

Appendix H


Highway Division Maintenance

Operational Notice:

MG100 Through 107



Highway Division Maintenance Operational Notice

Number	Supersedes	Effective Date	Cancellation Date
MG 100 thru 107	Jan 1, 2015	Oct 18, 2016	Until Further Notice
Subject		Issuing Body	
Guidelines for Pavement Maintenance Activities and their impact on ADA requirements.		 Maintenance and Operations Engineer	

PURPOSE:

The purpose of this notice is to define maintenance activities that do and do not trigger the need to install or upgrade curb ramps so that maintenance forces can make informed decisions as they scope and plan their work. The purpose of this guidance is to ensure compliance with Title II of the Americans with Disabilities Act of 1990 (ADA) and the Rehabilitation Act of 1973 (Section 504).

BACKGROUND:

The ADA prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, State and local government services, public accommodations, commercial facilities, and transportation. The ADA is codified in the Code of Federal Regulations Title 28, Chapter 1, Part 35 (28 CFR 35).

The Federal Highway Administration (FHWA) is responsible for implementation of pedestrian access requirements from the ADA and Section 504. This is accomplished through stewardship and oversight over public agencies that build and maintain highways and roadways, regardless of fund source.

The ADA requires installing or upgrading existing curb ramps in projects that alter streets, roadways or highways. Clarification for this requirement was provided in a June 28, 2013 memorandum of joint technical assistance (https://www.fhwa.dot.gov/civilrights/programs/doj_fhwa_ta.cfm) by the US Department of Justice (USDOJ) and FHWA. It describes when maintenance activities such as resurfacing are considered alterations, triggering the requirement for curb ramp installation where none exist and curb ramp upgrades where existing ramps are non-compliant. Further clarification on these requirements was provided in additional guidance from USDOJ/FHWA dated December 1, 2015.

This recent guidance has direct impacts on traditional maintenance activities, some of which would now be considered *alterations* triggering curb ramp installation and upgrades at the ends of affected crosswalks, thus increasing the scope and cost of a routine maintenance project. This increase may be significantly magnified if ROW or utility relocations are required for the curb ramp work.

The US DOJ / FHWA memorandum defines an *alteration* as:

“... a change that affects or could affect the usability of all or part of a building or facility. Alterations of streets, roads, or highways include activities such as reconstruction, rehabilitation, *resurfacing*, widening, and projects of similar scale and effect. Maintenance activities on streets, roads, or highways, such as filling potholes, are not alterations.”

GENERAL GUIDANCE

When paving work is considered an alteration, curb ramps adjoining each intersecting crosswalk within the limits of the paving work must be addressed. Curbs ramps are required to be addressed, installed or upgraded if a sidewalk is present and existing curb ramps don't meet minimum standards.

1. Review the planned work
2. Determine if the work is considered an alteration¹
3. If not, proceed with the work but document:
 - a. Conditions that warrant patch repairs (why limited to the area's patched)
 - b. The review and determination
 - c. Retain this documentation
4. If yes, before proceeding with the work:
 - a. Request an evaluation for ramp compliance and needs analysis from Roadway Section (phone/email)
 - b. If impacted ramps are noncompliant or ramps need to be installed where none exist, work with the Tech Center to provide plans, specs and estimates
 - c. Include the ramp work with the paving work or where pavement conditions deteriorate so rapidly that planning is prohibited, necessary ramp work should be planned and built as soon as practicable, document this
 - d. Project limits may need to be reduced because the project estimate exceeds available budget, if so document this

ALTERATION DEFINITION

Reference the example in the attached diagram, Figure 1, to assist in determining if planned work is considered an alteration.

Alteration work is one or more of the paving activities below that spans from one intersection to another or, in unique cases, resurfacing of just the crosswalk itself.

1. Overlays of additional material, with or without milling; or
 - a. Reconstruction
 - b. Rehabilitation
 - c. Open-graded friction course
 - d. Microsurfacing²
 - e. Thin lift overlays
 - f. Cape seal
 - g. In-place asphalt recycling
 - h. Blade patching

¹ To help ensure consistent determination and to see if there are improvements that need to be made in this Ops Notice, for a period of one year after the date of this notice, review your determinations for paving/patching that **do not trigger** with Ray Mabey, Maintenance Services Manager, 503-986-3570, raymond.mabey@odot.state.or.us

² Micro-surfacing involves spreading a properly proportioned mixture of polymer modified asphalt emulsion, mineral aggregate, mineral filler, water, and other additives on a paved surface. It differs from a slurry seal in that it can be used on high volume roadways to correct wheel path rutting.

2. Combination of maintenance work (listed below) that results in additional thickness such as a chip seal with a slurry seal.

Maintenance work that does not require curb ramp work is:

1. Maintenance patching – work listed in items 1 and 2 above that does not span from one intersection to another and is less than $\frac{3}{4}$ of the full roadway width.
2. Individual activities that don't result in additional pavement thickness that can span multiple intersections and full width such as
 - a. Crack filling and sealing
 - b. Surface sealing
 - c. Chip seals³
 - d. Slurry seals
 - e. Fog seals
 - f. Scrub seals
 - g. Joint crack seals
 - h. Joint repairs
 - i. Dowel retrofits
 - j. Spot high friction treatments
 - k. Diamond grinding
 - l. Rut filling (without grinding)

RAMP WORK CONSIDERATIONS

Early Planning

Plan ahead to include ramp work in your paving project. The “parent-child” project concept is no longer acceptable. Ramp work, if triggered, should be coincident with the paving work.

When pavement conditions deteriorate so rapidly that planning is prohibited, necessary ramp work should be planned and built as soon as practicable. These situations should be very rare and considered the exception. Documentation of the deterioration and need for immediate paving should be retained.

Ramp Evaluation

[TransGIS](#) can be used to see if a ramp meets minimum standards, however the ramp should be field verified before scoping is completed. Contact your Tech Center staff or Roadway Section of Technical Services Branch to have trained qualified staff to perform evaluations.

Pedestrian Signal Button Poles & Landing

Ramp construction may impact signal button poles or the landing at the pedestrian button. If so, upgrades to signal button poles and landings will be required if needed. In those cases work with your Tech Center to perform the scoping and design work.

³ Chip Seals involve placing graded stone (chips) on liquid emulsified asphalt sprayed on pavement surface. The surface is rolled to enable seating of chips.

Design and Construction

Technical Services Branch has developed a ramp evaluation form, standard designs, construction specifications, and final inspection procedures to ensure constructed ramps are compliant with standards and that temporary pedestrian routes, accessible to pedestrians with disabilities, are provided through or around work zones. Rely on your Tech Center staff to help you through this work.

MAINTENANCE PATCHING CONSIDERATIONS

Crosswalks Defined in Law

All legs of an intersection, marked or unmarked, including tangent sides of T-intersections are considered legal crosswalks (ORS 801.220), unless signed as closed (ORS 810.080).

Intersections

Generally an intersection is an at-grade crossing of two or more streets. Private drives and alleys are not considered streets. When a street intersects with one direction of a separated (by a median for example) roadway, the other direction is not part of the intersection. Highway ramps would be considered a street for this definition.

Avoidance

Maintenance activities shall not be modified for the purpose of avoiding triggering ADA upgrades. The intent of this document is to clarify and communicate ADA requirements.

Documentation

Document the pavement conditions for the areas you are patching. Include why patch limits were selected; especially when limit is adjacent to a crosswalk (see examples 3 and 5 in the attached diagram). The conditions should warrant the patch work as compared to unpatched areas. Retain this documentation.

Transitions in Crosswalks

To ensure a smooth transition from existing pavement to patched pavement lip between the two shall be no greater than 1/4".

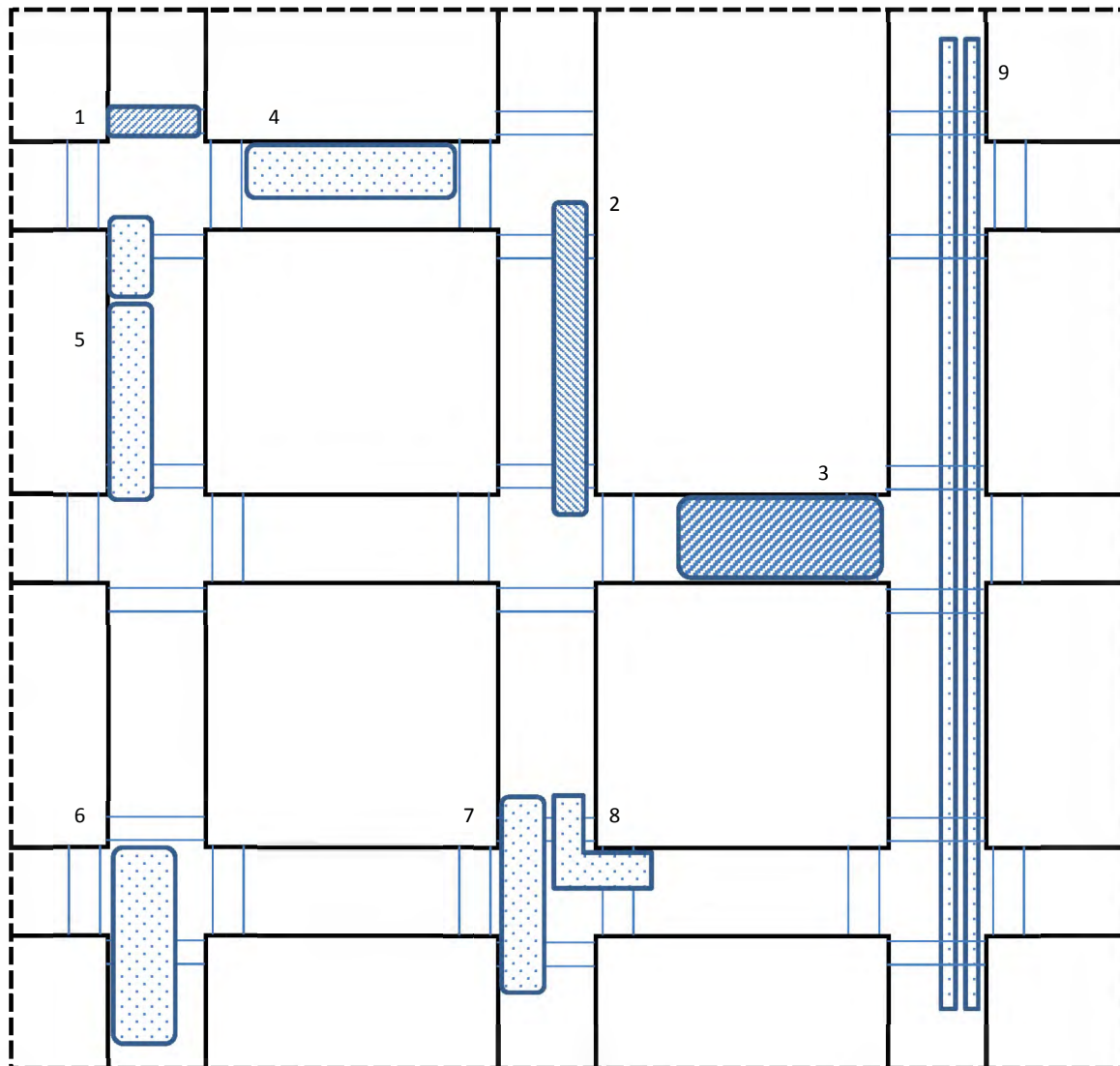
Damage to Existing Curbs

Do not damage the curb or drain pan at the ramp while performing maintenance activities or patching. If this occurs adjoining curbs ramps are required to be addressed, installed or upgraded if the curb ramps don't meet minimum standards.

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FIGURE 1: Definition of Maintenance Patching



Examples of Pavement Treatment Alterations and Maintenance Patching

1. Alteration - resurfacing of a crosswalk only is an alteration. DOJ/DOT Joint Technical Assistance topic #4.
2. Alteration - resurfacing spanning from one intersection to another and includes overlays of additional material, with or without milling. Resurfacing would be defined as one or more of the "Treatments that are considered alterations of the road surface" and possibly combinations of "Treatments that are considered maintenance of the road surface" as found in the Glossary of Terms for the Joint Technical Assistance. DOJ/DOT Joint Technical Assistance topics #2 and #3.
3. Alteration - resurfacing does not span from one intersection to another but is greater than 75% width.
4. Maintenance patch - resurfacing does not span from one intersection to another and less than 75% width.
5. Maintenance patch - larger patch is a grind and inlay, smaller patch is a fog seal.
- 6-8. Maintenance patches - resurfacing does not span from one intersection to another, is less than 75% of the roadway width, and is not intended a resurfacing of the crosswalk itself but is for roadway conditions. If 6 and 7 happen coincidentally and the combined width is greater than 75% of the roadway width, it would be considered an alteration. If not, it would be a maintenance patch.
9. Maintenance patch - rut filling *without* a grind and inlay, rut line patches must not meet or overlap

Each of the "maintenance" scenarios assumes that the existing curbs and curb ramps are not damaged from the patching activities. Once the curb ramp or curbs are damaged, it would be considered an alteration requiring evaluation for ramp upgrade or installation of missing ramps.

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Glossary of Terms for DOJ/FHWA Joint Technical Assistance on the ADA Title II Requirements to Provide Curb Ramps When Streets Roads or Highways are Altered Through Resurfacing

Source: U.S. Department of Transportation – Federal Highway Administration
<https://highways.dot.gov/civil-rights/programs/ada/glossary-terms-dojfhwa-joint-technical-assistance-ada-title-ii>

This glossary is intended to help readers understand certain road treatments referenced on page 2 of the DOJ/FHWA Joint Technical Assistance on the ADA Title II Requirements to Provide Curb Ramps When Streets Roads or Highways are Altered Through Resurfacing. The definitions explain the meaning of these terms from an engineering perspective and are provided in the order in which they appear in the Technical Assistance document.

Treatments that are considered alterations of the road surface

Reconstruction – Reconstruction refers to removing all or a significant portion of the pavement material and replacing it with new or recycled materials. This may include full-depth reclamation, where the pavement surface is demolished in place and new pavement surface is applied. In addition, reconstruction may also include grinding up a portion of the pavement surface, recycling it and placing it back, and then adding a wearing surface, such as in cold in-place asphalt recycling. Reconstruction often includes widening or geometrical changes to the roadway profile.

Rehabilitation – Rehabilitation refers to significant repairs made to a road or highway surface, including activities such as full slab replacement, filling voids under slabs (slabjacking), widening, and adding additional structural capacity.

Open-graded surface course – Open-graded surface course, also known as “open-graded friction course,” involves a pavement surface course that consists of a high-void, asphalt concrete mix that permits rapid drainage of rainwater through the course and off the shoulder of the road. The mixture consists of either Polymer-modified or rubber-modified asphalt binder, a large percentage of one-sized coarse aggregate, and a small amount of fibers. This treatment prevents tires from hydroplaning and provides a skid-resistant pavement surface with significant noise reduction.

Microsurfacing – Microsurfacing involves spreading a properly proportioned mixture of polymer modified asphalt emulsion, mineral aggregate, mineral filler, water, and other additives, on a paved surface. Microsurfacing differs from slurry seal in that it can be used on high volume roadways to correct wheel path rutting and provide a skid resistant pavement surface.

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Thin lift overlays – Thin lift overlays are thin applications of mixtures of hot mix asphalt. Thin lift overlays may also require some milling along curbs, manholes, existing curb cuts, or other road structures to assure proper drainage and cross slopes.

Cape seal – A cape seal is a thin surface treatment constructed by applying a slurry seal or microsurfacing to a newly constructed chip seal. It is designed to be an integrated system where the primary purpose of the slurry is to fill voids in the chip seal.

In-place asphalt recycling – In-place asphalt recycling is a process of heating and removing around 1-2 inches of existing asphalt and remixing the asphalt with the addition of a binder additive and possible aggregate to restore the wearing surface for placement and compaction. All of this is performed in a train of equipment.

Treatments that are considered maintenance of the road surface

Crack filling and sealing – Crack filling and sealing involves placing elastomeric material directly into cracks in pavement.

Surface sealing – Surface sealing involves applying liquid sealant to pavement surface in order to stop water penetration and/or reduce oxidation of asphalt products. Sand is sometimes spread over liquid to absorb excess material.

Chip seals – Chip Seals involve placing graded stone (chips) on liquid emulsified asphalt sprayed on pavement surface. The surface is rolled to enable seating of chips.

Slurry seal – Slurry seals involve spraying a mixture of slow setting emulsified asphalt, well graded fine aggregate, mineral filler, and water on the pavement surface. It is used to fill cracks and seal areas of old pavements, to restore a uniform surface texture, to seal the surface to prevent moisture and air intrusion into the pavement, and to improve skid resistance.

Fog seals – Fog seals are a type of surface sealing.

Scrub sealing – Scrub sealing is type of surface sealing

Joint crack seals – Joint crack seals are usually associated with concrete pavement. This work consists of routing and cleaning existing cracks and joints and resealing to prevent water and non-compressibles from entering into the pavement joints and subgrade materials.

Joint repairs – Joint repairs are usually associated with concrete pavement. This work consists of selectively repairing portions of the pavement where the slabs are generally in

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good condition, but corners or joints are broken. The depth of the patch could be full depth or partial depth.

Dowel retrofit – Dowel retrofits are usually associated with concrete pavement. This work involves the installation of dowel bars connecting slabs in existing pavements. Pavement with dowel bar retrofits can have life extensions of as much as 20 years. Its application is almost exclusively on high-speed Interstate highways.

Spot high-friction treatments – Spot high-friction treatments involve using epoxy based resin liquids as a binder for an aggregate with high-friction properties. These are used in locations where drivers are frequently braking and the pavement surface has less resistance to slipping.

Diamond grinding – Diamond grinding involves using a gang saw to cut grooves in the pavement surface to restore smoothness and eliminate any joint faulting.

Pavement patching – Pavement patching involves selectively repairing portions of the pavement where the slabs are generally in good condition, but corners or joints are broken. The depth of the patch could be full depth or partial depth.

Last updated: Thursday, July 6, 2023