

Bathroom Design for Resident Safety and Mobility

The design of bathroom environments in the health care setting must balance a significant number of regulatory and civil obligatory hurdles, from local building codes to state department of health codes, and from AIA (American Institute of Architects) guidelines to ADA (Americans with Disabilities Act of 1990) and – if your facility is federally sponsored – ADAAG (ADA Accessibility Guidelines for Buildings and Facilities) requirements. Most often, these guidelines closely parallel one another. However, there may be slight differences between them, and it is vital to fully understand all of the codes and proactively identify discrepancies between them. If discrepancies arise, it may be best to comply with the more restrictive of the two requirements. In rare cases when there are outright conflicts for a given design intent, approach the respective code officials to resolve the issue.

In addressing the plethora of minimum standards and the complications inherent in remodeling, you have a daunting set of obstacles to overcome. That said, when remodeling or building new resident bathrooms, a number of design considerations can ultimately enhance the safety and mobility of your residents.

Flooring Material Selection

You have a variety of goals to address when selecting bathroom flooring material. First, you have technical design requirements; you do not want flooring material that is easily damaged by water. Second, you have aesthetic concerns; you do not want your residents to feel like they are in a prison bathroom. Third, you have functional requirements; the flooring must be safe and prevent slippage. Lastly, you must balance those goals with the construction of the building.

Seamless vinyl flooring is very effective in protecting against leaks and, when correctly installed, can be flush and coved to the wall. Seamless vinyl flooring is also easy to clean and facilitates efficient draining to keep floors dry and safe. To further reduce the risk of slips and falls, select flooring materials with the highest wet friction coefficients you can find.

You may also want to select flooring with a matte finish. Residents with poor eyesight often assume all glossy surfaces are wet and, therefore, slippery. The act of trying to avoid those reflective floor areas may actually cause residents to put themselves at a greater risk of falls.

The “Open Shower” Option

An “open shower” has no physical barrier between it and the balance of the bathroom environment. There are no thresholds, doors, or gates to the shower area; essentially, the entire bathroom becomes the shower enclosure. An open shower allows you to use the shower to provide the minimum required clearances around toilets and sinks and, as such, can reduce the footprint of the bathroom and assist with ADA compliance. However, during bathing, the entire bathroom may become wet, creating additional slip hazards.

To safely and effectively integrate open showers into your bathrooms, design them to increase resident safety and privacy and improve water control as follows: First, identify the amount of space your residents need to safely and comfortably enter the shower. Secondly, attempt to segregate the shower from the rest of the bathroom to increase the residents’ sense of privacy and to prevent water from splattering throughout the room. If you cannot segregate the shower with a partial partition, you may use a shower curtain. Third, the showerhead and other fixtures should be installed and positioned to minimize the spray that will reach other areas of the bathroom.

With an open shower, water will invariably make its way into the bathroom. Anticipate this by designing an effective drainage system. Floor drains are often viewed as unsightly and require floor slopes that can be uncomfortable to walk on. However, these drawbacks can be overcome. Seamless flooring can be very gradually sloped, providing a nearly level floor and avoiding the

“funhouse” sensation one gets walking on a sloped floor. Consider installing floor drains under wall-hung toilets or otherwise away from the center of the room to keep them out of plain view and draw the flow of water away from high-traffic areas. By choosing your flooring materials wisely and keeping drains out of the flow of traffic, you have won 90% of the battle against slippery and dangerous floors.

It is also important to manage your residents’ expectations of floor conditions in an open shower environment. Residents generally understand the slip risks inside a shower and act accordingly. If they do not understand that floors may be wet outside of the shower, they may not take the appropriate precautions.

Because of the ease of resident access and cleaning and maintenance they



In a residential care setting, it is crucial to provide a bench in the shower.

Photo courtesy of Best Bath Systems

FACILITY DESIGN

provide, appropriately selected and installed open showers may prove to be a more flexible primary bathing solution. Of course, certain residents truly enjoy immersing themselves in a bath, and providing a tub in a common bathroom could be a valuable amenity to offer your residents.

Shower Benches

In a residential care setting, it is crucial to provide a bench in the shower. Solid surface plastic bench tops are easy to clean and disinfect, in comparison to wooden benches, which can also swell. Keep in mind that flip-down benches may be challenging for residents with impaired arm strength or mobility to operate and may also present pinch hazards. However, benches that fold into the shower wall can give residents who require less assistance more maneuvering room and a greater sense of independence. If the built-in benches offered by your shower vendor do not meet your needs, consider using portable benches. Despite being somewhat inelegant from a design standpoint, they can be easily removed for cleaning and maintenance. In addition, for residents who are unable to stand on their own, specialized bathing wheelchairs, designed for use in wet environments, are an effective bathing solution. While seated, residents can bathe themselves using handheld showerheads.

Toilets and Sinks

Ultimately, the degree to which residents can comfortably and independently ambulate in the bathroom will determine the success of your design. As such, it is important to ensure adequate circulation space for wheelchairs and walkers around your sinks and toilets. Creating a bathroom with sufficient space for resident ambulation may detract from the square footage available for the resident bedroom or may increase the overall design project budget. It is important to carefully weigh these potential drawbacks against the benefits safety, convenience, and independence your residents will receive.

Resident Support Surfaces

By integrating resident support surfaces into a bathroom's design, you can create opportunities for residents to move about comfortably and safely on

their own. Imagine yourself as a resident about to lose your balance while in the bathroom, and be sure support surfaces are at hand to aid residents in steadying themselves. Inexpensive and available in attractive styles, grab bars should be installed behind and alongside the toilet and in the shower, per the ADA. Strategically placed towel bars, shelves, or sink edges that are rigid

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enough to provide support can also be helpful to residents as they attempt to steady themselves. These surfaces can be integrated with the bathroom design in an aesthetically pleasing manner. In other words, they can achieve the same functional results as grab bars with a less "institutional" look.

Beyond Compliance

Many people do not realize the ADA accessibility standards were not written to address the needs of an aging population in a residential setting. For example, the toilet grab bar locations indicated by the ADA are meant to facilitate the movement of a person with significant upper body strength from a wheelchair to a commode; they do not necessarily aid people using walkers in accessing the toilet. Furthermore, most residents of long-term care or assisted living facilities simply are not in the physical condition to hoist themselves out of a wheelchair using a grab bar mounted behind a toilet. This is one case in which adhering only to ADA requirements may not serve your residents most effectively. Though you cannot ignore ADA requirements, you must also examine ways to supplement them to facilitate your residents' independent use of bathroom facilities; by simply complying with the ADA, you may not provide your residents with any true benefits. To further the mission of care and support the independence of your residents, think about bathroom design and construction in terms of the specific outcomes you want to achieve – not in terms of checking boxes next to ADA requirements. Thinking about your residents' experience is perhaps the most important thing you can do to improve the design and construction of your resident bathrooms. ■

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