# Tech Topic

# Sidewalks and the Americans with Disabilities Act

Historically, sidewalks were an afterthought for many roadway designs. Increasingly, sidewalks are seen as an important element of many roadway designs that can integrate transportation modes (vehicles, bicycles, pedestrians, etc.) and provide accommodation for all transportation users and the ADA is primarily responsible for the elevation of sidewalks in transportation design.

## The Americans with Disabilities Act

The Equal Opportunity for Individuals with Disabilities (42 U.S.C., Chapter 136, Section 12101, et seq.), better known as the Americans with Disabilities Act (ADA) was signed into law July 26, 1990 and is one of the most far reaching public policies in the world relative to the mobility and accessibility for those with disabilities. An understanding of ADA is essential for those agencies that own and maintain public roadways of any kind, since any alteration of the roadway will require compliance with ADA.

The implications of ADA for the construction, maintenance, and modification of sidewalks are significant and manifest themselves in the Act itself, guidelines and standards from the Access Board (see below), state department of transportation guidelines, tort liability case law, and elsewhere. The applicable standards largely begin with the Access Board, but state DOTs and other agencies often adopt more aggressive standards, and the courts have continued to evolve the standard of care they see in the ADA.

## The Access Board

The U.S. Access Board is an independent federal agency that was created in 1973 to ensure access to federally funded facilities and is now a leading source of information on accessible design. The Board develops and maintains design criteria for the built environment, transit vehicles, telecommunications equipment, and for electronic and information technology. Increasingly, the Board was asked to take part in research and testimony before Congress on a range of accessible design issues which would come together as part of the civil rights legislation known as ADA, which expanded the Board's mandate to include: developing the accessibility guidelines for facilities and transit vehicles covered by the law; providing technical assistance and training on these guidelines; and conducting research to support and maintain the guidelines. A year after ADA became law, the Board published its first accessibility guidelines under the ADA.

## Guidelines, Guides, and Standards

The Accessibility Guidelines for Buildings and Facilities (also known as Americans with Disabilities Accessibilities Guidelines, ADAAG) is perhaps the best know of these guidelines and has been generally used as a guide for transportation design and retrofit. But because it was developed mostly with buildings in mind, a need for guidelines specifically tailored to roadway issues was need and the Access Board has been in the process of rulemaking for public rights of way since at least 1992, with draft guidelines in 2002 and 2005, but no final ruling as of yet. However, a guide does exist for planning and

design of roadway alterations to provide accessible public rights of way, commonly known as the PROWAC. This guide provides a host of example situations often faced with upgrading sidewalks and curb ramps in challenging environments, together with suggestion solutions.

Beyond the Access Board, state DOTs and other local agencies have developed standards that may exceed those in the ADAAG or PROWAC, either as goals or outright requirements. For example, the Delaware Department of Transportation (DelDOT) has standards for the construction of new streets where elements such as width of sidewalks significantly exceed the Access Board minimum requirements, but its guidance for curb ramp installations during roadway alterations recognizes that existing street rights of way and other limitations may not allow for the ideal sidewalk or ramp at all locations.

Sidewalk and ramp guidelines cover an array of design parameters, but the typical drivers reduce down to several physical characteristics. Specifically, the Access Board calls for a minimum 36" width for sidewalks and curb ramps, but allows as little as 32" outside of ramp areas where unavoidable obstructions are present, provided that there is a relief area at least every 200 feet. However, guidance for new construction and for achievable retrofit locations is to establish 60" wide sidewalks and ramps. Cross slopes of sidewalks and ramps are consistently required at 2%, but most guidelines and standards fail to put an acceptable tolerance (such as 1.5% to 2.5%), allowing too much argument over "how close is close." Running or longitudinal slopes are limited to 8.33% and this is considered a strict upper limit (i.e., 8.5% is not "close enough"). While sidewalks themselves (outside of ramp areas) may exceed 8.33%, any area in excess of 5% is considered a ramp and requirements for resting and recovery areas then apply. ADA applies to all disabilities (beyond just wheelchairs), and so elements like truncated domes are required at ramps as well.

Suggested Further Reading and References:


- Equal Opportunity for Individuals with Disabilities, ADA, 42 U.S.C. §12101 et seq., http://www.law.cornell.edu/uscode/42/usc_sup_01_42_10_126.html
- U.S. Access Board: http://www.access-board.gov/index.htm
- Access Board ADAAG: http://www.access-board.gov/adaag/html/adaag.htm
- Access Board public right of way background: http://www.access-board.gov/prowac/index.htm
- Access Board PROWAC: http://www.access-board.gov/prowac/alterations/guide.pdf
- DelDOT Standards and Regulations for Subdivision Streets and State Highway Access: http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/standards_and_regulations_031108.pdf
- DelDOT curb ramp design guidance: http://www.deldot.gov/information/pubs_forms/manuals/dgm/pdf/1-16_curb_ramps.pdf
- ADA small town guide: http://www.ada.gov/smtown.pdf



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