



Roadway *Advisory*

TOPIC: <i>ADA Ramps In Resurfacing Projects: 1991 Versus Current ADA Standards</i>	NUMBER <i>RD13-01(A)</i>	DATE <i>12/20/2013</i>
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Topic

The following guidelines are for determining whether existing curb ramps are compliant with ADA standards. A comparison is given between the 1991 ADAAG and the current standard.

Acronyms

- 1R – Resurfacing
- ADA – Americans with Disabilities Act
- ADAAG – ADA Accessibility Guidelines
- FHWA – Federal Highway Administration
- HDM – Highway Design Manual
- ODOT – Oregon Department of Transportation
- PROWAG – Public Rights of Way Accessibility Guidelines from the US Access Board
- US DOJ – United States Department of Justice
- US DOT – United States Department of Transportation

Advisory Information

The ADA requires upgrading curb ramps in alteration projects. Previous guidance from the US DOT, FHWA, United States Access Board, and US DOJ has not specifically defined when a resurfacing project is considered an alteration that should trigger the need to upgrade curb ramps. ODOT’s 1R design standard currently limits project work to resurfacing pavements without addition or modification to noncompliant curb ramps or any other additional work traditionally addressed in projects. The US DOT and US DOJ recently issued a memorandum of joint technical assistance to define when resurfacing projects are considered to be an alteration, which triggers the need to upgrade curb ramps. As a result, all 1R projects need to address curb ramps, except projects that only include chip seals. However, if curb ramps comply with 1991 ADAAG standards, they do not need to be upgraded with the resurfacing project. If

they do not comply with either the 1991 standard or the current standard, they need to be upgraded to the current standard either with the project or in a separate child project. Locations of curb ramps that comply with the 1991 standard, but not the current standard shall be upgraded in the future as part of ODOT's ADA Transition Plan. See Tech Bulletin RD13-02(B) for further details.

The purpose of this Technical Advisory is to provide measurable criteria for staff conducting field verification to determine whether existing curb ramps meet either the 1991 ADAAG standard or the current standard. This advisory does not include a comprehensive list of all the requirements for either standard. Project designers should be familiar with the 1991 ADAAG, current ODOT standards and with the most current public right-of-way accessibility guidelines issued by the US Access Board.

The FACS-STIP inventory will be updated with the eight evaluation criteria listed in this technical advisory. When ramp corners are evaluated, the FACS-STIP inventory should be updated.

Evaluation Criteria

In order to field verify that a curb ramp is compliant to the 1991 standard, evaluate the following five criteria:

Running Slope

The maximum slope of a ramp run shall not exceed 1:12 (8.3%). This standard applies to both the 1991 ADAAG and to current standards.

Counter Slope

The maximum slope of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20 (5%). This standard applies to both the 1991 ADAAG and to current standards.

If all other criteria meet the 1991 standard, but the existing counter slope exceeds 5%, and the resurfaced road will result in meeting the standard, this criterion alone does not trigger the requirement to upgrade the ramp, because it would be 1991 compliant without performing any work on the ramp.

Cross Slope

Nowhere shall the cross slope of an accessible route exceed 1:50 (2%). This standard applies to both the 1991 ADAAG and to current standards.

Lip Height

The transitions from the curb ramp to the gutter or street can't have an abrupt change in height, called a "lip," in excess of ¼ inch. The lip refers to any kind of a drop-off between the end of the ramp and the beginning of the pavement. If the lip is less than or equal to ¼ inch, it may be vertical and without edge treatment. Lips between ¼ inch and ½ inch have to be beveled with a slope no greater than 1:2. Lips greater than ½ inch require a ramp. This standard applies to both the 1991 ADAAG and applies to current standards.

If all other criteria meet the 1991 standard, except the lip height, and the resurfaced road will result in meeting the standard, this criterion alone does not trigger the

requirement to upgrade the ramp, because it would be 1991 compliant without performing any work on the ramp.

Clear Width

The curb ramp must be clear of obstacles within the required clear width of 36 inches. This clear width applies to the pedestrian access route within the ramp, which includes the ramp run, exclusive of flared sides.

Current Requirements:

Existing curb ramps that meet the above requirements for Running Slope, Counter Slope, Cross Slope and Lip Height, and also meet the following four requirements are deemed to be compliant with current standards and do not need to be upgraded.

Clear Width

The curb ramp must be clear of obstacles within the required clear width of 48 inches. This clear width applies to the pedestrian access route within the ramp, which includes the ramp run, exclusive of flared sides.

Detectable Warning Surface

Curb ramps shall have a detectable warning surface consisting of truncated domes extending along the full width of the curb ramp.

Turning Space or Level Landing

A minimum 4' x 4' turning space shall be provided at the bottom of a parallel curb ramp or the top of a perpendicular curb ramp. If the turning space is constrained on 2 or more sides, the turning space shall be 4' x 5'. The 5' dimension is in the direction of the street crossing. The maximum slope of the turning space is 2%. No turning space or level landing requirement existed for curb ramps in the 1991 ADAAG.

Slope Differential

The algebraic difference in slopes at the ramp - street interface (ramp to street where there is no curb, or ramp to gutter pan where there is a curb) shall not exceed 11%. This refers to the measure of the slope differential, which is the change in grade of two adjacent surfaces. The maximum 11% slope differential is a prerequisite for 1R paving and is required to provide a continuous pedestrian access route from the curb ramp to the street crossing. Even though the maximum running slope and counter slope can result in a 13% slope differential, wheelchairs can get stuck when the change in grade exceeds 11%. The slope differential is measured in the following manner: set a smart level to display slope percentages; place smart level on ramp slope; record percentage; place smart level on gutter slope; record percentage; then either add ramp slope to gutter slope if the grades are in opposite directions, or subtract one percentage from the other if the grades are in the same direction.

Target Audience

This Advisory is intended for staff conducting field review to determine whether curb ramps are required in the scope of resurfacing projects.

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