

What Types of Improvements?

The purpose of the Substantial Improvement requirements is to protect the property owner's investment and safety, and, over time, to reduce the total number of buildings that are exposed to flood damage, thus reducing the burden on taxpayers through the payment of disaster assistance. The Substantial Improvement requirements are triggered when the local official determines that the cost of repairing or improving a building in a special flood hazard area equals or exceeds 50 percent of the building's market value (excluding land value).

Types of work that may trigger Substantial Improvement requirements generally include:

- Rehabilitation or remodeling of a building with or without modifying its external dimensions
- Lateral additions that may or may not involve structural modifications of a building
- Vertical additions
- Repair of foundations, including replacing or extending foundations
- Restoration or repair of damage of any origin that is necessary to restore a building to its pre-damaged condition
- Reconstruction of demolished or destroyed buildings on the same site or on the same foundation
- Work on post-Flood Insurance Rate Map (FIRM) buildings
- Work on existing buildings where flood zones or floodways are revised

The intent of the Substantial Improvement requirements is not to discourage routine maintenance. If work requires a permit, then the Key West building official must review all of the work proposed and the cost of all work must be included in the project costs, including work that might otherwise be considered routine maintenance.

**ANSWER: WHERE DO MOST FLOOD VICTIMS DROWN?
IN THEIR CARS!**



Flood Zone Maps

Most of the city - except for higher elevations near the center of Old Town - are located within what FEMA refers to as a Special Flood Hazard Area (SFHA). Structures within any portion of the SFHA are regulated by the city's flood damage protection ordinance.

There are many different flood zones winding throughout the city. The lines are very distinct, because they have been determined by exhaustive and expressive technical engineering and computer analysis based on historical flood data. So exact are these lines, that different structures on the same lot may be in different flood zones.

The City's Planning Department has a copy of the Flood Insurance Rate Maps (FIRMs). However, the best resource for determining a structure's flood zone can be found at Monroe County's web site: www.monroecounty-fl.gov/

Click through: Divisions>Growth Management>Floodplain Management>Flood Zone Maps Online



Zoom-in to the structure in question, see which lines it's between, look for zone identifiers such as "AE," "VE," or "X."

Structures in "X" zones aren't subject to Substantial Improvement requirements. However, if one of the other flood zone lines touch the building - no matter how slightly - it's not in an "X" zone.

On some flood maps, the "X" zones may be indicated by the words "Zone 0.2 Pct..."

Elevation requirements differ by the zone type and anticipated flood levels.

The City's Planning Department can help interpret these flood maps (305-809-3810).

Answer: "Most hurricane victims are injured or killed after the storm; having returned to their damaged homes, and getting electrocuted."



SUBSTANTIAL IMPROVEMENT



What is it?

What's Included?

What's Excluded?

Why is it Necessary?

What is the 50% Rule?

The City of Key West participates in the National Flood Insurance Program (NFIP), managed by the Federal Emergency Management Agency (FEMA).

This participation offers our community highly subsidized, very affordable flood insurance, subject to more stringent building requirements designed to reduce future flood losses, and costs to taxpayers.

Structures built before the NFIP was available (1974 and earlier) were grand-fathered into the program as they stood back then. However, when renovating, if the value of improvements equals or exceeds 50% of the building's market value, certain changes are required to limit future flood damage.

This may require the building be elevated or otherwise protected to the FEMA designated flood level for its specific location (see flood zone maps - back panel).

FEMA sets guidelines for what costs the City must consider when determining the value of improvements and what costs are exempt. You'll find a list of both inside this brochure.

Got Questions? - Heed help?
www.KEYWESTCITY.COM/FLOOD
Floodplain Administrator 305-809-3810

Costs That Must be Included in Substantial Improvement Determinations

Items that must be included in the costs of improvement and the costs to repair are those that are directly associated with the building. The following list of costs that must be included is not intended to be exhaustive, but characterizes the types of costs that must be included:

- Materials and labor, including the estimated value of donated or discounted materials and owner or volunteer labor
- Site preparation related to the improvement or repair (e.g., foundation excavation or filling in basements)
- Demolition
- Labor and other costs associated with demolishing, moving, or altering building components to accommodate improvements, additions, and making repairs
- Costs associated with complying with any other regulations or code requirement that is triggered by the work, including costs to comply with the requirements of the Americans with Disabilities Act (ADA)
- Costs associated with elevating a structure when the proposed elevation is lower than the FEMA determined flood level known as the Base Flood Elevation (*BFE)
- Construction management and supervision
- Contractor's overhead and profit
- Sales taxes on materials
- Structural elements and exterior finishes, including Foundations (e.g., spread or continuous foundation footings, perimeter walls, chainwalls, pilings, columns, posts, etc.)
- Monolithic or other types of concrete slabs
- Bearing walls, tie beams, trusses
- Joists, beams, sub-flooring, framing, ceilings
- Interior non-bearing walls
- Exterior finishes (e.g., brick, stucco, siding, painting, and trim)
- Windows and exterior doors
- Roofing, gutters, and downspouts
- Hardware
- Attached decks and porches
- Interior finish elements, including: Floor finishes (e.g., hardwood, ceramic, vinyl, linoleum, stone, and wall-to-wall carpet over sub-flooring)
- Bathroom tiling and fixtures
- Wall finishes (e.g., drywall, paint, stucco, plaster, paneling, and marble)
- Built-in cabinets (e.g., kitchen, utility, entertainment, storage, and bathroom)
- Interior doors and interior finish carpentry

- Built-in bookcases and furniture
 - Insulation
 - Utility and service equipment, including: Heating, ventilation, and air conditioning (HVAC) equipment
 - Plumbing fixtures and piping
 - Electrical wiring, outlets, and switches
 - Light fixtures and ceiling fans
 - Security systems
 - Built-in appliances
 - Central vacuum systems
 - Water filtration, conditioning, and recirculation systems
- * Base Flood Elevation (BFE) is generally the height above sea-level that a structure must be placed in order to avoid flooding



Costs That May be Excluded from Substantial Improvement Determinations

Items that can be excluded are those that are not directly associated with the building. The following list characterizes the types of costs that may be excluded:

- Clean-up and trash removal
- Costs to temporarily stabilize a building so that it is safe to enter to evaluate and identify required repairs
- Costs to obtain or prepare plans and specifications
- Costs for land survey, plans & specifications
- Docks, seawalls, driveways
- Permit fees and inspection fees
- Carpeting and recarpeting installed over finished flooring such as wood or tiling
- Outside improvements, including: landscaping, irrigation, sidewalks, driveways, fences, yard lights, swimming pools, pool enclosures, and detached accessory structures (e.g., garages, sheds, and gazebos)
- Costs required for the minimum necessary work to correct existing violations of health, safety, and sanitary codes
- Plug-in appliances such as refrigerators washing machines, dryers, and stoves
- Dirt & mud removal, building dry-out

Donated or Discounted Materials:

The value placed on materials should be equal to the actual or estimated cost of all materials to be used.

Where materials or servicing equipment are donated or discounted below normal market values, the value should be adjusted to an amount equivalent to that estimated through normal market transaction.

Self or Volunteer Labor:

The value placed on materials should be equal to the actual or estimated labor charge for repairs of all damages sustained by the structure.

Where non-reimbursed (volunteer) labor is involved, the value of the labor should be estimated based on applicable minimum hourly wage scales for the type of construction work to be completed.

The building official, based on his professional judgment and knowledge of local and regional wage scales can provide additional guidance to determine reasonable labor rates for professional trades (i.e. electricians, plumbers, block masons, framing, HVAC, etc.)

Substantial Damage:

Means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damage condition would equal or exceed 50% of the market value or replacement cost of the structure before the damage occurred. (Note: The cost of the repairs must include all costs necessary to fully repair the structure to its before damage condition).

Reference: Substantial Improvement/Substantial Damage Desk Reference FEMA P-758 / May 2010 [<http://www.fema.gov/library/viewRecord.do?id=4160>]

Disaster Loans:

Disaster recovery loans may be available to homeowners and business following a formal disaster declaration by the President. For more information, contact FEMA (fema.gov) or the U.S. Small Business Administration (sba.gov).

“When & How are most hurricane victims injured or killed?”

(Answer on back panel.)