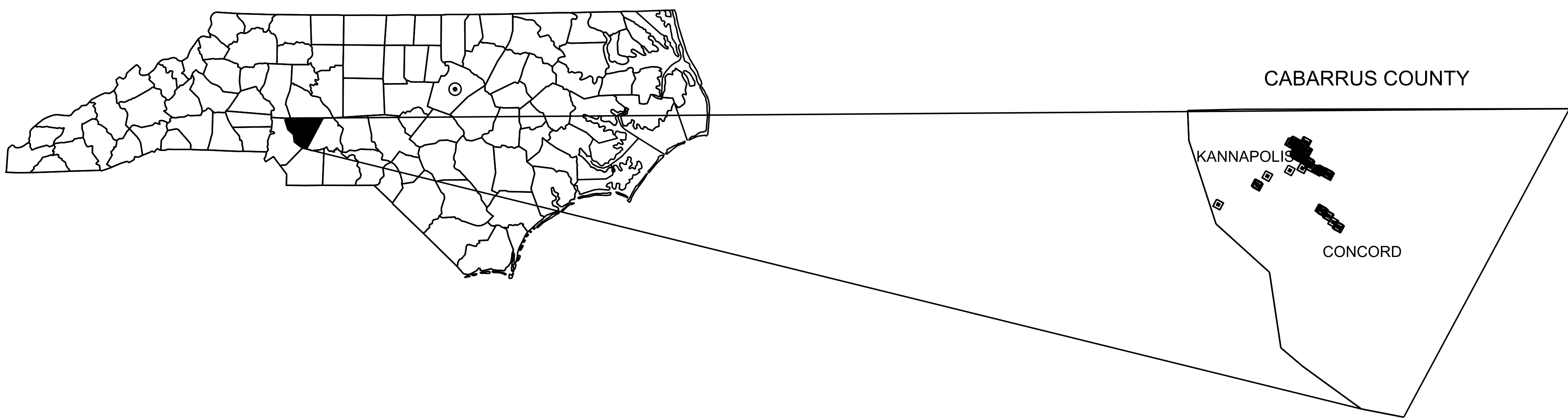


PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
44920.1.16	1	31

# CURB RAMP INSTALLATION AND MODIFICATIONS

PREPARED FOR  
 STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS  
 DIVISION 10: CABARRUS COUNTY



**LEGEND:**

▣ RAMP LOCATION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

PROJECT: R-5790JH

**CONTRACT DATA**

NO. OF RAMPS:  
 \_\_\_\_\_  
 CONTRACT 1: 168

**INDEX OF SHEETS**

SHEET NUMBER	SHEET
1	TITLE SHEET
2 THRU 3	QUANTITIES
5 THRU 18	STANDARD DRAWINGS
20 THRU 31	PLAN LAYOUTS

PREPARED IN THE OFFICE OF:



**KISINGER CAMPO & ASSOCIATES**

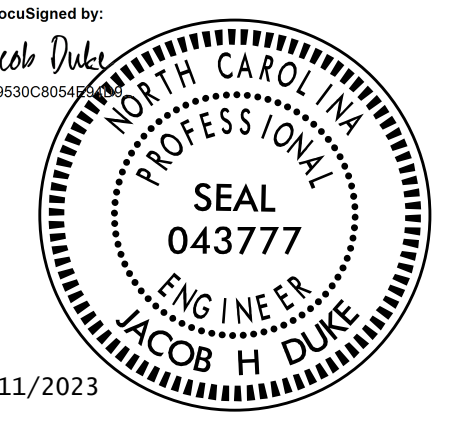
2137 SOUTH BLVD.,  
 SUITE 200  
 CHARLOTTE, NC 28203  
 (980) 327-1300  
 NC LICENSE No.: C-1506

DESIGN CONTACTS

JACOB H. DUKE, P.E.  
 PROJECT ENGINEER - KCA

ALLEN J. MCSWAIN  
 PROJECT DESIGN ENGINEER - KCA

MORGAN S. RINEHART  
 PROJECT GIS SPECIALIST - KCA



9/11/2023

PREPARED FOR THE OFFICE OF:

DIVISION OF HIGHWAYS  
 DIVISION 10

716 WEST MAIN STREET  
 ALBEMARLE, NC 28001  
 (704) 983-4400

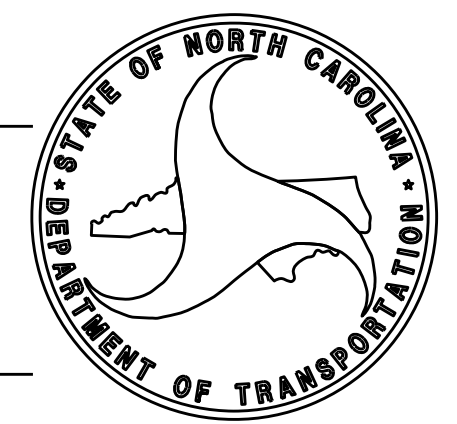
DIVISION CONTACT

TIMOTHY M. KIRK, P.E.  
 DIVISION 10 PROGRAM MANAGER

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
 N/A

LETTING DATE:  
 NOVEMBER 15, 2023



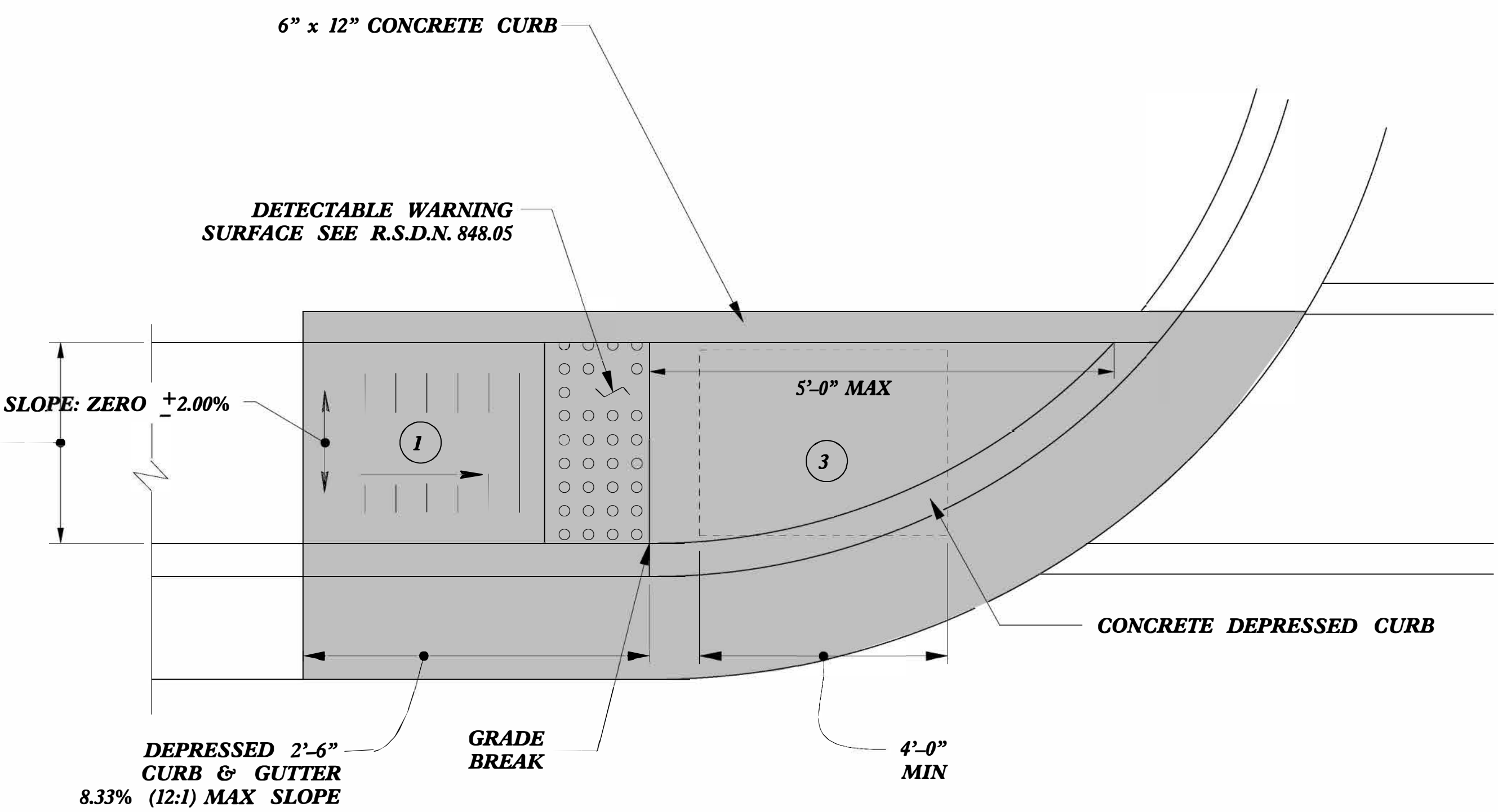
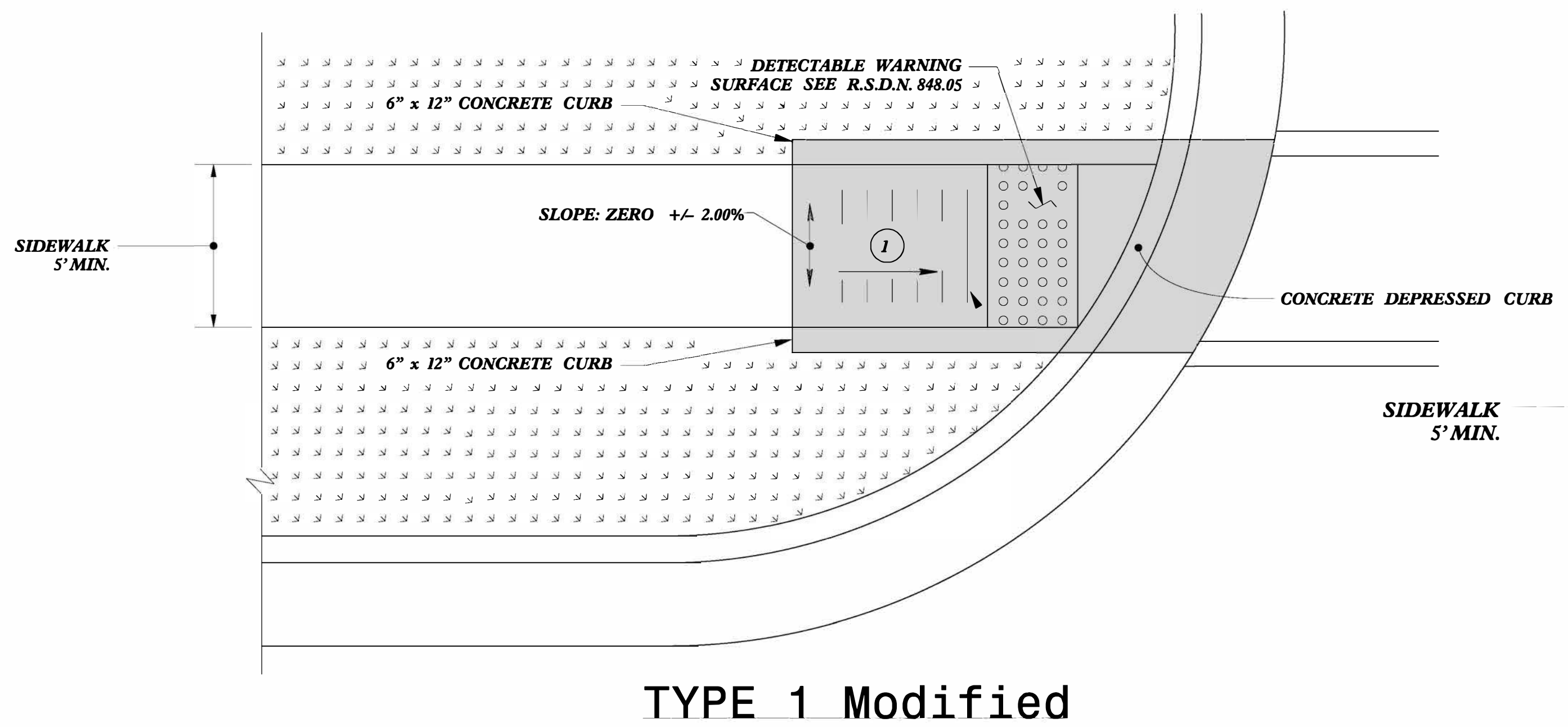
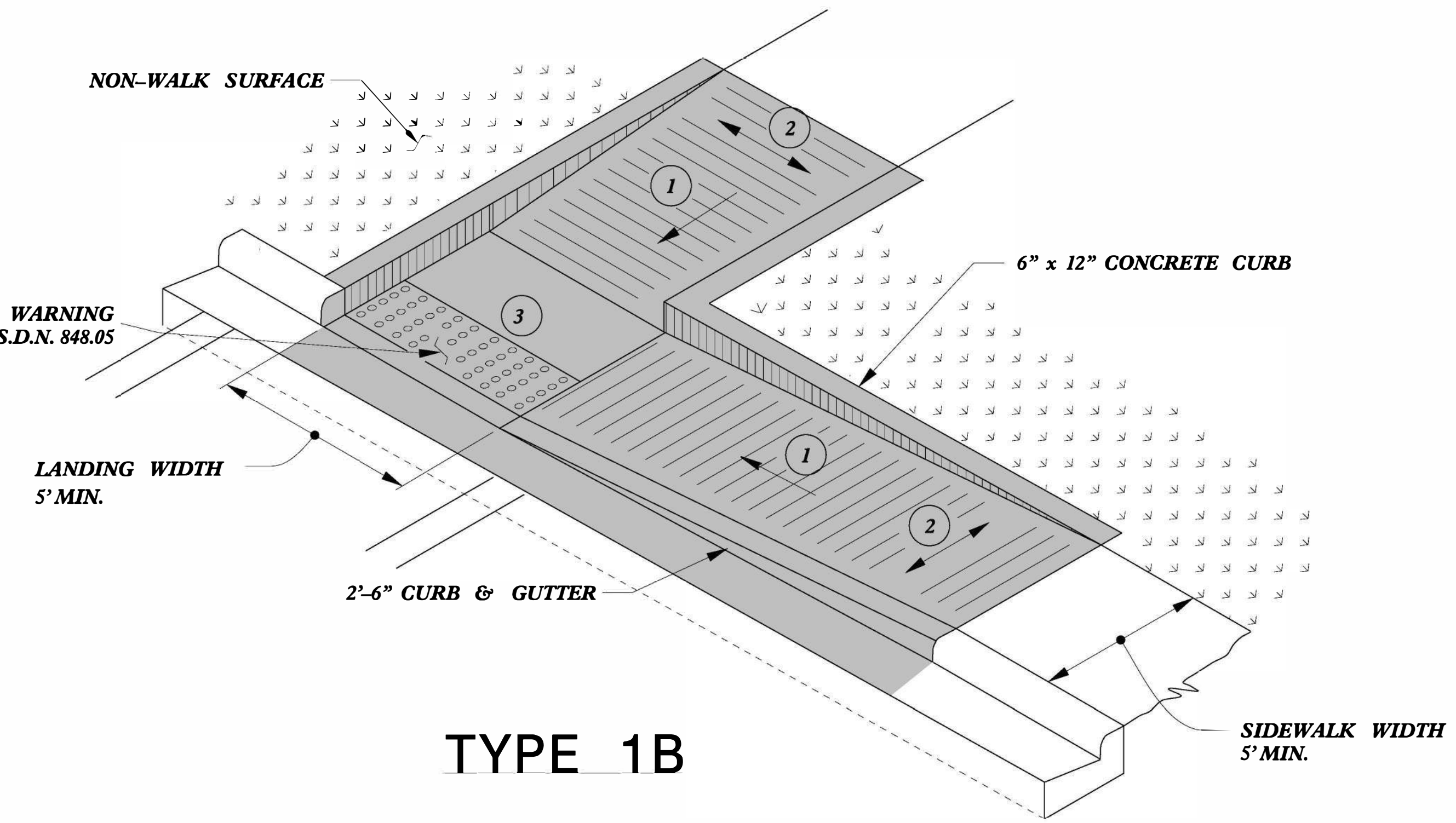
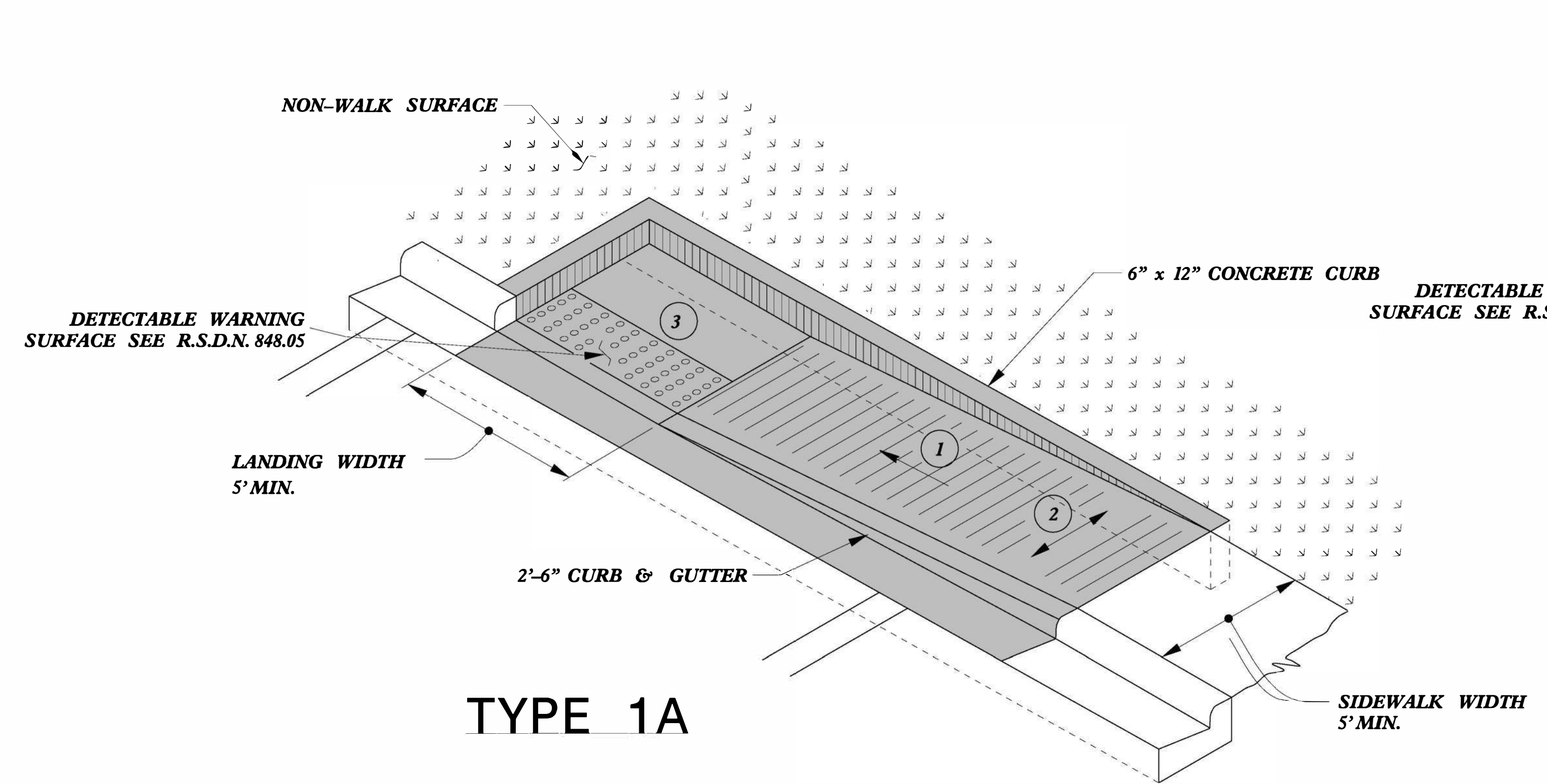
Summary of Quantities

Ramp ID	Map Number	Inset Number	Route 1	Route 2	2549000000-E	2591000000-E			2845000000-N	2830000000-N	5882000000-N	4362000000-N	Dome Style/Color	2600000000-N	2613000000-N	2605000000-N	Ramp Type
					2'-6" Concrete Curb & Gutter	4" Concrete Sidewalk (Remove and Replace)	Prop 4" Concrete Sidewalk	Adjust Valve/Meter Box	Adjust Manhole	Adjust Utility Box	Relocate Sign	Retrofit Existing Curb Ramps		Remove & Replace Ramps	Concrete Curb Ramps		
					LF	SY	SY	EA	EA	EA	EA		EA	EA	EA		
1	1-2	2	Trinity Church Rd	Chamar Circle (two intersections)	5	2						Black		1		Type 1 Modified	
2	1-2	2	Trinity Church Rd	Chamar Circle (two intersections)		2						Black		1		Type 1 Modified	
3	1-2	3	Trinity Church Rd	Chamar Circle (two intersections)	5							Black		1		Standard 848.06	
4	1-2	3	Trinity Church Rd	Chamar Circle (two intersections)								Black		1		Standard 848.06	
5	1-3	4	Kannapolis Pkwy	Rogers Lake Rd								Black		1		Standard 848.06	
6	1-3	4	Kannapolis Pkwy	Rogers Lake Rd								Black		1		Standard 848.06	
7	1-3	5	Rogers Lake Rd	Klondale Ave		2						Red		1		Standard 848.06	
8	1-4	7	"C" St W	Glenn Ave		4	24					Black			1	Standard 848.06	
9	1-4	7	"C" St W	Glenn Ave							1	Black		1		Standard 848.06	
10	1-4	8	"C" St W	YMCA Dr		2						Black		1		Type 2B	
11	1-4	8	"C" St W	YMCA Dr								Black		1		Standard 848.06	
12	1-4	9	"C" St W	Hemlock Ave		2		1				Black		1		Standard 848.06	
13	1-4	9	"C" St W	Hemlock Ave								Black		1		Standard 848.06	
14	1-4	10	"A" St W	"B" St W								Black		1		Standard 848.06	
15	1-4	10	"A" St W	"B" St W								Black		1		Standard 848.06	
16	1-1	1	Davidson Hwy	Wellington Chase Dr								Black		1		Standard 848.06	
17	1-1	1	Davidson Hwy	Wellington Chase Dr								Black		1		Standard 848.06	
18	1-1	1	Davidson Hwy	Wellington Chase Dr	14							Black		1		Standard 848.06	
19	1-4	11	Martin Luther King Jr Ave	S Ridge Ave								Red		1		Standard 848.06	
20	1-4	11	Martin Luther King Jr Ave	S Ridge Ave								Red		1		Type 3	
21	1-4	11	Martin Luther King Jr Ave	S Ridge Ave								Red		1		Standard 848.06	
22	1-4	12	Martin Luther King Jr Ave	N East Ave								Red		1		Type 2A	
23	1-4	12	Martin Luther King Jr Ave	N East Ave	9							Red		1		Type 3 Mod	
24	1-4	12	Martin Luther King Jr Ave	N East Ave								Red		1		Type 2A	
25	1-4	12	Martin Luther King Jr Ave	N East Ave								Red		1		Type 2A	
26	1-4	13	Martin Luther King Jr Ave	S Rose Ave								Red		1		Type 2B	
27	1-4	13	Martin Luther King Jr Ave	S Rose Ave								Red		1		Type 2B	
28	1-4	13	Martin Luther King Jr Ave	S Rose Ave								Red		1		Standard 848.06	
29	1-4	13	Martin Luther King Jr Ave	S Rose Ave								Red		1		Standard 848.06	
30	1-4	14	Martin Luther King Jr Ave	Denver St								Red		1		Standard 848.06	
31	1-10	48	NC 73 (Davidson Drive NW)	Mortan Ave NW								Black		1		Standard 848.06	
32	1-10	48	NC 73 (Davidson Drive NW)	Mortan Ave NW								Black		1		Type 2	
33	1-3	6	Rogers Lake Rd	S. Ridge Ave								Black		1		Type 1A	
34	1-3	6	Rogers Lake Rd	S. Ridge Ave								Black		1		Type 2B	
35	1-12	54	Jackson Park Rd	N East Ave								Red		1		Type 2B	
36	1-12	54	Jackson Park Rd	N East Ave								Red		1		Type 2B	
37	1-12	54	Jackson Park Rd	N East Ave								Red		1		Type 2B	
38	1-12	53	Jackson Park Rd	N East Ave								Black		1		Type 6	
39	1-12	53	Jackson Park Rd	N East Ave		5						Red		1		Type 2B	
40	1-12	53	Jackson Park Rd	N East Ave								Black		1		Type 6	
41	1-12	53	Jackson Park Rd	N East Ave								Black		1		Type 6	
42	1-12	53	Jackson Park Rd	N East Ave			17					Red		1		Type 2B	
43	1-7	28	Dale Earnhardt Blvd	S. Ridge Ave								Red		1		Type 2B	
44	1-7	28	Dale Earnhardt Blvd	S. Ridge Ave								Red		1		Type 2B	
45	1-7	29	Dale Earnhardt Blvd	S. Ridge Ave								Red		1		Type 2B	
46	1-7	29	Dale Earnhardt Blvd	S. Ridge Ave								Red		1		Type 2B	
47	1-7	29	Dale Earnhardt Blvd	S. Ridge Ave	12	28						Red		1		Type 2B	
48	1-7	29	Dale Earnhardt Blvd	S. Ridge Ave			17					Red		1		Type 2B	
49	1-7	28	Dale Earnhardt Blvd	S. Ridge Ave	15	6						Red		1		Type 2B	
50	1-7	28	Dale Earnhardt Blvd	S. Ridge Ave			12					Red		1		Type 2B	
51	1-7	27	Dale Earnhardt Blvd	S. Main St				1				Red		1		Type 4A	
52	1-7	27	Dale Earnhardt Blvd	S. Main St								Red		1		Type 4A	
53	1-7	26	Dale Earnhardt Blvd	S. Main St								Red		1		Type 2B	
54	1-7	26	Dale Earnhardt Blvd	S. Main St								Red		1		Type 2B	
55	1-7	26	Dale Earnhardt Blvd	S. Main St	20	6						Red		1		Type 2A	
56	1-7	26	Dale Earnhardt Blvd	S. Main St	10	14						Red		1		Type 2B	
57	1-7	27	Dale Earnhardt Blvd	S. Main St			9					Red		1		Type 2B	
58	1-7	27	Dale Earnhardt Blvd	S. Main St								Red		1		Type 2A	
59	1-5	16	"A" St W	N Loop Rd			3					Red		1		Type 2	
60	1-5	16	"A" St W	N Loop Rd								Red	2			Retrofit	
61	1-5	16	"A" St W	N Loop Rd								Red		1		Type 2B	
62	1-5	16	"A" St W	N Loop Rd	7	6						Red		1		Type 2	
63	1-5	18	"C" St W	N Loop Rd		3		1				Red		1		Type 2B	
64	1-5	18	"C" St W	N Loop Rd								Red		1		Type 2B	
65	1-5	17	"C" St W	N Loop Rd		6		1				Red		1		Type 2B	
66	1-5	17	"C" St W	N Loop Rd								Red		1		Type 2B	
67	1-5	17	"C" St W	N Loop Rd								Red		1		Type 2B	
68	1-5	18	"C" St W	N Loop Rd		3						Red		1		Type 2B	
69	1-5	18	"C" St W	N Loop Rd								Red		1		Type 2B	
70	1-9	35	Dale Earnhardt Blvd	S Little Texas Rd								Red		1		Standard 848.06	
71	1-9	35	Dale Earnhardt Blvd	S Little Texas Rd								Red		1		Standard 848.06	
72	1-9	35	Dale Earnhardt Blvd	S Little Texas Rd								Red		1		Standard 848.06	
73	1-9	35	Dale Earnhardt Blvd	S Little Texas Rd								Red		1		Standard 848.06	
74	1-9	35	Dale Earnhardt Blvd	S Little Texas Rd								Red		1		Standard 848.06	
75	1-9	35	Dale Earnhardt Blvd	S Little Texas Rd			6					Red		1		Type 3	
76	1-9	38	Dale Earnhardt Blvd	Coldwater Ridge Dr	8							Black				Sidewalk	
77	1-9	38	Dale Earnhardt Blvd	Coldwater Ridge Dr	43	17						Black		1	1	Standard 848.06	
78	1-9	38	Dale Earnhardt Blvd	Coldwater Ridge Dr								Black		1		Standard 848.06	
80	1-5	20	Dale Earnhardt Blvd	Vance Ave								Red		1		Type 2B	
81	1-5	20	Dale Earnhardt Blvd	Vance Ave	5							Red			1	Type 2B	
82	1-5	20	Dale Earnhardt Blvd	Vance Ave								Red			1	Type 2B	
83	1-5	20	Dale Earnhardt Blvd	Vance Ave								Red		1		Type 2B	
84	1-5	20	Dale Earnhardt Blvd	Vance Ave			9					Red		1		Type 2B	
85	1-5	20	Dale Earnhardt Blvd	Vance Ave								Red		1		Type 2B	
86	1-5	20	Dale Earnhardt Blvd	Vance Ave			6					Red				Sidewalk	
87	1-9	40	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd								Red		1		Standard 848.06	
88	1-9	40	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd			32					Red		1		Type 3 Modified	
89	1-9	40	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd			6					Red		1		Standard 848.06	
90	1-9	39	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd								Red		1		Standard 848.06	
91	1-9	39	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd								Red		1		Standard 848.06	
92	1-9	39	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd				62				Red			1	Type 1 Modified	
93	1-9	39	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd								Red		1		Type 1 Modified	



Summary of Quantities

Ramp ID	Map Number	Inset Number	Route 1	Route 2	2549000000-E	2591000000-E			2845000000-N	2830000000-N	5882000000-N	4362000000-N	Dome Style/Color	2600000000-N	2613000000-N	2605000000-N	Ramp Type	
					2'-6" Concrete Curb & Gutter	4" Concrete Sidewalk (Remove and Replace)	Prop 4" Concrete Sidewalk	Adjust Valve/Meter Box	Adjust Manhole	Adjust Utility Box	Relocate Sign	Retrofit Existing Curb Ramps		Remove & Replace Ramps	Concrete Curb Ramps			
					LF	SY	SY	EA	EA	EA	EA	EA		EA	EA			
94	1-9	40	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd									Red		1		Type 1 Modified	
95	1-9	40	Dale Earnhardt Blvd	2966 Dale Earnhardt Blvd	12		3						Red		1		Type 1 Modified	
96	1-9	36	Dale Earnhardt Blvd	Centergrove Rd									Red		1		Standard 848.06	
97	1-9	36	Dale Earnhardt Blvd	Centergrove Rd					18				Red		1		Standard 848.06	
98	1-9	36	Dale Earnhardt Blvd	Centergrove Rd									Red		1		Standard 848.06	
99	1-9	36	Dale Earnhardt Blvd	Centergrove Rd			4						Red		1		Standard 848.06	
100	1-9	36	Dale Earnhardt Blvd	Centergrove Rd									Red		1		Standard 848.06	
101	1-9	36	Dale Earnhardt Blvd	Centergrove Rd									Red		1		Standard 848.06	
102	1-7	30	Dale Earnhardt Blvd	Old Centergrove Rd Western connection			6						Black				Sidewalk	
103	1-7	30	Dale Earnhardt Blvd	Old Centergrove Rd Western connection	5								Black			1	Type 1	
104	1-7	31	Dale Earnhardt Blvd	Old Centergrove Rd Western connection	5		3						Black		1		Type 1	
105	1-7	31	Dale Earnhardt Blvd	Old Centergrove Rd Western connection									Black		1		Type 1	
106	1-7	31	Dale Earnhardt Blvd	Old Centergrove Rd Western connection			6						Black				Sidewalk	
107	1-7	30	Dale Earnhardt Blvd	Old Centergrove Rd Western connection			6						Black				Sidewalk	
108	1-7	30	Dale Earnhardt Blvd	Old Centergrove Rd Western connection									Black			1	Type 2B	
109	1-7	31	Dale Earnhardt Blvd	Old Centergrove Rd Western connection									Black		2		Type 7	
110	1-6	24	Dale Earnhardt Blvd	Martin Circle Eastern connection	10		6						Red		1		Type 2B	
111	1-6	25	Dale Earnhardt Blvd	Martin Circle Eastern connection	15		6						Red		1		Type 2B	
112	1-6	25	Dale Earnhardt Blvd	Martin Circle Eastern connection	10		6						Red		1		Type 2B	
113	1-6	24	Dale Earnhardt Blvd	Martin Circle Eastern connection	10		6						Red		1		Type 2B	
114	1-6	25	Dale Earnhardt Blvd	Martin Circle Eastern connection			6						Red				Sidewalk	
115	1-11	52	Martin Luther King Jr Ave	Main St									Red		1		Standard 848.06	
116	1-11	52	Martin Luther King Jr Ave	Main St	15								Red		1		Standard 848.06	
117	1-11	49	Martin Luther King Jr Ave	Main St	10								Brick		1		Type 4A	
118	1-11	49	Martin Luther King Jr Ave	Main St						2			Brick		1		Type 4A	
119	1-11	50	Martin Luther King Jr Ave	Main St				1		1			Brick		1		Standard 848.06	
120	1-11	50	Martin Luther King Jr Ave	Main St									Brick		1		Standard 848.06	
121	1-11	51	Martin Luther King Jr Ave	Main St									Red		1		Standard 848.06	
122	1-11	51	Martin Luther King Jr Ave	Main St	21		20						Red		1		Standard 848.06	
123	1-5	15	"A" St W	Church Ct									Red		1		Type 2A Modified	
124	1-5	15	"A" St W	Church Ct	15								Red		1		Type 2A Modified	
125	1-5	15	"A" St W	Church Ct									Red		1		Type 2	
126	1-5	15	"A" St W	Church Ct			3						Red		1		Type 2	
127	1-8	33	Dale Earnhardt Blvd	McLain Rd			3						Red		1		Standard 848.06	
128	1-8	33	Dale Earnhardt Blvd	McLain Rd									Red		2		Type 7	
129	1-8	33	Dale Earnhardt Blvd	McLain Rd									Red		2		Type 7	
130	1-8	33	Dale Earnhardt Blvd	McLain Rd									Red		1		Type 1A	
132	1-8	34	Dale Earnhardt Blvd	1900 Dale Earnhardt Blvd entrance			3						Red		1		Type 1 Modified	
133	1-8	34	Dale Earnhardt Blvd	1900 Dale Earnhardt Blvd entrance			3						Red		1		Type 1 Modified	
134	1-8	34	Dale Earnhardt Blvd	1900 Dale Earnhardt Blvd entrance			3						Red		1		Type 1 Modified	
135	1-8	34	Dale Earnhardt Blvd	1900 Dale Earnhardt Blvd entrance			3						Red		1		Type 1 Modified	
136	1-8	32	Dale Earnhardt Blvd	Chapel St			3						Red		1		Type 2B	
137	1-8	32	Dale Earnhardt Blvd	Chapel St				1					Red		1		Type 2B	
138	1-8	32	Dale Earnhardt Blvd	Chapel St	10								Red		1		Type 2B	
139	1-6	23	Dale Earnhardt Blvd	West Ave/Leonard Ave									Red		1		Type 2B	
140	1-6	23	Dale Earnhardt Blvd	West Ave/Leonard Ave			34						Red		1		Type 2B	
141	1-6	23	Dale Earnhardt Blvd	West Ave/Leonard Ave	10		12						Red		1		Type 2B	
142	1-6	23	Dale Earnhardt Blvd	West Ave/Leonard Ave	10		6						Red		1		Type 2B	
143	1-6	22	Dale Earnhardt Blvd	Oak Ave			28						Red		1		Type 2B	
144	1-6	22	Dale Earnhardt Blvd	Oak Ave	10		6						Red		1		Type 2B	
145	1-6	22	Dale Earnhardt Blvd	Oak Ave	10		6						Red		1		Type 2B	
146	1-6	22	Dale Earnhardt Blvd	Oak Ave	10		6						Red		1		Type 2B	
147	1-6	21	Dale Earnhardt Blvd	"F" St W									Red		1		Type 2B	
148	1-6	21	Dale Earnhardt Blvd	"F" St W									Red		1		Type 4A	
149	1-6	21	Dale Earnhardt Blvd	"F" St W									Red		1		Type 4A	
150	1-6	21	Dale Earnhardt Blvd	"F" St W	22								Red		1		Type 2B	
151	1-5	19	Dale Earnhardt Blvd	Oak Ave Mall Dr									Red		1		Type 2B	
152	1-5	19	Dale Earnhardt Blvd	Oak Ave Mall Dr									Red		2		Type 7	
153	1-5	19	Dale Earnhardt Blvd	Oak Ave Mall Dr									Red		2		Type 7	
154	1-5	19	Dale Earnhardt Blvd	Oak Ave Mall Dr									Red		1		Type 2B	
155	1-10	47	Church St. S	Means Ave SE	3								Black		2		Type 4	
156	1-10	47	Church St. S	Means Ave SE	30								Black		1		Type 2A	
157	1-10	41	Church St. N	Gibson Drive NW									Red		1		Type 1	
158	1-10	41	Church St. N	Gibson Drive NW	6		6		3				Red		1		Type 2B	
159	1-10	42	Church St. N	Foliage Ave NW			6						Red		1		Type 1 Modified	
160	1-10	42	Church St. N	Foliage Ave NW									Red		1		Type 1 Modified	
161	1-10	46	Church St. S	Cabarrus Ave E	15		12		2				Red		1		Type 2B	
162	1-10	46	Church St. S	Cabarrus Ave E				2					Red		1		Type 2A	
163	1-10	46	Church St. S	Cabarrus Ave E									Red		1		Type 2B	
164	1-10	46	Church St. S	Cabarrus Ave E									Red		2		Type 4	
165	1-10	43	Church St. N	Brookwood Cemetary main entrance			3						Black		1		Type 1	
166	1-10	43	Church St. N	Brookwood Cemetary main entrance			3						Black		1		Type 1	
167	1-10	44	Church St. N	Brookwood Cemetary entrance #2									Black		1		Type 2A	
168	1-10	44	Church St. N	Brookwood Cemetary entrance #2									Black		1		Type 2A	
169	1-10	45	Church St. NE	Barrow Ave NE			6						Red		1		Type 2B	
170	1-10	45	Church St. NE	Barrow Ave NE									Red				Retrofit	
Totals					417	458	104	12	1	3	1		3	158	9			
					2549000000-E	2591000000-E			2845000000-N	2830000000-N	5882000000-N	4362000000-N	2600000000-N		2613000000-N	2605000000-N		
					2'-6" Concrete Curb & Gutter	4" Concrete Sidewalk (Remove and Replace)	Prop 4" Concrete Sidewalk	Adjust Valve/Meter Box	Adjust Manhole	Adjust Utility Box	Relocate Sign			Retrofit Existing Curb Ramps	Remove & Replace Ramps	Concrete Curb Ramps		
					LF	SY	SY	EA	EA	EA	EA		EA	EA	EA			

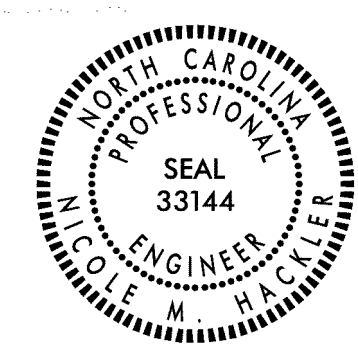


- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



PAY LIMITS FOR 1 CURB RAMP

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

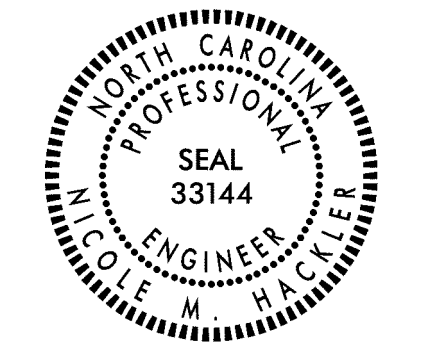
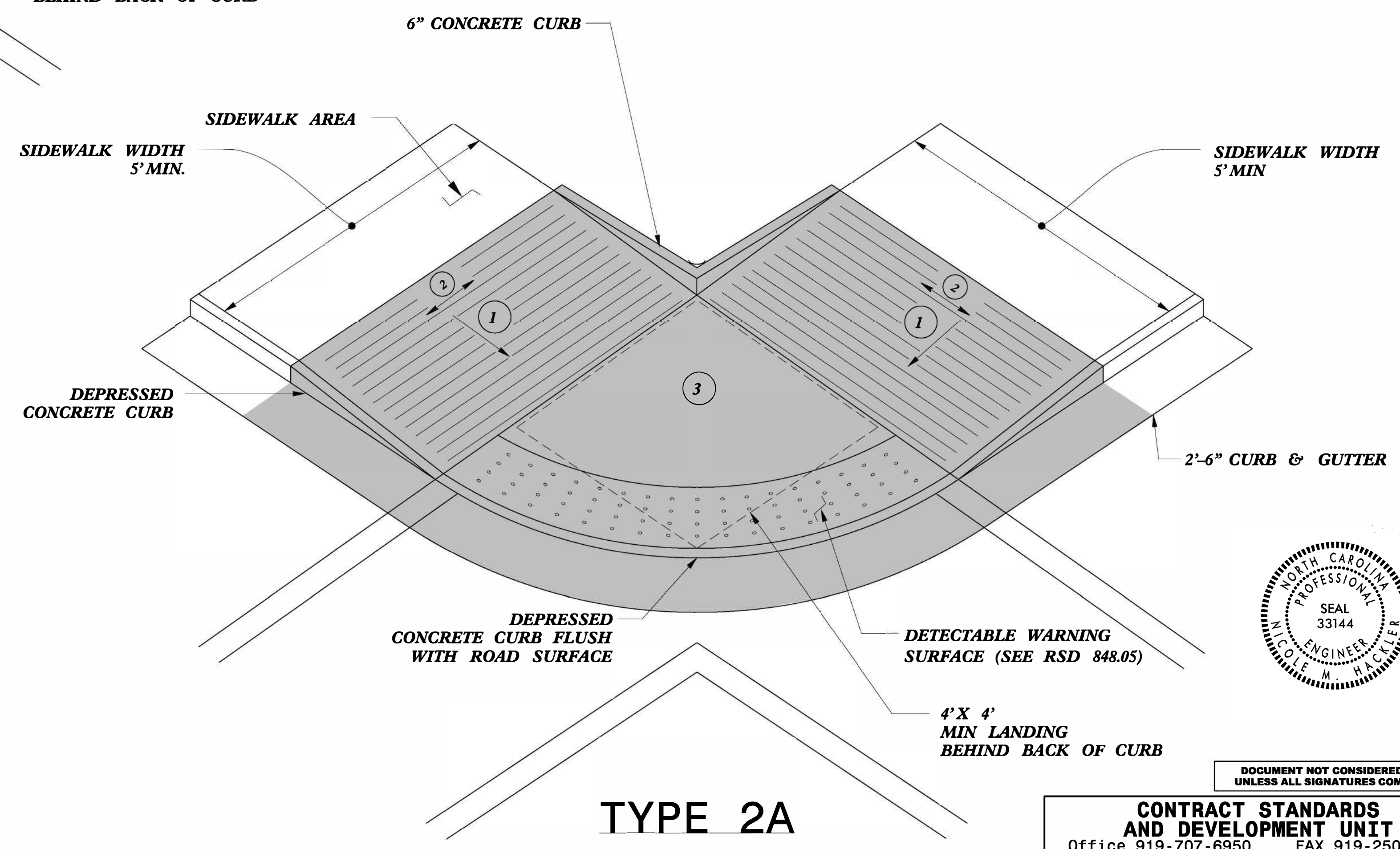
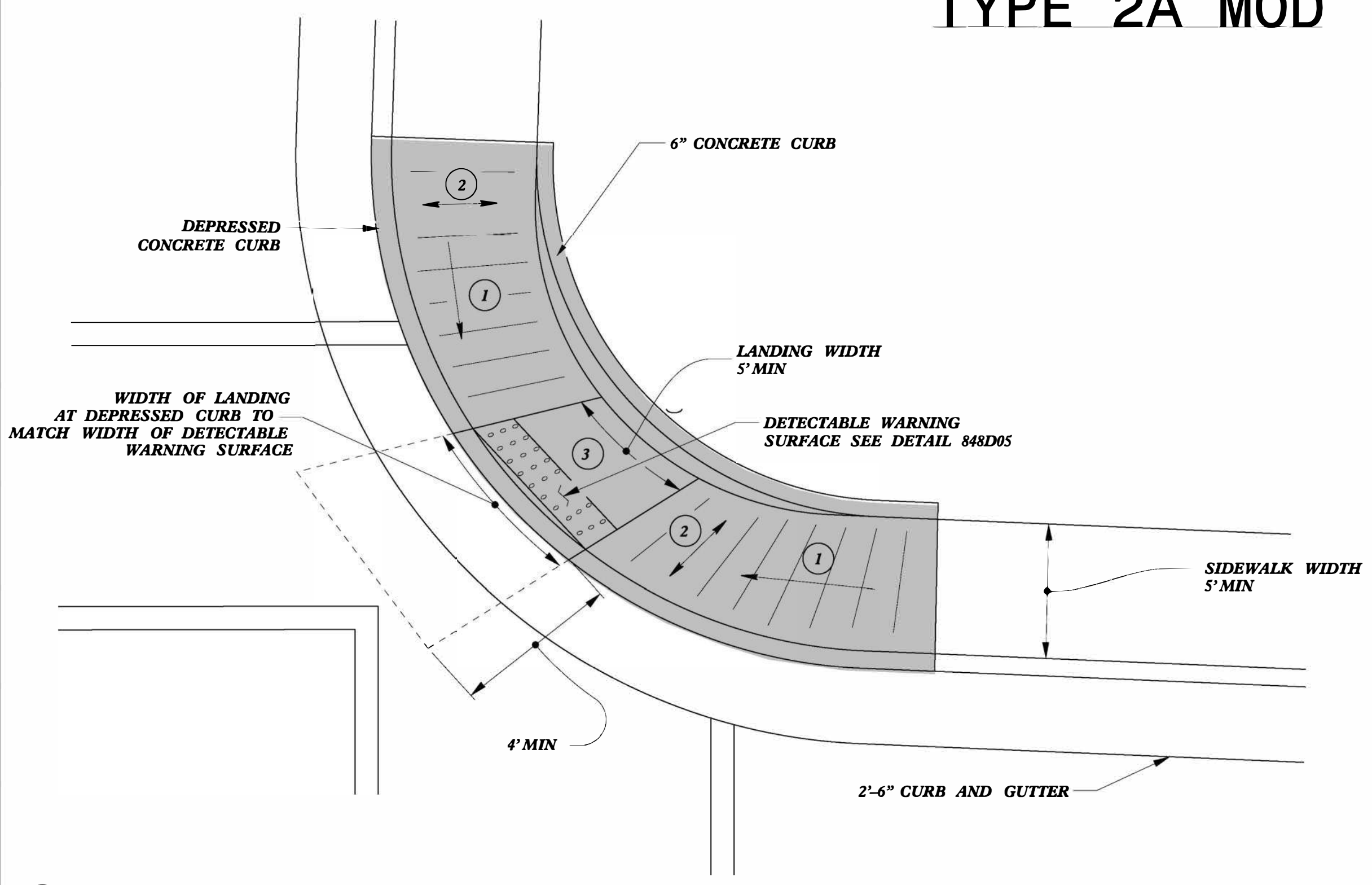
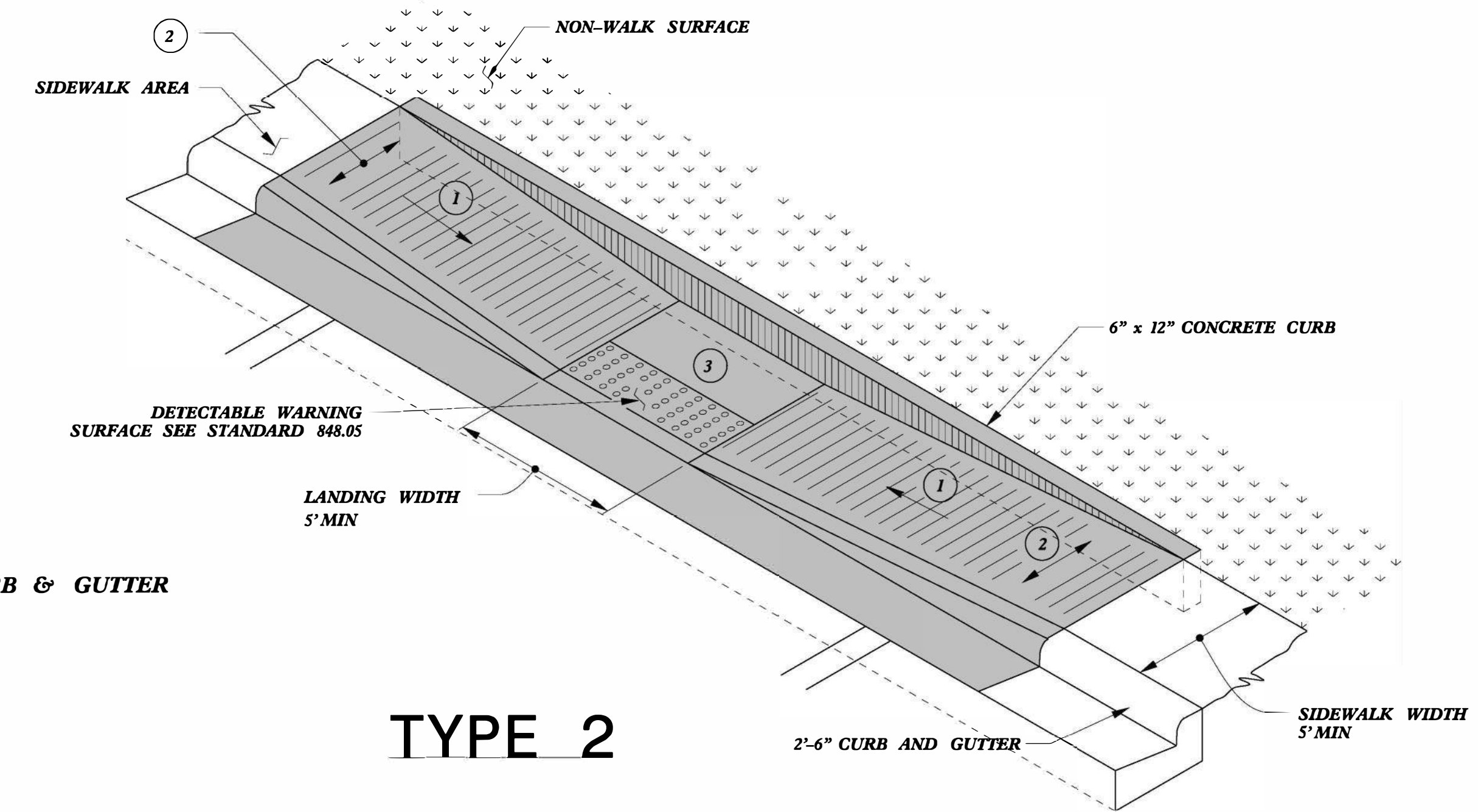
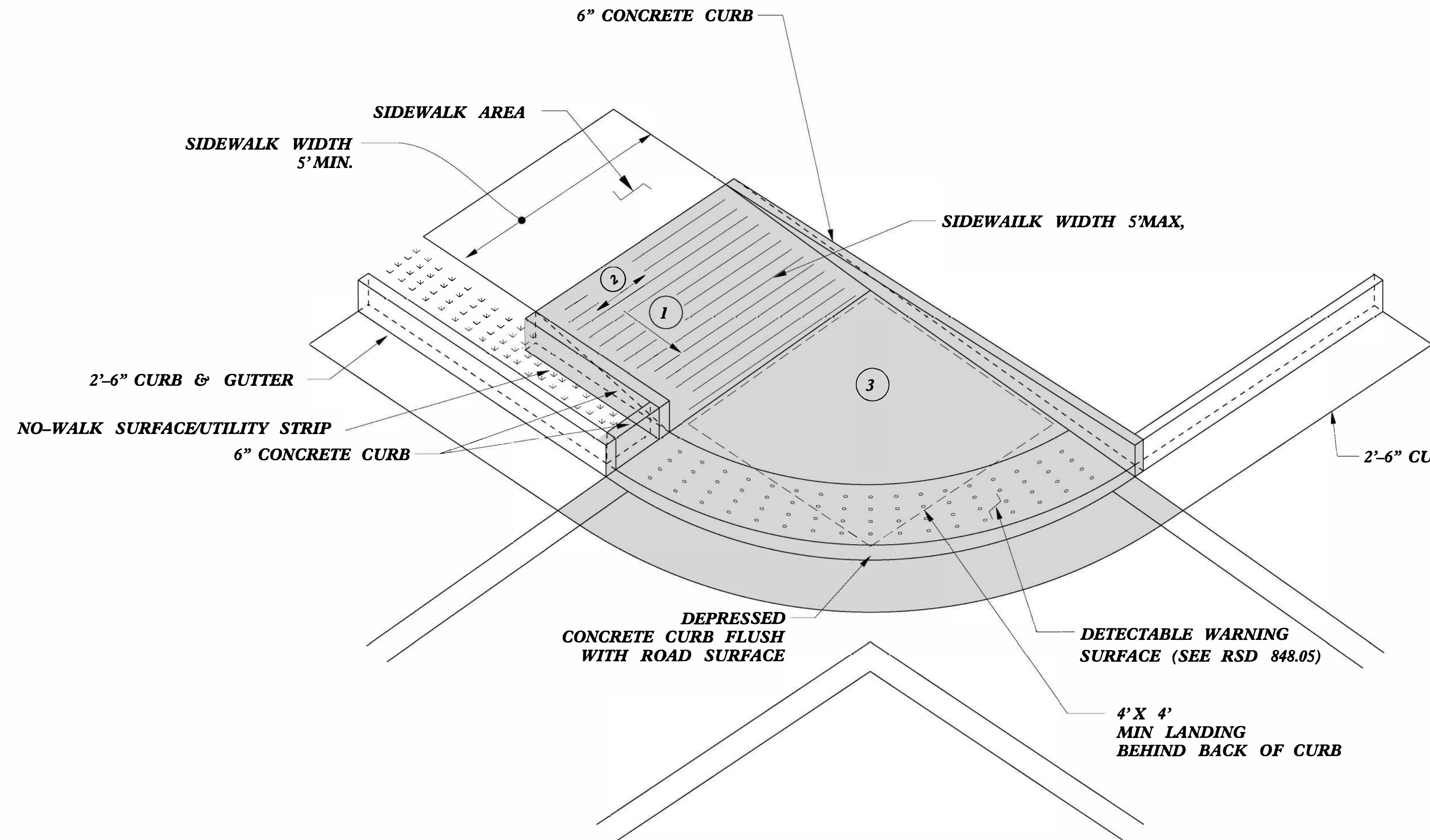
**CURB RAMPS**  
 Directional Ramps

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

5/14/99



5/14/99



- 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.

PAY LIMITS FOR 1 CURB RAMP

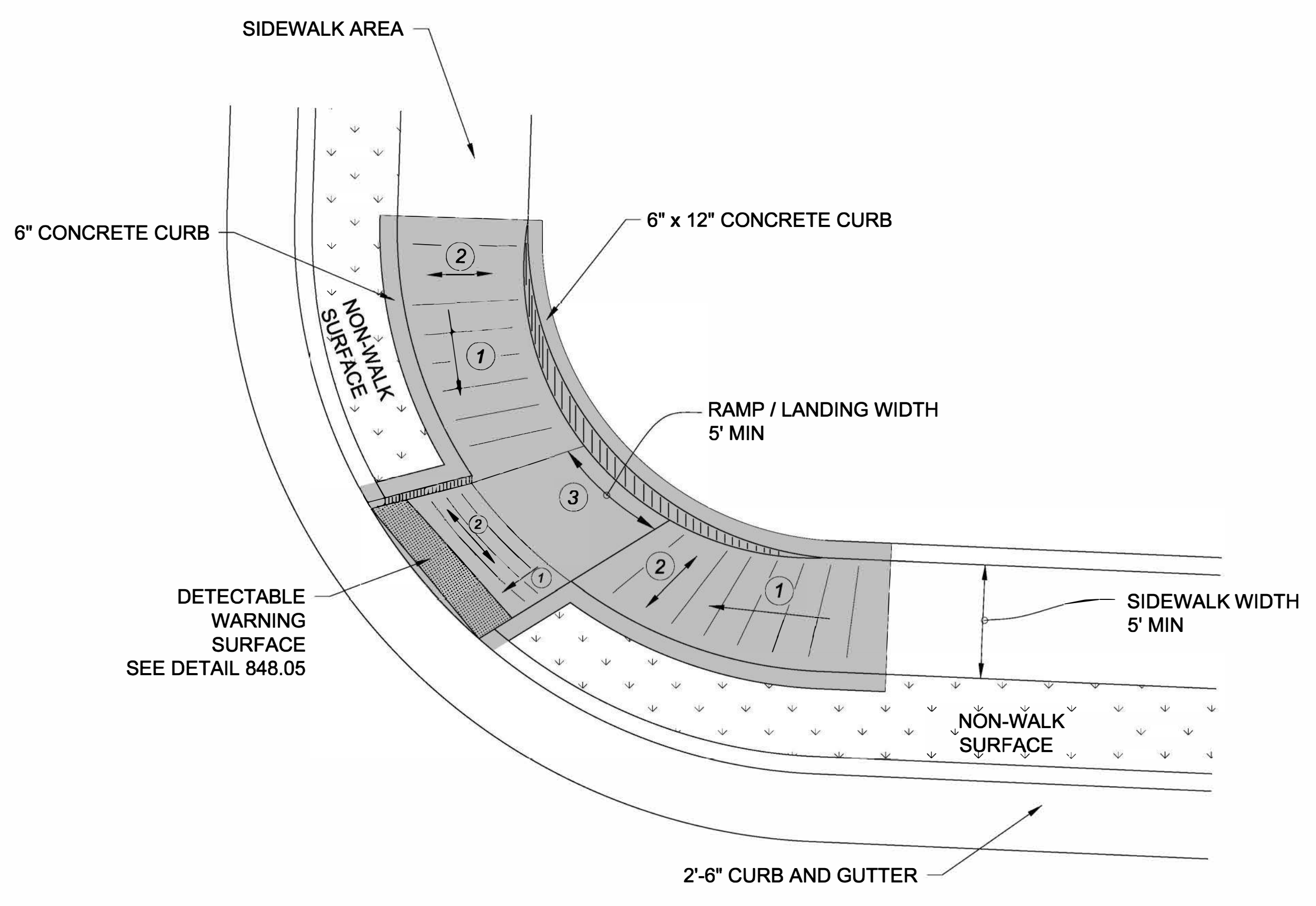
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

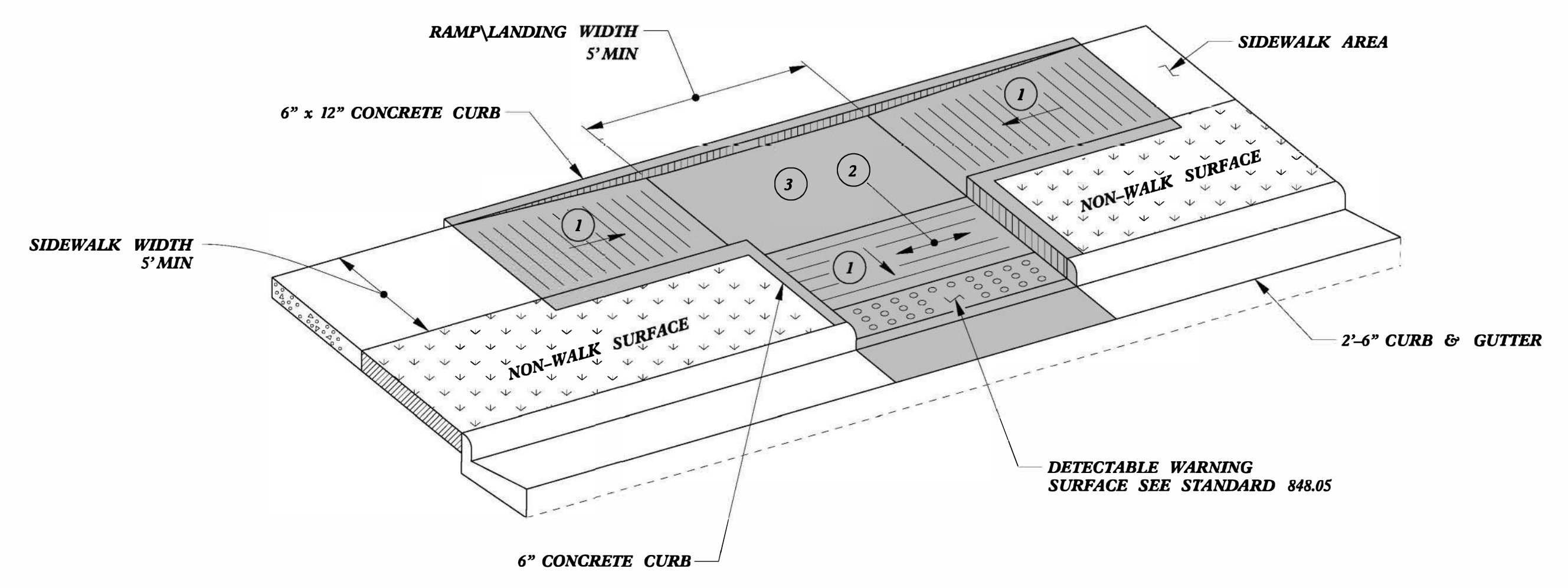
**CURB RAMPS**

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

**PAY LIMITS FOR 1 CURB RAMP**

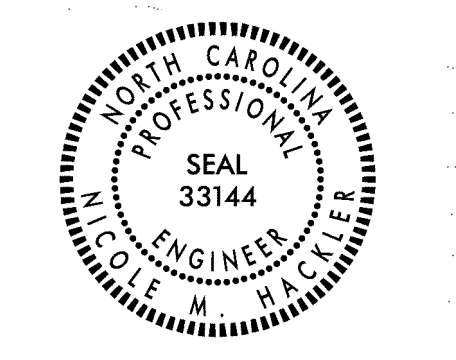


**TYPE 3 MODIFIED  
INSTALLATION IN A RADIUS**



**TYPE 3**

- 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

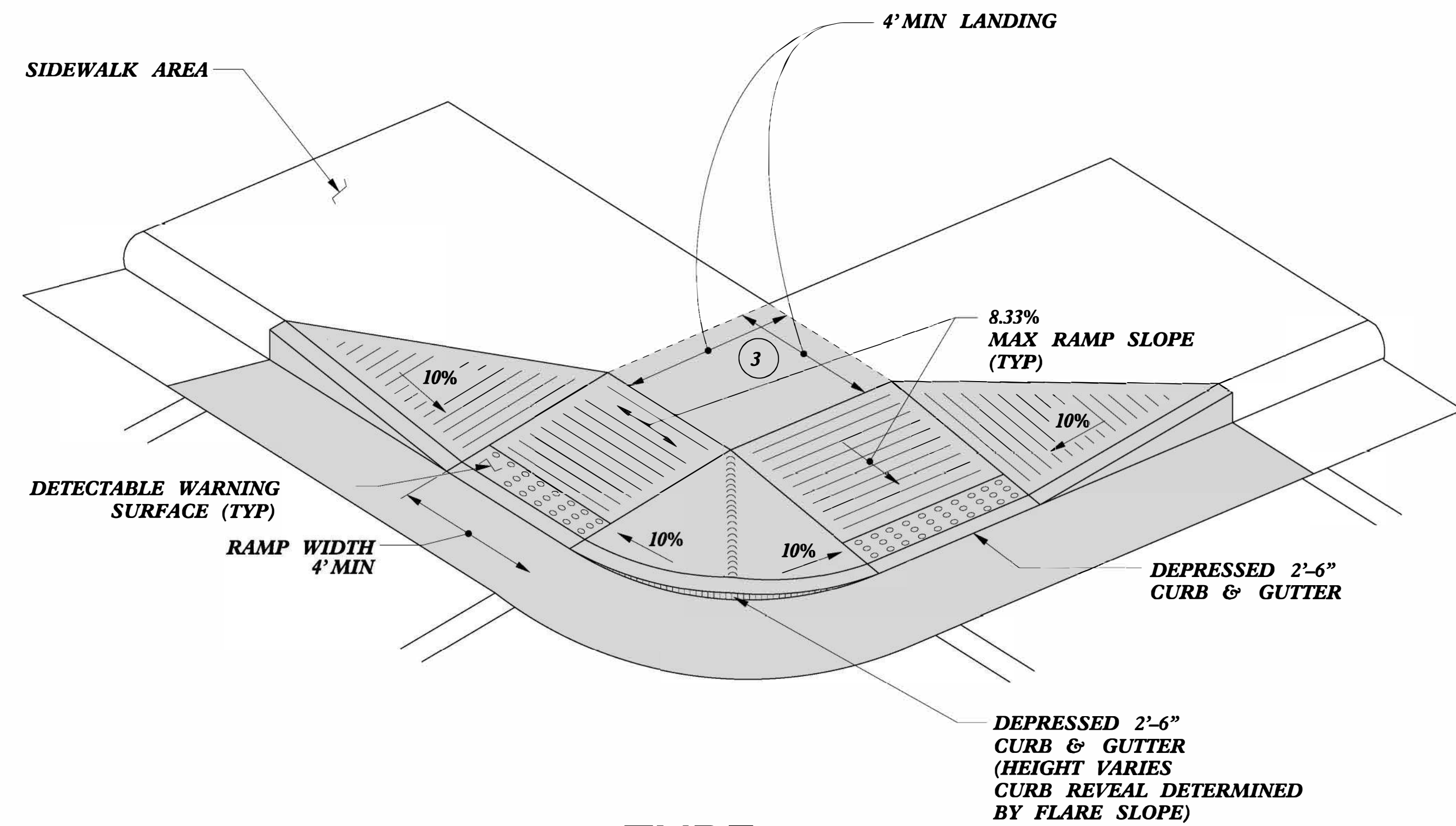
**CONTRACT STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS**

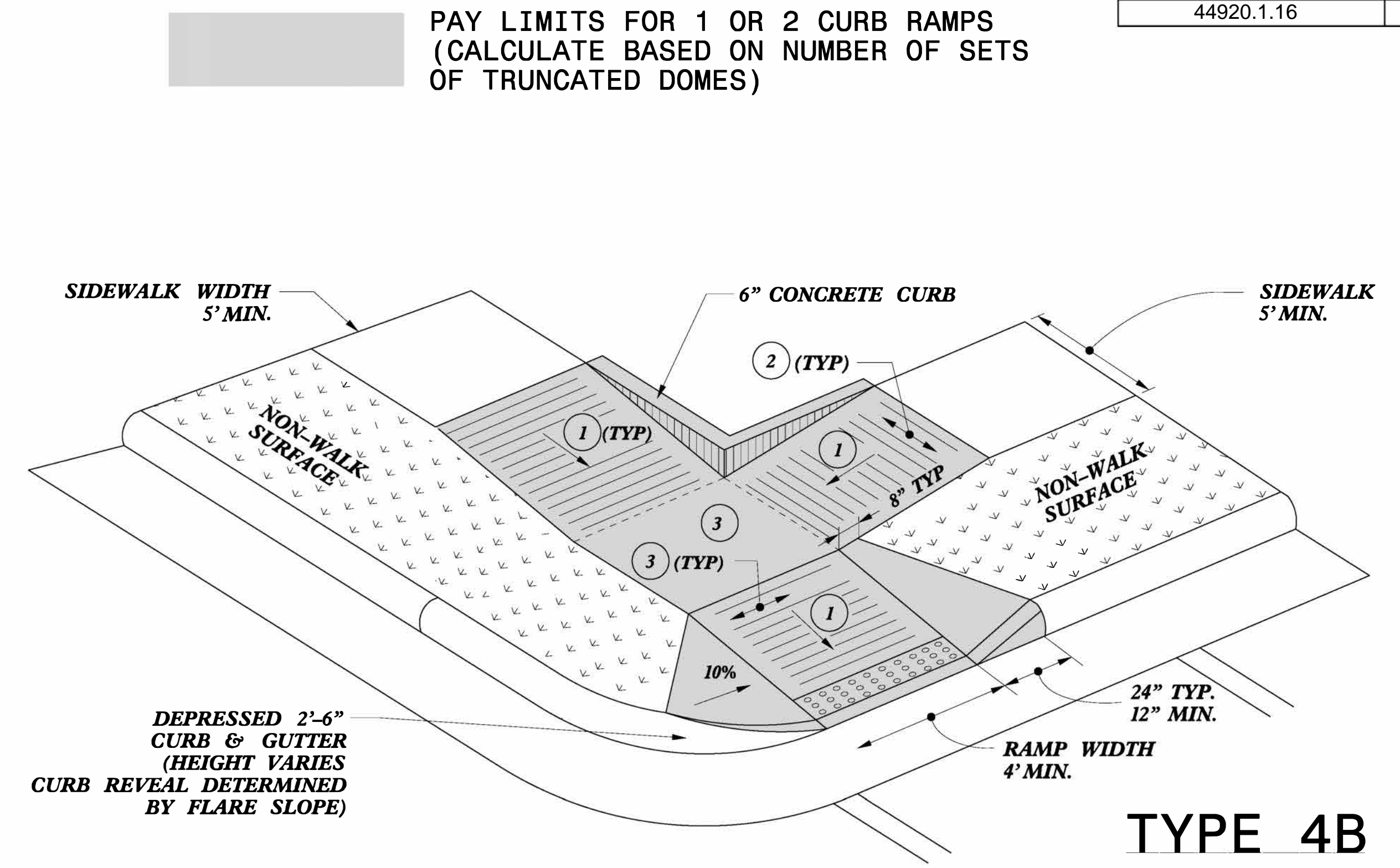
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5/14/99

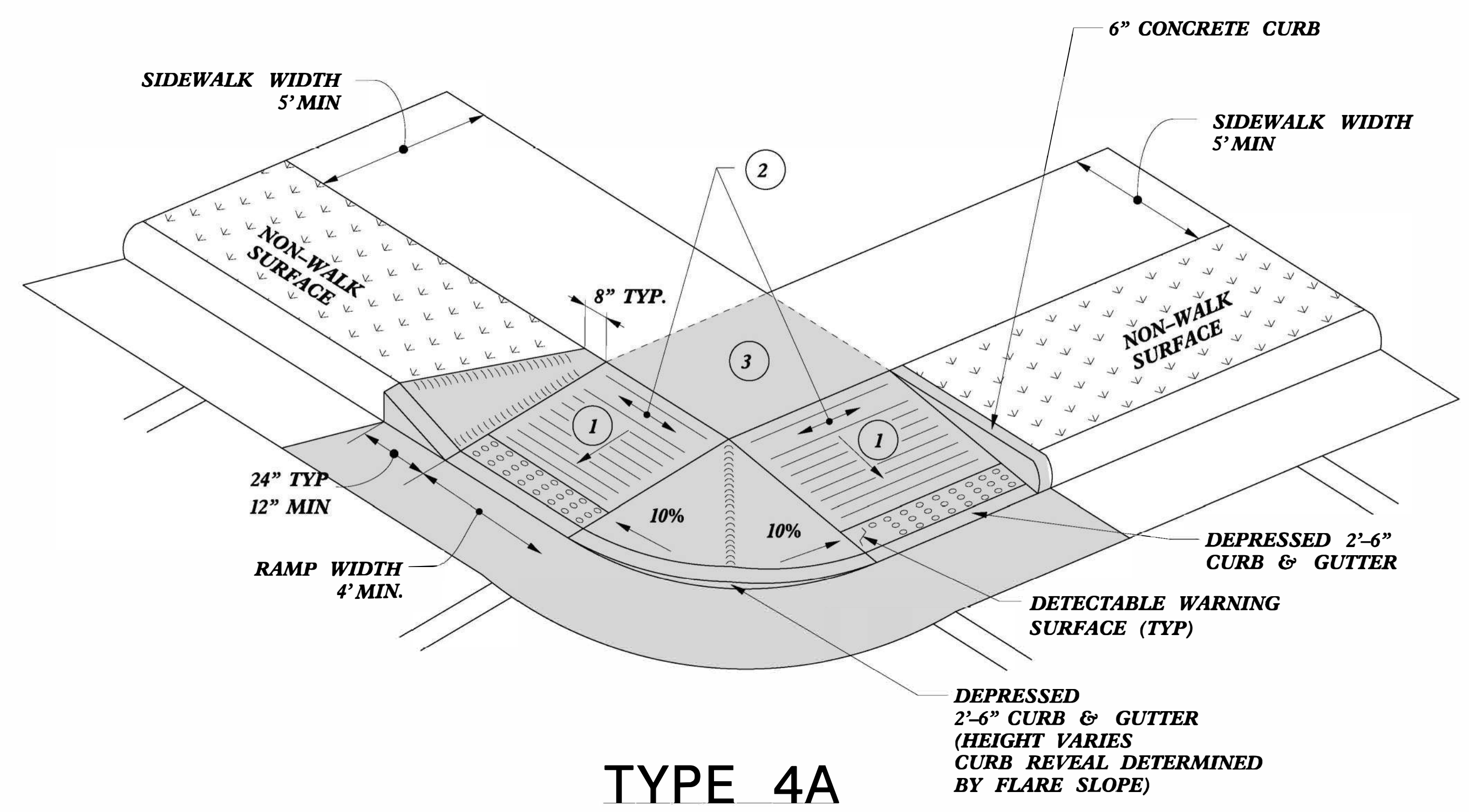




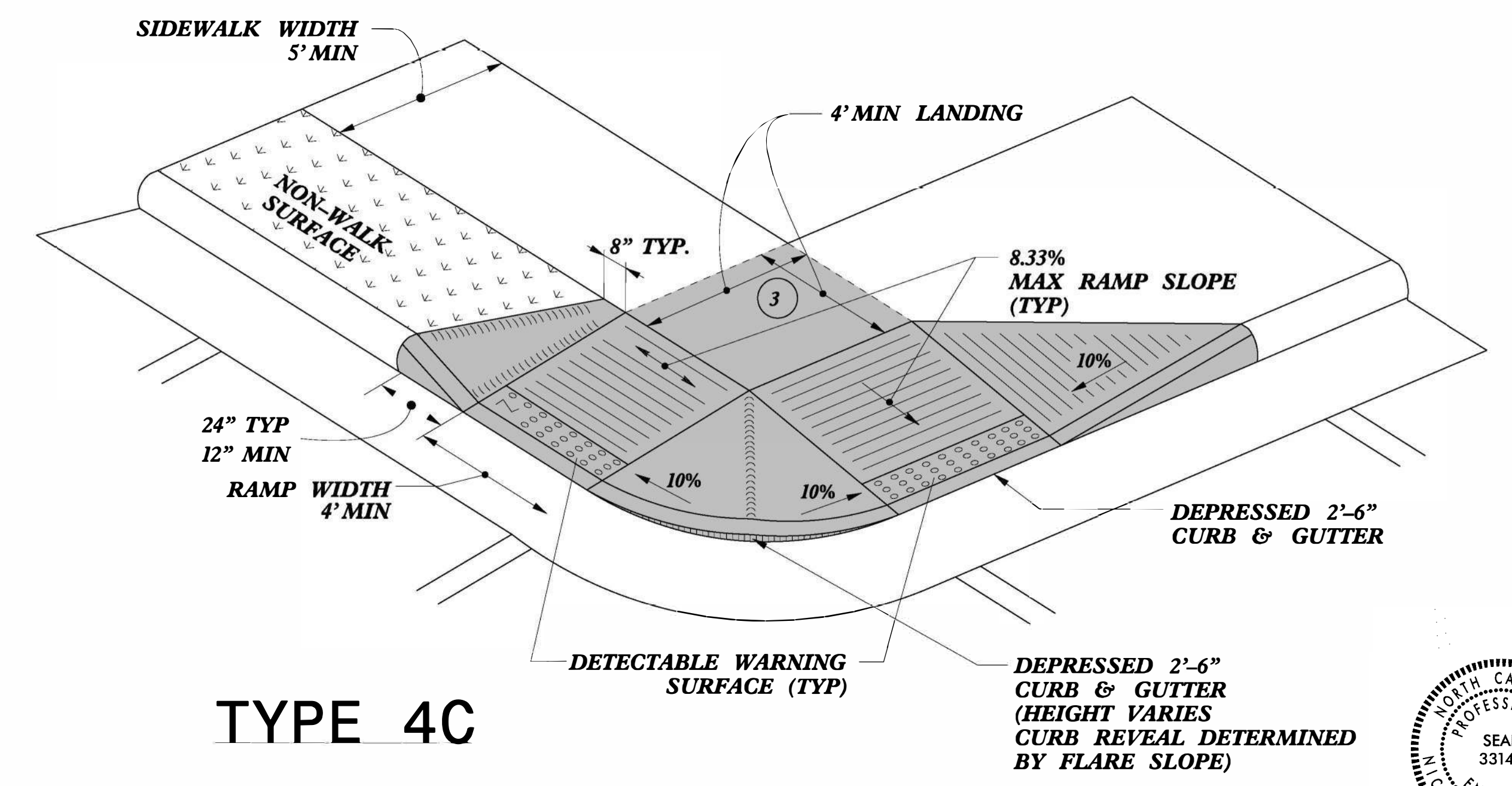
TYPE 4



TYPE 4B



TYPE 4A



TYPE 4C

- 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

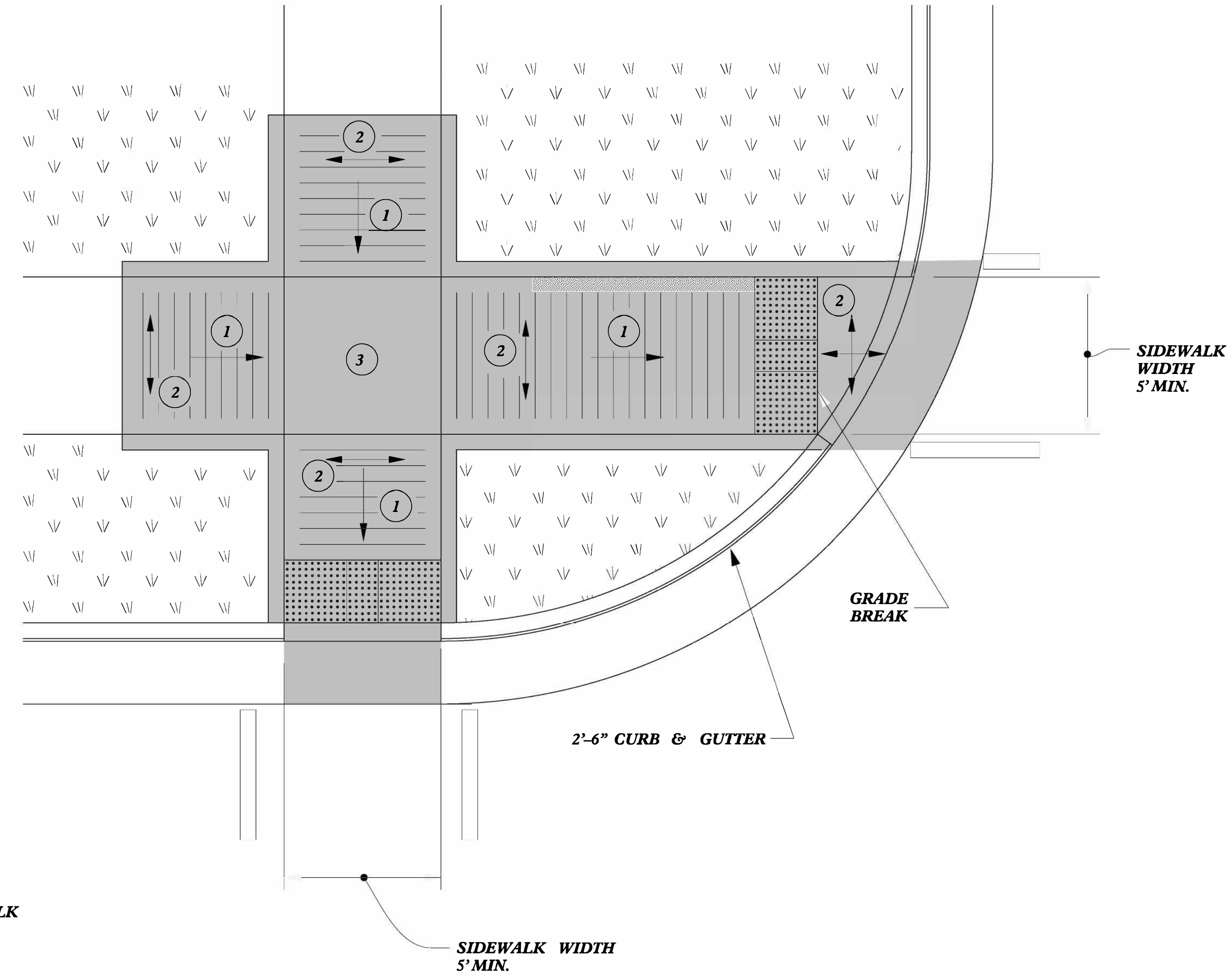
**CURB RAMPS**

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 MODIFIED BY: DATE:   
 CHECKED BY: DATE:   
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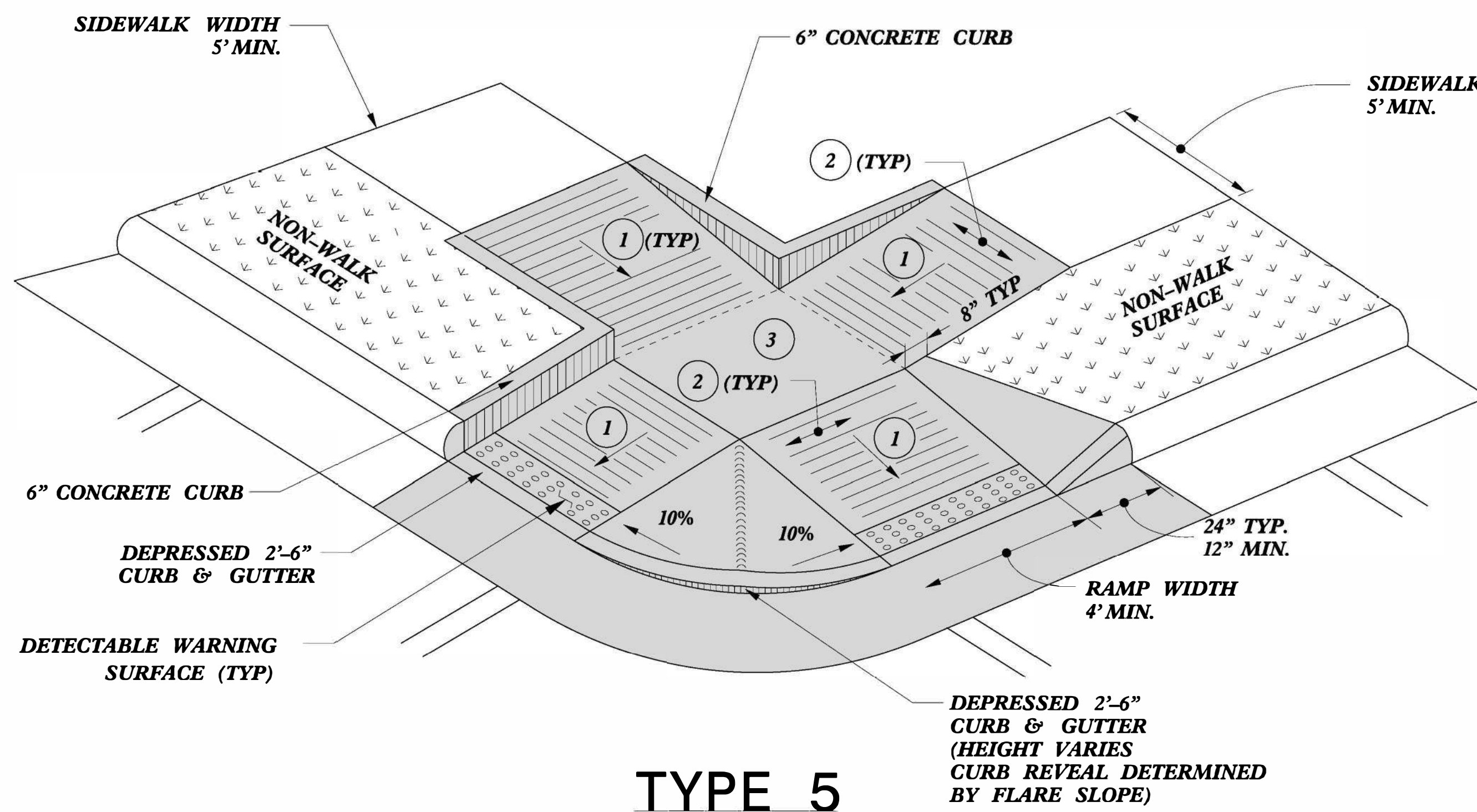
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

5/14/99  
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 PLOT DATE: 7/7/11 10:58:58 AM  
 PLOT BY: J.S. HOWERTON  
 PLOT DEVICE: HP DesignJet 2500

**PAY LIMITS FOR 1 OR 2 CURB RAMPS**  
(CALCULATE BASED ON NUMBER OF SETS OF TRUNCATED DOMES)



**TYPE 5A**

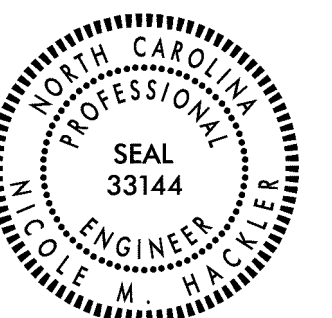


**TYPE 5**

**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.**



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

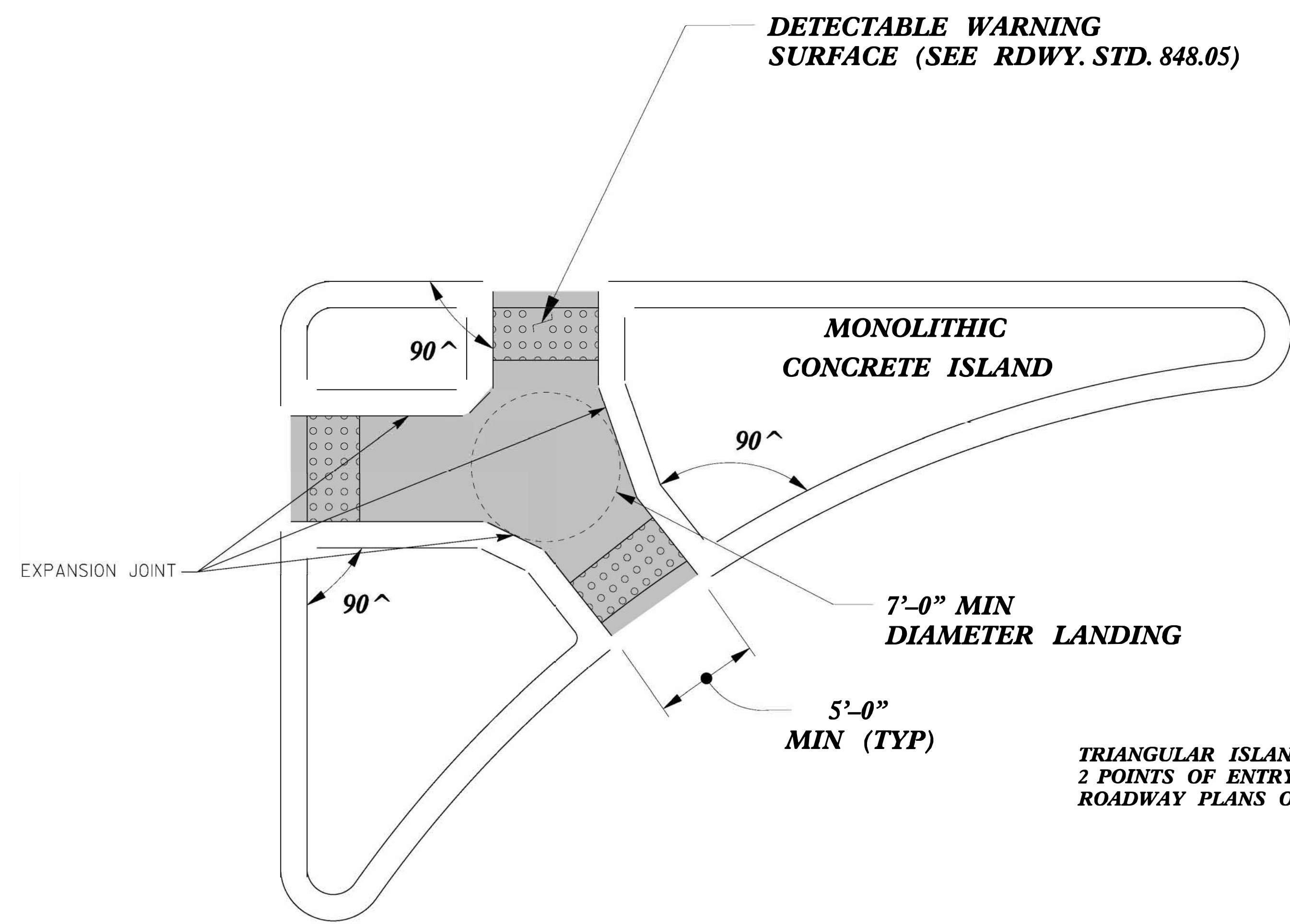
**CURB RAMPS**

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  
E:\14\99  
SYTIME  
CONSTRUCTION  
SUGGESTIONS

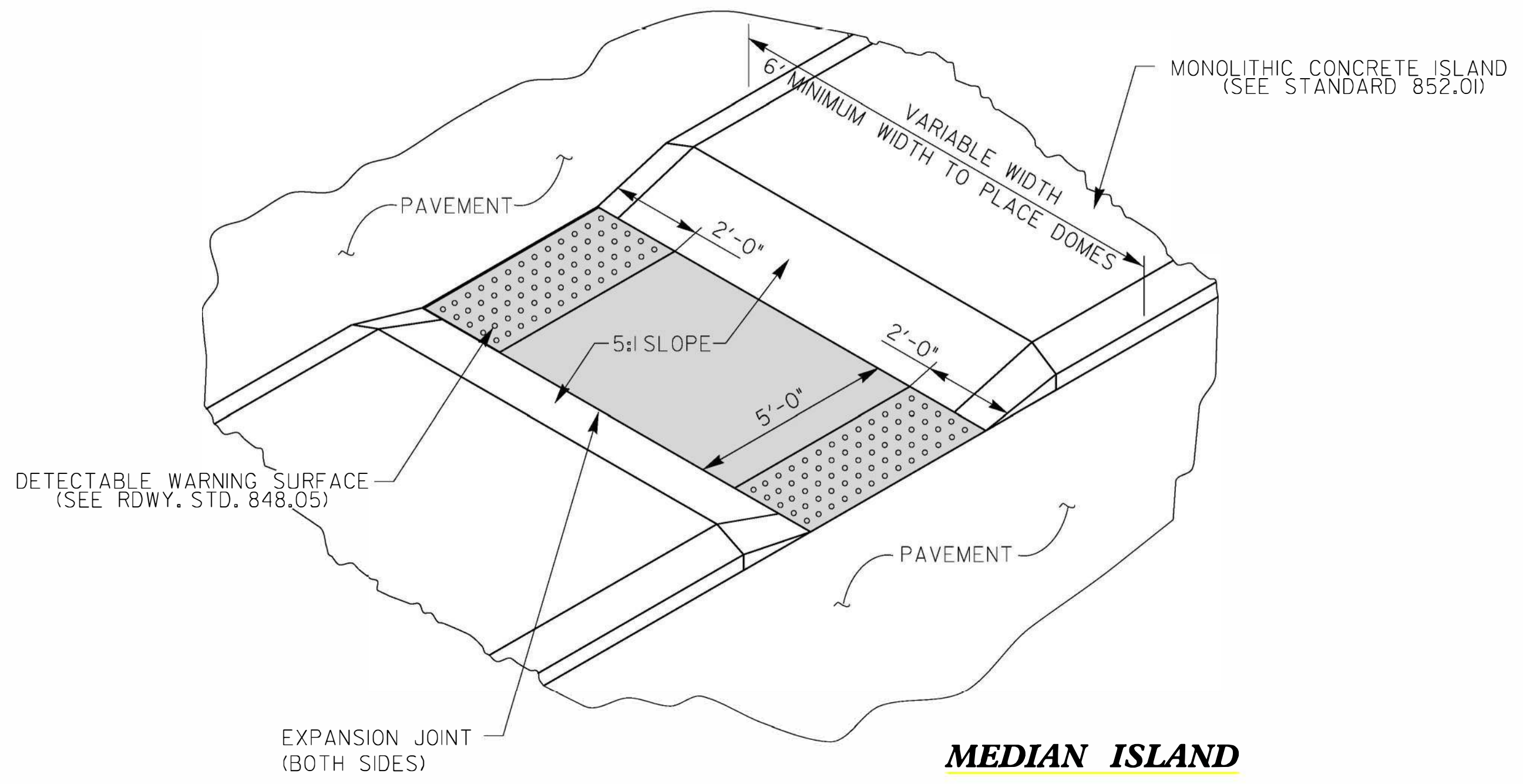




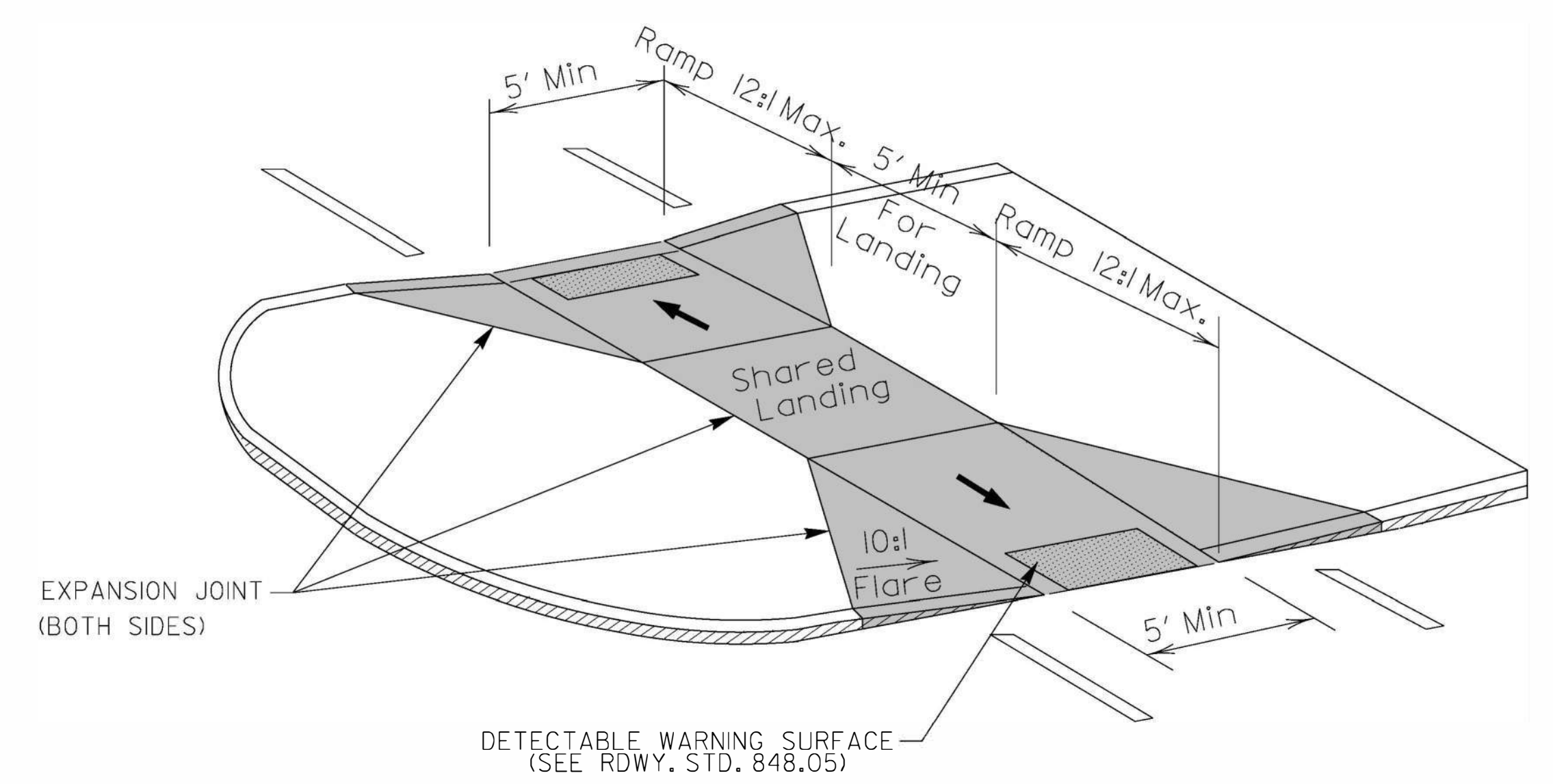
PAY LIMITS FOR 2 OR 3 CURB RAMPS  
(CALCULATE BASED ON NUMBER OF SETS OF TRUNCATED DOMES)

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**  
**TYPE 6**



**MEDIAN ISLAND WITH CUT THROUGH**  
**TYPE 7**



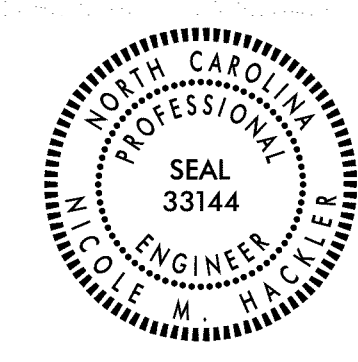
**MEDIAN ISLAND CURB RAMPS**  
**TYPE 8**

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

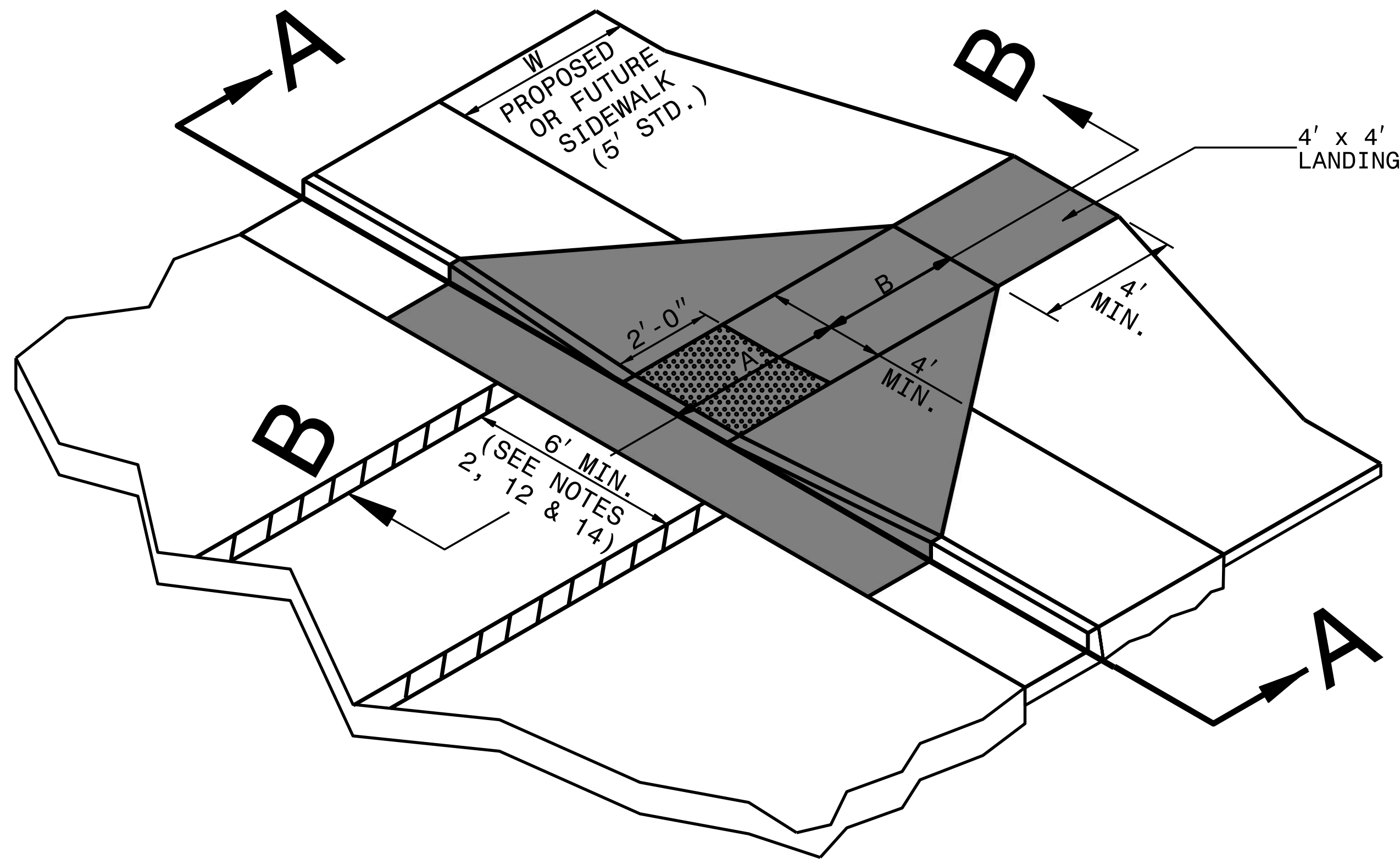
**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS**  
Median or Turn Lane Islands

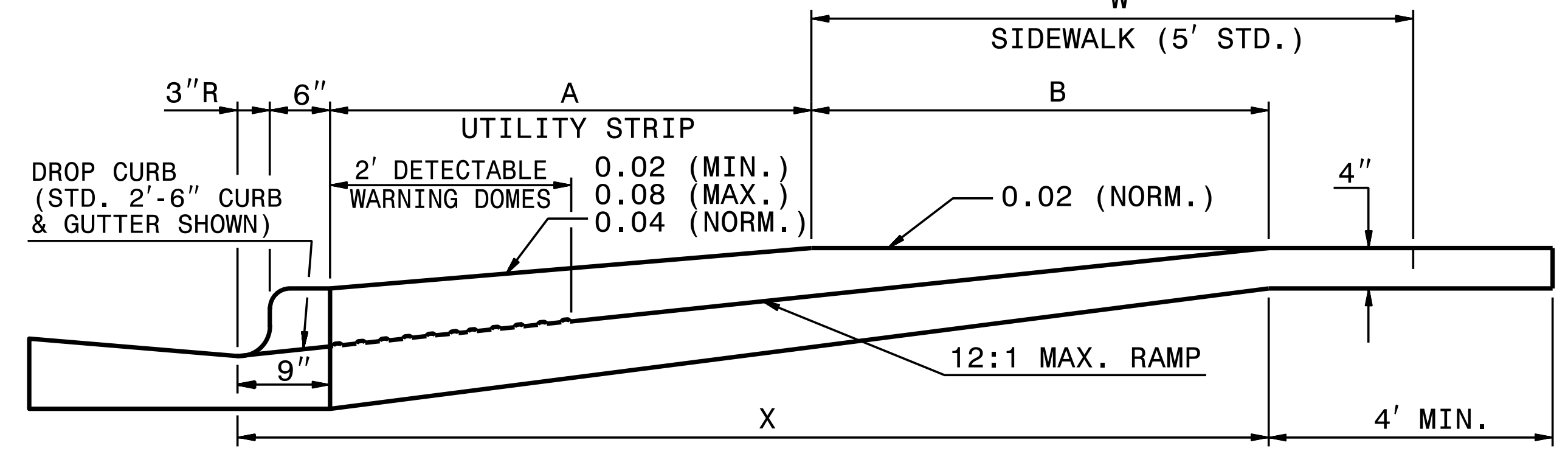
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FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn



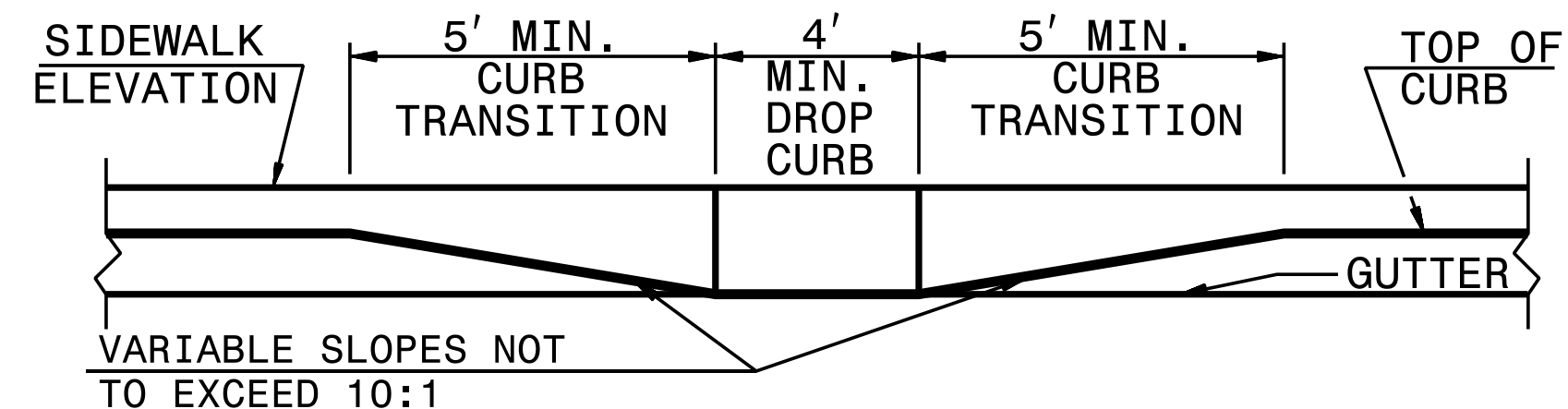
5/14/99  
SYTIME  
CONSULTING  
SUGERNAVE



**ISOMETRIC VIEW**



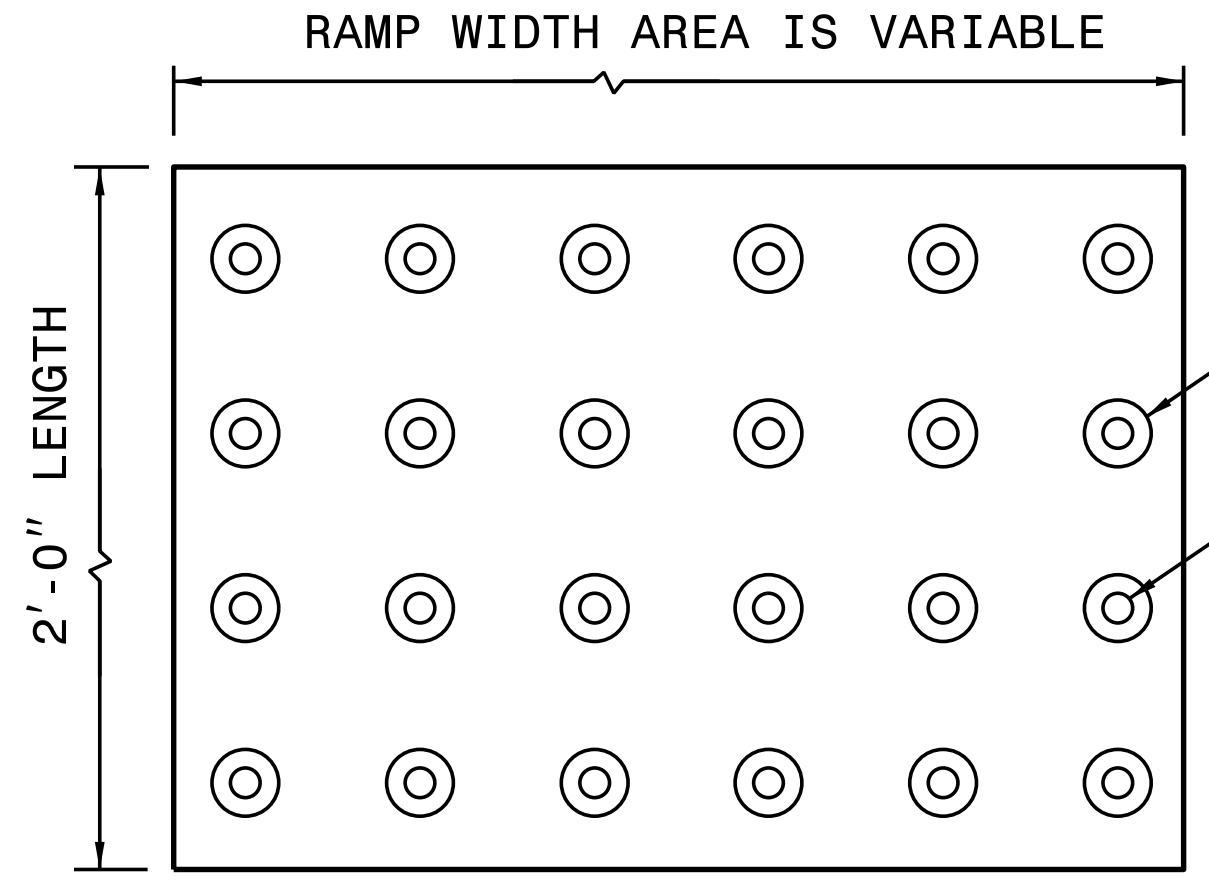
**SECTION B-B**



**SECTION A-A**

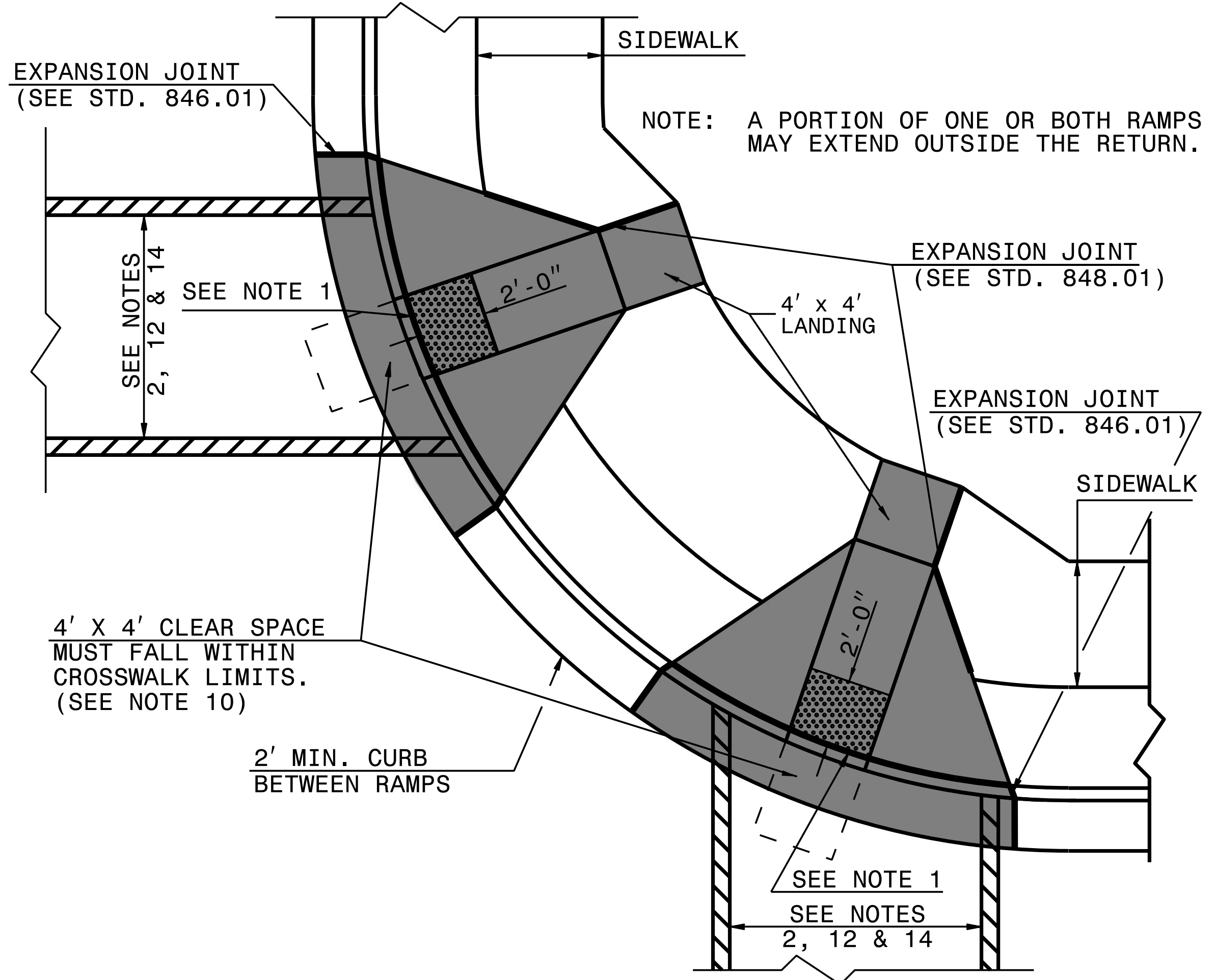
**PAY LIMITS FOR CURB RAMP**

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



W	A	W+A+9"	X	B
5'	0.0'	5.8'	5.8'	5.0'*
6'	0.0'	6.8'	6.8'	6.0'**
7'	0.0'	7.8'	7.3'	6.5'**
8'	0.0'	8.8'	7.3'	6.5'**
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.4'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

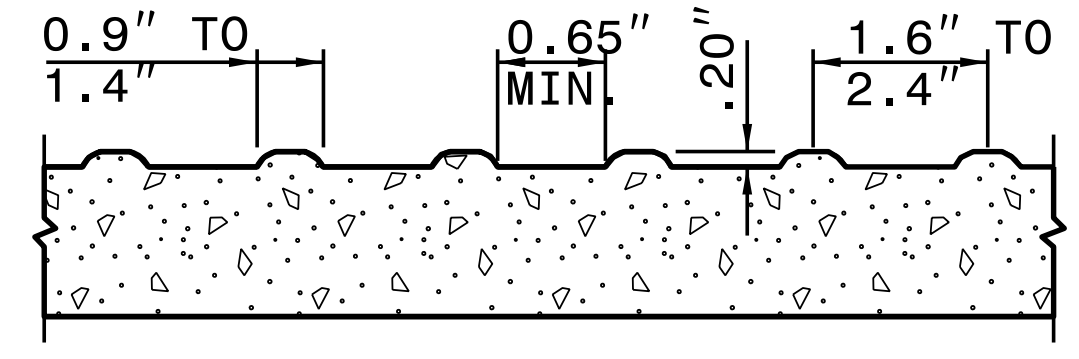
$B = X - (A + 9")$   
 B = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 (8.33%) SLOPE.  
 \* BACK OF SIDEWALK DROP REQUIRED FOR ALL SIDEWALK SLOPES.  
 \*\* BACK OF SIDEWALK DROP REQUIRED FOR SIDEWALK SLOPES 0.04.



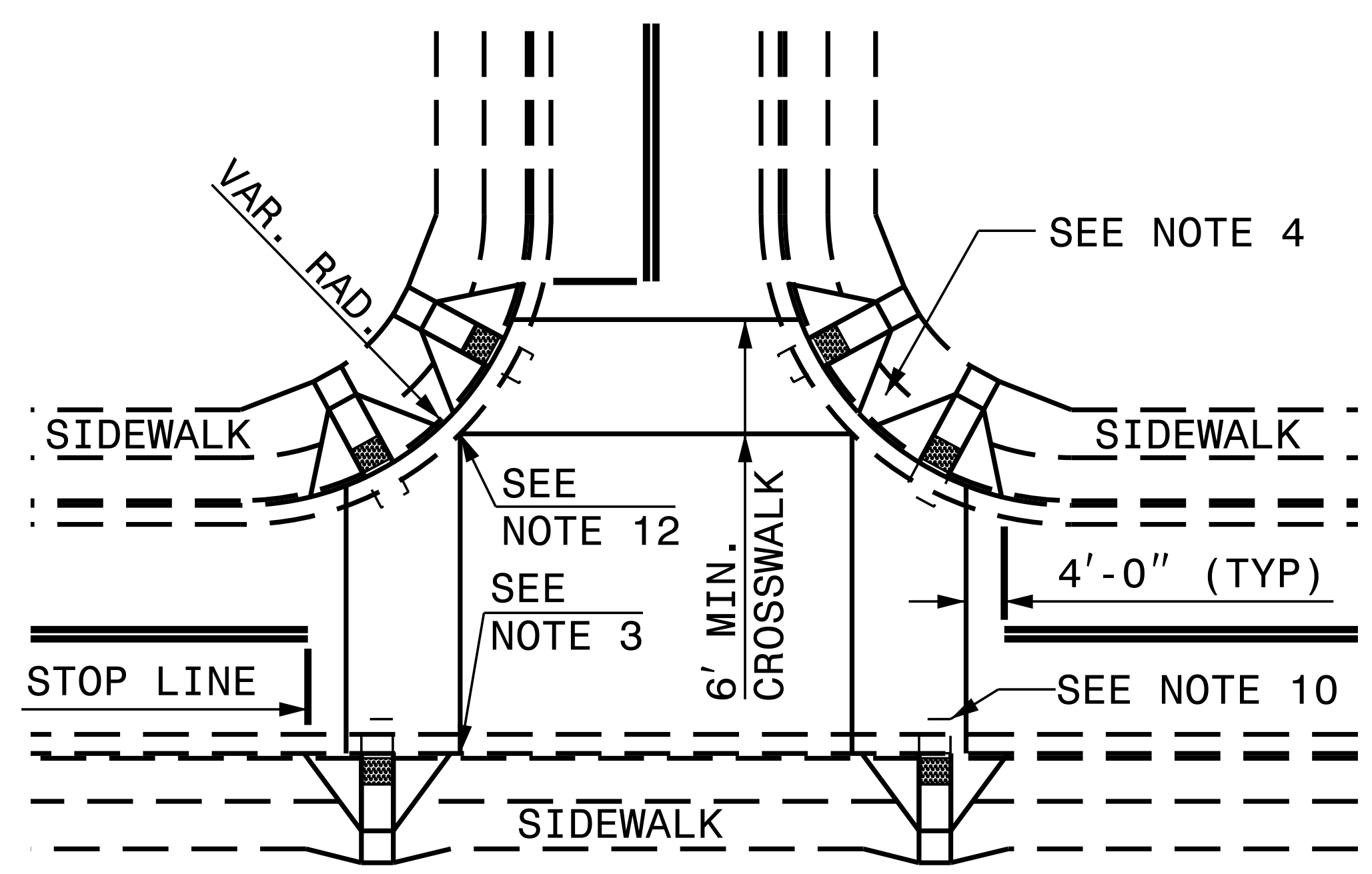
**PLAN VIEW**

DUAL RAMPS  
 ANY RADII  
 (4' MIN. FLOOR WIDTH)

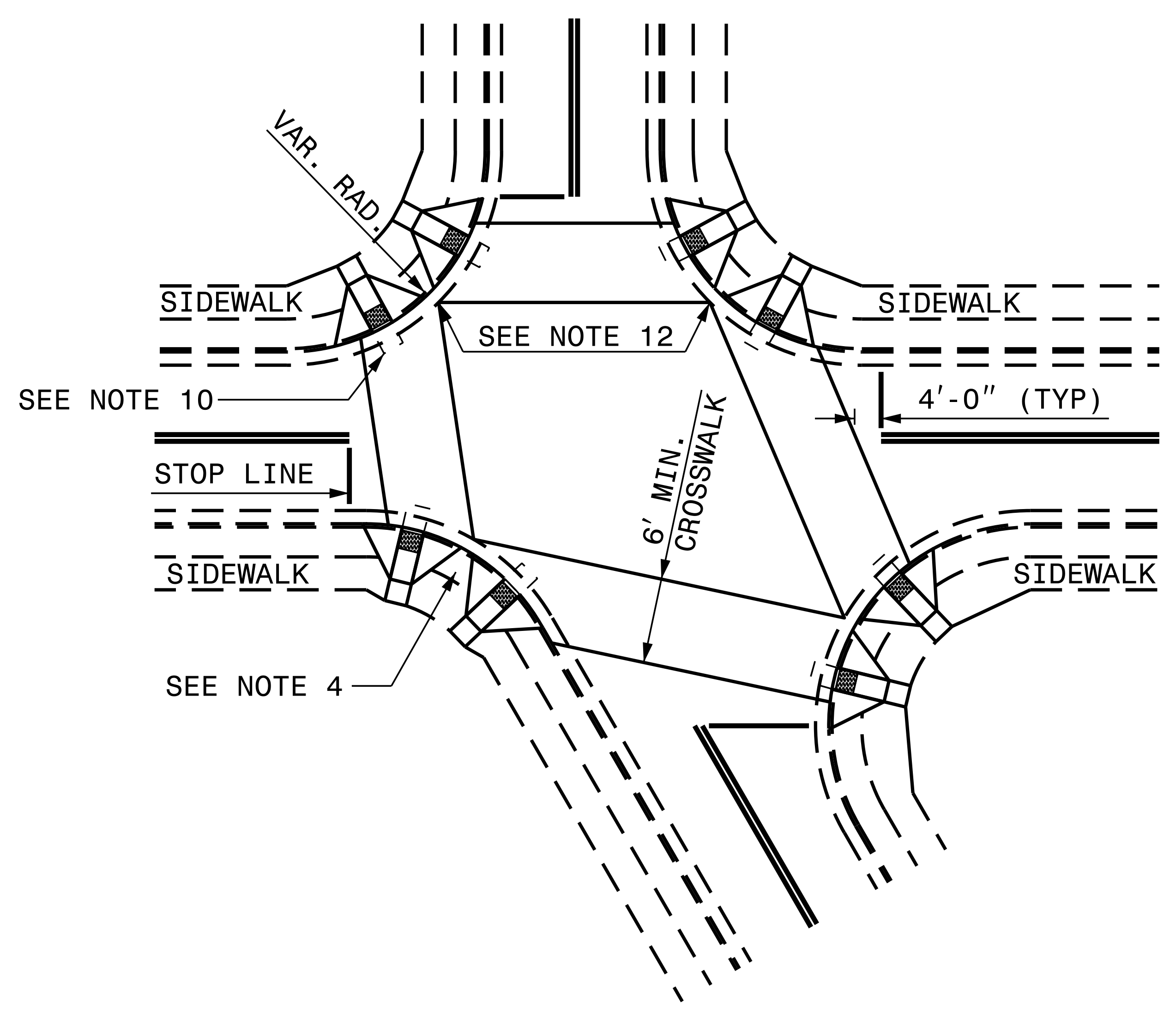
**DETECTABLE WARNING DOMES**






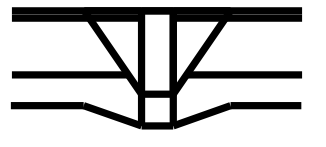



DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



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

ROADWAY PLAN SYMBOL  
  
 FOR PROPOSED CURB RAMP

 PROPOSED CURB RAMP W/ LANDING  
 PROPOSED OR FUTURE SIDEWALK

ALLOWABLE LOCATIONS  
 DUAL RAMP RADII.....ANY

ROADWAY STANDARD DRAWING FOR

**CURB RAMP**  
 PROPOSED CURB AND GUTTER

## 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.

1-18

ROADWAY STANDARD DRAWING FOR

**CURB RAMPS**

NOTES

STATE OF

NORTH CAROLINA

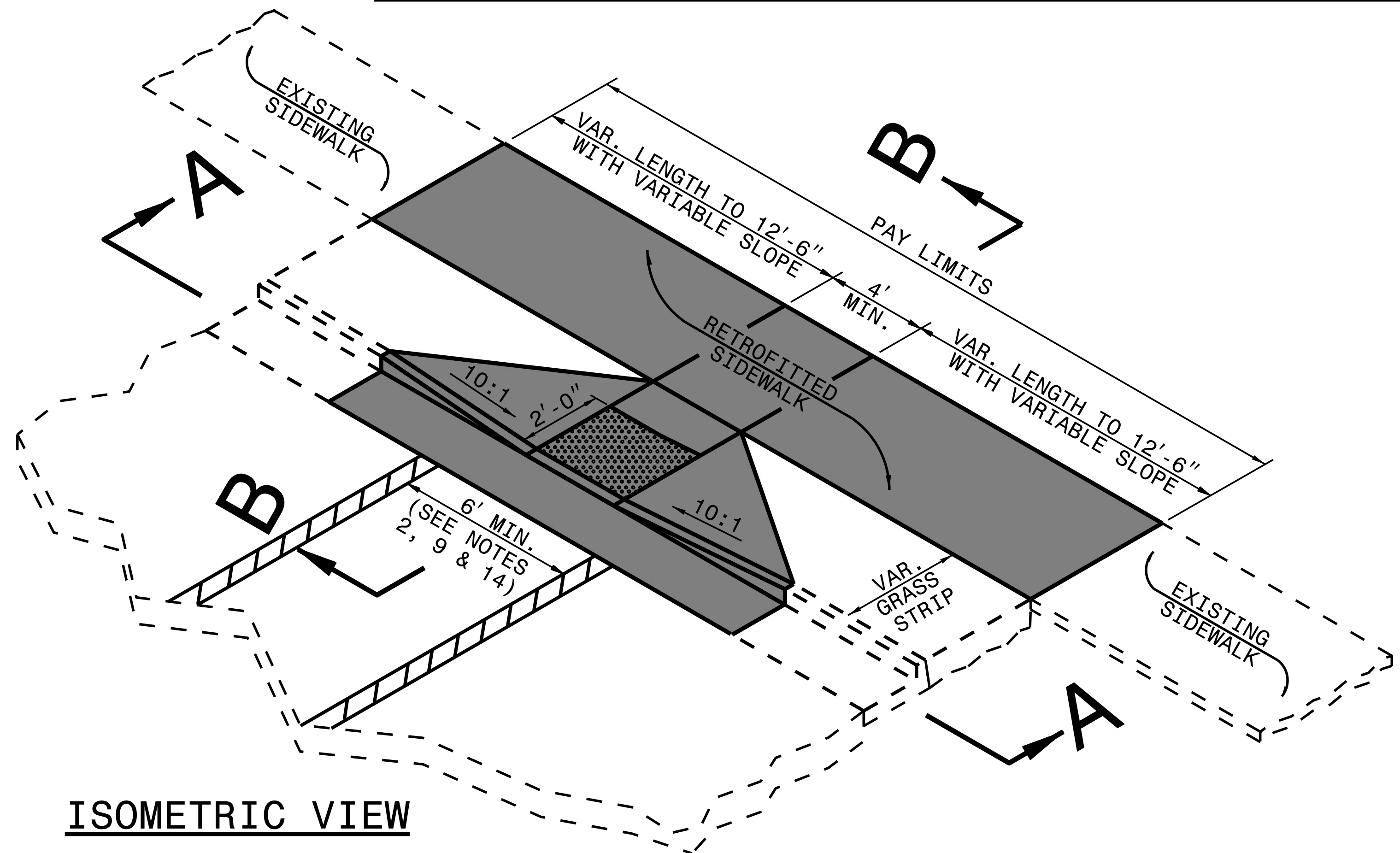
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

RALEIGH, N.C.



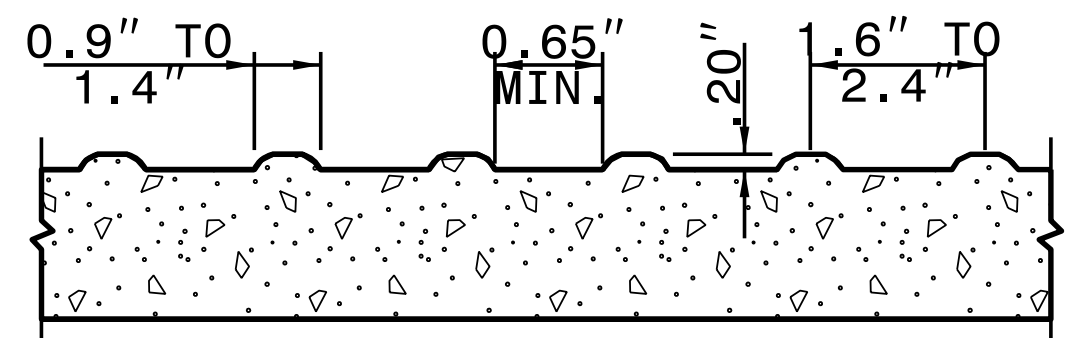
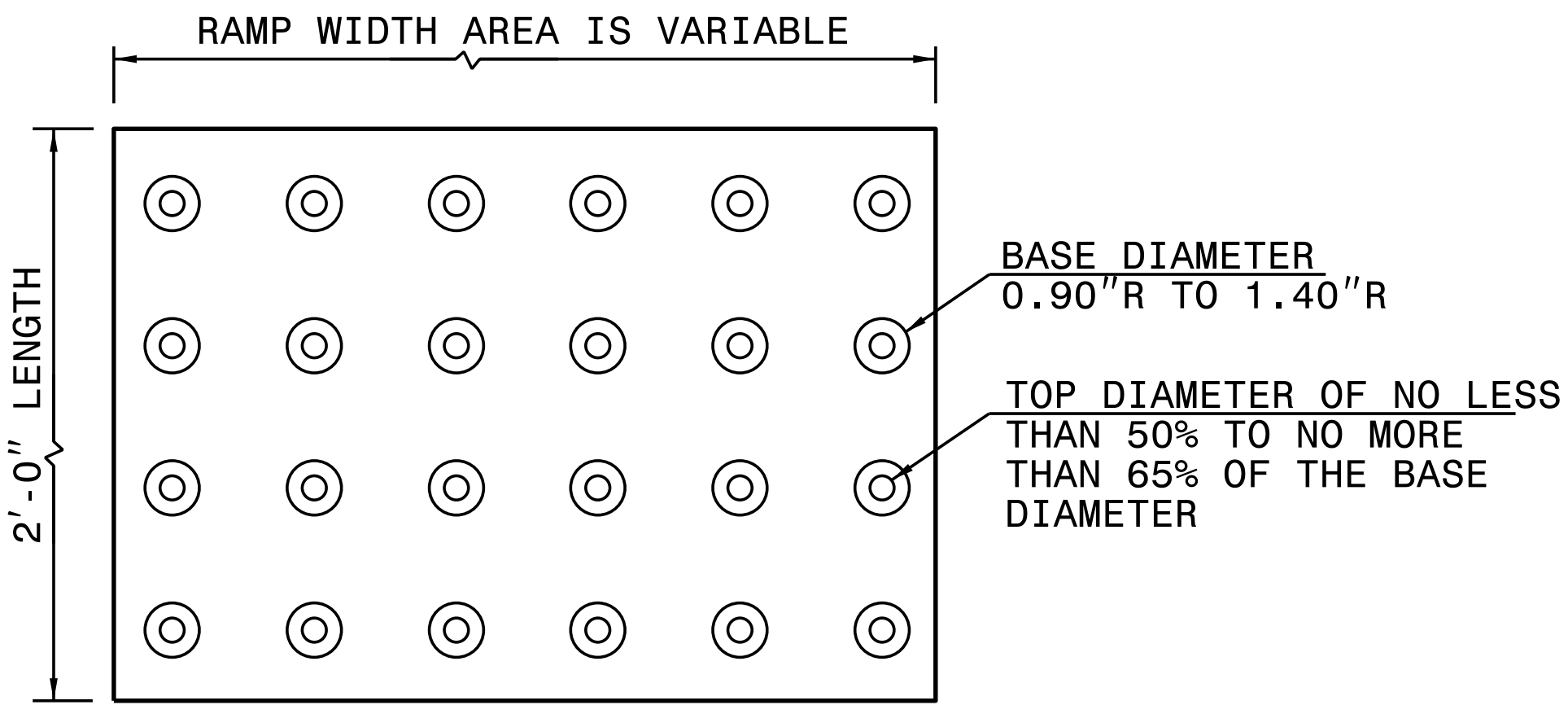
# CURB RAMP AND EXISTING SIDEWALK WITH GRASS STRIP

PROJECT REFERENCE NO. 44920.1.16	SHEET NO. 13
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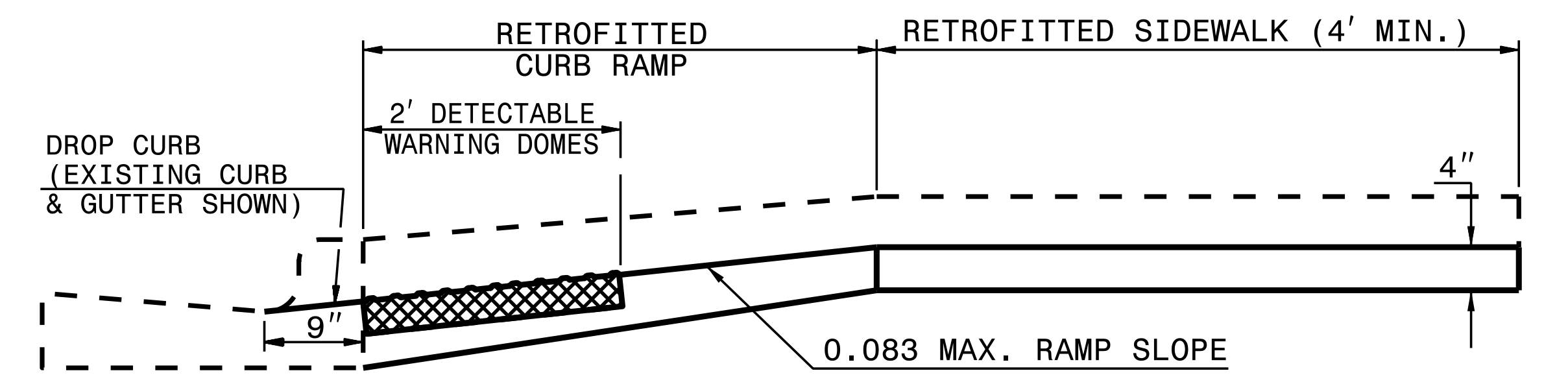
**ISOMETRIC VIEW**

PAY LIMITS OF CURB RAMP

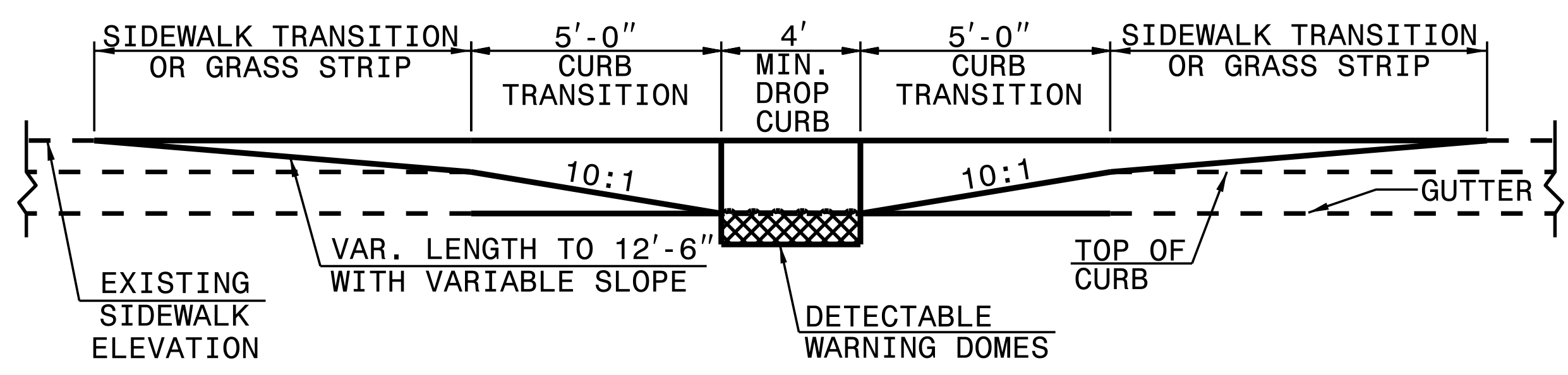


**DETECTABLE WARNING DOMES**

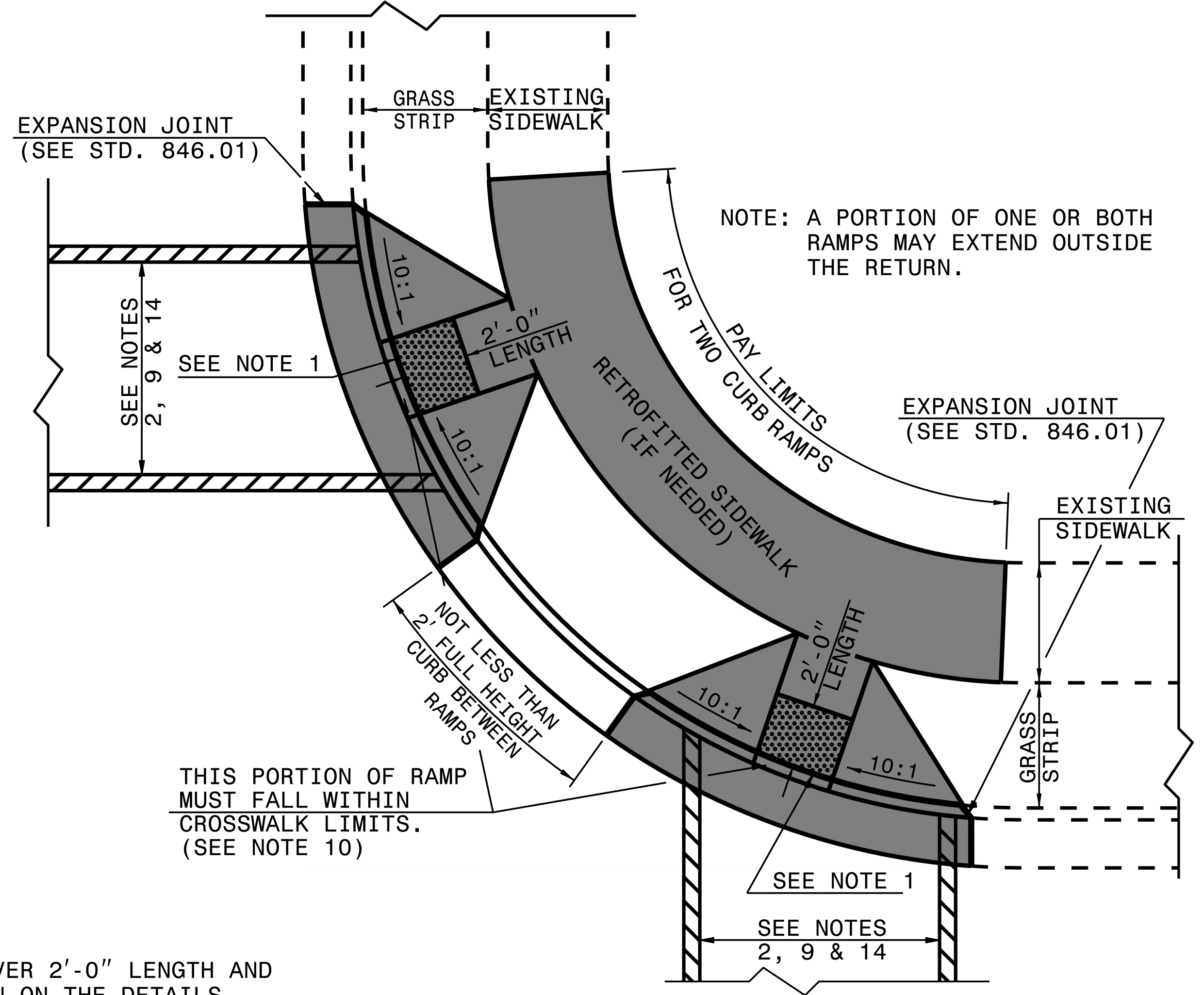
- NOTES:
1. PLACE DETECTABLE WARNING DOMES TO COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
  2. OBTAIN VISIBLE CONTRAST WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



**SECTION B-B**



**SECTION A-A**



**PLAN VIEW**

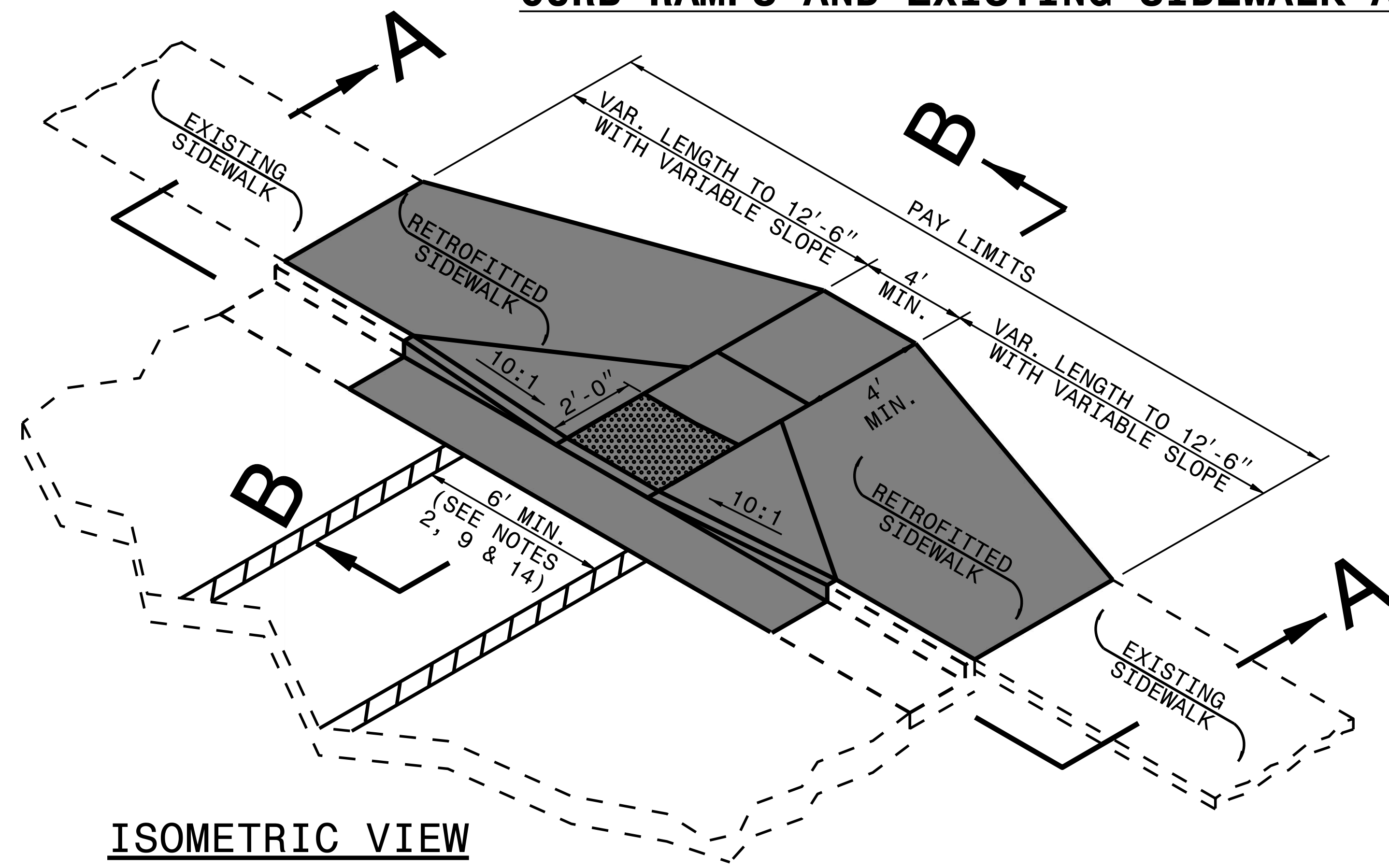
DUAL RAMPS  
ANY RADII  
(40" MIN. FLOOR WIDTH)

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

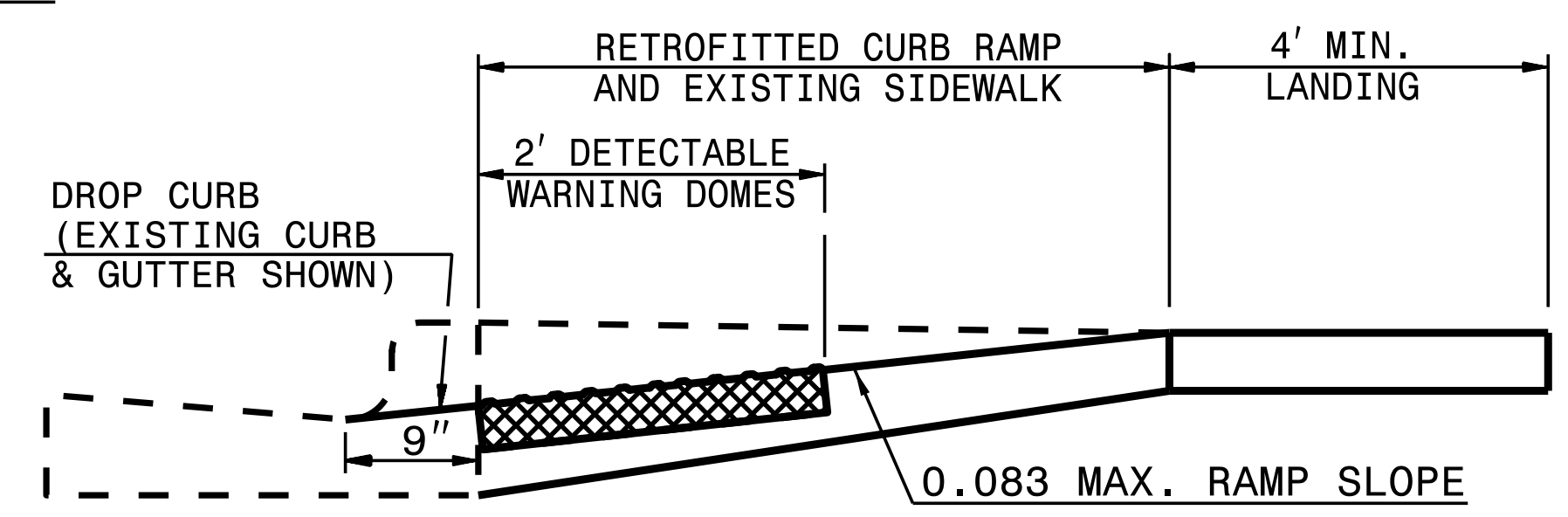
ROADWAY STANDARD DRAWING FOR  
**CURB RAMP**  
 EXISTING CURB AND GUTTER

# CURB RAMPS AND EXISTING SIDEWALK ADJACENT TO CURB

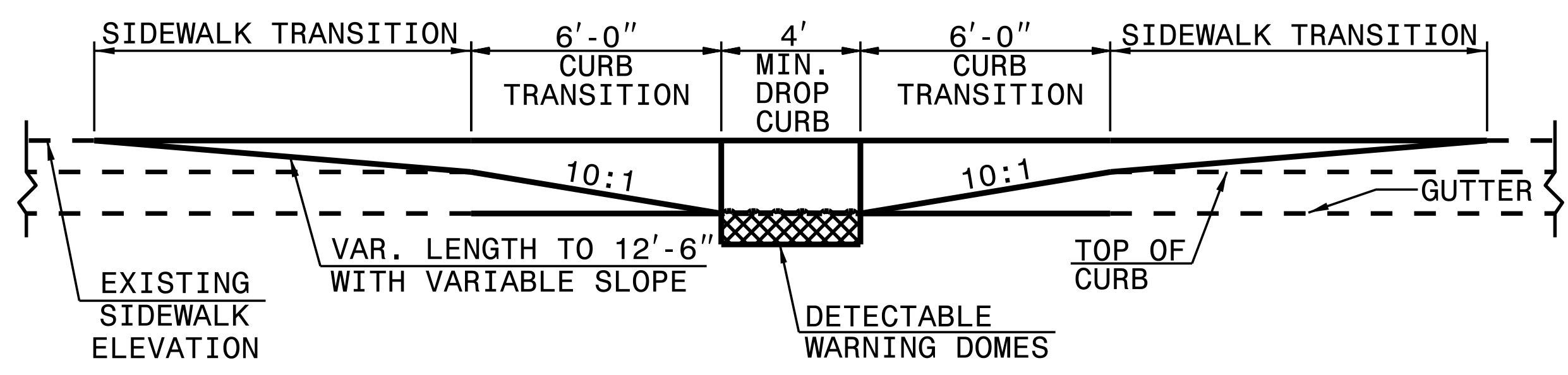
PROJECT REFERENCE NO. 44920.1.16	SHEET NO. 14
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**ISOMETRIC VIEW**

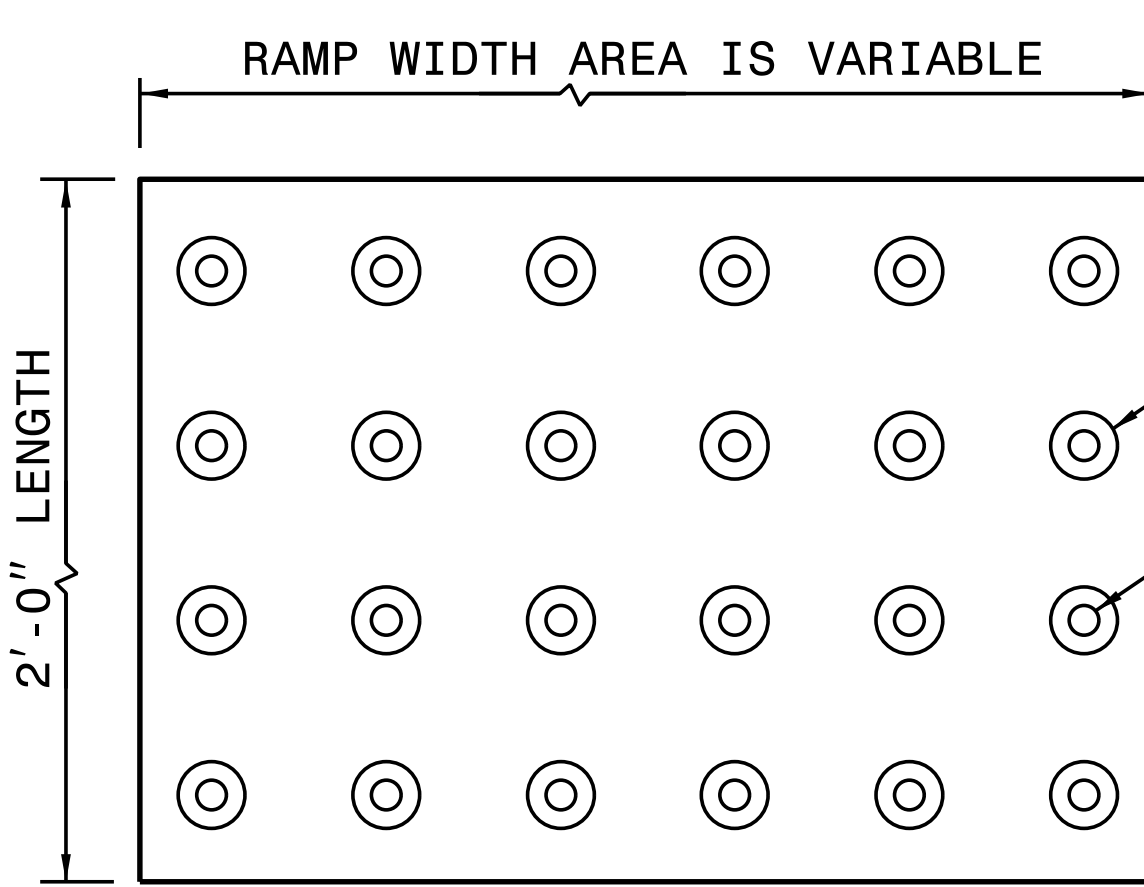


**SECTION B-B**



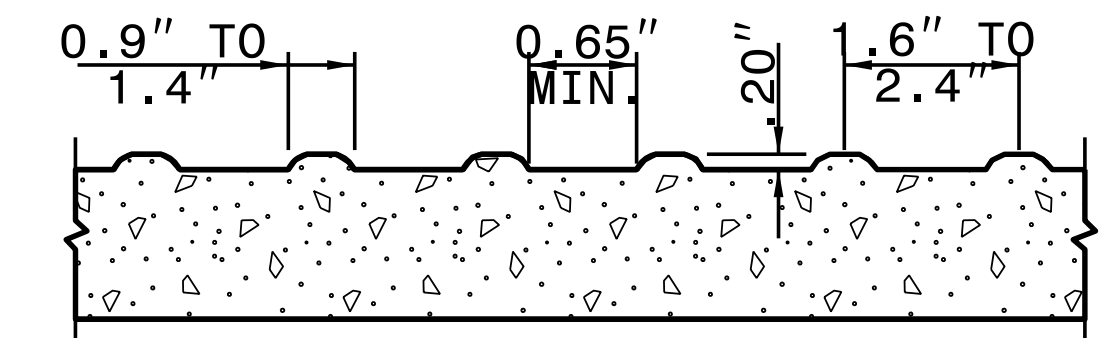
**SECTION A-A**

**PAY LIMITS OF CURB RAMP**



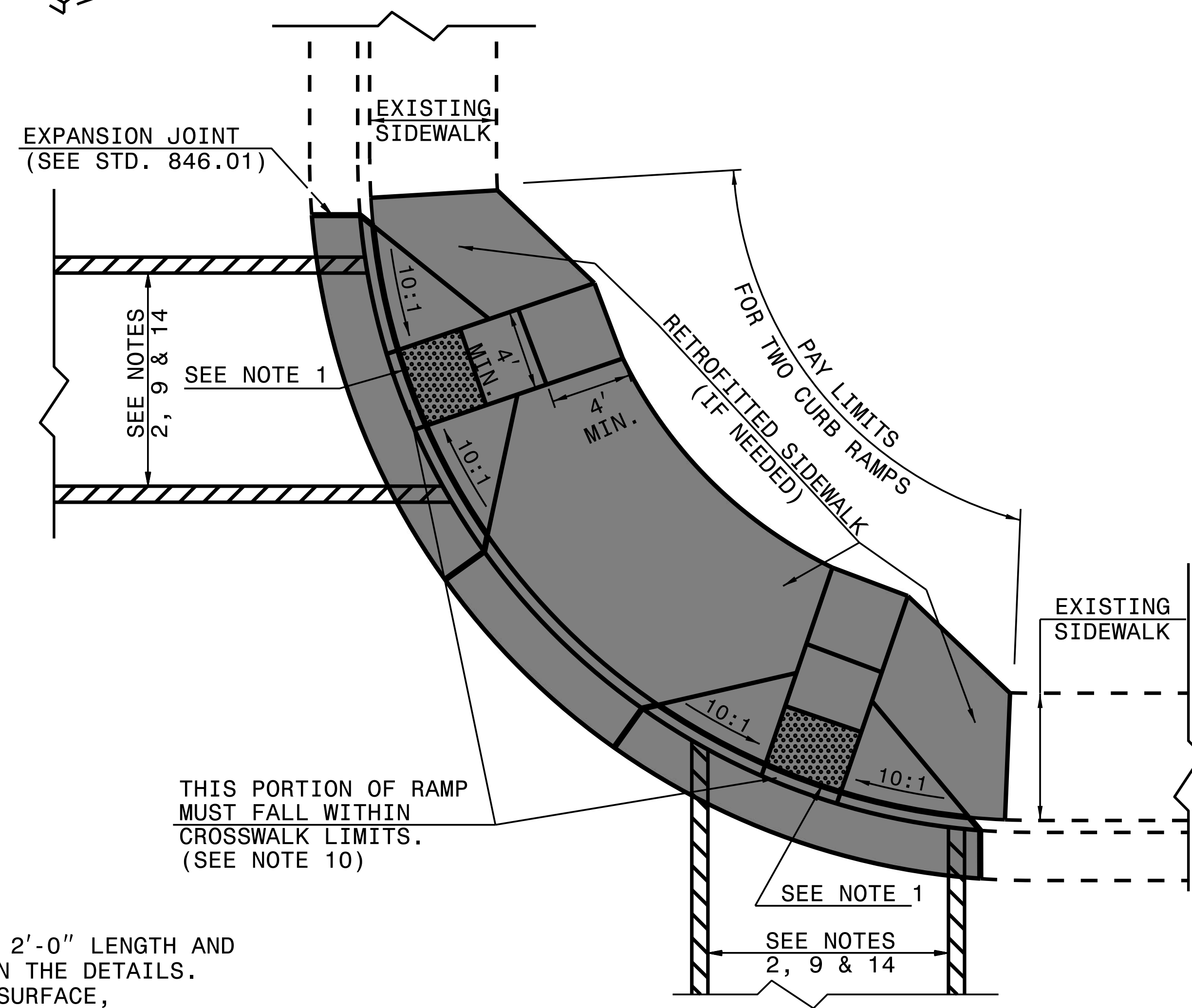
BASE DIAMETER  
0.90"R TO 1.40"R

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



- 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**



**PLAN VIEW**

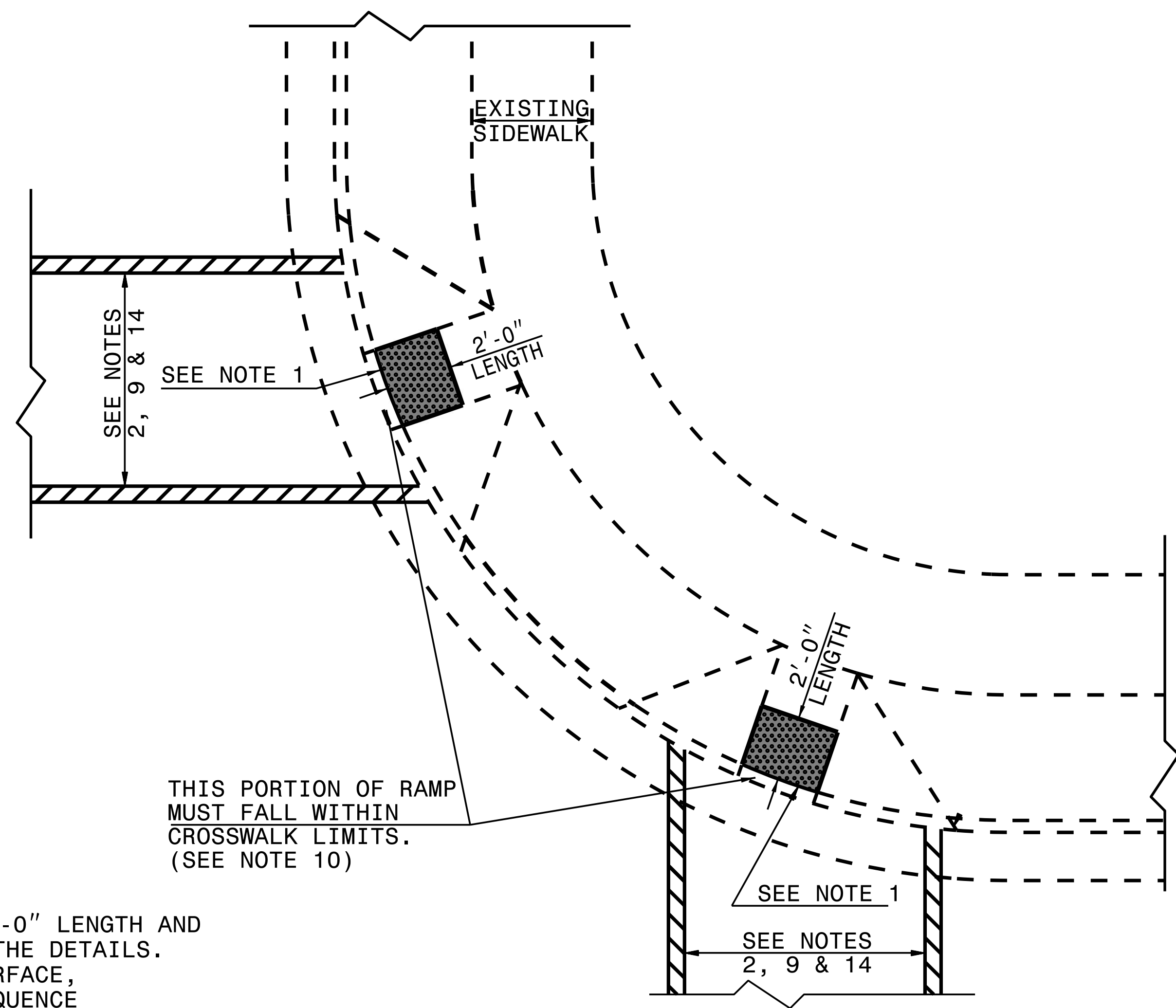
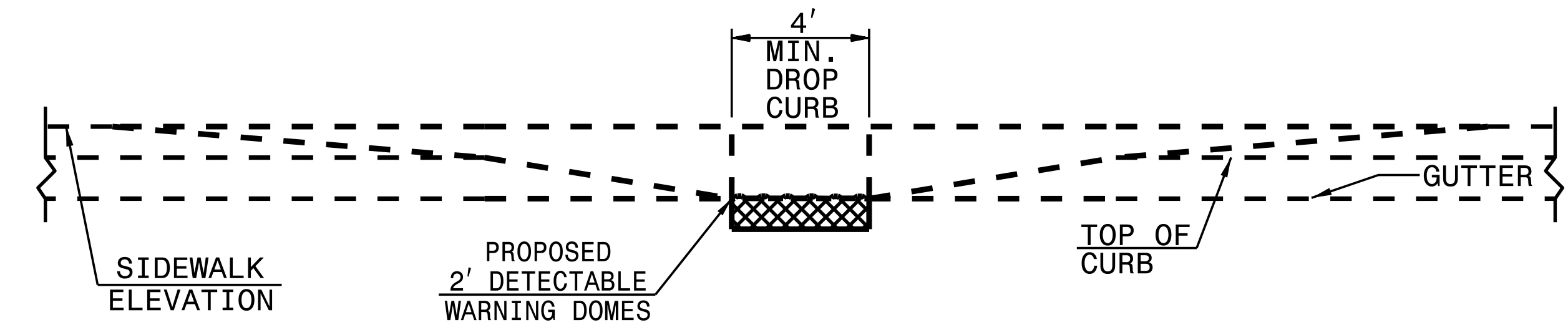
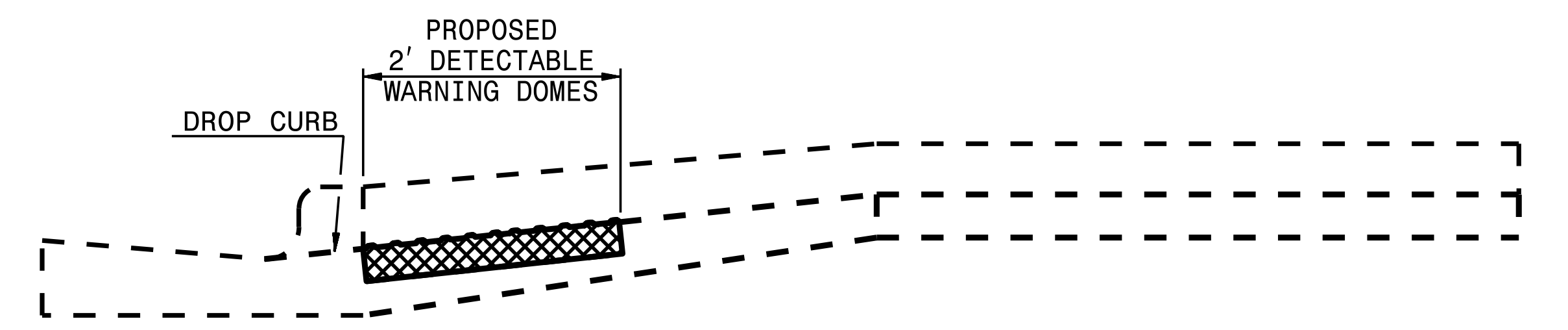
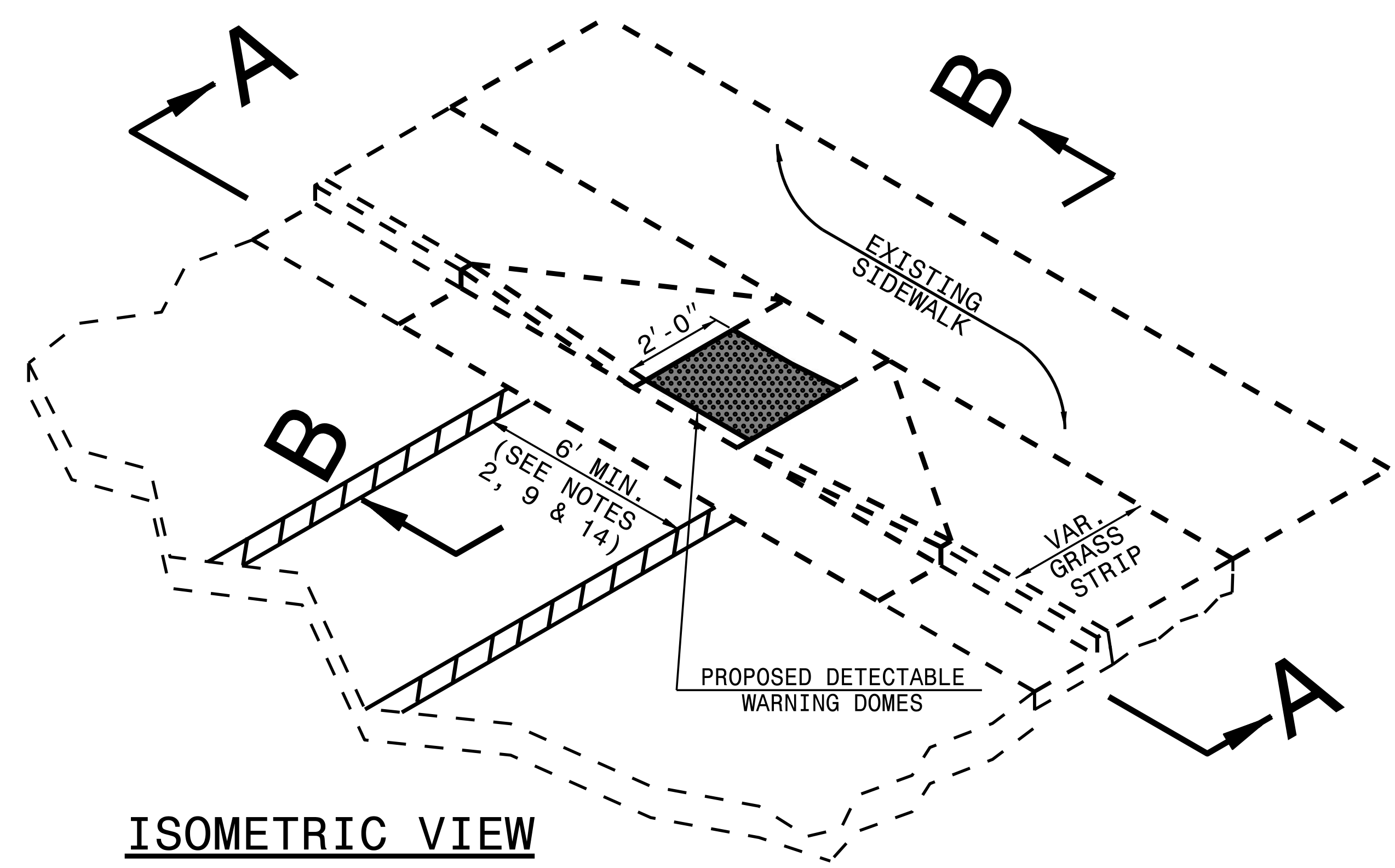
DUAL RAMPS  
ANY RADII  
(40" MIN. FLOOR WIDTH)

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

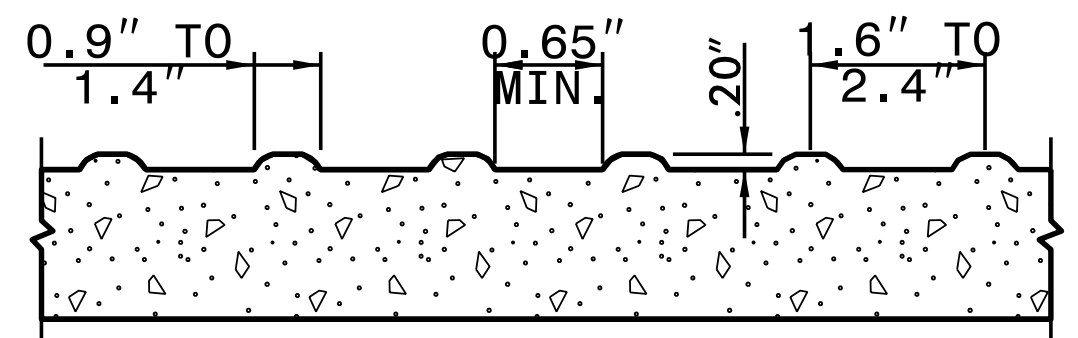
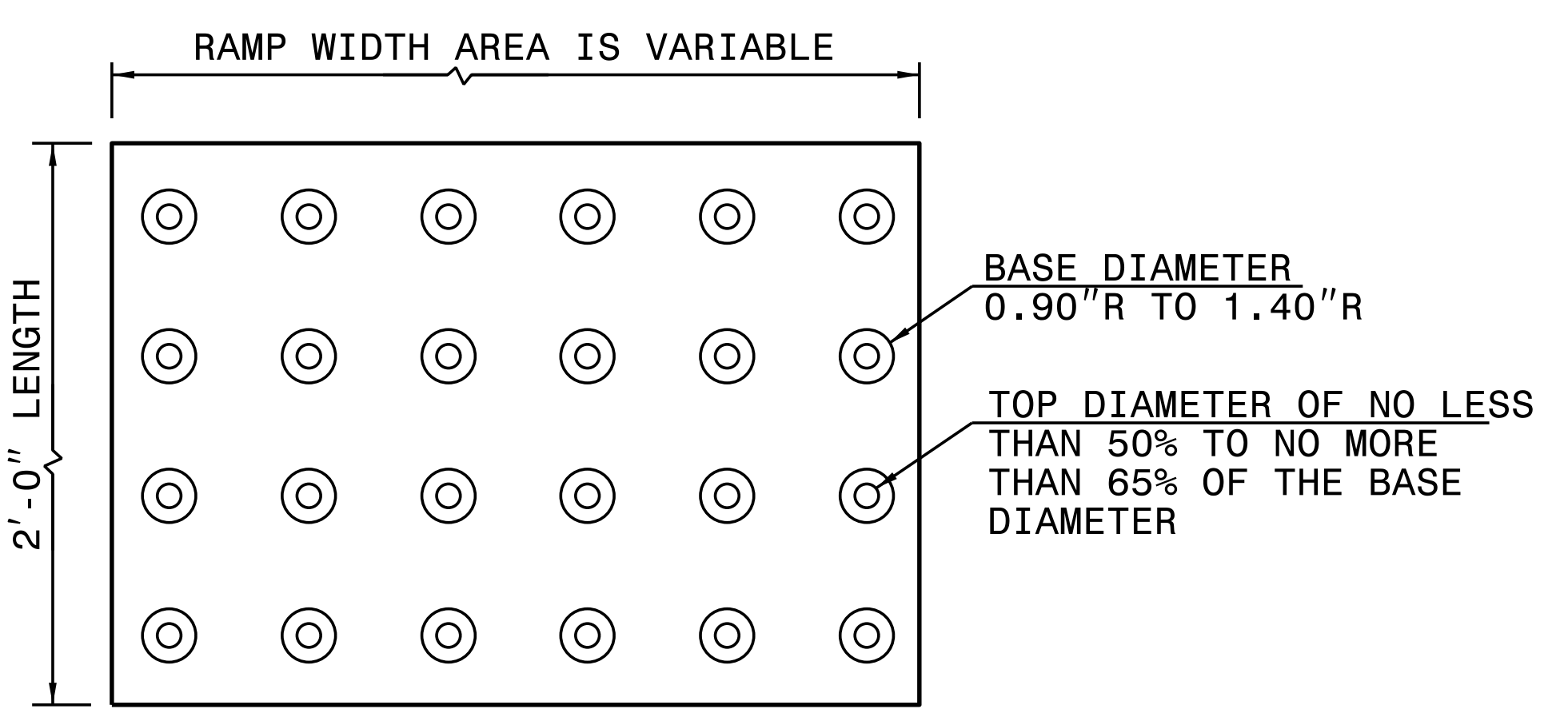
ROADWAY STANDARD DRAWING FOR  
**CURB RAMP**  
 EXISTING CURB AND GUTTER



# RETROFITTING DETECTABLE WARNING DOMES ONTO EXISTING CURB RAMP



■ PAY LIMITS OF RETROFIT CURB RAMP



- 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

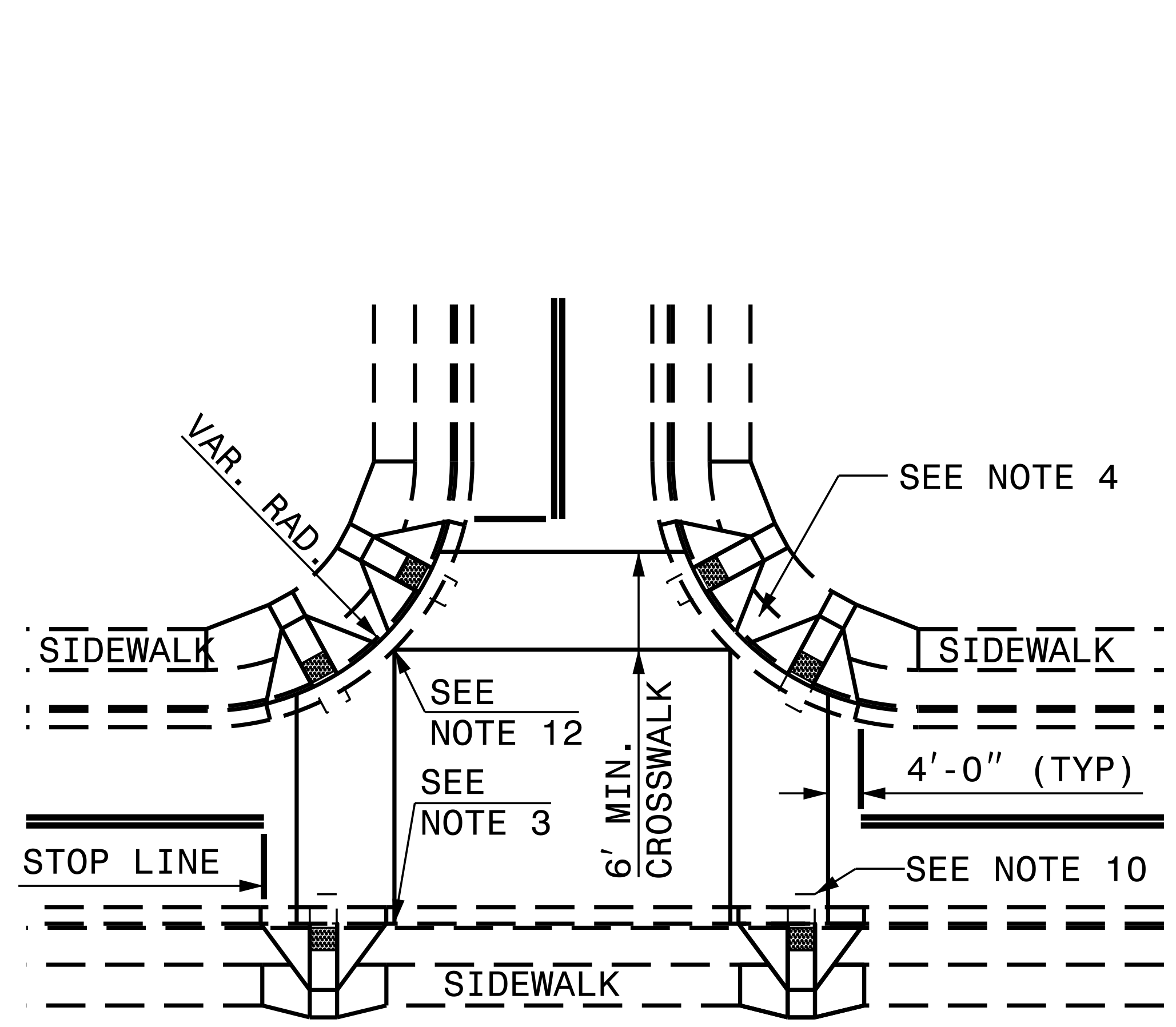
DUAL RAMPS  
ANY RADII  
(40" MIN. FLOOR WIDTH)

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

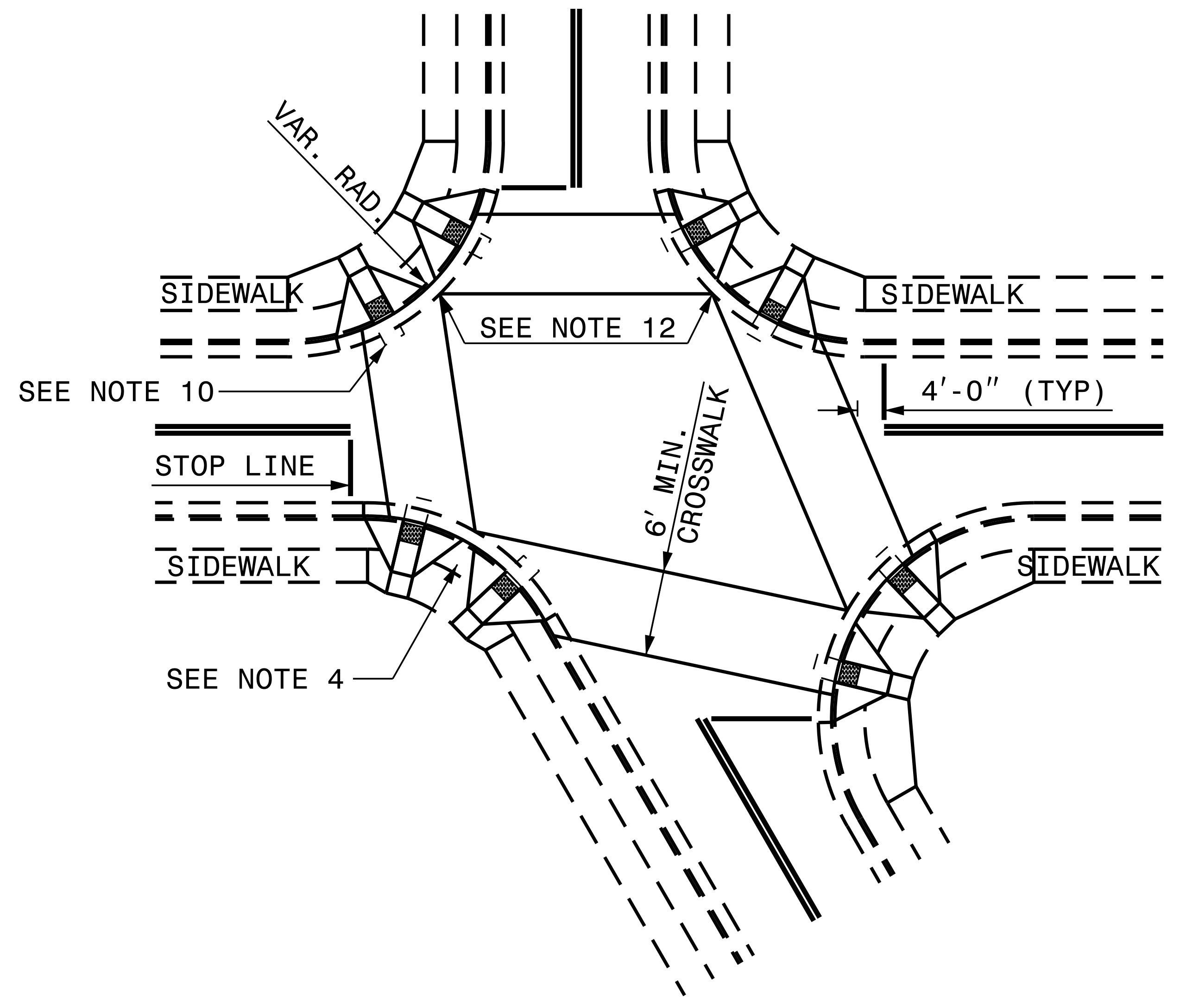
ROADWAY STANDARD DRAWING FOR CURB RAMP EXISTING CURB AND GUTTER

SHEET 3 OF 5  
**848.06**

### CURB RAMPS AND EXISTING SIDEWALK

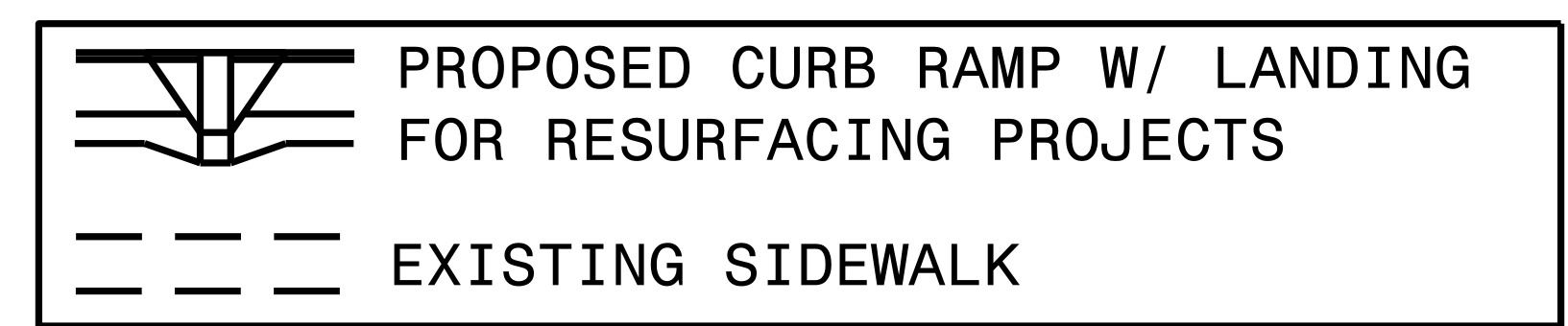


DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



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

### RESURFACING PROJECTS



ALLOWABLE LOCATIONS  
 DUAL RAMP RADII.....ANY

**1-18** STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**CURB RAMP**  
 EXISTING CURB AND GUTTER



## 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.

1-18

ROADWAY STANDARD DRAWING FOR

**CURB RAMP**

EXISTING CURB AND GUTTER

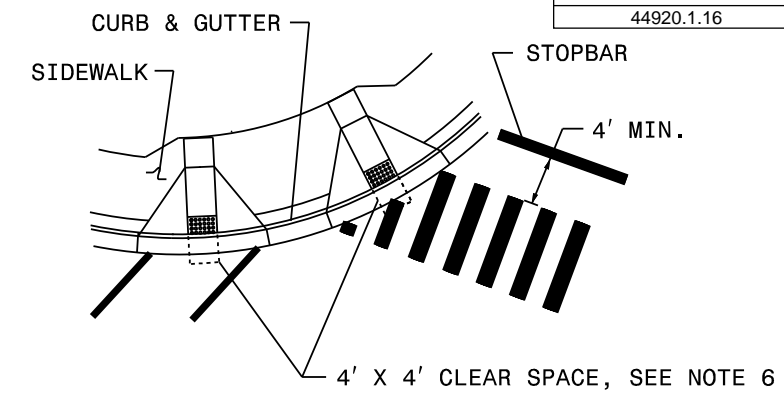
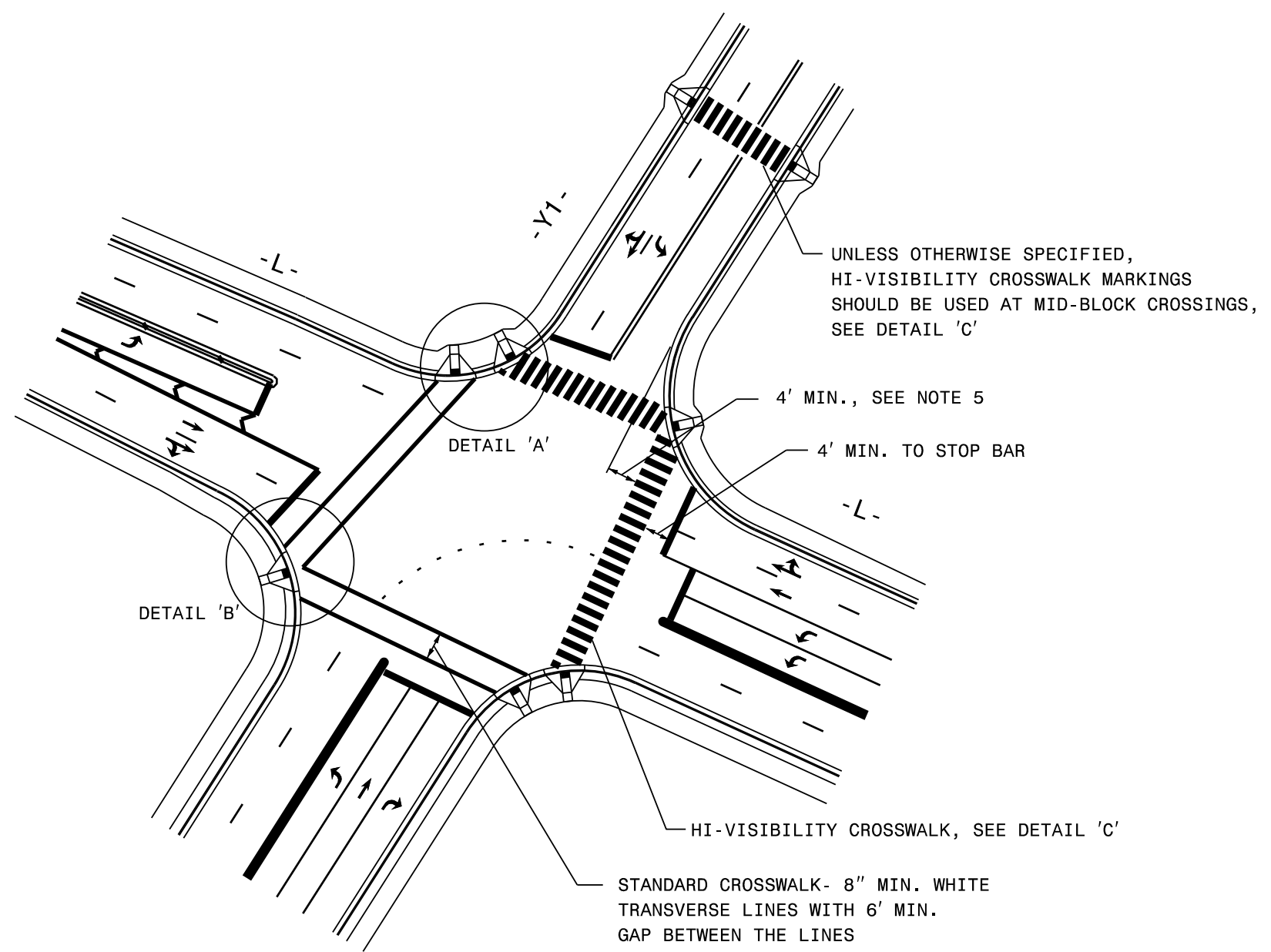
STATE OF

NORTH CAROLINA

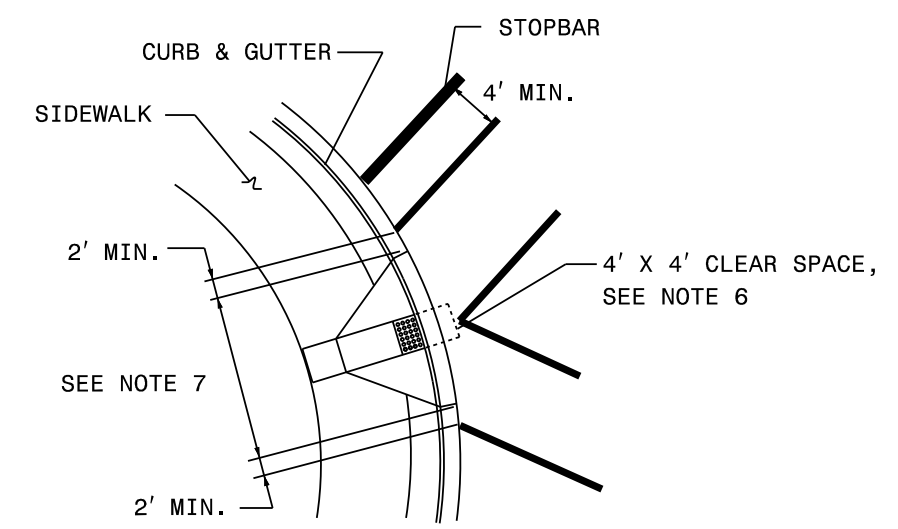
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

1-18

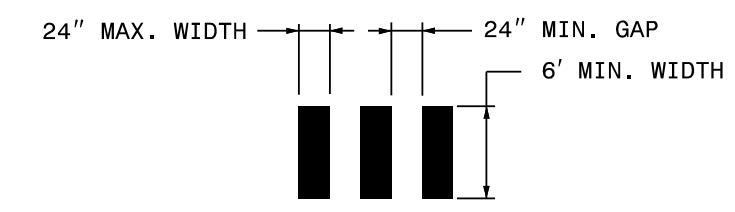
ROADWAY STANDARD DRAWING FOR  
**PAVEMENT MARKINGS**  
 PEDESTRIAN CROSSWALKS



DETAIL 'A'- DUAL CURB RAMPS



DETAIL 'B'- SINGLE DIAGONAL CURB RAMP

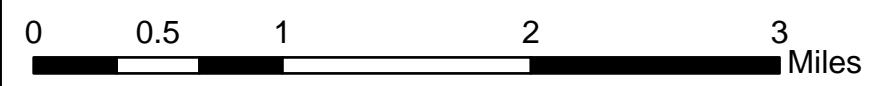
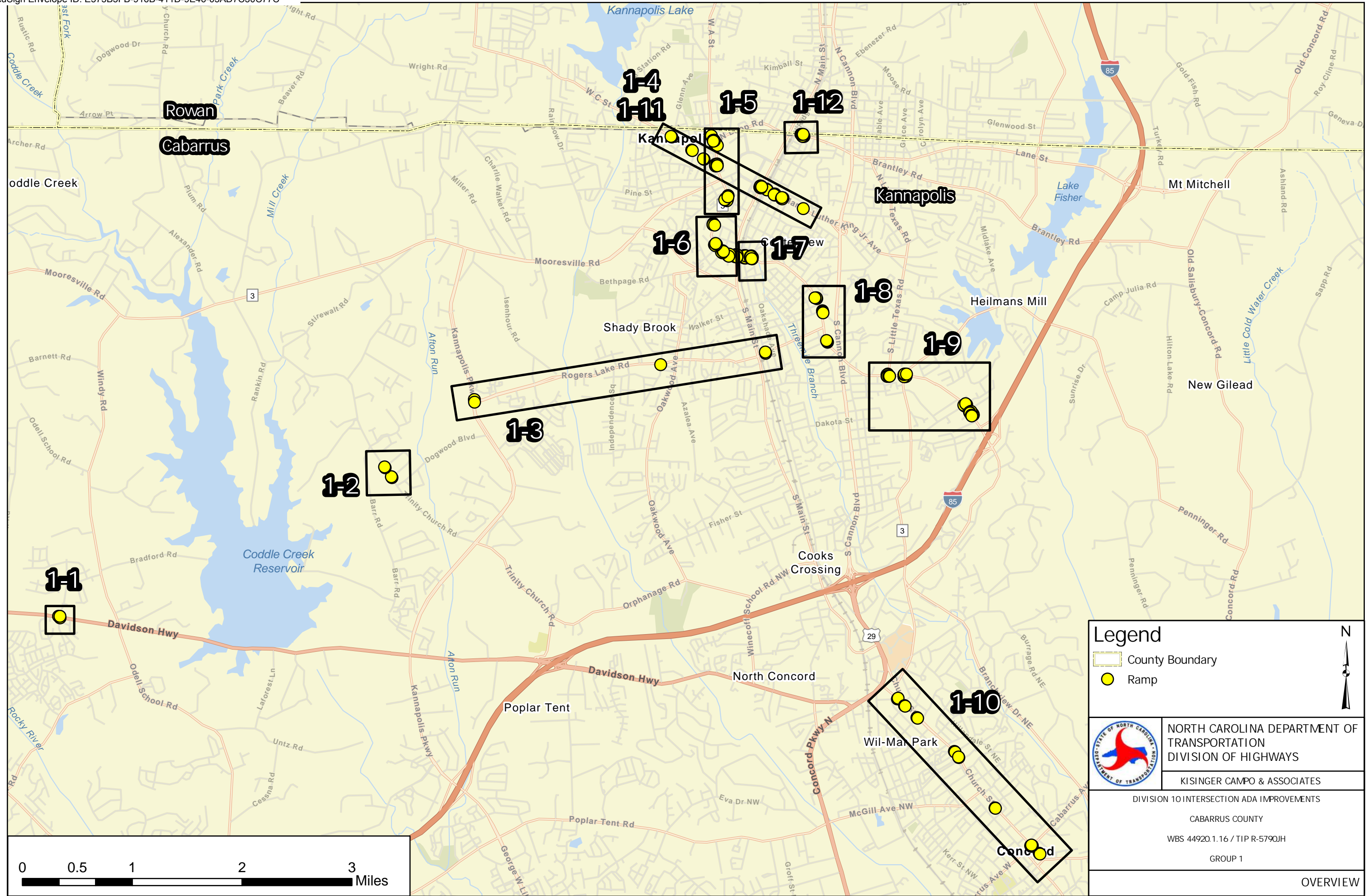


DETAIL 'C'- HI-VISIBILITY CROSSWALK

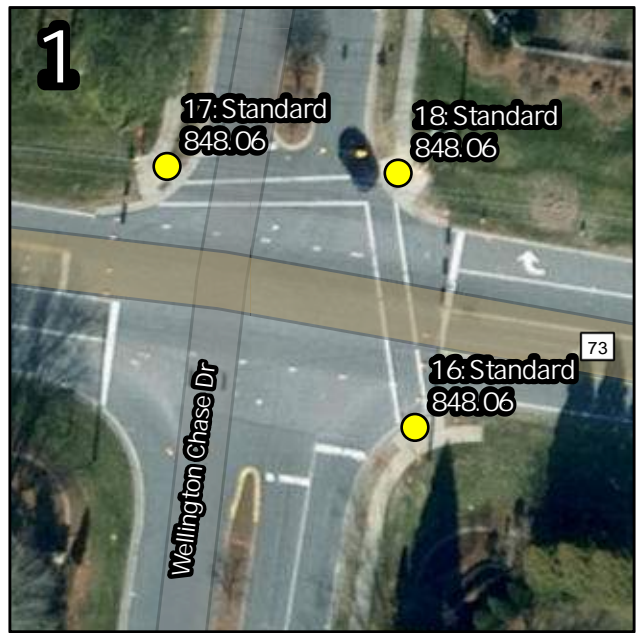
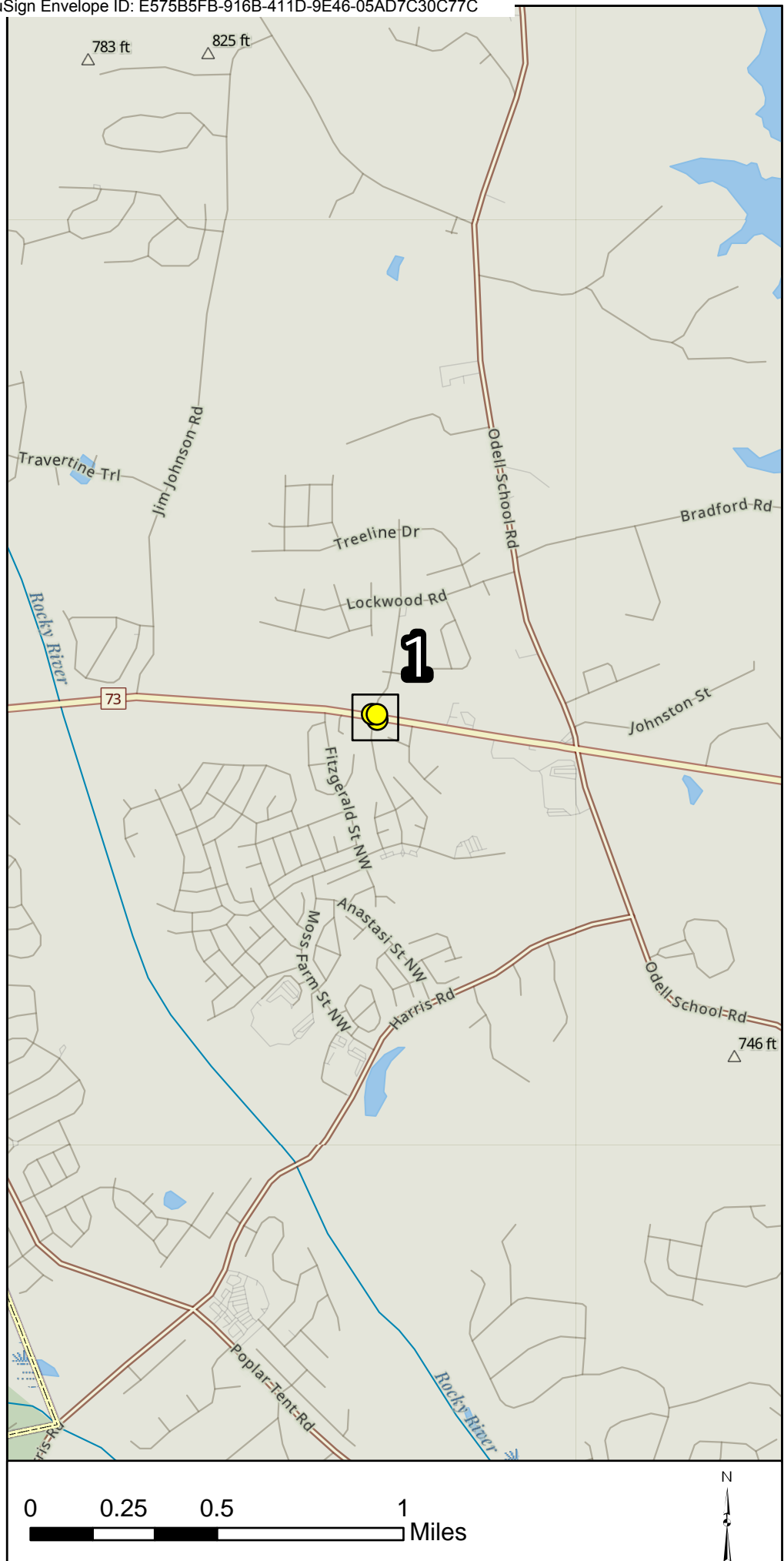
GENERAL NOTES:

- USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE.
- THE LOCATION AND TYPE OF CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY. LOCATE CROSSWALK MARKINGS AS SHOWN ON THE PROJECT DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALLED AS SPECIFIED ON THE PROJECT DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.
- THE STANDARD CROSSWALK IS TWO WHITE 8" MIN. TRANSVERSE LINES WITH A 6' MIN. GAP BETWEEN THE LINES. THE HI-VISIBILITY CROSSWALK IS WHITE 24" MAX. WIDE LONGITUDINAL LINES WITH 24" MIN. GAPS BETWEEN LINES, SEE DETAIL 'C'. HI-VISIBILITY CROSSWALKS SHOULD BE A MINIMUM OF 6' WIDE. CURB RAMPS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARES.
- STOP BARS SHOULD BE PLACED A 4' MIN. IN ADVANCE OF NEAREST CROSSWALK LINE.
- SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN.
- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4' X 4' MIN. SHALL BE PROVIDED WITHIN THE MARKINGS.
- SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2' MIN. LONG LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.
- CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS. 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 DETAILS OR A SPECIAL DESIGN.



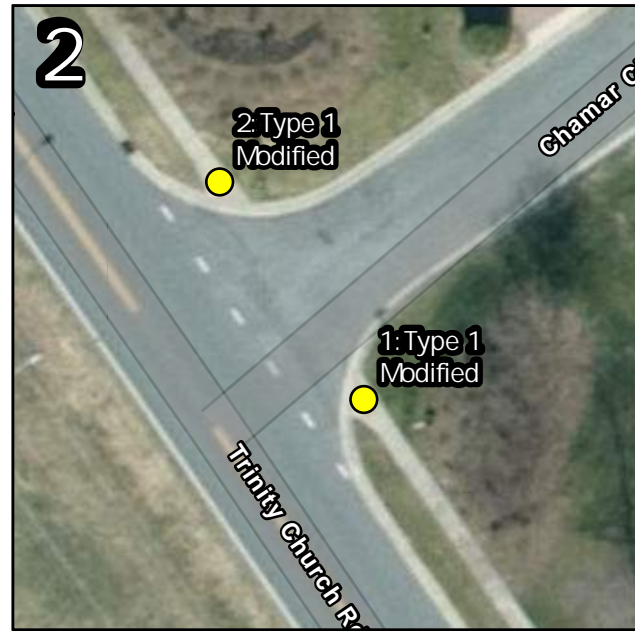
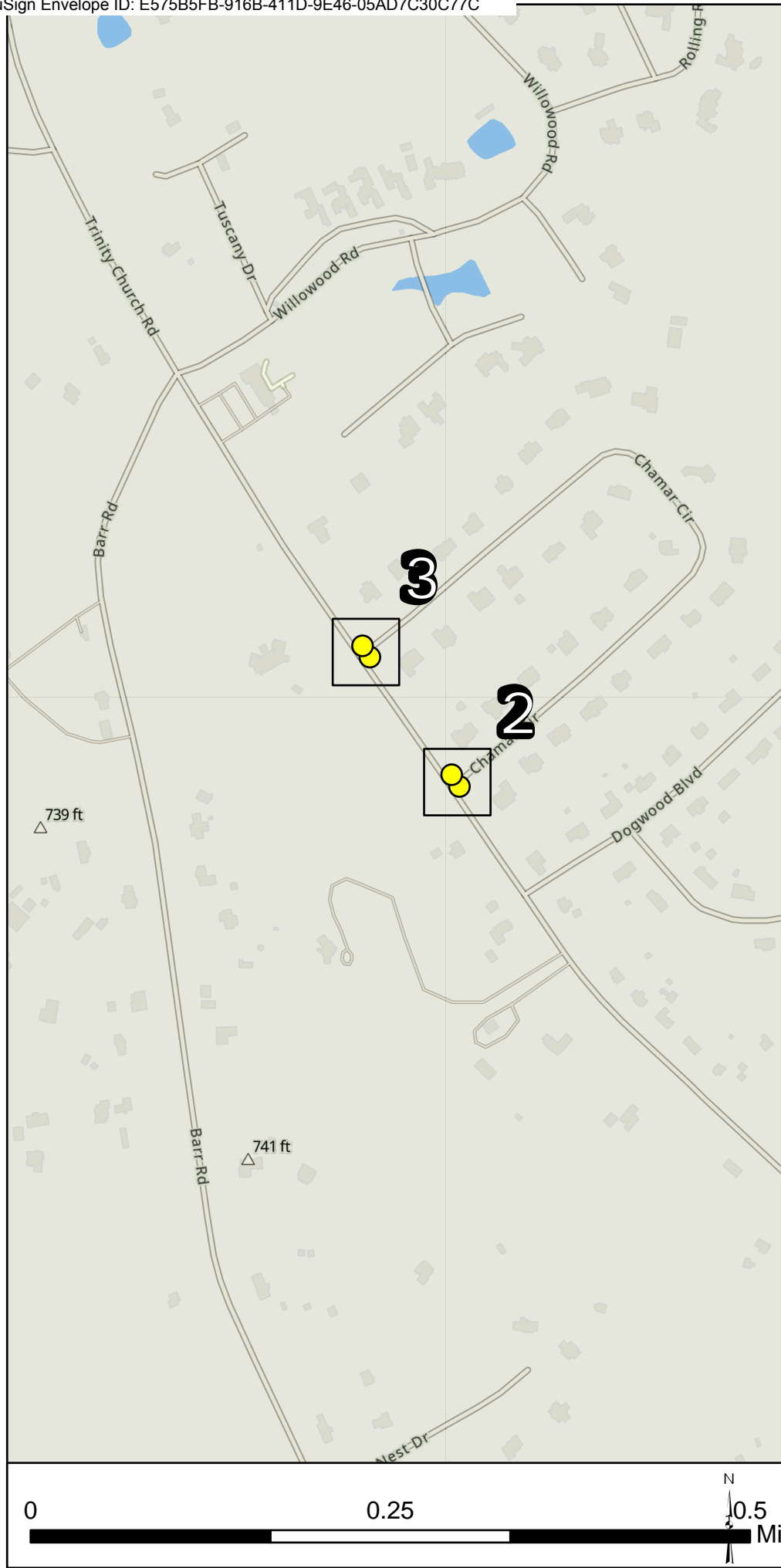


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<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS</p> <p>KISINGER CAMPO &amp; ASSOCIATES</p>		
<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>OVERVIEW</p>		

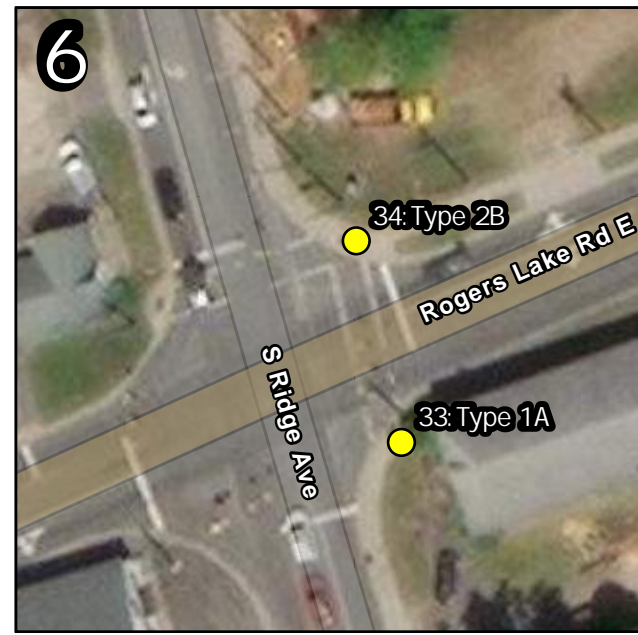
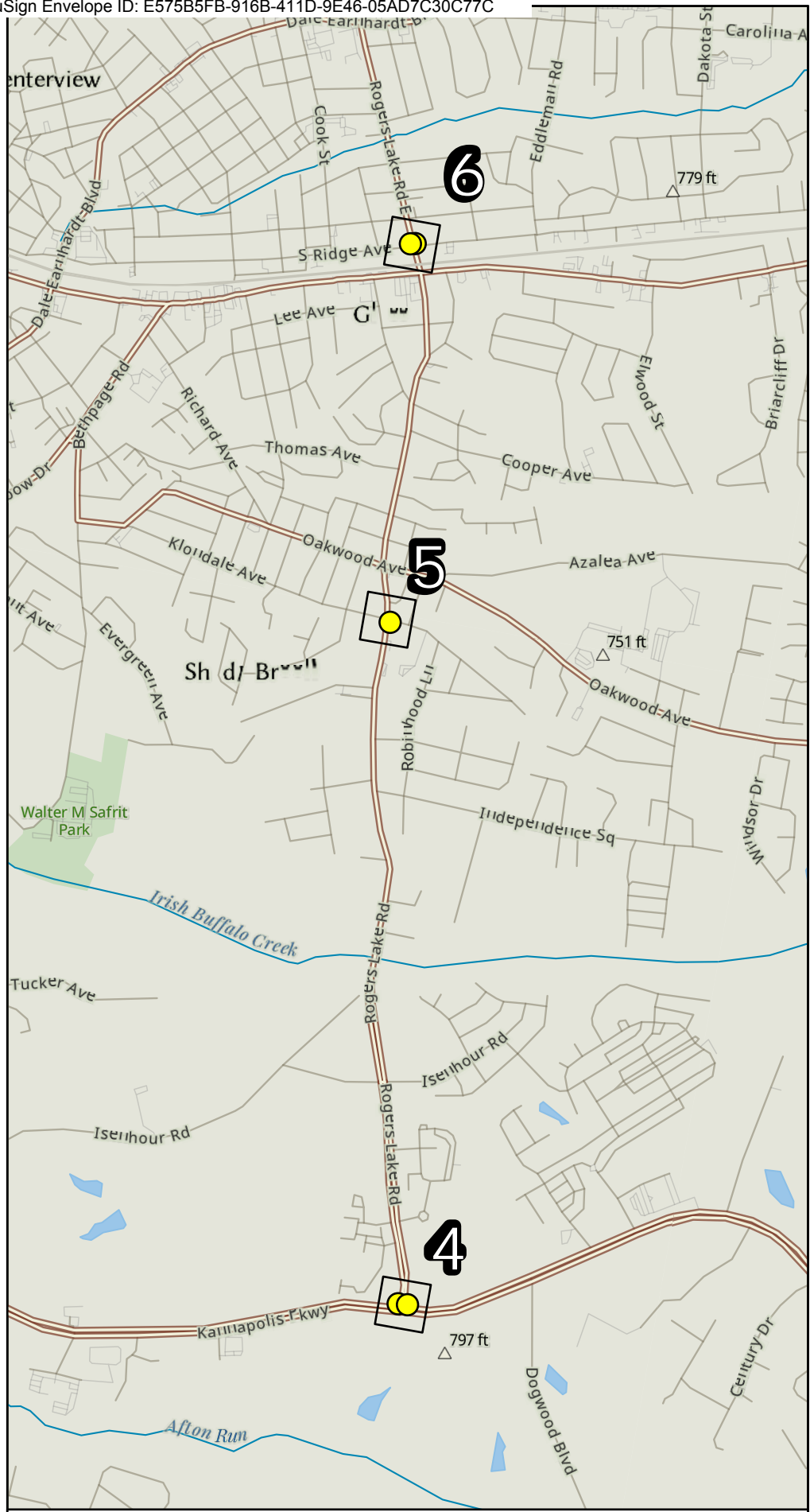


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<p>KISINGER CAMPO &amp; ASSOCIATES</p>		
<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p>		
<p>CABARRUS COUNTY</p>		
<p>WBS 44920.1.16 / TIP R-5790JH</p>		
<p>GROUP 1</p>		
		<p>MAP 1-1</p>



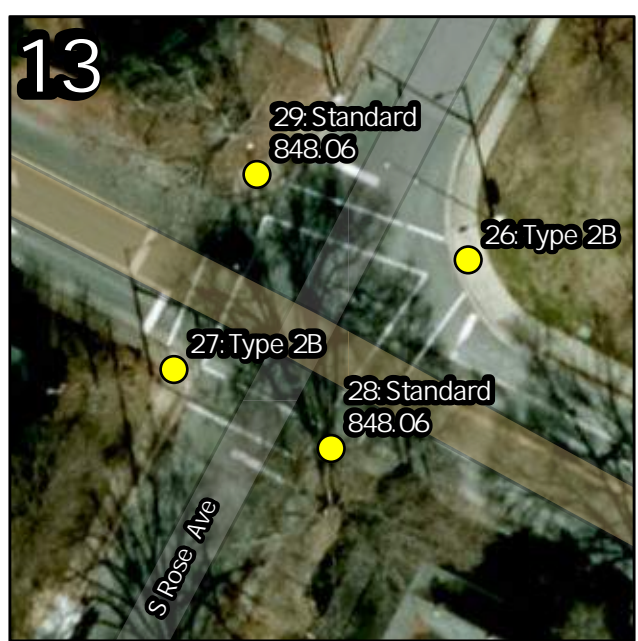
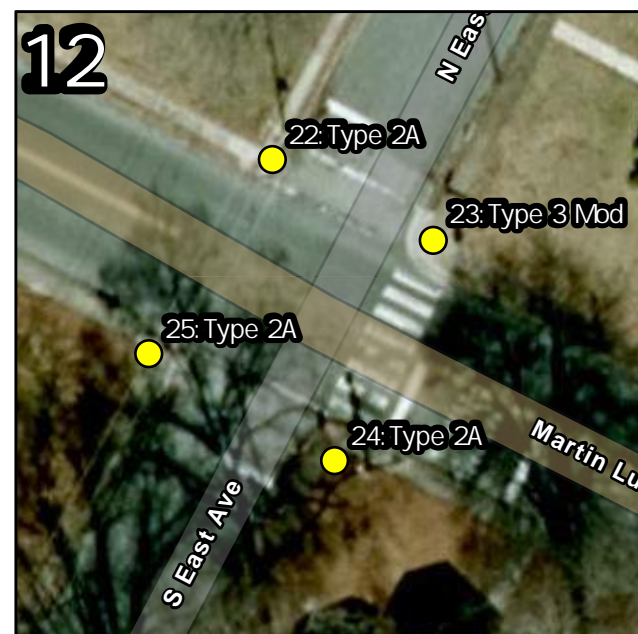
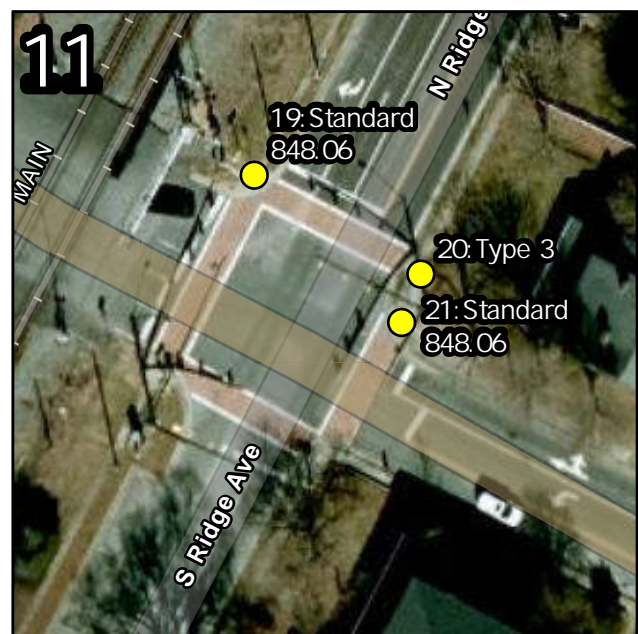
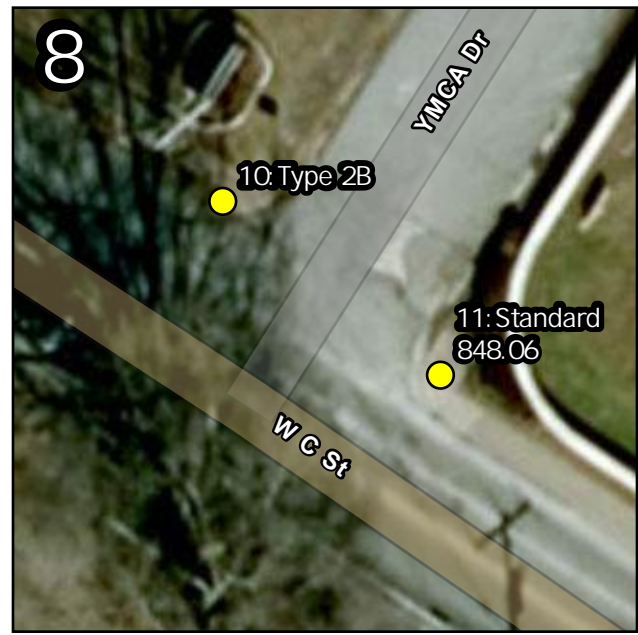
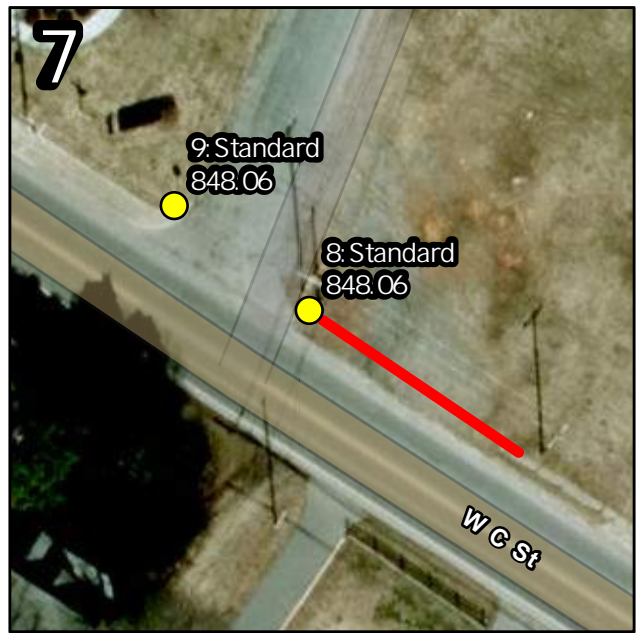
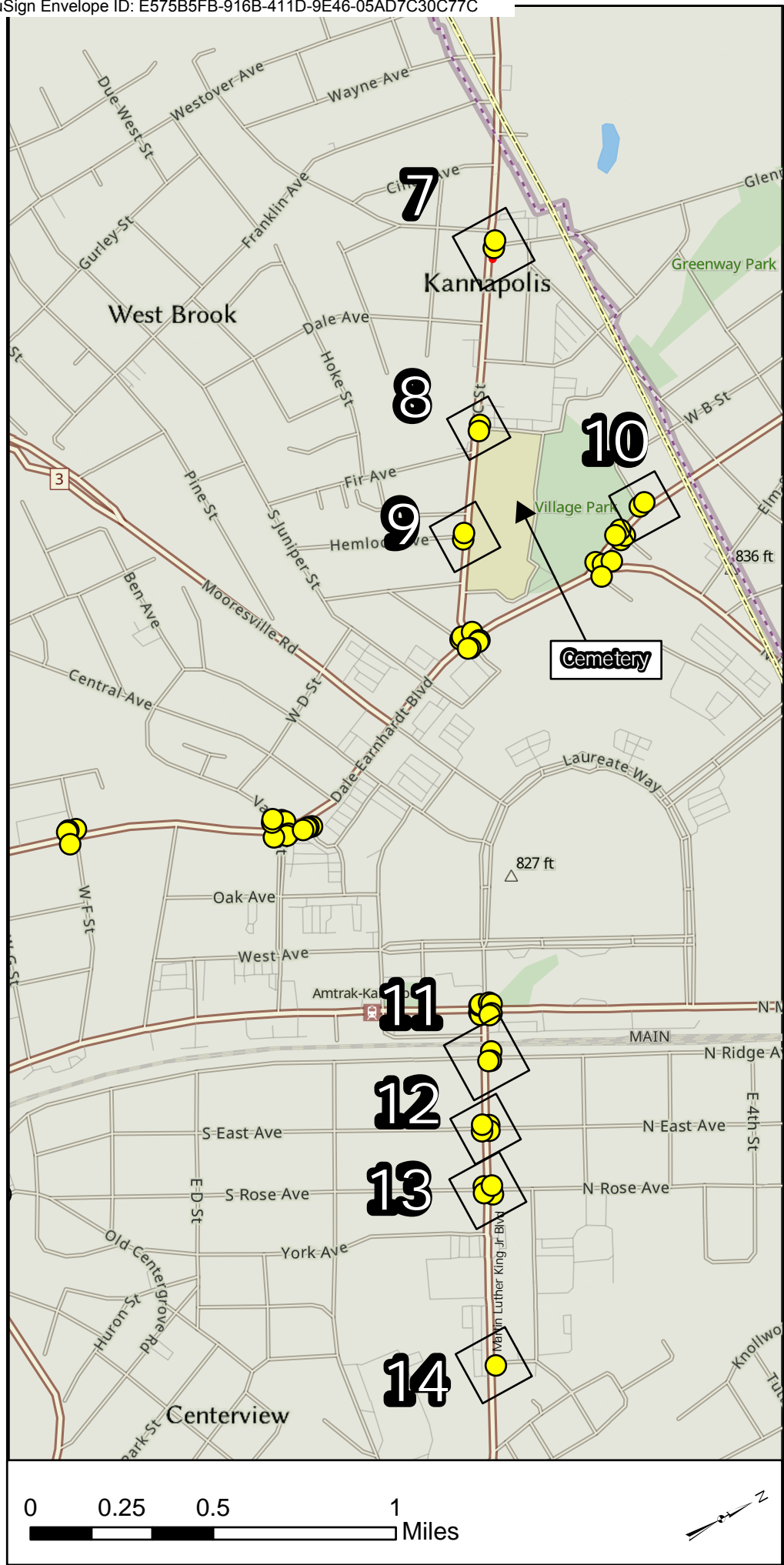


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<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>MAP 1-2</p>		



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<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>MAP 1-3</p>		





**Legend**

- Ramp
- ▭ County Boundary
- Prop Sidewalk

**N**

NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS

KISINGER CAMPO & ASSOCIATES

DIVISION 10 INTERSECTION ADA IMPROVEMENTS

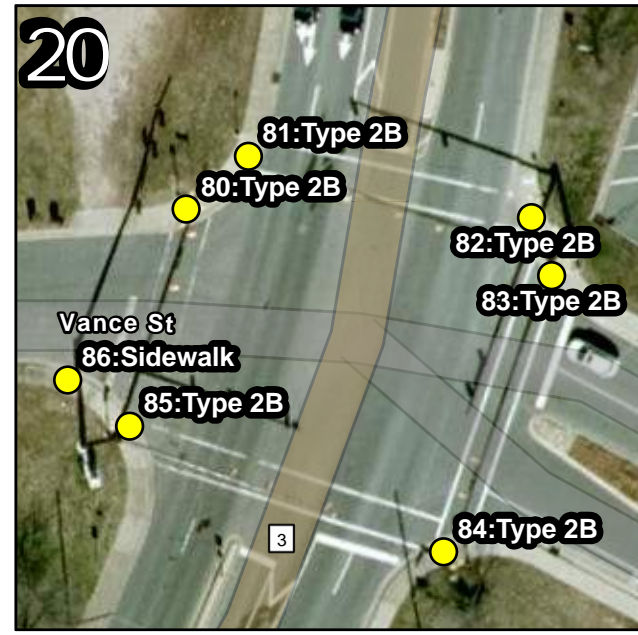
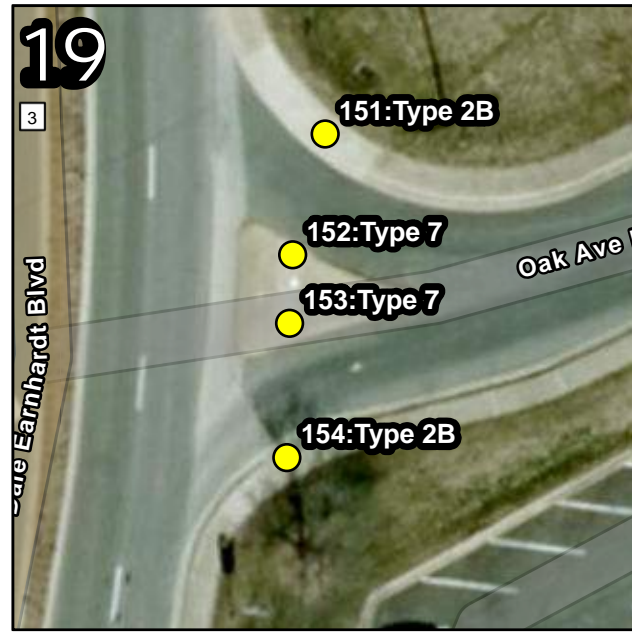
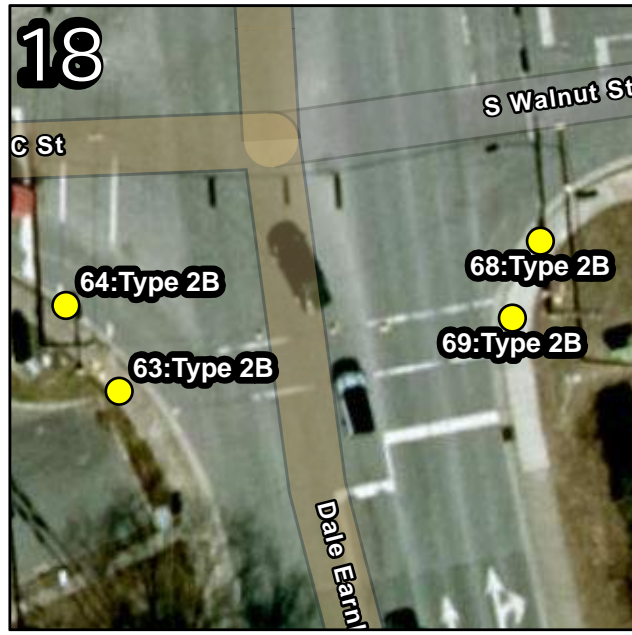
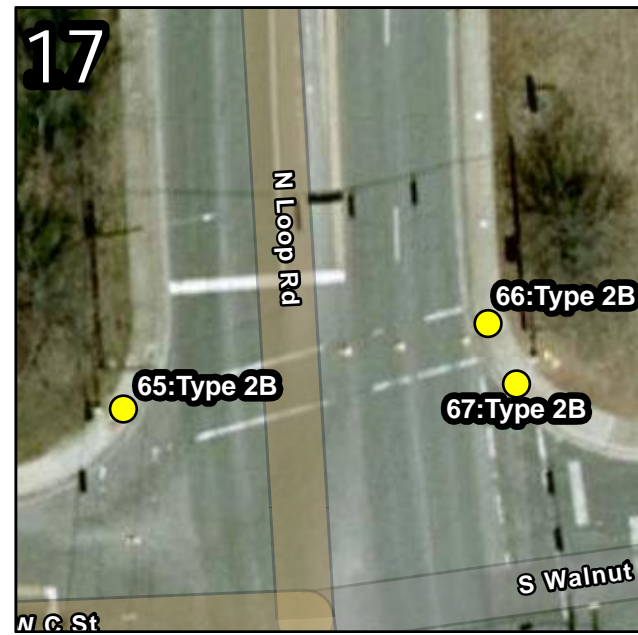
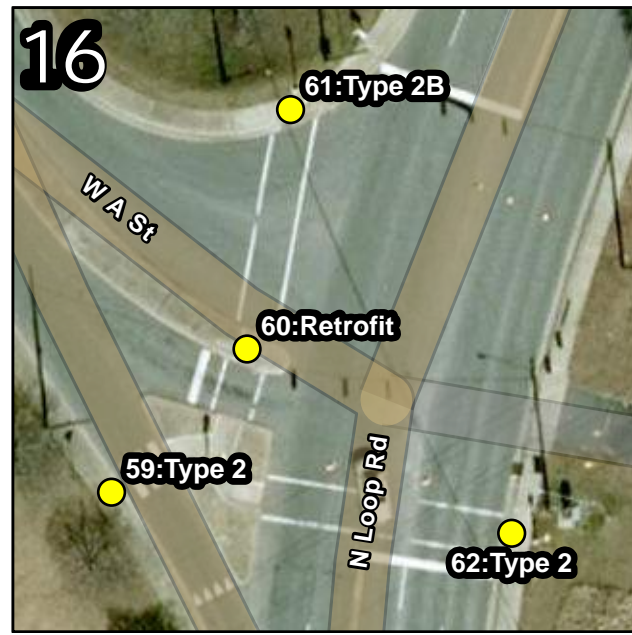
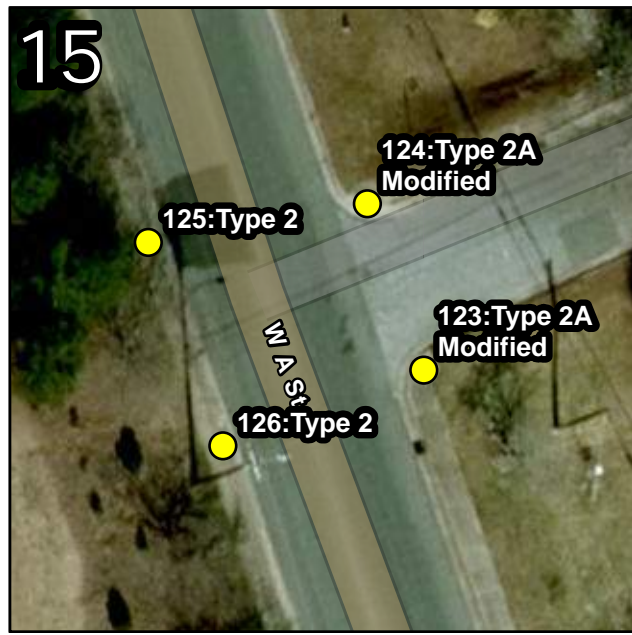
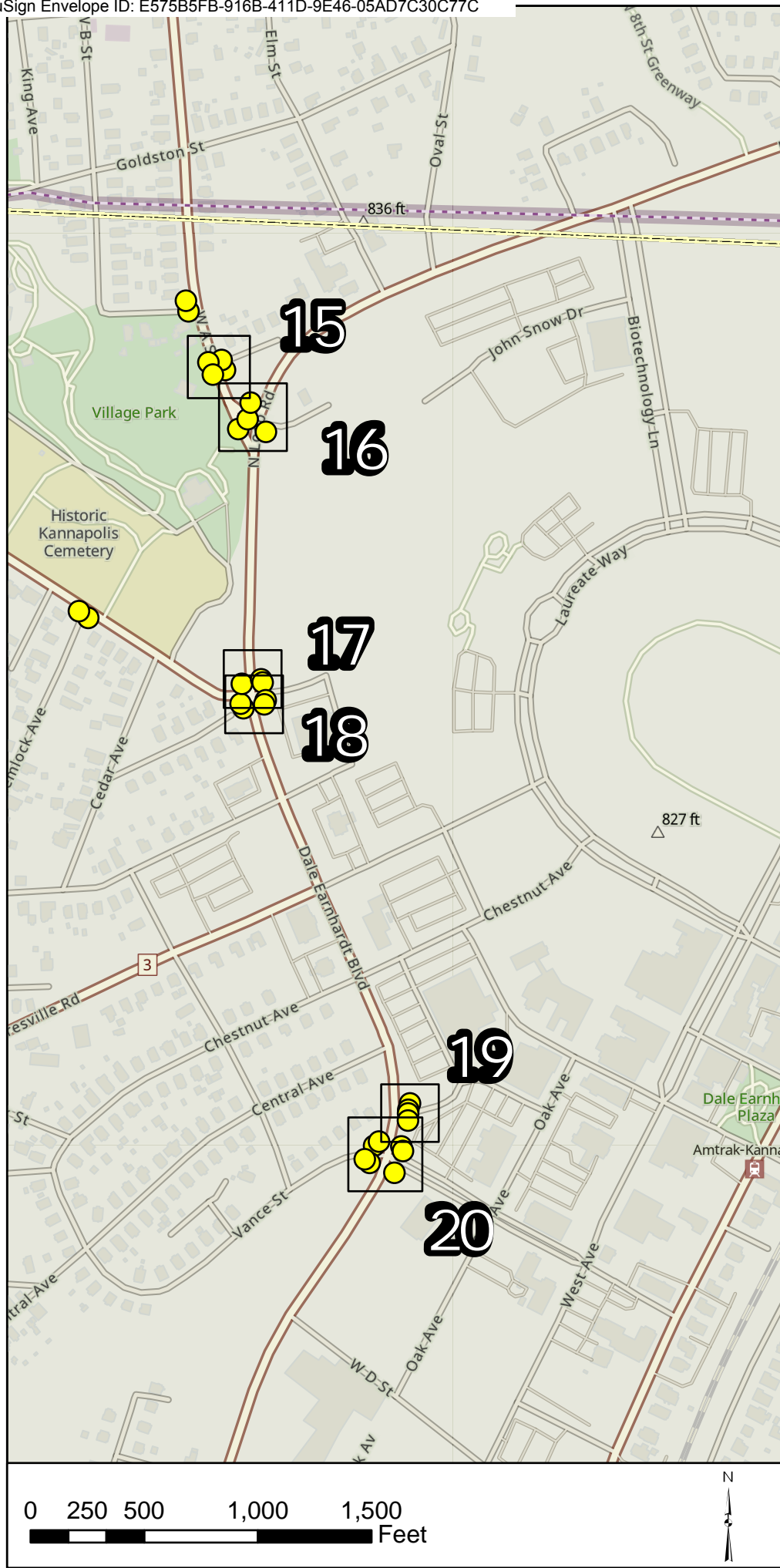
CABARRUS COUNTY

WBS 44920.1.16 / TIP R-5790JH

GROUP 1

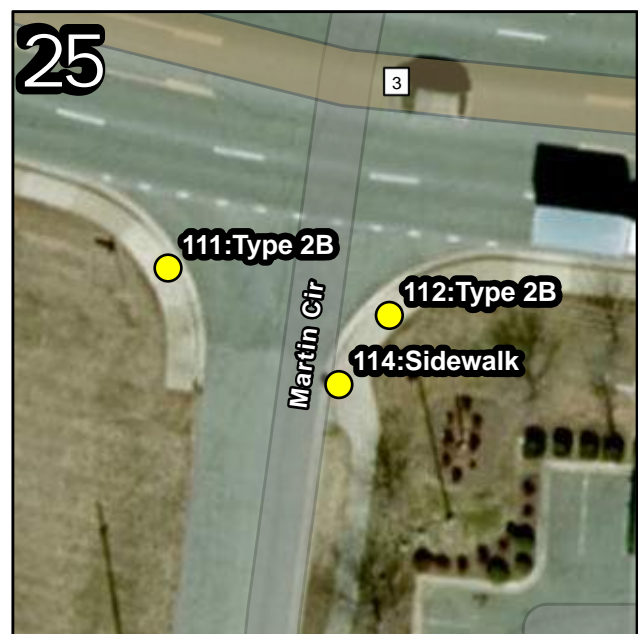
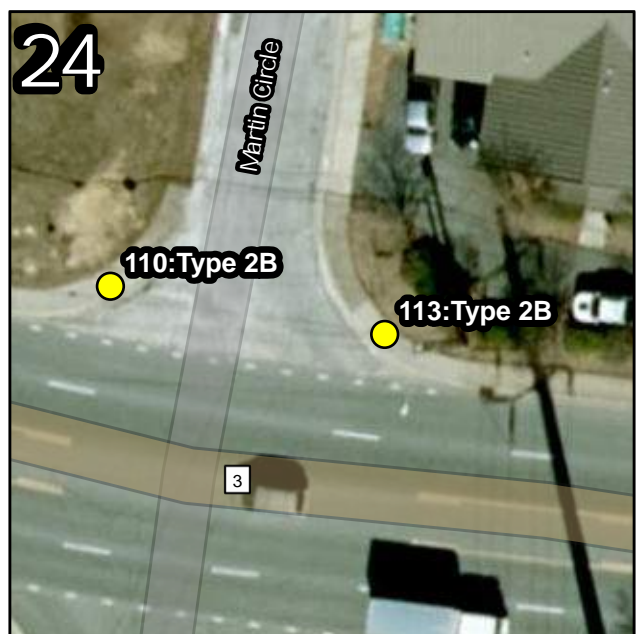
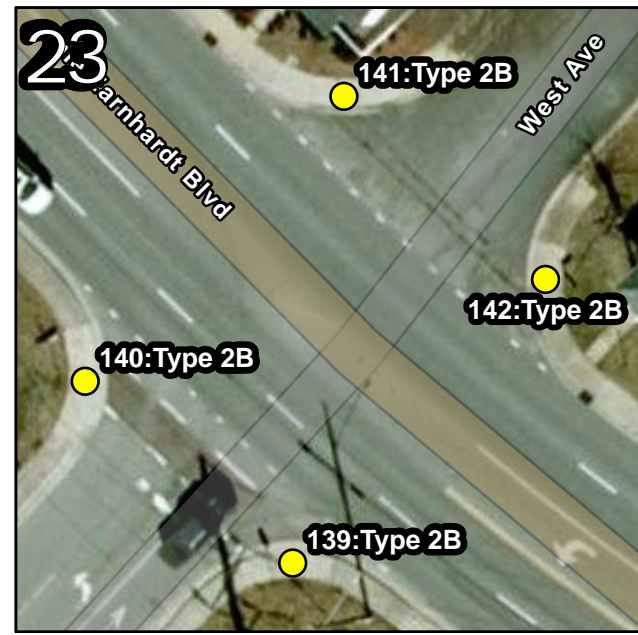
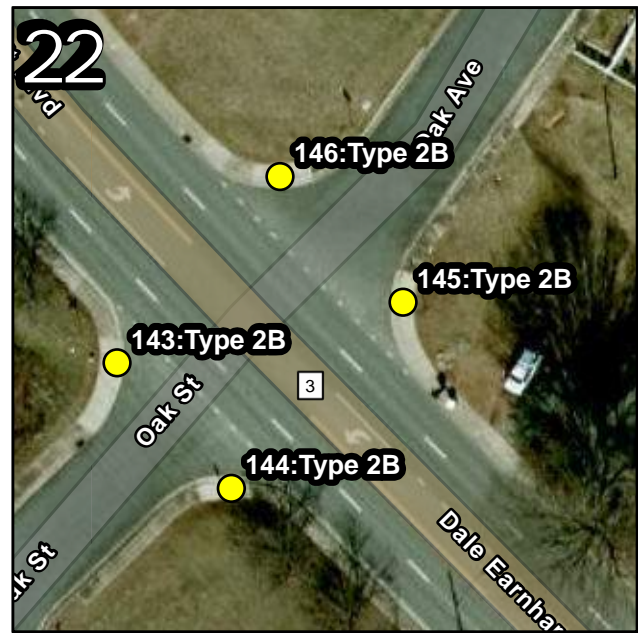
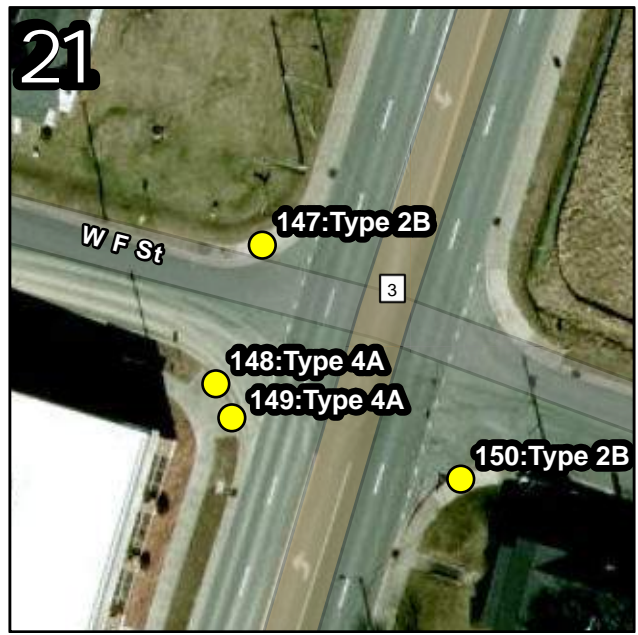
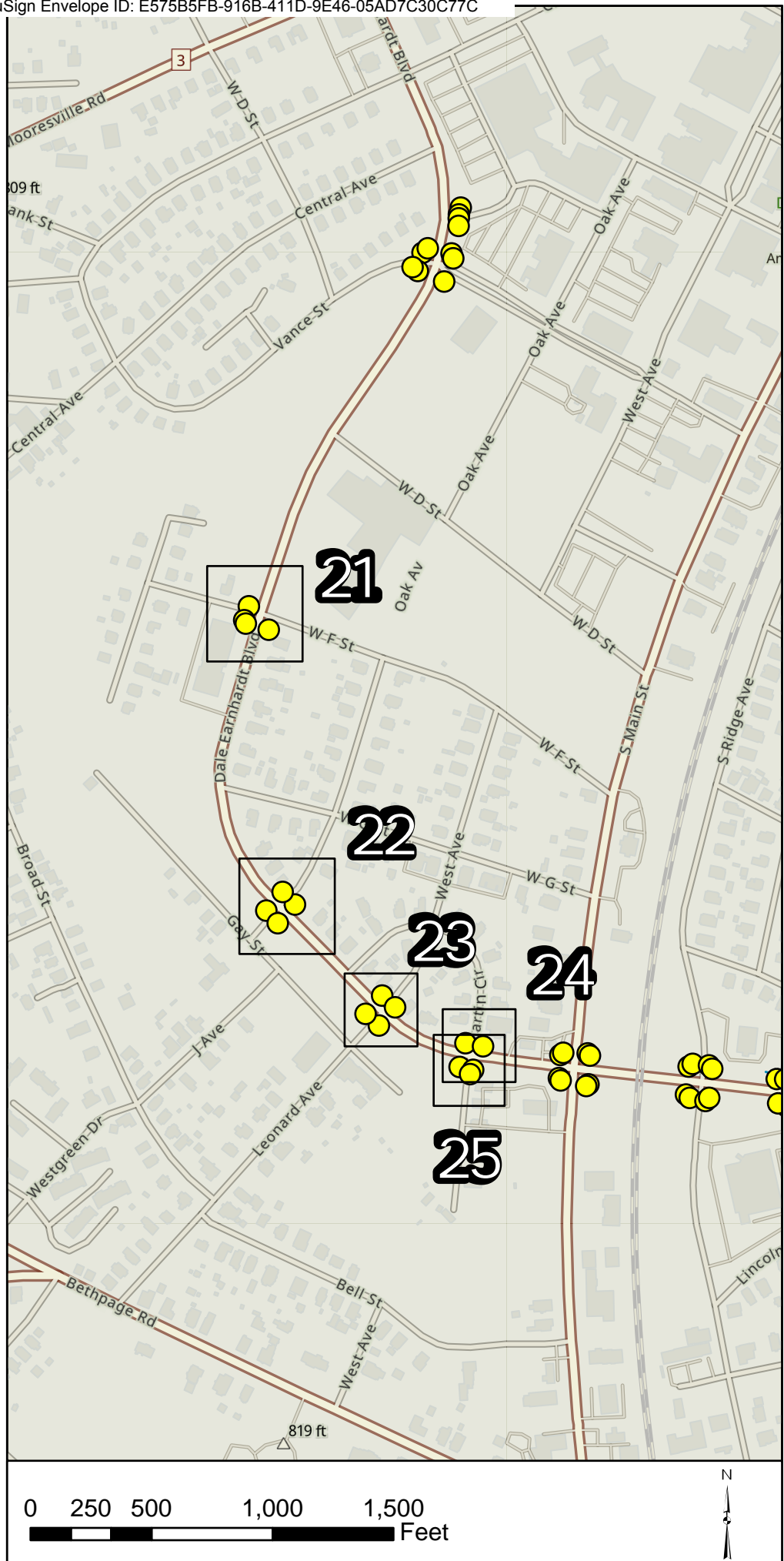
MAP 1-4





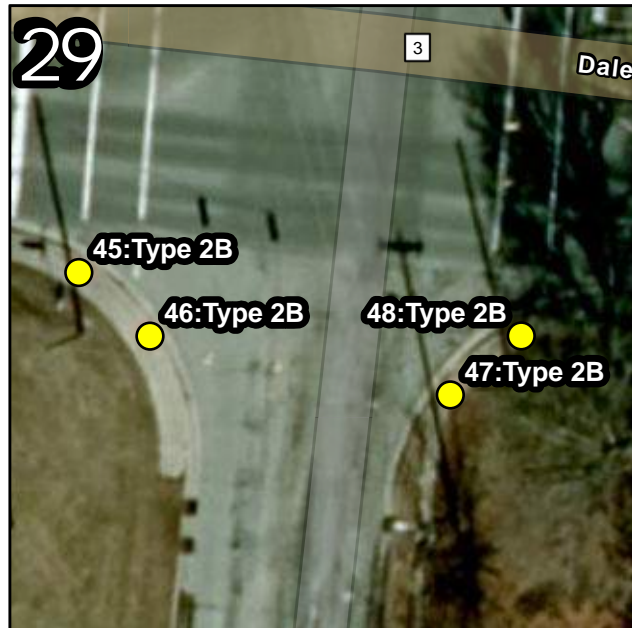
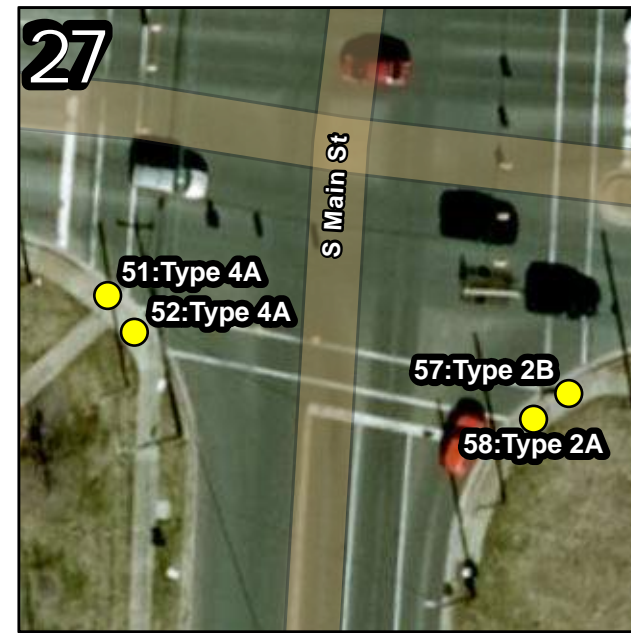
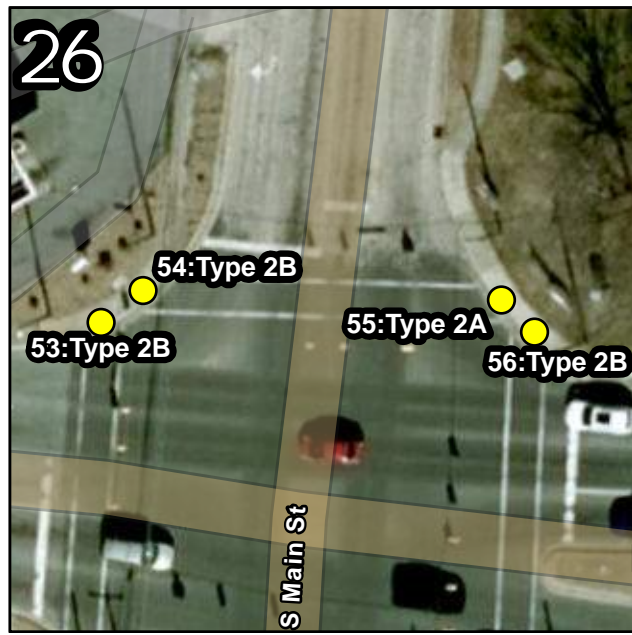
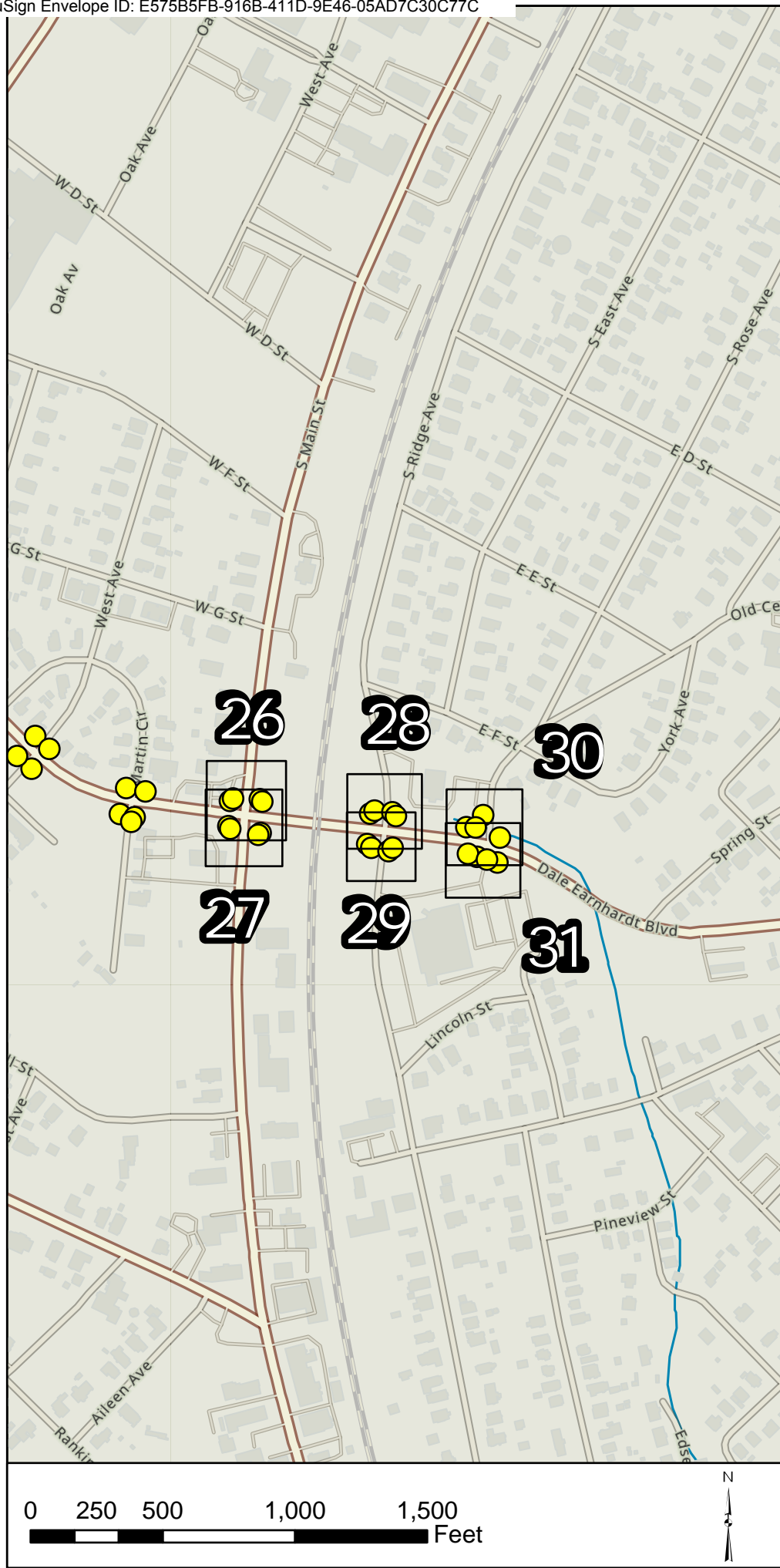
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	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS</p> <p>KISINGER CAMPO &amp; ASSOCIATES</p>	
<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>MAP 1-5</p>		





<p><b>Legend</b></p> <ul style="list-style-type: none"> <li> Ramp</li> <li> County Boundary</li> </ul>		
<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS</p> <p>KISINGER CAMPO &amp; ASSOCIATES</p>		
<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>MAP 1-6</p>		





**Legend**

- Ramp
- ▭ County Boundary

**N**

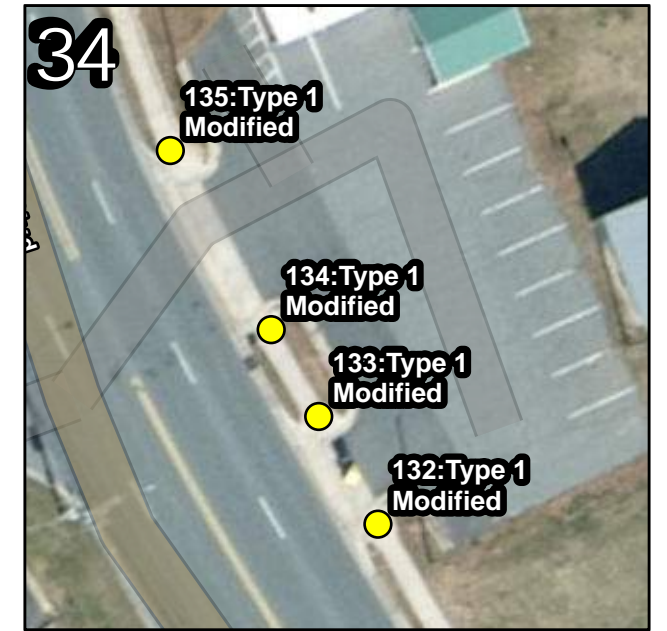
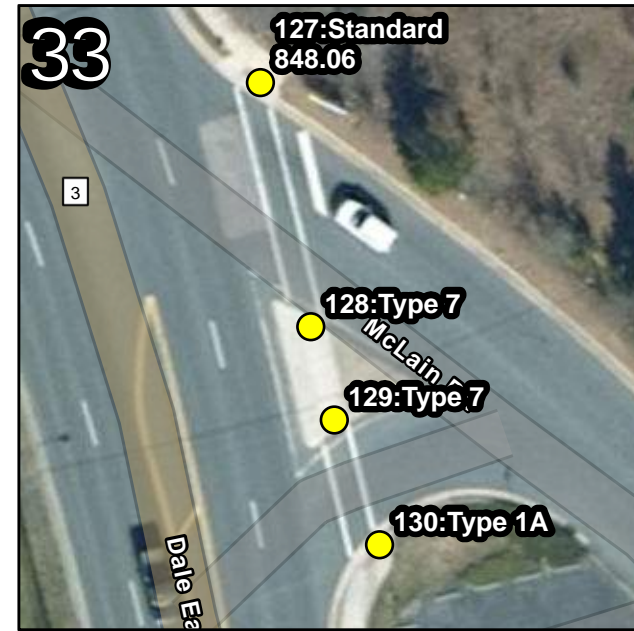
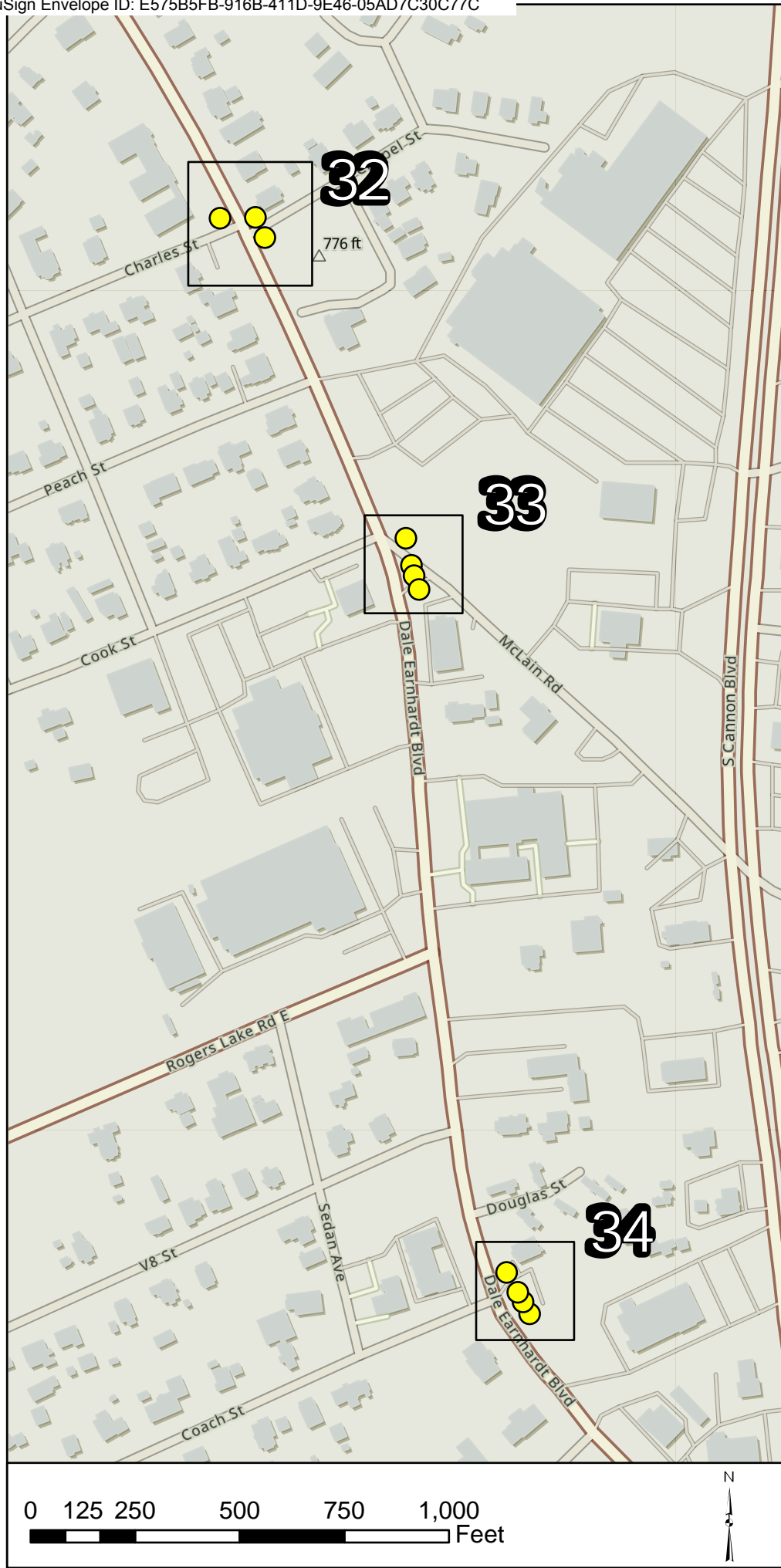
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

KISINGER CAMPO & ASSOCIATES

DIVISION 10 INTERSECTION ADA IMPROVEMENTS  
CABARRUS COUNTY  
WBS 44920.1.16 / TIP R-5790JH  
GROUP 1

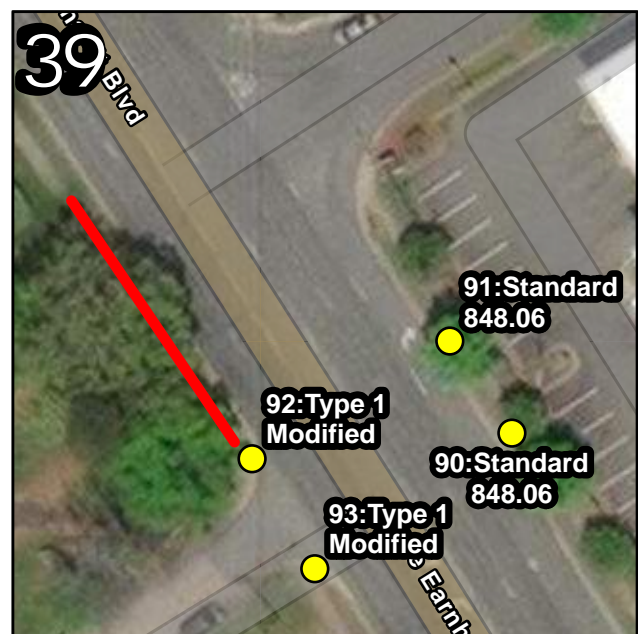
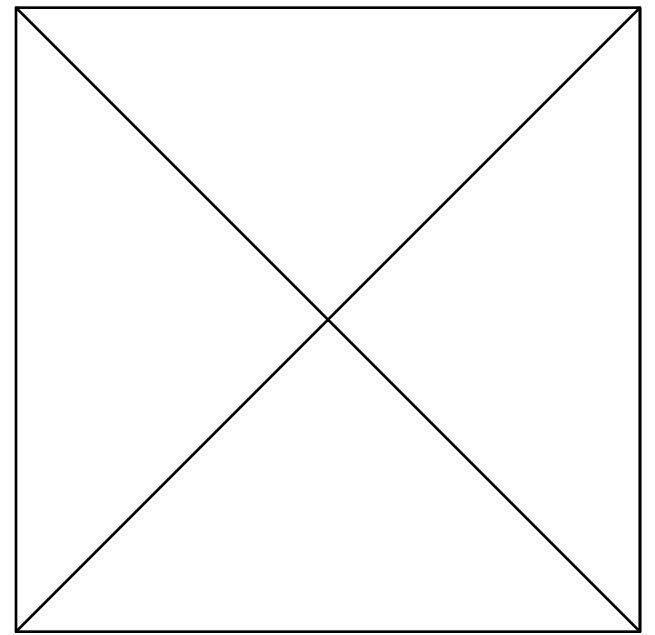
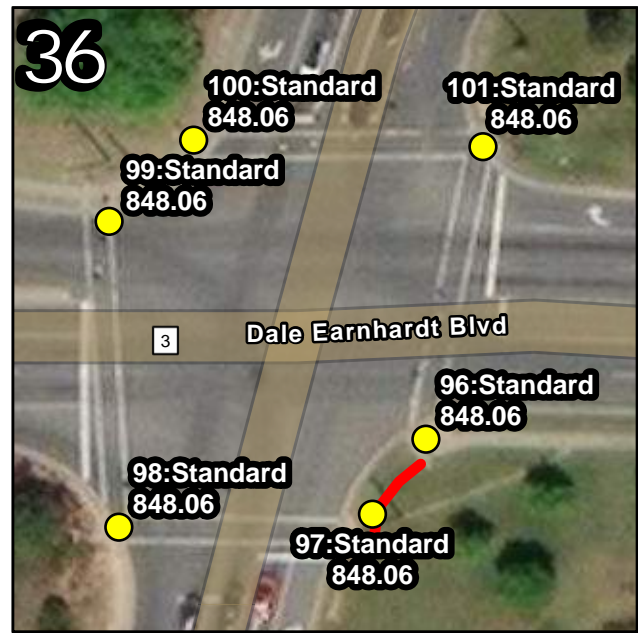
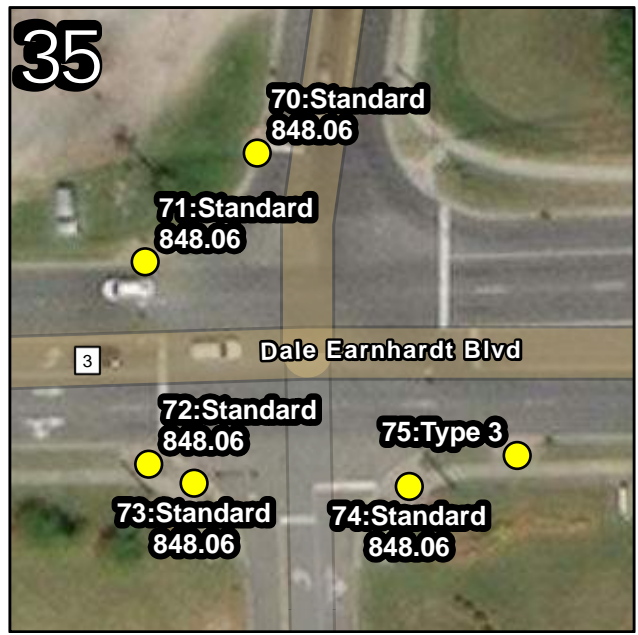
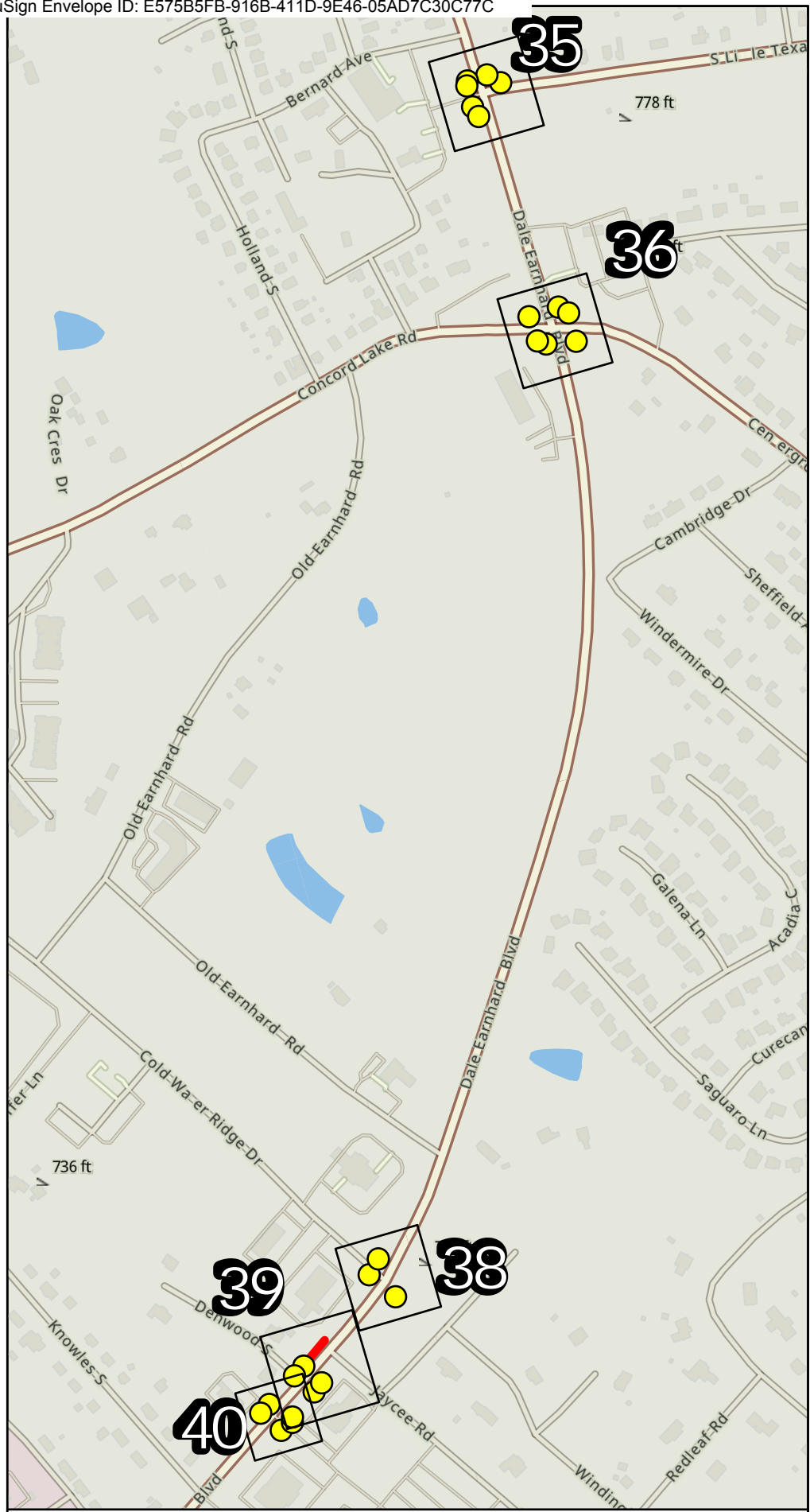
MAP 1-7





<p><b>Legend</b></p> <ul style="list-style-type: none"> <li> Ramp</li> <li> County Boundary</li> </ul>		
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<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>MAP 1-8</p>		





**Legend**

- Ramp
- County Boundary
- Prop Sidewalk

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

KISINGER CAMPO & ASSOCIATES

DIVISION 10 INTERSECTION ADA IMPROVEMENTS

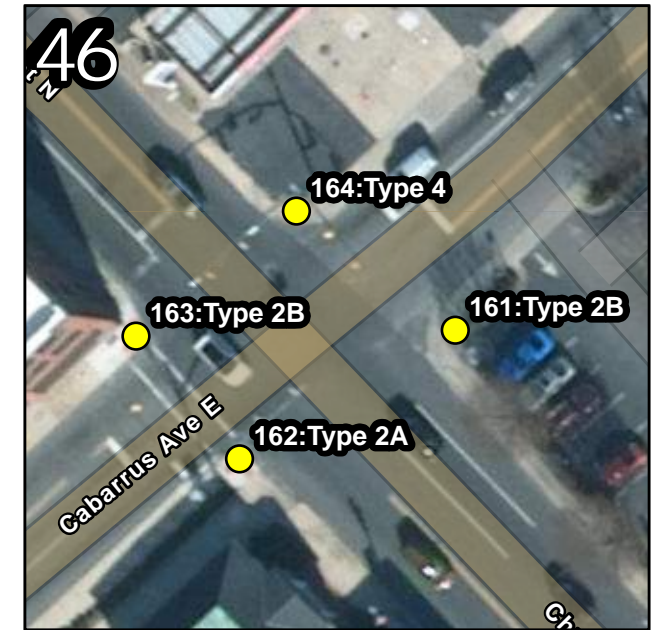
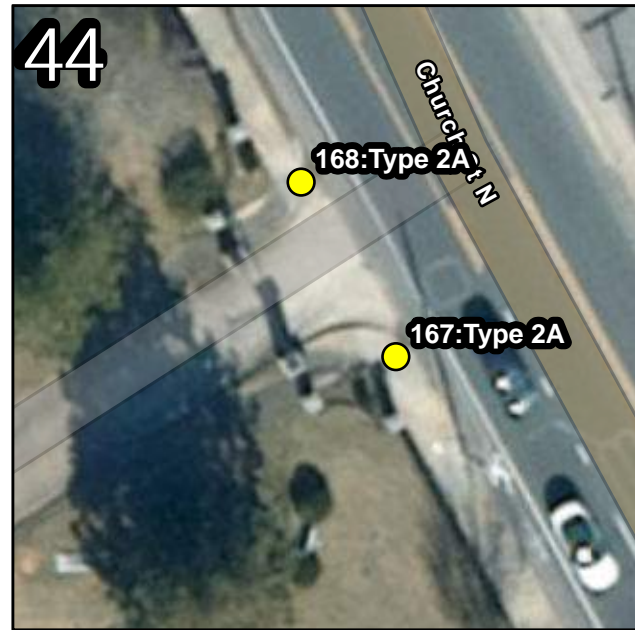
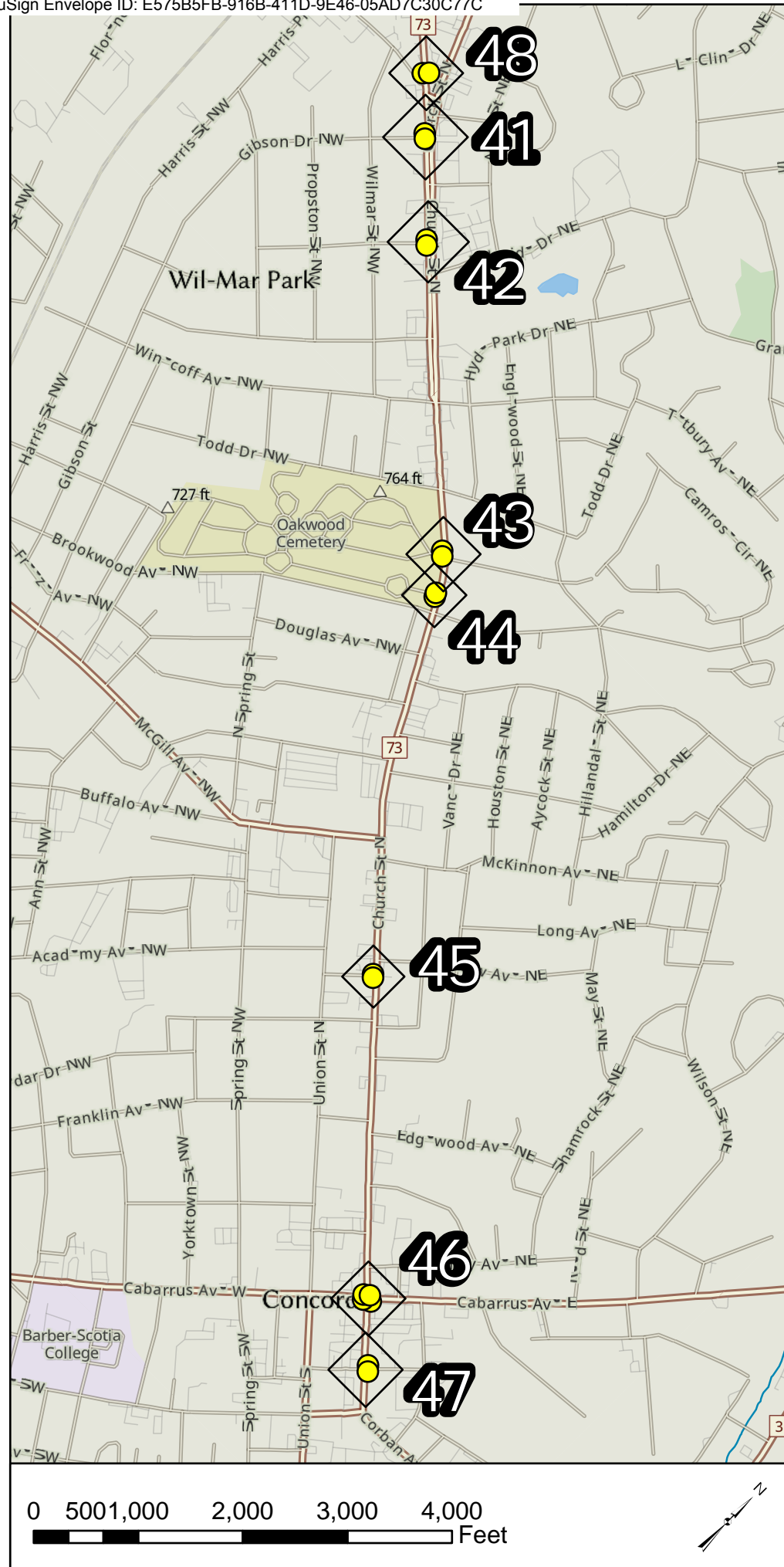
CABARRUS COUNTY

WBS 44920.1.16 / TIP R-5790JH

GROUP 1

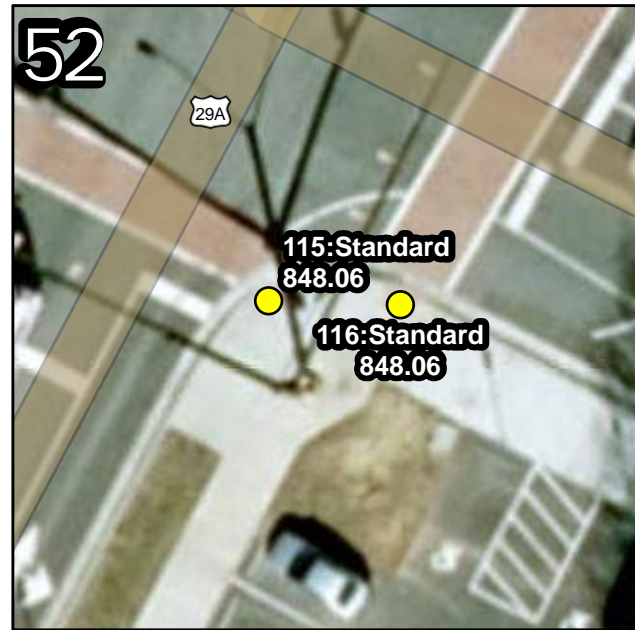
MAP 1-9





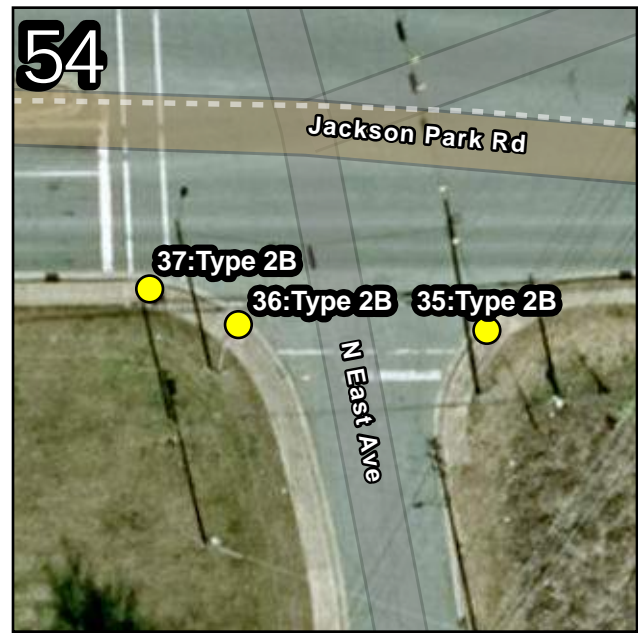
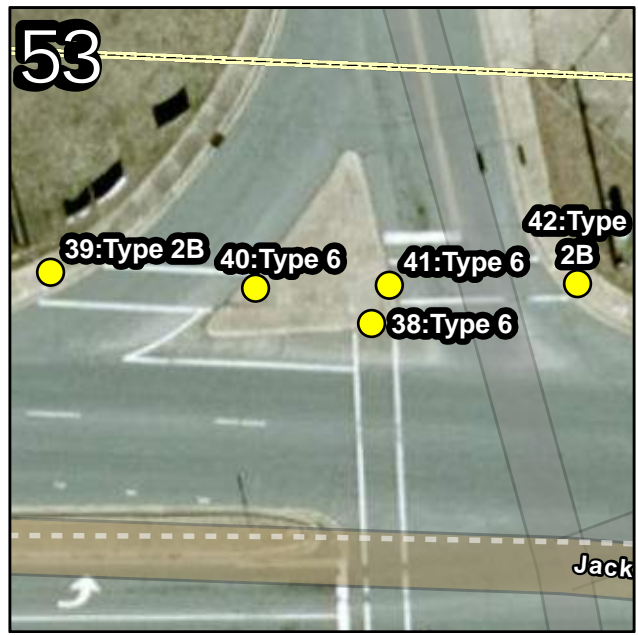
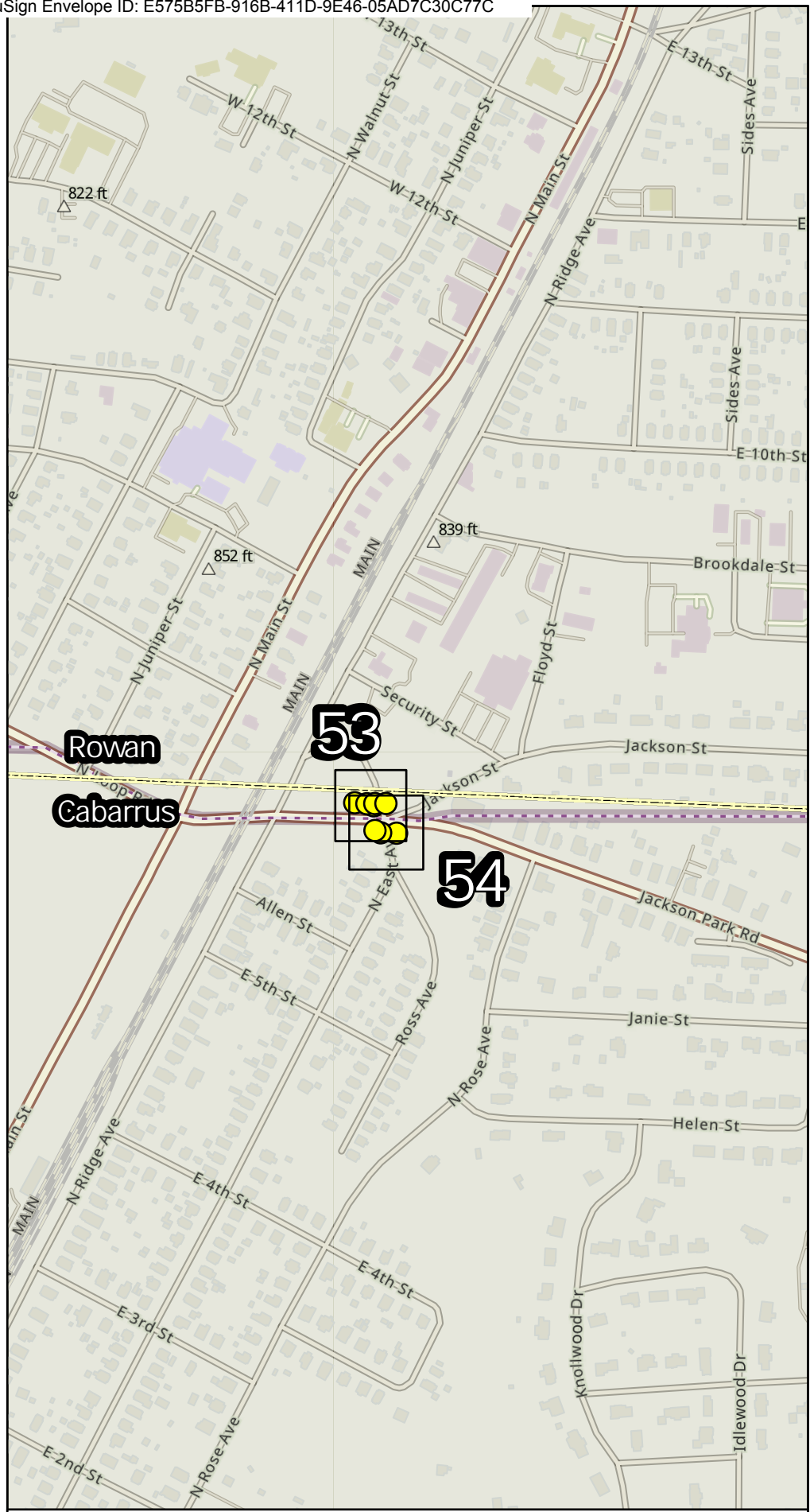
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<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS</p> <p>KISINGER CAMPO &amp; ASSOCIATES</p>		
<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>MAP 1-10</p>		





<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="color: yellow;">●</span> Ramp</li> <li><span style="border: 1px dashed yellow; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> County Boundary</li> </ul>		
	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS</p>	
<p>KISINGER CAMPO &amp; ASSOCIATES</p>		
<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p>		
<p>CABARRUS COUNTY</p>		
<p>WBS 44920.1.16 / TIP R-5790JH</p>		
<p>GROUP 1</p>		
<p>MAP 1-11</p>		





<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="color: yellow;">●</span> Ramp</li> <li><span style="border: 1px dashed yellow; display: inline-block; width: 15px; height: 10px;"></span> County Boundary</li> </ul>		
	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS</p> <p>KISINGER CAMPO &amp; ASSOCIATES</p>	
<p>DIVISION 10 INTERSECTION ADA IMPROVEMENTS</p> <p>CABARRUS COUNTY</p> <p>WBS 44920.1.16 / TIP R-5790JH</p> <p>GROUP 1</p>		
<p>MAP 1-12</p>		