

## SOME THINGS TO CONSIDER WHEN BUILDING ON THE SOUTH PLAINS

There are many playa lakes on the South Plains. Most are easily identifiable. Some are not. All are floodplains. Floodplains (that is, the Special Flood Hazard Area [SFHA] where the 100-year rain would stand or flow and be called a 'Zone A') are going to be much larger than what would be apparent to most observers. And they aren't necessarily going to be just around where the water ponds. Playas will fill up and spread out much larger than would be expected. Many will also overflow and flow down to the next playa, so many of those overflow routes are also floodplains. And not only playas, but along rivers, creeks, streams and around real lakes, are also floodplains. Because some communities (like Lubbock County) do not issue construction permits and most people fail to find out if a property is in a floodplain, it would be easy for construction to be done in a floodplain and the builder/owner/lender not be aware, until too late. Wise counsel is that anyone considering building on the South Plains (in cities, towns, villages and counties) check with their governing entity, ask to see the community flood maps and see if the property is in a floodplain. If it is not a floodplain, that doesn't mean there are no drainage problems. It would be smart that any first floor be built a minimum of 1' above the highest adjacent crown of the street, so water has a chance of going over the street, before it can get in the structure or if water comes over the street, the floor is above the water. Other considerations, such as site drainage, need to be addressed before continuing construction. Most area communities have flood maps, but some do not, and the maps may be up to 30+ years old. Those communities with maps probably (but not always) participate in the National Flood Insurance Program (NFIP) which is part of the Federal Emergency Management Agency (FEMA). If they do participate, that means flood insurance can be purchased for structures in the floodplain. If a structure is located in the SFHA, and it has a loan on it, the lender is **REQUIRED** to have flood insurance on it as a loan condition. Unfortunately, of the properties that are in the SFHA, **about ¾ of them are NOT carrying flood insurance**, so their owners probably don't know the property is in the SFHA. So, just asking the current owner whether their property is in the floodplain or not, probably won't yield the correct answer. The community or the flood maps should be consulted. If the structure was built before the floodplain was identified, the flood insurance would be rated one way. If the structure was built in the floodplain, the rating would be another way. Unfortunately, most insurance agents are not adequately trained in rating flood insurance. They may be able to come up with a premium, but it isn't necessarily the correct one.

If someone were building in the SFHA NOW, there are some things to consider, before starting:

Is there a water level (Base Flood Elevation or BFE) already determined at that location? If so, the NFIP requires the Lowest Floor Elevation (LFE - including basement) of new construction to be located at or above the BFE. Many communities have a higher standard (or freeboard) of LFE being a minimum of 1' (or higher) above the BFE. With the LFE raised up that high, the Lowest Adjacent Grade (LAG - lowest ground [i.e. - flower bed, yard, driveway, sidewalk, porch, etc.] elevation right NEXT to the structure), has a chance of being at or above its BFE. If it is, then the structure can be removed from the floodplain.

If there is **NO** BFE for that location, practically speaking, the only way to guarantee that the structure would be out of danger (although flood insurance may be required), is for the LFE to be raised to about 2' above the overflow elevation of the playa. The structure could be built on a pier and beam foundation (with a crawlspace at least as high as the ground outside the foundation) and proper flood vents to allow the water to flow into and out of the crawlspace. Because the LAG for a typical pier and beam structure is below the BFE, the structure **cannot** be removed from the SFHA and flood insurance will **always** be required. A lower LFE puts the structure in danger. If there is no BFE, the best flood insurance rating is when the lowest floor is several feet above the adjacent ground, so another course of block will quickly pay for itself.

If a new structure is constructed on compacted and tested soil in a playa, there shall be a cut and fill done by a Registered Professional Engineer to show that the BFE is not raised by the work. The soil used for filling shall come from the playa. Or the fill could come from outside the playa while the same volume of soil shall be removed from the playa. If the structure is properly done on compacted fill, it is possible to remove the structure from the floodplain and then flood insurance **isn't** required.

If a structure is in the SFHA, a lender **will** require flood insurance as part of a federally regulated loan. The premium is based on when it was built, the zone it was built in, kind of foundation, whether or not it has a basement, the elevation difference between the LFE and the BFE, or the Highest Adjacent Grade (either require an Elevation Certificate), the lender's requirement for coverage and deductible, and possibly, an owner choice.