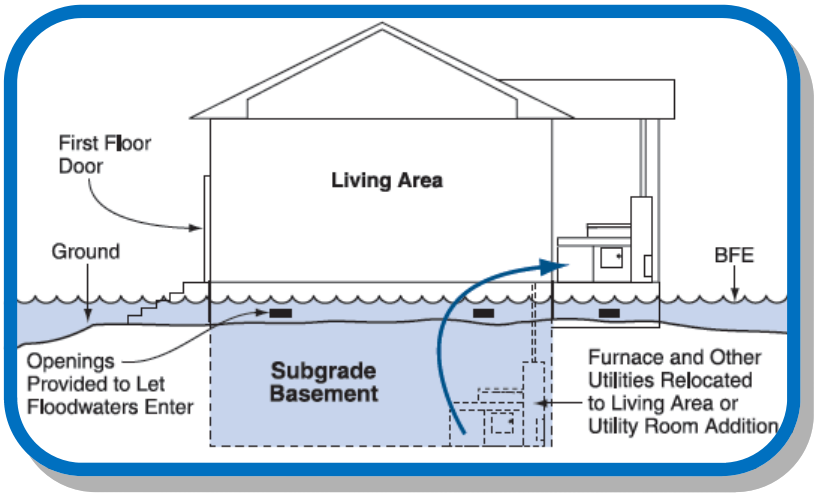
Wet Flood Proofing

What is wet flood proofing:

- Wet flood proofing involves modifying uninhabited portions of the home (i.e. crawlspace or basement) so that floodwaters will enter but not cause significant damage to either the home or its contents.
- It reduces risk of structural collapse as hydrostatic pressures are allowed to equalize.



Site layout for wet flood proofing of structure
***Note: BFE = Base Flood Elevation**

Vents allow floodwaters to enter into the home.

Utilities elevated above the flood elevation.

Things to consider:

- Home should have space above the design flood elevation where items damaged by floodwaters can be stored temporarily or permanently.
- Any service equipment, such as furnaces and water heaters, below the design flood elevation should be protected by either moving the equipment to another floor, elevating it, or protecting it in place.
- Home must not be occupied during a flood, and will require water to be removed after the event.

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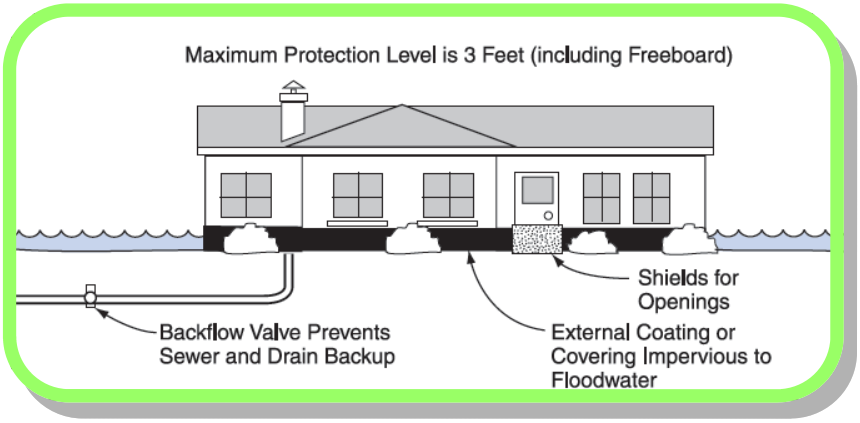
TOWN OF GREENWICH CONN. SEAL

All information is from FEMA, *Homeowner's Guide to Retrofitting,* December 2009 which can be found at **http://www.fema.gov/media-library-data/20130726-1441-20490-4268/fema_p312_a.pdf**

Dry Flood Proofing

What is dry flood proofing:

- Sealing your home to prevent floodwater from entering.
- Not recommended for flood depths greater than 3-feet.



Site layout for dry flood proofing of structure

***Note: Freeboard refers to a 3-foot factor of safety added to the base flood elevation.**

Closures applied to windows and doors during a storm event to keep floodwater from entering.

Close up of closure example.

Things to consider:

- Seal walls with waterproof coatings, impermeable membranes, or supplemental layers of masonry or concrete.
- Shield all openings, such as doors and windows, below the design flood elevation.
- Requires human intervention.
- For homes with basements it is recommended to use wet flood proofing in conjunction with dry flood proofing.

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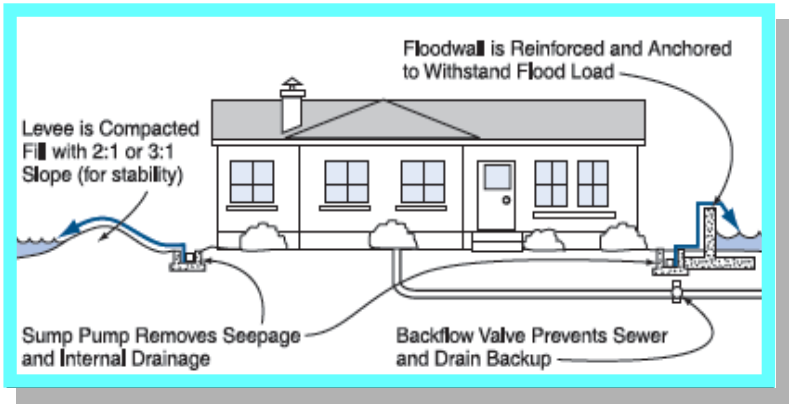
Ringwalls

What are ringwalls:

- Building a ringwall, such as a floodwall or levee, around your home to hold back floodwaters.
- Ringwalls can surround a home or it can protect isolated openings such as doors, windows, and walkout on-grade basements depending on flood depths, site topography, and design preferences.



Site layout for a floodwall and levee.

Floodwall that requires opening to be manually closed.

Masonry floodwall with engineered closures.

Things to consider:

- The home and the area around the home will be protected from inundation, and no significant changes to the home will be required.
- No damages will be caused through inundation, hydrodynamic pressure, erosion, scour, or debris impact.
- Ringwalls should be designed for an elevation equal to the base flood elevation.

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Elevation

What is elevation:

- Raising a home to prevent floodwaters from reaching living areas.
- Construct new or extended foundation or elevate on fill, piles, or columns

House being raised to construct new elevated foundation.

House elevated on extended foundation.

Things to consider:

- House must be structurally sound.
- Homes with basement will require it to be filled as part of elevation.
- Space below a house on an open elevation can be utilized for parking.

House elevated on columns.

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