



SDOT POLICY MEMORANDUM

Date: September 1, 2015
To: Scott Kubly, SDOT Director
From: SDOT ADA Committee
Subject: SDOT Policy for Curb Ramp Flares/Wings

Statement of Intent

To establish a policy that provides reasonable design solutions when constructing curb ramp side flares or wings on existing roadways with steep slopes or other existing site constraints. In some cases, due to topographical conditions, it is not feasible to construct curb ramp side flares within the current slope requirements. This policy applies to the design and construction of new curb ramps within the public right of way and within the jurisdiction of the City of Seattle.

Overview and Purpose

Constructing curb ramp side flares with a 1:10 absolute slope can be challenging or even infeasible given the existing topographical conditions or other existing site constraints. All of the applicable design standards that SDOT subscribes to, including the 2010 ADA Standards for Accessible Design (and/or the 2006 DOT ADA Standards), the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), the WSDOT Design Manual, and the City of Seattle Standard Plans all require that curb ramp side flares do not exceed a 1:10 slope, measured parallel to the curb. None of these referenced design standards or guidelines provides an allowance for a slope that exceeds 1:10, even when the slope of the roadway may itself exceed a 1:10 slope. In these cases, it is necessary to identify how a curb ramp side flare will be constructed to be compliant to the maximum extent feasible.

As described in the preamble of the 2011 PROWAG, the “flared sides are part of the pedestrian circulation path but are not part of the pedestrian access route.” It is understood that the curb ramp side flare serves a purpose to reduce or eliminate the possibility of a potential trip hazard; when provided, side flares are not intended to be a part of the accessible route. By transitioning from the surface of the ramp and the descending curb to the adjacent sidewalk, rather than introducing a curb or a vertical edge, necessary ramp slopes can be provided while reducing the potential for tripping. Curbs, in lieu of side flares, may only be introduced where they are substantially blocked from pedestrian traffic.

SDOT has consulted with and has received guidance from the U.S. Access Board and has internally discussed and deliberated potential solutions when curb ramp side flares cannot be constructed to be a 1:10 maximum absolute slope. Extending curb ramp side flares, in efforts to produce a 1:10 slope, may result in an unnecessarily wide flare footprint. At times, these far reaching side flares, perhaps exceeding the size of the curb ramps they serve, may have limited improvement or benefit while expanding the scope of work dramatically as well as potentially impacting adjacent landscaped areas or street furniture zones. The 2011 PROWAG mentions the possibility of the ramp side flare requirements being extended up to 12.5% or 16.7% for these reasons stated above; SDOT has used engineering judgment to





determine what may be a reasonable compromise until said slope allowances are adopted in the technical standards.

Note: Referenced guidelines, standards, and guidance for these issues are available and are outlined in a Technical Memorandum on file that precedes this document.

Policy for Curb Ramp Flares/Wings

Where a curb ramp is constructed within the Seattle public right of way, curb ramp side flares built as a part of a standard perpendicular curb ramp shall be designed and constructed in the following order of preference:

- 1) Construct a curb ramp wing or flare compliant with City of Seattle Standard Plan 422A and the 2010 ADA Standards with a maximum 1:10 absolute slope, measured parallel to the curb. If not feasible,
- 2) Construct a curb outside of the pedestrian access route instead of a flare. Verify that the returned curb is protected from cross travel by landscaping, street furniture, chains, fencing, or railings. If not feasible,
- 3) Construct a curb ramp wing or flare with a 1:10 maximum slope, measured parallel to the curb, relative* to the slope of the roadway. The curb ramp wing shall not be required to exceed 7.5 feet in width.

If the design approach stated under Option 3 is used on federally funded projects, documentation must be provided explaining the conditions that necessitate construction to the maximum extent feasible (MEF).

Within the jurisdiction of the City of Seattle, if the only feature of the curb ramp that is out of compliance is the curb ramp wing(s) slope, MEF documentation is not required provided that Option 3 is warranted and the design parameters identified are satisfied.

* The intent of the "relative" measurement is to limit the slope differential at a grade break to be 1:10 maximum adjacent to the pedestrian access route to reduce the potential of a trip hazard. An example of a measurement relative to the roadway is as follows:

- The existing roadway and sidewalk slopes are 10%.
- The roadway slope of 10% plus the 10% curb ramp wing relative slope = 20% maximum cumulative curb ramp wing slope (10% maximum differential).
- If extending the wing to 7.5 foot width produces a lower slope, employ this method.

