

Barrier Free Shower Design Considerations

What is a barrier free shower design?

Barrier free is a modern trend in shower design. It removes the traditional curb that isolates the shower area from the rest of the bathroom, providing a cleaner look and allowing the designer to introduce new modern elements.

Why use a barrier free shower design?

The barrier free shower eliminates the risk of tripping and significantly reduces the risk of slips and falls as one does not have to step over the curb on a wet surface. This is particularly important for elderly people. It also makes it possible for disabled users to roll a wheelchair directly into the shower area.

Are there any issues surrounding barrier free shower designs?

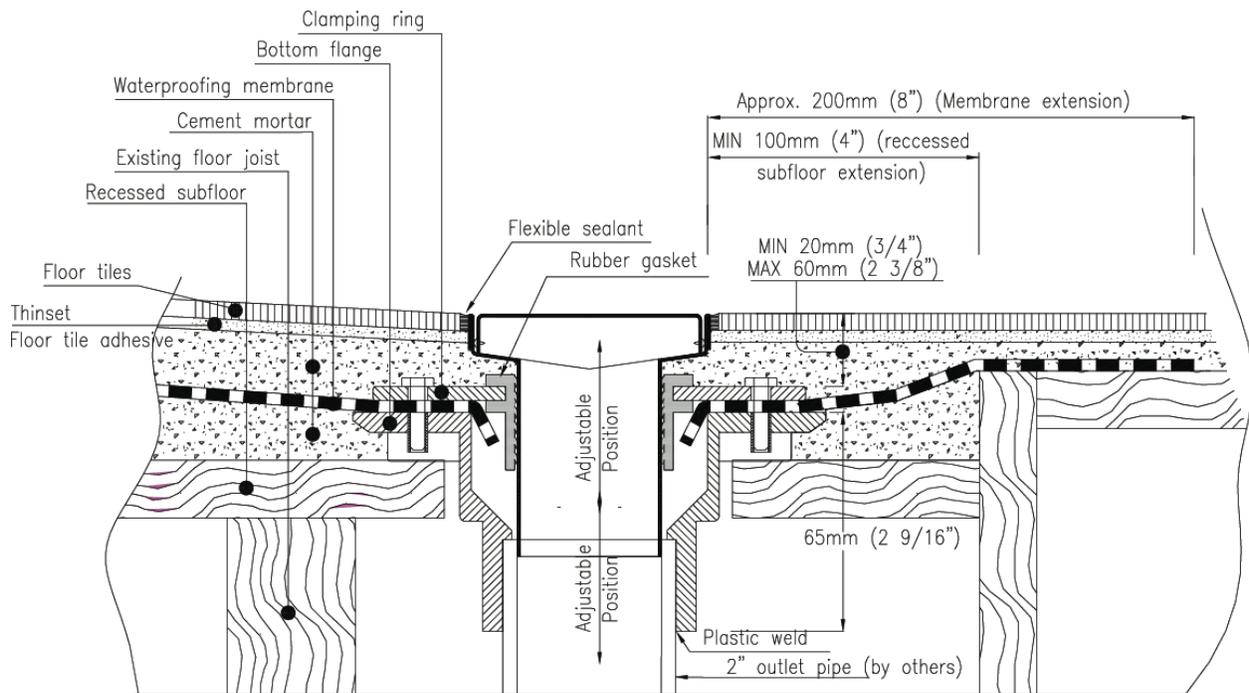
The waterproofing membrane and required sloping lead to a thicker package on the subfloor than the rest of the bathroom. Raising the finished floor level in the entire bathroom may sometimes be possible, but in most cases this would create a finished floor elevation difference between the bathroom and adjacent rooms.

Type of construction

It is always easier to design a barrier free shower in new construction than it is in renovation projects. The latter cases have existing structural elements that may be difficult to alter. In new designs, the structural design of the building can accommodate the needs for barrier free showers in the project.

A linear shower drain can greatly simplify the design and construction of a barrier free shower.

Barrier free shower construction



To maintain continuity of the finished surface, the subfloor in the shower area needs to be lowered based on the linear shower drain used and the type of waterproofing method. Any linear shower drain can be installed in a barrier free shower, shown above is a traditional shower installation with a CPE membrane type for waterproofing. However, bonded membranes will provide a shallower installation and allow an easier execution of a barrier free shower.

Lowering the subfloor in the shower area means requires alterations to the building's structure. This should only be done under the review and supervision of a professional engineer or architect and should not be attempted in any situation by a homeowner or the builder for the shower. Solutions for lowering the subfloor can consist of:

- Removing the subfloor in the shower area and lowering in between the joists. This will provide an extra depth equal with the thickness of the subfloor, typically, $\frac{3}{4}$ inches.
- Remove the subfloor and trim the top of the joists as needed. In these case, the joists may need reinforcement to account for the reduced height.
- If the drain is positioned parallel with the joists it may be possible to lower it in between the joists. Additional framing may be required. This may be advantageous if such a solution will not affect structural elements of the building.