

By Rebecca Quinn, CFM

Elevating Manufactured Homes: Bottom of the Frame or Lowest Floor?

Last year, the FEMA Community Rating System announced a prerequisite to retain or obtain a CRS Class 8 or better. Satisfying the prerequisite requires communities to adopt and enforce a minimum of one-foot of freeboard for all residential buildings, including manufactured homes. Over the next five years to so, CRS communities will have to decide whether to eliminate the “36-inch option” for replacement manufactured home units in existing manufactured home parks and subdivisions (typically called “pre-FIRM”). The 36-inch option allows replacement units to be elevated on foundation elements that are at least 36 inches above the highest adjacent grade, even if that is below the base flood elevation. Note this means the “bottom of the frame” is at least 36 inches above grade.

The Florida State Floodplain Management Office produced guidance for amending local floodplain management regulations to eliminate the “36-inch option,” [available here](#) under “CRS Class 8 Prerequisite.”

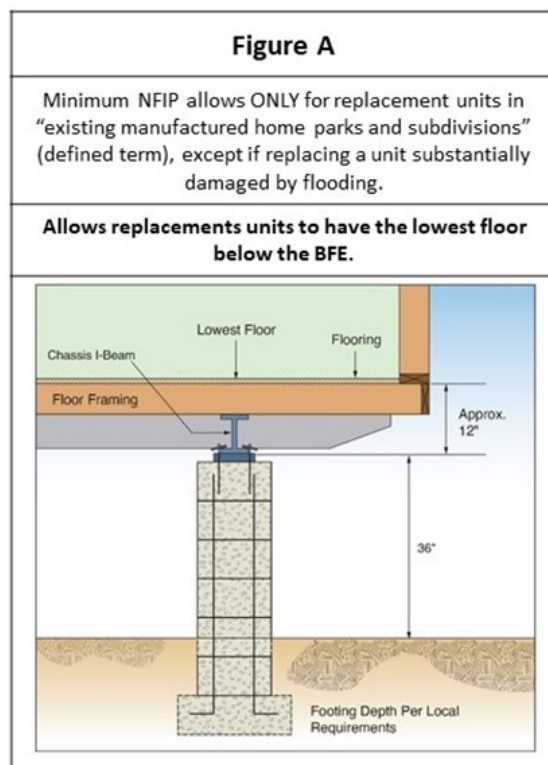
Several Florida counties have done detailed GIS-based analyses to be prepared to answer questions about the impacts. For communities that don’t have the tools to take that approach, or don’t have many manufactured home parks in SFHAs, the SFMO guidance suggests a simplified approach:

1. Identify existing manufactured home parks and subdivisions (as that term is defined, meaning established before the community joined the NFIP).
2. Determine if those existing manufactured home parks and subdivisions have pads or lots in the SFHA.
3. Determine how many pads or lots are in the SFHA.
4. Estimate how many of the pads or lots in the SFHA are affected by base flood depths that are less than, equal to, and greater than three feet.

The SFMO guidance includes the three graphics to illustrate the impacts. Figure A shows a 36-inch pier, permitted by the NFIP in existing manufactured home parks and subdivisions (unless a unit is substantially damaged by flooding), regardless of depth of flooding. Figure B illustrates putting the bottom of the frame at BFE plus 12 inches. The majority of Florida’s 468 NFIP communities use the bottom of the frame, not lowest floor, as the reference point.

Look closely at Figure C, which illustrates positioning the “lowest floor” at BFE plus 12 inches. This scenario is promoted by the manufactured home industry, which asserts manufactured homes should be treated the same as site-built homes. While today’s manufactured homes certainly are constructed better than 30 years ago, there is plenty of evidence that they don’t perform the same as conventional construction when subject to flooding above the floor. Importantly, manufactured homes have pre-installed insulation and ductwork under the floor. That makes it a challenge to satisfy the NFIP requirements for flood damage-resistant materials and HVAC equipment.

Earlier this summer, I had an illuminating conversation with a Florida community official. He explained a convincing reason for using bottom of the frame, not the lowest floor. It is easy to



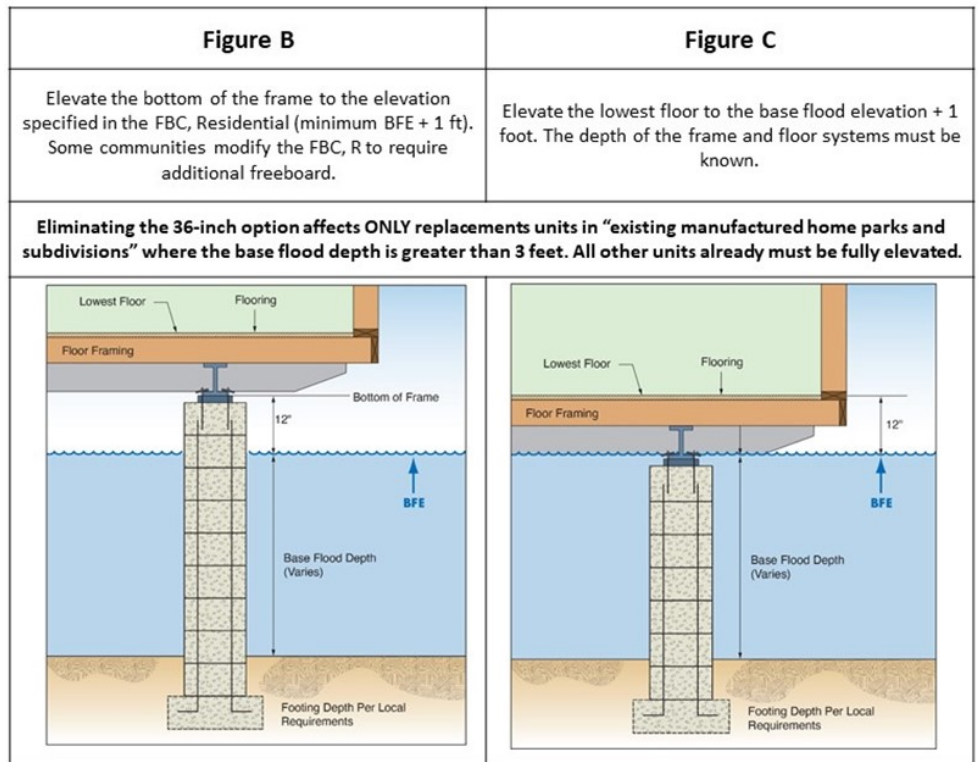
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regulate the height/elevation of the top of the pier (which is about the bottom of the frame, there's a thin spacer). But if you use the lowest floor, then you need to know the depth of the chassis plus floor system (from bottom of the beam to the walking surface). Suppose the unit going in today has a depth of 18 inches. If you use the lowest floor to determine elevation, putting the top of floor at BFE plus 12 inches, would mean the piers are six inches below BFE.

Now, suppose that unit owner moves out and another tenant brings in an older unit. The park owner applies for a permit to install the older unit. You ask about the depth of the chassis plus floor system—and you're told it is 10 inches. Now what do

you do, ask them to add eight inches to the top of the piers? How does that happen, given piers have reinforcement? Rather than deal with that scenario, the cleanest approach is to require the top of the pier (i.e., bottom of the frame) to be at or above the required elevation. Another benefit is when park owners swap out units without getting permits (all too common), any replacement unit will be properly elevated.



Manufactured Homes: personal property or real property?

The Manufactured Housing Institute reports that 77% of new manufactured homes are "titled as personal property (chattel)." Years ago I was told this means owners don't qualify for typical mortgage loans for real property. This came up in a community that was experiencing a flurry of permit applications for permanent foundations. Affixing a manufactured home on a permanent foundation makes it eligible for typical mortgages, rather than personal loans that typically have much higher interest rates.

Submit your own items or suggestions for future topics to column editor Rebecca Quinn, CFM, at rcquinn@earthlink.net. Comments welcomed! Explore back issues of the [Floodplain Manager's Notebook](#).

FEMA Funding to Make Homes More Durable

FEMA is providing mitigation assistance to homeowners under the Individuals and Households Program (IHP) for several hazard mitigation measures. Applicants who are approved for IHP assistance for home repairs may receive additional funds for select mitigation measures, such as

- Roof repair to withstand higher winds and help prevent water infiltration.
- Elevating a water heater or furnace to avoid future flood damage.
- Elevating or moving an electrical panel to avoid future flood damage.

[Learn more.](#)