

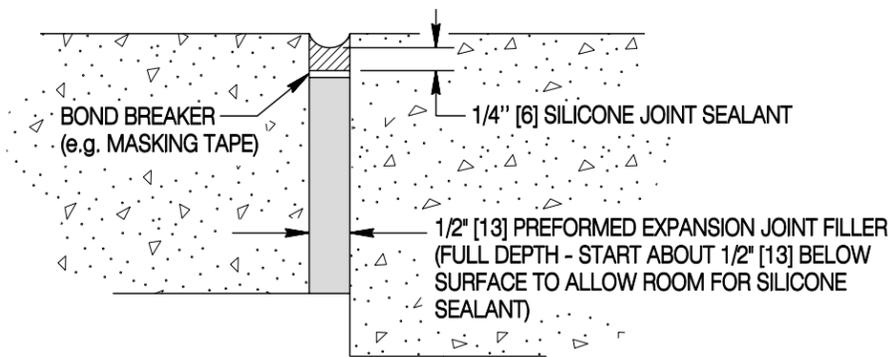
**GENERAL SIDEWALK REQUIREMENTS**

**ADA minimum sidewalk width and ramp widths:**

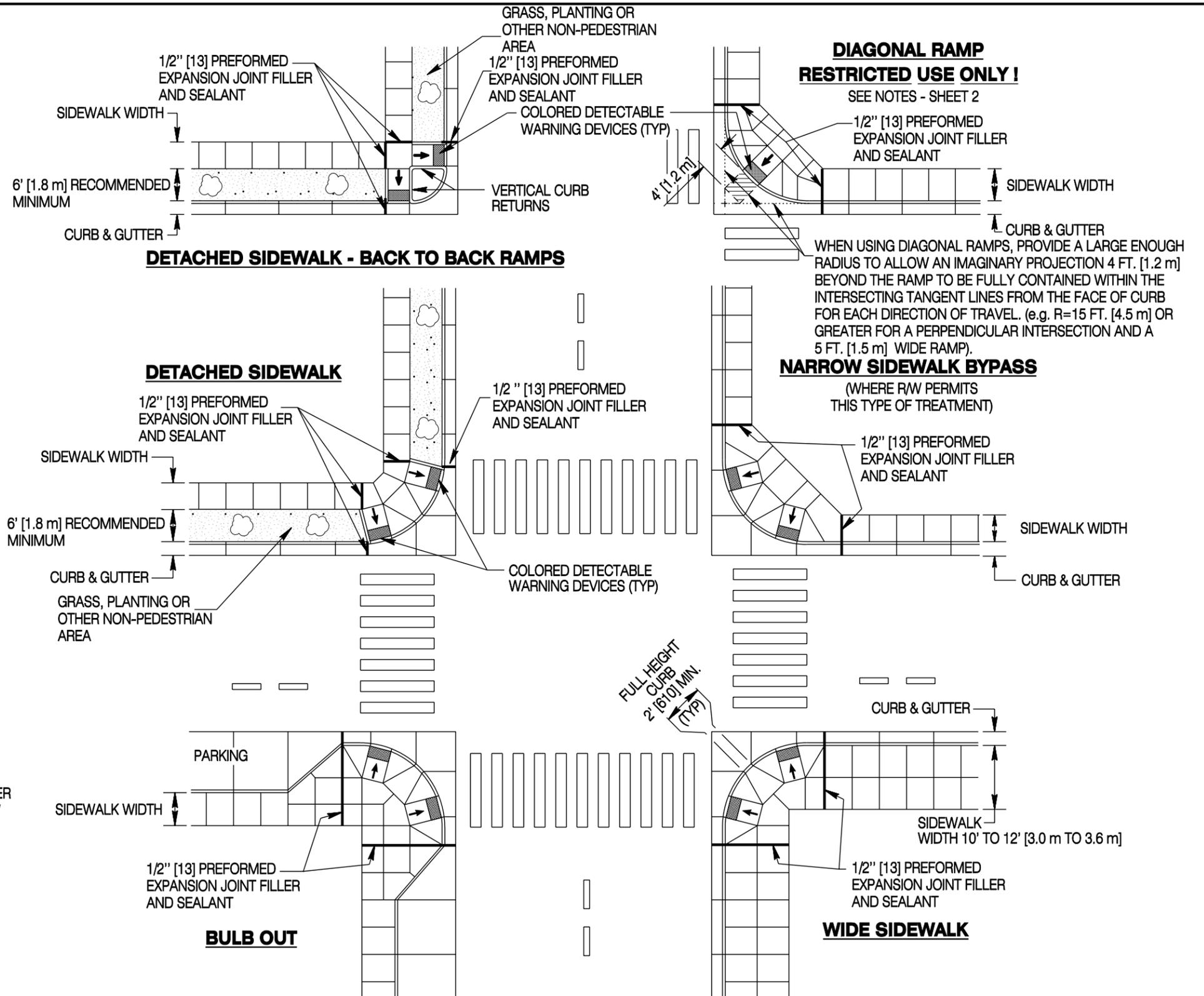
- 5 ft [1.5 m] for standard sidewalk..
- 4 ft [1.2 m] for existing infrastructure where it is not feasible to construct 5 ft [1.5 m].  
Use 5 ft x 5 ft [1.5 m x 1.5 m] minimum passing zones every 200 ft [61 m] maximum.
- 3 ft [915] for existing infrastructure where it is not feasible to construct 4 ft [1.2 m].  
Use 5 ft x 5 ft [1.5 m x 1.5 m] minimum passing zones every 200 ft [61 m] maximum.  
(May require ADA site infeasibility justification - See current ADA Standards)

**Provide 1V:48H cross-slope for sidewalks and landings** for drainage. Slope towards curb and gutter unless otherwise shown.

**Provide colored detectable warning devices** at all locations where the curb ramp enters into a street or parking lot.



**TYPICAL EXPANSION JOINT DETAIL**



**TYPICAL CURB RAMP TYPE I TREATMENTS**

Designed by: WBW  
 Drawn by: JK  
 Checked by: WBW  
 Previous Dwg. No. 608-1

GENERAL REQUIREMENTS



WYOMING DEPARTMENT OF TRANSPORTATION

CONCRETE SIDEWALK AND ADA ACCESSIBILITY

STANDARD PLAN

STANDARD PLAN NUMBER

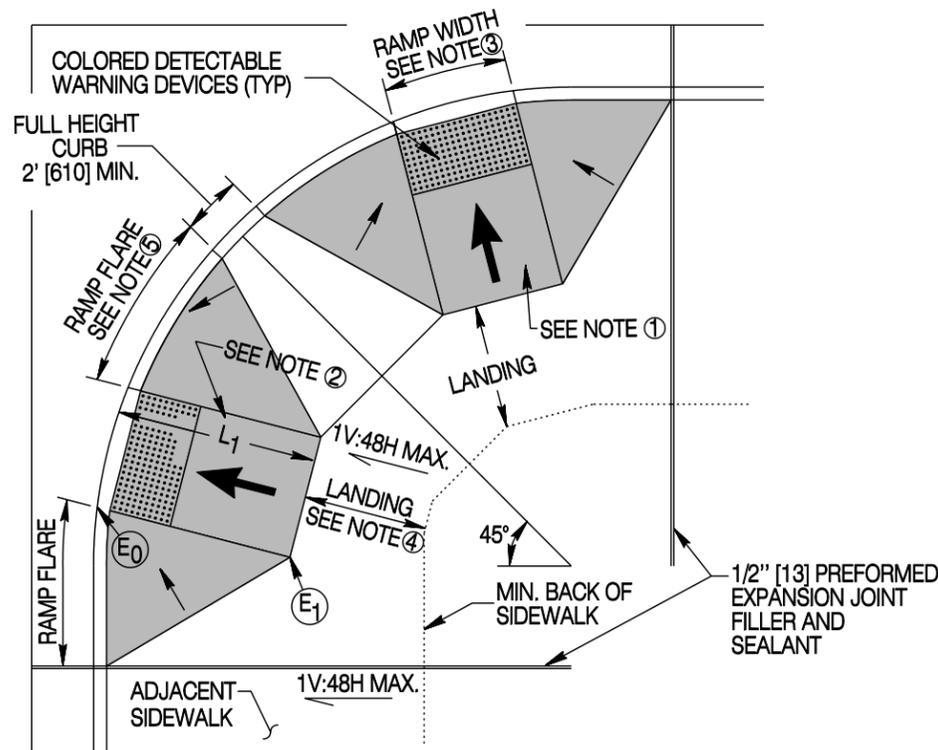
608-1A

SHEET 1 of 6

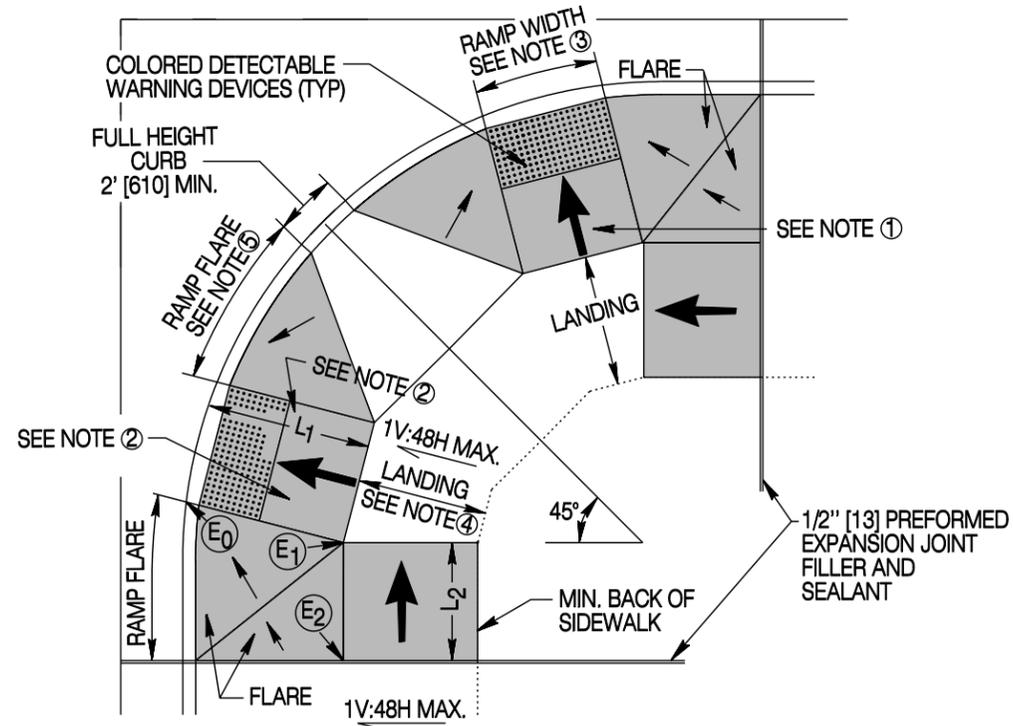
Issued by: ENGINEERING SERVICES

Date Issued: DECEMBER 2006

Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.



**TYPICAL TYPE I (PERPENDICULAR) CORNER RAMPS**



**MODIFIED TYPE I (COMBINED) CORNER RAMPS**

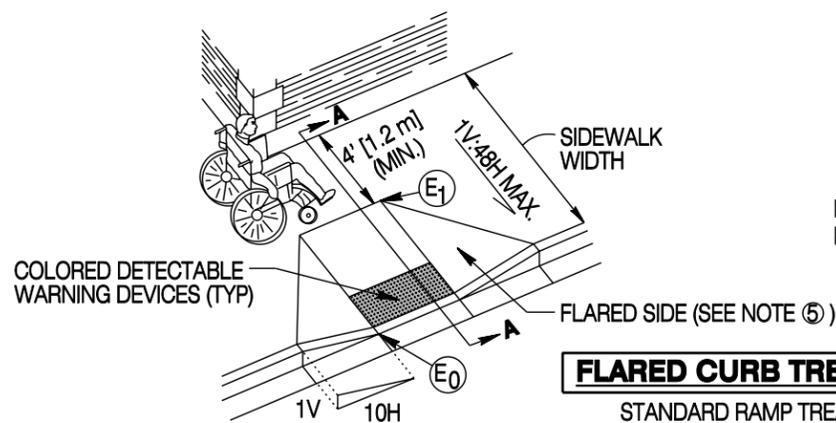
**TYPE I (PERPENDICULAR) CURB RAMP REQUIREMENTS**

- ① **RAMP SLOPE:** Do not exceed 1V:12H ramp slope.
- ② **RAMP LENGTH:** Use ramp length(s) as follows for a 6" [150] curb:

**RAMP LENGTH TABLE**

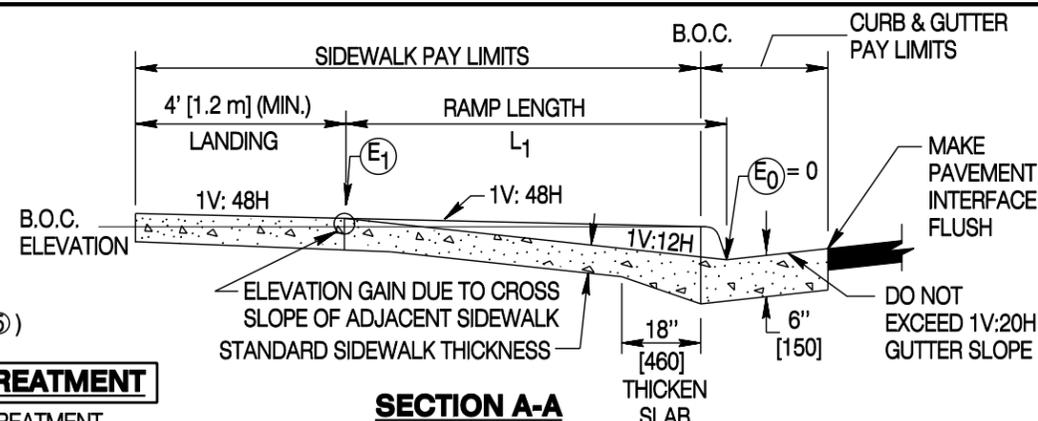
L <sub>1</sub>	L <sub>2</sub>	Change in Elev from E <sub>0</sub> to:		Remarks
		E <sub>1</sub>	E <sub>2</sub>	
8' [2.4 m]	NA	8" [205]	NA	Curb height plus cross slope rise of adjacent sidewalk - See section A-A.
6' [1.8 m]	NA	6" [150]	NA	Curb height change only (level planting) See section B-B
5' [1.5 m]	2.5' [0.75 m]	5" [130]	7.5" [190]	*Modified Type I combined ramps.
4' [1.2 m]	3' [0.9 m]	4" [100]	7" [180]	
3' [0.9 m]	4' [1.2 m]	3" [75]	7" [180]	

\* Warp the intersection with a combined ramp system to reduce the length of the perpendicular ramp (L<sub>1</sub>).

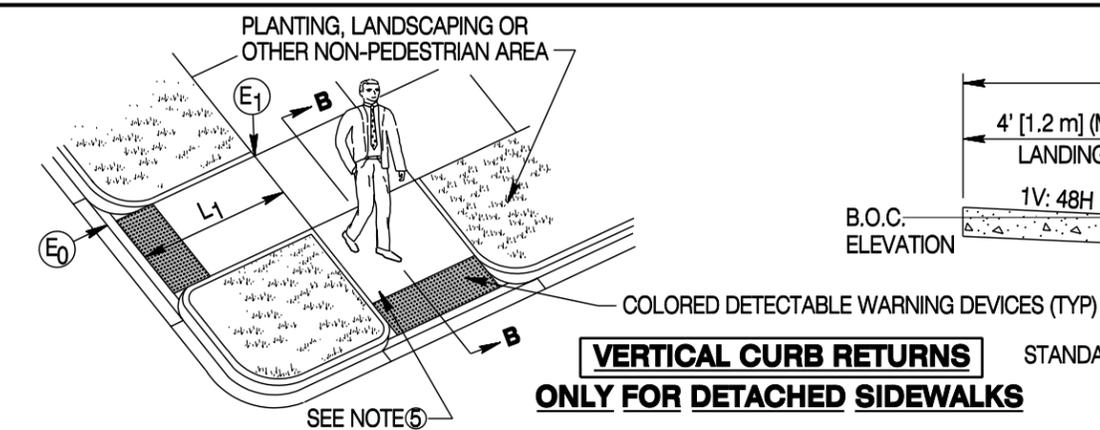


**FLARED CURB TREATMENT**

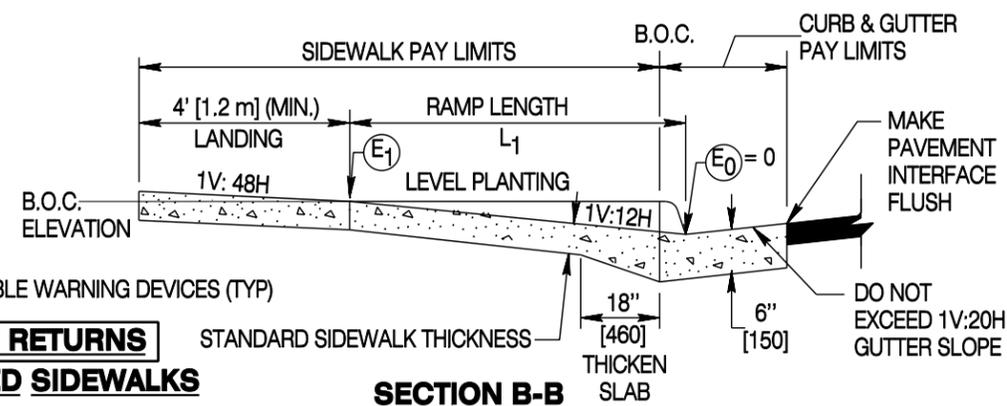
STANDARD RAMP TREATMENT



**SECTION A-A**



**VERTICAL CURB RETURNS**  
ONLY FOR DETACHED SIDEWALKS



**SECTION B-B**

- ③ **RAMP WIDTH:** Ensure a perpendicular ramp width of 5 ft [1.5 m] except where the engineer determines that it is not feasible; then use no less than 3 ft [915] where site infeasibility exists.
- ④ **LEVEL LANDINGS:** Provide landing with a maximum slope of 1V:48H and 4 ft [1.2 m] wide to accommodate wheel chair turning at the top of the ramp. If a 4 ft [1.2 m] landing cannot be provided at the top of a perpendicular curb ramp, provide a 3 ft [915] landing and use flares with a 1V:12H slope.
- ⑤ **FLARED VS. VERTICAL CURB RETURNS:** Construct flared side returns when sidewalk is adjacent to the ramp. Do not exceed 1V:10H ramp flare. For a 6 in [150] curb, provide a 5 ft [1.5 m] ramp flare. If ramp sides are adjacent to an appurtenance which precludes pedestrian use, curb returns may be vertical.
- ⑥ **DIAGONAL RAMPS:** Do not use single diagonal ramps unless shown in plans or approved by the engineer. Single diagonal ramps create greater conflicts between pedestrians and motor vehicles. These ramps are discouraged due to ADA and pedestrian concerns.

Designed by: VVBW  
 Drawn by: JK  
 Checked by: VVBW  
 Previous Dwg. No. 608-1

**TYPE I (PERPENDICULAR) CURB RAMPS**

Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.



**CONCRETE SIDEWALK AND ADA ACCESSIBILITY**

STANDARD PLAN

STANDARD PLAN NUMBER

**608-1A**

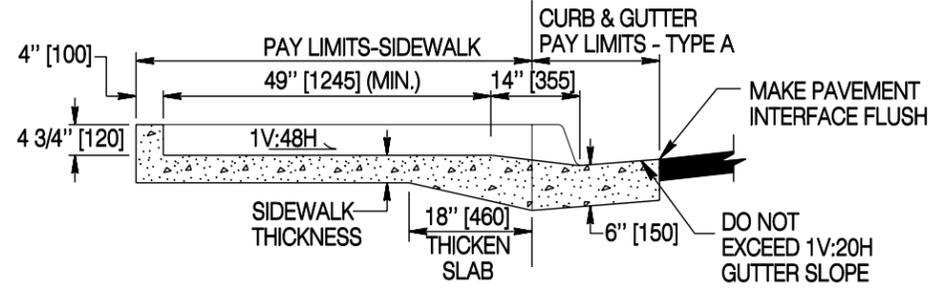
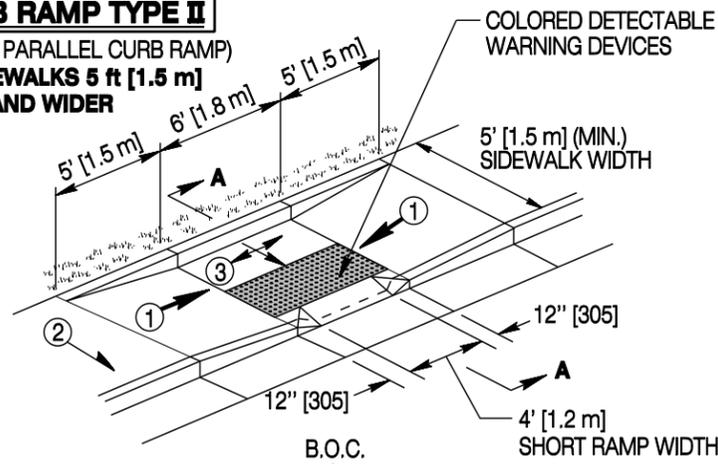
SHEET 2 of 6

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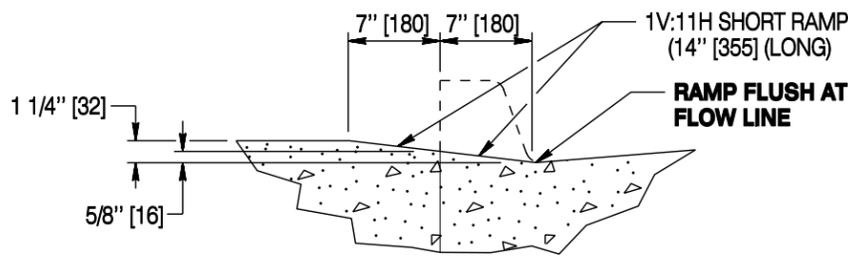
Date Issued: DECEMBER 2006

**CURB RAMP TYPE II**

(MODIFIED PARALLEL CURB RAMP)  
FOR SIDEWALKS 5 ft [1.5 m]  
AND WIDER



**SECTION A-A**

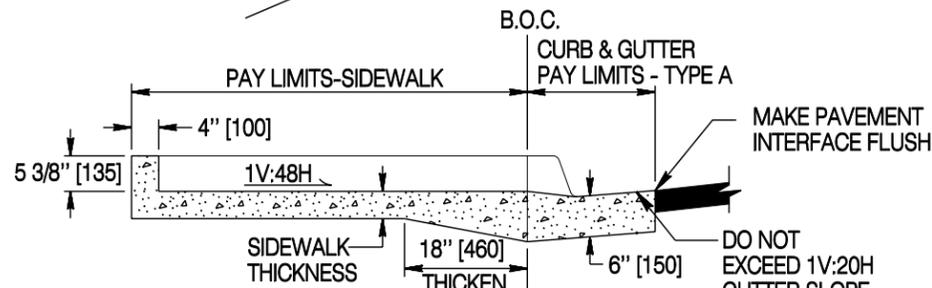
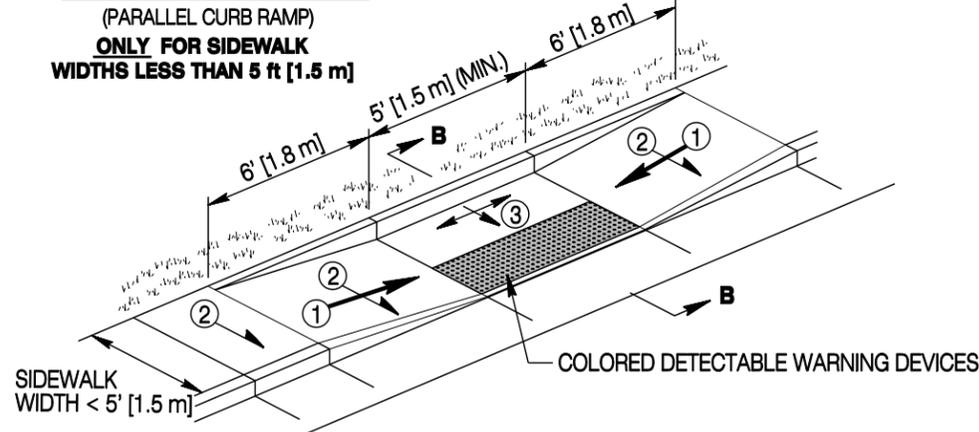


**CURB & GUTTER MODIFICATION AT SHORT RAMP**

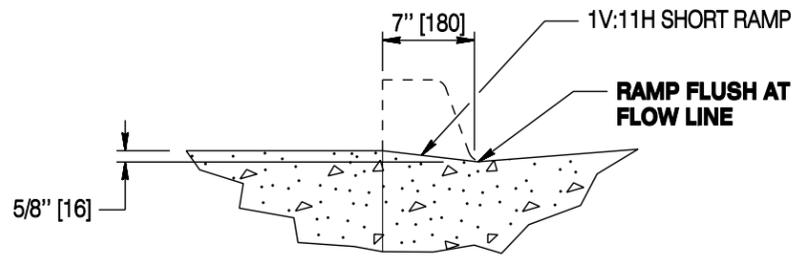
Elevate landing 1 1/4 in [32] above the gutter flow line. Do not use with sidewalks less than 5 ft [1.5 m] in width.

**CURB RAMP TYPE III**

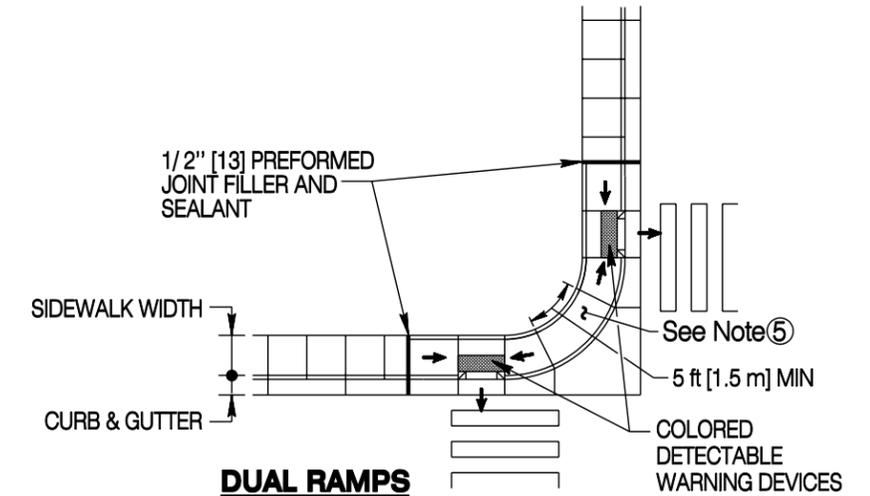
(PARALLEL CURB RAMP)  
ONLY FOR SIDEWALK  
WIDTHS LESS THAN 5 ft [1.5 m]



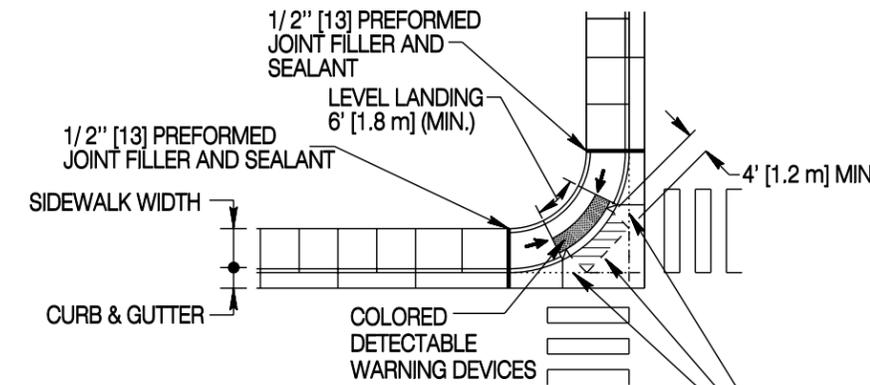
**SECTION B-B**



**CURB & GUTTER MODIFICATION AT LANDING**



**DUAL RAMPS**



**SINGLE DIAGONAL RAMP**

WHEN USING DIAGONAL RAMPS, PROVIDE A LARGE ENOUGH RADIUS TO ALLOW AN IMAGINARY PROJECTION 4 FT. [1.2 m] BEYOND THE RAMP TO BE FULLY CONTAINED WITHIN THE INTERSECTING TANGENT LINES FROM THE FACE OF CURB FOR EACH DIRECTION OF TRAVEL. (e.g. R=15 FT. [4.5 m] OR GREATER FOR A PERPENDICULAR INTERSECTION AND A 5 FT. [1.5 m] WIDE RAMP).

**TYPICAL CURB RAMP TYPE II & TYPE III TREATMENTS**

Use Type II curb ramp for sidewalk widths  $\geq$  5 ft [1.5 m] (Shown).  
Use Type III curb ramp for sidewalk widths  $<$  5 ft [1.5 m].

**TYPE II & TYPE III (PARALLEL) CURB RAMP REQUIREMENTS**

Type II & III ramps are less desirable due to strained turning movements in wheelchairs and drainage (including icing) problems associated with the landing area.

Construct Type II ramps only when sidewalk width at ramp location is 5 ft [1.5 m] or greater. When sidewalk width is between 4 ft [1.2 m] and 5 ft [1.5 m] construct a Type III ramp.

➔ ① **RAMP SLOPE:** Except as shown in the short ramp detail, do not slope ramps greater than 1V:12H.

➔ ② **CROSS SLOPE:** Slope sidewalk and/or ramp towards the street at 1V:48H. Do not exceed 1V:48H.

↔ ③ **LANDING SLOPE:** Do not exceed a slope of 1V:48H in any direction. Provide positive drainage toward the street. Slope landing in either direction, parallel to the street.

④ **SINGLE DIAGONAL VS. DUAL CURB RAMPS:** Do not use single diagonal ramps unless shown in plans or approved by the engineer. Single diagonal ramps create conflicts between pedestrians and motor vehicles. These ramps are discouraged due to ADA and pedestrian concerns.

⑤ **CROSS SLOPE:** Where possible, provide 3 in [75] high landing above flow line between ramps to shorten length of L<sub>1</sub> so ramps will be closer to intersection. Provide rear curb to contain high flows.

Designed by: WBW  
Drawn by: JK  
Checked by: WBW  
Previous Dwg. No. 608-1

**TYPE II & TYPE III (PARALLEL) CURB RAMPS**

Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.



**CONCRETE SIDEWALK AND ADA ACCESSIBILITY**

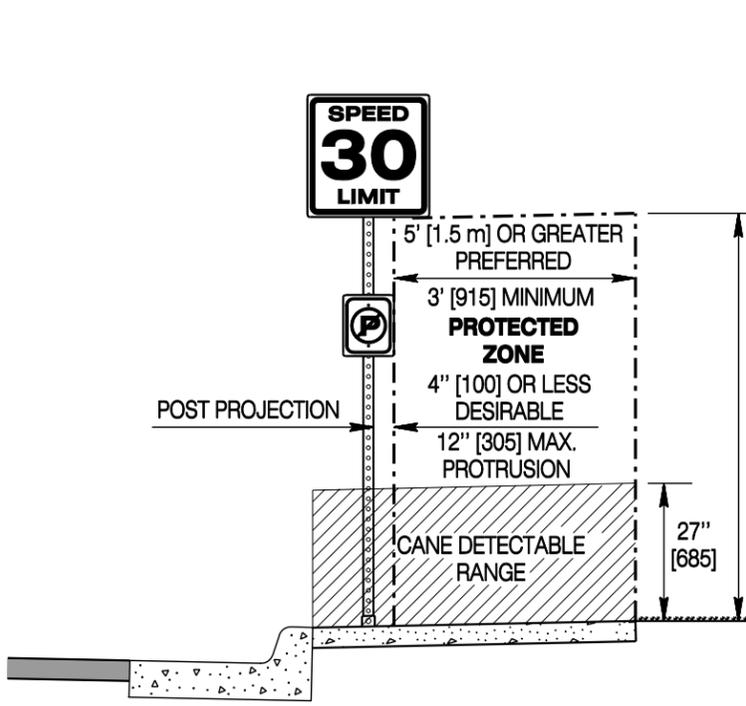
STANDARD PLAN

STANDARD PLAN NUMBER

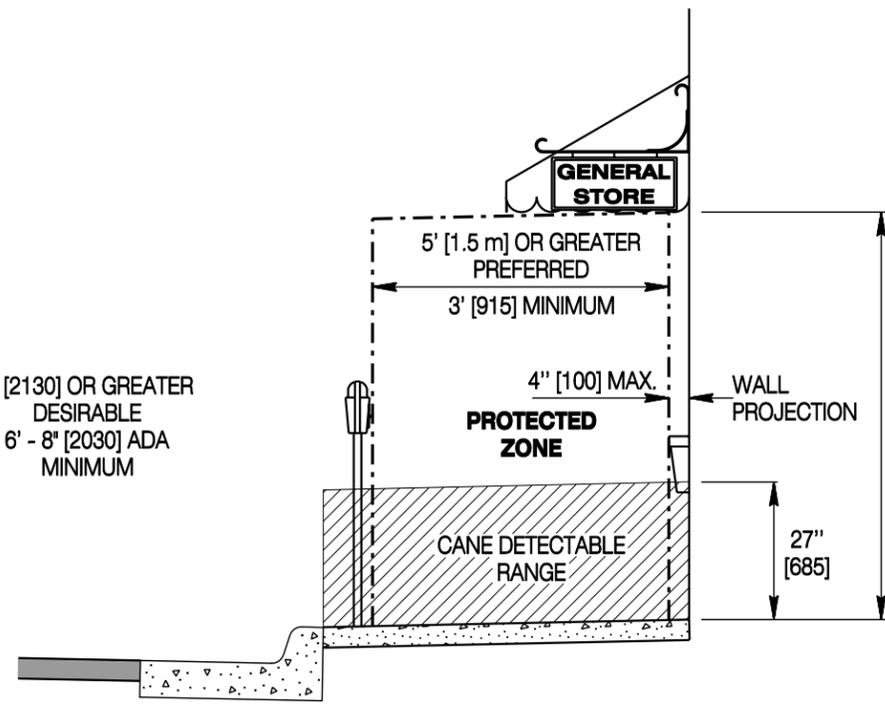
**608-1A**

SHEET 3 of 6

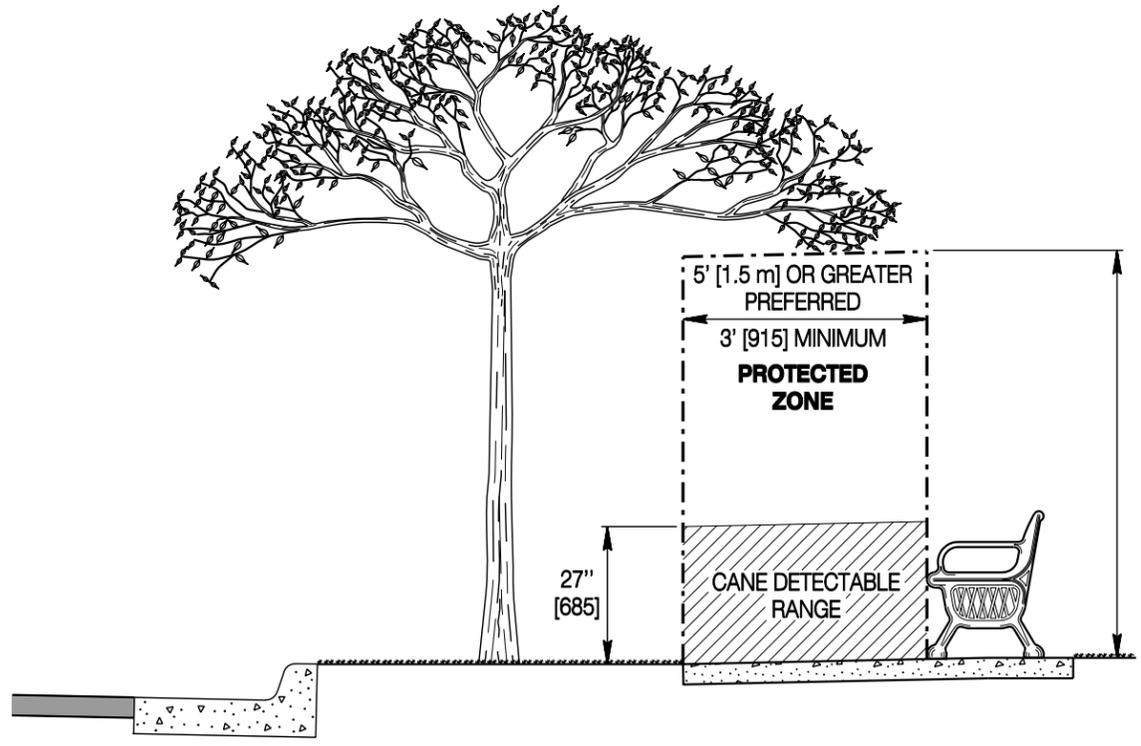
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Date Issued: DECEMBER, 2006



SIGNS & POST MOUNTED OBJECTS



BUILDING FRONTS



TREE BRANCHES & STREET FURNITURE

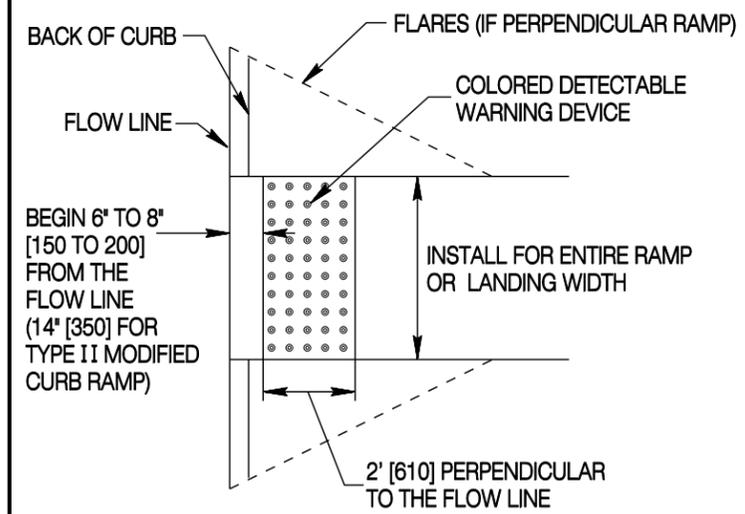
**PROTRUDING OBJECTS**

**Overhead Protrusions (such as trees, canopy's, etc):**

Avoid placing protruding objects within the pedestrian way. Provide headroom of 8 ft. [2440] or greater where possible, ADA specifies a minimum of 6' - 8" [2030].

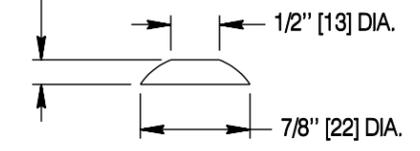
**Lateral Protrusions (such as signs, water fountains, street furniture, etc):**

Where necessary, ADA permits objects to protrude no greater than 4 in. [100] laterally from a wall when they are located above the cane detection line. Objects with their leading edges below the cane detection line may protrude as necessary as long as it does not restrict minimum accessible route widths. Care should be used however to prevent tripping or other impediments to general pedestrian traffic. Objects mounted on a pole may protrude up to 12 in. [305] laterally if mounted above the cane detection line, but it is recommended to limit that distance to 4 in. [100] laterally from the pole unless mounted 7 ft. [2130] or greater above the pedestrian way.

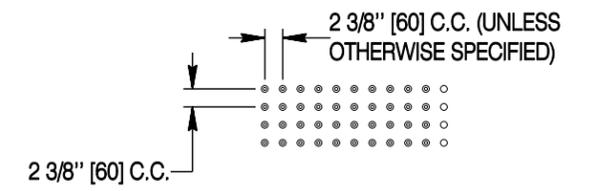


**DETECTABLE WARNING AREA**

3/16" [5] TARGET  
7/32" [6] MAX.  
5/32" [4] MIN.



**TRUNCATED DOME DETAIL**



**TRUNCATED DOME SPACING**

**COLORED DETECTABLE WARNING DEVICES**

**Colored Detectable Warning Devices**

Provide colored detectable warning devices at all curb ramps and other locations where there are no vertical drop offs to cue visually impaired that they are entering into a traffic area (excluding driveways and approaches). Provide only those devices which meet ADA requirements and are of the type and color specified in the contract.

Designed by: WBW  
Drawn by: JK  
Checked by: WBW  
Previous Dwg. No. 608-1

**PROTRUDING OBJECTS & COLORED DETECTABLE WARNING DEVICES**

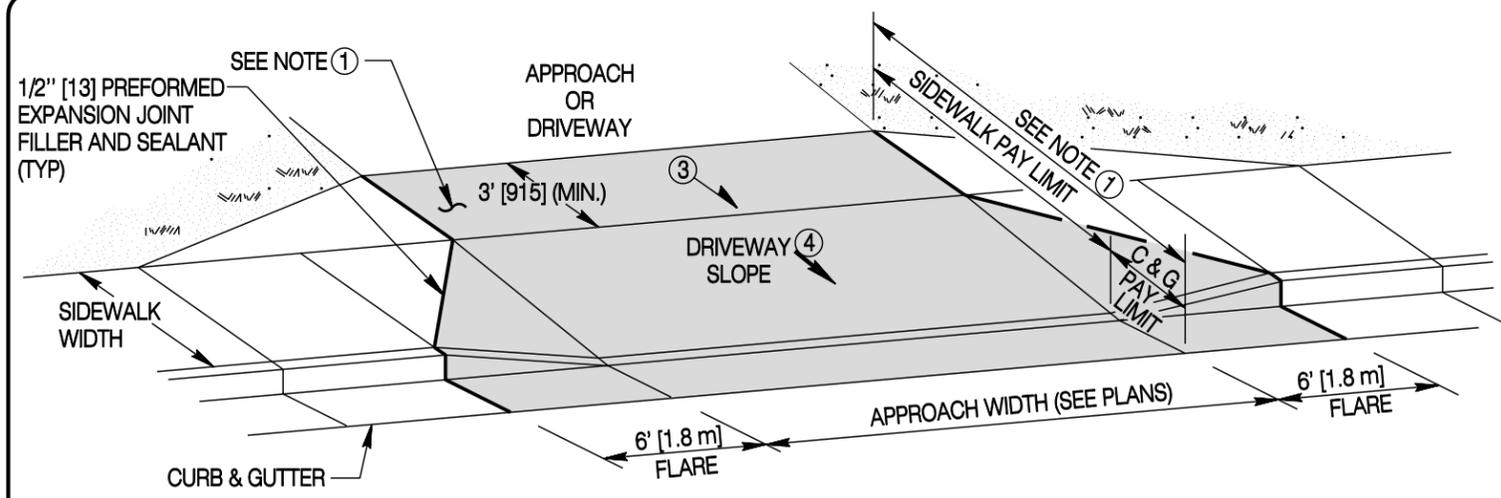
Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.



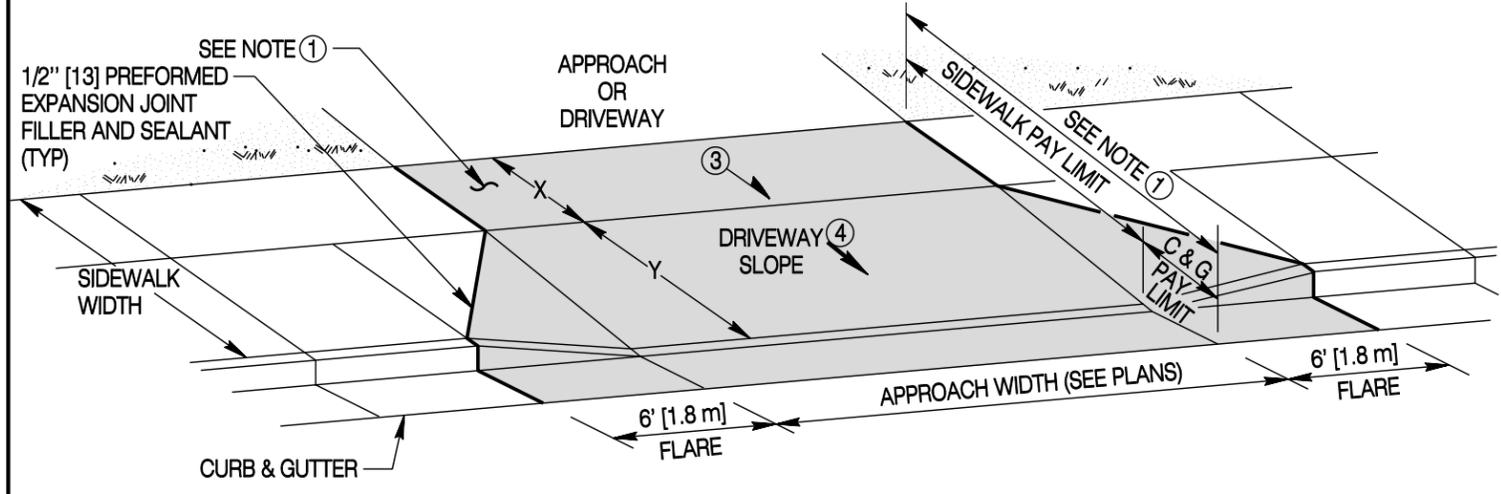
**CONCRETE SIDEWALK AND ADA ACCESSIBILITY**

**STANDARD PLAN**

STANDARD PLAN NUMBER  
**608-1A**  
SHEET 4 of 6  
Issued by: ENGINEERING SERVICES  
Date Issued: DECEMBER, 2006

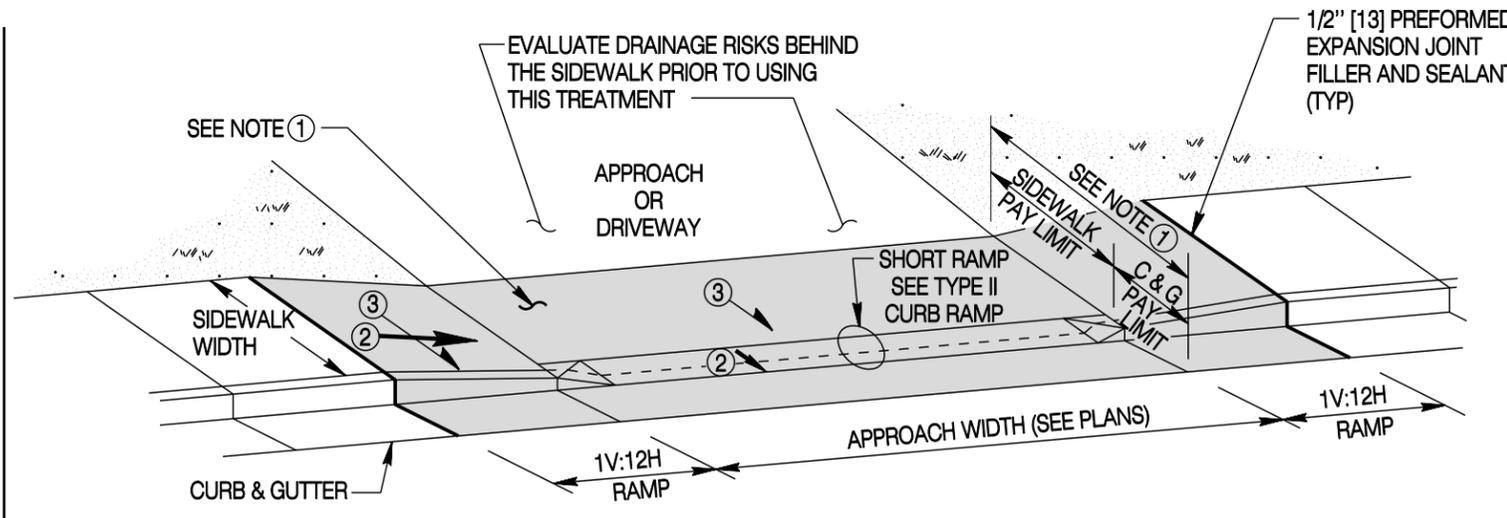


**TYPE A - PEDESTRIAN SIDEWALK WITH EXTERNAL BYPASS**  
 (USE FOR SIDEWALK ADJACENT TO CURB WHERE RIGHT-OF-WAY PERMITS CONSTRUCTION)

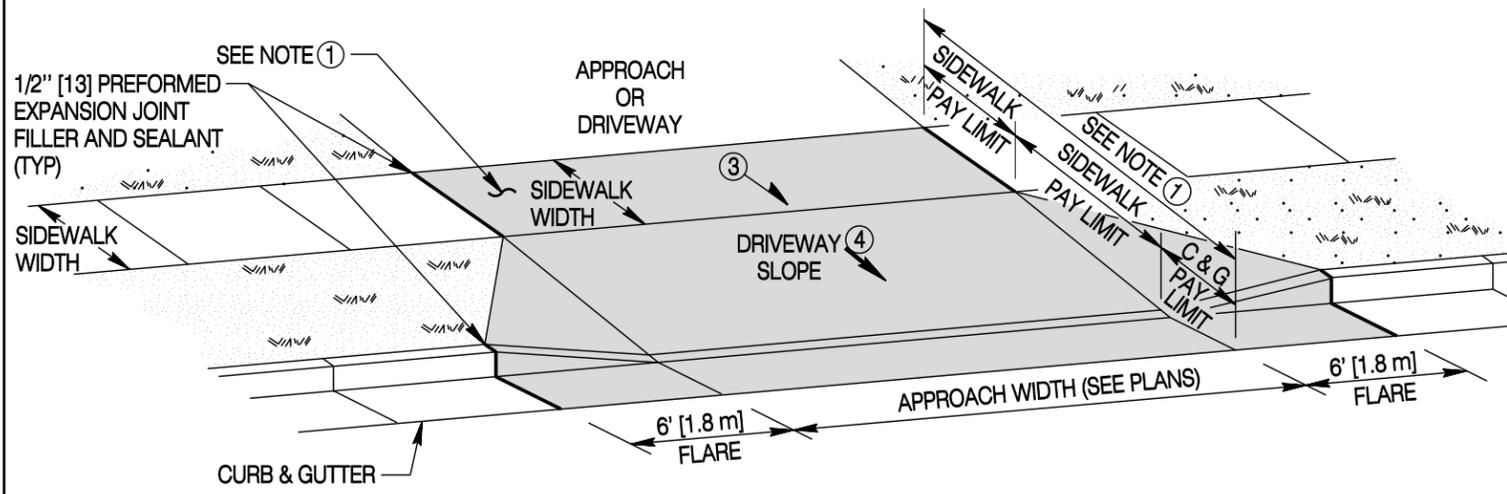


**TYPE B - PEDESTRIAN SIDEWALK WITH INTERNAL BYPASS**  
 (USE WITH SIDEWALK WIDTHS 8 ft [2.4 m] AND WIDER. PROVIDE FOR NARROWER SIDEWALKS WHEN EXTERNAL BYPASS OR DEPRESSED SIDEWALK IS NOT FEASIBLE DUE TO AVAILABLE RIGHT-OF-WAY OR DRAINAGE CONCERNS)

SIDEWALK WIDTH	X		Y	
	Ft	m	Ft	mm
5'	1.5	3'	915	2'
6'	1.8	4'	1220	2'
7'	2.1	4'	1220	3'
8'	2.4	4'	1220	4'
9'	2.7	4.5'	1370	4.5'
>9'	>2.7	VARIABLES	VARIABLES	5'



**TYPE C - DEPRESSED PEDESTRIAN SIDEWALK**  
 (USE WHEN DRAINAGE BEHIND SIDEWALK IS NOT A PROBLEM)



**TYPE D - DETACHED PEDESTRIAN SIDEWALK**  
 (MOST DESIRABLE TREATMENT)

**TYPICAL SIDEWALK AND/OR DOUBLE GUTTER TREATMENT AT APPROACHES**

**NOTES:**

- ① **DRIVEWAYS AND APPROACHES:** When double gutter is specified, the flares and/or ramps shall be of the same thickness as double gutter. Shaded areas represent pay limits for double gutter.
- ② **RAMP SLOPE:** Do not exceed a 1V:12H ramp slope.
- ③ **CROSS SLOPE:** Slope sidewalk towards street. Do not exceed 1V:48H.
- ④ **DRIVEWAY SLOPE:** The driveway slope may exceed the slope required for a ramp when it is not used as a combined driveway and wheelchair ramp. A by-pass must be provided around driveway slopes exceeding 1V:48H so pedestrians don't encounter steeper cross-slopes.

Designed by: WBW  
 Drawn by: JK  
 Checked by: WBW  
 Previous Dwg. No. 608-1

**DRIVEWAYS & APPROACHES**

Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.



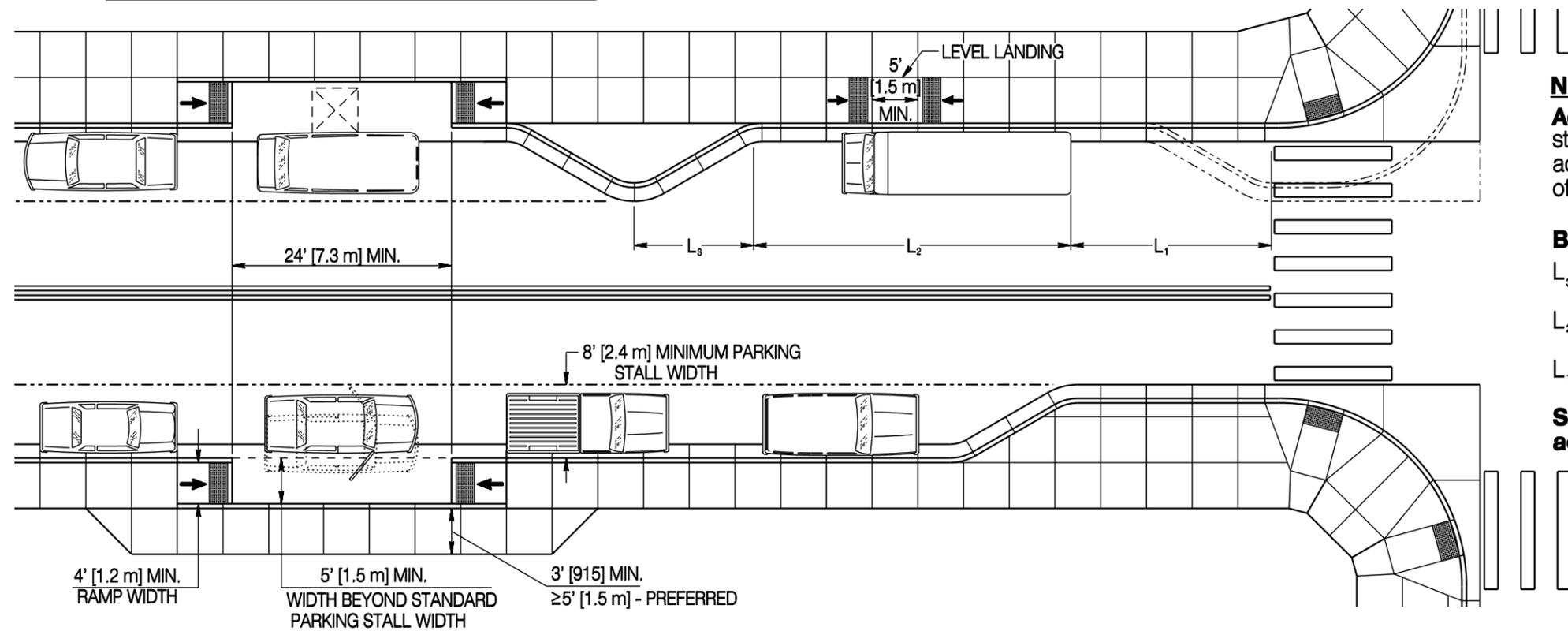
**CONCRETE SIDEWALK AND ADA ACCESSIBILITY**

STANDARD PLAN

STANDARD PLAN NUMBER  
**608-1A**  
 SHEET 5 of 6  
 Issued by: ENGINEERING SERVICES  
 Date Issued: DECEMBER, 2006

**ACCESSIBLE PARALLEL PARKING SPACES**

**BUS / TRANSIT PULLOUTS**



**NOTES:**

**Accessible Parallel Parking Spaces** should consist of the standard parking stall (8 ft [2.4 m] min. width) **plus** 5 ft [1.5 m] to accommodate van wheelchair lifts and access from either side of a vehicle.

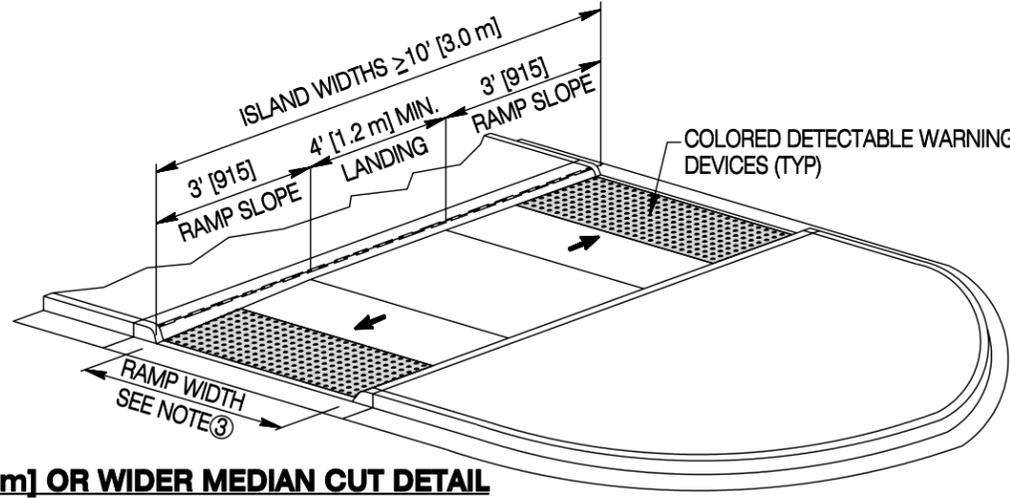
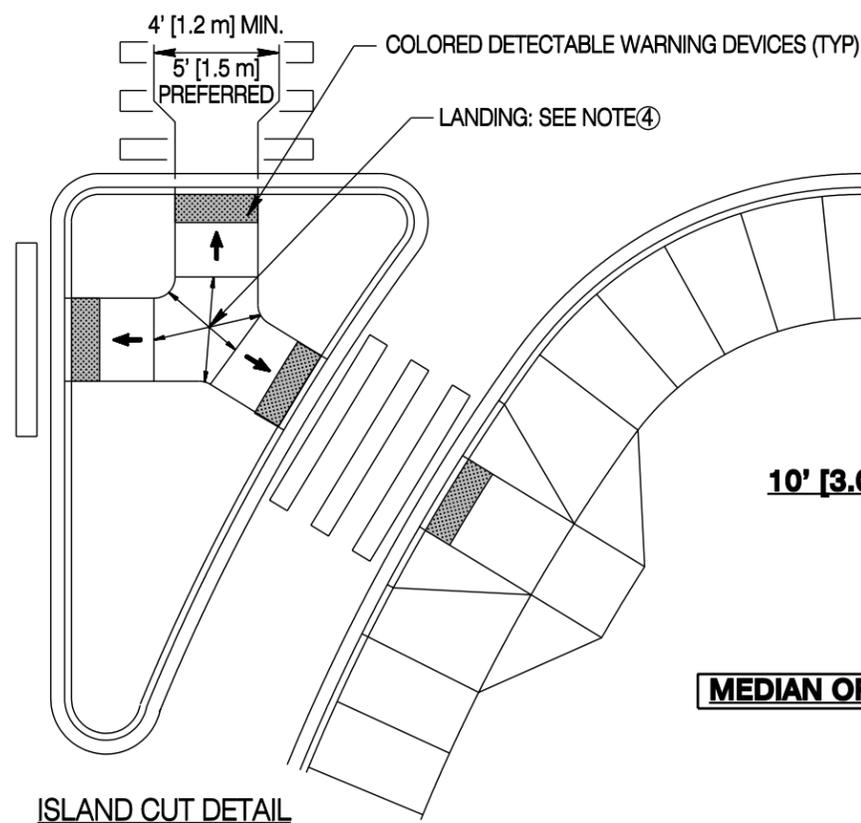
**Bus Pullouts:**

L<sub>3</sub> = Length required for bus to maneuver out of pullout

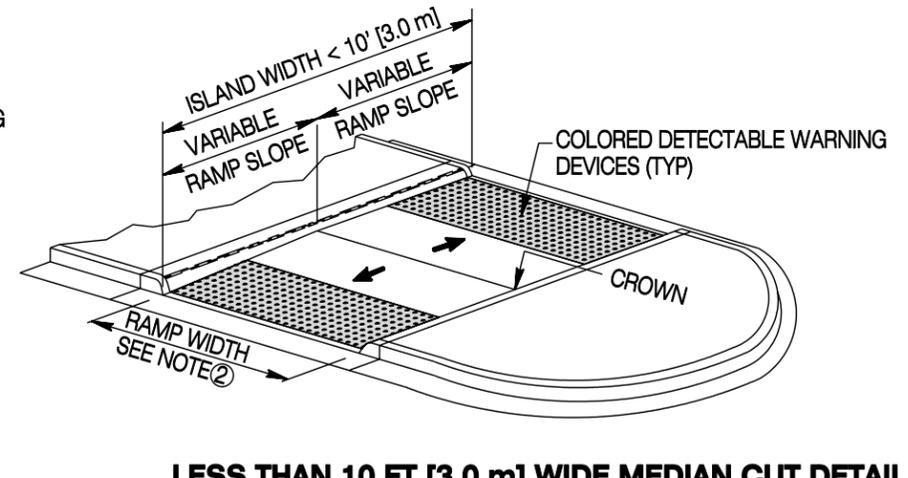
L<sub>2</sub> = Length of bus + 10 ft [3.0 m]

L<sub>1</sub> = Length required for bus to maneuver into pullout

**See plans for locations and actual dimensions of accessible parking stalls and/or bus pullouts.**



**10' [3.0 m] OR WIDER MEDIAN CUT DETAIL**



**LESS THAN 10 FT [3.0 m] WIDE MEDIAN CUT DETAIL**

**MEDIAN OR ISLAND CUT**

- ① Provide pedestrian cuts through medians that are aligned for all directions of travel.
- ② For median cuts less than 10 ft [3.0 m] wide, provide a crown at the center of the median. Slope ramps toward the street. Do not exceed a slope of 1V:20H. Use a ramp width of 5 ft [1.5 m] when possible. If not, maintain an absolute minimum ramp width of 3 ft [915].
- ③ For median cuts 10 ft [3.0 m] and wider, provide a level landing. Do not exceed a 1V:12H ramp slope. Ramp slopes 3 ft [915] or less are desirable for ADA concerns. Use a ramp width of 5 ft [1.5 m] when possible. If not, maintain an absolute minimum ramp width of 3 ft [915].
- ④ Use a 4 ft [1.2 m] minimum landing. Do not exceed a slope of 1V:48H in any direction.

Designed by: WBW  
 Drawn by: JK  
 Checked by: WBW  
 Previous Dwg. No. 608-1

**PARALLEL ON-STREET PARKING & MEDIAN OR ISLAND CUTS**

Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.



**CONCRETE SIDEWALK AND ADA ACCESSIBILITY**

STANDARD PLAN

STANDARD PLAN NUMBER

**608-1A**

SHEET 6 of 6

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