



Federal Emergency Management Agency

Region VII

2323 Grand Boulevard, Suite 900

Kansas City, Missouri 64108-2670

National Flood Insurance Program (NFIP)

The 50% Rule

SUBSTANTIAL-DAMAGE

Pre-FIRM* buildings (structures built prior to December 31, 1974 or the date the Community began participating in the National Flood Insurance Program (NFIP)) must be elevated if damaged by any cause for which repair costs are 50% or more of the value of the building. This is a "hidden cost" that actually reduces the value of the structure. Most homeowners never know about this until it happens to them. Damages can occur from flooding, wildfire, earthquake, wind, or man. This applies to all buildings in a designated special flood hazard area (100-year floodplain), regardless if the building has flood insurance coverage.

The costs to repair must be calculated for full repair to "before-damage" condition, **even if the owner elects to do less**. The total costs of repair include both structural and finish material and labor.

SUBSTANTIAL IMPROVEMENT

When a Pre-FIRM (Flood Insurance Rate Map) building is proposed to be remodeled, renovated, rehabilitated, added to, or in any way improved, the proposed modifications must be evaluated for "substantial improvement." If the total costs of improvement are 50% or more of the building value, the building must come into compliance with National Flood Insurance Program (NFIP) standards just like "substantial-damage." "Total costs" mean all structural costs, as well as all finish materials, built-in appliances, hardware, in addition to profit and overhead. The substantial improvement rule is a hidden potential cost that the buyer needs to recognize.

BUILDING VALUE

Building value = market value of structure only. Land and exterior improvements, such as swimming pools, pool enclosures, accessory structures, landscaping, paving, fencing, are excluded. Market value = assessed value or properly depreciated appraised building value. The assessed value may be adjusted upward to reflect the market more accurately. Replacement cost can only be used if properly depreciated. Certified appraisals must be based on the comparable sales method. The land value must be deducted and it must be equal to or greater than that established by the County Assessor. The building value must be fairly depreciated to reflect the age of the building and the deterioration of building components.

NFIP 50% RULE

COSTS TO BE INCLUDED

The construction costs to be calculated for both substantial-damage and improvement include both structural and finish or labor and materials. This includes lighting fixtures, built-in appliances, interior moldings, paneling, tiling, wall-to-wall carpet over subflooring, built-in cabinets, etc. The cost to demolish undamaged building components must be established and included. Overhead and profit are also included, but not the cost of permits. Many of the costs are not normally calculated for purposes of a building permit, nor are they regulated as part of the Building Code but, they must be calculated for compliance with the 50% rule.

WHEN MAPS ARE REVISED

Substantial-damage and substantial improvement can affect Post-FIRM buildings too! If the FIRMs are revised, and the flood elevations increase, many Post-FIRM buildings may be affected. The 50% rule applies to them now as well. So check the FIRMs, find out what flood elevation was in effect when the building was constructed and what it is today. All additions to a Post-FIRM structure must be elevated to or above the current BFE, whether they are "substantial" or not.

CUMULATIVE COSTS

Substantial-damage and substantial improvement are subject to "cumulative" clauses in many community ordinances. FEMA generally holds that all separate permits for the same structure within a one (1) to two (2) year period be considered a single improvement and/or repair. This period runs from the date of final inspection or Certificate of Occupancy, not from the date the building permit was issued. Some communities require 5, 10, 50 years, or the life of the structure. Check it out first.

SAMPLE APPLICATION FORM

[See sample "substantial-damage/improvement" application in attachment]

NFIP 50% RULE

SUBSTANTIAL-DAMAGE/IMPROVEMENT NOTICE TO PROPERTY OWNERS

Rebuilding your home after the storm? Adding on, renovating, or remodeling your home?

Here's information YOU need to know about the *50% Rule*.

If your home or business is below the 100-year flood elevation, (Community) has flood damage prevention regulations that may affect how you remodel, renovate, or add on to your building. If your home or business sustained structural and/or interior damage these regulations may affect how you rebuild. These laws are required by the National Flood Insurance Program (NFIP) protect your lives and investment from future flood damages. Your community must adopt and enforce these laws in order for federally-backed flood insurance to be made available to community residents and property owners.

Save yourself some time, aggravation, and money. Please read the following information:

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

SUBSTANTIAL IMPROVEMENT means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement.

If a building is "substantially damaged" or "substantially improved," it must be brought into compliance with (Community)'s flood damage prevention regulations, including elevating the building to or above the 100-year flood elevation.

(Community), following National Flood Insurance Program (NFIP) requirements, has the responsibility to determine "substantial-damage" and "substantial improvement" and has implemented the following procedures to do so:

- 1) (Community) will estimate Fair Market Value by using the tax assessment value of your structure (excluding the land), plus ____ %. (Example: Structure assessment value (x) 120% = Estimated market value.) If you disagree with this estimate of Market Value, you may hire a state licensed appraiser and submit a comparable property appraisal for the depreciated value of the structure.
- 2) You must obtain and submit to (Community) a detailed and complete cost estimate for the addition, remodeling, reconstruction, or repair of all the damages sustained by your home, prepared and signed by a licensed general contractor. The contractor must sign an affidavit indicating that the cost estimate submitted includes *all damages or all improvements* to your home, not just structural.

(See Exhibit 1)

SUBSTANTIAL-DAMAGE/IMPROVEMENT

(Community) will evaluate the cost of improvements or repairs and determine if they are fair and reasonable. For damage repairs, **pre-storm prices and rates will be utilized.** The cost of improvements or repairs does not include items not considered a permanent part of the structure (i.e., plans, surveys, permits, sidewalks, pools, screens, sheds, gazebos, fences, etc. See Exhibit 3.)

- 3) If your home is determined to have "substantial-damage" or is proposed to be "substantially improved", then an Elevation Certificate must be submitted to (Community) to determine the lowest floor elevation. Garages and carports are not considered to be the "lowest floor."
- 4) If the lowest floor is below the 100-year flood elevation, the building must be elevated to or above that level. Likewise, all electrical and mechanical equipment (heating and cooling, etc.), bathrooms, and laundry rooms must be elevated to or above the 100-year flood level. Below the flood level, only parking, building access, and limited, incidental storage is allowed. Non-residential buildings may be "floodproofed" instead of being elevated.

If the lowest floor, electrical and mechanical, equipment, laundry and bathroom are already above the 100-year flood elevation, the building can be repaired and reconstructed without further modifications.

- 5) Building plans must be prepared to show how the building is to be elevated. If the structure is located in an A-zone, Special Flood Hazard Area (100-year floodplain), or if the building is to be floodproofed, the plans must be prepared and certified by a registered professional engineer or architect. Certificates for this purpose are available from the Community.
- 6) Following a presidential disaster declaration, the Small Business Administration may make loans available for both houses and businesses for the purposes of elevating the structure to or above the 100-year flood elevation. Proof of "substantial-damage" from (Community) is required.

NFIP 50% RULE

(Community)

**APPLICATION FOR
SUBSTANTIAL-DAMAGE/IMPROVEMENT REVIEW**

Tax Appraiser's Folio #:

Property address:

City and zip code: _____

Property Owner's name: _____

Property Co-owner's name: _____

Owner(s) mailing address: _____

Owner(s) telephone number: _____

FIRM panel: _____ Flood zone: _____ BFE: _____

Lowest floor elevation (excluding garage): _____

I am attaching an appraisal report of my property. _____ (initials)

I am not submitting an appraisal report of my property. _____ (initials)

I accept (Community's name)'s Estimated Market Value. _____ (initials)

I accept the attached estimated cost of construction as a
Fair cost of repair or improvement for my structure. _____ (initials)

SIGNATURES:

Property Owner: _____ Date: _____

Property Co-owner: _____ Date: _____

NFIP 50% RULE

(Exhibit 2)

Owner

RECONSTRUCTION/IMPROVEMENT(S) AFFIDAVIT

Folio #: _____ - _____ - _____ - _____

Contractor Name: _____ License #: _____

Property Owner Name: _____

Address: _____ Telephone #: _____

I hereby attest to the fact that the repairs/reconstruction and/or remodeling list submitted for all the **Substantial-Damage/Improvements Review** by my contractor are **ALL OF THE DAMAGES/IMPROVEMENTS** sustained by this structure and will be done to the existing building and that all additions, improvements, or repairs on the subject building are included in this estimated construction herewith. **No other contractor has made any repairs, reconstruction, additions or remodeling to the above noted property not included in the attached list.**

I understand that I am subject to enforcement action(s) and/or fine(s) if inspection of the property reveals that I have made repairs or improvements **NOT INCLUDED ON THE ATTACHED LIST OF REPAIRS TO MY HOME** or that I have included non-conforming or illegal structure(s)/addition(s), to the existing structure without having presented plans for such additions. I understand that any permit issued by (Community) pursuant to this affidavit does not authorize the reconstruction, repair or maintenance of any illegal additions, fences, sheds or non-conforming uses or structures on the subject property.

STATE OF _____

Before me this day personally appeared _____ who, being duly sworn deposes and says that he/she has read, understands, and agrees to comply with all the aforementioned conditions.

Signature of Contractor Date

Notary Public State of Missouri My commission expires

NFIP 50% RULE

(Exhibit 3-1)

SUBSTANTIAL-DAMAGE/IMPROVEMENT

Items to be Included:

All structural elements including:

- Spread or continuous foundation footing and pilings
- Monolithic or other types of concrete slabs
- Bearing walls, tie beams, and trusses
- Wood or reinforced concrete decking or roofing
- Floors and ceilings
- Attached decks and porches
- Interior partition walls
- Exterior wall finishes (e.g., brick, stucco, or siding) including painting and decorative moldings
- Windows and doors
- Reshingling or retiling a roof
- Hardware

All interior finish elements, including:

- Tiling, linoleum, stone, or carpet over subflooring
- Bathroom tiling and fixtures
- Wall finishes, (e.g., drywall, painting, stucco, plaster, panelling, marble, or other decorative finishes)
- Kitchen, utility, and bathroom cabinets
- Built-in bookcases, cabinets, and furniture
- Hardware

All utility and service equipment, including:

- HVAC equipment
- Repair or reconstruction of plumbing and electrical services
- Light fixtures and ceiling fans
- Security systems
- Built-in kitchen appliances
- Central vacuum systems
- Water filtration, conditioners, or recirculation systems

Also:

- Labor and other costs associated with demolishing, removing, or altering building components
- Overhead and profit

NFIP 50% RULE

(Exhibit 3-2)

SUBSTANTIAL-DAMAGE/IMPROVEMENT

Items to be excluded:

- Plans and specifications
- Survey Costs
- Permit fees
- Debris Removal (e.g., removal of debris from building or lot dumpster rental, transport fees to landfill, and landfill tipping fees), and clean-up (e.g., dirt and mud removal, building dry out, etc.)
- Items not considered real property such as: Throw rugs (carpeting over finished floors), furniture, refrigerators, stoves free-standing, etc.

Outside improvements, including:

- Landscaping
- Sidewalks
- Fences
- Yard lights
- Swimming pools
- Screened pool enclosures
- Sheds
- Gazebos
- Detached structures (including garages)
- Landscape irrigation systems

NFIP 50% RULE

**ITEMS REQUIRED TO DETERMINE
SUBSTANTIAL-DAMAGE/IMPROVEMENT(S)**

Applicant must submit the following:

- 1) Completed Floodplain Development Permit Application
- 2) Detailed Cost of Improvement/Reconstruction Estimate(s)
- 3) Affidavit signed by General Contractor and copy of their License Certificate
- 4) Current photos or photos taken before and after the storm
- 5) Floor plan drawing [if required]
- 6) Owner's Affidavit signed and dated
- 7) Contractor's Affidavit signed and dated

**GUIDELINES TO COMPETE THE ATTACHED
RECONSTRUCTION/IMPROVEMENT COST ESTIMATE**

Reconstruction/Repair Ratio = Percentage of items that must be repaired or reconstructed. (Example: The home has 20 windows, only 10 damaged and are being replaced. Ratio would equal 50%.)

SAMPLE ONLY

ITEMS	COST	RECONST/REPAIR RATIO OF WORK	OFFICIAL USE
	Labor + Materials		
Concrete, Forms, etc.	\$ 4,500.00	40%	[Inspection/review comments]
Carpentry Material	\$ 9,004.00	100%	
Doors/Windows, Shutters, etc.	\$ 2,046.00	50%	

NFIP 50% RULE

ESTIMATED COST OF RECONSTRUCTION/IMPROVEMENT(S)

Property Address: _____ Telephone: _____

This Cost Estimate of Reconstruction/Improvement(s) must be prepared and signed by a licensed General Contractor

ITEMS	COST	RECONST/REPAIR RATIO OF WORK	OFFICIAL USE
	Labor + Materials		
Concrete, Forms, etc.			
Carpentry Material [Rough]			
Carpentry Labor [Rough]			
Roofing			
Insulation & Weather Stripping			
Exterior Finish [Stucco]			
Doors, Windows, Shutters, etc.			
Lumber [Finished]			
Carpenter Labor [Finished]			
Hardware [Rough]			
Hardware [Finished]			
Cabinets [Built-in]			
Floor Covering [Tile/rug]			
Plumbing			
Shower, tub, toilet, etc.			
Electrical			
Light Fixtures			
Built-in Appliances			
SUBTOTALS			

NFIP 50% RULE

ESTIMATED COST OF RECONSTRUCTION/IMPROVEMENT(S)

ITEMS	COST	RECONST/REPAIR RATIO OF WORK	OFFICIAL USE
	Labor + Materials		
HVAC			
Paint			
Demolition and Removal			
Overhead and Profit			
SUBTOTAL\PG 1			
SUBTOTAL\PG 2			
GRAND TOTAL			

[Attach any additional information to this estimate]

Contractor Name: _____ CGC License #: _____

Address: _____ Phone #: _____

Signature: _____ Date: _____

INSTRUCTIONS FOR COMPLETING DAMAGE COST ESTIMATE FOR FLOOD DAMAGED STRUCTURES

Purpose of Form

To provide a quick and accurate method to estimate the amount of flood damage based on an inspection of damaged residential structures. Structures to be inspected have been selected because they have suffered damage that may equal or exceed 50% of the pre-flood market value. Structures that sustained this level of damage are required to comply with certain floodplain management standards and may be eligible for acquisition programs.

Step 1:

Write your name(s) and date of the inspection in the upper left corner.

Step 2:

Photograph the front of the house and place it in the folder (it can be attached later.) This is to document the inspection, not to visually record the flood damage.

Step 3:

Inspect the exterior and interior of the structure and make the following notations on the form:

- a. Indicate type of garage.
- b. Indicate whether or not there was structural damage, such as collapsed or damaged interior supporting walls, exterior walls, or roof. If yes, describe damage in comments section.
- c. Measure the high water above the slab or foundation sill and indicate on the form.
- d. Draw circle around the appropriate dollar amount for each category of damage (refer to the attached sheet for a description of average and adjusted amounts.) Write in and circle extra adjustments that are appropriate in special cases. Describe them in the space provided.
- e. Write in the dollar amount of any "On-Site Adjustment" These are adjustments that are not included in the categories listed on the form. Describe any such adjustments on the space provided.
- f. Calculate the total cost per square feet (x) the number of square feet for the ***first floor*** to obtain the total damage amount and indicate on the form. Note: If part of the second floor is damaged, indicate the amount per square feet for the appropriate category in the "extra adj." column. For example, if the second floor received one foot of water, write in and circle the adjusted value for floor coverings and sheet rock, etc.