



Working Together Digital Wireless Phones & Hearing Aids

by Brenda Battat

Editor's note: The age of digital wireless personal communications systems (PCS) is upon us. While many of us look forward to communicating like the crew of the Starship Enterprise, people with hearing impairments are hoping that current problems with the emerging technology can be resolved so that the foundation can be laid for a system that is accessible to all.

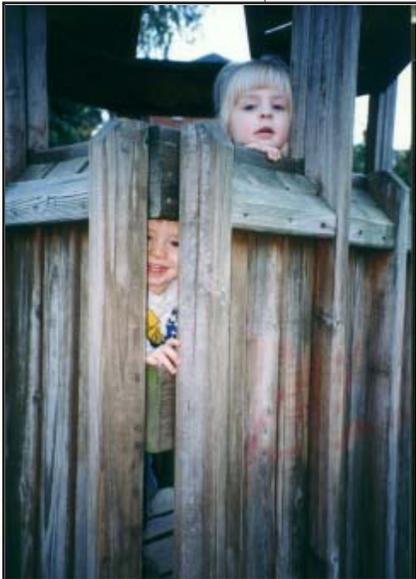


Photo: Denise Holsted

Changes are coming to play facilities.

The newest wave in wireless telecommunications is the digital telephone. This is how we will be communicating in the 21st century. The big challenge facing the wireless and hearing aid industries today is ensuring that hearing aid wearers will be able to use the digital phones like everyone else.

The digital wireless phone has the potential to interact with some hearing aids but causes interference that varies based on the degree of hearing loss, hearing aid model, and phone model.

Some providers, such as APC (Sprint Spectrum) in the Washington/Baltimore area, are offering accesso-

See Working Together, page 6

Play Facilities Rules on the Way Access Board Approves Report

At its July 9th meeting, the US Architectural & Transportation Barriers Compliance Board (Access Board) approved the proposed rule as presented by the Play Facilities Regulatory Negotiation Committee.

Among the committee's recommendations was a requirement that at least one of each type of ground level play equipment be accessible. This would require that clear space be provided next to the play component to facilitate maneuvering and allow room for a child to leave his or her assistive device behind to use the activity. The committee's proposal also included requirements that there be some means to facilitate transfer onto equipment such as rockers or slides and that there be an accessible route to the activity itself. The committee defined a "ground level component" as any activity that begins and ends on the ground level.

For elevated play components which are those that are part of a composite structure, the committee proposed a requirement for 50 percent of the total number to be accessible. Where 20 or more play components are elevated, the committee recommended a minimum of 25 percent of the total number of elevated compo-

See Play Facilities, page 8

CONTENTS

- 1 Working Together
- 1 Play Facilities Rules on the Way
- 2 'Step Paths' and 'Rolling Ways'
- 4 Florida Access Code Continues to Evolve
- 4 Universal Accessibility Conference Teaches Us All
- 5 Passing the Test
- 10 Family Bathroom Meets a Variety of Needs
- Letters2
- FedWatch.....3
 - MCI Center Decision Affirmed
 - Judge Says Enhanced Sightlines Not Required
 - Access Board Approves Final Rule on Children's Elements
 - FCC Requires Hearing Aid Compatible Hotel Phones
- New Media..... 7
- Design Tips.....8
- New Products..... 9
- Calendar.....12



'Step Paths' and 'Rolling Ways'

During the recent efforts to update and harmonize the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and CABO/ANSI A117.1, the definition of accessible pedestrian circulation systems was addressed.

In previous versions of these standards, paths intended for people who use wheelchairs were not clearly differentiated from stairs and other paths intended for use by people who can take steps and walk. The proposed new versions attempt to clarify this by differentiating between all circulation paths and a special subset known as "accessible routes." While these new definitions are intended to bring us closer to a better understanding of the differences, a further simplification might be helpful.

It seems that a separation of pedestrian circulation systems into two classifications might help simplify matters. Routes that are accessible to equipment with wheels, such as wheelchairs, carts, strollers, or bikes might be better titled "rolling ways." These routes could have criteria very similar to the existing ADAAG definition of an accessible route of travel.

Routes that are accessible to human ambulation in walking or stepping might be called "step paths." These paths would need criteria based on the ability of people to move between discontinu-

ous floor surfaces, such as steps, pavers in a garden path, or changes between transportation platforms and vehicles. Such criteria would include maximum horizontal and vertical separation, size of stepping area and hand support requirements.

A key aspect associated with the universal design of circulation systems is a choice of how a person gets from point A to point B. A rolling way would typically be the normal and primary pedestrian route, but a step path, if provided, would also be available to those who wished to use it for one reason or another.

Such a concept also seems to have value elsewhere. When designing our new web site (UniversalDesign.com), we realized that it is important to allow users with trailing edge technology, such as old software and slow modems or those who cannot see graphics or hear sounds to have access to the information. By providing a graphic multimedia version (a step path) and also a text version (a rolling way) that readers can easily translate for people with visual impairments or those with cognitive or computer equipment limitations, choice and universal access can be assured.

Rethinking some of our basic concepts in this fashion might also help designers to address the needs of all users of physical and virtual environments in the new millennium.

Copyright 1997 UD&C - Authorization to photocopy items for the internal or personal use of specific subscribers is granted by **Universal Design Newsletter**. Any other reproduction in any form is prohibited without express permission from the Publisher. **Universal Design Newsletter** is published quarterly by Universal Designers & Consultants, Inc., 1700 Rockville Pike, Suite 110, Rockville, MD, 20852 301.770.7890 (V/TTY) 301.770.4338 (fax)

E-Mail: UDandC@erols.com (e-mail).

Home Page: www.UniversalDesign.com
John P.S. Salmen, AIA - Publisher & Managing Editor; Denise Hofstedt - Editor; James DiLuigi and Elaine Ostroff - Consulting Editors.

Mail subscription rates: One year \$75 (US). Second Class Postage paid at Rockville, MD. Postmaster send address changes to **Universal Design Newsletter**, 1700 Rockville Pike, Suite 110, Rockville, MD, 20852. For information on advertising rates or obtaining alternative accessible formats, please call or write the **Universal Design Newsletter** Editor.

Letters to the Editor

Universal Design Newsletter welcomes letters to the editor. All letters must be previously unpublished, signed and typewritten on company letterhead, if appropriate. Unsolicited manuscripts and letters become the property of *Universal Design Newsletter* and cannot be returned. The editor reserves the right to edit all letters for length, style, clarity, spelling and punctuation. Write to: Editor, *Universal Design Newsletter*, 1700 Rockville Pike, Suite 110, Rockville, MD 20852; Fax 301.770.4338

Playground Provisions Clarified

In the article titled "Playground Provisions" (Vol. 3, No. 3 July 1997), Ms. Wong inaccurately represents the scope of ASTM PS-83 (Provisional Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment April 1997). This specification establishes minimum characteristics for those factors that determine accessibility for playground surfaces. The U.S. Access Board is working toward the establishment of minimum accessibility guidelines for play areas covered by the Americans with Disabilities Act, which will address where accessible surfaces are required.

The Access Board charged its Regulatory Negotiation Committee on Accessibility Guidelines for Play Facilities with reaching consensus on proposed accessibility guidelines in this area. The committee is NOT recommending that ALL surfacing systems within a play area meet the ASTM PS-83 (April 1997) Standard. Accessible surfacing on the accessible route and at the entry and exit points of accessible play components, is recommended by the committee. Committee members deliberated for many hours on the issue of accessible surfacing.

See Letters to the Editor, page 11

LETTERS to the
EDITOR

MCI Center Decision Affirmed

An appeals court panel has upheld a ruling in a lawsuit against the MCI Center in Washington, D.C., that requires most, but not all, wheelchair seating locations in the arena to have unobstructed views even when spectators are standing in front of them.

The decision affirms a December 1996 judgement of the US District Court for the District of Columbia that calls for unobstructed lines of sight in 78 percent to 88 percent of wheelchair seats, depending on the event.

Lawrence Hagel, deputy general counsel of the Paralyzed Veterans of America, explained that this is the first Appellate Court decision of its kind and, thus, it will likely have a direct impact on other pending similar lawsuits around the country.

Judge Says Enhanced Sightlines Not Required

The MCI case is not the last word in enforcement of the Americans with Disabilities Act accessible seating criteria.

In a summary judgement issued last summer, a US District Court judge in New Jersey ruled that the Americans with Disabilities Act Standards for Accessible Design do not require unobstructed lines of sight for people who use wheelchairs over spectators standing in front of them.

In the case, William Caruso and the Advocates for Disabled Americans claimed that the Block-



The E-Centre in Camden, NJ.

buster-Sony Music Entertainment Centre did not provide enhanced lines of sight for those in wheelchair locations and that the E-Centre's lawn area was inaccessible to Caruso, who uses a wheelchair.

In his ruling, the judge stated that:

- §4.33.3 of the standards do not require enhanced lines of sight for people who use wheelchairs;
- Because the lawn area does not have fixed seating, it need not be included in the calculation of minimum wheelchair space requirements; and
- The lawn area need not be connected to the pa-

vilion via a wheelchair-accessible route; and

- The requisite seating can be provided in the pavilion.

Access Board Approves Final Rule on Children's Elements

A final rule on accessible elements designed and constructed primarily for use by children was approved by the U.S. Architectural & Transportation Compliance Board (Access Board) in July. Broader in scope than the proposed rule published in July 1996, the final rule covers "elements" designed primarily for use by children, where the proposed rule dealt with "facilities" designed primarily for use by children.

According to the Access Board, the change is meant to clarify when and where the provisions of this rule apply. In addition, it provides designers with greater flexibility in designing with children's sizes and capabilities in mind for facilities that are used by both children and adults, such as shopping malls, museums or restaurants. The final rule will allow exceptions for the mounting height of some elements (i.e. water closets, sinks or grab bars), that a designer may choose to provide at lower heights to accommodate children's needs. The board expects to publish a final rule this fall.

FCC Requires Hearing Aid Compatible Hotel Phones

Within the next year, hotels with phones manufactured before 1985 or after 1989 must meet an Federal Communications Commission (FCC) rule for hearing aid compatible (HAC) compliance. For hotels with 80 or more rooms, the deadline is Nov. 1, 1998; properties with fewer than 80 rooms have until Nov. 1, 1999.

For phones purchased between 1985 and 1989, the deadlines are Jan. 1, 2001 (80 or more rooms) or Jan. 1, 2004 (fewer than 80 rooms). Not all phones are affected, according to Kevin Maher of the American Hotel & Motel Association. Manufacturers and importers have been required to provide only HAC compliant sets since 1989. In addition, many phones manufactured prior to 1989 are compliant.

The FCC is also requiring manufacturers to include volume control on all new phones as of Nov. 1, 1998, but is not requiring that existing phones be replaced for volume control. 

... the final rule covers "elements" designed primarily for use by children, where the proposed rule dealt with "facilities" designed primarily for use by children.

Florida Accessibility Code Continues to Evolve

by Larry Schneider, AIA

Florida continues to lead the way in accessibility code development. Last spring, the Florida Legislature made some significant modifications to its building code. Among those changes that will take effect Oct. 1., are:

- Churches are exempted from compliance with the requirements of the Florida Accessibility Code for Building Construction (FACBC).
- The requirement that curb ramps/curb cuts from parking areas be provided every 100 feet when multiple curb ramps are provided was deleted from the code.
- The requirement that all parking lots meet the requirements for accessible parking space by Oct. 1 was deleted.
- The Florida requirement of 20 percent for disproportionate cost was deleted. Compliance with the Americans with Disabilities Act Standards for Accessible Design (ADASAD), §36.304(f), which is also 20 percent, is now required.
- The requirements for hotel/motel rooms were clarified. Compliance with the ADASAD is required

in addition to Florida-specific room requirements.

- The Florida accessible toilet stall still requires a lavatory in the stall, for new construction only. The 68" by 68" minimum stall dimensions have been deleted; however, you will still need to create the "large" toilet stall. The Florida-specific toilet seat and grab bar heights have been deleted. The new heights are the same as in the ADASAD. The Florida-specific requirement that the accessible lavatory only be lever operated has been deleted.
- The Florida-specific restroom vestibule dimensions have been deleted.
- The requirement that accessible water closets and grab bars be provided when the use of a building, structure or facility is changed has been deleted.
- Three exemptions from the requirement of vertical accessibility have been added:
 1. Elevator pits, elevator penthouses, mechanical rooms, piping or equipment catwalks, and automobile lubrication and maintenance pits and platforms.

See Fla. Accessibility Code, page 5

Universal Accessibility Conference Teaches Us All *Gathering Provides Needed Transfer of Information*

In the evolving field of designing for all people, the American Institute of Architects (AIA) recently coined a new term -- "universal accessibility." The term blends the concept of the Americans with Disabilities Act (ADA) compliance together with the idea of design that meets the needs of all people.

In an attempt to better understand how to achieve this goal, more than 400 people attended the Universal Accessibility Conference on June 12-13, in Washington D.C. The conference was sponsored by AIA and the U.S. Architectural & Transportation Barriers Compliance Board (Access Board).

In a keynote address Attorney General Janet Reno expressed the DOJ position on architect responsibility, stating that architects are responsible for ADA compliance of buildings that they design.

The two-day event participants discussed the requirements of the ADA and the Fair Housing Act criteria addressing accessibility for people with disabilities in existing, newly constructed and altered buildings. More than 60 panel speakers presented the viewpoints of federal agencies, disability rights organizations, architects, contractors, and building

code officials. With this broad representation it was notable that the viewpoint of the "clients," i.e., building operators and owners, was largely lacking from this conference, according to John Salmen, president of Universal Designers & Consultants Inc., Rockville, Md. "It seemed that when some industry representatives made comments, they were challenged by the architects, disability advocates and federal regulators," he said.

In his review of the conference, Salmen, who also spoke at the event, noted it appears that there are two levels of accessibility expertise around the country. "There is a small group of 'insiders' who are up to date on the nuances and complications of the laws, their interpretations and the court decisions emerging in the wake of ADA law suits and court decisions," he said. "Then there are the majority who have a solid grasp of the technical criteria found in the ADA Standards, but have little knowledge of the nuances of the emerging civil rights interpretations or the many resources and programs that are in place. There's a real need for this kind of information transfer." This dichotomy was illustrated in the

See Universal Accessibility, page 10

Churches are exempted from compliance with the requirements of the Florida Accessibility Code for Building Construction (FACBC)

Passing the Test

Group Tests Products and Grants a Universal Design Seal of Approval

What do the Passport Series from KraftMaid Cabinetry Inc. and select cabinet pulls from Amerock Corporation have in common? Both products are generally used in residential kitchens; and -- perhaps more important to design sensitive consumers -- both products have completed rigorous Universal Design Certified Seal of Approval testing by ProMatura Group, LLC.

ProMatura Group is an Oxford, Miss.-based company that provides product testing and development services, and market research and consulting services to companies across the U.S. and Canada. It has been performing universal design testing for al-



Kraftmaid cabinets

most two years.

The company completed human factors and performance testing of both product-lines in June 1996, and each was granted a license to use the seal on product packaging, advertising, promotions and collateral materials. Products submitted for testing under the Universal Design Certified Program are tested by a minimum of 50 design sensitive consumers and ProMatura Group human factors researchers. To obtain the right to use the seal, at least 90 percent of consumers on the test-panel must agree that the product is easy to use and that the manufacturer's claims are accurate. Nineteen tasks were used to evaluate KraftMaid's Passport series and 219 separate data observations were recorded for each test subject.

"We were very pleased with the outcome of the testing on KraftMaid's Passport cabinetry and Amerock's cabinet pulls," said Margaret Wylde, president and CEO of ProMatura. "Testing conducted for the seal is steeped in the principles of universal design, and is intended to measure a product's ease-of-use by a broad universe of potential end-users. Universally designed products are those that are useful and usable by young able-bodied people as well as older design sensitive consumers."

The cabinets were filled with canned goods, dishes and other items in order to duplicate a real life environment. Each of the 19 tasks was sub-divided into simple steps to allow pin-point evaluation of components within each task. For example, the task of placing a can in the cabinets was divided into opening the cabinet, putting the can on the shelf and closing the cabinet.

A brief list of findings from the Passport Series evaluation is provided below.

- The raised dishwasher enclosure made it much easier for respondents to open, close, load, unload and fill the soap container in the dishwasher.
- More than 90 percent of the subjects were able to reach the highest and the lowest adjustable shelf in the Passport Series.
- The sink, faucet and sink trap were easy-to-reach in the sink base cabinet.

"At KraftMaid, we believe that universally designed products -- products that truly enable the user -- will be the market success stories of the future."

Marcia Harris,
Director of Special
Projects, KraftMaid

Fla. Accessibility Code, from page 4

2. Unoccupiable spaces, such as rooms, enclosed spaces, and storage spaces that are not designed for human occupancy, for public accommodations or for work areas; and

3. Occupiable spaces and rooms that are not open to the public and that house no more than five persons, including, but not limited to equipment control rooms and projections booths.

The parking table from the Florida statutes has been deleted. You are required to use the one in the FACBC, which is the same is in ADASAD.

- The Florida State Statute 553.510 which dealt with the issue of national standards of accessibility and usability of private property features by using ANSI A117.1-1986 was deleted.

- The word "unreasonable" was added to the criteria list for granting exceptions from the requirements of the FACBC. 

Larry Schneider, a well-known accessibility expert, is ADA/VA coordinator for Dade Aviation Consultants in Miami, Fla.



The seal for Promatura universally certified products.

See Universal Design Testing, page 8

Working Together, from page 1

ries to help reduce interference. As short-term solutions these external devices work to some extent for some people. However, they do not offer a suitable long-term solution as they do not eliminate the interference, a loud buzz, for many hearing aid users. In addition, the hearing aid wearer can only use the external devices with a telecoil, and only 30 percent of hearing aid wearers have telecoils. The goal for consumers is to have compatibility built-in, as in wireline phones, and not retrofit the phones later with cumbersome external devices.

In spite of all the research activity, there as yet, is no real solution. Hearing aid wearers have few options if they want to buy a digital phone. And family members will most likely not purchase a digital phone if it is not accessible to the whole family.

In Section 255 of the Telecommunications Act of 1996, enforced by the FCC, manufacturers of telecommunications equipment and providers of telecommunications services, are required to make their products and services accessible to people with disabilities if it is "readily achievable" to do so.

Making digital phones accessible

Over the past two years, at Federal Communications Commission Chairman Hunt's urging, working groups of wireless and hearing aid engineers, hearing health care professionals, and consumers have searched for solutions to the complex problem which prevents many people who use hearing aids from using digital phones. Both phone and hearing aid manufacturers are dedicating resources toward

solving the interference issue.

The first to come out with a prototype was Ericsson, manufacturer of handsets for Pacific Bell Mobile Services, a provider of wireless phone services in California. The company is working to solve the compatibility problem. Motorola, has been working on a strategy to improve the acoustic coupling of digital phones to hearing aids.

Other companies, including Siemens, Nortel and Nokia, have been involved in developing industry standards through the ANSI C-63 committee to measure radio frequency immunity of the hearing aid, radio frequency fields by the receiver or the earpiece, and the magnetic emissions of the phone in the receiver area. The recommendations of the group include:

- **Build-in volume control.** Without exception, consumers say that they need volume control. Yet often when it is provided, the level of amplification is not enough. Stronger volume control is needed to provide access to digital phones for people with hearing loss; both those who use hearing aids and those who do not. Volume control benefits all users, not just people with hearingloss, this is especially important because digital phones are frequently used in noisy places.

- **Provide effective acoustic coupling.** As phones become smaller the shape of the earpiece changes and is more difficult to connect to acoustical couplers for a hearing aid. Flatter and smaller earpieces on digital phones create more feedback problems for hearing aid users.

- **Build-in hearing aid compatibility (HAC).** This is a "Catch 22" situation. Hearing aid wearers use telecoils in their hearing aids to improve intelligibility by coupling inductively to wireline phones and some analog wireless phones. However, the telecoil setting creates its own interference problems with digital phones. There needs to be ongoing research to come up with ways to couple a hearing aid and a digital phone internally without causing interference. Today, some service providers offer external devices with their handsets to use with telecoils. These work for some hearing aid users but do not reduce the buzz for everyone and are not considered a satisfactory long-term solution.

- **Provide remote vibratory alert.** Many people with hearing loss have difficulty hearing the phone ring. They need a remote vibratory alert to be made aware of the phone ringing when it is in a briefcase

See Working Together, page 7

... Manufacturers of telecommunications equipment and customer premises equipment and providers of telecommunications services, are required to make their products and services accessible to people with disabilities if it is "readily achievable" to do so.

The largest disability ... and growing

Hearing loss is the largest disability and it is growing. Out of the 42 million people with all disabilities in the US, there are 28 million people with hearing loss. This is a 14 percent increase between 1971 and 1991. Seventy-nine percent of people lose hearing at 19 years or older. It is predicted that 40 million people over the age of 65 years will have hearing loss by the year 2000. Six million people wear hearing aids, with 1.8 million aids being sold each year. Hearing aid costs range from \$600 to \$3,000 and they have an average life span of five to seven years. An estimated 1.5 million people have telecoils in their hearing aids. Telecoils can be used with hearing aid compatible telephones to increase intelligibility for hearing aid users. They can also be used with assistive listening devices, such as infrared, FM and audio loop systems, which are now required by the Americans with Disabilities Act (ADA) in public places to bring the sound source directly into the hearing aid users' ears.

Working Together, from page 6

or purse. A vibratory alert has other wide appeal as many people want to have their phones with them in meetings, theaters and other public places and receive calls without disturbing others.

- **Build-in a standard jack for TTY and assistive device compatibility.** Having a standard outlet jack allows those who use TTYs and other assistive technology to easily plug in directly to access the phone system.

- **Reduce radio frequency interference.** Research has to be ongoing until solutions to remediate the interference caused by digital phones to hearing aids are found. People with hearing loss should be involved early in the design and testing phases of new product development.

Conclusion

Self Help for Hard of Hearing People (SHHH) plans to continue working to solve the problem of interference. It will continue to voice the concerns of potential users of digital wireless phones and work so that people with hearing loss are not left out of the telecommunications revolution. □

Brenda Battat is deputy executive director for Self Help for Hard of Hearing People in Bethesda, Md.



Visit

Universal Design Newsletter

at our new website:

www.UniversalDesign.com

For more information, contact
UDN at 301.770.7890 (v/tty);
301.770.4338 (fax)
UDandC@erols.com (e-mail)

Accessible Design Review Guide: Designing New Spaces, Buildings and Sites

Written by the Accessible Space Team of Florida, this book is a guide for design and building professionals whose job includes Americans with Disabilities Act Accessibility Guidelines (ADAAG) compliance review and evaluation of new and altered building.

The book explains that while designer and building professionals review buildings in terms of spaces, ADAAG requirements are stated in terms of "elements." The book contains 26 review guides that include drawings and a list of typical and special compliance issues for that space.

These review guides cover topics such as: exterior spaces, interior spaces, transient lodging, transportation, and site and building summary. The many appendices offer ADA resources, sample recording worksheets, and a complete listing of all ADAAG requirements and figures.

For more information, contact: McGraw-Hill at PO Box 182605, Columbus, OH 43272-5032; telephone 800.2.MCGRAW; fax 614.759.3644.

Fair Housing Means Universal Design

Created by the Center for Inclusive Design and Environmental Access (IDEA), this 26-minute videotape was developed as a teaching tool for building and construction professionals. It discusses the concept of universal design in relation to the 1988 Fair Housing Amendments to the Civil Rights Act of 1968. The video shows how an accessible building can be built without great expense.

The video lists the design requirements outlined in the legislation. It explains that the requirements provide a high level of universal design, but not the highest. The video suggests that designers must go beyond the requirements to achieve the "best" universal design, i.e., design that is safe and usable by everyone. It also identifies cost-effective ways to comply with the requirements. By using graphs and examples, it explains how a property's marketability can be enhanced through universal design.

The video also provides a demonstration of the importance of universal design by showing volunteers using four different bathroom layouts. With concise design layout graphics, the video further illustrates how certain products can enhance safety and usability. For more information, contact IDEA, School of Architecture and Planning, University of Buffalo, Buffalo, NY 14214-3087; phone 716.829.3485 ext. 329; fax 716.829.3861; e-mail idea@arch.buffalo.edu. □

The video shows how an accessible building can be built without great expense.

Fair Housing Means Universal Design Video

? **Problem:** How do you tell if your telephone is hearing aid compatible.

TIP: All telephones manufactured in the US after 1989 are required by the Federal Communications Commission (FCC) to be compatible with hearing aids. The label on the box that the phone came in, or the label on the back of the phone should indicate that the phone complies with Part 68 Section .112(b)(5) of the FCC rules.

*Universal Design
Newsletter
provides a one-
year free
subscription for
any tip which we
publish. We look
forward to
receiving and
publishing your
tips.*

? **Problem:** Locating accessible signage at a height of 5' above the floor on the wall adjacent to the door as required by the ADA Standards for Accessible Design may be difficult, impractical or impossible in some situations.

TIP: The proposed revisions to the ADAAG submitted by the ADAAG Review Federal Advisory Committee and the proposed revisions to ANSI A117.1 allow accessible signs to be located on the face of the door, instead of on the adjacent wall if three conditions are met:

- The door swings away from the side on which the sign is located.
- The door has a closer.
- The door has no hold open device.

These features help assure that the sign will always be found in a consistent location and that a person who must get very close to the sign in order to read it will not be hit inadvertently in the face by the door as it opens. 

Play Facilities, from page 1

nents be accessible by ramp and another 25 percent by transfer system or ramp. In composite structures with less than 20 elevated components, no ramp access would be required; but on those structures, the committee proposed that 50 percent of all elevated play components be required to have access by transfer system. Traditionally, transfer systems are made up of a series of large steps that a child crawls up or "bumps up" backwards from a seated position.

The board has sent the proposed guidelines to the Office of Management and Budget (OMB) for review. OMB has the authority to request changes prior to publication of a notice of proposed rulemaking (NPRM). Once the NPRM is published in the *Federal Register*, the board will invite written comments on the proposed guidelines. 

Universal Design Testing, from page 5

- Visibility within the cabinets was greatly enhanced by optional task lighting and plexiglass shelves.

- Test subjects were extremely pleased with the appearance of the KraftMaid Passport Series.

The Passport Series is designed for ease-of-use by the whole family over the course of a lifetime," said KraftMaid's Director of Special Projects Marcia Harris. "At KraftMaid, we believe that universally designed products -- products that truly enable the user -- will be the market success stories of the future.

"The testing conducted by ProMatura Group really serves multiple purposes. Earning the Universal Design Certified Seal of Approval obviously strengthens our position in the market. Testing the Passport Series with real end-users allows us to begin planning future versions that will even more effectively meet consumer needs and helps us craft advertising that appeals to key market segments."

Any Amerock pull that meets or exceeds this proprietary specification may bear the Universal Design Certified Seal of Approval.

During the Amerock evaluation, the sequence of testing each pull was randomized to ensure that results were not biased by order of presentation or subject fatigue, and the pulls were tested on the same doors and drawers by all subjects. Testing was conducted with both vertical and horizontal mounting of the hardware and each task was sub-divided into simple steps to allow accurate evaluation of the separate components of each task.

A short list of information about the Amerock project is provided below.

- Nearly all of the products tested were finished in polished brass so appearance would not bias test results.

- Test subjects evaluated each piece of cabinet hardware by responding to the following statements: this pull fits my hand comfortably; this pull is easy to grasp; and this pull makes it easy to open the drawer/cabinet.

- The measure of "easy to grasp" was determined by how firmly and securely each test subject was able to grip and hold while using the cabinet pull.

"Amerock will use the feedback from ProMatura Group's research to promote current decorative hardware products and to facilitate development of new products that are more user-friendly for all consumers, regardless of age or physical ability," said Martha Kness, product manager for decorative hardware at Amerock Corporation. 

Chemcast™ Braille Slugs

Chemcast Braille Slugs, from Advance Corporation, are designed to adapt existing signage to make it Americans with Disabilities Act compliant. The one-piece etched magnesium metal strip is applied directly to the surface of the sign. The Braille characters and the background are of the same color and are available in a variety of colors to match the signage. The slugs are available with stock copy

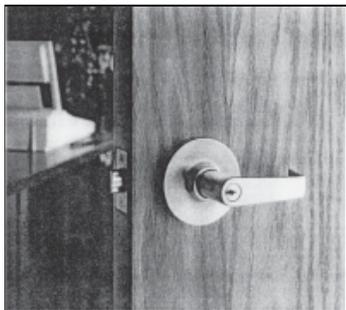


or may be ordered with custom copy.

Corbin Russwin Standard Duty Lever Locksets, CL3800 Series

The Standard Duty Lever Locksets, available from Space Options Inc., are designed to provide accessible door handles for light commercial and heavy-duty residential use.

This series features barrier-free thumbturn solid cast levers and includes models suitable for passages or closets, bathrooms or bedrooms, entrance or offices, classrooms, and barrier-free storerooms or public restrooms. These locksets have American National Standards Institute (ANSI) Grade 2 Certification and Underwriters' Laboratory (UL) three-hour fire rating for 4 x 10 foot doors.



Petoskey Picnic Tables

Petoskey Picnic Tables, available from Landscape Forms, are wheelchair accessible tables designed for use in unsecured, active public spaces. These tables are available with full benches or with one or two shortened benches to provide wheelchair

seating. Constructed with steel rod table and bench tops supported by steel posts, the table and benches are designed to be embedded in a hard surface for security. Available in a selection of standard and optional colors, the tables and benches have a powdercoat finish that resists chipping, fading, rusting, and peeling. Optional umbrellas are available.



Garaventa Stair-Lifts

Garaventa Stair-Lifts are platform wheelchair lifts designed to fit almost any stairway application. Models GSL-1 and GSL-2 can be used for indoor and outdoor stairways and include stainless steel tube rails along the inside edge of the stairway. Model GSL-1 is designed for turning stairways and stops at every floor for total building access. Model GSL-2 is designed for straight stairways without landings. Model GSL-3 may also be used for indoor or outdoor applications and is designed for complex or curving staircases with rails that follow the inside and outside edges of the staircase. This lift also stops at every floor for total building access. All models are available with a choice of manually-raised platform and ramps, electronically-raised platform and ramps, or electronically-raised platform and ramps with electronic safety arms. Standard features on all models include passenger controls accessible to those with limited dexterity, remote control for attendant operation, safety sensors that detect obstacles and stop the lift, manual operation in case of power failure, non-skid surfaces, lift-in-use light, emergency passenger key and stop switch, and vandal-resistant concealed controls. Optional features include a fold-down seat for passengers not using a wheelchair, safety lights for dark landings, and custom colors and finishes.

Advance Corporation
 327 East York Avenue
 St. Paul, MN 55101
 612.771.9297;
 612.777.2121 Fax

Space Options® Inc.
 P.O. Box 910
 Kapaa, HI 96755-0910
 808.889.5300;
 808.889.5037 Fax

Landscape Forms™
 431 Lawndale Avenue
 Kalamazoo, MI 49001
 800.521.2546 or
 616.381.0396;
 616.381.3455 Fax

Garaventa (Canada) Ltd.
 7505-134A Street
 Surrey, BC V3W 7B3
 Canada
 604.594.0422 or
 800.663.6556;
 604.594.9915 Fax

The New Products column was provided by the ABLEDATA project, a computerized database of information on assistive equipment which is funded by the National Institute on Disability and Rehabilitation Research and is administered by Macro International, Inc., Silver Spring, MD.



Family Bathroom Meets a Variety of Needs

A Project in the Universal Design Search for Excellence

Project: Purk's Residence Bath

Designer: Dede Gilreath, IIDA

Discipline: Architecture

The Purk's family bathroom, designed by Dede Gilreath, is a good example of the universal design principles of equitable use and flexibility in use. The bathroom was made large to allow maneuvering space for wheelchair users if needed. For the same reason, swing clear, offset hinges were also added to the bathroom door to increase the clear opening width. The bathroom has multiple modes for bathing. The floor is waterproof and has a floor drain. A hand-held shower head and a faucet beside the toilet allow for use as a roll in or wet area shower. The hand-held shower controls can also be reached from the toilet so the user can bathe while seated on the toilet. The bathtub is equipped with a hydraulic seat that raises the user in and out of the tub. The tub also has a built in seating space at one end that can be used as a transfer surface or seat for



showering. The controls have lever handles for low physical effort and the surge and temperature controls prevent scalding and reflect the universal design principle of tolerance for error. Its flexibility, as well as the principle of size and space for approach and use, has been demonstrated through use by family members with a variety of needs. It has been found to also be useful for house plant maintenance and washing the family dog.

Editor's note: This article is one in a series highlighting a project from the National Endowment for the Arts **Search for Excellence in Universal Design** and the elements which make it exemplary. The 38 winning projects are documented in "Images of Universal Design," a slide show available from Universal Designers & Consultants Inc. Check out the website at www.adaptenv.org/udpictpg/udpictrs.htm or call 301.770.7890 (v/tty). 

Universal Accessibility, from page 4

small group breakout session recommendations to improve the ADA and the Fair Housing Amendments Act of 1988. Those recommendations included:

- Create a single accessibility standard that will stimulate innovative and performance-based design. (A task which is well underway with the proposed harmonization of the ANSI and ADAAG)
- Promote good accessible design through an annual design award sponsored by the AIA and the Department of Justice;
- Include universal design concepts in education curriculum for architects, builders, and related construction trades. (The Universal Design Education Project was featured at one of the break-out sessions, but was not recognized by the majority of the participants.)
- Exchange information, publications, and viewpoints, through accessibility forums, clearinghouses, and informational databases.

In an effort to continue this dialogue, AIA has established a page on its Internet website to allow architects to discuss and comment on the upcoming proposed changes to the ADAAG.

Individuals wishing to participate in this dialogue should check out www.aiaonline.com. Audio tapes of the conference sessions and the meeting binder are available from the AIA at 202.626.7406. 

June 18-21, 1998*

This exciting conference, sponsored by Adaptive Environments Center, Center for Universal Design, Hofstra University and **Universal Design Newsletter**, will highlight universal design in information, products and environments.

Keynote presenters include:

Donald Norman, author of "Design of Everyday Things";

Roger Coleman of DesignAge, Royal College of Art;

Patricia A. Moore, Guynes Design;

Ron Mace, Center for Universal Design; and

Frank Bowe, Hofstra University.

Visit the conference web site at:

www.adaptenv.org/21century/ for frequent updates and the guidelines for submission of entries to the **Student Design Competition**. Deadline for submission is Jan.16. The full registration brochure will be available online in late December. Send questions to eostroff@adaptenv.org. Or call (617)695-1225 x0.

* **Note the New Date**

Designing for the





Printed on recycled paper with vegetable inks.

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

Universal Design Newsletter
1700 Rockville Pike
Suite 110
Rockville, MD
20852

Oct. 9-10: Universal Trail Assessment Training will be presented in Martinsville, IN by the National Center on Accessibility to demonstrate the UTAP process developed by Beneficial Design to collect and format data on trail conditions. For more information contact NCA 800.424.1877 (v/tty) or www.indiana.edu/~nca

Oct. 14: Universal Kitchen Design will be presented by Dolan & Traynor and the National Kitchen & Bath Association in Wayne, NJ. Mary Jo Peterson will present the one-day course. For more information contact NKBA at 800.843.6522 (v) or www.nkba.org

Nov 13: The US Architectural & Transportation Barriers Compliance board will conduct a public forum on the ADA Accessibility Guidelines in Louisville, KY. For more information contact the Access Board at 202.272.5434 (v); 202.272.5449 (tty).

Nov 16-19: The 6th Annual National Workers Compensation & Disability Conference will be conducted in Chicago by LRP Publications. This conference has six tracks to cover a variety of disability employment issues such as ergonomics, legal issues, and safety and loss control. For more information contact LRP at 800.727.1227 (v).

Dec. 9-12: Universal Design and Interpretation, presented by the National Center on Accessibility in New Orleans, will offer two tracks to help designers, architects, engineers, interpretive special-

ists, curators and exhibit planners to implement universal design and access to interpretive environments. For more information contact NCA 800.424.1877(v/tty) or www.indiana.edu/~nca

Mar 17-21, 1998: The Technology and Persons with Disabilities Conference "Where Assistive Technology Meets the Information Age" will be sponsored by the Center on Disabilities at California State University at Northridge. For more information call 818.677.2578 or check the website at www.csun.edu/cod/.

1998

May 17-20: Home Safety and Universal Design at the Fourth World Conference on Injury prevention and Control, to be held in Amsterdam, the Netherlands, will deal with the links between injury prevention and universal design. For more information, contact www.consafe.nl/conference/ or contact Van Namen & Westerlaken Congress Organization Services PO Box 1558 6501 BN Nijmegen, the Netherlands or phone +31.24.323.4471

June 18-21: Design for the 21st Century: International Conference on Universal Design, an international collaborative universal design conference sponsored by Adaptive Environments, Center for Universal Design and *Universal Design Newsletter* will be held on the campus of Hofstra University. For more information check the website <http://www.adaptenv.org/21century/> or call 617.695-1225 ext. 0 (v/tty).

BULKRATE
US POSTAGE PAID
ROCKVILLE, MD
PERMIT #4791