This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.
This file or an individual page shall not be considered a certified document.

Iredell County

2018CPT.12.04.20491

IREDELL

DAVIE

1

2

N

Iredell County

2018CPT.12.04.20491

3

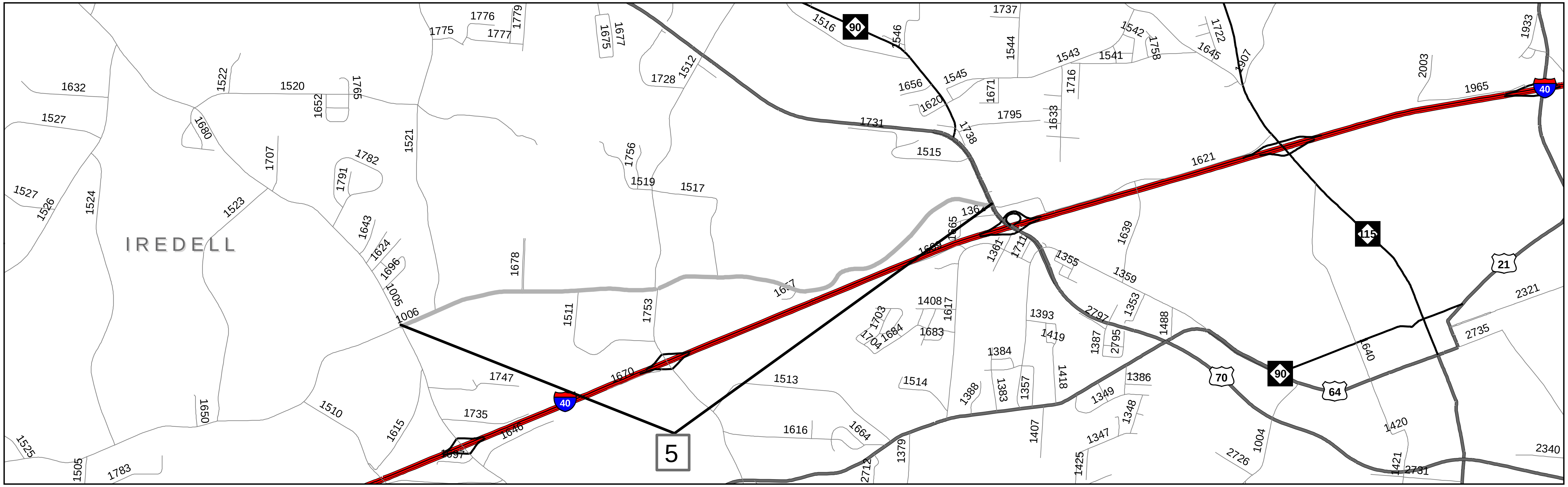
4

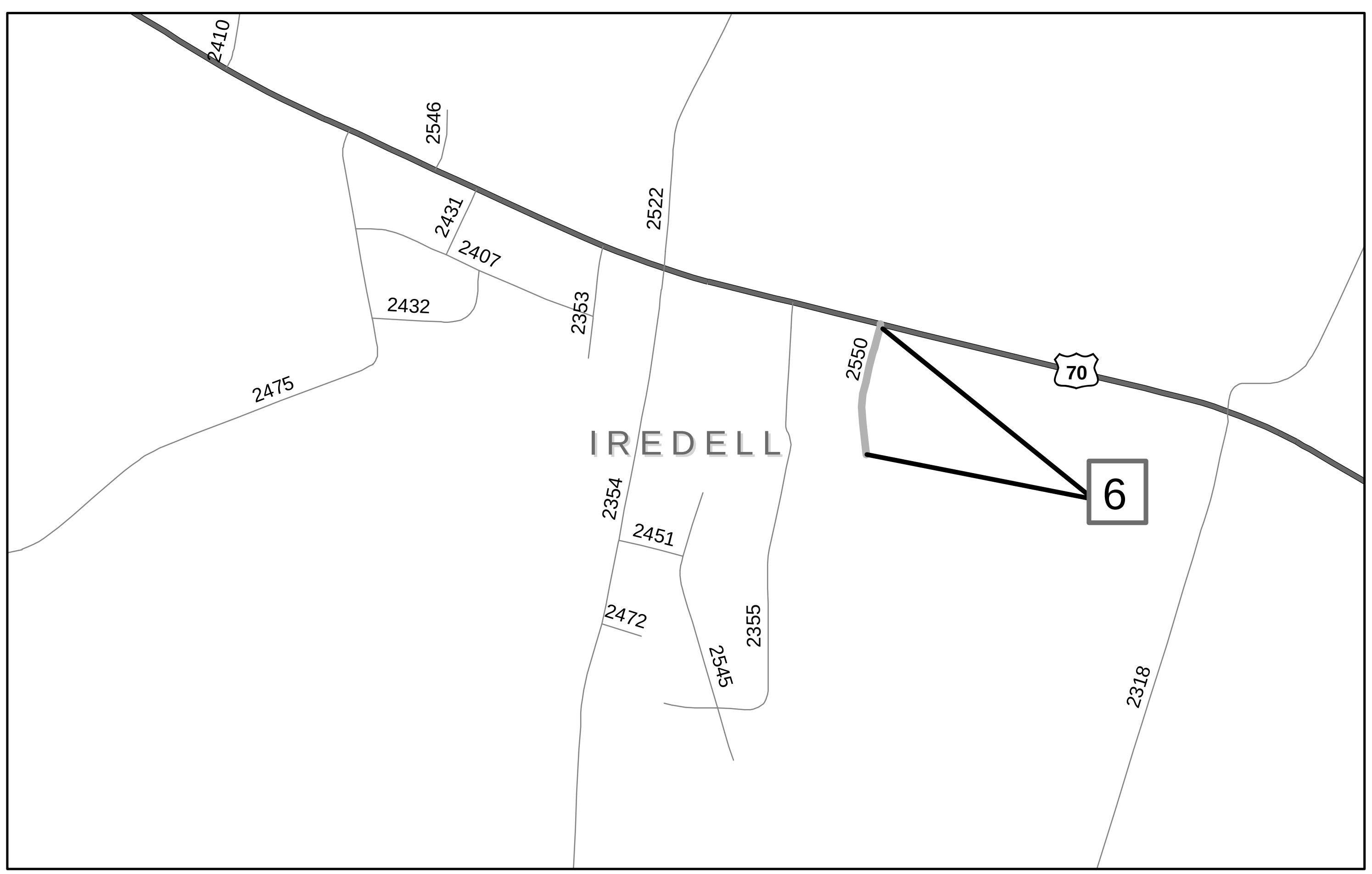
IREDELL

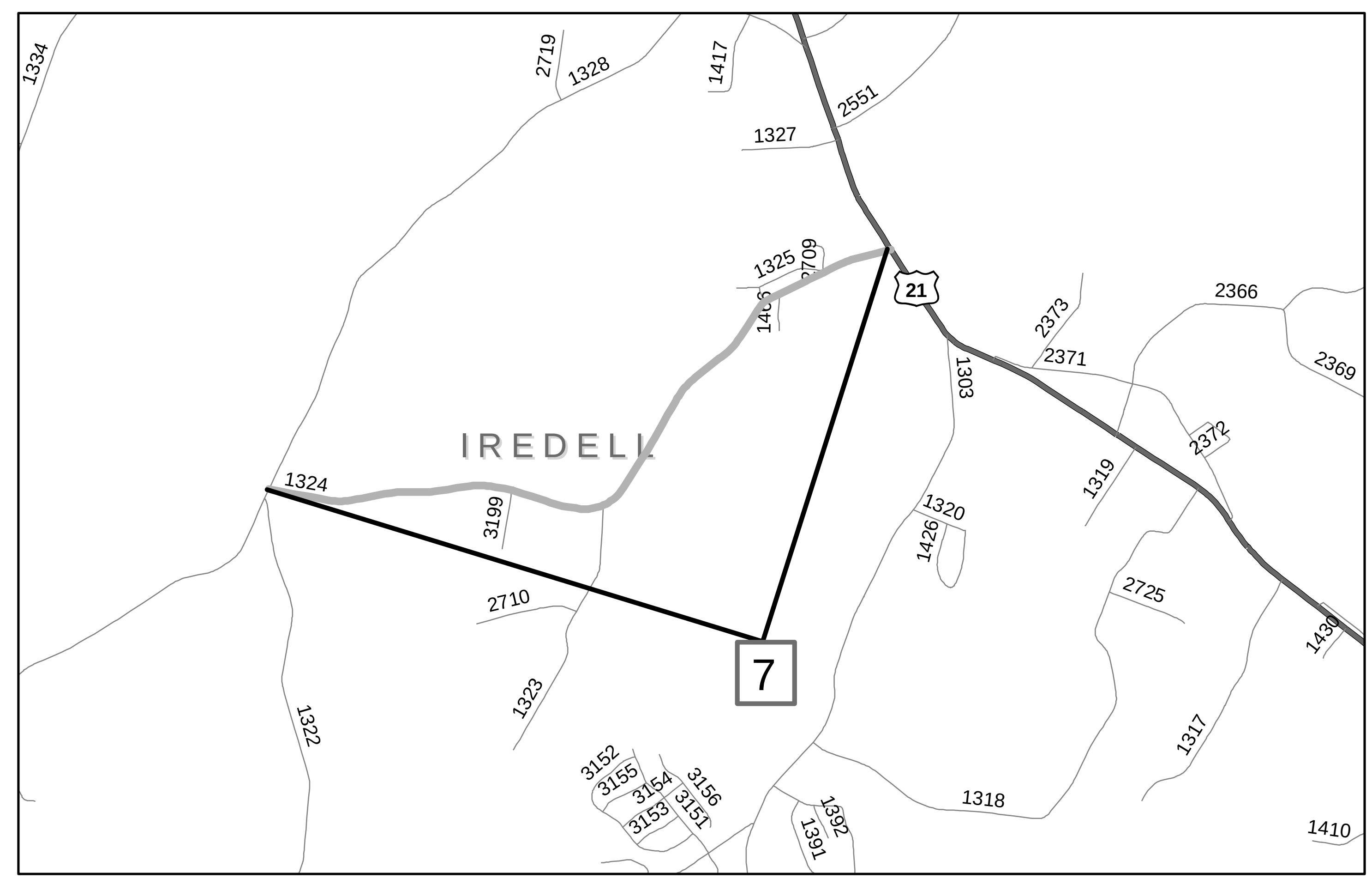
N

Iredell County

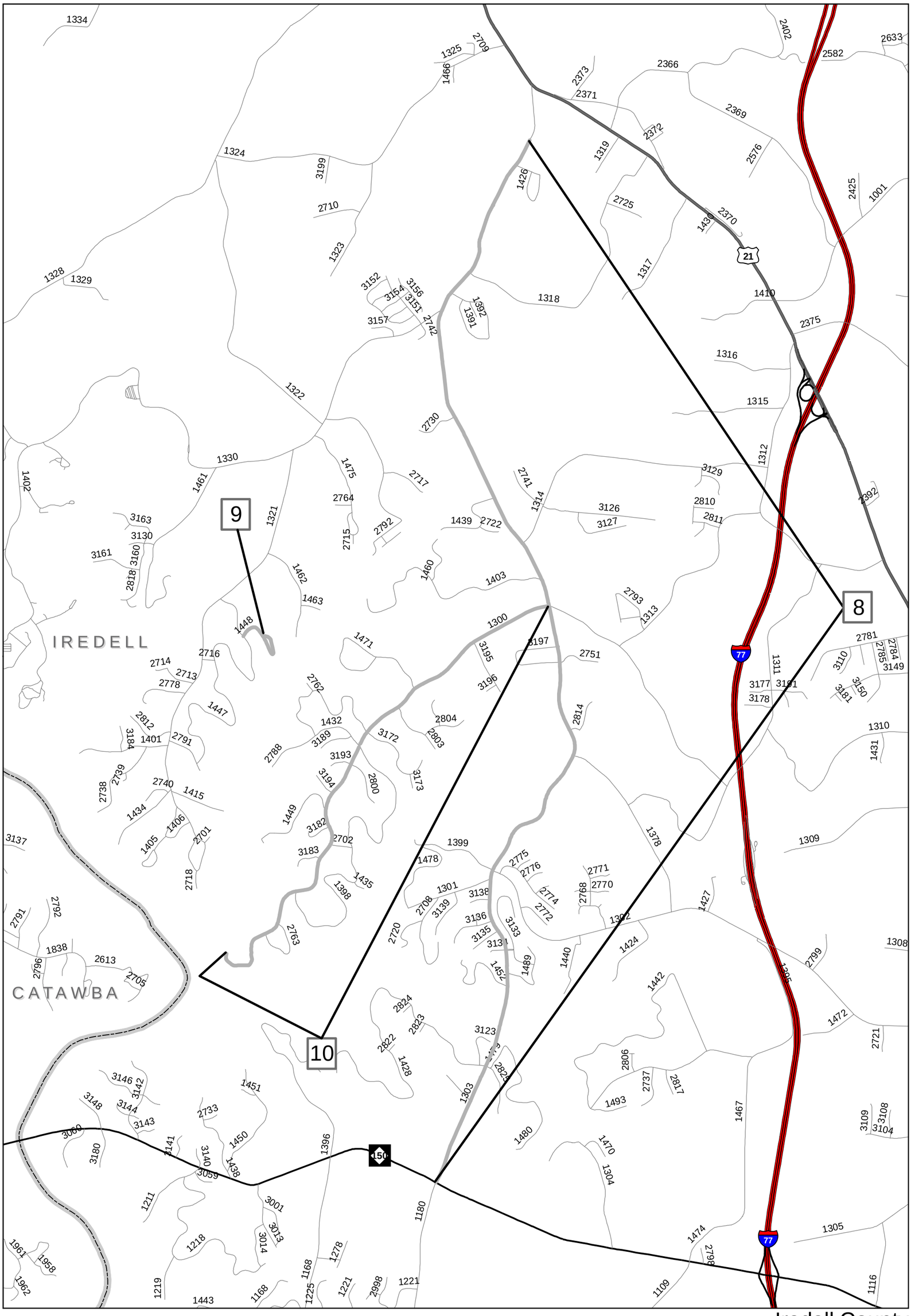
2018CPT.12.04.20491







N



Iredell County

2018CPT.12.04.20491

Iredell County

2018CPT.12.04.20491

11

IREDELL

ROWAN

12

IREDELL

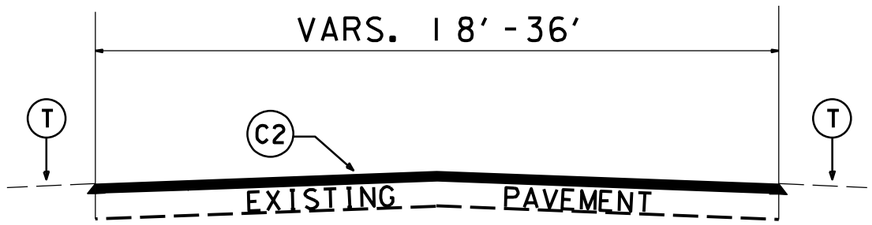
3042

13

IREDELL

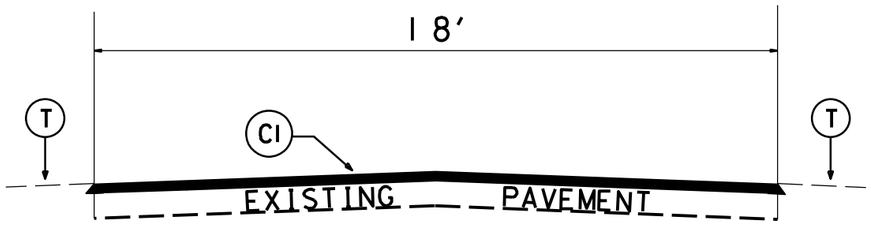
MECKLENBURG

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
IREDELL COUNTY		7
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
2018CPT.12.04.20491		SECONDARY RESURFACING



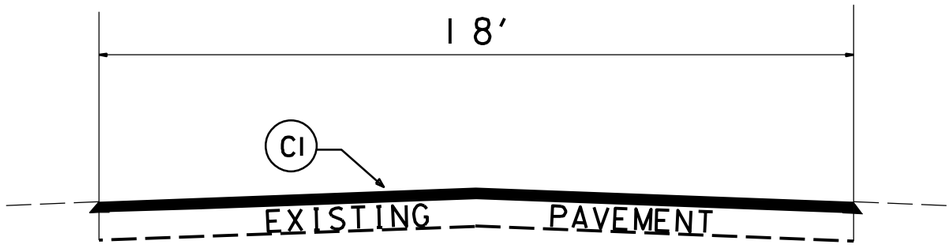
TYPICAL SECTION NO.1

Map 1, 2, 3, 4, 5, 7, 8, 10, 11 (All)
Map 13: 0+00 - 31+20



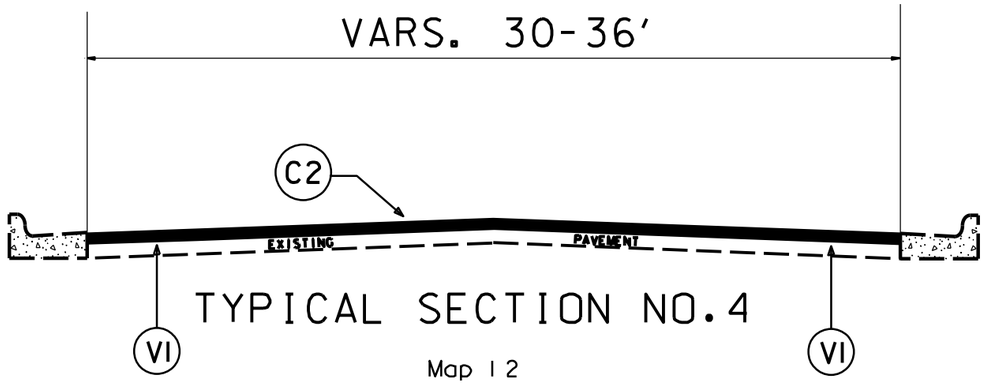
TYPICAL SECTION NO.3

Map 9



TYPICAL SECTION NO.2

Map 6



TYPICAL SECTION NO.4

Map 12
Map 13: 31+20 - 140+50

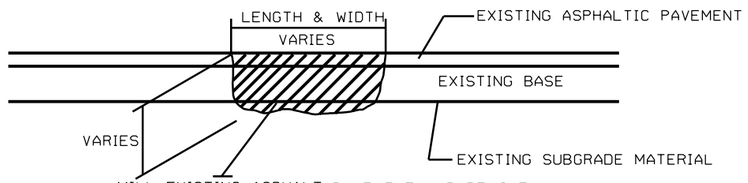
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V1	MILL EXISTING ASPHALT PAVEMENT APPROX. 1.5" IN DEPTH

2018-2019
Additional Resurfacing
Typical Sections
Iredell County

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
IREDELL COUNTY		8
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2018CPT.12.04.20491		SECONDARY RESURFACING

DETAIL A

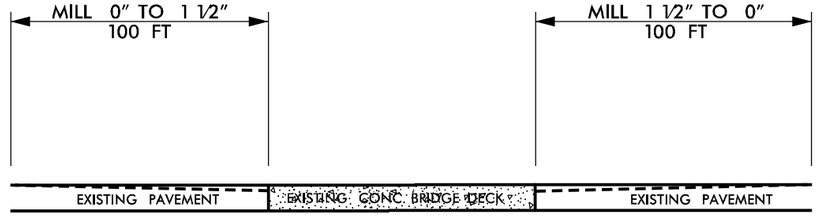
PATCHING EXISTING PAVEMENT



MILL EXISTING ASPHALT PAVEMENT AND REMOVE
EXISTING LOOSE BASE AND/OR SUBGRADE MATERIAL AND REPLACE WITH ACIC TYPE, I19.0X AND ACSC TYPE, S9.5X AS DIRECTED BY THE ENGINEER.

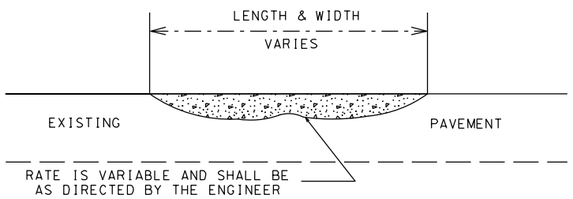
DETAIL C

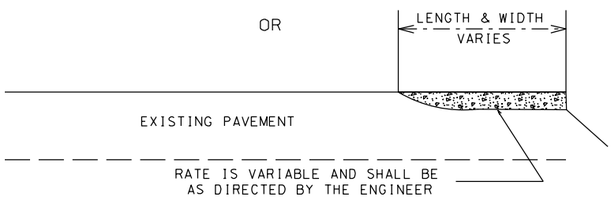
MILLING BRIDGE APPROACHES



DETAIL B

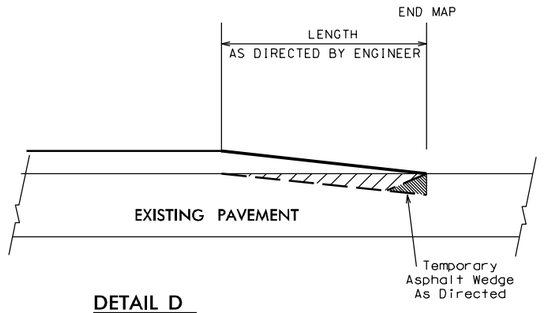
ASPHALT CONCRETE SURFACE COURSE
TYPE SF9.5A & S9.5B (LEVELING COURSE)

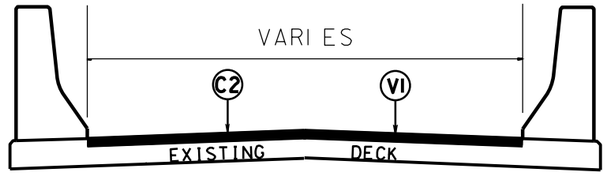




DETAIL D

TIE-IN (INCIDENTAL) MILLING DETAIL



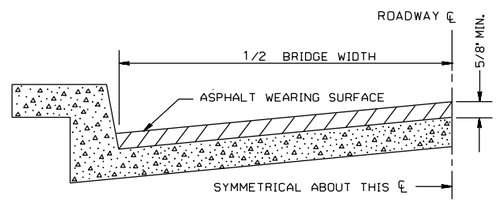


ASPHALT BRIDGE SECTION

Use for all asphalt bridges

DETAIL E

BRIDGE HALF TYPICAL SECTION



FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

NOTES

ALL UNPAVED S.R. ROADS TO BE SURFACED 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.
SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE NOTED.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V1	MILL EXISTING ASPHALT PAVEMENT APPROX. 1.5" IN DEPTH

2018-2019
Additional Resurfacing
Typical Sections
Iredell County

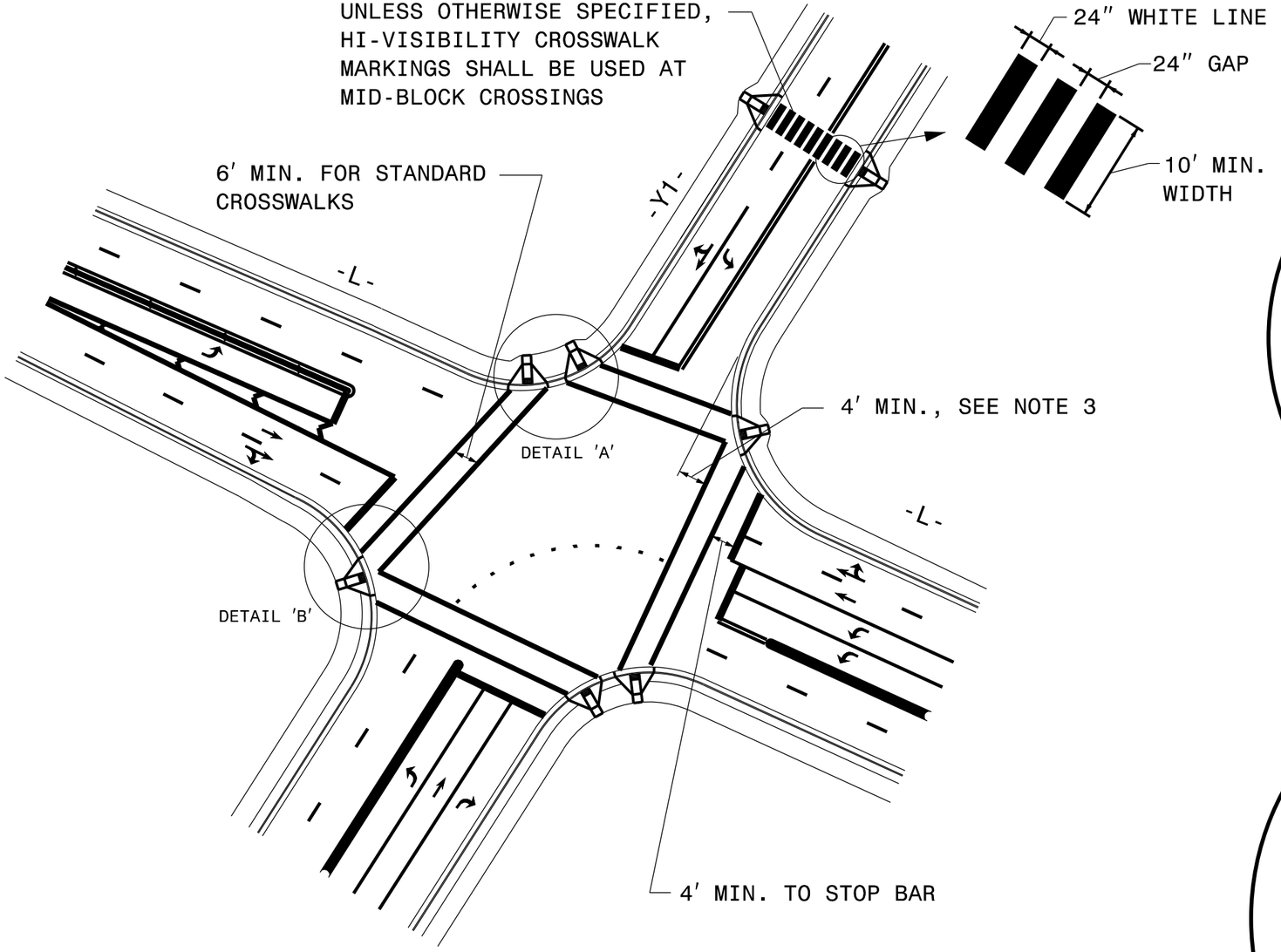
TIP NO.	SHEET NO.
2018CPT.12.04.20491	9

APPROVED:

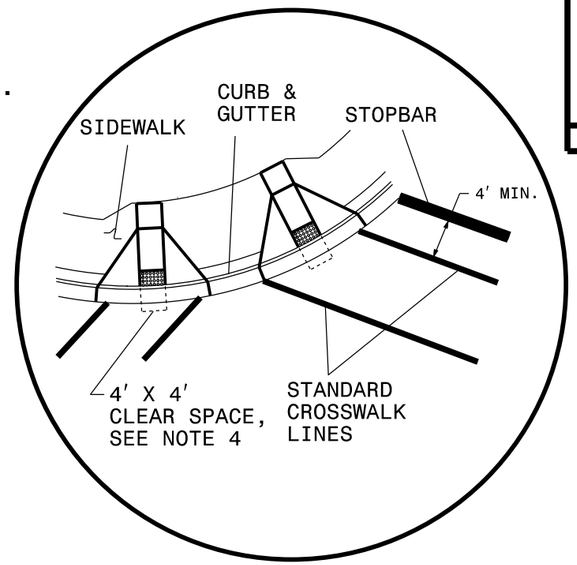
DATE:

SEAL

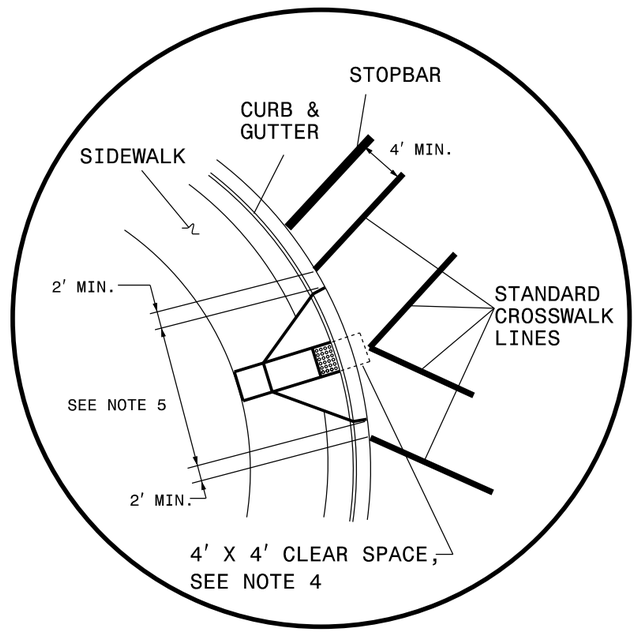
REVISIONS



GUIDANCE DETAIL FOR CROSSWALK MARKINGS



DETAIL 'A'- DUAL CURB RAMPS



DETAIL 'B'- SINGLE DIAGONAL CURB RAMP

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.

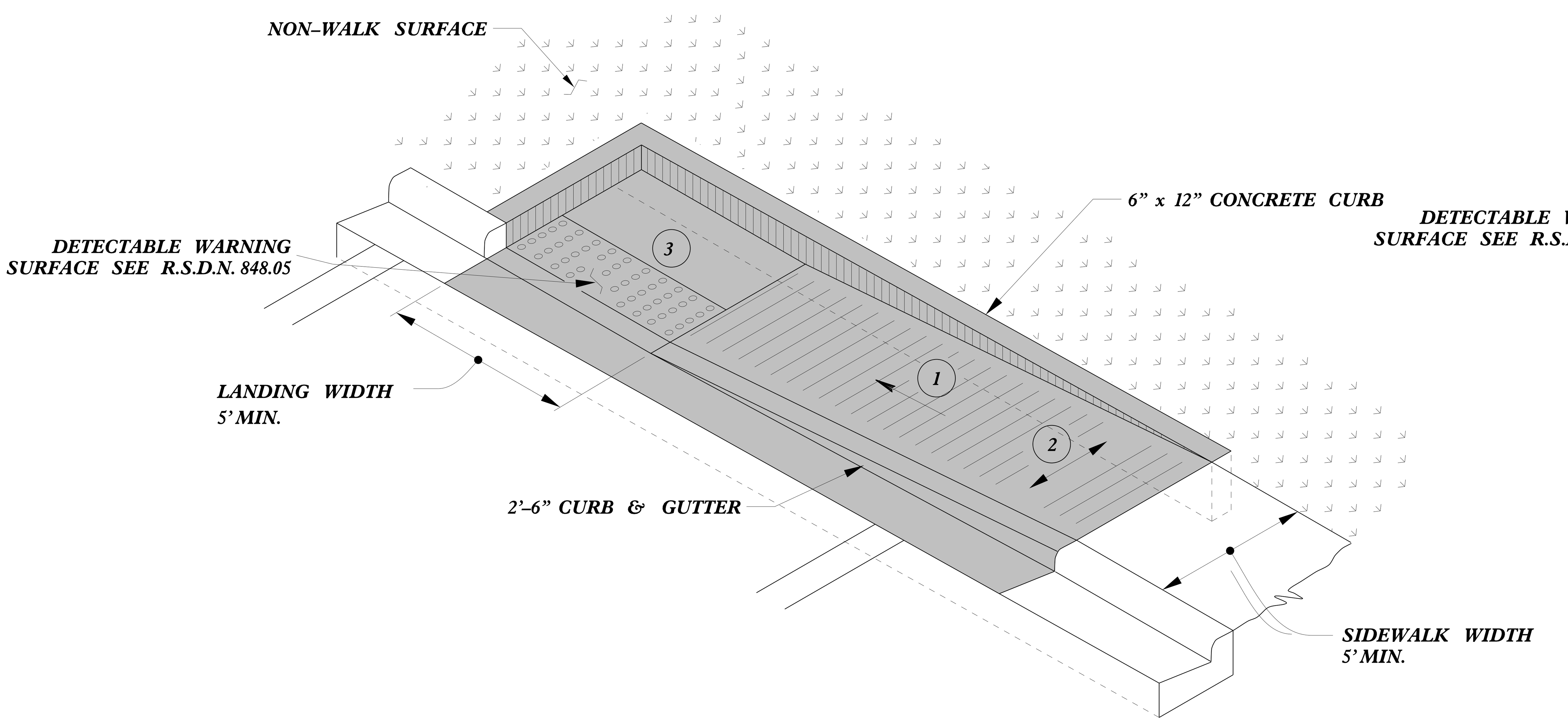
5. SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2 FEET LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.

6. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS.

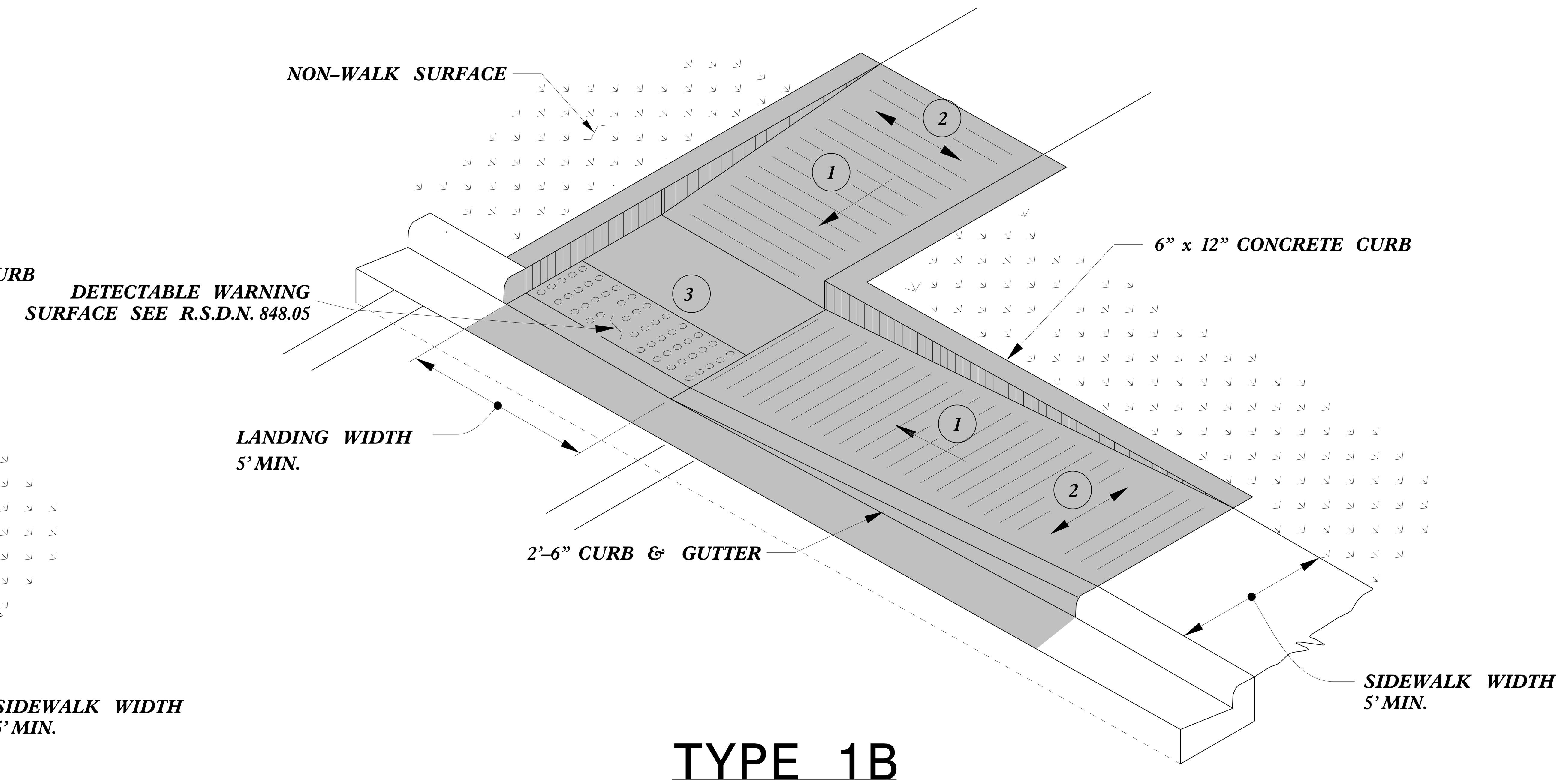
CROSSWALK PAVEMENT MARKING GUIDANCE DETAIL

$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

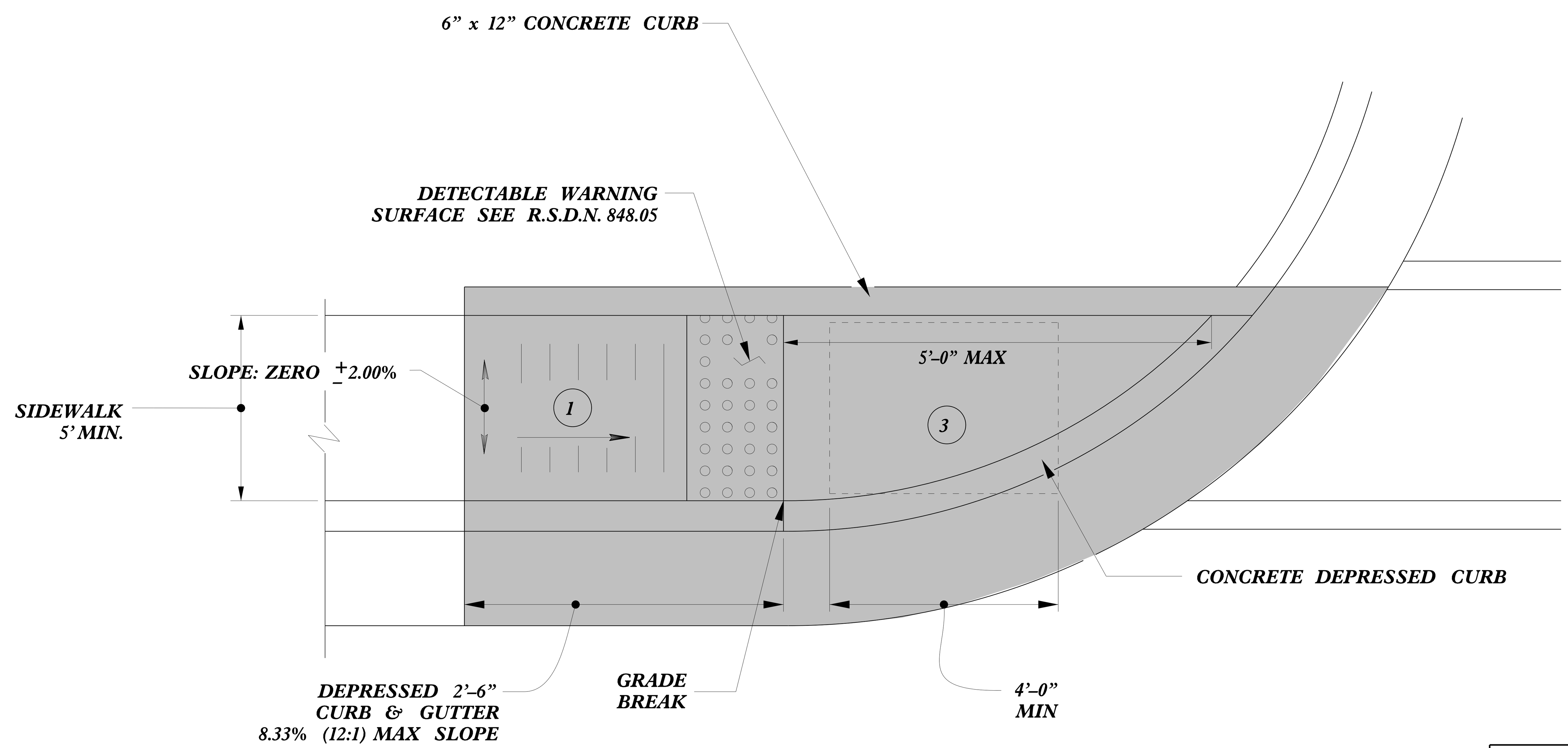
8/7/13



TYPE 1A



TYPE 1B



TYPE 1

PAY LIMITS FOR 1 CURB RAMP

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'–0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

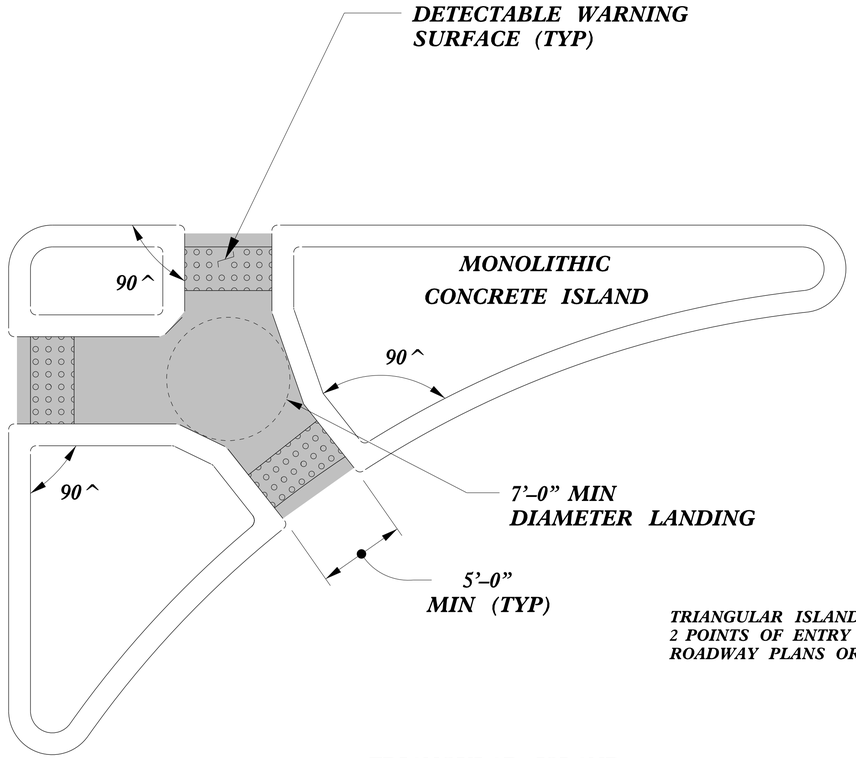
CURB RAMPS

Directional Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99

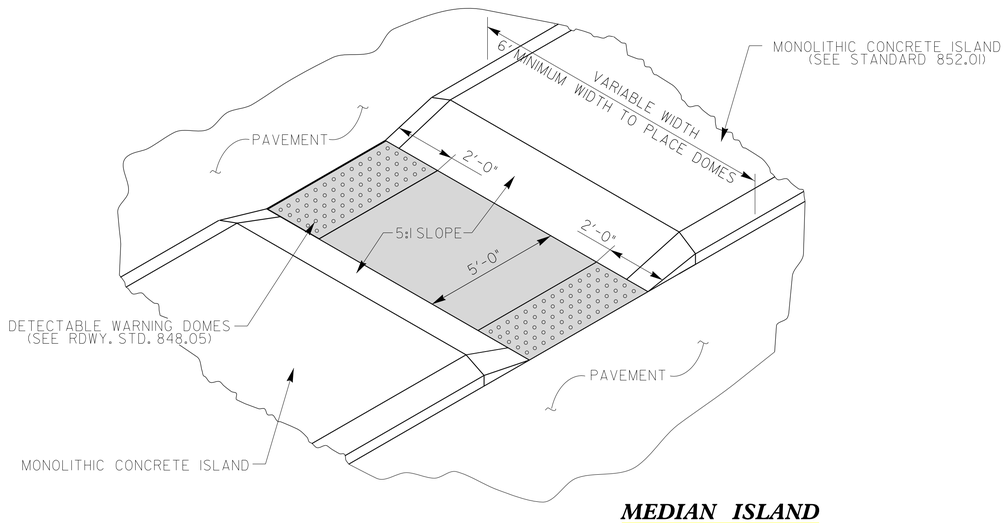
PROJECT REFERENCE NO.	SHEET NO.
2018CPT.12.04.20491	11



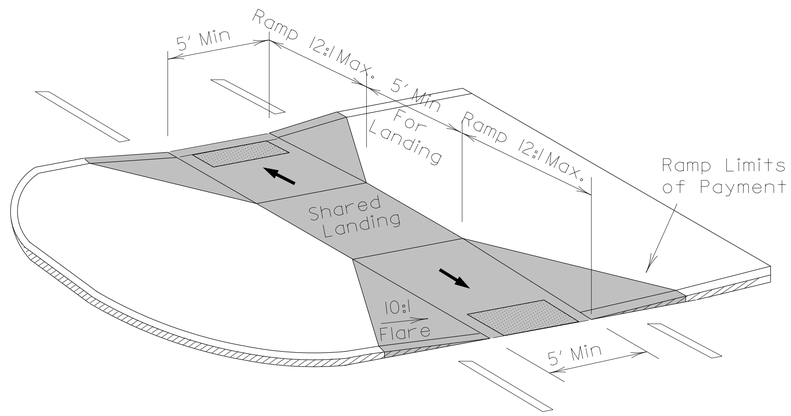
PAY LIMITS FOR 2 OR 3 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF TRUNCATED DOMES)

TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH



MEDIAN ISLAND WITH CUT THROUGH



MEDIAN ISLAND CURB RAMPS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

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

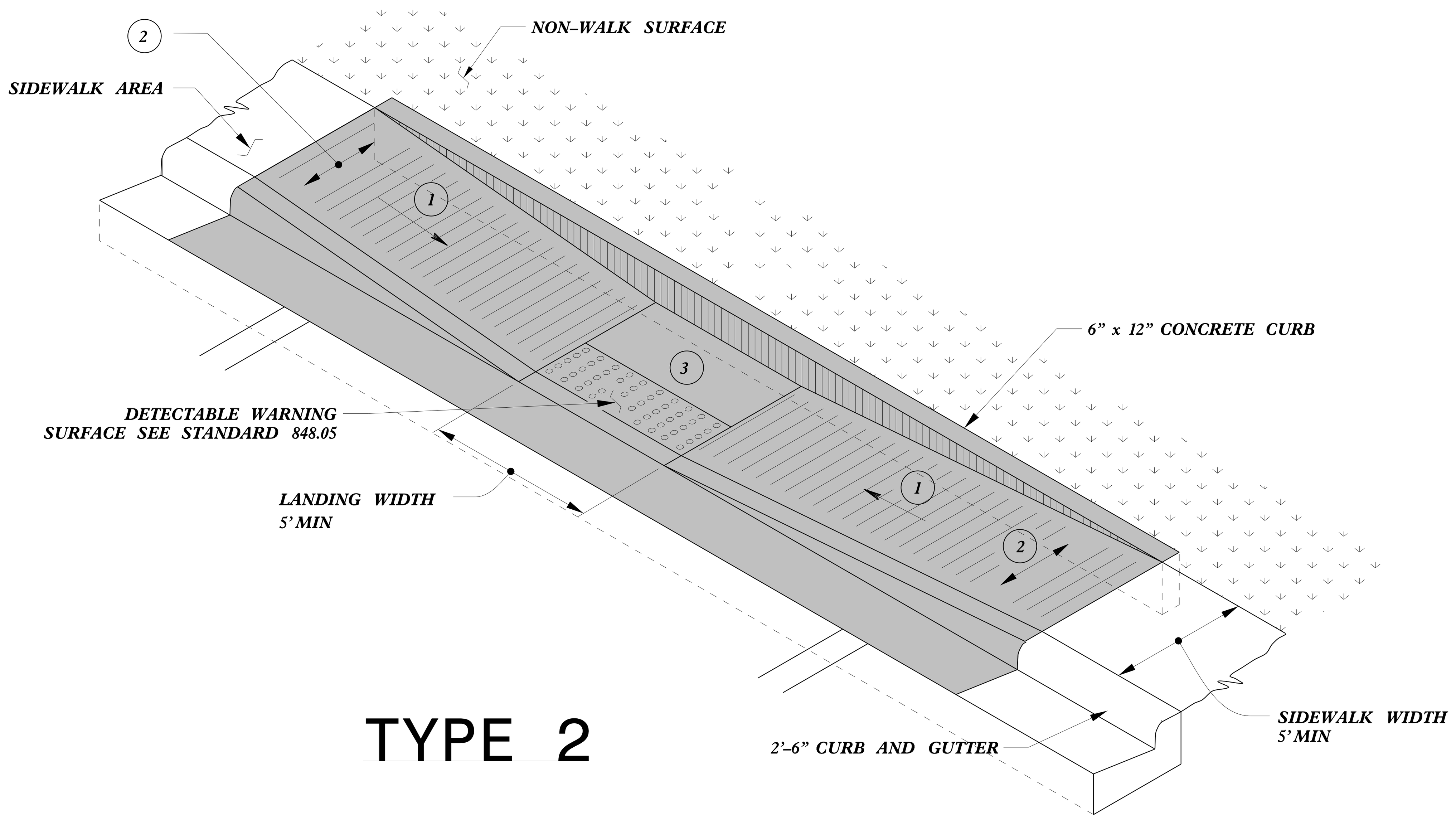
CURB RAMPS

Median or Turn Lane Islands

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC. stds/2012CurbRamp/CurbRampDetails.dgn

$$$$USERNAME$$$$ $$$$USERNAME$$$$ $$$$SYSTIME$$$$ $$$$SYSTIME$$$$

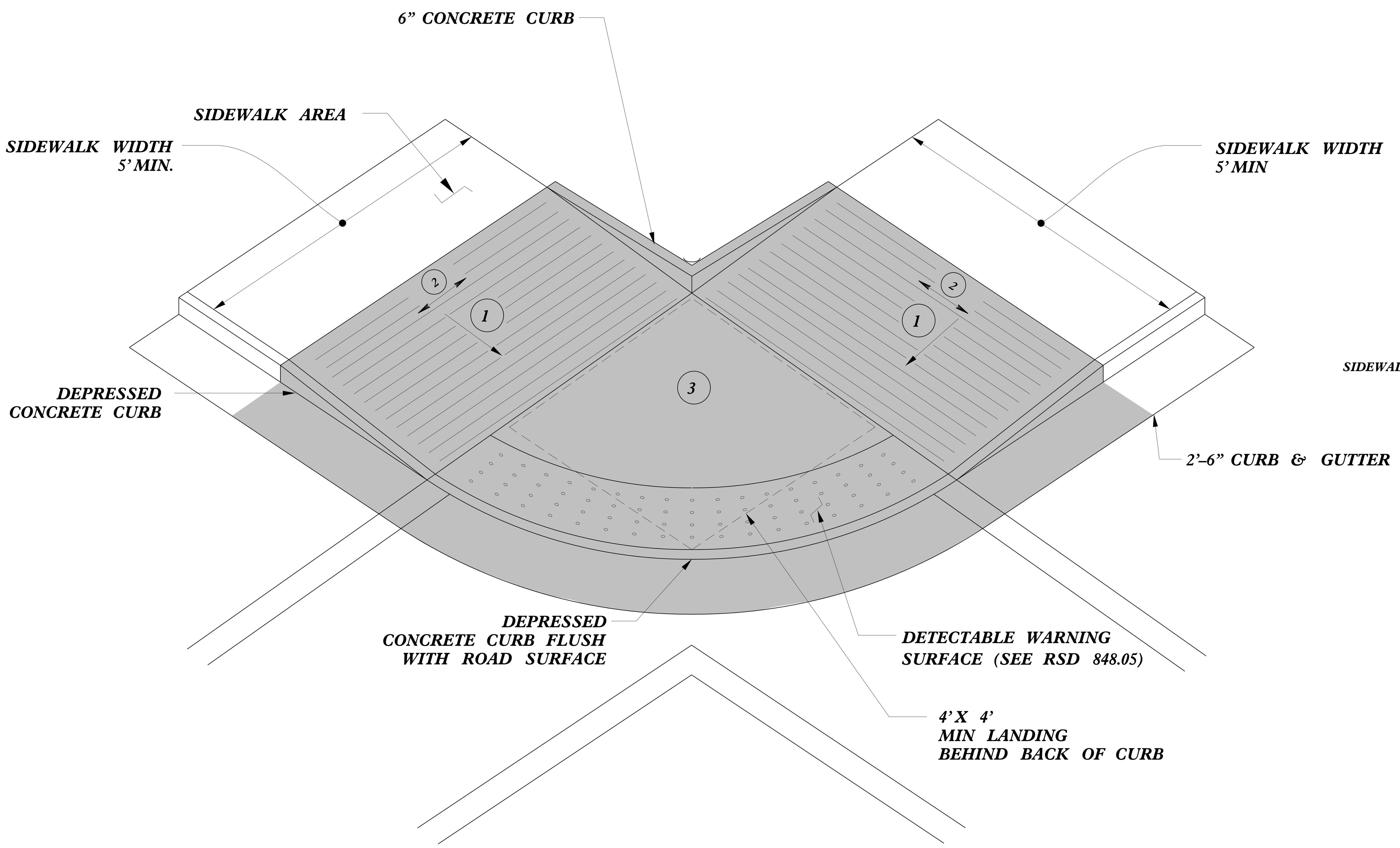
PROJECT REFERENCE NO.	SHEET NO.
2018CPT.12.04.20491	12



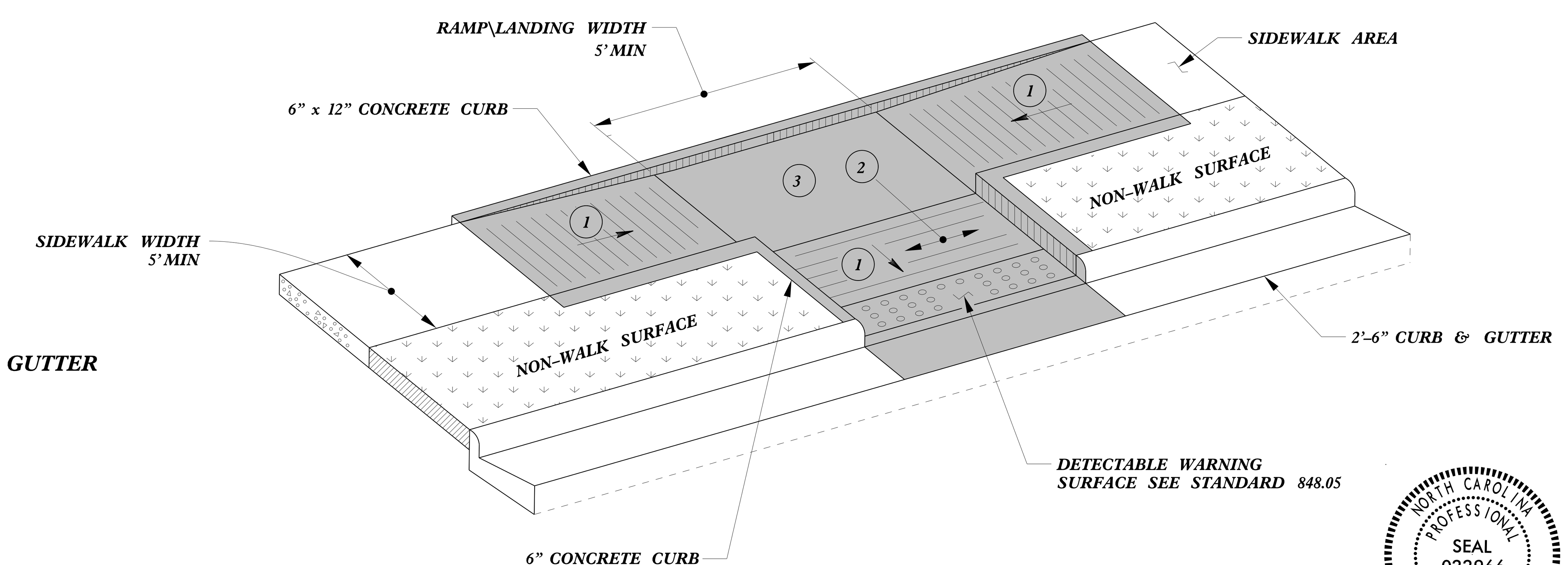
TYPE 2

PAY LIMITS FOR 1 CURB RAMP

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



TYPE 2A



TYPE 3

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022966 Joel S. Howerton

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

CURB RAMPS

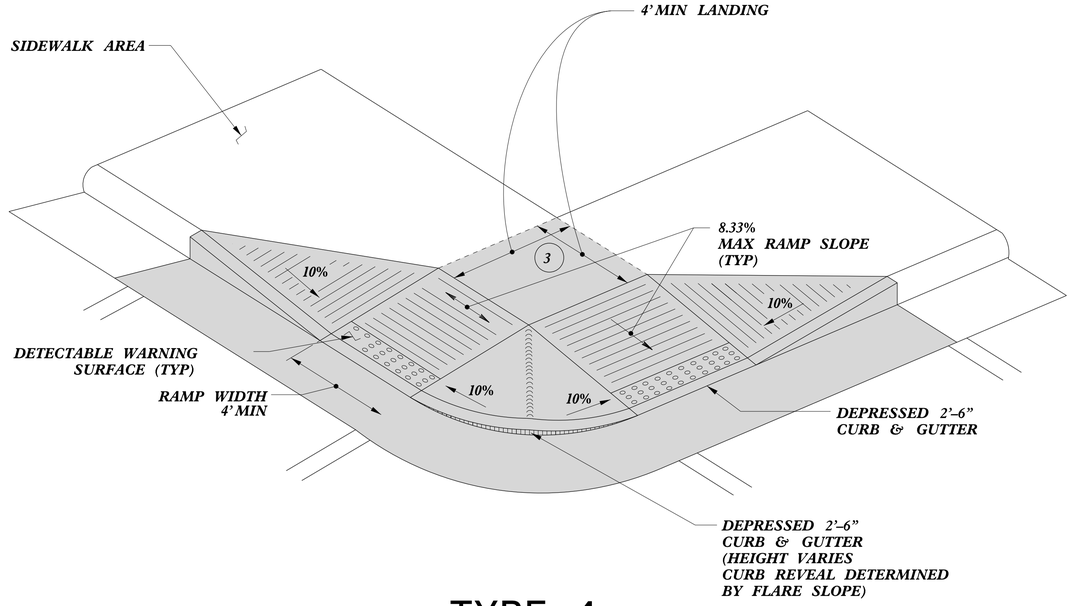
Parallel Ramps

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

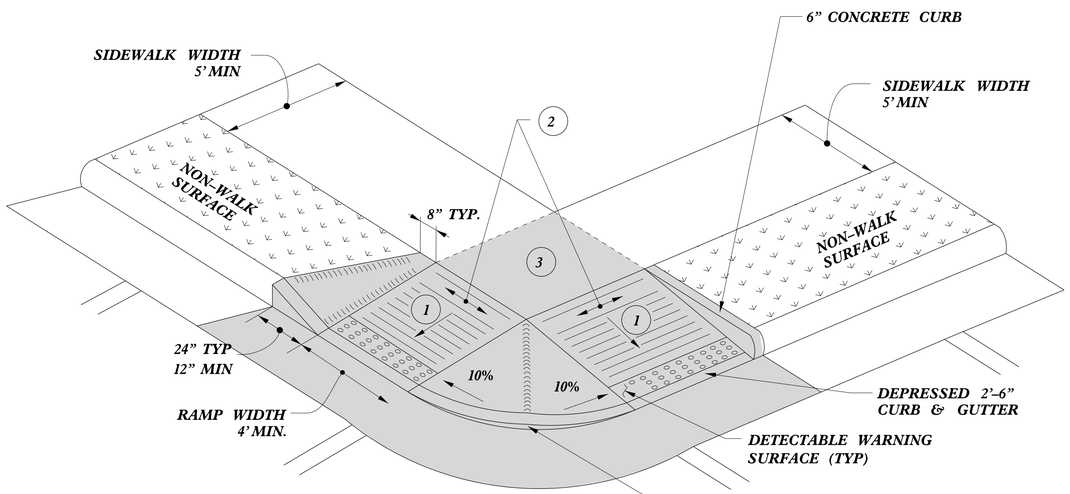
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
2018CPT.12.04.20491	13

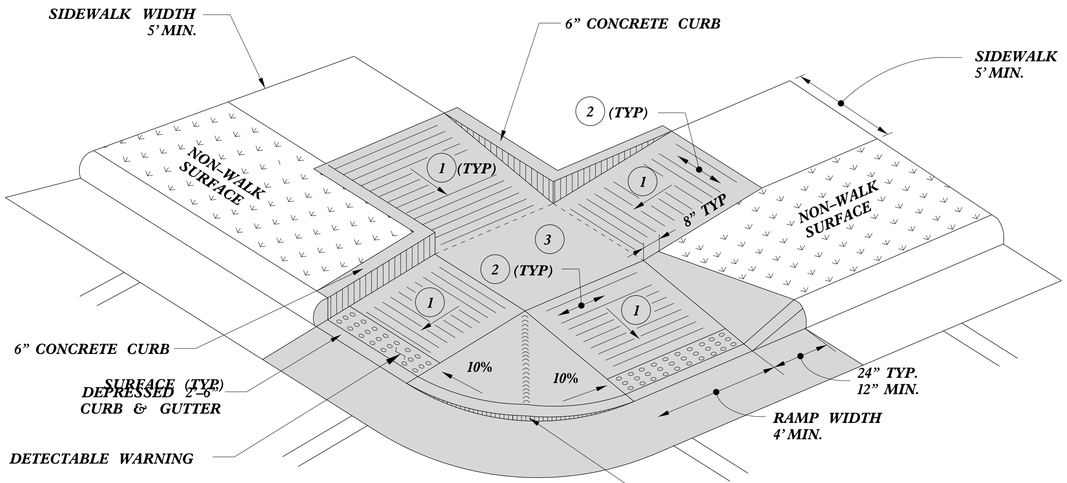


TYPE 4



TYPE 4A

PAY LIMITS FOR 2 CURB RAMPS



TYPE 5

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'–0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

CURB RAMPS

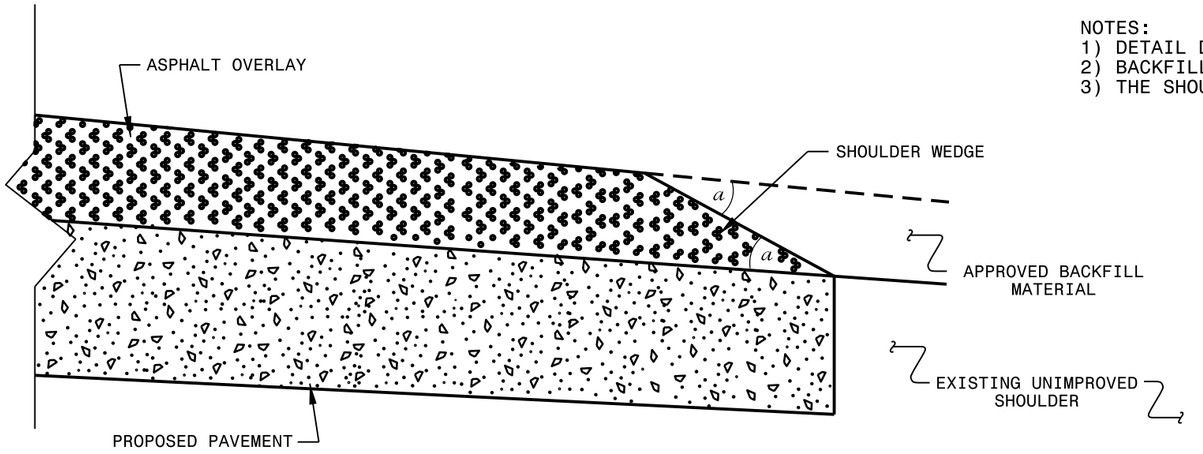
Shared Landing

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

$$$$USERNAME$$$$ $$$$SYSTIME$$$$ $$$$DGN$$$$

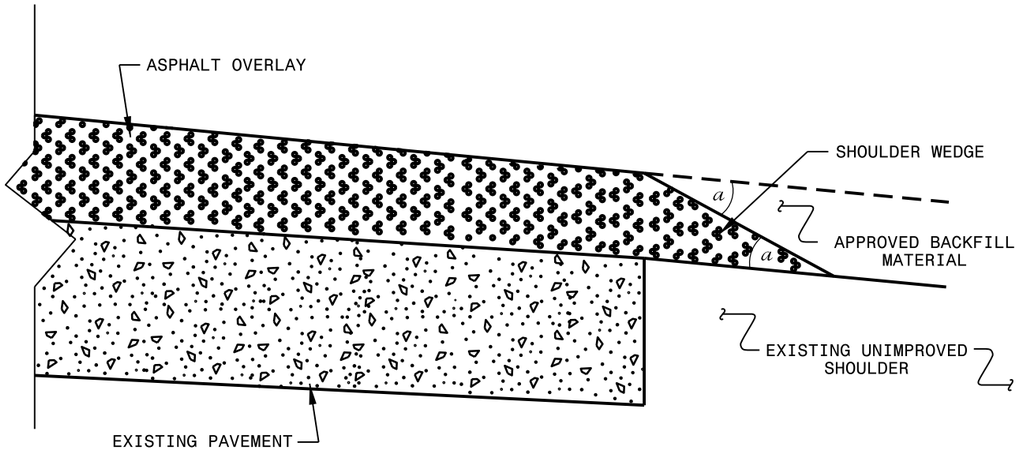
PROJECT REFERENCE NO.	SHEET NO.
2018CPT.12.04.20491	14

NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC 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.



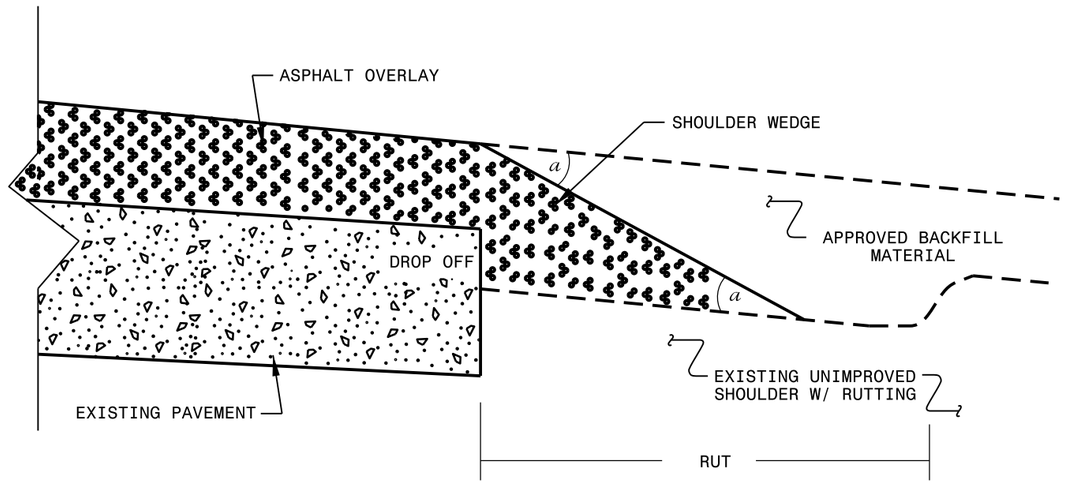
SHOULDER WEDGE DETAIL

(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		

$$$$$$SYSTIME$$$$$
$$$$$$USERNAME$$$$$DGN$$$$$$$$$$$$$$$$$$$$

PROJECT NO.	PAGE NO.
2018CPT.12.04.20491	15

SUMMARY OF QUANTITIES

													0255000000-E	1220000000-E	1245000000-E	1297000000-E	1308000000-E	1330000000-E	1519000000-E	1520000000-E	1525000000-E	1525100000-E	1575000000-E	1704000000-E	2600000000-N	2605000000-N	2830000000-N	2845000000-N	5255000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH		AGGREGATE SHOULDER BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	1½" MILLING	0" TO 1.5" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	LEVELING COURSE, S9.5B	SURFACE COURSE, SF9.5A	LEVELING COURSE, SF9.5A	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	RETROFIT EXISTING CURB RAMP	CONCRETE CURB RAMP	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX	PORTABLE LIGHTING
										MI	FT		TON	TONS	SMI	SY	SY	SY	TONS	TONS	TONS	TON	TONS	TONS	EA	EA	EA	EA	LS
2018CPT.12.04.20491	Iredell	1	SR 2120 (POWELL BRIDGE RD.)	FROM US 21 TO SR 2105 (TURKEYFOOT RD.)	1	2		NO	NO	4.13	19		661	205	8.26	375	430	60	4,254	1,000			320	850					
2018CPT.12.04.20491	Iredell	2	SR 2134 (ALEXANDER FARM RD.)	FROM US 21 TO DEAD END	1	2		NO	NO	0.519	20		85	26	1.04			20	563	20			35	150				1	
2018CPT.12.04.20491	Iredell	3	SR 1955 (E. EDISON DR.)	FROM SR 1922 (SHUMAKER DR.) TO US 21	1	2		NO	NO	0.391	20		65	20	0.78			60	424	150			35	15				2	
2018CPT.12.04.20491	Iredell	4	SR 1930 (FORT DOBBS RD.)	FROM SR 1907 (S. CHIPPLEY FORD RD.) TO US 21	1	2		NO	NO	1.93	22		310	100	3.86	250	500	300	2,302	820			191	200				1	
2018CPT.12.04.20491	Iredell	5	SR 1006 (ISLAND FORD RD.)	FROM SR 1005 (OLD MTN. RD.) TO US 64	1	2		NO	NO	4.055	VARS. 20-36		650	225	8.11		1,900	260	5,000	1,500			398	550			3	1	
2018CPT.12.04.20491	Iredell	6	SR 2550 (DELLWOOD DR.)	FROM US 70 TO DEAD END	2	2		NO	NO	0.149	18			15							150	15	11	50					
2018CPT.12.04.20491	Iredell	7	SR 1324 (TALLEY RD.)	FROM US 21 TO SR 1328 (EAST MONBO RD.)	1	2		NO	NO	2.125	20		350	100	4.25	160	450	80	2,300	300			158	650			8	6	
2018CPT.12.04.20491	Iredell	8	SR 1303 (PERTH RD.)	FROM 0.4 MILES NORTH OF SR 1318 (AUTUMN LEAF RD.) TO NC 150	1	2		NO	NO	6.667	VARS. 22-36		1,100	400	13.33		1,075	7,000	8,750	2,500			688	2,000				3	1
2018CPT.12.04.20491	Iredell	9	SR 1448 (HONEYDEW CIRCLE)	FROM SR 1447 (STILLWATER RD.) TO END OF LOOP	3	2		NO	NO	0.455	18		75	25	0.91			20			300	445	47	40					
2018CPT.12.04.20491	Iredell	10	SR 1300 (FERN HILL RD.)	FROM SR 1303 (PERTH RD.) TO DEAD END	1	2		NO	NO	3.403	20		550	175	6.81			350	3,700	425			250	375					
2018CPT.12.04.20491	Iredell	11	SR 1001 (OSWALT AMITY RD.)	FROM SR 2359 (BETHESDA RD.) THE US 21	1	2		NO	NO	3.959	20		650	200	7.92			200	4,300	100			265	425					
2018CPT.12.04.20491	Iredell	12	SR 1100 (BRAWLEY SCHOOL RD.)	ROUNDABOUT ONLY	4	2		NO	NO	0.165	30					4,000			275	5			17	10	5	3			
2018CPT.12.04.20491	Iredell	13	SR 1100 (BRAWLEY SCHOOL RD.)	FROM BEGIN MAINT. TO ROUNDABOUT	1 4	2		NO	NO	2.661	VARS. 20-36		95	30	1.18	52,800			4,325	20			261	150	2	1			
TOTAL FOR PROJ NO. 2018CPT.12.04.20491										**30.609**			**4,591**	**1,521**	**56.45**	**57,585**	**4,355**	**8,350**	**36,193**	**6,840**	**450**	**460**	**2,676**	**5,465**	**7**	**4**	**11**	**14**	**1**
GRAND TOTAL										**30.609**			**4,591**	**1,521**	**56.45**	**57,585**	**4,355**	**8,350**	**36,193**	**6,840**	**450**	**460**	**2,676**	**5,465**	**7**	**4**	**11**	**14**	**1**

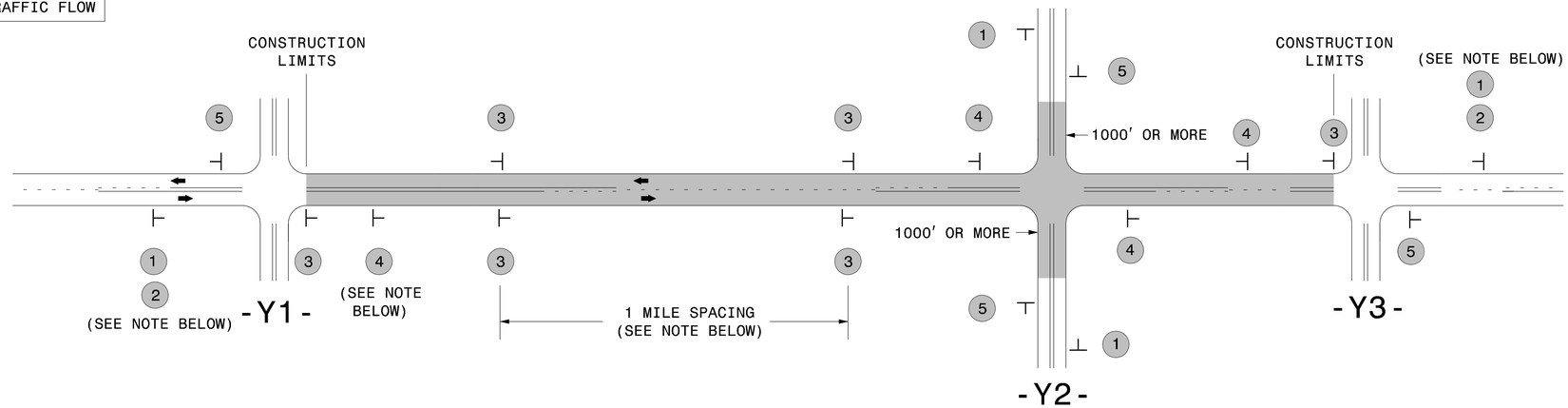
THERMOPLASTIC AND PAINT QUANTITIES

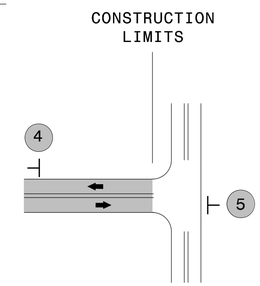
										4413000000-E	4457000000-N	4695000000-E		4697000000-E	4710000000-E	4721000000-E	4725000000-E					4810000000-E		4847000000-E		4850000000-E	4905000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	WZ ADVANCE/ GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	8" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	8" x 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO MSG SCHOOL 120 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO STR & LT ARROW 90 M	4" WHITE PAINT	4" YELLOW PAINT	4" WHITE POLYUREA (HIGHLY REFLECTIVE	4" YELLOW POLYUREA (HIGHLY REFLECTIVE	4" LINE REMOVAL	SNOW PLOWABLE MARKERS
2018CPT.12.04.20491	Iredell	1	SR 2120 (POWELL BRIDGE RD.)	FROM US 21 TO SR 2105 (TURKEYFOOT RD.)	1	2		4.13	19	465	*										87,226	87,226				
2018CPT.12.04.20491	Iredell	2	SR 2134 (ALEXANDER FARM RD.)	FROM US 21 TO DEAD END	1	2		0.519	20	60	*															
2018CPT.12.04.20491	Iredell	3	SR 1955 (E. EDISON DR.)	FROM SR 1922 (SHUMAKER DR.) TO US 21	1	2		0.391	20	45	*										8,258	8,258				
2018CPT.12.04.20491	Iredell	4	SR 1930 (FORT DOBBS RD.)	FROM SR 1907 (S. CHIPPLEY FORD RD.) TO US 21	1	2		1.93	22	225	*												20,381	20,381		
2018CPT.12.04.20491	Iredell	5	SR 1006 (ISLAND FORD RD.)	FROM SR 1005 (OLD MTN. RD.) TO US 64	1	2		4.055	VARS. 20-36	460	*					144	12	5	2	1			42,821	42,821		
2018CPT.12.04.20491	Iredell	6	SR 2550 (DELLWOOD DR.)	FROM US 70 TO DEAD END	2	2		0.149	18	20	*															
2018CPT.12.04.20491	Iredell	7	SR 1324 (TALLEY RD.)	FROM US 21 TO SR 1328 (EAST MONBO RD.)	1	2		2.125	20	240	*												22,440	22,440		
2018CPT.12.04.20491	Iredell	8	SR 1303 (PERTH RD.)	FROM 0.4 MILES NORTH OF SR 1318 (AUTUMN LEAF RD.) TO NC 150	1	2		6.667	VARS. 22-36	750	*	350			275	12	18	9	1	2			71,000	71,000	1,800	500
2018CPT.12.04.20491	Iredell	9	SR 1448 (HONEYDEW CIRCLE)	FROM SR 1447 (STILLWATER RD.) TO END OF LOOP	3	2		0.455	18	55	*															
2018CPT.12.04.20491	Iredell	10	SR 1300 (FERN HILL RD.)	FROM SR 1303 (PERTH RD.) TO DEAD END	1	2		3.403	20	385	*												36,000	36,000		
2018CPT.12.04.20491	Iredell	11	SR 1001 (OSWALT AMITY RD.)	FROM SR 2359 (BETHESDA RD.) THE US 21	1	2		3.959	20	445	*												41,810	41,810		
2018CPT.12.04.20491	Iredell	12	SR 1100 (BRAWLEY SCHOOL RD.)	ROUNDABOUT ONLY	4	2		0.165	30	20	*		60										400	600		20
2018CPT.12.04.20491	Iredell	13	SR 1100 (BRAWLEY SCHOOL RD.)	FROM BEGIN MAINT. TO ROUNDABOUT	1 4	2		2.661	VARS. 20-36	300	*			60									6,245	28,100		180
TOTAL FOR PROJ NO. 2018CPT.12.04.20491								**30.609**		**3,470**	*	**350**	**60**	**60**	**419**	**24**	**23**	**11**	**2**	**2**	**95,484**	**95,484**	**241,097**	**263,152**	**1,800**	**700**
												410					**38**				**190,968**		**504,249**			
GRAND TOTAL								**30.609**		**3,470**	**1**	**350**	**60**	**60**	**419**	**24**	**23**	**11**	**2**	**2**	**95,484**	**95,484**	**241,097**	**263,152**	**1,800**	**700**
												410					**38**				**190,968**		**504,249**			

PROJ. REFERENCE NO.	SHEET NO.
2018CPT.12.04.20491	16

SIGNING FOR RESURFACING PROJECTS

LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW





TEE INTERSECTION

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — ROAD WORK AHEAD — W20-1, 48″ X 48″
2 — NEXT XX MILES — W7-3aP, 24″ X 18″

PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS.
ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.

#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 — LOW/SOFT SHOULDER — SP 13107, 48″ X 48″

- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.
- AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.

4 — ROAD UNDER CONST — 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.
- FOR TEE INTERSECTIONS, INSTALL WITHIN 500′ +/- OF THE INTERSECTION ALONG -L- LINE.

5 — END ROAD WORK — G20-2 A, 48″ X 24″

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.

-Y- LINE SIGNING

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, PORTABLE ADVANCE WARNING 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.

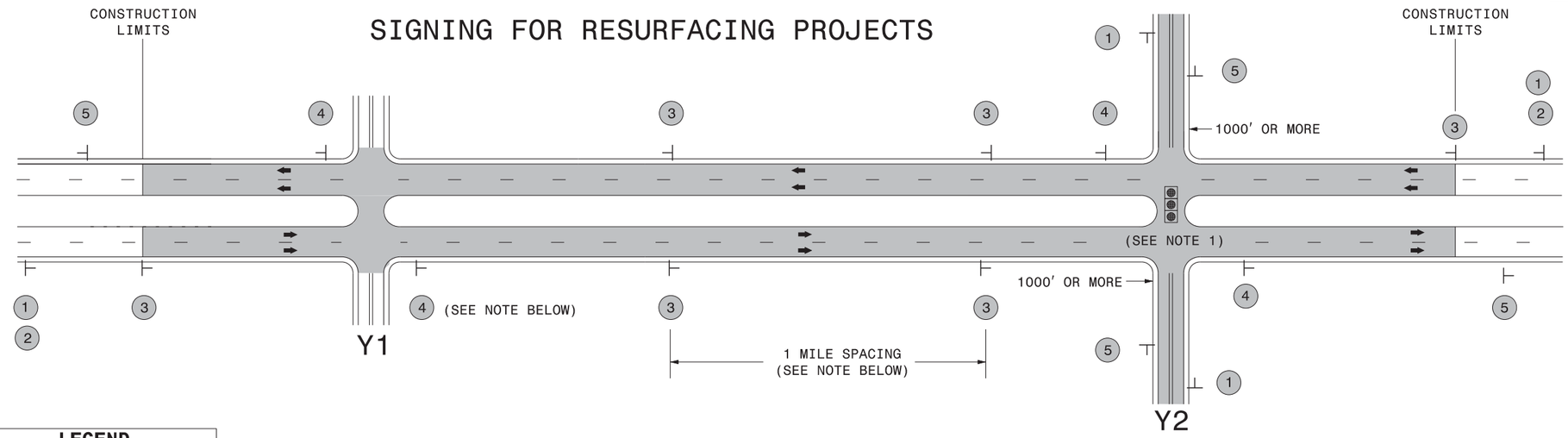
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

5/15/2017
SATMU\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn
User:kedavis

PROJ. REFERENCE NO.	SHEET NO.
2018CPT.12.04.20491	17

SIGNING FOR RESURFACING PROJECTS



LEGEND

⊢ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1	ROAD WORK AHEAD 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.
2	NEXT XX MILES 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	LOW/SOFT SHOULDER 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 ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.
4	ROAD UNDER CONST 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	END ROAD WORK G20-2 A 48″ X 24″	PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

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.

ROAD WORK AHEAD W20-1 48″ X 48″ — PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A 48″ X 48″ — 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.

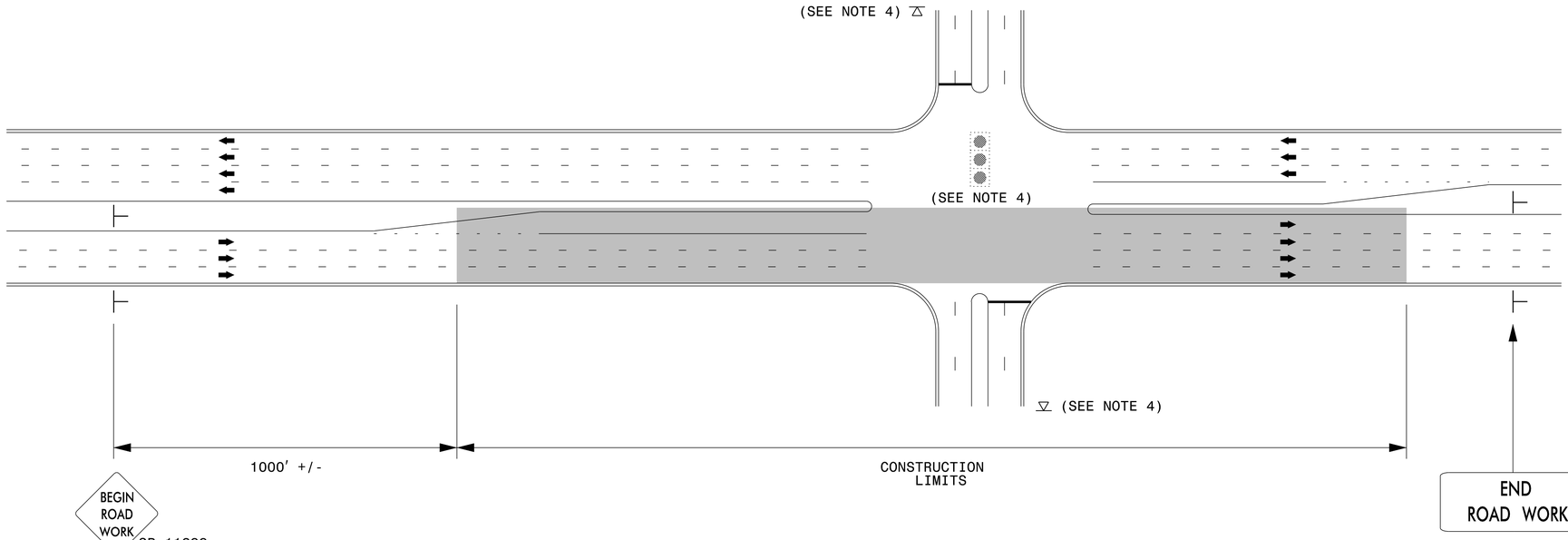
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING
ADVANCE WARNING SIGNS
FOR RURAL AND SUBURBAN
MULTI-LANE ROADWAYS
W/ SHOULDER SECTIONS

3/23/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu_Shldr.dgn
User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
2018CPT.12.04.20491	18

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

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

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