Access Board Publishes New ADA/ABA Guidelines

On July 23, the US Architectural & Transportation Compliance Board (Access Board) published the new guidelines for the Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA). The Board updated the guidelines simultaneously to make the two "more consistent." This article highlights some of the major new provisions, particularly changes from current ADA Accessibility Guidelines (ADAAG).

Format and Editorial Style

The new ADA/ABA Accessibility Guidlines (ADA/ABA-AG) has a format and editorial style recommended by the ADAAG Review Advisory Committee in 1996 and utilized in the International Code Council/American Standards Institute (ICC/ANSI) A117.1, Standard on Accessible and Usable Buildings and Facilities, 1998 edition. This substantial change in the appearance of the guidelines simplifies the organization of the document into "chapters," and makes it easier to find relevant technical provisions. The editorial style is modeled after typical codes and standards language, and attempts to state requirements once in clear, concise, mandatory language. "Advisory" language has been eliminated from the text of the rule and inserted as boxed areas of text that are not a mandatory part of the guidelines.

Credit: US Access Board

The 48" reach range is illustrated in the new ADA/ABA Accessibility Guidelines (Figure 308.3.1, Unobstructed Side Reach).

Federal Agency Pulls Plug on Universal Design Efforts

Efforts to improve accessibility in the United States suffered a major setback recently when a federal agency declined to renew funding to two well-renowned centers that provide guidance on accessibility through the study of universal design.

The National Institute on Disability and Rehabilitation Research (NIDRR), which provides leadership and financial support for research related to the rehabilitation of individuals with disabilities, notified the Center for Universal Design in Raleigh, NC and the IDEA Center in Buffalo, NY in August of its decision not to fund proposals submitted by the two organizations. An official announcement concerning which projects will be funded has not been made.

"This is wrong," said Elaine Ostroff, founding director of The Adaptive Environments Center and long-time accessibility advocate. "It is truly the wrong action at the wrong time. Universal design is a major factor in people's ability to live their lives — to

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Late Breaking News

The Department of Justice has begun revising its Americans with Disabilities Act (ADA) regulations to make them consistent with the new ADA Accessibility Guidelines issued by the Access Board. DOJ has issued an Advanced Notice of Proposed Rulemaking. The deadline for public comments is Jan. 28.

For details visit
www.UniversalDesign.com

Access Board Offers Detectable Warnings Guidance

Editor's Note: In the January 2004 issue of *Universal Design Newsletter* (Vol. 7, No. 1), Andrew Yarrish, AIA described various detectable warnings he found in Washington, DC. Reader Barbara McMillen, a Disability Policy Analyst with the Pedestrian Planning and Design Office of the Federal Highway Administration, wrote to let us know she disagreed with Yarrish's interpretation of the regulations. So we contacted Lois Thibault at the US Architectural & Transportation Barriers Compliance Board (Access Board) to shed some light on the issues raised by Yarrish and McMillen. (Yarrish's original article and McMillen's challenge can be found in the *Universal Design Newsletter* section of **www.UniversalDesign.com**.)

Access Board Responds

Thanks for the opportunity to respond on behalf of the US Access Board to questions raised by Andrew Yarrish, AIA, in his January 2004 article on detectable warnings. Current truncated dome requirements in ADAAG are being affected by two new developments: the completion of the Access Board's work on the ADA/ABA Accessibility Guidelines (ADA/ABA-AG), now awaiting [Department of Justice] and [Department of Transportation] action, and a recent Board decision to develop the public rights-of-way guidelines as a stand-alone document. While current detectable warning requirements for transit platforms have been carried over into the new ADA/ABA-AG, the Board intends to address detectable warnings at curb ramps and blended transitions only in the public rights-of-way rulemaking. (In the meanwhile, DOT directives require agencies and programs that receive highway aid moneys to include detectable warnings in all projects.)

In June 2002, the Board released draft guidelines (**www.access-board.gov/news/prow-update.htm**) for public rights-of-way access that were based on consensus recommendations from the Public Rights-of-Way Access Advisory Committee (PROWAAC) published in 2001. Detectable warnings are addressed at 1108. The next step will be a notice of availability, with an NPRM [Notice of Proposed Rulemaking] to follow.

ADAAG 4.27 requires a truncated dome surface the full length and width of the curb ramp, while the PROWAAC recommendations suggest that a 24-inch length of the material (the same dimension that has tested well in a decade of use on platform edges in transit facilities) provides sufficient detectability underfoot. The June 2002 draft specifies the 24-inch dimension and relaxes the dome size and spacing absolutes of ADAAG 4.27 to ranges that cover most of the currently-manufactured types of detectable warnings. A new provision would require the domes to be oriented in rows parallel to the line of ramp travel on ramps (no alignment is specified for the lesser slopes of landings or blended transitions). Additionally, the draft permits the truncated dome surface to be set back 6 to 8 inches from the grade break at the ramp/gutter junction to ease construction. Visual contrast requirements remain: light-on-dark or dark-on-light (the Federal Highway Administration will undertake contrast research in FY2005 aimed at establishing a more measurable standard, if one is determined to be necessary). The Board will use advisory notes in the NPRM to emphasize the need for the detectable warning surface to generally parallel the curbline for maximum utility in analyzing intersection conditions. The Board has agreed with FHWA that the draft specification can be considered an equivalent facilitation to ADAAG 4.27, reasoning that it balances accessibility for a wider range of users.

It's hard to assess the construction and detailing of the four curb ramps in the newsletter photos (though it's good to see DC's new emphasis on pedestrianism reflects consideration for all users). We find that photographs rarely present slope and cross slope information effectively.

The Board also seconds Barbara McMillen's

About the author: Lois Thibault is a Research Coordinator with the US Access Board.

IRELAND
Inclusive Design at the Community Level

Taoiseach Bertie Ahern, T.D., the head of the Irish government, applauded the success of the Barcelona Project in Ireland that focused on local governments. Speaking in Dublin at the closing conference of the Barcelona Project, he said: "The aim of the Barcelona Declaration has been to introduce the concept of 'Design for All,' into the mainstream of local authorities… 'Design for All' focuses on the importance of getting it right at the design and planning stage. In other words, it means making sure that all services are planned with the needs of the entire population in mind - able bodied and people with a disability alike. Through the work of the pilot towns and county councils across the country, you have demonstrated how this model can work."

The conference highlighted Ireland's successful accomplishments with 97 local authorities committed to making their communities fully inclusive – the highest success rate of any European country involved in the Barcelona Project. The Barcelona Declaration (1995) is a manifesto, which, if adopted, guides local authorities in fulfilling their responsibilities within the "Equality" framework regarding people with disabilities. The aim of the project is to help local authorities create a more inclusive society.

The Barcelona Project was initiated by Francesc Aragall, former president of the European Institute on Design and Disability (EIDD), and signed by all the member states of the European Union at a major event known as the European Congress on "The City and the Disabled" hosted in Barcelona. When Ireland signed the Barcelona Declaration, it committed to making Ireland a more accessible environment for people with disabilities. This meant that, among other things, Ireland's built environment, services and decision-making processes would become more accessible. Cearbhall O'Meadra led the project for Ireland through a contract awarded to the Institute for Design and Disability by the National Disability Authority under the auspices of the Department of Justice, Equality and Law Reform.

O'Meadra, in summarizing the project said, "The positive impact of the Barcelona Declaration in Ireland is due to the consolidated approach involving the National Disability Authority, County/City Development Boards, Local Authorities, the Institute for Design and Disability, people with disabilities and their advocates." Pete Kercher, President, EIDD, said, "Ireland took the Declaration as a national policy and gained from it. Ireland is now heading the European Union's Council of Ministers… who better to build on the Barcelona Declaration in a new 'Celtic Strategy' for a fairer, better Europe?"

For more information on the Irish project visit: **www.idd.ie/barcelona_introduction.htm**. For the European-wide Barcelona Project, visit: **www.bcn.es/ciutat-disminucio/angles/a_index.html**.

SWEDEN
Universal Design Education Project

Jan Paulsson, architect, PhD and Project Coordinator of the Swedish Universal Design Education Project (UDEP), presented a preliminary report of the four-year project at a recent conference in Stockholm. Ten university education programs in Sweden are involved; the main architecture and design schools in Sweden with master education programs are as follows:

•Industrial/Product Design and Interior Design at HDK-GU (The School of Design and Crafts at Göteborg University), Konstfack in Stockholm and Design at Umeå University,

•Industrial Design connected to the universities of technology at Chalmers in Göteborg and Lund University,

•Garden Design/Landscape Architecture programmes of SLU (The Swedish University of Agricultural Sciences) at Alnarp, Lund, and Ultuna, Uppsala, and

•The Architecture Schools of Chalmers, Lund
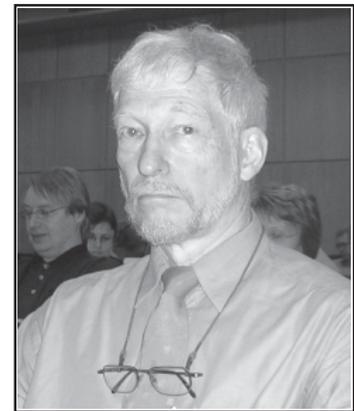
"...Through the work of the pilot towns and county councils across the country, you have demonstrated how this model can work."

Bertie Ahern, T.D., head of the Irish government

Jan Paulsson

Universal Design – Taking It Personally

By James Mueller

One of the greatest challenges for professionals working in universal design is convincing clients of the wisdom of the concept. We cite legislative mandates and use demographic, economic, and social trends to illustrate that seniors and people with disabilities – and their families, friends and business associates — are no small niche, but a significant portion of the general population. Despite these persuasive points, clients still tend to rely on old assumptions about a "normal" or "average" majority.

"User-centered design" should reveal the folly of these old assumptions. After all, users come in all shapes, sizes, ages, and abilities. But often the users selected are the designers themselves — certainly a convenient resource, but hardly representative of the real user population in all its diversity.

Among the most successful business applications of universal design are companies whose movers and shakers had direct experience with seniors and/or people with disabilities. Betsey

But often the users selected are the designers themselves — certainly a convenient resource, but hardly representative of the real user population in all its diversity.

some of the most successful universal design efforts. But the worldwide growth of universal design cannot rely on such serendipity. We need to develop tools for stimulating the commitment to champion design for all ages and abilities among designers and clients who have yet to experience a personal "epiphany."

One effective tool suggested by software designer Alan Cooper is the development of personas. In his book on user-friendly design, *The Inmates are Running the Asylum*, Cooper describes how he began creating personas in 1983 based on customer interviews to assure that his designs addressed real needs of his customers. Cooper's approach has recently been adapted to bring users with disabilities to the attention of designers and manufacturers of wireless products.

In 2001, the Wireless RERC, a rehabilitation engineering research center in Atlanta, GA, began a survey and series of focus groups to better understand how to improve usefulness and usability of wireless products for customers with disabilities. This RERC created a website to make demographic, economic, and ergonomic data available from more than 600 Americans who have completed the survey to date. To better illustrate these data in human terms, the RERC also created personas that depict the personal insights gained through focus groups, as well as the survey data. The personas are composites of focus group participants and were adopted, in part, to protect the identity of participants. One of these personas is Della…

Meet Della

"I'm not a designer. I am a design customer, and a tough one at that."

Users come in all shapes and sizes.

Farber's experience in adjusting to arthritis led her husband Sam Farber to develop Oxo Good Grips. Tupperware Design Director Morison Cousins had his 87-year-old mother in mind when he championed a new approach to usability in design at Tupperware in the 1990s.

Personal experiences like these have driven

Personas, *from page 4*

"I was born in 1938 and have worked all my life. In 1995, I had a mild stroke that limits my strength and coordination on my right side. It doesn't keep me from working though, and frankly the electric scooter I use is faster than I could ever walk before my stroke.

"My point is the huge difference that design makes in my life. And not just me – this is a favorite topic among my co-workers and friends. A lot of the difficulties I've

"Della"

experienced since my stroke, and a lot of the well-designed products I've found, are the same kinds of things that my friends deal with every day, disabled or not. I understand that everyday products are designed to fit the "average" user. But if we're not lucky enough to be "average," we have to adapt to the design. Depending on how well we can adapt, this can be just a minor annoyance or an exhausting, frustrating, even dangerous ordeal. From where I sit (no pun intended), there aren't very many "average" people around anymore.

"For instance, I'm not a techie, but I do carry a cell phone. It's mostly for work, but it's also a safety net. I probably wouldn't travel around nearly so much if I didn't have a way for calling for help in an emergency. My friends with disabilities feel the same way, and some don't have much money to spend on expensive gad-

gets like this. But there are lots of ways these products could be more usable for everyone.

"I got my phone six years ago. That's probably a record, and it's certainly bigger and heavier than anything on the market today. But now that I've learned how to use it, I'm not anxious to start over with a new one. A flip-open phone might be nice, but opening them is a two-handed operation. I would need a screwdriver to pry it open. Why is that? ….

"It's amazing that products like this can be so advanced, yet still have some of these little problems that seem so easy to solve. I wish I could sit in when products are being designed. It doesn't do a lot of good to point these things out after thousands of them have been made."

Della makes a good point about "sitting in when products are designed." But as real as she might seem, personas like Della aren't intended to substitute for user research or testing. But personas can help designers find the right users to serve as product testers by modeling the user characteristics we seek.

Della and her fellow personas continue to emerge from the survey and focus groups being conducted at the Wireless RERC through 2006 and will help lead designers and their clients toward greater usefulness and usability for customers of all ages and abilities.

Design is increasingly a global activity, and understanding of diversity in user age and ability, as well as culture, is increasingly critical. Although statistical data are essential to business planning in universal design, personas can help designers to imaginatively explore universal design solutions to meet the real needs of diverse users.

Della's fellow personas can be visited at the project's website: **www.wirelessrerc.gatech.edu/projects/research/personas.html**

"...I wish I could sit in when products are being designed. It doesn't do a lot of good to point these things out after thousands of them have been made."

About the author: James Mueller is a CUD Collaborator and Principle of JL Mueller Inc. based in Chantilly, VA.

Going for the Gold, Silver and Bronze

Universal Design Features in Houses

Olympians aren't the only ones going after gold, silver or bronze these days. Builders and developers across the country are including universal design features in their projects in light of Gold, Silver or Bronze distinctions set by the Center for Universal Design (CUD).

A list of desirable universal design house features was originally developed by CUD in 2001 to promote them to builders and developers. Included on the list are elements, features, ideas or concepts that contribute to, or can be components of, a universally designed house.

Some items on the list are finite recommendations, some are lists of options, and some are scope statements in regard to how many particular features must, or should, be included. The more universal features/elements included in a house, the higher the distinction which can be achieved, with Gold as the highest level.

"Universal design elements can be seamlessly integrated into a home," says Richard Duncan, Director of Training for the Center for Universal Design. "Such features can boost a home's market appeal."

Below are some of the accessible features for Bronze, Silver and Gold levels.

"Universal design elements can be seamlessly integrated into a home. Such features can boost a home's market appeal."

Richard Duncan,
Director of Training,
The Center for Universal
Design

Accessible Features

	Bronze	Silver	Gold
Entrance	X	X	X
Decks		X	X
Interior Circulation	X	X	X
Bathroom	X	X	X
Kitchens	X	X	X
Garages & carport	X	X	X
Switches & controls	X	X	X
Laundry		X	X
Storage		X	X
Home Automation	X	X	X
Light & color		X	X
Windows		X	X
Hardware			X
Sliding doors			X

Features Check List

The following is a list of some of the universal design Bronze home features developed in 2001 by the Center for Universal Design. A complete list can be found at **www.design.ncsu.edu/cud/events_news/gsb.html**

Stepless Entrances

☐ At least one stepless entrance is essential; if only one is provided, it must not be through a garage or from a patio or raised deck.

Vertical Circulation

☐ Handrails placed on both sides of stairs.

Bathrooms

At least one bathroom on an accessible level must have one of each of the following features:

☐ Minimum 60 inches x 36 inches (48 inches preferred), deep curbless shower

☐ Adequate maneuvering space: 60-inch diameter turning space in the room and 30 inches x 48 inches clear floor spaces at each fixture. Spaces may overlap.

☐ Clear space (36 inches) in front of and to one side of toilet.

☐ Toilet centered 18 inches from a side wall, cabinet or tub.

☐ Blocking in walls around toilet, tub, and shower for placement of grab bars.

Fixture Controls

☐ Single-lever water controls at all plumbing fixtures and faucets.

☐ Mixing valves with pressure balancing and hot water limiter to prevent scalding.

Universal Design Essential in Smart Growth Efforts

Smart Growth, part of a new movement to revitalize urban communities, isn't going to work unless it incorporates universal design, according to Leslie Young, Senior Project Manager and Designer at the Center for Universal Design.

A presenter at the Portland, OR 3rd Annual New Partners for Smart Growth Conference, Young participated in a session entitled "Community Design: What Matters Most to People with Disabilities."

Immediate Areas of Focus

According to Young, no better place does universal design fit than interwoven into the fabric of "Sustainable Design" and its many subsets such as "Smart Growth," "New Community Design," "Green Design," and "New Urbanism." "Each has its own set of principles and guidelines to assist designers to develop vibrant, well-balanced neighborhoods, healthy and safe communities, and sustainable economic development and jobs," she said.

"What is created as a benefit for a specific group of people can benefit all users," said Young. "Developing linkages between public transportation and affordable housing all within walking distance makes employment, recreation, and many other activities possible for a wide range of people who may wish to live where services are closer."

She encouraged the development of guidelines for universally designed communities which might include the following:

Creating walkable neighborhoods, with well planned street crossings and clearly defined wayfinding strategies. The design of street crossings emphasizes reducing traffic speed with the secondary effect of allowing older adults and other people with gait limitations to negotiate streets crossings safely. Texture and color to highlight pedestrian cross walks allow drivers and pedestrians to establish better visual contact. In addition, better planning of medians or street green areas can help ensure a more pleasant microclimate with shaded areas that offer places to rest for people with limited stamina while promoting impromptu conversations. Canopies create weather protection for pedestrians.

Housing. Housing choices must be provided in a range of prices, the majority, even townhouses, with at least one stepless entrance

and close to transit hubs.

Transportation Alternatives. It is important to create neighborhoods people may stay engaged in community life even if they are not able to drive. Universally usable bus or rail commuter transportation makes people less automobile dependent and people with disabilities less paratransit dependent.

The Future

Young noted that the goal of Smart Growth is to foster a healthy community at a human scale for now and for future generations and that the goal of universal design is the integration of people of all ages and abilities so they experience a sense of safety and competence whether they are older or young, with or without a disabling condition — all using the same environment.

"Smart Growth cannot be effective without integrating universal design. Policy makers must consider universal usability and remove constraints on housing choices and proximity to work, school, and shopping with a greater reliance on public transportation," said Young. ◻

"What is created as a benefit for a specific group of people can benefit all users."

Leslie Young,
Senior Project Manager,
The Center for Universal Design

ADA Videos Available

The release of new design guidelines from the US Architectural & Transportation Barriers Compliance Board (Access Board) refocuses attention on the civil rights of people with disabilities under the landmark ADA. While the guidelines have not yet been adopted by the US Department of Justice (DOJ), this is an opportunity to revisit select DOJ-approved videos produced to explain the requirements of the *ADA Standards*. These videos offer designers a rare opportunity to see how people with disabilities use certain spaces and discover why the requirements are effective. The *ADA Standards for Accessible Design: A Series of Videotapes contains* nine videos that present the requirements of the existing *ADA Standards* by topic. A sample clip is available for the Accessible Route and Protruding Objects at **www.design.ncsu.edu/cud/pubs/ada_series.html**

The *Transportation Facilities: Bus Stops, Terminals, and Transit Stations* video, produced by the Center for Universal Design as part of the National Easter Seals Project Action, outlines requirements in the *ADA Standards for Accessible Design* highlighting features for accessible bus stops and rail and metro facilities and stations. A sample clip is available at **www.design.ncsu.edu/cud/pubs/transp_facilities.html**.

These videos are available for purchase at: **www.design.ncsu.edu/cud/pubs/center/pubslist.htm** ◻

Conference Preview

Editor's note: The line up of speakers at the **Designing for the 21ˢᵗ Century III: An International Conference on Universal Design** reads like an international "whos who" of universal design. With more than 200 sessions to choose from and presenters from 32 different countries, participants are sure to leave the event loaded down with fresh ideas and contacts. The following briefs offer just a glimpse of the conference content. Mark your calendars and plan to be in Rio de Janeiro, Brazil Dec. 7-12. For more information, visit **www.designfor21st.org**.

Social inclusion cannot achieve its full potential without an urban environment that is physically inclusive.

Museums and Universal Design
By Rebecca McGinnis

Two UK initiatives, a sculpture gallery at Wolverhampton Art Gallery and an historical science exhibition at the Hunterian Museum in the Royal College of Surgeons in London, explore ways in which museums can be made accessible to all, through multi-sensory interpretation and work with artists.

The Wolverhampton project aims to introduce modern and contemporary sculpture (some newly commissioned) to the general public, but particularly to visually impaired art students. The project tackled a range of issues relating to conservation (everything could be touched); description to those without sight; navigation around the gallery; and learning through touch.

At the Hunterian Museum, an 18th-century surgical specimen collection housed in formaldehyde-filled glass jars presented a different kind of challenge. This was overcome using audio; model-making; creative use of familiar analogy to describe unfamiliar things; and work with artists to interpret and explore the objects on show.

Charles DeGaulle Airport Project
by Coco Raynes

The Aeroports de Paris (ADP), requested proposals for a wayfinding plan to direct passengers with reduced mobility from a point of drop off outside the terminal to a designated re-

ception area within the terminal.

We presented a simple concept — a tactile map to introduce the terminal, handrails with braille and audio direction in three languages, and floor markings. The elements could be retrofitted in existing buildings or incorporated into new construction. Terminal 2C, one of the most complicated terminals, was selected for testing the first implementation of this longterm program.

Social Inclusion: An Urban Development Rationale for Societies in Conflict
By Riadh Tappuni

Present day urban development poses major challenges to the planner. Development in economic terms is usually expressed as economic growth; to architects it is often the physical development of the urban fabric and the city's infrastructure. But what is at the heart of the cities' development is its social context as expressed and assessed through their social capital.

Social inclusion cannot achieve its full potential without an urban environment that is physically inclusive. This can be especially difficult in traditional and old cities, where human movement is substantially hindered, and accessibility is hard to achieve.

Surveying User Needs – Bringing Universal Design to Life
By James Mueller

In the fall of 2001, the Rehabilitation Engineering Research Center on Mobile Wireless Technologies for Persons with Disabilities (Wireless RERC) began a project to identify and prioritize ergonomic needs of users with disabilities for mobile wireless technologies (cell phones, text messagers, etc.). The goal is to bring this information to producers of these technologies so that they might be made more useful and usable for all customers, regardless of age or ability.
Focus Group Results
Focus group discussions center around a specific product category, such as cell phones, text messagers, or global positioning devices (GPS).

Funding, *from page 1*

be included or to be excluded."

Ostroff expressed concern that the NIDRR action respresented a shift in federal commitment to universal design. "My fear is that perhaps NIDRR — and the recent reviewers — think that the Americans with Disabilities Act (ADA) has fixed this country's accessibility problems...and there isn't any need for 'universal design.' ADA was the first step and by no means should it be the last."

The NIDRR decision is of national importance, said Laurie Ringaert, Executive Director of The Center for Universal Design. This is a critical time for universal design, she said. "Baby boomers, a huge segment of the population, are aging, there are more increasingly more people with disabilities, and there is already a lack of accessible housing. That combination forces people into institutions rather than independent lives where they can move around freely and participate in the economy."

Ed Steinfeld, ArchD, AIA, Director of the IDEA Center, said, "The loss of the RERC grant will not put us out of business, but it will reduce our capacity to work with other collaborators, provide information and referral, and complete educational and advocacy projects for which we do not receive a fee or are not supported by grants." He noted that unless NIDDR re-competes the priority on Universal Design in the Built

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Conference, *from page 8*

So far, 10 focus groups have been conducted. Among the most critical issues identified for wireless technology users with disabilities are:

•**Technical support and customer assistance**: Effectiveness of providers in resolving technical problems and meeting the needs of customers with disabilities

•**Affordability and accessibility of wireless technologies:** Cost of products; cost and complexity of service plans and features; service coverage; and trust (reliability and dependability of hardware);

•**Usability and compatibility of wireless products:** Adaptability of products to user needs (vs. the other way around); security/privacy issues, ergonomic issues (e.g., carrying and holding, reading and understanding the display, physically and cognitively using the keypad, battery charging, etc.); and using assistive technologies with wireless products. ⌐⌐

environment, there would not be a Rehabilitation Engineering Research Center (RERC) on Universal Design in the Built Environment anywhere.

The RERC on Universal Design grants allowed the IDEA Center to increase the visibility of universal design nationally. For example, articles about the center's work appeared in publications reaching millions of individuals and its exhibits attracted thousands of people, according to Steinfeld. "The lack of such visibility will certainly reduce the public's awareness and knowledge of universal design," he said. "We will have less scientific information on the benefits of universal design. And, we will have less technical information to help designers in practice."

Research Impact

According to Steinfeld, the grant to the IDEA Center that created and supported the RERC on Universal Design at Buffalo included two major research projects — research on the anthropometry of wheeled mobility and post occupancy evaluation research. The former is also supported by the US Access Board. "We were hoping that NIDDR would continue to fund this important area of research as well because there is a lot more that needs to be done and the Access Board funding is limited and specifically focused on its information needs," he said.

"The loss of this funding will not end the work underway, but it will certainly retard progress in developing a comprehensive and easy to use database for designers and clinicians," he said. "We did complete a series of post occupancy evaluation studies of universally designed buildings. This work was designed to demonstrate that universal design makes a difference in the usability of buildings for all people. We now have empirical and graphic proof of that often made claim. We have collected a lot of data and will continue to publish articles documenting this research…. The RERC funding was perhaps the only source of funding currently available to do work like this. So, now we have to spend considerable time developing interest among other agencies and the public sector."

The Center for Universal Design indicated that it plans to challenge the NIDRR decision. NIDRR officals were contacted for this article, but did not respond prior to press time. ⌐⌐

"ADA was the first step and by no means should it be the last."

Elaine Ostroff, Founding Director, Adaptive Environments Center

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Information Flows at Global Conference

At the ICTA 2004 Global Business Meeting in Oslo, Norway, Betty Dion was elected as the new Chair of ICTA- Global. Dion, from Canada, succeeds Australian Michael Fox, who was elected President of Rehabilitation International (RI). The Vice Chair is Dr. Rodrigo Crespo Toral from Ecuador.

Betty Dion was elected as the new Chair of ICTA-Global.

The July meeting in Olso included delegates from all six ICTA regions: African, Arab, Asian Pacific, European, Latin American, and North American.

The following are some highlights from ICTA Global & Sub-Commissions from around the World.

ICTA Africa

Phillip Thompson, ICTA Africa Chair, is liaising with a number of different groups and organizations in South Africa, including closer links with DPI.

ICTA Arab Region

ICTA Arab Region Chair Talat Alwazna, from Saudi Arabia, reported on a recent survey of access and technology and the Arab Conference of Transportation and Accessibility which found that access regulations were often in place, but were not being implemented in new buildings.

ICTA Asia Pacific

Joseph Kwan, ICTA AP Chair from Hong Kong, noted the success of ICTA Access & Technology Seminar in Sydney, August 2003, and reported on his attendance at the June 2004 TRANSED Conference in Japan. TRANSED is an international conference on accessible transportation.

ICTA Europe

ICTA Europe Chair Dusan Simsik, from Slovakia, ICTA Europe is continuing the program of meetings/exchanges between and across Eastern and Western Europe, including

the Association for the Advancement of Assistive Technologies in Europe (AAATE) and the European Union. An ICTA Europe meeting was held in Slovakia in April 2004 and an October 2004 meeting is scheduled in Zagreb, Croatia.

ICTA Latin America

Claudia Sanchez, the Chair of ICTA Latin America is from Columbia. Major ICTA LA activities have included involvement in ISO, Pan American Standards, World Health Organization and the Rio de Janeiro Centre for Independent Life. Access accreditation and certification programs have commenced with access training

Delegates to the ICTA Global Conference

courses in 30 Latin America cities in 17 countries. Spain has significantly assisted ICTA LA programs and accessible housing information has been published in Rio de Janeiro.

ICTA North America

In her report, Dion noted that the ICTA NA website was linked with the ICTA Global website and information was available in French, Spanish and English.

ICTA NA is the lead for ICTA Global on the World Summit on Information Society (WSIS). ICTA NA has submitted a position paper to WSIS on Inclusion of People with Disabilities in the Information Society. ICTA is following up with a Canadian consultation on WSIS and will lead discussions on WSIS at the Disabled Peoples International World Summit in Winnipeg.

ICTA North America Chair

Laurie Ringaert is the new chair of ICTA NA. Ringaert is from The Center for Universal Design in Raliegh, NC.

About ICTA

The International Commission on Technology and Accessibility (ICTA) is a global organization promoting more equitable and accessible environments and technology. Current ICTA programs include development of an International Accessibility Standard. This program is in conjunction with International Standards Organization (ISO).

UDN readers are invited to contact ICTA regional commissions and participate in ICTA activites and programs worldwide. Visit: **www.ictaglobal.org**.

ADA/ABA Guidelines, *from page 1*

The new guidelines are divided into the following three parts:

Part 1: ADA Administrative and Scoping Provisions

Part 2: ABA Administrative and Scoping Provisions

Part 3: Technical Requirements

Parts 1 and 2 each contain a Chapter 1, titled "Application and Administration," which also includes definitions, and a Chapter 2 titled "Scoping Requirements." The two scoping chapters are similar. The few differences relate to underlying federal laws (e.g., an elevator exception under Title III of the ADA that is not in the ABA) and facilities that typically fall only under government control, such as military installations.

Part 3 contains the technical provisions applicable to both the ADA and the ABA. It includes Chapters 3 though 9.

Everything Is Now Covered

There appears to be a fundamental change in the scope of the requirements. The existing ADAAG (§4.1.1(1)) required accessibility only to the elements identified in scoping paragraphs

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Not Yet Required

At present these guidelines have no enforceability. Until the US Department of Justice (DOJ) and/or the US Department of Transportation (DOT) adopt these rules, the existing Americans with Disabilities Act Standards for Accessible Design (a.k.a, ADAAG) are the requirements for compliance with Title III of the ADA.

However, at the July 23, 2004 press briefing announcing the new Americans with Disabilities Act/Architectural Barriers Act Accessibility Guidelines (ADA/ABA-AG), the Access Board announced that the US Agency for International Development (USAID) had adopted the new ADA/ABA-AG as the standards for all overseas development funded by that agency. This means that all USAID reconstruction in Iraq, Afghanistan and at all US overseas consulates and missions will be designed to be accessible according these new criteria.

4.1.1 – 4.1.6. The ADA/ABA-AG (§201.1) appears to require all areas of newly designed and constructed buildings and facilities to comply with the requirements unless there is an exception, such as for new gas dispensers installed on existing curbs (§308.3.1). Therefore, the ADA/ABA guidelines appear to require accessibility to all elements even if there are no clear provisions provided for how to do so.

Construction Tolerances

The ADA/ABA guidelines include new language related to construction tolerances. Current ADAAG states, "All dimensions are subject to conventional industry tolerances for field conditions." The new text states, "All dimensions are subject to conventional industry tolerances except where the requirement is stated as a range with specific minimum and maximum end points."

The phrase "except where the requirement is stated as a range with specific minimum and maximum end points" removes tolerances wherever a stated range is provided. For example, current ADAAG requires water closets to be centered 18" off a side wall, allowing "conventional industry tolerances" to be applied in either direction off the centerline. The text of the ADA/ABA guidelines provide a "stated range" of 16" minimum to 18" maximum, thus prohibiting any additional tolerance. A water closet centered 18-1/16" off the side wall would be a violation based upon a strict reading of the new text.

The new text also appears to create a "double standard" for construction tolerances. In many cases, the technical requirements do not state a specific range but do provide a minimum or maximum end point. For example, knee clearance is required to be 30" minimum in width. Because no "range" is stated, knee clearance slightly less than 30" due to construction tolerance could possibly be considered a violation.

Referenced Standards

In at least two locations, the Board has deleted detailed provisions from the ADAAG, and replaced them with a reference to a model code or standard. For example, provisions addressing accessible means of egress and areas of refuge have been deleted, and replaced with a

The new text, however, creates a "double standard" for construction tolerances.

ADA/ABA Guidelines, *from page 11*

reference to the International Building Code (IBC) provisions (2000 edition, with revisions through the 2002 Supplement).

Also, extensive text and multiple tables applying to the technical characteristics of visual alarm appliances have been replaced with a reference to National Fire Protection Association (NFPA) 72-1999, *National Fire Alarm Code*.

Employee Work Areas

The ADA/ABA guidelines have expanded the "approach, enter, and exit" in the existing ADAAG. The ADA/ABA guidelines now include requirements for circulation paths and accessible means of egress within employee work areas. Common use circulation paths within employee work areas are required to be accessible routes. Exceptions are provided for work areas less than 300 square feet in size and de-

However, truncated domes are still required on boarding platforms and abrupt drop offs.
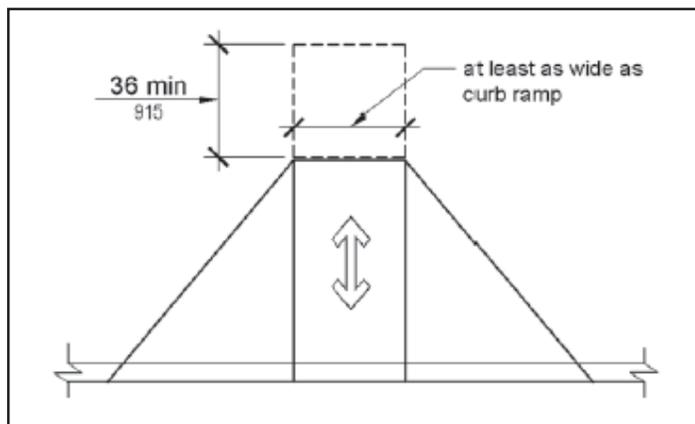

Credit: US Access Board

Figure 406.4 Landings at the Top of Curb Ramps

fined by permanent partitions, counters, casework or furnishings; for work areas that are an integral part of equipment; and for circulation paths that are part of work areas fully exposed to the weather.

Employee work areas that are less than 150 square feet in size and must be elevated 7" or more above the adjacent floor area are exempt from all requirements. The ADA/ABA-AG also include a requirement that the "capability" to install visual alarms be provided within any work area.

Press Boxes

Two exceptions for press boxes have been included in the ADA/ABA guidelines. The cur-

rent ADAAG contains no exceptions. The exceptions exempt the accessible route to press boxes located in bleachers that have entry points on only one level, and free-standing press boxes elevated 12' or more above grade. Both exceptions apply only where the aggregate area of all press boxes in the "facility" (which could include multiple fields) does not exceed 500 square feet.

Notable Technical Changes

Accessible Building Entrances

The ADA/ABA guidelines increase to 60%, from 50%, the minimum number of building entrances that are required to be accessible.

Curb Ramps

Curb ramps must now have a landing at the top that is at least 36" long and at least as wide as the ramp. It will no longer be acceptable to have side flares at 1:12 in lieu of a top landing. Implementation of the requirement for detectable warnings on curb ramps was once again delayed pending publication of the Access Board's Public Rights of Way Guidelines. However, truncated domes are required on boarding platforms and abrupt drop offs.

Parking

The Board has increased the scoping provisions for van-accessible parking spaces, requiring that one of every six accessible parking spaces be van-accessible. Current ADAAG requires only one of eight accessible spaces to be van-accessible. In addition, the new ADA/ABA guidelines allow an 11-foot wide parking space with a 5-foot wide access aisle as the normal standard for van-accessible parking. This is an apparent attempt to minimize the problem of parking in the access aisle.

The Board has kept, but slightly reduced, an exception for small parking lots. Where a total of four or fewer parking spaces are provided on a site, the accessible parking space is not required to be reserved by signage (§216.5).

Reach Range Limits

Chapter 3 of the ADA/ABA guidelines contain "Building Blocks" which most other chapters refer to for applying heights, sizes and clearances at accessible elements.

The Access Board has adopted 48" as the

ADA/ABA Guidelines, *from page 12*

maximum allowable height for both forward reach and side reach and a 34" maximum for any side reach obstruction. An exception has been provided for gas pumps installed on existing raised curbs.

Controls and Operating Devices

While the 5 lb force requirement has now been expanded to all controls, there is an exception (§309.4) for fuel dispenser nozzles.

Restrooms

Lavatories are no longer permitted in the space adjacent to the water closet.

Unisex toilet rooms must have a lavatory and privacy latch and cannot have more than two toileting fixtures (ie., two water closets, or one water closet and one urinal).

Ambulatory toilet stalls are required where there are six or more toilets or where the combination of toilets and urinals totals six or more fixtures.

Accessible urinals are only required when two or more urinals are provided. Accessible urinals must extend at least 13.5" from the wall upon which they are mounted.

An accessible lavatory must be provided outside of the toilet compartment. This especially applies to Florida where accessible lavatories are also required in accessible toilet stalls.

ADA/ABA guidelines require toilet paper dispensers to be 7 to 9 inches from the front of the toilet fixture rather than within 36" from the rear

wall as required by ADAAG.

Signage

Accessible room signage may be located between 48 and 60 inches above the floor rather than being centered at 60" above the floor. Also, signage may be on the push side face of doors with closers and without hold-open devices. At double doors, the signage is to be located on the right hand side or, if no wall space is available, on the nearest adjacent wall. Temporary signage, defined as being in place for seven days or fewer, exempted from accessibility requirements.

Work Sinks

Where sinks are provided (excluding mop or service sinks) 5%, or at least one, must be accessible.

Retail Space

The ADA/ABA guidelines exempts the international symbol of accessibility sign designation requirement at accessible checkout aisles when all are accessible.

The requirements regarding dining surfaces and work surfaces have been clarified to apply to those surfaces used for the consumption of food or drink, exempting work surfaces used by employees.

Doors to reach in coolers, while not providing user passage are required to comply with requirements for storage (§905) and operable parts (§309).

Telephones

All public telephones are required to be equipped with volume control, instead of the 25% required by ADAAG, and the requirement for the radiating sound wave signage has been deleted.

Service Counters

All service counters are required to comply with the height, width and clear floor space requirements, even if they do not have a cash register. The full depth of counters is required to be available.

Drinking Fountains

All accessible drinking fountains

Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

Credit: US Access Board

AREA OF REFUGE

48 min 1220

60 max 1525

All service counters are required to comply with the height, width and clear floor space requirements even if they do not have a cash register. The full depth of counters is required to be accessible.
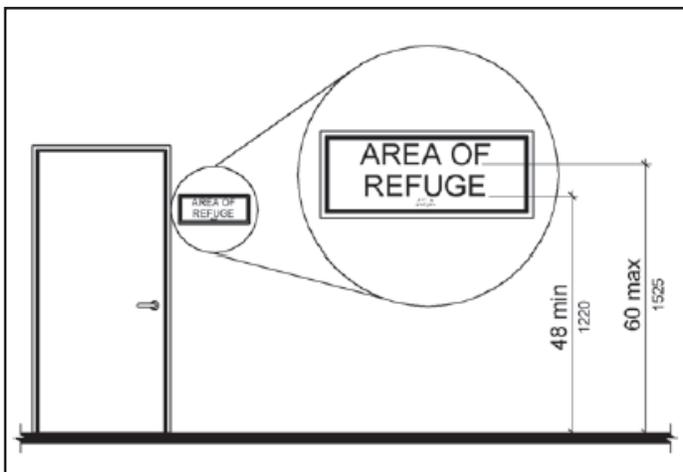
ADA/ABA Guidelines, *from page 13*

will be required to provide wheelchair knee and toe clearance, where the previous standard allowed a side access. In addition, the second (higher) drinking fountain must have the spout between 38 and 43 inches above the floor.

Stairs

Stairs have a maximum riser height of 7". Stair handrails no longer require the 12-inch horizontal extension beyond the bottom tread length extension. There are new criteria for handrail cross sections and the 1.5-inch clearance dimension from the wall is a minimum, rather than an absolute value.

ATMs

Speech output is required for all new ATMs, along with braille instruction, tactile markings on keys, and the ability to conduct business privately.

Transient Lodging: Accessible Communication Features

The ADA/ABA guidelines maintain the existing ADAAG requirements for visual alarms and other features for communication access in guest rooms with minor modifications. However, only 10% of the rooms equipped to accomodate guests with hearing impairments can be wheelchair accessible rooms.

Assembly

Assembly area requirements have been substantially revised in the ADA/ABA guidelines but are not consistent with ICC/ANSI A117.1 2003 edition.

Lines of Sight

Chapter 8 of the ADA/ABA guidelines includes new requirements for determining "comparable" lines of sight when spectators are expected to stand or stay seated.

Number of Wheelchair Spaces

The number of wheelchair spaces required in larger assembly facilities has been reduced. ADAAG required that facilities with more than 500 seats have 1.00% of seats above 500 be accessible. The ADA/ABA guidelines lowers this to 0.67% for facilities with 501 to 5,000 seats, and further reduces it to 0.50% for seating exceeding 5,000.

Companion Seating

The ADA/ABA-AG maintains the existing requirement that companion seats be provided on a 1:1 basis with wheelchair spaces, and adds a requirement that the two seats be aligned shoulder-to-shoulder. The ADA/ABA-AG has also added a provision that allows companion seats to be removable.

Public Address Systems

The ADA/ABA-AG includes new provisions that will require text display of public announcements in some stadiums, arenas, and grandstands. These provisions apply where the facility uses electronic signage that has the capability of displaying text translations of "prerecorded" audible announcements or "real-time messages."

Summary

The total impact of these ADA/ABA guidelines is uncertain. For example, their possible adoption by the Department of Justice raises questions of how they might apply to existing facilities. Also, considering the lack of DOJ adoption of previously issued Access Board guidelines, it is also uncertain as to when these new guidelines might have the force of law.◻

Credit: US Access Board
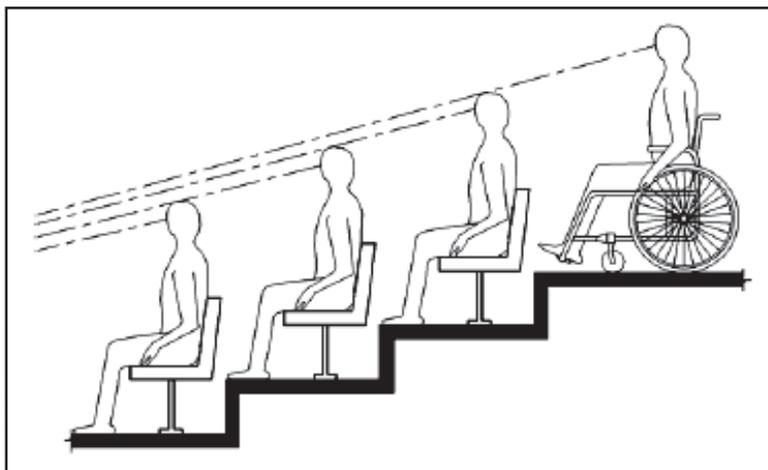
Figure 802.2.1.1 Lines of Sight Over the Heads of Seated Spectators

World Update, *from page 3*

and Stockholm.

Paulsson, who teaches in the architecture program at the Chalmers University of Technology, was optimistic that the programs would continue after the funding from the Swedish government ended. Although consumer-oriented issues are usually distant from the architecture and design school fields, the UDEP teachers have a strong commitment in the disability, the health care and the consumer sectors at the same time as they are prominent teachers at the architecture and design schools.

The European Institute of Design and Disability (EIDD) –Sweden initiated the Swedish UDEP. There was a consensus that something had to be done to enhance design knowledge and skills related to individuals and groups with disabilities so that it was more integral to the professional education programs. Universal design was the guiding concept and "Strategies for Teaching Universal Design" (Adaptive Environments Center 1995), which described the Universal Design Education Project 1992–94 in the US, was a source of inspiration. Paulsson is now working on the final evaluation and report of the project along with an English version of the project website. World Update will feature the results in 2005.

For more information, contact Paulsson at **janpaul@arch.chalmers.se**.

Detectable Warnings, *from page 2*

observations about the importance of "rollability" in sidewalk surfaces. While it is certainly possible to construct low-vibration surfaces of brick or other unit masonry — Lafayette Park across from the White House is an exemplary installation — it is more costly (both in terms of first cost and upkeep costs, if maintained) and often less satisfactory for users. Research recently undertaken at the University of Pittsburgh identifies the width and edge condition of the joints between paver units as the key factors in creating painful vibration for pedestrians who use wheeled mobility aids. And, while "disjointed" sidewalks occur under a variety of conditions, there are many more opportunities for settling and heaving with unit masonry.

...UDEP teachers have a strong commitment in the disability, the health care and the consumer sectors at the same time as they are prominent teachers at the architecture and design schools.

CALENDAR

Oct. 20-22, 2004: *Child in the City Conference,* **London.** Organized by The Child in the City Foundation in association with the National Children's Bureau. The conference will bring together social scientists, policy makers, planners and practitioners to share ideas on integrating the play and recreational needs of children within the planning, design and governance of the modern city. Contact: **www.europoint-by.com/events**.

Oct. 27-29, 2004: *Open Space: People Space, An International Conference on Inclusive Environments,* **Edinburgh, Scotland**. Hosted by OPENspace, the conference will provide a forum to review recent research and debate current issues surrounding good design for open space and social inclusion. Contact: **openspace@eca.ac.uk** or visit **www.openspace.eca.ac.uk**.

Nov. 30-Dec. 1, 2004: *2004 World Bank International Disability Conference,* **Washington DC.** The conference, "Disability and Inclusive Development: Sharing, Learning and Building Alliances," will bring together hundreds of disability and development experts from around the world who will participate in panel discussions, hear keynote presentations and visit display booths.

Nov. 8-10, 2004: *US Architectural & Transportation Barriers Compliance Board,* **Washington, DC**. This is the bi-monthly meeting of the Access Board. Contact: 202.272.5434 (v), 800.872.2253 (v), 202.272.5449 (tty) or **www.access-board.gov.**

Nov. 16-17, 2004: *21st Century Trails: A Universal Approach to Trail Design,* **Bradford Woods, IN.** Sponsored by the National Center on Accessibility, this training opportunity will focus on designing trails that are inclusive of people with disabilities. Contact: **www.ncaonline.org**.

Dec. 7-12: *Designing for the 21st Century III: An International Conference on Universal Design,* **Rio de Janeiro, Brazil.** Sponsored by Adaptive Environments and a number of international groups including Metropolis Magazine. The conference includes a student design competition, charettes within Rio de Janeiro and an educators' forum. Contact: **www.designfor21st.org**

Jan.10-12, 2005: *US Architectural & Transportation Barriers Compliance Board,* **Washington, DC**. This is the bi-monthly meeting of the Access Board. Contact: 202.272.5434 (v), 800.872.2253 (v), 202.272.5449 (tty) or **www.access-board.gov.**

Events to be placed in the *UDN* Calendar must be submitted to the editor two months before the publication date.

WATCH for your next issue of *Universal Design Newsletter* in January 2005!