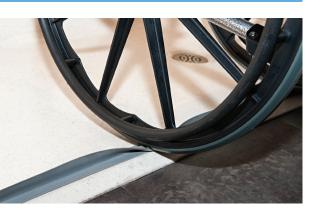
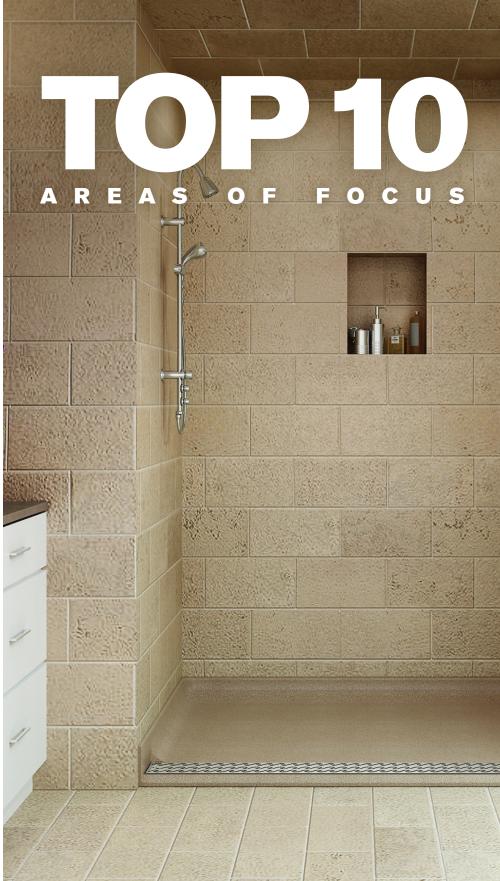
UNIVERSAL DESIGN IN THE BATHROOM:













SPACE THAT WORKS FOR EVERYONE

Universal Design. Aging in Place. Accessible Design. Three terms with similar goals: to create living spaces that are safe and efficient for users. At Bestbath® we focus on Universal Design because it encompasses this goal for everyone, no matter their age or their abilities.

Integrating Universal Design principles into your home during a remodel is smart. It can lead to increased safety, comfort and even home value — with minimal added expense.

But where should you start?

The purpose of this guide is to help answer that question. It examines the 10 key areas you should focus on when integrating Universal Design into your bathroom during a remodel. If you concentrate on these areas, you'll create a bathroom that will serve you well for decades to come.

UNIVERSAL DESIGN: the approaches, ideas and materials used to make buildings, products and environments accessible to everyone, including older people, people with disabilities and those without disabilities.

Basically, everyone.

ACCESSIBLE BATHROOM TOP 10

Any bathroom remodel is going to have many details. Here are the top 10 things you should consider when increasing value by increasing adaptability through Universal Design practices:



BATHROOM ACCESS & DOORWAY

When planning renovations to the bathroom, start by considering what a person of any ability, height or age – whether standing, sitting or using a wheelchair – would need to get there. Ideally, the approach to the room will have these characteristics:

- A hallway with a minimum clear-width of 36"
- Doorways at least 32" wide
- Doors retrofitted to swing open to the outside or can be converted to pocket doors
- Lever door handles are easier to use than knobs



TIP: Increase safety with a bathroom door that can be unlocked from the outside in case of emergency.

2

FLOORING & BATH MATS

Reduce the risk of injuries from slips and falls in the bathroom by using a textured flooring surface and removing unnecessary bathroom mats and rugs. If vinyl flooring is used, select a patterned option that includes texture and roughness. If a tiled surface is preferred, choose tiles with textured surfaces, matte finishes, or sand-containing glazes. Another tile flooring option is small tiles with more grout lines, resulting in better "grip" than larger tiles.

A low-pile, rubber-backed bath mat is useful to help feet dry when stepping out of the shower or bath. Consider eliminating mats altogether when walking becomes more difficult or when walkers are being used. This will help you avoid catching an edge, and the resulting trip or fall.



TIP: Bestbath's Grip Texture can be applied to almost any surface to make it slip-resistant and safer.





BATHING

Bathing is the focal point of any accessible bathroom remodel. Today, walk-in baths and showers come in a wide variety of shapes and sizes — and in the case of Bestbath products, with many optional features.

In bathrooms with tubs, the quick solution is to use an ADA compliant bathtub transfer bench. The transfer bench works well when the ability to step in and out of a bathtub has become difficult or impossible as a result of a sudden accident or change in circumstance.

When a tub is still wanted for bathing, but a tub/shower is not viable, a **walk-in tub** offers a good solution because its low-step entry threshold eases entry and exit. Walk-in tubs also have hydrotherapy benefits, can double as a shower, and can normally be installed in an existing bathtub's space.

Barrier free showers provide the best overall accessibility in bathing. Today, these are available in many styles, from custom-built showering areas to precisely manufactured units offering accessories, built-in plumbing features, and unique finishing touches. Regardless of style, consider these design and safety features when planning a barrier free shower:

- An area with a 5 ft. turning radius outside the shower or tub
- A curbless or low curb (1/2") threshold for wheelchair or walker access
- Slip-resistant flooring
- Positioning and strong mounting of grab bars
- Adjustable height shower head and fixed head
- Shower controls positioned low enough for easy use when sitting
- Controls nearer the entrance for assisted operation
- Anti-scald and water-pressure controls
- A shower seat that runs the entire depth of the wall opposite the shower controls or on the back-wall perpendicular to the controls



THE SINK

Many bathroom sinks are already within the height range for accessibility -32" to 34" from the floor to the top of the sink. Yet most do not have the 27" of clearance from the floor to the bottom of the sink needed for easy access while providing a clean, modern design. Because of this, it's smart to redo the entire sink area.

To make the space under the sink suitable for wheelchair access, an angled panel should be installed to protect legs from hitting pipes or being burned on the hot water pipe. An alternative is a wall-mounted sink that has no plumbing other than a short drain pipe going into the wall.

5

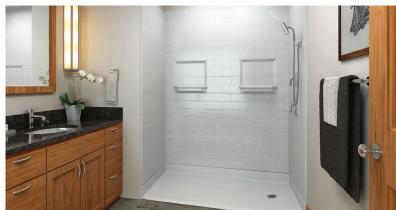
THE TOILET

Creating an accessible toilet is based on height, clearance, and space.

- Height the top of the toilet seat should be 17"-19" above the floor. It's important to distinguish toilet seat from toilet bowl because some bowls are sold without a seat; the total height is what is important.
- Clearance the space under the bowl is important, too. The undercut should have 9" of clearance from the floor to the bottom of the toilet bowl. Depending on style, some bowls are severely undercut or, in the case of wall-mounted bowls, never touch the floor at all.
- Space In bathrooms with an open design, there may be ample room for maneuvering a wheelchair or walker into place for transfer to the toilet. But in bathrooms where the toilet is hidden by a wall or compartment, it is important to design access with a 60" radius for turning.

Other considerations in the immediate toilet area are the placement of the toilet paper holder and grab bars. The toilet paper holder should be placed on the nearest wall at a minimum of 19" above the floor and a maximum of 36" from the back wall. A partial in-wall holder will help keep space clear. (Toilet grab bars are also often necessary, and are covered in the next section.)









GRAB BARS

Grab bars are essential to the accessible bathroom. With proper placement and installation, grab bars make movement in and out of bathtubs, showers and toilets possible and much safer for all users.

For homeowners, ADA guidelines can provide detailed information regarding the placement options. Keep in mind, ADA guidelines are for commercial buildings such as apartments and hotels. Private residents do not need to meet the placement requirements. Instead, grab bars can be moved to suit the user's height and needs. However, it is important that grab bars be mounted to walls to withstand 250-300 lbs. of load. To do this, wall studs around toilets and tubs need to be located prior to installation. Alternatively, Bestbath showers are built with integral wood backing, allowing the flexibility to mount grab bars in any location.

Today's grab bars come in many colors and styles, eliminating the cold institutional look they're often associated with. Some bars are designed to double as towel or toilet paper holders, others as corner-mounted accessory shelves. These sleek designs make them useful today and in the future when they're needed for support.

7

CABINETS & MIRRORS

Throughout a Universal Design bathroom, everything needs to be designed and arranged for a person with limited abilities, strength or reach, and cabinets are no exception. They need to be thought through with just as much detail as other components, like showers and toilet spaces.

The cabinets and drawers closest to the sink are the most likely to be used by a smaller person, child or someone sitting in a chair. From hinge options to the style and placement of handles, cabinets and drawers that open and close need to be easy to use. If a medicine cabinet is desired, its location and opening mechanism should be easy to access and operate.

Bathroom mirrors present other considerations. For wall-mounted above-sink mirrors, the bottom edge of the mirror should be no more than 40" above the floor. Tilting mirrors are not a requirement, but are an option worth considering. And, where wall space is available, a full-length mirror, with its top edge being 74" from floor, is a great addition to the bathroom.

COUNTERS & COLORS

The countertop height should be 32"-34" from the floor and have knee clearance of 27" so a person can easily snug up to the counter's edge, whether standing or sitting. Plan plenty of counter top space for the future when it may be easier to leave some items out of drawers and cabinets for easier access.

For the best in safety, install counters with curved edges and with a contrasting edge color for better visibility.



TIP: Contrasting colors throughout a bathroom helps accessibility!

Easier visibility = improved safety.

9

LIGHTING, VENTILATION & MORE

Sometimes overlooked, a bathroom's lighting and ventilation really do make a difference in safety. A well-lit bathroom — day or night — improves the visibility of the room's facilities. A lighting plan should include lighting for any area potentially sectioned off from the main room, such as the toilet or bathing areas. The plan should also address how light enters cabinets and drawers when opened. Finally, consider rocker style light switches to make turning lights on and off easier.

The bathroom's air circulation is critical as well. An efficient fan and, if possible, a window that can be easily opened, help reduce moisture and help the room's surfaces—such as the bathroom and shower area — dry faster. For the ultimate in comfort, a heated floor is always an option!



TIP: Consider installing a cordless phone or an intercom next to the toilet and shower for safety and convenience. When installing phones or any device, make sure they can be easily reached by someone sitting.

10

BUDGET

Upgrading a bathroom can be an expensive project depending on the size of the room, changes needed, and the level of amenities selected. However, planning ahead using universal design practices takes little additional time or money and pays off in the future.

If your budget is tight, you may be able to begin with some simple steps and then move on to bigger changes. Here are some relatively quick and simple ideas:

- Grab bars
- Use Bestbath's Grip Texture to make existing surfaces slip resistant
- Swing hinges on entry door to add doorway clearance
- Improved lighting

- Door handles
- A transfer chair for bathtub access
- Low-pile non-slip rugs

Doing some of the simple items will help move the room's transition along, but eventually the big items will have to happen. Working on your plan with a contractor experienced in Universal Design remodels will help you stage the project's final pieces:

- Widening doorways
- Replacing the bathtub with an accessible low-curb or curbless shower
- Installing non-slip flooring
- Adding new countertops, cabinets, and sinks
- Making adjustments to toilet facilities



TIP: If your budget allows, remodeling is a good time to splurge on a few upgrades important to you — like tile in your composite shower — to make your entire bathroom feel like a million bucks!

PRINCIPLES OF UNIVERSAL DESIGN & HOW IT RELATES TO ADA GUIDELINES

When incorporating Universal Design, understand these seven principles as envisioned by Ron Mace, the founder of The Center for Universal Design at North Carolina State University:

EQUITABLE USE

The design does not disadvantage or stigmatize any group of users and is marketable to people with diverse abilities.

FLEXIBILITY IN USE

The design accommodates a wide range of individual preferences (i.e. left or right handed) and abilities, and provides choice in methods of use.

SIMPLE & INTUITIVE USE

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level; eliminates unnecessary complexity.

PERCEPTIBLE INFORMATION

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities; uses pictures, audible or tactical methods.

TOLERANCE FOR ERROR

The design minimizes hazards and the adverse consequences of accidental or unintended fatigue; elements most used should be most accessible, or fail-safe features included.

LOW PHYSICAL EFFORT

The design can be used efficiently and comfortably and with a minimum level of fatigue.

APPROPRIATE SIZE & SPACE

The appropriate size and space is provided for approach, reach, manipulation and use, regardless of the user's body size, posture or mobility.

About Bestbath

Bestbath is a leading manufacturer of bathing products for people of all abilities. Our products — from walk-in tubs to traditional shower inserts — are designed to be functional and beautiful now, but also to be easily modified as needs and abilities change. Bestbath works closely with architects, commercial project developers and homeowners to ensure that our designs provide them with function and value today and for years to come.

Better living begins with Bestbath.





BESTBATH PRODUCTS ARE MADE IN THE USA and come with a 30-year limited warranty so you can relax knowing you're covered now and in the future.

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