



By Rebecca Quinn, CFM

You'd think with such a simple definition that identifying whether an area of a building is a basement would be easy. The NFIP defines the term basement: "any area of the building having its floor subgrade (below ground level) on all sides." It doesn't matter what the area is used for or what it's called, if it's below grade on all sides then for floodplain management (and flood insurance) purposes, the area is a basement. It's been quite a few years since I had a rather awkward conversation with someone who repeatedly insisted "it's a cellar" and thus not subject to the NFIP rules for basements.

Take another look at the definition: ANY area that is below-grade on all sides. A sunken living room is a basement. A crawlspace that has the interior grade lower than the exterior grade is a basement (see sidebar), with the exception of below-grade crawlspaces that comply with the strict limitations outlined in NFIP Technical Bulletin 11 (and then only if the community modifies its regulations).

Here's another aspect – if you're familiar with the International Codes® you know the International Building Code® has two definitions for basement: one for application of flood requirements and one for all the other requirements of the code. This is why I always use the complete phrase "basement that is below-grade on all sides" rather than assume the person I'm talking with has a perfect understanding of the NFIP definition and limitations on basements.

A question I come up against when teaching a class on building codes and flood requirements has to do with "walk-out basements" and whether they are or are not basements for floodplain management purposes. Before I walk you through the discussion, take a look at how some FEMA guidance publications describe walk-out basements and note the two underlined phrases:

- Two study guides are used widely, FEMA 480 (2005) and IS-9 (2004), both titled *National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials*: "Note that 'walkout basements,' 'daylight basements' or 'terrace levels' are usually subgrade on only three sides, with the downhill side at or above grade."
- FEMA P-312, *Homeowner's Guide to Retrofitting: Six Ways to Protect Your Home from Flooding* (1999): "Note that the NFIP definition of basement does not include what is typically referred to as a 'walkout-on-grade' basement, whose floor would be at or above the surface of the ground that touches the outside walls of the building on at least one side. This ground surface is referred to as the 'adjacent grade.'"

About Below-Grade Crawlspaces

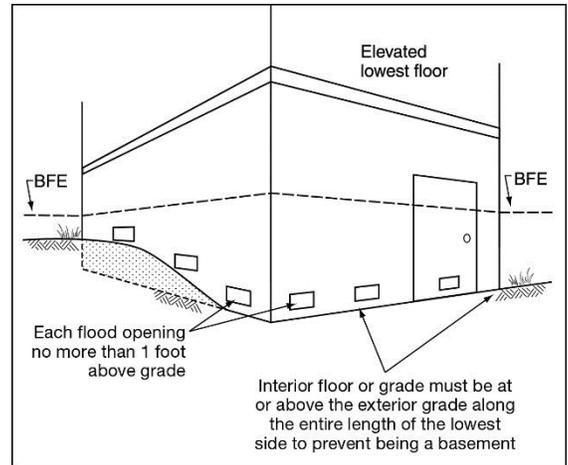
I've had people question whether [a crawlspace floor] just a few inches below grade really is that much of a problem. While it may be a valid point when considering flood loads (just how much load is associated with only a few inches of water?), that misses two important points. The first point is compliance – if the inside of a crawlspace is below grade on all sides, it's a basement and basements [below Base Flood Elevation] are not permitted, period. It's very difficult to regulate grey areas, and much easier to say "below grade area not permitted" than to say "a little below is OK because the loads aren't that much different." The second point is insurance – if the Elevation Certificate shows the interior of a crawlspace to be below grade on all sides, the flood insurance will be rated higher.

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I quote the above phrases from older FEMA publications because I've had several people challenge the guidance for sloping sites found in NFIP Technical Bulletin 1, *Openings in Foundation Walls and Walls of Enclosures* (2008) and I wanted to show the TB 1 guidance is not new. What is different is the TB explicitly spells out what is the only logical conclusion from those older statements: "on at least one side" and "downhill side at or above grade" can only mean the entire side, not part of a side. Otherwise, you've got a grey area and nobody likes to enforce vague requirements.

TB 1 says the "interior floor along the lower side of a building that is set into a sloping site must be at or above the exterior grade across the entire length of that side of the building, otherwise the enclosure becomes a basement." Also see Figure 11 from the TB (right). Note there is another condition to satisfy in order for this scenario to not be deemed a basement: there must be positive surface drainage away from the building.

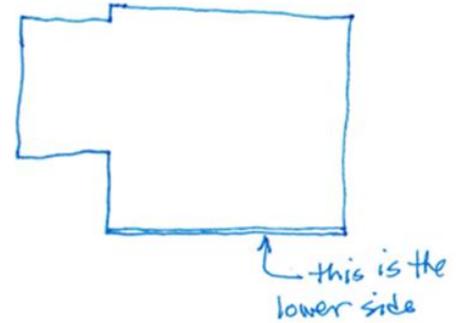
The classroom discussion about walk-out basements is prompted when I show the photograph below and ask whether this building does or doesn't have a basement. Now that you've seen the FEMA guidance, we should all be able to agree this building does have a basement because it is only partially below grade on the lowest side. But let me lead you through the logic in a few easy steps:



1. As shown, the fill wraps around both corners of the lowest side, leaving about 15-18 feet of the floor at grade. At this point more than half the people in the room usually would not call this a basement. Someone usually notices there aren't any flood openings, which would be required if it's an enclosure.
2. Now, suppose the opening is smaller, just wide enough for a standard exterior door. And suppose the fill wraps all the way around, leaving just 3-4 feet of the lowest side at grade. Plus, with that much fill, where would you put the flood openings? At this point, many in the room would call it a basement, but there are some holdouts.
3. So the next logical step is to suppose the opening is a slit that's just an inch wide and the fill wraps all the way around, leaving just a few inches at grade. Now everyone agrees it's a basement.
4. The solution for regulators? Avoid any grey area to the extent possible. FEMA guidance does that by calling for the entire length of the lowest side to be at or above grade. Then everyone agrees – it's not a basement.
5. The solution for the home shown? Regrade to expose the entire length of the lower side, likely requiring some retaining wing-walls on both corners. And, of course, install flood openings to turn the lower level into an enclosure (used only for parking, storage and building access). But if the home is left as-is – how will the NFIP rate the building for flood insurance? I don't know the answer to that, but we all know a policy would be quite pricy if the underwriters consider the lower level a basement, leaving the owner more likely to blame the NFIP than to realize the builder and community stepped into a grey area at her expense.



Let's look at another scenario. Below are two illustrations of the same house (courtesy of John Gerber, North Carolina Division of Emergency Management). My interpretation for these houses is based on my sketch of the footprint to identify the lower side. The home in the top illustration does not have a basement because the lower side is at or above grade along its entire length. The home in the second illustration does have a basement because some fill wraps around the right side, i.e., it is not at or above grade along the entire lower side. Next time you're puzzling over compliance of an enclosure below an elevated building on a sloping site, pay attention to the details. Remember, your decision could make a difference in the cost flood insurance.



Submit your own items or suggestions for future topics to column editor Rebecca Quinn, CFM, at rcquinn@earthlink.net. Comments welcomed!

ASFPM member and CFM named floodplain manager of the year by NORFMA

Others were excited but not surprised that **Bryan Pohl**, Tillamook County Community Development director, received the [Northwest Regional Floodplain Management Association's](#) "Floodplain Manager of the Year" award in Yakima, WA this September. "We all know Bryan is a rock star," County Commissioner Chair Mark Labhart said at the board's Aug. 31 meeting. "It's pretty nice when a county official gets recognized for their hard work." And that hard work is exactly why Scott Van Hoff, a National Flood Insurance Program Compliance specialist, nominated Pohl. [Read more.](#)

