



National Flood Insurance Program  
Community Rating System

# CRS Credit for Higher Regulatory Standards

2006



**FEMA**

**Note on this edition:** This document was revised to reflect the following changes in the 2006 *CRS Coordinator's Manual*:

- The building code provisions no longer receive credit under foundation protection (FDN).
- The credit for adopting the International Series of building codes (or their equivalent) has been increased.
- The credit for the community's Building Code Effectiveness Grading Schedule classification has been increased.
- Language was added describing how Coastal AE Zone regulation (CAZ) credit is prorated.

It should be noted that communities will continue to receive credit for higher regulatory standards credited under older versions of the *CRS Coordinator's Manual*. At the community's next cycle verification visit, the ISO/CRS Specialist will use the new scoring criteria. If a community wants to take advantage of these higher points and new elements sooner, it may submit a modification as explained in Section 215 of the *CRS Coordinator's Manual*.

A community interested in more information on obtaining flood insurance premium credits through the Community Rating System (CRS) should have the *CRS Application*. This and other publications on the CRS are available at no cost from

Flood Publications  
NFIP/CRS  
P.O. Box 501016  
Indianapolis, IN 46250-1016  
(317) 848-2898  
Fax: (317) 848-3578  
[NFIPCRS@iso.com](mailto:NFIPCRS@iso.com)

They can also be viewed and downloaded from FEMA's CRS website,  
<http://training.fema.gov/EMIWeb/CRS/index.htm>

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## 430 Higher Regulatory Standards

Activity 430 (Higher Regulatory Standards) is the primary CRS activity for crediting floodplain development regulations that are more restrictive than the NFIP requirements. The basic credit criteria for Activity 430 are explained in the *CRS Coordinator's Manual*. This publication expands on those explanations and provides examples of credited regulatory language and guidance on how to calculate the credit points for Activity 430. The section numbering for this publication matches the system used in the *CRS Application* and the *Coordinator's Manual*.

### Regulations Recognized in Activity 430

Activity 430 (Higher Regulatory Standards) has 16 elements that include additional requirements that increase the level of protection provided to floodplain development. These are the most common regulatory requirements that exceed the minimum NFIP requirements for floodplain management. Each element has an acronym that is used in the credit calculation formulae. The acronyms are a shorthand method of referring to the elements. The 16 elements are detailed in subsections a through p in Section 431 of the *Coordinators Manual*.

- a. Requiring buildings to be protected to a level higher than the base flood elevation. The extra protection is called **freeboard** and the element appears as “**FRB**” in the calculation formulae.
- b. Requiring that fill and building foundations be designed to protect them from damage due to erosion, scour, and settling. The acronym for **foundation protection** is “**FDN**.”
- c. Requiring that all improvements or repairs are counted cumulatively toward the substantial improvement requirement. This requirement, known as **cumulative substantial improvement**, or “**CSI**,” ensures that owners do not evade flood protection measures by making many small improvements that eventually add up to a major or substantial improvement.
- d. Using a threshold lower than 50% of the building's value to determine when the substantial improvement requirement takes effect. The acronym for a **lower substantial improvement** threshold is “**LSI**.”
- e. Requiring that critical facilities, such as hospitals and hazardous materials storage sites, be protected from higher flood levels. “**PCF**” stands for **protection for critical facilities**.

### **c. Cumulative Substantial Improvement Rules (CSI)**

Floodplain management regulations are most effective in reducing flood damage to new construction. Buildings built before adoption of the regulations are often subject to repeated flooding, repeated damage, and repeated flood insurance claims and federal disaster assistance payments. The NFIP regulations address a portion of this problem by requiring that substantially damaged and substantially improved buildings be brought up to the same standards as new buildings. However, only a small percentage of the existing buildings are substantially damaged or substantially improved and subject to these requirements.

Communities can reduce flood damage by counting improvement and repair projects cumulatively so that buildings will be brought into compliance with flood protection standards sooner. The CRS provides credit for communities that do this. Credit is provided under CSI for enforcing a cumulative substantial improvement rule.

#### **NFIP Requirement**

Substantial improvements are treated as new construction in Section 60.3(c)(2) and (3). A single large improvement or repair project is clearly a substantial improvement no matter how many separate permits are issued.

However, the NFIP regulations do not require that smaller individual improvements made over a period of years and that add up to 50% be considered a substantial improvement. Theoretically, property owners could “beat the system” by applying for a 40% improvement project one year and applying for another 40% project the next year.

FEMA has published additional guidelines on substantial improvement regulations in *Answers to Questions about Substantially Damaged Buildings*, FEMA-213, 1991 (see page 63).

#### **Scoring (maximum credit: 110 points)**

This element provides credit to communities that ensure that the total value of all improvements permitted over the years does not exceed 50% of the value of the structure. If it does, the original building must be protected according to the NFIP requirements for new buildings.

Scoring allows for separate regulatory requirements for improvements and repairs. If the community requires both to be counted cumulatively, it receives the total for Section 430.c.1 and c.2. It can also add the credit for c.3, which covers all additions, regardless of size.



Credit is the total of the following points:

1. One of the following:

- (a) 45, if the regulations require that improvements, modifications, and additions to existing buildings are counted cumulatively for at least ten (10) years, or
- (b) 25, if the regulations require that improvements, modifications, and additions to existing buildings are counted cumulatively for at least five (5) years.

2. One of the following:

- (a) 45, if the regulations require that reconstruction and repairs to damaged buildings are counted cumulatively for at least ten (10) years, or
- (b) 25, if the regulations require that reconstruction and repairs to damaged buildings are counted cumulatively for at least five (5) years, or
- (c) 20, if the community adopts regulatory language that qualifies properties for Increased Cost of Compliance insurance coverage for repetitive losses.

Increased Cost of Compliance (ICC) coverage is a provision in flood insurance policies that helps pay for bringing a substantially damaged flooded building into compliance with the local ordinance. It is possible that a building deemed substantially damaged by an ordinance that qualifies for CSI would not qualify for an ICC payment. ICC and example regulatory language are discussed separately in the boxes on the next two pages.

3. 20, if the regulations require that any addition to a building be protected from damage from the base flood.

This third approach, worth 20 points, makes every addition, regardless of size, a substantial improvement. Additions within the footprint of the original building would have to be on a floor above the base flood elevation. Additions outside that footprint would have to be elevated (or, for non-residential structures, floodproofed) above the base flood elevation.

## Increased Cost of Compliance

On June 1, 1997, the NFIP began offering “Increased Cost of Compliance” (ICC) coverage for buildings covered under the Standard Flood Insurance Policy. ICC coverage provides for the payment of a claim to help pay for the cost to comply with community floodplain management ordinances after a flood in which a building has been declared substantially damaged or repetitively damaged.

When an insured building is damaged by a flood and the community declares the building to be substantially or repetitively damaged, ICC will help pay for the cost to elevate, floodproof, demolish, or relocate the building up to a maximum of \$30,000. This coverage is in addition to the building coverage for the repair of actual physical damage from flood under the policy. An ICC claim can be filed whether or not a community has received a Presidential disaster declaration.

**The following conditions must be met for a substantially damaged building to be eligible for an ICC claim:** A building is eligible for an ICC claim payment if it is in a Special Flood Hazard Area and if the community determines it has been damaged by a flood whereby the cost of restoring the building to its before-damaged condition would equal or exceed 50% of the market value of the building before the damage occurred, as determined by the community. All NFIP communities must have, at a minimum, a substantial damage provision in their floodplain management ordinance in accordance with the NFIP criteria.

The Flood Insurance Reform Act of 2004 expanded the definition of what qualifies as substantial damage for the purposes of an ICC claim. Section 105(b)(4) of the Act reads, “the term ‘substantially damaged structure’ means a structure covered by a contract for flood insurance that has incurred damage for which the cost of repair exceeds an amount specified in any regulation promulgated by the Director, or by a community ordinance, whichever is lower.” After FEMA regulations are published to implement this provision, regulations with substantial damage thresholds lower than 50% that qualify for LSI credit may also be able to trigger ICC claim payments. Communities with LSI credit should check with their FEMA Regional Offices to confirm this.

**The following conditions must be met for a repetitively damaged building to be eligible for an ICC claim payment:** A building is eligible for an ICC claim payment if it is in a Special Flood Hazard Area and is a repetitive loss structure and is subject to a community floodplain management ordinance. Two conditions must be met for an ICC claim to be paid under the SFIP for a repetitive loss structure:

1. The state or community must have adopted and be currently enforcing a repetitive loss provision or a cumulative substantial damage provision requiring action by the property owner to comply with the community’s floodplain management ordinance, and
2. The building must have a history of NFIP claim payments that satisfies the statute’s definition of “repetitive loss structure”. A repetitive loss structure means “a building covered by a contract for flood insurance that has incurred flood-related damage on 2 occasions during a 10-year period ending on the date of the event for which a second claim is made, in which the cost of repairing the flood damage, on the average, equaled or exceeded 25% of the market value of the building at the time of each such flood event.” *Note that this statutory ICC definition is not the same as the CRS definition of a repetitive loss property.*

### Increased Cost of Compliance (cont.)

The date on which the first loss occurred is immaterial to eligibility for an ICC claim payment, even if the loss occurred before June 1, 1997, as long as the state or community enforced a repetitive loss or cumulative substantial damage requirement on the building and the insured building satisfies the definition of a “repetitive loss structure” defined above.

**CRS NOTE:** *Communities receiving CSI credit for a cumulative substantial improvement regulation must be aware that there may be instances in which the community’s criteria may require compliance with its floodplain management ordinance, but the building may not qualify for an ICC claim payment (e.g., if a building is damaged three times, with each flood averaging 20% damage).*

Below are two options for ordinance language that is consistent with the definition of “repetitive loss structure” under the NFIP. The language would receive 20 points under CSI—fewer points than the more restrictive language of Section 431.c.1(a) and (b).

Additional guidance on ICC coverage can be found in the National Flood Insurance Program Increased Cost of Compliance Coverage: Guidance for State and Local Officials—Increased Cost of Compliance Coverage, FEMA 2003 and at FEMA’s website:

<http://www.fema.gov/library/lib06.htm>.

#### Option 1:

##### A. Adopt the Following Definition:

“Repetitive loss” means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25% of the market value of the structure before the damage occurred.

##### B. And modify the “substantial improvement” definition as follows:

“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. This term includes structures that have incurred “repetitive loss” or “substantial damage,” regardless of the actual repair work performed.

#### Option 2: Modify the “substantial damage” definition as follows:

“Substantial Damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damage condition would equal or exceed 50% of the market value of the structure before the damage occurred. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25% of the market value of the structure before the damage occurred.

**NOTE:** *An ICC claim payment is ONLY made for flood-related damage. The substantial damage part of the definition must still include “damage of any origin” to be compliant with the minimum NFIP floodplain management regulations.*



## Example Regulatory Language

Most ordinances use the NFIP definition for substantial improvement.

*"Substantial improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. . . . [44 CFR 59.1]*

The underlining in the following example shows how language can be added to the definition to clarify that both repairs and improvements are counted cumulatively.

*"Substantial improvement" means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure taking place during the life of the structure the cumulative cost of which equals or exceeds fifty percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. . . .*

CSI = 45 + 45 = 90.

If "during the life of the structure" was replaced with "during a period of five years," then  
CSI = 25 + 25 = 50.

If the words "repairs, reconstructions" were not included in the first example, CSI = 45. If not included in the second example, CSI = 25.

## Records Needed for Verification

The permit office must demonstrate that it has a system for keeping track of improvements to each floodprone property. If a permit is applied for, the office must routinely check its files for past improvements, additions, and repairs, and calculate the cumulative effect of the proposed project.

The records must show the value of building additions, improvements, and repairs and the building's value. A community should not rely solely on the applicant's estimate of the cost, especially if permit fees or tax assessments are based on the estimated cost. The cost should be double checked based on the building department's knowledge of area construction costs or standard formulae based on square footage or type of project.

Each time someone applies for a permit in the SFHA, the building's records must be checked. The percentage of the cost of the project for which a permit is being requested plus the cost of all projects constructed since the cumulative substantial improvement requirement went into effect must be compared to the building's value. If all the projects add up to 50% or more of the building's value, then the project applied for is considered a substantial improvement.

The community must keep a running total of the costs or percentages of past improvements. An example of a paper record is on the next page. Each project is recorded and the percentage value of the improvement or repair is calculated. If the total percentage to date equals or exceeds 50%, the project is considered a substantial improvement and the building is subject to the community's regulations for new construction.

## Common Problems

As with foundation protection, the most common problem with this element is submittal of ordinance language based on the minimum requirements of the NFIP. Many ordinances use the very same language from Section 59.1 quoted on page 23. The following is from a frequently used model ordinance.

*"Substantial improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure the cost of which equals or exceeds fifty percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.*

CSI = 0

As it is written, the above language would NOT receive any credit under CSI because it does not clearly state that improvements are counted cumulatively. However, many communities use this ordinance language but have been enforcing cumulative rules. CSI credit has been granted when the community submits a legal opinion or directive from the community's legal counsel stating how the ordinance is to be interpreted.

The following is an example from a letter from a city attorney to the permit office.

*It is my opinion that [the last sentence in the above ordinance] is significant in terms of evidencing an intent on the part of the drafters of such provision that all alterations, beginning with the first alteration of the structure are to be considered in arriving at a determination of whether a substantial improvement, under the regulation, has occurred. Accordingly, it is my opinion that substantial improvement requires a consideration of all improvements to the premises occurring subsequent to the effective date of application of the provisions within the City. . . .*

CSI = 45 + 45 = 90

Another problem is keeping track of improvements over time. The system used to enforce this and the other credited elements is reviewed by the ISO/CRS Specialist during the verification visit. Some communities throw out permit records one year after the certificate of occupancy is issued. Others file them in a basement and cannot get to them readily.

### Building Improvement Record

Property address: 421 Addington Dr. PIN: 16-321-417-83-2

Type of project: Room addition

Permit number: 89-313 Date: 9/20/89 Cost of project:<sup>1</sup> \$ 18,000

Assessed value of building: \$ 50,000 Market value:<sup>2</sup> \$ 100,000

Cost of project divided by market value: 18 %

Type of project: Repairs of fire damage

Permit number: 91-114 Date: 3/6/91 Cost of project:<sup>1</sup> \$ 25,000

Assessed value of building: \$ 55,000 Market value:<sup>2</sup> \$ 110,000

Cost of project divided by market value: 23 % Total percentage to date:<sup>3</sup> 41 %

Type of project: Remodeling, install fireplace, move walls

Permit number: 94-16 Date: 6/2/94 Cost of project:<sup>1</sup> \$ 6,000

Assessed value of building: \$ 58,500 Market value:<sup>2</sup> \$ 117,000

Cost of project divided by market value: 5 % Total percentage to date:<sup>3</sup> 46 %

Type of project: \_\_\_\_\_

Permit number: \_\_\_\_\_ Date: \_\_\_\_\_ Cost of project:<sup>1</sup> \$ \_\_\_\_\_

Assessed value of building: \$ \_\_\_\_\_ Market value:<sup>2</sup> \$ \_\_\_\_\_

Cost of project divided by market value: \_\_\_\_\_ % Total percentage to date:<sup>3</sup> \_\_\_\_\_ %

1. The cost of the project must be the true cost, including the value of donated materials, owner's labor, etc., based on prevailing construction costs and wages in the area. The cost of repairing a damaged building must be the cost to return it to its pre-damaged condition, regardless whether the owner intends to repair or rebuild everything that was damaged.
2. In this community, buildings are assessed at 50% of their market value. Therefore, market value = assessed value x 2. Market value calculated by a professional appraiser shall take precedence over this approach to basing market value on assessed value.
3. Total percentage to date is the sum of the cost of the project divided by market value for all previous projects. When the total percentage to date equals or exceeds 50%, the project is considered a substantial improvement.

The community needs to maintain permit records by parcel number or address, so that the history of improvements to a particular structure can be checked before the next permit is issued. For example, at the time of permit application, the address could be checked in a computer-based tracking system to see what previous permits had been issued.

To receive full credit of 45 points, the community must have a system that will keep track of improvements for at least 10 years. Less credit (25 points) is provided if records are accessible for at least five years.

#### **d. Lower Substantial Improvement Threshold (LSI)**

Another way to bring more buildings into compliance with the standards for new construction is to use a lower number than 50% in the substantial improvement requirement. A community's buildings are more likely to be brought up to code sooner if it uses a threshold of, say, 25% to trigger a determination that an improvement or repair project is substantial.

#### **NFIP Requirement**

The NFIP requirement of 50% is part of the definition of “substantial improvement” in Section 59.1 (see page 23).

#### **Scoring (maximum credit: 90 points)**

LSI credit is based upon the regulatory threshold. Use only one of the following:

1. 90, if the regulatory threshold is less than 10%;
2. 70, if the regulatory threshold is 10% to 24%;
3. 50, if the regulatory threshold is 25% to 39%;
4. 30, if the regulatory threshold is 40% to 44%;
5. 10, if the regulatory threshold is 45% to 49%; or
6. 20, if the regulatory threshold is no more than 25% of the bulk or square footage of the building's first floor.
7. If the lower substantial improvements threshold applies to EITHER improvements, modifications, and additions OR reconstruction and repairs, but not both, the value for LSI is multiplied by 0.5.

If a community lowered the threshold only for repairs and reconstruction or only for improvements, modifications and additions, then the value for LSI is halved. For example,