Shower Design Guidelines

by Denise Battle

If I made a practice of stuffing my customers into a shower stall that barely met the 900-square-inch minimum size, I wouldn't be leaving them with much to sing about. Complying with a building code is only the beginning when planning a successful bathroom. My business focuses exclusively on bathrooms, and over the years I've applied the NKBA's (National Kitchen and Bath Association) *41 Guidelines for Bathroom Planning* to my work. Intended to take design beyond mere compliance, the guidelines address user anatomy, safe and comfortable movement, accessibility, and pleasure. In this article, I'll discuss some of the things I consider when dealing with a tub or shower installation.

Shower Space

A square or rectangular shower should have a *minimum* space of 34x34 inches, measured from wall to wall. This dimension is based on the average "wingspread" of a person standing with arms bent and elbows extended, as in a hair-washing stance (see Figure 1). If there's enough space in the bathroom, I prefer to use a 36x42-inch shower, or a 36x36-inch neo-angle enclosure. These dimensions are a lot more comfortable for the average bather.

Wheelchair access requires an unusually large shower interior, typically no smaller than 60x42 inches; 60x60 inches is easier to negotiate if space allows. The width of the door is also important, for entry and turning space. In a 60-inch-deep shower, a person in a wheelchair can enter straight into the shower and then turn, so 32 inches is an adequate clear opening. If the shower is only 42 inches deep, the opening has to be at least 36 inches wide to make turning possible.

Sitting room. People do interesting things in the shower, like leg shaving, corn abrasion, and toe grooming. These maneuvers are safer and more comfortable when performed sitting down, so I like to include a bench or seat in the shower whenever possible. In a generous 60x30-inch shower, a 30-inch-wide bench 16 inches deep and 17 to 19 inches above the floor works well. In a 36x42-inch enclosure, a marble corner seat adds a touch of class and convenience. A built-in seat shouldn't encroach on the minimum 34x34-inch clear floor space of the shower, so a seat isn't in the cards for every shower. If there's room, put one in. Folding seats are also possible in tight spaces. If I put a seat in, I make sure that the surrounding wall framing includes blocking to support it.

Shower doors should always open into the bathroom, not into the shower.

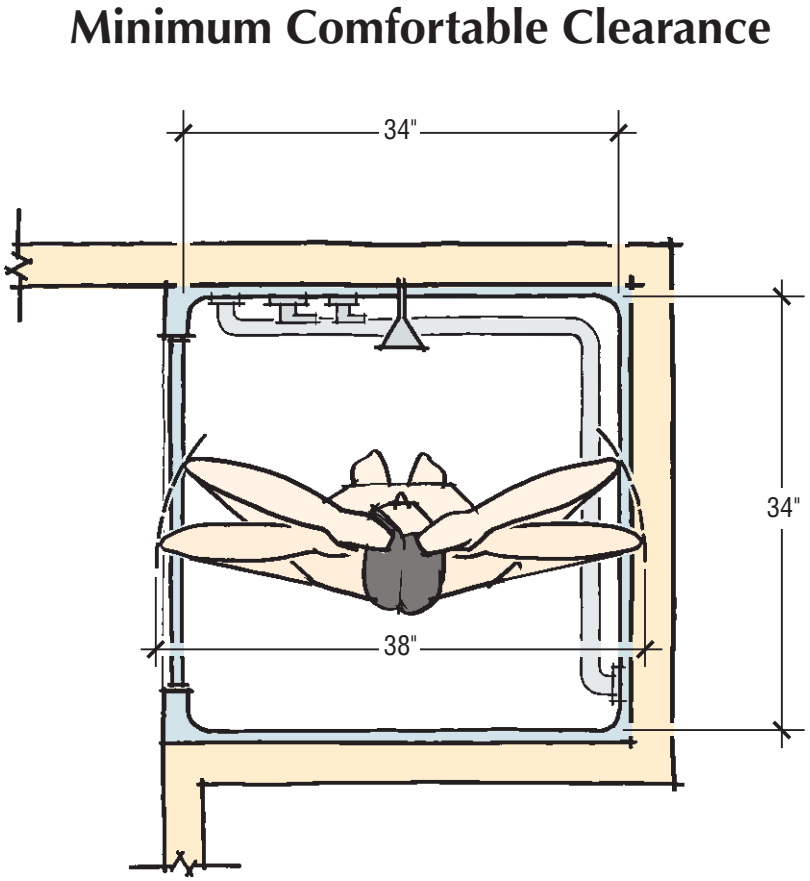

Figure 1. In a perfect world, the average bather would have a minimum space of 38 inches inside a shower for unrestricted arm movement. A 34x34-inch shower provides a comfortable compromise. Building codes permit less space (900 square inches), but this doesn't take personal comfort into consideration.

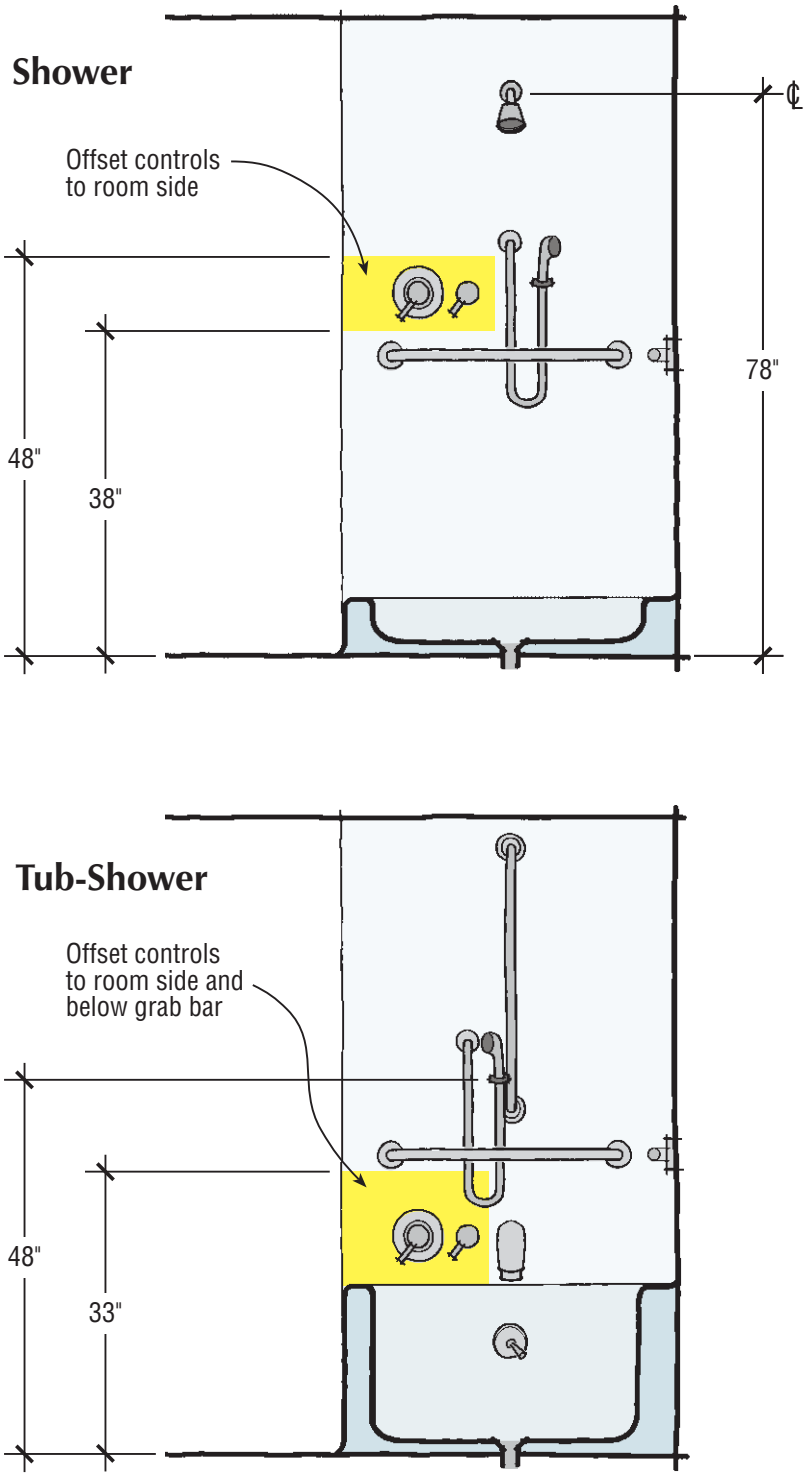

Figure 2. Locating the controls between 38 and 48 inches above the floor puts them within comfortable reach of most shower users (top). Installing the controls close to the room side of the enclosure makes them easy to preadjust before stepping in. An adjustable or hand-held showerhead should be no higher than 48 inches above the floor in its lowest position. With tub units (above), the controls should be above the rim but no higher than 33 inches above the floor.

This certainly makes sense for showers where interior space is at a premium. Moving out of the way of the door in order to open or close it from inside the shower is awkward. If space is really tight, I'll suggest a curtain as an unobtrusive option.

User-friendly controls. More often than not, shower controls are centered on the wall, directly below the showerhead. They're much more convenient, though, if they're accessible from both inside and outside the enclosure. Shower controls should be located between 38 and 48 inches above the floor, and offset toward the room (Figure 2). This affects the plumbing rough-in, so I make sure that the wall studs are in the right place when framing the enclosure. Fixed showerhead height seems to be a matter of some debate among plumbers; generally, a showerhead should be a standard 78 inches above the floor. A hand-held showerhead may be used in place of, or in addition to, a fixed showerhead. Showerheads that mount on a vertical slide-bar can be adjusted to suit the individual user. To make sure it's within comfortable reach, a hand-held showerhead should be no higher than 48 inches in its lowest position.

Another thing I pay attention to is the location of the showerhead relative to the door. I avoid placing them opposite one another to help prevent a leaky door. Also, with this placement a person can adjust the water temperature from outside the shower without getting soaked.

Tub and Shower Safety

Installing a step for easy entry into a tub-shower combination is a bad idea, because it actually increases the risk of falling into or out of the tub. Instead, I install safety rails or grab bars where they can be readily gripped while stepping over the rim.

Tub controls should be easily accessible from outside, as well as inside, the tub. This is more than just a question of convenience, since leaning in to adjust the temperature can lead to a dangerous fall. Controls should be

Figure 3. A shower seat makes personal grooming safer and more comfortable. The sanded grout lines between 2x2- or 3x3-inch ceramic floor tiles improve traction on a wet shower base. With the door opening at the control end of the shower, splashback is minimized and adjustments are easy to make before entering the shower.

located in the area between the rim of the tub and 33 inches above the floor, offset toward the room.

Tempering valves. Even if it weren't already required by code, I always specify a pressure-balancing valve or temperature-limiting device for the shower control, to avoid the danger of scalding burns. A pressure-balancing kit can be added to most valves, but if I'm remodeling an older bathroom, I won't even consider reusing unsafe controls.

Sometimes, I'll use separate hot and cold controls in a bathtub (due to the risk of scalding, code prohibits their use in a shower). To make it as safe as possible, I always install the hot control on the left (as viewed from inside the tub), where people expect it to be.

Slippery floors. The hard, polished surfaces in a bathroom can get dangerously slippery when wet. I add a little traction by using 2x2- or 3x3-inch ceramic tile on the shower base (Figure 3). The sanded grout lines between tiles give bare feet a better grip on the surface.

Grab Bars

Grab bars are a good idea for all bathers, young and old. Placement is something of an individual preference, but a couple of general rules apply. In a shower, I place the grab bar below the controls, between 32 and 36 inches above the floor. In a bathtub, the controls are lower on the wall, so the grab bar goes above them. Other good grab bar locations include next to a shower bench to assist in sitting and rising, and at the point of entry for support when stepping over the curb or tub rim. Vertical grab bars serve both short and tall bathers. A horizontal grab bar crossing the wall should be no farther than 9 inches out from any corner, so that it may be grasped without having to look for it.

Sometimes, I'll go through the motions of tub and shower use with my customer to locate grab bars at the rough-in stage. To make sure I'll have something solid to screw the bars to, I always install blocking in the framing at likely locations.

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