

GENERAL SIDEWALK REQUIREMENTS

Corrective Work: Do not exceed ADA minimum or maximum requirements (unless specified in the contract for a given site infeasibility condition). If exceeded, provide corrective work as approved by the Engineer to bring the work into compliance with ADA Standards.

Minimum Sidewalk & Ramp Widths:

5 ft. [1525] for new construction and where feasible in existing infrastructure. ADA Minimum = 4 ft. [1220] (with passing zones).

Provide sidewalk passing zones every 200 ft. [61m] (ADA maximum) when the clear width of the sidewalk is less than 5 ft. [1525]. Passing zones are minimum of 5 ft. [1525] x 5 ft. [1525] (ADA minimum).

Cross-Slope (perpendicular to the travel direction):

Slope sidewalks at 1.5% towards street unless otherwise shown. ADA maximum cross-slope = 2.0%.

Sidewalk Grade: If the sidewalk is contained within the roadway/highway right of way, do not exceed the maximum grade for the adjacent roadway. For other areas, do not exceed 4.5%. ADA maximum = 5.0%. Exception: curb ramp grades have their own requirements.

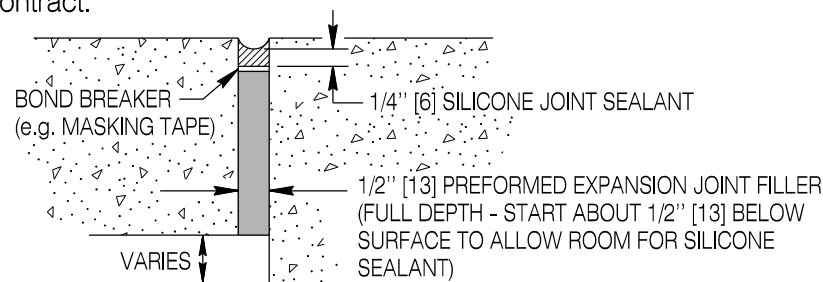
Curb Ramps: Provide curb ramps and landings at all pedestrian street crossings and for each direction of travel. Provide perpendicular ramps or combination ramps where available right-of-way exists.

Detectable Warnings: Provide color contrast detectable warnings in accordance with the contract for all ramps for the entire ramp width for perpendicular ramps and the entire street grade landing for parallel ramps. The rust like patina on cast iron detectable warnings is considered to meet color contrast requirements.

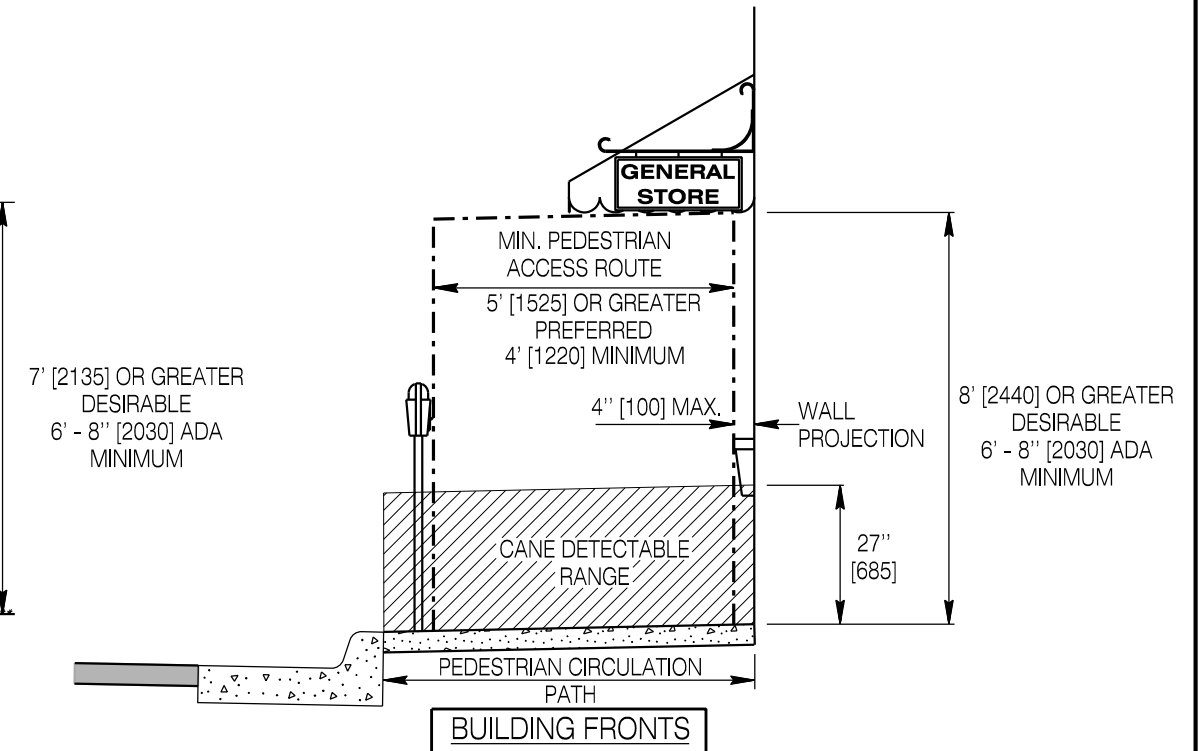
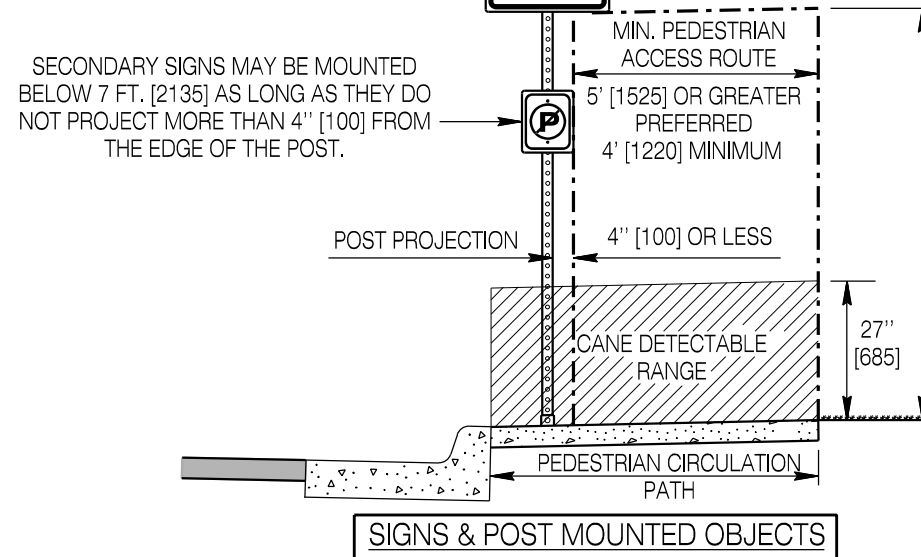
Pedestrian Signal Actuators: Provide in accordance with MUTCD.

Sidewalk Closures (for construction): Provide sidewalk closures in conformance with ADA and MUTCD requirements.

Expansion Joints: Provide expansion joints (shown below) as required in the contract.



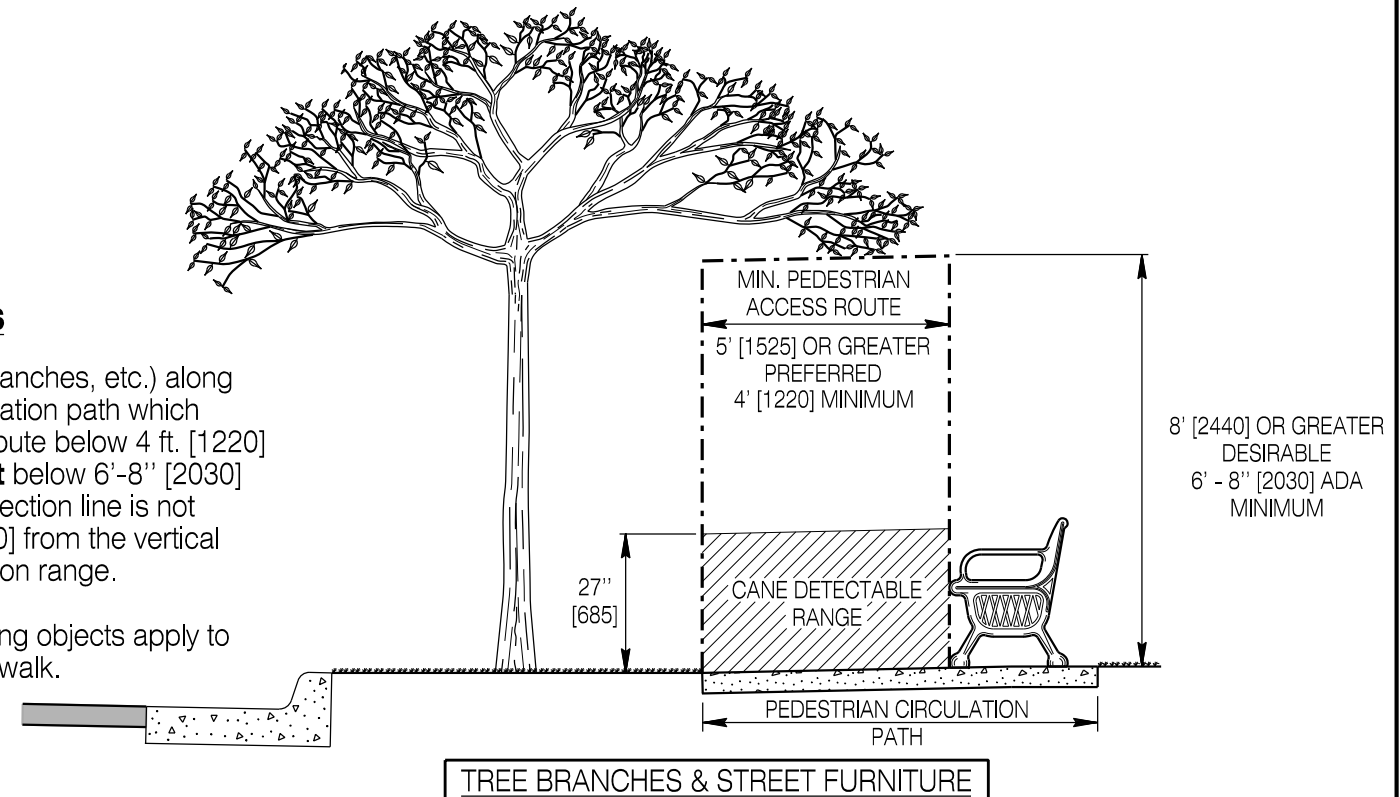
TYPICAL EXPANSION JOINT DETAIL



MINIMUM PEDESTRIAN ACCESS ROUTE WIDTH, HEIGHT, AND PROTRUDING OBJECTS

Do not permit objects (street furniture, signs, trees, branches, etc.) along side or overhanging any portion of a pedestrian circulation path which reduces the **clear width** of the pedestrian access route below 4 ft. [1220] (5 ft. [1525] or greater preferred) or the **clear height** below 6'-8" [2030] (8 ft. [2440] preferred). An object above the cane detection line is not permitted to protrude horizontally more than 4 in. [100] from the vertical projection of an object located within the cane detection range.

The requirements above for clear height and protruding objects apply to the entire circulation path for which a pedestrian can walk.



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

GENERAL REQUIREMENTS



CONCRETE SIDEWALK AND
 ADA ACCESSIBILITY

STANDARD PLAN

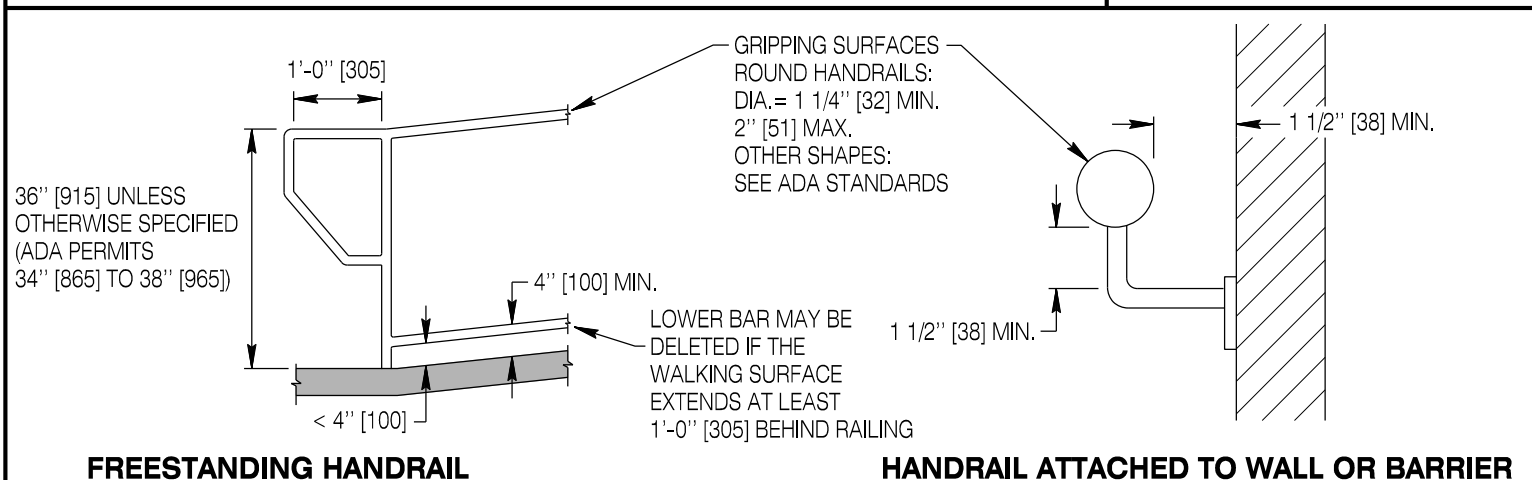
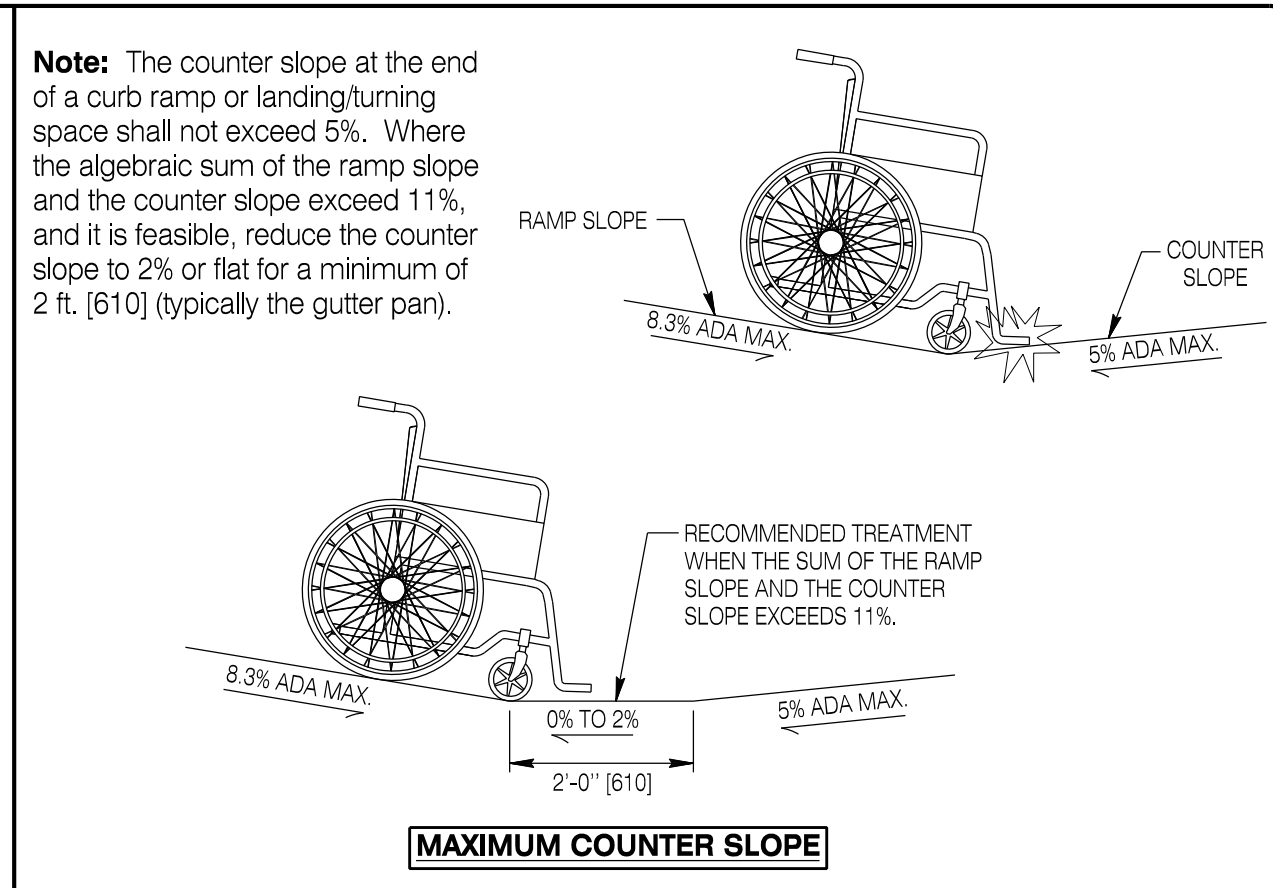
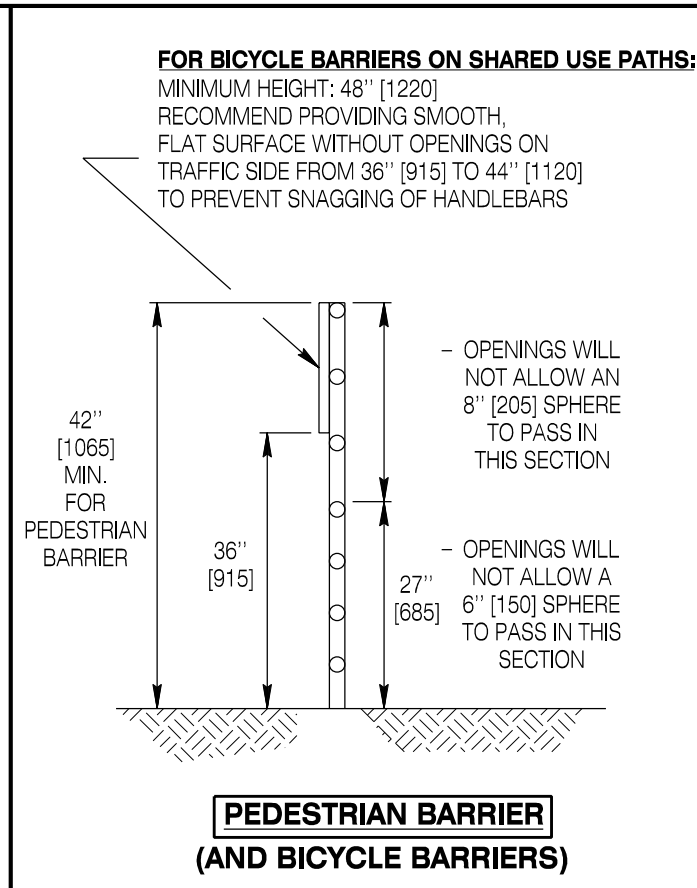
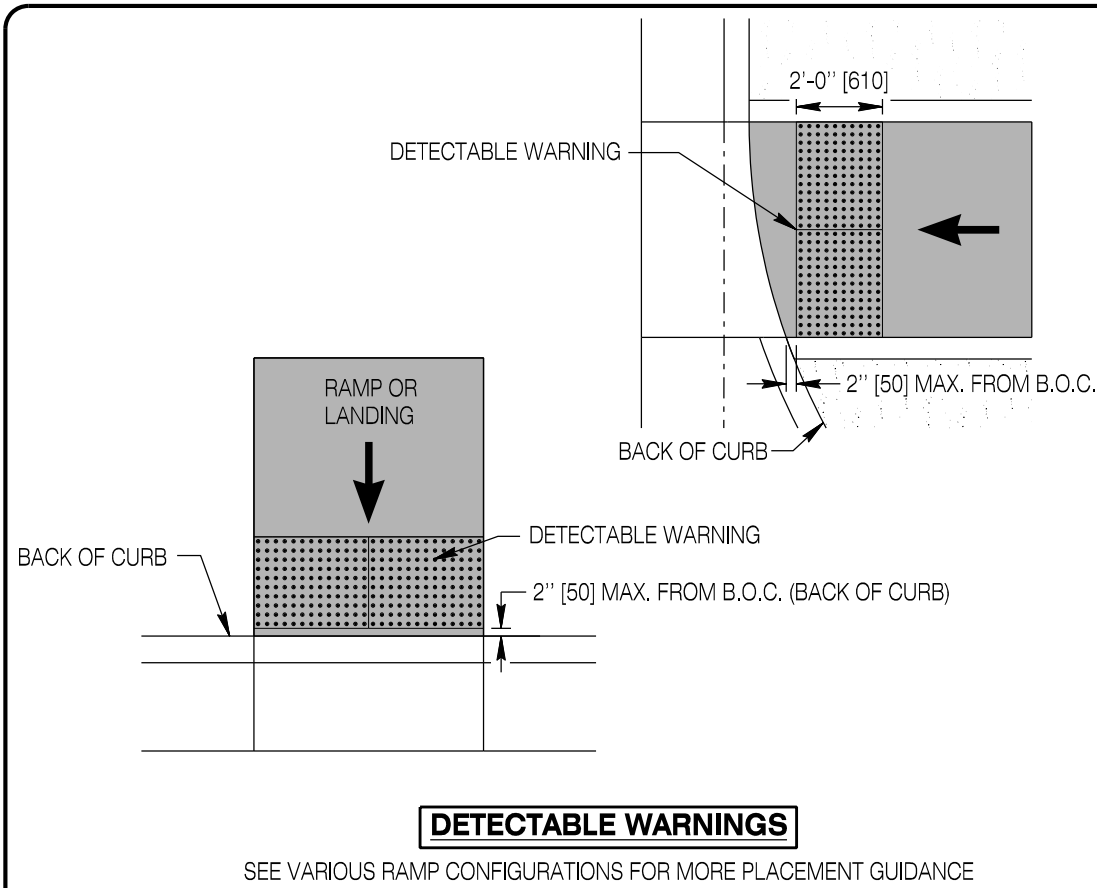
STANDARD PLAN NUMBER

608-1B

SHEET 1 of 8

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 Date Issued: JULY 2018

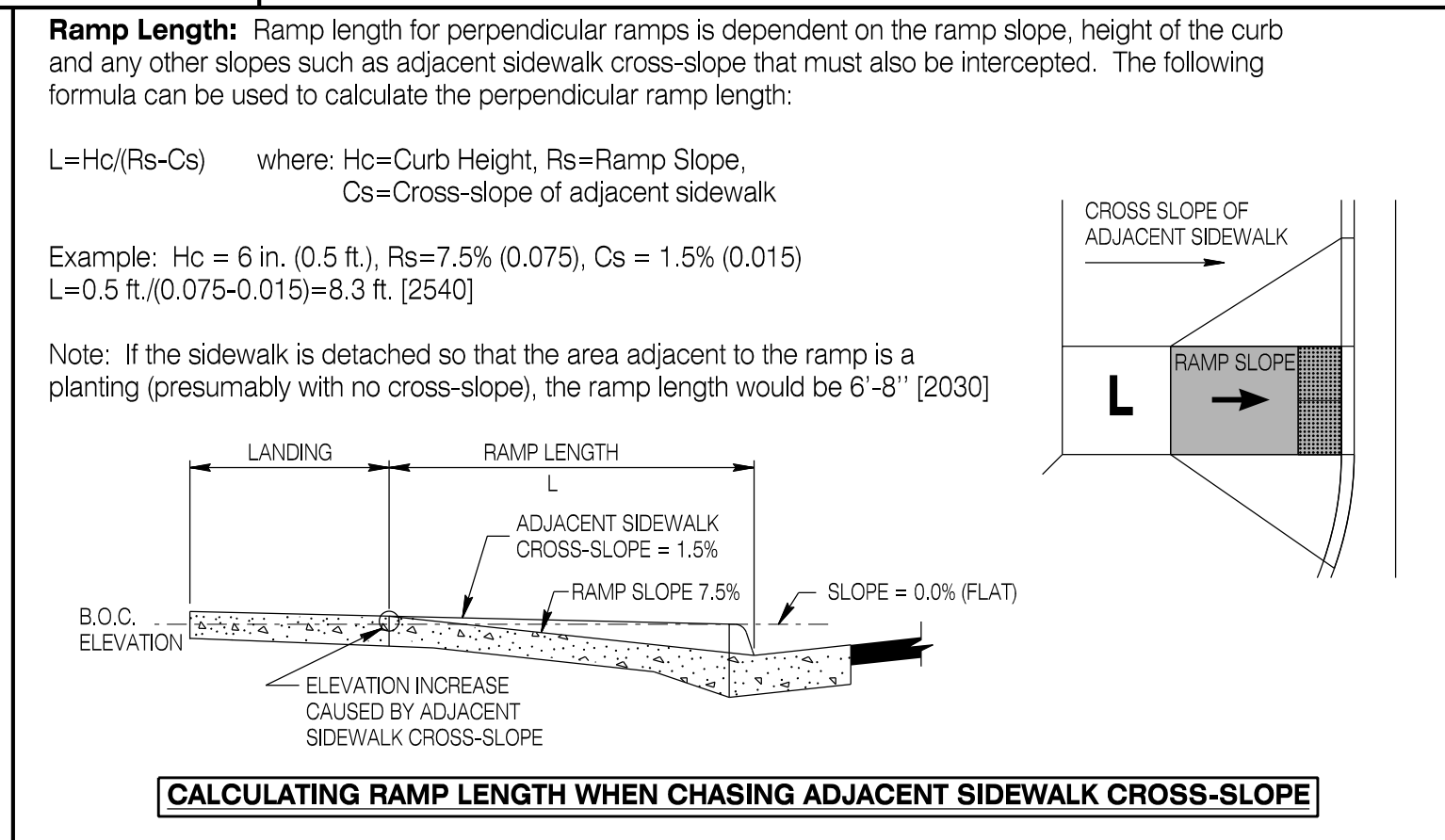
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



Note: Where handrails are required by ADA or provided even if not required, they shall meet these requirements. Handrails may be free standing or attached to a wall or other barrier. Handrails shall be continuous for the distance provided and shall extend 1 ft. [305] beyond the end of a ramp or stairs. See the ADA standards for other requirements for handrails.

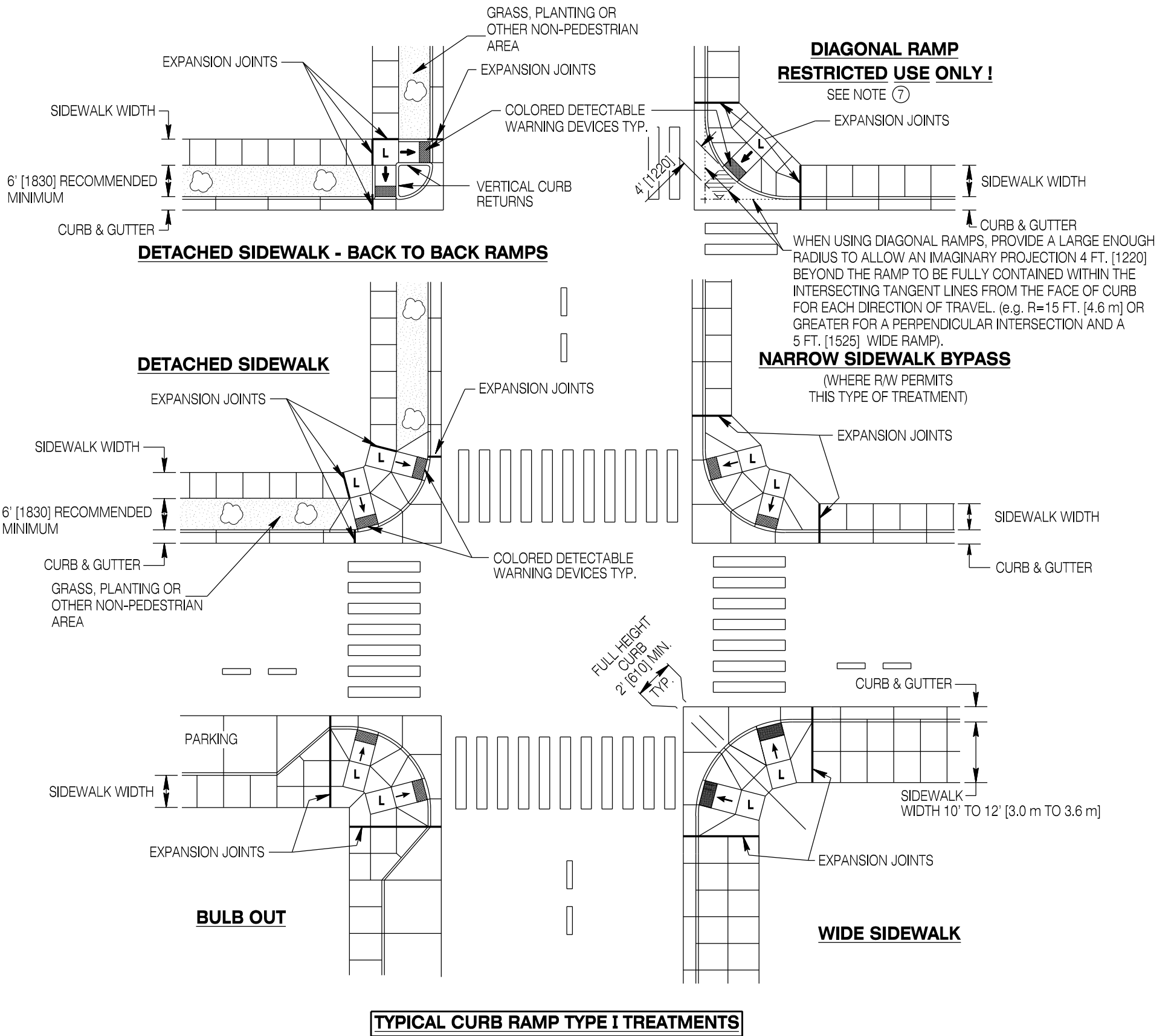
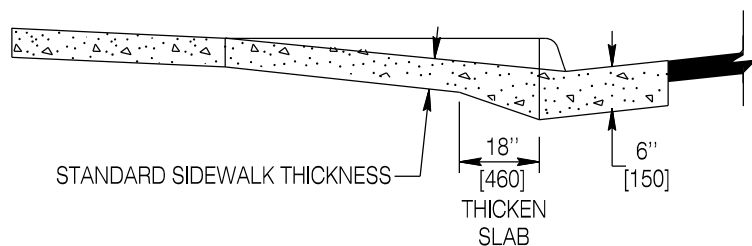
Free standing handrails do not meet the requirements for a pedestrian barrier, but may be used for low risk drop-offs to provide delineation and some deterrent for going off the drop-off.

HANDRAIL REQUIREMENTS



PERPENDICULAR RAMP NOTES

- ① **Ramp Width:** Provide 5 ft. [1525] or greater width where possible. If site conditions do not permit, provide a 4 ft. [1220] minimum ramp width. Ensure the ramp is fully contained within the pedestrian crossing.
- ② **Ramp Slope:** 7.5% or flatter, ADA maximum = 8.3%.
- ③ **Ramp Cross-Slope:** 1.5%, ADA maximum = 2.0%.
- L ④ **Landing/Turning Area:** Provide a landing/turning area at the top of perpendicular ramps with a width equal to the ramp width. Provide a landing length (in the direction of the ramp run) of 5 ft. [1525] minimum. This length can be reduced to 4 ft. [1220] if no vertical obstructions such as buildings, walls, curbs, etc. are directly behind the landing. Do not exceed a slope of 1.5% for the landing in either primary direction (parallel or perpendicular to the ramp run). ADA maximum cross-slope = 2.0%.
- ⑤ **Flared Ramp Returns:** Provide flared returns with a relative slope of 10% measured along the curb line. If the flare between ramps is located in a non-pedestrian area (for example, a signal pole blocks passage), the flares may be steeper. Place ramps with flared returns perpendicular to the curb line.
- ⑥ **Vertical Ramp Returns:** Vertical returns may be used only if the sidewalk is detached from the curb or obstructions are adjacent to the ramp so pedestrians don't have to traverse vertical flares which could become a tripping hazard. When using vertical returns, ensure the ramps align with the intended direction of travel across the street. Ensure slope breaks such as the flow line are constructed perpendicular to the ramps.
- ⑦ **Ramp Alignment:** Provide ramps aligned to be fully contained in the intended crosswalk. Provide one ramp for each direction of travel, unless site infeasibility conditions exist or a skewed intersection is present where one ramp better serves both directions of travel. If a diagonal ramp is used, ensure that an imaginary 4 ft. [1220] by 4 ft. [1220] box at the bottom of the ramp can be provided which doesn't extend beyond either face of curb line.
- ⑧ **Ramp Length:** Perpendicular curb ramp length is dependent on the ramp slope, height of the curb and any other slopes such as adjacent sidewalk cross-slope that must also be intercepted. See **SHEET 2** for calculating ramp length when chasing an adjacent sidewalk cross-slope.
- ⑨ **Ramp Construction:** Transition ramp thickness from sidewalk thickness to gutter thickness in the last 18 in. [460] of the ramp.



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 Drawn by: RCS
 Checked by: WBW
 Previous Dwg. No. 608-1A

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

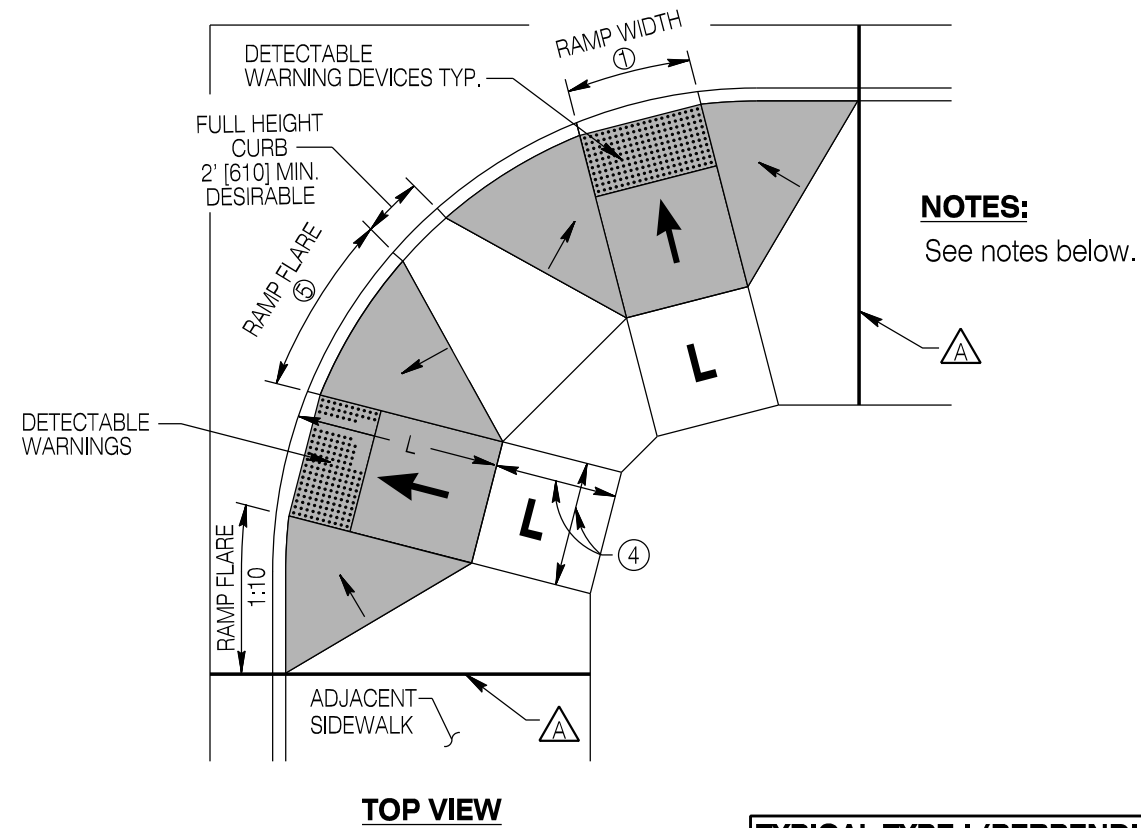
STANDARD PLAN NUMBER

608-1B

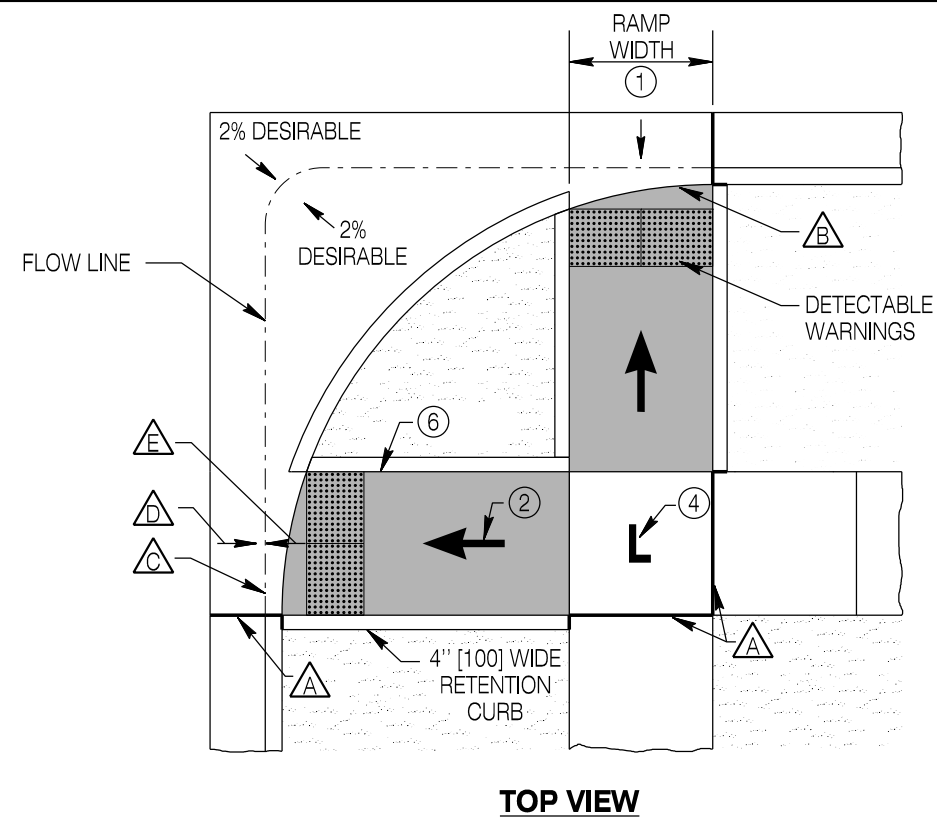
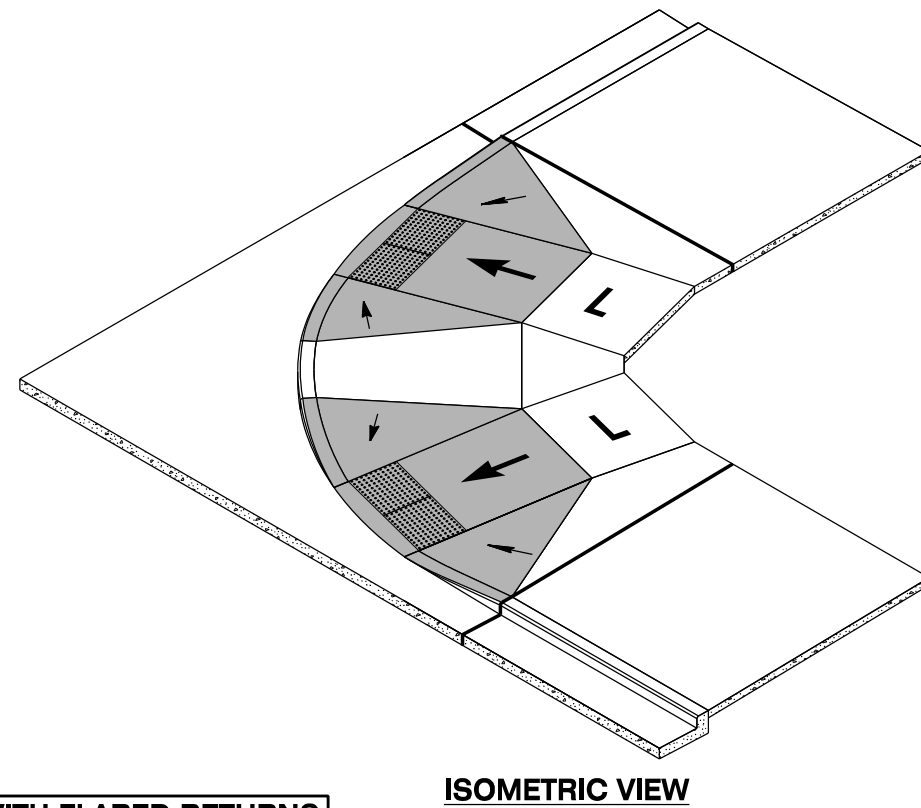
SHEET 3 of 8

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TYPICAL TYPE I (PERPENDICULAR) CORNER RAMPS WITH FLARED RETURNS



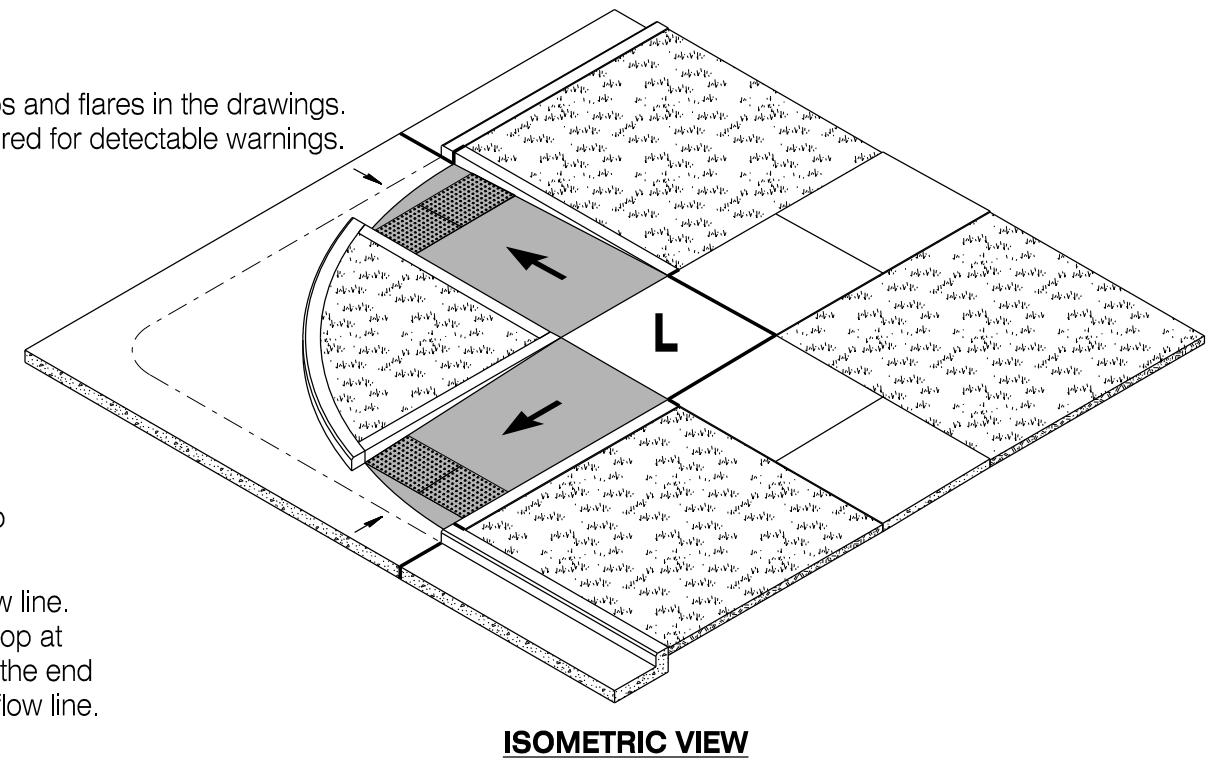
TYPICAL TYPE I (PERPENDICULAR) CORNER RAMPS WITH VERTICAL RETURNS

NOTES:

Shaded areas are intended to highlight ramps and flares in the drawings. Color contrast from the sidewalk is only required for detectable warnings.

Notes ① through ⑨ - See **SHEET 3**

- △ Expansion Joint - See **SHEET 1**
- △ Not a grade break line.
- △ Make grade breaks (such as the gutter flow line) perpendicular to the ramps.
- △ Gutter counter slopes should be 2% maximum where possible at curb ramp locations.
- △ Typically ramp run should extend to flow line. However, when specified, ramp may stop at curb line. In those cases, beginning at the end of the ramp, slope downward at 2% to flow line.



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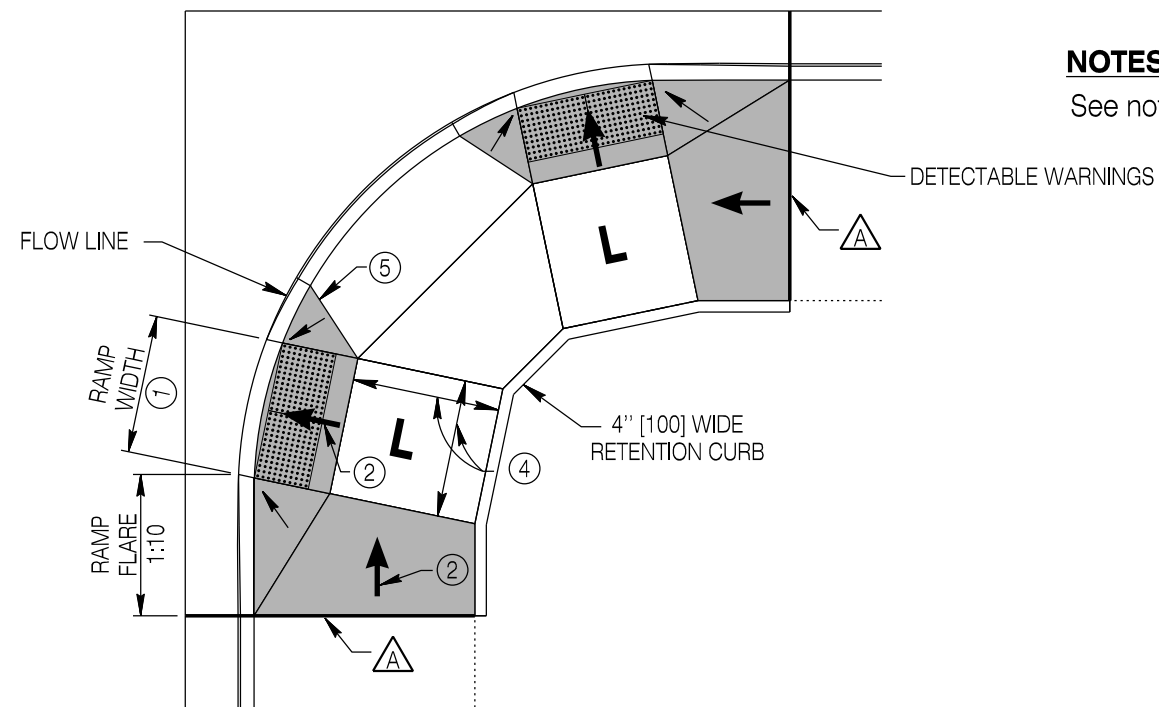
TYPE I PERPENDICULAR RAMPS (CONTINUED)

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



**CONCRETE SIDEWALK AND
 ADA ACCESSIBILITY**
 STANDARD PLAN

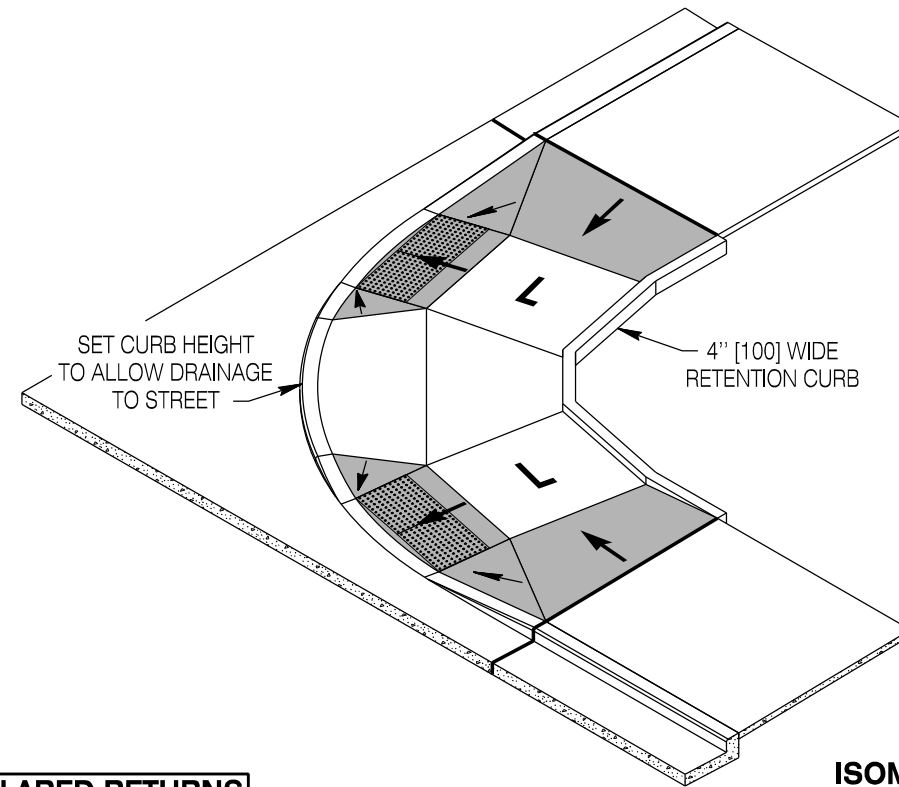
STANDARD PLAN NUMBER
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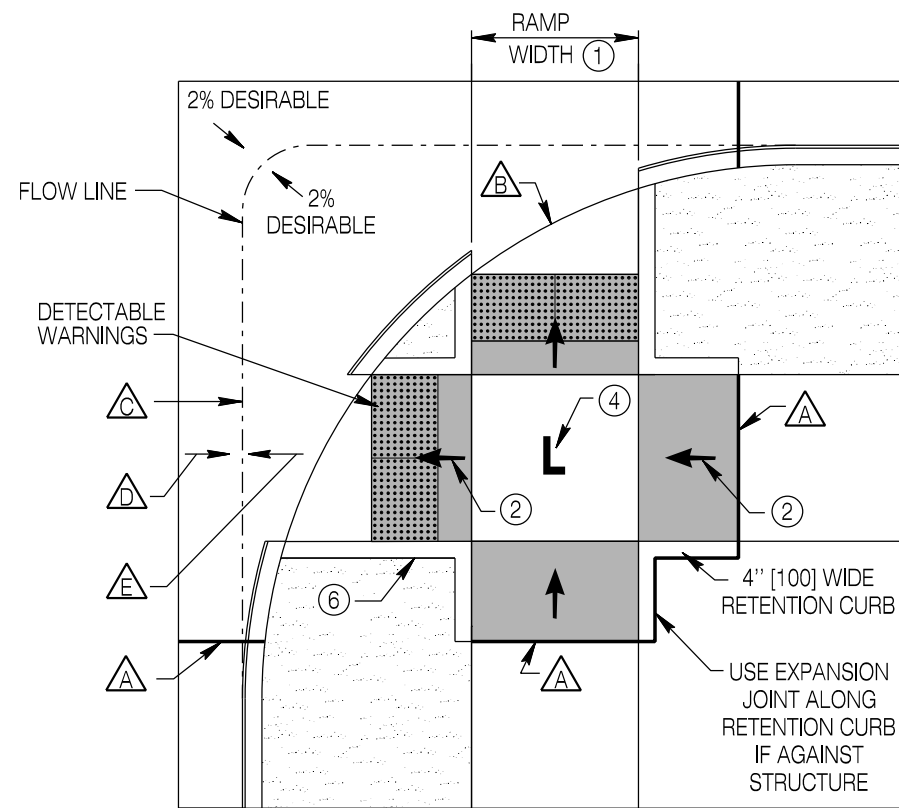
TOP VIEW

MODIFIED TYPE II (COMBINED) CORNER RAMPS WITH FLARED RETURNS

NOTES:
See notes below.



ISOMETRIC VIEW



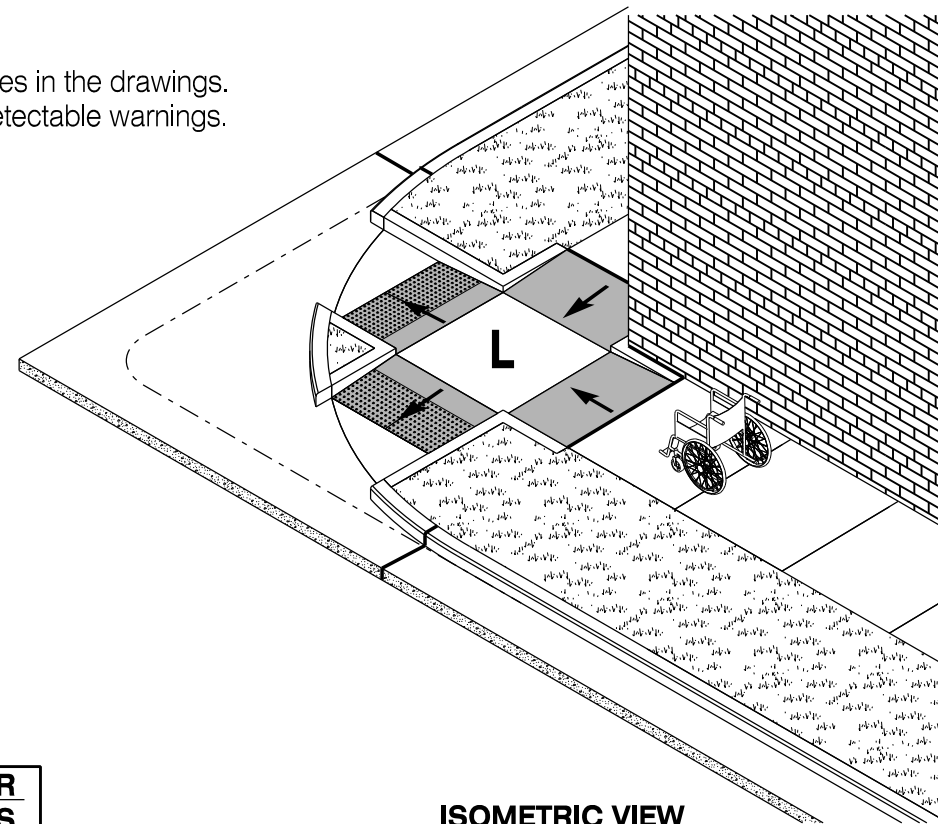
TOP VIEW

MODIFIED TYPE II (COMBINED) CORNER RAMPS WITH VERTICAL CURB RETURNS

NOTES:
Shaded areas are intended to highlight ramps and flares in the drawings. Color contrast from the sidewalk is only required for detectable warnings.

Notes ① through ⑨ - See **SHEET 3**

- △ Expansion Joint - See **SHEET 1**
- △ Not a grade break line.
- △ Make grade breaks (such as the gutter flow line) perpendicular to the ramps.
- △ Gutter counter slopes should be 2% maximum where possible at curb ramp locations.
- △ Typically ramp run should extend to flow line. However, when specified, ramp may stop at curb line. In those cases, beginning at the end of the ramp, slope downward at 2% to flow line.



ISOMETRIC VIEW

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TYPE II - COMBINED PERPENDICULAR / PARALLEL RAMPS

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WYOMING DEPARTMENT OF TRANSPORTATION



CONCRETE SIDEWALK AND ADA ACCESSIBILITY

STANDARD PLAN

STANDARD PLAN NUMBER

608-1B

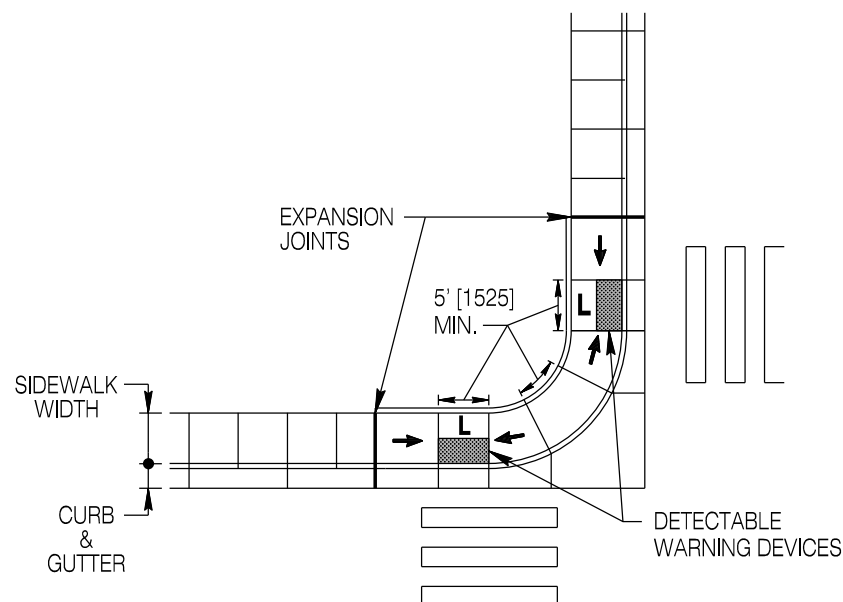
SHEET 5 of 8

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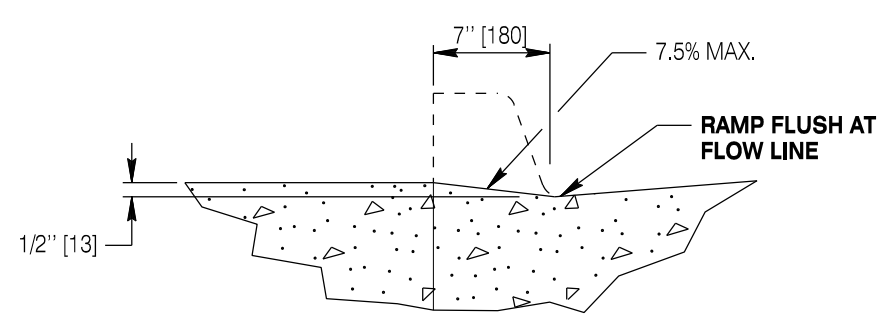
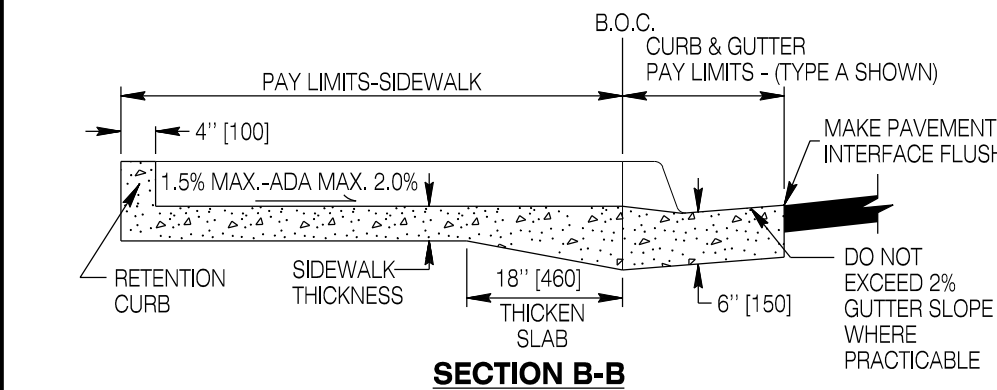
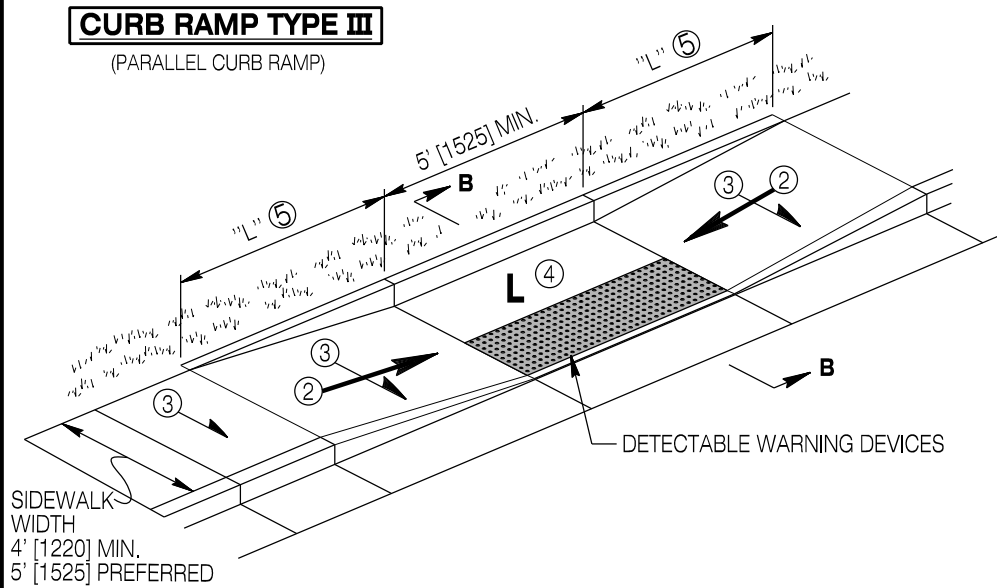
TYPE III (PARALLEL) CURB RAMP REQUIREMENTS

Use type III parallel ramps when it is not feasible to construct type I perpendicular, or type II combined ramps.

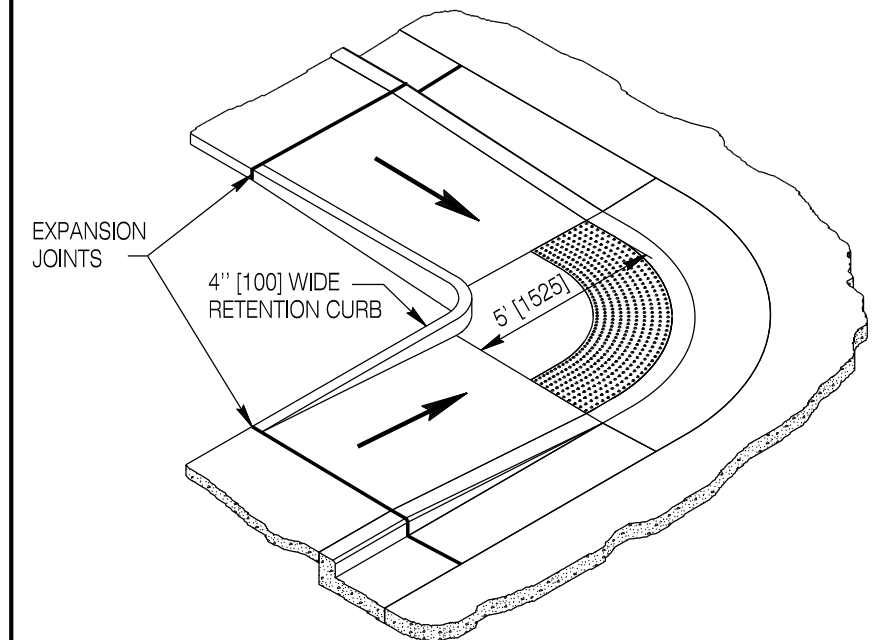
- ① **Ramp Width:** Provide a ramp width equal to or greater than the adjacent sidewalk run.
- ➔ ② **Ramp Slope:** 7.5% or flatter, ADA maximum = 8.3%.
- ➔ ③ **Ramp Cross-Slope:** 1.5%, ADA maximum = 2.0%.
- L** ④ **"L" Landing/Turning Area:** Provide a landing/turning area at the bottom of parallel ramps with a width equal to the ramp width. Provide a landing length (in the direction of the ramp run) of 5 ft. [1525] minimum. Do not exceed a slope of 1.5% for the landing in either primary direction (parallel or perpendicular to the ramp run). Ensure the landing is fully contained within the pedestrian crossing. ADA maximum cross-slope = 2.0%.
- ⑤ **Ramp Length:** Ramp length is normally determined by the ramp slope and the elevation change from the sidewalk to the landing. For flat terrain and a 6 in. [150] curb height the ramp length equals 6'-8" [2030]. Where the terrain is sloping, ramp lengths can get significantly longer, however, ADA does not require the ramp length to exceed 15 ft. [4.6 m].
- ⑥ **Single or Dual Pair Ramps:** Provide dual pair ramps when they adequately fit site conditions and align with ramps on the other side of the street. Where dual ramps are not practical due to existing site conditions, provide single pair ramps. Ensure the ramp landings are fully contained within the pedestrian crossing.



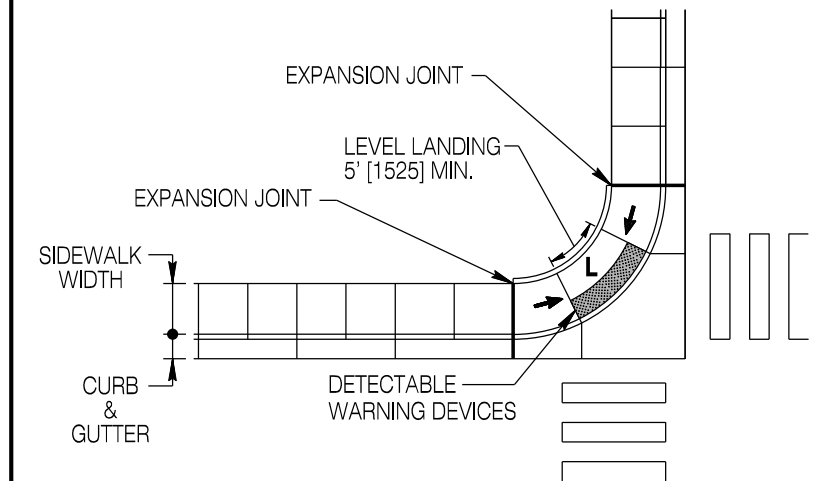
DUAL PAIR PARALLEL RAMPS



CURB & GUTTER MODIFICATION AT LANDING



SQUARE BACK SIDEWALK



RADIUS BACK SIDEWALK

SINGLE PAIR PARALLEL RAMPS

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 Previous Dwg. No. 608-1A

TYPE III (PARALLEL) CURB RAMPS

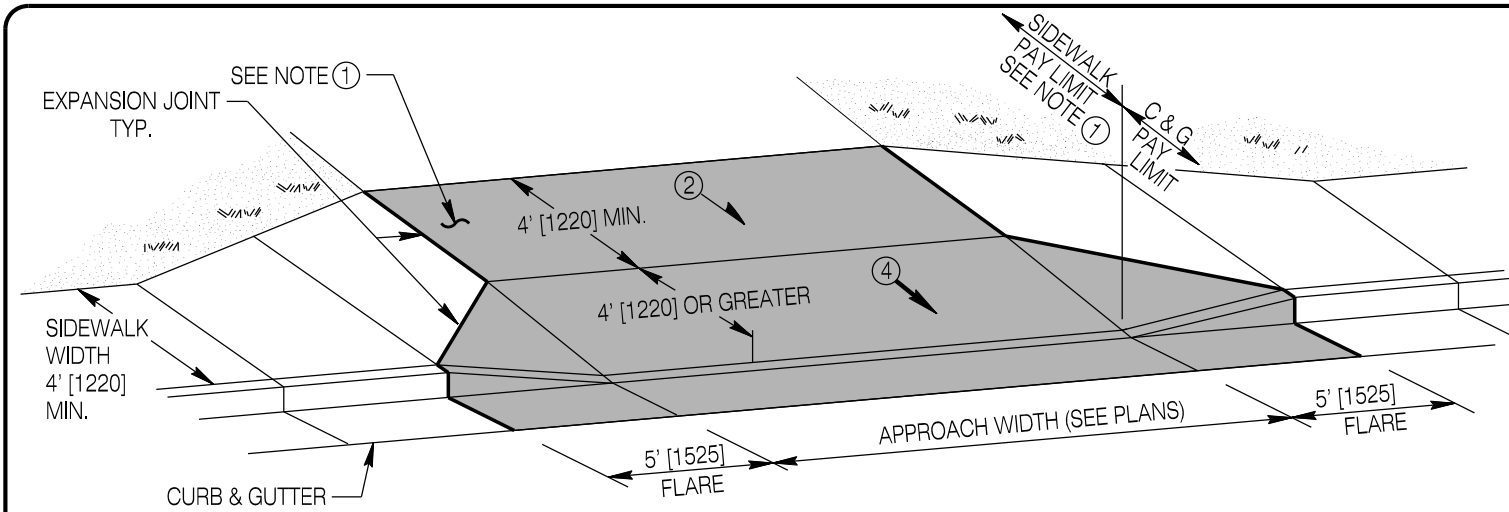
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CONCRETE SIDEWALK AND ADA ACCESSIBILITY

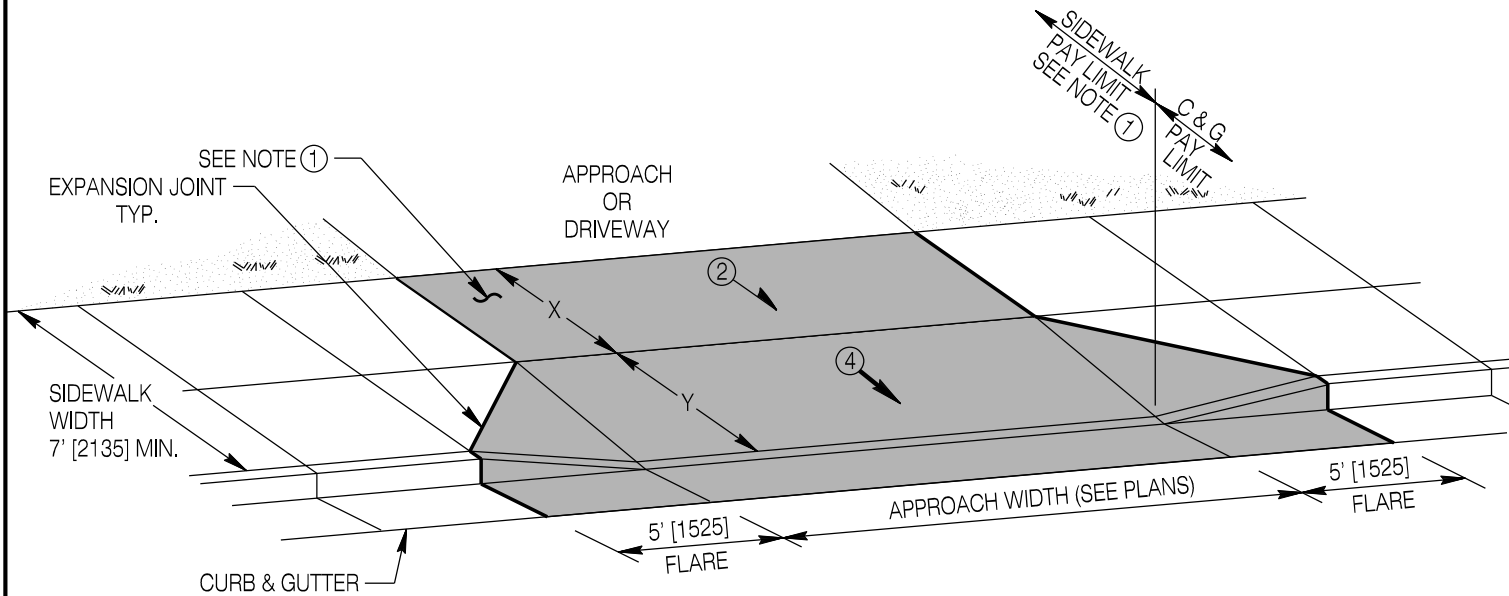
STANDARD PLAN

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TYPE A - PEDESTRIAN SIDEWALK WITH EXTERNAL BYPASS

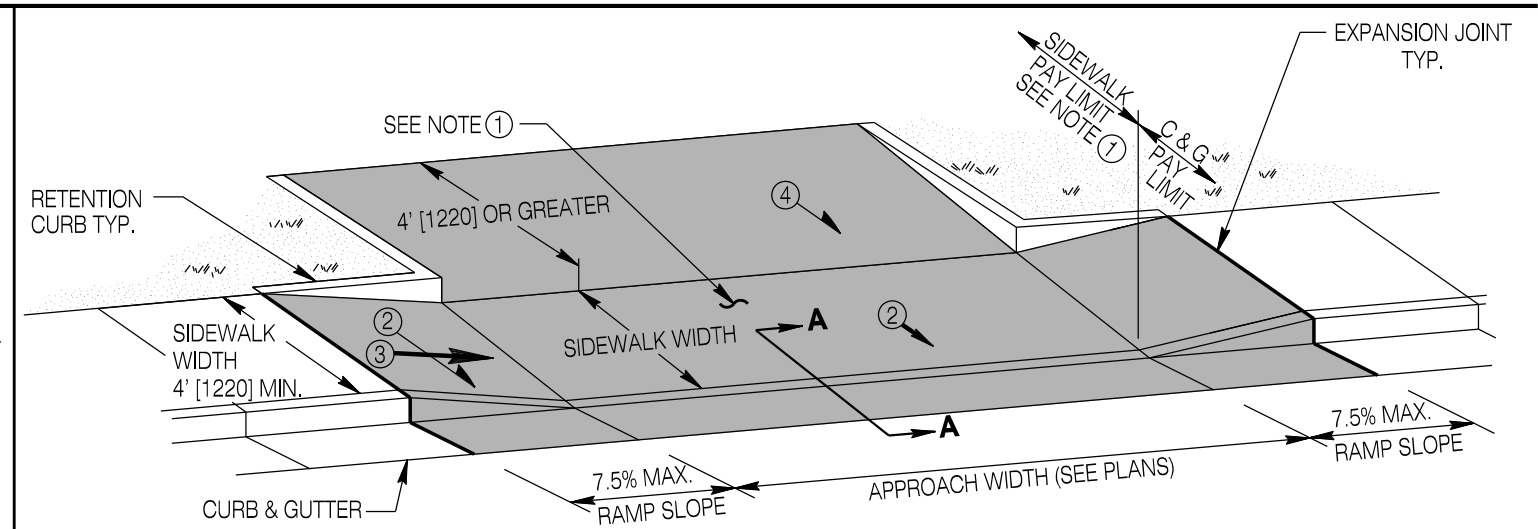
(USE FOR SIDEWALK ADJACENT TO CURB WHERE RIGHT-OF-WAY PERMITS CONSTRUCTION)



TYPE B - PEDESTRIAN SIDEWALK WITH INTERNAL BYPASS

(USE WITH SIDEWALK WIDTHS 7' [2135] AND WIDER.)

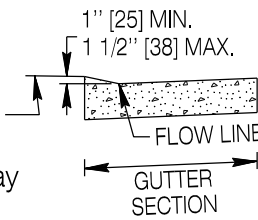
SIDEWALK WIDTH		X		Y	
Ft	mm	Ft	mm	Ft	mm
7'	2135	4'	1220	3'	915
8'	2440	4'	1220	4'	1220
≥9'	>2745	5' MIN.	1525 MIN.	4' MIN.	1220 MIN.



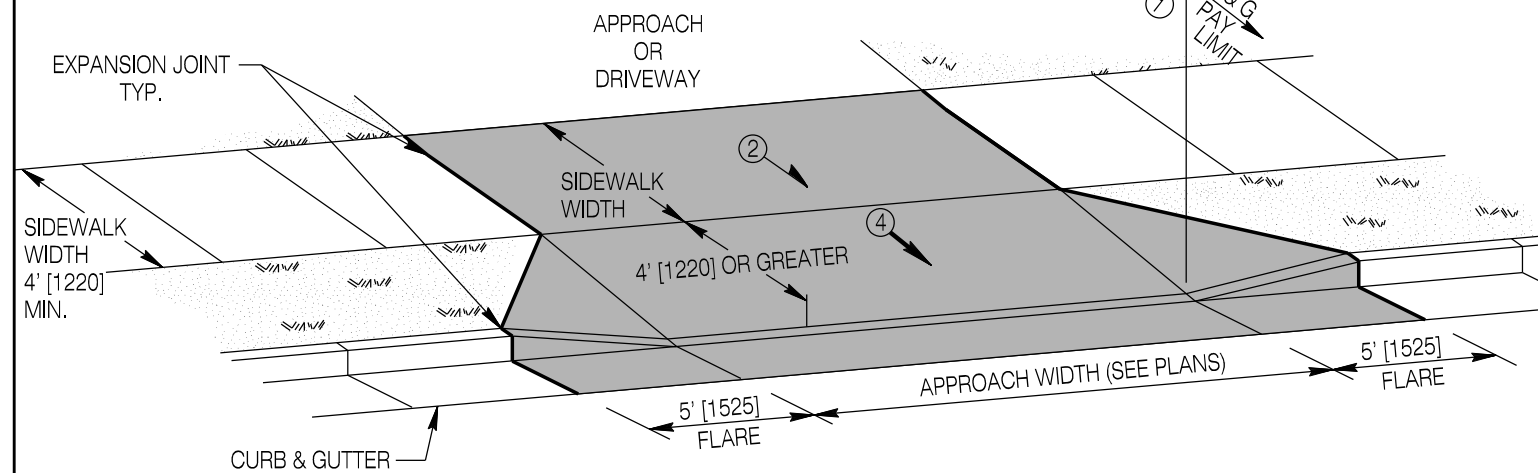
TYPE C - DEPRESSED PEDESTRIAN SIDEWALK

NOTE:

Elevate depressed sidewalk 1" to 1 1/2" [25 to 38] above flow line of gutter unless this driveway doubles as a curb ramp.



SECTION A-A



TYPE D - DETACHED PEDESTRIAN SIDEWALK

(MOST DESIRABLE TREATMENT)

TYPICAL SIDEWALK AND/OR DOUBLE GUTTER TREATMENT AT APPROACHES

NOTES:

① **DRIVEWAYS AND APPROACHES:** Driveways and approaches are paid for as sidewalk behind the back of curb line (including retention curbs) and curb & gutter in front of the back of curb line, **unless** double gutter is specified at a given location. The **shaded area** represents the pay limits if double gutter is specified and the entire shaded area will be constructed to the depth specified for double gutter.

- ➔ ② **CROSS SLOPE:** Slope sidewalks at 1.5% towards street unless otherwise shown. ADA does not permit the cross-slope to exceed 2.0%.
- ➔ ③ **RAMP SLOPE:** 7.5% or flatter, ADA maximum = 8.3%.

- ➔ ④ **DRIVEWAY SLOPE:** Driveway slopes typically exceed ADA cross-slope requirements, therefore the pedestrian access route through a driveway must be made to not exceed 2% (ADA). If a driveway serves a dual purpose as an ADA curb ramp and a driveway, the driveway must conform to perpendicular curb ramp requirements. For Single use driveways (such as residential), where the driveway is relatively flat after the initial rise to curb height (typically 6 inches [150] high) the driveway slope can be achieved in a length of 4 feet [1220] perpendicular to the street. For busier approaches, flatter driveways should be considered to reduce the effect of slowing traffic on the street.

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DRIVEWAYS & APPROACHES

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CONCRETE SIDEWALK AND ADA ACCESSIBILITY

STANDARD PLAN

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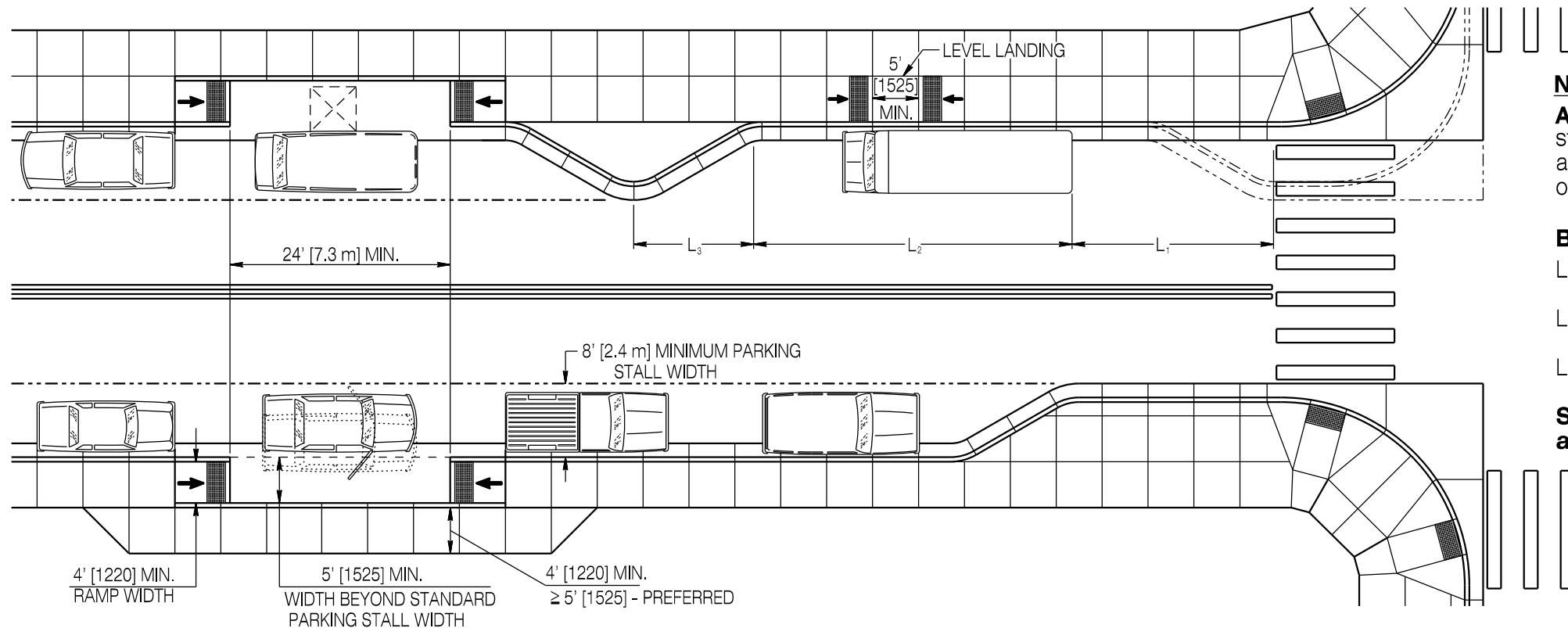
608-1B

SHEET 7 of 8

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ACCESSIBLE PARALLEL PARKING SPACES

BUS / TRANSIT PULLOUTS



NOTES:

Accessible Parallel Parking Spaces should consist of the standard parking stall (8 ft [2440] min. width) **plus** 5 ft [1525] to accommodate van wheelchair lifts and access from either side of a vehicle.

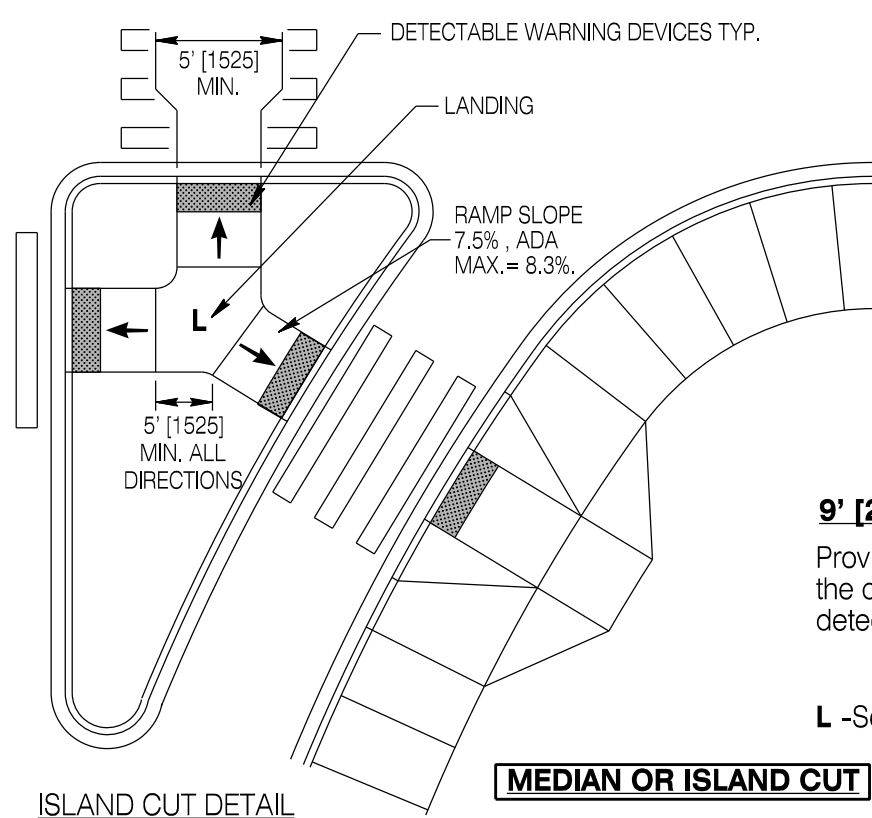
Bus Pullouts:

L_1 = Length required for bus to maneuver into pullout

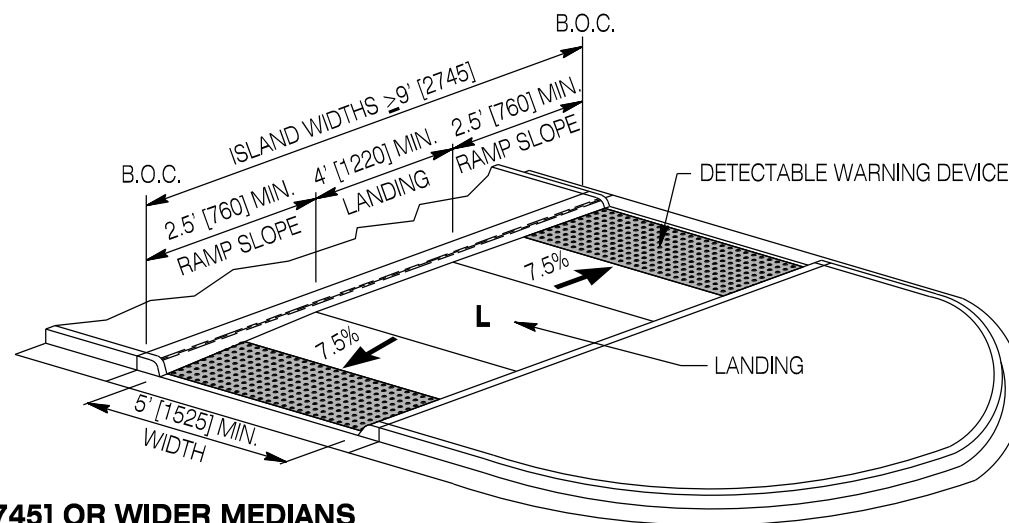
L_2 = Length of bus + 10 ft [3.0 m]

L_3 = Length required for bus to maneuver out of pullout

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



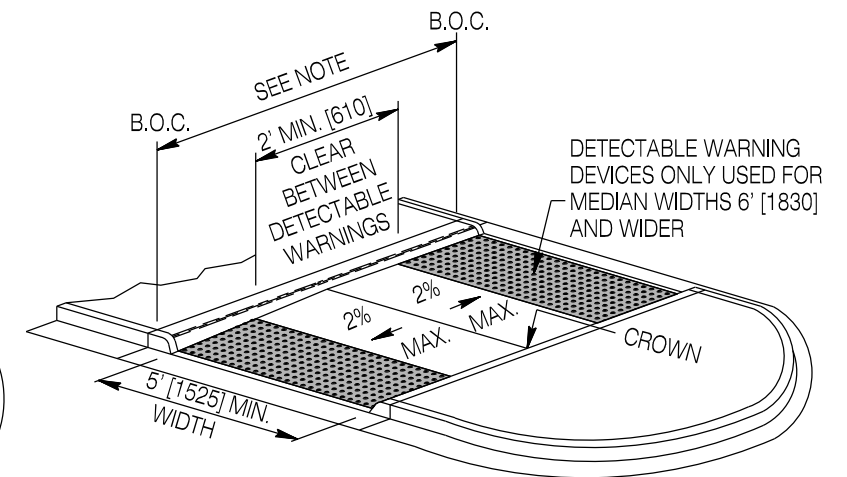
MEDIAN OR ISLAND CUT



9' [2745] OR WIDER MEDIANS

Provide a level landing 4 ft. [1220] minimum long by 5 ft. [1525] minimum wide in the center of the island. Provide ramps (slope 7.5%) on each side with detectable warning devices.

L -See landing requirements, see **SHEET 2**



LESS THAN 9' [2745] MEDIAN WIDTHS

Provide a longitudinal slope for the pedestrian path through the island not to exceed 2% (1.5% preferred) and crowned at the center of the island. Do not provide a cross-slope for the pedestrian path through the island.

For Islands:

6 ft. [1830] and wider - provide detectable warnings. Provide 2 ft. [610] clear between detectable warnings. These are considered pedestrian refuge islands.

Less than 6 ft. [1830] - don't provide detectable warnings. Only provide cut-through. These medians are not considered pedestrian refuge islands.

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PARALLEL ON-STREET PARKING & MEDIAN OR ISLAND CUTS

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CONCRETE SIDEWALK AND ADA ACCESSIBILITY

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