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Phasing in the New Elevation Certificate

At long last, the revised Elevation Certificate arrived on April 2, 2009, bringing with it new building diagrams and new instructions designed to further the goals of sound floodplain management. No doubt, by now many have seen the memo issued by FEMA a month after the presumed expiration of the “old” form. But that memo is an overview, and those who use it should take a closer look at the Elevation Certificate in its entirety before presuming that the memo says it all.

Not mentioned in the April 2 missive is a change in Section G, which is filled out by community officials but affects all who work with community officials. A new line G10 now asks for “Community’s design flood elevation”. Its purpose is to clarify the difference between the community-provided Base Flood Elevation in line G8 and the elevation to which communities want structures raised to protect them from flood risks. It seems that there had been confusion between the regulatory (base flood) elevation (federal standard) and the elevation resulting from adding freeboard to the regulatory elevation (community standard). Consequently, in communities that provided their design elevation to design professionals and developers rather than the regulatory elevation, the freeboard would end up being added in twice—once as part of the community-provided elevation and a second time when that safety factor of freeboard was added to the provided elevation by those unaware that the figure already included it.

The wide variety of real-life construction designs inspired many of the changes to the new Elevation Certificate

(which will be phased in over a 12-month period that started April 1, 2009—no fooling!—before it becomes mandatory). Broad complaints about the limited building diagrams led to the addition of two new choices. Diagram 1 is now divided into 1A and 1B. 1A is the old Diagram 1, a simple slab on grade structure (not split level). New 1B is also on a slab, but elevated, such as on a stem wall.

The development of Diagram 1B came about due to the need for clarification about the elevations inside and outside of the enclosed area beneath the lowest floor

recommend that the interior elevation be at or above the exterior grade. Increasing the height of the interior elevation results in less risk of water intrusion and flood damage. Related to this, the instructions for line A8b (“number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade”) state that the bottom of the flood openings can be in relation to either the interior or exterior grade.

An all new Diagram 9 illustrates a structure in which “the bottom (crawlspace) floor is at or below level (grade

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of a structure. Obviously, if a building is elevated on a stem or retaining wall, and the area enclosed by that wall is filled with dirt, it makes no sense to have flood openings through the wall into the dirt. But placing such a flood opening higher up, where there is not backfilled dirt, means that the opening would not be within twelve inches of the adjacent grade, as is required “to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.” (44 CFR 60.3(c)(5))

Design standards established in FEMA’s Technical Bulletin 11, “Crawlspace Construction for Buildings Located in Special Flood Hazard Areas”,

on all sides.” The accompanying detailed description spells out the difference between a basement (“any area of the building having its floor subgrade (below ground level) on all sides” as per 44 CFR 59.1, “Definitions”) and a crawlspace. Of course, a crawlspace floor can also be subgrade on all sides, but it is the distance below grade that is the primary distinguishing feature.

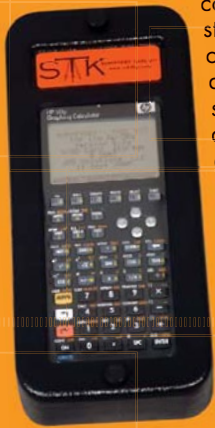
If the floor of the crawlspace is more than two feet below the adjacent exterior grade on all sides, or is more than five feet from the top of the next higher floor, then it no longer is considered a crawlspace and is instead treated as

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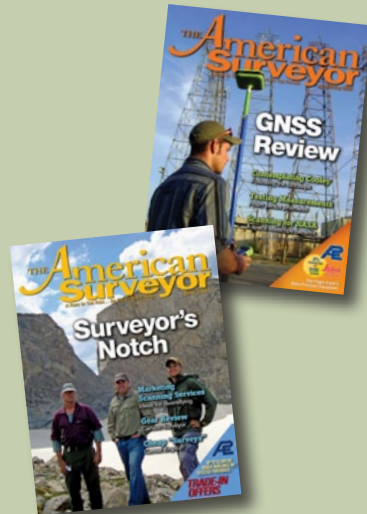
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a basement. There is some history to this distinction related to finagling by a few less reputable folks preferring the less onerous crawlspace regulations and insurance rates to those affecting basements. The difference is now spelled out very clearly, including direction to use Diagram 2 rather than Diagram 9 if the building's characteristics are "basement" rather than "crawlspace". A footnote adds, "A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc."

Because of confusion about where the "lowest adjacent grade" (LAG) should be measured, line C2f now adds a few words to say, "next to the building". But for applications for Letters of Map Amendment (LOMA), it is not always just the foundation of the primary structure that must be considered.

Because the Elevation Certificate is often used as the form to report the better scientific or technical data necessary to submit in the LOMA application (see 44 CFR 70.3, "Right to submit technical information"), a new line has been added to address what is sometimes referred to as the "LOMA LAG". All extensions and additions as well as the main structure must be compared to the Base Flood Elevation for exemption from floodplain management regulations and mandatory flood insurance purchase requirements. New line C2h requests information for "Lowest adjacent grade at lowest elevation of deck or stairs, including structural support". For flat areas where only a depth of flooding is provided but not a base flood elevation (Zone AO), the instructions direct the surveyor to "use natural grade elevation, if available."

There are other additions to the new form, mostly for documentation purposes. For instance, a new check box has been added to Section D to identify ("yes" or "no") if a licensed land surveyor provided the latitude and longitude entered on Line A5. Note that (1) the surveyor does not certify Section A, only his or her "best efforts to interpret the data available" (see Section D of the form) and (2) the instructions for line A5 ask for latitude and longitude values to be "for the center of the front of the building." Neither is a change from the older form but still advises as to what is expected of the professional completing the form. 