GENERAL NOTES

1. Cross Slopes and Grades:
   A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this index are maximums. Steeper slopes are not permitted unless otherwise detailed in the Plans.
   B. Landings must have slopes less than or equal to 0.02 in any direction.
   C. Install ramp slopes along a single linear plane (i.e. no warps or varying slope).

2. Grade Breaks:
   Grade breaks at the top and bottom of ramps must be parallel to each other and perpendicular to the direction of the ramp slope.

3. Existing Curb, Curb and Gutter and/Or Sidewalk:
   A. Remove any existing curb or curb and gutter to the nearest joint beyond the curb transition or to the extent that no remaining section of curb or curb and gutter is less than 3 feet long. Remove any existing sidewalk to the nearest joint beyond the transition slope or to the extent that no remaining section of sidewalk is less than 5 feet long.
   B. Refer to Index 310 for Concrete Sidewalk details.

4. Curb Ramp Alpha-Identification:
   A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.
   B. Alpha-identifications CR-I and CR-J are intentionally omitted.

5. Detectable Warnings:
   A. Install detectable warnings in accordance with Specification Section 527.
   B. Place detectable warnings across the full width of the ramp or landing, to a depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.
   C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.

6. Detectable Warnings - Acceptance Criteria:
   A. Color and texture shall be complete and uniform.
   B. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
   C. There shall be no more than 4 non-compliant domes in any one square foot.
   D. Non-compliant domes shall not be adjacent to other non-compliant domes.
   E. Surfaces shall not deviate more than 0.10" from a true plane.
SIDEWALK CURB RAMPS CR-A AND CR-B

DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

PLAN VIEW

CR-A

ISOMETRIC VIEW

SECTION A-A

Pavement Relief
(See Section C-C)

Utility Strip
(Grass Or Pavement)

ISOMETRIC VIEW

Utility Strip
(Grass Or Pavement)

PLAN VIEW

CR-B

2'-0" Detectable Warnings

11'-0" (Show)

5'-0" (Std.)

4'-0" (Min.)

7'-0"

2'-6"

Pavement)

(Grass Or
Utility Strip

45°

S I D E W A L K C U R B R A M P S C R - A A N D C R - B

SIDEWALK CURB RAMPS CR-A AND CR-B

DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

INDEX NO.

304

SHEET NO.

2 of 8
DESCRIPTION:

SIDEWALK CURB RAMPS CR-C AND SIDEWALK CURB

SECTION B-B

* Note: For additional information on sidewalk curb construction, see SIDEWALK CURB OPTIONS details.

SIDEWALK CURB OPTIONS

SECTION C-C

Note: Remove elevated pavement by spading and rolling, smooth milling or grinding.
SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G

DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

OPTION A

OPTION B

ISOMETRIC VIEW

PLAN VIEW

ISOMETRIC VIEW

PLAN VIEW

PLAN VIEW

ISOMETRIC VIEW

ISOMETRIC VIEW

OPTION B

OPTION A

SIDEBALK CURB RAMPS CR-D, CR-E, CR-F & CR-G

OPTION A

OPTION B

SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G
**SIDEWALK CURB RAMPS CR-H, CR-K & CR-L**

**NOTE:**
Crosswalk Width and Configuration Vary; Must Conform to Index 17344 and 17346.
15' Radius Curve Shown for CR-L.

*Note: For Additional Information on Sidewalk Curb Construction, See SIDEWALK CURB OPTIONS details.*

**SECTION D-D**

- **PLAN VIEW CR-H**
- **ISOMETRIC VIEW**
  - Sidewalk Curb
  - Ramp
  - 2'-0" Detectable Warnings

**SECTION E-E**

- **PLAN VIEW CR-K**
- **ISOMETRIC VIEW**
  - Sidewalk Curb
  - Sidewalk
  - Ramp
  - 2'-0" Detectable Warnings

- **PLAN VIEW CR-L**
- **ISOMETRIC VIEW**
  - Sidewalk Curb
  - Sidewalk
  - Ramp
  - 2'-0" Detectable Warnings

**DESCRIPTION:**

**REVISION NO.**

**INDEX SHEET NO.**

**REV IS IO N NO.**

**DESIGN STANDARDS FY 2017-18**

**DATE:** 11/01/16

**PLAN VIEW COMMENTS:**

- Utility Strip
- Grass or Pavement
- Sidewalk Curb
- Ramp
- Sidewalk
- Gutter Line
- Pavement Relief
- Ramp Varies
- Landing
- 15'-0" (Where Necessary)
- 0.02
- 0.05
- 0.12
- 0.22
- 0.50
- 0.22
- 0.02
- 1:12

**ISOMETRIC VIEW COMMENTS:**

- Utility Strip
- Grass or Pavement
- Sidewalk Curb
- Ramp
- Sidewalk
- Gutter Line
- Pavement Relief
- Ramp Varies
- Landing
- 15'-0" (Where Necessary)
- 0.02
- 0.05
- 0.12
- 0.22
- 0.50
- 0.22
- 0.02
- 1:12

**NOTE:**

- 2'-0" Detectable Warnings
- OPTION A
- OPTION B
- 4'-0" (STD.)
- 2'-0" (MIN.)
- 7'-0" (MIN.)
- 4'-0" (MIN.)
- 10'-0" (MIN.)
- 2'-0" (MIN.)
- 0.02
- 0.02
- 0.02
- 0.02
- 0.02
- 0.02
- 0.02

**SECTION D-D**

- Utility Strip
- Grass or Pavement
- Sidewalk Curb
- Ramp
- Sidewalk
- Gutter Line
- Pavement Relief
- Ramp Varies
- Landing
- 15'-0" (Where Necessary)
- 0.02
- 0.05
- 0.12
- 0.22
- 0.50
- 0.22
- 0.02
- 1:12

**SECTION E-E**

- Utility Strip
- Grass or Pavement
- Sidewalk Curb
- Ramp
- Sidewalk
- Gutter Line
- Pavement Relief
- Ramp Varies
- Landing
- 15'-0" (Where Necessary)
- 0.02
- 0.05
- 0.12
- 0.22
- 0.50
- 0.22
- 0.02
- 1:12
LANDINGS FOR CURB RAMPS WITHOUT SIDEWALKS

(See CR-F, CR-G & CR-K Respectively For Detectable Warning Details/Options)

OPTION A

OPTION B

DETECTABLE WARNING ON FLUSH SHOULDER SIDEWALKS
NOTES:

1. Cross Slope of the median crossing not to exceed 0.02.

2. Running Slopes:
   
   A. Slopes ≤ 0.05: For roadway cross sections were the Edge of Pavement elevation is the same for both directions of traffic, the median crossing running slopes (0.02 Typ.) should meet at the centerline of the median. For roadway cross sections with variable Edge of Pavement elevations, or to accommodate other construction in the median, the slopes may intersect off the centerline of the median.

   B. Slopes > 0.05: Provide a median refuge area (landing, 0.02 slope) for crossings with running slopes > 0.05. The refuge area must extend the full width of the crossing and have a minimum length of 5 feet.

3. On existing facilities, remove and reconstruct curb transition for raised sidewalk with ramp.

MEDIAN CROSSINGS

SECTION F-F

MEDIAN CROSSING
NOTES:
1. Where crosswalk markings are used, ramps must fall within the crosswalk limits. A clear space of 48" minimum is required at the bottom of the ramp within a marked crosswalk. If crosswalk markings are not present, a clear space of 48" minimum is required at the bottom of the ramp outside of active travel lanes.
2. Crosswalk widths and configurations vary; must conform to Index 17344 and 17346.
3. Flangeway gap may be up to 3" for Freight-only Railways.

Rail Car Width

NOTES:

1. Where crosswalk markings are used, ramps must fall within the crosswalk limits. A clear space of 48" minimum is required at the bottom of the ramp within a marked crosswalk. If crosswalk markings are not present, a clear space of 48" minimum is required at the bottom of the ramp outside of active travel lanes.
2. Crosswalk widths and configurations vary; must conform to Index 17344 and 17346.
3. Flangeway gap may be up to 3" for Freight-only Railways.