Town of Cortlandt, NY
Friday, October 18, 2013

Chapter 175. FLOOD DAMAGE PREVENTION

§ 175-6. Basis for establishing areas of special flood hazard.

A. The areas of special flood hazard for the Town of Cortlandt, Community Number 360906, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

(1) Flood Insurance Rate Map Panel Numbers 36119C003F, 36119C0008F, 36119C0009F, 36119C0011F, 36119C0012F, 36119C0014F, 36119C0016F, 36119C0017F, 36119C0018F, 36119C0019F, 36119C0028F, 36119C0036F, 36119C0038F, 36119C0102F, 36119C0106F, 36119C0107F, 36119C0126F, 36119C0127F, 36119C0128F, 36119C0175F, the effective date of which is September 28, 2007, and any subsequent revisions to these map panels that do not affect areas under our community's jurisdiction.

(2) A scientific and engineering report entitled "Flood Insurance Study, Westchester County, New York, All Jurisdictions," dated September 28, 2007.

B. The above documents are hereby adopted and declared to be a part of this chapter. The Flood Insurance Study and/or maps are on file at the Department of Technical Services-Engineering Division.

Using a Flood Insurance Rate Map (FIRM)

FEMA
www.fema.gov

Purpose: To explain the purpose of FIRMs, highlight features that are important to coastal builders, and explain how to obtain FIRMs.

What Is a FIRM?

- Flood hazards have been mapped by FEMA for approximately 20,000 communities in the United States, most commonly on ***FIRMs***. A FIRM is a product of the Flood Insurance Study (FIS) for a community and is available in paper form and digital form.
- FIRMs delineate Special Flood Hazard Areas (SFHAs) — land areas subject to inundation by a flood that has a 1-percent probability of being equaled or exceeded in any given year (hence, the terms "1-percent annual chance flood" and "100-year flood"). SFHAs are shaded on the FIRM and are divided into different flood hazard zones, depending on the nature and severity of the flood hazard.

FIRMs Are Used By:

- ***Communities***, to regulate new construction* (e.g., foundation type, lowest floor elevation, use of enclosed areas below the lowest floor)
- ***Designers and builders***, to ascertain flood hazards and plan new construction*
- ***Lenders***, to determine whether flood insurance is required
- ***Insurance agents***, to establish flood insurance premiums
- **Land surveyors and engineers**, to complete National Flood Insurance Program (NFIP) elevation certificates (see Fact Sheet No. 4)

Why Are FIRMs Important?

- FIRMs show the limits of mapped flood hazard areas in a community.
- The insurance zone designations shown on FIRMs are used in the determination of flood insurance rates and premiums.
- The 100-year flood elevations and flood depths shown on FIRMs are the minimum regulatory elevations on which community floodplain management ordinances are based.
- The information shown on FIRMs can affect the design and construction of new buildings, the improvement and repair of existing buildings, and additions to existing buildings (see Fact Sheet Nos. 2 and 29).

Flood Hazard Zones in Coastal Areas

(see the sample FIRM on the next page)

- V zones are those areas closest to the shoreline and subject to wave action, high-velocity flow, and erosion during the 100-year flood.
- A zones are areas subject to flooding during the 100-year flood, but where flood conditions are less severe than those in V zones.
- AO zones are areas subject to shallow flooding or sheet flow during the 100-year flood. If they appear on a coastal FIRM, they will most likely occur on the landward slopes of coastal dunes. Flood depths, rather than BFEs, are shown for AO zones.
- X zones are areas that are not expected to flood during the 100-year flood.
- Newer FIRMs label zones as "VE" (V zone with BFE determined) and "AE" (A zone with BFE determined).
- Older FIRMs label zones with a letter and number (e.g., A1, A10, V10). Ignore the number and look at the letter.
- Older FIRMs label X zones as zone "B" or zone "C." Treat the old and new zone designations the same.

What Are Flood Hazard Zones and Base Flood Elevations, and How Do They Affect Coastal Buildings?

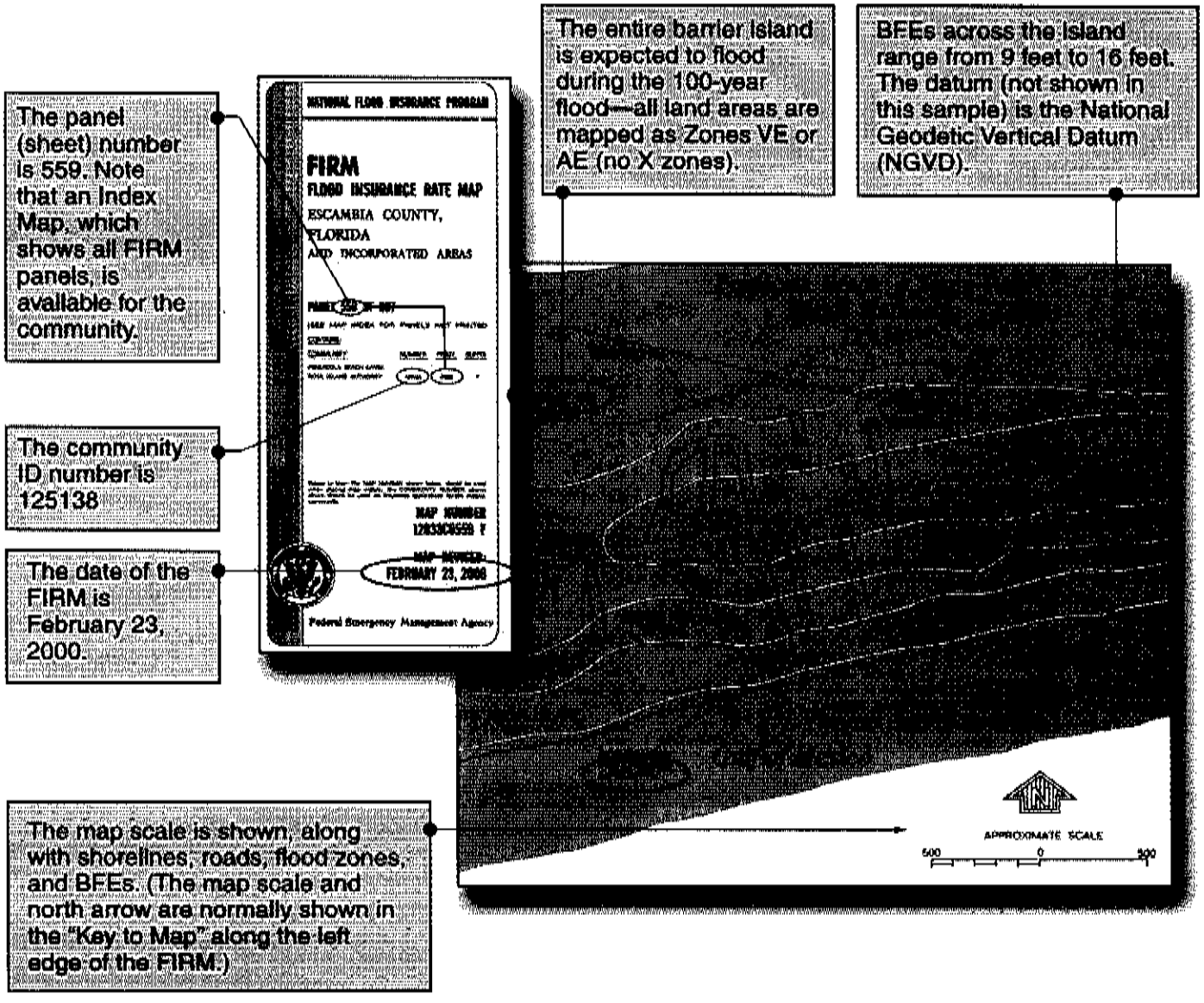
- ***Base Flood Elevations (BFEs)*** are typically shown on FIRMs for flood hazard zones A and V. ***The BFE is the expected elevation of flood waters and wave effects during the 100-year flood (also known as the "Base Flood")***. The BFE is referenced to the vertical datum shown on the FIRM.

- The ***BFE and flood hazard zone*** will affect the ***lowest floor elevation and foundation type*** for new construction* ***(see Fact Sheet Nos. 4 and 11).***
- ***Some communities have adopted higher standards for coastal construction*** (e.g., lowest floor elevations above the BFE, restrictions on foundation types and enclosures in A zones). ***Builders should consult their local jurisdiction for details.***
- Most ***communities have adopted the latest FIRM and FIS*** (and, therefore, the flood hazard zone and BFE designations) as part of their efforts to regulate new construction* in coastal floodplains. These communities will have adopted a ***floodplain management ordinance***, which spells out the detailed requirements.

* Note that "new construction" will include some additions, improvements, repairs, and reconstruction — consult the community about "substantial improvement" and "substantial damage" requirements.

Sample FIRM

This map is a portion of the FIRM for the barrier island community, Pensacola Beach, Florida. As shown below, several things are apparent from the map.



Where Can I Get FIRMs and Other Information?

The FIRM for a community, and the local floodplain management regulations, should be on file and available for viewing at the office of the ***community floodplain administrator.***

FEMA's Map Service Center can be accessed at http://store.msc.fema.gov. ***Index sheets and individual FIRM panels*** can be ***viewed on line*** through the MSC web site, and ***"FIRMettes"*** (user-selected portions of flood maps such as the sample above) can be created, saved, and printed.

Is There Anything Else I Should Know About Coastal Flood Hazard Zones and Flood Elevations?

- Many FIRMs are ***more than a few years old*** and ***may no longer accurately represent coastal flood hazards.*** Sections 7.8 and 7.9 of FEMA's revised *Coastal Construction Manual* (FEMA-55, 2000) describe how coastal flood hazards are mapped and ***how to determine whether coastal FIRMs reflect present day flood hazards.***
- ***FIRMs do not incorporate*** the effects of ***long-term shoreline erosion.*** This information should be obtained from other sources (see Fact Sheet No. 7).
- Recent ***post-storm investigations*** and studies have shown flood forces and damage in ***coastal A zones*** can be very similar to those in V zones. Although FIRMs (and minimum NFIP building standards) don't differentiate between A zones in coastal areas and riverine A zones, ***builders should consider adopting V zone foundation and elevation standards for new construction in many coastal A zones.***
- Many communities and states require lowest floor elevations to be above the BFE. One term used to describe this higher elevation standard is ***Design Flood Elevation (DFE).***

Copies of FIRMs, FISs, and related products can also be obtained from FEMA for a nominal fee. Contact FEMA's Map Service Center at:

FEMA
Map Service Center (MSC)
PO Box 1038
Jessup, MD 20794-1038
(800) 358-9616