



**BUILDING
IN A
SPECIAL FLOOD
HAZARD AREA**



**SAN JOAQUIN COUNTY
DEPARTMENT OF PUBLIC WORKS
FLOOD MANAGEMENT DIVISION**



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General Construction in Special Flood Hazard Areas

Special Flood Hazard Areas (SFHA) are areas designated by FEMA as having a 1% or greater annual chance of flooding. Due to the destructive nature of floods, special construction requirements are necessary within a SFHA to minimize potential damage to structures. This booklet provides general information on these requirements. Additional detailed information can be obtained from San Joaquin County Development Title Chapter 9-1605 Flood Hazards, and the American Society of Civil Engineers (ASCE) publication 24-05, Flood Resistant Design and Construction. Please see the back of this booklet for information on obtaining these documents. To determine if your project is within a SFHA, contact San Joaquin County Department of Public Works (Public Works) Flood Management Division at (209) 468-3060 or floodmanagement@sjgov.org.

The primary method of protecting buildings from flood damage is to elevate them above the surface of the flood waters, or the base flood elevation (BFE). Base flood elevations or depths and SFHAs are shown on the Flood Insurance Rate Maps published by FEMA.

SFHA EXEMPT PROJECTS

- **Improvements, such as additions or renovations**, to structures built prior to 1980 are limited in size and scope by the Substantial Improvement Rule. The Substantial Improvement Rule states that if the cost of the improvement equals or exceeds 50% of the market value of the structure, the structure must be brought into compliance with current floodplain regulations. Projects less than 50% may be exempt from SFHA construction requirements. For more information, see separate handout “[Substantial Improvement of Residential Buildings in Special Flood Hazard Areas].”

- **If only a portion of the property is located within a SFHA**, and the proposed structure will be located on the portion outside the SFHA, flood zone construction requirements may be waived with the submission of a site plan. The site plan, prepared by a licensed land surveyor or registered civil engineer, shall show all Federal and State flood zones and floodways, property lines, and the footprint of all existing and proposed structures. For more information, see separate handout “[Parcels Bisected by Special Flood Hazard Areas].”

SFHA CONSTRUCTION REQUIREMENTS

1. Survey and Site Plans

- A minimum of two (2) surveys are required; one before and one after construction. The first survey establishes the elevation of the project site, and is compared to the BFE to determine the height above grade that flood damage reduction measures must be taken. Based on this initial survey, “Preliminary Elevation Certificate” an FM form series must be completed by a surveyor or engineer and is required prior to clearance from Public Works. If your plans/ application package does not include a completed FM-1 you cannot proceed to the Community Development Building for plan check.

- After construction, a surveyor or engineer is required to survey the as-built elevations of the project and complete the FEMA “Elevation Certificate” form 81-31, Rev. 02/2006. The Elevation Certificate is proof that the structure was built in compliance with floodplain regulations and is required to be submitted to Public Works before a Flood Release can be granted, (see Flood Release, Section 7 page 3, of this booklet).2/2006.

- Additional surveys are recommended when any site grading is completed and when the forms for the foundation are set.

- Site plan(s) shall show the location of all existing and proposed utilities, machinery and equipment (including water and fuel tanks), as well as the banks or levees of any watercourse crossing the property.



SFHA Construction Requirements (continued)

2. Minimum Floor Elevations

- The top of the finished floor for all habitable areas of the structure is required to be a minimum of one (1) foot above the BFE.
- Portions of the structure used solely for access, parking or limited storage (such as a crawlspace or attached garage) are permitted below the BFE provided that all other requirements for areas below the BFE are met.
- Commercial and industrial structures may be floodproofed to one (1) foot above the BFE instead of elevating, with certification of floodproofing completed by a registered civil engineer or registered architect.
- Detached accessory structures may be exempt from finished floor elevation, (see Detached Accessory Structure Section 5, Page 3 in this booklet.)
- Manufactured homes placed in manufactured home parks (MHP) built prior to May 15, 1980 may be installed with the finished floor below the BFE provided the chassis is elevated a minimum of (36) inches above grade, (see Manufactured Home Section 6, Page 3, in this booklet.)
- Basements, wine cellars, and any other enclosed areas below grade on all sides are PROHIBITED.

3. Portions of the Structure Below the BFE

- If any portion of the structure is located below the BFE, the structure must be designed and constructed to resist flotation, collapse, and lateral movement when subjected to base flooding conditions. For more information, see ASCE 24-05 Chapter 1.
- All materials installed below the base flood elevation must be flood resistant materials, such as concrete and corrosion resistant metals. For more information, see ASCE 24-05 Chapter 5 and FEMA Technical Bulletin (TB) 2-93 Flood Resistant Materials.
- Vents are required in any enclosed space below the BFE to relieve hydrostatic pressure on the structure. A minimum of one (1) square inch of vent area is required for each square foot of enclosed space. Vents must be installed on a minimum of two sides of the structure, with the bottom of the vent within one (1) foot of the exterior adjacent grade and the top of the vent no higher than the BFE. Vents may be equipped with screens or louvers which allow for the automatic entry and exit of floodwaters. For additional information, see ASCE 24-05 Chapter 2.6.2 and FEMA TB 1-93 Openings in Foundations.

4. Utilities, Machinery and Equipment

- All utilities, machinery, equipment, tanks and wells are required to be elevated above the BFE or be designed, constructed and installed to prevent floodwaters from entering or accumulating within its components. For additional information, see ASCE 24-05 Chapter 7.
- Tanks may be located below the BFE provided they are anchored by an approved or engineered system designed to resist all flood related loads during the base flood. For additional information, see ASCE 2405 Chapter 7.4.1 and separate handout "[Tank Installation in Special Flood Hazard Areas]."
- All utilities must be installed before a Flood Release, can be granted, (see, Section 7, Page 3, of this booklet).

SFHA Construction Requirements (continued)

5. Detached Accessory Structures

- Detached accessory structures are permitted to have the finished floor below the base flood elevation provided the square footage does not exceed five hundred (500) square feet if accessory to a residential use or twelve hundred (1,200) square feet if accessory to an agricultural use.
- The structure must meet all materials, venting, anchoring and utilities requirements. (See Portions of the Structure Below the BFE and Utilities Machinery and Equipment. (see Section 3 & 4, Page 2) of this booklet)
- A “Declaration of Restrictions” is required to be recorded at the San Joaquin County Recorder’s Office before a Release can be granted. The Declaration of Restrictions is a document stating that the structure’s finished floor is below the BFE, the structure cannot be used for habitable space and can only be used for parking and limited storage, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced finished floor elevation. For additional information, see supplemental handout “[Instructions for Filing a Declaration of Restrictions].”

6. Manufactured Homes

- Manufactured homes placed outside of a manufactured home park (MHP), or in a MHP or park expansion built after May 15, 1980, are required to have the top of the finished floor a minimum of one (1) foot above the base flood elevation. In addition, the entire foundation support system (piers, bracers, exterior perimeter wall, etc.) must be at or above the BFE or be certified by a licensed architect or civil engineer to withstand all flood forces (see ASCE 24-05 Chapter 1). The structure must meet all requirements in the Portions of the Structure Below the BFE and Utilities Machinery and Equipment. (see Section 3 & 4, Page 2) of this booklet.



- Manufactured homes placed in a MHP built before May 15, 1980 are permitted to be installed with the finished floor below the base flood elevation provided the chassis is elevated a minimum of thirty-six inches above grade. The foundation system must be engineered to prevent flotation, collapse and lateral movement of the structure during flood conditions (see ASCE 24-05 Chapter 1).

7. Flood Release from Flood Management Division

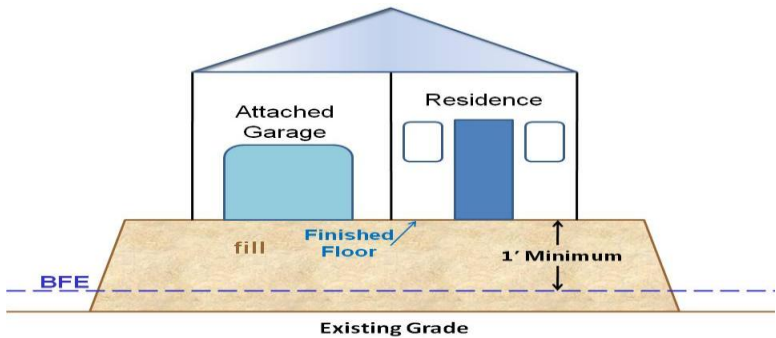
- Building Permits issued within SFHAs require a Flood Release. The Flood Release verifies that the structure has been built in compliance with SFHA requirements, and is required before the final building inspection can be scheduled. To obtain a Flood Release, all necessary documents (Elevation Certificate, Declaration of Restrictions) must be submitted and verified through a field inspection by the Flood Management Division,.

8. Flood Insurance Considerations

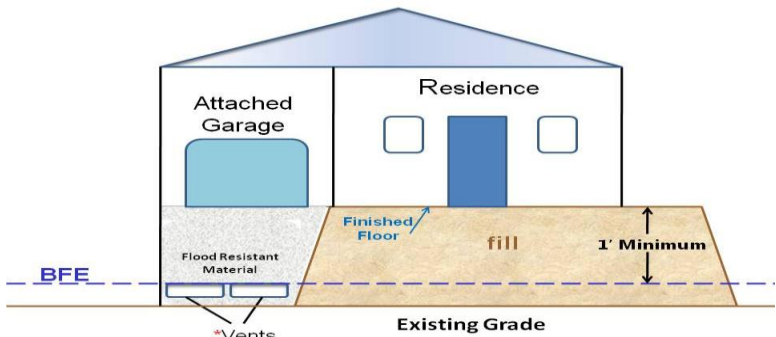
- The purchase of flood insurance is mandatory as a condition of receipt of federal or federally-related financial assistance for the acquisition or construction of buildings in SFHAs. Check with your lender to determine if mandatory flood insurance purchase requirements will apply.
- Flood insurance premiums can be reduced by elevating the finished floor above the minimum requirements. Elevating the finished floor two or three feet above the base flood elevation can reduce the cost of flood insurance by several hundred dollars annually, as well as provide additional protection from flooding.
- Structures elevated entirely on earthen fill may apply for a Letter of Map Revision Based on Fill (LOMR-F) from FEMA. If granted, the LOMR-F legally removes the structure from the SFHA and federal mandatory flood insurance requirements no longer apply (lenders may, at their

discretion, still require flood insurance as a condition of the loan). For more information on submitting an application for a LOMR-F see FEMA form MT-1.

Common Elevation Methods



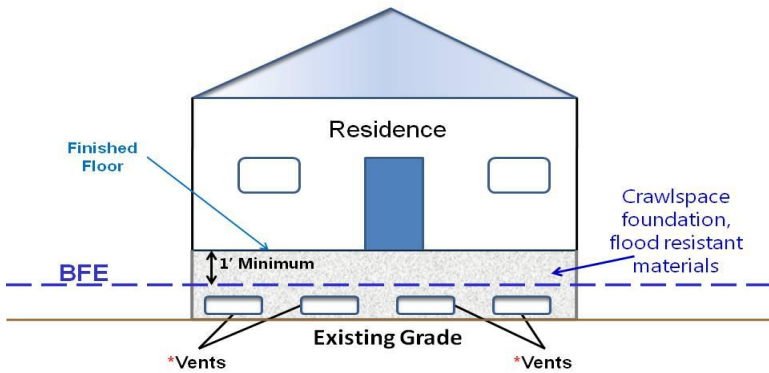
1. Entire structure elevated on earthen fill



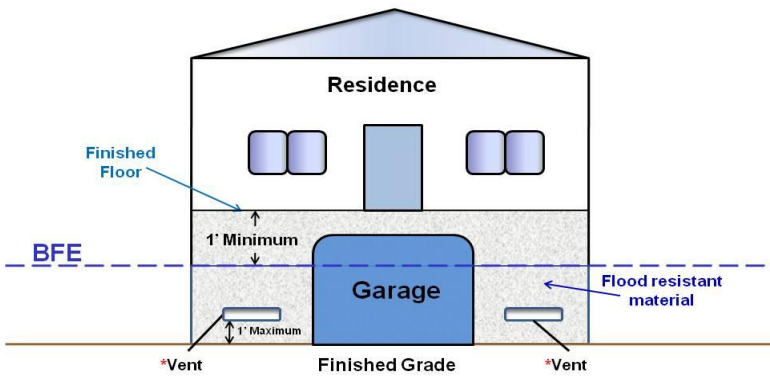
2. Main structure elevated on earthen fill, attached garage below BFE.



3. Manufactured home, non-engineered foundation



4. Structure elevated on crawlspace foundation



5. Residence elevated above garage.

***NOTE:** Vents shall be no higher than one (1) foot above finished grade.

Acronyms & Definitions

ASCE	American Society of Civil Engineers
*BFE	The computed elevation to which floodwater is anticipated to rise during the base flood is the <u>Base Flood Elevation</u> (BFE).
FEMA	Federal Emergency Management Agency
Flood Release	Final verification that the permitted activity is in compliance with the SFHA Requirements, permitting final inspection.
FM-1	Preliminary Elevation Certificate
Floodway	The channel of a river or other watercourse and the adjacent land areas that are reserved in order to discharge the 1% annual chance (100-year) flood without cumulatively increasing the water surface elevation more than one (1) foot; or other areas designated by FEMA or the Central Valley Flood Protection Board.
MHP	Mobile Home Park
*SFHA	The land area covered by the floodwaters of the base flood is the <u>base floodplain</u> . On NFIP maps, the base floodplain is called the <u>Special Flood Hazard Area</u> (SFHA).
*100-year flood	The one-percent annual chance flood is also called the <u>100-year flood</u> because the Inverse of one percent (one divided by one percent or 0.01) equals 100. This calculation gives us the flood's recurrence interval, in terms of probability, which is 100 years.

* National Flood Insurance Program (NFIP), Floodplain Management Requirements, FEMA 480, February 2005

Links to Additional Resources:

San Joaquin County Development Title 9-1605 www.sjgov.org

ASCE 24-05 Flood Resistant Design and Construction www.asce.org

FEMA Technical Bulletin 1-93 Openings in Foundations www.fema.gov

FEMA Technical Bulletin 2-93 Flood Resistant Materials www.fema.gov



For additional information and links to booklets, bulletins, handouts, or other flood related information, visit our website at: www.sjgov.org/pubworks, or contact the San Joaquin County Department of Public Works, Flood Management Division at (209) 468-3060. You can also send an email to: floodmanagement@sjgov.org or write to us at:

NOTE: This handout is NOT a substitute for San Joaquin County Ordinance. For more detailed information please, refer to San Joaquin County Development Title Chapter 9-1605.

Revised: 06.15.09
Printed: 7.7.2009

Purpose of this document: To assist certified civil engineers and licensed land surveyors in the completion of the San Joaquin County Flood Management FM-1/1M Preliminary Elevation Certificate.

1. The top section is to be filled out and signed by Flood Management staff and signed by staff.

2a. The second section, left side block, Main Structure / Addition, is filled out by the licensed land surveyor or certified civil engineer.

- The Original Lowest Immediate Adjacent Elevation is the lowest elevation within or immediately adjacent to the footprint of the proposed structure.
- Fill Material or Fill Structure is the elevation change caused by fill material or proposed structure used to bring the structures finished floor above the Base Flood Elevation. Please check the correct term when filling out the form. If neither applies insert zero on line.
- Minimum Finished Floor Elevation is the minimum elevation of the finished floor as required by San Joaquin County Ordinance. This is copied from the top section.

To calculate the Difference the certifier adds the Lowest Immediate Grade Elevation to the Fill Material / Fill Structure and subtracts the Minimum Finished Floor Elevation. A negative number indicates the finished floor will be below the base flood elevation. San Joaquin County Ordinance requires the finished floor to be a minimum of 1 (one) foot above the Base Flood Elevation for habitable space.

2b. The second section, right side block, Main Structure or Residence, is filled out by the licensed land surveyor or certified civil engineer.

- The Original Lowest Immediate Adjacent Elevation is the lowest elevation within or immediately adjacent to the proposed structure.
- Fill Material or Fill Structure is the elevation change caused by fill material or proposed structure used to bring the sub structure at or above the Base Flood Elevation. Please check the correct term while filling out the form. If neither applies insert zero on line.
- Minimum M/H Substructure Elevation is the minimum elevation of the substructure not requiring an engineered foundation as required by San Joaquin County Ordinance. This is copied from the top section.
- If you wish to have your foundation located below the base flood elevation. The minimum flood water velocity for the calculations required in ASCE 24-05 is five feet per second.

To calculate the Difference the certifier adds the Lowest Immediate Grade Elevation to the Fill Material / Fill Structure and subtracts the Minimum Manufactured Home Sub-structure Elevation. A negative number indicates the sub-structure will be below the Base Flood Elevation. San Joaquin County Ordinance requires non-engineered foundations to be at or above the base flood elevation for habitable space.

3. The third section, Water Tank / Equipment, is also filled out by the licensed land surveyor or certified civil engineer.

- The Original Lowest Immediate Adjacent Elevation is the lowest elevation within the confines or immediately adjacent to the proposed water tank pad.
- Fill Material or Fill Structure is the elevation change caused by proposed fill material or proposed structure used to bring the tank above the Base Flood Elevation. Please check the correct term when filling out the form. If neither applies insert zero on line.
- Minimum Equipment Elevation is the minimum unrestrained elevation of the tank as required by San Joaquin County Ordinance. This is copied from the top section.
- If the Water Tank is preexisting or none will be placed on site leave this section blank and check the **Preexisting** or **None** box and the applicable term while filling out the form, or if neither insert zero on line. Minimum Equipment Elevation is the minimum unrestrained elevation of the tank as required by San Joaquin County Ordinance. This is copied from the top section.

To calculate the Difference the certifier adds the Lowest Immediate Grade Elevation to the Fill Material / Fill Structure and subtracts the Minimum Equipment Elevation. A negative number indicates the tank will be below the Base Flood Elevation, requiring the Tank to be anchored. as per ASCE 24-05.

4. The fourth section, **Propane / Butane / Fuel Tank**, is also filled out by the licensed land surveyor or certified civil engineer.

- The Original Lowest Immediate Adjacent Elevation is the lowest elevation within the confines or immediately adjacent to the proposed tank pad.
- Fill Material / Fill Structure is the elevation change caused by fill material or proposed structure used to bring the tank above the Base Flood Elevation. Please circle the correct term while filling out the form. If neither applies insert zero on line.
- Minimum Equipment Elevation is the minimum unrestrained elevation of the tank as required by San Joaquin County Ordinance. This is copied from the top section.
- If the Tank is **Preexisting** or **None** will be placed on site, leave this section blank and check the *Preexisting/None* box. and circle the applicable term.

To calculate the Difference the certifier adds the Lowest Immediate Grade Elevation to the Fill Material / Fill Structure and subtracts the Minimum Equipment Elevation. A negative number indicates the tank will be below the Base Flood Elevation, requiring the tank to be anchored, as per ASCE 24-05

5. The bottom section is for the Certifier to complete and to wet stamp in the **Place Seal Here** block.

Owner must sign at bottom of form once it has been completed by the certifier.

Flood Control Preliminary Elevation Certificate

FM-1/1M



1. APN _____

Date _____

Check Form Used

Flood Zone _____

FM-1 ☐FM-1M ☐

Base Flood Elevation _____

Datum _____

Minimum M/H Substructure Elevation _____

Minimum Equipment Elevation _____

Minimum Finished Floor Elevation _____

Signature _____

The information below must be signed and sealed by a licensed land surveyor or qualified civil engineer authorized by law to certify elevation information. I certify that the information on this sheet represents my best effort to interpret the data available. *(See FM-1/1M Instruction Sheet on how to fill out this form.)*

Main Structure / Residence / AdditionPre-Exist ☐**2a.**

Original Lowest _____

Adjacent Elevation _____

Fill Material/Structure _____

Minimum Finished Floor
Elevation _____Difference ☐ Datum _____**2b. (Complete this section for Manufactured Structures)**

Original Lowest _____

Adjacent Elevation _____

Fill Material/Structure _____

Minimum Mobile Home
Substructure Elevation _____Difference **3. Water Tank / Equipment**
☐ Pre-Existing
☐ None

Original Lowest Immediate Adjacent E _____

Fill Material/Structure _____

Minimum Equipment Elevation _____

Difference **4. Propane / Butane / Fuel Tank**
☐ Pre-Existing
☐ None

Original Lowest Immediate Adjacent E _____

Fill Material/Structure _____

Minimum Equipment Elevation _____

Difference **5. Certifiers Name**

Company Name

Title

License Number

Address

City

State

Zip Code

Telephone

Cell

Signature

Date

PLACE SEAL HERE

Owner Signature _____ Date _____

7/13/2009

F E M A Elevation Certificate is required prior to final

Questions?, Call (209) 953-7612

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Purpose of this document: To assist certified civil engineers and licensed land surveyors in the completion of the San Joaquin County Flood Management FM-1 AO / 1M AO Preliminary Elevation Certificate.

1. The top section is to be filled out and signed by Flood Management.

2a. The second section, Main Structure / Residence / Addition, is filled out by the licensed land surveyor or certified civil engineer.

- The *Highest Original Immediate Adjacent Elevation* is the highest elevation within the confines, or is adjacent to the proposed structure.
- *Depth of Fill Material/Fill Structure* is the elevation change caused by fill material or proposed structure used to bring the structures finished floor above the *Base Flood Elevation*. Please circle the correct term when filling out the form, or if neither, insert zero on line.
- *Minimum Finished Floor Elevation* is the minimum elevation of the finished floor *Above Highest Original Immediate Adjacent Grade* as required by the San Joaquin County Ordinance. This is copied from the top section.

The difference is calculated by subtracting the *Minimum Finished Floor Elevation* from *Depth of Fill Material / Fill Structure*.
A negative number indicates the finished floor will be below the *Base Flood Elevation*

2b. The second section, right side block, Main Structure / Residence, is filled out by the licensed land surveyor or certified civil engineer.

- The *Highest Original Immediate Adjacent Elevation* is the highest elevation within or immediately adjacent to the proposed structure.
- *Fill Material / Fill Structure* is the elevation change caused by fill material or proposed structure used to bring the sub structure at or above the *Base Flood Elevation*. Please check the correct term while filling out the form. If neither applies insert zero on line.
- *Minimum M/H Sub-structure Elevation* is the minimum elevation of the substructure not requiring an engineered foundation as required by San Joaquin County Ordinance. This is copied from the top section.
- If you wish to have your foundation located below the base flood elevation. The minimum flood water velocity for the calculations required in ASCE 24-05 is five feet per second.

The difference is calculated by subtracting the *Highest Original Immediate Adjacent Grade Elevation* from the *Fill Material / Fill Structure* and subtracts the *Minimum Manufactured Home Sub-structure Elevation*. A negative number indicates the sub-structure will be below the Base Flood Elevation. San Joaquin County Ordinance requires non-engineered foundations to be at or above the base flood elevation for habitable space.

3. The third section, Water Tank / Equipment, is filled out by the licensed land surveyor or certified civil engineer.

- The *Highest Original Immediate Adjacent Elevation* is the highest elevation within the confines, or is adjacent to the proposed water tank/equipment pad.
- *Depth of Fill Material or Fill Structure* is the elevation change caused by fill material or proposed structure used to bring the tank/equipment above the *Base Flood Elevation*.
- Please circle the correct term when filling out the form, or if neither, insert zero on line.
- *Minimum Equipment Elevation* is the minimum unrestrained elevation of the tank/equipment as required by the San Joaquin County Ordinance. This is copied from the top section.
- If the water tank/equipment is preexisting or None will be place on site, leave this section blank and check the **Pre-Existing** or **None** box.

The difference is calculated by subtracting the *Minimum Equipment Elevation*. from *Depth of Fill Material / Fill Structure*. A negative number indicates the finished floor will be below the *Base Flood Elevation*. San Joaquin County Ordinance requires the tank to be anchored.

4. The fourth section, **Propane / Butane / Fuel Tank / Equipment**, is filled out by the licensed land surveyor or certified civil engineer.

- The *Highest Original Immediate Adjacent Elevation* is the highest elevation within the confines, or is adjacent to the proposed tank pad.
- *Depth of Fill Material / Fill Structure* is the elevation change caused by fill material or proposed structure used to bring the tank above the Base Flood Elevation.
- Please circle the correct term when filling out the form, or if neither, insert zero on line.
- *Minimum Equipment Elevation* is the minimum unrestrained elevation *Above Highest Original Immediate Adjacent Grade* of the tank as required by San Joaquin County Ordinance. This is copied from the top section.
- If the Water Tank **is** preexisting or will be place on site, leave this section blank and check the **Pre-Existing** or **None** box.

The difference is calculated by subtracting the *Minimum Equipment Elevation*. from *Depth of Fill Material / Fill Structure*. A negative number indicates the finished floor will be below the *Base Flood Elevation*. San Joaquin County Ordinance requires the tank to be anchored.

5. The **bottom** section is for the certifier to complete and to wet stamp in the **Place Seal Here** block.

Owner must sign at bottom of form once it has been completed by the certifier.

Flood Control Preliminary Elevation Certificate

FM-1 AO/1M AO



1. APN _____	Date _____	Check Form Used
Flood Zone _____		FM-1 AO <input type="checkbox"/> FM-1 AO M <input type="checkbox"/>
Base Flood Elevation or Depth <i>(Circle one)</i> _____		Above Highest Original Immediate Adjacent Grade
Minimum M/H Substructure Elevation _____		Above Highest Original Immediate Adjacent Grade
Minimum Equipment Elevation _____		Above Highest Original Immediate Adjacent Grade
Minimum Finished Floor Elevation _____		Above Highest Original Immediate Adjacent Grade* (AHOIAG)*
Signature _____		

The information below must be signed and sealed by a licensed land surveyor or qualified civil engineer authorized by law to certify elevation information. I certify that the information on this sheet represents my best effort to interpret the data available. *(See instruction sheets for details on completing this form).*

Main Structure / Residence / Addition

2a.	Datum _____	AHOIAG <input type="checkbox"/>	2b.	Datum _____	AHOIAG <input type="checkbox"/>
Original Highest Adjacent El. _____			Original Highest Adjacent El. _____		
Depth of Fill Material/Structure _____ <i>(Circle one)</i>			Depth of Fill Material/Structure _____ <i>(Circle one)</i>		
Min. Finished Floor El. _____			Min. M/H Substructure El. _____		
Difference 			Difference 		
			<i>(Complete this section for Manufactured Structures)</i>		

3. Water Tank / Equipment	Datum _____	<input type="checkbox"/> Preexisting <input type="checkbox"/> None
Original Highest Immediate Adj. Elev. _____		
Depth of Fill Material/Structure _____ <i>(Circle one)</i>		
Minimum Equipment Elevation _____		
Difference 		

4. Propane / Butane / Fuel Tank	Datum _____	<input type="checkbox"/> Preexisting <input type="checkbox"/> None
Original Highest Immediate Adj. Elev. _____		
Depth of Fill Material/Structure _____ <i>(Circle one)</i>		
Minimum Equipment Elevation _____		
Difference 		

5. Certifiers Name	Company Name	PLACE SEAL HERE
Title	License Number	
Address		
City	State Zip Code	
Telephone	Cell	
Signature	Date	

Owner Signature _____ Date _____

The purpose of these instructions is to aid San Joaquin County residents that need to record a Declaration of Restrictions prior to scheduling a final inspection.

No modifications shall be made to the Declaration of Restrictions other than filling in the provided blank spaces. San Joaquin County Flood Management will not accept a modified Declaration of Restrictions.

First page

1. Under the Title, first blank is the date the Declaration is recorded at the San Joaquin County Recorder's Office.
2. The second blank (The one on the second line of the first paragraph) is the name of the property owner(s).
3. The first blank in the third paragraph is for the correct address of the structure, if one has been assigned. If no address has been assigned to the structure the address of the main structure on the parcel is placed in the blank.
4. The second blank in the third paragraph is to be filled with the San Joaquin County Assessor's parcel number.
5. End of the third paragraph reference is made to Exhibit "A". Exhibit "A" is a copy of the current *Deed* for the property on which the structure is built. Clearly mark the deed as Exhibit "A" prior to recordation and temporally attach to the back of the Declaration of Restrictions.
6. The fourth paragraph makes reference to Exhibit "B". Exhibit "B" is a site plan on an 8.5 by 11 inch sheet of paper showing the parcel and all structures on the parcel with the structure or addition for which the Declaration of Restrictions is required clearly delineated. Clearly mark the site plan as Exhibit "B" prior to recordation and temporarily attach to the back of the Declaration of Restrictions.

Third page

1. The first blank below the "IN WITNESSOF" paragraph is for the signature of the Declarant (Owner of the property).
2. The second blank below the "IN WITNESSOF" paragraph is for the printed/typed name of the Declarant.
3. The third and fourth blanks under the "IN WITNESSOF" paragraph are for the address of the Declarant.
4. Below the area called "DECLARANTS" is where any additional signatures, names and addresses should be placed. If additional space is needed, use a separate sheet.

Fourth page

1. The fourth page is used by the San Joaquin County Recorders office.

Take the completed and notarized form to the San Joaquin County Recorder's Office.

Information Sheet for Parcels Bisected by Special Flood Hazard Areas

2009

The purpose of this information is to help the San Joaquin County citizens in their efforts to apply for a building permit for a property that is partially covered by a Special Flood Hazard Area (SFHA), and the proposed structure is in close proximity to the flood hazard area.

Proposed structures that are known to be within a SFHA do not need to meet these requirements.

The map/site plan shall be drawn by a licensed land surveyor or civil engineer.

The property lines, waterways, levees, existing and proposed structure locations, and all SFHAs that are located on the property shall be delineated and certified (wet stamped).

The drawings shall be drawn using CAD software on a standard 24 inch by 36 inch sheet. Number of copies and formatting as follows:

AGRICULTURAL/RESIDENTIAL

- San Joaquin County Community Development Department requires two (2) copies of the site plans for agricultural or residential permits.
- One electronic (1) copy of the site plan is kept by owner of the property for their records.
- One (1) copy of site plan, in PDF format, is to be submitted to San Joaquin County Department of Public Works, Flood Management on a disc (CD) for our records.

COMMERCIAL

- San Joaquin County Community Development Department requires three (3) copies of the site plan are required for commercial or industrial permits.
- One (1) copy of site plan is kept by owner of the property for their records.
- One electronic (1) copy of site the plan, in PDF format, is to be submitted to San Joaquin County Department of Public Works, Flood Management on a disc (CD) for our records.

Substantial Improvement of Residential Buildings in Special Flood Hazard Areas

(This general Information may not apply to all situations.)

General Information

1. **Lateral additions or renovations** to structures built with finished floor elevations below the BFE are limited in size and scope by the substantial improvement rule before the finished floor of the structure must be elevated to one (1) foot above the BFE to meet current floodplain management standards.
2. **The substantial improvement rule** states that if the cost of the improvement project equals or exceeds 50% of the market value of the structure, the structure must be elevated to meet current floodplain management standards. (See NFIP Floodplain Management Requirements, 44 CFR 59.1.1)
3. **To determine if the proposed project is a substantial improvement** the residential building record, the construction cost estimate, and an appraisal of the structure should be submitted to Flood Management.

Residential Building Record:

1. **The residential building record** for the property must be requested from the County Assessor using a letter provided by Flood Management.
2. **Only building records hand-delivered** by assessor personnel or faxed directly to Flood Management will be accepted.

Construction Estimate:

1. **A construction cost estimate** completed and signed by a licensed contractor, on the contractor's letterhead, must be submitted to Flood Management.
2. **The estimate must be detailed and itemized**, listing labor and material costs on separate lines and itemizing at least each major element of the construction. (See reverse side for Detailed Project Cost List for Substantial Improvement Analysis).
3. **The estimate must include all costs** to complete the project, to include finish work. (See attachment 2).
4. **Donated labor and materials** must be included in the estimate with a cost reflecting their market value.

Appraisal of Structure:

1. **If the cost of the improvement** appears to be nearing 50 percent of the structure's market value, Flood Management may request an appraisal of the structure, completed by a licensed appraiser, to obtain an accurate market value of the structure.
2. **The appraisal should pertain only to the structure.** The value of the land, detached buildings and landscaping should be excluded from the appraisal. Any value resulting from the location of a property should be attributed to the value of the land and not the structure. See attachment 2 for a full list of excluded items.

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, and siding) including painting and moldings
- Windows and doors
- Re-shingling or retiling 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 structure components

Labor and other costs associated with moving or altering undamaged building components to accommodate improvement 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