



**Chandler • Arizona**  
*Where Values Make The Difference*

**MEMORANDUM**

**Case # 16-05**

**DATE:** April 19, 2016

**TO:** MAG Specifications and Details Committee Members

**FROM:** Warren White, City of Chandler Representative

**SUBJECT:** Proposed New Dual Curb Ramp Details and Revisions to Section 340

Purpose: Incorporate new standard details for dual curb ramps (radial and directional) and revisions to Section 340 for maximum grade allowances meeting latest ADA requirements. The intention is for construction details to have the “build to” slopes/grades that will allow for tolerance while the specification provides the maximum limits for acceptance.

Revisions:

- New Detail 236-1 “DUAL CURB RAMPS (RADIAL) ATTACHED SIDEWALK”
- New Detail 236-2 “DUAL CURB RAMPS (RADIAL) DETACHED SIDEWALK”
- New Detail 237-1 “DUAL CURB RAMPS (DIRECTIONAL) ATTACHED SIDEWALK”
- New Detail 237-2 “DUAL CURB RAMPS (DIRECTIONAL) DETACHED SIDEWALK”
- Revise Section 340 “CONCRETE CURB, GUTTER, SIDEWALK, CURB RAMPS, DRIVEWAY AND ALLEY ENTRANCE”

Case 16-05 DRAFT 4-6-16

**340.3.9 Tolerances:** The face, top, back, and flow line of the curb and gutter shall not deviate in excess of 1/4-inch over 10 feet, as tested with a 10-foot straightedge or curve template, longitudinally along the surface.

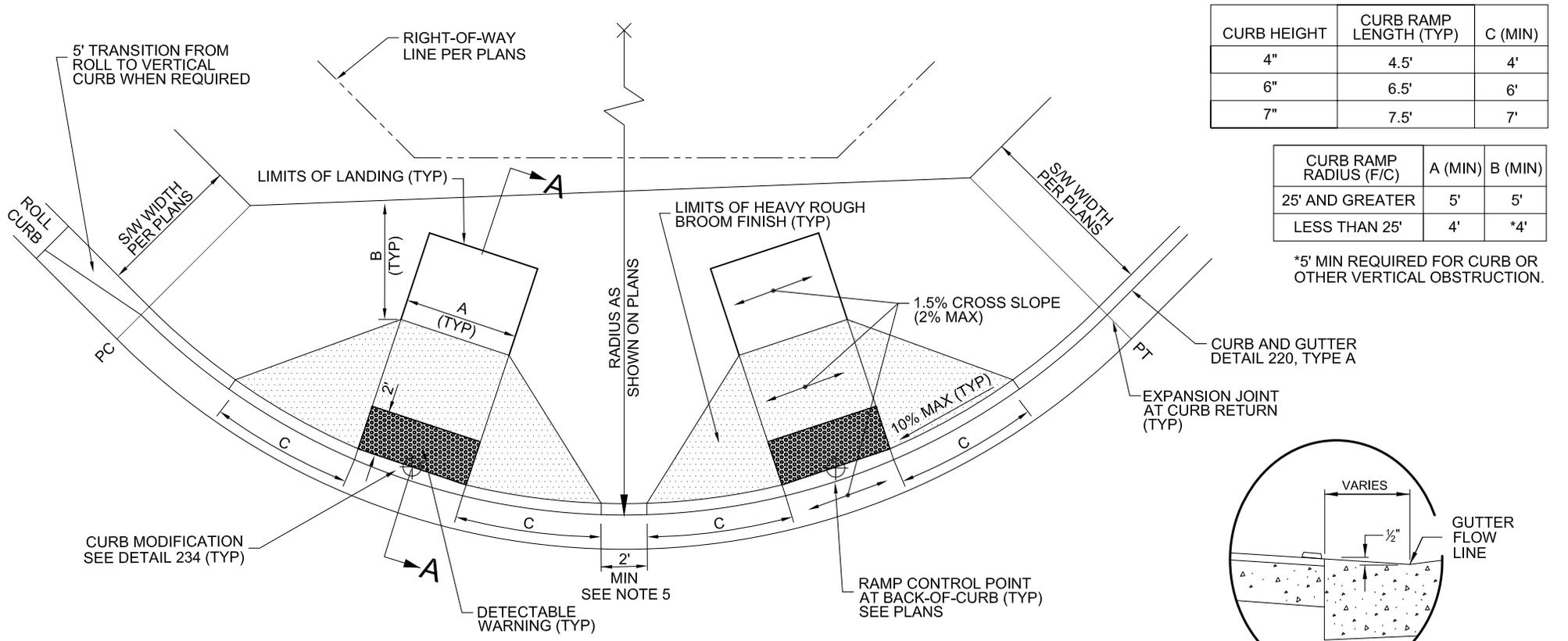
The surface of concrete sidewalk or curb ramp shall not deviate in excess of 1/8-inch over 5 feet as tested with a 5-foot straightedge except for the 1/4-inch recess of the preformed material in expansion joints.

All finished concrete elevations shall not deviate from the elevations shown on the plans, or indicated by typical sections or standard details referenced within the construction documents, ~~by more than 1/2 inch.~~

When required by the Engineer, gutters shall be water tested. The Contractor shall establish flow in the length of gutter to be tested by supplying and distributing water from a hydrant, tank truck or other source. After the supply of water is shut off and water has stopped flowing, the gutter shall be inspected for evidence of ponding ~~or improper shape.~~ The work shall be deemed deficient if water is found ponded in the gutter to a depth greater than 1/2 inch or ponding extends onto the adjacent asphalt pavement.

Areas between elevations shown on the plans shall be straight graded or smoothly transitioned through a vertical curve in a manner approved by the Engineer or as otherwise indicated on the construction documents.

In all cases, slopes shall not exceed the maximum grades per most current adopted ADA guidelines: sidewalk cross slope of 2%, ramp slope of 8.33%, ramp and landing cross slope of 2% and flared side (wing) slope of 10% (measured parallel to curb line).



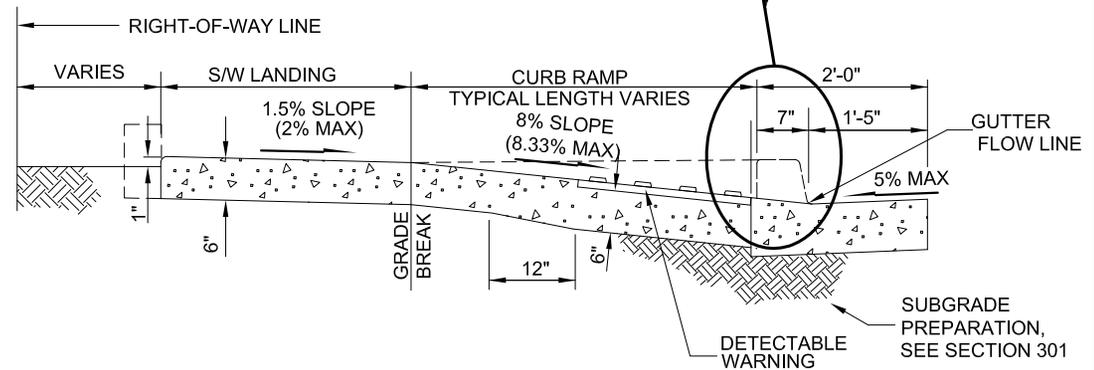
CURB HEIGHT	CURB RAMP LENGTH (TYP)	C (MIN)
4"	4.5'	4'
6"	6.5'	6'
7"	7.5'	7'

CURB RAMP RADIUS (F/C)	A (MIN)	B (MIN)
25' AND GREATER	5'	5'
LESS THAN 25'	4'	*4'

\*5' MIN REQUIRED FOR CURB OR OTHER VERTICAL OBSTRUCTION.

**NOTES:**

1. CLASS 'A' CONCRETE PER SECTION 725.
2. CONSTRUCTION INCLUDING EXPANSION JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
3. SIDEWALK SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
5. DISTANCE BETWEEN RAMPS MAY BE ADJUSTED TO IMPROVE CROSSING ALIGNMENT WITH OPPOSING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.



SECTION A-A

DETAIL NO.  
236-1

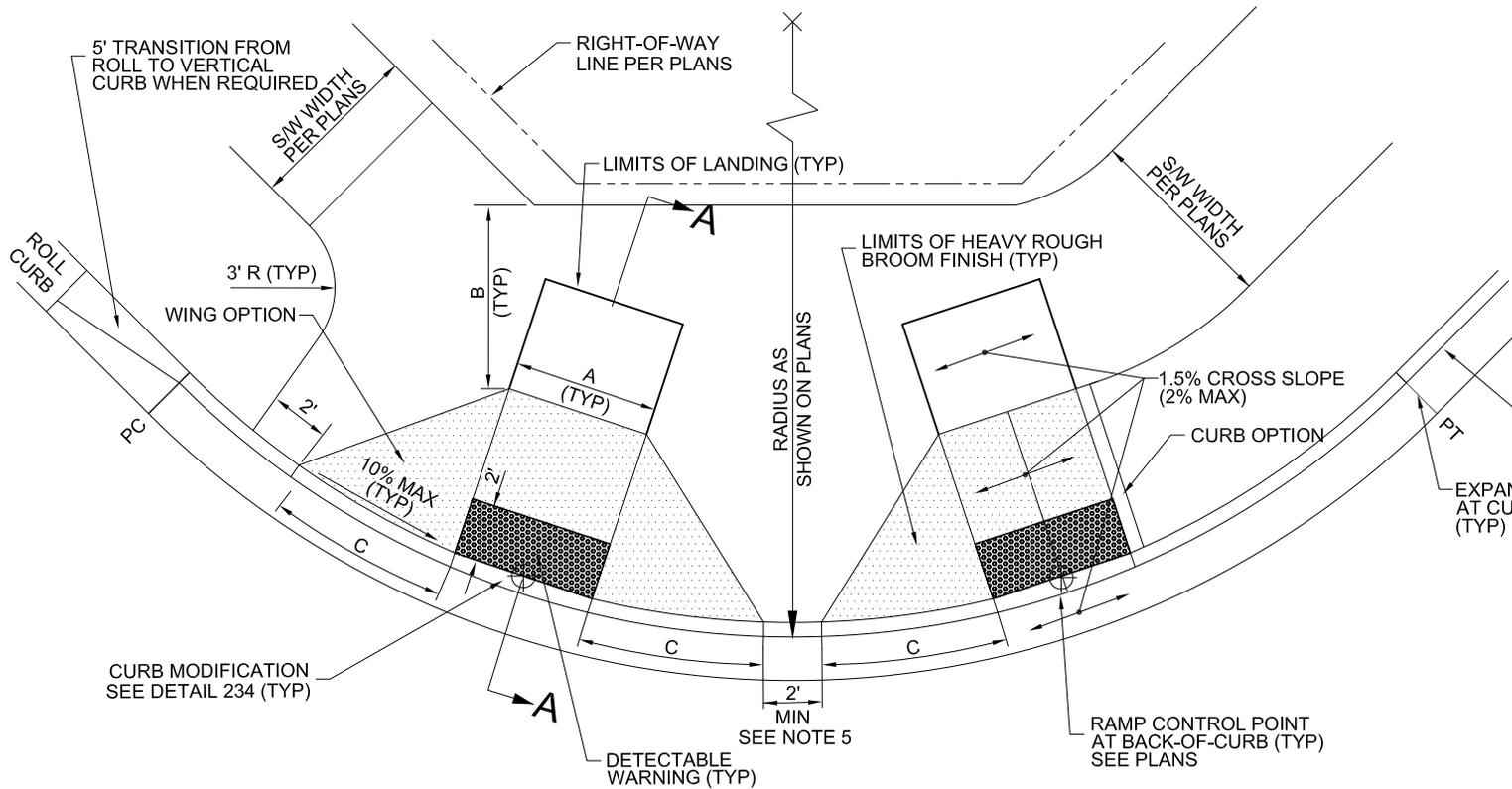


STANDARD DETAIL  
ENGLISH

**DUAL CURB RAMPS (RADIAL)  
ATTACHED SIDEWALK**

PROPOSED  
01-01-2017

DETAIL NO.  
236-1

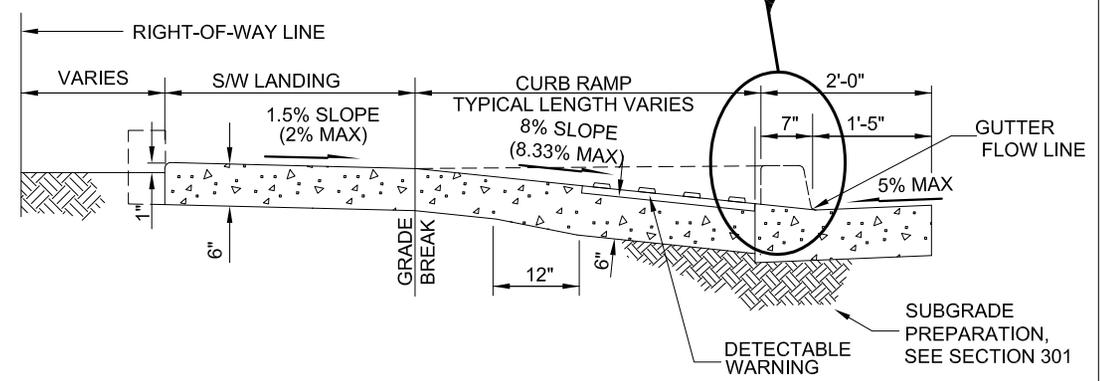


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SECTION A-A

DETAIL NO.  
236-2

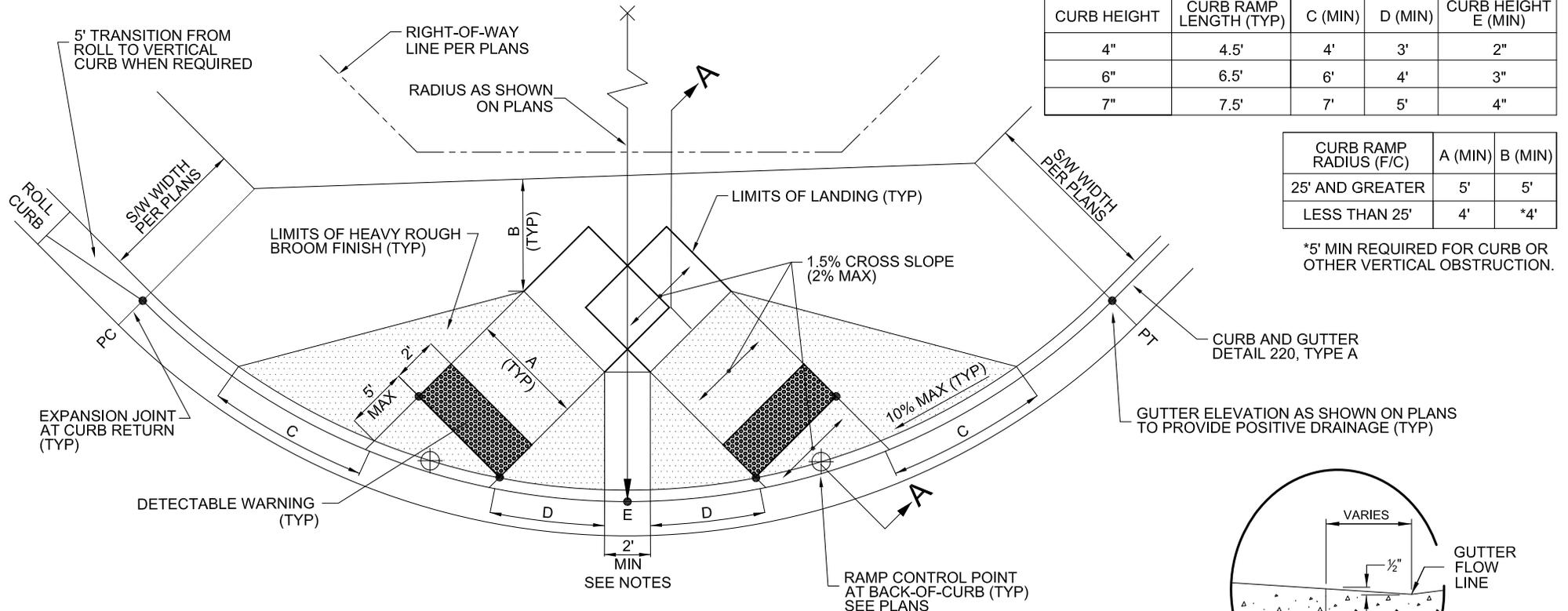


STANDARD DETAIL  
ENGLISH

DUAL CURB RAMPS (RADIAL)  
DETACHED SIDEWALK

PROPOSED  
01-01-2017

DETAIL NO.  
236-2



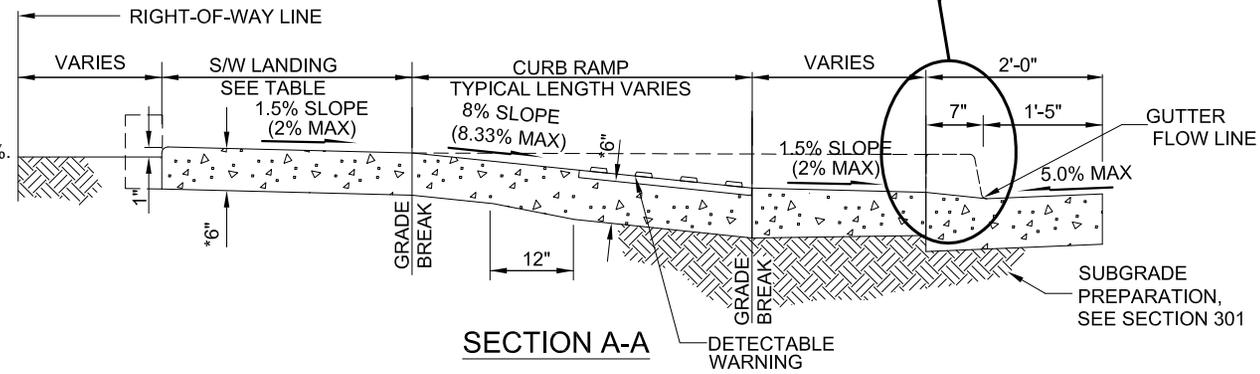
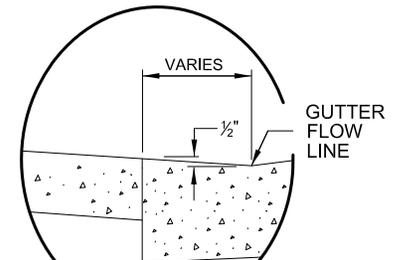
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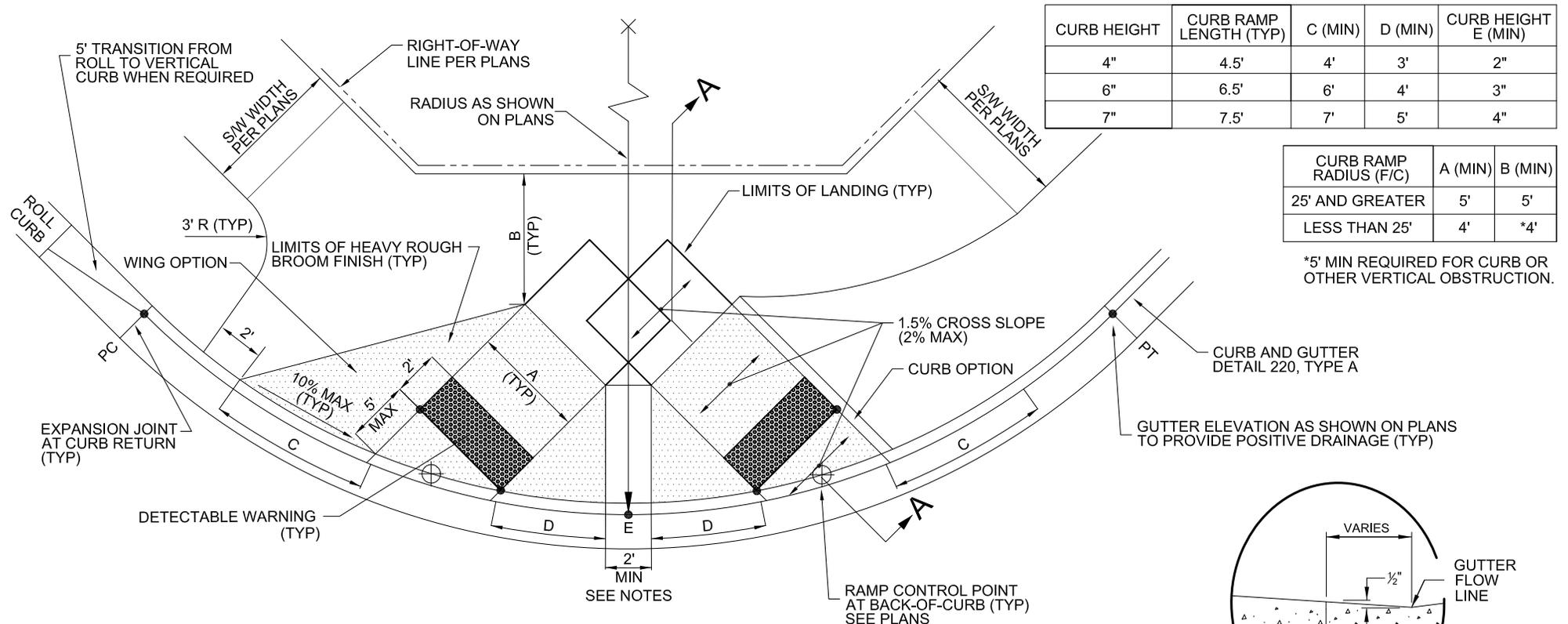


STANDARD DETAIL  
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**DUAL CURB RAMPS (DIRECTIONAL)  
ATTACHED SIDEWALK**

PROPOSED  
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237-1



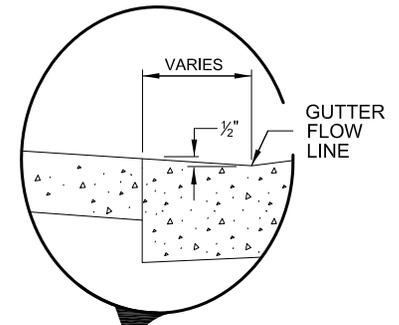
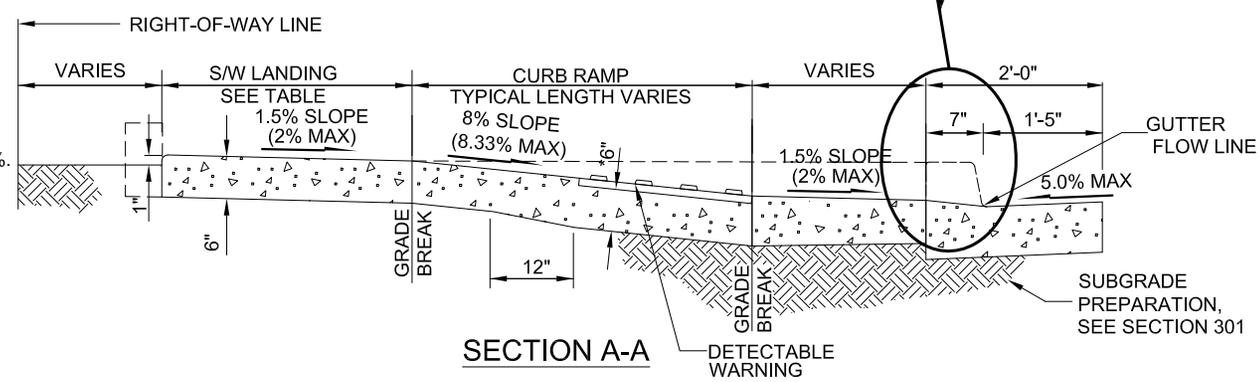
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