

300 PUBLIC INFORMATION ACTIVITIES

The Community Rating System (CRS) will credit those local activities that advise people about the flood hazard, flood insurance, and flood protection measures. The activities can be directed toward floodplain residents, property owners, insurance agents, real estate agents, or other segments of the local populace. One activity, 310 (Elevation Certificates), is mandatory for CRS classification.

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301 Definition of “Building”

For the purpose of determining CRS impact adjustment ratios, a “building” is a walled and roofed structure, principally above ground and affixed to a permanent site. The term includes a manufactured (mobile) home on a foundation. “Walled and roofed” means that a building has two or more rigid exterior walls in place and is adequately anchored. “Principally above ground” means that at least 51% of the actual cash value of the building is above ground. The term is the same as “structure” in the National Flood Insurance Program (NFIP) regulations (44 *CFR* 59.1).

The key determinant is whether the building is insurable. It must meet the following criteria, which are taken from the Glossary in the NFIP’s *Flood Insurance Manual* for insurance agents:

A building is a walled and roofed structure, other than a gas or liquid storage tank, that is principally above ground and affixed to a permanent site; including a building in the course of construction, alteration or repair and a manufactured (mobile) home on a foundation.

“Walled and roofed” means it has in place two or more exterior rigid walls and the roof fully secured so that the building will resist flotation, collapse, and lateral movement.

“Principally above ground” means at least 51 percent of the actual cash value of the structure, including machinery and equipment, less land value, is above ground.

“Manufactured (mobile) home” is a building transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term does not include a “recreational vehicle.”

This definition is used to determine whether a structure is a building.

Examples of structures that are NOT counted as buildings include open pavilions for picnic tables; bleachers; carports with open sides; underground pumping stations; and sheds on skids that are moved to different construction sites.

Accessory structures are not included when counting buildings for calculating impact adjustments.

For example, a house with a detached garage and shed is counted as one building. The flood insurance policy is based on the elevation of the home. However, if a lot has several principal buildings, each is counted separately because each is normally insured under a separate policy. For example, a motel with three principal buildings is counted as three buildings. If one of the three buildings is an unheated bathhouse for the swimming pool and houses only showers, chemicals, and cleaning supplies, the motel would be counted as two buildings.

A “pre-FIRM building” is a building constructed or substantially improved on or before December 31, 1974, or before the effective date of the initial Flood Insurance Rate Map (FIRM) of the community, whichever is later.

The date of the initial FIRM can be found in the FIRM’s legend under “Flood Insurance Rate Map Effective.” It is usually not the same as the “initial identification” date, which is the date of the community’s first Flood Hazard Boundary Map. Post-FIRM buildings are required to meet the NFIP’s minimum Regular Program flood protection standards.

A “post-FIRM building” is a building constructed or substantially improved after December 31, 1974, or after the effective date of the initial FIRM of the community, whichever is later.

302 Impact Adjustment for Buildings

Most elements in Activities 310 (Elevation Certificates), 520 (Acquisition and Relocation), 530 (Flood Protection), 610 (Flood Warning Program), 620 (Levee Safety), and 630 (Dam Safety) do not affect all of the buildings that could benefit from them. Credit for these elements is adjusted according to the number of buildings that are actually affected.

In order to measure the impact of elements in Activities 310, 520, 530, 610, 620, and 630, the community must determine the portion of its floodprone buildings affected by each element.

Sections 302 and 303 discuss determination of the impact adjustment ratios for the following activities:

- 310 (Elevation Certificates)
- 520 (Acquisition and Relocation)
- 530 (Flood Protection)
- 610 (Flood Warning Program)
- 620 (Levee Safety)
- 630 (Dam Safety)

Impact adjustment ratios are variables with a lower case “r” preceding the acronym for the element.

Example 302-1. The acronym for elevation certificates for post-FIRM buildings is “ECPO.” The impact adjustment ratio for ECPO is “rECPO.”

A few elements do not have impact adjustment ratios. These elements are assumed to be effective throughout the community. In some cases, credit is provided ONLY if they are implemented throughout the community.

In Activity 320 (Map Information Service), credit is provided for providing map data to any inquirer about a location anywhere in the community. Because map information must be provided throughout the community, there is no impact adjustment for Activity 320.

A community has three options for determining the value of most of the impact adjustment ratios that are based on numbers of buildings. A community may use one option for some elements and another option for other elements.

- a. (Option 1) Where an element is effective throughout the area of the denominator, the impact adjustment ratio = 1.0 for that element.

If an element is effective for all buildings that could be affected by that element, it is unnecessary to count the number of buildings affected. Elements in Activity 610 (Flood Warning Program) are likely to have impact adjustment ratios of 1.0.

Example 302.a-1. Someburg has elevation certificates for all post-FIRM buildings in the Special Flood Hazard Area (SFHA): rECPO = 1.0.

- b. (Option 2) If a community implements an element that affects some, but not all, of its floodprone buildings, then it may use a “default” option. The minimum number of buildings affected and the impact adjustment ratio varies from activity to activity.

In Activity 310 (Elevation Certificates), Option 2 can be used if the element affects at least 25% of the buildings constructed during the relevant time period. The default impact adjustment ratio for Option 2 for Activities 310, 610 (Flood Warning Program), and 630 (Dam Safety) is 0.25. The default option works differently in Activities 520 (Acquisition and Relocation), 530 (Flood Protection), and 620 (Levee Safety).

Example 302.b-1. Someburg has elevation certificates on at least 25% of its pre-FIRM buildings: rECPR = 0.25.

c. (Option 3) The value of an impact adjustment ratio is determined by dividing the number of buildings affected by an element (the numerator) by the appropriate denominator. The denominator for the elements in each activity is specified in the Impact Adjustment section for the activity.

For each element with an impact adjustment ratio based on buildings, the numerator is the number of buildings affected by the element, and is designated by a lower case “b” followed by the acronym for that element. The total number of buildings that could be affected by the element is the denominator.

In each activity listed above, there is an Impact Adjustment section. The denominator and formulae for impact adjustment ratios for each element in that activity are listed in that section.

Example 302.c-1. See Section 312.c. Credit for maintaining pre-FIRM elevation certificates (ECPR) is adjusted according to the number of buildings with elevation certificates (bECPR). The denominator for rECPR is bPR, the total number of pre-FIRM buildings in the SFHA.

$$\text{rECPR} = \frac{\text{bECPR}}{\text{bPR}}$$

Someburg counts 400 pre-FIRM buildings in the SFHA: bPR = 400. It has elevation certificates on 260 of them: bECPR = 260.

$$\text{rECPR} = \frac{260}{400} = 0.65$$

In this case, Someburg could use either Option 2 or Option 3. Option 2 is easier to calculate because there is no need to count buildings. However, Option 3’s ratio of 0.65 is greater than Option 2’s 0.25, so Someburg would receive more points by using Option 3. If Someburg had elevation certificates for less than 25% of its pre-FIRM buildings, it could only use Option 3.

In summary, the impact adjustment ratios based on the number of buildings affected may be determined in two ways. If all buildings in the denominator are affected by an element, the impact adjustment ratio for that element is 1.0. Otherwise, the number of buildings in both the numerator and denominator must be counted to determine the impact adjustment ratio.

303 Counting Buildings

- a. “bSF” is the acronym for the number of buildings within the SFHA. For CRS purposes, AR and A99 Zones are not considered SFHA. The following methods are acceptable for determining bSF.
1. If the community has records of all pre-FIRM and all post-FIRM buildings in its floodplains, a count of the number of permits will suffice;
 2. Community staff may count the number of buildings using recent aerial photographs of the floodplains; or
 3. Community staff may travel through the floodplains and count the number of buildings.

Communities applying for CRS credit for elements that are adjusted according to the portion of buildings affected by that element must determine the number of buildings for both the numerator and the denominator. Although CRS applicants may consider this a heavy burden, they are reminded that determining the number of buildings in the SFHA is required in the biennial report to the Department of Homeland Security’s Federal Emergency Management Agency (FEMA). Many communities ignore this requirement, leaving the previous building count unchanged for years or decades. A community that counts buildings to determine CRS credit is urged to correct the building counts on its next biennial report.

- b. To determine building counts for elements and for denominators that do not include all of the SFHA, communities may use any method that yields reasonably good estimates of the number of buildings.

Building counts should be accurate so they will provide the most useful information for both CRS and community planning. Two acceptable methods are:

- Using U.S. Census tract data to estimate the number of buildings; and
- Using the number of utility connections in an area as an estimate of the number of buildings.

Communities are required to document how they obtained their estimates.

The number of post-FIRM buildings, bPO, should be the easiest number to obtain because the NFIP requires the community to keep permit records on all floodplain construction since the effective date of the FIRM.

c. For CRS purposes, a community may determine bSF in one of two ways:

1. bSF = the number of buildings in the community's Special Flood Hazard Area (SFHA) as of the date of application for a CRS classification; or

2. bSF = bPR + (0.6 x bPO), where

bPR = the number of pre-FIRM buildings in the SFHA, and

bPO = the number of post-FIRM buildings in the SFHA.

This approach more accurately reflects the activity's influence on the pre-FIRM and post-FIRM flood insurance premium bases in the community.

bPR, bPO, and bSF do not include buildings located outside of the SFHA as shown on the FIRM in effect on the date of application. They do not include buildings located in the B, C, D, or X Zones, even though the community may be regulating flood problem areas in those zones.

Communities with a small number of post-FIRM buildings will probably find it easier to use the first formula for bSF, i.e., all buildings in the SFHA are counted the same.

Communities with a lot of recent development and a high percentage of post-FIRM buildings will find that the second formula results in a smaller bSF. This will yield more points for the activities that use bSF.

310 ELEVATION CERTIFICATES

Summary of Activity 310

311 Credit Points. There are four elements in this activity for a maximum of 162 points.

- a. Maintaining elevation certificates (EC): Up to 56 points are provided for maintaining FEMA elevation certificates on all buildings built in the Special Flood Hazard Area (SFHA) after the date of application to the CRS. All communities applying to the CRS must apply for this element. The community must make copies of the certificates available to all inquirers. The FEMA elevation certificate is shown in Figure 310-2.
- b. Maintaining elevation certificates for post-FIRM buildings (ECPO): Up to 56 points are provided for maintaining elevation certificates on buildings built before the date of application to the CRS but after the initial date of the Flood Insurance Rate Map (FIRM).
- c. Maintaining elevation certificates for pre-FIRM buildings (ECPR): Up to 15 points are provided for maintaining elevation certificates on buildings built before the initial date of the FIRM.
- d. Maintaining elevation certificates in computer format (ECCF): Up to 15 points are provided if the elevation certificate data are kept and made available in computer format. A free elevation certificate computer program may be ordered (see Appendix E).
- e. Maintaining elevation certificate data on a website (ECWS): Up to 20 points are provided for putting elevation certificate data on a publicly accessible website.

312 Impact Adjustment. The credit points for the last four elements are adjusted in one of three ways. There is no impact adjustment for EC.

- a. Under Option 1, where there are elevation certificates on all buildings that could have them, the impact adjustment ratio is 1.0.
- b. Under Option 2, where there are elevation certificates on at least 25% of all buildings that could have them, the impact adjustment ratio is 0.25.
- c. Under Option 3, the impact adjustment ratios reflect the proportion of buildings that have elevation certificates.

313 Credit Calculation. The credit points for each element are multiplied by the impact adjustment ratios.

314 Credit Documentation. The community must have the following available to verify implementation of this activity:

- a. [If applying for ECPO or ECPR and the community used a form different from FEMA's] A copy of the elevation certificate form and documentation that FEMA has approved the community's form.
- b. [If applying for ECCF credit] A copy of the computer format (if it is different from the software listed in Appendix E).
- c. Copies of all completed elevation certificates that the community wants credited for EC, ECPR, or ECPO. Sample copies of the digital or website versions will be collected to document credit for ECCF and ECWS.
- d. [If applying for ECWS credit] The website address.
- e. Documentation showing how the impact adjustments were determined.
The community must submit the following with its annual CRS recertification.
- f. [If applying for ECCF credit] A disk with the previous year's elevation certificate data.

315 For More Information.

310 ELEVATION CERTIFICATES

Background: According to insurance agents, one of the greatest impediments to selling flood insurance is the difficulty of obtaining accurate flood insurance rating zone and building elevation data. All of the technical data an agent needs should be recorded on the Department of Homeland Security's Federal Emergency Management Agency (FEMA) elevation certificate. The National Flood Insurance Program (NFIP) requires communities to maintain records of the elevations of new buildings and substantial improvements, but not necessarily on FEMA's forms.

The NFIP requirement for maintaining a record of the elevation of the lowest floor of any new building or substantial improvement built in the Special Flood Hazard Area (SFHA) is described in the *Code of Federal Regulations* (44 *CFR* 60.3(b)(5)(iii)). It states that the community must "maintain a record," but it does not specify a format for the record. Many communities already use FEMA elevation certificates. The latest version of FEMA's form and instructions for it are shown in Figures 310-2a through k.

In 44 *CFR* 59.22(a)(9)(iii), the NFIP also requires that communities make their elevation and related building information available for public inspection and flood insurance rating. Because the NFIP does require insurance agents to use the FEMA form, their jobs are much easier when that form is readily available from the local building department. The information supplied with flood insurance applications is usually more accurate when the form is prepared at the time of construction by someone familiar with the NFIP.

Use of the FEMA form also serves as a reminder to the local building officials of their obligations to the NFIP and of the availability of flood insurance. Therefore, this activity works toward all three Community Rating System (CRS) goals: reducing flood losses, facilitating accurate flood insurance rating, and promoting the awareness of flood insurance.

Almost all buildings built to meet NFIP criteria are raised so the lowest floor is at or above the base flood elevation, but some non-residential buildings are floodproofed. The NFIP rules (44 *CFR* 60.3(c)(4)(ii)) require the community to keep floodproofing records. An example of the latest version of FEMA's floodproofing certificate (FEMA Form 81-65) is shown in Figure 310-5.

Communities that have received a residential basement floodproofing exception must use FEMA's residential basement floodproofing certificate (FEMA Form 81-78) where applicable. An example of this form and the communities approved to use it are included in Figures 310-6 and 310-7, respectively.

Activity Description: Credit is provided if the community maintains FEMA elevation certificates for new and substantially improved construction. To participate in the CRS, a community must maintain completed FEMA elevation certificates on all buildings con-

structed, substantially improved, or placed in the SFHA after its initial date of application for the CRS. The community must agree to use the certificate and make copies available to any inquirer. All discussions about elevation certificates also apply to FEMA's floodproofing certificate and the residential basement floodproofing certificate.

Copies of the FEMA elevation and floodproofing certificates are available free in quantity from FEMA (see Section 315) and can be downloaded from FEMA's website at <http://www.fema.gov/nfip/elvinst.shtm>. Instructions are included with the forms.

Only the current FEMA form is acceptable. Local versions are no longer recognized for elevation certificates that were completed after October 1, 2000. A community may receive credit by transferring data from other forms onto a FEMA elevation certificate.

To receive a CRS classification, the community must start using the forms when it applies; so forms need to be kept only for buildings built or substantially improved after that date. Credit is also provided if the community had been using the forms since it joined the Regular Program or if it transferred post-FIRM building elevation data to the forms. Additional credit is awarded if the community provides certificates for pre-FIRM buildings or maintains the data in a computer format.

THE MINIMUM REQUIREMENT FOR THIS ACTIVITY IS THAT THE COMMUNITY MAINTAIN CERTIFICATES ON ALL NEW SFHA BUILDINGS AND SUBSTANTIAL IMPROVEMENTS PERMITTED AFTER THE COMMUNITY APPLIES FOR CRS CREDIT. Because the community's Chief Executive Officer (CEO) certifies in the application that it is doing this, the community will receive up to 56 points for EC (Elevation Certificates) under Section 311.a.

Those few NFIP communities which have no SFHA may not receive credit for this activity. Instead, the CEO must certify that the community has no SFHA and is therefore not applying for credit for this activity.

If a community with no SFHA is participating in the CRS and later receives a FIRM from FEMA that includes areas of SFHA, it must begin maintaining elevation certificates on the date of the FIRM or it will lose its CRS classification.

A community that has no SFHA at the time of its CRS application but later receives a FIRM and begins maintaining elevation certificates will receive credit for EC. It also may receive credit for maintaining post-FIRM elevation certificates (ECPO).

This activity is a minimum requirement for participation in the CRS. A verified EC score of 45 points or more is necessary to meet this requirement. If the verified score is less than 45, the CEO will be advised that the community will remain a Class 10.

During the community verification visit, the ISO/CRS Specialist will review a sample of elevation certificates as explained in Section 232. If the ISO/CRS Specialist finds that the community has not been maintaining the forms or has not been making copies available, the value for the element EC (Section 311.a) will be zero. If the ISO/CRS Specialist finds that some forms are not completed correctly, the points will be reduced. A verified score of less than 45 for EC will result in no credit for this activity. If the community does not receive any credit for this activity, it will remain a Class 10.

311 Credit Points

Maximum credit for Activity 310: 162 points.

Prerequisites: Credit for all elements in this activity is dependent on the following:

1. The community must maintain completed elevation certificates showing the “finished construction” elevations for all buildings constructed or substantially improved in the SFHA during the period credited;
2. The community must review the elevation certificates to ensure that the information is correct; and
3. The community must make copies of elevation certificates available to the property owners, their agents, and FEMA.

These three criteria must be met to receive full credit for each of the four elements. It is also recommended that a community publicize the availability of elevation certificates.

The community should develop procedures to ensure that the data are correct for each site. During the verification visit, the ISO/CRS Specialist will check for the following items on a sample of elevation certificates.

SECTION A—PROPERTY INFORMATION

- A 2. and A3. Complete street address or property description, city, state, zip code
- A7. Building diagram number
- A8. Enclosure and crawl space information (A8. a), b), and c))
- A9. Attached garage information (A9. a), b), and c))

SECTION B—FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

- B1. NFIP community name & community number
- B4. Map and panel number
- B5. Suffix
- B7. FIRM panel effective/revised date
- B8. Flood zone(s) in which the building is located
- B9. Base flood elevation(s)
- B10. The source of the Base Flood Elevation (BFE) data or base flood depth entered in B9.
- B11. The elevation datum used for the BFE in B9
- B12. Whether the building is located in a Coastal Barrier Resources System area or Otherwise Protected Area

SECTION C—BUILDING ELEVATION INFORMATION (when a survey is required)

- C1. Building elevations based on: Note: “Finished construction” must be checked unless the building is still under construction.
- C2. All items are required to have an entry. If the datum is different from the datum used for the BFE in Section B, the datum conversion must be recorded in this section or in Section D or G, as appropriate.

Elevation items a), f), and g) must be recorded on every certificate. If an item does not apply, enter “N/A” in the fields where no data are being supplied. If there are no flood vents, items h) and i) should have “0” entered.

Items b) and c) must be completed with an elevation if they are applicable and if that letter appears on the diagram on pages 6 and 7 of the instructions.

Where there is an attached garage, an elevation must be entered for item d), otherwise the entry is “N/A.” Where there is machinery and/or equipment that service the building, an elevation must be entered for item e), otherwise the entry is “N/A.”

SECTION D—SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

CERTIFIER’S NAME and LICENSE NUMBER

CERTIFIER’S SIGNATURE

The box at the end of Section D must have the certifier’s seal.

SECTION E—BUILDING ELEVATION INFORMATION (when a survey is not required in a Zone AO or a Zone A without a base flood elevation)

- E1. Building diagram number
- E2. The top of the bottom floor
- E3. For Building Diagrams 6—8 with openings (see page 7), the next higher floor or elevated floor (elevation b) of the building
- E4. Elevation of the top of the platform of machinery and/or equipment servicing the building in relation to the highest adjacent grade.
- E5. Zone AO (only) Elevation of bottom floor complies with the ordinance (if there is no base flood depth provided).

Note: If Section E is used, then Sections F or G must be completed.

SECTION F—PROPERTY OWNER (OR OWNER’S REPRESENTATIVE) CERTIFICATION

This section is used if Section E is completed by the owner or owner’s representative. If used, this section must include the property owner’s or representative’s name in the first line and the signature in the third line.

SECTION G—COMMUNITY INFORMATION

If G1 is checked, noting that the information in Section C was taken from another document, then the first and third lines after G9 (the local official’s name and signature) must be completed. If G2 is checked, noting that the local official completed Section E, then the first and third lines after G9 (the local official’s name and signature) must be completed. NOTE: If a local official, authorized by law to complete an elevation certificate, fills out ALL the information (including elevation data), then G8, G9, and the signature block must be completed.

If any of these items is not completed or correct, the ISO/CRS Specialist will adjust the element’s credit points. IF MORE THAN 20% OF THE SAMPLED ELEVATION CERTIFICATES HAVE ONE OR MORE OF THESE DEFICIENCIES, THE COMMUNITY WILL LOSE ITS CREDIT FOR THAT ELEMENT. LOSS OF CREDIT FOR THE FIRST ELEMENT, EC, MEANS THAT THE COMMUNITY MUST REMAIN A CLASS 10. NOTE THAT, ALTHOUGH ITEM A6. OF THE ELEVATION CERTIFICATE INSTRUCTIONS REQUIRES PHOTOS OF THE STRUCTURE, THAT IS A REQUIREMENT ONLY FOR PURCHASING FLOOD INSURANCE. PHOTOS ARE NOT REQUIRED FOR THE COMMUNITY’S PERMIT RECORDS NOR FOR CRS CREDIT.

It is the community's responsibility to ensure that the elevation certificates it maintains have been completed correctly. Certificates provided by surveyors must be proofread and corrected if there are errors or omissions.

Although the surveyed elevations are likely to be correct, it is not unusual for surveyors to enter the wrong FIRM date or diagram number or not complete all the entries in Section C3. If there are certificates that have some of the above items omitted or incorrectly filled out, the community has the following options:

1. For any inaccurate or incomplete information in Sections C3a)–d), f), or g), the local official should request a new certificate.
2. The local official can do the following if incomplete or inaccurate information is found in Sections A, B, or C1–3e), h) and i). The local official should not mark up the form with the correct information.
 - a) The forms may be returned to the surveyor with instructions on what needs to be changed or corrected;
 - b) The local official can prepare a separate memo with the correct information and attach the memo to the form. When the certificate is provided to an inquirer, the memo must be included with it; or
 - c) The local official can note the changes or corrections in Section G.
3. The corrections to Sections A and B, and subsections C1–C3e), h), and i) can be made when the data on the certificate is entered into a data base or elevation certificate software (see Section 311.d on maintaining elevation certificates in computer format). It must be noted in Section G what changes were made to the original paper copy. The local official should check G1 when data are entered into a data base or elevation certificate software. The community will still need to keep the original certificate, but can hand out copies printed from the corrected digital version.

It should be noted that the community assumes responsibility for the accuracy of the changes it makes. Therefore, data entry for digital versions should be double-checked.

Although surveyors may not be familiar with the intricacies of the form, they do know how to survey elevations. One way communities have improved the quality of elevation certificates is to complete Sections A and B at the time of permit application. The partially completed form is given to the applicant or the surveyor who can then focus on completing the surveyed information in Section C. This has been shown to reduce many of the more common errors.

In order to meet the requirements of the third prerequisite, the community must keep copies of all credited elevation certificates readily available. The community must be able to retrieve certificates for old permits, including those from projects whose permit files may have been archived or discarded. The certificates may be maintained in a computer format, but the community must be able to respond to inquirers who want to see the original hard copy. The community may pass the cost of preparing the elevation certificate on to the permit applicant and it may charge a reasonable fee to cover the cost of copying the certificates for inquirers.

a. Maintaining elevation certificates (EC) (Maximum credit: 56 points)

EC = 56 if the community maintains elevation certificates since the date of application to the CRS. The community receives the full 56 credit points for EC unless it is adjusted during the verification visit. If no permits have been issued for structures within the SFHA since the community's application date for the CRS, EC = 56.

The community will automatically receive 56 points for EC because the CEO certifies in the application that the forms will be maintained and made available. EC is only adjusted to less than 56 points if the findings of the verification visit warrant such a reduction. As discussed above, the credit points will be reduced if incorrect or incomplete information appears on the elevation certificates checked during the verification visit.

b. Maintaining elevation certificates for post-FIRM buildings (ECPO) (Maximum credit: 56 points)

ECPO = 56 points if completed certificates are maintained for all buildings built or substantially improved in the SFHA between the date of the community's initial FIRM and the date of application to the CRS. ECPO is adjusted according to the ratio of post-FIRM buildings for which the community has certificates (see Section 312).

This credit is provided for having elevation certificates for all buildings built or substantially improved in the SFHA since the date of the community's initial FIRM. If the community only has certificates for some of these buildings, then the value for ECPO is adjusted as described in Section 312, Impact Adjustment.

c. Maintaining elevation certificates for pre-FIRM buildings (ECPR) (Maximum credit: 15 points)

ECPR = 15 points if completed certificates are maintained for all buildings built or substantially improved in the SFHA before the date of the community's initial FIRM. ECPR is adjusted according to the ratio of pre-FIRM buildings for which the community has certificates (see Section 312).

Although most communities did not keep elevation records before they joined the Regular Program, lowest floor elevations may have been determined for a flood protection study. If the data are transferred to the FEMA forms, credit can be provided under ECPR. If the records cover only some of the pre-FIRM buildings, ECPR is adjusted in the same manner as ECPO, as described in Section 312, Impact Adjustment.

***NOTE:** Elevation certificates can be completed by a local official who is authorized by law or ordinance to administer the community's floodplain management program, provided the original surveyed data for Section C was obtained by a registered land surveyor, engineer, or architect. A community can transfer data from a surveying project to the elevation certificate form if it can demonstrate that the source of the data was appropriate.*

For example, the National Flood Mitigation Data Collection Tool described in Section 511.b can be used to collect a wealth of data on a building. If the local official can document that a surveyor shot the elevations collected in the Tool, it would be relatively simple to transfer the data to the elevation certificate form, which would be signed in Section G by the local official.

d. Maintaining elevation certificates in computer format (ECCF) (Maximum credit: 15 points).

ECCF = 10 points if the elevation and floodproofing certificate data are kept in computer format and provided to FEMA each year. An additional 5 points are provided if the data for every property lists a street address. ECCF is adjusted according to the ratio of all buildings that have elevation certificates that are also in computer format (see Section 312). There is no credit if the data base does not include all of the data needed for a FEMA elevation certificate.

This credit is available if the community has elevation records on a computer data base, and is willing to provide FEMA with a disk or other computer-readable record. A program has been developed to enter elevation certificate data on a personal computer. This program meets the requirements for ECCF credit, and it is available free (see Appendix E). The community must maintain and be able to retrieve the original signed hard copies.

Five additional points are provided if the community screens its data and makes sure that a full street address is provided with each certificate. These five points are not available if some properties are listed by lot and block number or other method.

- e. Posting elevation certificate data on a website (ECWS) (Maximum credit: 20 points).

ECWS = 20, if the community has put elevation certificate data on a website that is readily available to any inquirer (e.g., no payment of money is needed). There is no credit if the data base does not include all of the data needed for a FEMA elevation certificate.

Credit is provided if the community puts the elevation certificate data on a website that can be accessed by the public. This can be in the form of a searchable data base, scanned elevation certificates, or any other format that makes the data available. This credit is in addition to the ECCF credit for providing FEMA with a disk that has elevation certificate data. In both cases, the data base must include all of the data needed for a FEMA elevation certificate.

312 Impact Adjustment

- a. Option 1:

1. If the community has elevation certificates for ALL post-FIRM buildings in its SFHA, rECPO = 1.0.

If no buildings have been built or substantially improved in the SFHA since the community entered the Regular Program of the NFIP, rECPO = 1.0.

2. If the community has elevation certificates for ALL pre-FIRM buildings in its SFHA, rECPR = 1.0.

If there are no pre-FIRM buildings in the SFHA, rECPR = 1.0.

3. If the community has entered all of its elevation certificates into a computer format, rECCF = 1.0.

4. If the community has posted all of its elevation certificate data onto a website, rECWS = 1.0.

NOTE: There is no impact adjustment for EC. The community must keep elevation certificates for ALL new or substantially improved buildings in the floodplain after the date it first applies for the CRS.

b. Option 2:

1. If the community has elevation certificates for at least 25% of the post-FIRM buildings in its SFHA, rECPO = 0.25.
2. If the community has elevation certificates for at least 25% of the pre-FIRM buildings in its SFHA, rECPR = 0.25.
3. If the community has entered at least 25% of its elevation certificates into a computer format, rECCF = 0.25.
4. If the community has posted at least 25% of its elevation certificate data onto a website, rECWS = 0.25.

c. Option 3:

1. $rECPO = \frac{bECPO}{bPO}$, where

bECPO = the number of post-FIRM buildings with elevation certificates

bPO = the number of buildings built or substantially improved in the community's SFHA between the initial FIRM effective date and the date the community applied to the CRS.

2. $rECPR = \frac{bECPR}{bPR}$, where

bECPR = the number of pre-FIRM buildings with elevation certificates

bPR = the number of pre-FIRM buildings in the community's SFHA.

3. $rECCF = \frac{bECCF}{bEC + bECPO + bECPR}$, where

bECCF = the number of buildings with elevation certificates in computer format

bEC = the number of buildings in the SFHA since the initial CRS application date.

4. $rECWS = \frac{bECWS}{bEC + bECPO + bECPR}$, where

bECWS = the number of buildings with complete elevation certificate data posted on the website.

ECPO and ECPR are adjusted to reflect the number of buildings with elevation certificates. Section 301 includes a detailed discussion of the determination of bPO and bPR.

ECCF is adjusted if the community has not entered all elevation certificates into its computer data base. ECWS is adjusted if the community has not entered all its elevation certificate data onto the website.

There is no adjustment for EC because the community must maintain elevation certificates on all buildings constructed in the SFHA after the date it applied for CRS classification. However, the community may not have certificates on all post-FIRM or all pre-FIRM buildings. Accordingly, ECPO and ECPR can be adjusted to reflect the number of buildings that are affected. Similarly, ECCF and ECWS are adjusted if the community has not entered all elevation certificates into its computer data base or website.

These adjustments are made by dividing the number of buildings with elevation certificates by the number of buildings that could have certificates to produce an “r” variable that represents the ratio of buildings affected. Sections 302 and 303 explain how to obtain the building counts needed to calculate these impact adjustments.

NOTE: See the definitions of “building,” “SFHA,” and “Zone A” in the Glossary, Section 130. Also see Section 301.

Example 312.c-1. Floodville applied for CRS credit in late 1993. Its credit was verified by its ISO/CRS Specialist during the spring of 1994. The examples for Activity 310 show the CRS credit that was verified during that visit. Floodville applied for 56 points for maintaining elevation certificates since its application date (EC); 14 points for having elevation certificates for at least 25% of its post-FIRM elevation buildings (ECPO); and 4 points for having elevation certificates for at least 25% of its pre-FIRM buildings. Although it started using the elevation certificate software after it applied for the CRS, it did not have at least 25% of its certificates entered when it applied. Its total application credit for Activity 310 was 74.

Floodville’s initial FIRM effective date is May 15, 1980. Between then and when it applied to the CRS in 1993, 22 buildings were built or substantially improved: bPO = 22.

Floodville began using FEMA’s elevation certificates after FEMA conducted a community assistance visit in 1986. It has completed certificates for all buildings built since then. There are 10 such buildings: bECPO = 10.

$$rECPO = \frac{10}{22} = 0.45$$

There are 250 pre-FIRM buildings in Floodville: bPR = 250. As part of a flood control study, the U.S. Army Corps of Engineers surveyed the first floor elevations of all buildings in one of Floodville’s floodplains. Because there are no basements in Floodville, the first floor is the same as the lowest floor. [NOTE: this is not always the case; other sources of elevation data must be carefully checked to ensure that the records are for the lowest floor.] The study provided elevations for 122 of Floodville’s 250 pre-FIRM buildings, and the city has subsequently recorded the data on FEMA’s elevation certificates: bECPR = 122.

$$rECPR = \frac{122}{250} = 0.49$$

When it applied for the CRS, Floodville began using the CRS computer program for maintaining elevation certificates. It also entered all of its post-FIRM and its pre-FIRM elevation and floodproofing certificates in this program. Because data from all of the community's certificates were in computer format by the time of the verification visit, credit was verified using Option 1: $rECCF = 1.0$.

313 Credit Calculation

$$a. cEC = 56$$

$$b. cECPO = ECPO \times rECPO$$

Example 313.b-1. Floodville has elevation certificates for 10 of its 22 post-FIRM buildings. As discussed above: $rECPO = 0.45$.

$$cECPO = 56 \times 0.45 = 25.2$$

$$c. cECPR = ECPR \times rECPR$$

Example 313.c-1. Floodville has elevation certificates for 122 of its 250 pre-FIRM buildings. As discussed above: $rECPR = 0.49$.

$$cECPR = 15 \times 0.49 = 7.35$$

$$d. cECCF = ECCF \times rECCF$$

Example 313.d-1. Floodville entered all of its elevation and floodproofing certificates in computer format. It also checked them all and made sure that each one has a full street address. $ECCF = 10 + 5 = 15$. As discussed above: $rECCF = 1.0$

$$cECCF = 15 \times 1.0 = 15.0$$

$$e. \quad cECWS = ECWS \times rECWS$$

$$f. \quad c310 = cEC + cECPO + cECPR + cECCF + ECWS$$

Example 313.e-1. Floodville applies for participation in the CRS so it must apply for this activity. The mayor certifies that the city will continue to use the FEMA elevation certificates so the city receives the 56 points in the formula. As calculated above, $cECPO = 25.2$, $cECPR = 7.35$, and $cECCF = 15$. The city has not put elevation certificates on a website, so $cECWS = 0$.

Floodville's first activity worksheet is shown in Figure 310-1a.

$$C310 = 56 + 25.2 + 7.35 + 15 + 0 = 103.55, \text{ which is rounded to } 104.$$

Ten buildings have been built or substantially improved in the floodplain since the 1993 CRS application. During the verification visit, the ISO/CRS Specialist examines the elevation certificates for these buildings. A surveyor who completed one of the certificates recorded the wrong FIRM Zone and the wrong base flood elevation. This reduces Floodville's credit for EC from 56 to 50.4.

Similar sampling for post-FIRM and pre-FIRM certificates found no other errors. However, the sample taken for ECCF also found one error, which reduces that credit from 15 to 13.95.

Floodville's final verified credit for Activity 310 is:

$$c310 = 50.4 + 25.2 + 7.35 + 13.5 + 0 = 96.45, \text{ which is rounded to } 96.$$

314 Credit Documentation

The community must have the following to verify implementation of this activity:

- a. [If the community applies for credit under Section 311.b (ECPO) or c (ECPR) and it used a form different from FEMA's] A copy of its elevation certificate, along with documentation that FEMA has approved it. Note that a local elevation certificate can only be credited if it was used before the 1999 FEMA elevation certificate was published or before the community joined the CRS, whichever is later.

If the community used a non-FEMA form in the past and began using the FEMA form when it applied for the CRS or when the 1999 FEMA form went into effect, the written statement is required to obtain credit for ECPO and/or ECPR.

- b. [If the community applies for credit under Section 311.d.1 and is NOT using the CRS "Computerized Format for FEMA Elevation Certificates"] A copy of the computer format being used.

The CRS computer format is available at no cost (see Appendix E).

- c. Copies of all completed elevation certificates that the community wants credited for EC, ECPR, or ECPO. Sample copies of the digital or website versions will be collected to document credit for ECCF and ECWS.
- d. Documentation showing how the impact adjustment ratios were determined.

The community must maintain certificates on all buildings built, substantially improved, or placed in the floodplain since the initial application date and make them available. The community should maintain its elevation certificates so they are easy to retrieve during the verification visit.

The community must submit the following with its annual CRS recertification:

- e. A disk with the elevation and floodproofing certificate data in computer format obtained since the last submittal, if applying for credit for ECCF under Section 311.d. If the community is receiving credit for other than the FEMA-issued elevation certificate software, the submittal must include a key that explains each data item.

315 For More Information

Additional information, reference materials, and examples can be found at the CRS Resource Center at <http://training.fema.gov/EMIWeb/CRS/>.

- a. The FEMA elevation and floodproofing certificates include detailed instructions for completing them. The latest version can be downloaded from FEMA's website at <http://www.fema.gov/nfip/elvinst.shtm>. The FEMA Regional Office can provide help in completing and maintaining them (see Appendix A). Additional guidance is provided in Figures 310-3 and 310-4.
- b. *Elevation Certificate*, FEMA's Floodplain Management Bulletin 467-1, provides questions and answers on completing the form and using the elevation certificate to verify building compliance. The bulletin can be downloaded from <http://www.fema.gov/pdf/fima/fema467-6-10-04.pdf>.
- c. The U.S. Army Corps of Engineers can provide advice on obtaining and maintaining elevation records. Requests for assistance should be submitted to the Flood Plain Management Services Coordinator at the appropriate District Office of the Corps.
- d. A program named "Computerized Format for FEMA Elevation Certificates" is available free (see Appendix E). It requires an IBM-compatible computer with a CD or 3.5-inch disk drive.
- e. FEMA has developed interactive tutorials for surveyors and insurance agents. The surveyor's tutorial is especially helpful for local officials because it discusses how to complete the form. It can be found at <http://training.nfipstat.com/ecsurveyor/>. The insurance agent's tutorial covers how agents use the form. It can be found at <http://training.nfipstat.com>.

Community : FLOODVILLE

310 ELEVATION CERTIFICATES

312 Impact Adjustment:

a. Option 1:
 1. rECPO = 1.0 2. rECPR = 1.0 3. rECCF = 1.0 4. rECWS = 1.0

b. Option 2:
 1. rECPO = 0.25 2. rECPR = 0.25 3. rECCF = 0.25 4. rECWS = 0.25

c. Option 3:
 1. rECPO = $\frac{bECPO}{bPO} = \frac{10}{22} = 0.45$ 2. rECPR = $\frac{bECPR}{bPR} = \frac{122}{250} = 0.49$
 3. rECCF = $\frac{bECCF}{bEC + bECPO + bECPR} = \frac{\quad}{\quad + \quad + \quad} = \quad$
 4. rECWS = $\frac{bECWS}{bEC + bECPO + bECPR} = \frac{\quad}{\quad + \quad + \quad} = \quad$

313 Credit Calculation:

a. cEC = 56

b. cECPO = ECPO 56 x rECPO 0.45 cECPO = 25.2

c. cECPR = ECPR 15 x rECPR 0.49 cECPR = 7.35

d. cECCF = ECCF 15 x rECCF 1.0 cECCF = 15.0

e. cECWS = ECWS x rECWS cECWS = 0

f. Add lines a through e above = 103.55

c310 = value above rounded to the nearest whole number: c310 = 104

Enter this value on AW-720-1.

Activity Worksheet
AW-310-1
Edition: 2006

Figure 310-1a. Floodville’s completed activity worksheet for elevation certificates (AW-310-1).

Community : FLOODVILLE

314 Credit Documentation:

a. [If the community applies for credit under ECPO or ECPR and used a form different from FEMA's] A copy of the local elevation certificate, along with documentation that FEMA has approved it. Note that a local elevation certificate can only be credited if it was used before 1999 or before the community joined the CRS, whichever is later.

b. [If the community applies for ECCF credit and is NOT using the CRS "Computerized Format for FEMA elevation certificates"] a copy of the computer format being used.

c. EC – Copies of completed elevation certificates

OR

Certification letter if no new construction or substantial improvements.

ECPO – Copies of completed post-FIRM elevation certificates.

ECPR – Copies of completed pre-FIRM elevation certificates.

ECCF – Printout of sample Certificates.

ECWS – Printout of sample Certificates. Website address _____

d. Documentation showing how the impact adjustment ratios were determined.

The following will be needed at the annual recertification:

e. ECCF – A disk with the elevation and floodproofing certificate data in computer format obtained since the last submittal.

Starting month/year for which certificates are consistently available: NOV 1, 1993

Office where requests should be submitted: BUILDING DEPARTMENT

Address 3900 HUNTER

City FLOODVILLE State ST Zip 98765

Phone 101-555-1234 Fax 101-555-1201 e-mail blag.dept@floodville.st.us

How should requests for elevation and/or floodproofing certificates be submitted (mail, phone, fax, etc.)? mail, phone, or fax

Comments:

Activity Worksheet AW-310-2 Edition: 2006

Figure 310-1b. Page two of Floodville’s completed activity worksheet for elevation certificates (AW-310-2).

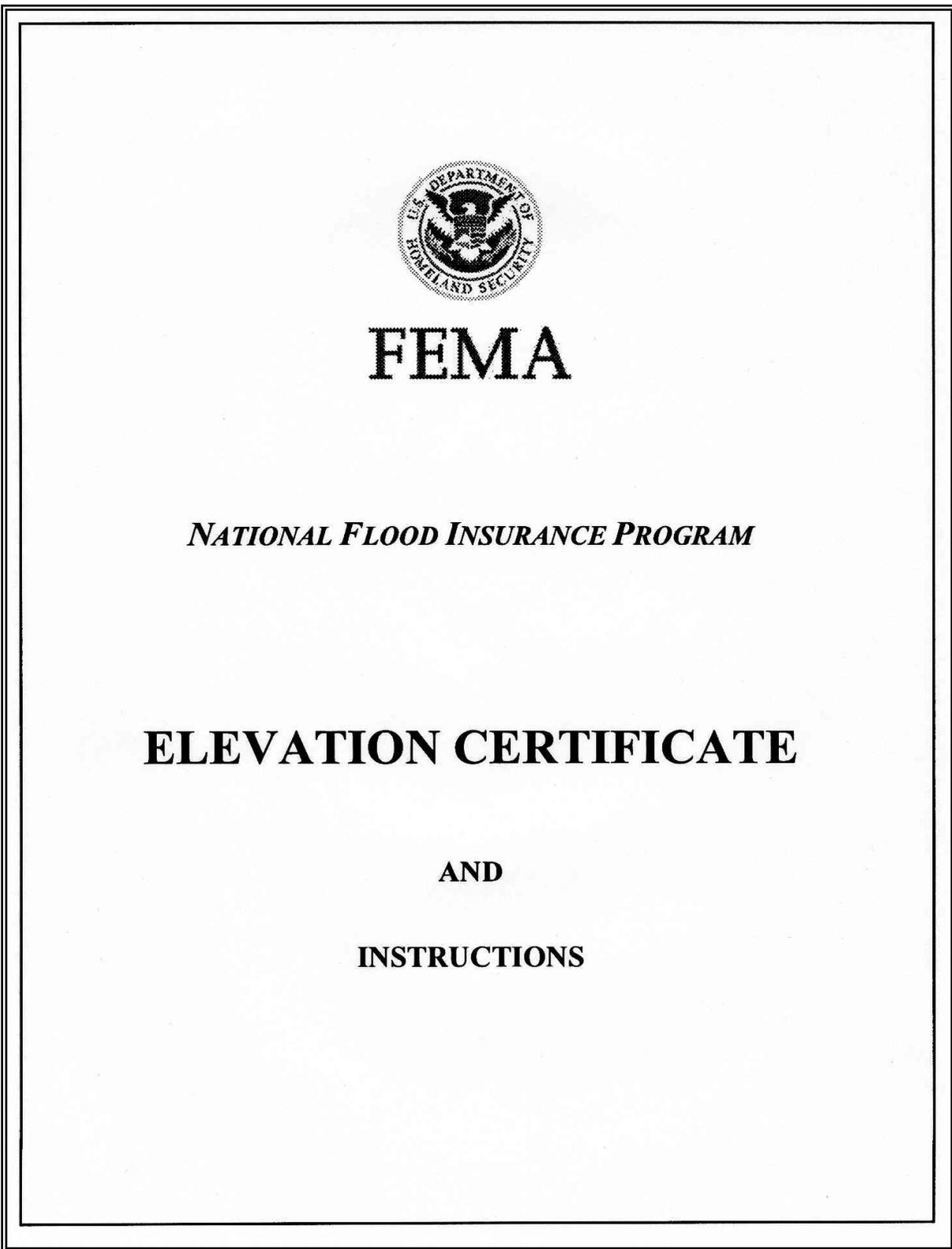


Figure 310-2a. Cover page of FEMA's elevation certificate.

NATIONAL FLOOD INSURANCE PROGRAM ELEVATION CERTIFICATE

PAPERWORK REDUCTION ACT NOTICE

Public reporting burden for the Elevation Certificate is estimated to average 3.5 hours per response. Burden means the time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to the Federal Emergency Management Agency (FEMA). You are not required to respond to the collection of information unless a valid OMB control number is displayed in the upper right corner of the form. You may send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: U.S. Department of Homeland Security, Federal Emergency Management Agency, Mitigation Division, 500 C Street SW, Washington DC 20472, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.** To obtain or retain benefits under the National Flood Insurance Program (NFIP), you must respond to this collection of information.

PURPOSE OF THE ELEVATION CERTIFICATE

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

The Elevation Certificate is required in order to properly rate post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), located in flood insurance Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO. The Elevation Certificate is not required for pre-FIRM buildings unless the building is being rated under the optional post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt a floodplain management ordinance that specifies minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request. A LOMA or LOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 package, whichever is appropriate.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

Additional guidance can be found in the FEMA Floodplain Management Bulletin about using the Elevation Certificate, available on FEMA's website at www.fema.gov/firma/fprbul.shtml. Click on "FEMA 467-1 Elevation Certificate Cover and Bulletin."

Figure 310-2b. Inside cover of FEMA's elevation certificate.

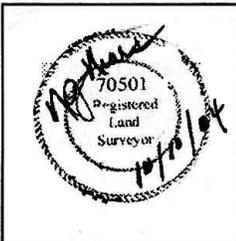
U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program		ELEVATION CERTIFICATE		OMB No. 1660-0008 Expires February 28, 2009	
Important: Read the instructions on pages 1-8.					
SECTION A - PROPERTY INFORMATION				For Insurance Company Use:	
A1. Building Owner's Name <u>William Smith</u>				Policy Number	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <u>3802 Woodbridge Road</u>				Company NAIC Number	
City <u>Floodville</u>		State <u>ST</u>		ZIP Code <u>98765</u>	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <u>Lot 3, Block 4, Foster Creek Addition</u>					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Residential</u>					
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>1</u>					
A8. For a building with a crawl space or enclosure(s), provide:			A9. For a building with an attached garage, provide:		
a) Square footage of crawl space or enclosure(s) _____ sq ft			a) Square footage of attached garage _____ sq ft		
b) No. of permanent flood openings in the crawl space or enclosure(s) walls within 1.0 foot above adjacent grade _____			b) No. of permanent flood openings in the attached garage walls within 1.0 foot above adjacent grade _____		
c) Total net area of flood openings in A8.b _____ sq in			c) Total net area of flood openings in A9.b _____ sq in		
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number <u>Floodville 123456</u>		B2. County Name <u>Isler</u>		B3. State <u>ST</u>	
B4. Map/Panel Number <u>123456</u>	B5. Suffix <u>0001</u>	B6. FIRM Index Date <u>B 5/15/80</u>	B7. FIRM Panel Effective/Revised Date <u>5/15/80</u>	B8. Flood Zone(s) <u>A15</u>	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) <u>1142.8</u>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. <input checked="" type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other (Describe) _____					
B11. Indicate elevation datum used for BFE in Item B9: <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other (Describe) _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					
SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)					
C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input checked="" type="checkbox"/> Finished Construction *A new Elevation Certificate will be required when construction of the building is complete.					
C2. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete Items C2.a-g below according to the building diagram specified in Item A7. Benchmark Utilized <u>NGS 14-21</u> Vertical Datum <u>NGVD 29</u> Conversion/Comments <u>N/A</u>					
Check the measurement used.					
a) Top of bottom floor (including basement, crawl space, or enclosure floor) <u>1145.0</u> <input checked="" type="checkbox"/> feet		<input type="checkbox"/> meters (Puerto Rico only)			
b) Top of the next higher floor <u>N/A</u> <input type="checkbox"/> feet		<input type="checkbox"/> meters (Puerto Rico only)			
c) Bottom of the lowest horizontal structural member (V Zones only) <u>N/A</u> <input type="checkbox"/> feet		<input type="checkbox"/> meters (Puerto Rico only)			
d) Attached garage (top of slab) <u>1144.6</u> <input checked="" type="checkbox"/> feet		<input type="checkbox"/> meters (Puerto Rico only)			
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment in Comments) <u>1144.6</u> <input checked="" type="checkbox"/> feet		<input type="checkbox"/> meters (Puerto Rico only)			
f) Lowest adjacent (finished) grade (LAG) <u>1144.2</u> <input checked="" type="checkbox"/> feet		<input type="checkbox"/> meters (Puerto Rico only)			
g) Highest adjacent (finished) grade (HAG) <u>1144.5</u> <input checked="" type="checkbox"/> feet		<input type="checkbox"/> meters (Puerto Rico only)			
SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION					
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.					
<input checked="" type="checkbox"/> Check here if comments are provided on back of form.					
Certifier's Name <u>N.G. Nears</u>		License Number <u>70501</u>			
Title <u>Registered Land Surveyor</u>		Company Name <u>Nears & Co.</u>			
Address <u>4305 W. St. Paul</u>		City <u>Floodville</u>		State <u>ST</u> ZIP Code <u>98765</u>	
Signature <u>NG Nears</u>		Date <u>10/10/04</u>		Telephone <u>101/555-0704</u>	
					
FEMA Form 81-31, February 2006		See reverse side for continuation.		Replaces all previous editions	

Figure 310-2c. FEMA's elevation certificate, page one.

IMPORTANT: In these spaces, copy the corresponding information from Section A.		For Insurance Company Use:	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <u>3802 Woodbridge Road</u>		Policy Number	
City <u>Floodville</u>	State <u>ST</u>	ZIP Code <u>98765</u>	Company NAIC Number

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments
C.3.e. heat pump + water heater located inside attached garage

Signature Ngman Date 10/10/04 Check here if attachments

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1-E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1-E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
 a) Top of bottom floor (including basement, crawl space, or enclosure) is _____ feet meters above or below the HAG.
 b) Top of bottom floor (including basement, crawl space, or enclosure) is _____ feet meters above or below the LAG.

E2. For Building Diagrams 6-8 with permanent flood openings provided in Section A Items 8 and/or 9 (see page 8 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ feet meters above or below the HAG.

E3. Attached garage (top of slab) is _____ feet meters above or below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ feet meters above or below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? Yes No Unknown. The local official must certify this information in Section G.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge.*

Property Owner's or Owner's Authorized Representative's Name _____

Address _____ City _____ State _____ ZIP Code _____

Signature _____ Date _____ Telephone _____

Comments _____

Check here if attachments

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8, and G9.

G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. The following information (Items G4.-G9.) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued
-------------------	------------------------	---

G7. This permit has been issued for: New Construction Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ feet meters (PR) Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ feet meters (PR) Datum _____

Local Official's Name _____ Title _____

Community Name _____ Telephone _____

Signature _____ Date _____

Comments _____

Check here if attachments

FEMA Form 81-31, February 2006 Replaces all previous editions

Figure 310-2d. Page two of FEMA's elevation certificate.

Building Photographs See Instructions for Item A6.			For Insurance Company Use:
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number
City	State	ZIP Code	Company NAIC Number
<p>If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two building photographs below according to the instructions for Item A6. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." If submitting more photographs than will fit on this page, use the Continuation Page, following.</p>			

Figure 310-2e. Page three of FEMA's elevation certificate.

Building Photographs

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			For Insurance Company Use:
			Policy Number
City	State	ZIP Code	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View."

Figure 310-2f. Page four of FEMA's elevation certificate.

INSTRUCTIONS FOR COMPLETING THE ELEVATION CERTIFICATE

The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information when elevation information is required for Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, or AR/AO. Community officials who are authorized by law or ordinance to provide floodplain management information may also complete this form. For Zones AO and A (without BFE), a community official, a property owner, or an owner's representative may provide information on this certificate, unless the elevations are intended for use in supporting a request for a LOMA or LOMR-F. Certified elevations must be included if the purpose of completing the Elevation Certificate is to obtain a LOMA or LOMR-F.

The property owner, the owner's representative, or local official who is authorized by law to administer the community floodplain ordinance can complete Section A and Section B. The partially completed form can then be given to the land surveyor, engineer, or architect to complete Section C. The land surveyor, engineer, or architect should verify the information provided by the property owner or owner's representative to ensure that this certificate is complete.

In Puerto Rico only, elevations for building information and flood hazard information may be entered in meters.

SECTION A – PROPERTY INFORMATION

Items A1.-A4. This section identifies the building, its location, and its owner. Enter the name(s) of the building owner(s), the building's complete street address, and the lot and block numbers. If the building's address is different from the owner's address, enter the address of the building being certified. If the address is a rural route or a Post Office box number, enter the lot and block numbers, the tax parcel number, the legal description, or an abbreviated location description based on distance and direction from a fixed point of reference. For the purposes of this certificate, "building" means both a building and a manufactured (mobile) home.

A map may be attached to this certificate to show the location of the building on the property. A tax map, FIRM, or detailed community map is appropriate. If no map is available, provide a sketch of the property location, and the location of the building on the property. Include appropriate landmarks such as nearby roads, intersections, and bodies of water. For building use, indicate whether the building is residential, non-residential, an addition to an existing residential or non-residential building, an accessory building (e.g., garage), or other type of structure. Use the Comments area of the appropriate section if needed, or attach additional comments.

Item A5. Provide latitude and longitude coordinates for the center of the front of the building. Use either decimal degrees (e.g., 39.5043°, -110.7585°) or degrees, minutes, seconds (e.g., 39° 30' 15.5", -110° 45' 30.7") format. If decimal degrees are used, provide coordinates to at least 4 decimal places or better. When using degrees, minutes, seconds, provide seconds to at least 1 decimal place or better. The latitude and longitude coordinates must be accurate within 66 feet. If the Elevation Certificate is being certified by other than a licensed surveyor, engineer, or architect, this information is not required. Provide the type of datum used to obtain the latitude and longitude. FEMA prefers the use of NAD 1983.

Item A6. If the Elevation Certificate is being used to obtain flood insurance through the NFIP, the certifier must provide at least two photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. If the building has split-level or multi-level areas, provide at least two additional photographs showing side views of the building. All photographs must be in color and measure at least 3"x3". Digital photographs are acceptable.

Item A7. Select the diagram on pages 7-8 that best represents the building. Then enter the diagram number and use the diagram to identify and determine the appropriate elevations requested in Items C2.a-g. If you are unsure of the correct diagram, select the diagram that most closely resembles the building being certified.

Item A8.a Provide the square footage of the crawl space or enclosure(s) below the lowest elevated floor of an elevated building with or without permanent flood openings. Take the measurement from the outside of the crawl space or enclosure(s). Examples of elevated buildings constructed with crawl space and enclosure(s) are shown in Diagrams 6-8 on page 8. Diagram 2 or 4 should be used for a building constructed with a crawl space floor that is below the exterior grade on all sides.

Items A8.b-c Enter in Item A8.b the number of permanent flood openings in the crawl space or enclosure(s) walls that are no higher than 1.0 foot above the adjacent grade. Estimate the total net area of all such permanent flood openings in square inches, excluding any bars, louvers, or other covers of the permanent flood openings, and enter the total in Item A8.c. If the net

Figure 310-2g. Page one of the instructions to FEMA's elevation certificate.

area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. If the crawl space or enclosure(s) walls have no permanent openings within 1.0 foot above adjacent grade, enter "0" (zero) in Items A8.b-c.

Item A9.a Provide the square footage of the attached garage with or without permanent flood openings. Take the measurement from the outside of the garage.

Items A9.b-c Enter in Item A9.b the number of permanent flood openings in the attached garage that are no higher than 1.0 foot above the adjacent grade. This includes any openings that are in the garage door that are no higher than 1.0 foot above the adjacent grade. Estimate the total net area of all such permanent flood openings in square inches and enter the total in Item A9.c. If the garage has no permanent flood openings within 1.0 foot above adjacent grade, enter "0" (zero) in Items A9.b-c.

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Complete the Elevation Certificate on the basis of the FIRM in effect at the time of the certification.

The information for Section B is obtained by reviewing the FIRM panel that includes the building's location. Information about the current FIRM is available from the Federal Emergency Management Agency (FEMA) by calling 1-800-358-9616. If a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR-F) has been issued by FEMA, please provide the letter date and case number in the Comments area of Section D or Section G, as appropriate.

For a building in an area that has been annexed by one community but is shown on another community's FIRM, enter the community name and 6-digit number of the annexing community in Item B1, the name of the new county in Item B2, and the FIRM index date for the annexing community in Item B6. Enter information from the actual FIRM panel that shows the building location, even if it is the FIRM for the previous jurisdiction, in Items B4, B5, B7, B8, and B9.

Item B1. NFIP Community Name & Community Number. Enter the complete name of the community in which the building is located and the associated 6-digit community number. For a newly incorporated community, use the name and 6-digit number of the new community. Under the NFIP, a "community" is any State or area or political subdivision thereof, or any Indian tribe or authorized native organization, that has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. To determine the current community number, see the NFIP *Community Status Book*, available on FEMA's web site at <http://www.fema.gov/fema/csb.shtml>, or call 1-800-358-9616.

Item B2. County Name. Enter the name of the county or counties in which the community is located. For an unincorporated area of a county, enter "unincorporated area." For an independent city, enter "independent city."

Item B3. State. Enter the 2-letter state abbreviation (for example, VA, TX, CA).

Items B4.-B5. Map/Panel Number and Suffix. Enter the 10-character "Map Number" or "Community Panel Number" shown on the FIRM where the building or manufactured (mobile) home is located. For maps in a county-wide format, the sixth character of the "Map Number" is the letter "C" followed by a four-digit map number. For maps not in a county-wide format, enter the "Community Panel Number" shown on the FIRM.

Item B6. FIRM Index Date. Enter the effective date or the map revised date shown on the FIRM Index.

Item B7. FIRM Panel Effective/Revised Date. Enter the map effective date or the map revised date shown on the FIRM panel. This will be the latest of all dates shown on the map. The current FIRM panel effective date can be determined by calling 1-800-358-9616.

Item B8. Flood Zone(s). Enter the flood zone, or flood zones, in which the building is located. All flood zones containing the letter "A" or "V" are considered Special Flood Hazard Areas. The flood zones are A, AE, A1-A30, V, VE, V1-V30, AH, AO, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO. Each flood zone is defined in the legend of the FIRM panel on which it appears.

Figure 310-2h. Page two of the instructions to FEMA's elevation certificate.

Item B9. Base Flood Elevation(s). Using the appropriate Flood Insurance Study (FIS) Profile, Floodway Data Table, or FIRM panel, locate the property and enter the BFE (or base flood depth) of the building site. If the building is located in more than one flood zone in Item B8, list all appropriate BFEs in Item B9. BFEs are shown on a FIRM or FIS Profile for Zones A1-A30, AE, AH, V1-V30, VE, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO; flood depth numbers are shown for Zone AO. Use the AR BFE if the building is located in any of Zones AR/A, AR/AE, AR/A1-A30, AR/AH, or AR/AO. In A or V zones where BFEs are not provided on the FIRM, BFEs may be available from another source. For example, the community may have established BFEs or obtained BFE data from other sources for the building site. For subdivisions and other developments of more than 50 lots or 5 acres, establishment of BFEs is required by the community's floodplain management ordinance. If a BFE is obtained from another source, enter the BFE in Item B9. In an A Zone where BFEs are not available, complete Section E and enter N/A for Section B, Item B9. Enter the BFE to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Item B10. Indicate the source of the BFE that you entered in Item B9. If the BFE is from a source other than FIS Profile, FIRM, or community, describe the source of the BFE.

Item B11. Indicate the elevation datum to which the elevations on the applicable FIRM are referenced as shown on the map legend. The vertical datum is shown in the Map Legend and/or the Notes to Users on the FIRM.

Item B12. Indicate whether the building is located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA). (OPAs are portions of coastal barriers that are owned by Federal, State, or local governments or by certain non-profit organizations and used primarily for natural resources protection.) Federal flood insurance is prohibited in designated CBRS areas or OPAs for buildings or manufactured (mobile) homes built or substantially improved after the date of the CBRS or OPA designation. For the first CBRS designations, that date is October 1, 1983. An information sheet explaining CBRS areas and OPAs may be obtained on FEMA's web site at http://www.fema.gov/fhmv/fine_cbars.shtml.

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Complete Section C if the building is located in any of Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, or AR/AO, or if this certificate is being used to support a request for a LOMA or LOMR-F. If the building is located in Zone AO or Zone A (without BFE), complete Section E instead. To ensure that all required elevations are obtained, it may be necessary to enter the building (for instance, if the building has a basement or sunken living room, split-level construction, or machinery and equipment).

Surveyors may not be able to gain access to some crawl spaces to shoot the elevation of the crawl space floor. If access to the crawl space is limited or cannot be gained, follow one of these procedures.

- Use a yardstick or tape measure to measure the height from the floor of the crawl space to the "next higher floor," and then subtract the crawl space height from the elevation of the "next higher floor." If there is no access to the crawl space, use the exterior grade next to the structure to measure the height of the crawl space to the "next higher floor."
- Contact the local floodplain administrator of the community in which the building is located. The community may have documentation of the elevation of the crawl space floor as part of the permit issued for the building.
- If the property owner has documentation or knows the height of the crawl space floor to the next higher floor, try to verify this by looking inside the crawl space through any openings or vents.

In all three cases, provide the elevation in the Comments area of Section D on the back of the form and a brief description of how the elevation was obtained.

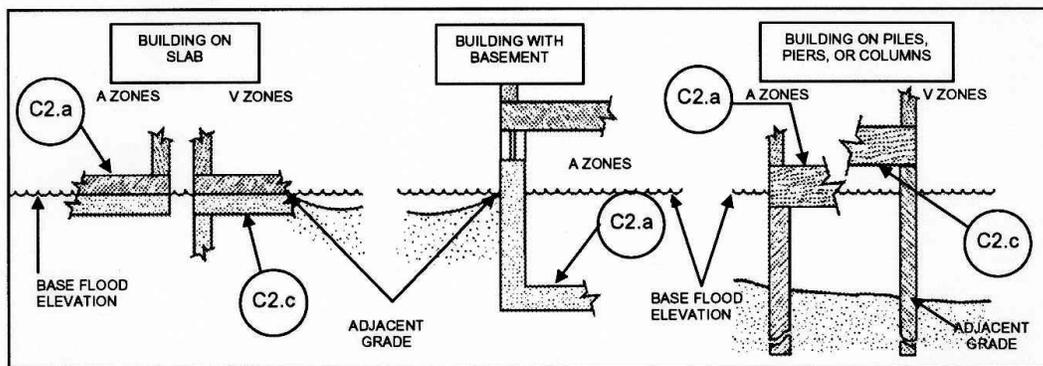
Item C1. Indicate whether the elevations to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first two choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those elevations that can be surveyed in Items C2.a-g. Use the Comments area of Section D to provide elevations obtained from the construction plans or drawings. Select "Finished Construction" only when all machinery and/or equipment such as furnaces, hot water heaters, heat pumps, air conditioners, and elevators and their associated equipment have been installed and the grading around the building is completed.

Item C2. A field survey is required for Items C2.a-g. Provide the benchmark utilized, the vertical datum for that benchmark, and any datum conversion necessary. Most control networks will assign a unique identifier for each benchmark. For example, the National Geodetic Survey uses the Permanent Identifier (PID). For the benchmark utilized, provide the PID or other

Figure 310-2i. Page three of the instructions to FEMA's elevation certificate.

unique identifier assigned by the maintainer of the benchmark. Also provide the vertical datum for the benchmark elevation. Show the conversion from the field survey datum used if it differs from the datum used for the BFE entered in Item B9 and indicate the conversion software used. All elevations for the certificate, including the elevations for Items C2.a-g, must be referenced to the datum on which the BFE is based. Show the datum conversion, if applicable, in this section or in the Comments area of Section D. For property experiencing ground subsidence, the most recent reference mark elevations must be used for determining building elevations. However, when subsidence is involved, the BFE should not be adjusted. Enter elevations in Items C2.a-g to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Items C2.a-d Enter the building elevations (excluding the attached garage) indicated by the selected building diagram (Item A7.) in Items C2.a-c. If there is an attached garage, enter the elevation for top of attached garage slab in Item C2.d. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If the building is located in a V zone on the FIRM, complete Item C2.c. If the flood zone cannot be determined, enter elevations for all of Items C2.a-g. For buildings in A zones, elevations a, b, d, and e should be measured at the top of the floor. For buildings in V zones, elevation c must be measured at the bottom of the lowest horizontal structural member of the floor (see drawing below). For buildings elevated on a crawl space, Diagram 8, enter the elevation of the top of the crawl space floor in Item C2.a, whether or not the crawl space has permanent flood openings (flood vents). *If any item does not apply to the building, enter "N/A" for not applicable.*



Item C2.e Enter the lowest platform elevation of at least one of the following machinery and equipment items: elevators and their associated equipment, furnaces, hot water heaters, heat pumps, and air conditioners in an attached garage or enclosure or on an open utility platform that provides utility services for the building. Note that elevations for these specific machinery and equipment items are required in order to rate the building for flood insurance. Local floodplain management officials are required to ensure that **all** machinery and equipment servicing the building are protected from flooding. Thus, local officials may require that elevation information for all machinery and equipment, including ductwork, be documented on the Elevation Certificate. If the machinery and/or equipment is mounted to a wall, pile, etc., enter the platform elevation of the machinery and/or equipment. Indicate machinery/equipment type in the Comments area of Section D or Section G, as appropriate. *If this item does not apply to the building, enter "N/A" for not applicable.*

Items C2.f-g Adjacent grade is defined as the elevation of the ground, sidewalk, patio slab, or deck support immediately next to the building. If the certificate is to be used to support a request for a LOMA or LOMR-F, provide in the Comments area the lowest adjacent grade elevation measured at the deck support or stairs if that elevation is lower than the building's lowest adjacent grade. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

Complete as indicated. This section of the Elevation Certificate may be signed by only a land surveyor, engineer, or architect who is authorized by law to certify elevation information. Place your license number, your seal (as allowed by the State licensing board), your signature, and the date in the box in Section D. You are certifying that the information on this certificate represents your best efforts to interpret the data available and that you understand that any false statement may be punishable

Figure 310-2j. Page four of the instructions to FEMA's elevation certificate.

by fine or imprisonment under 18 U.S. Code, Section 1001. Use the Comments area of Section D, on the back of the certificate, to provide datum, elevation, or other relevant information not specified on the front.

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO & ZONE A (WITHOUT BFE)

Complete Section E if the building is located in Zone AO or Zone A (without BFE). Otherwise, complete Section C instead. Explain in the Section F Comments area if the measurement provided under Items E1.- E4. is based on the "natural grade."

Items E1.a and b Enter in Item E1.a the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG). Enter in Item E1.b the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the lowest adjacent grade (LAG). For buildings in Zone AO, the community's floodplain management ordinance requires the lowest floor of the building be elevated above the highest adjacent grade at least as high as the depth number on the FIRM. Buildings in Zone A (without BFE) may qualify for a lower insurance rate if an engineered BFE is developed at the site.

Item E2. For Building Diagrams 6-8 with permanent flood openings (see page 8), enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the next higher floor or elevated floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG).

Item E3. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, for the top of attached garage slab. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E4. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, of the platform elevation that supports the machinery and/or equipment servicing the building. Indicate machinery/equipment type in the Comments area of Section F. *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E5. For those communities where this base flood depth is not available, the community will need to determine whether the top of the bottom floor is elevated in accordance with the community's floodplain management ordinance.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements taken by a property owner or property owner's representative when responding to Sections A, B, and E. The address entered in this section must be the actual mailing address of the property owner or property owner's representative who provided the information on the certificate.

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

Complete as indicated. The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Section C may be filled in by the local official as provided in the instructions below for Item G1. If the authorized community official completes Sections C, E, or G, complete the appropriate item(s) and sign this section.

Check **Item G1.** if Section C is completed with elevation data from other documentation, including elevations obtained from the Community Rating System Elevation Software, that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by law to certify elevation information, and you performed the actual survey for a building in Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/A1-A30, AR/AE, AR/AH, or AR/AO, you must also complete Section D.

Check **Item G2.** if information is entered in Section E by the community for a building in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

Figure 310-2k. Page five of the instructions to FEMA's elevation certificate.

Check **Item G3**, if the information in Items G4.-G9. has been completed for community floodplain management purposes to document the as-built lowest floor elevation of the building. Section C of the Elevation Certificate records the elevation of various building components but does not determine the lowest floor of the building or whether the building, as constructed, complies with the community's floodplain management ordinance. This must be done by the community. Items G4.-G9. provide a way to document these determinations.

Item G4. Permit Number. Enter the permit number or other identifier to key the Elevation Certificate to the permit issued for the building.

Item G5. Date Permit Issued. Enter the date the permit was issued for the building.

Item G6. Date Certificate of Compliance/Occupancy Issued. Enter the date that the Certificate of Compliance or Occupancy or similar written official documentation of as-built lowest floor elevation was issued by the community as evidence that all work authorized by the floodplain development permit has been completed in accordance with the community's floodplain management laws or ordinances.

Item G7. New Construction or Substantial Improvement. Check the applicable box. "Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the start of construction of the improvement. The term includes buildings that have incurred substantial damage, regardless of the actual repair work performed.

Item G8. As-built lowest floor elevation. Enter the elevation of the lowest floor (including basement) when the construction of the building is completed and a final inspection has been made to confirm that the building is built in accordance with the permit, the approved plans, and the community's floodplain management laws or ordinances. Indicate the elevation datum used.

Item G9. BFE. Using the appropriate FIRM panel, FIS Profile, or other data source, locate the property and enter the BFE (or base flood depth) of the building site. Indicate the elevation datum used.

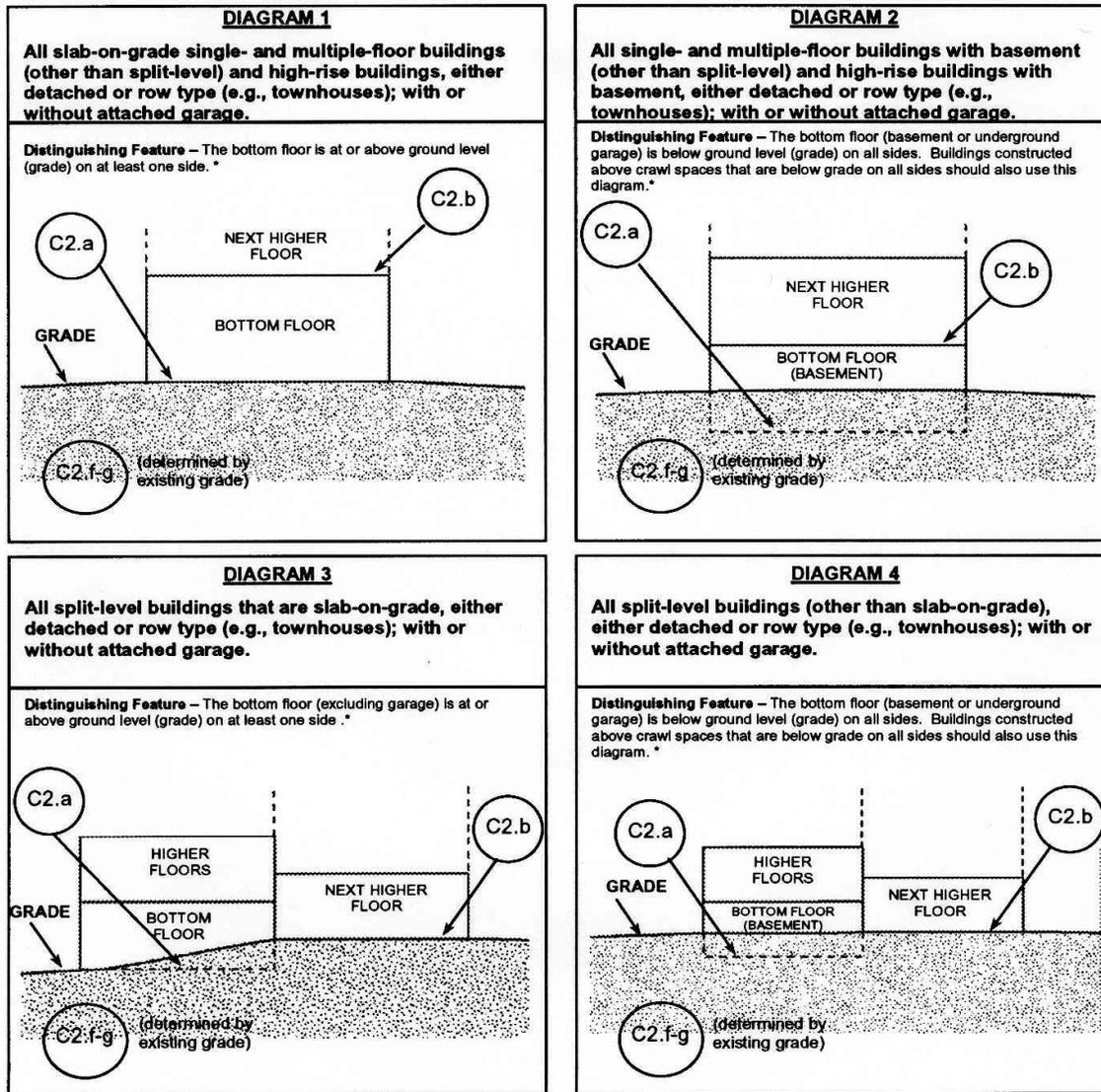
Enter your name, title, and telephone number, and the name of the community. Sign and enter the date in the appropriate blanks.

Figure 310-21. Page six of the instructions to FEMA's elevation certificate.

BUILDING DIAGRAMS

The following eight diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item A7., the square footage of crawl space or enclosure(s) and the area of flood openings in square inches in Items A8.a-c, the square footage of attached garage and the area of flood openings in square inches in Items A9.a-c, and the elevations in Items C2.a-g.

In A zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, the floor elevation is taken at the bottom of the lowest horizontal structural member (see drawing in instructions for Section C).



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

Figure 310-2m. Page seven of the instructions to FEMA’s elevation certificate.

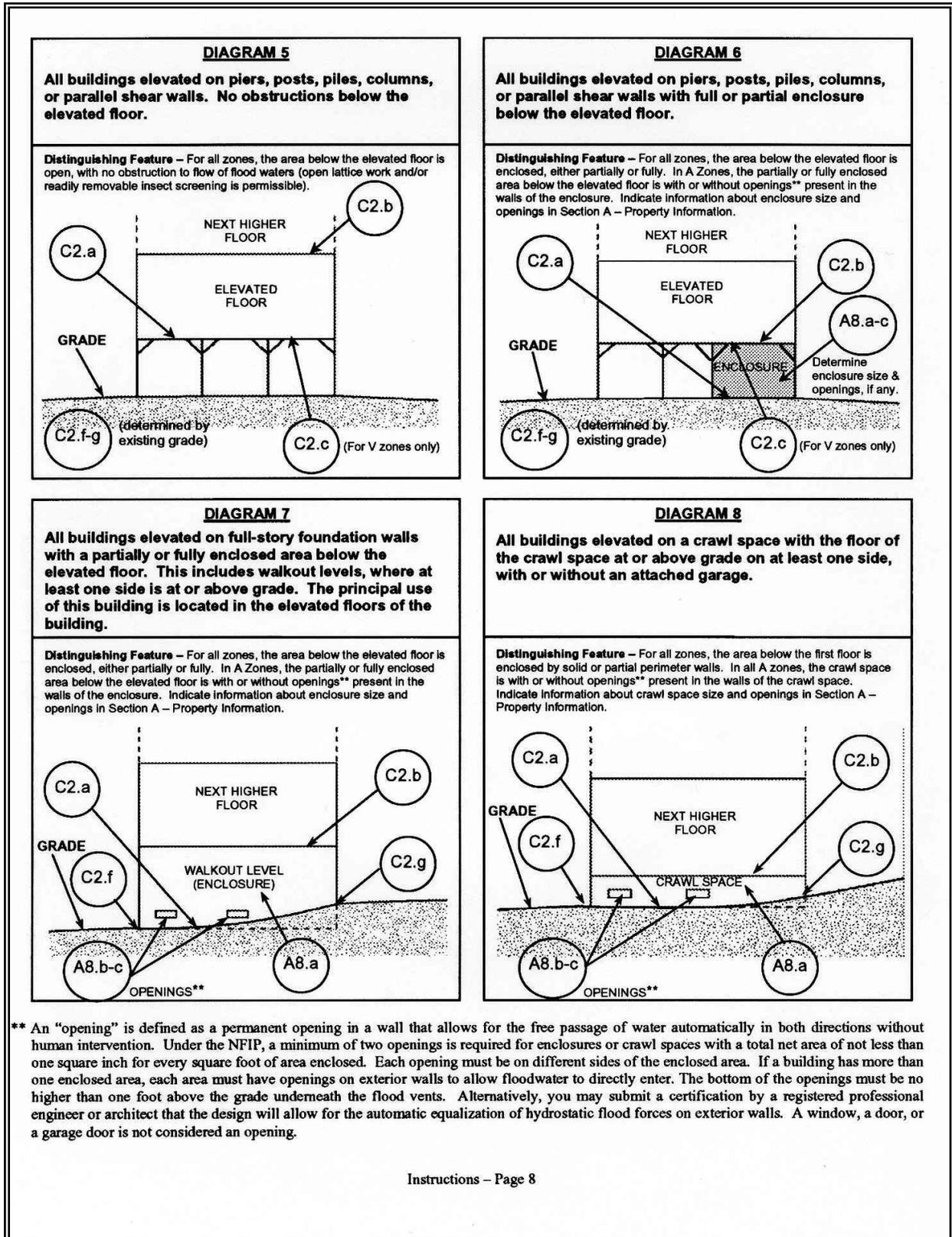


Figure 310-2n. Page eight of the instructions to FEMA’s elevation certificate.

ELEVATION CERTIFICATE QUICK REFERENCE GUIDE

FEDERAL EMERGENCY MANAGEMENT AGENCY
NATIONAL FLOOD INSURANCE PROGRAM
ELEVATION CERTIFICATE

Important: Read the instructions on pages 1 - 7.

O.M.B. No. 3067-0077
Expires July 31, 2002

SECTION A - PROPERTY OWNER INFORMATION

BUILDING OWNER'S NAME _____

BUILDING STREET ADDRESS (including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO. _____

CITY _____ STATE _____ ZIP CODE _____

PROPERTY DESCRIPTION (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) _____

BUILDING USE (e.g., Residential, Non-residential, Addition, Accessory, etc. Use a Comments area, if necessary.) _____

DATE OF LONGITUDE (OPTIONAL) _____ HORIZONTAL DATUM: SOURCE: GPS (Type): USGS Quad Map Other: _____

(#-#-##-## or ##-###-##) NAD 1927 NAD 1983

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP COMMUNITY NAME & COMMUNITY NUMBER _____ B2. COUNTY NAME _____ B3. STATE _____

B4. MAP AND PANEL NUMBER _____ B5. SUFFIX _____ B6. FIRM INDEX DATE _____ B7. FIRM PANEL EFFECTIVE/REVISED DATE _____ B8. FLOOD ZONE(S) _____ B9. BASE FLOOD ELEVATION(S) (Zone AO, use depth of flooding) _____

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in B9:
 FIS Profile FIRM Community Determined Other (Describe): _____
 B11. Indicate the elevation datum used for the BFE in B9: NAVD 1988 Other (Describe): _____
 B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Yes No Designation Date _____

Section A: 911 Address of building location, if possible. Complete all applicable items. Only the Latitude/Longitude item is optional. Attach a map or sketch or provide directions in Section D comments on Page 2, if necessary.

Section B: Items (B1-12) must always be completed except as described in B9 for Zone A (without a BFE).

B1 - Enter the NFIP name and number (six digits) of the community in which the building is located. For a building that is in an area that has been annexed by one community but is shown on another community's FIRM, enter the community name and 6-digit number of the annexing community. For buildings located in the unincorporated areas of a county, enter the NFIP name and number for the county, not the city listed in the postal address. A county-wide FIRM number (5-digit number plus "C") is not an NFIP community number.

B4 - Enter the FIRM map and panel number where the building is located. Due to annexations, this FIRM may be different than the one for the community entered in B1. For FIRM panel not in countywide format: use the 10-digit (6-digit community and 4-digit panel) number shown on the map. For FIRM panel in countywide format: use the countywide number (5 digits plus "C") followed by the 4-digit panel number shown on the map. For older FIRMs where the panel number is not four digits add enough zeros in front of the number to make it four digits. **Map/Panel Number** does not include the Suffix letter following the panel number - Enter Suffix letter in Item B5.

B6 - FIRM Index Date. Enter the date from the latest FIRM INDEX where the building is located, not the FIRM panel date except as noted. **NOTE:** For communities with only one FIRM panel there is no FIRM Index, use the panel date (same as B7). You may check the *NFIP Community Status Book* to ensure that you are using the current FIRM Index and current panel for the property location. This may be done on the www.fema.gov website or by calling 1-800-427-4661. Due to recent incorporations or annexations, the correct FIRM Index may be different than the one for the community entered in B1.

B7 - FIRM PANEL date. Enter the date from the FIRM panel where the building is located. The panel date may be the same or earlier than the FIRM Index date but not later. Due to annexations, the correct FIRM panel may be different than the one for the community entered in B1.

B8 - Flood Zone(s). Enter all flood zones in which the building is either partially or totally located.

B9 - BFE. Enter BFE determined from the Flood Insurance Study Profile (preferred source), Flood Elevation Table, FIRM or other source. A BFE should be provided for each flood zone listed in Item B8. Remember to enter depth for AO Zones. Leave blank if unnumbered Zone A (and a BFE has not been determined).

B10 - BFE. Enter BFE square for source(s) of BFE determination indicated in B9. "Other" would be "Community" or "Other" normally would be the source used to establish BFE for unnumbered A Zones. For developments of more than 50 lots or 5 acres, establishment of BFE's is required by the community's floodplain management ordinance.

B11 and B12 - Check appropriate boxes.

Figure 310-3a. Elevation Certificate Quick Reference Guide for CRS Communities, page one.

<p>Section C: Complete for all zones except AO and A (without a BFE) Zones (unless EC is to be used for LOMA or LOMR-F). Enter elevations for Items C3.a-g to the nearest tenth of a foot.</p> <p>C1 - A post-construction Elevation Certificate is required when construction is completed for floodplain management purposes and insurance rating purposes. Select "Finished Construction" which means all machinery and/or equipment such as furnaces, hot water heaters, heat pumps, air conditioners, and elevators and their associated equipment have been installed and the grading around the building is completed.</p> <p>C2 - Enter appropriate diagram number (1 through 8) based on building type, as illustrated on Pages 6 and 7 of the Instructions. If unsure of the correct diagram number, select the best option or provide a sketch or photograph of building and enter all elevations in C3.a-g. NOTE: Always completed.</p> <p>C3 - Confirm the elevation datum source and any necessary conversions, then complete C3.a-i according to the instructions for the diagram number selected in C2. See illustrations on Pages 6 and 7 of the Instructions.</p> <p>3.a - Elevation of top of lowest floor. This should never be the elevation of the attached garage slab (See C3.d). NOTE: Always completed.</p> <p>C3.b - Complete only if the building has two floor levels (not including the attached garage) as shown in the diagram illustrations on pages 6 and 7 of the Instructions. Otherwise, enter N/A.</p> <p>C3.c - Enter elevation only for V Zone buildings. Otherwise, enter N/A.</p> <p>C3.d - Enter elevation of the top of the attached garage slab. If none, enter N/A.</p>	<p>SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)</p> <p>C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input type="checkbox"/> Finished Construction *A new Elevation Certificate will be required when construction of the building is complete.</p> <p>C2. Building Diagram Number (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)</p> <p>C3. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V20, V (with BFE), AR, ARVA, ARVAE, ARVA1-A30, ARVAH, ARVAO Complete items C3.e-i below according to the building diagram specified in item C2. State the datum used. If the datum is different from the datum used for the BFE in Section B, convert the datum to that used for the BFE. Show field measurements and datum conversion calculation. Use the space provided or the Comments area of Section D or Section G, as appropriate, to document the datum conversion.</p> <p>Datum Conversion/Comments _____</p> <p>Elevation reference mark used _____ Does the elevation reference mark used appear on the FIRM? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> a) Top of bottom floor (including basement or enclosure) _____ ft.(m)</p> <p><input type="checkbox"/> b) Top of next higher floor _____ ft.(m)</p> <p><input type="checkbox"/> c) Bottom of lowest horizontal structural member (V zones only) _____ ft.(m)</p> <p><input type="checkbox"/> d) Attached garage (top of slab) _____ ft.(m)</p> <p><input type="checkbox"/> e) Lowest elevation of machinery and/or equipment servicing the building (Describe in a Comments area) _____ ft.(m)</p> <p><input type="checkbox"/> f) Lowest adjacent finished grade (LAG) _____ ft.(m)</p> <p><input type="checkbox"/> g) Highest adjacent finished grade (HAG) _____ ft.(m)</p> <p><input type="checkbox"/> h) No. of permanent openings (floor vents) within 7 ft. above adjacent grade _____</p> <p><input type="checkbox"/> i) Total area of all permanent openings (floor vents) in C2h sq. in. (sq. cm) _____</p>	<p>SECTION B - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION</p> <p>This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information in Sections A, B, and C on this certificate represents my best efforts to interpret the data available. I understand that any falsity statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1047.</p> <p>CERTIFIER'S NAME _____ LICENSE NUMBER _____</p> <p>TITLE _____ COMPANY NAME _____</p> <p>ADDRESS _____ CITY _____ STATE _____</p> <p>SIGNATURE _____ DATE _____ TELEPHONE _____</p> <p>ZIP CODE _____</p>
<p>C3.e - Enter the lowest elevation of the equipment servicing the building. If installed, servicing equipment elevation must be entered for the Finished Construction. Describe equipment in comments. Enter N/A only if servicing equipment will not be installed.</p>	<p>C3.f - Enter elevation of finished lowest adjacent grade (ground, sidewalk, patio slab or deck support immediately next to the building. For AO Zone, use natural grade, if available. Measure to nearest tenth of a foot if certificate is used for LOMA or LOMR-F. NOTE: Always completed.</p>	<p>C3.g - Enter elevation of finished highest adjacent grade (ground, sidewalk, patio slab or deck support immediately next to the building. For Zone AO, use natural grade, if available. Measure to nearest tenth of a foot if certificate is used for LOMA or LOMR-F request. NOTE: Always completed.</p>
<p>C3.h - Number of permanent openings that are no higher than 1.0 foot above the adjacent grade. If none, enter 0.</p>	<p>C3.i - Total area of permanent openings as described in C3.h. If none, enter 0.</p>	<p>Place signature and embossed seal in elevations. Flat stamp is authorized only in states that do not authorize embossed seal over the signature of a professional.</p>

Figure 310-3b. Elevation Certificate Quick Reference Guide for CRS Communities, page two.

<p>IMPORTANT: In these spaces, copy the corresponding information from Section A.</p> <p>BUILDING STREET ADDRESS (including Apt. Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO.</p> <p>CITY STATE ZIP CODE</p> <p>For Insurance Company Use Policy Number Company NAIC Number</p>	<p>Repeat address information from Section A in order to correctly match pages 1 and 2.</p>
<p>SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)</p> <p>Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.</p> <p>COMMENTS</p>	<p>Section D (continued): Use comments section to provide datum, elevation or other relevant information not specified on the front. Copy both sides of the certificate for the community official, insurance agent and building owner. <u>When an elevation for item C3.e is entered, describe machinery/equipment type here.</u></p>
<p>SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)</p> <p>For Zone AO and Zone A (without BFE), complete items E1 through E4. If the Elevation Certificate is intended for use as supporting information for a LOMA or LOMR-F, Section C must be completed.</p> <p>E1. Building Diagram Number _____ represents the building, provide a sketch or photograph.</p> <p>E2. The top of the bottom floor (including basement or enclosure) of the building is _____ ft.(m) _____ in.(cm) _____ above or _____ below (check one) the highest adjacent grade. (Use natural grade, if available).</p> <p>E3. For Building Diagrams 6-8 with openings (see page 7), the next higher floor or elevated floor (elevation b) of the building is _____ ft.(m) _____ in.(cm) above the highest adjacent grade. Complete items C3.h and C3.i on front of form.</p> <p>E4. For Zone A only, if no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown. The local official must certify this information in Section G.</p> <p><input type="checkbox"/> Check here if attachments</p>	<p>Section E: Use only for AO or Zone A (without a BFE) and certificate is not used to support information for a LOMA or LOMR-F. Otherwise, complete Section C instead.</p> <p>E1 - Enter appropriate diagram number (1 through 8) based on building type, as illustrated on Pages 6 and 7 of the Instructions.</p> <p>E2 - This corresponds to the elevation of "a" in the illustration of the diagram number selected for E1. Indicate how much this floor is above or below the highest adjacent grade.</p>
<p>E3 - This corresponds to the elevation of "b" in the illustration of the diagram number selected for E1. Enter how much this floor is above the highest adjacent grade. Enclosures below the elevated floor (as shown in the illustrations for building diagrams 6, 7 and 8) require openings. Items C3.h and C3.i must also be completed for these diagram numbers.</p>	<p>E4: - Community official must determine if building in Zone AO was constructed according to the community's floodplain management ordinance.</p>

Figure 310-3c. Elevation Certificate Quick Reference Guide for CRS Communities, page three.

<p>Section F: Certification of property owner or owner's representative who completes Sections A, B, C (Items c3.h and c3.i only) and E for Zone AO and c3.i only) and E for Zone AO and Zone A (without a BFE). The address indicated must be the actual mailing address of the property owner or representative who provided the information on the certificate. If a community official completes Section E, certification is done in Section G.</p> <p>Section G: The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. If the authorized community official completes Sections C, E, or G, complete the appropriate item(s) and sign this section.</p> <p>Check Item G1. If Section C is completed with elevation data from other documentation, including elevations obtained from the Community Rating System Elevation Software, that has been signed and embossed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by law to certify elevation information, and you performed the actual survey for a building in Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/A1-A30, AR/AE, AR/AH, or AR/AO, you must also complete Section D.</p>	<p style="text-align: center;">SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION</p> <p>The property owner or owner's authorized representative who completes Sections A, B, C (Items C3.h and C3.i only), and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, C, and E are correct to the best of my knowledge.</p> <p>PROPERTY OWNER'S OR OWNER'S AUTHORIZED REPRESENTATIVE'S NAME _____</p> <p>ADDRESS _____ CITY _____ STATE _____ ZIP CODE _____</p> <p>SIGNATURE _____ DATE _____ TELEPHONE _____</p> <p>COMMENTS _____ <input type="checkbox"/> Check here if attachments</p> <hr/> <p style="text-align: center;">SECTION G - COMMUNITY INFORMATION (OPTIONAL)</p> <p>The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below.</p> <p>G1. <input type="checkbox"/> The information in Section C was taken from other documentation that has been signed and embossed by a licensed surveyor, engineer, or architect who is authorized by state or local law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)</p> <p>G2. <input type="checkbox"/> A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.</p> <p>G3. <input type="checkbox"/> The following information (Items G4-G9) is provided for community floodplain management purposes.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; border: 1px solid black;">G4. PERMIT NUMBER _____</td> <td style="width: 20%; border: 1px solid black;">G5. DATE PERMIT ISSUED _____</td> <td style="width: 20%; border: 1px solid black;">G6. DATE CERTIFICATE OF COMPLIANCE/OCCUPANCY ISSUED _____</td> <td style="width: 40%;"></td> </tr> <tr> <td colspan="3"> <p>G7. This permit has been issued for: <input type="checkbox"/> New Construction <input type="checkbox"/> Substantial Improvement</p> <p>G8. Elevation of as-built lowest floor (including basement) of the building is: _____ ft. (m) Datum: _____</p> <p>G9. BFE or (ft Zone AO) depth of flooding at the building site is: _____ ft. (m) Datum: _____</p> </td> <td></td> </tr> <tr> <td colspan="4">LOCAL OFFICIAL'S NAME _____ TITLE _____</td> </tr> <tr> <td colspan="4">COMMUNITY NAME _____ TELEPHONE _____</td> </tr> <tr> <td colspan="4">SIGNATURE _____ DATE _____</td> </tr> <tr> <td colspan="4">COMMENTS _____</td> </tr> <tr> <td colspan="4">_____ <input type="checkbox"/> Check here if attachments</td> </tr> </table>	G4. PERMIT NUMBER _____	G5. DATE PERMIT ISSUED _____	G6. DATE CERTIFICATE OF COMPLIANCE/OCCUPANCY ISSUED _____		<p>G7. This permit has been issued for: <input type="checkbox"/> New Construction <input type="checkbox"/> Substantial Improvement</p> <p>G8. Elevation of as-built lowest floor (including basement) of the building is: _____ ft. (m) Datum: _____</p> <p>G9. BFE or (ft Zone AO) depth of flooding at the building site is: _____ ft. (m) Datum: _____</p>				LOCAL OFFICIAL'S NAME _____ TITLE _____				COMMUNITY NAME _____ TELEPHONE _____				SIGNATURE _____ DATE _____				COMMENTS _____				_____ <input type="checkbox"/> Check here if attachments			
G4. PERMIT NUMBER _____	G5. DATE PERMIT ISSUED _____	G6. DATE CERTIFICATE OF COMPLIANCE/OCCUPANCY ISSUED _____																											
<p>G7. This permit has been issued for: <input type="checkbox"/> New Construction <input type="checkbox"/> Substantial Improvement</p> <p>G8. Elevation of as-built lowest floor (including basement) of the building is: _____ ft. (m) Datum: _____</p> <p>G9. BFE or (ft Zone AO) depth of flooding at the building site is: _____ ft. (m) Datum: _____</p>																													
LOCAL OFFICIAL'S NAME _____ TITLE _____																													
COMMUNITY NAME _____ TELEPHONE _____																													
SIGNATURE _____ DATE _____																													
COMMENTS _____																													
_____ <input type="checkbox"/> Check here if attachments																													

Figure 310-3d. Elevation Certificate Quick Reference Guide for CRS Communities, page four.

Guidance for Verifying Building Compliance Using the FEMA Elevation Certificate

Section C of the Elevation Certificate records the elevation of various building components, but does not determine the “as built” lowest floor of the building or indicate whether the building, as constructed, complies with the community’s floodplain management ordinance. The determination of the “as built” lowest floor for compliance with the community’s floodplain management ordinance is the responsibility of the local floodplain management official. The local official can document the “as built” lowest floor in item G8. Use the following guidance for each diagram to determine which level is the lowest floor the community should be documenting in item G8.

Diagram Description	“As Built” Lowest Floor Determination
Diagram 1: Slab-on-grade buildings.	A Zones: C3.a, top of bottom floor. V Zones: See Note 1.
Diagram 2: Buildings with basement.	A Zones: C3.a, top of bottom floor (including basement). V Zones: See Note 1.
Diagram 3: Split-level slab-on-grade buildings.	A Zones: C3.a, top of bottom floor. V Zones: See Note 1.
Diagram 4: Split-level buildings other than slab-on-grade.	A Zones: C3.a, top of bottom floor (including basement) V Zones: See Note 1.
Diagram 5: Buildings elevated on piers, posts, piles, columns, or parallel shear walls (no obstructions, but open lattice and/or screening is permissible).	A Zones: C3.a, top of elevated floor. V Zones: C3.c, bottom of lowest horizontal structural member of the elevated floor (see Note 1)
Diagram 6: Buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure.	A Zones: If the enclosure has proper openings AND is used as parking, building access, or storage (see Note 2): C3.b, top of elevated floor If the enclosure does NOT have proper openings OR is used for something other than parking, access, or storage: C3.a, floor of enclosure V Zones: If the enclosure’s walls are breakaway AND the enclosure is used for parking, building access, or storage (see Note 3): C3.c, bottom of lowest horizontal structural member of the elevated floor If the enclosure’s walls are NOT breakaway OR the enclosure is used for something other than parking, access or storage: C3.a, floor of enclosure
Diagram 7: Buildings elevated on full-story foundation walls with partial or full enclosure.	A Zones: If the walkout level (enclosure) has the proper openings AND is used as parking, building access, or storage (see Note 2): C3.b, next higher floor If the walkout level (enclosure) does NOT have the proper openings OR is used as a finished living space: C3.a, floor of walkout level

Figure 310-4a. Guidance for verifying building compliance using the FEMA elevation certificate, page one.

<p>Diagram 8: Buildings elevated on crawl space. (See Note 4 on differentiating between a crawlspace and a basement.)</p>	<p>A Zones: If the crawl space enclosure has the proper openings (see Note 2) 3.b, next higher floor. If the crawl space enclosure does NOT have the proper openings: C3.a, floor of crawl space.</p> <p>V Zones: See Note 1.</p>
<p>Attached Garage (when garage floor is below the Base Flood Elevation):</p>	<p>If the garage has the proper openings (see Note 2), then use the guidance above.</p> <p>If the building has an attached garage that does NOT have the proper openings, then the garage floor (C3.g) is the “lowest floor” that should be identified in G8.</p>
<p>Equipment: Under the NFIP, buildings must be constructed with electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. Generally, this is done by elevating equipment above the Base Flood Elevation, but there are ways to floodproof equipment to keep water out.</p>	<p>Even though the building may be properly elevated based on the “as built” lowest floor, it is not a compliant building unless the equipment is properly elevated or floodproofed.</p> <p>See also <i>Protecting Building Utilities From Flood Damage</i>, FEMA-348, 2000. It can also be viewed and downloaded from www.fema.gov/library/lib06b.htm</p>

Note 1. V Zone buildings that are constructed similar to Diagrams 1-4, 7 and 8, are violations under the NFIP. For these buildings the lowest floor is measured at the bottom of the lowest horizontal structural member which will be the bottom of the slab or a footing.

Note 2. Enclosures and Openings in A Zones (Diagrams 6, 7, and 8). The NFIP Floodplain Management Regulations permit limited uses of enclosures below the lowest floor. The enclosed area below an elevated building cannot be used for something other than parking of vehicles, building access, or storage. The enclosure must be built with flood resistant materials. The enclosed areas below an elevated building must contain openings. An opening is defined as: *A permanent opening in a wall that allows for the free passage of water automatically in both directions without human intervention.* Openings are explained at the bottom of page 7 of the Elevation Certificate. The number and total area of openings are provided in C3.h and i. The floor area should be on the permit plans.

Note 3. In V Zones, an enclosure (as shown in Diagram 6) must be constructed with non-supporting, non-load bearing breakaway walls which meet applicable NFIP criteria. The enclosure can only be used for parking of vehicles, building access and storage and cannot be used for something other than parking, building access or storage. The enclosure must be built with flood resistant materials.

Note 4. Crawl Space Construction (Diagram 8): If the floor of the crawl space is below the Base Flood Elevation, NFIP requirements can be met by ensuring that the interior floor of the crawl space is at or above the lowest adjacent grade to the building. If the floor of the crawl space is below the Base Flood Elevation and the interior floor of the crawl space is below the adjacent grade on the exterior of the building, it is considered a “basement” and diagram 2 or 4 must be used for determining the lowest floor.

Figure 310-4b. Guidance for verifying building compliance using the FEMA elevation certificate, page two.

O.M.B. NO. 3067-0077
 Expires December 31, 2005

FEDERAL EMERGENCY MANAGEMENT AGENCY
 NATIONAL FLOOD INSURANCE PROGRAM
FLOODPROOFING CERTIFICATE
 FOR NON-RESIDENTIAL STRUCTURES

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation; however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

BUILDING OWNER'S NAME _____

STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX NUMBER _____

OTHER DESCRIPTION (Lot and Block Numbers, etc.) _____

CITY _____ STATE _____ ZIP CODE _____

FOR INSURANCE COMPANY USE

POLICY NUMBER _____

COMPANY NAIC NUMBER _____

SECTION I FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Provide the following from the proper FIRM:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (In AO Zones, Use Depth)

SECTION II FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect)

Floodproofing Design Elevation Information:

Building is floodproofed to an elevation of feet NGVD. (Elevation datum used must be the same as that on the FIRM.)

Height of floodproofing on the building above the lowest adjacent grade is feet.

(NOTE: for insurance rating purposes, the building's floodproofed design elevation must be at least one foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium.)

SECTION III CERTIFICATION (By Registered Professional Engineer or Architect)

Non-Residential Floodproofed Construction Certification:

I certify that, based upon development and/or review of structural design, specifications, and plans for construction, the design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

The structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation indicated above, with walls that are substantially impermeable to the passage of water.

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

I certify that the information on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME _____

LICENSE NUMBER (or Affix Seal) _____

TITLE _____

COMPANY NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

SIGNATURE _____

DATE _____ PHONE _____

Copies should be made of this Certificate for: 1) community official, 2) insurance agent/company, and 3) building owner.

FEMA Form 81-65, JAN 03

Replaces all previous editions

F-056 (1/03)

Figure 310-5. FEMA's floodproofing certificate.

U.S. DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY National Flood Insurance Program		RESIDENTIAL BASEMENT FLOODPROOFING CERTIFICATE			See Reverse Side for Paperwork Burden Disclosure	O.M.B. No. 1660-0033 Expires April 30, 2007
For use ONLY in communities which have been granted an exception by FEMA to allow the construction of floodproofed residential basements in Special Flood Hazard Areas.						
BUILDING OWNER'S NAME				FOR INSURANCE COMPANY USE		
BUILDING STREET ADDRESS (Including Apt., Unit, Number)				POLICY NUMBER		
				COMPANY NAIC NUMBER		
OTHER DESCRIPTION (Lot and Block Numbers, etc.)						
CITY		STATE		ZIP CODE		
SECTION I-FLOOD INSURANCE RATE MAP (FIRM) INFORMATION						
Provide the following from the FIRM and flood profile (from Flood Insurance Study)						
COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM	FIRM ZONE	BASE FLOOD ELEVATION (NGVD) (IN AO ZONES, USE DEPTH)	NAME OF FLOODING SOURCE(S) AFFECTING BUILDING
SECTION II-FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect)						
Floodproofing Design Elevation Information:						
Building is floodproofed to an elevation of _____ feet NGVD. (Elevation datum used must be the same as that on the FIRM.)						
Elevation of the top of the basement floor is _____ feet NGVD.						
(Note: The floodproofing design elevation must be at least one foot above the Base Flood Elevation (BFE))						
SECTION III-CERTIFICATION (By a Registered Professional Engineer or Architect)						
Residential Floodproofed Basement Construction Certification:						
<i>I certify that, based upon development and/or review of structural design specifications, and plans for construction, including consideration of the depth, velocity, and duration of flooding and the type and permeability of soils at the site, the design and methods of construction of the floodproofed basement to be used are in accordance with accepted standards of practice for meeting the following provisions:</i>						
<ul style="list-style-type: none"> • Basement, together with attendant utilities and sanitary facilities, is watertight to the floodproofing design elevation with walls that are impermeable to the passage of water without human intervention; and • Basement walls and floor are capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy resulting from flooding to the floodproofing design elevation; and have been designed so that minimal damage will occur from floods that exceed the floodproofing design elevation; and • Building design, including the floodproofing design elevation, complies with community requirements. 						
<i>I certify that the information on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code Section 1001.</i>						
CERTIFIER'S NAME				LICENSE NUMBER (or affix Seal)		
TITLE			COMPANY NAME			
ADDRESS			CITY	STATE	ZIP	
SIGNATURE				PHONE NO.	DATE	
Copies of this certificate must be given to: 1) the community official; 2) the insurance agent; and 3) the building owner.						
FEMA Form 81-78, May 04				F-200 (05/04)		

Figure 310-6. FEMA’s residential basement floodproofing certificate.

Communities Approved for Residential Basement Floodproofing Rating Credit			
STATE/COMMUNITY NAME	EFFECTIVE DATE ¹	STATE/COMMUNITY NAME	EFFECTIVE DATE ¹
Alaska		New York	
Fairbanks	2/28/73	Amherst	11/20/78
Idaho		Clarence, Town of	8/1/00
Ammon	6/8/90	North Dakota	
Iowa		Barnes Township	1/22/82
Clive	4/24/81	Casselton	6/18/81
Independence	9/7/89	Fargo	3/26/75 ²
LaPorte City	6/12/89	Grafton	5/21/81
Kansas		Harwood	12/19/85
Colwich	1/17/86	Harwood Township	1/22/82
Derby	2/15/83 ²	Horace	1/22/82
Great Bend	8/10/83	Mapleton	1/22/82 ²
Halstead	7/8/83	Oxbow	6/1/92 ²
Lindsborg	11/7/94	Pleasant Township	5/5/83
Rossville	2/18/92	Reed Township	1/22/82
Salina	3/6/86	Reiles Acres	8/23/82
Saline County	1/14/86	Stanley Township	2/8/82
Sedgwick	5/19/86 ²	West Fargo	6/5/78
Minnesota		South Dakota	
Alvarado	2/28/85	Madison	8/30/83
Clay County	3/28/75	Wisconsin	
Dilworth	8/29/83	Ashwaubenon	10/27/78
East Grand Forks	5/15/85 ²	Brown County	2/21/79 ²
Moorhead	2/12/76	Depere	10/27/78
Roseau, City of	7/23/99	Green Bay	10/27/78
Stephen	5/10/83	Howard	10/27/78
Warren	9/24/82	Shlocton	8/1/98
Nebraska		Village of Allouez	1/11/93 ²
Fremont	1/25/79		
Grand Island	7/29/80		
Hall County	2/10/80		
Hastings	7/8/83		
North Bend	10/15/98		
Schuyler	9/17/91		
Sidney	12/4/84		
Wood River	1/12/82		

¹ Effective date corresponds to the date of FEMA's letter to the community granting the exception request.
² The date the community adopted floodproofing ordinances.

Figure 310-7. Communities approved for residential basement floodproofing rating credit.

320 MAP INFORMATION SERVICE

Summary of Activity 320

321 Credit Points. There is one element in this activity for a maximum of 140 points.

Map Information (MI) Service: up to 140 points are provided if the community or other qualified agency:

1. Provides Flood Insurance Rate Map (FIRM) information to inquirers,
2. Provides information on the flood insurance purchase requirement,
3. Provides information on Coastal Barrier Resources System requirements,
4. Keeps old FIRMs and updates the maps used for the service,
5. Publicizes the service at least once a year,
6. Advises inquirers whether the property is subject to a special flood-related hazard, and
7. Answers questions from the inquirers about related topics such as local floodplain management requirements.

There is no impact adjustment for this activity.

322 Credit Calculation. Up to 140 credit points are provided for this activity. The credit points are based on whether all of the prerequisites are met and whether the service is provided through personal contact, a website, or other remote service provider.

323 Credit Documentation. The community must have the following documentation available to verify implementation of this activity.

- a. Documentation that shows how the service was publicized.
- b. If another agency provides this service, documentation that the agency agrees to provide the service to all inquirers and it will allow the ISO/CRS Specialist to verify its work.
- c. Records of institutions and agencies that were notified of this service.
- d. A record or log of requests for information. The record must note the date, the FIRM zone, the address or location of the property in question, and whether the inquirer was advised of the insurance purchase requirement and/or coastal barrier designation.
- e. Documentation showing how the FIRM is kept updated at least annually. The community must maintain copies of the FIRMs.

324 For More Information.

320 MAP INFORMATION SERVICE

Credit is provided for providing inquirers with information from the community's Flood Insurance Rate Map (FIRM), including whether a property is in a Special Flood Hazard Area (SFHA), which zone, and its base flood elevation. Credit depends on publicizing this service and advising inquirers about the mandatory flood insurance purchase requirement.

Background: This public information service can greatly help a community's residents as well as its banks, insurance agents, real estate agents, and anyone else who needs flood hazard information. It is particularly helpful to those who have trouble reading maps, people from out of town, and those who do not have access to the latest maps.

This activity is also intended to bring other available community resources to bear on each individual situation. Such resources include local topographic, planning, road, and utility maps; geographic information systems; special hazard area maps; permit records; and subdivision plats. Where they are available, these other resources can complement the FIRM as sources of additional flood data or more detailed map information. (NOTE: for compliance with the mandatory purchase requirement, the current FIRM (or Letter of Map Change) is the only legal document allowed to be used by lenders or third party vendors.)

Activity Description: There are seven prerequisites for full credit under this activity:

1. If requested, the community must provide all of the following FIRM information:
 - a. Whether the property is in an SFHA,
 - b. The community number,
 - c. The panel number and suffix,
 - d. The date of the FIRM's index (cover panel),
 - e. The FIRM zone, e.g., A, C, X, V, AE, A2, AO, etc.,
 - f. The base flood elevation (the depth in AO Zones) where shown on the FIRM,
 - g. The elevation datum used on the FIRM, if other than NGVD, and
 - h. Whether the property is on an undeveloped coastal barrier or "otherwise protected area" as designated on the FIRM.
2. If the property is in an SFHA, the community must inform the inquirer of the mandatory flood insurance purchase requirement, as appropriate. This may be done by advising the inquirer that flood insurance may be required because of the property's location or by providing a written summary of the requirement (e.g., the example in Figure 320-1).

3. If the FIRM shows the property to be in an “undeveloped coastal barrier” or “otherwise protected area” of the Coastal Barrier Resources System, the community must advise the inquirer that flood insurance, federal disaster assistance, and other types of federal financial assistance are not available for buildings constructed or substantially improved after the effective date of designation, as shown on the FIRM.
4. The map used for this service must be kept updated at least annually to reflect new subdivisions, annexations, flood insurance restudies, map revisions, and map amendments (including Letters of Map Amendment (LOMAs) and Letters of Map Revision (LOMRs)). The community must also maintain copies of all FIRMs that have been in effect since 1999 or the date the community applied for this credit, whichever is later.
5. The service must be publicized at least once a year. If the community uses a website for its services, the site’s address or URL must be publicized. The publicity must state that the community also has copies of elevation certificates for some properties in the floodplain.
6. If the community is receiving CRS credit for mapping and regulating one of the special hazard areas described in Section 401, inquirers must be advised if the property falls within a special hazard area and what precautions should be taken when developing or improving the property.
7. The service must provide an opportunity for the inquirer to talk to community staff about map and floodplain management questions.

There are many benefits to providing FIRM information. Residents and businesses that are aware of the potential flood hazard can take steps to avoid problems and/or reduce their exposure to flooding. Communities are the best source of map information because they can often supplement and clarify the FIRM with complementary maps, and with information on additional hazards, flooding outside mapped areas, development regulations that affect floodplain properties, flood insurance, and property protection measures. *NOTE: For compliance with the mandatory purchase requirement, the current FIRM (or Letter of Map Change) is the only legal document allowed to be used by lenders or third party vendors.*

Acceptable methods of providing map information include, but are not limited to:

- Reading the FIRM in response to a telephone call;
- Helping a person who walks into the office read the FIRM;
- Completing a form based on a marked-up street map sent in by an inquirer (see example, Figure 320-2). It is recommended that a local form or form letter include a disclaimer like the one in Figure 320-2; or
- Directing an inquirer to a website or other provider of the service, provided that the inquirer can obtain the information by entering a street address. There is no credit for simply having a map on the website or expecting an inquirer to read the map.

About the Mandatory Purchase of Flood Insurance Requirement

NFIP: This community participates in the National Flood Insurance Program (NFIP), which makes federally backed flood insurance available for all eligible buildings, whether they are in a floodplain or not. Flood insurance covers direct losses caused by surface flooding, including a river flowing over its banks, a lake or ocean storm, and local drainage problems.

The NFIP insures buildings, including mobile homes, with two types of coverage: building and contents. Building coverage is for the walls, floors, insulation, furnace, and other items permanently attached to the structure. Contents coverage may be purchased separately, if the contents are in an insurable building.

Mandatory Purchase Requirement: The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 made the purchase of flood insurance mandatory for federally backed mortgages on buildings located in Special Flood Hazard Areas (SFHAs). It also affects all forms of Federal or Federally related financial assistance for buildings located in SFHAs. The SFHA is the base (100-year) floodplain mapped on a Flood Insurance Rate Map (FIRM). It is shown as one or more zones that begin with the letter "A" or "V."

The rule applies to secured mortgage loans from such financial institutions as commercial lenders, savings and loan associations, savings banks, and credit unions that are regulated, supervised, or insured by Federal agencies such as the Federal Deposit Insurance Corporation and the Office of Thrift Supervision. It also applies to all mortgage loans purchased by Fannie Mae or Freddie Mac in the secondary mortgage market.

Federal financial assistance programs affected by the laws include loans and grants from agencies such as the Department of Veterans Affairs, Farmers Home Administration, Federal Housing Administration, Small Business Administration, and the Department of Homeland Security's Federal Emergency Management Agency (FEMA).

How it Works: Lenders are required to complete a Standard Flood Hazard Determination (SFHD) form whenever they make, increase, extend or renew a mortgage, home equity, home improvement, commercial, or farm credit loan to determine if the building or manufactured (mobile) home is in an SFHA. It is the Federal agency's or the lender's responsibility to check the current Flood Insurance Rate Map (FIRM) to determine if the building is in an SFHA. Copies of the FIRM are available for review in most local government building or planning departments. Lenders may also have copies or they use a flood zone determination company to provide the SFHD form.,

If the building is in a SFHA, the Federal agency or lender is required by law to require the recipient to purchase a flood insurance policy on the building. Federal regulations require building coverage equal to the amount of the loan (excluding appraised value of the land) or the maximum amount of insurance available from the NFIP, whichever is less. The maximum amount available for a single-family residence is \$250,000. Government sponsored enterprises, such as Freddie Mac and Fannie Mae, have stricter requirements.

The mandatory purchase requirement does not affect loans or financial assistance for items that are not covered by a flood insurance policy, such as vehicles, business expenses, landscaping, and vacant lots. It does not affect loans for buildings that are not in an SFHA, even though a portion of the lot may be. While not mandated by law, a lender may require a flood insurance policy, as a condition of a loan, for a property in any zone on a FIRM.

If a person feels that a SFHD form incorrectly places the property in the SFHA, he or she may request a Letter of Determination Review from FEMA. This must be submitted within 45 days of the determination. More information can be found at http://www.fema.gov/fhm/fq_gen11.shtm.

Figure 320-1. Handout on mandatory purchase of flood insurance.

**City of Floodville
Building Department
City Hall**

Date:

RE: Flood Insurance Rate Map Information

TO WHOM IT MAY CONCERN:

The property located at: _____, also
known as [legal description if needed] _____ has
been located on the city's Flood Insurance Rate Map (FIRM). The following
information is provided:

Floodville's community number: 123456

The property is located on panel number: ____, Suffix: ____.

The date of the FIRM index: May 15, 1980.

The property is located in FIRM zone: ____.

The main building on the property:

____ is located in a Special Flood Hazard Area (SFHA). The base flood elevation
at the property is: _____, NGVD. Federal law requires that a flood zone
determination be done as a condition of a federally backed mortgage to
determine if the structure is in an SFHA and if so, to require flood
insurance. It is up to the lender to determine whether flood insurance is
required for a property.

____ is not located in a Special Flood Hazard Area. However, the property may
still be subject to local drainage problems or other unmapped flood hazard.
Flood insurance from the NFIP is available at non-floodplain rates. A flood
insurance policy can still be required by a lender.

____ A decision about the building's exact location cannot be made on the FIRM.
A copy of the FIRM is attached for your information.

Flood insurance from the NFIP is available for any property in Floodville.
More information on flood insurance is attached. This office has copies of
FEMA Elevation Certificates for all buildings constructed in the SFHA since
1990. Questions on this letter and the City's floodplain management program
are welcome at this office by calling 555-123-1234.

NOTE: This information is based on the Flood Insurance Rate Map for the City.
This letter does not imply that the referenced property will or will not be
free from flooding or damage. A property not in a Special Flood Hazard Area
may be damaged by a flood greater than that predicted on the FIRM or from a
local drainage problem not shown on the map.

Building Official

Figure 320-2. Floodville's map information record.

NOTE: If Floodville was a coastal community with designated undeveloped coastal barriers, this record would have a section on whether the property was in such an area.

The community may charge a reasonable fee for providing map information to cover staff time and office overhead. This service should not include surveying or similar costs to collect new data, such as ground elevations.

To receive credit for this activity, the community's program must meet all seven of the prerequisites. The following comments correspond to these prerequisites.

1. The list in Section 1 of the Activity Description comprises the FIRM information needed to complete most of Section B of the FEMA elevation certificate (see Section 310). A copy of the elevation certificate for the property, if available, can suffice as meeting the minimum requirements. There is no pro-rating for providing only some of the needed map information.

The community need only supply the flood data requested. If the inquirer only wants to know if a building is in a floodplain, then advising whether it is in an SFHA as shown on the FIRM is sufficient. If a property is too close to the SFHA boundary to determine what FIRM zone the building is in, the community may give the inquirer a copy of the FIRM and advise that the FIRM zone cannot be determined based on the map information available.

The community is not required to provide data that do not appear on the FIRM, such as base flood elevations in unnumbered A Zones, but providing additional information from other maps and sources of flood hazard and flood protection information is encouraged.

The community must respond to an information request within a reasonable period of time.

2. If the person performing the map information service finds that a property is in the SFHA, he or she must inform the inquirer about the mandatory flood insurance purchase requirement (see Figure 320-1).

An alternative is to provide a summary similar to that in the booklet, "Mandatory Purchase of Flood Insurance Guidelines," FEMA-186, listed in Section 324, For More Information. A third alternative is to hand out a one-page summary, as shown in Figure 320-1. Handouts may be easier for the community to produce and distribute, but they do not necessarily help people who have trouble reading technical material or who want simple answers to simple questions.

Communities should be aware that federally regulated lenders are legally responsible for determining if a flood insurance policy is required for a loan. Under the National Flood Insurance Reform Act of 1994, if a "third party vendor," i.e., someone other than a lender, provides map information to decide if a flood insurance policy is required for a loan, the information must be guaranteed. Communities are not considered third party vendors. This activity credits providing map information to inquirers. It is not intended to encourage communities to assume the lender's responsibility. See also Figure 320-3.

Flood Hazard Determination Review

Activity 320 credits a map information service provided by the community. The mandatory purchase requirement places the responsibility on lenders to determine whether to require a flood insurance policy as a condition of a loan (see Figure 320-1). Many lenders hire map determination companies as third party vendors to assist them.

Sometimes a property is incorrectly placed in the SFHA by the lender or its map determination company. The property owner may come to the community asking for help or advice. The local official is welcome to double check the determination, but the inquirer should be informed that the determination is the lender's responsibility and the local government has no authority over it.

If it appears that the property is outside the SFHA, but the map determination says that it is inside, the owner can ask FEMA for a determination review within 45 days of the notice. A Flood Hazard Determination Review is requested jointly by the owner and the lender. Procedures for requesting the review can be found at http://www.fema.gov/fhm/fq_gen11.shtm.

If the submittal is complete and on time, FEMA will issue a Letter of Determination Review (LODR). This review does not result in an amendment or revision to the effective FIRM. It is only a finding about the location of a building or manufactured home relative to a designated SFHA.

A LODR only affects the Federal requirement for purchase of flood insurance. However, the mortgage lender always has the option to require flood insurance as a condition of providing financing, regardless of the location of the structure. If the map needs to be changed, the property owner can submit a request for a Letter of Map Amendment (LOMA).

Figure 320-3. Flood hazard determination review.

3. "Undeveloped coastal barriers" and "otherwise protected areas" of the Coastal Barrier Resources System are designated as such by Congress. The intent is to prohibit most expenditures of federal funds within these coastal barriers. The CBRA provisions are summarized in Figure 320-4.

If the local official cannot determine whether a property is within a designated coastal barrier or otherwise protected area, he or she can inform the inquirer to check with the U.S. Fish and Wildlife Service, either at a local office or by checking the website at http://www.fws.gov/habitatconservation/coastal_barrier.htm.

If the person providing the map information service finds that a property is in a designated coastal barrier, he or she must inform the inquirer about the designation, the fact that a flood insurance policy cannot be sold for a building constructed after the date of designation, and the limits on federal assistance.

Communities with designated undeveloped coastal barriers should determine the date(s) on which the restrictions went into effect locally. More information on the rules for these areas can be found in the Flood Insurance Manual for insurance agents, by checking with the U.S. Fish and Wildlife Service or its website, http://www.fws.gov/habitatconservation/coastal_barrier.htm.

The Coastal Barrier Resources System

The Coastal Barrier Resources Act of 1982 (CBRA), and the Coastal Barrier Improvement Act of 1990 removed the federal government from financial involvement associated with building and development in undeveloped portions of coastal areas (including the Great Lakes). These areas were mapped and designated as Coastal Barrier Resources System (CBRS) units and Otherwise Protected Areas. They are colloquially called “CBRA areas.” (pronounced “cobra” but not spelled that way).

Any federal program that may have the effect of encouraging development on coastal barrier islands is restricted by law. These programs include “any form of loan, grant, guarantee, insurance, payment, rebate, subsidy or any other form of direct or indirect Federal assistance” with specific and limited exceptions. For example, federal disaster assistance is limited to emergency relief in CBRA areas—there are no loans or grants to repair or rebuild buildings in those areas.

The legislation also banned the sale of National Flood Insurance Program (NFIP) flood insurance for structures built or substantially improved on or after a specified date. For the first CBRA designations, that date is October 1, 1983. For all subsequent designations, it is the date the CBRA area was identified. CBRA areas and their identification dates are shown in the legend of Flood Insurance Rate Maps (FIRMs).

If an owner of a building in a CBRA area wants to buy flood insurance, he or she would need a copy of the building permit showing that the building was properly built before the designation date and a signed statement from the floodplain ordinance administrator that it had not been substantially damaged or improved since then. The insurance agent may need to provide more documentation.

The boundaries of a CBRA area cannot be revised through the Letter of Map Amendment or Revision (LOMA/LOMR) process. They can only be revised through:

- Congressional action,
- Interpretation of boundaries by the U.S. Department of the Interior’s Fish and Wildlife Service, or
- Cartographic modifications by Department of Homeland Security’s FEMA to correct errors in the transcription of the Department of the Interior maps onto FIRMs.

If an NFIP policy is issued in error in a CBRA area, it will be cancelled and the premium refunded. No claim can be paid, even if the mistake is not found until a claim is made.

If a grandfathered building (i.e., a building built before the date of designation) is substantially improved or substantially damaged, its flood insurance policy will be cancelled.

Lenders are required to notify borrowers if the structure is in a CBRA area and that NFIP flood insurance and/or disaster assistance may not be available. Many lenders are reluctant to lend without protecting their investment with flood insurance and private flood insurance may not be available.

Figure 320-4. Provisions of the Coastal Barrier Resources Act.

4. The community, as well as a lender, must use the latest FIRM. The community is responsible for ensuring that the FIRM it uses is updated to reflect new subdivisions and changes in corporate limits. The community's FIRM also needs to show all new FIRM data from flood insurance restudies, map revisions, and map amendments. This may mean plotting every Letter of Map Amendment (LOMA) and Letter of Map Revision (LOMR) or noting on the paper FIRM that LOMAs and LOMRs have been issued.

The community must also maintain copies of prior FIRMs that have been in effect since 1999 or the date the community applied for this credit, whichever is later. It is recommended that the community maintain a copy of every FIRM that has been published (credit for this is available under Activity 440 (Flood Data Maintenance)). Copies of prior FIRMs may be available from the National Service Provider's Regional Management Centers (see Section 324.e).

Communities that use a digital map, GIS, or map overlays should consider applying for credit for Activity 440 (Flood Data Maintenance), which has the same prerequisite.

5. The map information service must be publicized at least once a year. The publicity must say that elevation certificates are available for public review. For example, if the community started keeping elevation certificates after 1990, the publicity could state "Copies of FEMA elevation certificates on all buildings constructed in the floodplain since 1990 are available at the Building Department."

Publicity for the service may be directed to the entire community or to three key audiences: lenders (banks, savings and loans, credit unions, etc.), insurance agents, and real estate agents. This can be done in one of three ways:

- a) Advise everyone about the map information service through one of three kinds of outreach projects:
 - An outreach project to the community credited under OPC in Activity 330 (Outreach Projects);
 - An outreach project pursuant to the public information strategy (OPS) credited in Activity 330, provided the public information strategy document discusses the best way to advise the target audiences; or
 - An outreach project that advises all residents and businesses in the community about the service, but is not credited under Activity 330 (e.g., a short notice with all tax or utility bills).
- b) An annual mailing (or e-mail) to all local lenders and insurance and real estate agencies. If the community cannot reach all three of these target audiences, it may receive partial credit for this activity.
- c) An annual article in the newsletters or magazines of appropriate organizations, such as the local Board of Realtors[®], the local chapter of the American Bankers Association, or the state's insurance department. If the Chamber of Commerce or similar

organization has a newsletter that reaches all the appropriate offices in the community, a notice in the newsletter will suffice.

These publicity methods are described in more detail in Section 323, Credit Documentation. The first method would be the most efficient and economical one if the community can use an existing newsletter or other annual mailing that reaches everyone in the community. The third approach can help where there are many communities implementing this activity and where one bank or insurance agency deals with several communities (in metropolitan areas, for example). A master list of communities providing map information could be prepared and distributed each year by a state or regional agency.

6. The CRS credits mapping and regulating special flood-related hazards, such as subsidence and coastal erosion. These credits are described in Section 401, Special Hazard Areas, and in separate publications. If the community is receiving CRS credit for mapping and regulating one of these hazards, the map information service must include telling inquirers if the property in question is also in the mapped special hazard area and any additional regulatory requirements the community may have for developing properties in that area.
7. The service must provide an opportunity for the inquirers to talk to community staff about map and floodplain management questions. One value of the map information service is that it provides an opportunity for the staff person responding to the inquiry to determine whether all of the inquirer's questions have been answered and to provide additional information on related topics, such as permit requirements and past flooding.

Therefore, the service must include an opportunity for personal contact. If the service is provided remotely, such as through a website, contractor, or by taking written or faxed requests, the annual publicity and the response to the inquirer must include a telephone number that can be called for further questions about map information and the community's floodplain management program.

A community may enter into an agreement with another agency, such as a regional planning commission, to provide map information. To receive CRS credit, there must be a written agreement that clarifies that the agency providing the service will respond to all inquirers and will allow the ISO/CRS Specialist to verify its work. The service must be publicized and a record of the inquiries must be maintained to facilitate verification of this credit (see Sections 323.b, c, and d).

321 Credit Points

Maximum credit for Activity 320: 140 points

Map Information Service:

MI = 140 points, if the community's service meets all seven of the prerequisites described under the Activity Description.

Credit is dependent upon both providing and publicizing the service. The community's method of providing map information and the accuracy of the information will be checked during the verification visit. The score for MI will be adjusted accordingly.

Example 321-1. Floodville responds to verbal and written inquiries. If the property cannot be located easily based on the street address, the lot and block numbers are requested. The form shown in Figure 320-2 is completed and signed by the building official. A copy of the form is kept in a separate file.

When the city designed the map information form, it met with local insurance agents and obtained an order form for flood insurance brochures and "stuffers." They are available free in quantity from the National Flood Insurance Program. Floodville also prepared a flyer based on the information in Figure 320-1. If a property is located in an SFHA, the appropriate box is checked and a stuffer and the flyer are attached to the form.

The publicity for Floodville's service is explained in Example 323.a-1. Because the service is provided and publicized, MI = 140.

322 Credit Calculation

$c320 = MI$

Example 322-1. As explained above, MI for Floodville = 140.

During the verification visit, the ISO/CRS Specialist confirms that the maps are being read correctly in all five of the samples checked.

$$c320 = 140 \times 1.0 = 140.$$

323 Credit Documentation

The community must submit the following documentation:

- a. Documentation that shows how the community publicizes the service each year. The publicity must:
 - be distributed at least once a year;
 - explain how to access the service, i.e., what telephone number to call, or what internet address to use to access the website;
 - provide a telephone number for more information about flood maps and the community's floodplain management program (if different from the number to call for the map information service); and
 - describe what elevation certificates are available for public review.
1. If the community publicizes this service through an annual outreach project credited under Activity 330 (OPC or OPS), the publicity materials may be included with the documentation for Activity 330. "320" must be noted in the margin of the outreach project where the map information service is addressed. If an OPS is used, the public information strategy document must discuss the best way to publicize the map information service to the target audiences.
2. If the community publicizes this service through an annual outreach project that is not credited under Activity 330, a copy of the project. The materials must be distributed each year and must reach at least 90% of the properties in the community (vacant lots are not counted).
3. If the community sends a letter or e-mail directly to lending institutions and real estate and insurance agencies, a copy of the letter or e-mail message.
4. If the community notifies organizations of lending institutions and real estate and insurance agencies, copies of the notices in their publications. If any of the organizations has not yet published the notices, documentation must include written assurance from the organization that it intends to publish the notification within six months of the CRS application date.

Example 323.a-1. Floodville's State NFIP Coordinator has initiated a system of sending a master list of communities that provide map information to the state offices that regulate lenders and insurance agents. The list is also sent to the state Board of Realtors®. The Coordinator met with these offices and gave them sample articles that are used to publicize the local services. Copies of the articles actually published and sent to lenders, insurance agents and real estate agents are included with Floodville's application. The article for the insurance agents' publication includes a note that Floodville also has FEMA elevation certificates available for all buildings constructed in the floodplain since 1986.

Example 323.a-2. Watertown sends a brochure to all addresses in the community as an OPC outreach project in Activity 330. Included is the following notice:

Floodplain Questions?

If you want to know if a property is in the Special Flood Hazard Area, check our website at www.Watertown.org/flood/mapinfo. You'll find a wealth of information on the City's Flood Insurance Rate Map, flood insurance, special rules for building in the floodplain, and ideas for protecting your property from flood damage. Or you can call the Building Department with all of your floodplain questions at 555/123-4567. The Building Department also has copies of FEMA elevation certificates for all buildings constructed in the floodplain since 1987.

- b. If another agency or organization provides map information, documentation that the agency agrees to provide the service to all inquirers and will allow the CRS to verify its work.

The community must have the following documentation available to verify implementation of this activity:

- c. Records of which institutions and agencies were notified of this service. If the community sends letters to institutions and agencies, a mailing list for those institutions and agencies.
- d. A record or log noting:
1. the date of the inquiry,
 2. the address or location of the property in question,
 3. the FIRM zone,
 4. whether the inquirer was advised of the rules on mandatory flood insurance purchase,
 5. whether the inquirer was advised of the CBRA areas and the financial assistance and flood insurance limitations in those areas (if appropriate), and
 6. Whether the inquirer was advised of additional special flood-related hazards and the precautions that should be taken when developing or improving the property (where appropriate).

Copies of letters will suffice for this documentation where the information is provided in writing. A sample of such a letter is shown in Figure 320-2. A log is required if information is given orally or on the telephone. A sample log is shown in Figure 320-5. Copies of the log or letters are also required if another agency or organization provides the map information.

- e. Documentation showing how the community keeps the FIRM updated at least annually to reflect new subdivisions, annexations, flood insurance restudies, map revisions, and map amendments (including LOMAs and LOMRs). The community must also have copies of all FIRMs that have been in effect since 1999 or the date the community applied for this credit, whichever is later.

LOG OF WALK-IN AND TELEPHONE MAP INFORMATION INQUIRIES

DATE	TYPE	ADDRESS	PANEL	ZONE	ELEV	INSURANCE INFORMATION GIVEN	DESIGNATED COASTAL BARRIER
2/3	W	201 W. Main	0001B	AE	734	H	No
2/4	T	309 W. Mumford	0001B	X	N/A	N/A	No
2/4	T	907 S. Busey	0002B	AE	727	V	No
2/5	L	408 E. Marion	0001B	A	N/A	H	No
2/5	W	3rd & State	0002B	AE	730	H	No

Codes: W - walk in T - telephone request L - written request
 H - gave handout V - told verbally N/A - not applicable

NOTE: If all of the map information comes from the same FIRM, the community number is not logged. The community in this example has only one FIRM based upon NGVD, so the FIRM date and datum are not included in the log. Also, the panel number logged includes the suffix. The community has all of the data required for this activity in its log.

Communities that have no undeveloped coastal barriers designated on their FIRMs do not need the last column of the log.

Communities receiving credit for one or more of the special flood-related hazards need to include a column on special hazards as a reminder to advise inquirers if the property is subject to that hazard.

Figure 320-5. Sample log for a map information service.

324 For More Information

Additional information, reference materials, and examples can be found at the CRS Resource Center at <http://training.fema.gov/EMIWeb/CRS/>.

- a. Copies of the following booklets are available free in quantity. See the FEMA Order Form at the end of Appendix E.

Answers to Questions about the National Flood Insurance Program, FEMA-387, Federal Emergency Management Agency, August 2001. (This is also available from FEMA's website at <http://www.fema.gov/nfip/qanda.shtm>.)

How to Use a Flood Map to Determine Flood Risk For a Property. FEMA-258, 1995.

Mandatory Purchase of Flood Insurance Guidelines, FEMA-186, Federal Emergency Management Agency, 1999. This booklet discusses the legal background of the flood insurance purchase requirement, particularly from the lender's perspective. (This is also available from FEMA's website at <http://www.fema.gov/nfip/mpurfi.shtm>.)

See also FEMA's flood hazard mapping website at

http://www.fema.gov/fhm/fq_gen.shtm.

Information on FEMA's review of a map determination can be found at

http://www.fema.gov/fhm/fq_gen11.shtm.

- b. Flyers and stuffers about flood insurance are available through the National Flood Insurance Program. Contact a local insurance agent who sells flood insurance for examples and order forms; they are also available from:

FEMA Distribution Center
P.O. Box 2010
Jessup, MD 20794-2012
1-800-480-2520
Fax: (301) 362-5335

- c. Rural communities can request help on this activity from the U.S. Natural Resources Conservation Service. Requests should be submitted to the local soil and water conservation district, which is usually located in the county seat.
- d. Assistance in determining whether a "too-close-to-call" property is in the Coastal Barrier Resources System can be obtained from the U.S. Fish and Wildlife Service. More information on the CBRS can be found on the U.S. Fish and Wildlife Service's website at http://www.fws.gov/habitatconservation/coastal_barrier.htm.
- e. Communities may check on past FIRMs and obtain background data by calling 1-877-FEMA MAP. They can also submit a written inquiry through this link: http://www.fema.gov/fhm/tsd_emap.shtm.
- f. The Compendium of Flood Map Changes is a list of all the changes made to the NFIP maps including Physical Map Revisions, Letters of Map Revision, and Letters of Map Amendment during a given 6-month period. The list is updated every 6 months and published in the *Federal Register*. See http://www.fema.gov/fhm/dl_comp.shtm.

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330 OUTREACH PROJECTS

Summary of Activity 330

331 Credit Points. There are five elements in this activity for a maximum of 380 points. The credit points are partially based on the number of topics covered by each outreach project.

- a. Outreach projects to the entire community (OPC): Up to 60 points are provided for sending written information to all properties in the community through a mailing or newsletter.
- b. Outreach projects to the floodplain properties (OPF): Up to 130 points are provided for sending a notice directed to properties in floodprone areas. The notice must clearly explain that the recipient's property is subject to flooding.
- c.
 1. Additional outreach projects (OPA): Up to 60 points are provided for conducting up to three additional outreach projects, such as a "flood awareness week" or flyers inserted in local newspapers, that will reach some of the population; OR
 2. Outreach projects pursuant to a public information program strategy (OPS): Up to 125 points are provided for implementation of additional projects that are identified in a public information program strategy. There is no OPA credit if the community receives credit for OPS.
- d. Promotion of flood insurance (PFI): Up to 65 points are provided for distributing a letter or brochure on flood insurance to all properties in the community.

332 Credit Calculation. The credit points for each element are totaled.

333 Credit Documentation. The community must have the following documentation available to verify implementation of this activity.

- a. Copies of the notices, flyers, and other materials used in the outreach projects.
- b. [If the community applies for credit under Section 331.c.2] A copy of the public information program strategy document and documentation that it is being implemented by the community.
- c. Documentation that shows when the outreach projects are undertaken.
- d. [If the community applies for credit for PFI under Section 331.d] An estimate of the number of buildings, apartments, and condominium units in the community and in the SFHA and how the numbers were calculated.

The community must submit the following with its annual CRS recertification:

- e. Copies of the community's outreach projects that were conducted that year.
- f. [If the community applies for credit under Section 331.c.2] A copy of the annual evaluation of the community's public information program strategy.

334 For More Information.

330 OUTREACH PROJECTS

*NOTE: A separate publication, **CRS Credit for Outreach Projects**, provides an example of a community program and application documentation. Communities are encouraged to obtain and read this document before applying for this activity. It will improve the quality of the application and reduce the need to provide additional documentation later. To order a free copy, see Appendix E.*

Credit is provided for advising people of the flood hazard, the availability of flood insurance, and/or flood protection methods.

Background: Just notifying people that they are exposed to a flood hazard can help motivate them to purchase flood insurance or protect their properties.

Research has proven that awareness of the hazard is not enough; people need to be told what they can do about it. Research has also shown that a properly run local information program is more effective than national advertising or publicity campaigns.

Activity Description: This activity credits public information projects that reach out to people, rather than a service to respond to inquiries. To receive credit under this activity, a community may do one or more of five types of projects:

- a. Send written information to all properties in the community through a newsletter, utility bill, telephone book, or other document that is sent to all properties.
- b. Send a notice directed to properties in floodprone areas. The notice must be distributed to all properties in the Special Flood Hazard Area (SFHA) and those additional areas known to have flooding problems. The notice must clearly explain that the recipient's property is in or near an area subject to flooding.
- c. EITHER:
 1. Conduct other outreach projects, such as a "flood awareness week" or flyers inserted in local newspapers, that will reach some of the population; OR
 2. Conduct other outreach projects pursuant to a locally prepared public information program strategy.
- d. Distribute a letter or brochure on flood insurance to all properties in the community or all properties in the SFHA.

Several other activities have publicity requirements that may be met with an outreach project that is credited under this activity. These include Activities 320 (Map Information Service), 360 (Flood Protection Assistance), 510 (Floodplain Management Planning), 540 (Drainage

System Maintenance), and 610 (Flood Warning Program). Outreach projects should be designed with these publicity needs in mind. An example of this is shown in Figure 330-1.

331 Credit Points

Maximum credit for Activity 330: 380 points

Credit for the outreach projects is based on both the type of project and the topics covered. For credit, an outreach publication must fully cover a topic. There are 10 topics that can be covered to receive full credit under OPC, OPF, or OPA.

1. The local flood hazard.
2. Flood safety (required for full credit under Activity 610, Flood Warning Program).
3. Flood insurance (required for repetitive loss area outreach projects under Section 503).
4. Property protection measures (required for repetitive loss area outreach projects under Section 503).
5. The natural and beneficial functions of the local floodplain.
6. A map of the local flood hazard.
7. The flood warning system (required for full credit under Activity 610, Flood Warning Program).
8. Floodplain development permit requirements.
9. The substantial improvement/substantial damage requirements.
10. Drainage system maintenance (required for full credit for stream dumping regulations under Activity 540, Drainage System Maintenance).

Examples of a variety of outreach projects, including samples of several brochures produced by federal agencies and others, are included in the publication *CRS Credit for Outreach Projects*. This publication is available at no cost (see Appendix E).

Credit usually will not be given if an outreach project contains only a single sentence on a topic. As discussed below, the topic should be covered in enough detail to be useful to the reader. If the information provided in one year is inadequate for Community Rating System (CRS) credit, the community may augment it and apply for additional credit in a modification in a later year (see Section 215).

The 10 topics that can earn credit are

- 1. The local flood hazard:** The project should include the source(s) of flooding (such as the names of the rivers or a statement that the greatest threat is storm surge from the ocean), information about past floods, and additional data on local flooding, such as velocities or the possibility of mudflows. At a minimum, this should include all flood hazards discussed in the community's Flood Insurance Rate Map (FIRM) and Flood Insurance Study. If the community provides map or additional flood hazard information as credited under Activities 320 (Map Information Service) or 360 (Flood Protection Assistance), the service could be publicized under this topic.
- 2. Flood safety:** Emergency precautions should be discussed, such as turning off the electricity and gas, not wading through moving floodwaters, or staying clear of unstable stream banks. Precautions against driving through flooded areas must be included. If the community is applying for credit for emergency warning dissemination under Activity 610 (Flood Warning Program), it must receive full credit for covering this topic. In coastal areas, the project should explain the need to evacuate when an evacuation order or advisory is issued.
- 3. Flood insurance:** The project should note that standard property insurance does not cover flood damage but that flood insurance is available in the community. It should include some basic facts, such as why flood insurance is important, the 26% chance of experiencing a flood during the life of a 30-year mortgage, the types of insurance coverage, and the fact that there is a 30-day waiting period before coverage goes into effect. The project should note whether the community has any undeveloped coastal barriers where insurance may not be available. This topic must be covered in the outreach project that is implemented to meet the annual notice requirement for repetitive loss communities (see Section 503.e).
- 4. Property protection measures:** Measures to protect a property from flood damage include retrofitting, grading a yard, correcting local drainage problems, and such emergency measures as moving furniture and sandbagging. Retrofitting measures are discussed in Activity 530 (Flood Protection). In areas subject to hurricanes and tropical storms, measures that protect against high winds should be mentioned, such as installing storm shutters and reinforced garage doors.

If the community provides property protection or retrofitting advice as credited under Activity 360 (Flood Protection Assistance), the service could be publicized under this topic. This topic must be covered in the outreach project that is implemented to meet the annual notice requirement for repetitive loss communities (see Section 503.e).

- 5. Natural and beneficial functions:** The outreach project should discuss the natural and beneficial functions of local floodplains, any unique local features, the importance of protecting these functions, and how they can be protected. For CRS credit the discussion must address local conditions.

-
- 6. Map of the local flood hazard:** If the project includes a map of the community's flood hazard areas, it must meet the following criteria:
- a. The map must clearly show every street affected, although all streets do not have to be named. Major streets must be named. If parcel lines or other linear features are shown, they must be readily distinguishable from streets.
 - b. The floodprone area must be clearly shown through shading or another method. In coastal communities, the coastal areas affected by storm surge from different categories of hurricanes can be shown on the map as an alternative to showing the floodplain.
 - c. The map must be at a scale of at least 1 inch = 1 mile (about 1:62,500). A map to a smaller scale, such as 1 inch = 2 miles (1:125,000) may be appropriate for large rural areas with few streets.
- 7. The flood warning system:** Information on warning procedures, signals used, warning time, what radio and/or television station(s) to tune to, and similar data should be disseminated. These items must be covered if the community is applying for credit for emergency warning dissemination under Activity 610 (Flood Warning Program) (see Section 611.b.1(e)). No credit is awarded if the community does not have a flood warning system.
- 8. Floodplain development permit requirements:** The outreach project should explain that all developments in the floodplain (not just construction of buildings) need local permits. People should be advised to contact the community's regulatory department before they build, fill, or otherwise develop. They should also be told how to report illegal floodplain development.
- 9. The substantial improvement/damage requirements:** The National Flood Insurance Program (NFIP) requires that if the cost of reconstruction, rehabilitation, addition, or other improvements to a building equals or exceeds 50% of the building's market value, then the building must meet the same construction requirements as a new building. Substantially damaged buildings must also be brought up to the same standards (e.g., a residence damaged so that the cost of repairs equals or exceeds 50% of the building's value before it was damaged must be elevated above the base flood elevation).

The outreach project should summarize the requirements (which are in the community's floodplain management regulations) and the local procedures for enforcing them. More information on the substantial improvement and substantial damage rules can be found in *Answers to Questions about Substantially Damaged Buildings*, FEMA-213 (see Section 334.e).

- 10. Drainage system maintenance:** The project should discuss regulations against dumping in channels, how to report violations, and why it is important to maintain the drainage system. These items must be covered if the community wants full credit for

its stream dumping regulations under Activity 540 (Drainage System Maintenance), (see Section 541.b.2 and the example shown in Figure 330-1).

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) has funded several research projects to find out what will motivate people to protect themselves from flooding. These projects have concluded that a properly run public information program can motivate property owners to protect themselves from flood damage.

One experiment showed that a direct mailing to floodplain residents was as effective as more expensive combinations of mailings, public meetings, and radio and television advertising. The research found that an effective public information program should be based on these principles:

1. An initial outreach document should not be long and detailed. The objective is to raise the property owner's interest by explaining the general idea of flood protection. More detailed information can be made available in a library or through technical assistance (see Activities 350 (Flood Protection Information) and 360 (Flood Protection Assistance)).
2. The message must be clear and unambiguous. It should be consistent throughout the material used. It should be written to be understood by the lay person.
3. The information should be geographically personalized so that readers see that it specifically addresses their situation. A brochure with a picture of a flooded local landmark will have a stronger impact than a state or federal publication. Individually addressed notices are more effective than general articles, maps, or letters addressed to "Occupant," because they clearly tell recipients that they are affected.
4. The recipient must view the information source as credible, authoritative, and relevant. A statement by the city engineer may be more appropriate than one by the governor.
5. The information should cover the risk of flooding without being too technical. Property owners must be convinced that they will be flooded someday.
6. The message must clearly articulate the most desirable measures. These measures must be appropriate for the hazard, affordable, and perceived as "realistic" by a property owner. They should fit in with the appearance of the area's housing.
7. The information should discuss the costs and benefits of various protection measures. It should include the up-to-date dollar costs of implementing each measure.
8. Because no retrofitting measure is foolproof, especially against higher, less frequent floods, flood insurance should always be recommended. In areas subject to basement flooding, the community should investigate the availability of private insurance coverage for sewer backup and sump pump failure.

9. A comprehensive program that reinforces the message from several sources at the local level is more productive.

The extra effort to prepare a locally appropriate series of outreach projects will pay off as property owners purchase flood insurance and protect their buildings. Success in this effort can also be credited by the CRS under Activity 530 (Flood Protection). More credit is provided for a direct mailing to floodplain properties because research has shown it to be the most effective in motivating people to insure or floodproof their properties.

a. Outreach projects to the entire community (OPC) (Maximum credit: 60 points)

OPC = the sum of the points for each topic covered in written information sent to all properties in the community through a newsletter, utility bill, telephone book, or other document sent to everyone. A newspaper may be used as long as the information is not in a legal notice, small classified ad, or similar obscure location.

The project must cover one or more of the 10 topics at least once a year to at least 90% of the properties in the community. Full coverage of each topic is worth six points.

The topics do not all have to be covered in the same distribution, but the distribution must ensure that the topics credited are covered at least once each year. For example, a community with a quarterly newsletter may cover two topics in each edition and be credited for covering eight each year.

There is no impact adjustment for this activity. For this credit, the outreach project must be sent to at least 90% of the properties in the community. "Properties" can be counted as utility customers, tax parcels, or other measures that approximate all of the addresses in the community. Vacant lots need not be counted.

Generally a distribution to all taxpayers, water customers, or property owners is considered 100% distribution. A commercial newspaper can only be counted if the community can document that it reaches 90% of the properties in the community.

Example 331.a-1. Floodville mails a flood protection information flyer to all community properties every year. A copy is shown in Figure 330-1. It is marked to show where each topic is covered. The flyer covers six topics: the local flood hazard, flood safety, flood insurance, property protection, floodplain development permit requirements, and drainage system maintenance. This flyer also meets the publicity requirements for Activity 360 (Flood Protection Assistance) and Activity 540 (Drainage System Maintenance).

$$\text{OPC} = 6 \times 6 = 36$$

City of Floodville Flood Protection Information



Flooding in our city is caused by three sources: Foster Creek leaves its banks during heavy storms, snowmelt or ice jams. Floodwaters can cover many blocks up to four or five feet deep. The Southeast Ditch and Deadman's Run are smaller streams which flood during or soon after heavy storms. Floodwaters are not as deep, but they still cover streets and yards and can flood cars, garages, basements and lower floors.

Flooding in all three areas can come with little warning. An ice jam on Foster Creek in 1982 covered streets within 15 minutes of forming. In July 1986, Southeast Ditch and Deadman's Run flooded within an hour after a thunderstorm started. Floods are also dangerous. Even though they appear to move slowly (three feet per second), a flood two feet deep can knock a man off his feet and float a car.

Your property may be high enough that it was not flooded recently. However, it can still be flooded in the future because the next flood could be worse. If you are in the floodplain, the odds are that someday your property will be damaged. This flyer gives you some ideas of what you can do to protect yourself.

Local Flood Hazard

City Flood Services: The first thing you should do is check your flood hazard. Flood maps and flood protection references are available at the Floodville Public Library. You can also visit the Building Department on the first floor of City Hall to see if you are in a mapped floodplain. If so, they can give you more information, such as depth of flooding over a building's first floor, past flood problems in the area, and copies of elevation certificates on buildings built in the floodplain since 1991. They also have a handout on selecting an architect, engineer, or contractor. Even if you are not in a floodplain, there still may be some risk of flooding.

If requested, the Public Works Department will visit a property to review its flood problem and explain ways to stop flooding or prevent flood damage. Call the Department at 555-1234. These services are free. If you are in a floodplain or have had a flood, drainage or sewer backup problem, check out these sources of assistance.

FPA-360 Publicity

What You Can Do: Several of the City's efforts depend on your cooperation and assistance. Here is how you can help:

Drainage

- Do not dump or throw anything into the ditches or streams. Dumping in our ditches and streams is a violation of Floodville City Ordinance 21.35. Even grass clippings and branches can accumulate and plug channels. A plugged channel cannot carry water and when it rains the water has to go somewhere. Every piece of trash contributes to flooding.
- If your property is next to a ditch or stream, please do your part and keep the banks clear of brush and debris. The City has a stream maintenance program which can help remove major blockages such as downed trees.
- If you see dumping or debris in the ditches or streams, contact the Public Works Department at 555-1234.

Permits

- Always check with the Building Department before you build on, alter, regrade, or fill on your property. A permit may be needed to ensure that projects do not cause problems on other properties.
- If you see building or filling without a City permit sign posted, contact the Building Dept. at 555-1234.
- Check out the following information on floodproofing, flood insurance and flood safety.

Property Protection

Floodproofing: There are several different ways to protect a building from flood damage. One way is to keep the water away by regrading your lot or building a small floodwall or earthen berm. These methods work if your lot is large enough, if flooding is not too deep, and if your property is not in the floodway. The Building Department can provide this information.

Another approach is to make your walls waterproof and place watertight closures over the doorways. This method is not recommended for houses with basements or if water will get over two feet deep.

Figure 330-1a. Floodville's outreach project to the community.

A third approach is to raise the house above flood levels. A small wood frame house can be elevated for less than \$10,000. Sound crazy? Check out some of the houses on St. Mary's Road near 40th Street. The owners had a contractor raise their homes three feet for under \$6,000 each. The owners did the stairs, the deck, and the landscaping themselves. In 1988, the Foster Creek flood went under these houses without damaging them.

Many houses, even those not in the floodplain, have sewers that back up into the basement during heavy rains. A plug or standpipe can stop this if the water doesn't get more than one or two feet deep. They can be purchased at a hardware store for under \$25. For deeper sewer backup flooding, talk to a plumber about overhead sewers or a backup valve. Last year five Floodville homes got overhead sewers or backup valves.

These measures are called floodproofing or retrofitting. More information is available at the Floodville Public Library. *Important note:* Any alteration to your building or land requires a permit from the Building Department. Even regrading or filling in the floodplain requires a permit.

If you know a flood is coming, you should shut off the gas and electricity and move valuable contents upstairs. It is unlikely that you will get much warning, so a detailed checklist prepared in advance would help ensure that you don't forget anything.

Flood Insurance:

If you don't have flood insurance, talk to your insurance agent. Homeowner's insurance policies do not cover damage from floods. However, because Floodville participates in the National Flood Insurance Program, you can purchase a separate flood insurance policy. This insurance is backed by the Federal government and is available to everyone, even for properties that have been flooded.

Some people have purchased flood insurance because it was required by the bank when they got a mortgage or home improvement loan. Usually these policies just cover the building's structure and not the contents. During the kind of flooding that happens in Floodville, there is usually more damage to the furniture and contents than there is to the structure.

At last count, there were 55 flood insurance policies in Floodville. If you are covered, double-check that the building coverage is adequate and make sure you have contents coverage. Remember: Even if the last flood missed you or you have done some flood-proofing, the next flood could be worse. Flood insurance covers all surface floods.

Don't wait for the next flood to buy insurance protection. There is a 30-day waiting period before National Flood Insurance Program coverage takes effect. Contact your insurance agent for more information on rates and coverage.

Flood Safety

Do not walk through flowing water. Drowning is the number one cause of flood deaths, mostly during flash floods. Currents can be deceptive; six inches of moving water can knock you off your feet. If you walk in standing water, use a pole or stick to ensure that the ground is still there.

Do not drive through a flooded area. More people drown in their cars than anywhere else. Don't drive around road barriers; the road or bridge may be washed out.

Stay away from power lines and electrical wires. The number two flood killer after drowning is electrocution. Electrical current can travel through water. Report downed power lines to the Power Company or City emergency management office.

Have your electricity turned off by the Power Company. Some appliances, such as television sets, keep electrical charges even after they have been unplugged. Don't use appliances or motors that have gotten wet unless they have been taken apart, cleaned, and dried.

Look out for animals, especially snakes. Small animals that have been flooded out of their homes may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals.

Look before you step. After a flood, the ground and floors are covered with debris including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

Be alert for gas leaks. Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns, or open flames unless you know the gas has been turned off and the area has been ventilated.

Figure 330-1b. Page two of Floodville's outreach project to the community.

b. Outreach projects to floodplain properties (OPF) (Maximum credit: 130 points)

OPF = the sum of the points for each topic covered in written information sent to all properties in the community's floodprone areas. The notice must be distributed to all properties in the SFHA and other areas known to have flood problems. The notice must clearly explain that the recipient's property is subject to flooding.

The project must cover one or more of the 10 topics at least once a year to at least 90% of the properties in the floodplain. Full coverage of each topic is worth 13 points.

The project must clearly tell the readers that their properties are subject to flooding (e.g., a letter that begins: "Your property is in or near the flood hazard area as mapped by the Federal Emergency Management Agency"). There is no impact adjustment for this activity. For this credit, the outreach project must be sent to at least 90% of the properties in the floodplain. "Properties" are counted the same way as in Section 331.a, Outreach Projects to the entire Community.

Multiple projects are encouraged because repeated messages have been shown to be more effective. A 100% floodprone community can receive credit for OPF, but cannot receive OPC credit for the same mailing even though it goes to the entire community. If the community does two mailings in the same year, it can receive OPC credit for the second mailing.

Example 331.b-1. A brochure was prepared by a regional drainage and flood control district. Floodville mails it to each floodplain resident. The brochure identifies the flood hazard by naming the streams, showing their floodplains on a map, and noting that they are subject to flash flooding, a hazard that provides little warning. At the beginning, the reader is told, "You are located in or very near the flood hazard area."

Because the objective of this outreach project is to advise people of the safety threat, it does not discuss property protection or permit requirements. This brochure is credited for covering five topics: the local flood hazard, local flood hazard map, flood warning, flood safety, and flood insurance.

$$\text{OPF} = 5 \times 13 = 65$$

c. EITHER:

1. Additional outreach projects (OPA) (Maximum credit: 60 points)

OPA = 2 for each topic covered in additional outreach projects, such as a "flood awareness week" or flyers inserted in local newspapers. Credit for a

community website may be received under either this element or under Activity 350 (Flood Protection Information), but not both.

A community can earn a maximum of 20 points each for up to three projects, so the total number of points available for OPA is 60.

OR

To be considered separate projects, each outreach project must either use different media or must involve two-way communication with a different audience. For example, presentations to the Chamber of Commerce, a neighborhood association, and a meeting of insurance agents are considered three separate projects (e.g., OPA1, OPA2, and OPA3). However, handing out the same brochure to the three groups and displaying the brochure in city hall and the library are all considered one project. If the information in the brochure was also the subject of a cable TV notice, that would be considered a second project.

A document prepared by a county, state, or regional agency can be credited, provided that

- (1) It is distributed in different public places throughout the community. Simply having copies available in one office does not qualify for credit, and
- (2) Where appropriate, it provides local information. For example, to receive credit for the local flood hazard, the document must describe the hazard to the same degree as would a local document. To receive full credit for drainage system maintenance, the document must identify the appropriate office to which dumping should be reported.

Many communities have “flood awareness weeks,” “disaster awareness months,” or similar times when several different activities are underway concurrently. These programs can be more effective if they are coordinated with similar activities at the state or federal level. Outreach project authors and planners should check with their state emergency management agency, FEMA, and the National Weather Service to determine when such activities will be conducted.

Example 331.c-1. A flyer advertising a “floodproofing open house” is posted in various public places in Watertown and publicized through news releases. The open house includes presentations on flood protection and flood insurance along with exhibits set up by local floodproofing contractors.

Staff members from government agencies, including Watertown’s building department, the State NFIP Coordinator, FEMA, the National Flood Insurance Program, and the U.S. Army Corps of Engineers participate and answer technical questions. Also present are volunteers from local conservation organizations who pass out materials and answer questions about Watertown’s parks and bottomland hardwoods.

The floodproofing open house was designed to encourage people to undertake flood protection measures. People from many communities are invited, so the program

does not discuss any particular river's flood problem or have local flood maps. Instead, attendees are advised to check with their city engineers' offices for flood data. The program does not cover flood warning, flood safety, or drainage system maintenance.

Watertown has a complete description of the project and can document that five of the 10 topics are covered: flood insurance, property protection, development permit requirements, substantial improvement requirements, and the natural and beneficial functions of the local floodplain.

$$\text{OPA1} = 2 \times 5 = 10$$

Watertown's City Hall lobby has a rack of handouts, brochures, and other informative materials of interest to citizens. The rack includes a supply of the CRS brochures (which cover flood insurance) and a handout from the Building Department on why and when floodplain permits are needed (permit requirements).

$$\text{OPA2} = 2 \times 2 = 4$$

If Watertown had another outreach project, it would be designated OPA3.

2. Outreach projects pursuant to a public information program strategy (OPS) (Maximum credit: 125 points). This is an alternative to Section 331.c.1 (OPA).

OPS = the total of the following points:

- (a) 100, for implementing additional outreach projects that are identified in a public information program strategy, regardless of the number of projects or topics covered. The strategy must reflect a logical thought process that reviews the problem, lists what public information activities are currently being implemented, sets goals, and recommends any new projects that may be needed to reach those goals. This credit is dependent on a public information program strategy prepared according to the following criteria:

- (1) The community must establish a public information outreach strategy team that includes representatives of agencies and organizations active in floodplain management and public information. The strategy team need not be a formal organization. At a minimum it must consist of three people, including:

((a)) Someone familiar with the community's floodplain management program, and

((b)) At least one representative from outside the community's government.

- (2) The outreach strategy team must prepare a written document that describes:
 - ((a)) The local flood hazard,
 - ((b)) The flood safety and property protection measures appropriate for that hazard,
 - ((c)) The flood-related public information activities currently being implemented within the community (including those by non-government agencies),
 - ((d)) Goals for the community's public information program,
 - ((e)) The outreach projects that will be done each year to reach the goals, and
 - ((f)) The process that will be followed to monitor and evaluate the projects.
 - (3) The projects must be in addition to any projects credited under Section 331.a or 331.b. They do not have to cover the same 10 topics, but discussion of each topic must describe where to get more information.
 - (4) The community must submit documentation that the strategy is being implemented by the community.
 - (5) The community's annual recertification must include a copy of an annual report evaluating the projects implemented.
- (b) 25, if the strategy meets the above credit criteria and the following additional criteria are met:
- (1) The community's public information program strategy was prepared or updated by a strategy team that includes several community stakeholders, such as representatives from the public, private businesses, and major employers.
 - (2) The strategy is a multi-hazard one. The document must include a description of all the natural hazards that pose a major threat to the community and the safety and property protection measures appropriate to those hazards. As with the regular credit for this element, if these descriptions are in other documents, they may be attached to the strategy.
 - (3) The planned outreach projects address the other hazards, in addition to the flood hazard.

A community that prepares, implements, and monitors its public information strategy would receive up to 125 points, regardless of the number of projects or topics covered. It is assumed that a properly prepared strategy that reviews the problem, determines how to best reach the target audiences, and coordinates with other information programs will produce the best outreach projects for that community.

Therefore, the organization of the outreach strategy team and the preparation of the strategy document are most important. Some guidelines on the five parts of the criteria are presented below. Additional information, guidance, and examples are found in *CRS Credit for Outreach Projects* (see Appendix E).

- (a) The public information outreach strategy team does not have to be a formal organization. It can be as small as three people or it can be a larger group that wants to coordinate the public information activities in a metropolitan area. Several communities can cooperate or the strategy may be prepared at the county level. In such cases, the community would have to have at least one representative on the strategy team.

The outreach strategy team must have at least three members, including:

- (1) Someone familiar with the community's floodplain management program, such as the CRS Coordinator, and
- (2) At least one representative from outside the community's government. This could be someone from the public schools, a neighborhood association, the Red Cross, insurance agencies, utilities, or other offices involved in education or floodplain management.

Additional members could include someone familiar with the local emergency management program, floodplain residents, or someone from the public information office.

It should be noted that the CRS does not intend that this create an unwarranted burden on communities. This team can be very informal and need only meet once or twice a year. Existing committees or advisory boards may fulfill the role if they include at least the representation noted above to ensure coordination with groups outside the city or county government.

The membership of the team will vary by community. A coastal town dependent on tourism should have a motel or restaurant owner involved because explaining flood warning and evacuation procedures to tourists would be important. A community with one or two major employers may want to include the people responsible for employee newsletters.

The emergency management representative could be from the county office. Communities, especially smaller ones, are encouraged to work together or with their counties to develop area-wide programs.

The strategy may be prepared concurrently with the floodplain management plan credited under Activity 510 and the planning committee for each may be the same. The strategy document may be part of a floodplain management plan or it may be a separate paper.

- (b) The strategy document need not be long. Some of the information, such as the local flood hazard and the flood safety and property protection measures appropriate for that hazard, may already be written in an existing outreach project or floodplain management or emergency management plan.

The section on the flood-related public information activities currently being implemented within the community should include an inventory of what is done by the local government, the county emergency management agency, the schools, the state, and others concerned about flooding, such as a sanitary district or insurance agents. The objective of this requirement is to identify who is already informing the public. The strategy should capitalize on what is being done, coordinate messages, and develop new projects that fill gaps left by the existing programs.

Example goals for a public information program strategy include, but are not limited to:

- Publicize flood safety measures,
- Get people to evacuate when a warning is issued,
- Advise people on how to protect their property from flood damage, and/or
- Encourage the purchase of flood insurance.

Each community should set its own, locally appropriate goals. If people have been killed in past floods, safety measures may be paramount. On a hurricane-prone coast, evacuation may be the most important goal. In areas of local drainage and sewer backup problems, publicizing self-help protection measures may be the top priority.

The strategy must establish a monitoring and evaluation process that reviews each year's projects and makes appropriate changes for the next year. Where possible, each project should have measurable outcomes, such as number of inquiries for more information, number of retrofitting building permits, or number of flood insurance policies in force.

It is likely that more expensive projects in metropolitan areas would have more specific objectives and more sophisticated evaluation procedures. A progress report must be submitted with each year's CRS recertification.

- (c) The number and type of projects to be undertaken each year would be up to the community, based on its goals and the principles of good public information programs. If the community receives credit under Sections 331.a and b (OPC and OPF) of this activity, it must do additional projects to receive this OPS credit.

The projects do not have to be implemented by the community government. They can be targeted to the general public or to selected audiences, such as insurance agents and contractors, to help them implement their own outreach projects that work toward the program's goals.

The projects do not have to be the same every year. For example, the strategy may work with the schools to develop a flood safety curriculum the first year and then focus on workshops for insurance agents in later years.

The discussion of each topic must describe where to get more information. Examples of sources of more information could be local staff, the library, another agency, or a CRS-credited activity, such as Activity 360 (Flood Protection Assistance).

Example 331.c-2. Floodville's mayor appointed a public information strategy team with participation by the CRS Coordinator, the public relations director, and the emergency manager. The school district, the park district, the power company and the associations for insurance agents, lenders, and real estate offices were invited to send representatives.

The strategy set three goals:

- Make residents aware of the flood warnings and safety precautions,
- Make residents more aware of flood insurance, and
- Familiarize residents with appropriate property protection measures.

The strategy team selected the following projects:

- Notices sent out with utility company bills about turning off the electricity and gas if the house is threatened with flooding,
- An NFIP-sponsored workshop for insurance agents,
- A spring flood awareness week with a radio talk show on flood warnings and safety and displays on flood protection measures set up in home improvement stores,
- A meeting to be held with the school district curriculum committee to develop flood awareness and safety classes for elementary school students,
- A meeting between the building department and the local homebuilders association on floodplain permit requirements and property protection methods,
- The flood protection flyer credited as an OPC, to be sent out just before the flood awareness week, and
- Recommended revisions to the flood control district brochure credited as an OPF to include property protection.

OPS = 100

- (d) The community must submit documentation that the strategy is being implemented by the community. This can be something as simple as a letter from the CEO stating that the strategy will be followed. Formal adoption by a city council is not required, although it is recommended that elected officials be involved in the preparation or approval of the strategy.

If a joint strategy is prepared by several communities or at the county level, the community must also adopt it locally in order to receive this credit.

- (e) The strategy team must meet at least once a year to evaluate what was done and what, if anything, should be changed. The strategy document must specify when and how this is done. A written report must be included in the CRS recertification that is due October 1 of each year. The evaluation report must cover the following points:
- The goals of the community's Public Information Program Strategy,
 - A list of the projects implemented to meet those goals and their objectives,
 - A list of the projects that were not implemented or that did not reach their objectives, and
 - Revisions to the current projects and new projects to be implemented during the coming year, if different from the original strategy.

Communities may use AW-330-3 in lieu of a formal written report (see Figure 330-3).

d. Promotion of flood insurance (PFI) (Maximum credit: 65 points)

1. Prerequisites:

- (a) The community must prepare a locally pertinent brochure or letter on the benefits of flood insurance. The document must discuss only the flood hazard and flood insurance. Coverage of other topics is credited elsewhere in the CRS.
- (b) The brochure or letter must be mailed to all businesses and residences in the community each year. Reduced credit is provided if the mailing is sent to all businesses and residences in the SFHA each year. In either case, the brochure or letter must go to each unit in condominiums and apartment buildings, as well as to all other buildings in the credited area. There is no credit for a project that goes only to properties outside the SFHA or to only some of the buildings in the credited area.
- (c) The brochure or letter must be displayed and made available in public places such as the city hall and public library.
- (d) As separate documentation (not part of the brochure or letter), the community must provide an estimate of:
- The number of buildings in the community,
 - The number of apartments and condominium units in the community,

- The number of buildings in the SFHA,
- The number of apartments and condominium units in the SFHA, and
- A description of how these numbers were calculated.

Flood insurance is one more tool available to communities that want to protect their residents and businesses from the impacts of flooding. Communities should encourage the purchase of flood insurance, just as they work to reduce drainage problems and help property owners install flood protection measures. Research has shown that people and businesses that have flood insurance recover more quickly and take more actions to protect themselves from future flooding.

Even with lenders requiring the purchase of flood insurance as a condition of a loan, in most communities' floodplains, less than half of the properties are insured. The percentage of floodprone buildings that are insured is even lower in B, C, and X zones even though 25% of the flood insurance claims are paid on policies rated as being in these zones. It is a public service to encourage residents and businesses to purchase flood insurance so they will be better prepared for the next flood. Therefore, this element credits a separate mailing that focuses on promoting the purchase of a flood insurance policy.

Here is more information on the four prerequisites for this credit, (a) through (d).

- (a) This must be a separate mailing, not an article in a newsletter, an additional insert with a tax or utility bill, or a mailing that also includes another outreach project for CRS credit. It must deal only with the flood hazard and flood insurance in order to (1) convey the central message, and (2) facilitate tracking of the effectiveness of this approach.

It should be noted that any outreach project credited under this element cannot duplicate credit provided elsewhere, such as in Activity 320 (Map Information Service) or Outreach Projects to the Community in this activity. Whichever element has the higher points will be credited.

- (b) Unlike an outreach project to the community (OPC), which only needs to be sent to each building, credit for this element is dependent on sending the notice to each occupant. This includes rental units and condominium units. It is recommended that the community ask the local post office how many "postal patrons" are on each route in the community. That would determine how many copies to make. They can be sent by bulk mail to the "postal patrons," provided the post office confirms that that address will reach everyone with a mailbox. This approach will not work if the community wants the credit for sending different letters to those in and those out of the SFHA.
- (c) The brochure or letter must be displayed and made available in public places such as the city hall and public library. An example letter is in Figure 330-2. An example brochure for a display can be found in *CRS Credit for Outreach Projects*.

- (d) The prerequisite for providing the estimate of the number of buildings, apartments, and condominium units in the community and in the SFHA is to help FEMA estimate market penetration and will not affect the community's credit points. The number of buildings in the SFHA is the same number as "bSF," which is needed for credit for Activities 520 (Acquisition and Relocation) and 530 (Flood Protection). These figures are also useful when preparing a floodplain management plan (Activity 510).

2. PFI = the total of the following points:

- (a) 45, for preparing and distributing the brochure or letter. The brochure or letter must cover the following topics:
- (1) The community's flood problem and flood history in the community or area, including the dates and impacts of some past floods.
 - (2) Flooding is not covered by standard property insurance but that flood insurance is available in the community.
 - (3) The odds that an area will flood. This item is not needed in a project that goes only to properties outside the SFHA.
 - (4) That the cost of flood insurance is lower because of the community's efforts and the CRS.
 - (5) That coverage can be purchased for residential and commercial buildings and that contents coverage can also be purchased by property owners and renters for residential and commercial contents.
 - (6) There is a 30-day waiting period before coverage goes into effect in most cases.
 - (7) The benefits of insurance over disaster assistance.
 - (8) That all properties have some flood risk and that there is a low-cost policy (Preferred Risk Policy) for those properties in a low- to moderate-risk area (B, C, and X Zones). This item should not be included in a project that goes only to properties in the SFHA.
 - (9) A policy can be purchased from an insurance agent, and there is a toll-free number for the NFIP's agent referral service if someone does not have an insurance agent.
- (b) 5, for including one or more photographs of flooding in the community with a caption that includes the date and location.

(c) 15, for a mailing that includes an explanation of FIRM zones and the zone in which the recipient's property is located. For this credit, the document must clearly state the recipient's FIRM zone, not tell readers how to find their FIRM zone or refer them to a map information service.

(d) As an alternative to item (a), 10 points are provided if the mailing is sent only to properties in the SFHA.

Example 331.d-1. Floodville mails the one-page letter shown in Figure 330-2a to all improved properties, apartments, and condominium units in the SFHA. The letter in Figure 330-2b is sent to all properties outside the SFHA. The letters cover all the topics noted in Section 331.d.2(a) (45 points), have two locally pertinent photographs of historical flooding (5 points), and tell readers in which FIRM zones their properties are located (15 points).

332 Credit Calculation

a. $c330 = OPC + OPF + OPA + PFI$, OR

b. $c330 = OPC + OPF + OPS + PFI$

Example 332-1. Floodville's scores are based on the four examples discussed above.

$$c330 = OPC + OPF + OPS + PFI = 36 + 65 + 100 + 65 = 266$$

333 Credit Documentation

The community must submit the following:

a. Copies of the notices, articles, flyers, and other materials used in the outreach projects. Each item must be marked with its appropriate acronym (OPC, OPF, OPA, OPS, or PFI) and the topics covered must be designated in the margins.

City of Floodville letterhead

Date

[address]

Floodville, ST

Floodville is a participating community in the National Flood Insurance Program (NFIP), which means that **you can purchase flood insurance** to protect your property against the hazard of flooding. Flooding in our city is caused by several sources, including:

- Foster Creek, which leaves its banks during heavy storms, snow-melt or ice jams. In 1992, an ice jam flooded surrounding streets within 15 minutes of forming, causing flood damage to buildings in the area.
- Southeast Ditch and Deadman's Run are smaller streams that flood during or soon after heavy storms. In July 1996, these streams flooded within an hour after a thunderstorm started and flooded many of the homes on Cleveland Street.

You don't need to live near water to be flooded. Here are some facts:

- Floods can be caused by heavy storms, melting snow, hurricanes, dam or levee failure, or inadequate or overloaded drainage systems.
- Just an inch of water can cause costly damage to your property.
- **Most property insurance policies do not cover damage caused by flooding.**
- Federal disaster assistance requires a Presidential declaration, which happens in less than 50% of flooding events.
- The most typical form of federal disaster assistance is a loan that must be repaid with interest.
- The average flood policy with \$100,000 in building coverage costs \$400 a year, vs. a monthly disaster loan payment of \$240 for many years on a \$50,000 disaster loan.
- A flood policy will pay covered losses even if a disaster is not declared by the President.
- **In most cases, there is a 30-day waiting period after you purchase a flood policy before coverage is in effect, so don't wait until a flood is threatening.**
- Flood insurance can be purchased on eligible residential and commercial buildings and/or their contents, or tenants can purchase contents-only coverage (residential and commercial).
- Floodville is a participant in the NFIP's Community Rating System (CRS) which means that **residents and business owners receive a discount on their flood insurance premiums** in recognition of efforts made by Floodville to reduce the impact of flooding.
- **Your property at 1256 North 40th Street is located in flood zone A15, which is a high-risk area.** You have a 26% chance of being flooded during a 30-year mortgage. Compare this to your 4% chance of having a fire during that time. Do you have fire insurance?



Foster Creek ice jam, 1992.



Cleveland Street, July 1996

Contact your insurance agent for more information about flood insurance or to purchase a flood insurance policy. If you don't have an agent, or your agent does not write flood insurance, the NFIP has a toll-free number for agent referrals (1-800/CALL FLOOD (1-800/225-5356) or TDD # 1-800-427-5593). You can also get more details about flood insurance at <http://www.FloodSmart.gov>.

Figure 330-2a. Example letter promoting flood insurance to SFHA properties.

NOTE: This example covers all topics listed in Section 331.d.2(a) except the benefits of a Preferred Risk Policy, which is not available in the SFHA.

City of Floodville Letterhead

Date

[address]

Floodville, ST

Floodville is a participating community in the National Flood Insurance Program (NFIP), which means that **you can purchase flood insurance** to protect your property against the hazard of flooding. Flooding in our city is caused by several sources, including:

- Foster Creek which leaves its banks during heavy storms, snowmelt or ice jams. In 1992, an ice jam flooded surrounding streets within 15 minutes of forming, causing flood damage to buildings in the area.
- Southeast Ditch and Deadman's Run are smaller streams which flood during or soon after heavy storms. In July 1996, these streams flooded within an hour after a thunderstorm started and flooded many of the homes on Cleveland Street.

Here are some facts:

- Floods can be caused by heavy storms, melting snow, hurricanes, dam or levee failure, or inadequate or overloaded drainage systems.
- Just an inch of water can cause costly damage to your property.

You don't need to live near water to be flooded. Your property at 4101 Greenwood Street is located in flood zone C, which is a low-to-moderate risk area.

- **Approximately 25% of all flood insurance claims are paid on properties rated as being in low- to moderate-risk areas.**
- Most property insurance policies do not cover damage caused by flooding.
- Federal disaster assistance requires a Presidential declaration, which happens in less than 50% of flooding events.
- The most typical form of federal disaster assistance is a loan that must be repaid with interest.
- A flood policy will pay covered losses even if a disaster is not declared by the President.
- The average flood policy with \$100,000 in building coverage costs \$400 a year, versus a monthly disaster loan payment of \$240 for many years on a \$50,000 disaster loan.
- **Your property may be eligible for a reduced cost Preferred Risk Policy for as little as \$112 (1- to 4-family homes), providing peace of mind flood insurance coverage at an affordable price.**
- **In most cases, there is a 30-day waiting period after you purchase a flood policy before coverage is in effect, so don't wait until a flood is threatening.**
- Flood insurance can be purchased on eligible residential and commercial buildings and/or their contents, or tenants can purchase contents-only coverage (residential and commercial).
- Floodville is a participant in the NFIP's Community Rating System (CRS) which means that **residents and business owners receive a discount on their flood insurance premiums** in recognition of efforts made by Floodville to reduce the impact of flooding.

Contact your insurance agent for more information about flood insurance or to purchase a flood insurance policy. If you don't have an agent, or your agent does not write flood insurance, the NFIP has a toll-free number for agent referrals (1-800/CALL FLOOD (1-800/225-5356) or TDD # 1-800-427-5593). You can also get more details about flood insurance at <http://www.FloodSmart.gov>.



Foster Creek ice jam, 1992.



Cleveland Street, July 1996

Figure 330-2b. Example letter promoting flood insurance to non-SFHA properties.

NOTE: This example covers all topics listed in Section 331.d.2(a) except the risk of flooding.

See Figure 330-1 for an example of how to mark the projects. The flood awareness week could be documented with a newspaper article, photographs, or similar record that shows when it was held. Meetings can be documented with a copy of the minutes or a memo to the file.

- b. [If the community applies for credit for OPS under Section 331.c.2] A copy of the public information program strategy document and documentation that it is being implemented by the community.
- c. Documentation that shows when the outreach projects are undertaken.
- d. [If the community applies for credit for PFI under Section 331.d] An estimate of:
 - The number of buildings in the community,
 - The number of apartments and condominium units in the community,
 - The number of buildings in the Special Flood Hazard Area (SFHA),
 - The number of apartments and condominium units in the SFHA, and
 - A description of how these numbers were calculated.

The community must submit the following with its annual CRS recertification.

- e. Copies of the community's outreach projects that were conducted that year.
- f. [If the community applies for credit under Section 331.c.2] A copy of the annual evaluation of the community's public information program strategy, either as a separate report or on AW-330-3. If a separate report is submitted, it must cover the same topics as AW-330-3.

334 For More Information

Additional information, reference materials, and examples can be found at the CRS Resource Center, <http://training.fema.gov/EMIWeb/CRS/>. Additional information on promoting flood insurance can be found at <http://www.FloodSmart.gov>.

- a. See Appendix E to order a free copy of *CRS Credit for Outreach Projects*.
- b. Some state and local emergency management offices have training courses for public information officers. FEMA's Emergency Management Institute (EMI) offers basic and advanced public information courses. EMI courses are tuition free and travel stipends can often be obtained. For more information, contact your state emergency management agency's training officer.

- c. Flyers and stuffers on flood insurance are available through the National Flood Insurance Program. Contact a local insurance agent who sells flood insurance for examples and order forms, or obtain them from

FEMA Distribution Center
P.O. Box 2010
Jessup, MD 20794-2012
1-800-480-2520
Fax: (301) 362-5335

- d. There are several brochures that explain the CRS. Bulk supplies are available by calling (317) 848-2898 or by sending an e-mail request to nfipcrs@iso.com.
- e. The following are available free from FEMA Publications by calling 1-800-480-3520.

Hurricane Awareness Workbook, FEMA-86, includes references to organizations with experience in conducting hurricane awareness campaigns and examples of local projects.

Marketing Earthquake Preparedness, FEMA-112, provides guidance on developing a local hazards preparedness campaign.

Homeowner Floodproofing Behavior is a summary of research findings on post-flood public information activities that encouraged people to protect themselves from the next flood.

Answers to Questions about Substantially Damaged Buildings, FEMA-213, explains the requirements of and offers guidelines on the NFIP's substantial damage rules.

- e. For more references on the 10 topics, see Sections 354 and 535.
- f. Open houses are public meetings that combine presentations, publications, and discussions with government officials, experienced flood protection contractors, flood insurance agents, etc.. *How to Conduct a Floodproofing Open House* provides step-by-step instructions on this form of outreach project. It is available for \$7.00 from the Illinois Association for Floodplain and Stormwater Management, 153 Nanti, Park Forest, IL 60466.
- g. The National Disaster Education Coalition has prepared a guide that presents the terminology and messages to be used by Coalition members nationwide. The publication, "Talking About Disaster: Guide for Standard Messages," can be found at <http://www.disastereducation.org/>. All content is in the public domain and can be freely downloaded and tailored to local needs.

Community: Floodville.**333.e Public Information Program Strategy Evaluation****1. Goals of the community's Public Information Program Strategy:**

- 1) Make residents aware of the flood warnings and safety precautions.
- 2) Make residents more aware of flood insurance.
- 3) Familiarize residents with appropriate property protection measures.

2. Projects implemented to meet those goals and their objectives:

- a. Utility bill notices on flood safety.
- c. Spring flood awareness week with a radio talk show on flood warnings and safety and displays on flood protection measures set up in home improvement stores.
- d. Revised flood control district OPF brochure.
- e. Working with the school district curriculum committee to develop flood awareness and safety classes.
- f. Working with the Homebuilders Association on floodplain permit requirements and property protection methods.
- g. OPC flood protection flyer.

3. Were any projects not implemented or objectives not reached? If not, why?

- b. We intended to have an NFIP workshop for insurance agents. It was scheduled for April 25, but we couldn't get enough insurance agents to sign up for the workshop, so it was cancelled.
- d. The flood control district has already printed two years' worth of brochures and would not revise it until they are out of stock. The old ones were distributed instead.

4. What new projects should be implemented and what projects or objectives should be revised?

- b. Meet with several insurance companies to determine the best way to get them more informed about and interested in flood insurance.
- d. Help school district develop materials for new 3rd grade curriculum on fire and weather safety.
- e. Hold workshop for the Homebuilders with state and FEMA help.

For more information, contact: Jane Doe Phone: 101/555-1234.

Activity Worksheet

AW-330-3

Edition: 2006

Figure 330-3. Floodville's evaluation report for its outreach project (AW-330-3).

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340 HAZARD DISCLOSURE

Summary of Activity 340

341 Credit Points. There are four elements in this activity for a maximum of 81 points.

- a. Disclosure of the flood hazard (DFH):
 - 46 points are provided if real estate agents notify those interested in purchasing properties located in the Special Flood Hazard Area (SFHA) about the flood hazard and the flood insurance purchase requirement.
 - 20 points are provided if there is a state law requiring real estate agents to ensure that potential purchasers of properties in the SFHA are notified of the flood hazard.
- b. Other disclosure requirements (ODR): 5 points are provided for each other disclosure method required by law.
- c. Real estate agents' brochure (REB): 10 points are provided if real estate agents are providing brochures or handouts that advise potential buyers to investigate the flood hazard for a property.
- d. Disclosure of other hazards (DOH): 10 points are provided if the notification to prospective buyers includes disclosure of other flood-related hazards, such as erosion, subsidence, or wetlands.

There is no impact adjustment for this activity.

342 Credit Calculation. The credit points for each element are totaled.

343 Credit Documentation. The community must have the following available to verify implementation of this activity.

- a. [If applying for DFH credit under Section 341.a.1] Copies of completed disclosure notices from at least five local real estate agencies showing that they are advising potential property purchasers of the flood hazard and the flood insurance purchase requirement.
- b. [If applying for DFH credit under Section 341.a.2] A copy of the state law that requires real estate agents to ensure that those interested in purchasing properties located in floodplains are notified of the hazards.
- c. [If applying for ODR credit under Section 341.b] A copy of the portion of the ordinance or law that requires one or more additional disclosure methods at the time of sale or rental of a property.
- d. [If applying for REB credit under Section 341.c] The brochure or other document made available by real estate agents.
- e. [If applying for DOH credit under Section 341.d] Documentation that the notice for DFH includes disclosure of other flood-related hazards.

344 For More Information.

340 HAZARD DISCLOSURE

Credit is provided if real estate agents advise prospective property purchasers of the flood hazard. Other disclosure methods may also be credited.

Background: Most prospective buyers do not take the time (or know how) to investigate whether a property is subject to a hazard. In many cases a property may not be near a stream or shoreline, past flooding may have been minor, or there may be no history of flooding since the area was developed. As a result, many people are caught by surprise when their properties are flooded. One of the best times to advise someone of a flood hazard is when he or she is considering the purchase of property.

Federal regulations enacted pursuant to the Flood Disaster Protection Act of 1973 (as amended by the National Flood Insurance Reform Act of 1994) require only that a lender advise a person of the flood hazard before closing on the loan. This could be well after the buyer has put down earnest money, has lost interest in other properties, and has become committed to purchasing the property without knowing all the facts. In many states a buyer has recourse under consumer protection laws.

Activity Description: Credit is provided if a community's real estate agents advise prospective floodplain occupants about the flood hazard and the flood insurance purchase requirement. This activity should encourage the purchase of flood insurance and implementation of flood protection measures, prevent victimization of unwary buyers, and encourage appropriate use of vacant land.

The objective of this activity is to prevent all the troubles that can arise from failing to advise potential purchasers of a flood hazard. Such a program can protect the real estate agents and sellers from lawsuits. In many cases, it will prevent unwise development of vacant land.

341 Credit Points

Maximum credit for Activity 340: 81 points.

a. Disclosure of the flood hazard (DFH) (Maximum credit: 46 points)

DFH = EITHER

1. 46, if real estate agents notify those interested in purchasing properties located in the Special Flood Hazard Area (SFHA) about the flood hazard and the flood insurance purchase requirement. The notice must clearly state whether the property is in the floodplain and, if so, that flood insurance is required.

The community must submit examples of the disclosure notices used by local real estate agencies. OR

2. 20, if a state law requires real estate agents to advise people whether a property is located in an SFHA.

Credit for disclosure of the flood hazard (DFH) relies on real estate agents to inform a potential purchaser whether a property is in an SFHA. Under the first option (46 points), there is no requirement for a statutory or other legal mandate that real estate agents disclose the hazard in order to obtain credit for DFH. This credit is based on the documentation that real estate agents are disclosing the hazard, not on why they are doing it.

This activity can be implemented in conjunction with Activity 320 (Map Information Service). Real estate agents may request that the community make determinations of properties being advertised for sale. However, no credit is provided if prospective buyers are sent to the community to find out about a property's potential flood risk. Credit for DFH is entirely based on the real estate agents' informing people whether a property is in an SFHA, regardless of whether they were asked. A law or policy to disclose hazard information only after an inquiry is made does not earn credit.

Credit for DFH cannot be based on real estate agents' using a seller's statement or certificate. Even though the sellers have not experienced a flood while they owned the property, the information that is required is notification of whether the property is in an SFHA.

The best way to implement this activity is with a written notification to potential purchasers. This provides the purchaser with the correct information and provides documentation for the real estate agent and the ISO/CRS Specialist.

The community's application must include at least one copy of a disclosure notice from at least five real estate agencies that serve the community. If there are fewer than five agencies, then at least one notice from each agency must be submitted. The community should check with its ISO/CRS Specialist to see if neighboring communities are receiving this credit and have already submitted the needed documentation for real estate agencies that serve the area.

If the notice says a property is in the SFHA, it must also tell the inquirer that federal law requires the purchase of flood insurance as a condition of a federally backed mortgage. The notice may simply say, "Flood Insurance Required," in which case the notation that the property is in the SFHA is not needed. A property notice that is difficult for the prospective buyer to interpret, such as "FP: Y/N," or a general statement on all properties, such as "Flood insurance may be required," or "Flood Zone," is not acceptable. The form must clearly state, "Flood insurance is required."

The credit criteria for the second option for DFH credit (20 points) are not as extensive as for the first option, provided there is a state law requiring the disclosure. Credit can be provided if there is a Multiple Listing Service notice, a seller's disclosure form, or other written

notification. However, the disclosure must state whether the property is in a floodplain, not whether the seller has experienced a flood. For this 20-point credit, there is no requirement to explain the flood insurance purchase requirement.

Example 341.a-1. The real estate agents of Floodville include a notice of flood hazard and whether flood insurance is required on their property summaries. When a seller contracts with a real estate agent, the latter requests map information from the City. The cost is paid by the real estate agent. The Board of Realtors® has provided the City with a description of this procedure and a copy of a property summary that includes the notice. [DFH = 46]

***NOTE:** Credit points are provided under ODR, method 2, for a legal requirement to advise potential purchasers about the property's known flood history. Credit is also available under Section 341.c if real estate agents provide a brochure that advises potential property purchasers to investigate the flood hazard.*

b. Other disclosure requirements (ODR) (Maximum credit: 15 points)

ODR = 5, for each other disclosure method required by law. Credit can be requested for up to three state or local laws or ordinances that require disclosure of a property's exposure to flooding, including but not limited to:

1. Requiring all sellers to disclose in order to cover those cases where a real estate agent is not involved.
2. Requiring real estate agents and sellers to advise potential purchasers whether "to the best of their knowledge and belief" the property has ever been flooded.
3. Requiring landlords to advise potential renters about the flood hazard.
4. Requiring final recorded subdivision plats to display the flood hazard area.
5. Requiring that the flood hazard area be shown on individual lot surveys prepared for deed records, property transactions, or mortgages.
6. Requiring titles or deed records to show zoning or building permit conditions related to floodplain or drainage regulations, such as a notice about the substantial improvement or substantial damage requirement for floodplain properties.

7. Requiring signs posted in subdivisions to advise visitors of the flood hazard.
8. Requiring deeds to show the lot or building elevation in relation to sea level and the base or historical flood elevation.
9. Requiring a seller to disclose if the property is subject to a flood-related special hazard.

A community may apply for credit under one of these additional approaches, even if it does not have a real estate agent notification program. These approaches do not have to be local requirements. In many cases, these disclosure methods are required by state law.

This list is not meant to be all-inclusive. The objective of the ODR credit is to provide information to people before they are committed to owning or occupying a property with a flood hazard. Because these approaches do not affect as many people while they are actually looking for a property (as agent disclosure does), fewer credit points are provided. Furthermore, because they are difficult to verify in the field, these approaches must be based on a law or other explicit legal mandate.

Example 341.b-1. Floodville is seeking credit for two other disclosure requirements. One is based on a state law that requires that before they are recorded, all subdivision plats are to “include an engineer’s or surveyor’s statement as to which lots, if any, are partially or completely located in an area of special flood hazard identified pursuant to the National Flood Insurance Act of 1968.” [5 points]

Floodville’s zoning and building codes require that property records show all special requirements that have been imposed as a condition of building in a floodplain: “A record of each variance, special use permit, and conditional use permit, and all conditions and stipulations attached thereto, shall be provided to the County Recorder of Deeds to be filed with the record of the property.” [5 points]

The city’s application includes a photocopy of these two quoted legal requirements:
ODR = 10.

Requirements for identifying the floodplain or flood elevations on preliminary plats or permit applications are not disclosure requirements and are not credited. ODR credit is based on a legal requirement to disclose the flood hazard on a record or notice that will be seen by potential purchasers or occupants of a property.

c. Real estate agents' brochure (REB) (Maximum credit: 10 points)

REB = 10, if real estate agents are providing brochures or handouts that advise potential buyers to investigate the flood hazard for a property. This credit is available even if the community does not receive credit for Disclosure of the Flood Hazard under Section 341.a.

An example of such a brochure is shown in Figure 340-1. A locally tailored brochure describing the community's flood hazard would be very useful. Sellers, in particular, may appreciate as complete a description as possible, especially if the flooding is shallow and slow-moving and retrofitting or other protective measures are appropriate and inexpensive. Purchasers of vacant land should be well aware of factors such as the depth, velocity, and warning time of the base flood.

Example 341.c-1. Floodville has given each real estate office several hundred copies of the brochure shown in Figure 340-1. The real estate agents give one to every client, including those looking at properties outside the floodplain: REB = 10.

d. Disclosure of other hazards (DOH) (Maximum credit: 10 points)

DOH = 10, if the notification to prospective buyers credited in Section 341.a includes disclosure of other flood-related hazards, such as erosion, subsidence, or wetlands. This credit is available only if the community also receives credit for DFH.

Disclosure programs should not be limited to flood hazards. Potential property purchasers should be advised of other hazards that have been identified for specific sites. Erosion, subsidence, and wetlands are the site-specific hazards mentioned above. Others include dam failure, volcanoes, landslides, and wildfire, as well as tsunamis and the other special hazards listed in Section 401. Disclosing one hazard should trigger interest in others, so a broader-based program will be more effective.

Flood Hazard: Check Before You Buy

Flooding and other surface drainage problems can occur well away from a river, lake, or ocean. If you're looking at a property, it's a good idea to check out the possible flood hazard before you buy. Here's why:

- The force of moving water or waves can destroy a building.
- Slow-moving floodwaters can knock people off their feet or float a car.
- Even standing water can float a building, collapse basement walls, or buckle a concrete floor.
- Water-soaked contents, such as carpeting, clothing, upholstered furniture, and mattresses, may have to be thrown away after a flood.
- Some items, such as photographs and heirlooms, may never be restored to their original condition.
- Floodwaters are not clean: floods carry mud, farm chemicals, road oil, and other noxious substances that cause health hazards.
- The impact of a flood—cleaning up, making repairs, and the personal losses—can cause great stress to you, your family, and your finances.

Floodplain Regulations: Your community regulates construction and development in the floodplain to ensure that buildings will be protected from flood damage. Filling and similar projects are prohibited in certain areas. Houses substantially damaged by fire, flood, or any other cause must be elevated to or above the flood level when they are repaired.

Check for the Flood Hazard: Before you commit yourself to buying property, do the following:

- Ask the local building, zoning, or engineering department if the property is in a floodplain; if it has ever been flooded; what the flood depth, velocity, and warning time are; if it is subject to any other hazards; and what building or zoning regulations are in effect.
- Ask the real estate agent if the property is in a floodplain, if it has ever been flooded, and if it is subject to any other hazards, such as sewer backup or subsidence.
- Ask the seller and the neighbors if the property is in a floodplain, how long they have lived there, if the property has ever been flooded, and if it is subject to any other hazards.

Flood Protection: A building can be protected from most flood hazards, sometimes at a relatively low cost. New buildings and additions can be elevated above flood levels. Existing buildings can be protected from shallow floodwaters by regrading, berms, or floodwalls. There are other retrofitting techniques that can protect a building from surface or subsurface water.

Flood Insurance: Homeowners insurance usually does not include coverage for a flood. One of the best protection measures for a building with a flood problem is National Flood Insurance, which is purchased through any property insurance agent. If the building is located in a floodplain, flood insurance will be required by most mortgage lenders (see other side). Ask an insurance agent how much a flood insurance policy would cost.

[NOTE: The other side of this flyer is the same as Figure 320-2.]

Figure 340-1. Sample real estate agents' brochure.

342 Credit Calculation

$$c340 = DFH + ODR + REB + DOH$$

Example 342-1. Floodville does not have maps or disclosure practices on other flood-related hazards (DOH = 0).

$$c340 = 46 + 10 + 10 + 0 = 66$$

Floodville's activity worksheet is completed using these values for the variables.

343 Credit Documentation

The community must submit the following:

- a. [If the community is applying for DFH credit] Documentation that demonstrates that real estate agents are advising potential property purchasers of the flood hazard and the flood insurance purchase requirement.

If the community is applying for DFH credit for the first option (46 points), the application must include copies of disclosure notices from at least five real estate agencies. If there are fewer than five agencies that serve the community, then at least one notice from each agency is submitted.

This documentation could be copies of the notations on property summary sheets, offer-to-purchase forms, Multiple Listing Service (MLS) forms or other media. Seller's disclosure forms may be sufficient if they clearly state that the property is or is not in the SFHA. Statements that "to the best of the seller's knowledge" and statements as to whether the property has flooded are not creditable. However, such forms may be eligible for credit under Section 341.b, ODR. Statements that advise the seller to determine if the property is floodprone are not creditable, although such forms may be eligible for credit under Section 341.c, REB.

Blank forms are not acceptable documentation. Copies of actual information shown to prospective buyers are required. Names and addresses may be blacked out to preserve confidentiality.

The most common approach is to have a box in the MLS form. In this case, a photocopy of a completed MLS form must be submitted as documentation, along with a statement that all or most of the local agencies use the MLS form.

b. [Required only if the community is applying for ODR credit] A copy of ordinance or law language requiring one or more additional disclosure methods at the time of sale or rental of a property. The acronym "ODR" must be marked in the margin of the sections that pertain to this element.

This documentation need only be submitted if the community is requesting credit for one of the other disclosure requirements discussed in Section 341.b. A photocopy of the appropriate pages of the ordinance or statute is sufficient and should be attached to the activity worksheet. The Chief Executive Officer's (CEO's) application certification is considered to include a certification that the ordinance or statute has been enacted into law and is being enforced.

c. [Required only if the community is applying for REB credit] A brochure or other document that is made available to interested parties by real estate agents. The document must advise people looking to purchase property to investigate the flood hazard before they buy.

See Figure 340-1 for ideas on what should be included in a brochure.

d. [Required only if the community is applying for DOH credit] Documentation that the notification in Section 341.a includes disclosure of other flood-related hazards, such as erosion, subsidence, or wetlands.

Maps that disclose information about other flood-related hazards to prospective purchasers are encouraged. In some states, coastal erosion or recession maps have been prepared. Some communities have mapped areas subject to land subsidence and are regulating new construction in those areas. Others have mapped and zoned wetlands or other sensitive areas. This activity gives credit for including these hazards on the same form or notice that is credited under DFH.

344 For More Information

Additional information, reference materials, and examples can be found at the CRS Resource Center at <http://training.fema.gov/EMIWeb/CRS/>.

- a. Copies of the following booklets are available free in quantity. See the FEMA Order Form at the end of Appendix E.

Answers to Questions about the National Flood Insurance Program, FEMA-387, Federal Emergency Management Agency, August 2001. This is also available from FEMA's website at <http://www.fema.gov/nfip/qanda.htm>.

How to Use a Flood Map to Protect Your Property, FEMA-258, Federal Emergency Management Agency, May 1995.

Mandatory Purchase of Flood Insurance Guidelines, FEMA-186, Federal Emergency Management Agency, September 1999. This booklet discusses the legal background of the flood insurance purchase requirement from the lender's perspective. It is also available from FEMA's website at <http://www.fema.gov/nfip/mpurfi.htm>.

350 FLOOD PROTECTION INFORMATION

Summary of Activity 350

351 Credit Points. There are three elements in this activity for a maximum of 102 points.

- a. Flood protection library (LIB): 25 points are provided if the local public library contains at least one document from these topics and the documents are entered into the library's card catalog or similar system that allows patrons to find publications related to flooding and flood protection.
- b. Locally pertinent documents (LPD): Up to 5 points are provided for having documents keyed to local or state conditions.
- c. Flood protection website (WEB): Up to 72 points are provided for including flood protection information or links to such information on the community's website.

There is no impact adjustment for this activity.

352 Credit Calculation. The credit points for each element are totaled.

353 Credit Documentation. The community must have the following available to verify implementation of this activity.

- a. [Required only if the community is applying for LIB or LPD credit] A statement from the head of the library that includes:
 1. A list, with publication dates, of the flood-related documents in the library;
 2. Either:
 - (a) Certification that the documents have been entered into the library's card catalog or similar system; OR
 - (b) A copy of the card catalog cards or printout of the automated system's inventory of flood documents; and
 3. Certification that the library will maintain adequate numbers of the listed documents to meet the demand and that the FIRMS and other materials will be kept up to date.
- b. [Required only if the community is applying for WEB credit] The address of the community's website.

The community must submit the following with its annual CRS recertification:

- c. [Required only if the community is applying for WEB credit] Certification that it has conducted its annual review and update of the information and links on its flood protection website.

354 For More Information.

350 FLOOD PROTECTION INFORMATION

Credit is provided if the local library maintains documents about flood insurance, flood protection, floodplain management, and natural and beneficial functions of floodplains. Additional credit is provided if similar information is available on the community's website.

Background: The community library is an obvious place for residents to seek information on flooding and flood protection. A website is another place that people often look. Both locations can contain a great deal of information and both offer alternatives for people who are hesitant to go to City Hall or talk to a local official.

Activity Description: To receive credit under the first element, the publications must be kept and distributed by the public library. The publications do not need to be kept in each library building if there are several branches to a local library system. No credit is provided for documents kept in an office that is not a local public library.

To receive credit for the website, the information must be clearly identified on the site's home page. It must be in or accessible from the community's website.

In both cases, the material must be kept up to date.

The objective of this activity is to ensure that there is a sufficient number of references on floodplain management and flood insurance available for interested parties. Rather than stipulate what a "sufficient number" is, this activity specifies that the documents be kept by a public library or on a local website. It is up to the library to maintain an adequate number to meet the demand.

Libraries can also provide immediate access to additional references through interlibrary loan systems. Websites can provide direct links to additional information.

A secondary objective of this activity is to involve the public library in the community's flood concerns. Libraries are usually the first place people turn to when they want to research a topic. Libraries also have their own public information campaigns with displays, lectures, and other projects, which can augment the activities of the municipal or county government. Lately, more and more people are turning to the internet.

351 Credit Points

Maximum credit for Activity 350: 102 points.

a. Flood protection library (LIB) (Maximum credit: 25 points)

LIB = the total of the following points based on whether the library contains documents about these topics and the documents are entered into the library's card catalog or similar system that allows patrons to find publications related to flooding and flood protection:

1. 4, for a copy of the community's current Flood Insurance Rate Map (FIRM) and the Flood Boundary and Floodway Map and an explanation of their use;
2. 2, for documents on flood insurance;
3. 8, for documents on protecting a building;
4. 3, for documents on community floodplain management or flood hazard mitigation;
5. 3, for documents on the natural and beneficial functions of floodplains;
6. 3, for an up-to-date directory of addresses and telephone numbers of local offices that can provide more information on the above topics; and
7. 2, for documents on the special hazards that affect the community.

For the purposes of Community Rating System (CRS) credit, "the library" means the public library most accessible and most widely used by residents of the community. In a community with branch libraries, the publications and other documents must be available to all branches, although it is not necessary for each branch to maintain a full set. If a small community does not have a library, but an adjacent large community does, the small community may receive credit for this activity, because its residents will presumably use the library in the adjacent community.

Although only one document for each topic is required, it is expected that the library will have more than one title on each topic, especially on protecting a building. It is assumed that the library will order additional copies and additional titles in accordance with the demand.

The documents must be entered into the library's card catalog or similar system that allows patrons to find publications related to flooding and flood protection. Some libraries place these documents in a reference library that contains uncataloged items. In such cases, the card catalog still needs an entry under "flood," which could read, "See Reference Librarian for materials on flooding and flood protection."

The directory of addresses and telephone numbers must be of local or nearby offices that are willing to provide more information. These could include the local building department or engineer, the State National Flood Insurance Program (NFIP) Coordinator, the U.S. Army Corps of Engineers' District Flood Plain Management Services Office, or private conservation and environmental groups. Credit is not provided if only state and national offices are listed.

Two points are provided for documents on the special hazards and coastal hazards that affect the community. These hazards are discussed in Section 401. They include flood-related hazards, such as closed basin lakes, mudflows, and coastal erosion. There are separate publications on CRS credit for these hazards (see Appendix E) that would suffice for this credit. Those publications list additional references that would also be useful for the libraries of communities subject to the hazards.

If the community is subject to hazards in addition to flooding, the library should provide materials on them, too. There are many ways in which protection from one hazard provides protection or reinforces protection measures for other hazards. For example, a resident may purchase a NOAA Weather Radio because he or she is in an area subject to tornadoes, but also be able to receive warnings of flash flooding conditions. The more residents and businesses know about the hazards and the measures, the better prepared they will be for flooding.

Example 351.a-1. The head of Floodville's library has obtained and cataloged one copy of the FIRM, Flood Boundary and Floodway Map, FEMA's booklet on FIRMs (FEMA-258), and several documents on flood insurance, protecting a building from flooding, and community flood hazard mitigation. A local organization, The Friends of Foster Creek, provided a study on the bottomland hardwoods of the Foster Creek floodplain. A directory of sources of additional information was not prepared, nor is there a mention of the ice jams that affect Floodville. The activity worksheet reflects this:

$$\text{LIB} = 4 + 2 + 8 + 3 + 3 + 0 + 0 = 20.$$

The librarian has listed all the documents obtained along with some already in the library. The list is attached to a letter certifying that the library "has entered all of the documents into the library's card catalog" and it "will maintain adequate numbers of the listed documents to meet the demand."

b. Locally pertinent documents (LPD) (Maximum credit: 5 points)

LPD = 1, for each document that is keyed to local conditions or conditions in the state. The maximum value for LPD is 5.

Section 331 discusses the benefits of locally pertinent documents. Many communities have published their own guidebooks for their residents, particularly on how to protect a building from flood damage. Many State NFIP Coordinators have prepared manuals or booklets on flood insurance and how to read flood insurance maps. Other locally pertinent documents include the community's flood insurance study text, flood control or hazard mitigation plans, after-action reports evaluating responses to past floods, and regional flood control or floodplain management plans.

Example 351.b-1. One of the Floodville Library's books is the regional planning commission's report on flooding and floodplain management recommendations. The library also includes the state's book on protecting a home from flooding and the report on the Foster Creek bottomland hardwoods:

LPD = 3.

c. Flood protection website (WEB) (Maximum credit: 72 points)

1. Prerequisites. The website must meet the following criteria:

- (a) The community's website must be easy to locate by a commonly used search engine. If searching for the community's name will not get the user to the community's website, then the address must be publicized through an outreach project that reaches at least 90% of the community.
- (b) The link to the flood protection information must be clearly noted on the home page of the community's website OR
 - (1) The community's home page must have a search engine that directs the user to the flood protection information; OR
 - (2) The flood protection information must be easily found using a widely used search engine by entering the community name and the word "flood," "floodplain," or "stormwater."
- (c) Information may be provided via links to other websites, provided they are pertinent to the community's flood conditions.
- (d) The site must include at least one link to relevant pages of the Department of Homeland Security's Federal Emergency Management agency (FEMA) website (<http://www.FEMA.gov>).
- (e) The site must be reviewed and updated at least once each year.

The internet is a powerful tool for providing information to those who are seeking it. A well designed and maintained website can supplement other methods of providing public information in a community. Some types of information, such as detailed maps, current information on flooding and emergency response, and links to any amount of additional information the user needs cannot be effectively provided in other ways.

The first two prerequisites address two issues:

1. People who are looking for flood information in a community should be able to find it easily, and
2. People who are looking at the community's website should be reminded that there are flood hazards and that they should look at your flood-related pages.

The first prerequisite ensures that an internet user can find the community's website. Normally this is done by entering the community's name in the address line or in a search engine. Widely used search engines such as AltaVista, AOL, Google, and others must be able to find the website using the community's name. Including the community's name and terms like "flood protection" in the web page title and/or as keywords for the web page (which are hidden from the user) will accomplish this. If that will not work (e.g., when the site is administered by a university, county, or flood control district), then the community must publicize the site's address.

That publicity must be carried out through an outreach project that reaches at least 90% of the community. The publicity may be a part of an Outreach Project to the Community (OPC), credited under Activity 330. It does not have to be submitted for OPC credit. For example the site's address could be publicized in utility bills that reach all utility customers ("For flood protection information, see the Metropolitan Sewer District's website at <http://www.FloodHelp.org>"). In this case, there is not enough information to qualify for OPC credit, but the publicity prerequisite would be met.

The third and fourth prerequisites are intended to encourage communities to find specific information of use to their residents and link them to it. The site's home page must include a connection to the flood protection information. Examples of home page listings are "flood protection," "hurricane protection," "flood information," "stormwater," "floods and other hazards," etc. Other phrases may be used if they are commonly used local terms for flooding and related hazards.

A list of department names will not qualify, but a search feature on the home page that links "flood" or a similar term to the information would qualify, provided that the links go directly to sites with information on the credited topics. The linked sites must be in a format to provide readily useful flood protection information to the residents of the community. Links to a variety of other pages that happen to have the word "flood" in them are not credited.

The flood protection website may include links to other sites operated by the state; the regional flood, water resources, or sewer district; universities; and others with information related to the credited topics. However, the other sites must have information pertinent to the

community's flood conditions (e.g., a riverine community should not refer users to a coastal website).

The mandatory connection to FEMA's website ensures that the latest information on the National Flood Insurance Program and other FEMA programs will be provided. The link(s) must be to relevant pages. For example, the community's discussion of flood insurance could end with "Click here for more information on flood insurance costs and coverage." Clicking the box would link to <http://www.fema.gov/nfip/whonfip.shtm>.

The fifth prerequisite (annual updates) should be no problem for a good community website; most websites are updated at least monthly.

NOTE: *If the community's website does not meet these prerequisites, it may still qualify for credit as an additional outreach project under Section 331.c in Activity 330 (Outreach Projects). Credit is not provided under both of these activities, however.*

2. Credit points. WEB = the total of the following points. (Maximum credit: 72 points).
 - (a) 40, for covering each of the 10 outreach project topics to at least the same level of detail as described in Section 331 (Outreach Projects) (up to four points per topic).
 - (b) 2, for publicizing the fact that copies of elevation certificates can be obtained from the appropriate community office.
 - (c) 10, for providing real time river gage data for sites that affect the community. If a local gage stage datum is used, the gage data must relate to mean sea level, NGVD, or a local landmark. (e.g., "two feet over the Route 30 bridge"). This credit is dependent on the website's covering the flood safety topic.
 - (d) 20, for other flood warning information (evacuation routes, etc.) if the community receives credit for dissemination of flood warning information to the public under Activity 610 (Section 611.b).

There are 10 topics credited under Activity 330 (Outreach Projects). At the beginning of that activity is a discussion of what should be included to receive full credit for covering each topic. The website must fully cover a topic at the same level of detail as required for Activity 330 (Outreach Projects) to receive the full 4 points for that topic. Examples are included in Figure 330-1.

More information can be provided by having a link to another site (e.g., “For more information on flood insurance, see <http://www.fema.gov/nfip/infocon>”). If the community’s website covers a topic through a link to another site, the following criteria must be met:

- The link must be preceded with a locally relevant introductory paragraph;
- If the topic must be locally relevant (e.g., how to obtain a local permit or local natural and beneficial floodplain functions), the linked website must address local conditions; and
- The linked address must go directly to the relevant topic (e.g., the flood insurance link above goes directly to the page on the NFIP, not just to the home page of FEMA’s website at <http://www.fema.gov>).

Example 351.c-1. On the home page of Floodville’s website is an entry called “Flood Protection.” This links to a page that notes that the City has a flood problem but that many things are being done about it. It stresses that residents can do things to protect themselves. The following links are provided:

- “Our flood hazard,” a description of the flood hazard (4 points) taken from the outreach projects the City prepared for Activity 330. This page includes some color photos of recent floods in the City.
- “Flood safety tips” (4 points), also taken from the outreach projects.
- “Permit requirements,” a summary of the City’s floodplain development permit requirements (4 points) with links to the Building Department’s page, which has permit application forms and other information on getting permits, and to the municipal code’s floodplain management ordinance.
- “Drainage maintenance” covers the benefits of drainage system maintenance and City regulations related to drainage and has a link to the municipal code’s section on stream dumping (4 points).
- “Protecting your home,” a summary of relevant property protection measures with links to FEMA’s *Homeowner’s Guide to Retrofitting: Six Ways to Protect Your House from Flooding*, *Above the Flood: Elevating Your Floodprone House*, and *Repairing Your Flooded Home* (4 points).
- “Flood insurance” is a link to FEMA’s web page that explains the basics of flood insurance (4 points).
- A note that copies of elevation certificates can be obtained from the Building Department (2 points).

WEB = 4 + 4 + 4 + 4 + 4 + 4 + 2 = 26

352 Credit Calculation

$$c350 = LIB + LPD + WEB$$

Example 352-1. As noted above, LIB = 20, LPD = 3, and WEB = 26.

$$c350 = 20 + 3 + 26 = 49$$

353 Credit Documentation

The community must submit the following:

- a. [Required only if the community is applying for LIB or LPD credit] A statement from the head of the library that includes the following items:
 1. A list of the documents available in the library, with their publication dates.
 2. Either:
 - (a) A certification that the documents listed have been entered into the library's card catalog or similar system that allows patrons to find publications related to flooding and flood protection, or
 - (b) A copy of the card catalog cards or printout of the automated system's inventory of documents listed under "flood" or related topics.
 3. A certification that the library will maintain adequate numbers of the listed documents to meet the demand and that the FIRM and other materials will be kept up to date.

A letter signed by the appropriate official responsible for administration of the library or library system is sufficient. If the community's library is a system with multiple libraries, the CRS Coordinator should include a brief description of the system. If the community has no library and is applying for credit for a library in an adjacent town or a county library system, this documentation must be obtained from the librarian responsible for the system.

A list of documents meeting the intent of this activity is found in Section 354.

- b. [Required only if the community is applying for WEB credit] The address of the community's website.

The community's website credit (WEB) is verified by a review of the website itself. Credit will be denied if the prerequisites are not met or if the topics are not adequately covered.

The community must submit the following with its annual CRS recertification.

- c. [Required only if the community is applying for WEB credit] Certification that it has conducted its annual review and update of the information and links in its flood protection website.

354 For More Information

Additional information, reference materials, and examples can be found at the CRS Resource Center at <http://training.fema.gov/EMIWeb/CRS/>.

- a. Unless otherwise noted, the following documents are available free. See the FEMA Order Form at the end of Appendix E.
1. A copy of the FIRM and Flood Boundary and Floodway Map and an explanation of their use:

The community's CRS Coordinator should provide the library with a copy of the FIRM and Flood Boundary and Floodway Map. Additional copies can be ordered by calling 1-800-358-9616 or faxing a request to 1-800-358-9620. The toll-free map distribution center is staffed from 8:00 a.m. to 8:00 p.m., EST, Monday through Friday. Maps are provided to local government officials at no charge.

An explanation of the use of flood insurance maps can be found in *How to Use a Flood Map to Protect Your Property*, FEMA-258, May 1995.

2. Documents and websites on flood insurance:

Although flyers, stuffers, and similar brief reviews of flood insurance are appropriate for an outreach project, they are not adequate for credit under Activity 350 (Flood Protection Information).

Answers to Questions about the National Flood Insurance Program, FEMA 387, Federal Emergency Management Agency, August 2001.

<http://www.fema.gov/nfip/qanda.shtm>.

Flood Insurance Frequently Asked Questions and the NFIP Answer Desk are at http://faq.fema.gov/cgi-bin/fema.cfg/php/enduser/std_alp.php.

Mandatory Purchase of Flood Insurance Guidelines, FEMA-186, Federal Emergency Management Agency, 1999. <http://www.fema.gov/nfip/mpurfi.shtm>.

Repairing Your Flooded Home, FEMA-234, 1992. This handbook is like several other books that cover flood insurance as part of giving a property owner information on all methods of flood protection. These types of documents can be credited provided that there is sufficient coverage of insurance and that they are appropriately cataloged so they can be found by someone interested in flood insurance.

<http://www.fema.gov/hazards/floods/lib234.shtm>

There are several brochures that explain the CRS. Bulk supplies are available by calling (317) 848-2898 or emailing nfipcrs@iso.com.

3. Documents on protecting a building:

Above the Flood: Elevating Your Floodprone House, FEMA-347, 2000.
<http://www.fema.gov/libarar/fema347.htm>

Avoiding Flood Damage: A Checklist for Homeowners
<http://www.fema.gov/pdf/hazards/flddam.pdf>.

Homeowner's Guide to Retrofitting: Six Ways to Protect Your House from Flooding. FEMA-312, 1998.
<http://www.fema.gov/hazards/hurricanes/rfit.shtm>

Repairing Your Flooded Home, FEMA-234, 1992.

Elevated Residential Structures, FEMA-54, March 1984.

Coastal Construction Manual, FEMA-55, Third Edition, 2000.

Manufactured Home Installation in Flood Hazard Areas, FEMA-85, September 1985.

Floodproofing Nonresidential Structures, FEMA-102, May 1986.

Design Manual for Retrofitting Flood-prone Residential Structures, FEMA-114, September 1986.

Engineering Principles and Practices for Retrofitting Flood Prone Residential Buildings, FEMA-259, 1995.

Mitigation of Flood and Erosion Damage to Residential Buildings in Coastal Areas, FEMA-257, October 1994.

Protecting Building Utilities From Flood Damage, FEMA-348, 2000.
<http://www.fema.gov/hazards/floods/pbuffd.shtm>

Reducing Flood Losses through the International Code Series, FEMA, 2000.
<http://www.fema.gov/hazards/floods/fldlossesb.shtm>

There are three video tapes in FEMA's "Best Build" series:

Best Build: Constructing a Sound Coastal Home

Best Build 2: Construction in a Riverine Floodplain

Best Build 3: Protecting a Flood-prone Home

These Corps floodproofing publications can be found on the following website:
<http://www.nwo.usace.army.mil/nfpc/publications.html>

Hard copies can be ordered from:

U.S. Army Corps of Engineers, Tulsa District
Flood Plain Management Services
1645 South 101st East Avenue
Tulsa, OK 74128
(918) 669-7197 fax: (918) 669-7546
carolyn.schultz@usace.army.mil

Flood Proofing Systems & Techniques, December 1984. (Out of print and available only via the website.)

Flood-Proofing Regulations, EP 1165 3 314, 1992.

Flood Proofing Performance—Successes & Failures, 1998.

Flood Proofing Techniques, Programs and References, January 1996.

Raising and Moving The Slab-On-Grade House, 1990.

A Flood Proofing Success Story, September 1993.

Flood Proofing: How to Evaluate Your Options, July 1993.

Flood Proofing Technology in the Tug Fork Valley, April 1994.

Local Flood Proofing Programs, June 1994

4. Documents on community floodplain management or flood hazard mitigation:

Design Guidelines for Flood Damage Reduction, FEMA-15, December 1981.

A Unified National Program for Floodplain Management, FEMA-248, May 1994.

Reducing Losses in High Risk Flood Hazard Areas—A Guidebook for Local Officials, FEMA-116, February 1987.

Floodplain Management in the United States: An Assessment Report, Summary Report, FIA-17, June 1992.

5. Documents on the natural and beneficial functions of floodplains:

Protecting Floodplain Resources, FEMA-268, September 1995.

A variety of posters and citizen information materials on watershed protection are being prepared by the Terrene Institute for the U.S. Environmental Protection Agency's Office of Wetlands, Oceans and Watersheds. Get the latest list from the Terrene Institute at (703) 548-5473.

USEPA *Wetlands Fact Sheets* and other types of assistance can be obtained by calling the USEPA Wetlands Information Hotline at 1-800-832-7828.

6. The directory of addresses of local offices that can provide more information should include names, addresses, and telephone numbers. All agencies listed should be contacted to ensure that they have the ability and are willing to provide more information. The agencies listed below should be checked.

- (a) More information about the FIRM and Flood Boundary and Floodway Map: The community's engineer, planner or building official, the State NFIP Coordinator, and the FEMA Regional Office (see Appendix A).
- (b) More information about flood insurance: Local insurance agencies and the state insurance department or NFIP Coordinator.
- (c) More information on protecting a building: Whatever agencies are providing information under Activity 360 (Flood Protection Assistance). If the community is not applying for credit under Activity 360, it should check on the services provided by the city engineer, building inspector, State NFIP Coordinator, Corps of Engineers District Floodplain Management Services Office, and Natural Resources Conservation Service District Conservationist.
- (d) More information on community floodplain management: Local or regional planning offices, State NFIP Coordinator, FEMA Regional Office, and Corps of Engineers District Floodplain Management Services Office.
- (e) More information and publications on natural and beneficial functions: State and federal agencies for environmental protection, conservation, fish and wildlife management, parks, and recreation. Regional planning agencies and local chapters of environmental and conservation organizations like American Rivers, the Izaak Walton League, and the Sierra Club, may also be able to provide information and materials for the library. To obtain CRS credit, references on natural and beneficial functions must be cataloged so that someone looking for information on floodplains will find them.
- (f) Additional information about the National Flood Insurance Program and other FEMA programs can be accessed on the website at <http://www.fema.gov> or by calling "FEMA FAX" at (202) 646-FEMA. FEMA FAX is a 24-hour service with a

- voice mail menu that leads the caller through a series of choices and sends a facsimile response to the inquiry.
- b. Additional documents should be available from state, regional, local, and private sources.
 - c. Rural communities can request help on this activity from the U.S. Natural Resources Conservation Service. Requests should be submitted to the local soil and water conservation district, which is usually located in the county seat.
 - d. A tutorial on designing and operating a municipal floodplain management website is available at no charge from the CRS. It is on a CD for IBM-compatible personal computers. Copies are available by calling (317) 848-2898 or e-mailing nfipcrs@iso.com.

360 FLOOD PROTECTION ASSISTANCE

Summary of Activity 360

361 Credit Points. There is one element in this activity for a maximum of 71 points.

Flood protection assistance (FPA): Up to 71 points are provided based on the type of technical assistance that is provided.

- a. 10 points for providing site-specific flood and flood-related data, such as floor elevations, data on historical flooding in the neighborhood, or similar information so inquirers can relate the flood threat to their properties.
- b. 4 points for providing names of contractors and consultants knowledgeable or experienced in retrofitting techniques and construction.
- c. 3 points for providing material on how to select a qualified contractor and on what recourse people have if they are dissatisfied with a contractor's performance.
- d. 35 points for making site visits to review flooding, drainage, and sewer problems and providing one-on-one advice to the property owner.
- e. 14 points for providing advice and assistance on the retrofitting techniques discussed in Activity 530 (Flood Protection).
- f. 5 points if the person providing the advice and assistance on retrofitting techniques has graduated from the Emergency Management Institute course on retrofitting.

There is no impact adjustment for this activity.

362 Credit Calculation. The credit points for FPA are totaled.

363 Credit Documentation. The community must have the following available to verify implementation of this activity.

- a. A copy of the document the community used to publicize the service.
- b. A description of the technical qualifications of the persons providing the assistance.
- c. If the person is not a community employee, a copy of a letter stating that the person and/or agency has agreed to do the work.
- d. [Required only if the community is applying for credit under Section 361.b or c] A list of the names of contractors or consultants and/or a copy of the material the community provides on how to select a contractor.
- e. [Required only if the community is applying for credit under Section 361.d or e] Records noting the date and person assisted and the type of assistance provided.

364 For More Information.

360 FLOOD PROTECTION ASSISTANCE

Credit is provided if a community provides technical advice to interested property owners and publicizes the services available.

Background: Floodplain residents are more likely to undertake activities to reduce the flood hazard to their property if reliable information is available locally. These activities include correcting local drainage problems, retrofitting existing structures, and siting and building new structures.

Activity Description: Under this activity, a qualified person must be willing and able to provide information on the flood hazard, on contractors, and on flood protection measures to inquirers. The availability of this service must be publicized at least annually.

The other activities in this series advise people to learn more about flood insurance and flood protection. The most effective public information program is direct, face-to-face communication with an expert. The best source of information on flood insurance is a flood insurance agent. This activity is designed to credit the best source of information about protecting a building from flood damage.

The objective of this activity is to provide interested property owners with general information that responds to their needs. Providing construction plans or specifications that should be prepared by an architect or engineer is not necessary. It is expected that the person providing the assistance will discuss the inquirers' situation and help them come to the appropriate solution.

The best assistance office is one that is staffed with knowledgeable and interested people. Quoting directly from books or repeating formulae are not generally effective forms of assistance. The advisors must be confident and willing to help floodplain residents. Therefore, a community should limit the assistance it provides to those topics that it is ready and willing to cover.

The assistance office could be the city engineer, building inspector, State National Flood Insurance Program (NFIP) Coordinator, U.S. Army Corps of Engineers District Floodplain Management Services office, Natural Resources Conservation Service District Conservationist, etc. It need not be local staff if other agencies have agreed to answer inquiries. Assistance can be provided by a combination of offices to secure a range of expertise.

NOTE: *This activity does not give credit for floodplain ordinance enforcement activities normally conducted by a building department, such as making site visits and/or reviewing plans to ensure that they comply with the building code.*

361 Credit Points

Maximum credit for Activity 360: 71 points.

Flood protection assistance (FPA) = The total of the following points based on which of the topics listed below are covered.

- a. 10, for providing site-specific flood and flood-related data, such as floor elevations, data on historical flooding in the neighborhood, or similar information so inquirers can relate the flood threat to their properties.

This information can be obtained from flood control studies or records the community collected during past floods. Photographs and stories about floods need to include the following types of data that help describe the flood hazard to the inquirer:

- flood warning times;
- flood velocities and duration;
- depths of flooding at the inquirer's property or nearby; and
- property damage, injuries, deaths, and other information that conveys the impact of flooding on the area and its residents.

Flood elevations and building (floor) elevations both must be provided so that the flood hazard can be related to the building's needs for protection. In areas of shallow flooding, or where there is a definite reference point, such as the curb in front of the building, a flood depth will be sufficient. Simply providing base flood elevations or information taken from elevation certificates is not credited under this activity because providing this information is credited under Activities 310 (Elevation Certificates) and 320 (Map Information Service).

- b. 4, for providing names of contractors and consultants knowledgeable or experienced in retrofitting techniques and construction.

Most property owners do not want to retrofit their properties by themselves. People want and need to know the names of companies who can do the work. Many communities have lists of such companies from their building, housing, or community development department records. Some communities and states regulate and license contractors for certain types of work.

It is important to note that this activity does not call on communities to recommend or endorse contractors or consultants. The community need only provide names and addresses or telephone numbers of licensed contractors or companies that have done the type of work the inquirer needs done or have been licensed by the community or state to do the type of work needed. The list must be organized by specialty (e.g., house movers, plumbers, waterproofers, etc.).

- c. 3, for providing material on how to select a qualified contractor and what recourse people have if they are dissatisfied with a contractor's performance.

There are many references for this type of information, including *Repairing Your Flooded Home* and *Design Manual for Retrofitting Flood-Prone Residential Structures* (see Section 354.a.3). Other sources are local building trades councils, state licensing or registration agencies, the Better Business Bureau, city or county attorney, or a state or local consumer protection agency.

- d. 35, for making site visits to review flooding, drainage, and sewer problems and providing one-on-one advice to the property owner. The visit can be to review an existing problem or to provide advice to someone contemplating developing or improving a property. A record must be kept of each visit. This service must do more than simply determine whether the community will construct a drainage improvement project; it must include providing advice to the owner or resident on how to protect the property from the flood hazard.

- e. 14, for providing advice and assistance on the retrofitting techniques discussed in Activity 530 (Flood Protection).

NOTE: *This activity does not give credit for normal building department activities such as making site visits and/or reviewing plans to ensure that they comply with the building code.*

- f. Either:

- 5, if the person providing the advice and assistance on retrofitting techniques has graduated from the Retrofitting Floodprone Residential Buildings course at the Emergency Management Institute, OR
- 2, if the person providing the advice and assistance on retrofitting techniques has successfully completed the retrofitting home study course (IS-279) of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) or an equivalent field-deployed course that includes a final exam that is a prerequisite to graduation.

The objective is to have a knowledgeable person (other than a building contractor) directly advise a property owner on appropriate flood protection measures. This activity is not designed to provide a public service that competes with local engineers or architects. The objective is to help a property owner select the most appropriate protection measure or measures, not to prepare detailed construction specifications. Where appropriate, the technical advisor would still recommend soils analyses or structural studies.

Activity 530 (Flood Protection) provides credit for modifications that have been made to existing buildings to protect them from flooding. These techniques include elevating a building above flood levels, floodwalls, dry floodproofing, wet floodproofing, and sewer backup protection. This element credits helping property owners to understand these retrofitting techniques and to choose the most appropriate measure.

The Emergency Management Institute (EMI) is a FEMA training center located in Emmitsburg, Maryland. It offers a five-day course on retrofitting techniques oriented to engineers and experienced building professionals. Stipends to cover travel, registration, and rooms are usually available from FEMA. EMI also offers several independent study courses, which are also free. For more information, call EMI at 1-800-238-3358 or see the EMI website at <http://training.fema.gov/EMIWeb/>.

Example 361.e-1. Floodville provides inquirers with flood and floor elevation data from available records. If an owner of a building without an elevation record so requests, the City Engineer will visit the site and survey the first and lowest floor elevations. The City Building Department also has an after-action report that describes the last flood, including the damage data, which it discusses with interested parties. [10 points]

The City Consumer Protection Office has prepared a handout on selecting an architect, engineer, or contractor. Copies are prominently displayed in the Building Department. The handout notes that the personnel in the consumer protection office are available to talk with people and help them with problems [3 points].

The Public Works Department responds to requests and complaints from property owners who have a flood, sewer, or drainage problem. After each visit, the staff member writes a memo for the record that lists the cause of the problem, whether the City has an obligation to correct it, and recommended solutions. A copy of the letter is given to the owner. [35 points]

The City does not provide advice or assistance on what retrofitting techniques are appropriate for a particular building.

$$\text{FPA} = 10 + 3 + 35 = 48$$

362 Credit Calculation

$$\text{c360} = \text{FPA}$$

Example 362-1. Floodville's flood protection assistance procedures are discussed in the previous section: FPA = 48.

$$\text{c360} = 48$$

363 Credit Documentation

The community must submit the following:

- a. A copy of the document the community used to publicize the service. This may be through one of three kinds of outreach projects:
 1. An outreach project to the community or floodplain properties credited under OPC or OPF in Activity 330 (Outreach Projects);
 2. An outreach project pursuant to the public information strategy (OPS) credited in Activity 330, provided the public information strategy document discusses the best way to advise the target audiences; or
 3. An annual outreach project that advises all residents and businesses in the community or in the floodplain about the service, but is not credited under Activity 330 (e.g., a short notice with all tax or utility bills). The materials must be distributed each year and must reach at least 90% of the target audience.

No credit is awarded if these services are not publicized each year. The applicant must note “360” in the margin of the section of the outreach project where it describes the flood protection assistance provided.

Example 363.a-1. Floodville publicizes its flood protection assistance service in the flyer it sends to all residents (see Figure 330-1). It is marked to show where the FPA publicity appears.

- b. A description of the technical qualifications of all persons who are providing the site visit and retrofitting assistance credited under Sections 361.d and e. If credit is being sought under Section 361.f for graduation from the EMI retrofitting course, a copy of the certificate of graduation must be included.

The person’s resume is usually readily available. The document should include training or other qualifications that directly relate to the person’s knowledge of the topic.

If the community is seeking credit for having the person who provides retrofitting advice and assistance graduated from the EMI retrofitting course, a copy of the certificate of graduation must be submitted. It should be noted that an EMI certificate of ATTENDANCE is not sufficient. An EMI CERTIFICATE OF GRADUATION is provided only if the student passes the final examination.

- c. If the person is not a community employee, a letter stating that the person and/or agency have agreed to do the work.

The community must have the following documentation available to verify implementation of this activity:

- d. [Required only if the community is applying for credit under Section 361.b or c] A list of the names of contractors or consultants (organized by specialty, e.g., house movers, plumbing contractors, waterproofers, landscapers, etc.) and/or a copy of the material the community provides on how to select a contractor.
- e. [Required only if the community is applying for credit under Section 361.d or e] Records noting the date and type of assistance given. The records must include the details of the findings and recommendations provided to the inquirer.

Copies of written reports, memos, work orders, letters to the property owners, or similar records of site visits and retrofitting recommendations are needed to document the site visits and retrofitting advice credited under Sections 361.d and e.

364 For More Information

Additional information, reference materials, and examples can be found at the CRS Resource Center at <http://training.fema.gov/EMIWeb/CRS/>.

- a. Rural communities can request help on this activity from the U.S. Natural Resources Conservation Service. Requests should be submitted to the local soil and water conservation district, which is usually located in the county seat.
- b. The U.S. Army Corps of Engineers can provide technical information and advice on flood protection measures to interested communities and individuals. Requests for assistance should be submitted to the Flood Plain Management Services Coordinator at the appropriate District Office of the Corps.
- c. See also Section 354.a.3 for references on protecting buildings from flood damage.
- d. The Emergency Management Institute (EMI) is a FEMA training center located in Emmitsburg, Maryland. It offers a five-day course on retrofitting techniques oriented to engineers and experienced building professionals. Stipends to cover travel, registration, and rooms are usually available from FEMA. EMI also offers several independent study course, which are also free. For more information, call EMI at 1-800-238-3358 or the state emergency management agency's training office, or see the EMI website at <http://training.fema.gov/EMIWeb/>.

- e. The following publication is available free. See the FEMA Order Form at the end of Appendix E.

Homeowner's Guide to Retrofitting: Six Ways to Protect your House from Flooding, FEMA-312. <http://www.fema.gov/hazards/hurricanes/rfit.shtm>.