

# **FEMA FLOOD STUDIES AND MAPS**

## **Letters of Map Change**

***Eric Carlson***

***Massachusetts***

***Department of Conservation and Recreation***  
***Flood Hazard Management Program***

**Tewksbury, MA**

***October, 2019***



*department of Conservation and Recreation*

# NATIONAL FLOOD INSURANCE PROGRAM

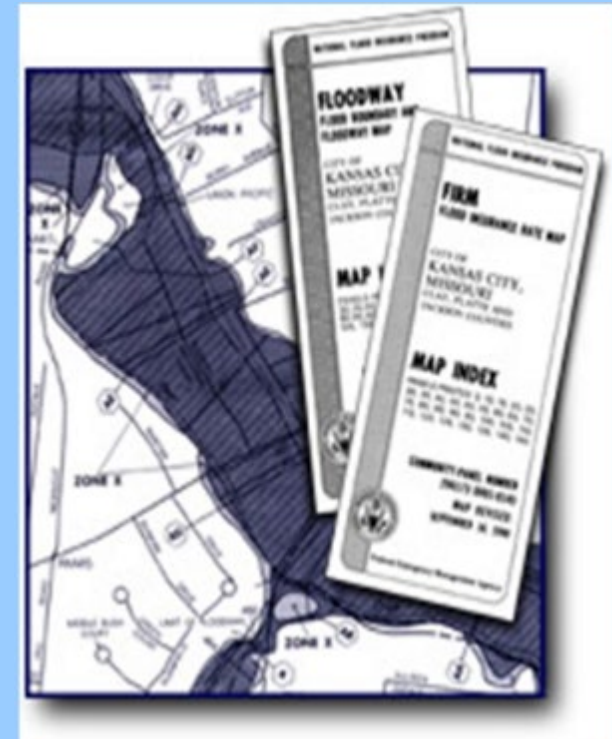
- FEMA produces Flood Insurance Studies and maps for the National Flood Insurance Program (NFIP).
- The studies identify areas where participating communities must regulate development in accordance with the minimum floodplain management requirements of the NFIP.
- The studies also identify areas where flood insurance is a requirement for structures purchased with a federally insured loan, and are used to determine insurance rates.

# THE FIRM SHOWS THE SITE IN THE FLOODPLAIN...

- Often times the FIRM will clearly show that the site of a proposed project is in the floodplain, but a Surveyor or Engineer states that it is not, based on an elevation survey of the site.
- Sometimes a proponent may want to change zone designation or elevation by filling or some other physical project.

# THE FIRM SHOWS THE SITE IN THE FLOODPLAIN...

- Maybe a proponent has better/revised/site specific hydraulic analysis.
- It is recommended to solve these disputes through the FEMA map revision process.



# FEMA MAP AMENDMENTS

- Letter of Map Amendment (LOMA)
  - FEMA will determine if a site or structure is in the floodplain based on the site location and elevations compared to the Base Flood Elevation, no submittal fee.
  - An official letter is issued that contains the determination for the specific site.
  - No physical change to the FIRM

# LOMAs

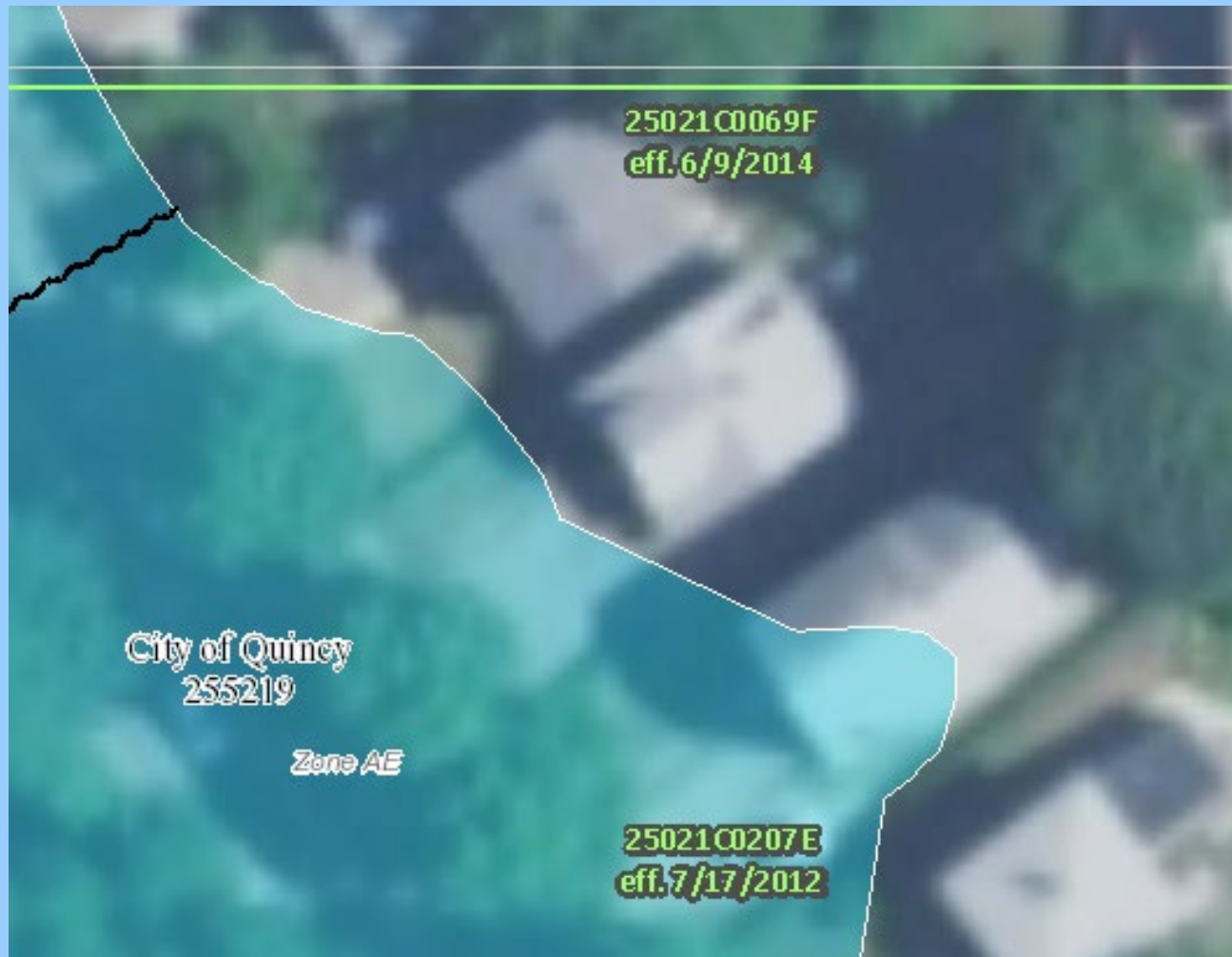
- Out as shown
- Out by elevation
- Single lot/structure
- MT-EZ form

<b>DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY</b> <b>APPLICATION FORM FOR SINGLE RESIDENTIAL LOT OR STRUCTURE AMENDMENTS TO</b> <b>NATIONAL FLOOD INSURANCE PROGRAM MAPS</b>		<b>O.M.E. NO. 1660-0015</b> Expires February 28, 2014
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<b>PAPERWORK BURDEN DISCLOSURE NOTICE</b>	
Public reporting burden for this data collection is estimated to average 2.6 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this form. This collection of information is required to obtain or retain benefits. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 22206-5005, Paperwork Reduction Project (1660-0015) NOTE: Do not send your completed form to this address.	
This form should be used to request that the Department of Homeland Security's Federal Emergency Management Agency (FEMA) remove a single structure or legally recorded parcel of land or portion thereof, described by metes and bounds, certified by a registered professional engineer or licensed land surveyor, from a designated Special Flood Hazard Area (SFHA), an area that would be inundated by the flood having a 1% chance of being equaled or exceeded in any given year (base flood), via Letter of Map Amendment (LOMA). It shall not be used for requests submitted by developers, for requests involving multiple structures or lots, for property in alluvial fan areas, for property located within the regulatory floodway, or requests involving the placement of fill. (NOTE: Use MT-1 form for such requests). Fill is defined as material from any source (including the subject property) placed that raises the grade to or above the Base Flood Elevation (BFE). The common construction practice of removing unsuitable existing material (topsoil) and backfilling with select structural material is not considered the placement of fill if the practice does not alter the existing (natural grade) elevation, which is at or above the BFE. Also, fill that is placed before the date of the first National Flood Insurance Program (NFIP) map showing the area in an SFHA is considered natural grade.	
<b>LOMA:</b>	A letter from DHS-FEMA stating that an existing structure or parcel of land that has not been elevated by fill would not be inundated by the base flood.
A - This section may be completed by the property owner or by the property owner's agent. In order to process your request, all information on this form must be completed in its entirety, unless stated as optional. Incomplete submissions will result in processing delays.	
1. Has fill been placed on your property to raise ground that was previously below the BFE? <input type="checkbox"/> No <input type="checkbox"/> Yes - If Yes, STOP!! - You must complete the MT-1 application form; visit <a href="http://www.fema.gov/elem/urgent/fhm/dl_mt-1.shtml">http://www.fema.gov/elem/urgent/fhm/dl_mt-1.shtml</a> or call the FEMA Map Information eXchange toll free: (877-FEMA MAP) (877-336-2627)	
2. Legal description of Property (Lot, Block, Subdivision or abbreviated description from the Deed) and street address of the Property (required): <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>	
3. Are you requesting that a flood zone determination be completed for (check one): <input type="checkbox"/> A structure on your property? What is the date of construction? _____ (MM/YYYY) <input type="checkbox"/> A portion of your legally recorded property? (A certified metes and bounds description and map of the area to be removed, certified by a registered professional engineer or licensed land surveyor, are required. For the preferred format of metes and bounds descriptions, please refer to the MT-EZ Instructions.) <input type="checkbox"/> Your entire legally recorded property?	
All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.	
Applicant's Name (required): <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>	E-mail address (optional) <input type="checkbox"/> By checking here you may receive correspondence electronically at the email address provided: <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>
Mailing Address (include Company name if applicable) (required): <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>	Day/Time Telephone No. (required): <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>
	Fax No. (optional): <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>
Signature of Applicant (required) <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>	Date (required) <div style="background-color: #e0e0e0; height: 20px; width: 100%;"></div>
End of Section A	

# Out as shown



Out as shown

Page 1 of 2		Date: June 19, 2014		Case No.: 14-01-2232A		LOMA-OAS		
		<b>Federal Emergency Management Agency</b> Washington, D.C. 20472						
		<b>LETTER OF MAP AMENDMENT</b> <b>DETERMINATION DOCUMENT (OUT AS SHOWN)</b>						
<b>COMMUNITY AND MAP PANEL INFORMATION</b>				<b>LEGAL PROPERTY DESCRIPTION</b>				
<b>COMMUNITY</b>	CITY OF QUINCY, NORFOLK COUNTY, MASSACHUSETTS			A parcel of land, as described in the Quitclaim Deed, recorded as Document No. 12672, in Book 338, Page 364, in the Office of the Registry of Deeds, Norfolk County, Massachusetts				
	COMMUNITY NO.: 255219							
<b>AFFECTED MAP PANEL</b>	NUMBER: 25021C0207E							
	DATE: 7/17/2012							
FLOODING SOURCE: FURNACE BROOK				APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 42.249, -71.029 SOURCE OF LAT & LONG: ARCGIS 10.1 DATUM: NAD 83				
<b>DETERMINATION</b>								
LOT	BLOCK/SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS OUTSIDE OF THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
--	--	--	1064 Furnace Brook Parkway	Structure	X (unshaded)	--	--	--
<b>Special Flood Hazard Area (SFHA)</b> - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).								
<b>ADDITIONAL CONSIDERATIONS</b> (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)								
PORTIONS REMAIN IN THE SFHA								
<p>This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). The subject property is correctly shown outside the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. If the policy has been written using an incorrect zone, it can be endorsed to correct the zone for the current policy year and one prior policy term. Please contact the insurance agent or company involved to request endorsement of the policy. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.</p> <p>This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.</p>								
 Luis Rodriguez, P.E., Chief Engineering Management Branch Federal Insurance and Mitigation Administration								



# Out as shown

- Basis for determination is that the structure is clearly not in the floodplain as it is shown on the map.
- No part of the structure touches the floodplain – or even looks like it touches.



# Out by elevation



# Out by elevation

- Basis for determination is lowest adjacent grade for a structure.
- For a lot or partial lot basis is lowest grade on the lot, or area described by metes and bounds.

# Out by elevation

Page 1 of 2		Date: May 25, 2016		Case No.: 16-01-1574A		LOMA		
		<b>Federal Emergency Management Agency</b> Washington, D.C. 20472						
		<b>LETTER OF MAP AMENDMENT</b> <b>DETERMINATION DOCUMENT (REMOVAL)</b>						
<b>COMMUNITY AND MAP PANEL INFORMATION</b>				<b>LEGAL PROPERTY DESCRIPTION</b>				
<b>COMMUNITY</b>	TOWN OF DARTMOUTH, BRISTOL COUNTY, MASSACHUSETTS			Lots 97 and 98, Dartmouth Terrace, as described in the Mortgage recorded as Document No. 20176, in Book 10876, Pages 236 through 244, in the Office of the Registry of Deeds, Bristol County, Massachusetts				
	COMMUNITY NO.: 250051							
<b>AFFECTED MAP PANEL</b>	NUMBER: 25005C0477F							
	DATE: 7/7/2009							
<b>FLOODING SOURCE: BUTTONWOOD BROOK EAST</b>				APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 41.610369, -70.946440 SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83				
<b>DETERMINATION</b>								
LOT	BLOCK/SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
97 & 98	--	Dartmouth Terrace	72 Potter Street	Structure (Residence)	X (unshaded)	--	71.6 feet	--
<b>Special Flood Hazard Area (SFHA)</b> - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).								
<b>ADDITIONAL CONSIDERATIONS</b> (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)								
PORTIONS REMAIN IN THE SFHA ZONE A								
<p>This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.</p> <p>This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMA Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.</p>								
 Luis Rodriguez, P.E., Chief Engineering Management Branch Federal Insurance and Mitigation Administration								

# Unnumbered A zones

MT-EZ



Zone A Flooding – If the property is located in Zone A, an area of approximate flooding with no BFEs determined, determine a BFE. Consult with a Federal, State, or local government agency to determine if that agency has developed a BFE. Such agencies include the U.S. Army Corps of Engineers; the U.S. Geological Survey; the State's Department of Natural Resources, Department of Environmental Quality, or Department of Transportation; or the local Planning and Zoning Department...



# Non-removal



# Non-removal

Page 1 of 2		Date: December 04, 2012		Case No.: 13-01-0064A		LOMA-DEN		
				<b>Federal Emergency Management Agency</b> Washington, D.C. 20472				
<b>LETTER OF MAP AMENDMENT          DETERMINATION DOCUMENT (NON-REMOVAL)</b>								
<b>COMMUNITY AND MAP PANEL INFORMATION</b>				<b>LEGAL PROPERTY DESCRIPTION</b>				
<b>COMMUNITY</b>	CITY OF QUINCY, NORFOLK COUNTY, MASSACHUSETTS			Lot 158, as described in the Deed, recorded in Book 18739, Page 282, in the Office of the Registry of Deeds, Norfolk County, Massachusetts				
	COMMUNITY NO.: 255219							
<b>AFFECTED MAP PANEL</b>	NUMBER: 25021C0207E DATE: 7/17/2012							
FLOODING SOURCE: TOWN BROOK				APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 42.239, -71.013 SOURCE OF LAT & LONG: ARCGIS 10 <span style="float: right;">DATUM: NAD 83</span>				
<b>DETERMINATION</b>								
LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS NOT REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
158	--	--	42 Nightingale Avenue	Structure	AE	29.8 feet	28.6 feet	--
<b>Special Flood Hazard Area (SFHA)</b> - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).								
<b>ADDITIONAL CONSIDERATIONS</b> (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)								
STUDY UNDERWAY								
<p>This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is/are located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). Therefore, flood insurance is required for the property described above. The lowest adjacent grade elevation to a structure must be at or above the Base Flood Elevation for a structure to be outside of the SFHA.</p> <p>This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination and information regarding your options for obtaining a Letter of Map Amendment. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605.</p>								
 Luis Rodriguez, P.E., Chief Engineering Management Branch Federal Insurance and Mitigation Administration								

# Popular myth

Elevating a structure so that the lowest floor is above the base flood elevation will remove it from the floodplain.

**IT WILL NOT!**



# FEMA MAP REVISIONS

- Letter of Map Revision (LOMR)
  - An Engineer can submit a LOMR application to revise the actual Base Flood Elevations, Floodway locations, or any of the other technical data from the Flood Insurance Study.
  - If a revision is warranted, a small portion of the FIRM will be reprinted with the new information and attached to a letter. Depending on the nature of the revision, there may be a submittal fee.

# LOMRs

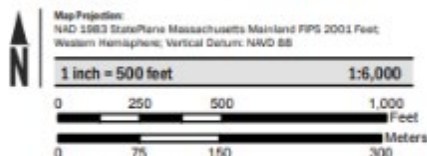
- Can change flood zone or elevation based on revised analysis
- Can be used to change the map based on hydraulic changes
- Form MT-1, MT-2

Note: LIMWA information shown on this map panel outside of the revised area reflects LIMWA delineations updated by LOMR 16-01-2154P, effective September 8, 2017.



#### SCALE

NOTE: BASEMAP IMAGERY DATED 2014 WAS OBTAINED FROM USGS.



FEMA  
National Flood Insurance Program

#### NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

BRISTOL COUNTY, MASSACHUSETTS  
(All Jurisdictions)

PANEL 487 of 550

Panel Contains:

COMMUNITY

NUMBER

PANEL SUFFIX

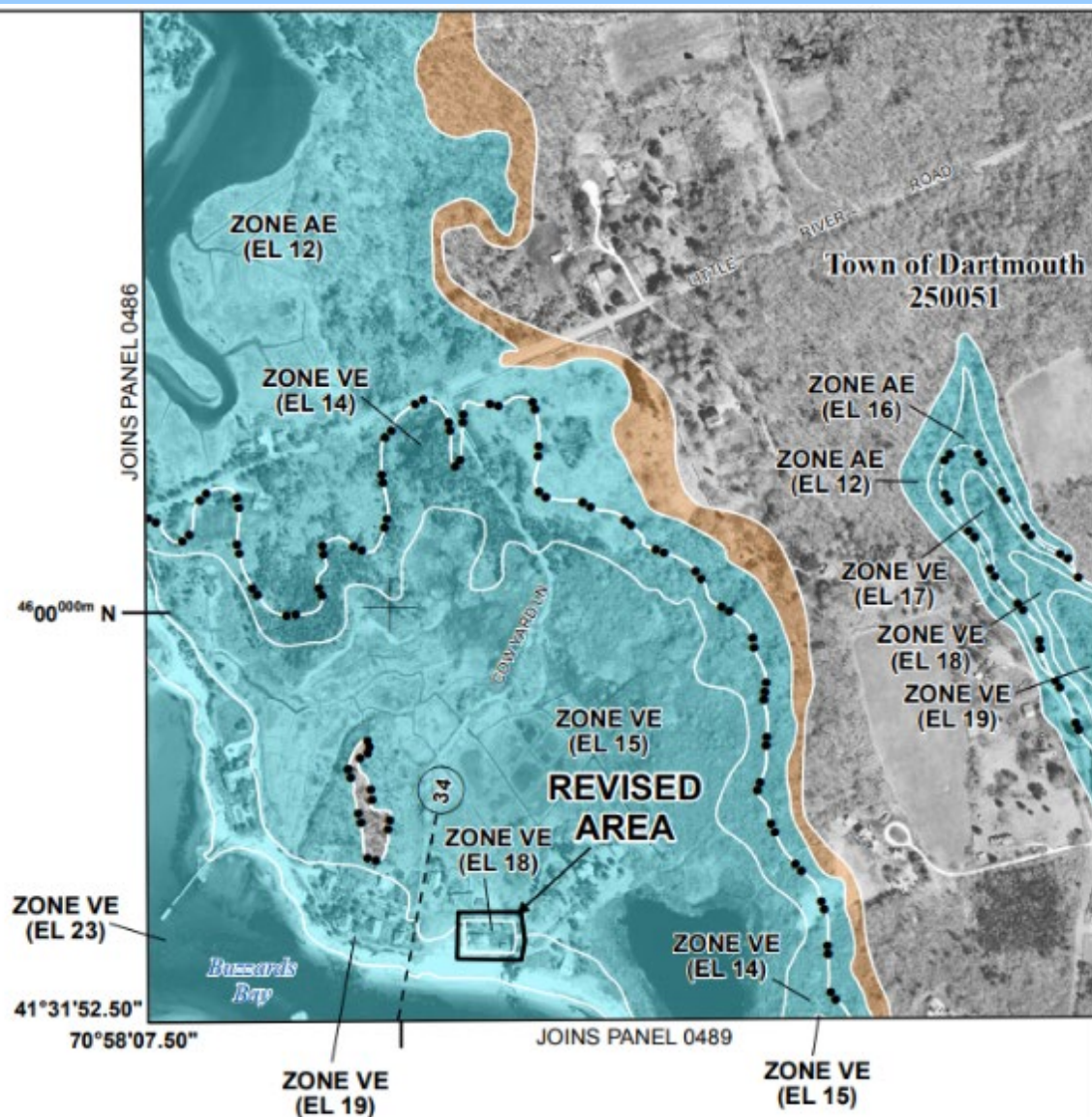
DARTMOUTH, TOWN OF

250051

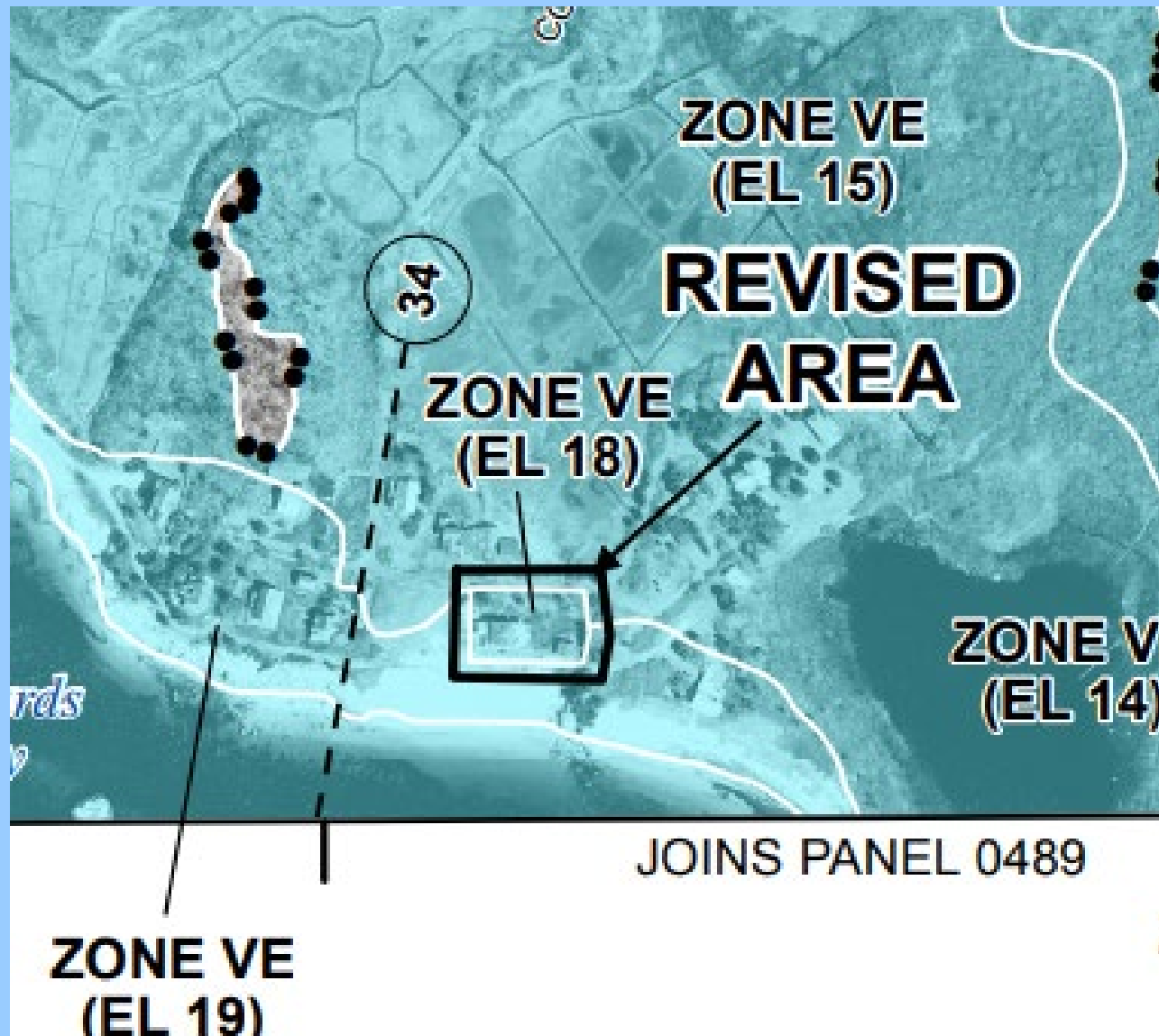
0487 F

**REVISED TO  
REFLECT LOMR  
EFFECTIVE: January 25, 2018**

VERSION NUMBER  
2.1.3.0  
MAP NUMBER  
25005C0487F  
EFFECTIVE DATE  
JULY 7, 2009



# LOMR - Site specific analysis



# LOMR-F



- Only used in A zones
- Cannot be used for floodway removal
- MT-1

# CLOMR-F

A letter from DHS-FEMA stating that a parcel of land or **proposed** structure that will be **elevated by fill** would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed.



# CLOMR-F Comment Letter

Page 1 of 2		Date: October 02, 2018		Case No.: 18-01-2012C		CLOMR-F-DEN		
 <b>Federal Emergency Management Agency</b> Washington, D.C. 20472								
<b>CONDITIONAL LETTER OF MAP REVISION BASED ON FILL COMMENT DOCUMENT</b>								
<b>COMMUNITY AND MAP PANEL INFORMATION</b>				<b>LEGAL PROPERTY DESCRIPTION</b>				
<b>COMMUNITY</b>	TOWN OF YARMOUTH, BARNSTABLE COUNTY, MASSACHUSETTS			A portion of Lot 60, LCP 19724-I, as described in the Quitclaim Deed recorded as Document No. 1321536, in the Office of the Registry of Deeds, Barnstable County, Massachusetts  The portion of property is more particularly described by the following metes and bounds:				
	COMMUNITY NO.: 250015							
<b>AFFECTED MAP PANEL</b>	NUMBER: 25001C0569J  DATE: 7/16/2014							
FLOODING SOURCE: LEWIS BAY; NANTUCKET SOUND				APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 41.845994, -70.262867 SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83				
COMMENT TABLE REGARDING THE PROPOSED PROPERTY (PLEASE NOTE THAT THIS IS NOT A FINAL DETERMINATION. A FINAL DETERMINATION WILL BE MADE UPON RECEIPT OF AS-BUILT INFORMATION REGARDING THIS PROPERTY.)								
LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT WOULD NOT BE REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
80	-	LCP 19724-I	85 Harbor Road	Portion of Property	AE	11.0 feet	-	9.0 feet
<b>Special Flood Hazard Area (SFHA)</b> - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).								
<b>ADDITIONAL CONSIDERATIONS</b> (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)								
<b>LEGAL PROPERTY DESCRIPTION</b> <b>CONDITIONAL CLOMR-F DETERMINATION</b>								
<p>This document provides the Federal Emergency Management Agency's comment regarding a request for a Conditional Letter of Map Revision based on Fill for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the proposed described portion(s) of the property(ies) would be located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood) if built as proposed. Therefore, flood insurance is required for the property described above. If fill is placed on the subject property to raise its elevation above the base flood elevation after the effective date of the first NFIP map showing the property in the SFHA, then, for the subject property to be outside of the SFHA, it must be demonstrated that the subject property is reasonably safe from flooding in accordance with Part 65.5(a)(4) of our regulations. Further guidance on determining if the subject property is reasonably safe from flooding may be found in FEMA Technical Bulletin 10-01. A copy of this bulletin can be obtained by calling the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or from our web site at <a href="http://www.fema.gov/mstb1001.pdf">http://www.fema.gov/mstb1001.pdf</a>.</p> <p>This comment document is based on the flood data presently available. The enclosed documents provide additional information regarding this request and information regarding your options for obtaining a Letter of Map Revision based on Fill. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.</p>								
 Luis V. Rodriguez, P.E., Director Engineering and Modeling Division								

# Read the fine print!

COMMENT TABLE REGARDING THE PROPOSED PROPERTY (PLEASE NOTE THAT THIS IS NOT A FINAL DETERMINATION. A FINAL DETERMINATION WILL BE MADE UPON RECEIPT OF AS-BUILT INFORMATION REGARDING THIS PROPERTY.)								
LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT WOULD NOT BE REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
60	—	LCP 19724-I	85 Harbor Road	Portion of Property	AE	11.0 feet	—	8.0 feet

Using the information submitted and the effective National Flood Insurance Program (NFIP) map we have determined that the proposed described portion(s) of the property(ies) would be located in the SFHA...



# Community Acknowledgement Form

DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY COMMUNITY ACKNOWLEDGMENT FORM		D.H.S. NO. 1660-0015 <i>Expires February 28, 2014</i>
<b>PAPERWORK BURDEN DISCLOSURE NOTICE</b>		
<p>Public reporting burden for this data collection is estimated to average 1.38 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and submitting the form. This collection is required to obtain or retain benefits. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0015). NOTE: Do not send your completed form to this address.</p> <p>This form must be completed for requests involving the existing or proposed placement of fill (complete Section A) OR to provide acknowledgment of this request to remove a property from the SFHA which was previously located within the regulatory floodway (complete Section B). This form must be completed and signed by the official responsible for floodplain management in the community. The six digit NFP community number and the subject property address must appear in the spaces provided below. Incomplete submissions will result in processing delays. Please refer to the MT-1 instructions for additional information about this form.</p> <p>Community Number: _____ Property Name or Address: _____</p>		
<b>A. REQUESTS INVOLVING THE PLACEMENT OF FILL</b>		
<p>As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision Based on Fill (LOMR-F) or Conditional LOMR-F request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a Conditional LOMR-F, will be obtained. For Conditional LOMR-F requests, the applicant has or will document Endangered Species Act (ESA) compliance to FEMA prior to issuance of the Conditional LOMR-F determination. For LOMR-F requests, I acknowledge that compliance with Sections 9 and 10 of the ESA has been achieved independently of FEMA's process. Section 9 of the ESA prohibits anyone from "taking" or harming an endangered species. If an action might harm an endangered species, a permit is required from U.S. Fish and Wildlife Service or National Marine Fisheries Service under Section 10 of the ESA. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by DHS-FEMA, all analyses and documentation used to make this determination. For LOMR-F requests, we understand that this request is being forwarded to DHS-FEMA for a possible map revision.</p> <p>Community Comments:</p>		
Community Official's Name and Title: <i>(Please Print or Type)</i>		Telephone No.:
Community Name:	Community Official's Signature: <i>(required)</i>	Date:
<b>B. PROPERTY LOCATED WITHIN THE REGULATORY FLOODWAY</b>		
<p>As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this request for a LOMA. We understand that this request is being forwarded to DHS-FEMA to determine if this property has been inadvertently included in the regulatory floodway. We acknowledge that no fill on this property has been or will be placed within the designated regulatory floodway. We find that the completed or proposed project meets or is designed to meet all of the community floodplain management requirements.</p> <p>Community Comments:</p>		
Community Official's Name and Title: <i>(Please Print or Type)</i>		Telephone No.:
Community Name:	Community Official's Signature: <i>(required)</i>	Date:

DHS - FEMA Form 006-0-26B, FEB 11Community Acknowledgment FormMT-1 Form 3 Page 1 of 1

# Part A

## A. REQUESTS INVOLVING THE PLACEMENT OF FILL

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision Based on Fill (LOMR-F) or Conditional LOMR-F request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a Conditional LOMR-F, will be obtained. For Conditional LOMR-F requests, the applicant has or will document Endangered Species Act (ESA) compliance to FEMA prior to issuance of the Conditional LOMR-F determination. For LOMR-F requests, I acknowledge that compliance with Sections 9 and 10 of the ESA has been achieved independently of FEMA's process. Section 9 of the ESA prohibits anyone from "taking" or harming an endangered species. If an action might harm an endangered species, a permit is required from U.S. Fish and Wildlife Service or National Marine Fisheries Service under Section 10 of the ESA. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by DHS-FEMA, all analyses and documentation used to make this determination. For LOMR-F requests, we understand that this request is being forwarded to DHS-FEMA for a possible map revision.

Community Comments:

Community Official's Name and Title: *(Please Print or Type)*

Telephone No.:

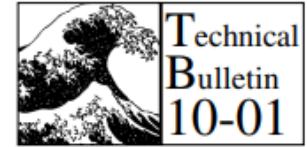
Community Name:

Community Official's Signature: *(required)*

Date:

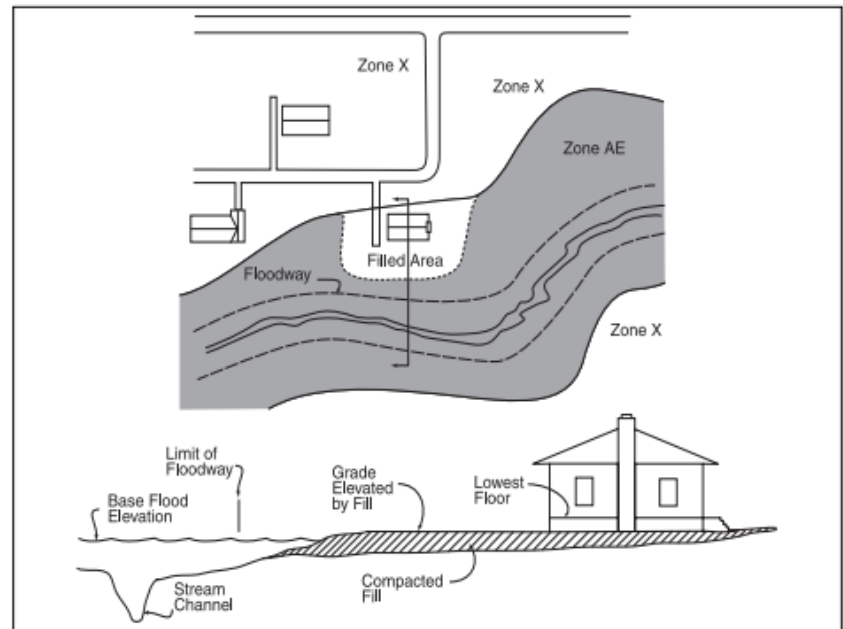
“the land and any existing or proposed structures ...are or will be reasonably safe from flooding...”

Refer to FEMA TB-10 to determine whether a structure is “reasonably safe from flooding



## Ensuring That Structures Built on Fill In or Near Special Flood Hazard Areas Are Reasonably Safe From Flooding

in accordance with the  
National Flood Insurance Program



FEDERAL EMERGENCY MANAGEMENT AGENCY  
MITIGATION DIRECTORATE

FIA-TB-10  
(5/01)

# TB-10 includes a “simplified approach”

## Simplified Approach

### Design Requirements

If, for a building and building site, **all** the requirements listed below are met (see Figure 10), the building is reasonably safe from flooding. If all of these requirements are not met, the more detailed analysis described under Engineered Basement Option, on page 19 of this bulletin, should be performed to determine whether the building is reasonably safe from flooding.

- ☐ The ground surface around the building and within a defined setback distance from the edge of the SFHA (see next item) must be at or above the BFE.
- ☐ The setback is the distance from the edge of the SFHA to the nearest wall of the basement. The minimum allowable setback distance is 20 feet.
- ☐ The ground around the building must be compacted fill; the fill material—or soil of similar classification and degree of permeability—must extend to at least 5 feet below the bottom of the basement floor slab.
- ☐ The fill material must be compacted to at least 95 percent of Standard Laboratory Maximum Dry Density (Standard Proctor), according to ASTM Standard D-698. Fill soils must be fine-grained soils of low permeability, such as those classified as CH, CL, SC, or ML according to ASTM Standard D-2487, *Classification of Soils for Engineering Purposes*. See Table 1804.2 in the 2000 *International Building Code* (IBC) for descriptions of these soil types.
- ☐ The fill material must be homogeneous and isotropic; that is, the soil must be all of one material, and the engineering properties must be the same in all directions.
- ☐ The elevation of the basement floor should be no more than 5 feet below the BFE.
- ☐ There must be a granular drainage layer beneath the floor slab, and a ¼-horsepower sump pump with a backup power supply must be provided to remove the seepage flow. The pump must be rated at four times the estimated seepage rate and must discharge above the BFE and away from the building. This arrangement is essential to prevent flooding of the basement or uplift of the floor under the effect of the seepage pressure.
- ☐ The drainage system must be equipped with a positive means of preventing backflow.
- ☐ Model building codes (such as the 2000 International Residential Code) also address foundation drainage (IRC Section R405) and foundation walls (IRC Section R404). Model building codes generally allow foundation drains to discharge through either mechanical means or gravity drains. In addition, there is often an exception to the requirement for drainage systems in well-drained soils. However, in or near floodplains, well-drained soils can, in fact, help convey groundwater towards the building foundation. Therefore, this exception should not apply in or near floodplains.

# Part B

## B. PROPERTY LOCATED WITHIN THE REGULATORY FLOODWAY

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this request for a LOMA. We understand that this request is being forwarded to DHS-FEMA to determine if this property has been inadvertently included in the regulatory floodway. We acknowledge that no fill on this property has been or will be placed within the designated regulatory floodway. We find that the completed or proposed project meets or is designed to meet all of the community floodplain management requirements.

Community Comments:

Community Official's Name and Title: *(Please Print or Type)*

Telephone No.:

Community Name:

Community Official's Signature (required):

Date:

“We acknowledge that no fill on this property has been or will be placed within the designated regulatory floodway.”

# MAP REVISIONS

- Application forms, instructions, and guidance relating to Map Revisions can be found on the internet at:
  - <http://www.fema.gov/fhm/>

# Current Mapping Activity

- Merrimack Watershed
- Charles Watershed
- Nashua Watershed

# Charles Watershed

- **Charles Watershed** - Data development tasks (hydrology, hydraulics, floodplain mapping) are complete except draft FIS reports. Draft FIRM DB tasks and QR1 are almost complete (MIP Help bypasses remaining). Work map revisions from community comments were distributed. Prelim FIRM DBs have been prepared. Prelim FIRMs, FIS reports, and SOMAs are nearing completion. QR2/3 was started on 2 of the counties and remaining counties will begin in a few weeks.



# Merrimack Watershed

- **Merrimack Watershed** - Hydraulics for enhanced and base-level studies is complete. Floodplain mapping began in September 2018 and is scheduled for completion in April 2019. Draft work maps will be reviewed by FEMA, MADCR, and NHOEP in late spring 2019. Community outreach for work map review meeting will proceed approximately 6 weeks later.
- Work map meeting held with communities July 16, 2019.

# Nashua Watershed

- **Nashua Watershed** - Surveying, base-level engineering, and hydrology are completed. Hydraulics for enhanced studies is scheduled to be completed in spring 2019.
- Work map review by USGS, FEMA, DCR scheduled for October 15, 2019.

# RESOURCES

- FEMA's Website:  
[www.fema.gov](http://www.fema.gov)
- FEMA Map Service Center:  
<https://msc.fema.gov/portal>

# RESOURCES:



- FEMA Map Service Center:  
1-800-358-9616
- FEMA Map Assistance Center:  
1-877-FEMA MAP

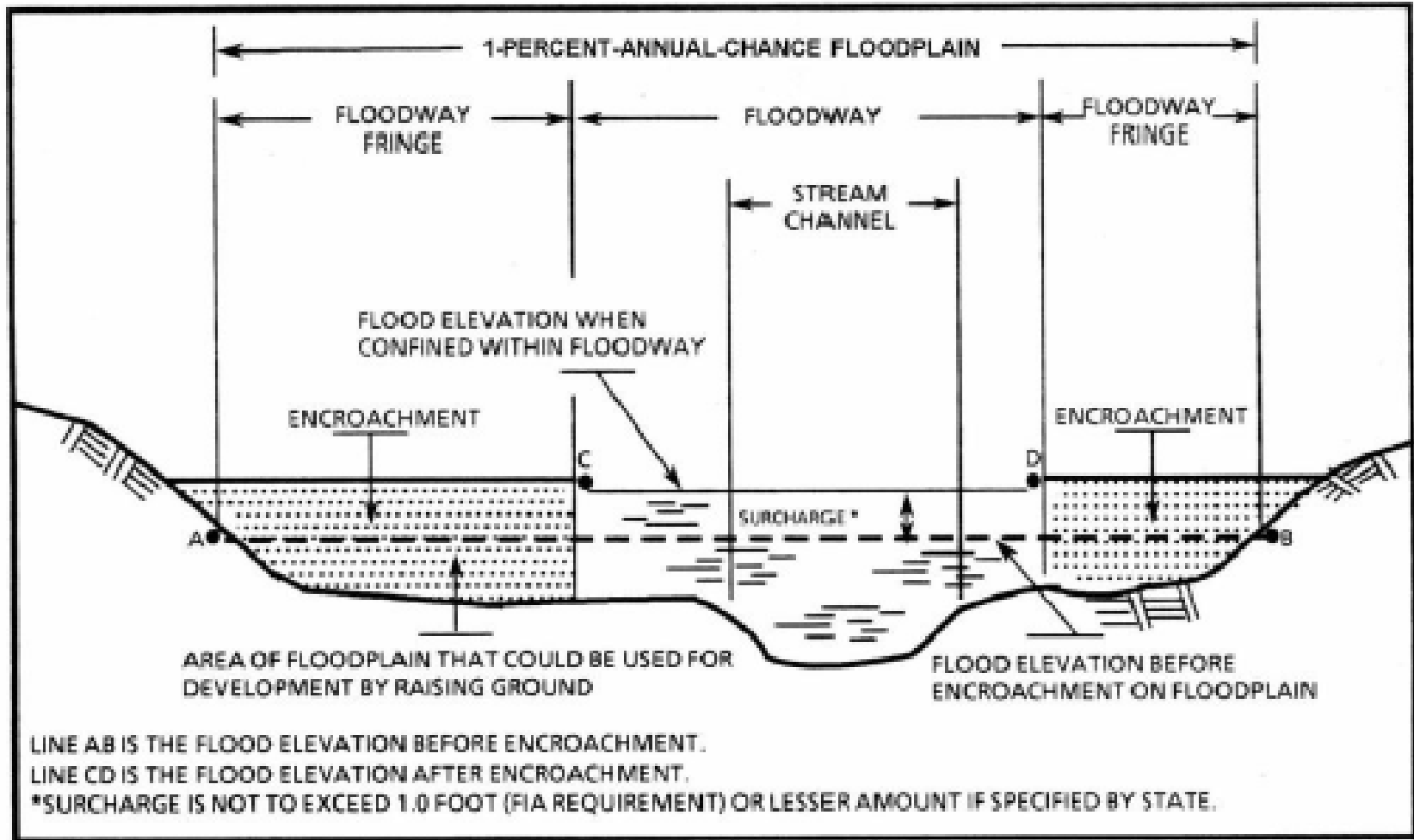
# RESOURCES



Massachusetts  
Department of Conservation and Recreation  
Flood Hazard Management Program

***Eric Carlson: 617-626-1362***  
***Eric.Carlson@mass.gov***

# THE FLOODWAY



# Floodway standard

- In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the FIRM or Flood Boundary & Floodway Map encroachments are prohibited in the regulatory floodway which would result in any increase in flood levels within the community during the occurrence of the base flood discharge.

# Unnumbered A zone standard

- **Base Flood Elevation Data.** Base flood elevation data is required for subdivision proposals or other developments greater than 50 lots or 5 acres, whichever is the lesser, within unnumbered A zones.