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Bureau of Construction Codes Technical Bulletin

Publication Number 38

Updated: January 24, 2008

Special Configuration Stack Fittings

“Providing for Michigan’s Safety in the Built Environment”

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SPECIAL CONFIGURATION STACK FITTINGS

Issue

The Michigan Plumbing Code does not include a reference to special configuration stack fittings with enlarged chambers.

Discussion

The Michigan Plumbing Code mandates that fixtures installed on a vertical stack must be vented by using one of the methods in Chapter 9 of the 2003 Michigan Plumbing Code and Chapter 31 of the 2003 Michigan Residential Code. Therefore, individual fixtures that connect to a soil stack would have to be vented individually.

Special configuration stack fittings have been documented and referenced in the Michigan Plumbing Code for a number of years. The most recent was the 1990 edition of the Michigan Plumbing Code Rule R408.30744f subsection (d), which states: "Fixture branches shall be in compliance with provisions of section P-909.1." This section regulated the maximum distance of fixture traps from the vent.

Rule R408.30744f also provided, "When a special stack fitting that has individual branches is installed, the branches are considered as discharging into the stack at the same level." The Michigan Plumbing Code has continued to accept this arrangement as a safe and effective way to install typical back-to-back bathroom group fixtures in residential and commercial applications.

Further, Rule 408.30746 P-906-4 defined the configuration fittings as follows: Bathroom fixture venting, "A bathroom group or back-to-back bathroom groups may discharge into a special stack fitting with auxiliary openings if the fitting is vented in compliance with the provisions of article 9 of the code. The invert of the auxiliary opening of the special stack fittings shall be above the centerline of the major horizontal opening."

The fittings used in this arrangement are designed with an enlarged chamber with minor fixture openings discharging above the centerline of the major fixture opening. The fittings have an enlarged chamber, which provides additional protection for the fixture traps discharging into the fitting. The enlarged chamber prevents siphoning action. Additional venting is required when other fixtures are installed above this type of connection to the stack.

Conclusion

A special configuration stack fitting with an enlarged chamber may be used if all fixture branch connections to the fittings are made in compliance with provisions found in Table 906.1 (Maximum Distance of Fixture Trap from Vent) in the 2006 Michigan Plumbing Code and Table P-3105.1 (Maximum Distance of Fixture Trap from Vent) in the 2003

Michigan Residential Code. Additional venting of the fittings is required when other fixtures are discharged above the connection to the stack.

Questions regarding this technical bulletin may be directed to the Michigan Department of Energy, Labor & Economic Growth, Bureau of Construction Codes, Plumbing Division, P.O. Box 30254, Lansing, MI 48909 or by calling (517) 241-9330.