

New methods in the 2015 TCNA *Handbook* for ceramic, glass and stone tile installation

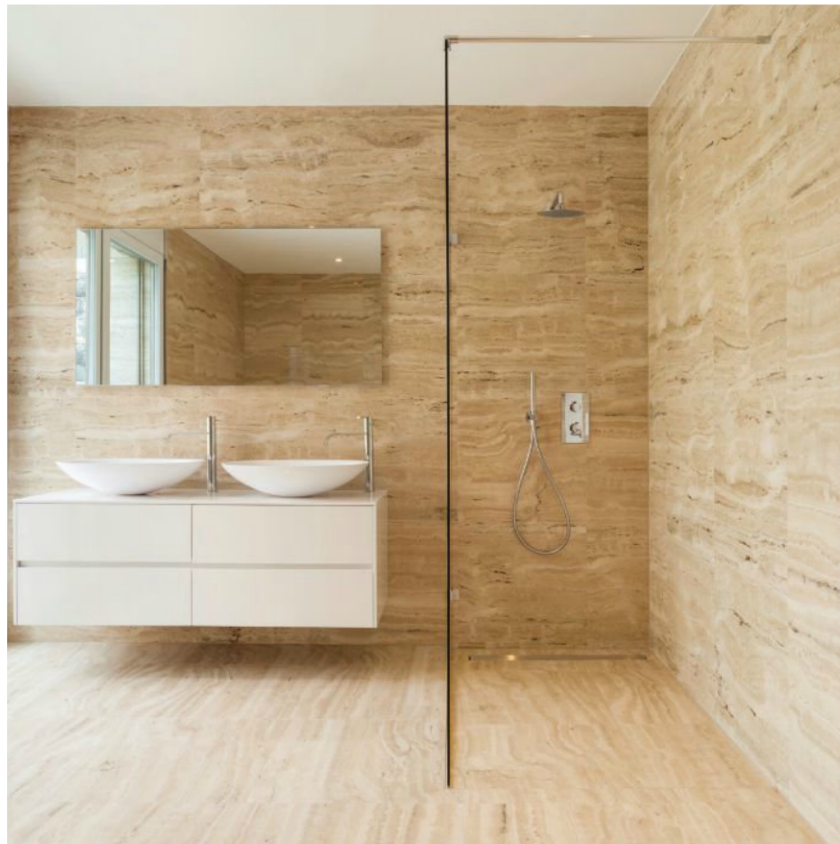
The latest edition of the *Handbook* is available from Tile Council of North America (TCNA), with eight new methods included between its covers for specifying heated stone tile floors and curbless showers

by Stephanie Samulski

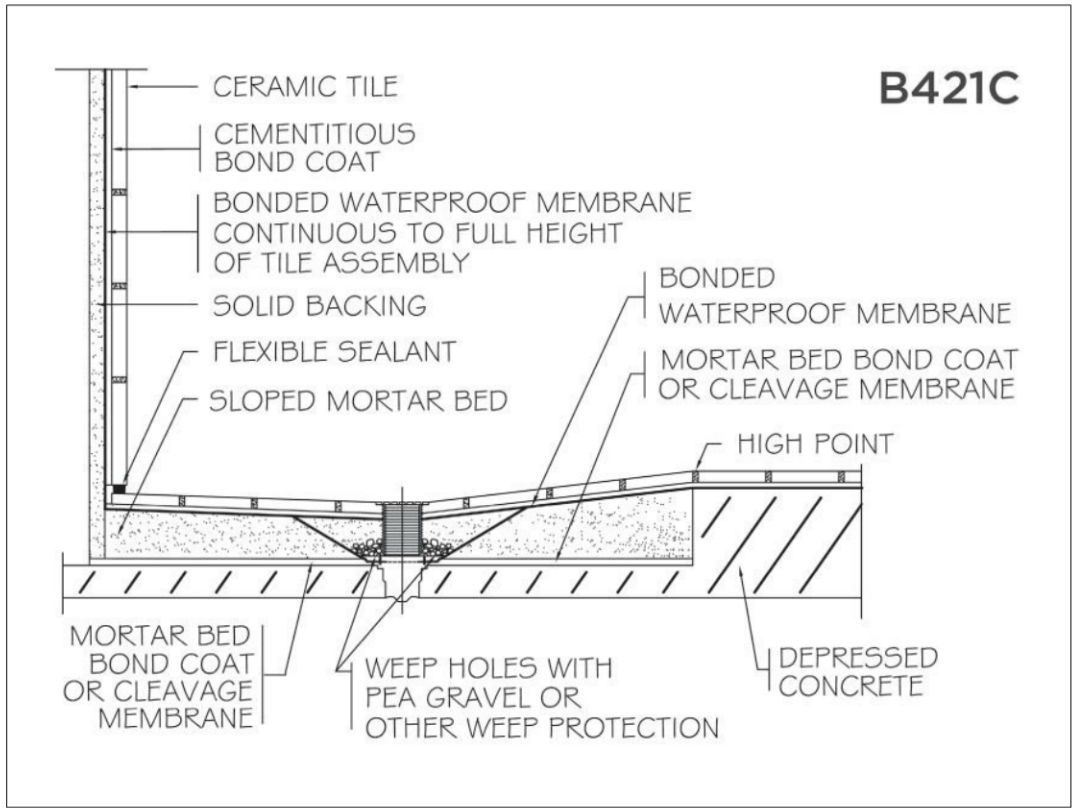
For the 2015 edition of the TCNA *Handbook*, the *Handbook* Committee approved eight new installation methods. Six of them are adaptations of existing methods for heated ceramic tile floors, edited to become stone methods to give building design professionals a means of generically specifying several well-established methods: heated stone floors over cementitious self-leveling and poured gypsum underlayments, over on-ground and above-ground concrete substrates. Additionally, the committee voted to include two curbless shower methods, a reflection of the growing popularity of curbless, or “zero-entry,” showers.

NEW CURBLESS SHOWER METHODS

For some, the interest in curbless shower designs is purely aesthetic — a desire for a minimalist, streamlined, ultra-modern look — while for others it’s a functional consideration, the need for easier access into a shower by individu-



The 2015 edition of the TCNA *Handbook* includes two methods for curbless showers, a reflection of the growing popularity of curbless, or “zero-entry,” showers.



Adaptations of shower methods B421 and B422, new methods B421C (shown) and B422C require a depressed slab for constructing their curbless counterparts.

are less able to access a tub shower or navigate a shower curb. Regardless of the reason, the design challenges are the same: eliminating the curb eliminates the dam that contains water within the shower area. Since the shower curb allows the floor height just inside the shower curb to be higher than the floor outside the curb, a height difference that results from the typical method of creating slope-to-drain within the shower by building up the floor height of the shower's perimeter, removing the curb creates many design challenges.

To address these challenges, the new curbless shower methods include several design guidelines and additional optional considerations:

- A depressed slab is required and must extend beyond the shower area to facilitate a finished floor installation that drains away shower water and splash water, which are often difficult to contain within a curbless shower.
- Floor and wall waterproofing must continue outside the immediate shower area one foot beyond the high point

of the floor, and additional waterproofing of the floor and/or walls outside the shower area may be needed to protect building materials.

- A secondary drain may be required outside the immediate shower area to facilitate removing shower water and splash water that is not contained in the shower area due to the curbless design. The high point of the floor must be outside the shower area, i.e., beyond the shower door or curtain, to drain water that is not contained in the shower area due to the curbless design.
- The location of the high point of the floor is especially critical when a secondary drain is not included outside the shower area.

It is important to note that, while new methods B421-C and B422-C facilitate construction of a curbless shower without adding floor height at the restroom entryway, these methods do not include requirements for compliance with Americans with Disabilities Act (ADA) Standards for Accessible Design. When accessible design is the goal, building

design professionals should use the new *Handbook* methods in tandem with the ADA guidelines, which have additional requirements such as minimum shower dimensions to facilitate wheelchairs and other accessibility-related requirements.

NEW STONE METHODS

The installation methods in the *Handbook* have long been used for installing natural stone tile in addition to ceramic tile. In 2011, several methods were adapted to more specifically address stone-specific installation considerations, and a separate *Handbook* stone section was created. This year, six additional ceramic tile methods were adapted for stone, all of which are methods for tiling radiant heated floors.

Four adapted methods are for installing heated stone tile floors in installations utilizing a hydronic heat system where the underlayment is poured gypsum or cementitious self leveler over on-ground and above-ground concrete substrates, and two are for installations utilizing an electric radiant heat system



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where the underlayment is cementitious self-leveler over on-ground and above-ground concrete substrates. To achieve stone floors that are flat and lippage free, the substrate flattening that generally results from using pourable underlayments makes these new methods nice options to have available. The existing ceramic tile methods were adapted for stone by adding the standard stone-related information and considerations found in all other stone methods:

The service rating is dependent on the compressive strength, flexural strength and resistance to abrasion of the actual stone being used.

A minimum grout joint width of $\frac{1}{16}$ inch is noted, as is a maximum grout joint width of $\frac{1}{8}$ inch (nominal) when unsanded grout is used, which is required for softer stones that could be scratched if grouted with sanded grout.

A caution is included in the mor-

tar recommendation, to “use white for light-colored marble, limestone and other stones where staining or darkening from gray setting materials is possible.”

A reference is included regarding the possibility that epoxy may be needed for setting the stone, if the stone is water sensitive or if fiberglass mesh reinforcing is used on the stone that cementitious mortars will not bond to reliably.

The TCNA *Handbook* is an annual publication that is updated and added-to by way of balloting, with a consensus body of industry experts serving as the *Handbook* Committee, the voting body that determines the changes that are made. Having a balanced, industry-representative committee, and using the consensus process to make changes to the *Handbook*, is a checks-and-balances process. With stakeholders from all segments of the tile industry weighing in on change proposals, the process ensures

the integrity and the relevancy of the information in the *Handbook*. The committee’s determination to include eight new methods in the 2015 *Handbook* expands the field of generic, reliable installation methods available to the specifier. **TILE**

ABOUT THE AUTHOR



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is a project manager for the Tile Council of North America (TCNA) and the Ceramic Tile Education Foundation (CTEF). Her tile career began in 1999

as a tile layer apprentice with BAC Local 32 in Detroit, where she worked mainly on commercial installations for Shores Tile Co. Now with TCNA and CTEF, Stephanie works on industry standards as well as knowledge and installation curricula for training and certification programs.