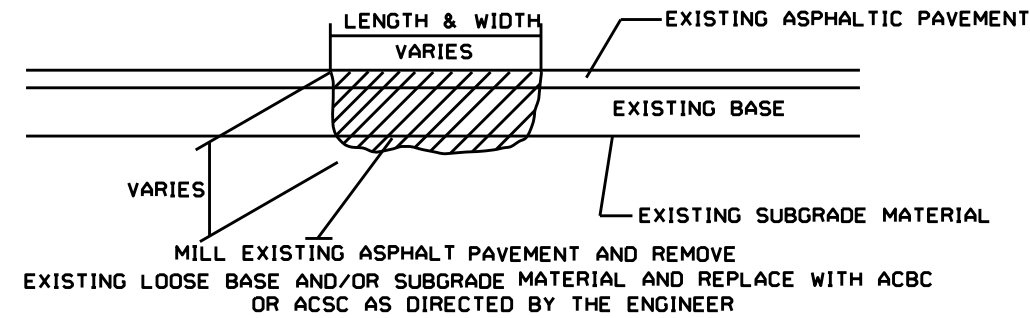
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
2. MILL BRIDGE APPROACHES & RXR APPROACHES 100' TO PROVIDE A SMOOTH TRANSITION AS DIRECTED.
3. MILL INTO GUTTER LINE WHERE SHOWN AND AS DIRECTED.
4. MAINTAIN PROPER CROWN FOR DRAINAGE OF THE ROAD SURFACE.



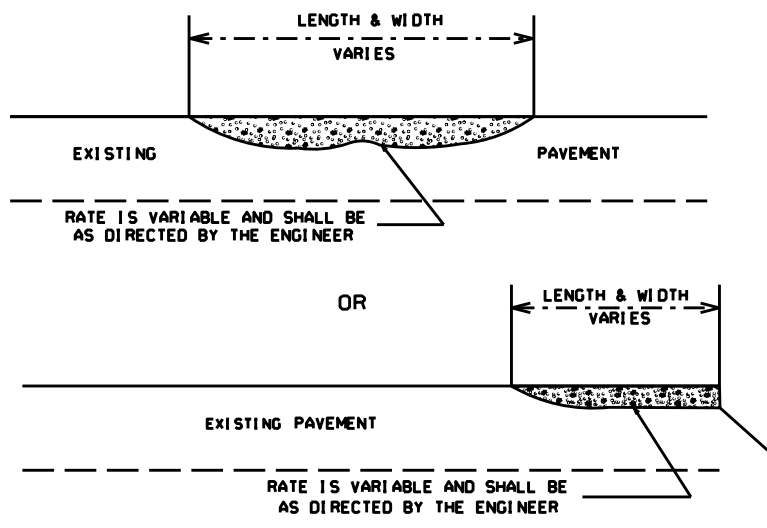
PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
GASTON COUNTY 2025-2026	5	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2026CPT. 1 2. 04. 20361		

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT APPROX. 1-1/2" AS DIRECTED BY ENGINEER
Y	SHOULDER RECONSTRUCTION
Z	INCIDENTAL MILLING AS DIRECTED BY THE ENGINEER.

- NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
 2. MILL BRIDGE APPROACHES & RXR APPROACHES 100' TO PROVIDE A SMOOTH TRANSITION AS DIRECTED.
 3. MILL INTO GUTTER LINE WHERE SHOWN AND AS DIRECTED.
 4. MAINTAIN PROPER CROWN FOR DRAINAGE OF THE ROAD SURFACE.

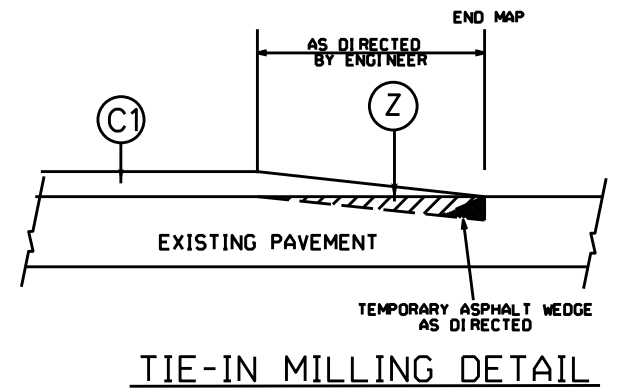
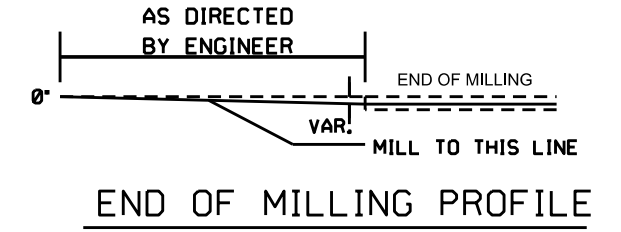
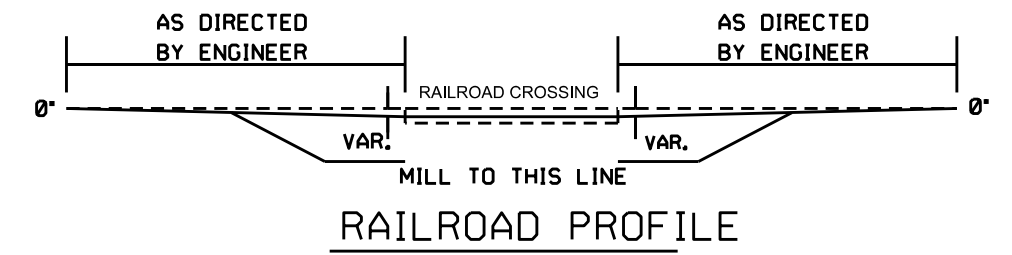
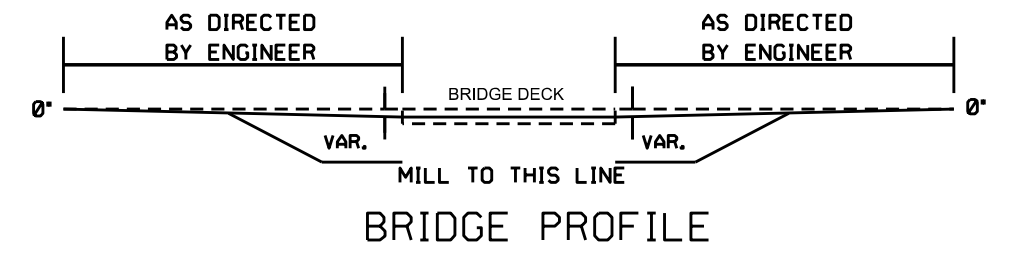


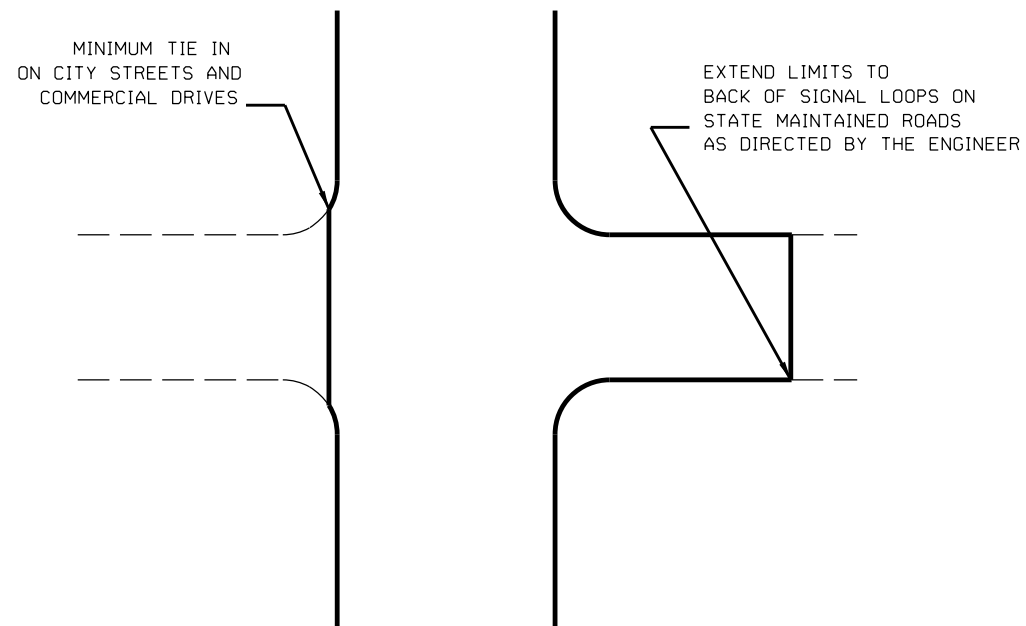
PATCHING EXISTING PAVEMENT



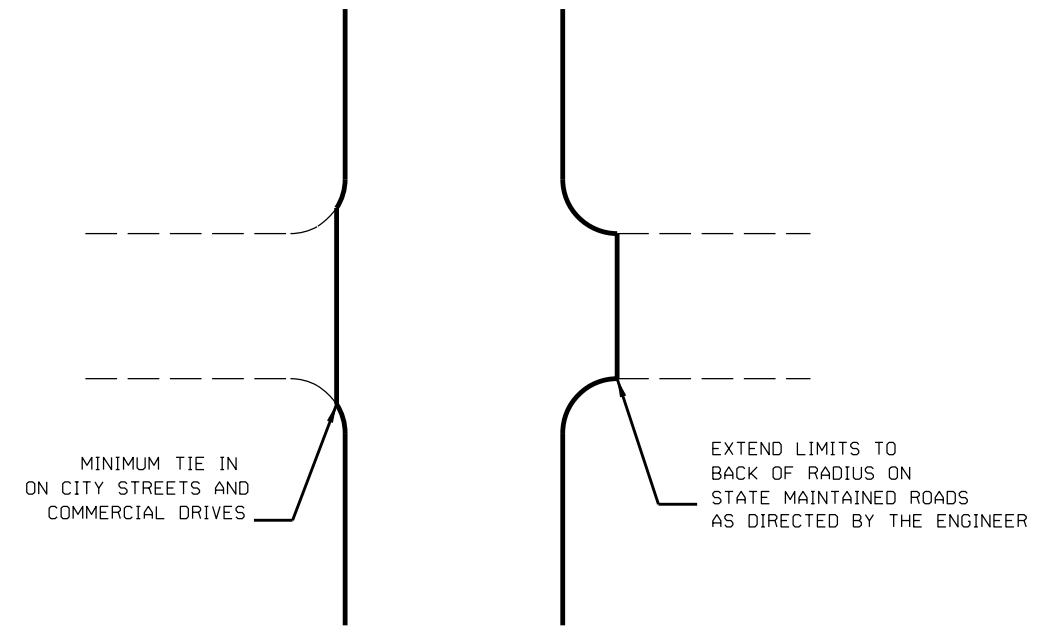
ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C (LEVELING COURSE)

INCIDENTAL MILLING DETAILS





TYPICAL DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES

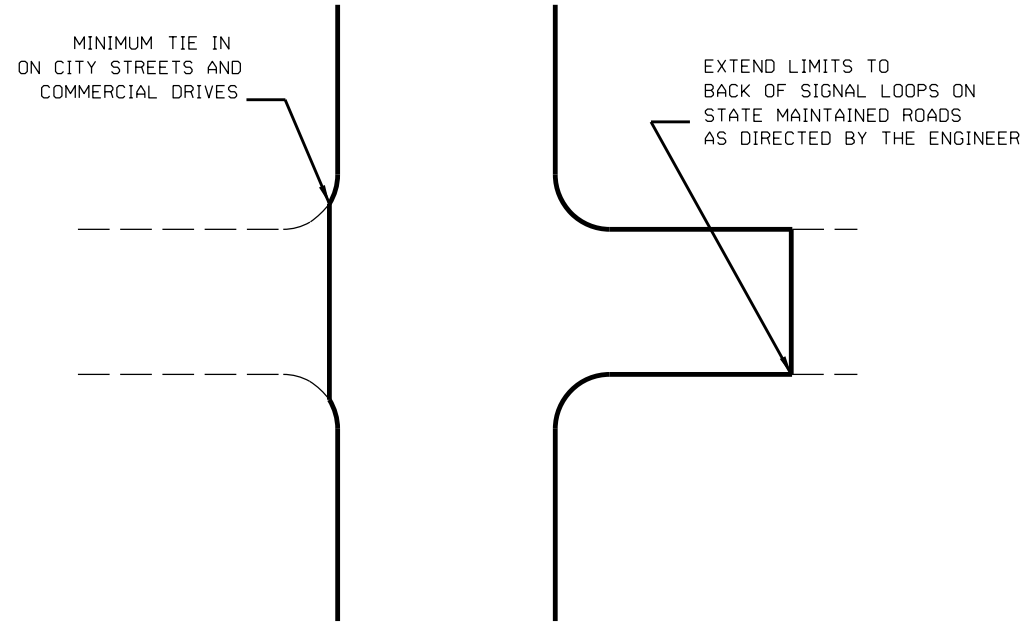


TYPICAL DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

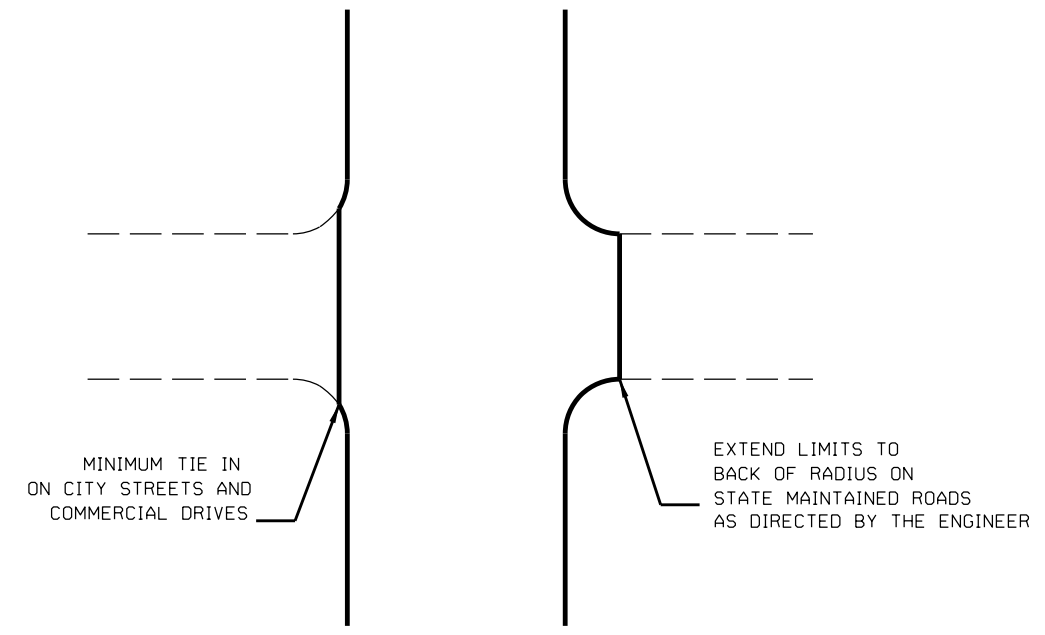
ADDITIONAL INTERSECTIONS (NON-TYPICAL)

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

MAP#	STREET NAME	COMMENTS
1	SR 1437 FOSTER RD	BACK OF RADIUS
1	SR 1431 KENWOOD RD	BACK OF RADIUS
1	SR 1436 WHITWORTH RD	BACK OF RADIUS
2	ADEN AVE	MINIMUM TIE IN ON CITY STREETS
2	COURT DR	MINIMUM TIE IN ON CITY STREETS
2	LOBLOLLY PINE DR	MINIMUM TIE IN ON CITY STREETS
2	ABERDEEN BLVD	MINIMUM TIE IN ON CITY STREETS
2	PEMBROKE RD	MINIMUM TIE IN ON CITY STREETS
3	GROVES ST	BACK OF RADIUS
3	8TH AVE	MINIMUM TIE IN ON CITY STREETS
4	E PAGE AVE	MINIMUM TIE IN ON CITY STREETS
4	E WALNUT AVE	BACK OF RADIUS
4	W WALNUT AVE	MINIMUM TIE IN ON CITY STREETS
4	NAT BARBER AVE	BACK OF RADIUS
4	E/W BRADLEY AVE	BACK OF RADIUS



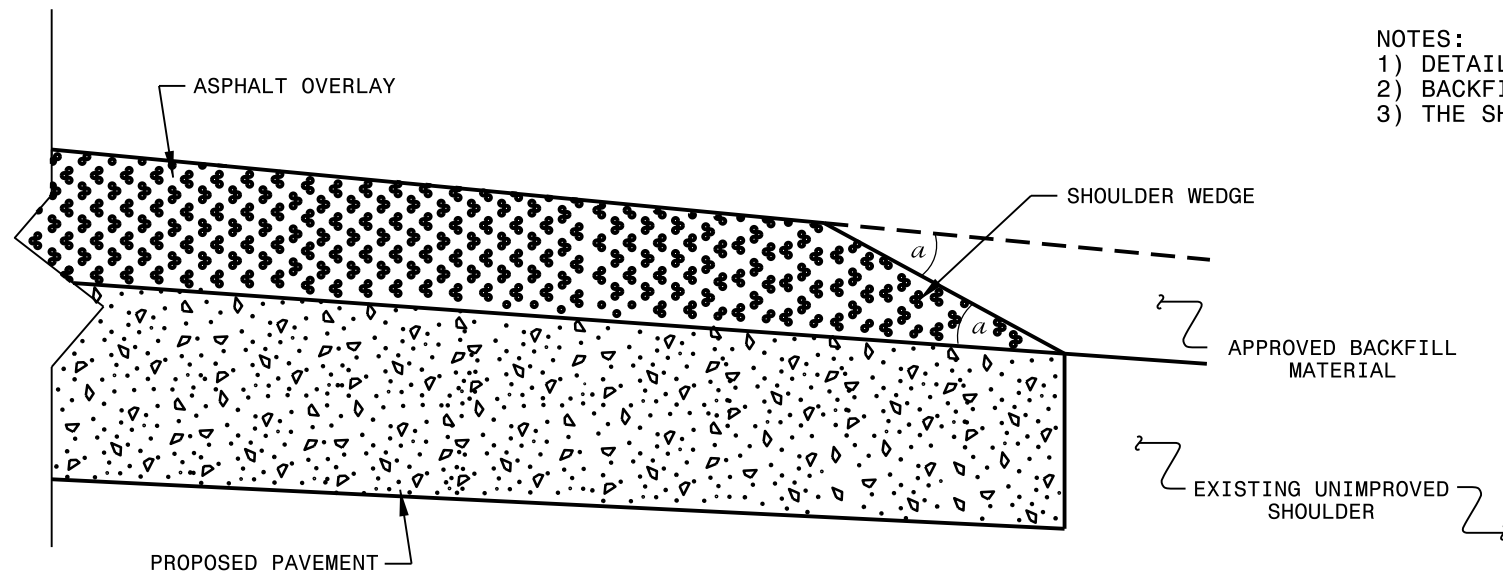
TYPICAL DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



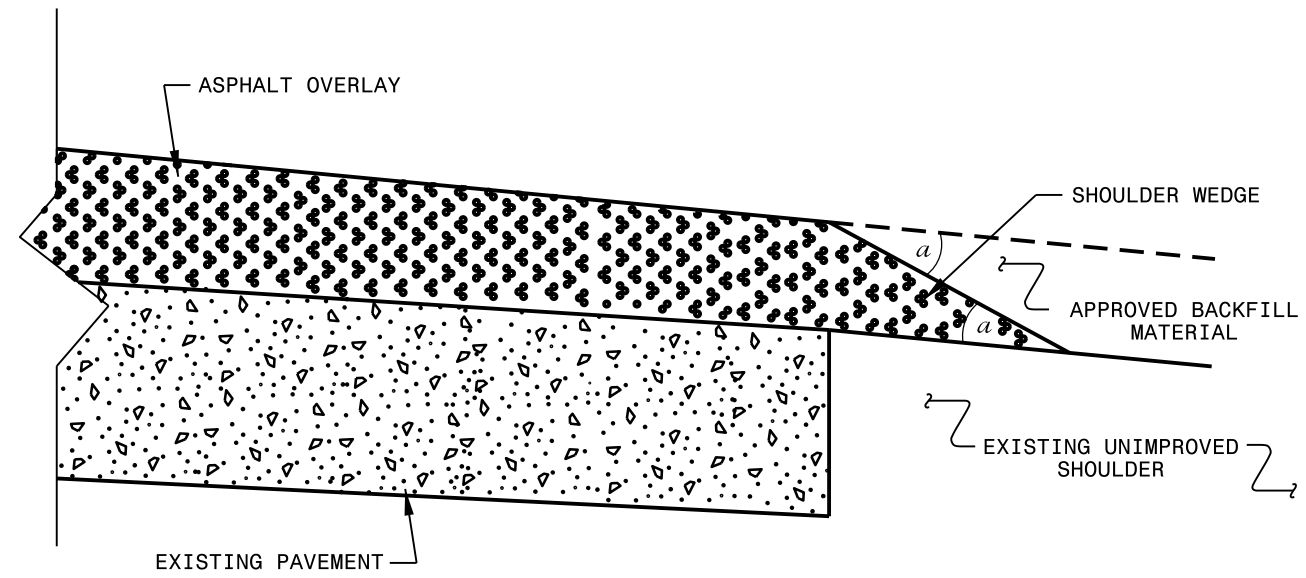
TYPICAL DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)		
Extend paving limits to back of radius or loop on the following intersections:		
MAP#	STREET NAME	COMMENTS
4	W HARRISON AVE	BACK OF RADIUS
4	E DAVIDSON AVE	BACK OF RADIUS
4	LENNOX AVE	BACK OF RADIUS
4	SYCAMORE AVE	BACK OF RADIUS
4	BOXWOOD LN	BACK OF RADIUS
4	OLD RANKIN LAKE RD	MINIMUM TIE IN ON CITY STREETS
5	DOGWOOD LN	MINIMUM TIE IN ON CITY STREETS
5	FAIRES AVE	MINIMUM TIE IN ON CITY STREETS
5	BELMONT RESERVE ROW	MINIMUM TIE IN ON CITY STREETS
5	EAGLE RD	BACK OF RADIUS
5	MCKNIGHT ST	MINIMUM TIE IN ON CITY STREETS
5	OAK ST	MINIMUM TIE IN ON CITY STREETS
5	FIRST PRESBYTERIAN DRIVEWAY ENTRANCE	MINIMUM TIE IN ON CITY STREETS
5	S CENTRAL AVE	BACK OF RADIUS

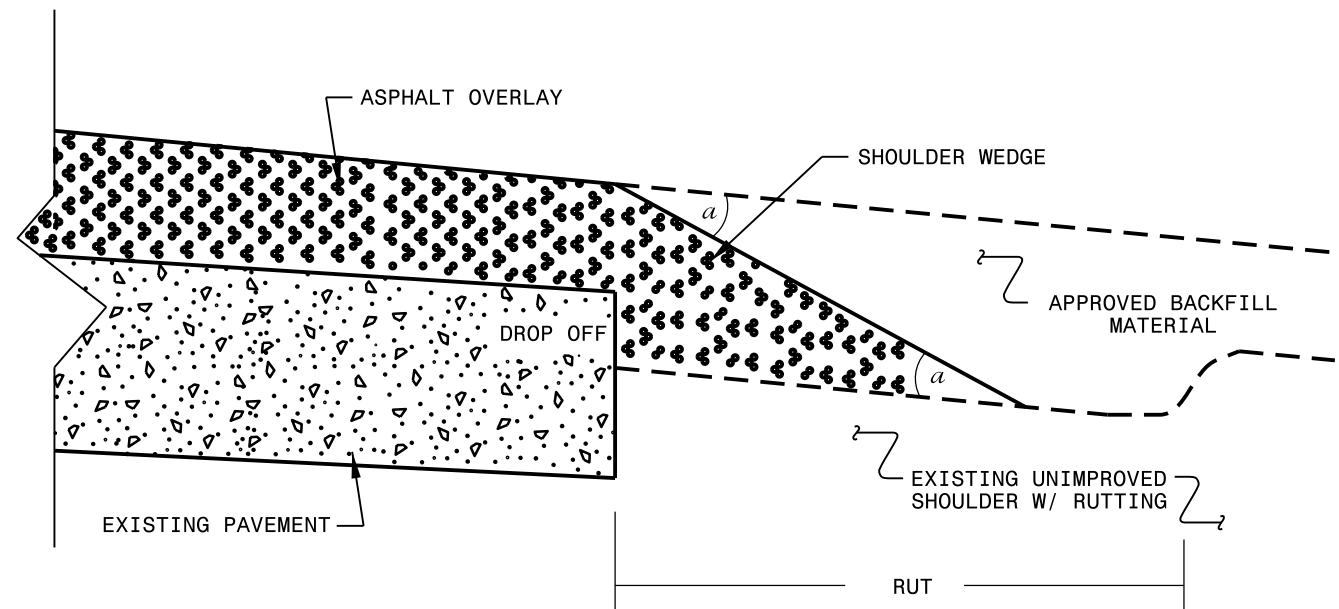
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)



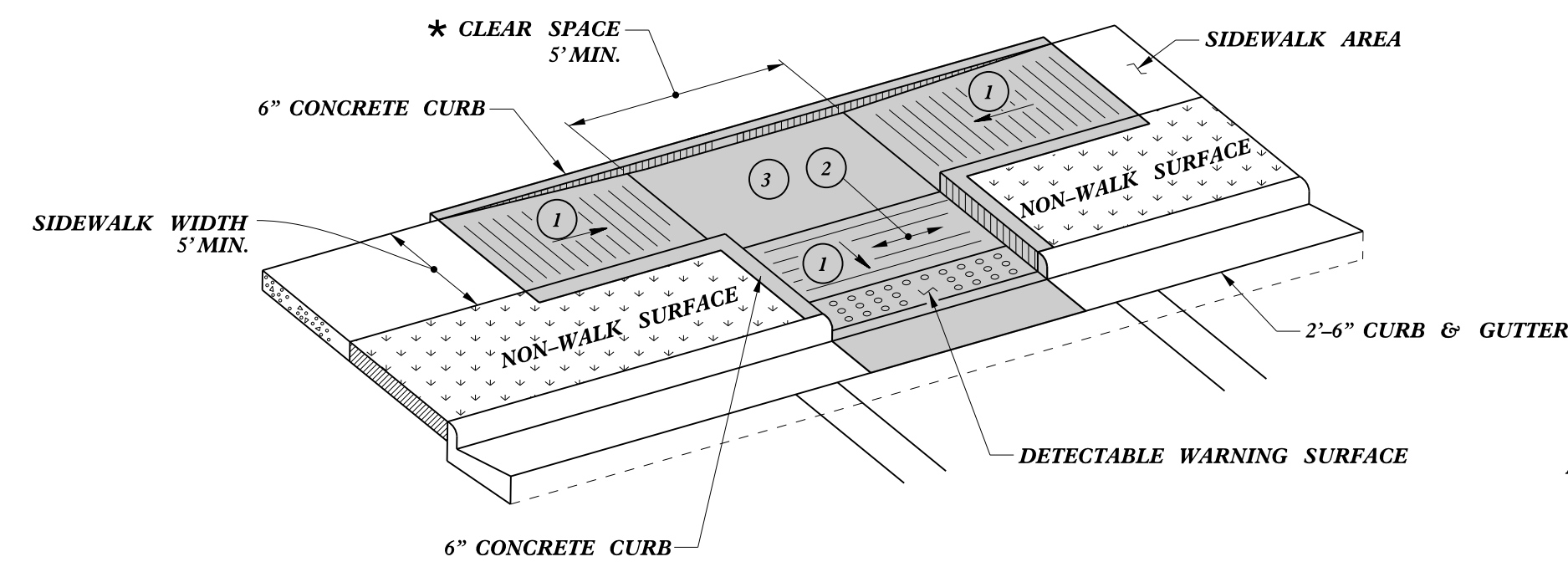
SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to
Rutted Shoulder)

- 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.: susr/details/stand/shoulderwedgedetail.dgn			

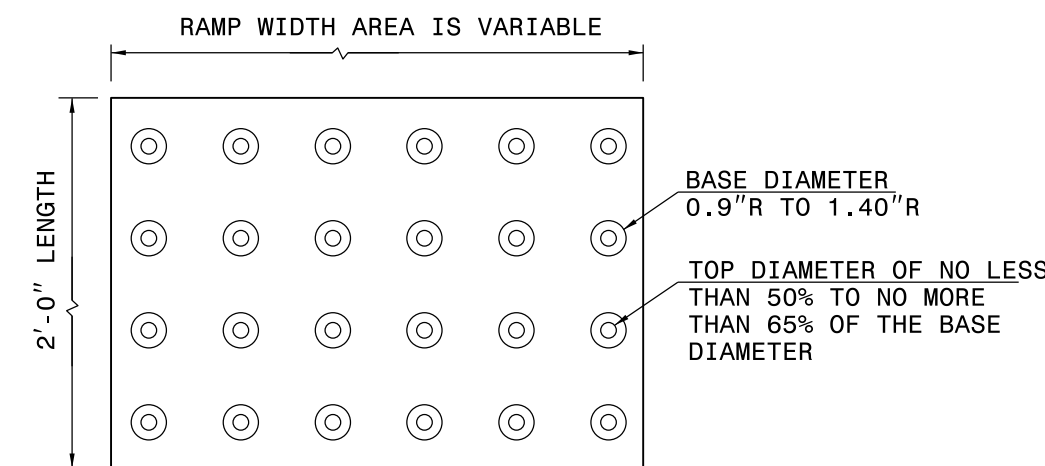
SYSTEMS DESIGN
USER NAME

* - WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

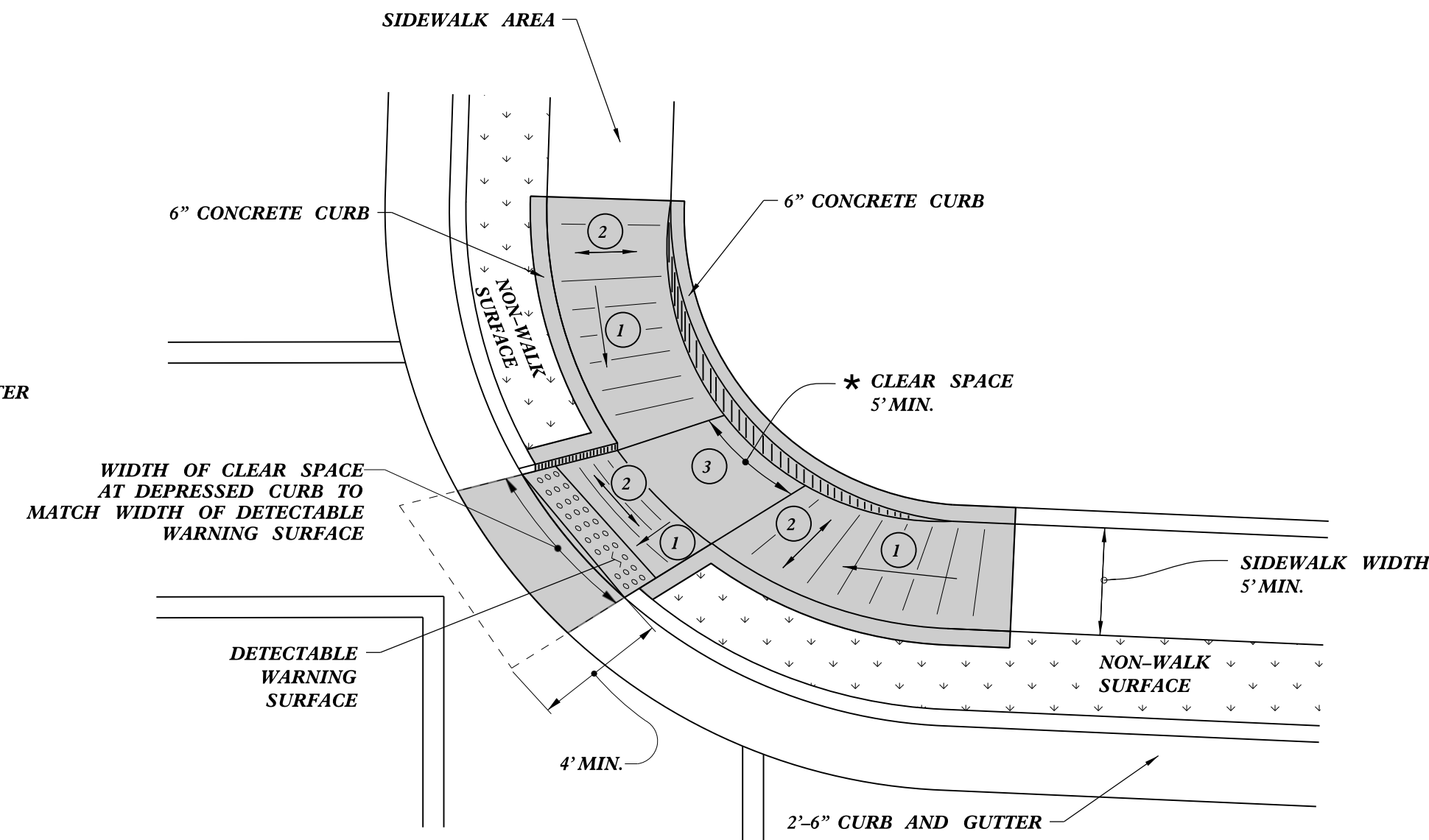
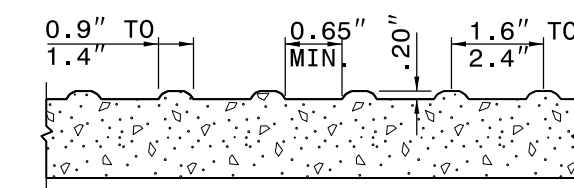


TYPE 3

NOTES:
 1. DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 2. DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE



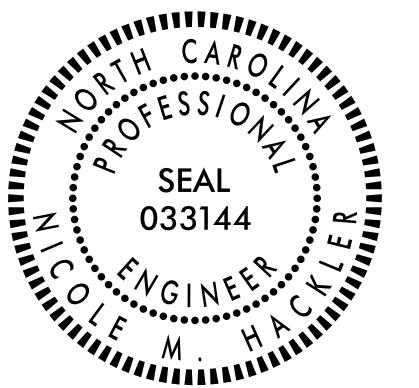
**TYPE 3 MODIFIED
INSTALLATION IN A RADIUS**

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

PAY LIMITS FOR 1 CURB RAMP

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
CURB RAMP
PARALLEL RAMP



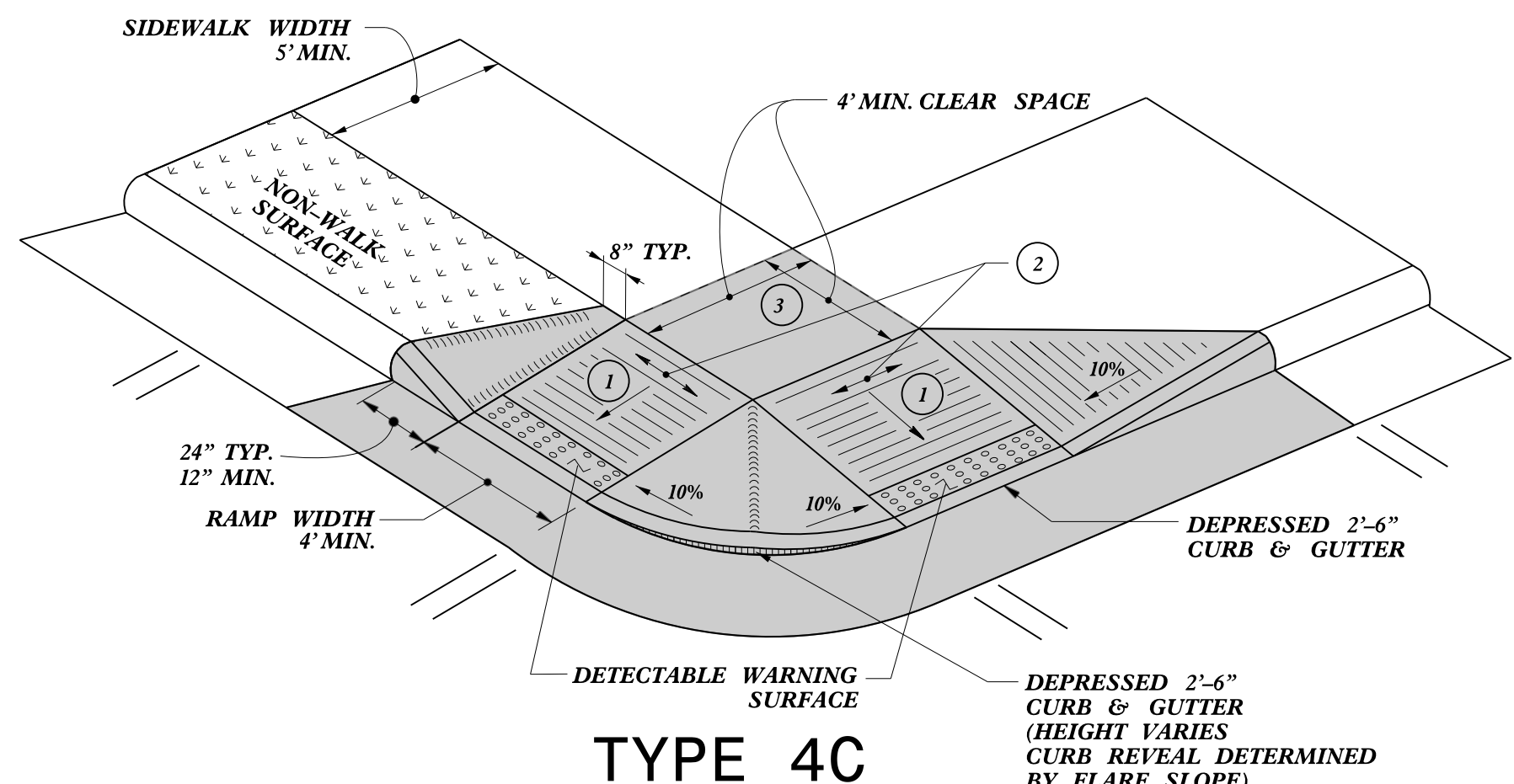
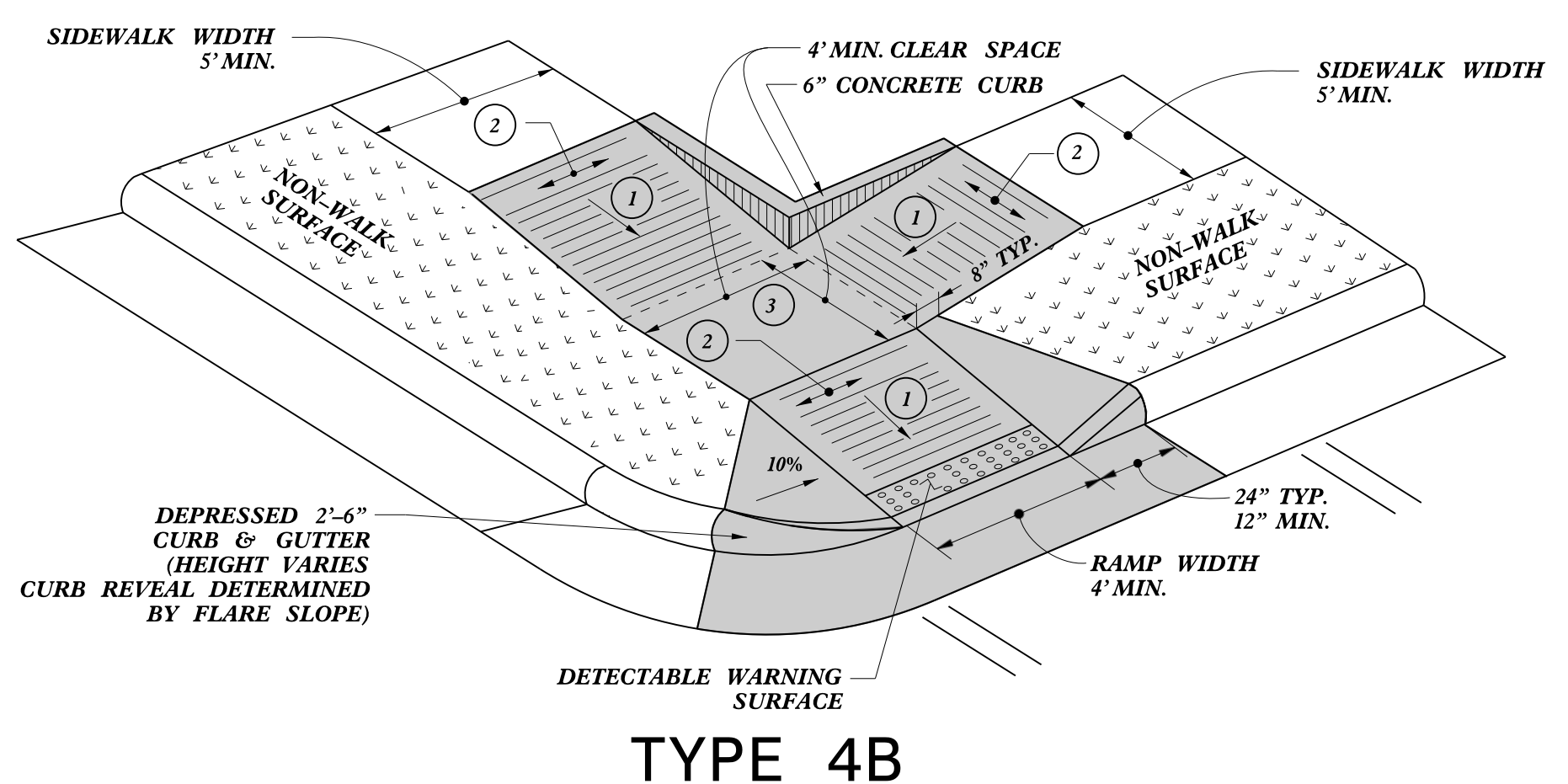
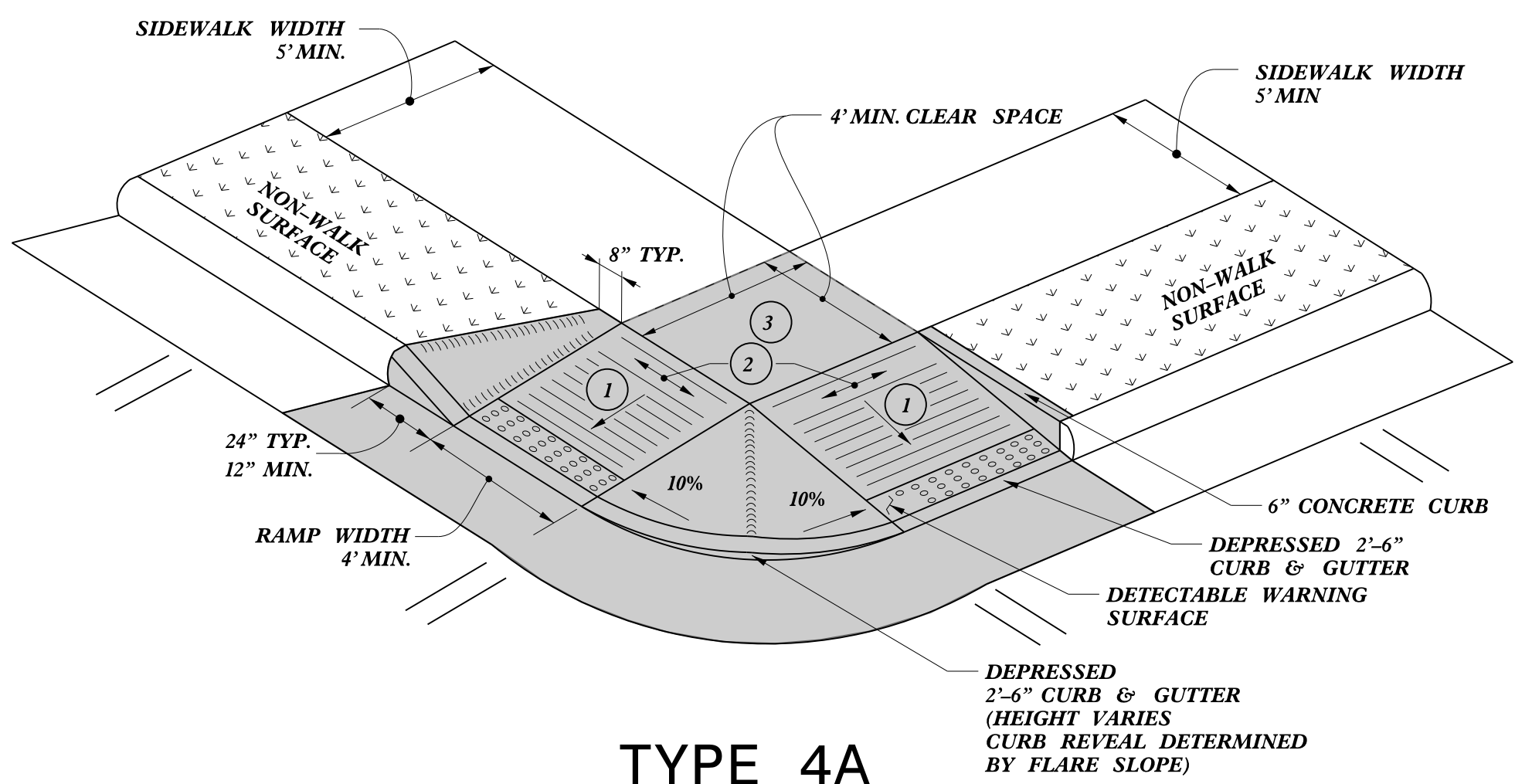
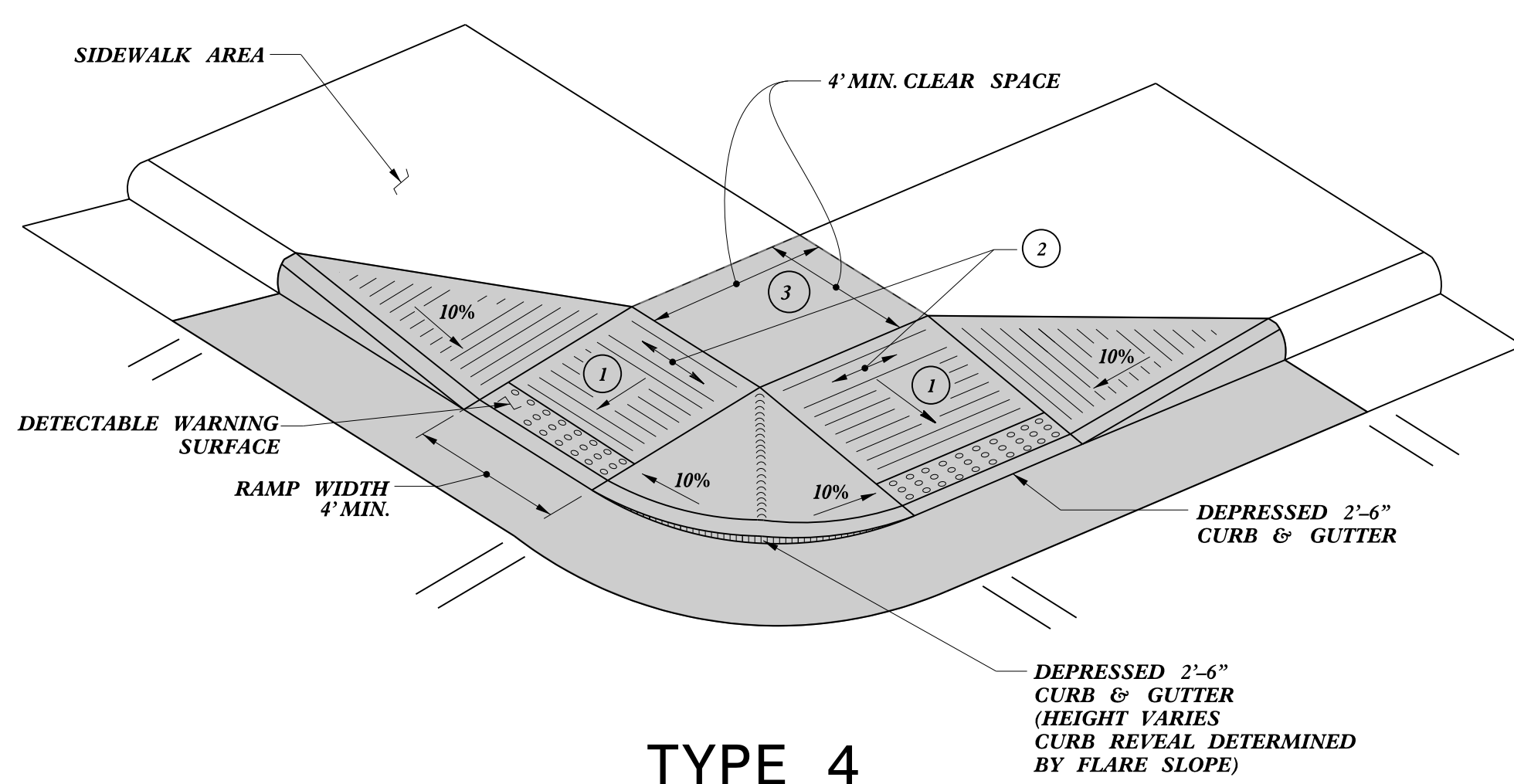
SHEET 9 OF 13
848D06

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

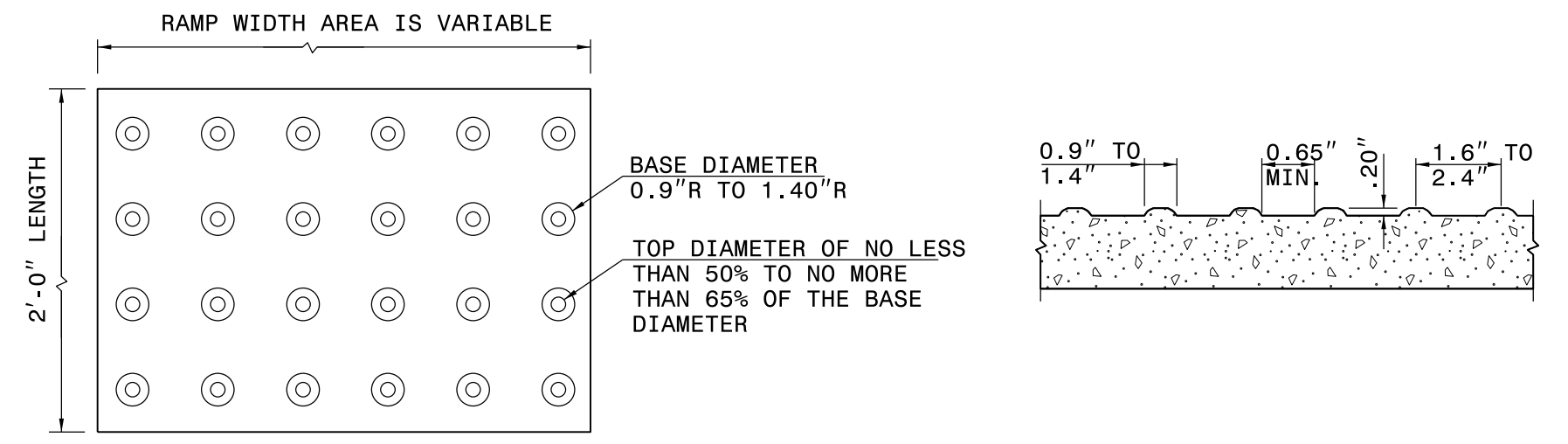
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
 MODIFIED BY: DATE: _____
 CHECKED BY: DATE: _____
 FILE SPEC.: special_details\nmhackler\0609.dgn



NOTES:
 DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

PAY LIMITS FOR 1 OR 2 CURB RAMPS
 (CALCULATE BASED ON NUMBER OF SETS OF DETECTABLE WARNING SURFACES)

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
CURB RAMP
 SHARED LANDING



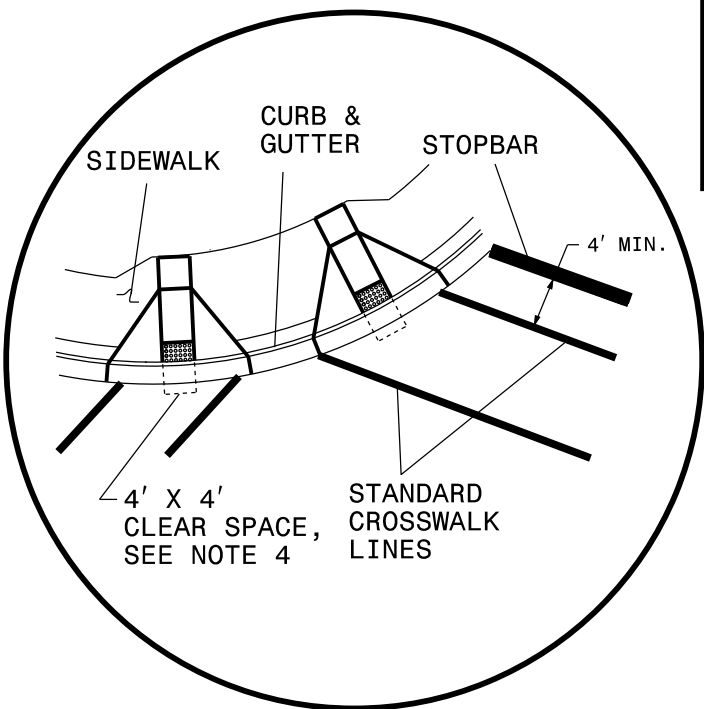
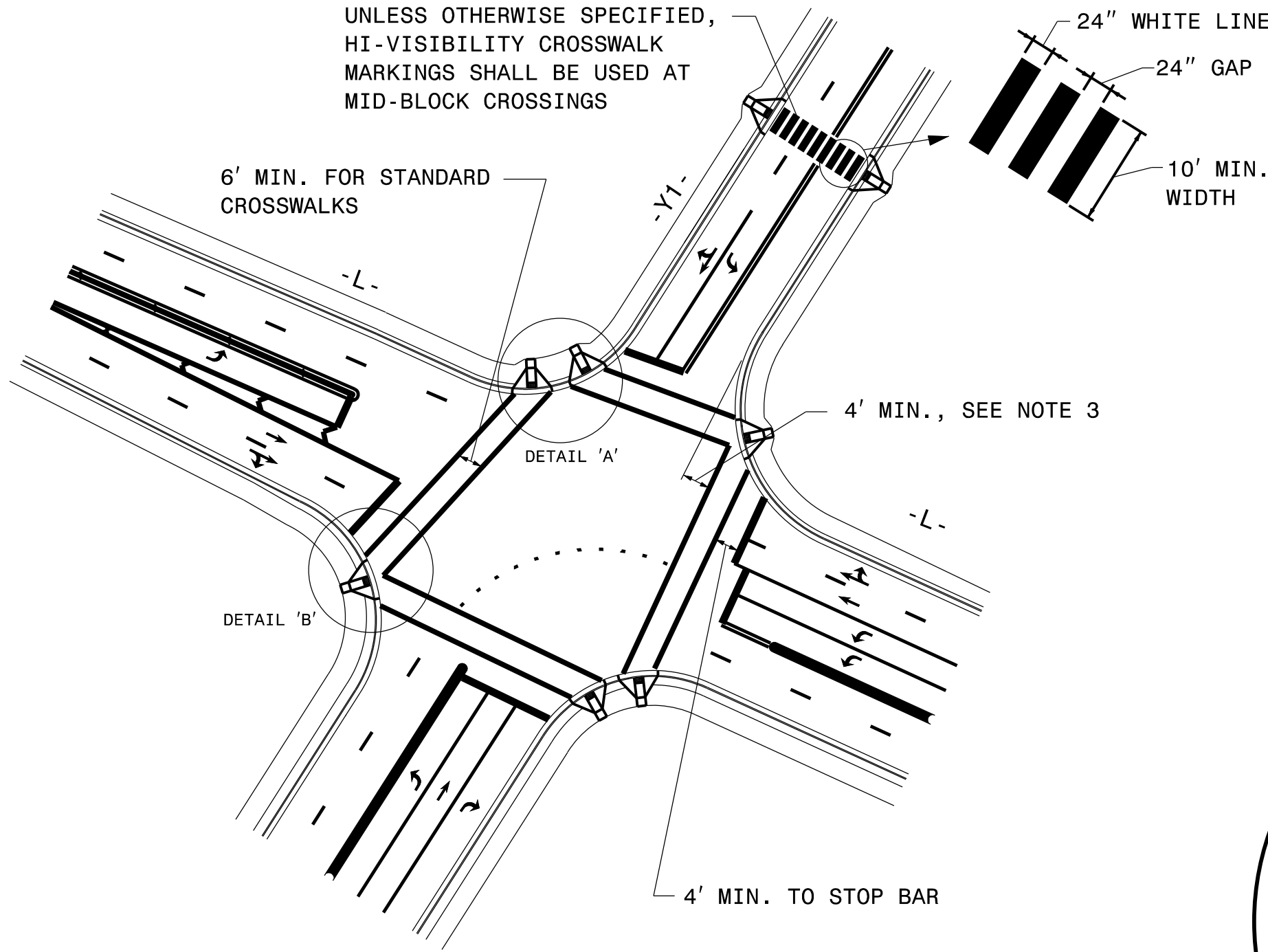
SHEET 10 OF 13
848D06

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

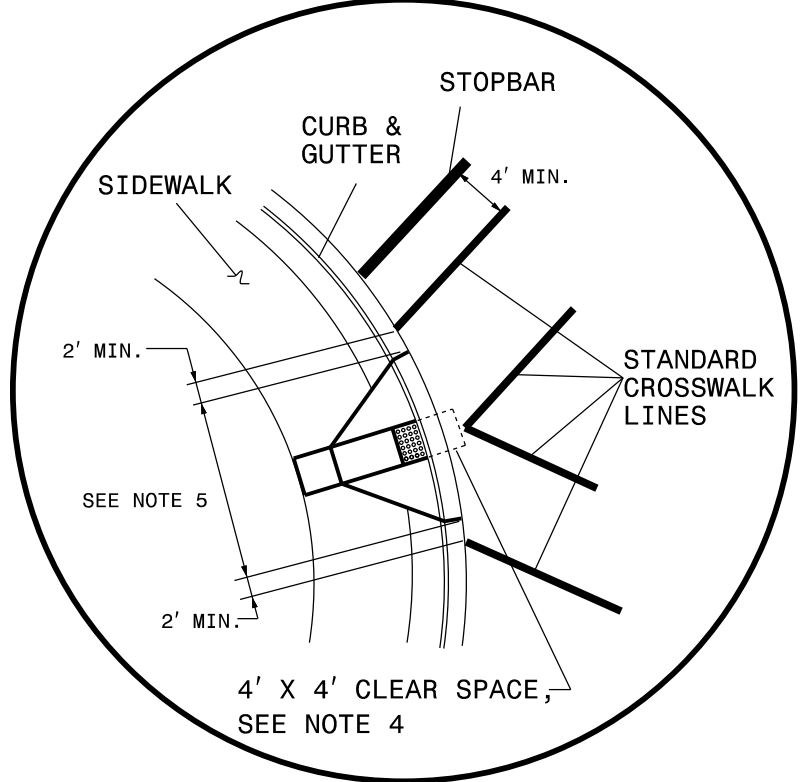
CONTRACTS STANDARDS AND DEVELOPMENT UNIT
 Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
 MODIFIED BY: DATE: _____
 CHECKED BY: DATE: _____
 FILE SPEC.: special_details\nmhackler\848D0610.dgn



DETAIL 'A'- DUAL CURB RAMPS



DETAIL 'B'- SINGLE DIAGONAL CURB RAMP

GUIDANCE DETAIL FOR CROSSWALK MARKINGS

NOTES:

1. USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS NOT STATIONED ON THE DETAIL SHEETS OR WHEN FIELD ADJUSTMENTS REQUIRED MOVING STATIONED MARKINGS AS DIRECTED BY THE ENGINEER. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE.
2. THE CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY. ONLY INSTALL CROSSWALK MARKINGS WHERE SHOWN ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALL AS SPECIFIED ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.
3. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN.
4. BEYOND THE BOTTOM GRADE BRAKE, A CLEAR SPACE OF 4' X 4' MINIMUM SHALL BE PROVIDED WITHIN THE MARKINGS.
5. SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2 FEET LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.
6. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS.

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

PROJECT NO.	SHEET NO.	TOTAL NO.
2026CPT.12.04.20361		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	0255000000-E	1220000000-E	1245000000-E	1297000000-E	1330000000-E	1523000000-E	1524000000-E	1575000000-E	1704000000-E	2612500000-N	2759000000-N	2800000000-N	2815000000-N	2830000000-N	2845000000-N	5255000000-N	7324000000-N	7444000000-E	7456100000-E		
												AGGREGATE SHOULDER BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	1 1/2" MILLING	INCIDENTAL MILLING	SURFACE COURSE, \$9.5C	LEVELING COURSE, \$9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	REMOVE AND REPLACE CONCRETE CURB RAMPS	RETROFIT CURB RAMP DETECTABLE WARNINGS	ADJ. OF CATCH BASIN	ADJ. OF DROP INLET	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX	PORTABLE LIGHTING	JUNCTION BOX (STANDARD SIZE)	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE (14-2)		
								MI	FT			TON	TONS	SMI	SY	SY	TONS	TONS	TONS	TONS	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA		
2026CPT.12.04.20361	Gaston	1	SR-1416 / HELTON RD	FROM SR-1438 / ST MARKS CH RD TO NC-279 / DALLAS-CHERRYVILLE HWY	1	2	2WU	1.6	19	1.76	3.36	560	30	3.20		140	1,659	200	131	448												
TOTAL FOR MAP NO. 1								1.6				560	30	3.20		140	1,659	200	131	448												
2026CPT.12.04.20361	Gaston	2	SR-2200 / COX RD	FROM NC-7 / OZARK AVE TO I-85 BRIDGE	2	4	MU	0.98	61	6.04	7.04				41,905		3,520	106	238	503				1	12	6	*	3	3,500	1,400		
TOTAL FOR MAP NO. 2								1						41,905		3,520	106	238	503					1	12	6		3	3,500	1,400		
2026CPT.12.04.20361	Gaston	3	SR-2209 / MARKET ST	FROM US 29/74 / WILKINSON BLVD TO SR-2481 / GASTON RD	2	4	MU	0.44	VAR. 34-54	0.63	1.07				12,126		1,021	50	72	184	3	2	1		2	2	*	1	1,000	400		
TOTAL FOR MAP NO. 3								0.44						12,126		1,021	50	72	184	3	2	1		2	2		2		1	1,000	400	
2026CPT.12.04.20361	Gaston	4	SR-2278 / DR. MLK JR WAY / MARIETTA ST	FROM NC-7 / LONG AVE TO MM 1.51 CONSTRUCTION JOINT AT WIDENED LANE SECTION PROJECT AT BULB AVE	1	2	2WU	0.48	25			170	120	0.96	22,600	1,150	2,554	230	195	638	26	4	10		1	35	19	*		600	220	
TOTAL FOR MAP NO. 4								1.51				170	120	0.96	22,600	1,150	2,554	230	195	638	26	4	10		1	35	19			600	220	
2026CPT.12.04.20361	Gaston	5	SR-2519 / S MAIN ST (BELMONT)	FROM DOGWOOD LN TO SR-2560 / CENTRAL AVE	2	2	2WU	0.39	VAR. 22-33	2.71	3.1				6,962		586	60	48	205			1		10	4	*	1	600	250		
TOTAL FOR MAP NO. 5								0.39						6,962		586	60	48	205			1		10	4		1	600	250			
TOTAL FOR PROJ NO. 2026CPT.12.04.20361								4.94				730	150	4.16	83,593	1,290	9,340	646	684	1,978	29	6	12	2	59	31	1	5	5,700	2,270		
GRAND TOTAL								4.94				730	150	4.16	83,593	1,290	9,340	646	684	1,978	29	6	12	2	59	31	1	5	5,700	2,270		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	4413000000-E	4447000000-E	4457000000-N	4510000000-N	4685000000-E		4695000000-E	4700000000-E	4704000000-E	4709000000-E	4720000000-E					4725000000-E					4810000000-E		5000000000-E	4500000000-E	5000000000-E	
												WORK ZONE ADV/GEN WARNING SIGNS	PEDESTRIAN CHANNELIZING DEVICES	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO	16" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO MSG RXR 90 M	THERMO MSG ONLY 90 M	THERMO MSG SCHOOL 90 M	THERMO RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO LT ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	24" WHITE PAINT	PAINT LT ARROW	POLYCARBONATE H SHAPED MARKER				
								MI	FT			SF	LF	LS	HR	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA				
2026CPT.12.04.20361	Gaston	1	SR-1416 / HELTON RD	FROM SR-1438 / ST MARKS CH RD TO NC-279 / DALLAS-CHERRYVILLE HWY	1	2	2WU	1.6	19	1.76	3.36	164																									
TOTAL FOR MAP NO. 1								1.6				164																									
2026CPT.12.04.20361	Gaston	2	SR-2200 / COX RD	FROM NC-7 / OZARK AVE TO I-85 BRIDGE	2	4	MU	0.98	61	6.04	7.04	404				200	4,400	13,500	375	100	200	466	8			3	31	8	41						475		
TOTAL FOR MAP NO. 2								1				404			200	4,400	13,500	375	100	200	466	8			3	31	8	41								475	
2026CPT.12.04.20361	Gaston	3	SR-2209 / MARKET ST	FROM US 29/74 / WILKINSON BLVD TO SR-2481 / GASTON RD	2	4	MU	0.44	VAR. 34-54	0.63	1.07	244	20			15	1,631	4,650	250			113	8	6	3	2	3	8	1,400	4,650		16	59				
TOTAL FOR MAP NO. 3								0.44				244	20		15	1,631	4,650	250			113	8	6	3	2	3	8	1,400	4,650		16	59					
2026CPT.12.04.20361	Gaston	4	SR-2278 / DR. MLK JR WAY / MARIETTA ST	FROM NC-7 / LONG AVE TO MM 1.51 CONSTRUCTION JOINT AT WIDENED LANE SECTION PROJECT AT BULB AVE	1	2	2WU	0.48	25			212	40			120	6,420	13,980	450			150				6	2		2	1,100	8,660	115	7	130			
TOTAL FOR MAP NO. 4								1.51				212	40		120	6,420	13,980	450			150			6	2		2	1,100	8,660	115	7	130					
2026CPT.12.04.20361	Gaston	5	SR-2519 / S MAIN ST (BELMONT)	FROM DOGWOOD LN TO SR-2560 / CENTRAL AVE	2	2	2WU	0.39	VAR. 22-33	2.71	3.1	132				60	500	4,500		50		310						2	5	500	4,500			39			
TOTAL FOR MAP NO. 5								0.39				132			60	500	4,500		50		310								2	5	500	4,500			39		
TOTAL FOR PROJ NO. 2026CPT.12.04.20361								4.94				1,156	60	1	395	12,951	36,630	1,075	150	200	1,039	8	8	6	12	35	13	56	37,432	52,242	115	23	703				
GRAND TOTAL								4.94				1,156	60	1	395	12,951	36,630	1,075	150	200	1,039	8	8	6	12	35	13	56	37,432	52,242	115	23	703				

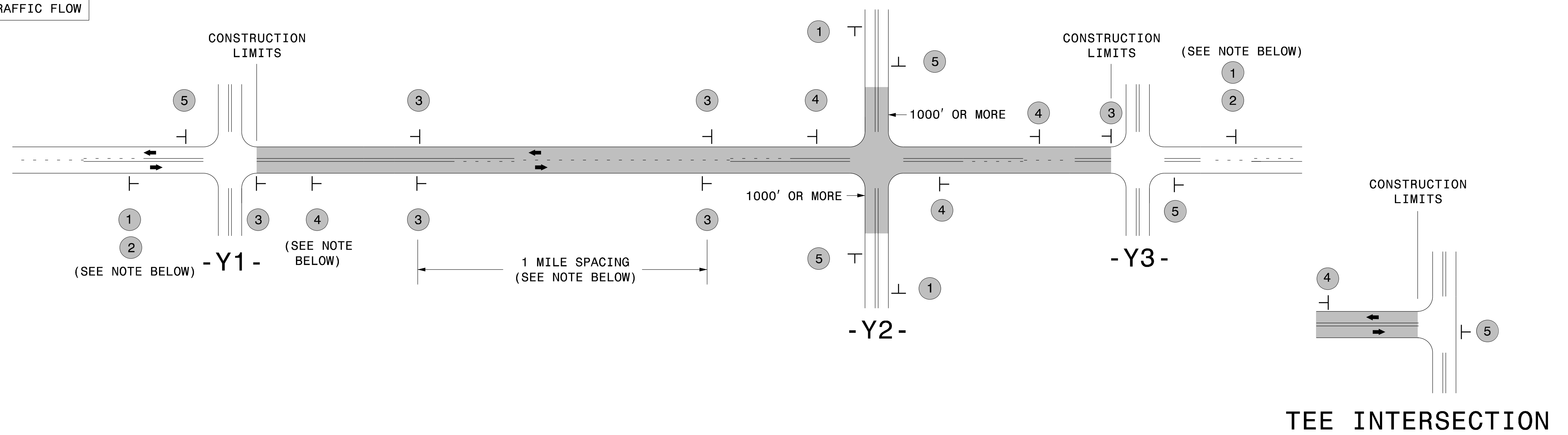
SUMMARY OF CURB RAMP QUANTITIES								Proj. #	2026CPT.12.04.20361
								Sheet #	One
WBS No.	Division	County	Major Route	Minor Route	Retrofit Existing Curb Ramp (EA)	Concrete Curb Ramp (EA)	Remove and Replace Concrete Curb Ramp (EA)	Quadrant (NE,SE,NW, SW)	Alternate Replacement Type
2026CPT.12.04.20361	12	Gaston	Map 3 - SR-2209 Market St	Woodlawn Ave			2	NE	Type 4
2026CPT.12.04.20361	12	Gaston	Map 3 - SR-2209 Market St	Woodlawn Ave			1	SE	Type 1B
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Gaston Co Courthouse Crosswalk			1	E	Type 2
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Human Services Driveway Entrance			2	SE NE	Type 1
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Juror Parking Driveway Exit Only			2	SW NW	Type 1
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	E Page Ave			2	SE NE	Type 2B
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Mount Calvary Baptist Parking Lot			2	SE NE	Type 1
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Juror Parking Driveway Entrance			2	SW NW	Type 1, Type 2A
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Human Services Parking Entrance			2	SE NE	Type 1
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	E Walnut Ave			1	SE SW NW	Type 2A Modified, Type 2B (2)
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Courthouse Overflow Entrance			2	SW NW	Type 1
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Nat Barber Ave			2	SW NW	Type 1 Modified
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	W Harrison Ave			2	SW NW	Type 1 Modified
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Lenox Ave			2	SW NW	Type 1C
2026CPT.12.04.20361	12	Gaston	Map 4 - N Marietta St	Sycamore Ave			1	SW NW	Type 2A Modified
					0	0	26		

SIGNING FOR RESURFACING PROJECTS

LEGEND

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

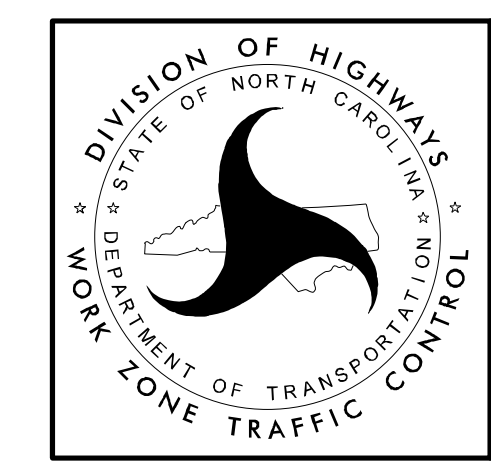
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		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, PORTABLE ADVANCE WARNING 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 style="text-align: center;"> W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
	2		#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	3		<ul style="list-style-type: none"> - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER. 	
	4		<ul style="list-style-type: none"> - 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. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE. 	
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

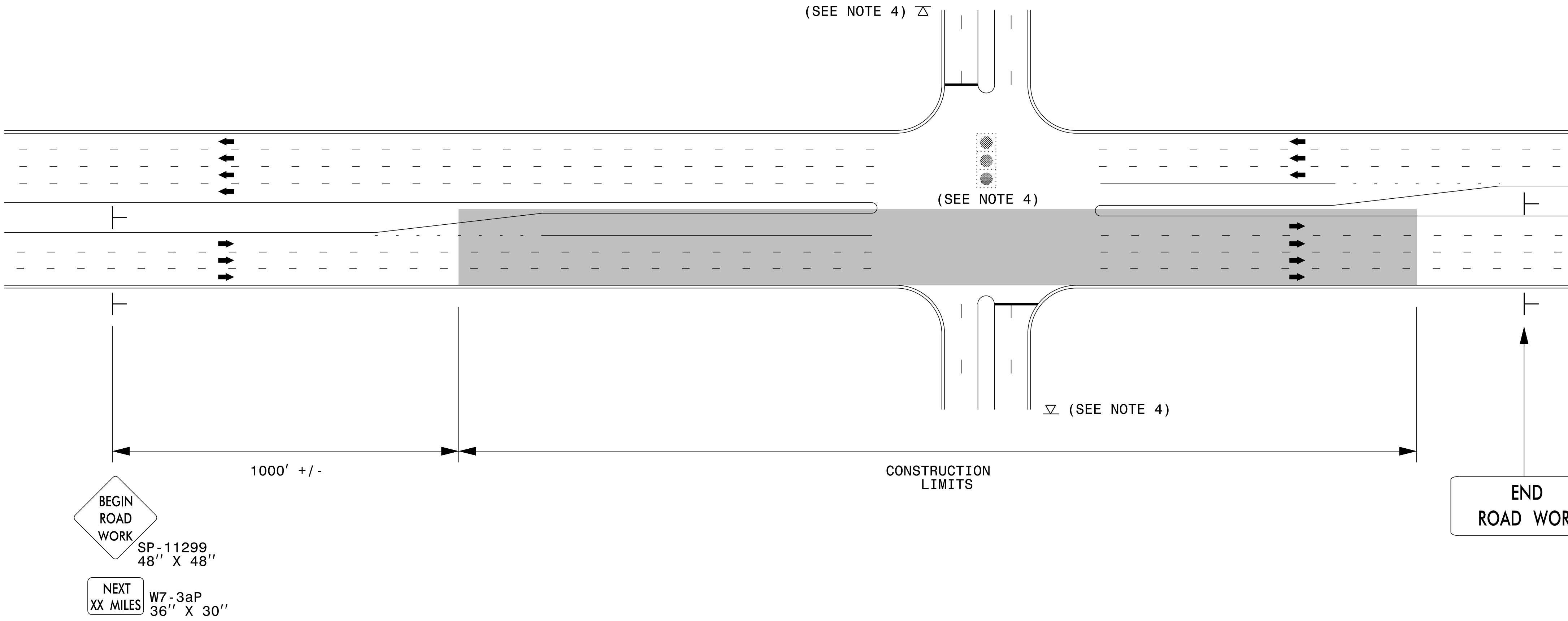
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

5/15/2017 S:\TUXWZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn User:kadai

URBAN / SUBURBAN WORKZONES



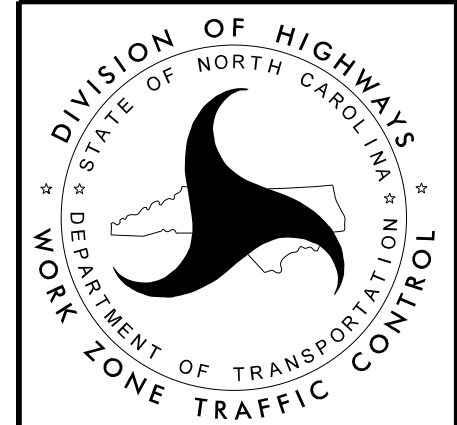
NOTES:

- 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

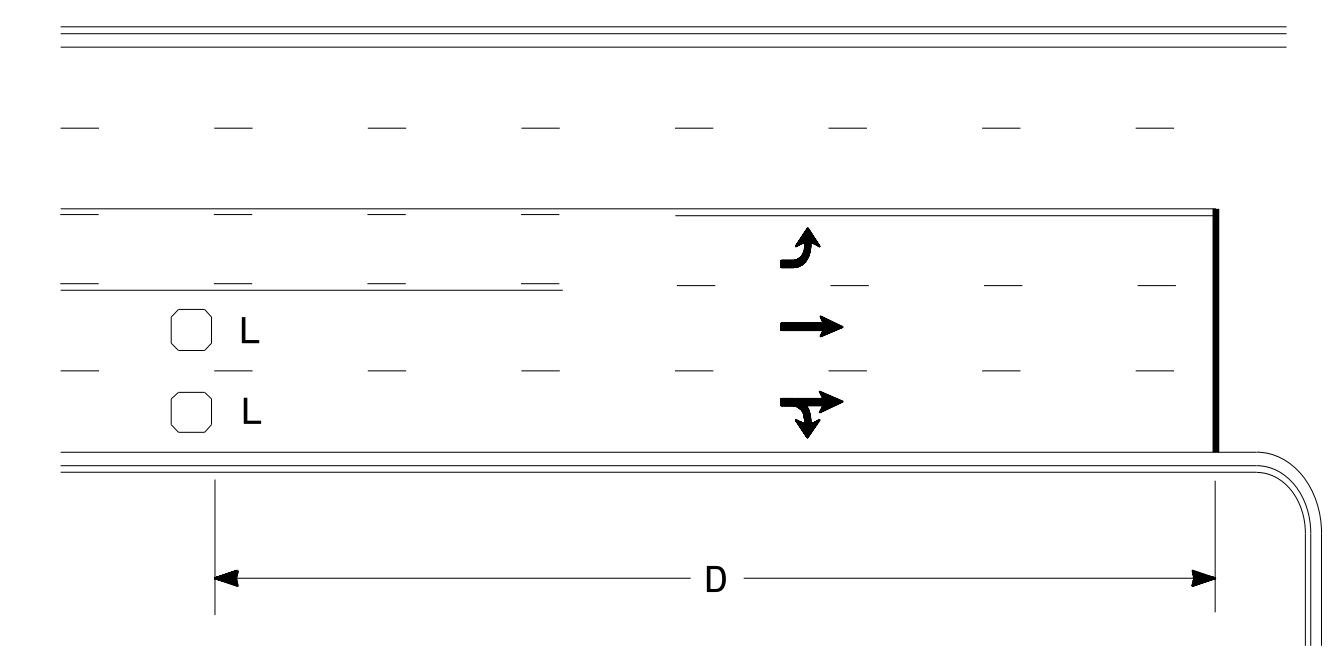
➔ DIRECTION OF TRAFFIC FLOW



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

4/8/2015 C:\Users\rmgarrrett\Downloads\Resurfacing_AdvWarn_UrSu (2).dgn User:rmgarrrett

High Speed Detection (≥40 mph)

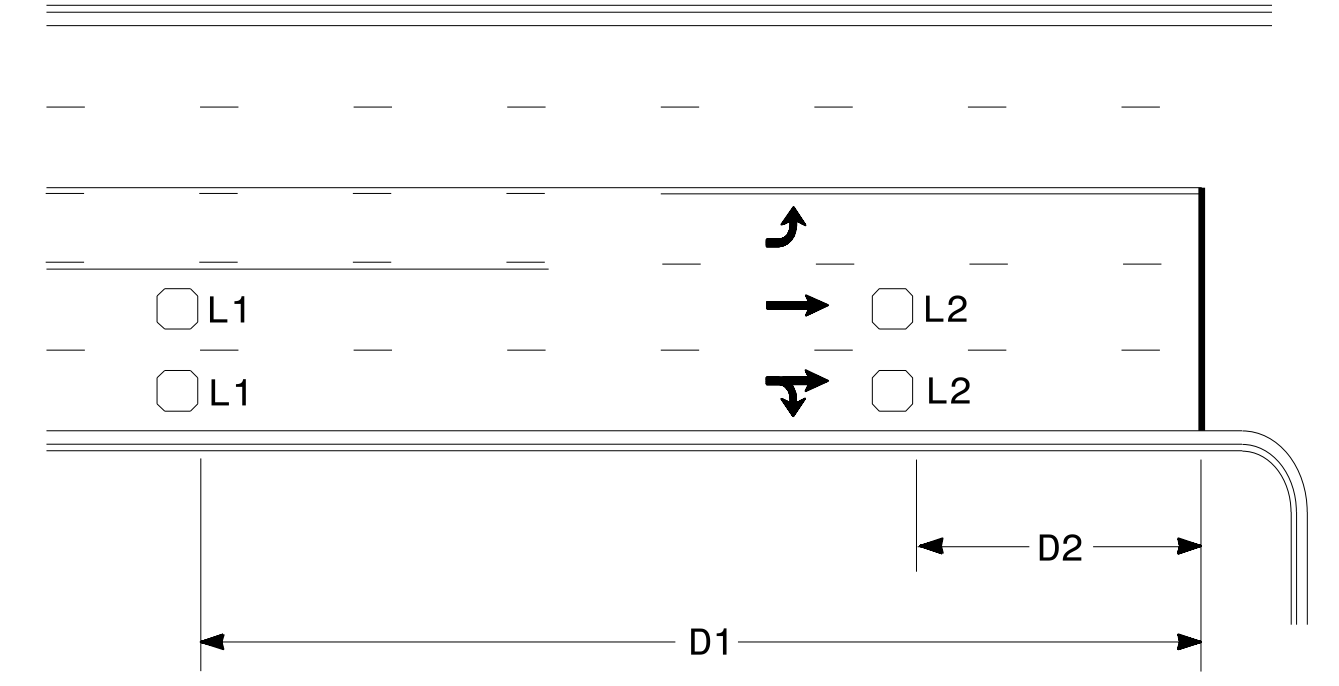


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

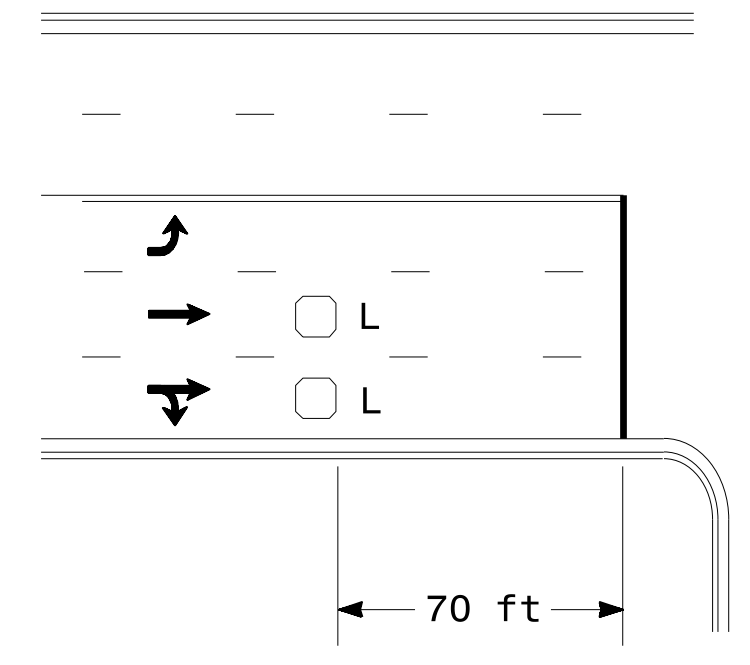


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

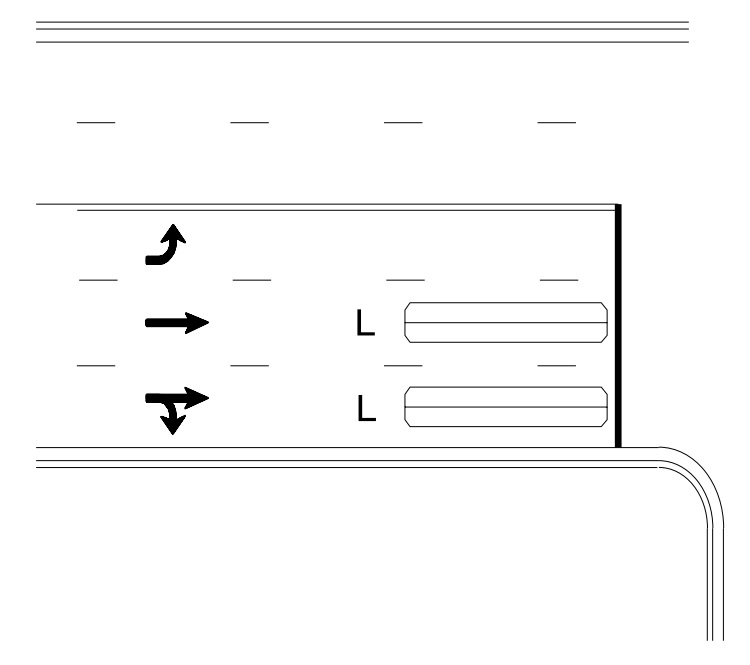
"Stretch" Operation

Low Speed Detection (≤35 mph)



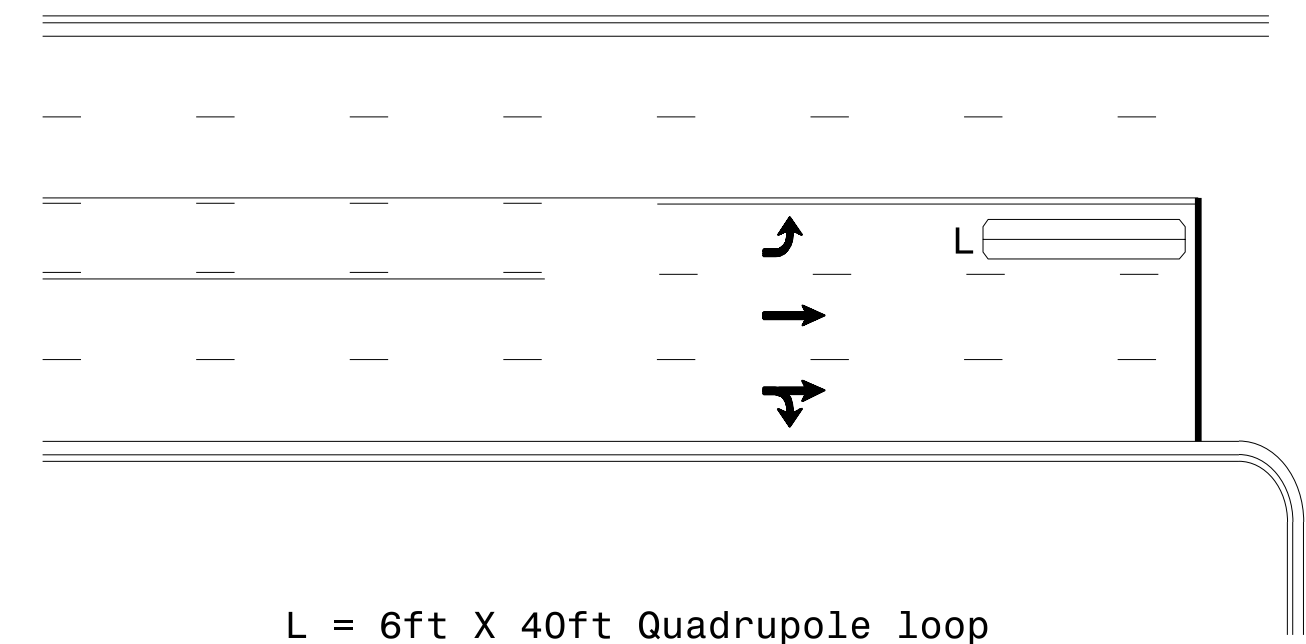
L = 6ft X 6ft
Wired in series

OR



L = 6ft X 40ft
Quadrupole loop, wired separately

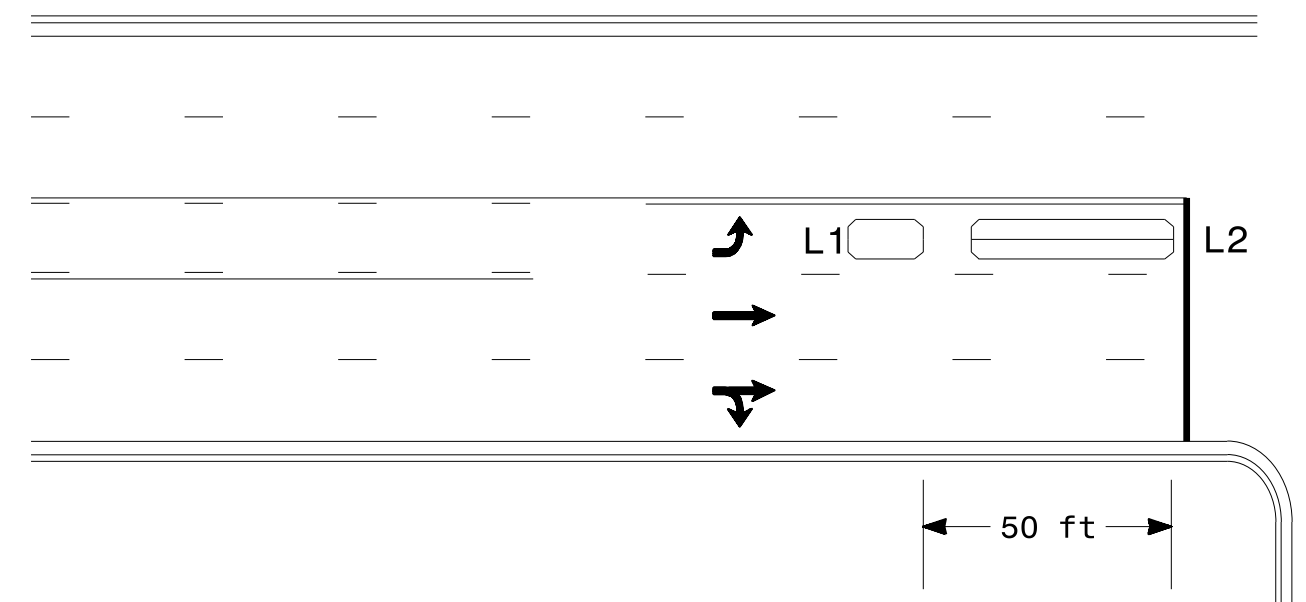
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

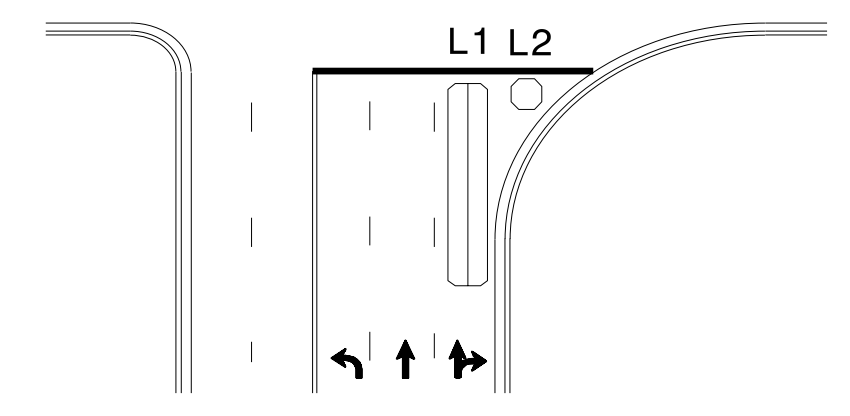
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

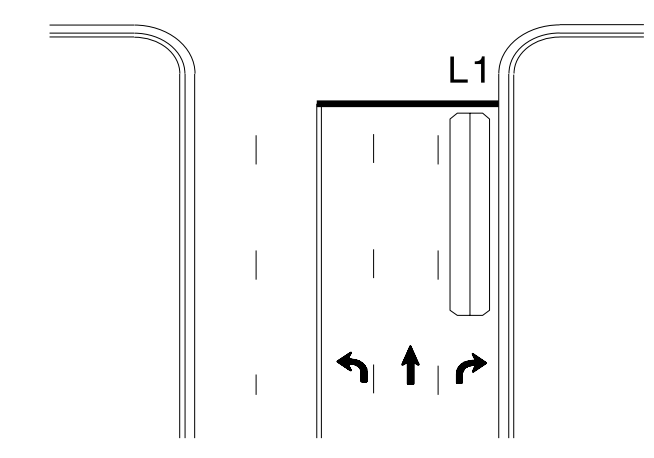
Queue Loop Detection

Right Turn Lane Detection

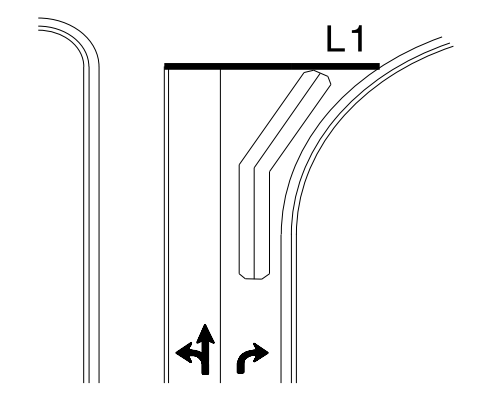


Shared Lane/
Wide Radius Turn

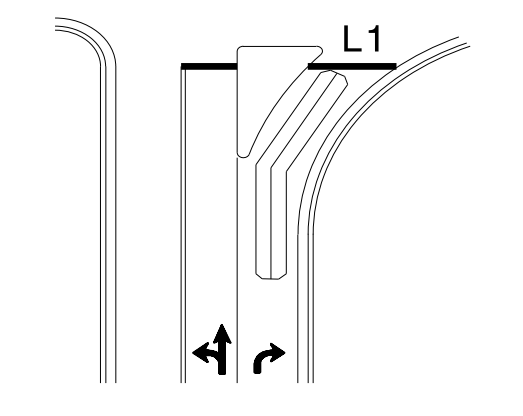
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

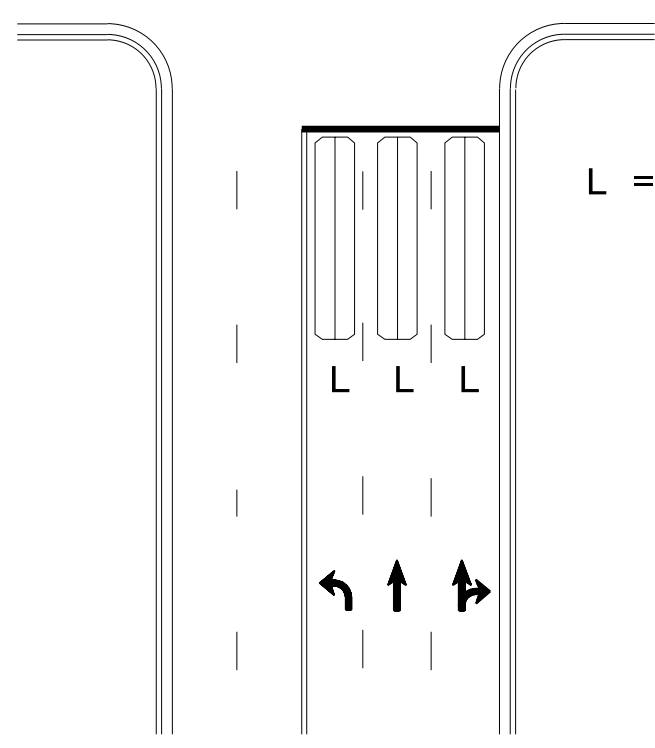


Wide Radius Turn



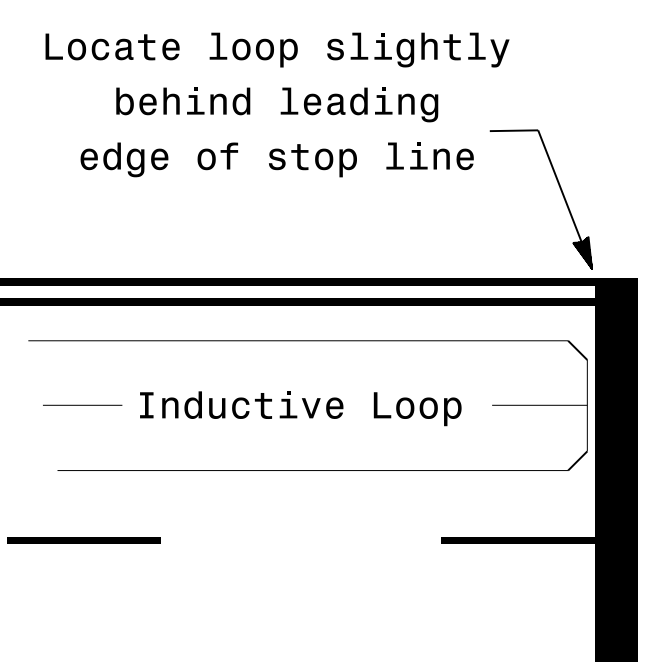
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Locate loop slightly
behind leading
edge of stop line

Note:
Loop may be located in advance
of stop line under any of the
following conditions:
1) stop line is greater than 15'
from edge of intersecting
roadway
2) loop detects a permissive or
protected/permissive left turn
3) for an exclusive right turn
lane

Recommended Number of Turns

Single 6' X 6' loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns
6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

750 N. Greenfield Pkwy, Garner, NC 27529

Typical Signal Loop Locations

PLAN DATE: January 2015	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
REVISIONS	INIT. DATE

SCALE: N/A

SEAL

1/30/2015

3D:\1116-2015_12\319
 S:\1116\1116\SIG\1116_Signal\1116_Signal_Sect\1116\Eastern_Regional\loop\ypj\ca\2015.dgn
 paalexander