

 OREGON DEPARTMENT OF TRANSPORTATION TECHNICAL SERVICES Roadway Engineering Section BULLETIN				
SUBJECT Design for Program Funded Curb Ramp Projects	FINAL NUMBER RD21-04(B)	EFFECTIVE DATE 1/1/2022	VALIDATION DATE 11/12/2024	SUPERSEDES or RESCINDS N/A
	WEB LINK(S) Oregon Department of Transportation : Technical Guidance : Engineering : State of Oregon			
TOPIC/PROGRAM ADA Delivery Program	APPROVED SIGNATURE Original signed by Heidi E. Shoblom, PE State Roadway Engineer			

PURPOSE

This technical services bulletin establishes design standards and requirements for curb ramp projects funded by the ADA Delivery program.

GUIDANCE

Compliant Design

The engineer of record is permitted to design and represent designs on plan sheets that, when installed, will result in a curb ramp that will comply with applicable standards as represented in the ODOT inspection forms 734-5020 series and 734-5245 series or have design exceptions for features that do not.

ODOT design standards, best practices, and preferences related to providing full access that exceed Applicable Standards can be adjusted to the maximum allowed by the Applicable Standards at the discretion of the engineer of record with no design exception required.

The engineer of record will determine whether to include design tolerance for dimensions and slopes within the maximum allowed by the Applicable Standards. Additional tolerance is not applicable to construction unless a design exception is approved and documented in contract plans per RD19-02(B).

The engineer of record will follow the Traffic Manual to determine the skew of the crossings and work with the region traffic engineer to evaluate crosswalks for closure.

Curb Ramp Design

The engineer of record will attempt to provide a curb ramp for each crosswalk (typically two per corner). However, if this cannot be accomplished within existing right of way, a single compliant ramp can be provided. When a single compliant curb ramp cannot be constructed within existing right of way, enough right of way must be purchased to build two compliant curb ramps. A design exception for providing a single compliant ramp must be approved by the state roadway engineer with documentation and supporting information as required in the Highway Design Manual, Part 1000.

Right of way will be acquired where necessary and available for a proposed curb ramp installation to meet Applicable Standards. The need to acquire right of way to meet Applicable Standards will not be justification for a design exception.

Where existing sidewalk widths are greater than or equal to 4.0 feet, the existing width can be used as the design width. Where existing sidewalks are less than 4.0 feet, the design width will be 4.0 feet. This assessment will be made at each corner.

Design Exceptions

Curb ramp designs that do not meet Applicable Standards are required to have approved design exceptions. Reasons that may justify design exceptions include but are not limited to:

- Underlying terrain (i.e. steep grades).
- Right of way availability (not available to purchase).
- Underground structures (utility vaults, luminaire and signal pole foundations, etc.).
- Adjacent developed facilities (driveways, sign structures, or engineered structural retaining walls, and utility poles etc.).
- Stormwater (changes to stormwater patterns, stormwater structure impacts, ponding, etc.).
- The presence of notable natural or historic and other sensitive environmental features.

The ADA Curb Ramp Design Exception request submittals will be prepared for each project by combining locations within a single intersection under one engineer of record. General design exceptions requests for alternate detectable warnings or other surface treatments shall be submitted per community (city) under one engineer of record.

Transition Panels

Transition panels will be utilized as needed to transition from compliant features to non-compliant existing sidewalks. Transition panels may be required to connect existing business accessible routes to points of entry or other site facilities. A maximum transition rate of 1.0% per foot will be used for transitioning cross-slope. Minimum horizontal taper will be 1:3 per standard drawing RD722. Longitudinal slope of the transition panel will match the existing sidewalk slope to the extent feasible and not make the accessible route worse along the transition panel. The joint between a transition panel and existing sidewalk must be flush.

Gutter Flow Slopes

Gutter flow slopes will be designed to provide continuous flow. Gutter flow slopes may be adjusted (warped) at curb ramps to create compliant cross slopes provided that no pooling, diversion or other impediment is created. Design exceptions will be required for any curb ramp cross slopes that do not meet Applicable Standards. Refer to the advisory RD21-01(A) for strategies to achieve gutter flow requirements.

Signalized Intersections

Signalized intersections shall provide compliant reach, height and landing to access pedestrian pushbuttons. Utilize existing equipment including existing signal pole foundations, pushbuttons, pedestals, loops, and hardware to the extent feasible with approval from the state signal engineer. Audible pedestrian signals will be reinstalled at intersections where they exist or provided where the city has a policy for installation in place.

Non-ADA Features and Installations

When curb ramp program projects impact other features like, but not limited to, signal installations, signs, stormwater or driveways, the features will be restored to the condition and function they were before the project. Non-ADA features will not be brought to current standards, nor their functionality enhanced.

Reconstruction of driveways shall be avoided where possible. If reconstruction is unavoidable, it must be approved by the program at site specific locations and coordinated with the region access management engineer. Refer to ADATM04 for access management requirements.

Survey and Design Approach (2D Plans)

Existing geometry can be established by tape measure and smart level at the discretion of the engineer of record. This method can be used to derive horizontal and vertical coordinates.

The following requirements apply for projects using the 2D Plan approach:

- The amount of vertical data provided on plan sheets will be at the discretion of the engineer of record.

- The engineer of record will be present or represented during construction of the curb ramps to advise the inspector and contractor.
- The engineer of record may interpret or alter the design during construction within the maximum allowable limits of the Applicable Standards.
- Curb ramp installations that do not meet Applicable Standards must be made compliant or receive a design exception. Alternate designs shall be evaluated prior to construction and to demonstrate maximum extent feasible.
- Alternative contract delivery methods must be approved by the ADA Program Design Manager.

Note: The ADA Program will continue a QA program to review compliance of curb ramp installations with Applicable Standards.

DEFINITIONS

ADA – Americans with Disabilities Act

ADAAG – ADA Accessibility Guidelines.

MUTCD - Manual on Uniform Traffic Control Devices.

ODOT – Oregon Department of Transportation.

“On or along the State Highway” – includes public sidewalk and accessible route features that are adjacent to the state highway road system regardless of who has public ownership, public easements, or intergovernmental agreements of the underlying property where the accessible route feature resides.

PROWAG – Public Right-of-Way Accessibility Guidelines

EXPLANATION

This bulletin is intended to minimize curb ramp footprint and right of way acquisition needs. This bulletin will be applied to curb ramp projects funded by the ADA Delivery program. Further guidance or bulletins may be provided in the future.

Minimizing footprint and right of way needs will be achieved by complying with the standards cited in the Settlement Agreement (Applicable Standards) as interpreted by the state roadway engineer. The Applicable Standards cited in the Settlement Agreement are

- ADA,
- PROWAG,
- ADAAG,
- Sec 504, and
- Part 4 (Highway Traffic Signals) and Part 6 (Temporary Traffic Control) of the MUTCD.

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