



FEMA

July 16, 2004

MEMORANDUM FOR: Bill Blanton, CFM, Project Officer
Central Studies Team

Max Yuan, Project Officer
Western Studies Team

[Original signed]

FROM: Doug Bellomo, P.E., CFM, Acting Chief
Hazard Identification Section

SUBJECT: Procedure Memorandum No. 33 – Processing of Letters of Map
Change Involving Below-Grade Crawlspace Constructed Within
Identified Special Flood Hazard Areas

Background: The general review criteria for Letters of Map Change (LOMC) are outlined in Parts 65 and 70 of the National Flood Insurance Program (NFIP) regulations. Additional guidance for processing Letters of Map Revision and Letters of Map Revision Based on Fill was provided in Procedure Memorandum No. 22, “Revised Processing Procedures for Letters of Map Revision (LOMRs) and Letters of Map Revision Based on Fill (LOMR-Fs).”

Issue: Subparagraph 60.3(c)(2) of the NFIP regulations requires that all new construction and substantial improvements of residential structures within Zones A1-A30, AE, and AH on a Flood Insurance Rate Map (FIRM) have the lowest floor (including basement) elevated to or above the base flood level. Further, Section 59.1 of the NFIP regulations defines a basement to be any area of a building having its lowest floor subgrade (below grade level) on all sides. By this definition, a crawlspace built below grade on all sides has been considered a basement and is subject to the requirements of Subparagraph 60.3(c)(2).

The recent publication of Technical Bulletin 11-01, *Crawlspace Construction for Buildings Located in Special Flood Hazard Areas*, provides communities with guidance for the construction of below-grade crawlspaces within the Special Flood Hazard Area (SFHA) that would meet the minimum requirements of the NFIP regulations.

Final Procedure: Effective immediately, we will review LOMC requests involving below-grade crawlspaces constructed within the SFHA following the general review criteria of Parts 65 and 70 of the NFIP regulations, the guidance provided in Procedure Memorandum No. 22, and the guidance provided in Technical Bulletin 11-01. Our determination (outcome) on LOMC requests involving below-grade crawlspaces will therefore depend on the review criteria outlined below.

LOMRs and LOMR-Fs

1. For LOMR or LOMR-F requests that meet the guidance and data requirements outlined in Procedure Memorandum No. 22, we will issue our determination based on the guidance established in that memorandum.
2. For all LOMR or LOMR-F requests involving an existing structure with a crawlspace, whose Lowest Adjacent (exterior) Grade (LAG) is at or above the Base Flood Elevation (BFE), and that meet the data requirements of Subparagraphs 65.5(a)(4) or 65.6(a)(14) of the NFIP regulations, with the exception of item i (existing residential structures built in the SFHA have their lowest floor elevated to or above the base flood), the community may provide written assurance that the structure conforms to the technical standards for construction in or around SFHAs as provided in Technical Bulletin 11-01. These standards include:
 - a. The interior grade of the crawlspace is not greater than 2 feet below the lowest exterior grade;
 - b. The total difference between the interior crawlspace grade and the top of the crawlspace foundation (i.e., height) is not greater than 4 feet at any point;
 - c. The crawlspace has an adequate drainage system capable of draining the crawlspace area within a reasonable timeframe after a flood event; and
 - d. The velocity of floodwaters at the site will not exceed 5 feet per second.

If the community provides these assurances, we will remove the structure from the SFHA. Upon the issuance of the LOMR or LOMR-F determination, we will notify the Community Assistance Branch of the LOMC request and provide them with pertinent information about the case (i.e., community name, affected NFIP map panel, LOMC type, outcome).

3. For all LOMR or LOMR-F requests involving an existing structure with a crawlspace whose exterior LAG is not at or above the BFE, but still meets the other requirements of either of the above two criteria, we will issue a non-removal determination. Upon the issuance of the LOMR or LOMR-F determination, we will notify the Community Assistance Branch of the LOMC request and provide them with pertinent information about the case (i.e., community name, affected NFIP map panel, LOMC type, outcome).
4. For all LOMR or LOMR-F requests that do not fall under the above three criteria, we will suspend processing of the request and follow the potential violation procedures outlined in Procedure Memorandum No. 22.
5. If the community is unwilling or unable to provide any written assurances, we will suspend processing of the request in accordance with NFIP regulations.

Letters of Map Amendment (LOMAs)

As written assurance from communities is not required for the processing of LOMA requests, we will only abide by the criteria outlined below if information has been submitted for a request involving a Post-FIRM constructed building (structure) having a LAG below the BFE and a below-

grade crawlspace. In such a situation, we will request a community's written assurance that the structure conforms to the technical standards of Technical Bulletin 11-01. Depending on what is received from the community in response to this request, we will do one of the following:

- If the submitted assurance states that the subject of the request conforms to the technical standards of Technical Bulletin 11-01, we will issue a non-removal determination based on the general review criteria of the NFIP. In addition, we will notify the Community Assistance Branch of the request and provide them with pertinent information about the case (i.e., community name, affected NFIP map panel, LOMC type, outcome).
- If, however, this assurance states that the subject of the request does not conform to the technical standards of Technical Bulletin 11-01, we will suspend processing of the request and follow the potential violation procedures outlined in Procedure Memorandum No. 22.
- If the community is unwilling or unable to provide the written assurances, we will suspend the processing of the LOMA request in accordance with NFIP regulations.

Conditional LOMRs, LOMR-Fs, and LOMAs

We will review requests for Conditional LOMRs, LOMR-Fs, and LOMAs in accordance with the guidance provided in Procedure Memorandum No. 22 and as outlined above. Our review and Comment Document will be based on proposed conditions. In instances where the proposed conditions would result in a potential violation, we will issue a conditional non-removal determination.

cc: See Distribution List

Distribution List (electronic distribution only)**Office of the Mitigation Director**

- David Maurstad
- Priscilla Scruggs
- Virginia Desautels
- LaBrina Jones

Risk Assessment Branch

- Cliff Oliver
- Mike Grimm
- Lois Forster
- Errol Garren
- Bret Gates
- Bill Lesser
- Cynthia Pollnow
- Mike Robinson
- David Stearrett
- Juanita Thompson

Risk Identification Branch

- Mike Howard
- Fred Sharrocks
- Mary Jean Pajak
- Doug Bellomo
- Bill Blanton
- Max Yuan
- Kelly Bronowitz
- Mike Godesky
- Emily Hirsch
- Allyson Lichtenfels
- Kevin Long
- John Magnotti
- Kathy Miller
- Helen Cohn
- Cynthia Croxdale
- Anne Flowers
- Cecelia Lynch
- Agnes Ross
- Jay Scruggs
- Daphne Thornton
- Dee Woodard
- Eric Berman
- Claire Drury
- John Gambel
- Paul Rooney
- Scott McAfee

FEMA Regional OfficesRegion I

- Kevin Merli
- Bob Archila
- Mike Goetz
- David Knowles
- Dean Savramis

Region II

- Mike Dabney
- Bruce Swiren
- Paul Weberg

Region III

- Gene Gruber
- Michael Craghan
- Marty Frengs
- Jon Janowicz
- Nikki Roberts
- Ken Wallace

Region IV

- Todd Davison
- Laura Algeo
- Bruce Buckerfield
- John Plisich
- Clayton Saucier
- Mark Vieira
- Mohammad Waliullah

Region V

- Norb Schwartz
- Terry Fell
- Ken Hinterlong
- Mary Jo Mullen
- Lee Traeger

Region VI

- Frank Pagano
- Dennis Lee
- Jim Orwat
- Jack Quarles
- Gary Zimmerer

Region VII

- Bob Bissell
- Kathleen Strange
- Bob Franke
- Phil Kirk
- Rick Nusz

Region VIII

- Steve Olsen
- Robert Ives
- Marijo Camrud
- John Liou

Region IX

- Sally Ziolkowski
- Mike Shore
- Ray Lenaburg
- Les Sakumoto

Region X

- Carl Cook
- Mark Carey
- Dave Carlton
- Joe Weber

Office of Legislative Affairs

- Vince Fabrizio
- Loretta Schaffer

Office of General Counsel

Rick Neal

FEMA Contractors

- Zekrollah Momeni (Dewberry)
- Don McEvoy (PBS&J)
- Fernando Pasquel (Baker)