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Issuance # 641

**TECHNICAL
POLICY AND PROCEDURE NOTICE #1/04**

TO: Distribution

FROM: Fatma Amer, P.E.
Acting Deputy Commissioner 

DATE: February 20, 2004

SUBJECT: Special Flood Hazard Areas

Purpose: To change certain application procedures and construction requirements in Special Flood Hazard Areas

Background: Sections 27-316 through 27-317.2 establish general limitations on occupancy and construction within Special Flood Hazard Areas.

Effective: Immediately.

Specifics: **All applications for work in Special Flood Hazard Area shall comply with the following requirements:**

1) General application requirements

- Applicants shall check the “Flood Plains” box on the Plan/Work Approval Application (PW-1) and shall indicate on the plans that the proposed work is located in a Special Flood Hazard Area, for all new buildings and alterations (regardless of cost or type).
- Certification(s) required under §§ 27-316.1 (c), (d) and (e), and 27-317(g) and (h) shall be required items and noted on the plans prior to approval.
- The certification of the elevation of the lowest floor required by § 27-316(g) shall be a required item and must be submitted prior to sign off. Such certification shall be accomplished by utilizing Federal Emergency Management Agency (FEMA) form entitled “Elevation Certificate,” and shall indicate all values in terms of the NGVD, followed by the corresponding borough datum values in parentheses (see § 27-158 for NGVD/borough datum conversions; e.g. 10 NGVD = 7.392 Bx).
- Plan examiners shall enter into the BIS system the applicable certifications and controlled inspections as required items, and shall review the application for compliance with all other requirements of §§ 27-316 through 27-317.2.

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2) Spaces below base flood elevation may not be lower than adjoining and/or adjacent grades (see Attachment A on page 5)

Except for floodproofed spaces (where permitted pursuant to §§ 27-317(b) and 27-317.2), in order to:

- minimize flood damage,
- provide adequate drainage so as to reduce exposure to flood hazards, and
- allow for the entry and exit of floodwaters in non-floodproofed structures,

the floor level of any space below the base flood elevation shall be no lower than the level of adjacent grade on at least one side of the structure (see Attachment A on page 5). These adjacent grade levels shall permit floodwaters to fully recede with only natural gravity, preventing accumulations of water under or in the structure. Pumps and drains shall not be permitted as a substitute.

3) Enclosure of such spaces

A-Zones. All enclosed spaces with a floor level below the base flood elevation (but no lower than adjacent grade) that are provided with opening conforming with § 27-317(g) shall be unheated and treated as outdoors for the purposes of insulating the remainder of the structure in accordance with the Energy Conservation Construction Code of the State of New York.

V-Zones. The only structural supports permitted below the base flood elevation are pilings or columns as per § 27-317(f). Bearing walls below the base flood elevation are prohibited, except that, upon approval by the Borough Commissioner, limited lengths of reinforced shear walls in accordance with Reference Standard RS 4-5 may be permitted when structurally necessary. The areas between the pilings or columns shall be free of obstruction, or alternatively, may be constructed with open lattice “breakaway” walls as per § 27-317(f)(2). Solid breakaway walls are strictly prohibited. Such spaces shall be no lower than adjacent grade, unheated, and treated as outdoors for the purposes of insulating the remainder of the structure in accordance with the Energy Conservation Construction Code of the State of New York.

4) Description of Use on Schedule A and Certificate of Occupancy

A-Zones. For enclosed spaces below the base flood elevation that are not floodproofed, the description of the proposed use on the Schedule A of any such floor shall indicate that the space is “unfinished” and “subject to flooding.” For example:

- “unfinished storage (subject to flooding)”
- “unfinished parking and storage (subject to flooding)”
- etc.

In such buildings, the certificates of occupancy shall be issued with the following restriction:

- “Levels subject to flooding shall remain unfinished and shall not be used for any other use except as stated on this certificate.”

For spaces in nonresidential or mixed use buildings that are floodproofed, the description of the proposed use on the Schedule A for any floor below the base flood elevation shall indicate that the space is “floodproofed.”

V-Zones. For spaces below the base flood elevation, the description of the proposed use on the Schedule A of any such floor shall indicate that the space is “open” and “subject to flooding.” For example:

- “open (subject to flooding)”
- “open storage (subject to flooding)”

“open parking, storage and building access (subject to flooding)”
etc.

In such buildings, the certificates of occupancy shall be issued with the following restriction:

“Open levels subject to flooding shall remain open except that they may be provided with open lattice breakaway walls to the extent any floor area resulting from such breakaway walls is permitted by the Zoning Resolution. Such levels may not be used for any other use except as stated on this certificate.”

5) Substantial Improvement

Applicants shall include in every alteration application the statement: “Work in this application [is/is not] included in a substantial improvement as defined by § 27-317.1 and TPPN #1/04.”

For an alteration that is not a substantial improvement and that exceeds \$40,000 in cost, the applicant shall include, on a separate AI-1 form, cost and market value calculations as outlined below, and shall include backup documentation: either the online printout of the Department of Finance Final Assessment Roll or a copy of the real estate appraisal.

Cost. To determine whether the cost of work performed equals or exceeds the percentage established in the definition of “substantial improvement” (see §27-317.1), the applicant shall add together:

- the costs for the given application, regardless of the time it takes to complete the work, **plus**
- the cost of all other work to be performed during the same period, including work filed under separate application(s) and any minor alterations and ordinary repairs.

Market Value. To determine the “market value” of a building, the applicant shall use either of the two calculation methods below:

A) Calculations using dollar amounts provided by the Department of Finance’s most recent “Final Assessment Roll” as follows (see Attachment B “Final Assessment Roll and Market Value Calculation” on pages 6-8):

Attachment B1
Page 6

$$\text{Estimated Market Value (Total)} \times \frac{\text{Actual AV (Total)} - \text{Actual AV (Land)}}{\text{Actual AV (Total)}}$$

or

Attachment B2
Page 7

$$\text{Estimated Market Value (Total)} \times \frac{6\text{-}20\% \text{ Limitation (Total)} - 6\text{-}20\% \text{ Limitation (Land)}}{6\text{-}20\% \text{ Limitation (Total)}}$$

or

Attachment B3
Page 8

$$\text{Estimated Market Value (Total)} \times \frac{8\text{-}30\% \text{ Limitation (Total)} - 8\text{-}30\% \text{ Limitation (Land)}}{8\text{-}30\% \text{ Limitation (Total)}}$$

OR, at the option of the owner, or where the first method would not reflect the market value because more than one building occupies a single tax lot,

B) Calculations using dollar amounts obtained from an appraisal performed by a New York State licensed Real Estate Appraiser and performed within one year of the filing of the alteration application:

$$\text{Appraised Market Value (Land and Building)} - \text{Appraised Market Value (Land)}$$

6) Where No Base Flood Elevations Are Determined

Where the flood insurance rate map indicates that no base flood elevation is determined for an A-Zone, the applicant is responsible for requesting base flood elevation data from

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the New York State Department of Environmental Conservation (DEC), and submitting with its PW-1 to DOB either 1) a letter from DEC making such a determination of base flood elevation, or 2) a letter from DEC indicating that such data are not available. When such a letter from DEC indicates that the data are not available, the base flood elevation shall be equal to three feet above the highest adjacent natural grade, provided, however, that where the zoning lot is greater than five acres or where a subdivision of any sized parcel results in 50 or more zoning lots or tax lots, the applicant shall provide a detailed engineering study establishing such base flood elevation data.

7) Exceptions for Letters of Map Amendments and Letters of Map Revisions

Attachment C
Pages 9-10

See Attachment C on pages 9-10, “DOB Procedures for Exceptions for Letters of Map Amendments and Letters of Map Revisions.”

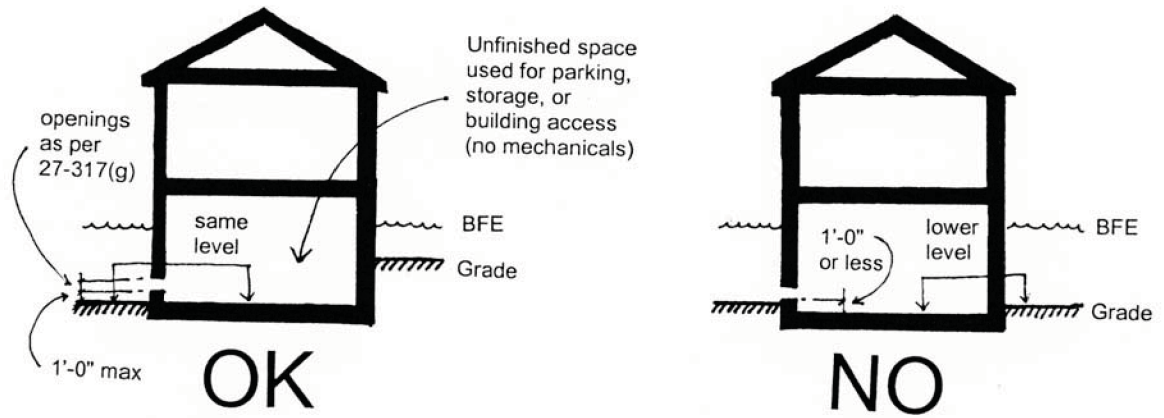
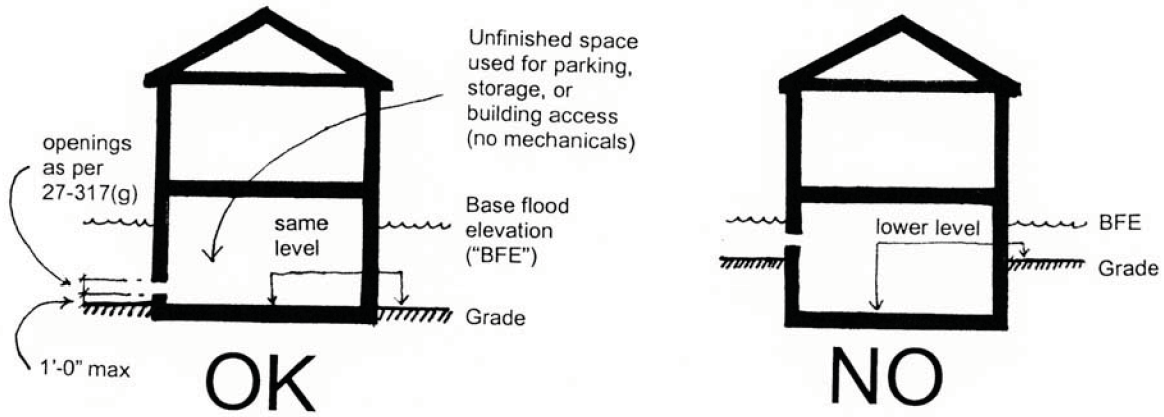
8) Variances

The applicant may seek variances or modifications of the Building Code flood zone requirements from the Board of Standards and Appeals pursuant to §§ 666.6(a) and 666.7 of the New York City Charter and consistent with 44 C.F.R. § 60.6(a). However, for existing buildings the Commissioner of Buildings may grant relief of such flood zone requirements as interpreted in this TPPN pursuant to § 645(b)(2) of the New York City Charter and § 27-107 of the Building Code and consistent with 44 C.F.R. § 60.6(a) for buildings for which plans were approved on or after May 27, 1988 and approved prior to the issuance of this TPPN.

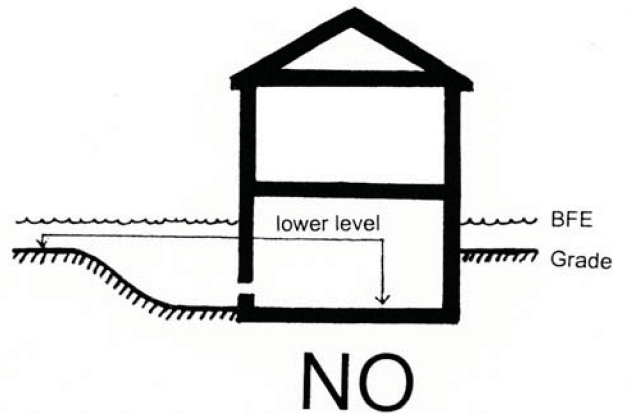
Note: You may obtain copies of FEMA’s Elevation Certificates and the text of 44 C.F.R. on FEMA’s website: <http://www.fema.gov>

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Attachment A



Spaces below base flood elevation may not be lower than adjoining and/or adjacent grades – These sketches should serve as a general guide in understanding the requirement explained on page 2. For more complex or unusual configurations, applicants are directed to seek guidance from the department staff in the Borough office in which the project is located.



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Attachment B1

Sample Final Assessment Roll and Market Value Calculations

from: <http://www.nyc.gov/html/dof> (then click "Real Estate Tax")

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 The Official New York City Web Site
FINAL ASSESSMENT ROLL 2003-2004 | City of New York
 Taxable Status Date: January 5, 2003 [View 2004 TENTATIVE ASSESSMENT ROLL](#)

EXPLANATION OF ASSESSMENT ROLL

Parcel Information		«Previous BBL	Next BBL»
Owner Name:	[REDACTED]	Borough:	[REDACTED]
Property Address and Zip Code:	[REDACTED]	Block:	[REDACTED]
Real Estate Billing Name and Address:	[REDACTED]	Lot:	[REDACTED]
		Tax Class:	2
		Building Class:	C4 Codes

Land Information

Lot Size	Irregular	Corner
25.00FT X 94.67FT		

Building Information

Number of Buildings	Building Size	Extension	Stories
1	25.00FT X 77.00FT		5

Assessment Information

Description	Land	Total
ESTIMATED MARKET VALUE		814,000
ACTUAL AV	135,000	366,300
ACTUAL EX AV	0	136,080
TRANS AV	135,000	363,150
TRANS EX AV	0	136,080

Taxable/Billable Assessed Value

	Assessed Value
SUBJECT TO ADJUSTMENTS, YOUR 2003/04 TAXES WILL BE BASED ON	227,070

Exemption Information

#	Code	Description	Exempt Value
1	1920-01 (48070)	ALTERATION	136,080

Property is assessed at the following uniform percentages of full market value, unless limited to a lesser amount by law:

Class 1 - 8%	Class 2 - 45%	Class 3 - 45%	Class 4 - 45%
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$$\begin{aligned}
 & \$814,000 \times \frac{366,300 - 135,000}{366,300} \\
 & = \$814,000 \times 63.14\% \\
 & = \$513,960 = \text{MARKET VALUE OF BUILDING}
 \end{aligned}$$

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Attachment B2

Sample Final Assessment Roll and Market Value Calculations

from: <http://www.nyc.gov/html/dof> (then click "Real Estate Tax")

	Statements List	Select a B-B-L	NYC.GOV Home	DEP Home	DOF Home	NYCProperty Home
<i>The Official New York City Web Site</i>						
FINAL ASSESSMENT ROLL 2003-2004 City of New York						
Taxable Status Date: January 5, 2003			View 2004 TENTATIVE ASSESSMENT ROLL			

EXPLANATION OF ASSESSMENT ROLL

Parcel Information	◀◀Previous BBL	Next BBL ▶▶
Owner Name: ██████████	Borough: ██████████	
Property Address and Zip Code: ██████████	Block: ██████████	
Real Estate Billing Name and Address: ██████████	Lot: ██████████	
	Tax Class: 1	
	Building Class: B3 Codes	

Land Information

Lot Size	Irregular	Corner
30.00FT X 95.58FT		

Building Information

Number of Buildings	Building Size	Extension	Stories
1	16.00FT X 28.00FT	EG	2

Assessment Information

Description	Land	Total
ESTIMATED MARKET VALUE		144,000
6-20% LIMITATION	2,040	5,702
ACTUAL EX AV	1,570	1,570

Taxable/Billable Assessed Value

	Assessed Value
SUBJECT TO ADJUSTMENTS, YOUR 2003/04 TAXES WILL BE BASED ON	4,132

Exemption Information

#	Code	Description	Exempt Value
1	1017-01 (41856)	SCHOOL TAX RELIEF	1,570

Property is assessed at the following uniform percentages of full market value, unless limited to a lesser amount by law:			
Class 1 - 8%	Class 2 - 45%	Class 3 - 45%	Class 4 - 45%

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$$\begin{aligned}
 & \$144,000 \times \frac{5,702 - 2,040}{5,702} \\
 & = \$144,000 \times 64.22\% \\
 & = \$92,481 = \text{MARKET VALUE OF BUILDING}
 \end{aligned}$$

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Attachment B3

Sample Final Assessment Roll and Market Value Calculations
from: <http://www.nyc.gov/html/dof> (then click "Real Estate Tax")

	Statements List	Select a B-B-L	NYC.GOV Home	DEP Home	DOF Home	NYCProperty Home
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The Official New York City Web Site

FINAL ASSESSMENT ROLL 2003-2004 | City of New York
Taxable Status Date: January 5, 2003 [View 2004 TENTATIVE ASSESSMENT ROLL](#)

EXPLANATION OF ASSESSMENT ROLL

Parcel Information	◀◀Previous BBL	Next BBL ▶▶
Owner Name: ██████████	Borough: ██████████	Block: ██████████
Property Address and Zip Code: ██████████	Lot: ██████████	
Real Estate Billing Name and Address: ██████████	Tax Class: 2A	Building Class: C2 Codes

Land Information

Lot Size	Irregular	Corner
25.00FT X 70.00FT	IRREG	

Building Information

Number of Buildings	Building Size	Extension	Stories
1	25.00FT X 86.00FT	E	4

Assessment Information

Description	Land	Total
ESTIMATED MARKET VALUE		391,000
8-30% LIMITATION	13,050	30,427
ACTUAL EX AV	0	0

Taxable/Billable Assessed Value

Assessed Value
SUBJECT TO ADJUSTMENTS, YOUR 2003/04 TAXES WILL BE BASED ON 30,427

Property is assessed at the following uniform percentages of full market value, unless limited to a lesser amount by law:

Class 1 - 8% Class 2 - 45% Class 3 - 45% Class 4 - 45%

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$$\begin{aligned}
 & \$391,000 \times \frac{30,427 - 13,050}{30,427} \\
 & = \$391,000 \times 57.11\% \\
 & = \$223,302 = \text{MARKET VALUE OF BUILDING}
 \end{aligned}$$

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Attachment C

**DOB Procedures for Exceptions for
Letters of Map Amendments and Letters of Map Revisions**

Letters of Map Amendment (LOMAs)

For a parcel which according to RS 4-4 falls within a designated flood zone, but for which a survey of the existing conditions (with the location of any proposed structure superimposed) in fact demonstrates that the existing natural grade surrounding the (proposed) structure is at or above the base flood elevation, an owner may apply to FEMA pursuant to 44 C.F.R. § 65.6(b) for a LOMA.

An applicant may take such approved LOMA obtained from FEMA, along with its associated survey, and submit it to DOB with the applicant's initial filing for a new building or alteration application. In such cases the design of such a structure or alteration need not comply with §§ 27-316 through 27-317.2 provided, however, that the elevation certificate shall be a required item prior to signoff and must indicate a lowest adjacent grade which is at or above the base flood elevation. Additionally, the applicant must check the "Flood Plains" box on the PW-1, and the restrictions and limitations on any certificate of occupancy shall state "Exempted from flood zone construction requirements pursuant to FEMA Letter of Map Amendment # _____".

Letters of Map Revisions based on Fill (LOMR-Fs)

FEMA issues LOMR-Fs where fill is introduced as a means of raising the grade level around an existing or proposed structure in an A-Zone in order to exempt the structure from flood zone construction requirements. Such LOMR-Fs are not permitted in V-Zones or in designated floodways (see 44 C.F.R. § 65.5).

FEMA will only issue such LOMR-Fs after the Department of Buildings first signs a "Community Acknowledgement Form," making the determination that the work is reasonably safe from flooding (see 44 C.F.R. § 65.5). The following establishes procedures for processing applications where owners seek to comply with these federal requirements by altering the natural grade. However, in no case may fill be placed so as to raise the level of grade higher than curb level within a required yard or rear yard equivalent (see Zoning Resolution §§ 23-42, 33-22, and 43-22).

STEP 1 – DOB Application. Such applications may be submitted as a separate Alt-3 earthwork

application or as part of a larger Alt-1, Alt-2, or NB application, and shall include:

- (a) The check-off for Flood Plains on the PW-1;
- (b) an "Initial Survey" of existing conditions showing 1'-0" contour lines;
- (c) no fewer than three sections traversing the entire parcel showing the base flood elevation, any proposed structures (including floor levels), required yards and rear yard equivalents, levels of existing natural grade, levels of grade to be removed, final levels of compacted fill, and final levels of uncompacted topsoil. Additional sections shall be required when necessary to adequately depict the work to be performed. All levels shall be indicated in NGVD with borough datum in parentheses;
- (d) an "Initial LOMR-F Flood Zone Certification" by the registered architect or professional engineer who is the applicant on the PW-1, stating:

"In accordance with FEMA's Technical Bulletin 10-01 and in accordance with accepted professional practice, I, _____, certify that the design for the aforementioned development is reasonably safe from flooding and that the design of the development will not increase the risk of flooding to surrounding areas. Additionally, I certify that the design complies with the Flood Zone requirements of the Building Code and TPPN #1/04, and that the level of compacted fill adjacent to all structures in the development, exclusive of uncompacted topsoil, shall be at or above the base flood elevation. Further, I certify that no fill shall be placed in the regulatory floodway or in an area designated as a V-Zone. Lastly I certify that all applicable Federal, State, and local laws shall be complied with, and all Federal, State, and local permits required for the proposed work have been obtained and submitted into the folder for this job"; and

- (e) identification of controlled inspection for "Flood Zone Compacted Fill" (to be certified by prior to sign off). Compaction standards shall be as referenced in FEMA Technical Bulletin 10-01.

STEP 2 - Plan approval.

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STEP 3 (Optional) – Apply to FEMA for Conditional LOMR-F. While the Conditional LOMR-F is an optional step, it provides pre-construction assurance of FEMA's approval of the Final LOMR-F. At any time after plan approval, the applicant may present to the Borough Commissioner for review and signature a FEMA "Community Acknowledgement Form" (which shall indicate "Conditional LOMR-F" in the "Community Comments" section), along with the approved plans. The owner shall then include this signed Community Acknowledgement Form with the owner's conditional LOMR-F application to FEMA. If the owner elects not to undertake step 3, the owner shall still follow steps 4 through 7.

STEP 4 – Complete all grading, fill, and foundation work.

STEP 5 – Present Community Acknowledgement Form to Borough Commissioner. At any time after the completion of all grading, fill and foundation work, the applicant shall present to the Borough Commissioner for review and signature a FEMA Community Acknowledgement Form, along with the approved plans and following additional list of required items:

- (a) a "Final Survey" of completed conditions showing 1'-0" contour lines;
- (b) certification of completion for "Flood Zone Compacted Fill" controlled inspection. Compaction standards shall be as referenced in FEMA Technical Bulletin 10-01; and
- (c) a "Final LOMR-F Flood Zone Certification" by the registered architect or professional engineer who is the applicant on the PW-1, stating:

"In accordance with FEMA's Technical Bulletin 10-01 and in accordance with accepted professional practice, I, _____, certify that all

grading, fill and foundation work is complete, that the design for and construction of the aforementioned development is reasonably safe from flooding and that the design for and construction of the development will not increase the risk of flooding to surrounding areas. I have reviewed the annexed "Initial Survey" and "Final Survey" and have witnessed the required controlled fill tests. Further, I certify that the all work complies with the Flood Zone requirements of the Building Code and TPPN #1/04, and that the level of compacted fill adjacent to all structures in the development, exclusive of uncompacted topsoil, is at or above the base flood elevation. Additionally, I certify that no fill has been placed in the regulatory floodway or in a designated V-Zone. Lastly, I certify that all applicable Federal, State, and local laws have been complied with, and all Federal, State, and local permits required for the work have been obtained and submitted into the folder for this job".

STEP 6 – Apply to FEMA for Final LOMR-F. After the Borough Commissioner signs the Community Acknowledgement Form, the owner shall include such signed form in the owner's application to FEMA for a Final LOMR-F.

STEP 7 – Submit the approved LOMR-F and elevation certificate to DOB. No certificate of occupancy or other final signoff may be issued by the Department unless and until the applicant submits to DOB the Final LOMR-F approved by FEMA and the elevation certificate, and until all documents and submissions required by this TPPN are microfilmed into the permanent records of the Department. The restrictions and limitations on the certificate of occupancy shall state "Exempted from flood zone construction requirements pursuant to FEMA Letter of Map Revision Based on Fill # _____".

Note: You may obtain copies of FEMA's Elevation Certificates, the text of 44 C.F.R., FEMA Technical Bulletin 10-01, and FEMA's Community Acknowledgement Form on FEMA's website: <http://www.fema.gov>

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