

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 6

PLANS
JUNE 20, 2017

CONTRACT ID: DF00179

WBS ELEMENT NO.: 44916.3.4 & 44916.3.5

FEDERAL AID NO.: TAP-0620(037) & TAP-0620(038)

COUNTY: CUMBERLAND & HARNETT

TIP NO.: R-5786B

LENGTH OF PROJECT: VARIOUS

ROUTE NO.: VARIOUS

LOCATION: VARIOUS

TYPE OF WORK: CURB RAMP INSTALLATIONS

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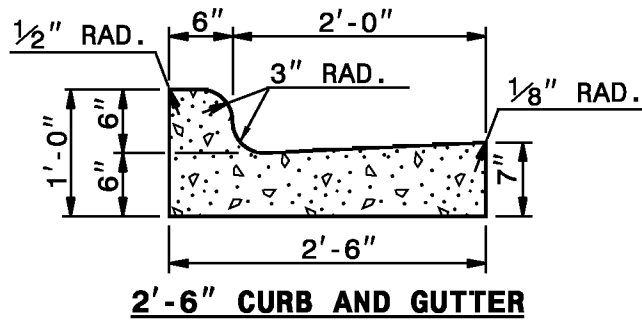
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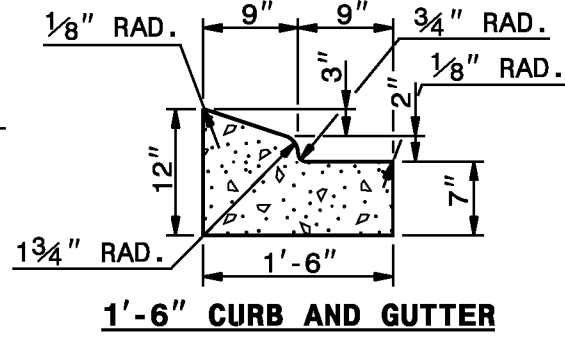
SUMMARY OF QUANTITIES - CUMBERLAND & HARNETT CO.

PROJECT NO	COUNTY	MUNICIPALITY	MAJOR ROUTE	MINOR ROUTE	0000100000-N	2549000000-E	2591000000-E	2600000000-N	2605000000-N	2800000000-N	2815000000-N	4697000000-E	4710000000-E
					Mobilization LS	2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Retrofit Existing Curb Ramp EA	Concrete Curb Ramp EA	Adjustments of Catch Basins EA	Adjustments of Drop Inlets EA	Thermoplastic Pavement Marking Lines (8", 120 mils) LF	Thermoplastic Pavement Marking Lines (24", 120 mils) LF
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Church of Christ	0.25				2				
44916.3.4	Cumberland	Fayetteville	NC 53	Clinton Rd				2					
44916.3.4	Cumberland	Fayetteville	SR 1400 (Cliffdale Rd.)	Branchwood					2				
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	NC 24 E			40	2	4				
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Anne Chestnut MS			10	5	1				
44916.3.4	Cumberland	Fayetteville	Bonanza Dr	Santa Fe				5					
44916.3.4	Cumberland	Fayetteville	Bonanza Dr	Morganton Rd			25	2				110	30
44916.3.4	Cumberland	Fayetteville	Bonanza Dr	Pre School D/W				2					
44916.3.4	Cumberland	Fayetteville	Bragg Blvd	Blue St				2					
44916.3.4	Cumberland	Fayetteville	Eastern Blvd	Russell St				6					
44916.3.4	Cumberland	Fayetteville	Hwy.-24 / 210 West	Turners Lane					2				
44916.3.4	Cumberland	Fayetteville	Rowan St	Chatham St					2				
44916.3.4	Cumberland	Fayetteville	SR 1404 (Morganton Rd.)	Stedman Street				1	1				
44916.3.4	Cumberland	Fayetteville	SR 3828 (Robeson St.)	Franklin Street				7	1				
44916.3.4	Cumberland	Fayetteville	SR 3950 / Ramsey St.	Rosehill Road				2					
44916.3.4	Cumberland	Fayetteville	US 401	Advance Auto Parts				1	2				
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Cross Creek Mall (NE)				4					
44916.3.4	Cumberland	Fayetteville	Barcelona Dr	Cambridge D/W 5					2				
44916.3.4	Cumberland	Fayetteville	Barcelona Dr	Cambridge D/W 6					2				
44916.3.4	Cumberland	Fayetteville	Barcelona Dr	Cambridge D/W 7					2				
44916.3.4	Cumberland	Fayetteville	Barcelona Dr	Cambridge D/W 8					2				
44916.3.4	Cumberland	Fayetteville	Barcelona Dr	Cambridge D/W 9					2				
44916.3.4	Cumberland	Fayetteville	Bonanza Dr	Tuscon Dr				6					
44916.3.4	Cumberland	Fayetteville	Bonanza Dr	Compare Foods D/W			10	4					
44916.3.4	Cumberland	Fayetteville	Bonanza Dr	Foxfire Rd				4					
44916.3.4	Cumberland	Fayetteville	Bonanza Dr	Cartwright				2					
44916.3.4	Cumberland	Fayetteville	Boone Trail Ext	Bojangles				4					
44916.3.4	Cumberland	Fayetteville	Boone Trail Ext	Sh Center D/W #1				4					
44916.3.4	Cumberland	Fayetteville	Bragg Blvd	Sycamore Sq D/W			10	2					
44916.3.4	Cumberland	Fayetteville	NC 210	Filter Plant Drive				2					
44916.3.4	Cumberland	Fayetteville	Purdue Dr	Breezewood Ave				3					
44916.3.4	Cumberland	Fayetteville	SR 1404 (Morganton Rd.)	Westlake Road			30	8					
44916.3.4	Cumberland	Fayetteville	SR 2299 (Russell St.)	Robeson Street				4					
44916.3.4	Cumberland	Fayetteville	SR 3950 / Ramsey St.	Mary Street			60	1					
44916.3.4	Cumberland	Fayetteville	US 401	Cumberland Street					2				
44916.3.4	Cumberland	Fayetteville	US 401	401 Bypass				1	1				
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Boston Market		50	30	4	2				
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	TLC Auto Wash		50	30	4	2				
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Blanton Road				4					
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Cliffdale Road				4					
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Highland House				4					
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	McPherson Church			20	4					
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Commonwealth Drive				2					
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Fay. Pavilion Plaza (NE)		30		2					
44916.3.4	Cumberland	Fayetteville	US 401 By-Pass	Gables Drive (S)				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Roxie Ave				4					

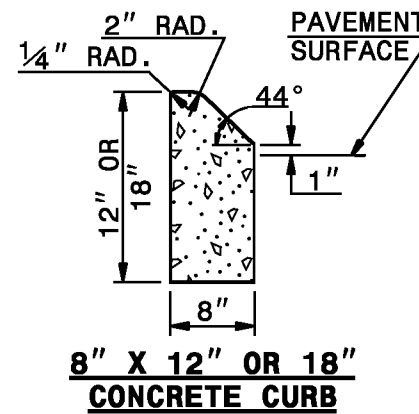
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PROJECT	COUNTY	MUNICIPALITY	MAJOR ROUTE	MINOR ROUTE	Mobilization	2'-6" Concrete Curb & Gutter	4" Concrete Sidewalk	Retrofit Existing Curb Ramp	Concrete Curb Ramp	Adjustments of Catch Basins	Adjustments of Drop Inlets	Thermoplastic Pavement Marking Lines (8", 120 mils)	Thermoplastic Pavement Marking Lines (24", 120 mils)
44916.3.4	Cumberland	Fayetteville	Village Dr	Conover Dr				7					
44916.3.4	Cumberland	Fayetteville	Village Dr	Boone Trail				5					
44916.3.4	Cumberland	Fayetteville	Village Dr	Fordham Dr				4					
44916.3.4	Cumberland	Fayetteville	Village Dr	Litho Pl				4					
44916.3.4	Cumberland	Fayetteville	Village Dr	Marlborough Rd				4					
44916.3.4	Cumberland	Fayetteville	Village Dr	Metromedical Dr				4					
44916.3.4	Cumberland	Fayetteville	Village Dr	Purdue Dr				4					
44916.3.4	Cumberland	Fayetteville	Village Dr	Stockton Dr				4					
44916.3.4	Cumberland	Fayetteville	Village Dr	Walgreens				4					
44916.3.4	Cumberland	Fayetteville	Village Dr	Bordeaux Sh Ctr				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Bordeaux Sh Ctr #2				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Bragg Mutual				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Bryn Mawr Dr				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	First Bank				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Lake Clair Pl				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Robeson St				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Saxony Pl				2					
44916.3.4	Cumberland	Fayetteville	Village Dr	Sports Fan				1					
44916.3.4	Cumberland	Fayetteville	NC 210	Yaya Food Mart				4					
44916.3.4	Cumberland	Fayetteville	NC 210	Blue Street				2					
44916.3.4	Cumberland	Fayetteville	NC 210	FSU Main Entrance (W.t. Brown Dr.)				1					
44916.3.4	Cumberland	Fayetteville	NC 210	Lakeland Street				1					
44916.3.4	Cumberland	Fayetteville	NC 210	Matthews Street				1					
44916.3.4	Cumberland	Fayetteville	NC 53	I-95 NB Ramp				6					
44916.3.4	Cumberland	Fayetteville	NC 53	Judson Church Rd				4					
44916.3.4	Cumberland	Fayetteville	NC 53	McDonald's D/W				2					
44916.3.4	Cumberland	Fayetteville	Person St	Otis F Jones Pkwy				10					
44916.3.4	Cumberland	Fayetteville	Person St	North C St				2					
44916.3.4	Cumberland	Fayetteville	Yadkin Road	Bonanza Drive					1				
44916.3.4	Cumberland	Fayetteville	Robeson St.	Weiss					1				
SUBTOTAL					0.25	130	265	210	36	0	0	110	30
44916.3.4	Harnett	Dunn	US 421	S. Fayetteville Ave.	0.25			2	1	1		276	66
44916.3.4	Harnett	Dunn	US 421	S. McKay Ave.				1					
SUBTOTAL					0.25	0	0	3	1	1	0	276	66
TOTAL FOR WBS NO. 44916.3.4					0.50	130	265	213	37	1	0	386	96
44916.3.5	Harnett	Angier	NC 55	W. Wimberly	0.50		10	1	1				
44916.3.5	Harnett	Angier	NC 55	W. Dora				2					
TOTAL FOR WBS NO. 44916.3.5					0.50	0	10	3	1	0	0	0	0
GRAND TOTAL					1.00	130	275	216	38	1		386	96



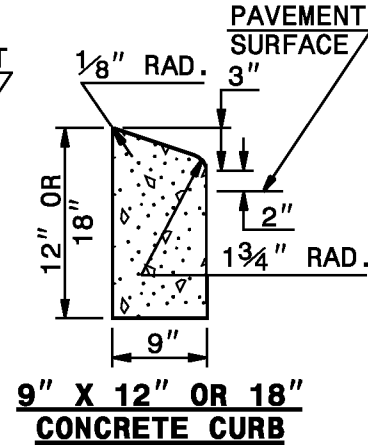
2'-6" CURB AND GUTTER



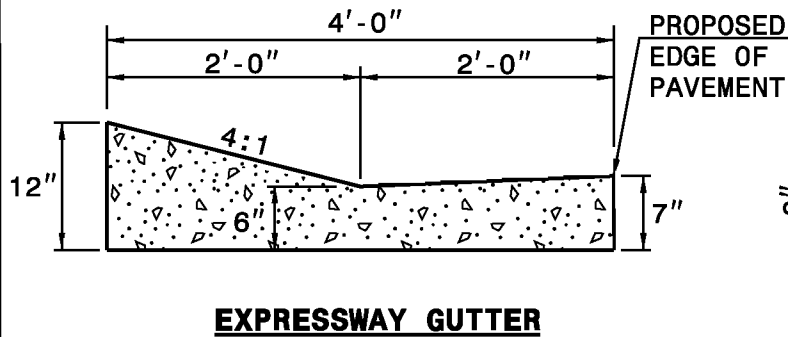
1'-6" CURB AND GUTTER



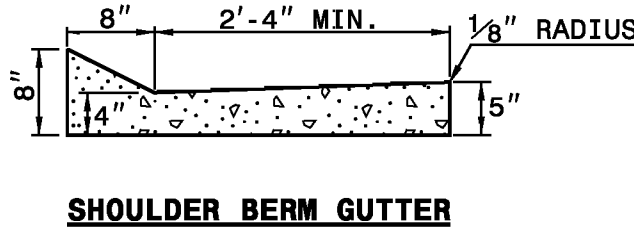
8" X 12" OR 18" CONCRETE CURB



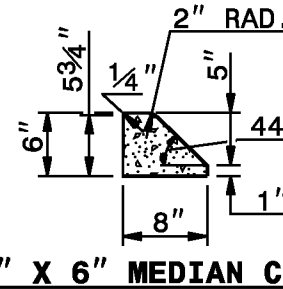
9" X 12" OR 18" CONCRETE CURB



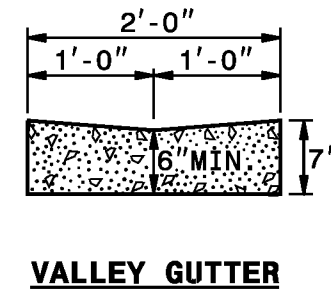
EXPRESSWAY GUTTER



SHOULDER BERM GUTTER



8" X 6" MEDIAN CURB

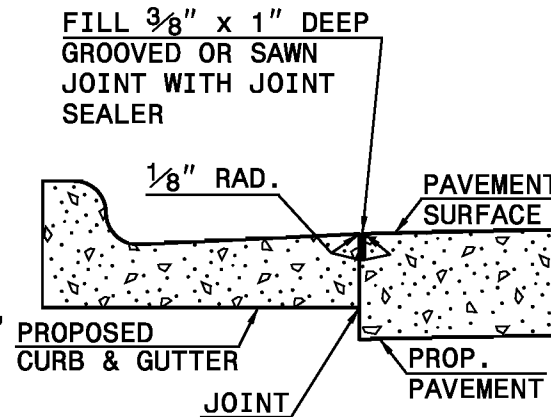


VALLEY GUTTER

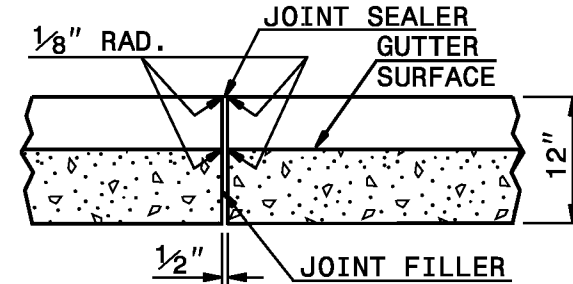
SECTION VIEW OF CURBS OR CURBS AND GUTTERS

GENERAL NOTES:

- PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
- JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
- CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS.
- CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1 1/2" DEEP.
- FILL ALL CONSTRUCTION JOINTS, EXCEPT IN 8"x6" MEDIAN CURB, WITH JOINT FILLER AND SEALER.
- SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.



LONGITUDINAL JOINT

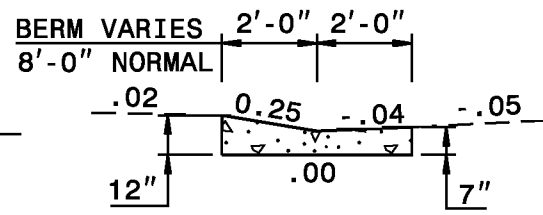
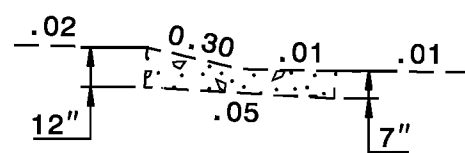
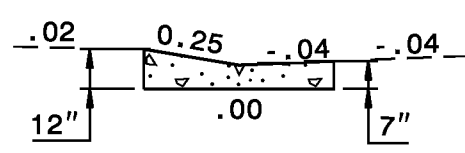
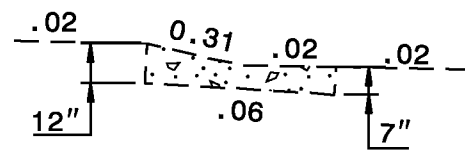
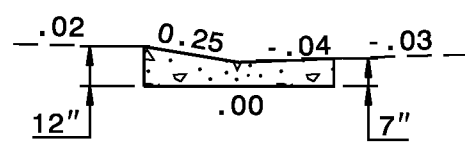
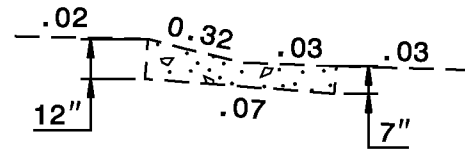
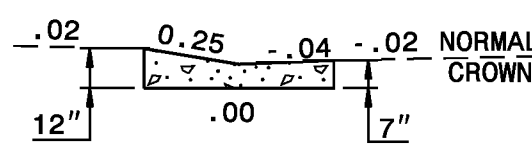
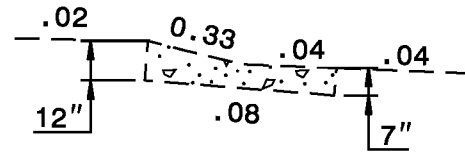
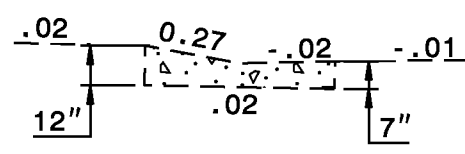
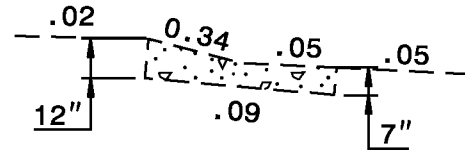
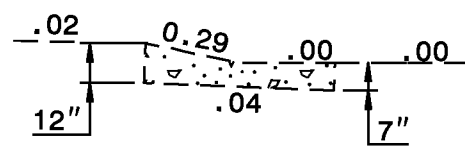
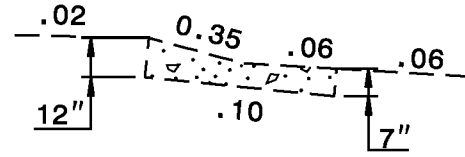


TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER

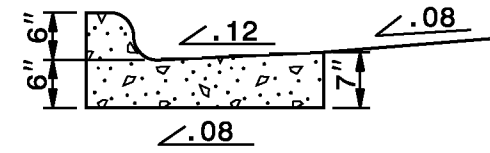
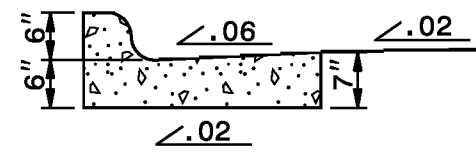
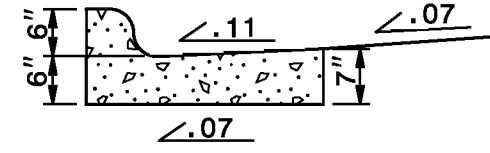
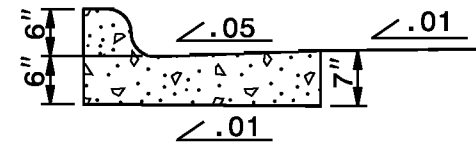
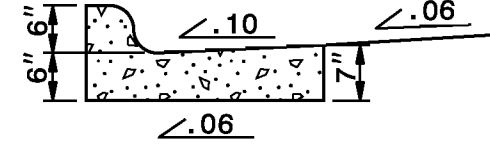
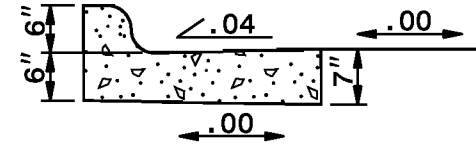
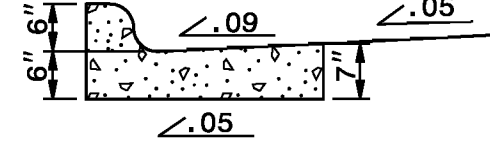
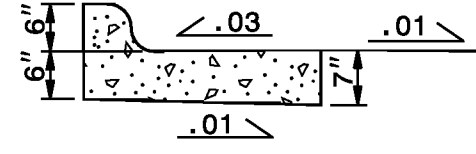
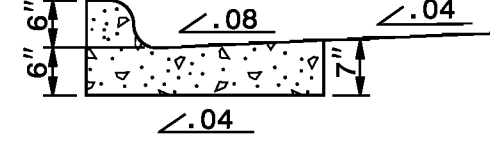
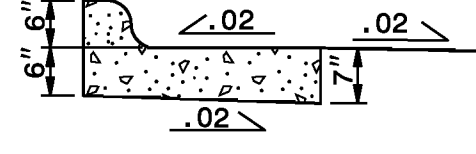
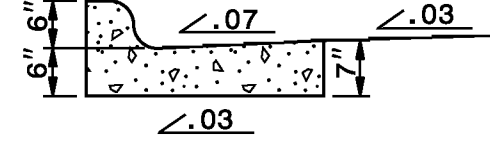
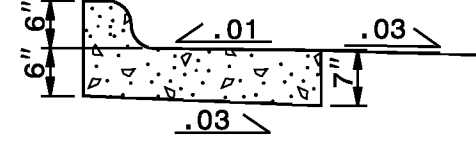
SECTION VIEW OF JOINTS

1-12

ENGLISH STANDARD DRAWING FOR
**CONCRETE CURB, GUTTER
AND CURB & GUTTER**



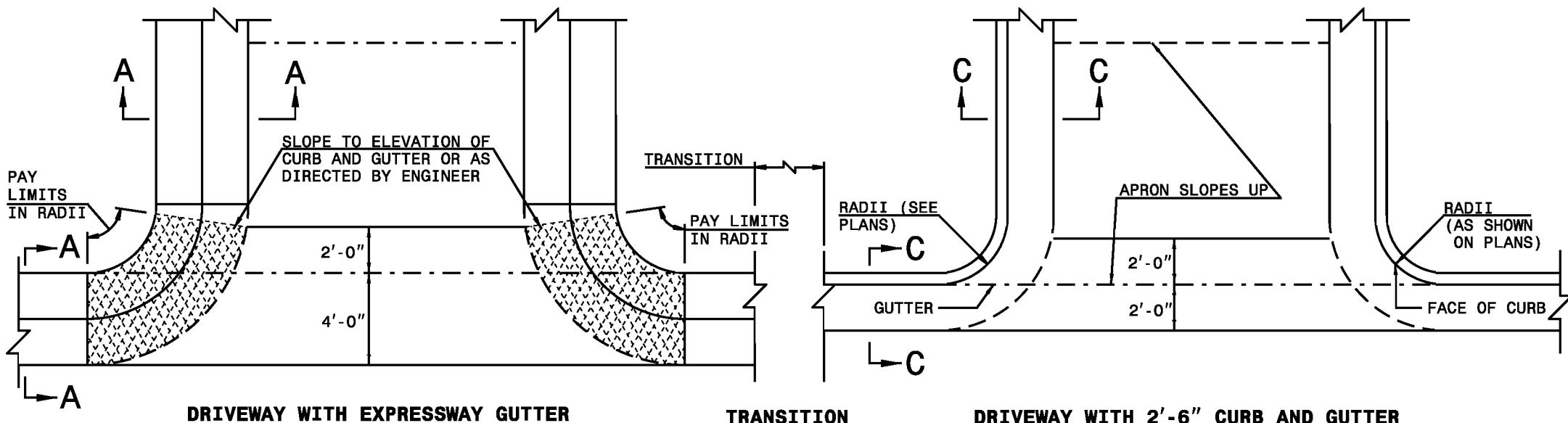
**SECTION VIEWS OF
EXPRESSWAY GUTTER IN SUPER ELEVATION**



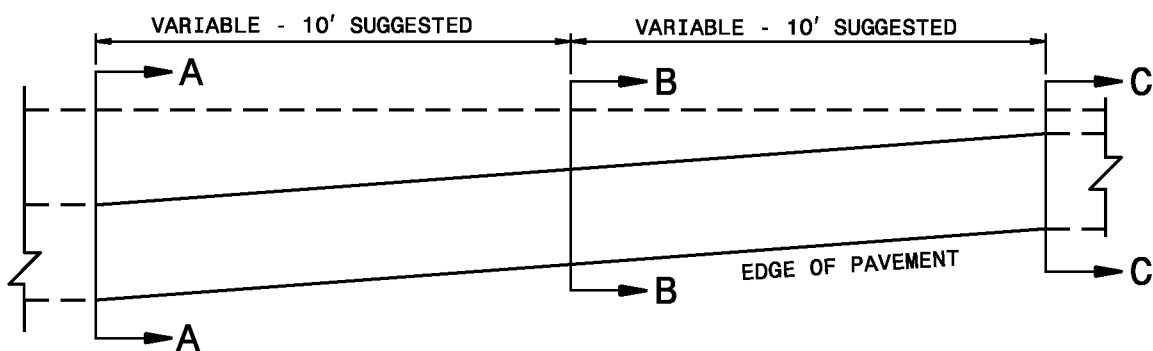
**SECTION VIEWS OF
2'-6" CURB AND GUTTER SUPERELEVATION RATES**

1-12

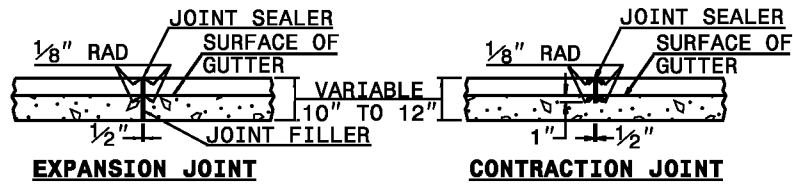
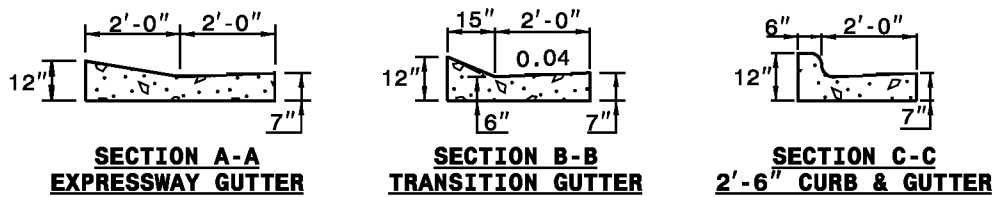
ENGLISH STANDARD DRAWING FOR
**CONCRETE CURB, GUTTER
AND CURB & GUTTER**



DRIVEWAY WITH EXPRESSWAY GUTTER TRANSITION DRIVEWAY WITH 2'-6" CURB AND GUTTER
PLAN VIEW OF TYPICAL CURB AND GUTTER OCCURENCES



PLAN VIEW OF TRANSITION
EXPRESSWAY GUTTER TO 2'-6" CURB AND GUTTER



NOTES:
 - IN THE TRANSITION FROM 4'-0" CONCRETE EXPRESSWAY GUTTER TO 2'-6" CONCRETE CURB AND GUTTER, PLACE 1/2" EXPANSION JOINTS AT 25' INTERVALS.
 - PLACE GROOVE JOINTS 1" DEEP AT 12'-6" INTERVALS BETWEEN EXPANSION JOINTS.
 - FILL AND SEAL THE TOP 1/2" OF THE EXPANSION JOINTS AND 1" OF CONTRACTION JOINTS WITH APPROVED JOINT SEALING COMPOUND.

ENGLISH STANDARD DRAWING FOR
CONCRETE CURB, GUTTER
AND CURB & GUTTER

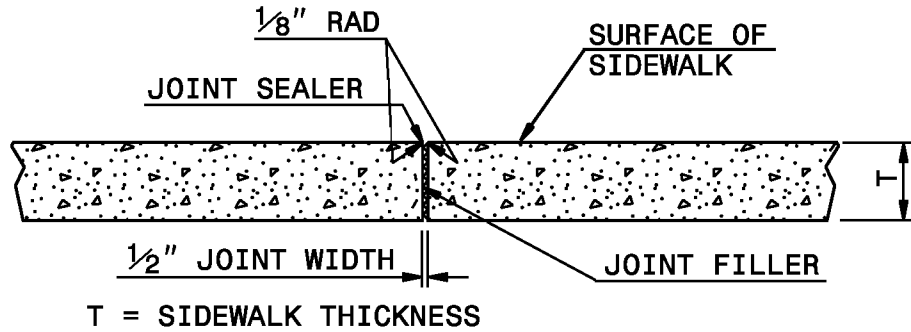
ENGLISH STANDARD DRAWING FOR
CONCRETE CURB, GUTTER
AND CURB & GUTTER

NOTES:

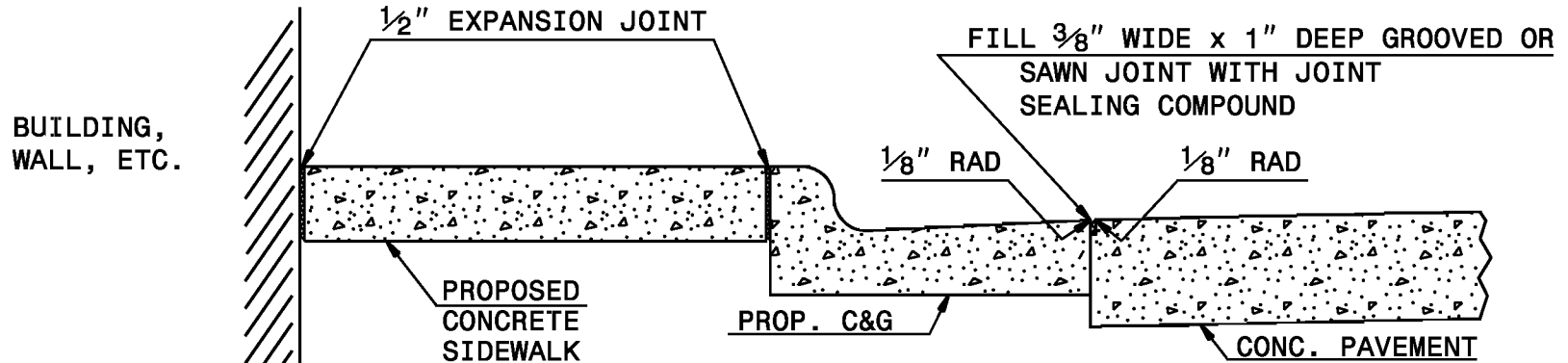
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

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

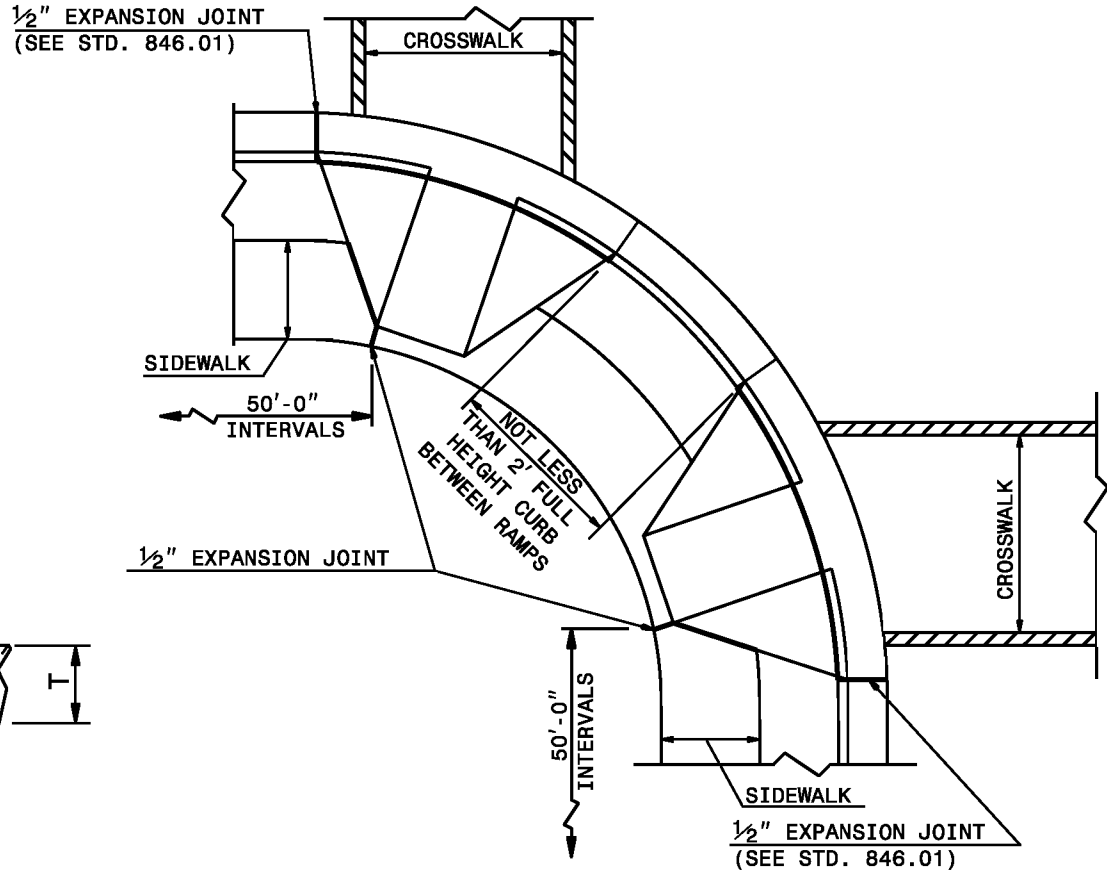
SEE STD. DWG. 848.05 FOR WHEELCHAIR RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



**TRANSVERSE EXPANSION JOINT
IN SIDEWALK**

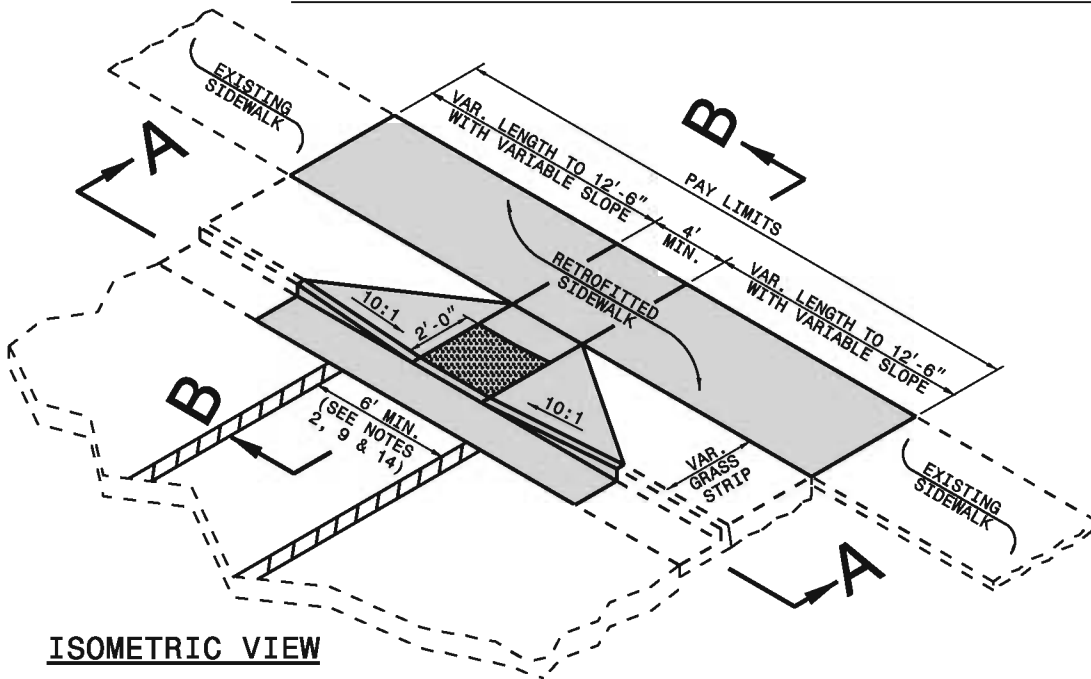


DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK



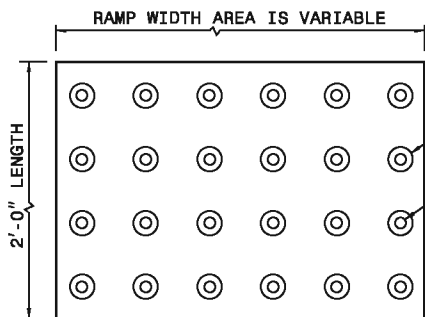
PLAN VIEW

CURB RAMP AND EXISTING SIDEWALK WITH GRASS STRIP



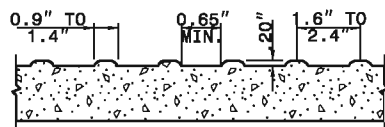
ISOMETRIC VIEW

PAY LIMITS OF CURB RAMP

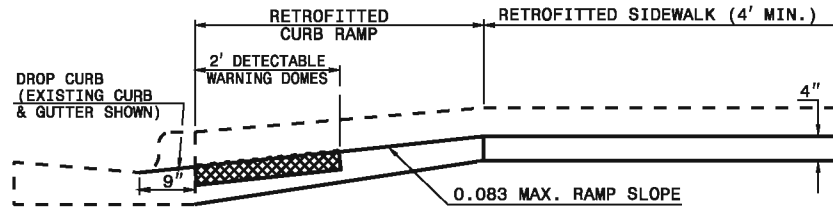


BASE DIAMETER
0.90" R TO 1.40" R

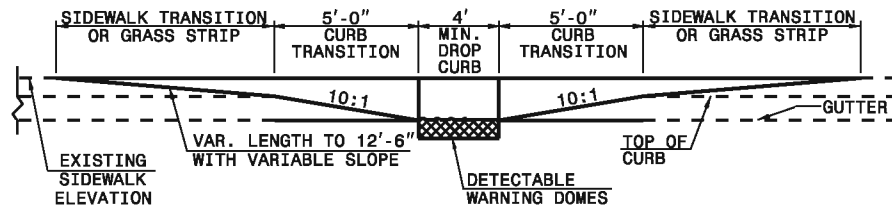
TOP DIAMETER OF NO LESS
THAN 50% TO NO MORE
THAN 65% OF THE BASE
DIAMETER



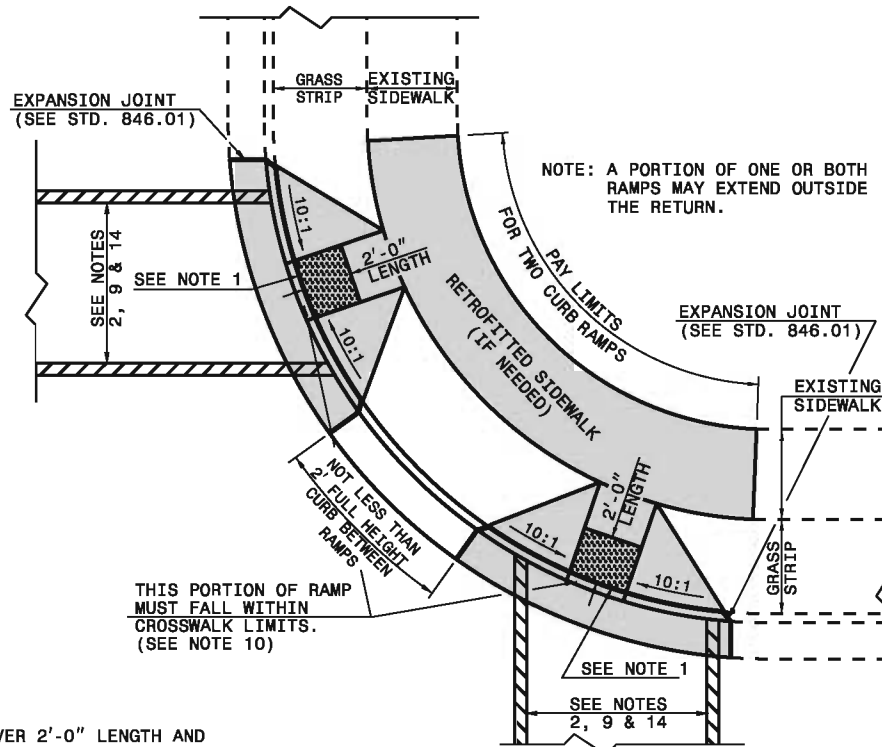
DETECTABLE WARNING DOMES



SECTION B-B



SECTION A-A

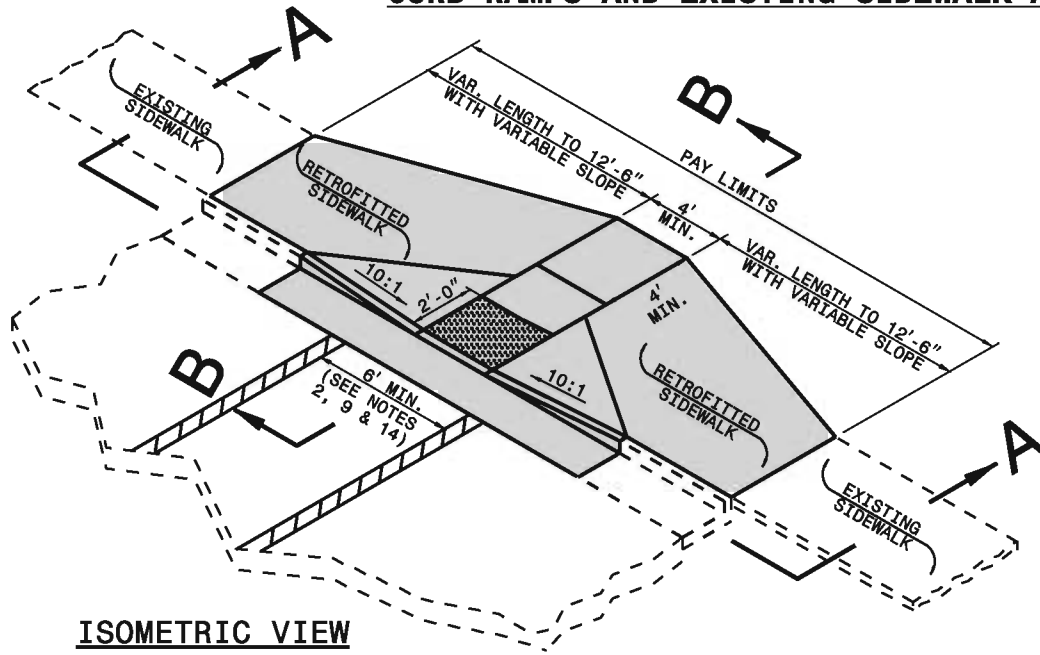


PLAN VIEW

DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

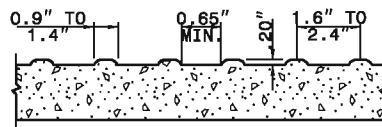
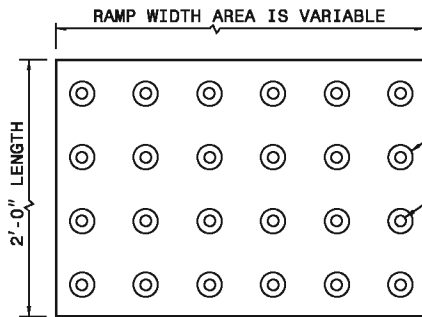
- NOTES:
1. PLACE DETECTABLE WARNING DOMES TO COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 2. OBTAIN VISIBLE CONTRAST WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

CURB RAMPS AND EXISTING SIDEWALK ADJACENT TO CURB



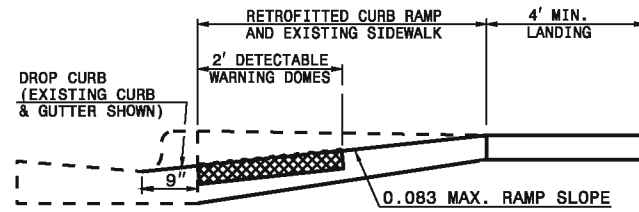
ISOMETRIC VIEW

PAY LIMITS OF CURB RAMP

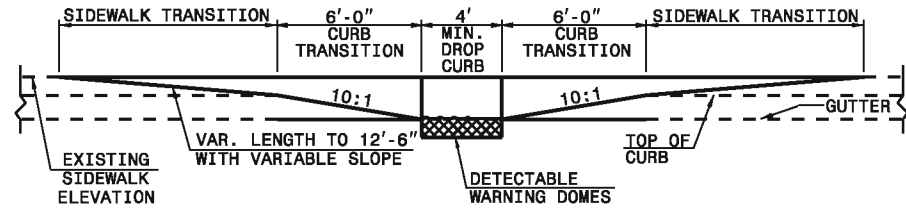


DETECTABLE WARNING DOMES

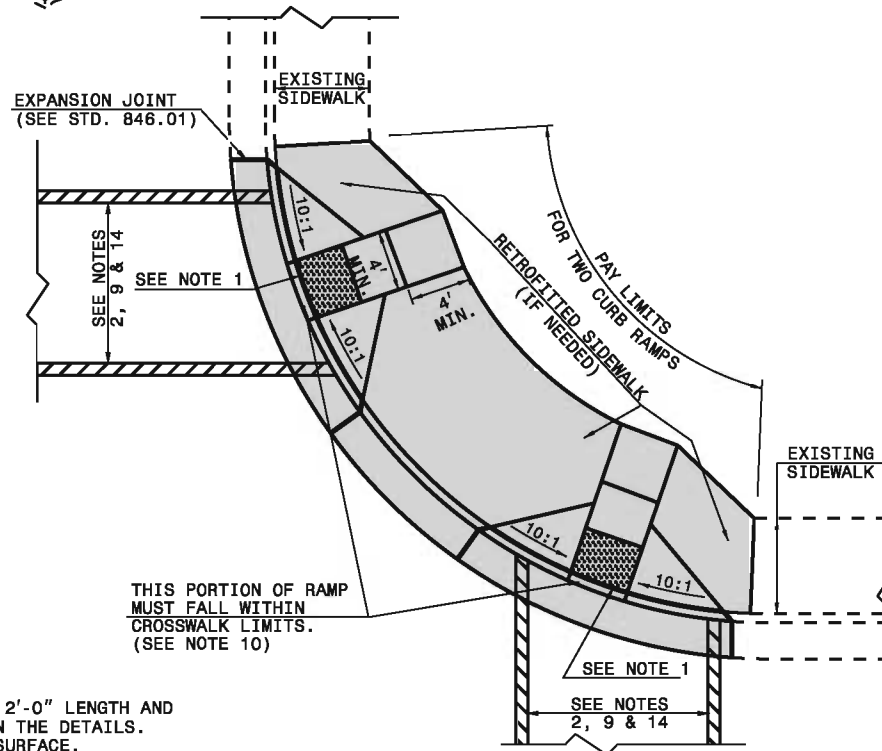
- NOTES:
1. PLACE DETECTABLE WARNING DOMES TO COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 2. OBTAIN VISIBLE CONTRAST WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



SECTION B-B



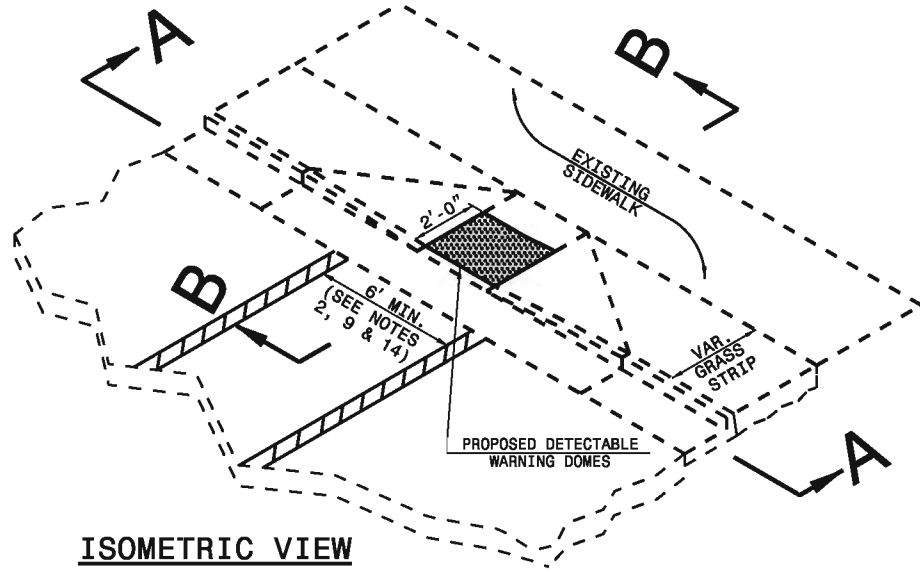
SECTION A-A



PLAN VIEW

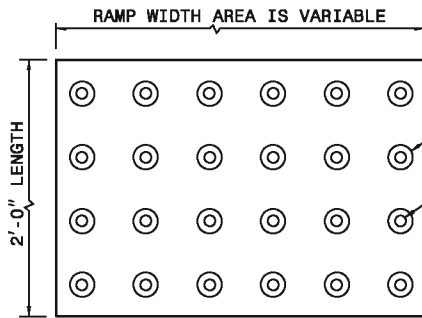
DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

RETROFITTING DETECTABLE WARNING DOMES ONTO EXISTING CURB RAMP

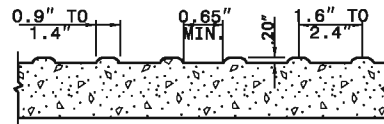


ISOMETRIC VIEW

PAY LIMITS OF RETROFIT CURB RAMP

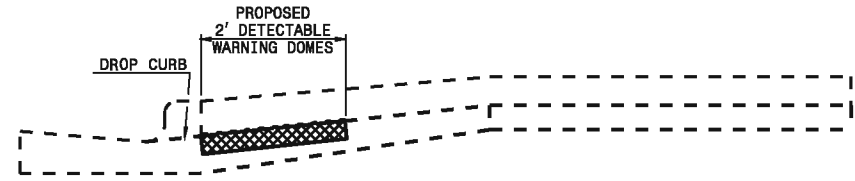


BASE DIAMETER
0.90" R TO 1.40" R
TOP DIAMETER OF NO LESS
THAN 50% TO NO MORE
THAN 65% OF THE BASE
DIAMETER

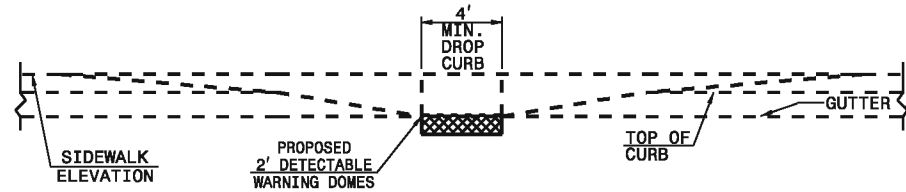


- NOTES:
1. PLACE DETECTABLE WARNING DOMES TO COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
2. OBTAIN VISIBLE CONTRAST WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

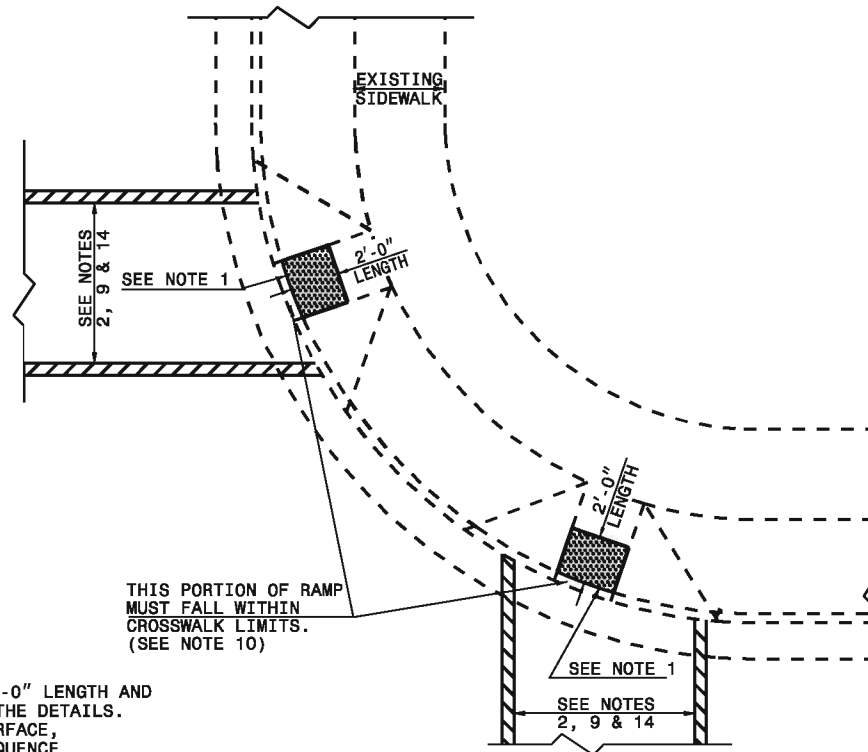
DETECTABLE WARNING DOMES



SECTION B-B



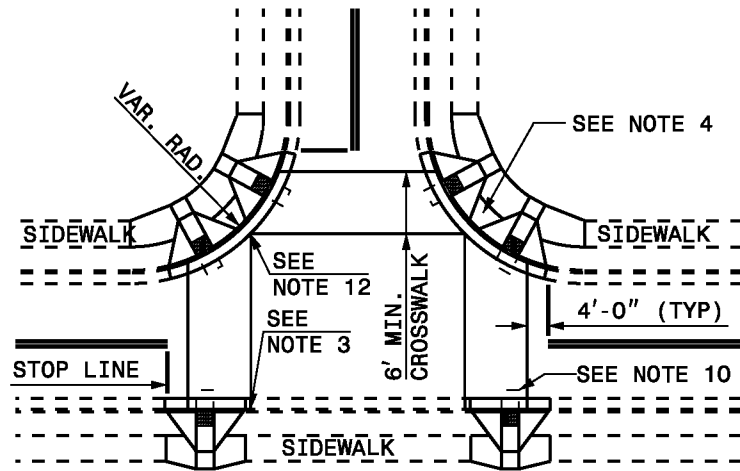
SECTION A-A



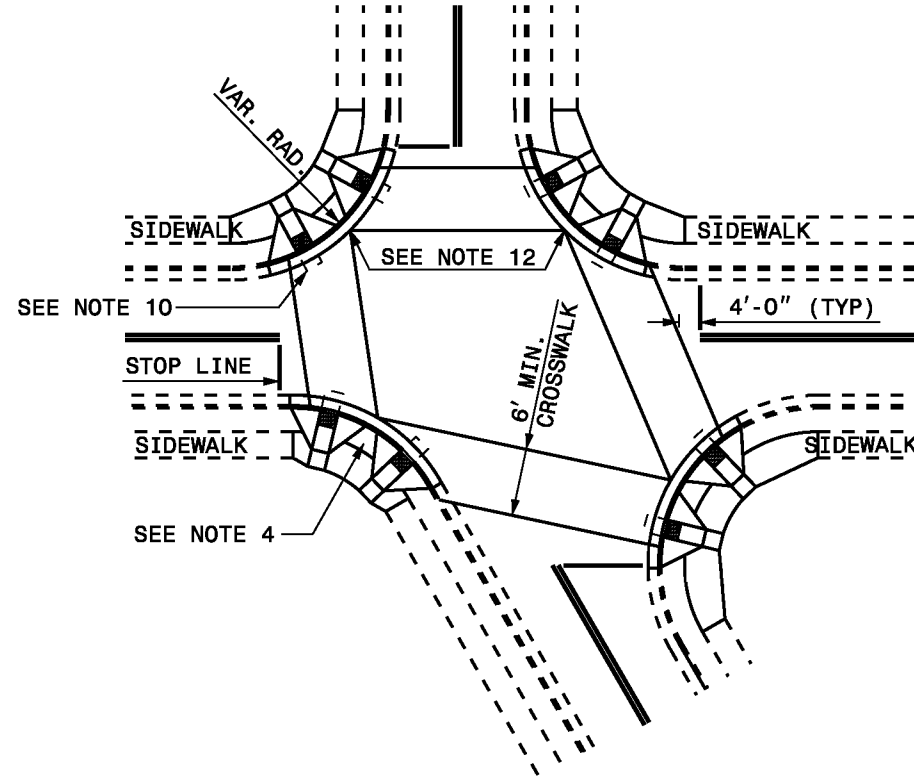
PLAN VIEW

DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

CURB RAMPS AND EXISTING SIDEWALK

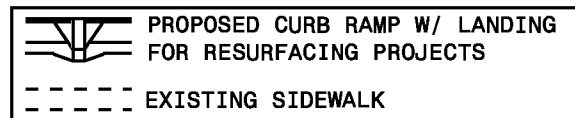


DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS,
 PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



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

RESURFACING PROJECTS



ALLOWABLE LOCATIONS
 DUAL RAMP RADII.....ANY

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.
4. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. 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.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
10. 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 THROUGH 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.

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

1-12

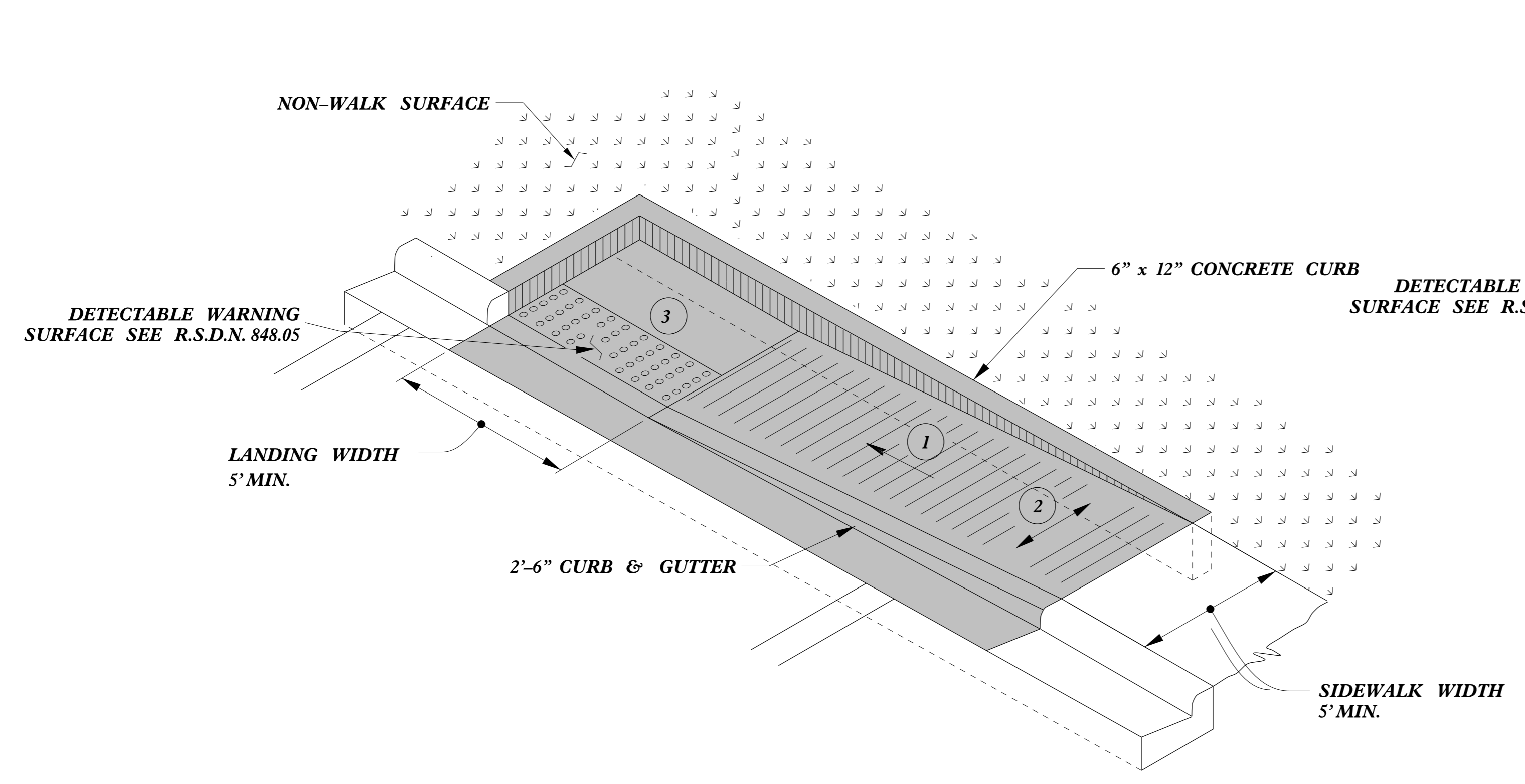
ENGLISH STANDARD DRAWING FOR
CURB RAMP
EXISTING CURB AND GUTTER

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

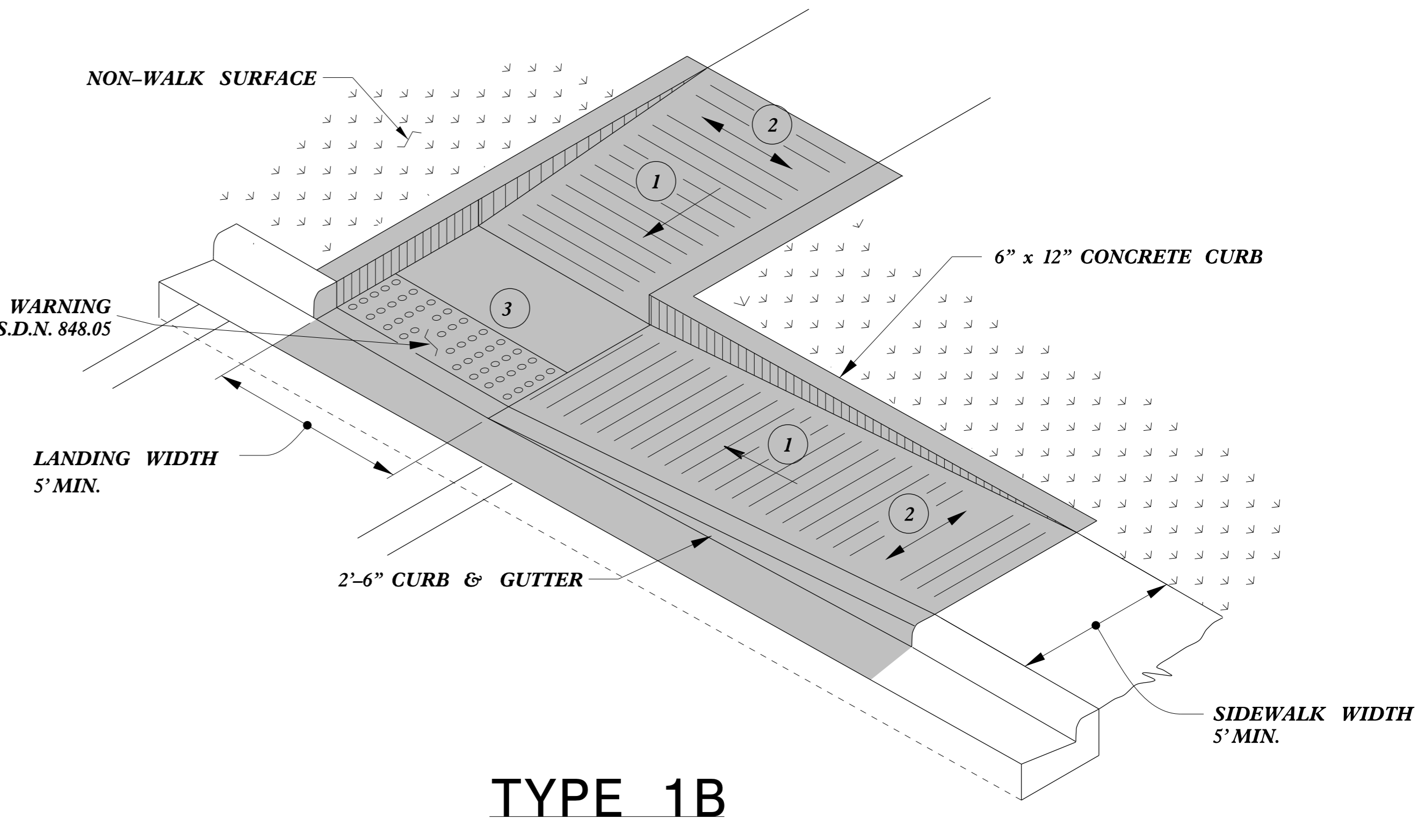
1-12

ENGLISH STANDARD DRAWING FOR
CURB RAMP
EXISTING CURB AND GUTTER

5/14/99



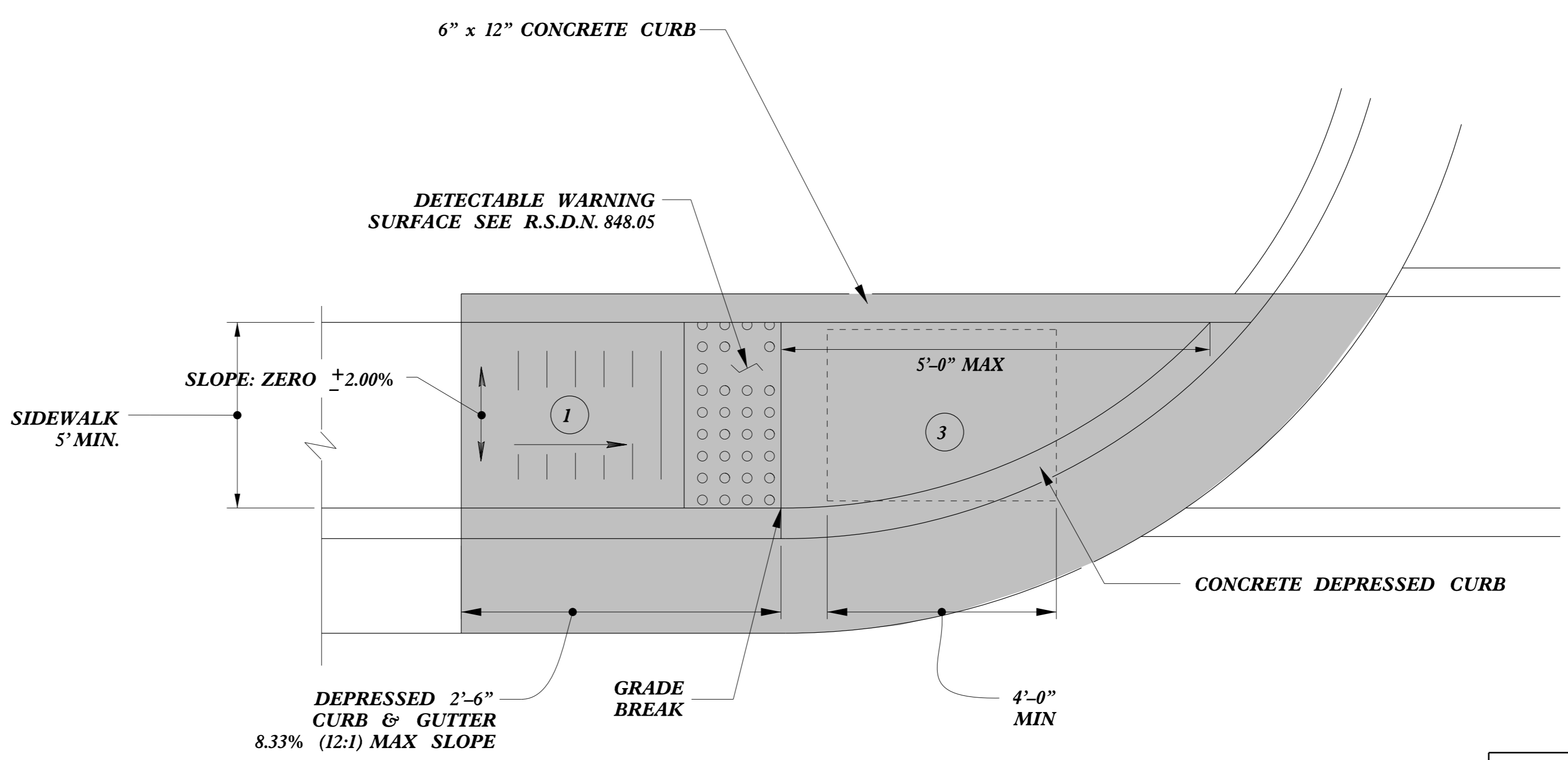
TYPE 1A



TYPE 1B

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.



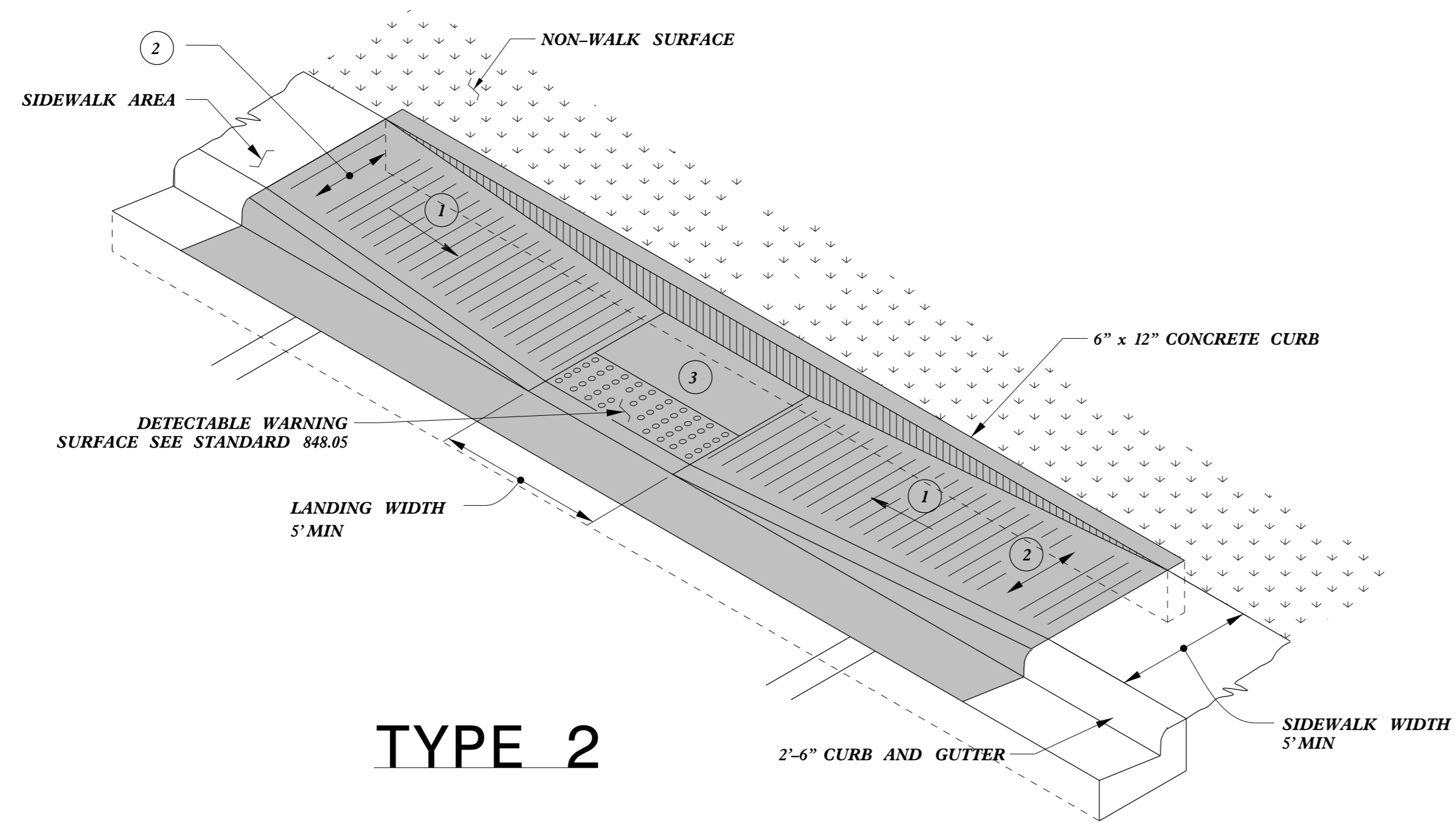
TYPE 1



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	

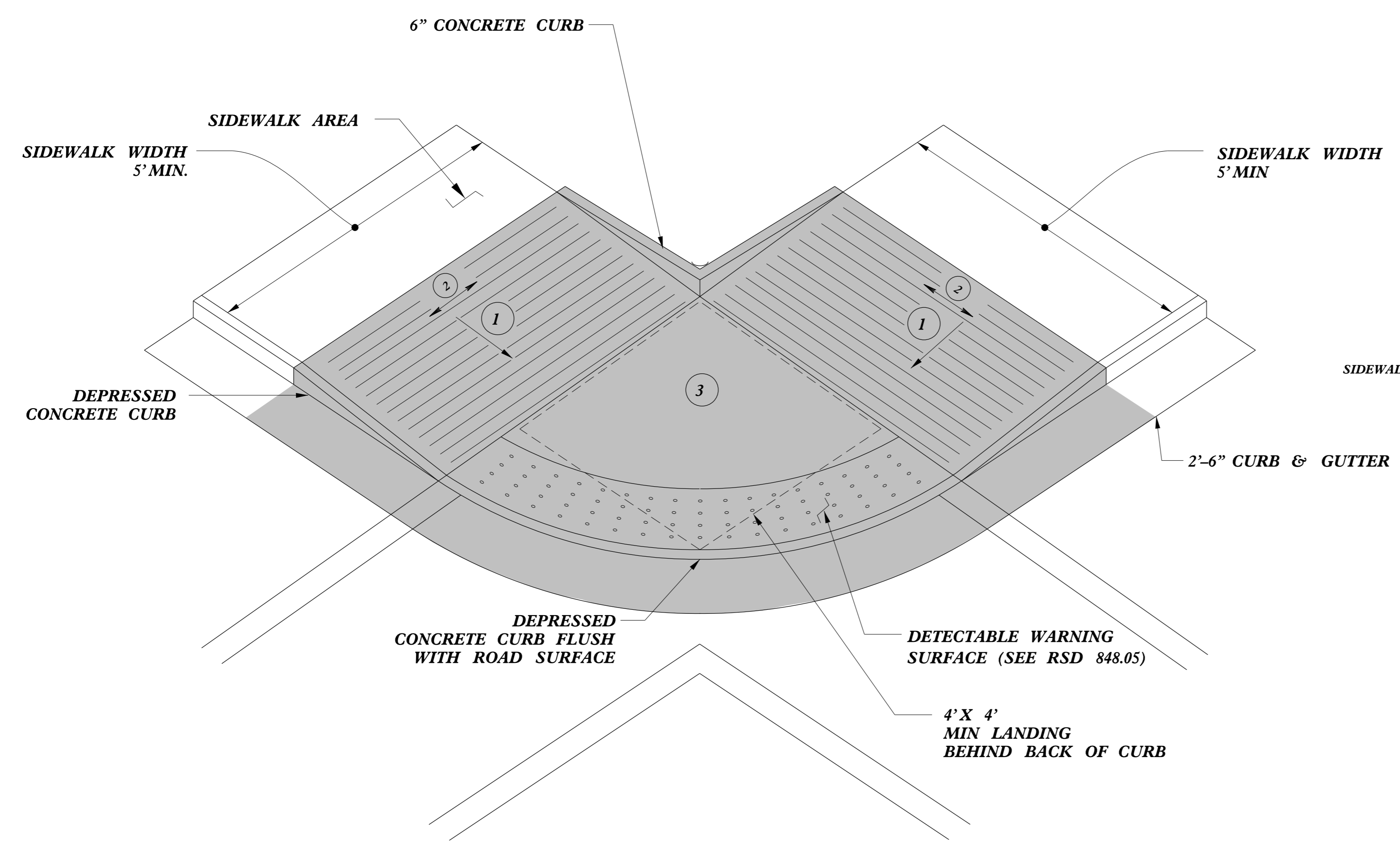
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



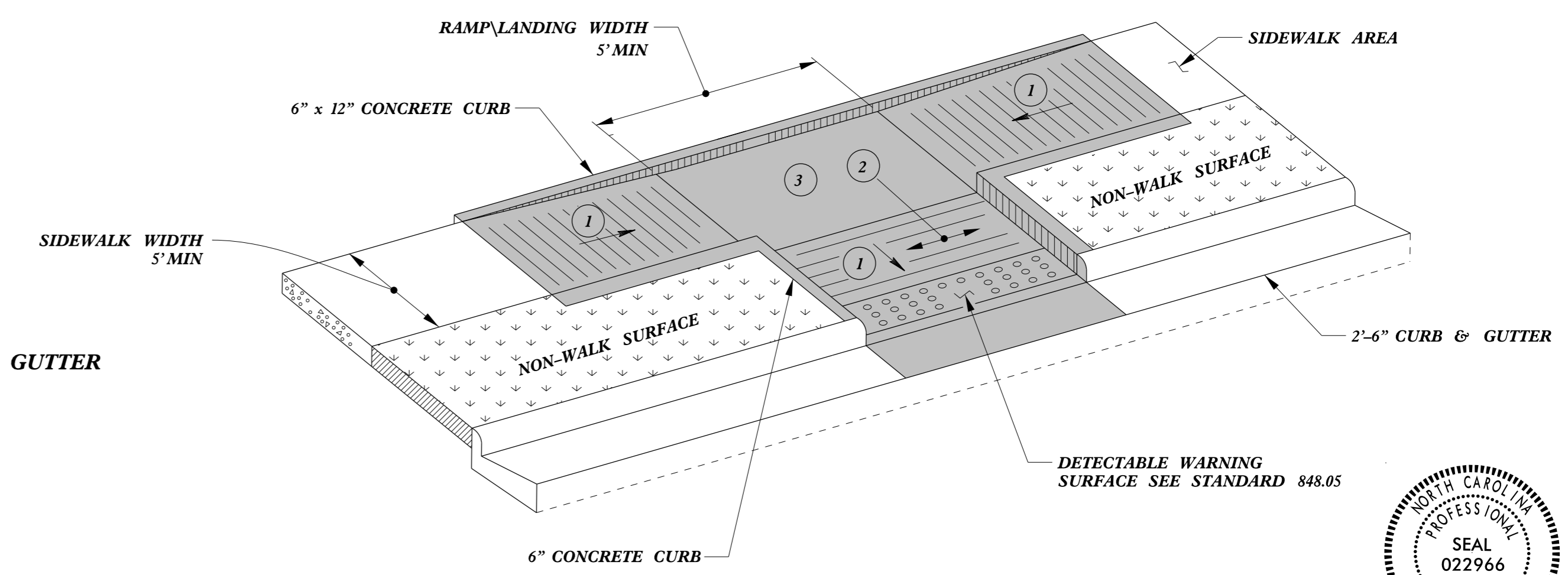
TYPE 2

PAY LIMITS FOR 1 CURB RAMP

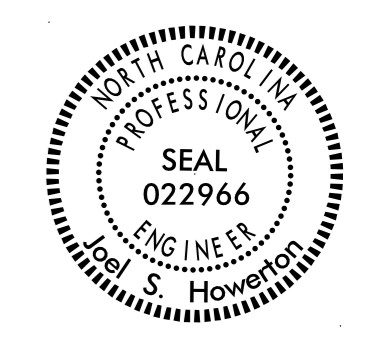
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



TYPE 2A



TYPE 3

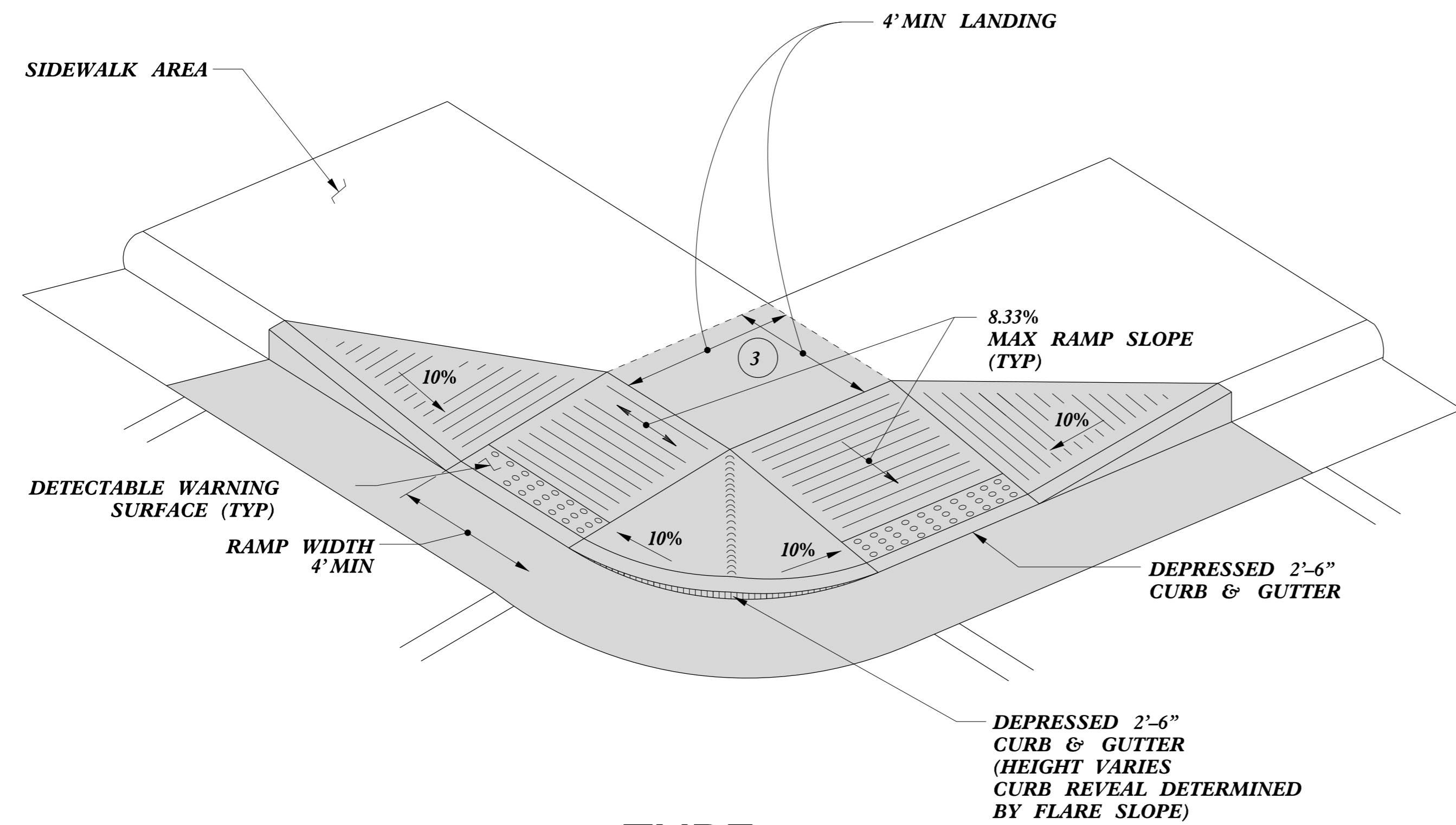


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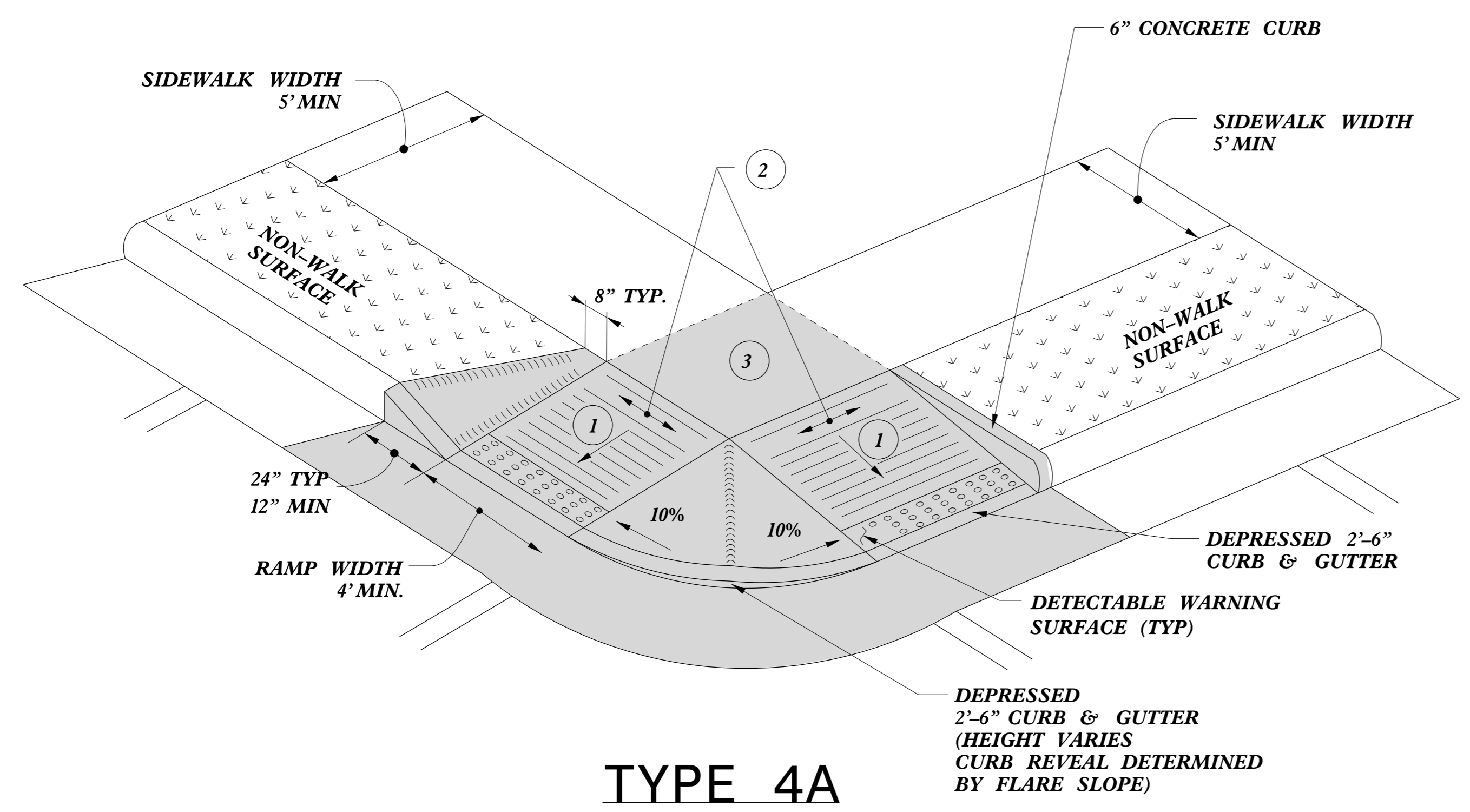
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Parallel Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC. :stds/2012CurbRamp/CurbRampDetails.dgn	

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

5/14/99
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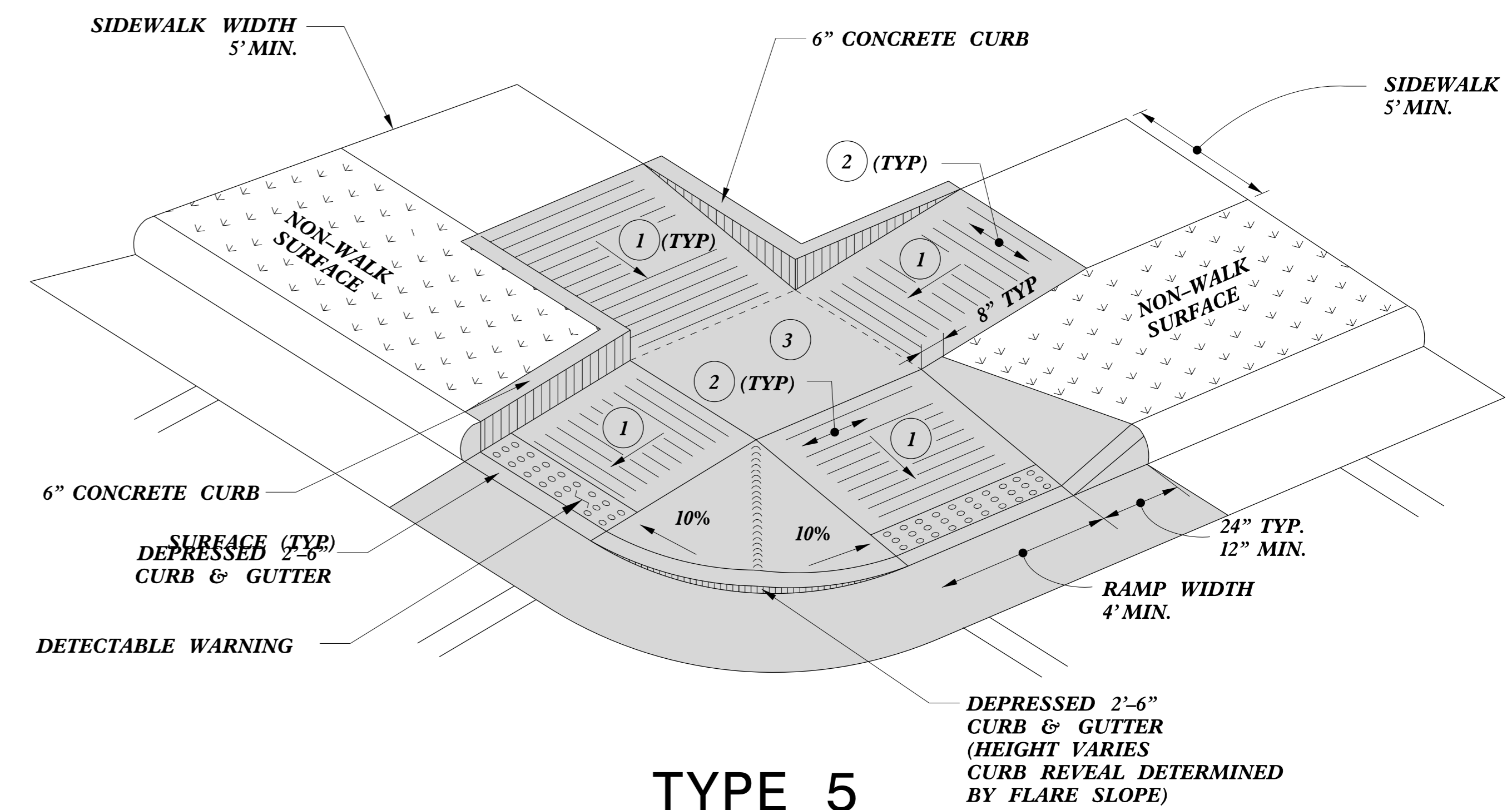


TYPE 4



TYPE 4A

PAY LIMITS FOR 2 CURB RAMPS



TYPE 5

- 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

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	

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

5/14/99
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