If both PERPENDICULAR CURB RAMP - LANDING may also be w/o flare when buffer present ...

RS- Running Slope
CS- Cross Slope
CSW- Cross Slope Width
CSL- Cross Slope Length
GB- Grade Break
W- Width
L- Length

Notes:
1. Measurement always taken in center of element, except where noted.
2. Grade Breaks must be flush the entire width. Take worse case measurement for entire width.
3. Counter Slopes are measured from face of curb to edge of gutter or 2 ft. max. from face of curb when gutter not present.
4. Slope arrow indicates positive read. If both directions shown just record value.
5. See Detectable Warning Surface detail.
6. Flare Slope measured parallel to curb.

PERPENDICULAR CURB RAMP
Measurement always taken in center of element, except where noted.
Grade Breaks must be flush the entire width. Take worse case measurement for entire width.
Counter Slopes are measured from face of curb to edge of gutter or 2 ft. max. from face of curb when gutter not present.
Slope arrow indicates positive read. If both directions shown just record value.
See Detectable Warning Surface detail.
Notes:
1. Measurement always taken in center of element, except where noted.
2. Grade Breaks must be flush the entire width. Take worse case measurement for entire width.
3. Counter Slopes are measured from face of curb to edge of gutter or 2 ft. max. from face of curb when gutter not present.
4. Slope arrow indicates positive read. If both directions shown, just record value.
5. See Detectable Warning Surface detail.

RS- Running Slope
CS- Cross Slope
W- Width
L- Length
GB- Grade Break
DWS- Detectable Warning Surface
* These apply only to a single crossing parallel to roadway.
** Orientation may be diagonal to intersection center if ramp serves two crosswalks.

PARALLEL CURB RAMP-One Direction

- CS: Cross Slope
- CSW: Cross Slope Width
- CSL: Cross Slope Length
- DWS: Detectable Warning Surface
- RS: Running Slope
- GB: Grade Break
- W: Width
- D: Landing Width
SIDEWALK ON BRIDGE/BRIDGE END RAMP
**Un-marked Crosswalk**
outside travelled way

*R* serves two crosswalks and points toward center of intersection

**Marked Crosswalk**

**DIAGONAL CURB RAMP**

Measure Clear Space from center of ramp/landing face of curb, area within crosswalk or outside travelled way.

**Ramp (perpendicular)**

**Landing (parallel)**

**Lane Edge**
DWS- Detectable Warning Surface
Crosswalk locations taken at center of walk

SIDEWALK ADJACENT

SWW- Sidewalk Width
BW- Buffer Width
CS- Cross Slope
Notes:
1. Horizontal measurement from face of curb.
2. Vertical distance measured from surface of sidewalk.
3. Obstruction may be a temporarily placed object such as a sign board, parked car or garbage can.
OBSTRUCTIONS
Notes:
1) Points 1 & 2 best taken in center of lane to avoid wheel ruts.
2) RS & CS taken at points #1 & #2.
3) Measurements taken in middle of crosswalk-marked or unmarked.

Location of RS & CS. No GPS at these locations.
Notes:

1. Measure CS & W for points #1, #2, & #3 of driveway.
2. RS shall be taken as shown for points 1 & 3 of no PAR of flare area.
3. On No PAR, project points #1 & #3 from where flare intercepts driveway approach and 3’ from back of sidewalk.

RS- Running Slope
CS- Cross Slope
W- Width
PAR- Pedestrian Accessible Route
GB- Grade Break

DRIVEWAYS
Notes:
1) Measure CS & W for points #1, #2, & #3.
2) Project points 1 & 3 from where drive flare intercepts driveway approach.

DRIVEWAYS

ACCESS ACROSS

ACCESS JOGS AROUND
Notes:

1. Measurement always taken in center of element, except where noted.
2. Grade Breaks must be flush the entire width. Take worse case measurement for entire width.
3. Counter Slopes are measured from face of curb to edge of gutter or 2 ft. max. from face of curb when gutter not present.
4. Slope arrow indicates positive read. If both directions shown just record value.
5. See Detectable Warning Surface detail.
If median pass through jogs, the length is measured across median.

Notes:

1. Measurement always taken in center of element, except where noted.
2. Grade Breaks must be flush the entire width. Take worse case measurement for entire width.
3. Counter Slopes are measured from face of curb to edge of gutter or 2 ft. max. from face of curb when gutter not present.
4. Slope arrow indicates positive read. If both directions shown just record value.
5. See Detectable Warning Surface detail.

MEDIAN PASS THRU
**APS-PUSH BUTTON TYPES & LOCATIONS**

**TYPE A**
- **HOUSING**
- **BUTTON**
- **DIRECTIONAL ARROW** (may be located on button or sign)
- **BRAILLE**

**TYPE B**
- **STREET NAME**
- **HOUSING**
- **BRAILLE**
- **DIRECTIONAL ARROW**
- **BUTTON**

**SEPARATE POLE**
- **button height**

**SHARED POLE**
- **button height**
APS Push Button - Type A

APS Push Button - Type B
APS Push Button - Type C

APS Push Button - Type D
Notes:

1. Distances are measured from the button center.

PAR - Pedestrian Accessible Route

APS Button #2

distance between buttons

APS Button #1

sign/button/arrow direction

button distance to landing it serves (curb face if present)

CURB RAMP

LANDING

button distance from curb face

button distance from level clear space

sign/button/arrow direction

LANDING
PAR - Pedestrian Accessible Route
POLE WITHIN PAR

Level clear space
distance between buttons
distance to curb face

button distance to curb face
button distance from landing

sign/button/arrow direction

APS BUTTON #2
APS BUTTON #1

button distance from landing

CURB RAMP
LANDING

APS- PUSH BUTTON LOCATION - SHARED POLE
Notes:

① Distances are measured from the button center.

APS- PUSH BUTTON LOCATION - SEPARATE POLE
APS- PUSH BUTTON LOCATION- SHARED POLES

- Button distance from PAR
- Sign/button/arrow direction
- Distance to curb face
- Level clear space
- Distance between buttons
- Curb may or may not exist
- APS button #1
- APS button #2
- LANDING
- RAMP

MEDIAN
Notes:
1. Distances are measured from the button center.

APS- BUTTON- SHARED POLE
Notes:

1. Distances are measured from the button center.

ISLAND W/ PASS THROUGH - NO RAMPS

APS- BUTTON - SHARED POLE
button/sign/arrow direction

distance between pass-thru and button (curb face, if present)

APS BUTTON #2
distance to curb face
distance between pass-thru and button (curb face, if present)

Level Clear Space (see detail)

APS BUTTON #1
distance to curb face
button/sign/arrow direction

APS BUTTON #3
distance to curb face
button/sign/arrow direction

distance between pass-thru & button (curb face, if present)

distance between pass-thru & button (curb face, if present)

Notes:

① Distances are measured from the button center.

ISLAND W/ PASS THROUGH - NO RAMPS

APS- BUTTON - SEPARATE POLES
Notes:
1. Distances are measured from the button center.

**APS- BUTTON- SEPARATE POLES**
If button is more than 24 inches from the landing edge, measure 2-1/2 ft. x 4 ft. max. level clear space.

Cross slope of the clear space shall be taken 2 feet from button in each direction.

Slope arrow indicates positive read. If both directions are shown just record value.
SHARED POLE

SEPARATE POLE

WALK

DON'T WALK

WORD

WORD

SYMBOL

SYMBOL

COUNT-DOWN

APS-SIGNAL TYPE & LOCATION
SURFACE DISCONTINuity
for all Pedestrian Accessible Routes

ADJACENT REST AREA
for Shared Use Paths.

CS - Cross slope
RS - Running slope
W - Width
L - Length
GB - Grade break

V measured at worse case above 1/4".

Bevel can be built out from or ground off slab.
NOTES:

* If path RS ≤ 5%, measure at 50 feet intervals.
* If path RS > 5%, measure as segments ≤ 25 feet.
* VD is measured only when segment RS > 5%.
* Horizontal length is measured level between GB line.
* Measure RS just past GB and in direction of data collection.

**SHARED USE PATH**

Bike/Pedestrian Paths.
Direction of Data Collection

Interval

Seg. 1 Seg. 2 Seg. 3 Seg. 4 Seg. 5 etc.

L=5' L L L L

P1 P2 P1 P2 P1 VD P2

RS RS RS RS GB GB

GB GB GB GB

W - Width
L - Horizontal length
CS - Cross slope
RS - Running slope
GB - Grade break
VD - Vertical distance
P1 - Beginning point of segment
P2 - Ending point of segment

Notes:
• Intervals do not exceed 5% RS. Measure every 50 feet.
• Segment is where RS > 5%.
• At first GB, go back 5' to begin first segment to capture if landing is present.
• Segment landing ≤ 2.0%.
• Measure CS & RS just beyond GB.
• Measure VD for segment where RS > 5%.
• Measure RS in direction of data collection.

INDEPENDANT WALKWAY

Within sites or where a sidewalk separates to independent horizontal & vertical alignment.
Direction of Travel →

Landing
Ramp
Ramp
L

Direction Change
Landing

Beginning Point of Linear Feature

CS - Cross Slope
RS - Running Slope
L - Horizontal Length
W - Width
GB - Grade Break
VD - Vertical Distance

NOTES:

GPS location at each grade break in middle of sidewalk.

Measurements of CS & RS to be taken just beyond the GB.

VD measured for all ramp runs.

Ramp is >5% RS.

GB must be flush the entire width. If not, take greatest vertical measurement along GB line.

Measure RS in direction of data collection.

SITE/FACILITY* RAMP

*sites such as Rest Areas, Park & Rides, Also access to ped over/under crossings.
EDL - Extended Surface distance from Handrail, left side.
HL - Curb or Barrier height from ramp or landing surface, left side.
HR - Curb or Barrier height, right side.
EDR - Extended Surface distance from Handrail, right side.

EDGE PROTECTION
HANDRAIL STYLE

Circular

Non-Circular

NOTE:
- Circular: measure diameter
- Non-Circular: measure perimeter and longest dimension

Handrail Support Distance

Adjacent Surface

Distance of handrail clearance from adjacent surface

HH - Handrail Height
ED - Extension Distance

NOTE:
- measure handrail height from top & bottom step nose to top of rail.
- measure handrail height from top & bottom ramp grade break to top of rail.
I V - (1 in 15) of the tread over the riser.

H - Riser Height
D - Tread Depth
W - Tread Width
R - Nose Radius
TS - Tread Slope
TCS - Tread Cross Slope

Distance of nosing over tread

Closed face
Open face
Angle face

FACE TYPE

NOTES:
- Take measurements at top and bottom steps.
- If more than 10 steps, take measurements of an additional step in the middle.

STAIRS
Note: Measure W from center of pavement markings.

PARKING STALL TYPES

ANGLE

PERPENDICULAR

PARALLEL/LOADING ZONE

W - Width
CS - Cross slope
RS - Running slope
PAR - Pedestrian accessible route

TYPES OF AISLE CONNECTION TO PAR

PARKING STALLS