# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION 6

# **PLANS**

LETTING DATE: MAY 15, 2019

**CONTRACT ID: DF00255** 

TIP NO.: R-5786EA & R-5786EB

FEDERAL AID NO.: TAP-0620(054) & TAP-0620(055)

WBS ELEMENT NO.: 44916.3.10 & 44916.3.11

**ROUTE NO.: VARIOUS** 

**LOCATION: VARIOUS** 

**COUNTY: ROBESON** 

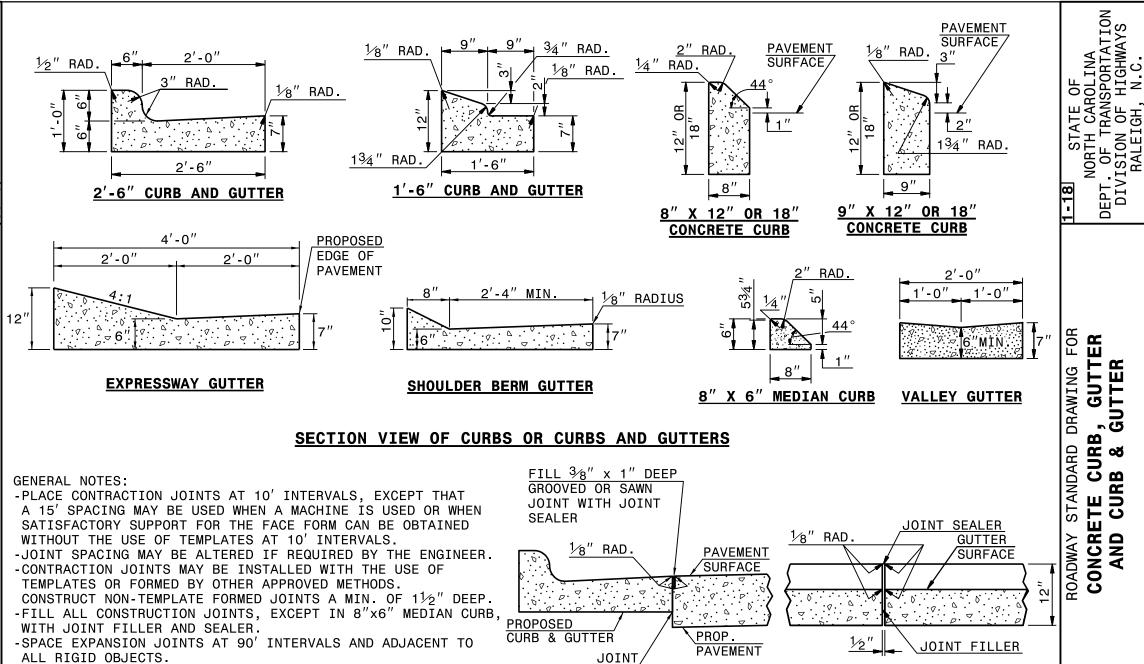
LENGTH OF PROJECT: VARIES

TYPE OF WORK: CONCRETE INSTALLATIONS

# 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.



LONGITUDINAL JOINT

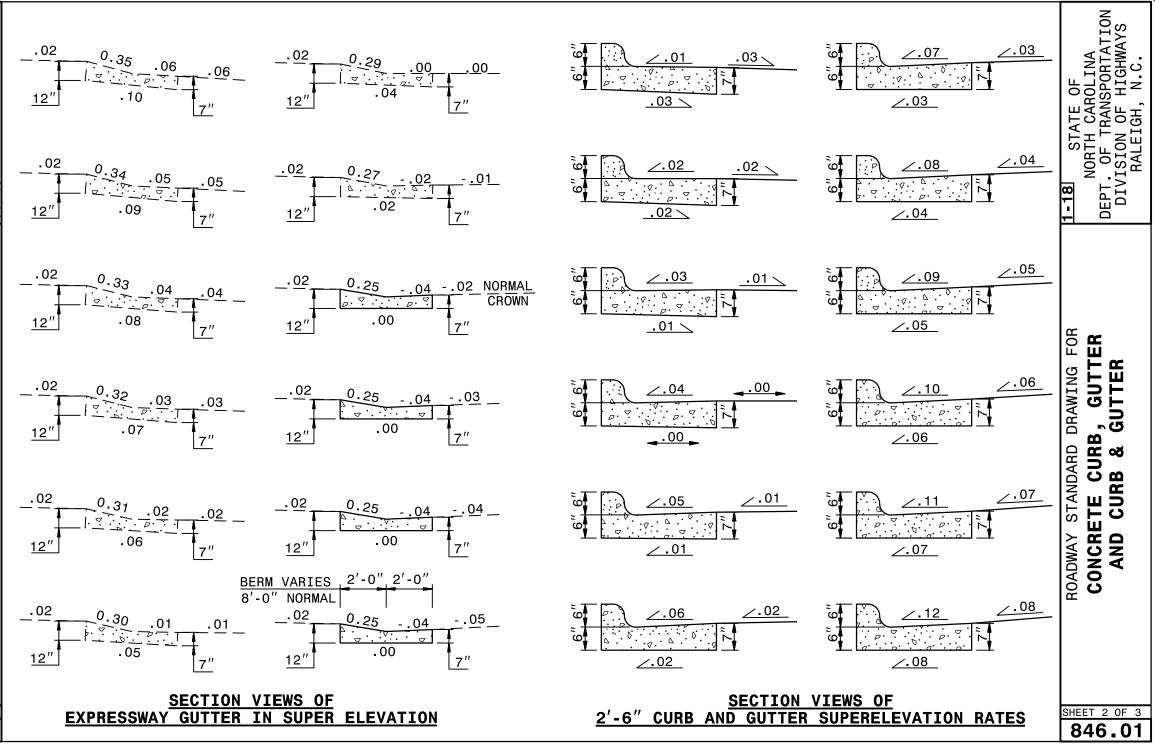
SECTION VIEW OF JOINTS

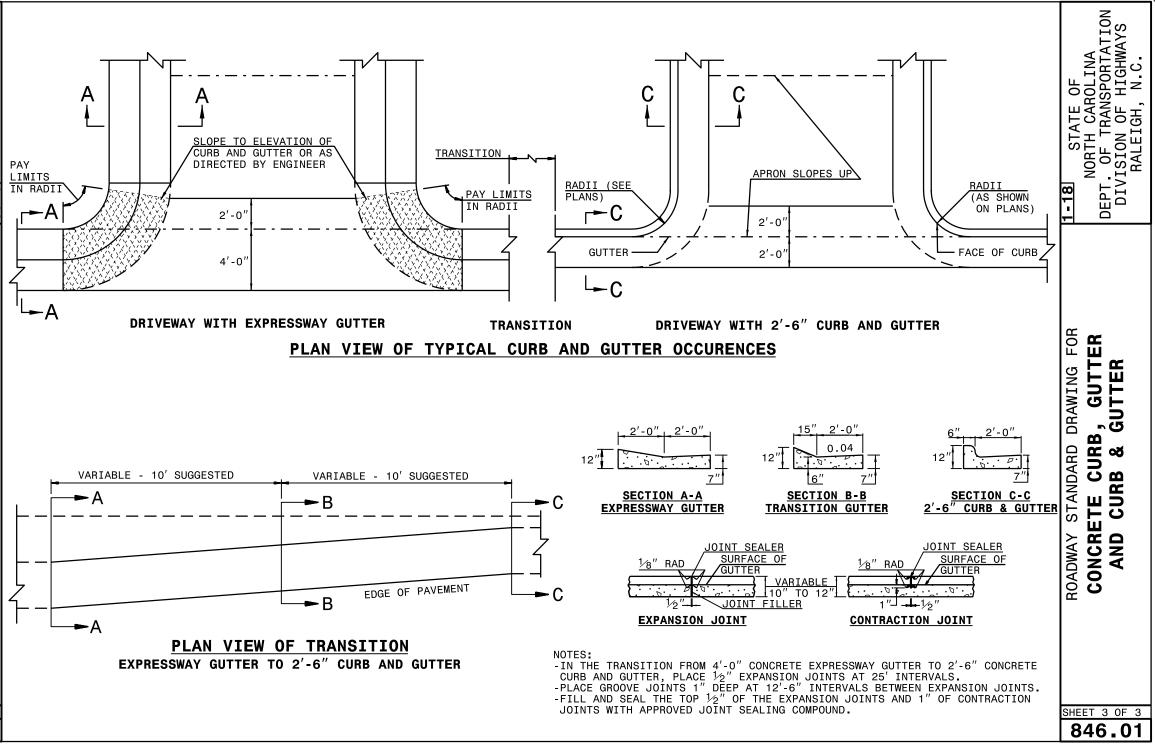
SHEET 1 OF 3

TRANSVERSE EXPANSION JOINT

IN CURB AND GUTTER

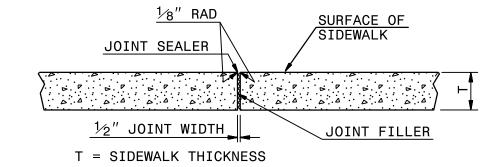
846.01



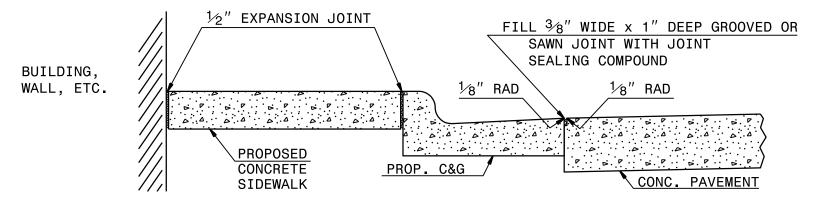


PLACE A GROOVE JOINT 1" DEEP WITH  $\frac{1}{8}$ " RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE  $\frac{1}{2}$ " EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A  $\frac{1}{2}$ " EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.05 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



TRANSVERSE EXPANSION JOINT
IN SIDEWALK

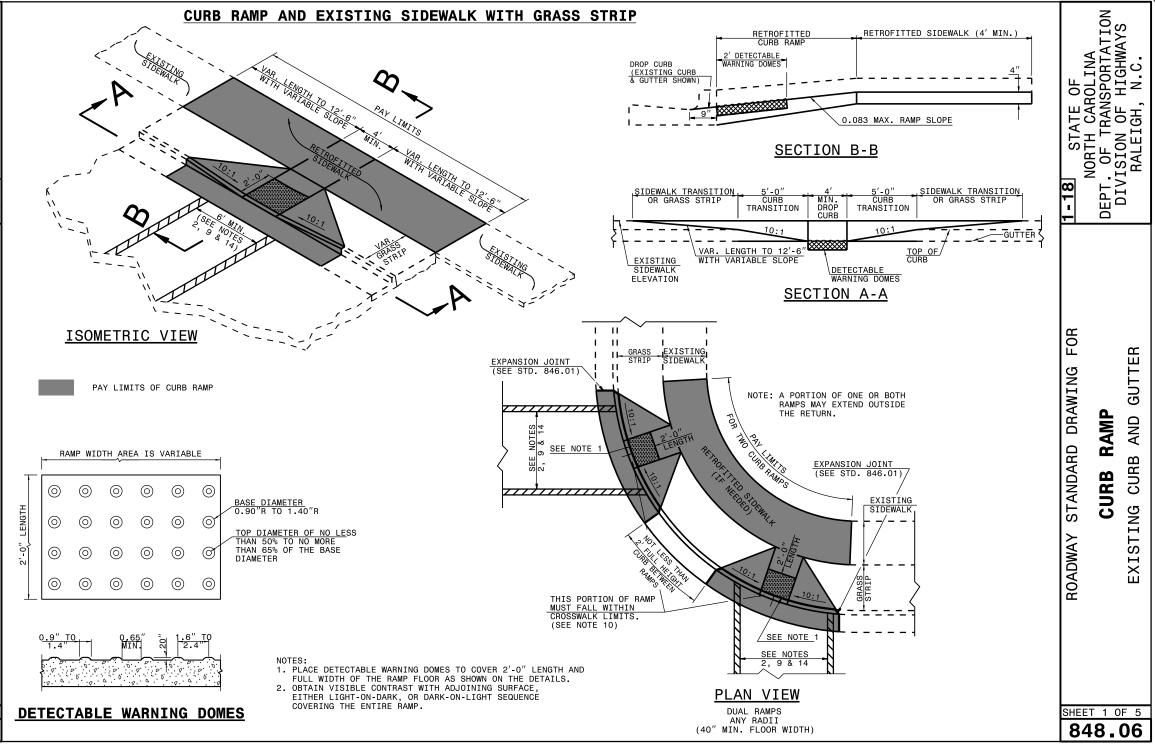


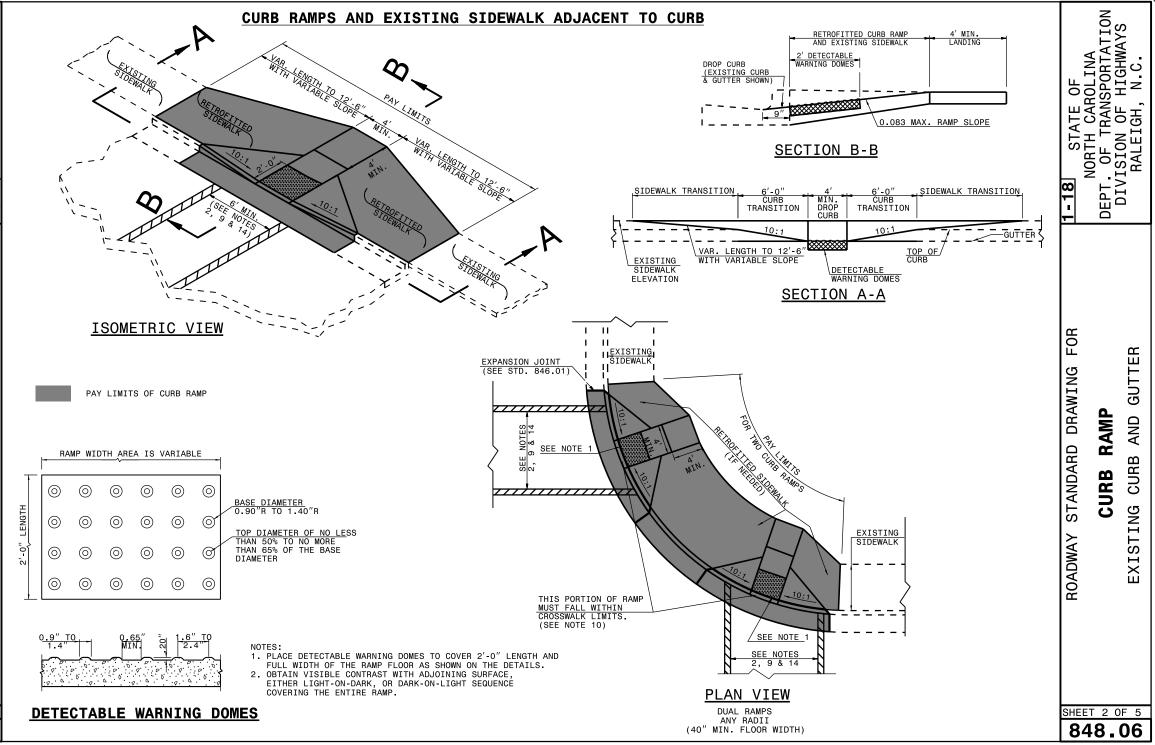
DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

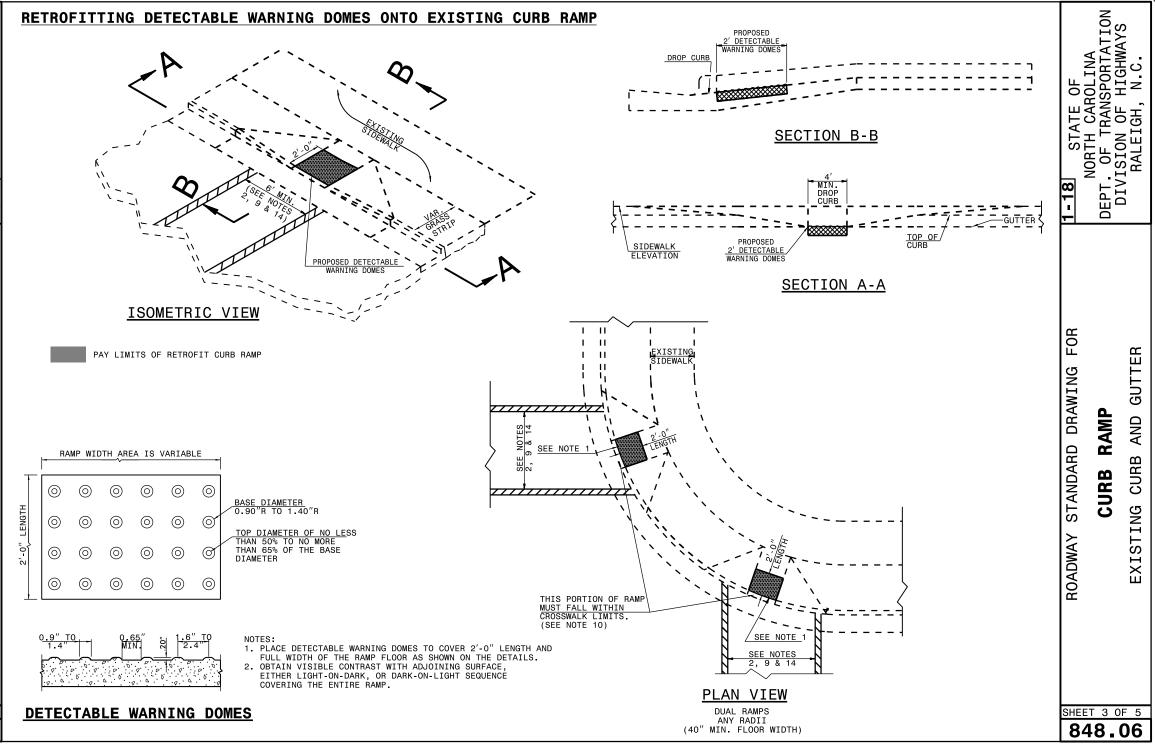
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTAT
DIVISION OF HIGHWA

SHEET 1 OF 1

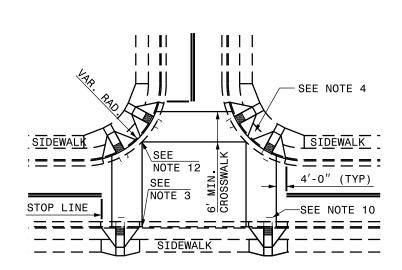
848.01



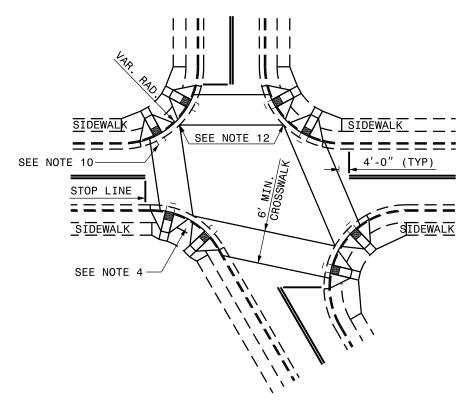




### **CURB RAMPS AND EXISTING SIDEWALK**



DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS,
PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES

### **RESURFACING PROJECTS**

PROPOSED CURB RAMP W/ LANDING FOR RESURFACING PROJECTS EXISTING SIDEWALK

ALLOWABLE LOCATIONS DUAL RAMP RADII.....ANY DEPT

GUTTER RAMP AND

FOR

STANDARD DRAWING

ROADWAY

EXISTING CURB CURB

SHEET 4 OF 5

848.06

### **CURB RAMP AND EXISTING SIDEWALK**

### NOTES:

- 1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT, CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
- 2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
- 3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4'x4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
- SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
- REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
- 6. TERMINATE PARKING A MINIMUM OF 20' BACK OF A PEDESTRIAN CROSSWALK.
- CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
- CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
- ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
- CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
- 11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
- 12. CONSTRUCT LANDINGS FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT LANDINGS FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
- 13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA. MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGHT THE ISLAND.
- 14. SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5'X5' LANDING AT THE TOP OF A RAMPS. WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
- 15. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
- 16. PLACE A  $1_2{''}$  EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01
- 17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
- 18. CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR THE DETAILS OR FOR A SPECIAL DESIGN.

 $\equiv$ DRAWING STANDARD

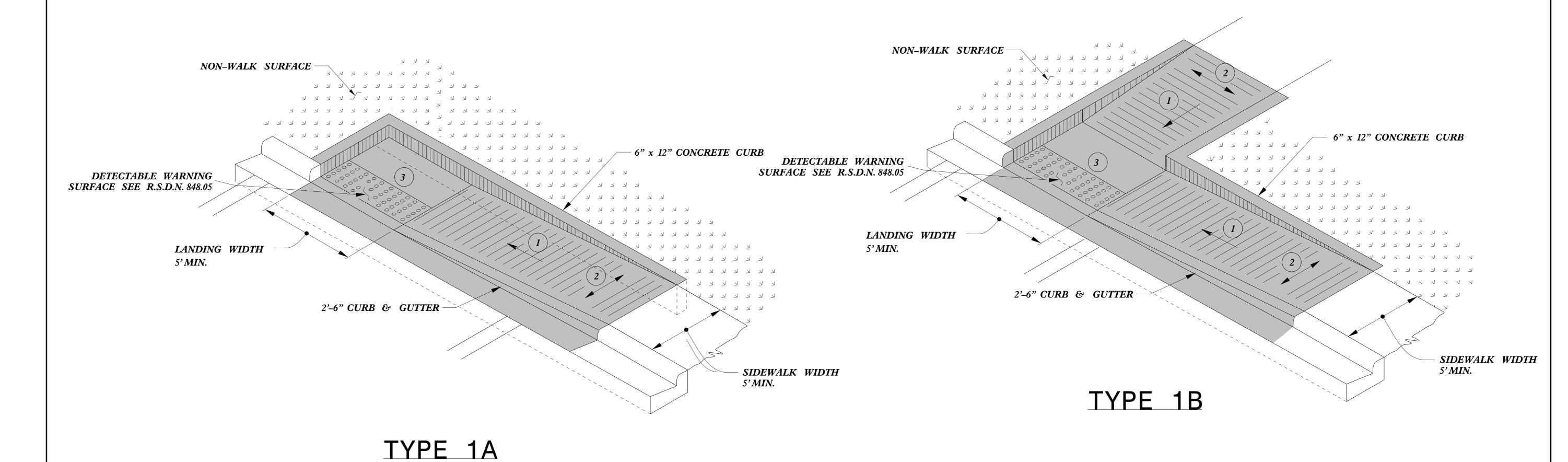
URB

AND

CUR

EXISTING

SHEET 5 OF 5



6" x 12" CONCRETE CURB DETECTABLE WARNING SURFACE SEE R.S.D.N. 848.05 5'-0" MAX **SLOPE: ZERO** +2.00% 0000 0000 **SIDEWALK** 3 0000 5'MIN. 0000 0000 0000 CONCRETE DEPRESSED CURB **GRADE** DEPRESSED 2'-6" **BREAK** CURB & GUTTER 8.33% (12:1) MAX SLOPE MIN

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.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL 022966

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

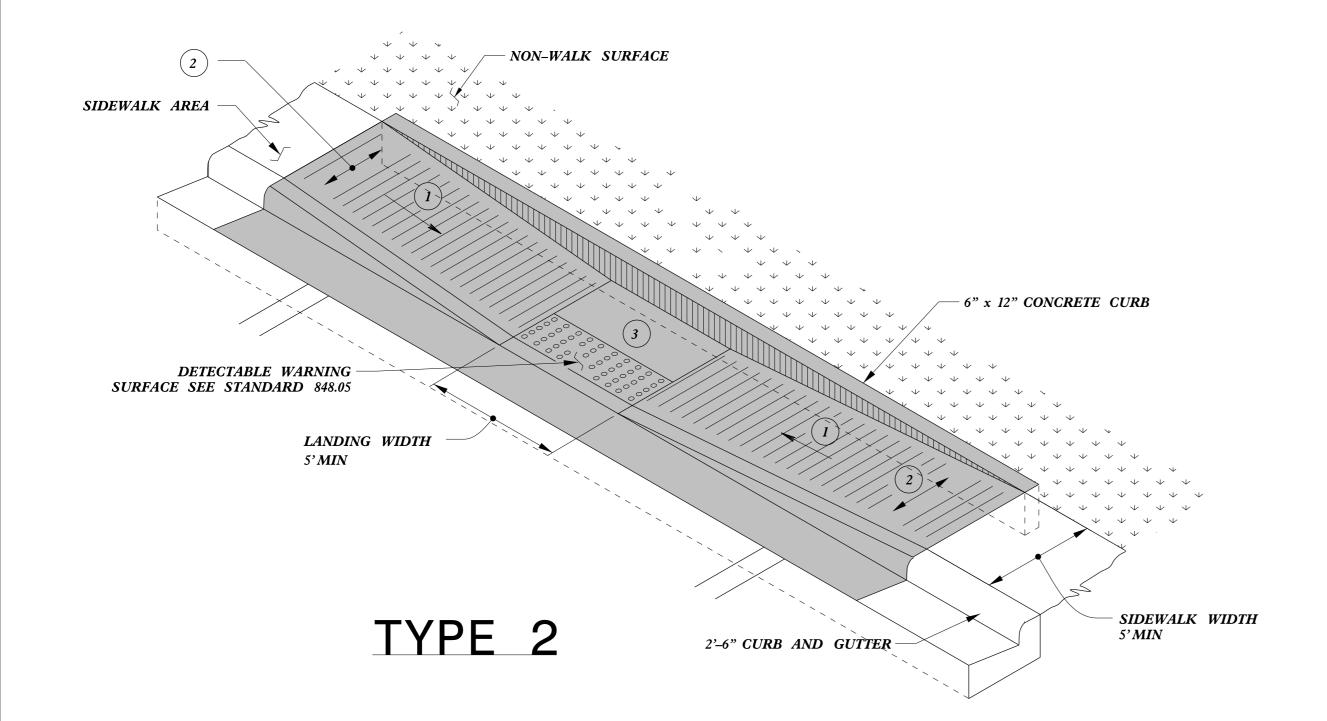
CURB RAMPS

Directional Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11

MODIFIED BY: DATE: DATE: FILE SPEC.:stds/2012CurbRamp/CurbRampDetails.dgm

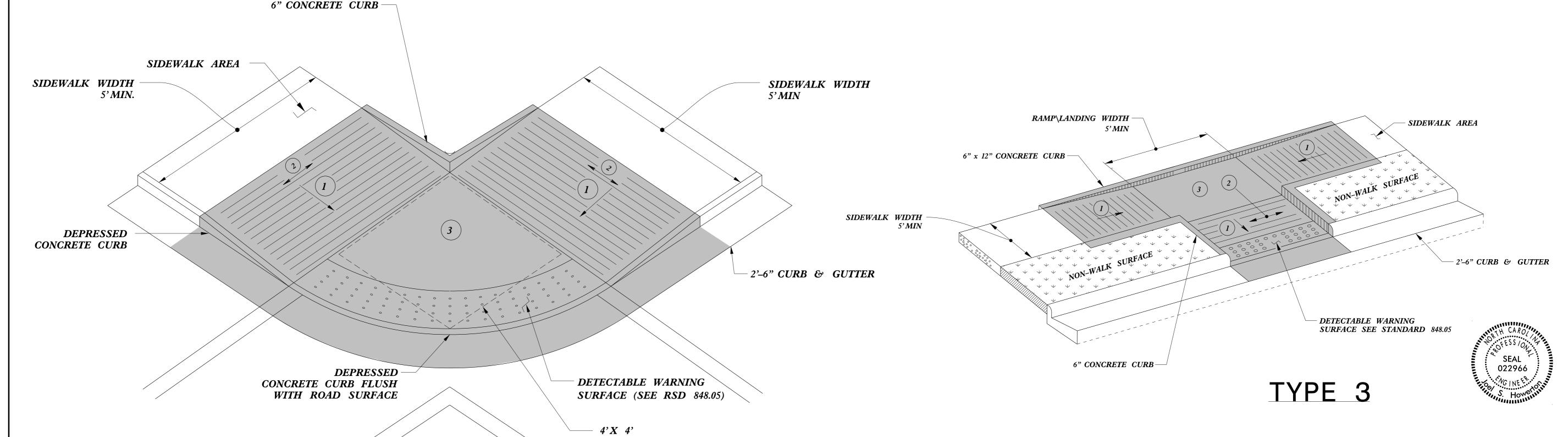
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



TYPE 2A

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.



MIN LANDING BEHIND BACK OF CURB

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

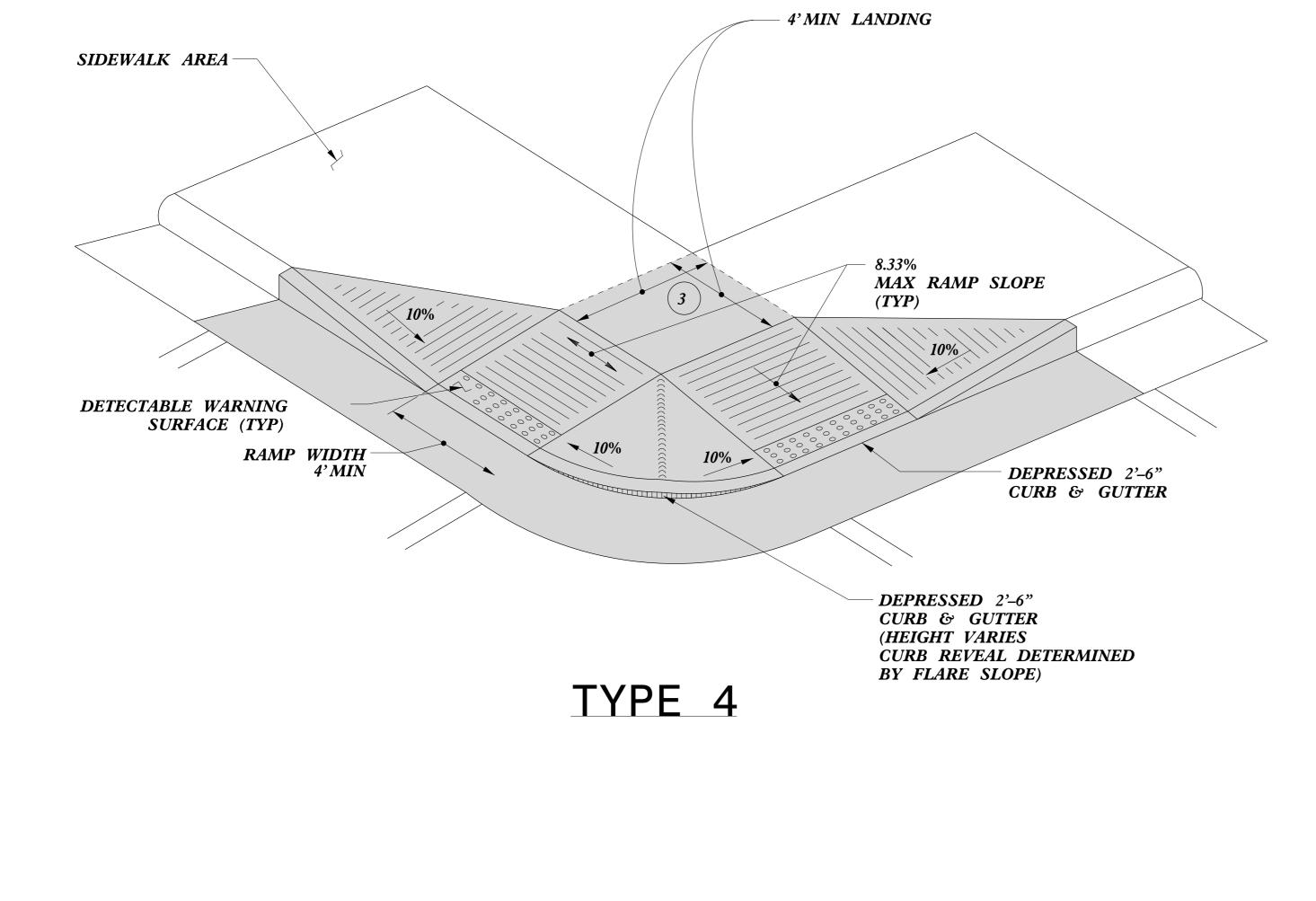
# CURB RAMPS

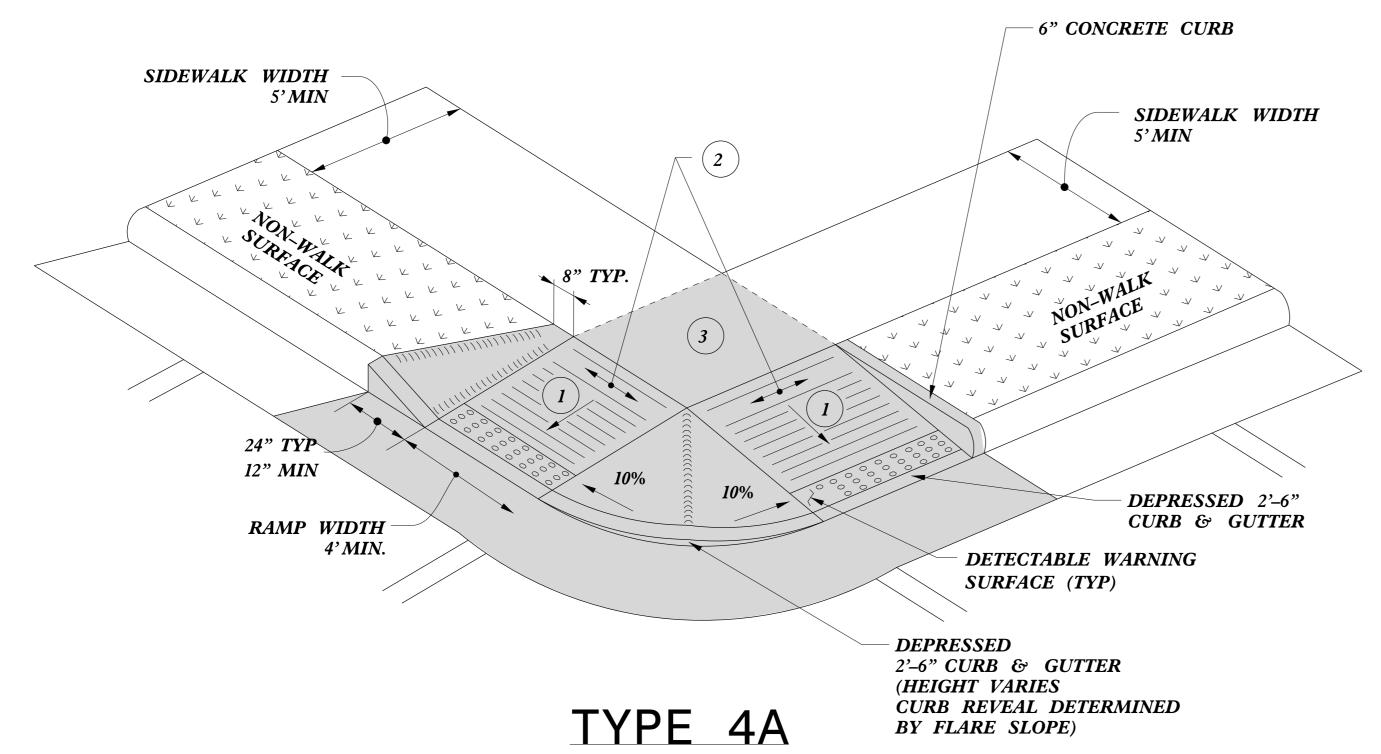
Parallel Ramps

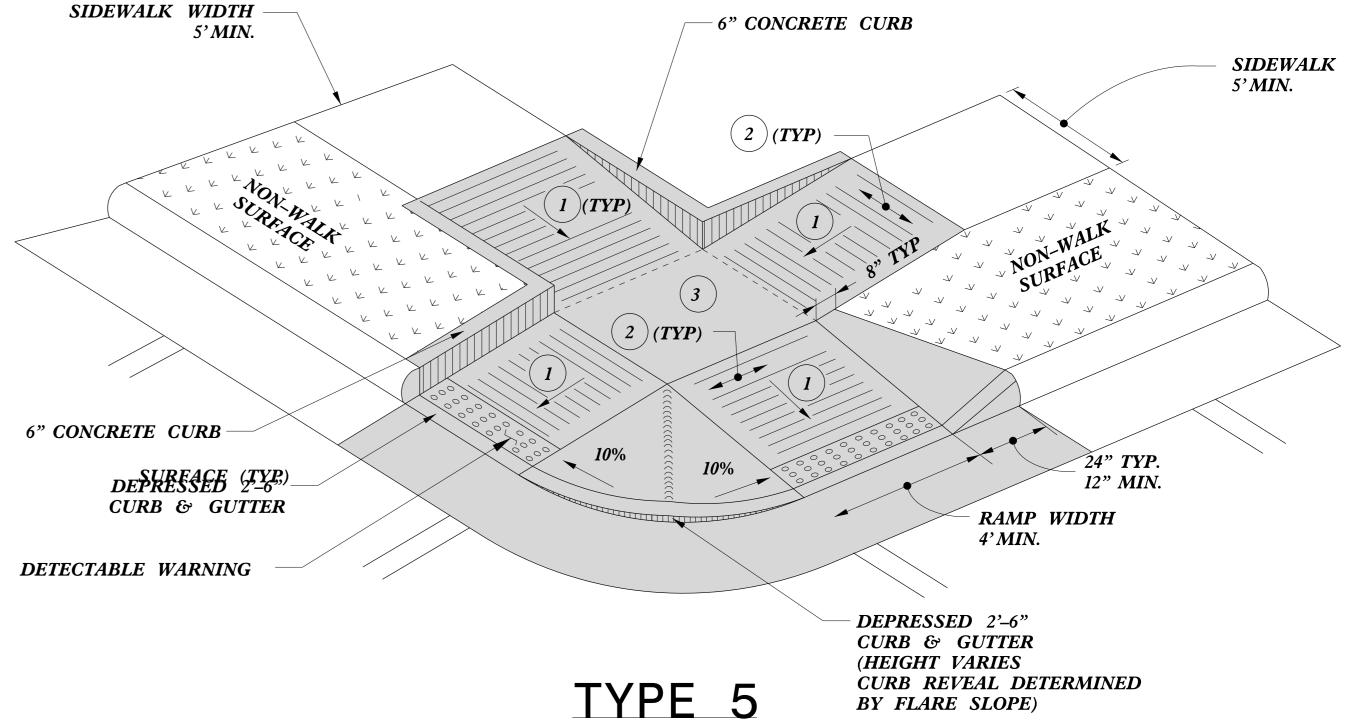
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11

MODIFIED BY: DATE: DATE: DATE: FILE SPEC.:stds/2012CurbRamp/CurbRampDetails.dgn

PAY LIMITS FOR 2 CURB RAMPS









(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.

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: DATE: DATE: FILE SPEC.:stds/2012CurbRamp/CurbRampDetails.dgn

### **SUMMARY OF QUANTITIES - ROBESON**

					0000100000-N	1220000000-E	2549000000-E	2591000000-E	2600000000-N	2605000000-N	2612000000-E	2613000000-N	2800000000-N	2815000000-N	4695000000-E	
PROJECT	COUNTY	MUNICIPALITY	MAJOR ROUTE	MINOR ROUTE	Mobilization	Incidental Stone Base	2'-6" Concrete Curb & Gutter	4" Concrete Sidewalk (5' Wide)	Retrofit Existing Curb Ramp	Concrete Curb Ramp	6" Concrete Driveway	Remove & Replace Curb Ramps	Adjustments of Catch Basins	Adjustments of Drop Inlets	Thermoplastic Pavement Marking Lines (8", 90 mils)	NOTES
NO					LS	TON	LF	SY	EA	EA	SY	EA	EA	EA	LF	
44916.3.10	Robeson	Lumberton	HWY 41	Campell	0.5	10	10	10			30	2	1	1	100	
44916.3.10	Robeson	Lumberton	HWY 41	Powell			10	10				2				
44916.3.10	Robeson	Lumberton	HWY 41	Thompson/Oregon					1							
44916.3.10	Robeson	Lumberton	HWY 41	Knucles Elem			20	20				4				
44916.3.10	Robeson	Lumberton	HWY 41	Birch St			10	10				2				
44916.3.10	Robeson	Lumberton	HWY 41	Eamon Church			20	20				4				
44916.3.10	Robeson	Lumberton	HWY 41	Park St			10	10				2				
44916.3.10	Robeson	Lumberton	HWY 41	Center			10	10				2				
44916.3.10	Robeson	Lumberton	HWY 41	Main/Front			20	20				4				
44916.3.10	Robeson	Lumberton	HWY 41	Spearman/Lovette			20	20				4				
44916.3.10	Robeson	Lumberton	HWY 41	Page St			10	10				2				
44916.3.10	Robeson	Lumberton	HWY 41	Holly/Kim Law	-		40	40		4		4				
44916.3.10	Robeson	Lumberton	HWY 41	Family Dollar			10	10				2				
44916.3.10	Robeson	Lumberton	5th NC41/72	Driveway			10	10				2			<u> </u>	
44916.3.10	Robeson	Lumberton	5th NC41/72	Norr3			10	10				2				
44916.3.10	Robeson	Lumberton	5th NC41/72	Resevoir			10	10				2				
44916.3.10	Robeson	Lumberton	5th NC41/72	Seals			10	10				2				
44916.3.10	Robeson	Lumberton	5th NC41/72	Hilton			5	5				1				
44916.3.10	Robeson	Lumberton	5th NC41/72	Dunn			20	20				4				
44916.3.10	Robeson	Lumberton	HWY 301	Oakridge Blvd			20	20				4				
44916.3.10	Robeson	Lumberton	HWY 301	Lumbee Bank			20	20	4			7				
44916.3.10	Robeson	Lumberton	HWY 301	Marathon					4							
44916.3.10	Robeson	Lumberton	HWY 301	Westen Pines					1							
44916.3.10	Robeson	Lumberton	HWY 301	Sisters Boutique					2							
44916.3.10	Robeson	Lumberton	HWY 301	Creekwood			15	15	_			3				
44916.3.10	Robeson	Lumberton	HWY 301	Peterson Dr			5	5				1				
44916.3.10	Robeson	Lumberton	HWY 301	Firmngdom			Ü	<u> </u>	1							
44916.3.10	Robeson	Lumberton	HWY 301	BB&T			5	5	3			1				
44916.3.10	Robeson	Lumberton	HWY 301	Rapid Lube			10	10	Ŭ			2				
44916.3.10	Robeson	Lumberton	HWY 301	Kensinton			10	10				2				
44916.3.10	Robeson	Lumberton	HWY 301	Roslyn			10	10	2			2				
44916.3.10	Robeson	Lumberton	HWY 301	Cicis Drwy			.0		2			_				
44916.3.10	Robeson	Lumberton	SR 1997	12th			20	20	_			4				
44916.3.10	Robeson	Lumberton	SR 1997	11th			20	20				4				
44916.3.10	Robeson	Lumberton	SR 1997	10th			10	10				2				
44916.3.10		Lumberton	SR 1997	9th			10	10				2			<u> </u>	
44916.3.10	Robeson	Lumberton	SR 1997	8th			10	10				2			1	
44916.3.10	Robeson	Lumberton	SR 1997	7th			15	15	1			3				
44916.3.10	Robeson	Lumberton	SR 1997	6th			10	10	·			2				
44916.3.10	Robeson	Lumberton	SR 1997	5th			40	40		1		7			1	
44916.3.10	Robeson	Lumberton	SR 1997	4th			10	10		·		2				
44916.3.10	Robeson	Lumberton	SR 1997	3rd			5	5	1			1			1	
44916.3.10	Robeson	Lumberton	NC 41	Hayswood			5	5	1			1				
44916.3.10	Robeson	Lumberton	NC 41	Oakwood			5	5	1			1				
44916.3.10	Robeson	Lumberton	NC 41	Godwin			10	10	·			2			1	
44916.3.10	Robeson	Lumberton	NC 41	Cedar			10	10				2				
44916.3.10	Robeson	Lumberton	SR 2289	NC 41/72			5	5		1		<del>                                     </del>				
44916.3.10	Robeson	Lumberton	SR 1536	6th			20	20				4			1	
44916.3.10	Robeson	Lumberton	SR 1536	8th			20	20				4				
44916.3.10	Robeson	Lumberton	SR 1536	9th			25	25				5				
44916.3.10	Robeson	Lumberton	Wade	SR 1536			5	5	1			1			1	
44916.3.10	Robeson	Lumberton	SR 1536	Jenkins			5	5	1			1				
						1		<u> </u>	· ·	i	i	•		i .	•	

					0000100000-N	1220000000-E	2549000000-E	2591000000-E	2600000000-N	2605000000-N	2612000000-E	2613000000-N	2800000000-N	2815000000-N	4695000000-E	
PROJECT	COUNTY	MUNICIPALITY	MAJOR ROUTE	MINOR ROUTE	Mobilization	Incidental Stone Base	2'-6" Concrete Curb & Gutter	4" Concrete Sidewalk (5' Wide)	Retrofit Existing Curb Ramp	Concrete Curb Ramp	6" Concrete Driveway	Remove & Replace Curb Ramps	Adjustments of Catch Basins	Adjustments of Drop Inlets	Thermoplastic Pavement Marking Lines (8", 90 mils)	NOTES
44916.3.10	Robeson	Lumberton	SR 1536	Charles			10	10				2				
44916.3.10	Robeson	Lumberton	SR 1536	Blount			10	10				2	1			
44916.3.10	Robeson	Lumberton	SR 1536	Maple			10	10				2				
44916.3.10	Robeson	Lumberton	SR 1536	Glenn			5	5				1				
44916.3.10	Robeson	Lumberton	SR 1536	15th			10	10				2				
44916.3.10	Robeson	Lumberton	SR 1536	James			10	10				2				
44916.3.10	Robeson	Lumberton	SR 1536	Popla					2							
44916.3.10	Robeson	Lumberton	SR 1536	Riverside			5	5				1				
44916.3.10	Robeson	Lumberton	SR 1536	18th			10	10				2				
44916.3.10	Robeson	Lumberton	SR 1536	Army Reserve Ctr			5	5				1				
44916.3.10	Robeson	Lumberton	SR 1536	Riverside			5	5	1			1				
44916.3.10	Robeson	Lumberton	SR 1536	V. Albion			10	10				2				
44916.3.10	Robeson	Lumberton	SR 1536	Bradfold			10	10				2				
44916.3.10	Robeson	Lumberton	SR 1536	Vercare					2							
		TOTAL FOR WBS NO.	44916.3.10		0.5	10	690	690	31	6	30	132	1	1	100	
44916.3.11	Robeson	Maxton	SR 1303	E. Wilmington St.	0.5	2			4		30		1	1	100	Subject to Historic/Cultural Review. May be Deleted from Contract.
44916.3.11	Robeson	Maxton	Patterson	Central			5	5	3			1				Subject to Historic/Cultural Review. May be Deleted from Contract.
44916.3.11	Robeson	Maxton	N. Patterson	Graham St			20	20	2	2		2				
SUBTOTAL					0.5	2	25	25	9	2	30	3	1	1	100	
44916.3.11	Robeson	Red Springs	HWY 72	7th St.		2	10	10				2				
SUBTOTAL					0.0	2	10	10	0	0	0	2	0	0	0	
44916.3.11	Robeson	Fairmont	HWY 41	Red Cross St.		2	5	5	5	,		1				Subject to Historic/Cultural Review. May be Deleted from Contract.
44916.3.11	Robeson	Fairmont	HWY 41	lona St.			15	15				3				Subject to Historic/Cultural Review. May be Deleted from Contract.
44916.3.11	Robeson	Fairmont	HWY 41	Railroad St.					1							
SUBTOTAL					0.0	2	20	20	6	0	0	4	0	0	0	
44916.3.11 Robeson Pembroke 2nd SR 1536 (Union Chapel Rd.)				2	20	20	2	2		2						
SUBTOTAL				0.0	2	20	20	2	2	0	2	0	0	0		
44916.3.11	Robeson	Rowland	HWY 130	Bond		2	10	10	3			2	<b></b>			
44916.3.11	Robeson	Rowland	HWY 130	Railroad St.			10	10				2				Subject to Historic/Cultural Review. May be Deleted from Contract.
44916.3.11	Robeson	Rowland	HWY 130	Hickory			20	20		1		3				Subject to Historic/Cultural Review. May be Deleted from Contract.
44916.3.11	Robeson	Rowland	HWY 301	Church					4							Subject to Historic/Cultural Review. May be Deleted from Contract.
SUBTOTAL					0.0	2	40	40	7	1	0	7	0	0	0	
TOTAL FOR WBS NO. 44916.3.11					0.5	10	115	115	24	F	20	18	1	1	100	
		TOTAL FOR WBS NO.	445 10.3.11		0.5	10	113	119	24	5	30	10	, .	•	100	