ADA COMPLIANCE AND WORK ZONE SAFETY ON LOCALLY ADMINISTERED PROJECTS

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WHAT WE'LL COVER TODAY

- Brief overview of the ADA
- PROWAG
- Standard Details
- Misc. Sidewalk and Parking Stuff
- Work Zone Compliance

AMERICANS WITH DISABILITIES ACT OF 1990

Prior to the ADA - Sec. 504 Rehabilitation Act (1973)
Accessibility on Federally funded facilities

In 1990, President George H.W. Bush signed the Americans with Disabilities Act (ADA)

The intent of ADA is to allow people with disabilities to participate **fully in society.**

- **Accessibility in all facilities, workplaces, commercial buildings. (When built or altered.)**

ADA compliance is not only about accessibility…
It is about **Safety**!

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PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG)

- ADA created the US Access Board, which develops standards for ADA.
- The Access Board, with help from the USDOT, developed PROWAG.
- PROWAG has been approved.
- USDOT must adopt its own rules and guidance.
- Much of what we build follows PROWAG
- Perpendicular vs. Diagonal ramps

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MOBILITY DEVICES COME IN MANY SHAPES AND SIZES.

Source: Bayshore Medical Supply

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MAINE DOT STANDARD DETAILS – CURB RAMPS

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MAINEDOT STANDARD DETAILS

MaineDOT has more comprehensive Standard Details for Pedestrian Ramps 801(11-27) and Detectable Warning placement 608(02).

We are updating our details, and we have adopted designs that require cross slopes of **1.5%**.

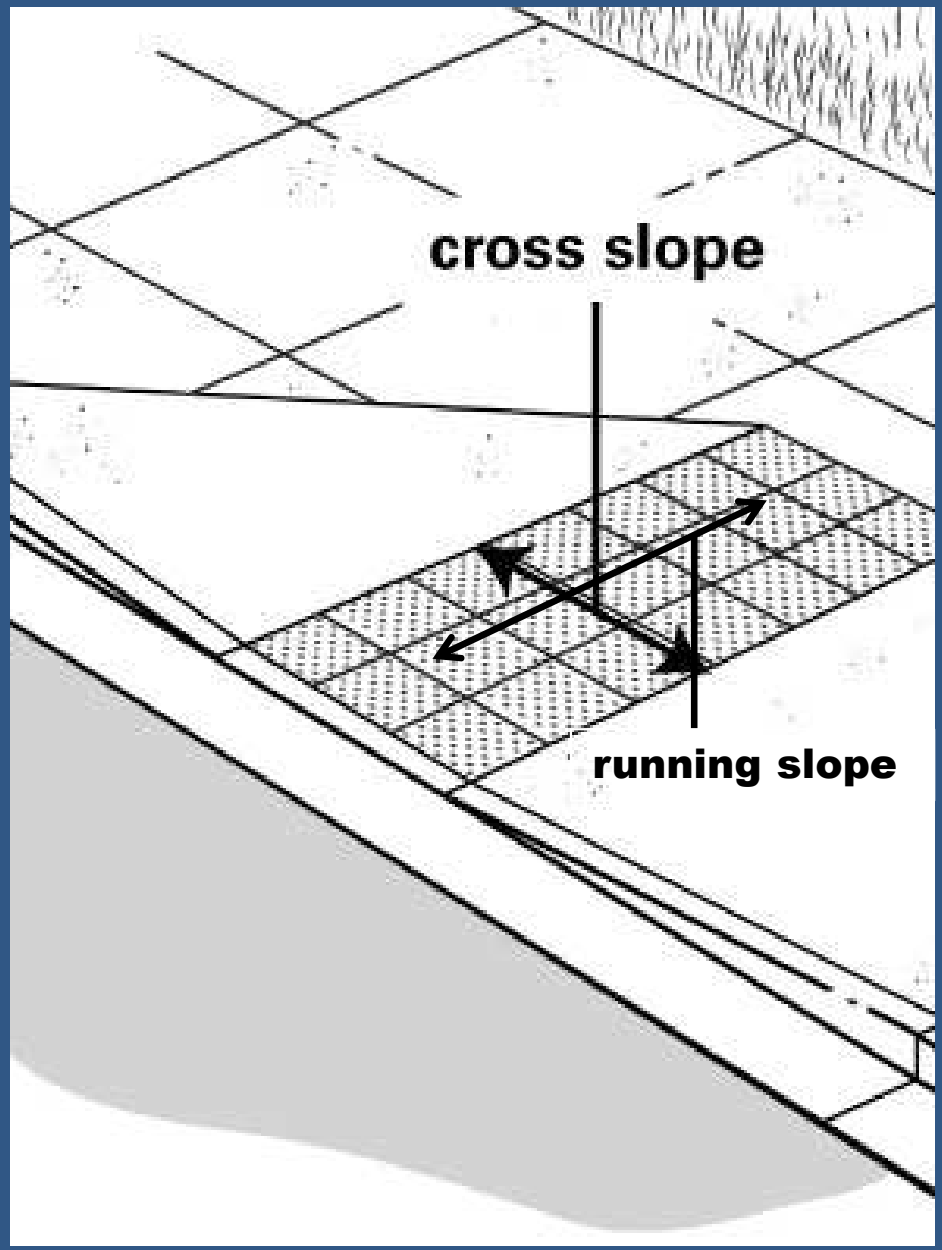
www.maine.gov/mdot/civilrights/ada/docs/2021/ADA_rev_jun10.pdf

RUNNING SLOPE & CROSS SLOPE

Running slope should be no more than 8.3% or 1:12. Build lower if possible.

Although PROWAG allows for 2.1% cross slope, MaineDOT will require no more than 1.5%.

Both slopes should be measured at the center of the ramp.



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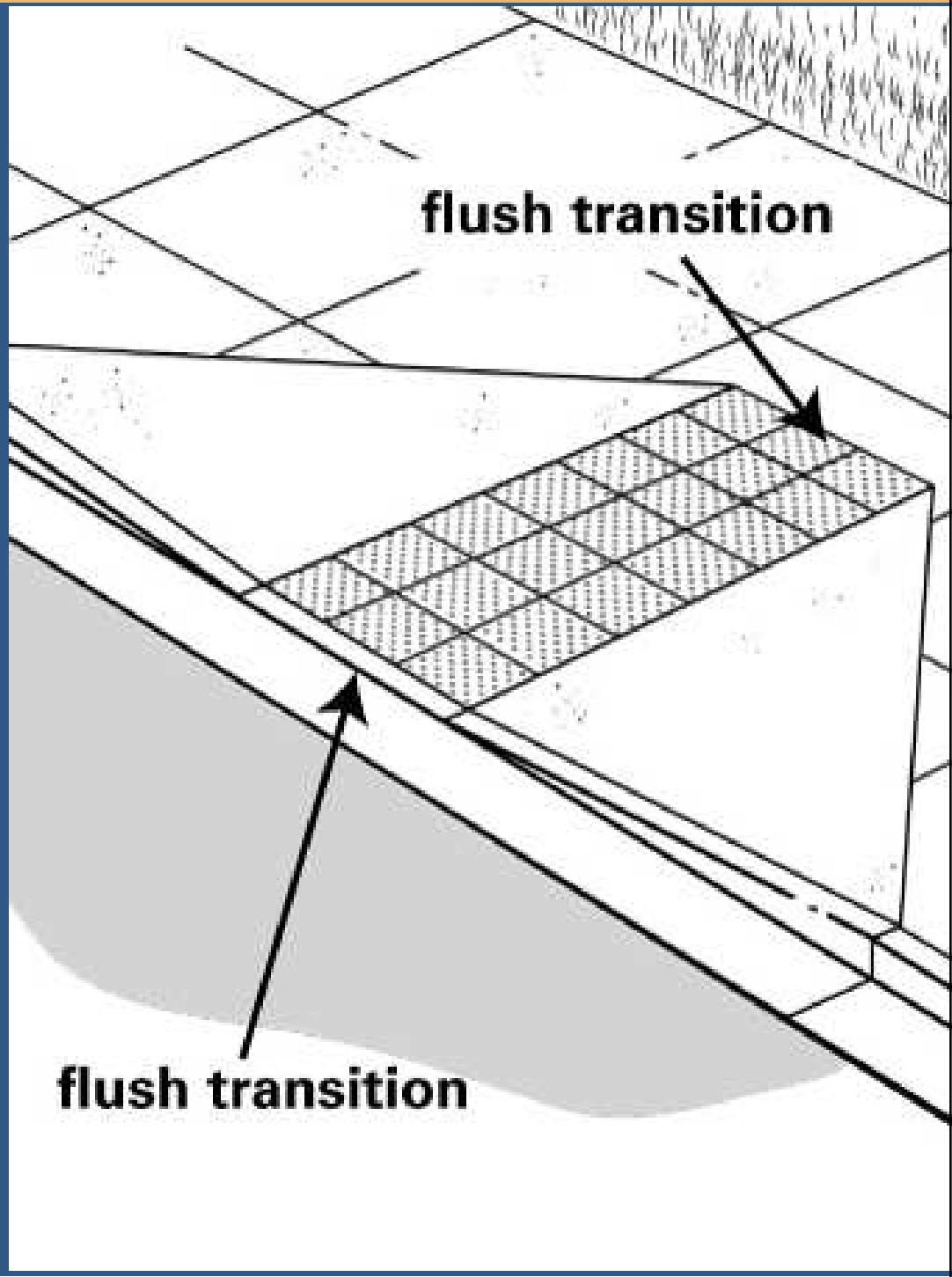
FLUSH TRANSITIONS

The curb ramp must be flush with the pavement and any transition to the ramp.

Allow for a maximum ½ inch.



FLUSH?

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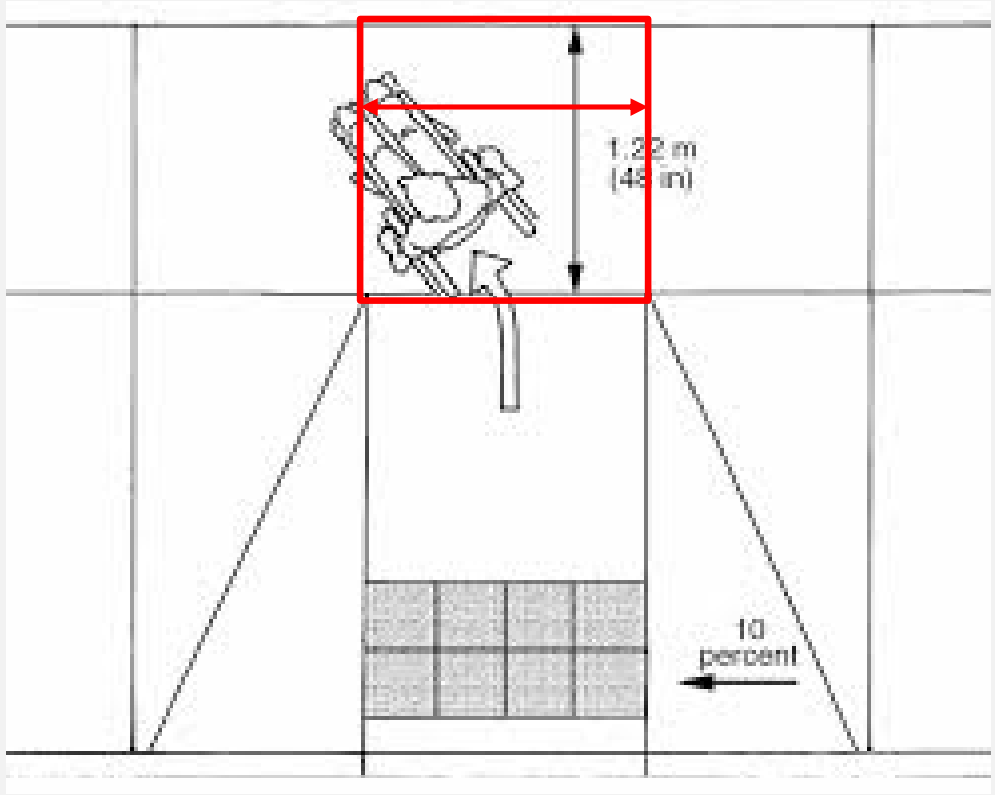
LEVEL TURNING SPACE (LANDINGS)

A level landing is vital to ensure that a chair or mobility device can make a turn on and off the ramp *or* go past the ramp.

Width of the ramp.

Level landings should be no more than 2% in both directions.



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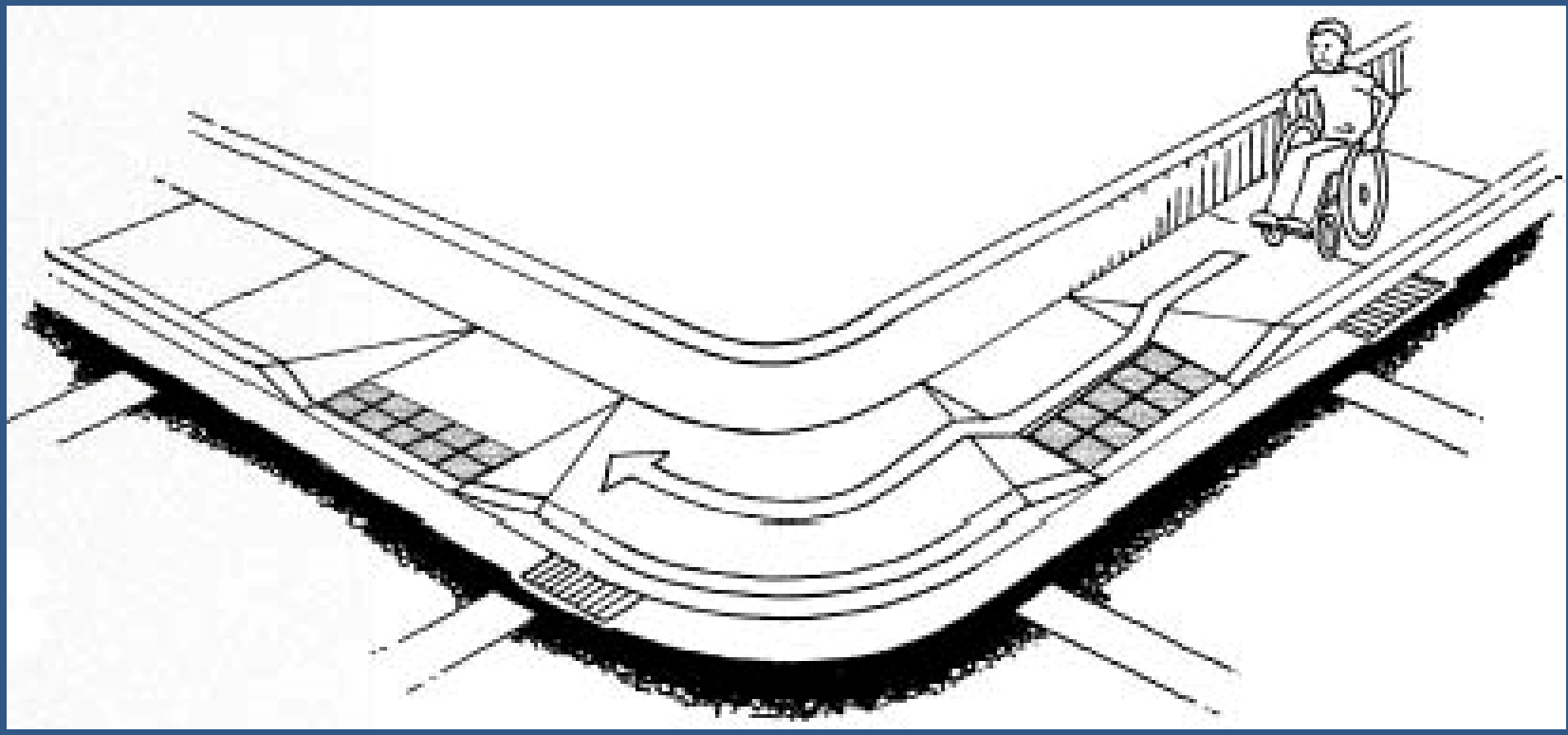
WHY WE REQUIRE LEVEL TURNING SPACES.



Designing Sidewalks and Trails for Access, FHWA 2002

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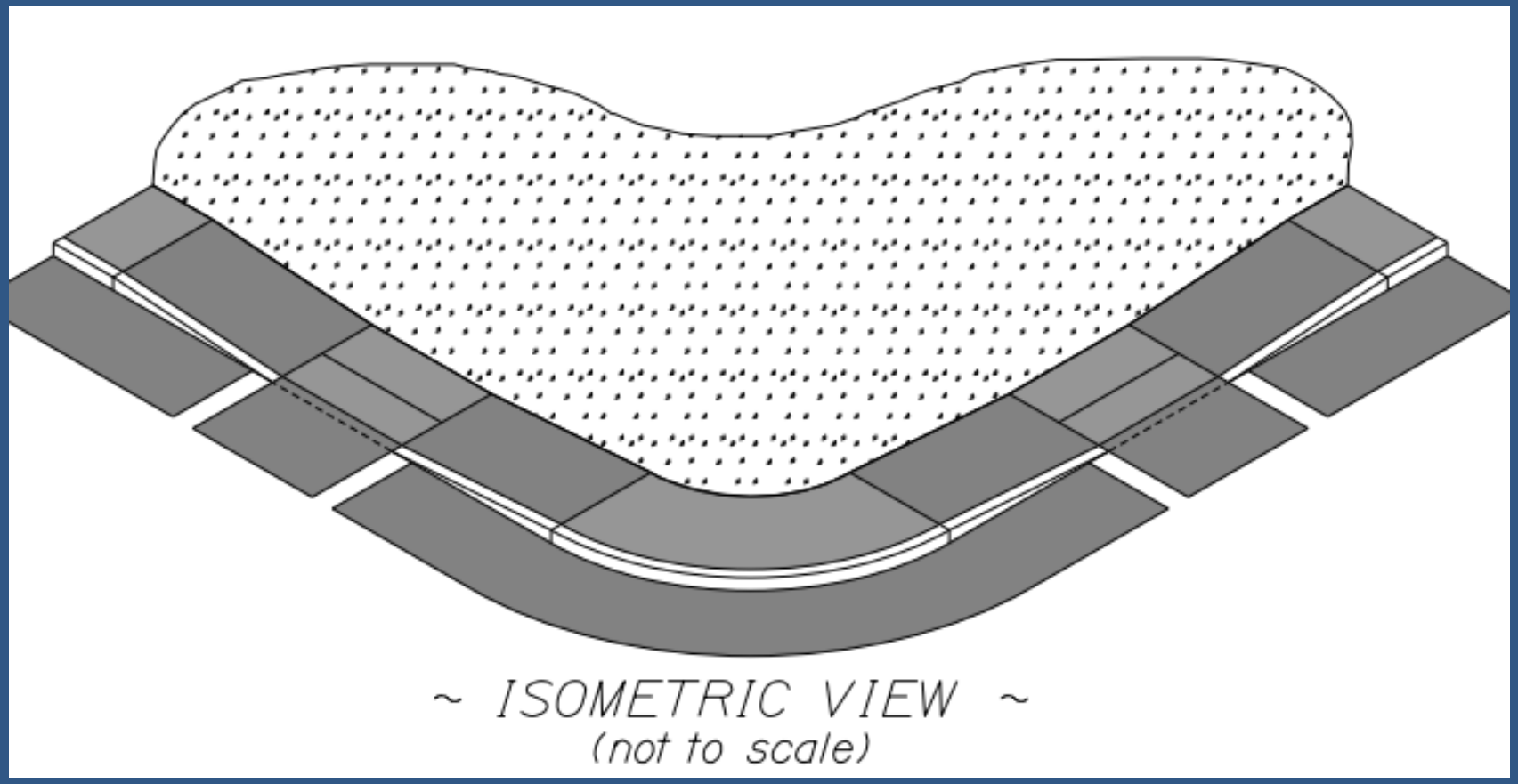
WHAT WE BUILD INSTEAD…



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DETECTABLE WARNINGS (DW)

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WHY DO WE HAVE DW'S?

DETECTABLE WARNINGS

Plate or area at bottom of ramp with raised truncated domes.

Domes alert people with visual impairments to STOP at roadways.

They do NOT direct a person.

Should be placed FULL width of the curb ramp.

Should be at least 2 feet deep.

MORE ON DETECTABLE WARNINGS

Where are DW's needed?

- At street intersections with signalization:
  - Stop sign
  - Signal
- At mid-block crossings
- At some RR crossings

DW's are not needed at driveways or parking lots unless they warrant signalization.

… AND MORE

- ADA allows for a border around the detectable warning fields. This has allowed us to provide room between the tip-down and the plate itself.
- PROWAG, however, requires plates to go the full length of the opening, with no borders allowed.
- Therefore, our standard will change with the adoption of PROWAG by the Access Board.

NICE TRY, BUT NO

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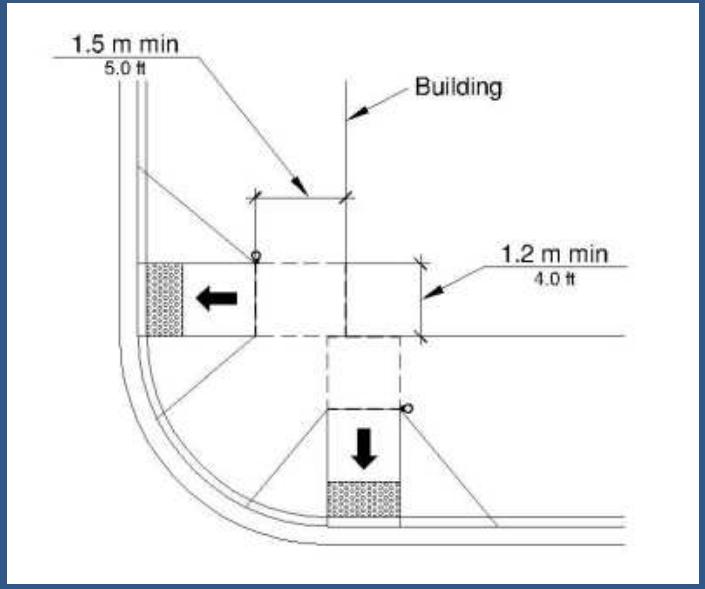
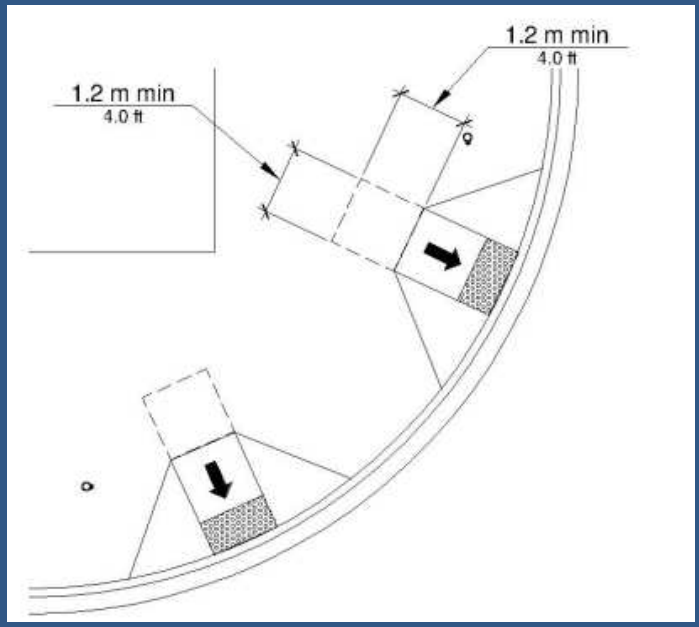
PERPENDICULAR RAMPS

PROWAG Is Preferred

Turning space is above the ramp: 2% x 2% and 4 feet.

The tip down/flared side (curbing) should not exceed 10%





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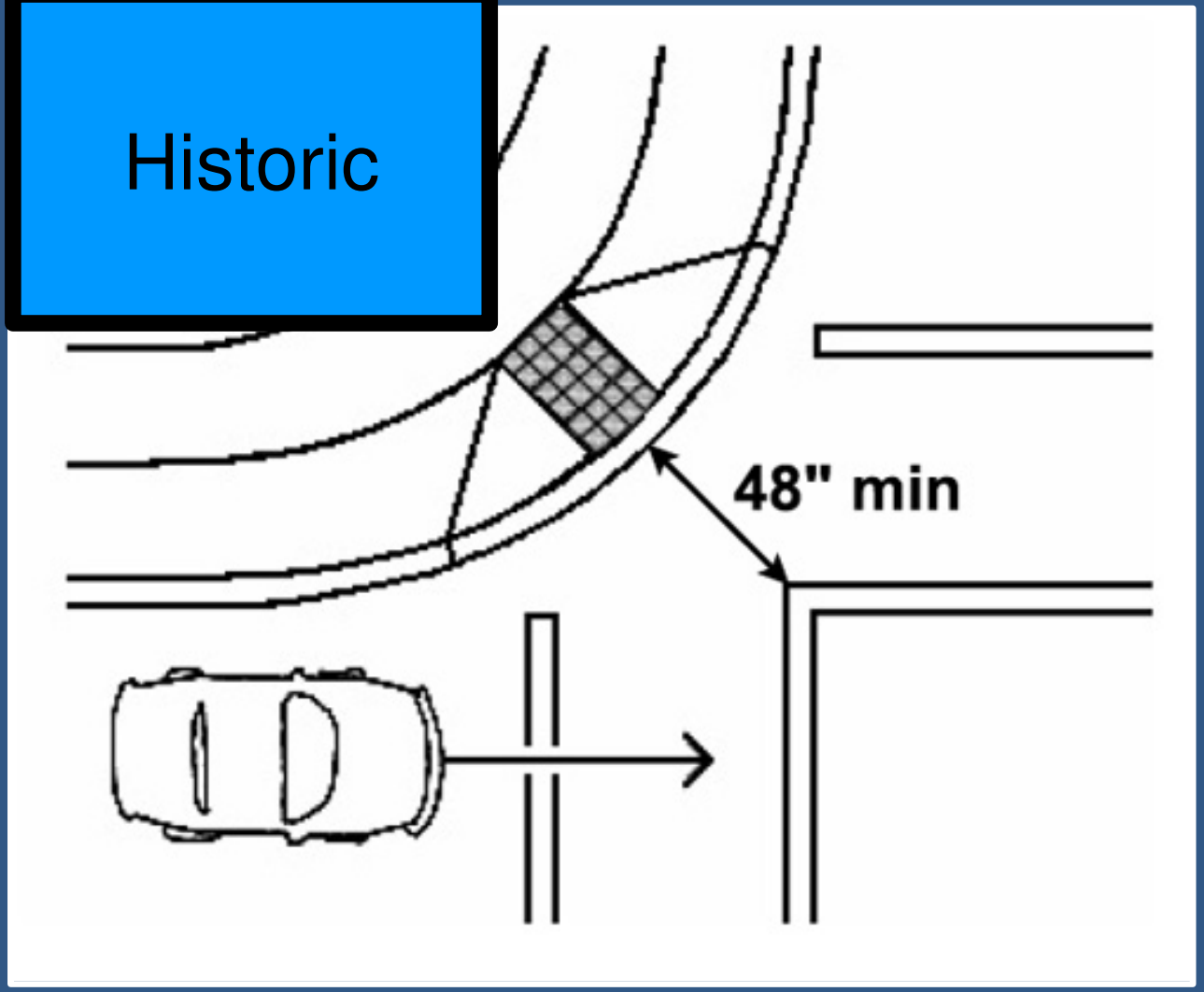
DIAGONAL CURB RAMPS – A LAST RESORT

Historic



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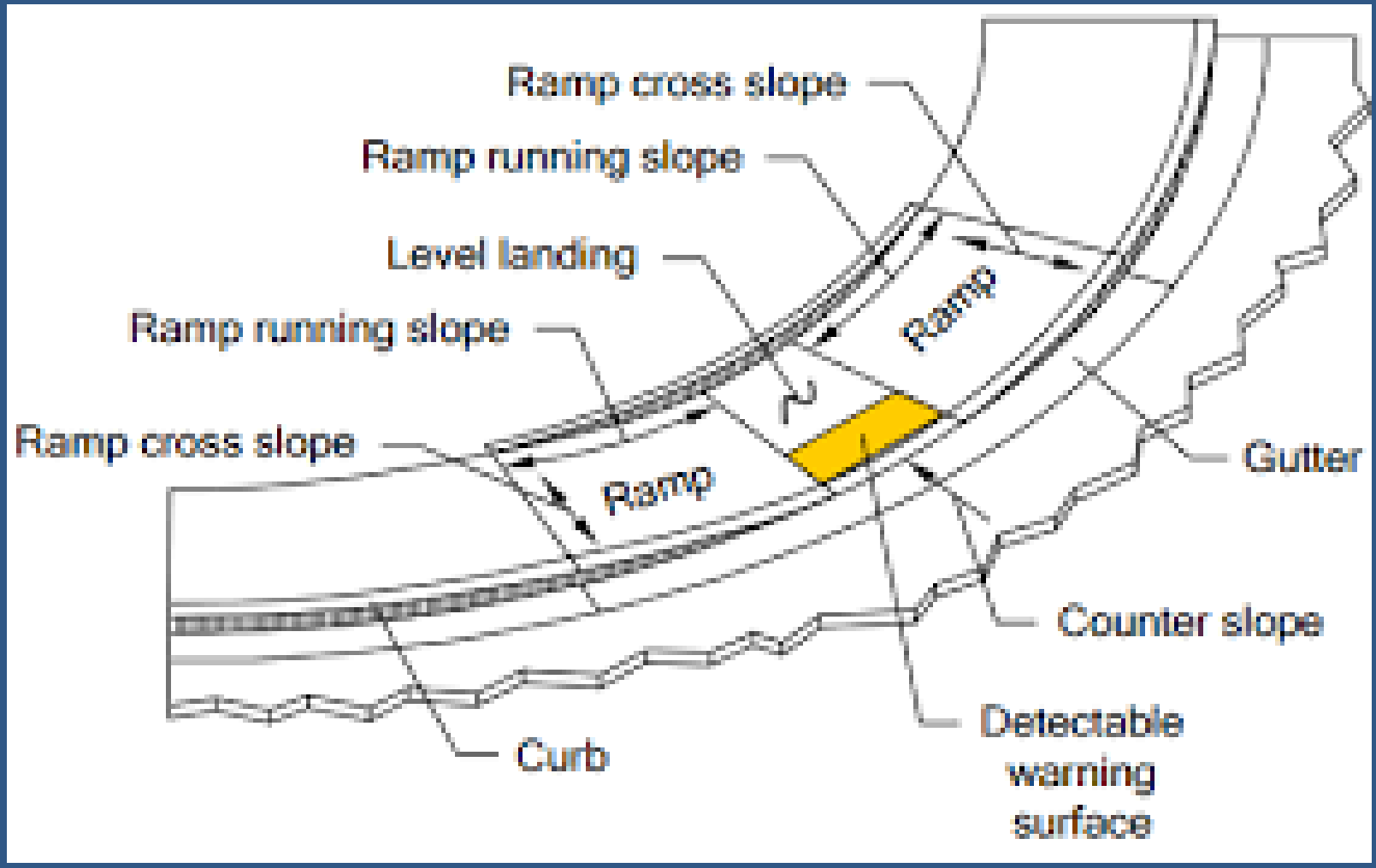
COMPLIANT DIAGONAL PARALLEL RAMP



PARALLEL MIDBLOCK

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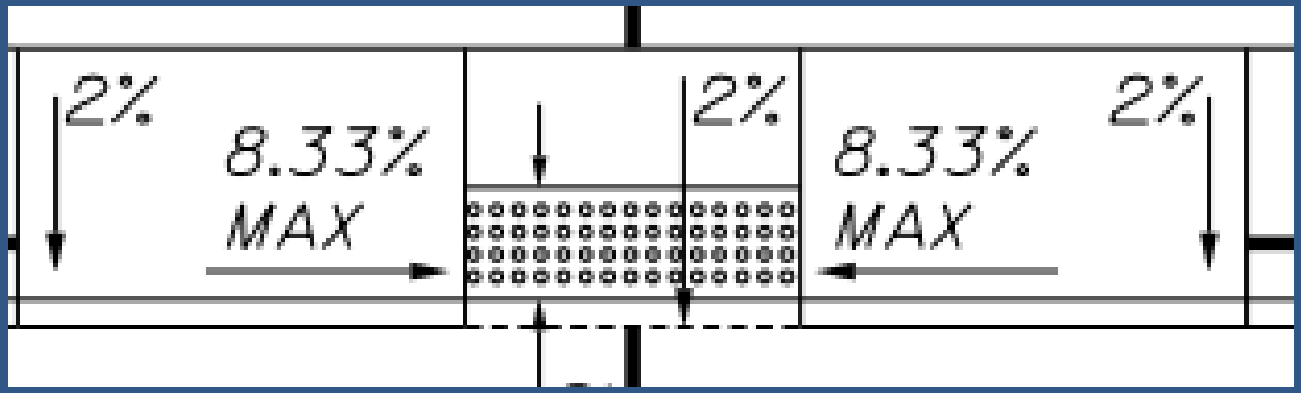
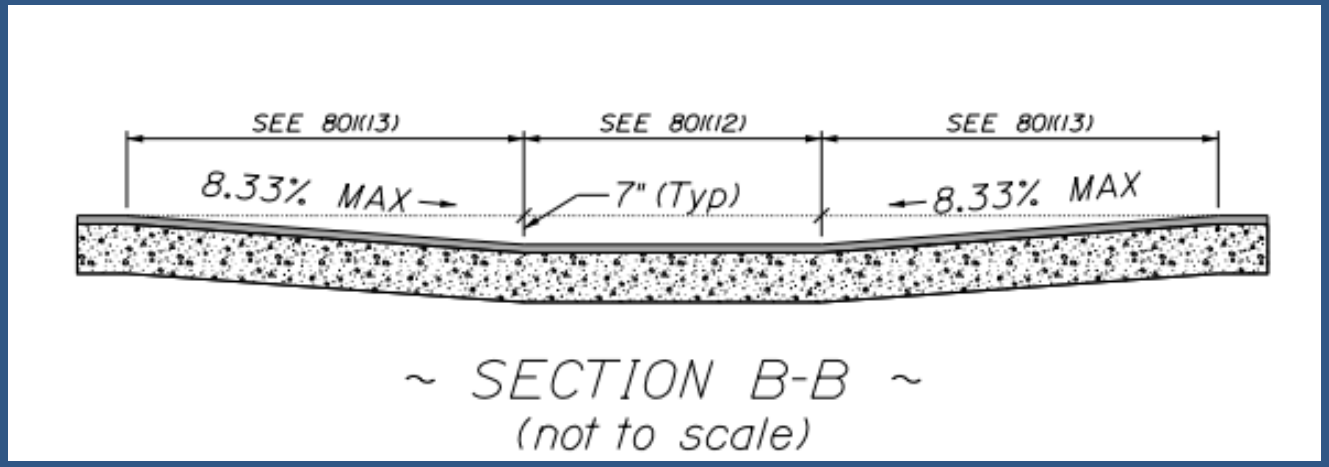
PARALLEL RAMP DETAIL 801(14)





~ SECTION B-B ~
(not to scale)

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SIDEWALKS

- On state roads, sidewalks should be built 5 feet wide, *behind* curb.
- A sidewalk can be 4 feet *if necessary*, **BUT** such a sidewalk must have a 5'x5' turning space every 200 feet.
- Sidewalks should be firm, stable and slip-resistant.
- Sidewalks must have cross slopes no more than 1.5%.

ON-STREET PARKING

- No parking allowed within 20 feet of an unsignalized crosswalk (includes mid-block) and 30 feet of a signalized intersection.
- Parking restrictions can be removed when bump-outs or curb extensions are built.
- Need to allow the pedestrian to be seen by the traveling public.
- "No Parking" signs should be installed.
- Accessible parking should be closest to curb ramps.

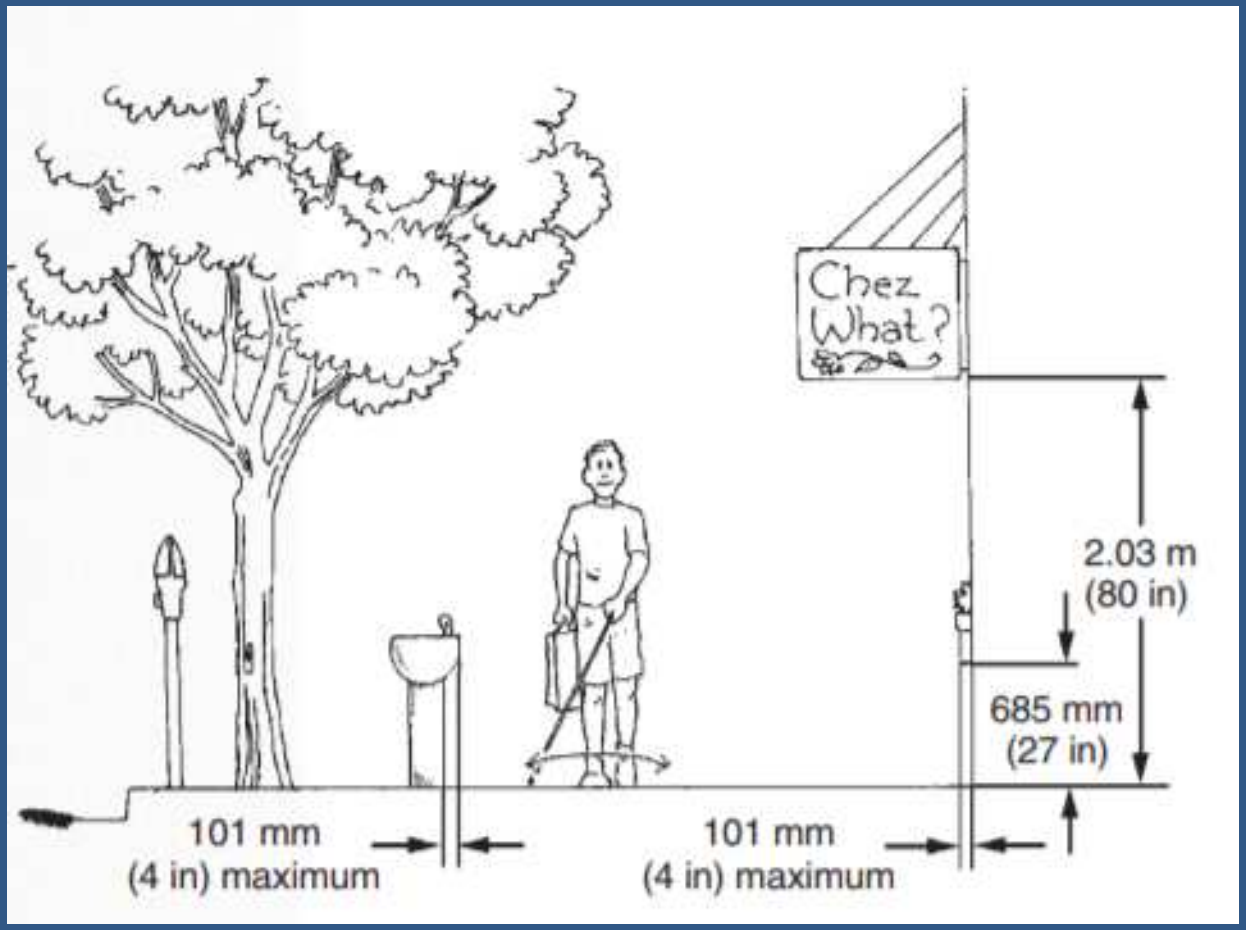
ABUTTERS

ADA does not require us to make every doorway, walkway or private connection compliant, BUT we cannot make it worse.

2010 ADA Design Standards for Accessible Design, **Sec. 202.3.1 Prohibited Reduction in Access**. An alteration that decreases or has the effect of decreasing the accessibility of a building or facility below the requirements for new construction at the time of the alteration *is prohibited.*

It is always good to work with abutters to make the best transition possible.

SIDEWALK CORRIDORS



Designing Sidewalks and Trails for Access, FHWA 2002

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PINCH POINTS AND OBSTRUCTIONS

PROWAG requires the travel way to be 4 feet wide.

Think about the user…

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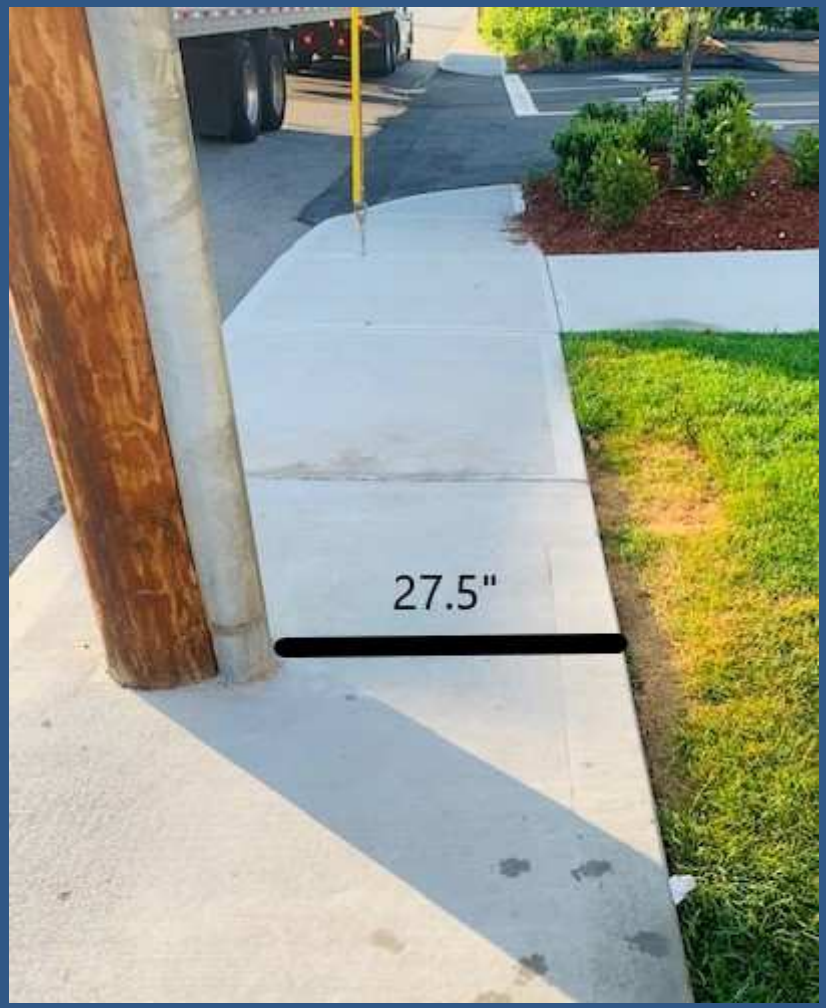
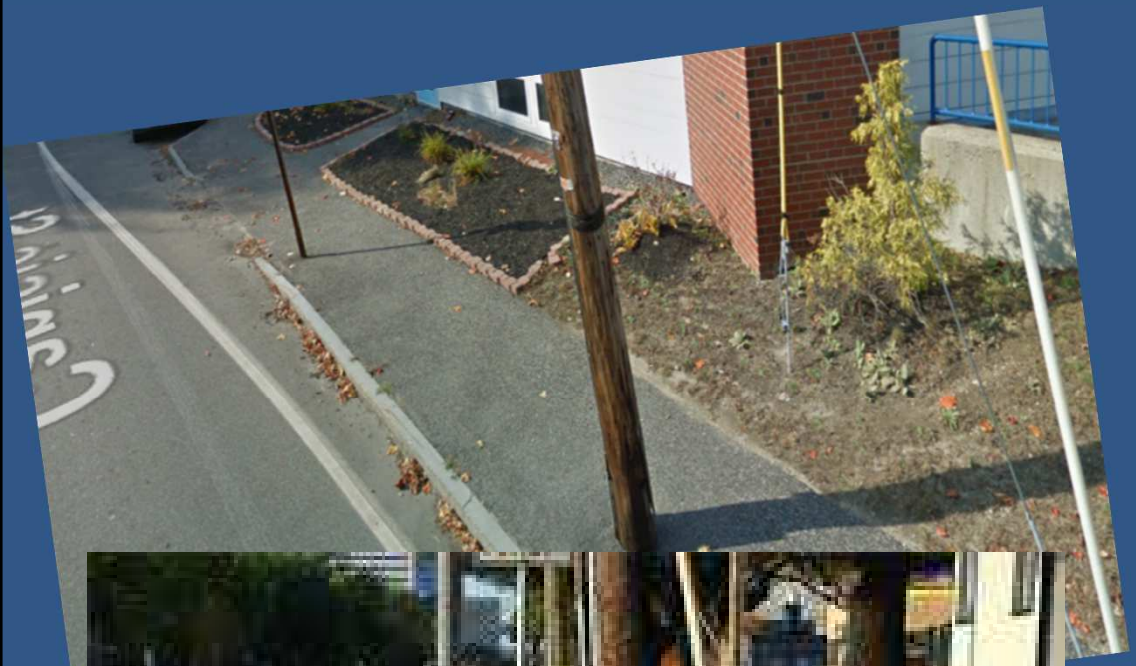
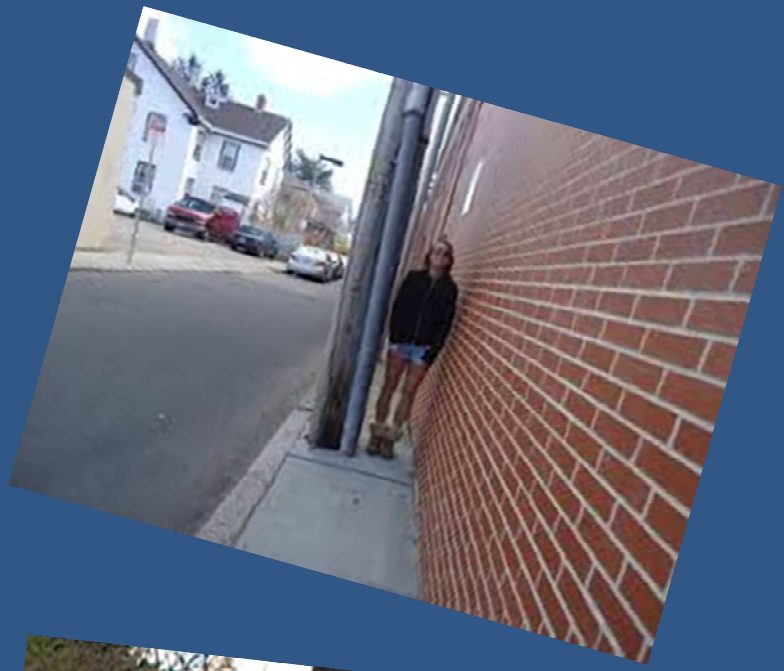
THINK OF THE USER







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TECHNICAL INFEASIBILITY

The 2011 PROWAG recognizes that it is not always possible for altered facilities to fully comply with new construction requirements because of existing physical constraints.

Where existing physical constraints make it infeasible for altered facilities to fully comply with the requirements for new construction, compliance is required to the maximum extent feasible *within the scope of the project.*

MAINEDOT ADA WEBSITE

MaineDOT ADA Website

https://www.maine.gov/mdot/civilrights/ada/

Curb Ramp info on MaineDOT Map Viewer

https://www.maine.gov/mdot/mapviewer/

Training videos at:

https://www.maine.gov/mdot/civilrights/ada/training/

PEDESTRIAN WORK ZONE SAFETY

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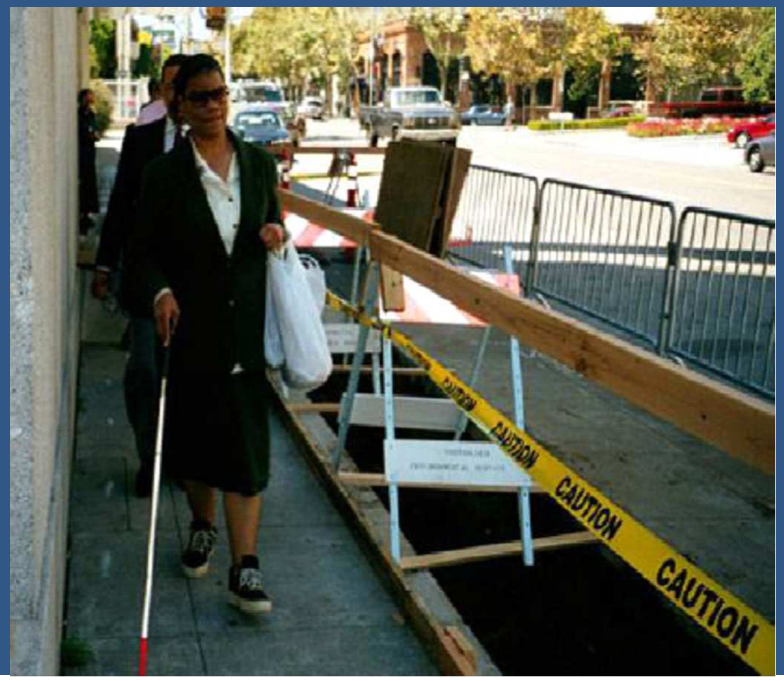
TRAFFIC CONTROL PLANS

- If there are pedestrian facilities within the work zone, they must be considered in the contractor's Traffic Control Plan.
- PROWAG requires that alternate accessible routes be provided.
- This must be discussed at the preconstruction meeting for a project.

ALTERNATE ROUTES

Contractor must provide detectable alternate routes when pedestrian access route is detoured.

Same-side is best, if feasible.



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CONSIDERATIONS FOR PEDESTRIANS IN WORK ZONES

- Provide physical separation from workspace and vehicular traffic.
- Adequate and safe detour(s) whenever sidewalks are closed or blocked.
- Maintain pedestrian access to businesses, residences, transit stops, etc.
- Provide temporary nighttime lighting for pedestrian walkways throughout the work zone.

ENSURE ADA COMPLIANCE

- ✓Sign closure ahead of construction.
- ✓Can have a minimum sidewalk width of 48", erect curb ramps, and provide passing space (minimum 5 foot by 5 foot space every 200 feet).
- ✓Maintain a consistent width and smooth surface to avoid creating tripping danger and to minimize barriers to wheelchair use.
- ✓Make all barriers and channelizing devices detectable for pedestrians with visual disabilities.
- ✓Ensure that there is a continuous detectable route. Safe handrails without nails or splinters and toe rails.

THINK ABOUT THE USER

Pedestrians won't want to backtrack to other intersections or add distance to their trips.

More importantly …

People who have physical impairments may not be able to do so.

GUIDANCE

Manual on Uniform Traffic Control Devices (MUTCD) 2009:

- Part 6 Temporary Traffic Control
- Chapter 6D.01 Pedestrian Considerations
- Chapter 6D.02 Accessibility Considerations

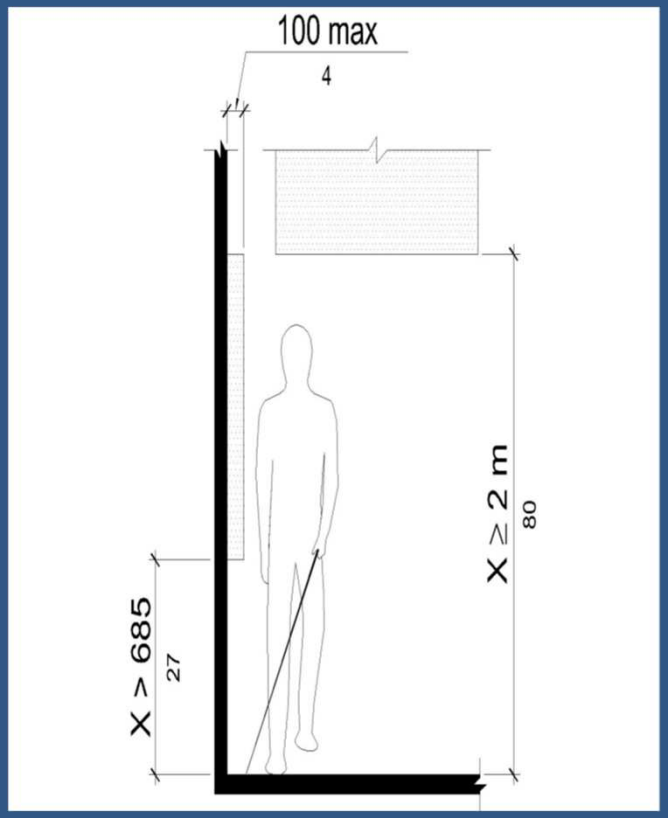
SAFETY

MATERIAL STORAGE:

When laying out the work zone, consider designating locations where materials and supplies can be stored safely away from pedestrians

VERTICAL OBSTRUCTIONS

Overhead obstructions can be hazardous to pedestrians & cyclists



Draft PROWAG protrusion limits.
(Larger text: millimeters. Smaller text: inches.)

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BE CAREFUL HOW YOU LEAVE A JOB SITE. THINK ABOUT THE USER!

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TRIPPING HAZARDS

PROBLEM

John Shaw 02/17/15

SOLUTION

http://www.marispumps.com/products/road-ramp/pedestrian-ramp-hire.php

FLAGGING PEDESTRIANS AND BIKES THROUGH THE WORK ZONE

Depending on the distance, duration of the project and pedestrian and bike traffic, you can consider flagging people and bikes through a work zone.

REMEMBER to consider what happens when project is vacant and there are no flaggers.

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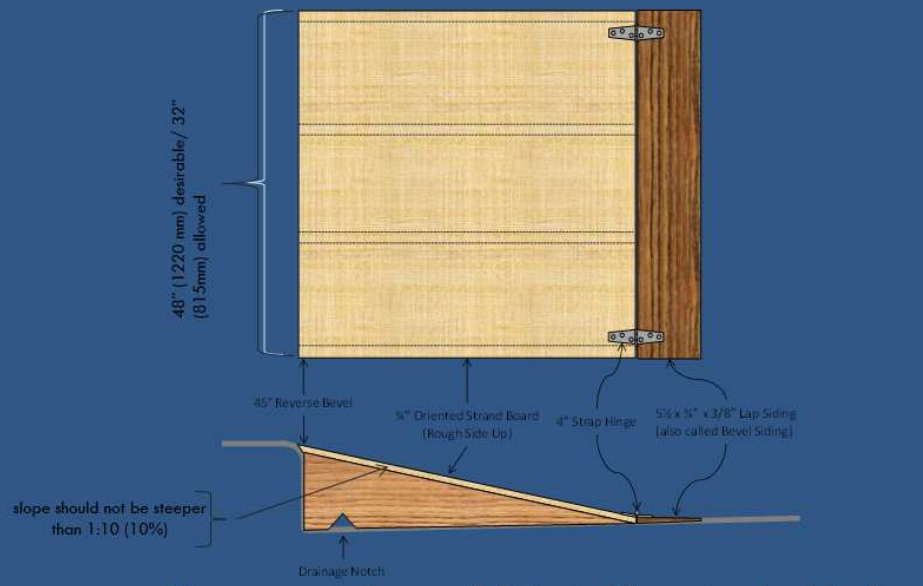
PORTABLE & TEMPORARY RAMPS

Portable curb ramp (proprietary).

https://www.youtube.com/watch?feature=player_embedded&v=LO_eqNZ-pzE



Temporary curb ramp fabricated from standard lumber

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TIPS TO BUILDING MULTIPLE FACILITIES.

When building new or replacing sidewalks, look to see what is existing before you build.

If possible, work on one side of the road, then the other so you can use any existing facilities.

When reconstructing or constructing complicated intersections, work one side and then the other.

DO NOT tear up an entire intersection at once.

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EFFECTIVE BARRIERS

Source: Vermont DOT

Source: Pexco TPAR Barricade

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GOOD EFFORT, BUT...

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WHAT **NOT** TO DO…

Construction tape is NEVER acceptable to protect a work area.

Cones are not acceptable barriers for work zones.

Barrels are not good unless they are side-by-side and provide continuous barrier with toe rail at the bottom. They should be used only if no other option is available.

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CAN YOU SEE THE PROBLEM?

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MORE EXAMPLES OF WHAT NOT TO DO…

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COMMON SENSE ?

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