



Informal Interpretation Report Number 8163



Date September 11, 2018

Edition 2017

Section P3005.4.2 and Table

Question:

Is it the intent of Table P3005.4.2 to limit the maximum slope of a horizontal building drain or building sewer to ½-inch per foot (4 percent slope)? The table only goes up to 1/2-inch per foot slope.

Answer

The intent of Table P3005.4.2 is not meant to limit the maximum slope of a horizontal building drain. As noted in the IRC and IPC commentaries, drainage pipe can be installed with greater slopes.

Commentary:

Section P3005.3 prescribes the minimum slope required to keep solids in suspension. The IRC Commentary states, "Drainage pipe can always be installed with greater slopes." The IPC Commentary likewise states, "A drainage pipe can be installed with greater slopes because a maximum slope is not prescribed." Table P3005.4.2 designates the maximum number of fixture units for various pipe sizes and slopes. The Table denotes the most common pipe sizes and slopes found in a residential system. But it is not meant to preclude the use of greater slopes (or larger pipe sizes.) The IRC does not specify a maximum pipe slope, except within certain venting configurations which rely on a flat flow channel depth, such as circuit venting (8-percent slope) and combination waste and vent systems (4-percent slope.) Line carry is of great concern since the introduction of low-flow water closets. Studies by the Plumbing Efficiency Research Coalition (PERC) have concluded that "flush volume, toilet paper, and pipe slope were found to have a large effect upon drainline transport of solid waste."

Notice:

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