Streets, Sidewalks, and the Americans with Disabilities Act

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Preliminaries

- Welcome
- Restrooms
- Cell phones and pagers – don’t be “that” guy or gal
- Questions – any time
- Sharing of thoughts or examples – any time

NOTICE

This training session is being recorded using UD Capture. Participants will not be filmed, but a voice recording of the training room will be integrated with the presentation material. Your attendance at the training session is interpreted as your permission to be recorded.
Who’s Here?

- Quickly around the room
  - Name?
  - Where do you work?
  - What do you do (10 words or less)?
  - What’s your knowledge of ADA in transportation?
    - I can’t spell it
    - I can spell it
    - I work with it a good bit, but not sure of some things
    - I know more than the guy in the front of the room ever will (this could well be true but it will get you called on... a lot)
  - If there’s one thing you’d love to hear discussed today, it would be... (no promises)
Delaware $T^2$ Center

- $T^2$ Centers or LTAPs located in all 50 states
- Funded by FHWA and state DOTs
- Mission – promote training, tech transfer, research implementation at local level
- Delaware $T^2$ hosted by University of Delaware, part of Delaware Center for Transportation
- Delaware $T^2$ funded by FHWA and DelDOT
Outline

- ADA background
- Enforcement
- Why ADA matters
- Civil case summary
  - Break
- The standards, the specs, the guidelines, the policies
  - Federal level (U.S. Access Board)
  - State level (DelDOT)
- Transition Plans
- Technical resources
  - Break
- Conflict examples (and resolution)
- Construction and tolerances
- Pedestrian maintenance of traffic
- Maintenance of accessible route
Rules of Engagement

- Lots of photos and illustration in here
- Unless noted otherwise, photos are by Matt Carter, Delaware T$^2$ Center, or the public domain
- Thanks to those who granted permission for use of their photos and illustrations
- We’re not picking on anyone – get over yourself – every jurisdiction has sidewalks that are brilliant and probably some that, let’s say, fall short
- We learn by looking at examples, so lighten up
The Equal Opportunity for Individuals with Disabilities Act

- Better known as the Americans with Disabilities Act, ADA
- Signed into law July 26, 1990
- 42 U.S.C., Chapter 136, Section 12101, et seq.
- It is a civil rights act
- While not specific to transportation, difficult to find a more far reaching transportation policy for the disabled outside of U.S.

Predecessors, Foundations

- Rehabilitation Act of 1973 – applies to fed funded facilities
- Architectural Barriers Act of 1968 – applies to fed funded facilities
- Civil Rights Act of 1964
ADA Origins

- Multimodal travel
  - Motor vehicles
  - Public transit (buses, trains, light rail)
  - Pedestrians, bicyclists, skateboarders, rollerbladers, Segwayers

- Transportation Design
  - Historically focused (almost exclusively) on motor vehicles
  - Motor vehicle throughput - paramount
  - Pedestrians & bicyclists – a questionably necessary nuisance
Enlightenment
• Still a bit elusive

So what changed all that (or what is starting to change all that)?
• Federal Aid Highway Act of 1987
  ▪ Yeah, not so much
• ADA - 1990
• ISTEA – 1991
• TEA-21 – 1998
• SAFETEA-LU – 2005
• Civil lawsuits (tort claims)
ADA – What Is It?

- ADA – the Act/Law
  - Five Parts
    - Title I: Employment
    - Title II: Public entities and public transportation
    - Title III: Public accommodation and commercial facilities
    - Title IV: Telecommunications
    - Title V: Miscellaneous provisions

- Regulations
  - Scattered – particularly relevant examples
    - Title II, Subtitle A – 28 CFR Part 35 (DOJ’s territory)
    - Title II, Subtitle B – 49 CFR Part 37 (DOT’s territory)

- Standards
  - Uniform Federal Accessibility Standards (UFAS) – from ABA (1968)
  - ADA Accessibility Guidelines (ADAAG)
  - Public Right of Way Accessibility Guideline (PROWAG) – coming soon?
Some No Nos

No Ramps – the most basic of ADA requirements
Some No Nos

No detectable warnings (raised truncated domes)
Some No Nos

Accessible routes?

Photo: Kelly Mannering
Some No Nos

Ponded water or debris at a ramp
Some No Nos

Poor pedestrian management during construction
Some No Nos

New construction (~2007) – yet, no curb ramps
Some Translations

• Slopes
  • 1:50 = 2%
  • 1:48 ~ 2%
  • 1:20 = 5%
  • 1:12 = 8.33%

• If your curb height is 7” and you want a maximum 1:12 slope (and you do; stay tuned), the ramp must extend back at least 7’
  • ¼” per foot is 2.08%
  • ½” per foot is 4.17%
Some Perspectives

1:48 ⇒ ~2%
Maximum Sidewalk Cross Slope
Typical Street Cross Slope (Crown)

1:12 ⇒ ~8.33%
Maximum Ramp Slope

1:20 ⇒ 5%
Beyond This Slope – Becomes a Ramp
Enforcement – Who’s in Charge?

- U.S. Department of Justice
  - Settlement negotiations first
  - Federal lawsuits second - $55,000 civil penalty first offense
- U.S. Department of Transportation and other federal agencies
- U.S. Access Board
  - 1968 Architectural Barriers Act
  - Section 502 of Rehabilitation Act of 1973 creates Access Board
  - Min Guidelines and Requirements for Accessible Design (1982)
  - 1990 Americans with Disabilities Act
  - ADAAG published 1991
  - Coming soon? PROWAAC’s Accessible Public Rights of Way
- Citizens and citizen groups
  - Citizen suits similar to those under the Clean Water Act
Why ADA Matters – Part I

U.S. Access Board – “Accessible Sidewalks”
• This is the first of several quick videos we’ll watch that illustrate the wide array of disabilities and associated challenges that vary with them
• “Design Issues for Pedestrians Who Use Wheelchairs”
  ▪ Notice different needs between manual and power chairs
  ▪ They have different maneuverability advantages
  ▪ Importance of side slopes and running slopes, landing zones, adequate unobstructed sidewalk width
  ▪ Effect of severe street crowning, ponded water at ramps, elements that can force one out of the marked crosswalk
Why ADA Matters – Part II

U.S. Access Board – “Accessible Sidewalks”

- This is the second of those quick videos
- “Design Issues for Pedestrians With Ambulatory Impairment”
  - Notice challenges different than for those in wheelchairs
  - Think about how changing weather conditions come to play
  - See how difficult it is to obtain bearing for a walker at times
  - Notice how obstructions are even more of a problem for this group of disabled pedestrians
  - Watch for examples of driveway entrance slopes and think about how improved design could help
Why ADA Matters – Part III

U.S. Access Board – “Accessible Sidewalks”

- This is the third of those quick videos
- “Design Issues for Pedestrians With Low Vision”
  - We’re talking low vision, not blind at this point
  - Notice that the concerns here are different than what you think of for blind pedestrians
  - Unlike blind pedestrians, no walking cane or guide dog tells drivers there is an impairment
  - Importance of changes in color and texture as cues
Why ADA Matters – Part IV

U.S. Access Board – “Accessible Sidewalks”
- This is the last of the four videos
- “Design Issues for Pedestrians Who are Blind”
  - Most traffic indicators are visual
  - See how consistency in sidewalk design makes a difference
  - Notice how elevated obstructions are a different problem for the blind
  - When overhead shade tree limbs are too low, surprise
  - Sloped curb ramps great for wheelchairs, but problematic for the blind who are looking for a curb drop-off
  - This one raises some interesting construction MOT issues for later
Review of “Accessible Sidewalks” videos

• What are some of the challenges we saw in these videos common to most or all disabled pedestrians?

• What are some challenges that were more important or unique to some but not other disabled pedestrians?
Why ADA Should Matter to You

- It’s the right thing to do
- Some 18.4% of Delawareans disabled
- 13% of Delawareans are 65+
- Some disabilities are temporary and can affect anyone briefly – ever broken your leg?
- Desire to encourage visitors to the State, to your town
- It’s the law
- The great equalizer – the civil courts
Civil Cases

- Historically, someone tripped and fell and sued
- Not the end of the world
- ADA has spawned precedent setting case law that profoundly shapes budgets, what gets altered, and how we structure improvements contracts
- Several “big” cases with which to be familiar
  - CDR et al. v. Caltrans (2009 settlement pending) – $1.1 Billion
Kinney v. Yerusalim

- 1993
- Court of Appeals for the Third Circuit
- Established “alteration”
- City was resurfacing streets but not installing ramps
- City felt resurfacing is not alteration – wrong
- Court established broad definition of “alteration”
- Court narrowly limited ADA’s “undue burden” language – applies only to existing facilities and the cost of providing accessible ramps is of no issue once an alteration is undertaken
Barden v. Sacramento

- 2004
- Settlement agreement
- Went beyond just curb ramps – removal of barriers, narrow pathways, abrupt level changes, excessive slopes, overhanging obstructions and improvement of crosswalk access
- 20% of annual Transportation Fund for 30 years allocated to make pedestrian ways accessible
- Upgrades to ramps as part of alterations would be outside of the 20%
CDR v. Caltrans

- 2008
- Californians for Disability Rights versus CA DOT
- Ninth Circuit Court addressed Sovereign Immunity, finding that ADA’s language suitably trumps the 11th Amendment to the Constitution
- CDR also asserted that Caltrans had failed to survey its 2500 miles of sidewalk and therefore could not know what access barriers exist
- Lack of a Transition Plan constituted a violation of ADA by itself
CLASI v. DelDOT

- 2004
- Settlement agreement
- DelDOT agreed to retrofit 100 curb ramps per year – in addition to any ramps installed/upgraded as part of roadway alterations (mill/pave, improvements, etc.)
- 1,500 non-conforming sites identified
Settlement filed December 2009 – pending court approval

- $1.1 Billion over 30 years
- Caltrans will pay $3.75-$8.75 million in court fees
- $25-$45 million/year commitment
- Install 10,000 curb ramps
- Retrofit 50,000 existing ramps
- Reconstruct hundreds of miles sidewalk
- Modify 15,000 intersection pedestrian crossings
- Audible signals for the blind
- Temporary pedestrian routes
When we come back....
- Standards
- Guidelines
- Transition plans
- Technical resources
- ...much, much more
ADA Standards, Guidelines...

ADA Accessibility Guidelines (ADAAG), Access Board

- Sidewalk width – 36” continuous, but 32” for obstruction lasting no more than 24” in length (e.g. a utility pole)
- Space between obstructions (i.e., sidewalk width less than 36” but greater than 32”) must be at least 48”
- Passing space 60” x 60” at least every 200’
- Sidewalk widths measure from back of curb to back of sidewalk
- Curb ramps req’d “wherever an accessible route crosses a curb”
- Ramps – 36” wide exclusive of flare sides
- Detectable warnings (raised truncated domes) required
- Ramp running slope – max 8.33% and no more than 30” rise
- Cross slopes – 2% maximum
- Longitudinal slopes – keep below 5% or it’s a ramp
- RR crossing gap – max 2½” gap permitted
ADA Standards, Guidelines...
Public Right of Way Accessibility Guidelines (PROWAG)

- Not a Standard yet (Feb 2010) – USDOT says Best Practice
- The following is a teaser only, a sample platter – don’t rely on this; read the PROWAG
- §R202 – Alterations – renovation, rehabilitation, reconstruction, historic restoration, resurfacing, etc.
  - Refers to USDOJ at 28 CFR 35.151(e) and Kinney v. Yerusalim
  - Pavement patching, liquid applied sealants, restriping, short term maintenance activities are not alterations
- §R202 – Conflicts with historic structures
- §R205 – Maintaining accessible route during construction
  - See also §R302 – Alternate circulation paths
- §R216 – On-street parking – minimum 4% must be accessible
- §R221 – Detectable warning devices (truncated domes)
PROWAG, cont’d

• §R301.3 – Width
  ▪ Continuous width – 4.0 feet (what did ADAAG say?)
    ▪ [Width of sidewalk is always measured from back of curb]
  ▪ Passing spaces – 5.0 feet wide x 5.0 feet long @ <= 200 feet intervals

• §R301.4 – Slope and grade
  ▪ Cross slope shall be 2% maximum
  ▪ Street/highway grade – sidewalk can mimic but not exceed

• §R301.5 – Surface discontinuities
  ▪ \( \frac{1}{4} \text{”}-\frac{1}{2} \text{”} \) vertical rise – bevel 1:2
  ▪ No more than \( \frac{1}{2} \text{”} \) vertical discontinuity (rise)

• §R301.7 – Joints and gratings – no more than \( \frac{1}{2} \text{”} \) diameter openings

• §R302 – Alternate circulation paths (including detours)
ADA Standards, Guidelines...

§R301.5: PAR must be flush with outer edge of top of rail

§R301.7: Max gap for wheel flanges – 2½” (non-freight) or 3” (freight)
Time Out – Pause for Definition

- Perpendicular ramp
  - Generally perpendicular to the curb
  - Running slope is perpendicular to the curb line

- Parallel ramp
  - Two ramps lead down towards a center landing
  - Running slope is parallel to vehicular travel and the curb line
PROWAG, cont’d

- §R303 – Curb ramps and blended transitions
  - §R303.2.1 – Perpendicular curb ramps
    - Running slope >5% & <8.3% BUT shall not require ramp length to exceed 15’
    - Maximum 2% cross slope (can warp at mid block crossings to meet grade)
    - Landing – 4’x4’ minimum at top of curb ramp
  - §R303.2.2 – Parallel curb ramps
    - Running slope >5% & <8.3% BUT shall not require ramp length to exceed 15’
    - Maximum 2% cross slope (can warp at mid block crossings to meet grade)
    - Landing – 4’x4’ minimum at bottom of curb ramp
    - Diverging sidewalks – if the parallel ramp does not occupy entire width of sidewalk, protect drop offs
  - §R303.3 – Common elements
    - 4’ minimum width
    - Detectable warning surfaces where ramp or landing meets street
    - No grates, access covers, other appurtenances in ramps or landings
    - No grade breaks in ramps
    - Counter slopes 5% maximum
    - Minimum 4’x4’ clear space beyond curb face & wholly outside travel lane
§R303.3.5: Counter slope must not exceed 5%

8.33% + 5% >13% and can result in tipping, loss of ground clearance, loss of dynamic stability

No more than 8.33%

Counter slope no more than 5%
ADA Standards, Guidelines...
PROWAG, cont’d

- §R304 – Detectable warning surfaces
  - Truncated domes aligned in a square or radial grid pattern
  - Dimension and spacing of domes
  - Visual contrast with adjacent material (light on dark/dark on light)
  - Full width of ramp and 24” minimum in direction of travel
  - Intended to provide tactile equivalent underfoot of the visible curbline

- §R305.2 – Crosswalks
  - 6’ wide minimum
  - Cross slope – 2% max with Stop control; 5% max w/out Stop control
  - Running slope (measured parallel to ped travel direction) – 5% max

- §R305.2 – Medians/Pedestrian Refuge Islands
  - 6’ minimum length (or width if you prefer) in direction of ped travel
  - Detectable warnings
ADA Standards, Guidelines...
Old figure – PROWAG says 6’ minimum

Illustration – Scott Lewendon
Curb ramps at splitter island: Washington, DC

At first glance, these curb ramps may seem accessible. However, closer inspection reveals that there is no route between the two that is usable by a pedestrian in a wheelchair. Additionally, the granite pavers should not be considered an accessible surface.

Photo – Lois Thibault
ADA Standards, Guidelines...

PROWAG, cont’d

• §R305.6 – Roundabout intersections
• §R306 – Accessible pedestrian signals (APS)
  • §R306.2 – Pedestrian signals
    • Vertical and horizontal locations very specific in PROWAG and MUTCD
    • Audible tones or speech messages; volume
  • §R306.3 – Pedestrian pushbuttons
    • Locator tone
    • Size and visual contrast
  • §R306.3 – Directional information/signs
    • Tactile and visual signs/guides
• §R305.6 – Street furniture
  • Drinking fountains, telephones, toilets, tables, counters, benches
This new parallel curb ramp on a large-radius suburban corner curves down to the street and is otherwise usable, but the pedestrian button isn’t. Installed on a signal pole, it is out of horizontal reach range for this pedestrian. A better installation [in front of red car] across the street, where a stub pole has been installed in a more usable location.
Sidewalk benches

Benches will be most useful to pedestrians if there are both arms and backs for support when transitioning from a sitting or standing position.
A consistent pathway with off set locations for street furniture is a dramatic improvement for low vision and blind pedestrians.
PROWAG, cont’d

- §R308 – On-street parking
  - Access isles (for ingress/egress into/from vehicles)
    - If wide adjacent sidewalk (>14’) – 5’ street level access isle
    - If narrow sidewalk (<14’) – no access isle req’d but locate space at block ends
    - If perpendicular or angled parking – 8’ access isle at street level
  - Signs designating spaces
    - locate at head or foot of spaces
    - Use International Symbol of Accessibility
  - Parking meters
    - Meters at spaces
    - Remote meters
    - Displays and information

International Symbol of Accessibility
§R409.5.10
PROWAG, cont’d

- §R401 – Protruding objects
- §R402 – Clear space
- §R403 – Knee and toe clearance
- §R404 – Reach ranges
- §R406 – Ramps (not just curb ramps)
  - Running slope – between 5% min and 8.3% max
  - Cross slope – 2% maximum
  - Vertical rise – 30” maximum
  - Landings
  - Handrails – req’d for rise >6”
  - Edge protection – each side of ramp runs (but not curb ramps or landings)
PROWAG, cont’d

- §R409 – Signs
  - Raised characters
  - Braille
  - Height and location
  - Visual characters

- §R409 – Bus stop boarding/alighting areas
  - Surface – firm, stable, slip resistant
  - Dimensions – 5’ min along curb x 8’ min wide
  - Connectivity to accessible route
  - Cross slope – 2% max
  - Shelters – must meet R402 clear space req’ts
Bus stops

- Access requires travel over part of the tree box, where settlement of the soil creates a drop-off.
- Tree on other side too close to the shelter--at least 32 inches is necessary for passage at a point.
- Tree grate doesn’t help
- Is there 30”x48” clear space within shelter?
“DelDOT maintained streets”
• We use that term, but...
• If you’re a municipality, have a look at your “Town Agreements” (project contracts with DelDOT and its predecessor)
• Generally, DelDOT maintains the street “curb to curb”
  ▪ Sidewalks, signs, drainage issues, etc. outside the curb are deferred by DelDOT to the municipality
  ▪ Those liabilities likely fall to the municipality
ADA Standards, Guidelines...

DelDOT standards

- Road Design Manual – see Section 10.8

- Standard Construction Details – see Section II (curb and gutter, curb ramps, entrances)

- Standard Construction Specifications – primarily Section 705
Does depressed curb detail comply with ADAAG/PROWAG?

Yes
11% preferred; 13% max
Flush with pavement - yes

ADA Standards, Guidelines...
Again, 11% preferred – 13% max

Meets PROWAG? Yes, §R303.2.1.1
Flush with pavement - yes
ADA Standards, Guidelines...

PLAN
ENTRANCE WITH SIDEWALK

ELEVATION

SECTION A-A

DELTAWORE DEPARTMENT OF TRANSPORTATION

STANDARD NO. C-5 (0069) SHT. 1 OF 1

APPROVED

RECOMMENDED

12/30/05

11/30/05
ADA Standards, Guidelines...
Local ordinances
- Might be detailed and prescriptive
- Might adopt ADAAG, PROWAG, etc. by reference
- Might adopt DelDOT standards by reference
- Should have some treatment of maintenance
  - Snow removal
  - Prohibit blocking, even temporarily
  - Other interference (vegetative, etc.)
  - Maintenance and replacement responsibility
    - By whom
    - When
    - To what standards
- Think about how local ordinances get enforced – no sense writing it down if you can’t enforce it
Transition Plans

- 50 or more employees? Req’d - 28 CFR §35.150(d)
- Deadline to complete – January 26, 1992
- Oops is the wrong response to that
- If not done, you really, really should do one now
- Remember CDR v. Caltrans?
- Less than 50 employees – exempt from ADA? NO
- Update periodically

Transition plan contents:
  - Physical obstacles that limit accessibility
  - Description of methods that will be used to remedy
  - Schedule of upgrades in each following year
  - Identify the official responsible for implementation
Safety

- Inventories, inspections, etc.
- Work in pairs or more whenever possible
- Watch each others’ backs
- Watch traffic
- Wear safety vests – ANSI Class 3
- Stay out of travel way (easier said then done)
Technical Resources

- We’ll post these slides on the Delaware T² Center website in the next few days.

- [http://www.ce.udel.edu/dct/t2/t2.htm](http://www.ce.udel.edu/dct/t2/t2.htm) - look under “Technical Briefs and Case Summaries”

- They’ll include the following links as hyperlinks to the Internet.
Resource Links

Acts/Laws

Resource Links

- **Regulations**
  - ADA Title II, Subtitle A – 28 CFR Part 35 (DOJ) –
  - ADA Title II, Subtitle B – 49 CFR Part 37 (DOT) -
Resource Links

- Standards
Resource Links

• Guidance
  ▪ Federal Highway FAQs re ADA and Section 504 (Rehabilitation Act) - http://www.fhwa.dot.gov/civilrights/ada_qa.htm
  ▪ FHWA Notice on use of draft PROWAG - http://www.fhwa.dot.gov/environment/bikeped/prwaa.htm
Source: PROWAAC Special Report: Accessible Public Rights-of-Way; Planning and Design for Alterations
Resource Links

- Guidance (cont’d)
  - Title II Technical Assistance Manual (for state and local government programs and services) - http://www.ada.gov/taman2.html
Guidance (cont’d)
- DelDOT Road Design Manual (primarily Section 10.8) - http://www.deldot.gov/information/pubs_forms/manuals/road_design/
Resource Links

• Agencies
  ▪ Delaware Department of Transportation - [http://www.deldot.gov/](http://www.deldot.gov/)
Resource Links

• Litigation
Take a Break?

• When we come back....
  ▪ Conflicts and resolutions
  ▪ Construction tolerances
  ▪ Pedestrian maintenance of traffic
  ▪ Maintenance of the accessible route
  ▪ And then... that’s it
Sometimes, it’s as simple as building a ramp, as they did with this courthouse.
Conflict Examples (and Resolution)

Case Study—Narrow Right-of-Way

- A midblock crossing and perpendicular curb ramp are aligned with an existing building entrance walkway. The walkway serves as the level landing for the curb ramp and the work was coordinated with the abutting property owner.
- Pedestrians can use the landing to bypass the descending ramp and its flares if they are continuing along the sidewalk.
- The midblock crossing has a pedestrian signal with a call button and an APS with a locator tone.

Source: PROWAAC Special Report: Accessible Public Rights-of-Way; Planning and Design for Alterations

Conflict Examples (and Resolution)

- Is there 32” behind the curb in either of these?
- On the left, can the pole be moved?
- How about on the right?
- Would you need to obtain ROW?
- Is that reasonable?
Conflict Examples (and Resolution)
Conflict Examples (and Resolution)
Conflict Examples (and Resolution)

- Brand new ramps – 2009
- 32”?
- We can do better
Conflict Examples (and Resolution)

- Reverse curbs can cure many ills
Is that a USGS benchmark in the sidewalk?
Is that why a proper curb cut wasn’t put in?
Chances are, that benchmark may no longer be accurate.
Begin by contacting USGS
Conflicts Examples (and Resolution)

- Cemetery – serious limiting factor
- Hydrant – not our worst problem

- Can we move the pole a little?
- At least, we can reconstruct with mild slopes
• Excessive cross slope at driveways – common problem
• An existing driveway apron has been reconstructed to provide a level pedestrian route
• Narrower than the sidewalk it connects to
• Adequate for travel over a short distance
• Beats the alternative

Source: PROWAAC Special Report: Accessible Public Rights-of-Way; Planning and Design for Alterations
Conflict Examples (and Resolution)

- Pedestrian call button location
- Detectable warnings
Conflict Examples (and Resolution)

Raised crossing: Cumberland, MD

- Sidewalks are continued across intersection at curb height
- Vehicles ramp up and down
- Especially useful in narrow sidewalks
- Tactile surface treatment should be provided

Photo – Lois Thibault
Ramps Too Steep – Why?

- Existing 0% Sidewalk (i.e., Level)
- 8.33% Ramp
- 7’
- 7” Curb
- Gutter Flowline
- O% Street Grade
- Intersecting Street - 2% Cross Slope
- Face of Curb

Scale (original):
- Horiz: 1”=20’
- Vert: 1”=200’
Ramps Too Steep – Why?

- Intersecting Street - 2% Cross Slope
- Face of Curb
- Existing 2% Sidewalk (i.e., Realistic)
- 8.33% Ramp
- 7” Curb
- 2% Street Grade
- Gutter Flowline

Scale (original):
Horiz: 1”=20’
Vert: 1”=200’
Ramps Too Steep – Result

Photos: Kelly Mannering
How close is close?
- PROWAG provides some guidance at R103
- Dimensions without “min” or “max” – absolute
- Conventional industry tolerances apply for these
- Consider that, for example, R301.3.1 “equates” 1.2 m to 4.0 ft (3.937 ft, actually) – 0.063’=~¾”
- So, if a 4’ sidewalk comes up 46”, probably not within tolerance
- “Minimums” and “Maximums” should be treated as such - <=2% shouldn’t be construed to mean 2.5% is okay
Construction & Tolerances

The good news – there are simple tools to get it right!
Maintaining the Accessible Route

- Constrained by right-of-way width, existing adjacent entrances, and the presence of a bus stop requiring a deployment area for a lift.
- At pedestrian crossings, the project must incorporate (or improve) curb ramps.
- The print signage and plastic tape do not adequately protect the excavation—a detectable barrier is needed.
- Consider also a proximity-activated ‘audible sign’ to give notice of the blocked sidewalk.

Source: PROWAAC Special Report: Accessible Public Rights-of-Way; Planning and Design for Alterations
Pedestrian MOT

SIDEWALK CLOSED

CAUTION

Image of a sidewalk closed for construction with caution tape and traffic cones.
Pedestrian MOT

Photos: Tim Cox, Plastic Safety Systems, Inc.
Pedestrian MOT

Photo: Tim Cox, Plastic Safety Systems, Inc.
Pedestrian MOT

Photos: Mark Luszcz
Maintaining the Accessible Route

- PROWAG §R209 – No protruding or overhanging objects in access route
- Typical offenders – trees, bushes, ground covers, banners, awnings, temporary signs, trash cans, parked cars, etc.
- Can control with local ordinances, but only if there are means to enforce
ADA Standards, Guidelines...

Pedestrian Passage Corridor with 3' grass strip (Residential Street)

60” W x 84” H Clear Zone

Free of:
- Signs
- Vegetation
- Branches
- Mailboxes
- Trash Cans
- Utility Poles
- Hydrants

--> 2% Cross Slope -->

4–6” PCC (typ.)
4” Stone (optional)
Maintaining the Accessible Route

• This is probably fine, as it appears there is at least 32” at this pinch point.

• But have you ever seen a temporary sign like this blocking most of the sidewalk?
Maintaining the Accessible Route
Maintaining the Accessible Route

Photos: Kelly Mannering
Maintaining the Accessible Route

Photo: Kelly Mannering
Maintaining the Accessible Route
Maintaining the Accessible Route
Maintaining the Accessible Route
Maintaining the Accessible Route

Clearing snow from accessible parking spaces and the accessible route may be essential to provide access to programs, services, or activities.
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