



CITY OF BELVEDERE

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Floodplain Development Worksheet

Project Address: _____ Assessor's Parcel Number _____

- This proposed project is an **improvement**, or an **addition** to an existing building.
- This proposed project is a **demolition** and a **complete rebuild**.
- The subject building is listed on a national, state or local register of **historical buildings**.
- The proposed project is located on DFIRM Map Panel 0526D (39-97 West Shore Road, 125 Belvedere Avenue or 1 Cliff Road)
- The proposed project is located on DFIRM Map Panel 0488D (1-37 West Shore Road, 10-314 San Rafael Avenue, 1-16 Edgewater Road, 1-26 Lagoon Road, 1-27 Windward Road, or 2-18 Windward Road)
- The proposed project is located on DFIRM Map Panel 0489D (316-400 San Rafael Avenue, 3-19 Leeward Road, 28-98 Lagoon Road, 4-18 Maybridge Road, 18-39 Cove Road, 16-70 Peninsula Road, 2-6 Community Road, or 1-9 Mallard Road)
- The proposed project is located on DFIRM Map Panel 0527D (1-95 Bellevue Avenue, 2-98 Beach Road, 1 Embarcadero, 1-17 Cove Road, 1-15 Cove Road Place, 1-15 Peninsula Road, 17 Community Road, 10-22 Mallard Road, 1-29 Teal Road, 3-9 Barn Road or 500-550 San Rafael Avenue)

The proposed new or remodeled/repared structure **does** **does not** extend over the normal San Francisco Bay high tide line.

Method of determining compliance with National Flood Insurance Program (NFIP) regulations:

- Noting the normal shoreline as drawn on the plans
- Field observation
- Other _____

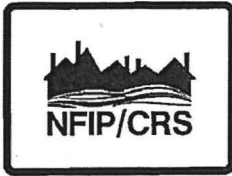
Measurement shows the structure will be _____ feet into the Special Flood Hazard Area.

If in Zone AE or VE, does project valuation, as determined by use of the attached **Substantial Improvement Worksheet**, indicate that the improvement will be in the 35% - 50% range of the market value of the structure? **Yes** **No** . If yes, provide a copy of a current appraisal by a certified appraiser. Does the project qualify as a Substantial Improvement? (Project valuation is equal to or exceeds 50% of the appraised market value) **Yes** **No**

In the case of Substantial Improvement projects, a FEMA Elevation Certificate, indicating that the finish floor level of the entire building is 1 ft. above the floodplain elevation, is to be provided to the Building Department prior to City final inspections. FEMA Elevation Certificates, including instructions, are available on the internet at: <http://www.fema.gov/pdf/nfip/elvcert.pdf>

Prepared by: _____ Date _____

Building Official _____ Date _____



The Community Rating System credits keeping track of improvements to enforce a cumulative substantial improvement requirement. It also credits using a lower threshold than 50 percent. These credits are found under Activity 430, Section 431.c and d in the *CRS Coordinator's Manual* and the *CRS Application*. See also *CRS Credit for Higher Regulatory Standards* for example regulatory language.

Post-FIRM buildings

The rules do not address only pre-FIRM buildings—they cover *all* buildings, post-FIRM ones included.

In most cases, a post-FIRM building will be properly elevated or otherwise compliant with regulations for new construction. However, sometimes a map change results in a higher BFE or change in FIRM zone. A substantial improvement to a post-FIRM building may require that the building be elevated to protect it from the new, higher, regulatory BFE.

It should be remembered that all additions to a post-FIRM building must be elevated at least as high as the BFE in effect when the building was built. (You can't allow a compliant building to become noncompliant by allowing additions at grade.) If a new, higher BFE has been adopted since the building was built, additions that are substantial improvements must be elevated to the new BFE.

THE FORMULA

A project is a substantial improvement if:

$$\frac{\text{Cost of improvement project}}{\text{Market value of the building}} \geq 50 \text{ percent}$$

For example, if a proposed improvement project will cost \$30,000 and the value of the building is \$50,000:

$$\frac{\$30,000}{\$50,000} = 0.6 \text{ (60 percent)}$$

The cost of the project exceeds 50 percent of the building's value, so it is a substantial improvement. The floodplain regulations for new construction apply and the building must meet

the post-FIRM construction requirements. If the project is an addition, only the addition has to be elevated (see the examples later in this section).

The formula is based on the cost of the project and the value of the building. These two numbers must be reviewed in detail.

Project cost

The cost of the project means all structural costs, including

- all materials
- labor
- built-in appliances
- overhead
- profit
- repairs made to damaged parts of the building worked on at the same time

A more detailed list is included in Figure 8-1.

To determine substantial improvement, you need a detailed cost estimate for the project, prepared by a licensed general contractor, professional construction estimator or your office.

Your office must review the estimate submitted by the permit applicant. To verify it, you can use your professional judgment and knowledge of local and regional construction costs, or you can use building code valuation tables published by the major building code groups. These tables can be used for determining estimates for particular replacement items if the type of structure in question is listed in the tables.

There are two possible exemptions you should be aware of: 1) improvements to correct code violations do not have to be included in the cost of an improvement or repair project and 2) historic buildings can be exempted from substantial improvement requirements. These are explained in more detail later on.

Market value

In common parlance, market value is the price a willing buyer and seller agree upon. The market value of a structure reflects its original quality, subsequent improvements, physical age of building components and current condition.

However, market value for property can be different than that of the building itself. Market value of developed property varies widely due to the desirability of its location. For example, two houses of similar size, quality and condition will have far different prices if one is on the coast, or in the best school district, or closer to town than the other—but the value of the building materials and labor that went into both houses will be nearly the same.

For the purposes of determining substantial improvement, market value pertains only to the structure in question. It does not pertain to the land, landscaping or detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building.

Items to be included

- All structural elements, including:
 - Spread or continuous foundation footings and pilings
 - Monolithic or other types of concrete slabs
 - Bearing walls, tie beams and trusses
 - Floors and ceilings
 - Attached decks and porches
 - Interior partition walls
 - Exterior wall finishes (brick, stucco, siding) including painting and moldings
 - Windows and doors
 - Reshingling or retiling a roof
 - Hardware
- All interior finishing elements, including:
 - Tiling, linoleum, stone, or carpet over subflooring
 - Bathroom tiling and fixtures
 - Wall finishes (drywall, painting, stucco, plaster, paneling, marble, etc.)
 - Kitchen, utility and bathroom cabinets
 - Built-in bookcases, cabinets, and furniture
 - Hardware
- All utility and service equipment, including:
 - HVAC equipment
 - Plumbing and electrical services
 - Light fixtures and ceiling fans
 - Security systems
 - Built-in kitchen appliances
 - Central vacuum systems
 - Water filtration, conditioning, or recirculation systems
- Cost to demolish storm-damaged building components
- --- Labor and other costs associated with moving or altering undamaged building components to accommodate improvements or additions
- --- Overhead and profits

Items to be excluded

- Plans and specifications
- Survey costs
- Permit fees
- Post-storm debris removal and clean up
- Outside improvements, including:
 - Landscaping
 - Sidewalks
 - Fences
 - Yard lights
 - Swimming pools
 - Screened pool enclosures
- Detached structures (including garages, sheds and gazebos)
- Landscape irrigation systems

Figure 8-1. Items included in calculating cost of the project

Acceptable estimates of market value can be obtained from these sources:

- An independent appraisal by a professional appraiser. The appraisal must exclude the value of the land and not use the “income capitalization approach” which bases value on the use of the property, not the structure.
- Detailed estimates of the structure’s actual cash value— the replacement cost for a building, minus a depreciation percentage based on age and condition. For most situations, the building’s actual cash value should approximate its market value. Your community may prefer to use actual cash value as a substitute for market value, especially where there is not sufficient data or enough comparable sales.
- Property values used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect current market conditions (adjusted assessed value).
- The value of buildings taken from NFIP claims data (usually actual cash value).
- Qualified estimates based on sound professional judgment made by the staff of the local building department or tax assessor’s office.

Some market value estimates are often used only as screening tools (i.e., NFIP claims data and property appraisals for tax assessment purposes) to identify those structures where the substantial improvement ratios are obviously less than or greater than 50 percent (i.e., less than 40 percent or greater than 60 percent). For structures that fall in the 40 percent to 60 percent range, more precise market value estimates are sometimes necessary.