

Overview

In May of 2021, the ODOT ADA program held three webinars to introduce the ADA retrofit design guidance. Each webinar included a robust Q&A session with participants. A summary of these questions follows. Below are two resources/technical bulletins referenced throughout:

- Crosswalk definition/guidance:
https://www.oregon.gov/odot/Engineering/Doc_TechnicalGuidance/RD21-01B.pdf
- Technical guidance bulletin:
[https://www.oregon.gov/odot/Engineering/Doc_TechnicalGuidance/Published%20RD21-03\(B\).pdf](https://www.oregon.gov/odot/Engineering/Doc_TechnicalGuidance/Published%20RD21-03(B).pdf)

Applicability of New Retrofit Design Guidance

Which projects does the new guidance apply to?

ODOT is piloting the new guidance exclusively on 2021-2022 curb ramp projects funded by ODOT's ADA program. It does not apply to any other projects involving curb ramp improvements.

Will this guidance ever apply to curb improvements outside of the ADA program or on ADA-funded projects other than the 2021-2022 ramps?

If this is successful, ODOT will consider expanding the new guidance to other ODOT curb ramp projects.

How will ODOT determine the success of the technical bulletin design guidance?

ODOT will look at many items. Determining what benefits are a result of the 2021-2022 curb ramp projects, might include:

- How many projects were redesigned to minimize right of way and environmental impacts?
- Has the percentage of compliant ramps at first pour increased?
- Has the cost per ramp decreased compared to the previous benchmark?
- Did the project delivery timeline decrease?

Is the intent of the new guidance to provide flexibility around the application of standards when needed for the pilot curb ramps, rather than saying curb ramps are required to lower standards when the ODOT standard is attainable?

Correct. This guidance is not developing a new standard for curb ramps; it is only providing flexibility within the applicable standards to the Engineer of Record for curb ramps that would otherwise trigger costly environmental or right of way impacts.

ADA Retrofit Design Guidance Webinar FAQ (May 2021)

Is ODOT expecting 2021-2022 pilot ramps that have already been designed, but not bid, to be redesigned to incorporate this new guidance?

That is not required. However, if the team believes the new guidance can help accomplish minimizing right of way purchases, accelerating the process and reducing costs, it may be used.

Are signal rebuild projects scoped for 2024 – 2027 included in the ADA budget? Did you know we can consolidate accesses if we buy the access control for the driveway and provide easements to the businesses sharing the approach?

Specific projects are not yet identified for the 2024-2027 STIP. That process is just getting underway.

Currently, the guidance only applies to the 2021-2022 ADA program curb ramp projects. Other STIP projects will require the application of traditional ODOT standards. The new guidance may be expanded to other projects after the program results are reviewed.

Can the guidance apply to developer projects? They are often very limited in scope.

If traditional ODOT standards can be met, they will be required. If there are constraints, then ODOT will work with developers to determine what is feasible.

I have ADA program funding for maintenance for five years. Does the new guidance apply to any curb ramp projects built with these funds in 2021-2022?

The new guidance does not apply to maintenance curb ramp projects.

Will there be special provision changes to allow flexibility around field fitting?

Not currently.

Right of Way

Does avoiding right of way include avoiding temporary construction easements (TCE)?

In general, probably not. Teams are encouraged to find quick temporary construction easement solutions. If the temporary construction easement delays the timeline or are costly, it could be considered an impact to avoid.

Would ODOT be open to implementing curb extensions/bulbouts to avoid taking right of way where the roadway allows it?

ODOT has done this, but there are challenges. In many cases, bulbouts match existing parking, but they have corridor-specific issues.

Can you provide examples of what is meant by “avoiding permanent right of way”? What about temporary easements?

Opening a right of way file that requires a full appraisal costs an estimated \$12,000 - \$20,000 per corner. There are now “T files” where ODOT makes flat offers, which are easier and less expensive. Every circumstance is unique. Ultimately, do what is possible to minimize right of way impacts.

Has ODOT established an acceptable distance from right of way that a ramp can be constructed without needing a temporary construction easement?

The ADA program will work with right of way staff to develop practices that are consistent across the state. Currently, there are three distances depending on the region: one foot, two feet, and five feet.

For one pilot program project, we found that 75% of the ramp locations had existing right of way issues. Are there options being developed to deal with pre-existing issues?

Right now, it is expected that ODOT will assure FHWA that no property rights have been violated, meaning contractors need the legal right to be on property.

Is acquiring right of way required for temporary pedestrian accessible routes (TPARs)?

Installing TPARs without acquiring right of way is ideal. However, the TPAR needs to be compliant. We are trying to conserve right of way to the greatest extent possible but not at the expense of compliance.

Design Guidance

When matching sidewalk width, if there is more than 6 feet can we drop down to 6 feet without issue?

If there are ROW impacts to matching existing, yes. At least six feet is ideal when it is available. The preference is to match the existing width as well if possible. If there are right of way issues to match existing or meet the standard, discuss the situation with Traffic-Roadway.

Is there a design choice hierarchy to start with? Example: Does avoiding drainage pattern changes override right of way fee takes? Does relocating a luminaire override either? Can we get an idea of an 'order of operations' to minimize costs?

Trying to determine highest need has been our biggest challenge. Each curb ramp is unique, so prioritization needs to be done on a project-by-project basis.

Can we use 36" width from the ADA Accessibility Guidelines?

No, the ODOT minimum is four feet.

ADA Retrofit Design Guidance Webinar FAQ (May 2021)

Is there a separate process for designing per the new guidance? For example, if we meet the criteria to make a decision as Engineer of Record (EOR), what documentation/permission is required, and do we need permission from the separate groups (ADA/Roadway/Traffic)?

The guidance under RD21-03 allows the EOR to make decisions if the curb ramp ends up compliant per the inspection form. A design exception is required if installing one curb ramp instead of two at a corner.

RD722 shows a transition rate of 0.5%/ft and RD21-03(B) shows a transition of 1%/ft. Is this correct?

That is correct for the 2021-2022 ADA-funded curb ramps in the transition panels that meet the existing sidewalk remaining in place.

The transition panel allows for a connection between compliant curb ramps and the existing sidewalk. Build a ramp that is as compliant as possible and then connect it to the existing sidewalk with a cross slope transition of 0.5%/foot. For 2021-2022 ADA-funded ramps, it can be up to 1%/foot for the transition panel.

When we cannot meet gutter flow slope applicable standards at the bottom of a ramp, we've requested a design exception to allow a 0.5%/foot cross-slope transition in the ramp to mitigate the steeper gutter flow slope at the bottom of the ramp. I assume that the 1%/foot only applies to sidewalk transition panel and is not applicable mitigation for ramps?

0.5%/foot for the ramp runs is ideal. If there is excessive warping that is not fixable due to existing conditions, then a design exception will likely be required.

Typical transition panels are six feet. Are there any allowances for a shorter transition, such as adjacent to access/driveway?

Need to try to transition at only 1%/foot. Best practice is for sidewalk panels to be square to control to reduce cracking. Unique situations that exceed the applicable standards require a design exception.

Is RD21-01 something that can be distributed to permit specialists that handle permits related to ADA curb ramp construction?

Yes. Crosswalk definition/guidance:

https://www.oregon.gov/odot/Engineering/Doc_TechnicalGuidance/RD21-01B.pdf

Why do we allow 5% gutter slope at signals and only 2% gutter slope at stop-controlled intersections?

Because the applicable standards allow it. ODOT's accessibility consultant indicated that it relates to the interactions of pedestrians and vehicles. This is primarily due to vehicle interaction when they are slowing down.

Is the 2"- 4" gap for detection warning systems (DWS) still a standard? Can radial DWS be used?

The gap on the sides must be two inches or less. If you have a tight radius and end up with a gap between the straight edge of the DWS and the edge of the curb, there is an acceptable allowance of greater than two inches with a design exception.

For single ramps, do we need to provide a level turning space on the street or just a clear space?

For a single ramp, there needs to be a space to facilitate turning at the bottom (in the roadway) that is free from moving vehicular traffic. There is additional flexibility on the street. There are no design slope requirements other than the counter slope requirements at the curb ramp opening.

Is there any guidance for how far we need/should chase grades when the existing roadway slopes are steep?

It is difficult to provide general guidance about this. If there are difficult locations, work with Taundra Mortensen, Senior ADA Standards Engineer to determine the best solution.

For transit stops impacted by ADA curb ramps, do we need to rebuild the sidewalk to meet ADA requirements of 5'x 8' or can we just place back the existing widths?

If we remove something and replace it, it must be compliant.

Does the ADA program have any comments on ramps perpendicular to a curb?

There are many locations in which a correct transition can make ramps perpendicular to curbs an accessible design.

Single Ramps

Would avoiding an impact to a large signal pole (span wire or mast arm) be a reason to go to one ramp?

It could be, but it ultimately depends on the situation. There are so many configurations that it is challenging to make a general statement.

Is avoiding access management a justification for single ramp use under the new guidance (specifically driveway closing or changing width)?

If they are impediments to installing curb ramps, then an alternative design may be permissible.

Are we instructed to always build one ramp if two would require right of way?

The goal is to build two ramps. However, if building two requires right of way, then one will likely be feasible.

Would building one ramp to avoid drainage/driveways/access management impacts be supported? Or just to avoid right of way?

All are supported. We are looking to build fully compliant curb ramps while keeping expenses as reasonable as possible. All situations are unique, and some may require additional conversation with Traffic-Roadway.

Are we instructed to always build one ramp if two would require right of way?

The goal is to build two ramps. However, if building two requires right of way, then one will likely be feasible.

Pedestrian Crossing Closures

***If the offset is greater than 15-degrees, then close the crossing:* Is this to say that the crossing is required to be closed, or that crosswalk closure would be supported? Many intersections are skewed more than 15-degrees which could close every crosswalk across an entire intersection.**

In general intersection considerations, if it would normally be straight across, the new guidance supports closing the crossing.

Under this new guidance, are the "Crosswalk Closure Request" forms required for the 2021-2022 ADA-funded ramp projects?

Yes, we still need to document each location and update the inventory for end-of-year reporting.

If you have a T intersection and can build a compliant ramp that directs pedestrians across the side street, is the highway crossing "closed"? Would it be 90 degrees from the ramp, or would the single compliant ramp need to be between the two crossings?

The design of a single curb ramp must serve both directions of travel. The intent is a single diagonal curb ramp used for both directions of travel.

RD21-03B says that crosswalks "will be closed" if offset/angle exceed 15 degrees or 10 feet. Are those numbers hard and fast? Might there be cases where we want to retain a crosswalk even if those limits are exceeded?

See RD21-01(B) for crosswalk locations and guidance. If there are places (i.e., wide radius corners) where you are close to the bulletin requirements, then it may be worth a conversation with Traffic-Roadway.

We are designing many curb ramps by 2D, GIS, etc. We are constructing many but are hesitant for some areas due to line of sight issues, etc. Will ODOT accept more crosswalk closures where it might be safer to do that instead of curb ramps?

See Technical Bulletin 21-01(B) to help identify where crosswalks exist. The recognized safety issues with determining the best location for a crossing have been a large part of ODOT's work. There is some guidance from ODOT's accessibility consultant, and we are getting perspectives from people who aren't fully mobile or fully sighted, which ultimately might result in closing a crossing.

Signs

What about signposts that are not crash worthy? Can we replace those when impacted?

If the sign is impacted, a crash worthy sign needs to be installed. If you are not impacting the sign, then it won't need to be improved. Ensure the vertical clearances are met with in the areas impacted by construction.

Signals

If a traffic signal loop detector is impacted, is the directive to put a loop back in and not update the signal detection to the current standard?

Yes, for the 2021-2022 ADA curb ramp projects. This does not currently apply to any other projects.

Can you give a little detail on two pedestrian push buttons on one pole and when you will or will not except this?

There is a fair amount of guidance in the Manual on Uniform Traffic Control Devices (MUTCD) on spacing. For example, if there are two pedestrian push buttons, there needs to be a certain space between them. Our focus is to design accessible buttons that make sense based on existing conditions.

With ramps at signals, are separate push buttons required, and are they considered an upgrade?

ODOT is required to create accessible push buttons. If we disturb push buttons, they need to be improved. This will likely mean installing two push buttons where there is currently only one.

When modifying/adding push buttons, what are the requirements around improving pedestrian signal heads?

There should be a pedestrian head wherever there are push buttons. The intention is not to upgrade everything; however, if they are removed to install the push buttons, they will be included in the project.

Access Management

Is access management not required even in cases when a driveway is reduced or shifted?

Generally, there are situations where parts of driveways are affected and the whole driveways are rebuilt. We only need to repair the portion of the driveway that is impacted with this program guidance.

The intent of the sentence in RD21-03(B) is to reflect the flexibility these ADA program funded projects will be given when there are possible Access Management triggers at driveways. The State Traffic-Roadway Engineer will work with the EOR to find a design which either does not impact the driveway (and therefore does not trigger access management) or impact the driveway to a minimal level. This may require a DE. When neither of these options can avoid reducing or shifting an access, then the access can be reviewed and adjusted the minimum amount necessary to restore its function.

Is avoiding access management a justification for single ramp use under the new guidance (specifically driveway closing or changing width)?

If they are impediments to installing curb ramps, then an alternative design may be permissible.

2D vs. 3D Plan Sets

Do we still need to do enough survey to ensure that the 2D design is placed so that we can determine if we still have right of way needs?

Locate the curb ramp and identify what is near it. If a ramp is close to right of way, a survey needs to be included. If right of way is not an issue, then no survey is needed.

There are many different forms of a 2D design project. In some cases, we have LiDAR or traditional survey. Is the EOR on-site requirement applicable to all 2D projects or just in cases where survey data was limited to a tape measure and a smart level?

A 3D design includes all data required. A 2D design only includes what the EOR believes is necessary to confidently design a compliant curb ramp.

2D/3D is not a binary choice; there is a spectrum. What I'm hearing is if you choose to do the "minimum" (tape and level 2D) in design, expect to be onsite more for interpretation. I strongly believe there is a middle ground between 2D and 3D that shouldn't require too much on-site interpretation. Does the new guidance provide that flexibility?

Yes, the new guidance provides the flexibility to deliver compliant ramps.

With 2D design, what about drainage at corners? How is gutter line flow reviewed or addressed?

That is up to the EOR. They still must make the gutter flow (i.e., no ponding), but the new guidance provides the flexibility to adjust. Do a good design and then figure out how components will be met with a 2D approach, if possible.

Working with Contractors

Will all Contract Administrator-Construction Engineering scopes of work include the requirement for EORs to be present on site?

Yes, the program is looking to include greater participation with the EOR.

Can the "representative" be someone from the ODOT Construction Office that is administering the project? If the EOR and the representative can discuss issues together, that could reduce the onsite time required of the EOR.

The Construction Office's job is to get things built per the plan set, not alter the design. The EOR is responsible for providing design that will fit the circumstance and be compliant.

EOR changes on site could lead to the contractor saying they did not bid it that way. Has ODOT received any claims on this so far?

We are not aware of any. When we show up on site interested in helping the contractor, they tend to work together to resolve the issue.

The requirements for the EOR on site seem to be too much. I have done one of these internally and was able to handle most questions by phone. It also seems that this is relieving the contractor of their responsibility for field verification.

When the consultants do the design and are the inspectors, we are relatively comfortable understanding that the inspectors are representing the EORs. The inspector is the first in line to help resolve issues. When they can't, the EOR is contacted. 2D projects tend to require additional interpretation to get the circumstance to work. The EOR needs to be available when issues come up.

What about construction tolerances if we remove design tolerances?

We still need to have compliant ramps at the end of the process. EORs should only approve designs that will result in compliant ramps.

Does section 00540.40 relate to roadway curb and gutter runoff structures? If not, what holds the contractor to alignment and grade tolerance? The survey manual? This specification references sidewalks, ramps, and intersections.

This specification 00540 is related to PCC for structural concrete for Bridges and other Structures. A bridge is defined in the Oregon Specifications as "a single or multiple span Structure, including supports ... over a watercourse, Highway, Railroad, or other feature." Structures is defined in the Oregon Specifications as "Bridges, retaining walls ... buildings, culverts, manholes, catch basins ... and other similar features which may be encountered in the work." Curb and Gutter are covered under Section 00759 Oregon Specifications.

Section 00759 of the Oregon Specifications holds the contractor to alignment and grade tolerance: "This work consists of furnishing, placing and finishing Commercial Grade Concrete curbs, concrete curb ramps with curbs, islands, traffic separators, driveway, sidewalk ... in close conformity to the lines, grades and dimensions shown or established. Section 150 – Control of the Work, discusses the authority of the Engineer in the Oregon Specifications who is acting directly or through authorized representatives of the agency.

Inspections

Will the inspection form be revised to reflect only the applicable standards, or will it still include all the ODOT standards?

There are no changes to the inspection form. The form includes all the specifications needed for compliant curb ramps, which do not change because of the new guidance.

Dome spacing is not addressed in the inspection form, so will dome spacing be a rejection criterion?

If there is more than one panel, they should be treated as a single panel. The gap requirement shown does not apply to the spacing between individual bumps, just along the edges.

Design Exceptions

Are there any design exceptions that will need to go through the Salem ADA group, or can they all be handled in region?

Right now, all design exceptions go to Salem through the regions. This bulletin gives the ability to design in a different way within the EOR's comfort level.

If we are doing away with design tolerances, how does this affect the design tolerances built into the design exceptions?

We are not doing away with tolerances. We are adding flexibility so that EORs can decide to use a design requirement less than ODOT standards without needing a design exception.

Are single ramps acceptable (i.e., Std 922, 938?) Would they still require design exceptions? If so, are they easier to have? How does that weigh against impacts to right of way?

The goal is to build two ramps. If building two requires right of way and building one ramp does not, it will be easier to approve a design exception for a single ramp.

Resources

Crosswalk definition/guidance:

https://www.oregon.gov/odot/Engineering/Doc_TechnicalGuidance/RD21-01B.pdf

Technical guidance bulletin:

[https://www.oregon.gov/odot/Engineering/Doc_TechnicalGuidance/Published%20RD21-03\(B\).pdf](https://www.oregon.gov/odot/Engineering/Doc_TechnicalGuidance/Published%20RD21-03(B).pdf)

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