



City of Charleston

South Carolina

Substantial Improvement (SI) and Substantial Damage (SD) Regulations in the Special Flood Hazard Area (SFHA)

Where does this regulation apply?

Substantial Improvement and floodplain regulations apply for existing buildings in the Special Flood Hazard Area (SFHA), **Flood Zones AE and VE**, as designated by the effective Flood Insurance Rate Map (FIRM). Please be advised that all work on an existing structure in the SFHA requires a permit, including repairs of storm damage, replacement of HVAC ductwork and non-structural interior renovations.

Why are these regulations in place?

The intent is to protect people and mitigate buildings from future flood losses. Substantial Improvement/Damage regulations are also required for a community and their residents to access federal flood insurance and emergency assistance. Refer to [City of Charleston Flood Hazard Prevention and Control Code of Ordinances](#) and the [South Carolina Residential and Building Code](#).

What is Substantial Improvement?

Substantial Improvement means any repair, reconstruction, improvement or addition to an existing structure, where the cumulative cost counted for a one-year period equals or exceeds fifty (50) percent of the market value of the structure, either before the improvement or repair is started, or if the structure has been damaged and is being restored, before the damage occurred. The cumulative improvement percentage is generated from the submitted permit cost of construction plus building permits issued in the last year. Substantial Improvement requires that the building be brought into compliance with all current flood design requirements.

$$\frac{\text{1-Year Cumulative Cost of Improvement or Cost to Repair}}{\text{Market Value of Building, Excluding Land}} \geq 50\%$$

How does a building comply with flood design requirements?

The lowest habitable floor must be elevated to at least the Design Flood Elevation (DFE), which is the Base Flood Elevation (BFE) plus Freeboard. Residential Substantial Improvements have a 1' Freeboard and Commercial Substantial Improvements have a 2' Freeboard. Equipment and machinery such as HVAC systems must be elevated to the DFE as well. Enclosures below the DFE may only be used for parking, storage, and building access, and must be constructed with flood openings and flood-resistant materials. Additional considerations apply for Non-Residential structures, as well as structures located in the V-Zone/Coastal A Zone. Elevation Certificates are used to document compliance with flood design.

Questions about the “FEMA 50% Rule?”

If you have any questions, please contact staff in Building Inspections (inspections@charleston-sc.gov) or Floodplain Management (floodplain-info@charleston-sc.gov).

Substantial Improvement (SI) and Substantial Damage (SD) Building Permit Application Checklist

The documentation in this checklist will be required during Plan Review for Substantial Improvements.

Submit one or more of the following documents with the initial permit application for a potential Substantial Improvement project to reduce building permit plan review turnaround time.

Substantial Improvement/Damage Review

Building Value, Excluding Land [Pg. 3]:

- Tax Assessors Building Improvement Market Value [Default], or
- Professional Appraisal using Cost Approach, or
- Insurance Actual Cash Value (ACV)

Detailed Cost of Improvements/Repairs*:

- Cost Estimate on a Contractor's Letterhead, or
- [Itemized Cost Estimate Worksheet \[Pg. 8\]](#), and/or
- A Copy of the Signed Contract

Substantial Improvement/Damage Affidavit(s)*:

- [Owner Affidavit \[Pg. 9\]](#), and/or
- [Contractor Affidavit \[Pg. 10\]](#)

Flood Design Plan Review

Elevation Certificate [Pg. 5]:

- FEMA Elevation Certificate for Existing Conditions

Flood Design Scope of Work - Incorporate into Permit Construction Documents:

- FEMA Flood Zone, BFE, DFE, FFE Existing, and FFE Proposed
- Whether the building be Substantially Damaged/Improved
- Nature of building damage, if applicable
- How the building is proposed to be mitigated or brought into compliance with flood design:
 - Elevation of the Lowest Floor
 - Installation of Flood Openings
 - Elevation of Equipment
 - Abandoning/Filling Basement
- [BCBOA Historic Variance](#) Number and Conditions, if applicable

*A cost estimate and affidavit will be required for permits with a high potential for being a substantial improvement. This ensures that the contractor and owner are aware of permit requirements and the potential inability to perform more work. (i.e., improvement percentage between 45-49%, permits that submitted a cost reduction after a Substantial Improvement notice, and phased work)

Building Improvement Value Information

Tax Assessor's Improvement Market Value [Default]:

- By default, the current tax assessed market value of building improvements from [Charleston County](#) or [Berkeley County](#) will be used.
- The permit **Applicant** is responsible for submitting a professional appraisal if they believe the tax assessor's value is not accurate or when there is no tax assessed value (i.e., schools, non-profits, churches and homes of veterans).

Professional Appraisal:

The specifications below are required for a professional appraisal to be used in place of the tax assessor's value. Appraisals are not shared for real estate tax purposes.

- Type:
 - The Cost Approach is preferred.
 - The Sales Comparison Approach may only be used when the appraisal explicitly breaks out the value of land from the value conclusion.
 - The Income Approach is not accepted.
- Valuation:
 - The current market value appraisal should demonstrate the as-is, Depreciated Cost of Improvements value of the building before the improvements or damage.
 - Land value, site improvements and business income may not be included in the valuation.
 - Please refer to the [SI/SD Desk Reference Section 4.5: Determining Market Value](#) for more information
- Date:
 - The effective date must be within 6 months prior to the improvement or damage.
 - For building damages, after-the-fact permits and permit revisions, the appraisal may need to be retrospectively dated and exclude the repairs or improvements in question.
- Certification:
 - Appraisal shall be prepared by a [SC Licensed Professional Appraiser](#)

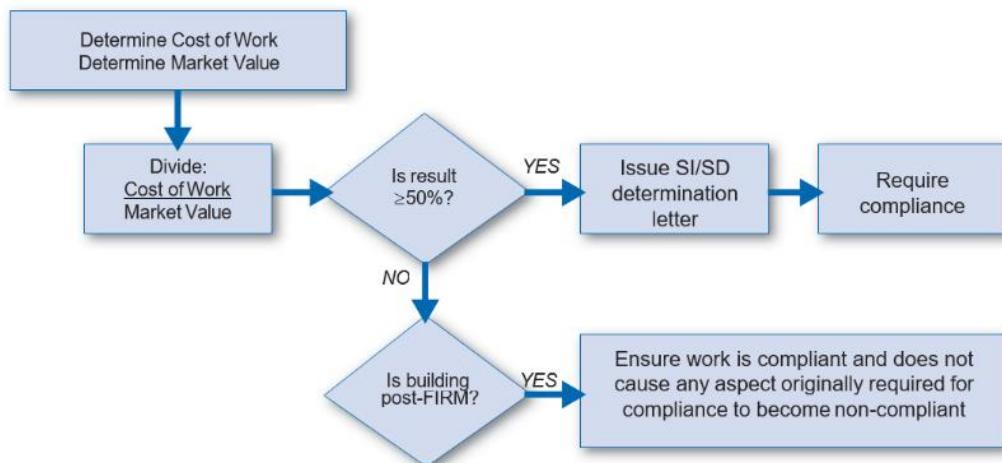
Insurance Declaration:

- If there is an artificially low value on file with the tax office, insurance declaration pages explicitly stating the building Actual Cash Value (ACV) or Replacement Cost Value (RCV) may be used by the discretion of the City.
- Insurance coverage does not necessarily equate to ACV or RCV.
- Note that ACV includes depreciation, while RCV does not. If a RCV is submitted, the City will apply average depreciation (-24.2%) to approximate the as-is condition of the building.

Substantial Improvement/Damage (SI/SD) Procedures

Permitting Requirements

- The **Property Owner** is responsible for ensuring that all local, state and federal permits are obtained *before* construction work begins.
- All work on an existing structure requires a building permit in the Special Flood Hazard Area (SFHA), Flood Zones AE and VE, including repairs of storm damage, replacement of HVAC ductwork and non-structural interior renovations.
- Refer to [Included and Excluded Costs for Substantial Improvement Determinations \[Pg. 7\]](#).
- The Permit **Applicant** (Property Owner or Person Acting on the Behalf on the Property Owner) should submit permit applications and plans with relevant flood design details for proposed work on an existing building in the SFHA. Refer to the [Flood Design Plan Review Section](#) on Page 2 for an overview of information to include.
- The Permit **Applicant** will inform the [Permit Center](#) if new work is to be added to an existing permit, regardless of Substantial Improvement. Scope and/or cost revisions must be reviewed by a **Plan Reviewer** to determine whether additional floodplain management regulations apply.



SI/SD Review and Determination

- During Plan Review, a **Plan Reviewer** will complete a preliminary **SI/SD Review**, using the tax assessor's building value, building permit application *Total Value of Construction* and 1-year cumulative improvements/damages. Note, previously issued permits that will be included in the 1-year cumulative [are publicly available through CSS](#).
- The **Plan Reviewer** will provide notice if the project appears to constitute a Substantial Improvement/Damage and may request additional information. Refer the sample [Substantial Improvement Determination Letter \[Pg. 11\]](#).
- In the event some or all the documents in the [Application Checklist \[Pg. 2\]](#) were not included in the original submittal, the **Applicant** will be requested to submit the remaining documents to the **Permit Center**. The **Applicant** can also consult with BAR if the property is eligible for a Historic Variance.

Flood Design Plan Review

- If the project constitutes a Substantial Improvement, the **Applicant** will submit the documents in the [Application Checklist \[Pg. 2\]](#), including the [SI Owners Affidavit \[Pg. 9\]](#), an existing condition elevation certificate and plans accounting for flood design.
- Refer to our [Plan Review Checklist](#) for more information on flood design requirements, applicable codes and required plan set notes.
- Under a Flood Design specific plan review, the **Plan Reviewer** will review the permit documents and plans to help ensure that the building will comply with current flood design requirements. Flood Design reviews are also required for additions, regardless of Substantial Improvement.
- The **Plan Reviewer** will update the permit case to reflect Substantial Improvement/Damage Status prior to permit issuance, such as the permit description, permit approval stamps, internal additional information section, inspection workflow and Elevation Certificate requirements.
- Flood design/construction related alterations to an existing building are not required when the building fully complies with flood design requirements.

FEMA Elevation Certificate (EC)

- An EC may be on file with the [City of Charleston](#) or the property's flood insurance agent, otherwise a new one can be obtained from a S.C. Licensed Land Surveyor or Engineer.
- The EC should reflect existing conditions to determine what scope of work will be required to bring the building into compliance with flood design.
- Under and Finished Construction ECs are required for SI/SD and addition projects.
- Buildings with a recessed ground level may be classified as a basement by floodplain management definitions, which are non-conforming for lowest floor requirements.

Building Inspections and Close-out Documentation

- The **Applicant** shall comply with the building permit approved plans and conditions. The issuance of a permit shall not be construed to be a permit for violation of any City of Charleston ordinances.
- The **Applicant** is required to schedule inspections (inspections@charleston-sc.gov), including submitting applicable Under and Finished Construction Elevation Certificates, Floodproofing Certificate for Non-Residential Structures and V-Zone Coastal A Zone Design/Breakaway Wall Certificates. The **Elevation Certificate Reviewer** will review the Certificates for compliance and request necessary corrections.
- Once all inspections and close out documents are approved by their respective division/department, the **Applicant** can request a [Certificate of Construction Completion \(CCC\)](#).
- Following the completion of the project, the **Property Owner** shall maintain the building as compliant, including limitations on use – parking, storage and building access only – for enclosures below the flood elevation.

Substantial Damage Considerations

- **Substantial Damage** means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. The reconstruction and repairs are counted cumulatively for one (1) year.
- A building may be substantially damaged by any cause, including fire, flood, high wind, seismic activity, land movement, or neglect. The City may ask for verification of building damages when there is a Substantial Damage Estimate (SDE) on file.
- For damaged buildings, the cost estimate must include all work required to repair the building to its pre-damage condition. Additionally, an appraisal should be retrospectively dated before the damage occurred.
- Building permit applications to repair damaged buildings should also include photographs of the interior and exterior pre- and post- damage.
- An ICC payment is available for substantial damage due to flooding. To assist with the cost of meeting currently effective flood design standards, a \$30,000 Increased Cost of Compliance (ICC) payment is available to eligible building owners of a Substantially Damaged NFIP insured building with ICC coverage.
- Contact floodplain-info@charleston-sc.gov if you believe your building has been substantially damaged for guidance on permitting requirements and financial assistance in the form of ICC payments or FEMA Hazard Mitigation Assistance (HMA) grants.

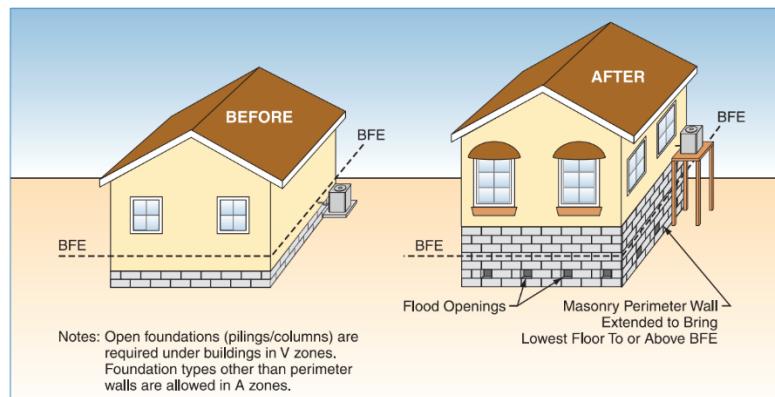


Figure 6-1. Rehabilitation or remodel (no increase in footprint) of residential building in an A zone – the proposed work was determined to be a substantial improvement. The building is brought into compliance by elevating it on an extended perimeter foundation wall, installing flood openings, and raising the HVAC equipment onto a platform.

References

[FEMA P-758: Substantial Improvement / Substantial Damage Desk Reference \(2010\)](#)

[FEMA 213: Answers to Questions About Substantially Improved / Damaged Buildings \(2018\)](#)

Costs for Substantial Improvements and Repair of Substantial Damage

Included Costs

Items that must be included in the costs of improvement or 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 volunteered labor
- Site preparation related to the improvement or repair (foundation excavation, filling in basements)
- Demolition and construction debris disposal
- 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 regulation 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 to an elevation that is lower than the 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, chain walls, pilings, columns, posts, etc.)
 - Monolithic or other types of concrete slabs
 - Bearing walls, tie beams, trusses
 - Joists, beams, subflooring, framing, ceilings
 - Interior non-bearing walls
 - Exterior finishes (e.g., brick, stucco, siding, painting, and trim)
- Structural elements and exterior finishes (cont.):
 - 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 subflooring)
 - 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
 - Interior finish carpentry
 - Built-in bookcases and furniture
 - Hardware
 - Insulation
- Utility and service equipment, including:
 - 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 re-circulation system

Excluded Costs

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 required repairs
- Costs to obtain or prepare plans and specifications
- Land survey costs
- 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 washing machines, dryers, and stoves

Itemized Cost Estimate Worksheet

Site Address: _____ Permit Number(s): _____

ITEM	COSTS		TOTAL COSTS
	LABOR	MATERIALS	
Concrete, Form, etc.			
Carpentry Material (rough)			
Carpentry Labor (rough)			
Roofing			
Insulation and Weather Strip			
Exterior Finish (Stucco)			
Doors, Windows, Shutters			
Lumber, Finish			
Carpentry Labor, Finish			
Hardware, Finish			
Hardware, Rough			
Cabinets, Built-in			
Floor Covering			
Plumbing			
Shower/Tub/Toilet			
Electrical			
Light Fixtures			
Appliances, Built-In			
HVAC			
Paint			
Overhead and Profit			
TOTAL			

By signing below, I confirm the itemized cost estimate is accurate to the improvement/repair work to be performed for the site address.

Contractor Signature

Date



City of Charleston
South Carolina

**Owner's Affidavit for Substantial Improvement or Repair of
Substantial Damage**

Site Address: _____

Owner Name: _____ Owner Phone Number: _____

Contractor: _____

I hereby attest that the description included in the permit application for the work on the existing building at the property identified above is all the work that will be done, including all improvements, rehabilitation, remodeling, repairs, additions, and any other form of improvement and that no other contractor has performed any work without proper permits.

I further attest that the above-identified contractor has prepared a cost estimate for all the work, including the contractor's overhead and profit. In the case of building damage, I attest to the fact that the improvements, rehabilitation, remodeling, repairs, and additions list submitted by my contractor include all damage sustained by this structure.

I acknowledge that if, during the course of construction, I decide to add more work or modify the work described I will submit a permit revision application for the City of Charleston to re-evaluate its comparison of the cost of work to the market value of the building to determine if the work is substantial improvement. Additional permits or permit revisions may subject the property to additional requirements.

I also understand that I am subject to enforcement action and/or fines if inspection of the property reveals that I have made or authorized repairs or improvements that were not included in the description of work and the cost estimate for that work that were the basis for the issuance of a permit.

Signature of Owner

Date

The owner named above personally appeared before me on this day and stated that they have signed, read, understood, and agreed to comply with all the conditions of this affidavit.

Notarized:



City of Charleston
South Carolina

**Contractor's Affidavit for Substantial Improvement or Repair of
Substantial Damage**

Site Address: _____

Contractor Name: _____ Contractor Phone Number: _____

I hereby attest that the description included in the permit application for the work on the existing building at the property identified above is all the work that will be done, including all improvements, rehabilitation, remodeling, repairs, additions, and any other form of improvement.

I hereby attest to the fact that I, or an employee of my company, personally inspected the above-mentioned property and produced the attached list of itemized repairs, additions, rehabilitations, reconstructions and/or remodeling list, including overhead and profit, which are hereby submitted for Substantial Damage/Substantial Improvement Review. In the case of building damage, I attest to the fact that the improvements, rehabilitation, remodeling, repairs, and additions list submitted include all damage sustained by this structure.

I acknowledge that if, during the course of construction, the owner decides to add more work or modify the work described I will submit a permit revision application for the City of Charleston to re-evaluate its comparison of the cost of work to the market value of the building to determine if the work is substantial improvement. Additional permits or permit revisions may subject the property to additional requirements.

I also understand that I am subject to enforcement action and/or fines if inspection of the property reveals that I have made repairs or improvements that were not included in the description of work and the cost estimate for that work that were the basis for the issuance of a permit.

Signature of Contractor

Date

The contractor named above personally appeared before me on this day and stated that they have signed, read, understood, and agreed to comply with all the conditions of this affidavit.

Notarized:



City of Charleston

South Carolina

Notice of Cumulative Substantial Improvement Determination

Address: _____ Permit Number(s): _____

Date: _____

Dear Property Owner,

We have reviewed your recent application for a permit to improve and/or repair your existing building that is in a mapped Special Flood Hazard Area (SFHA). As required by our City of Charleston Code of Ordinances and South Carolina Building Codes, we have determined that the proposed work constitutes a Substantial Improvement (SI) of the building. This determination is based on a comparison of the 1- year cumulative cost estimate of the proposed work to the market value of the building, excluding land value.

Based on the cumulative building permits over the past year \$ _____, plus current contractor's estimate of \$ _____ relative to the building improvement value of \$ _____ the building will be improved by _____ %. The City of Charleston SI/SD Calculator tool may be attached for reference. Because costs equal or exceed fifty (50) percent of the market value of the building, the project constitutes a Substantial Improvement of the building.

As a result of this determination, you are required to bring the building into compliance with the flood design provisions in South Carolina Building and Residential Codes and the City of Charleston's Flood Hazard Prevention and Control Code of Ordinances (§27-116 and §27-117).

We would be pleased to meet with you and your designated representative (architect/builder) to discuss how to bring your building into compliance. There are several aspects that must be addressed to achieve compliance. The most significant requirement is that the lowest floor, as defined in Chapter 27, Article 2, Division 3 of the City's Code of Ordinances, must be elevated to or above the Design Flood Elevation. You may wish to contact your insurance agent to understand how raising the lowest floor higher than the minimum required elevation can reduce NFIP flood insurance premiums. Please submit a permit revision application along with plans and specifications that incorporate compliance measures as needed.

Construction activities without City approval may result in City citations, fines, and/or other legal action.

Sincerely,

Local Official Signature