



BIENNIAL REPORT 111th CONGRESS

AMERICANS WITH DISABILITIES ACT INSPECTIONS RELATING TO PUBLIC SERVICES AND ACCOMODATIONS



**Office of Compliance
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Accessibility in the Legislative Branch – Report on Americans with Disabilities Act Inspections Relating to Public Services and Accommodations during the 111th Congress

STATEMENT FROM THE GENERAL COUNSEL



Making Real the Right of Public Access for Persons with Disabilities

The First Amendment to the Constitution mandates that Congress shall make no law abridging the right of the people to petition the Government for a redress of grievances. In 1995, Congress adopted the Congressional Accountability Act and applied to the legislative branch Titles II and III of the Americans with Disabilities Act to individuals with disabilities. In so doing, Congress and its instrumentalities assumed the obligation to remove barriers to access and to provide protection against discrimination to qualified individuals with a disability. By this action, such persons are guaranteed access to their legislators, to the buildings in which they and other government officials are housed, and to government hearings and programs. This guarantee makes real to those with disabilities the ability to exercise their rights to petition their government - a fundamental element of democracy.

As the accompanying Report illustrates, since its inception, this Office has been working with the Architect of the Capitol and other stakeholders to make this promise of full accessibility to persons with disabilities a reality. Over the years, considerable progress has been achieved by the Office of the Architect of the Capitol, especially in installing in legislative branch buildings improved signage and emergency escape routes for those with disabilities. During the 111th Congress, we focused on identifying and removing access barriers on pathways to building entrances, and began to identify barriers in public restrooms. Using new inspection software, we were able to provide more comprehensive and precise measurements of ADA deficiencies that will assist employing offices to design appropriate and less costly means for eliminating barriers.

Despite the progress that has been made, we are not satisfied with the current pace and scope of our inspections or the way identified barriers currently are being remediated. Given the very limited resources devoted to achieving the full range of ADA objectives, we will continue to work closely with stakeholders to improve processes in our shared responsibilities for assuring that the legislative branch is barrier-free to persons with disabilities.

EXECUTIVE SUMMARY

The OOC ADA inspections during the 111th Congress focused on the exterior areas of the House Office Buildings. These inspections revealed that access for people with disabilities to these buildings and to the programs, services and activities provided within them is being adversely affected by the presence of curb ramps and sidewalks that do not comply with the ADA Accessibility Standards. For example, of the 30 curb ramps whose sole purpose is to give people with disabilities access to the Cannon, Longworth and Rayburn House Office Buildings, 28 fail to comply with ADA standards. Most of the deficiencies constituted safety hazards; virtually all posed significant barriers to access. See photos at pp. 24-26 within. These curb ramps and sidewalks are constructed and maintained by the Office of the Architect of the Capitol. Sidewalks are considered facilities that must be made accessible under the ADA, and government offices that construct and maintain sidewalks are required to survey their sidewalks and develop a transition plan that shows when and how the sidewalks will be made accessible.

Sidewalk and Curb Ramp Barriers

Most employees, constituents and visitors to the House Office Buildings cannot access these buildings without using the sidewalks that surround the buildings. The existing sidewalks are difficult for people with disabilities to navigate because most of the curb ramps have one or more of the following deficiencies (which we refer to as “barriers” or “barriers to access” in the report):

- the ramp is too steep or pitches people sideways;
- there are cracks and gaps on the ramp that are too deep and or too wide;
- the ramp contains abrupt changes in level; or
- the bumps on the bottom of the ramp used for cane detection are worn.

Each of these barriers poses different challenges for people with disabilities:

- When the ramp is too steep, a wheelchair going down the ramp can flip forward at the bottom of the ramp when the foot rest catches on the ground where the ramp meets the street. Conversely, when going up a ramp that is too steep, a wheelchair can flip backwards due to the abrupt changes in grade.
- When the curb ramp slopes steeply sideways (the cross slope), wheelchairs can fall over sideways or be pushed out of the crosswalk and into traffic.
- Deep or wide cracks and gaps can trap the small steering wheels on wheelchairs or the even smaller anti-tip wheels on motorized wheelchairs and thereby cause stability and control problems.
- The stability of wheelchairs can also be affected by abrupt changes in level which can occur, for example, when the edges of concrete slabs are raised or lowered by the heaving or settling caused by tree roots or frost.

- Finally, people who use canes because of vision impairments use the truncated domes on curb ramps to detect the presence of the ramp. When the domes wear down, they need to be replaced so that they can be detected by those using canes.

Out of the 28 curb ramps surveyed by the OOC:

- 6 have ramp slopes that are too steep,
- 13 have sideway (cross) slopes that are too steep,
- 12 have joints and cracks that are too wide and too deep or transitions that are too high,
- 4 are improperly located outside of the marked cross walk, and
- 8 have cane-detectable bumps (truncated domes) that are worn.¹

The OOC ADA inspections found additional barriers to access on the sidewalks themselves. The sidewalk barriers include the following:

- Abrupt changes in level of sidewalk surfaces;
- Sidewalk portions with steep sideway (cross) slopes; and
- Protruding objects.

These sidewalk barriers limit access for the following reasons:

- When the vertical height of the surface material changes abruptly, such as at the uneven joints between concrete slabs or at grooves, cracks or holes in the surface, ambulatory pedestrians can trip, wheelchair casters can catch (causing the chair to abruptly stop) and people who are blind or have impaired vision can fail to anticipate the change and fall.
- Steep sideway (cross) slopes make it difficult for people using wheelchairs and some pedestrians to keep their lateral balance because they must work against the force of gravity. Severe cross slopes can also cause wheelchairs to veer to the side, which increases the risk of rolling into the street; and
- Objects such as tree limbs, ledges, and signs that protrude into the sidewalk corridor between 27 inches and 80 inches above the ground are difficult for cane users to detect thereby creating barriers for people who are blind or have vision impairments.

The sidewalk inspections found:

- 36 sidewalk areas with abrupt level changes;
- 31 sidewalk areas with steep cross slopes; and
- 11 areas with protruding objects.

The OOC also surveyed ADA designated restrooms in House, Senate, and Library buildings. These inspections found plumbing fixtures, dispensers, grab bars and mirrors placed at improper

¹ The total exceeds 28 because some ramps have multiple deficiencies.

heights or locations, doors that took too much force to open, hardware and controls that were too difficult to operate (either twisting or too much force required to operate), and pipes under sinks that exposed users to burns and cuts because they were not insulated.

Employing Office Transition Plans to Remove ADA Barriers

The findings in this report show the need for comprehensive transition plans describing how and when ADA barriers will be removed. The regulations implementing the ADA require that governmental offices survey their public facilities to identify existing barriers and then, after consulting with members of the disability community, develop transition plans that will address the barriers and make facilities accessible. See 28 C.F.R. § 35.150(d). Although the types of barriers identified in this report have been described in our prior reports, we can find little evidence that the type of transition planning required by the regulations has occurred. We are hopeful that our new approach to ADA inspections, which provides more comprehensive and detailed surveys of such facilities as sidewalks and curb ramps, will encourage consultation with the disability community and the development of thorough and effective transition planning. To further assist in transition planning, the OOC has provided additional information in this report (and in its more detailed reports to the AOC) regarding the severity of each identified barrier and a rough estimate of the costs associated with various solutions to the barrier. We believe that this additional information will help in the development of transition plans by allowing prioritization of barrier removal projects based upon severity and cost.

Estimating Costs for Removing ADA Barriers

While we have not received any cost estimates from the AOC, the software we used for conducting the inspection and developing solutions has provided rough estimates of the costs associated with each solution after adjusting for construction costs in the D.C. area and the higher costs associated with government construction work.

The software has estimated the total cost for correcting all of the barriers found in and around the House Office Buildings (including the identified restroom barriers) using the solutions we have recommended at approximately \$1.4 million.

Limited Resources Reduced the Scope of Inspections and OOC Ability to Provide Technical Assistance to Employing Offices

The OOC's ADA inspection during the 111th Congress was very limited due to lack of OOC resources. Under current funding, the amount of time OOC inspectors can spend on ADA issues is the equivalent of ¼ FTE (.25 of one full time employee).

ADA ACCESS UNDER THE CONGRESSIONAL ACCOUNTABILITY ACT

The Congressional Accountability Act of 1995 (CAA), 2 U.S.C. § 1301, *et seq.*, applies the Americans with Disabilities Act (ADA) to the legislative branch. Under the CAA, the Office of Compliance (OOC), an independent legislative branch agency, enforces the ADA. 2 U.S.C. §§ 1311 & 1331. The OOC's General Counsel enforces Titles II and III of the ADA, providing for access to public services and accommodations by individuals with disabilities. See CAA, 2 U.S.C. § 1331. This right to access includes access to the buildings and facilities where these services and accommodations are provided and access to the representatives, committees, agencies, and staff who provide these services and accommodations. The General Counsel conducts biennial inspections of the legislative branch to ascertain compliance with the ADA and reports these findings to Congress. 2 U.S.C. § 1331(f)(1). This Report to Congress, and to the entities responsible for correcting violations, presents the findings of the inspection conducted during the 111th Congress.

PROGRESS MADE DURING THE 111TH CONGRESS

The **United States Capitol Visitor Center** (“CVC”) officially opened on December 2, 2008, just prior to the beginning of the 111th Congress on January 3, 2009. The CVC was designed to

make the U.S. Capitol more accessible, convenient, secure, and informative for millions of visitors each year. Located below the East Capitol Grounds, the CVC contains space for exhibits, food service, two orientation theaters, an auditorium, gift shops, security, a service tunnel for truck loading and deliveries, mechanical facilities, storage, and office space for the House and Senate.



Opening Ceremony at the CVC

The CVC greatly enhances accessibility to the U.S. Capitol building in several significant ways. The east side of the Capitol has a level path leading to East Capitol Street with two new exterior elevators contained within matching pavilions at the center of the plaza flanking each side of the path. These elevators provide access to the below-grade entrance to the CVC. Entrance doors with push button door openers provide accessible entrances to the building itself. For people arriving by tour bus, the CVC Office of Visitor Services provides an on-demand shuttle service for those with mobility issues or who use manual wheelchairs. The shuttles run from the tour bus drop-off location at the southwest corner of

Capitol Square (at Independence Avenue and First Street, SW) to the elevator pavilions near the center of the Capitol's East Plaza.

Once inside the CVC, all public areas are accessible by either elevators or ramps. Accessibility is also facilitated through the provision of: wheelchairs to those who need them but who did not bring their own (they may be requested from CVC staff wearing red vests or at one of the Information Desks in Emancipation Hall); listening devices with audio descriptions of the orientation film and exhibitions (available at the Information Desks); sign language interpretation for tours (available when booked in advance); open captioning on all films; accessible restrooms (available throughout the CVC); a public TTY (located near one of the gift shops on the Upper Level); and copies of all Capitol Visitor Center brochures in alternative formats (large print, Braille, HTML) (available at the Information Desks). The Office of Congressional Accessibility Services is also located in the crypt of the Capitol and reasonable requests for accommodation or modification of practices to facilitate accessibility can be made to this office.

Because the CVC was designed and constructed after Titles II and III of the ADA became applicable to the legislative branch under the CAA (on January 1, 1997), its design and construction were required to make the facility "readily accessible to and usable by individuals with disabilities." 42 U.S.C. § 12183(a)(1); 28 C.F.R. § 35.151 (Title II), 28 C.F.R. § 36.401 (Title III). To meet this standard, legislative branch facilities such as the CVC that were built after January 1, 1997 and before September 15, 2010 must comply with the 1991 Standards for Accessible Design. 28 C.F.R. § 36.406(a) (2010);²

Pre-construction Inspections of the CVC

During the 110th Congress, the OOC worked with the AOC to make the CVC's construction compliant with the ADA Standards for Accessible Design by conducting pre-inspections prior to the facility's opening and identifying elements that did not comply with the standards. These inspections revealed hundreds of doors that were not in compliance because the opening widths were too narrow and/or the opening force was too great. They also revealed restroom compliance issues involving toilets, handrails, and counters that were too high and doorways that

²The ADA specifically requires the Architectural and Transportation Barriers Compliance Board ("Access Board") to issue minimum guidelines for accessible design that comply with the requirements of Title II and Title III. 42 U.S.C. § 12204(a). These Guidelines become the ADA Standards for Accessible Design once they are officially adopted in regulations issued by the United States Department of Justice ("DOJ"). On July 26, 1991, the DOJ issued regulations adopting the ADA Accessibility Guidelines (ADAAG) published by the Access Board on this same date as the standards for accessible design. There are now known as the "1991 Standards" and are published as appendix A to the 1991 Title III regulations (28 C.F.R. Part 36). On September 15, 2010, the DOJ published new regulations implementing Titles II and III of the ADA which in part adopted the ADA/ABA Accessibility Guidelines published by the Access Board in 2004 as the "2010 Standards." Under 28 C.F.R. § 35.151(c)(1) (2010), new construction "shall comply with the 1991 Standards if the . . . start of physical construction or alterations occurs before September 15, 2010." If the start of physical construction or alterations occurs between September 15, 2010 and March 15, 2012, either the 1991 or 2010 standards may be used. 28 C.F.R. § 25.151(c)(2) (2010). If the start of physical construction or alterations occurs after March 15, 2012, the 2010 standards must be followed. 28 C.F.R. § 25.151(c)(3) (2010).

were too narrow. In addition, several ramps contained portions that were too steep. The OOC also worked with the AOC and United States Capitol Police (USCP) to insure that evacuation routes were fully accessible to people with disabilities and that emergency action plans included these people. The OOC continued conducting inspections and providing reports during the 111th Congress until almost all of the non-complying elements were brought into compliance with the ADA accessibility standards. Although the OOC continues to work with the AOC on completing an ADA accessible lift to the projection booth serving the auditorium and on adjusting doors which require more than 5 pounds of force to operate, the OOC's pre-inspection work at the CVC has helped to make this facility the most accessible on Capitol Hill.

Access Improvements to Other Buildings on the Capitol Hill Campus

Access to the Longworth and Rayburn House Office Buildings was improved during the 111th Congress through the addition or improvement of ramps leading into the buildings from Independence Avenue, S.W. In the Rayburn Building, an entirely new ADA entrance was constructed. This means that visitors and employees who use wheelchairs can now enter the building near the motor vehicle drop off areas on Independence Avenue rather than going around the building and entering from the South Capitol Street entrance, which is also accessible. The Independence Avenue entrance now has two exterior ramps adjacent to the two sets of stairs and a lift adjacent to the interior stairs that provides access to the main floor. In the Longworth Building, the lower portion of the exterior ramp serving the Independence Avenue was re-constructed to correct the slope so that it is now in compliance with the standards. This an improvement over what was reported in prior ADA reports where the OOC found this ramp to be out of compliance with the standards.

IMPROVEMENTS TO THE OOC ADA INSPECTION PROGRAM

During the 111th Congress, the OOC conducted a comprehensive review of its ADA inspection program. Based on this review, the OOC determined that the program would benefit by implementing the approach to ADA compliance used by most public and private organizations covered by the ADA. This approach involves surveying all facilities to: (1) identify the barriers to access; (2) assess the severity of each barrier to quantify the need for removal; and (3) evaluate potential solutions to the barriers based upon cost and need. During the 111th Congress, the OOC entered into a contract with Evan Terry Associates, P.C. ("ETA") to implement such a barrier-removal survey approach on the Capitol Hill campus.

In an effort to make the most of the limited OOC inspection resources, during the 111th Congress, the OOC focused its ADA inspections on the areas of most concern to members of the public. To address these areas of concern, the OOC developed an inspection plan with four components: (1) Evaluating accessible paths and entrances to buildings; (2) Evaluating new construction and alterations affecting accessibility; (3) Evaluating areas identified in requests for inspection; and (4) Evaluating potential barriers observed by OSH inspectors during biennial

OSH inspections. The inspection and reporting process for each of these components is described below.

Evaluating Accessible Paths to Buildings

When evaluating accessibility, the first question that is usually asked is whether people with disabilities can get to and into the facilities where programs, services and activities are being provided. This involves assessing the pathways between public transportation drop-off points and entrances. The OOC's regularly scheduled ADA inspections focused on this aspect of accessibility. The findings from each of these inspections are provided to covered offices in a detailed report, with photos, describing each barrier. Each barrier is assessed by severity and potential solutions to the barrier are evaluated. Findings from these surveys are included in our biennial reports to Congress together with any responses the OOC has received from the employing offices.

Evaluating New Construction and Alterations Affecting Accessibility

One of the key features of improving access under the ADA is the requirement that, when feasible, new construction and alterations are to be built in compliance with the ADA accessibility standards. The goal of improving accessibility in existing facilities becomes seriously compromised when new construction and alterations merely create new barriers. The OOC continues to look for ways to work with the AOC to improve compliance with the ADA standards when alterations and new construction are being designed and built. The OOC has repeatedly offered to provide technical guidance and training regarding what the ADA accessibility standards require. The OOC hopes to focus upon how this assistance can be provided in an orderly and systematic fashion. This can include getting people with disabilities involved in transition planning. The OOC strongly believes that it is in everyone's interest to address ADA accessibility problems in new projects before they are literally set in concrete. Given the importance placed upon new construction and alterations in the ADA, during the 111th Congress, the OOC began inspecting new construction and alterations affecting accessibility. Findings regarding new construction and alterations affecting accessibility are included in this biennial report to Congress together with any responses we have received from the employing offices.

Evaluating Areas Identified In Requests For Inspection

The OOC believes that a sensible inspection process must focus on areas where people are encountering access problems. To focus attention in these areas, during the 111th Congress, the OOC began processing requests for inspection regarding accessibility problems in a manner similar to the way the OOC handles requests for an OSH inspection. Any person who encounters an accessibility problem on the campus or in an off-campus legislative branch facility can file a request for an ADA inspection with the OOC. The request can be made anonymously and can be filed electronically through the OOC's website (www.compliance.gov). If the request is filed by a person with a disability, the OOC treats the request as a charge of discrimination

under Section 210 of the CAA. The request is served upon the relevant employing office(s) in the same manner that OSH requests are served. The OOC then conducts an opening conference to describe the inspection and investigation process. After the inspection and investigation is completed, the OOC issues a detailed report with proposed findings and recommendations. Those requests that are charges of discrimination are also subject to the mediation, complaint, and hearing proceedings set forth in Section 210(d) of the CAA. Findings made during these inspections may be included in the OOC's biennial reports to Congress together with any response received from the employing offices.

Evaluating Potential Barriers Observed By OSH Inspectors During Biennial OSH Inspections

The final component of the OOC ADA inspection process concerns those barriers observed by OOC occupational safety and health ("OSH") inspectors during biennial OSH inspections. All of our OSH inspectors have had training regarding the ADA accessibility standards and are instructed to note any obvious ADA problems that are observed while conducting an OSH inspection. We anticipate that these barriers will involve such problems as inoperable ADA features (malfunctioning door openers and similar problems), blockage of or inadequate signage, lack of accessible pathways, protruding objects, or other easily observable barriers. These barriers will be brought to the attention of ADA staff who will take appropriate action, which may include scheduling a more comprehensive ADA inspection. Again, any finding regarding a barrier made during an OSH inspection or an ADA inspection may be included in our biennial reports to Congress together with any response from the offices.

THE "BARRIER REMOVAL" APPROACH TO ADA INSPECTIONS

As noted above, during the 111th Congress, the OOC worked with Evan Terry and Associates to develop a "barrier removal" approach to its ADA inspections.

ETA conducts comprehensive ADA surveys throughout the United States for many units of government and private corporations. ETA has developed its own proprietary software to conduct and maintain the results of these surveys. Although ETA does not normally license this software to outside users because of the specialized training needed to perform these surveys in a standardized manner, the OOC was able to reach an agreement with ETA whereby one of OOC's contract inspectors performed ADA surveys for ETA in California pursuant to a direct contract between the worker and ETA. This was a "win-win" arrangement because ETA had the benefit of utilizing a talented worker to efficiently conduct the surveys while at the same time allowing the worker to acquire and hone the skill and knowledge needed to perform surveys with the software with little or no cost to the OOC. Largely through the generosity of ETA, the OOC was then able to obtain licensing rights to use the ETA software at little cost. By acquiring, installing and implementing the ADA survey software developed by ETA, the OOC is now able to provide enhanced reports regarding the barriers to access on the Capitol campus. These reports identify barriers to access based upon how existing elements deviate from the ADA Standards for Accessible Design ("ADA Standards"), assess the severity of each barrier, propose solutions to

barriers, estimate the costs of solutions, track photos depicting each barrier, and track the status of steps taken to implement solutions to the barrier. The OOC believes that these enhanced reports will provide information that will greatly assist those making planning and appropriation decisions regarding barrier removal projects and better track the progress that is being made. During October 2009, the OOC hosted a meeting with the employing offices on Capitol Hill to introduce the ETA software. ETA provided a live demonstration of the software and used it to conduct an inspection of several areas on the campus. ETA representatives were available to answer questions and provide information. The OOC understands that, subsequent to this presentation, the AOC also conducted its own review of ADA barrier removal reporting systems and concluded that the ETA survey process and software was the best system available. When conducting an ADA survey, the OOC classifies each barrier to access that is discovered using a “severity code” that is determined by how severely the barrier deviates from the ADA Standards and the effect of this deviation.

ADA Barrier Severity Codes	
A	Safety Consideration
B	Blocks Access
C	Major Inconvenience
D	Minor Inconvenience

Consistent with how ADA surveys are usually conducted for private corporations and public units of government, the OOC does not record “D” severities because the deviation from the ADA standards has little impact upon accessibility and therefore the cost to correct the deviation usually far exceeds any benefit that would be achieved from correcting the deviation.

Transition Plans

The regulations implementing the ADA require that government offices survey their public facilities to identify existing barriers and then, after consulting with members of the disability community, develop transition plans that will determine how and when the barriers will be removed and will otherwise make their facilities readily accessible for people with disabilities. See 28 C.F.R. § 35.150(d). We are hopeful that our new approach to ADA inspections will encourage consultation with the disability community and the development of thorough and effective transition planning. We also believe that transition planning will benefit from the information regarding the severity of each barrier and the estimated costs associated with various solutions that our reports provide. This should assist in prioritizing barrier removal projects based upon severity and cost.

PRIOR ADA REPORTS AND THE IMPORTANCE OF SIDEWALKS AND CURB RAMPS

The OOC General Counsel has been issuing biennial reports regarding the results of ADA inspections since the first report was issued on June 28, 1996. This first report noted the following problems associated with curb ramps on the Capitol Hill grounds:

A considerable number of existing curb ramps have problems and need to be improved because of the following conditions: (1) significant counter slope that may cause a wheelchair or scooter user to tip over; (2) areas where water “ponds” or collects due to lack of drainage; (3) flared sides that are too steep and extend into the paths of cross traffic, creating a trip hazard, and (4) abrupt transitions or broken paving at the street. In addition, most diagonal curb ramps lack a properly designed crosswalk (space in front of ramp must overlap crosswalk by at least 48 inches). OOC General Counsel, *Report on Initial Inspections of Facilities for Compliance with Americans with Disabilities Act Standards Under Section 210* (June 28, 1996) p. C-43.

In our December 2000 and 2002 biennial reports we noted that more than 400 curb ramps had been installed on the Capitol Hill campus during the 106th Congress. OOC General Counsel, *Report on Inspections for Compliance with the Americans with Disabilities Act* (December 2000) p. 8; OOC General Counsel, *Report on Inspections for Compliance with the Americans with Disabilities Act* (December 2002), p. 10). In our November 2005 report we noted that “steep curb cuts at the Dirksen Senate Office Building accessible entrance” were creating barriers that would “prevent individuals with disabilities from physically entering the building on their own.” OOC General Counsel, *Report on Americans with Disabilities Act Inspections Relating to Public Services and Accommodations* (November 2005), p. 9.

In July 2007, the OOC General Counsel’s 109th Congress biennial report suggested that priority be given to improving sidewalk curb cuts and ramps:

OOO inspectors have measured numerous sidewalk curb cuts throughout the Capitol Hill grounds that are too steep to be considered accessible. Some of the non-compliant curb cuts were recently installed. The OOC recommends that the AOC survey all of the Capitol complex’s sidewalks and grounds to ascertain which curb cuts are not in compliance with the ADA, and immediately fix those that are non-compliant. Accessible sidewalks are a fundamental public access issue for any constituent who is in a wheelchair. [citing Preamble to Final Rules, 56 Fed. Reg. 35694 at 36 (July 26, 1991) (Other provisions of the ADA “would be meaningless if people who use wheelchairs were not afforded the opportunity to travel on and between the streets.”)] OOC General Counsel, *Report on Americans with Disabilities Act Inspections Relating to Public Services and Accommodations Conducted in the Legislative Branch during the 109th Congress Pursuant to the Congressional Accountability Act* (July 2007) p. 6.

In the December 2009 biennial report, we again noted problems with curb cuts and our intent to focus on this area during the 111th Congress:

...some of the new ramps and curb cuts, as well as some existing ones, have slopes that exceed the specifications contained in the ADA regulations. There exist other curb cuts which have been placed outside of the marked crosswalks contrary to the ADA regulation. In an effort to better map accessible routes for individuals with disabilities and to otherwise encourage improvement of exterior accessibility features, as part of the biennial inspection during the 111th Congress, the Office of Compliance will be inspecting sidewalks, curb cuts and parking garages throughout the campus and will be reporting its findings in the biennial report. OOC General Counsel, *Report on Americans with Disabilities Act Inspections Relating to Public Services and Accommodations*

Conducted in the Legislative Branch during the 110th Congress Pursuant to the Congressional Accountability Act of 1995 (December 2009), p. 12.

As announced in the 2009 biennial report, the ADA inspections conducted by the OOC General Counsel during the 111th Congress focused on documenting the condition of sidewalks and curb ramps on the Capitol Hill campus. The need to improve this vitally important aspect of accessibility is readily apparent from the contents of this report.

UNDERSTANDING THE TYPES OF BARRIERS FOUND DURING THE 111TH CONGRESS

Sidewalk and Curb Ramp Barriers Found by the OOC

During the 111th Congress, the OOC surveyed the exterior pathways leading to the House office buildings. Under the ADA, sidewalks providing access to buildings must be accessible for the building to be considered accessible. In addition, government offices that construct and maintain sidewalks (such as the AOC) are required to treat sidewalks as facilities that must be made accessible under the ADA. Since they were first enacted in 1991, the regulations implementing the ADA have emphasized the importance of providing accessible sidewalks. Under the ADA regulations, public entities are required to evaluate their sidewalks and develop transition plans to correct those barriers to access that are found.

Curb Ramps.³

Accessible sidewalks must have “curb ramps.” A curb ramp can either be a short ramp cutting through a curb or ramp built up to the curb. Curb ramps provide access for people who use wheelchairs. Without a curb ramp, these people would be excluded from the sidewalk because of the barrier created by the curb. However, curb ramps can create major information barriers for people with vision impairments who rely on the curb to identify the transition point between the sidewalk and the street.

Curb ramps are designed to provide access to people who use wheeled forms of mobility. Without curb ramps, people who use wheelchairs would not be able to independently access the sidewalk and street. However, not all wheelchairs perform the same on a curb ramp. For example, most powered mobility devices are maneuverable in small spaces due to their short wheelbase. Scooters have a longer wheelbase but have manual steering, and most can perform a three-point turn in tight spaces. Manual wheelchairs can turn on their own wheelbase but are difficult to steer on a cross slope as they tend to turn downhill.

³ Most of the information provided in this section is from the Federal Highway Administration’s *Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide*, Chapter 7: Curb Ramps (FWA, September 2001) available at <http://www.fhwa.dot.gov/environment/sidewalk2/pdf.htm>. Illustrations are from this *Design Guide* and are by Clay Butler. Other sources of information include *Proposed Accessibility Guidelines for Accessible Pedestrian Facilities in the Public Right-of-Way* (U.S. Access Board, July 26, 2011) available at <http://www.access-board.gov/prowac/nprm.pdf>; *Special Report: Accessible Public Rights-of-Way Planning and Designing for Alterations* (Public Rights-of-Way Access Advisory Committee, July 2007) available at <http://www.access-board.gov/prowac/alterations/guide.pdf>.

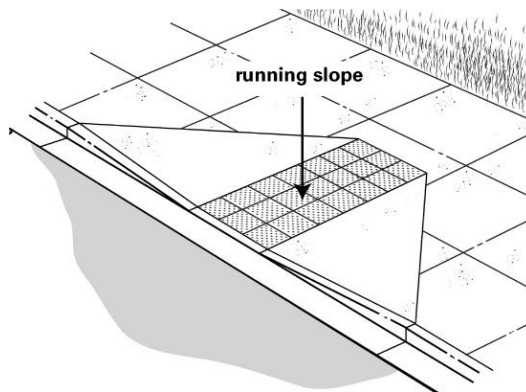
For many people with mobility impairments, curb ramps are not critical to access. In fact, in some situations curb ramps make navigation more difficult for some people with mobility impairments. Crutches and canes are sized to fit the individual user so that the energy required for ambulation is minimized on a hard, level surface. Use of these types of walking aids is more difficult on sloped surfaces such as curb ramps. Cane, walker, or crutch users must lower their body forward when going downhill. On uphill slopes, the cane or crutch must be lifted higher and placed on the surface. The user must have the strength to lift his or her body up over the supporting device. Widening the crosswalk to allow people to use either the curb or the curb ramp will enhance access for cane and crutch users who are not comfortable traveling on a sloped surface.

The curb is the most reliable cue that people with vision impairments use to identify the transition between the sidewalk and the street. The installation of curb ramps removes this cue and replaces it with a ramp which is much more difficult to detect. Therefore, it is important that as curb ramps are installed to create access for people who use wheelchairs, they are installed in such a way as to maximize detectability for people with vision impairments. Where gradual slopes are desirable for people who use wheelchairs, a detectable warning at the bottom of the curb ramp can provide the information blind pedestrians can rely on.

The ADA Standards regarding curb ramps balance these concerns to maximize accessibility of the sidewalk for all users.

Curb Ramp Running Slope

Steep grades are difficult to negotiate for people who use walking aids and manual wheelchairs because significantly more energy is needed to begin and travel on sloped surfaces. In outdoor environments, wearing heavy winter clothes or carrying packages are frequent activities that further limit an individual's ability to negotiate steep grades. Conversely, gradual grades are problematic for people with vision impairments because the transition between the sidewalk and the street is difficult to detect.



For new construction and alterations, both the 1991 and 2010 Standards permit a maximum curb ramp running slope of 8.33 percent or 1:12 (1 inch of rise for every 12 inches of run).⁴ The

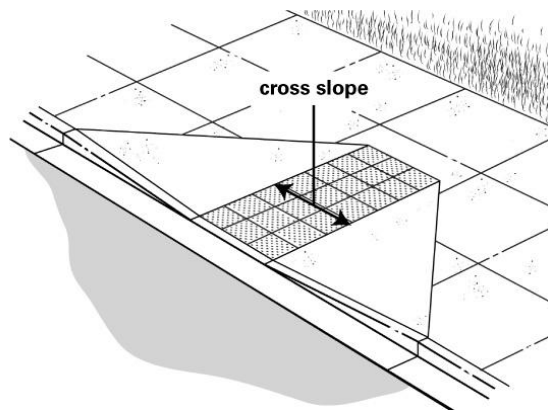
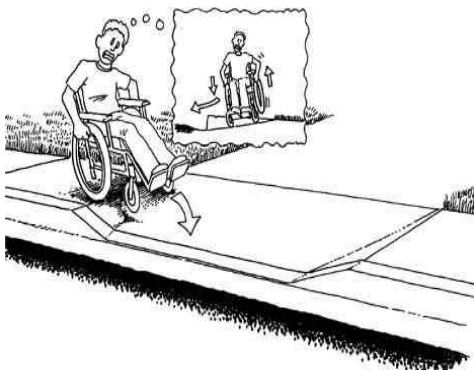
⁴ Under Sec. 4.7.2 of the 1991 Standards, "Slopes of curb ramps shall comply with 4.8.2. . . .Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20." In turn, sec. 4.8.2 of the 1991 Standards provides in pertinent part that: "The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12." Sec. 406.1 of the 2010 Standards provides that "Curb ramps on accessible routes shall comply with 406, 405.2 through 405.5, and 405.10." In turn, Sec. 405.2 of the 2010 Standard provides that "Ramp runs shall have a running slope not steeper than 1:12." A slope of 1:12 equals 8.33%.

running slope of the curb ramp is the slope in the direction that people travel when going up or down the ramp. Despite what these standards require, many curb ramps on Capitol Hill exceed this maximum slope. This can occur when the 8.3 percent slope is used as the design standard rather than the maximum permissible slope. Instead of using 8.3 percent for designing curb ramp grade, a grade of 7.1 percent is the recommended design standard to allow a construction tolerance.

Under Sec. 104.1.1 of the 2010 Standards: “All dimensions are subject to conventional industry tolerances except where the requirement is stated as a range with specific minimum and maximum endpoints.” The range provides an adequate tolerance and therefore no tolerance outside of the range at either end point is permitted. When a minimum or maximum dimension is specified in the Standards, it is a good practice to specify a dimension less than the required maximum or more than the required minimum by the amount of the expected field or manufacturing tolerance. See Advisory 104.1.1 (2010 Standards).

Curb Ramp Cross Slope

As noted previously, a curb ramp allows people who use wheelchairs and other wheeled devices to negotiate the elevation change between the roadway and the sidewalk without having to negotiate the curb. People with mobility impairments often have difficulty negotiating a grade and cross slope simultaneously. Since the grade of the ramp will be significant, the cross slope must be minimized. Under the 1991 Standards, the cross slope of the ramp should not exceed 2.0 percent, while the 2010 Standards specify that the cross slope should not exceed 2.08 percent.⁵

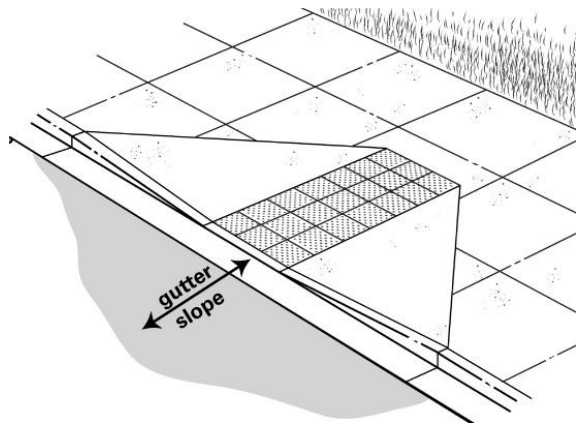


Wheelchairs Can Become Unstable When Cross Slope Changes Abruptly

⁵ Under Section 4.3.7 of the 1991 Standards: “An accessible route with a running slope greater than 1:20 is a ramp and shall comply with 4.8. Nowhere shall the cross slope of an accessible route exceed 1:50.” Under Section 403.3 of the 2010 Standards: “The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.” A slope of 1:20 equals 2 percent, while a slope of 1:48 equals 2.08 percent.

Gutter & Drainage Slope.

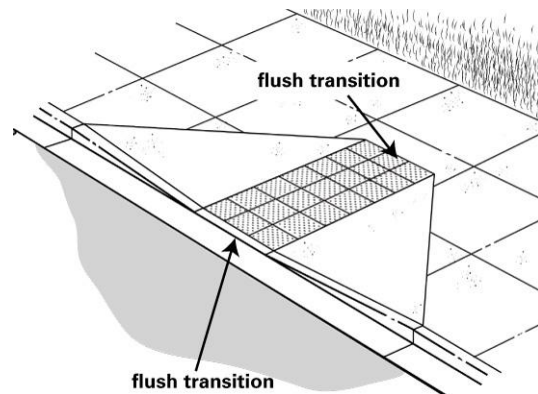
The gutter is the trough or dip that is provided for drainage purposes between the edge of the street and the curb or curb ramp. The drainage slope of the gutter is the slope parallel to the curb and roadway. The purpose of the drainage slope is to channel water down the street. Because pedestrians (including wheel chair users) generally enter the roadway by crossing over the gutter, pedestrians experience the drainage slope of the gutter as a cross slope. Likewise, after pedestrians go down the curb ramp towards the street, they experience the cross slope of the gutter as an uphill grade that often continues until the middle of the street because of the crown of the roadway.



If the drainage slope of the gutter is too steep, pedestrians are required to negotiate a surface with a steep cross slope as they transition from the curb ramp to the roadway. Therefore, the drainage slope of the installed gutter should not exceed 2 percent. The slope of the gutter should also be considered in relation to the installation of curb ramps. If the gutter slope is significant, the change of grade experienced by pedestrians as they travel from the downhill slope of the curb ramp to the uphill slope of the gutter will be problematic for wheelchair users. To avoid rapidly changing grades, both the 1991 and 2010 Standards provide that the gutter approach to the curb ramp cannot exceed 5 percent.

Flush Transitions.

The transitions on and off the curb ramp are the points where the gutter meets the bottom of the ramp and where the top of the ramp meets the sidewalk. Under the 1991 and 2010 Standards, these transition points are required to be flush and cannot have any abrupt level changes.⁶

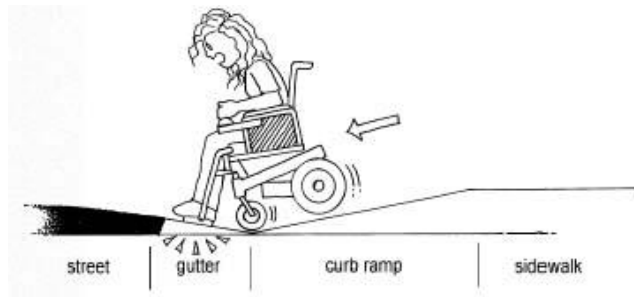


Abrupt Changes in Grade

A rapid change of grade, such as what might be found between the base of a curb ramp and the gutter, may be difficult to negotiate because the wheelchair's footrests or anti-tip wheels cannot

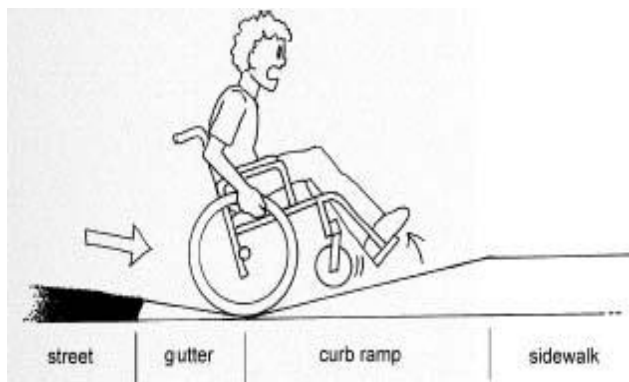
⁶ Under Sec. 4.7.2 of the 1991 Standards, “. . . Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.” Sec. 406.2 of the 2010 Standard provides that:” Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.”

clear the ground surface. In general, footrests are positioned low to the ground and extend beyond the front casters. Anti-tip wheels are placed on the back of some wheelchairs, behind the rear axle, to improve stability. Both the footrests and anti-tip wheels limit the clearance height of the wheelchair. Clearance may be a particular problem at an abrupt change of grade because the footrests or anti-tip wheels extend beyond the wheelbase of the wheelchair and therefore may contact the surface across the transition point from where the wheels are located.



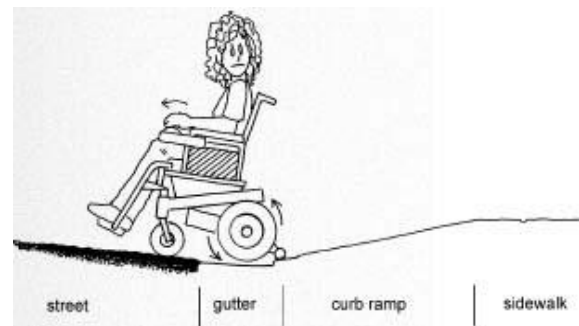
Risk of Tipping Forward When Foot Rest Catches Due to Abrupt Change in Grade

A further complication associated with severe changes in grade is the increased risk of tipping if the wheelchair user is traveling with speed such as when descending a curb ramp. If the footrests catch on the ground, the wheelchair will come to an abrupt stop; the forward momentum of the individual and wheelchair is interrupted and can cause the wheelchair user's upper body to fall forward or can cause the user and the wheelchair to tip forward.



Grade Changes Over A Short Interval Can Cause Wheelchair to Flip Over Backwards

If the user moves quickly through the change in grade, without compromising the ground clearance of the wheelchair, the stability of the moving wheelchair may still be compromised because the momentum of the wheelchair will rotate backwards as the wheelchair climbs up the gutter slope. If there is a severe change in grade, this may cause the wheelchair to tip over backwards. Any amount of height transition such as lips between the curb ramp and the gutter can further contribute to the stability problems experienced by wheelchair users.⁷

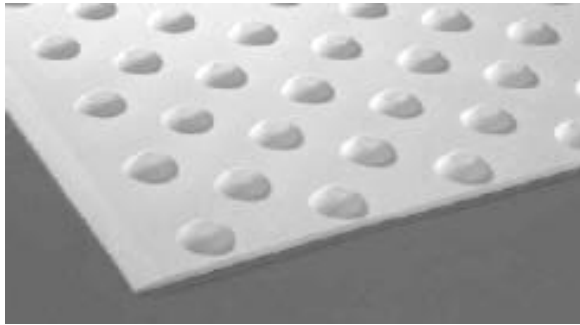


Small Anti-Tip Wheels on Motorized Wheelchairs Can Get Caught When There is an Abrupt Change in Grade

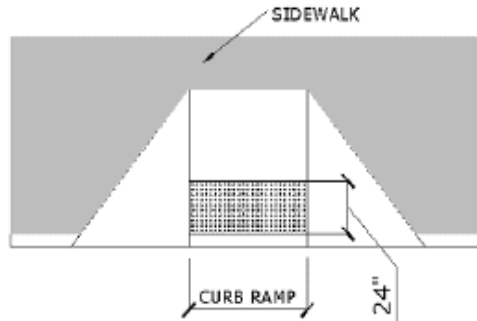
⁷ See previous note. Both the 1991 and 2010 Standards limit the counter slope of adjoining gutters and roadways to 1:20 (which is the same as 5%) to reduce the risk of wheelchairs tipping forward or flipping backwards.

Detectable Warnings

Detectable warnings, a distinctive surface pattern of domes detectable by cane or underfoot, are used to alert people with vision impairments that they are approaching streets and hazardous



Truncated Domes Used as Detectable Warnings for People with Vision Impairments



drop-offs. The Draft Rules for Public Rights of Way recommend that these warnings be placed on the surface of curb ramps extending 610 mm (24 in) minimum in the direction of travel and the full width of the curb ramp (exclusive of flares), the landing, or the blended transition. For a ramp that is perpendicular to the sidewalk, the detectable warnings are to be placed at the bottom grade break. Detectable warnings are intended to provide a tactile equivalent underfoot of the visible curbline; those placed too far from the street edge because of a large curb radius may compromise effective crossing detection.

TABLE 1. BEST PRACTICES FOR CURB RAMP DESIGN⁸

Best Practice	Rationale
Provide a level maneuvering area or landing at the top of the curb ramp.	Landings are critical to allow wheelchair users space to maneuver on or off of the ramp. Furthermore, people who are continuing along the sidewalk will not have to negotiate a surface with a changing grade or cross slope.
Clearly identify the boundary between the bottom of the curb ramp and the street with a detectable warning.	Without a detectable warning, people with vision impairments may not be able to identify the boundary between the sidewalk and the street.
Design ramp grades that are perpendicular to the curb.	Assistive devices for mobility are unstable if one side of the device is lower than the other or if the full base of support (e.g., all four wheels on a wheelchair) are not in contact with the surface. This commonly occurs when the bottom of a curb ramp is not perpendicular to the curb.
Place the curb ramp within the marked crosswalk area.	Pedestrians outside of the marked crosswalk are less likely to be seen by drivers because they are not in an expected location.

⁸ This table is Table 7-1 from the Federal Highway Administration's *Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide* at p. 7-4 (FWA, September 2001) available at <http://www.fhwa.dot.gov/environment/sidewalk2>.

Best Practice	Rationale
Avoid changes of grade that exceed 11 percent over a 610 mm (24 in) interval.	Severe or sudden grade changes may not provide sufficient clearance for the frame of the wheelchair causing the user to tip forward or backward.
Design a ramp that doesn't require turning or maneuvering on the ramp surface.	Maneuvering on a steep grade can be very hazardous for people with mobility impairments.
Provide a curb ramp grade that can be easily distinguished from surrounding terrain; otherwise, use detectable warnings.	Gradual slopes make it difficult for people with vision impairments to detect the presence of a curb ramp.
Design the ramp with a grade of 7.1 ± 1.2 percent. [Do not exceed 8.33 percent (1:12).]	Shallow grades are difficult for people with vision impairments to detect but steep grades are difficult for those using assistive devices for mobility.
Design the ramp and gutter with a cross slope of 2.0 percent.	Ramps should have minimal cross slope so users do not have to negotiate a steep grade and cross slope simultaneously.
Provide adequate drainage to prevent the accumulation of water or debris on or at the bottom of the ramp.	Water, ice, or debris accumulation will decrease the slip resistance of the curb ramp surface.
Transitions from ramps to gutter and streets should be flush and free of level changes.	Maneuvering over any vertical rise such as lips and defects can cause wheelchair users to propel forward when wheels hit this barrier.
Align the curb ramp with the crosswalk, so there is a straight path of travel from the top of the ramp to the center of the roadway to the curb ramp on the other side.	Where curb ramps can be ahead, people using wheelchairs often build up momentum in the crosswalk in order to get up the curb ramp grade (i.e., they "take a run at it"). This alignment may be useful for people with vision impairments.
Provide clearly defined and easily identified edges or transitions on both sides of the ramp to contrast with sidewalk.	Clearly defined edges assist users with vision impairments to identify the presence of the ramp when it is approached from the side.

Curb Ramp Barriers Identified by the OOC

The OOC’s biennial ADA inspection found that most of the curb ramps on the sidewalks surrounding the House office buildings do not comply with either the 1991 and 2010 standards. In most cases, the deviation from the standard is severe enough to be classified as an “A” severity – which means that the condition of these ramps raises safety concerns. Some of the most common findings are described below.

Curb Ramp Slopes That Are Too Steep

Out the 30 ramps surveyed, the OOC identified 28 curb ramps that failed to comply with the ADA Standards. Of these, 6 have running slopes that are too steep, which means that the running slope exceeds the maximum 8.3% (1:12) slope allowed



Curb Ramp 14 has a Running Slope of 16.4%

by both the 1991 and 2010 Standards.⁹ In two cases, the deviation from the applicable Standard is rated as an “A” severity because the slope far exceeds the maximum: Curb Ramp 12 has a 14% slope and Curb Ramp 14 has a 16.4% slope. Three of the curb ramps with excessive running slopes have a severity code of “B” -- which means that the deviation from the standard is severe enough to block access. Curb Ramp 13 has a running slope of 10.6% and Curb Ramp 23 has running slope of 10.5%. One curb ramp, Curb Ramp 39, has a running slope classified as a “C” severity, meaning that it is a major inconvenience, because the slope is 11.2% (more allowance is allowed to its size – see Guidelines in Table 2).

Cross Slopes That Are Too Steep

The OOC identified 13 ramps with cross slopes that are too steep. This means there are areas on each of these curb ramps that exceed the maximum allowable cross slope of 2.08% or 1:48. In 6 of these ramps, the cross slope of the ramp itself exceeds the standard, in 5 ramps the cross slope of the top landing exceeds the standard, and in 4 ramps the cross slope of the bottom landing exceeds the standard. 3 ramps have excessive cross slopes at all three locations, and 2 ramps have excessive cross slopes on the ramp itself or at the top or bottom landing. For each of these ramps, the deviation from the standard is so severe that an “A” severity condition has been created in one or more locations.



Curb Ramp 40 Has a Cross Slope of 5.2%

TABLE 2. SEVERITY CODE GUIDELINES FOR RUNNING SLOPES OF CURB RAMPS.

Guidelines for Typical[†] Severity Codes for Existing (Pre-1/26/92) Facilities Version 2010

	A Safety Consideration	B Blocks Access	C Major Inconvenience	D Minor Inconvenience	Construction Tolerance	Notes
Ramps / Curb Ramps						
Ramp & curb ramp slopes** maximum rise 3" (existing site w/space limitations)	x > 15%	x > 14%	x > 13.2%	x > 12.5%	None additional	The worst measurement determines severity
Ramp & curb ramp slopes** maximum rise 6" (existing site w/space limitations)	x > 13.5%	x > 12%	x > 11%	x > 10%	None additional	The worst measurement determines severity
Ramp & curb ramp slopes** rise > 6" with run ≤ 10'	x > 12.8%	x > 10.2%	x > 9.5%	x > 8.8%	0.50%	The worst measurement determines severity
Ramp & curb ramp slopes** rise > 6" with run > 10'	x > 12.5%	x > 10%	x > 9.3%	x > 8.8%	0.50%	The worst measurement determines severity
Combined main slope of curb ramp and back slope of street at gutter***	x > 16.6%	x > 15.7%	x > 14.8%	x > 14.3%	0.50%	Add gutter and curb ramp slopes from horizontal
** When measuring slopes, use a 24" long Smartlevel at regular intervals as directed on the survey forms. The worst measurement determines the severity.						
*** When measuring combined slopes of curb ramps and gutters, add gutter and curb ramp slopes from horizontal.						

⁹ See note 3.

TABLE 3. CURB RAMP BARRIERS AND SOLUTIONS FOR SIDEWALKS SURROUNDING HOUSE OFFICE BLDGS

Curb Ramp No.	Existing Condition	Solution	Severity Code
12	CURB RAMP SLOPES 14.0%	Remove existing noncompliant curb ramp and replace with a compliant curb ramp.	A
12	WATER ACCUMULATES AT GUTTER	Modify existing curb ramp and adjacent surfaces as necessary to provide a compliant landing.	C
13	CURB RAMP SLOPES 10.6%	Remove existing noncompliant curb ramp and replace with a compliant curb ramp.	B
13	BOTTOM LANDING SLOPES 11.2%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	A
13	TOP LANDING SLOPES 3.5%	Alter existing exterior route to reduce cross slope to 1:48 or less.	C
14	CURB RAMP SLOPES 16.4%	Alter existing curb ramp to reduce slope to 1:12 or less. Coordinate with other requirements.	A
14	JOINT > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	C
14	BOTTOM LANDING SLOPES 13.2%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	A
14	TOP LANDING SLOPES 4.1%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
15	BOTTOM LANDING SLOPES 9.8%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	B
16	CROSS SLOPE OF BOTTOM LANDING 3.9%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
16	UNBEVELED LEVEL CHANGE > 5/8"	Modify and/or repair existing curb ramp surface to provide compliant surface.	B
16	42" CLEAR WITHIN MARKED CROSSING OF DIAGONAL CURB RAMP	Install or alter markings for crossings in a manner to provide at least 48" clearance at bottom of curb ramp within marked crossings.	C
18	CURB RAMP CROSS SLOPE 5.9%	Alter existing curb ramp to reduce cross slope to 1:48 (2.08%) or less.	A
18	SLAB JOINT 1" WIDE AND 1/2" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	C
18	DETECTABLE WARNINGS VERTICAL TRANSITION 1/2" HIGH	Remove existing surface material and install new compliant surface material.	C
18	BOTTOM LANDING SLOPES 10.2%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	A
18	TOP LANDING SLOPES 3.9%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
19	GRATING OPENING LONG DIMENSION IS NOT PERPENDICULAR TO DOMINANT DIRECTION OF TRAVEL	Notify the owner of grating of noncompliance and request correction.	C
19	SLAB JOINT 1" WIDE AND 1/2" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	C
19	SIDE FLARES SLOPE 15.0% AND 15.3%	Modify existing curb ramp and adjacent surfaces as necessary to provide compliant side flares.	C
19	DETECTABLE WARNINGS DETERIORATED	Remove or cover existing detectable warning. Install compliant detectable warning extending the full width of curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C
19	BOTTOM LANDING SLOPES 10.0%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	A

20	SLAB JOINTS AND CRACKS 1.5" WIDE AND > 1/4" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	A
20	44.5" CLEAR WITHIN MARKED CROSSING OF DIAGONAL CURB RAMP	Install or alter markings for crossings in a manner to provide at least 48" clearance at bottom of curb ramp within marked crossings.	C
20	DETECTABLE WARNINGS DETERIORATED	Remove or cover existing detectable warning. Install compliant detectable warning extending the full width of curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C
21	CURB RAMP CROSS SLOPE 7.7%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
21	SLAB JOINTS > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	A
21	DETECTABLE WARNINGS 16" FROM CURB LINE	Install additional detectable warning extending the full width of the curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C
21	TOP LANDING CROSS SLOPE 6.4%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
21	BOTTOM LANDING CROSS SLOPE 4.5%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
22	SLAB JOINTS AND CRACKS ARE > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	A
22	35" CLEAR WITHIN MARKED CROSSING OF DIAGONAL CURB RAMP	Install or alter markings for crossings in a manner to provide at least 48" clearance at bottom of curb ramp within marked crossings.	C
22	DETECTABLE WARNINGS DETERIORATED	Remove or cover existing detectable warning. Install compliant detectable warning extending the full width of curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C
23	CURB RAMP SLOPES 10.5%	Alter existing curb ramp to reduce slope to 1:12 or less. Coordinate with other requirements.	B
23	DETECTABLE WARNINGS DETERIORATED	Remove or cover existing detectable warning. Install compliant detectable warning extending the full width of curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C
24	CURB RAMP CROSS SLOPE 5.7%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
24	BOTTOM LANDING SLOPES 12.6%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	A
24	TOP LANDING CROSS SLOPE 5.7%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
26	SLAB JOINT 3/4" WIDE AND >1/4" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	A
26	44" CLEAR WITHIN MARKED CROSSING OF DIAGONAL CURB RAMP	Install or alter markings for crossings in a manner to provide at least 48" clearance at bottom of curb ramp within marked crossings.	C
26	BOTTOM LANDING SLOPES 12.2%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	A
27	CURB RAMP CROSS SLOPE 3.6%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	B
28	CURB RAMP CROSS SLOPE 4.9%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
29	DETECTABLE WARNINGS DETERIORATED	Remove or cover existing detectable warning. Install compliant detectable warning extending the full width of curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C

29	TRANSITION 1/2" HIGH	Alter existing transition from curb to sidewalk, gutter and/or street to be at same level.	A
30	CURB RAMP CROSS SLOPE 4.9%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
30	SLAB JOINT 3/4" WIDE AND 1/2" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	A
30	TRANSITION AT BOTTOM LANDING 3/4" HIGH	Alter existing transition from curb to sidewalk, gutter and/or street to be at same level.	A
31	CURB RAMP CROSS SLOPE 6.4%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
31	TOP LANDING CROSS SLOPE 7.2%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
32	CURB RAMP CROSS SLOPE 5.8%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
32	BOTTOM LANDING CROSS SLOPE 4.2%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
33	CURB RAMP CROSS SLOPE 4.2%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
33	TOP LANDING CROSS SLOPE 4.2%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
34	CURB RAMP CROSS SLOPE 8.5%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
34	TOP LANDING CROSS SLOPE 6.6%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
34	BOTTOM LANDING CROSS SLOPE 6.0%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
35	CURB RAMP CROSS SLOPE 6.2%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
35	CRACK AT BOTTOM LANDING 2" WIDE AND 1/2" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	A
36	CURB RAMP SLOPES 12.7%	Remove existing noncompliant curb ramp and replace with a compliant curb ramp.	B
36	BOTTOM LANDING SLOPES 7.4%	Alter existing sidewalk, gutter and/or street to reduce slope to 1:20 (5%) or less.	A
37	BOTTOM LANDING TRANSITION 1/2"	Alter existing transition from curb to sidewalk, gutter and/or street to be at same level.	C
38	DETECTABLE WARNINGS DETERIORATED	Remove or cover existing detectable warning. Install compliant detectable warning extending the full width of curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C
39	CURB RAMP SLOPES 11.2%	Alter existing curb ramp to reduce slope to 1:12 or less. Coordinate with other requirements.	C
39	SLAB JOINT 1" WIDE AND >1/4" DEEP	Repair and/or fill curb ramp cracks and/or expansion joints.	C
39	DETECTABLE WARNINGS DETERIORATED	Remove or cover existing detectable warning. Install compliant detectable warning extending the full width of curb ramp (excluding flared sides), 24" deep, and 6" back from the curb line. Coordinate with requirements for contrasting finish and level changes at walking surfaces.	C
40	CURB RAMP CROSS SLOPE 5.2%	Remove existing noncompliant curb ramp and replace with a compliant ramp.	A
40	35.5" CLEAR WITHIN MARKED CROSSING OF DIAGONAL CURB RAMP	Install or alter markings for crossings in a manner to provide at least 48" clearance at bottom of curb ramp within marked crossings.	C
40	BOTTOM LANDING CROSS SLOPE 4.3%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
40	TOP LANDING CROSS SLOPE 3.9%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B

Slab Joints & Cracks That Are Too Wide & Too Deep And Transitions That Are Too High

The OOC found 12 curb ramps with barriers related to concrete slab joints, cracks or transitions. Slab joints that are greater than 1/2 inch wide or 1/4 inch deep create barriers to access because the small anti-tip wheels on wheelchairs can catch in these spaces. Similarly, when transitions between the ramp and the sidewalk or the road are not level, the front foot rest can catch and cause the wheelchair to flip forward.



Slab Joint Too Wide & Too Deep (Curb Ramp 20)



Transition Too High (Curb Ramp 27)

Detectable Warnings Deteriorated

The OOC found 8 curb ramps with detectable warnings that had deteriorated. While these are only rated as “C” severities, these deteriorated warnings do make it more difficult for the ramp to be detected by people who use canes because of visual impairments.



Deteriorated Detectable Warning (Curb Ramp 39)

Ramp Outside of Marked Crosswalk

The OOC found 4 curb ramps where not enough of the ramp was within the marked crosswalk. These all involved diagonal (or corner) type curb ramps where one curb ramp is serving two marked cross walks. The standards require at least 48 inches of the bottom landing to be within the marked crosswalks.



Ramp Outside of Marked Crosswalk (Curb Ramp 16)



Close-up of Tape Measure in Previous Photo (Curb Ramp 16)

ADA Survey Results for Curb Ramps on Sidewalks Surrounding Cannon H.O.B.

Curb Ramp 16 – Cross Slope at Bottom Landing Too Steep (B), Transition Not Level (B) & Ramp Outside Marked Crosswalk (C)



Curb Ramp 15 – Counter Slope of Adjoining Gutter Too Steep (B)



Curb Ramp 14 – Running Slope, Counter Slope of Adjoining Gutter & Top Landing Slope All Too Steep (All Severity Code A) & Wide Cracks on Ramp (C)



Independence Ave., S.W.

Cannon H.O.B.

Curb Ramp 13 – Running Slope Too Steep (B) & Bottom Landing Too Steep (A) & Top Landing Cross Slope Too Steep (C)



Curb Ramp 18 – Cross Slope & Counter Slope of Adjoining Gutter Too Steep (A) & Other Barriers (C)



Curb Ramp 19 – Counter Slope of Adjoining Gutter Too Steep (A) & Other Barriers (C)



Curb Ramp 12 – Running Slope Too Steep (A) & Water Accumulates at Gutter (C)

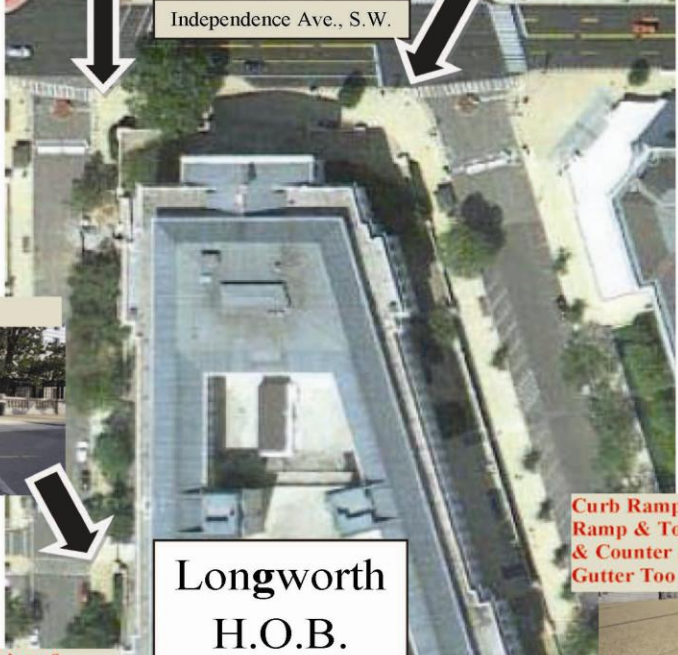


ADA Survey Results for Curb Ramps on Sidewalks Surrounding Longworth H.O.B.

Curb Ramp 21 – Cross Slope of Ramp & Top & Bottom Landings All Too Steep (All Severity Code A), Slab Joints & Cracks Too Wide (A) & Detectable Warning Deteriorated (C)



Curb Ramp 20 – Slab Joints & Cracks Too Wide (A), Ramp Outside Marked Crosswalk (C) & Detectable Warning Deteriorated (C)



No Curb Ramp (B)



Curb Ramp 24 – Cross Slope of Ramp & Top Landing Too Steep (A) & Counter Slope of Adjoining Gutter Too Steep (A)



Curb Ramp 22 – Slab Joints & Cracks Too Wide (A), Detectable Warning Deteriorated (C) & Ramp Outside Marked Crosswalk (C)



Curb Ramp 23 – Running Slope Too Steep (B) & Detectable Warning Deteriorated (C)



ADA Survey Results for Curb Ramps on Sidewalks Surrounding Rayburn H.O.B.

Curb Ramp 39 – Running Slope Too Steep (C), Slab Joint Too Wide & Deep (C) & Detectable Warning Deteriorated (C)

Curb Ramp 40 – Ramp Cross Slope Too Steep (A), Top Landing Cross Slope Too Steep (B), Bottom Landing Cross Slope Too Steep (A) & Ramp Outside of Marked Crosswalk (C)

Curb Ramp 26 – Bottom Landing Too Steep (A); Slab Joints Too Deep & Too Wide (A) & Ramp Outside of Marked Crosswalk (C)

Curb Ramp 27 – Cross Slope Too Steep (B) & Transition Not Level (A)

Curb Ramp 28 – Cross Slope Too Steep (B)

Curb Ramp 29 – Transition to Road Not Level (A) & Detectable Warning Deteriorated (C)

Curb Ramp 30 – Cross Slope Too Steep (A); Slab Joints Too Deep & Too Wide (A); Transition to Road Not Level (A)

Curb Ramp 31 – Cross Slope & Top Landing Cross Slope Too Steep (Both A)

Curb Ramp 32 – Cross Slope & Bottom Landing Cross Slope Too Steep (Both A)

Curb Ramp 33 – Cross Slope & Top Landing Cross Slope Too Steep (Both A)

Curb Ramp 34 – Cross Slope & Top & Bottom Cross Slope Too Steep (All A)

Curb Ramp 35 – Cross Slope Too Steep (A) & Crack at Bottom Landing Too Deep & Wide (A)

Curb Ramp 36 – Running Slope Too Steep (B) & Combined Slope of Ramp & Gutter Slope Too Large (A)

Curb Ramp 37 – Bottom Landing Not Level (C)

Curb Ramp 38 – Detectable Warning Deteriorated (C)

RAYBURN H.O.B.

Independence Ave., S.W.

OTHER SIDEWALK BARRIERS FOUND BY THE OOC

Changes in Level of Sidewalk Surface¹⁰

Changes in level are defined as vertical height transitions between adjacent surfaces or along the surface of a path. On sidewalks, curbs without curb ramps, cracks, and dislocations in the surface material are common examples of changes in level. Changes in level also can result at expansion joints between concrete slabs or between elements such as curb ramps and gutters. Changes in level can cause ambulatory pedestrians to trip. Manual wheelchair users can catch the casters of the wheelchair, causing the chair to come to an abrupt stop. People who are blind or with vision impairments might not anticipate changes in level such as a buckling brick sidewalk. The following conditions cause changes in level:

- Buckled bricks
- Cracks
- Curbs without ramps
- Drainage grates
- Grooves in concrete
- Heaving and settlement due to frost
- Lips at curb ramp frames
- Roots
- Small steps
- Tree grates
- Uneven transitions between streets, gutters, and ramps
- Manhole covers



Example of Barrier Created by Level Change

Both the 1991 and 2010 Standards require that changes in level in excess of 1/2 inch be ramped. Under both the 1991 and 2010 Standards, changes in level up to 1/4 inch are allowed without modification, but level changes between 1/4 inch and 1/2 inch must be beveled at a 1:2 slope.¹¹

¹⁰ This general description regarding the ADA barriers posed by changes in level is from the Federal Highway Administration's *Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide*, Chapter 4: Chapter 4 - Sidewalk Design Guidelines and Existing Practices (FWA, September 2001) available at <http://www.fhwa.dot.gov/environment/sidewalk2/pdf.htm>.

¹¹ Sec. 4.5.2 of the 1991 Standards states that "Changes in level up to 1/4 in (6 mm) may be vertical and without edge treatment (see Fig. 7(c)). Changes in level between 1/4 in and 1/2 in (6 mm and 13 mm) shall be beveled with a slope no greater than 1:2 (see Fig. 7(d)). Changes in level greater than 1/2 in (13 mm) shall be accomplished by means of a ramp that complies with 4.7 or 4.8." Sec. 303.3 of the 2010 Standards provides that "Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2." Under Sec. 303.4 of the 2010 Standards. "Changes in level greater than 1/2 inch (13 mm) high shall be ramped, and shall comply with 405 or 406."

Table 4. Other Sidewalk Barriers and Solutions.

Barrier No	Existing Condition	Solution	SEV Code
13	SLAB JOINTS > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	C
16	CROSS SLOPE 4.4% TO 4.7%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
273	WHEELCHAIR SPACE SLOPES 6.1%	Alter floor as needed to provide a level area of at least the minimum required size at each wheelchair seating position.	A
5	VERTICAL TRANSITION > 1/2" HIGH	Repair and/or fill sidewalk cracks and/or expansion joints.	C
9	SLAB JOINT > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	C
22	CROSS SLOPE 3.8%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
25	TREE BRANCHES PROJECT > 4" AT 74" TO 79" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C
3	VERTICAL TRANSITION > 1" HIGH	Remove existing level transition and install compliant transition (1/4" Maximum height square or 1/2" Maximum height at 1:2 slope).	A
4	VERTICAL TRANSITION 1" HIGH	Remove existing level transition and install compliant transition (1/4" Maximum height square or 1/2" Maximum height at 1:2 slope).	A
6	JOINTS 1.5" WIDE AND 3/4" DEEP	Remove existing pavement and replace as necessary to eliminate noncompliant vertical offset.	A
8	CRACK 5" WIDE AND 1/2" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
10	SLAB JOINT 1" WIDE AND 1/2" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
11	CRACK > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	C
12	SLAB JOINT 1" WIDE AND 1/2" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
14	MANHOLE COVER HAS GAPS 2" WIDE AND > 1/4" DEEP	Notify the owner of grating of noncompliance and request correction.	A
15	CLEAR WIDTH 29", OBSTRUCTED BY LIGHT POLE	Alteration requires complex redesign beyond the scope of this survey.	B
17	CROSS SLOPE 7.5%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
19	CROSS SLOPE 6.8%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
20	CROSS SLOPE 6.1%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
21	CROSS SLOPE 6.6% TO 6.8%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
24	CROSS SLOPE 5.9%-7.6%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
7	SLAB JOINT > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	C
18	CROSS SLOPE 5.9%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
23	CROSS SLOPE 4.0% TO 4.7%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
54	VERTICAL TRANSITION 1" HIGH	Modify/repair surfaces as needed to remove vertical offset.	A
59	SLAB JOINTS 3/4" WIDE AND 1/2" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
60	CRACK > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
65	SLAB JOINTS > 1/2" WIDE AND > 1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
69	CROSS SLOPE 3.4-4.1%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B

Barrier No	Existing Condition	Solution	SEV Code
195	3 ENTRANCE MATS LOOSE	Remove mat and install new compliant entrance mat or other compliant flooring. Install compliant edge transitions as needed.	A
196	CURB RAMP IS NOT PROVIDED WHERE ACCESSIBLE ROUTE CROSSES A CURB	Install a compliant curb ramp at this location.	B
58	SLAB JOINT >1/2" WIDE AND >1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
71	CROSS SLOPE 3.6-3.8%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
77	CROSS SLOPE 4.1-5.1%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
85	BOLLARD CHAINS PROJECT 12" AT 27.5" ABOVE SIDEWALK	Lower existing item into the range of cane detection. Repair/refinish as needed. Comply with reach ranges, clear floor space, etc.	C
87	TREE BRANCH PROJECTS AT 74" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C
90	WHEELCHAIR SPACE SLOPES 8.0%	Alter floor as needed to provide a level area of at least the minimum required size at each wheelchair seating position.	A
63	SLAB JOINT 3/4" WIDE AND >1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	B
67	SLAB JOINTS 3/4" WIDE AND 1/2" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
70	CROSS SLOPE 3.5-5.5%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
72	CROSS SLOPE 3.5%	Alter existing exterior route to reduce cross slope to 1:48 or less.	C
73	CROSS SLOPE 3.7%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
84	CROSS SLOPE 4.7%	Alteration requires complex redesign beyond the scope of this survey.	A
86	TREE BRANCHES PROJECT AT 72" TO 74" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	B
52	VERTICAL TRANSITION 3/4" HIGH	Remove existing level transition and install compliant transition (1/4" Maximum height square or 1/2" Maximum height at 1:2 slope).	A
53	VERTICAL TRANSITION 1/2" HIGH AND IS NOT BEVELED 1:2	Grind existing surface at change in level to 1:2 slope or less.	B
55	ENTRANCE MAT LOOSE	Remove mat and install new compliant entrance mat or other compliant flooring. Install compliant edge transitions as needed.	A
56	GRATINGS 1" WIDE	Remove existing noncompliant grating and install new compliant grating.	A
57	SLAB JOINT >1/2" WIDE AND >1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
61	SLAB JOINTS >1/2" WIDE AND >1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
62	CRACK 3/4" AND 1/2" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
66	CRACK 2" WIDE AND 1" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
74	CROSS SLOPE 4.6-5.1%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
75	CROSS SLOPE 4.3%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
76	CROSS SLOPE 3.1-4.6%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
78	CROSS SLOPE 4.2%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
79	CROSS SLOPE 5.9%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
80	CROSS SLOPE 6.6%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
81	CROSS SLOPE 3.3%	Alter existing exterior route to reduce cross slope to 1:48 or less.	C
82	CROSS SLOPE 3.5%	Alter existing exterior route to reduce cross slope to 1:48 or less.	C
83	CROSS SLOPE 5.0%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A

Barrier No	Existing Condition	Solution	SEV Code
88	TREE BRANCH PROJECTS AT 76" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	A
117	VERTICAL TRANSITION >1" HIGH	Remove existing level transition and install compliant transition (¼" Maximum height square or ½" Maximum height at 1:2 slope).	A
118	VERTICAL TRANSITION >1" HIGH	Remove existing level transition and install compliant transition (¼" Maximum height square or ½" Maximum height at 1:2 slope).	A
119	VERTICAL TRANSITION 1/2" HIGH	Grind existing surface at change in level to 1:2 slope or less.	A
120	VERTICAL TRANSITION 1/2" HIGH AND IS NOT BEVELED 1:2	Grind existing surface at change in level to 1:2 slope or less.	B
123	9 SLAB JOINTS >1/2" WIDE AND >1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	B
129	LEDGE PROJECTS 4.5" AT 53" ABOVE SIDEWALK	Construct wing walls or other cane-detectable feature with lowest edge ≤ 27" above sidewalk under protruding object to direct blind or vision-impaired individuals around protruding object. If item is required to be accessible, comply with reach ranges, clear floor space, etc.	A
133	TREE BRANCH PROJECTS AT 75" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C
208	CURB RAMP IS NOT PROVIDED WHERE ACCESSIBLE ROUTE CROSSES A CURB	Install a compliant curb ramp at this location.	B
111	CROSS SLOPE 3.4 TO 7.8%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
112	CROSS SLOPE 2.8 TO 3.5%	Alter existing exterior route to reduce cross slope to 1:48 or less.	C
122	20 SLAB JOINTS AND CRACKS >1/2" WIDE AND >1/2" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
131	TREE BRANCH PROJECTS AT 75" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C
134	TREE BRANCH 70" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C
135	HOLLY BUSH PROJECTS AT 55" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C
207	CROSS SLOPE 5.2 TO 6.1%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
124	12 SLAB JOINTS >1/2" WIDE AND >1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	A
125	SEWER MANHOLE COVER GAPS >1/2" WIDE AND >1/4" DEEP	Notify the owner of grating of noncompliance and request correction.	C
126	CROSS SLOPE 3.6 TO 4.0%	Alter existing exterior route to reduce cross slope to 1:48 or less.	B
127	CROSS SLOPE 4.0 TO 5.0%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
128	CROSS SLOPE 4.0 TO 5.0%	Alter existing exterior route to reduce cross slope to 1:48 or less.	A
130	PLANTS PROJECT AT 51" TO 75" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C
121	6 SLAB JOINTS >1/2" WIDE AND >1/4" DEEP	Repair and/or fill sidewalk cracks and/or expansion joints.	C
132	PLANTS PROJECT AT 51" AND 69" ABOVE SIDEWALK	In the case of plants, trees, or shrubbery, trim planting to protrude no more than 4" or remove/relocate outside circulation path.	C

The OOC found 36 barriers related to level changes, 24 of which are severe enough to be coded as an “A” severity, i.e., a safety hazard, 3 of which are rated as a “B” severity and 9 of which are rated as a “C” severity.

Cross Slope Too Steep

The OOC identified 31 sidewalk areas with cross slopes that are too steep. Of these, 18 areas are so steep that they have been rated as an “A” severity. In the remaining areas, 9 are rated as a “B” severity and 4 are rated as a “C” severity. Severe cross slopes make it difficult for wheelchair users and other pedestrians to maintain their balance because they must work against the force of gravity. People using crutches or canes may be forced to turn sideways in order to keep their base of support at a manageable angle. Cross slopes can also cause wheelchairs to veer to the side, which increases their risk of rolling into the street. The effects of cross slopes are compounded when combined with steep grades and uneven surfaces.¹²

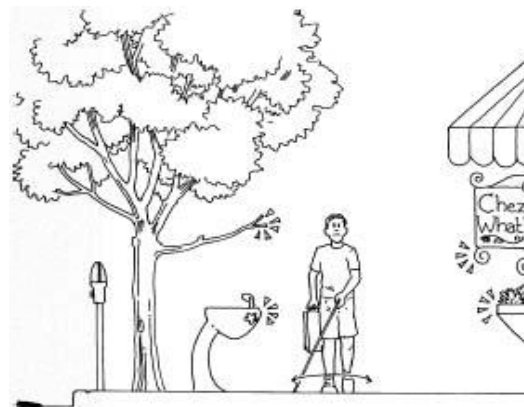
Sidewalk designers must balance the negative effects that cross slopes have on pedestrian mobility against the necessity of including cross slopes to provide adequate drainage. The 1991 and 2010 ADA Standards balanced these concerns by setting a maximum cross slope that will have both a minimal affect on most sidewalk users and provide for sufficient drainage. The 1991 Standards set the maximum cross slope for sidewalks at 2.0 percent (1:50).¹³ The 2010 Standard set the maximum cross slope for sidewalks at 2.08 percent (1:48).¹⁴ Those designing and installing sidewalks must understand the impact of cross slope on people with disabilities to ensure that sidewalk cross slope stays within the recommended 2.08 percent during the installation process.



Wheelchair Users Find Severe Cross Slopes Difficult to Navigate

Protruding Objects

Objects that protrude into the sidewalk corridor but are higher than 80 inches are not a problem for people with vision impairments because most pedestrians require less than 80 inches of headroom. In addition, people with vision impairments who use long white canes to navigate (if they are of adult stature and using their canes skillfully) will usually detect and avoid objects on the sidewalk that extend below 27 inches.



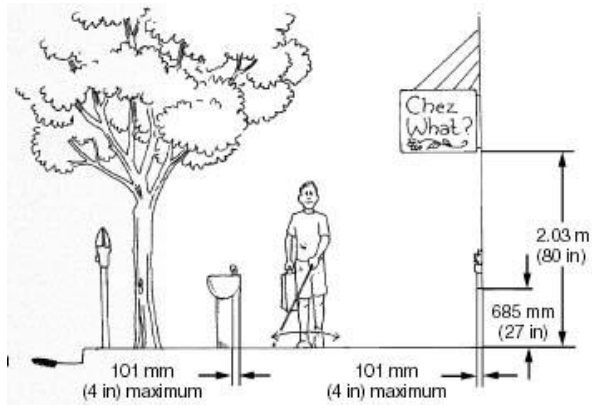
In the Above Illustration, the Tree Branch, Water Fountain, Sign and Planter Are All Protruding Objects that Are Access Barriers for Cane Users

¹² This general description regarding the ADA barriers posed by severe cross slopes and the cartoon drawing are from the Federal Highway Administration’s *Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide*, Chapter 4: Chapter 4 - Sidewalk Design Guidelines and Existing Practices, Sec. 4.2.2 “Cross Slopes” (FWA, September 2001) available at <http://www.fhwa.dot.gov/environment/sidewalk2/pdf.htm>.

¹³ Sec. 4.3.7 of the 1991 Standards states that: “An accessible route with a running slope greater than 1:20 is a ramp and shall comply with 4.8. Nowhere shall the cross slope of an accessible route exceed 1:50.”

¹⁴ Sec. 403.3 of the 2010 Standards state that: “The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.”

However, obstacles that protrude into the sidewalk between 27 inches and 80 inches and do not extend to the ground are more difficult to avoid because the long white cane is unlikely to contact the object before the person contacts the object. Pedestrians with vision impairments often travel close to the building line. Therefore, if an object is mounted on a wall or the side of a building, it should not protrude more than 4 inches into the sidewalk corridor. If an object is mounted on a post that can only be approached from the front, it can protrude up to 12 inches because the angle of the long white cane allows a pedestrian who is blind to identify the post before bumping into the protruding object. However, if the post-mounted object can be approached from the side, it should protrude no more than 4 inches into the sidewalk corridor. Signs mounted on two posts should have a crossbar at 12 inches above the walking surface so that a pedestrian using a long white cane can readily detect the sign.



This Illustration Shows How the Barriers in the Previous Illustration can be Modified to Provide Access

Protrusions should be minimized as much as possible in each situation. Furthermore, because pedestrians with vision impairments do not always travel in the pedestrian zone, protruding objects should be eliminated from the entire paved portion of the sidewalk corridor. Protruding objects do not need to be eliminated if they are separated from the sidewalk corridor with a planting strip or other type of setback.



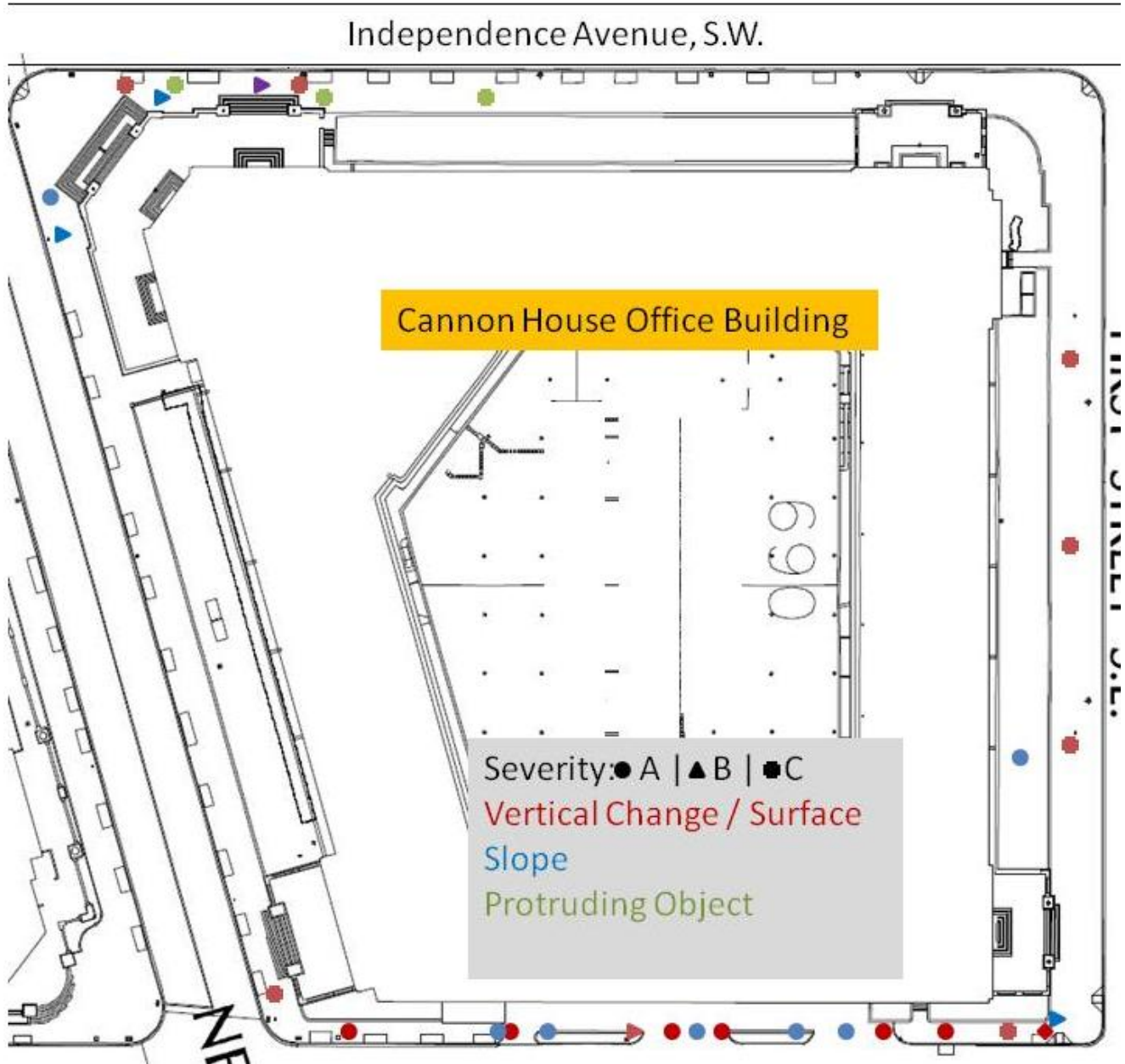
Protruding Tree Branch Creating Barrier



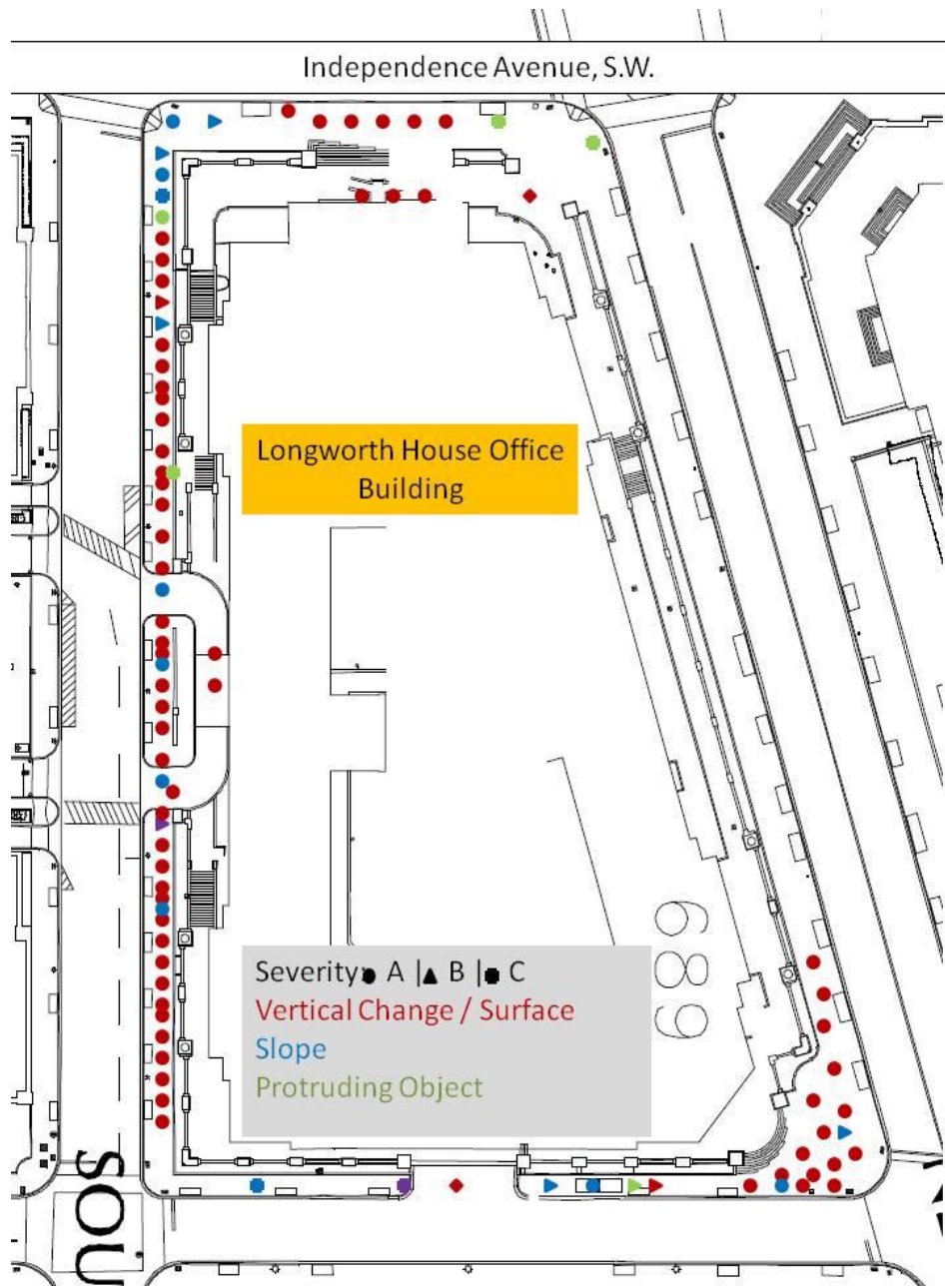
Close-up of Tape Measure in Previous Photo

The OOC found 11 barriers relating to objects that protrude into the sidewalk corridors. Most of these are related to tree branches or plants that have grown into the corridor. Two of the 11 barriers are rated as “A” severities because, in one case (Barrier 88), the tree branch is thick enough to pose a cutting hazard, and in the other case (Barrier 129), the protruding ledge has a rough surface that could cause abrasions during contact. Of the remaining 9 barriers, 8 are rated as “C” severities while 1 is rated a “B” severity.

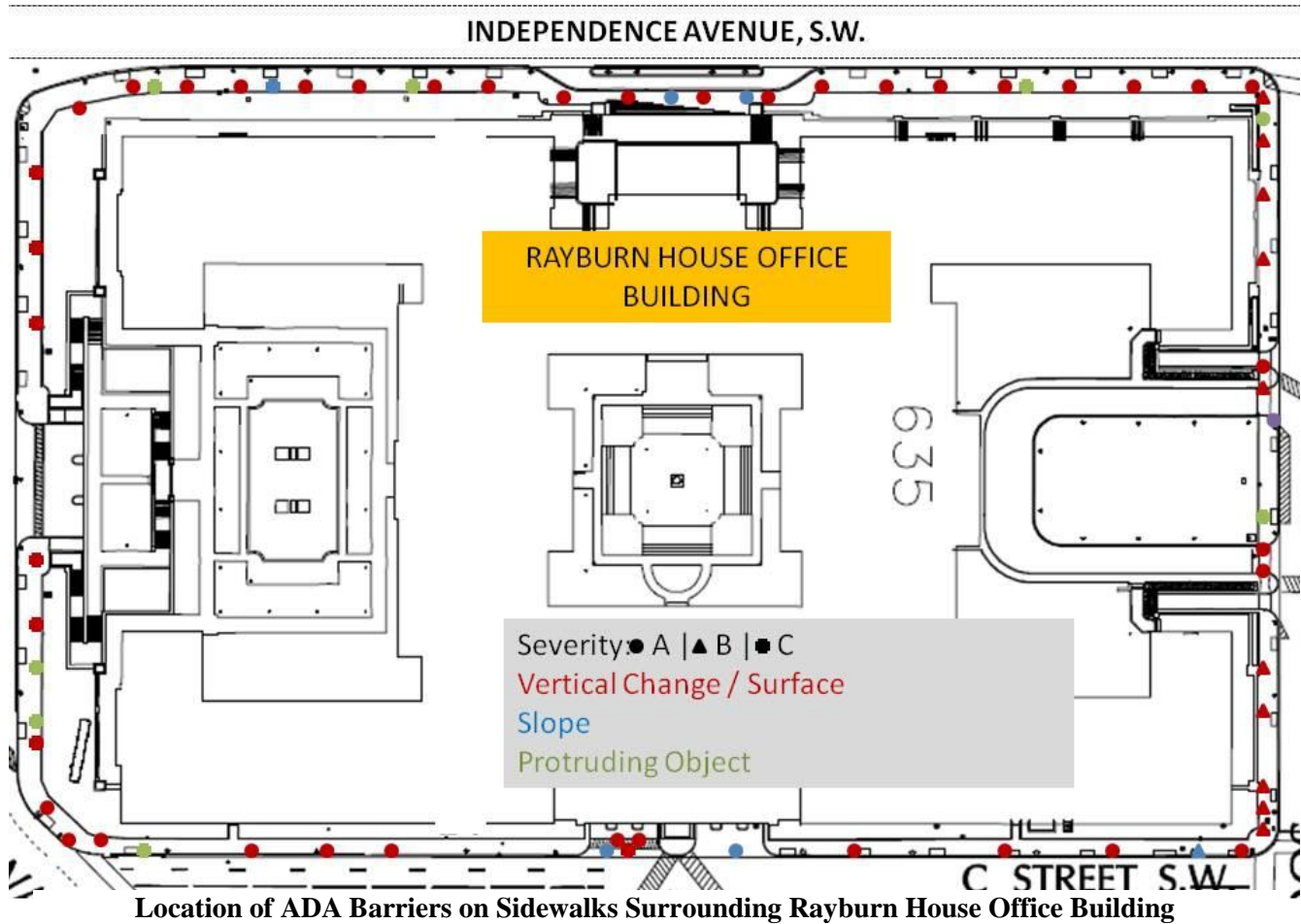
LOCATION OF ADA BARRIERS ON SIDEWALKS SURROUNDING HOUSE OFFICE BUILDINGS



Location of ADA Barriers on Sidewalks Surrounding the Cannon House Office Building



Location of ADA Barriers on Sidewalks Surrounding the Longworth House Office Building



Location of ADA Barriers on Sidewalks Surrounding Rayburn House Office Building

RESTROOM BARRIERS FOUND BY THE OOC

Both the 1991 and 2010 ADA Standards set out design and engineering standards to make public restrooms accessible to people with disabilities. There are some differences between the 1991 and 2010 ADA Standards pertaining to restrooms; however, the OOC is only proposing solutions that would bring the non-complying elements of restrooms into compliance with the 2010 ADA Standards. The OOC has inspected only restrooms that have been altered to become ADA accessible restrooms and are so identified. Although the alteration of a restroom may have taken place when the 1991 ADA Standards should have been followed, if the alteration is currently not in compliance with the 1991 Standards, as of March 15, 2012, the regulations now require that the non-complying portions be corrected to comply with the 2010 ADA Standards to the maximum extent feasible.¹⁵ Some of the pertinent standards and the reasoning behind them are set forth below.

¹⁵ Under 28 C.F.R. § 35.151(c)(5)(ii): “Newly constructed or altered facilities or elements covered by Sec. 35.151(a) or (b) that were constructed or altered before March 15, 2012 and that do not comply with the 1991 Standards or with UFAS shall, on or after March 15, 2012, be made accessible in accordance with the 2010 Standards.” Under 28 C.F.R. § 35.151(b)(1): “Each facility or part of a facility altered by, on behalf of, or for the use of a public entity in a manner that affects or could affect the usability of the facility or part of the facility shall, to the maximum extent feasible, be altered in such manner that the altered portion of the facility is readily accessible to and usable by individuals with disabilities, if the alteration was commenced after January 26, 1992.”

Wheelchair Access to Toilet Rooms

Toilet rooms and wheelchair accessible toilet stalls must have sufficient door clearances and clear floor space to allow for wheelchair access. This means that these spaces must have enough room to allow a person using a wheelchair to maneuver into position at the toilet and be able to make both a side and front transfer from the wheelchair to the toilet. The standards therefore require that there be sufficient clearances around the toilet¹⁶ and that toilet compartments meet minimum size requirements.¹⁷ The standards also regulate the height of the toilet¹⁸ and specify where grab bars must be located.¹⁹ Other features that provide access include specifications for hardware and flush controls²⁰ and the location of toilet paper dispensers,²¹ coat hooks,²² and mirrors.²³

Sinks and Counters

Sinks and countertops cannot be too high²⁴, need enough clear space underneath to allow for knee and toe clearance²⁵ and have sufficient clear floor space to allow a person using a wheelchair to maneuver into position.²⁶ Any plumbing under the sink or countertop must be insulated or otherwise protected to prevent users from being cut by sharp or abrasive surfaces or

¹⁶ Under § 604.3.1 of the 2010 Standards, there must be at least 60 inches between the side wall and the area perpendicular to it and 56 inches between the rear wall and the area perpendicular to it. § 604.2 specifies where in the compartment the toilet must be located – the centerline of the water closet must be between 16 and 18 inches from the side wall or partition

¹⁷ 2010 ADA Standards § 604.8.1.1 requires that there be at least 60 inches between the two side walls and either 56 inches (for wall hung toilets) or 59 inches (for floor mounted water closets) between the back wall (the wall behind the toilet) and the front wall.

¹⁸ The top of the toilet seat must be between 17 inches and 19 inches above the finished floor. 201 Standards § 604.4.

¹⁹ Under 2010 Standards § 604.5, grab bars are required on the side wall closest to the toilet and on the rear wall. The sidewall grab bar must at least 42 inches, located no more than 12 inches from the rear wall and extending at least 54 inches from the rear wall. § 604.5. Rear wall grab bars must be at least 36 inches long and extend from the centerline of the toilet by at least 12 inches on the side closest to the sidewall and 24 inches minimum on the transfer side. § 604.5.2. All grab bars must be mounted at a height between 33 and 36 inches about the finished floor, provide a space between the wall and the grab bar of 1.5 inches, and provide a space between the grab bar and protruding objects of at least 12 inches. §§ 609.3 & 609.4

²⁰ Under 2010 Standards § 604.6, flush controls can be hand operated or automatic. If hand operated, they must be on the transfer side of the toilet and comply with § 309 which regulates all controls (be operable with one hand; not require tight grasping, pinching or twisting of the wrist; and be activated with a maximum of 5 pounds of force). A door pull must be placed on both sides of the compartment door near the latch. § 604.8.1.2.

²¹ Toilet paper dispensers must comply with § 309 and be between 7 and 9 inches in front of the toilet with the outlet between 15 inches and 48 inches about the finish floor (and not behind grab bars.) § 604.7.

²² Coat hooks must be located within the reach ranges specified in § 308 (which is between 15 and 48 inches above the finished floor for unobstructed reaches).

²³ Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface no more than 40 inches about the finished floor or ground. Mirrors not above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches maximum about the finished floor or ground. 2010 ADA Standards § 603.3

²⁴ Under 2010 ADA Standards § 606.3, the front of sink shall be not more than 34 inches above the floor or ground.

²⁵ The front portion of the sink or counter cannot be lower than 27 inches and allow 27 inches of height for a depth of 8 inches at, and at least 9 inches of height for a depth of 11 inches. § 306.3.3 of the 2010 Standards.

²⁶ The 2010 ADA Standards require a 30 inch by 48 inch clear floor space around sinks. §§ 305.3 & 606.2.

burned by hot pipes.²⁷ Faucets for sinks and any other valves or knobs in the restroom must meet the control standard (be operable with one hand; not require tight grasping, pinching or twisting of the wrist; and be activated with a maximum of 5 pounds of force).²⁸

Urinals

In restrooms that have urinals, at least one urinal must be designed for use from a wheelchair.²⁹ If wall hung, the urinal must be deep enough and low enough to provide access.³⁰ Stall-type urinals (which extend to the floor) provide greater accessibility for a broader range of persons, including people of short stature.³¹ There must be a clear floor space in front of the urinal at least 30 inches wide and 48 inches deep.³²

OOO Restroom Surveys

During the 111th Congress, the OOC surveyed one restroom in each of the primary Senate Office Buildings (Russell, Dirksen and Hart), in each of the primary House Office Buildings (Rayburn, Longworth and Cannon) and the Madison Library of Congress Building. The results from these surveys are summarized in Table 5.

Table 5. Restroom Survey Results

Location	Existing Condition	Solution	Sev. Code
01-16-C1D1 - CANNON -1ST FLOOR-TOILET ROOM, MULTI-USER, MEN'S-MENS TOILET ROOM	ACCESSIBLE COMPARTMENT 52" WIDE	Alteration requires complex redesign beyond the scope of the survey.	B
Cannon 01-16-C1D1	STALL HARDWARE REQUIRES TWISTING TO OPERATE	Replace existing hardware with compliant hardware.	B
Cannon 01-16-C1D1	DOOR PULL PROVIDED ON PULL SIDE ONLY	Install handle(s).	C
Cannon 01-16-C1D1	REAR GRAB BAR 36.75" ABOVE FINISHED FLOOR TO TOP OF GRIPPING SURFACE	Remount existing compliant grab bars at required height. Confirm that wall or partition affords the required strength at new height.	C
Cannon 01-16-C1D1	SIDE GRAB BAR CLEARANCE TO WALL 21.5"	Furr out a smooth wall surface for at least 2" below and 15" above grab bar to provide the 1/2" clearance from the wall for the entire length of the grab bar.	A
Cannon 01-16-C1D1	WATER CLOSET 19" TO 25" CENTERLINE TO SIDE WALL	Move existing compliant water closet to required position. Repair/refinish as needed.	C
Cannon 01-16-C1D1	TOILET PAPER DISPENSER LOCATED BEHIND FRONT EDGE OF TOILET	Relocate existing compliant toilet paper dispenser as required, ensuring required clearance above and below grab bar. Repair/refinish wall or partition as needed.	C

²⁷ 2010 ADA Standards § 606.6.

²⁸ 2010 ADA Standards §§ 309 & 606.4.

²⁹ 2010 ADA Standards § 213.3.3.

³⁰ The 2010 ADA Standards require accessible urinals to be at least 13.5 inches deep from the outer face of the urinal rim to the back of the fixture with the bottom rim no more than 17 inches above the finished floor or ground. § 605.2.

³¹ See Advisory 605.1 General, 2010 ADA Standards. Under § 605.2 of the 2010 ADA Standards, stall-type urinals are acceptable as long as they are at least 13.5 inches deep measured from the outer face of the urinal rim to the back of the fixture.

³² 2010 ADA Standards §§ 606.2 & 305.

Cannon 01-16-C1D1	MIRROR 47" ABOVE FINISHED FLOOR	Remove existing mirror. Replace with taller mirror with bottom edge of reflective surface mounted AT 35" Maximum AFF where not mounted above lavatory or countertop or 40" Maximum AFF where mounted above lavatory or countertop.	B
Cannon 01-16-C1D1	PAPER TOWEL DISPENSER REQUIRES TWISTING TO OPERATE	Remove existing paper towel dispenser and install new compliant model within reach range where required clear floor space is available. Patch and refinish wall as needed.	B
Cannon 01-16-C1D1	SEAT COVER DISPENSER 53" ABOVE FINISHED FLOOR ("AFF"), SIDE REACH	Relocate existing compliant seat cover dispenser within reach range where required clear floor space is available and dispenser does not obstruct grab bar. Repair/refinish wall as needed.	B
G-16-SDGM3 - DIRKSEN - GROUND FLOOR-TOILET ROOM, MULTI-USER, MEN'S-RULES COMMITTEE	DOOR REMAINS OPEN FOR 0 SECONDS	Adjust existing operating mechanism so that low energy power operated/open door remains open for at least 5 seconds.	A
Dirksen G-16-SDGM3	NO VISUAL ALARM	Add compliant visual signal integrated with existing audible alarm system. Coordinate with height requirements (entire lens between 80" AFF and 96" AFF).	A
Dirksen G-16-SDGM3	DOOR PULL PROVIDED ON PULL SIDE ONLY	Install handle(s).	C
Dirksen G-16-SDGM3	COAT HOOK 70" ABOVE FINISHED FLOOR, SIDE REACH	Install additional coat hook within reach range. It is suggested that this new lowered coat hook be installed on the wall or partition adjacent to the compartment door and not on the back of the compartment door.	B
Dirksen G-16-SDGM3	SIDE GRAB BAR 42" LONG, 6" FROM REAR WALL, 48" EXTENSION FROM REAR WALL	Remove otherwise compliant grab bar and reinstall so that it extends a minimum of 54" from the rear wall and is no more than 12" from the rear wall. Patch and repair wall surface.	C
Dirksen G-16-SDGM3	BABY CHANGING TABLE 49" ABOVE FINISHED FLOOR, FORWARD REACH	Relocate baby changing table so handle is within reach range. Coordinate to maintain compliant height of work surface. Repair/refinish as needed.	C
Dirksen G-16-SDGM3	SEAT COVER DISPENSER 56" ABOVE FINISHED FLOOR	Relocate existing compliant seat cover dispenser within reach range where required clear floor space is available and dispenser does not obstruct grab bar. Repair/refinish wall as needed.	B
1-16-1CM - HART-FIRST FLOOR-TOILET ROOM, MULTI-USER, MEN'S-HART SOUTHEAST	DOOR PULLS NOT PROVIDED	Install handle(s).	C
Hart 1-16-1CM	WATER CLOSET SEAT 19.75" ABOVE FINISHED FLOOR	If greater than 19" AFF, add floor mat the entire width and depth of stall to allow for proper toilet seat height. Make sure edges are beveled at 1:2.	C
Hart 1-16-1CM	SOAP DISPENSER REQUIRES TWO HANDS TO OPERATE	Install additional compliant soap dispenser. Coordinate with reach range and clear floor space requirements.	B
Hart 1-16-1CM	PAPER TOWEL DISPENSER 63" ABOVE FINISHED FLOOR, FORWARD REACH	Install new towel dispenser within the forward reach range required for the available knee/toe clearance at the lavatory (48" AFF Maximum or 44" AFF Maximum if reach to dispenser is 20" - 25" deep). Existing noncompliant towel dispenser may remain.	B
G-16-01 -MADISON- GROUND FLOOR-TOILET ROOM, MULTI-USER, MEN'S-BLUE CORRIDOR	DOOR SWINGS INTO CLEAR FLOOR SPACE OF ACCESSIBLE LAVATORY	Select another fixture to adapt for accessibility. Modify as necessary.	C
Madison G-16-01	DOOR PULL PROVIDED ON PULL SIDE ONLY	Install handle(s).	C
Madison G-16-01	COMPARTMENT DOOR IS NOT SELF CLOSING	Install self-closing hinges or adjust existing spring hinges.	C

Madison G-16-01	SIDE GRAB BAR CLEARANCE TO WALL 2"	Remove existing grab bar. Install new compliant grab bar.	A
Madison G-16-01	REAR GRAB BAR EXTENDS 22.5" FROM CENTERLINE TO WIDE SIDE	Remove existing compliant rear grab bar and remount in required location. Provide backing in wall as necessary.	C
Madison G-16-01	WATER CLOSET 21" CENTERLINE TO SIDE WALL	Move existing compliant water closet to required position. Repair/refinish as needed.	C
Madison G-16-01	TOILET PAPER DISPENSER 2.75" ABOVE GRAB BAR	Relocate existing compliant toilet paper dispenser as required (12" above grab bar or at least 1½" below grab bar and at the ends). Verify that paper is dispensed within compliant reach ranges. Repair/refinish wall or partition as needed.	A
Madison G-16-01	EXPOSED PIPES UNDER SINK ARE NOT INSULATED	Insulate hot water supply and drain pipes. Ensure that all other sharp or abrasive surfaces are properly covered or filed smooth.	A
Madison G-16-01	MIRROR 43" ABOVE FINISHED FLOOR	Install additional mirror within required height in a location where 30" x 48" minimum clear floor space is available.	C
Madison G-16-01	SEAT COVER DISPENSER 60" ABOVE FINISHED FLOOR, FORWARD REACH	Relocate existing compliant seat cover dispenser within reach range where required clear floor space is available and dispenser does not obstruct grab bar. Repair/refinish wall as needed.	B
Madison G-16-01	RECEPTACLE OUTLET 46" ABOVE FINISHED FLOOR WITH A 23.5" FORWARD REACH OVER A 33" HIGH OBSTRUCTION	Install new compliant receptacle outlet of the same type within reach range where required clear floor space available. Existing noncompliant receptacle outlet may remain.	C
B-16-LBC7 -LONGWORTH-BASEMENT-TOILET ROOM, MULTI-USER, MEN'S-MENS TOILET ROOM	DOOR REMAINS OPEN FOR 1.6 SECONDS	Adjust existing operating mechanism so that low energy power operated/open door remains open for at least 5 seconds.	B
Longworth B-16-LBC7	DOOR CONTROL CLEAR FLOOR SPACE OBSTRUCTED BY TRASH BIN	Remove/relocate/alter nonpermanent constraints to provide required access. Repair/refinish as needed.	B
Longworth B-16-LBC7	DOOR PULL PROVIDED ON PULL SIDE ONLY	Install handle(s).	C
Longworth B-16-LBC7	NO COAT HOOK IN ACCESSIBLE STALL BUT IS PROVIDED IN OTHER STALLS	Install coat hook within reach range. It is suggested that this new lowered coat hook be installed on the wall or partition adjacent to the compartment door and not on the back of the compartment door.	B
Longworth B-16-LBC7	REAR GRAB BAR 36.5" ABOVE FINISHED FLOOR TO TOP OF GRIPPING SURFACE	Remount existing compliant grab bars at required height. Confirm that wall or partition affords the required strength at new height.	C
Longworth B-16-LBC7	SIDE GRAB BAR 37" LONG	Remove existing side grab bar and install new compliant side grab bar. Ensure that grab bar is mounted 12" Maximum from rear wall and extends at least 54" from rear wall.	A
Longworth B-16-LBC7	WATER CLOSET 19.25" CENTERLINE TO SIDE WALL	Furr out wall behind grab bar to achieve required centerline clearance to water closet. Extend furring at least 15" above and 2" below the grab bar. Reinstall grab bar. Maintain a 1½" clearance between the grab bar and the furring behind.	C
Longworth B-16-LBC7	FLUSH MECHANISM ON NARROW SIDE OF WATER CLOSET	Remove irreversible flush valve. Alter water supply piping inside wall as needed. Repair/refinish wall. Install new flush valve with handle on open side of water closet.	C
Longworth B-16-LBC7	TOILET PAPER 37" FROM REAR WALL TO FRONT EDGE, 12" FROM FRONT EDGE OF SEAT TO CENTERLINE OF DISPENSER	Relocate existing compliant toilet paper dispenser as required, ensuring required clearance above and below grab bar. Repair/refinish wall or partition as needed.	C

Longworth B-16-LBC7	EXPOSED PIPES UNDER SINK ARE NOT INSULATED	Insulate hot water supply and drain pipes. Ensure that all other sharp or abrasive surfaces are properly covered or filed smooth.	A
Longworth B-16-LBC7	PAPER TOWEL DISPENSER REQUIRES TIGHT GRASPING AND TWISTING TO OPERATE	Adjust mechanism to comply, or replace with a compliant towel dispenser.	B
Longworth B-16-LBC7	SEAT COVER DISPENSER 3.5" ABOVE GRAB BAR	Relocate accessory. Coordinate with reach range and clear floor space requirements. Repair/refinish wall or partition as needed.	C
B-16-349 -RAYBURN-BASEMENT-TOILET ROOM, MULTI-USER, MEN'S-MENS TOILET ROOM	SIDE GRAB BAR 42" LONG, 10" FROM REAR WALL, 52" EXTENSION FROM REAR WALL	Remove otherwise compliant grab bar and reinstall so that it extends a minimum of 54" from the rear wall and is no more than 12" from the rear wall. Patch and repair wall surface.	C
Rayburn B-16-349	WATER CLOSET SEAT 16" ABOVE FINISHED FLOOR	Readily achievable: replace existing standard seat with thick seat, or add seat spacer to achieve required height.	C
Rayburn B-16-349	TOILET PAPER DISPENSER 38" FROM REAR WALL TO FRONT EDGE, 12" FROM FRONT EDGE OF SEAT TO CENTERLINE OF DISPENSER	Relocate existing compliant toilet paper dispenser as required, ensuring required clearance above and below grab bar. Repair/refinish wall or partition as needed.	C
Rayburn B-16-349	EXPOSED PIPES UNDER SINK ARE NOT INSULATED	Insulate hot water supply and drain pipes. Ensure that all other sharp or abrasive surfaces are properly covered or filed smooth.	A
Rayburn B-16-349	SOAP DISPENSER REQUIRES TWO HANDS TO OPERATE	Install additional compliant soap dispenser. Coordinate with reach range and clear floor space requirements.	B
01-16-SR1M2-RUSSELL- 1ST FLOOR-TOILET ROOM, MULTI-USER, MEN'S-MENS TOILET ROOM	DOOR PULLS NOT PROVIDED	Install handle(s).	C
Russell 01-16-SR1M2	SIDE GRAB BAR 42" LONG, 10.5" FROM REAR WALL, 52.5" EXTENSION FROM REAR WALL	Remove otherwise compliant grab bar and reinstall so that it extends a minimum of 54" from the rear wall and is no more than 12" from the rear wall. Patch and repair wall surface.	C
Russell 01-16-SR1M2	REAR GRAB BAR EXTENDS 8" FROM CENTERLINE OF THE WATER CLOSET ON THE NARROW SIDE	Remove existing compliant rear grab bar and remount in required location. Provide backing in wall as necessary.	C
Russell 01-16-SR1M2	WATER CLOSET SEAT 19.75" ABOVE FINISHED FLOOR	If greater than 19" AFF, add floor mat the entire width and depth of stall to allow for proper toilet seat height. Make sure edges are beveled at 1:2.	C
Russell 01-16-SR1M2	TOILET PAPER DISPENSER 29.5" FROM REAR WALL TO FRONT EDGE, 11.5" FROM FRONT EDGE OF SEAT TO CENTERLINE OF DISPENSER	Relocate existing compliant toilet paper dispenser as required, ensuring required clearance above and below grab bar. Repair/refinish wall or partition as needed.	C
Russell 01-16-SR1M2	URINAL RIM 17.5" AFF	Remove existing compliant urinal and adjust or replace existing carrier. Repair/refinish wall as needed. Reinstall existing urinal at required height and adapt flush control as needed.	C
Russell 01-16-SR1M2	SOAP DISPENSER REQUIRES TWO HANDS TO OPERATE	Install additional compliant soap dispenser. Coordinate with reach range and clear floor space requirements.	B
Russell 01-16-SR1M2	SEAT COVER DISPENSER <1" BELOW GRAB BAR	Relocate existing compliant seat cover dispenser. Coordinate with reach range and clear floor space requirements. Preferred location is on the wide end of the rear or side grab bar, and no higher than 40" AFF. Repair/refinish wall as needed.	C

Requestor-Initiated Inspection of New ADA Restrooms in Adams LOC Building.

On January 14, 2010, in response to a request for inspection, the OOC issued a report detailing the results of our inspection of 12 newly remodeled restrooms in the Adams Library of Congress Building. The report found that:

- 6 restrooms had signs that did not comply with the Standards;
- all 12 restrooms had outer doors that took more than 5 pounds of force to open
- the 10 restrooms with inner doors had inner doors that took more than 5 pounds of force to open
- 6 restrooms had mirrors that were too high;
- 2 restrooms had sinks that were too high;
- all restrooms had exposed pipes under the sinks;
- 10 restrooms with coat hooks had them mounted too high,
- tops of toilet seats were too high off of the floor in 10 restrooms;
- no restrooms had pulls on the toilet stall doors;
- no grab rail clearance distances were adequate;
- urinals and urinal flush controls were all too high in the 6 restrooms with urinals;
- no restroom had adequate floor space in the accessible toilet stall; and
- all restrooms had sprinkler heads protruding into the accessible pathway.

The AOC responded to these findings by making corrections to the features in the restrooms that were not in compliance with the standards. In its last report to the OOC, the AOC reported that it is still looking for a way to lessen the force needed to open the outer doors to the restrooms. The restrooms on the 5th floor are being equipped with automatic door openers (“ADOs”); however, the outer doors to the restrooms located on the other floors cannot be easily equipped with ADOs because the area above the doors where ADO hardware is usually installed contains structures that cannot be moved. The AOC reported that it is still exploring the possibility of installing other types of door assists.

COST ESTIMATES FOR SOLUTIONS AND TRANSITION PLANNING

The OOC has not received any cost estimates from the AOC regarding the solutions proposed for the barriers that the OOC found during its ADA inspections. The CAA requires that “[o]n the basis of each [OOO] periodic inspection, the General Counsel shall, at least once every Congress, prepare and submit a report- *** (B) containing the results of the periodic inspection, describing any steps necessary to correct any violation of this section, assessing any limitations in accessibility to and usability by individuals with disabilities associated with each violation, *and the estimated cost and time needed for abatement.*” CAA§210(f)(2) (emphasis added). Accordingly, without having been provided employing office transition plans and costs based upon their estimates, we are unable to provide such information in this Report. However, the ETA software does estimate the costs for each solution. While these figures are adjusted in the software to reflect construction costs in the D.C. area and for government contracting, the costs

are still difficult to estimate due to the unique features of each barrier. For example, the estimated cost for improving a curb ramp varies from \$106 for removing and replacing a transition, to \$200-\$500 for filling cracks and gaps, to \$2,000-\$7,000 if removal and replacement of concrete is involved. Similarly, repairing a curb ramp can be \$5,000 to correct a cross slope or \$15,000 if complete removal and replacement is necessary.

Estimated costs for performing the toilet room repairs are also variable. Relocating a dispenser is estimated to cost approximately \$300, while relocating a grab rail is estimated at \$1200. Insulating pipes under a sink is estimated to cost \$400 and adjusting the height of a urinal is estimated to cost \$1600.

The ETA software has estimated the total cost for correcting all of the barriers found in and around the House Office Buildings (including the identified restroom barriers) using the solutions we have recommended at approximately \$1.4 million.

The ADA does not necessarily require that all barriers be immediately corrected (unless the barriers exist in new construction or new alterations or if access to programs, and services are being blocked), but the ADA regulations do require that public offices consult with members of the disability community regarding the barriers found during access surveys and develop transition plans that will eventually make their facilities fully accessible.³³ Transition planning should also minimize the additional expenditures associated with correcting new construction and alterations so that they comply with the ADA standards. If architects, contractors and construction workers understand from the outset that the project they are working on must comply with ADA Standards, it is less likely that errors will be found their way into the finished product. The OOC is prepared to assist the AOC and other legislative branch offices in the development and implementation of such transition planning and thereby reduce the costs associated with correcting construction and alteration errors that are creating new barriers to access.

INVESTIGATION OF CHARGES OF DISCRIMINATION

During the 111th Congress, the OOC investigated a charge of discrimination filed by a constituent who is a wheelchair user. She alleged that a member's regional office was not wheelchair accessible and that she was therefore being discriminated against because of her disability in violation of the CAA and Title II of the ADA. She did not specifically identify a service that had been denied to her because of her disability. The investigation was closed when the member's office was moved to a wheelchair accessible location.

ADA SEMINARS AND CONFERENCES SPONSORED BY THE OOC GENERAL COUNSEL

On April 29, 2009 the OOC General Counsel presented a program during its quarterly OSH/ADA Working Group meeting that featured Earlene Sesker from the United States Access Board who spoke about the differences between the 1991 ADA Standards and the 2004 ADA

³³ See 28 C.F.R. § 35.150(d).

Guidelines (which became the 2010 ADA Standards when they were formally adopted by the U.S. Department of Justice in regulations issued on September 15, 2010).

On November 18, 2009, the OOC General Counsel presented a seminar entitled “ADA Access on Capitol Hill” that featured presentations from: Sally Conway, Director, ADA Technical Assistance for the United States Department of Justice, who discussed program accessibility and transition plans; Nancy Jones and Carol Toland, legislative attorneys with the American Law Division of the Congressional Research Service, who discussed the recent amendments to the ADA, recent legal decisions interpreting the ADA, and features of the Genetic Information Nondiscrimination Act; and Elliot Chabot, Chief of Web Design and Standards Compliance for the Chief Administrative Office’s Web Solution Branch of Information Services, who discussed accessible web site design.

OOC LACKS THE RESOURCES TO CONDUCT COMPREHENSIVE ADA INSPECTIONS

The OOC’s ADA inspections during the 111th Congress were very limited due to lack of OOC resources. Under current funding, the amount of time OOC inspectors can spend on ADA issues is the equivalent of ¼ FTE (.25 of one full time employee). Given that there is approximately 17.4 million square feet of interior space on the Capitol Hill campus and 460 acres of grounds, the OOC simply does not have the resources to inspect anything but a very small portion of the campus. Although the ADA access provisions of the CAA also apply to Members’ District and State offices, there are currently no resources available to even conduct a cursory inspection of the access being provided in these offices.

ACKNOWLEDGMENTS

The OOC ADA inspections of Capitol Hill facilities during the 111th Congress were conducted between January 2010 and December 2011. The ADA inspection team was composed of Robert Judd, Accessibility Specialist, who was specially trained by Evan Terry Associates (ETA) to conduct surveys using the ETA software, and John Baugher, Occupational Safety and Health Specialist. Additional inspection assistance was provided by Thomas Seymour, Fire Protection Engineer. The inspectors received assistance from Stephen Mallinger, CIH, who served as Special Assistant to the OOC General Counsel until his retirement in 2011. Terry Wigfall, OSH Compliance Manager and Faith Perry, OSH Program Manager also served on the team.

The OOC also acknowledges the invaluable assistance provided by ETA. The OOC would not have been able to implement the barrier removal survey approach to ADA inspections without ETA’s assistance and software. ETA has developed its own proprietary software to conduct and maintain the results of these surveys. Although ETA does not normally license this software to outside users because of the specialized training needed to perform these surveys in a standardized manner, the OOC was able to reach a licensing agreement with ETA after Robert Judd received training from ETA.

John D. Uelmen, Supervising Attorney for the OOC Office of General Counsel, is the primary author of the Report. Editorial assistance was provided by Susan Green, Deputy General Counsel. Production assistance was provided by Kathy Schluter, Administrative Assistant to the General Counsel.

The inspection and writing teams appreciate the cooperation of all legislative branch offices during the inspection process. They particularly appreciate the assistance and time given by the employees of the AOC.

Peter Ames Eveleth
General Counsel
Office of Compliance

Dated: August 2012

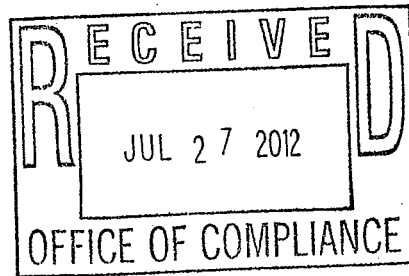
APPENDIX A



Architect of the Capitol
U.S. Capitol, Room SB-15
Washington, DC 20515
202.228.1793
www.aoc.gov

July 27, 2012

Mr. Peter Eveleth
General Counsel
Office of Compliance
110 Second Street, SE
Room LA-200, John Adams Building
Washington, D.C. 20540-1999



Dear Mr. Eveleth:

This letter is in response to the Office of Compliance (OOC) letter dated June 4, 2012, requesting comments on the enclosed report titled, "Accessibility in the Legislative Branch – Report on Americans with Disabilities Act Inspections Relating to Public Services and Accommodations during the 111th Congress." The report's intent is to provide an update to Congress regarding compliance status with the Americans with Disabilities Act (ADA).

The Architect of the Capitol (AOC) concurs with the OOC's observations that progress was made, with respect to accessibility on Capitol Hill over the years and provides a summary of recent accomplishments in the enclosure. The AOC has continually worked to identify and remove barriers during the past several decades and acknowledges that more work remains.

The AOC recently refocused our ADA efforts through initiatives that include a three-part approach to comprehensively address accessibility: 1) development of a comprehensive AOC ADA Accessibility Program, 2) implementation of an exterior accessible route verification initiative in 2012, and 3) expanding efforts to increase training, awareness and communication of ADA policies throughout the AOC on an ongoing basis.

1) ADA Accessibility Program

The AOC agrees with the OOC regarding the need to create a comprehensive program including schedules for identification and removal of barriers. We are actively working with our stakeholders to develop a plan. A holistic program approach is necessary to address the multifaceted ADA aspects, which affect everyone across Capitol Hill. Much like the Historic Preservation and Security programs, a comprehensive ADA program is integral to the everyday planning and operation of all aspects of the AOC.

2) Exterior Accessible Route Project

The AOC intends to identify and promote all required exterior accessible routes, road crossings, and drop-off areas and provide associated signage and way-finding for each facility on Capitol Hill. The AOC contracted with an accessibility consulting firm to survey Capitol Hill and ascertain current exterior access information, including compliant routes and existing barriers/issues. The scope of the initiative includes the evaluation of current conditions, identification of barriers/future projects, and recommendations towards the development of a comprehensive multi-year implementation plan. The AOC anticipates using the survey results to prioritize efforts toward continually improving access to facilities.

3) Training, Awareness and Communication

In order to provide better access to facilities and grounds it is imperative for the AOC's ADA Accessibility Program to stay current of industry trends and update AOC personnel with new information. Recent AOC efforts include in-house seminars, participation in U.S. Access Board webinars, and continuous outreach regarding ADA. For example, a recent seminar titled, "Accessible Site Design" was presented to AOC staff. The seminar examined the site design process for Accessible Pedestrian Environments including sidewalks, ramps, curb cuts, driveways, bikeways, greenways and access to facilities.

Meetings with internal and external stakeholders will continue in the effort to develop and advance the ADA program for the AOC.

The AOC plans to continue its efforts to comply with ADA policies and requirements, as well as follow through on the new initiatives identified in this letter.

Please do not hesitate to contact me at 202.228.2124 if you need additional information or would like to discuss this matter further.

Sincerely,



Christine Merdon, PE, CCM
Chief Operating Officer

Enclosure

Doc. No. 120725-13-01

**Significant AOC American with Disability Act (ADA) Achievements
During the 111th Biennial Congress**

Building	Timeframe	ADA Description of Accomplishments
USBG Administration Building	FY10	Completed installation of ADA entrance ramp.
USBG Conservatory	FY10	Purchased 2 additional heavy capacity wheelchairs.
USBG Conservatory	FY10	Provided a new information desk with an ADA service height.

Building	Timeframe	ADA Description of Accomplishments
Capitol Visitor Center	FY10	Enhanced orientation films shown to all visitors prior to taking the Capitol tour, including written safety instructions on exiting the theater and other logistics shown before and after films. This improvement was added to enable individuals, who cannot hear, to obtain critical instructions that are generally given verbally to audiences by visitor assistants.
Capitol Visitor Center	FY10	Enhanced lighting of cases in the Exhibition halls, nearly doubling visibility of exhibits.
Capitol Visitor Center	FY10	Installed Braille on identifying numbers of the exhibits in the exhibition hall enabling blind and low-vision visitors to identify exhibits as they are mentioned in the audio tour of the exhibition hall.
Capitol Visitor Center	FY10	Made certain all Capitol Visitor Center brochures are available for blind and low vision visitors at the information desks in alternate formats.
Capitol Visitor Center	FY10	Collaborated with other AOC offices regarding internal and external way finding signage, including identifying availability of shuttle service to the Capitol Visitor Center for individuals who have difficulty walking.

Building	Timeframe	ADA Description of Accomplishments
U.S. Capitol Building	On-going	Provided exit doors/exit route signs indicating accessible exit routes (Item #78 in the 109 th ADA report): Installed signage on the first through fourth floors. Changes of occupants and operations required signs to be changed primarily on the basement level. The contract was awarded in June 2011. The fabrication of the replacement signs is underway.
US Capitol Building	On-going	Completed installation of the signs on the first through fourth floors (effective communication: Information and signage indicating accessible exit routes – Item #84 in the 109 th ADA report). Changes of occupants and operation required signs to be changed primarily on the basement level.
US Capitol Building	FY10	All open items from the 110 th Congress ADA report have been closed.

Building	Timeframe	ADA Description of Accomplishments
West Underground Garage	FY09-FY10	Completed ADA ramp at Delaware Ave entrance (exterior).
Rayburn House Office Building	FY09-FY10	Completed ADA ramp at the tunnel to the Rayburn (interior).

ENCLOSURE

Longworth House Office Building	FY09-FY10	Completed modifications to the exterior Independence Avenue ramp slope to meet code.
Rayburn House Office Building	FY09-FY10	Completed ADA ramp at the Independence Avenue entrance.
Rayburn House Office Building	FY09-FY10	Completed installation of lift at the Independence Avenue entrance.
Rayburn House Office Building	FY09-FY10	Completed alterations in 2154 and 2247 including accessibility to each dais and the installation of ADA operators.
Cannon House Office Building	FY09-FY10	Installed power assisted operators in stairwells 5, 6 and 7.
Longworth House Office Building	FY09-FY10	Installed ADA handrails in main stairwell.

Building	Fiscal Year	Description of Accomplishment
John Adams Building	FY11	Completed ADA Pilot survey as an Agency strategy for future efforts.
John Adams Building	FY10/11	Completed the renovation of the 3 rd of the 4 restroom stacks.
James Madison Memorial and John Adams Buildings	FY 10/11	Installed ADA strobes in non-public spaces.
James Madison Memorial Building	FY11	Initiated ADA strobe installation in public spaces.
Thomas Jefferson Building	FY11	Repaved the west front drive; and added accessible spaces during restriping.
James Madison Memorial Building	FY11	Installed Braille in elevator cabs and lobbies.
Thomas Jefferson and James Adams Buildings	FY10/11	Improved Sidewalks, including ramp restorations in various locations.
Thomas Jefferson Building	FY10	Completed Braille stair signage installations.
James Madison Memorial Building	FY11	Completed installation of level trim stair door hardware to improve accessibility.
Thomas Jefferson Building	FY10	Completed entrance ramp, which provided ADA ramp and automatic door operators to facilitate access.
Thomas Jefferson Building	FY10	Added automatic operators to two additional sets of exterior doors at the Ground Floor West Main Pavilion.
James Madison Memorial Building	FY10	Provided a Lactation Suite for nursing mothers, which has an ADA accessible lactation room and countertop with sink.
James Madison Building	FY10	Completed the replacement of the revolving doors in the West and East entrances with ADA compliant side swing balanced bronze and glass entrance doorways. Completed of the 4th and last of the corner pavilion restroom stacks renovations which include ADA accommodations in each restroom. Included in the project is construction of a Lactation Suite with compliant ADA accessible lactation room. Will complete the renovation of the Fifth Floor NW Women's Room.

ENCLOSURE

James Madison Building	FY10	Renovated the 6th Floor Cafeteria, which is ADA accessible with compliant counters, self-service and cashier areas.
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ENCLOSURE

OFFICE OF COMPLIANCE

Room LA 200, John Adams Building
110 Second Street, SE
Washington, DC 20540-1999

Recorded Information Line: 202.724.9260

Phone: 202.724.9250

Fax: 202.426.1663