Plan ahead for Floods

Be FloodSmart! Don't wait for Mother Nature to make the first move in the game of flood risk. It's your responsibility to know the facts about floods and flood insurance. Get informed. Get covered. Get ready for anything.

Flood proofing is a process for preventing or reducing flood damages to the structure and/or to the contents of buildings located in flood hazard areas. For the most part, it involves altering or changing existing properties. However, it can be incorporated into the design and construction of new buildings. There are three general approaches to flood proofing:

- Elevating or relocating the structure
- Wet or dry flood proofing
- Constructing barriers to stop flood water from entering the building

EMERGENCY MEASURES are temporary and usually implemented after a flood warning is issued. They are not permanent flood proofing installations and they require removal and clean-up after floodwaters have receded. Emergency measures fall into two basic categories: keeping the water out of the structure and protecting or moving damageable contents.

General Precautions

Some cautions always should be considered in flood proofing. These include:

- Flood proofed buildings should NEVER be occupied during a flood! This is hazardous and life-threatening. Flooding conditions can change without warning and flood proofing installations can fail rapidly without allowing occupants ample time or opportunity to escape to safe ground.
- Most flood proofing techniques should be formulated and designed by experienced personnel (engineers or contractors) to ensure adequate consideration of all factors that could affect the techniques' effectiveness
- Flood proofing techniques cannot be installed and forgotten. Maintenance must be performed on a scheduled basis to ensure that the flood proofing techniques adequately protect the structures over time.
- Floods may exceed the level of protection provided. Therefore, when any of the flood proofing techniques are chosen, considerations should be given to, purchasing flood insurance as well as securing the property and vacating the premises during flood events.

Advantages

Where flood proofing is appropriate, is has several advantages over other ways of reducing flood damages. Flood proofing can be undertaken by individual property owners and may still need a permit. It can provide protection in areas where large structural projects, such as construction of dams or major waterway improvements, are not warranted.

OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION

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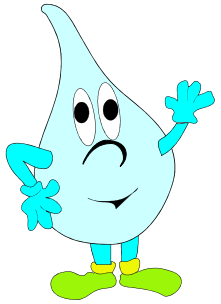

Freddie Floodway wants YOU to know about Flood Proofing

Flood Safety In Oklahoma

The very best way to build is NOT to build in the floodplain. Storm water can take away everything you own in minutes, even your life and the life of those you love. Take Freddie Floodway's advice. Build and live in harmony with Mother Nature, outside of the floodplain and floodway.

For additional information on how YOU can flood proof a structure, check out these web sites: www.okflood.org and www.fema.gov

If you presently have a structure in the floodplain, consider the following flood proofing methods.

ELEVATE the structure above the flood level (Base Flood Elevation—BFE). It is recommended that you elevate the structure two feet above the Base Flood Elevation.

EXISTING STRUCTURES CAN BE ELEVATED even if the structure is on a concrete slab. Most house moving contractors know the techniques for elevating buildings.

STRUCTURES CAN BE ELEVATED ON A STEM WALL so the lowest floor is above the flood level. Elevating the structure allows floodwater to flow under the structure. There must be openings in the stem wall that are a maximum of one foot above adjacent grade. There must be at least two openings on different sides of the structure. The openings must total one square inch of opening for each square foot of building. Your local building official and floodplain manager can answer your questions.

MECHANICAL AND ELECTRICAL UNITS including air conditioning and heating units, as well as ductwork and wiring, must also be elevated above the Base Flood Elevation.

In some areas, your local codes may allow you to **elevate a structure by building up the surrounding area with dirt**. The dirt most often must come from the property and a flood permit is necessary before you elevate with dirt. An engineer design may be necessary. Many communities have a strict code for elevating with dirt.

RELOCATION is an appropriate technique in high hazard areas where continued occupancy is unsafe, where owners want to be free from flood worries, or where communities have determined that the open space gained could be used for more appropriate floodplain activities.

Ways to flood proof a structure:

Dry flood proofing is one method. In dry flood proofing you seal the building to ensure that floodwaters cannot enter the structure. Walls should be protected from water by coating them with a waterproofing compound or covering them with a plastic material. Doors, windows, vents, and other openings are temporarily sealed with sandbags or another removable closure. This method will only work on a slab foundation and even then most structures are not strong enough to withstand the hydrostatic pressure from more than about three feet of water. Dry flood proofing is only a temporary method. The technique is not dependable nor does it offer long-term protection.

Wet flood proofing is a method that allows the storm water to enter the structure while removing or protecting every item that could be damaged. This method will limit the use of any area below the Base Flood Elevation and consequently is of little effect on a one-story building. The hydrostatic water pressure can collapse the walls of a typical structure. Basement areas may be difficult to drain and become a pond of polluted storm water that may cause the walls to buckle and crack. Electrical and mechanical equipment may be damaged by floodwater and are very difficult to protect even when elevated above the BFE due to ductwork, electrical lines and outlets.

Alternative Plans

BARRIERS can keep floodwater from reaching a building. Levees, berms, and flood walls can divert water away from a structure. Reinforced concrete and masonry walls can also be used to surround a structure. There are several problems when using barriers to divert floodwater.

- It diverts the water to another location that might place others in harm's way. There are engineering design questions and most cities have ordinances that must be applied to the design.
- It restricts access to the property. You might be able to drive over a berm but a wall will need an opening. The opening will allow floodwater to enter and the flood protection barrier may become a pond that holds water instead of diverting it.

SEWER BACK UP is always a problem in a flood prone area. Regardless if your sewer is a city sewer line or a septic tank, the problems may be the same. Floodwater may not get into your house, but sewer back up may overflow inside your home. Storm water flows into the sewer system and the system overloads, losing capacity to carry water to the sewage treatment plant or through the lateral line. The water backs up through the house service lines into floor drains, bathtubs, and toilets. If you are in a flood prone area, you should install a one way valve for backflow prevention in the sewer line to restrict sewage from entering your home.

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You've done everything in your power to prepare for a flood. You've secured a flood insurance policy, and made your home flood-ready. Congratulations! You've become **"Flood Smart".**