

REVISING THE FEMA FLOOD PLAIN MAPS

This primer discusses what is required to construct a home within the area designated by FEMA as ZONE "AE" of the Special Flood Hazard Area.

The FEMA Flood Insurance Rate Maps, commonly known as "FIRMs", depict areas subject to flooding from a flood event that has a 1% chance of being equaled or exceeded in any given year. FEMA calls this particular flood event the "Base Flood". It is also commonly known as the "100-year" flood. The area subject to this flood is known as Zone "AE", and reflects areas where the land elevations are lower than the computed Base Flood Elevations for the river or stream. The FIRMs also depict a portion of Zone AE known as the "floodway".

The construction of homes within Zone AE requires the following:

- Demonstration that there will be no loss in floodplain conveyance
- Construction of the home with the first floor elevated 18" above the Base Flood Elevation

CONVEYANCE ANALYSIS

A conveyance analysis is often required to ensure that the placement of fill in the floodplain does not "block" flood flows, causing flood elevations to increase upstream. It is entirely a local requirement, and does not get reviewed by FEMA. In order to avoid decreasing conveyance, an area adjoining the fill area can be excavated, which is usually not a concern because it provides for a source of fill material. An engineer will perform calculations to assist in the design and ensure that there will be no impact to conveyance, and will prepare a brief report that is submitted to the Fort Bend County Drainage District for their approval.

CONSTRUCTION OF A HOME

If constructing a home in an area located below the Base Flood Elevation ("BFE"), fill must be placed to elevate a building pad for the home so that it is above the elevation of the Base Flood. There are two approaches to dealing with the floodplain issues:

- Obtain an Elevation Certificate after construction
or
- Revise FEMA's Zone AE designation after the placement of fill

ELEVATION CERTIFICATE

An Elevation Certificate is prepared by a surveyor for an existing structure that is within Zone AE. Even if a home is elevated 18" above the BFE, it is considered within Zone AE. Because it is within Zone AE, the homeowner will be required to carry flood insurance (if they have a federally insured mortgage), and the Elevation Certificate will be used to establish the resulting insurance premium. Premiums decrease as elevations, relative to the BFE, increase. If a property is elevated 18" above the BFE the rate would be the same as if the property was constructed outside of Zone AE.

LETTER OF MAP REVISION BASED ON FILL ("LOMR-F")

A LOMR-F is an instrument used to request that FEMA acknowledge a revision to the definition of Zone AE because land has been elevated above the BFE through the placement of fill. For larger lots that are only partially elevated above the BFE, this area is established by an engineer or surveyor describing the location of this area using a map and a metes and bounds description, and also certifying that the described land is above the elevation of the Base Flood. An engineer or surveyor will complete FEMA's MT-1 form, which is then signed by the Fort Bend County Floodplain Administrator and submitted to FEMA. FEMA will then issue a letter that acknowledges that the described area is no longer within Zone AE. Although the FIRM panels are not physically revised, the letter, which is also kept by Fort Bend County, serves to document the map revision.

If a LOMR-F is obtained, the described land is no longer in the floodplain. The first floor will not be required to be 18" above the BFE, and the homeowner will not be required to carry flood insurance.

FLOODWAY CONSIDERATIONS

The delineation of the floodway on the FIRM maps has no bearing on flood insurance requirements or flood insurance rates.

TIME AND COSTS

The following are estimated time and cost requirements for the items discussed above. ***Please note, these are estimates only, subject to change, and individuals are encouraged to consult with their own engineers and/or surveyors.***

Flood Insurance Premiums

As of April 1, 2015, the maximum coverage (\$250,000 structure/\$100,000 contents) will cost \$405 for buildings (without basements) that are not in the high risk area or that are elevated 18" above the BFE.

Elevation Certificate

A surveyor can complete an Elevation Certificate in approximately 1-2 weeks. The cost may range between \$800 - \$2,000.

LOMR-F

It will take an engineer about 3-4 weeks to prepare a LOMR-F submittal and get Fort Bend County approval. It is then submitted to FEMA via an upload to their website, where it will take 60 – 90 days for them to review and issue a LOMR-F. An engineer or surveyor fee for a LOMR-F may be between \$1,200 - \$2,500. In addition FEMA requires a submittal fee of \$425.