

# Garages in the Floodplain *in Skagit County*

The National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency (FEMA) requires the county to regulate construction in flood hazard areas. The NFIP also has a mission to eliminate claims that can be avoided by proper construction techniques and materials. See their website at <http://www.fema.gov/nfip/sitemap.htm>. Skagit County's flood ordinance specifies the methods developed through years of experience by FEMA that must be used to protect your buildings and their contents from losses due to flooding.

## **ELEVATION**

Elevation is always the preferred method of preventing damage and losses due to flooding. It will theoretically raise your building and its contents above danger. If you elevate the building floor one foot above the Base Flood Elevation (BFE) on the NFIP maps and file an elevation certificate, your flood insurance may be reduced as well.

## **WET FLOODPROOFING**

Wet flood-proofing is allowed for private garages and agricultural buildings. There are several things you must do if you choose to construct your garage without elevating it.

### **Materials**

All building materials that are below the base flood elevation, including framing, wall covering and floors must be flood-resistant. A complete list of Flood-Resistant materials is on the FEMA website under Technical Bulletins <http://www.fema.gov/fima/techbul.shtm>. Look for Technical Bulletin 2-93. Some materials that are acceptable in this location are:

- Concrete
- Masonry
- Wood treated to .40 CCA minimum
- Wood of natural resistance to decay (cedar, redwood)
- Marine grade plywood
- Metal or Steel
- Cement board

There are some commonly used items that would *not* be acceptable for use below the base flood elevation. Some of these are:

- Standard wood
- Exterior grade sheathing
- Gypsum wallboard, including green-board

### **Openings**

Garages must have openings to allow the free passage of flood water. The openings must meet all of the following criteria:

- There must be a minimum of two openings having an area of not less than 1 square inch per square foot of enclosed area.
- The bottom of all openings must be within one foot of grade.
- The openings may have screens, louvers, or other coverings provided that they permit the automatic entry and exit of water.



### **Other Requirements**

- All electrical and mechanical equipment permanently affixed to the structure must be elevated 1 foot above base flood elevation or be made water-proof.
- The building must have a low potential for structural damage from inundation, scouring, velocities and debris impact.

When valuation of the structure exceeds \$12,000.00, the above provisions in “Openings” and “Other Requirements” must be verified by a professional engineer or architect currently licensed in the State of Washington.

### **References**

FEMA Technical Bulletin 2-93:

<http://www.fema.gov/fima/techbul.shtm>.

Skagit County Flood Damage Prevention Ordinance 14.34:

<http://www.skagitcounty.net/PlanningandPermit/Documents/udc/14.34FLOOD.pdf>