

COMMONWEALTH OF MASSACHUSETTS

CITY OF LOWELL

In City Council

ORDINANCE

An Ordinance Amending "The Code of Ordinances City of Lowell, Massachusetts," with respect to Chapter 290 Thereof Entitled, "Lowell Zoning Ordinance" by Amending Article IX Overlay Districts, specifically section 9.1 entitled Flood Plain Overlay District (FPOD).

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LOWELL, as follows

"The Code of Ordinances City of Lowell, Massachusetts", hereinafter called the "Code," adopted by the City Council on December 23, 2008, as amended, is hereby further amended with respect to Chapter 290 thereof entitled, "Lowell Zoning Ordinance," adopted December 7, 2004, as amended, as follows:

1. Delete section 9.1.2 in its entirety, which currently reads as follows:

9.1.2 Location. The FPOD includes all special flood hazard areas within the City of Lowell designated as Zone A and AE on the Middlesex County Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program. The map panels of the Middlesex County FIRM that are wholly or partially within the City of Lowell are panel numbers 25017C0117E, 25017C0119E, 25017C0136E, 25017C0137E, 25017C0138E, 25017C0141E, and 25017C0144E dated June 4, 2010; and 25017C0139F, 25017C0143F, 25017C0251F, 25017C0252F, 25017C0256F and 25017C0257F dated July 7, 2014. The exact boundaries of the District may be defined by the 100-year base flood elevations shown on the FIRM and further defined by the Middlesex County Flood Insurance Study (FIS) report dated July 7, 2014. The FIRM and FIS report are incorporated herein by reference and are on file with the City Clerk, Planning Board, Building Commissioner and Conservation Commission. [Ord. 5-28-14]

And replace with the following language:

9.1.2 Location. The Floodplain District is herein established as an overlay district. The District includes all special flood hazard areas within the City of Lowell designated as Zone A, AE, AH, AO, or A99 on the Middlesex County Flood Insurance Rate Map (FIRM) dated July 6, 2016 issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program. The exact boundaries of the

District shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the Middlesex County Flood Insurance Study (FIS) report dated July 6, 2016. The FIRM and FIS report are incorporated herein by reference and are on file with the Town Clerk, Planning Board, Building Official, and Conservation Commission.

2. Insert the following in section 9.1.4 noted below:

Disclaimer of liability. The degree of flood protection required by Section 9.1 is considered reasonable, but does not imply total flood protection.

3. In Section 9.1.4 delete the following:

Severability section

If any section, provision or portion of this bylaw [ordinance] is deemed to be unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.

4. Insert a new section 9.1.5, to read as follows:

9.1.5 Requirement to submit new technical data. If the City of Lowell acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the City will, within 6 months, notify FEMA of these changes by submitting the technical or scientific data that supports the change(s). Notification shall be submitted to:

FEMA Region I Risk Analysis Branch Chief
99 High Street, 6th Floor, Boston, MA 02110

And copy of notification to:
Massachusetts NFIP State Coordinator
MA Dept. of Conservation and Recreation, 251 Causeway Street, Boston, MA 02114

4. Renumber section 9.1.4, to read as follows:

9.1.6 Definitions

5. In newly renumbered section 9.1.6 delete the phrase “or architect”.
6. Insert a new definition entitled “Highest Adjacent Grade:” in newly renumbered Section 9.1.6, to read as follows:

Highest Adjacent Grade: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

7. Insert a new definition entitled “Historic Structure:” in newly renumbered Section 9.1.6, to read as follows:

Historic Structure: Any structure that is:

A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior or

(2) Directly by the Secretary of the Interior in states without approved programs.

8. Insert the sentence “New construction includes work determined to be substantial improvement.” to the definition entitled “New Construction:” in newly renumbered Section 9.1.6, to read as follows:

New Construction: For the purpose of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later. For floodplain management purposes “new construction” means structures for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by a community. New construction includes work determined to be substantial improvement.

9. Insert a new definition entitled “Recreational Vehicle:” in newly renumbered Section 9.1.6, to read as follows:

Recreational Vehicle: A vehicle which is:

A. Built on a single chassis;

B. 400 square feet or less when measured at the largest horizontal projection;

C. Designed to be self-propelled or permanently towable by a light duty truck; and

D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

10. Insert a new definition entitled “Start of Construction:” in newly renumbered Section 9.1.6, to read as follows:

Start of Construction: The date of issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within 180 days after the date of issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns. Permanent construction does not include land preparation (such as clearing, excavation, grading, or filling), the installation of streets or walkways, excavation for a basement, footings, piers or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main building, For a substantial improvement, the actual “start of construction” means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

11. Delete in its entirety the definition entitled “Structure:” from newly renumbered Section 9.1.6, which read as follows:

Structure: For insurance coverage purposes, means a walled and roofed building, other than a gas or liquid storage tank, that is principally above ground and affixed to a permanent site, as well as a manufactured (mobile) home on foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises. [Ord. 8-24-16]

12. Delete the definition entitled “Substantial Improvement:” from newly renumbered Section 9.1.16, which currently reads as follows:

Substantial Improvement: Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value.

And replace with the following language:

Substantial Improvement: Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed.

13. Insert a new definition entitled “Substantial Repair of a Foundation” in newly renumbered Section 9.1.6, to read as follows:

Substantial Repair of a Foundation: When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet, or repair or replacement of 50% of the piles, columns or piers of a pile, column, or pier supported foundation, the building official shall determine it to be substantial repair of a foundation. Applications determined by the building official to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of 780 CMR.

14. Insert a new definition entitled “Variance:” in newly renumbered Section 9.1.6, to read as follows:

Variance: A grant of relief by a community from the terms of a flood plain management regulation.

15. Insert a new definition entitled “Violation:” in newly renumbered Section 9.1.6, to read as follows:

Violation: The failure of a structure or other development to be fully compliant with the community’s flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

16. Insert a new definition entitled “Zone A:” in newly renumbered Section 9.1.6, to read as follows:

Zone A: An area of special flood hazard without water surface elevations determined.

17. Insert a new definition entitled “Zone AH:” in newly renumbered Section 9.1.6, to read as follows:

Zone AH: Areas of special flood hazards having shallow water depths and/or unpredictable flow paths between (1) and (3) feet, and with water surface elevations determined.

18. Insert a new definition entitled “Zone AO:” in newly renumbered Section 9.1.6, to read as follows:

Zone AO: Areas of special flood hazards having shallow water depths and/or unpredictable flow paths between (1) and (3) ft.

19. Insert a new definition entitled “Zone A99:” in newly renumbered Section 9.1.6, to read as follows:

Zone A99: Areas of special flood hazard where enough progress has been made on a protective system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. (Flood elevations may not be determined).

20. Insert a new definition entitled “Zone B, C, and X:” in newly renumbered Section 9.1.6, to read as follows:

Zone B, C, and X: Areas of minimal or moderate flood hazards or areas of future-conditions flood hazard. (Zone X replaces Zones B and C on new and revised maps).

21. Insert a new definition entitled “Zone V:” in newly renumbered Section 9.1.6, to read as follows:

Zone V: An area of special flood hazards without water surface elevations determine, and with velocity, that is inundated by tidal floods.

22. Insert a new definition entitled “Zone V1-30 and Zone VE:” in newly renumbered Section 9.1.6, to read as follows:

Zone V1-30 and Zone VE: An area of special flood hazards, with water surface elevations determined and with velocity, that is inundated by tidal floods.

23. Renumber section 9.1.5, to read as follows:

9.1.7 Floodway Data.

24. Insert language in Subsection 1 of newly renumbered Section 9.1.7, which currently reads as follows:

1. In Zones AE, along watercourses that have not had a regulatory floodway designated, no new construction, substantial improvement, or other development shall be permitted unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood. [Ord. 5-25-10]

So that it now reads as follows:

1. In Zones A, A1-30, and AE, along watercourses that have not had a regulatory floodway designated, no new construction, substantial improvement, or other development shall be permitted unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood. [Ord. 5-25-10]

25. Insert language in Subsection 2 of newly renumbered Section 9.1.7, which currently reads as follows:

2. In Zones AE, along watercourses that have a regulatory floodways designated on the City of Lowell FIRM 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. [Ord. 5-25-10]

So that it now reads as follows:

2. In Zones A1-30, and AE, along watercourses that have a regulatory floodways designated on the City of Lowell FIRM 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. [Ord. 5-25-10]

26. Insert a new Subsection 3 into newly renumbered Section 9.1.7, to read as follows:

3. In a riverine situation, the City of Lowell shall notify the following of any alteration or relocation of a watercourse:

A. Adjacent Communities, especially upstream and downstream;

B. Bordering States, if affected;

C. NFIP State Coordinator, Massachusetts Dept. of Conservation and Recreation, 251 Causeway Street, 8th Floor, Boston, MA 02114; and

D. NFIP Program Specialist, Federal Emergency Management Agency, Region I, 99 High Street, 6th Floor, Boston, MA 02110.

27. Insert a new Subsection 4 into newly renumbered Section 9.1.7, to read as follows:

4. Within Zones AO, and AH on the FIRM, adequate drainage paths must be provided around structures no slopes, to guide floodwaters around and away from proposed structures.

28. Insert a new Subsection 5 into newly renumbered Section 9.1.7, to read as follows:

5. In A1-30, AH, and AE Zones, all recreational vehicles to be placed on a site must be elevated and anchored in accordance with zone's regulations for foundation and elevation requirements or be on the site for less than 180 consecutive days or be fully licensed and highway ready.

29. Renumber section 9.1.6, to read as follows:

9.1.8 Procedures; Building Commissioner.

30. Insert a new first sentence to the first clause of newly numbered 9.1.8, which currently reads as follows:

9.1.8 Procedures; Building Commissioner. The following procedures shall apply to all development in the FPOD:

So that it now reads as follows:

9.1.8 Procedures; Building Commissioner. The City of Lowell hereby designates the position of Building Commissioner to be the official floodplain administrator for the City. The following procedures shall apply to all development in the FPOD:

31. Insert a new clause in Subsection 2, Paragraph E, of newly numbered 9.1.8, which currently reads as follows:

E. Require new and replacement sanitary sewage systems located within flood-prone areas to be designed to minimize or eliminate infiltration of flood waters into the systems.

So that it now reads as follows:

E. Require new and replacement sanitary sewage systems located within flood-prone areas to be designed to minimize or eliminate infiltration of flood waters into the systems.

The City of Lowell requires a permit for all proposed construction or other development in the floodplain overlay district, including new construction or changes to existing buildings, placement of manufactured homes, placement of agricultural facilities, fences, sheds, storage facilities or drilling, mining, paving, and any other development that might increase flooding or adversely impact flood risks to other properties.

32. Renumber section 9.1.7, to read as follows:

9.1.9 Procedures; Conservation Commission.

33. Renumber section 9.1.8, to read as follows:

9.1.10 Minimum Conditions.

34. Delete Subsection 1 of newly numbered 9.1.10 in its entirety, which currently reads as follows:

1. The lowest floor, including basement or cellar, shall be elevated to or above the base flood elevation (the 100-year flood elevation designated on the FIRM) or in the case of nonresidential structures be floodproofed watertight to the base flood level.

And renumber the remaining subsections starting with the number 1.

35. Renumber section 9.1.9, to read as follows:

9.1.11 FIRM Elevations.

36. Delete Subsection 1 of newly numbered 9.1.11 in its entirety, which currently reads as follows:

1. Within Zone A where the base flood elevation is not provided on the FIRM, the applicant shall obtain any existing base flood elevation data and it shall be reviewed by the building commissioner for its reasonable utilization toward meeting the elevation or floodproofing requirements, as appropriate, of the State Building Code and this FPOD.

And renumber the remaining subsection starting with the number 1.

37. Renumber section 9.1.10, to read as follows:

9.1.12 Floodway.

38. Renumber section 9.1.11, to read as follows:

9.1.13 Denial.

39. Renumber section 9.1.12, to read as follows:

9.1.14 Permitted Uses.

40. Delete section **9.1.13 Variance from FPOD** in its entirety, which currently reads as follows:

9.1.13. Variance from FPOD Regulations. Any person desiring a variance from any FPOD regulations as set forth in Section 9.1, shall submit an application to the Board of Appeals in accordance with the requirements set forth by G.L. c. 40A, s. 10. The application shall also contain plans as required herein.

1. Copies of the complete application with plans for variance shall also be sent or delivered forthwith by the applicant, to the building commissioner, board of health, commissioner of public works, (engineering division), Planning Board and conservation commission for their recommendations to the Board of Appeals.

2. No building permit shall be issued by the department of code and inspections if there is an appeal from the building commissioner's denial until and unless the Board of Appeals has granted a variance under these regulations and restrictions.

3. The Board of Appeals may grant a variance from the FPOD under this section only if it finds that the proposed development and/or construction will not adversely affect the public health or safety, or endanger the health, safety or welfare of the occupants of the land in the FPOD all in accordance with G.L. c. 40A, s. 10, and the State Building Code requirements. In its consideration of any application for a variance under this section, but

without limiting the generality of the foregoing, the Board of Appeals shall absolutely not relax the minimum conditions stated in the variance policy attached hereto and made a part hereof.

41. Delete section 9.1.14 in its entirety, which currently reads as follows:

9.1.14 Variance.

FIA regards the 100-year frequency flood standard as essential to assure reasonable protection to future construction. At the same time, variances from this standard may be authorized in particular cases, primarily within areas that are almost entirely developed. However, since the use of such a variance results in expensive actuarial flood insurance rates, it may subject the property owner to a financial penalty that over the years could be far in excess of the one-time cost of elevating. The likelihood cannot be overemphasized; actuarial flood insurance rates increase sharply for each foot a structure falls short of the 100-year level. FIA does not set forth absolute criteria for granting variances. The community, after examining the applicant's hardships, will approve or disapprove a request. While the granting of variances generally is limited to a lot size less than one-half acre, deviations from that limitation may occur. However, as the lot size increases beyond the one-half acre, the justification for a variance issuance should significantly decrease. In all circumstances, FIA may review a community's justification for granting a variance and, if the community's evidence of unusual hardship or just and sufficient cause is found wanting through a pattern of variance issuances inconsistent with the objectives of sound floodplain management, we may institute suspensive action. Procedures for the granting of variances by a community are as follows:

1. Variances shall not be issued by a community for any new construction, substantial improvement, or other development in a designated floodway which would result in any increase in flood heights within the community during the recurrence of the 100-year flood discharge.
2. Variances may be issued by a community, without regard to the procedures set forth herein, for the reconstruction or restoration of structures listed on the National Register of Historic Places or a state inventory of historic places.
3. Variances may be issued by a community, in conformance with the procedures set forth herein, for new construction to be erected on a lot of one-half acre or less in size, contiguous to and surrounded on all sides by lots with existing structures constructed below the flood protection elevation.
4. Variances shall not be issued by a community except upon (I) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the variance issuance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

5. Variances may only be issued upon a determination that the variance shall be the minimum necessary to afford relief.

6. A community must notify the applicant that the issuance of a variance to locate a structure at an elevation below the 100-year flood level will result in increased actuarial rates for flood insurance coverage.

7. A community must (i) include, within its annual report submitted to the administrator, the number of variances issued, and (ii) maintain a record of all variances granted, including justification for their issuance.

And replace with the following language:

9.1.14 Variance to local Zoning Bylaws related to community compliance with the National Flood Insurance Program (NFIP).

A variance from these floodplain bylaws must meet the requirements set out by State law, and may only be granted if:

1. Good and sufficient cause and exceptional non-financial hardship exist;
2. The variance will not result in additional threats to public safety, extraordinary public expense, or fraud or victimization of the public; and
3. The variance is the minimum action necessary to afford relief.

42. Insert a new section 9.1.15, to read as follows:

9.1.15 Variances to building code floodplain standards. The City of Lowell will request from the State Building Code Appeals Board a written and/or audible copy of the portion of the hearing related to the variance, delineating the technical reason for the variance, and stating that the variance is the minimum necessary (considering the flood hazard), and will maintain this record in the City's building permit files.

The City of Lowell shall issue a letter to the property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property, in writing over the signature of a community official that (i) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction below the base flood level increases risks to life and property.

Such notification shall be maintained with the record of all variance actions for the referenced development in the floodplain overlay district.

43. Delete section 9.1.16 in its entirety, which currently reads as follows:

9.1.16. Federal Flood Insurance Study. For the purpose of clarification of any section contained in the FPOD, reference shall be made to the Federal Emergency Management Agency's Flood Insurance Study pamphlet, which study is herein incorporated and attached hereto. Reference to this pamphlet shall be made for clarification whenever possible. [Ord. 5-28-14]

And replace with the following language:

9.1.16 Unnumbered A Zones. In A Zones, in the absence of FEMA BFE data and floodway data, the building department will obtain, review and reasonably utilize base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring new construction, substantial improvements, or other development in Zone A as the basis for elevating residential structures to or above base flood level, for floodproofing or elevating nonresidential structures to or above base flood level, and for prohibiting encroachments in floodways.

44. Renumber section 9.1.15, to read as follows:

9.1.17 Health Regulations in the FPOD.

This Ordinance shall take effect upon its passage in accordance with Section 1.7 of the "Lowell Zoning Ordinance" and the provisions of Chapter 43 and 40A of the General Laws of Massachusetts.

APPROVED AS TO FORM:



Christine P. O'Connor
City Solicitor

ARTICLE IX. OVERLAY DISTRICTS SECTION

9.1 FLOOD PLAIN OVERLAY DISTRICT (FPOD)

9.1.1 Purpose. The purposes of the Flood Plain Overlay District (FPOD) are to:

1. Ensure public safety through reducing the threat to life and personal injury;
2. Eliminate new hazards to emergency response officials;
3. Prevent the occurrence of public emergencies resulting from water quality, contamination and pollution due to flooding;
4. Avoid the loss of utility services which, if damaged by flooding would disrupt or shut down the utility network and impact regions of the community beyond the site of flooding;
5. Eliminate costs associated with the response and cleanup of flooding conditions;
6. Reduce damage to public and private property resulting from flooding waters.

~~**9.1.2 Location.** The FPOD includes all special flood hazard areas within the City of Lowell designated as Zone A and AE on the Middlesex County Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program. The map panels of the Middlesex County FIRM that are wholly or partially within the City of Lowell are panel numbers 25017C0117E, 25017C0119E, 25017C0136E, 25017C0137E, 25017C0138E, 25017C0141E, and 25017C0144E dated June 4, 2010; and 25017C0139F, 25017C0143F, 25017C0251F, 25017C0252F, 25017C0256F and 25017C0257F dated July 7, 2014. The exact boundaries of the District may be defined by the 100-year base flood elevations shown on the FIRM and further defined by the Middlesex County Flood Insurance Study (FIS) report dated July 7, 2014. The FIRM and FIS report are incorporated herein by reference and are on file with the City Clerk, Planning Board, Building Commissioner and Conservation Commission. [Ord. 5-28-14]~~

~~**9.1.2 Location.** The Floodplain District is herein established as an overlay district. The District includes all special flood hazard areas within the City of Lowell designated as Zone A, AE, AH, AO, or A99 on the Middlesex County Flood Insurance Rate Map (FIRM) dated July 6, 2016 issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program. The exact boundaries of the District shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the Middlesex County Flood Insurance Study (FIS) report dated July 6, 2016. The FIRM and FIS report are incorporated herein by reference and are on file with the Town Clerk, Planning Board, Building Official, and Conservation Commission.~~

9.1.3 Applicability. The FPOD is herein established as an overlay district. All development, including structural and nonstructural activities, whether permitted by right or by special permit must be in compliance with G.L. c. 131, s. 40 and with the requirements of the Massachusetts State Building Code pertaining to construction in floodplains. The FPOD regulations shall supersede other requirements of this chapter where more stringent standards are imposed. All development in the district must also be in compliance with all applicable wetlands protection regulations, inland wetlands restrictions, and minimum requirements for the subsurface disposal of sanitary sewage as promulgated and enforced by the Massachusetts Department of Environmental Protection or their successor agenc(ies). Any variances

from the provisions and requirements of the above referenced state regulations may only be granted in accordance with the required variance procedures of these state regulations. [Ord. 5-25-10]

9.1.4 Disclaimer of liability. The degree of flood protection required by Section 9.1 is considered reasonable, but does not imply total flood protection.

Severability section

If any section, provision or portion of this bylaw [ordinance] is deemed to be unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.

9.1.5 Requirement to submit new technical data. If the City of Lowell acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the City will, within 6 months, notify FEMA of these changes by submitting the technical or scientific data that supports the change(s). Notification shall be submitted to:

FEMA Region I Risk Analysis Branch Chief

99 High Street, 6th Floor, Boston, MA 02110

And copy of notification to:

Massachusetts NFIP State Coordinator

MA Dept. of Conservation and Recreation, 251 Causeway Street, Boston, MA 02114

9.1.46 Definitions. For the purposes of this Section 9.1, the following definitions shall apply:

Area of Special Flood Hazard: The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A, AO, AH, A1-30, AE, A99, VO or V1-30, VE or V.

Base Flood: The flood having a one percent chance of being equaled or exceeded in any given year.

Development: Any manmade change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

District: The FPOD.

Federal Emergency Management Agency (FEMA): Administers the National Flood Insurance Program. FEMA provides a nationwide flood hazard area mapping study program for communities as well as regulatory standards for development in the flood hazard.

FIRM: An official map of a community on which FEMA has delineated both the areas of special flood hazard and the risk premium zones applicable to the community. [Ord. 5-25-10]

Floodproofed: Watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effect of buoyancy.

Flood Insurance Study: An examination evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevation, or an examination, evaluation and determination of mudslide (i.e. mudflow) and/or flood-related erosion hazards.

Floodway: See "Regulatory Floodway".

Functionally Dependent Use: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Highest Adjacent Grade: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic Structure: Any structure that is:

A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior or

(2) Directly by the Secretary of the Interior in states without approved programs.

Lowest Floor: The lowest floor of the lowest enclosed area (including basement or cellar). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, however, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of Section 60.3 of the National Flood Insurance Program.

Manufactured (Mobile) Home: A structure, 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 connected to the required utilities. For floodplain management purposes the term "manufactured (mobile) home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured (mobile) home" does not include park trailers, travel trailers, and other similar vehicles. [Ord. 8-24-16]

Manufactured (Mobile) Home Park or Subdivision: A parcel(or contiguous parcels) of land divided into two or more manufactured (mobile) home lots for rent or sale. [Ord. 8-24-16]

New Construction: For the purpose of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later. For floodplain management purposes “new construction” means structures for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by a community. New construction includes work determined to be substantial improvement.

100-Year Flood: See “Base Flood”.

Recreational Vehicle: A vehicle which is:

A. Built on a single chassis;

B. 400 square feet or less when measured at the largest horizontal projection;

C. Designed to be self-propelled or permanently towable by a light duty truck; and

D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation.

Special Flood Hazard Area: An area having special flood and/or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99, AH, V, V1-30, VE. [Ord. 5-25-10]

Start of Construction: The date of issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within 180 days after the date of issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns. Permanent construction does not include land preparation (such as clearing, excavation, grading, or filling), the installation of streets or walkways, excavation for a basement, footings, piers or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main building, For a substantial improvement, the actual “start of construction” means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure: For floodplain management purposes a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured (mobile) home. [Ord. 8-24-16]

~~*Structure:* For insurance coverage purposes, means a walled and roofed building, other than a gas or liquid storage tank, that is principally above ground and affixed to a permanent site, as well as a manufactured (mobile) home on foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises. [Ord. 8-24-16]~~

Substantial Improvement: Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value. Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed.

Substantial Repair of a Foundation: When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet, or repair or replacement of 50% of the piles, columns or piers of a pile, column, or pier supported foundation, the building official shall determine it to be substantial repair of a foundation. Applications determined by the building official to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of 780 CMR.

Variance: A grant of relief by a community from the terms of a flood plain management regulation.

Violation: The failure of a structure or other development to be fully compliant with the community’s flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

Zone A: An area of special flood hazard without water surface elevations determined.

ZONE A1-A30 and ZONE AE: The 100-year floodplain where the base flood elevation has been determined.

Zone AH: Areas of special flood hazards having shallow water depths and/or unpredictable flow paths between (1) and (3) feet, and with water surface elevations determined.

Zone AO: Areas of special flood hazards having shallow water depths and/or unpredictable flow paths between (1) and (3) ft.

Zone A99: Areas of special flood hazard where enough progress has been made on a protective system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. (Flood elevations may not be determined).

Zone B, C, and X: Areas of minimal or moderate flood hazards or areas of future-conditions flood hazard. (Zone X replaces Zones B and C on new and revised maps).

Zone V: An area of special flood hazards without water surface elevations determine, and with velocity, that is inundated by tidal floods.

Zone V1-30 an Zone VE: An area of special flood hazards, with water surface elevations determined and with velocity, that is inundated by tidal floods.

9.1.75 Floodway Data.

1. In Zones A, A1-30, and AE, along watercourses that have not had a regulatory floodway designated, no new construction, substantial improvement, or other development shall be permitted unless it is demonstrated that the cumulative effect of the proposed development,

when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood. [Ord. 5-25-10]

2. In Zones A1-30, and AE, along watercourses that have a regulatory floodways designated on the City of Lowell FIRM 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. [Ord. 5-25-10]

3. In a riverine situation, the City of Lowell shall notify the following of any alteration or relocation of a watercourse:

A. Adjacent Communities, especially upstream and downstream;

B. Bordering States, if affected;

C. NFIP State Coordinator, Massachusetts Dept. of Conservation and Recreation, 251 Causeway Street, 8th Floor, Boston, MA 02114; and

D. NFIP Program Specialist, Federal Emergency Management Agency, Region I, 99 High Street, 6th Floor, Boston, MA 02110.

4. Within Zones AO, and AH on the FIRM, adequate drainage paths must be provided around structures no slopes, to guide floodwaters around and away from proposed structures.

5. In A1-30, AH, and AE Zones, all recreational vehicles to be placed on a site must be elevated and anchored in accordance with zone's regulations for foundation and elevation requirements or be on the site for less than 180 consecutive days or be fully licensed and highway ready.

9.1.68 Procedures; Building Commissioner. The City of Lowell hereby designates the position of Building Commissioner to be the official floodplain administrator for the City. The following procedures shall apply to all development in the FPOD:

1. Prior to any development a permit shall be obtained from the Building Commissioner and a "request for determination" of applicability of G.L. c. 131, s. 40 shall be sent to the Lowell Conservation Commission. There shall be established a routing procedure which will circulate or transmit one copy of the development plan to the Conservation Commission, Planning Board, Board of Health, City Engineer, and City Clerk for comments which will be considered by the appropriate permitting board prior to issuing applicable permits.

2. Prior to the issuance of any necessary permit the Building Commissioner and/or the Conservation Commission shall:

A. Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, G.L. c. 131, s. 40, and 310 CMR 10.00, as amended;

B. Review subdivision proposals and other proposed new development, including manufactured (mobile) home parks or subdivision, to determine whether such

proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards [Ord. 8-24-16];

C. Require that all new subdivision proposals and other proposed developments (including proposals for manufactured (mobile) home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data [Ord. 8-24-16];

D. Require new and replacement water supply systems located within flood-prone areas to be designed to minimize or eliminate infiltration of flood waters into the systems;

E. Require new and replacement sanitary sewage systems located within flood-prone areas to be designed to minimize or eliminate infiltration of flood waters into the systems.

The City of Lowell requires a permit for all proposed construction or other development in the floodplain overlay district, including new construction or changes to existing buildings, placement of manufactured homes, placement of agricultural facilities, fences, sheds, storage facilities or drilling, mining, paving, and any other development that might increase flooding or adversely impact flood risks to other properties.

9.1.79 Procedures; Conservation Commission. Prior to any alteration or relocation of a watercourse where an Order of Conditions has been issued, the Conservation Commission shall, at the applicant's expense, notify adjacent communities, the Massachusetts Division of Water Resources as the state coordinating agency, and the Federal Insurance Administration. Said notification shall be by mailing a copy of the Order of Conditions to each of the aforementioned by certified mail, return receipt requested; and

1. Make a determination that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
2. That prior to the issuance of any building permit in a floodplain that fourteen (14) days' public notice be given the application by the department of code and inspections.
3. The application for permit shall contain plans, certified by a registered land surveyor and/or engineer, of the proposed construction or development and a plot plan locating the proposed building and existing buildings on the premises on which it is to be situated or is situated. All plans shall show existing and proposed finished ground contours at two-foot intervals. Contours shall be delineated within two hundred (200) feet of the proposed construction or development.

9.1.108 Minimum Conditions. For "substantial improvements" of existing residential and nonresidential structures and all new construction, the following minimum conditions shall be met:

~~1. The lowest floor, including basement or cellar, shall be elevated to or above the base flood elevation (the 100-year flood elevation designated on the FIRM) or in the case of nonresidential structures be floodproofed watertight to the base flood level.~~

12. Furnaces and utilities are protected from the effects of flooding.

23. Other lands in the district will not be adversely affected by the proposed development, through increased height or velocity of future floods.

34. The containment of sewage, safety of gas, electric fuel and other utilities from breaking, leaking, short circuiting, grounding, igniting, electrocuting, or any other dangers due to flooding, will be adequately protected.

45. Where watertight floodproofing of a structure is permitted, a registered professional engineer or architect shall certify to the building commissioner that the methods used are adequate to withstand the flood depths, pressures and velocities, impact and uplift, and other factors associated with the 100-year flood are all in accordance with the State Building Code requirements.

56. A registered engineer and/or architect shall certify to the building commissioner that the above minimum conditions are satisfied in the design proposal.

67. A registered land surveyor or engineer shall certify to the building commissioner that all minimum elevations required by this FPOD, have been complied with after construction.

9.1.119 FIRM Elevations. Within Zones AE where base flood elevations are provided on the FIRM elevations shall be determined by interpolation between the nearest elevations shown on the FIRM. [Ord. 5-25-10]

~~1. Within Zone A where the base flood elevation is not provided on the FIRM, the applicant shall obtain any existing base flood elevation data and it shall be reviewed by the building commissioner for its reasonable utilization toward meeting the elevation or floodproofing requirements, as appropriate, of the State Building Code and this FPOD.~~

21. Interpretations as to elevations or locations within the FIRM shall be made by the building commissioner.

9.1.120. Floodway. In the "floodway" the following provisions shall apply:

1. No encroachments, including but not limited to fill, new construction, substantial improvements and other developments shall be permitted unless certification by a registered professional engineer is provided by the applicant demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the 100-year flood.

2. Any encroachment meeting the above standard shall comply with all other provisions of the FPOD.

9.1.134 Denial. In the event the building commissioner denies an applicant a building permit under the FPOD, the building commissioner's decision shall be in writing stating the reasons why said building permit was denied, and shall render his decision within five (5) days of submission of the completed

application by the applicant and that further said decision shall be sent to the applicant's address by certified mail and copies of said decision should be submitted to the offices of the city clerk, Planning Board and city solicitor.

9.1.142. Permitted Uses. The following uses of low flood damage potential and causing no obstructions to flood flows are encouraged, provided they are permitted in the underlying district and they do not require structures, fill or storage of materials or equipment:

1. Agricultural uses such as farming, grazing, truck farming, horticulture, etc.;
2. Forestry and nursery uses;
3. Outdoor recreational uses, including fishing, boating, play areas, etc.;
4. Conservation of water, plants, wildlife;
5. Wildlife management areas, food, bicycle, and/or horse paths;
6. Temporary nonresidential structures used in connection with fishing, growing, harvesting, storage, or sale of crops raised on the premises;
7. Buildings lawfully existing prior to the adoption of these provisions.

~~**9.1.13. Variance from FPOD Regulations.** Any person desiring a variance from any FPOD regulations as set forth in Section 9.1, shall submit an application to the Board of Appeals in accordance with the requirements set forth by G.L. c. 40A, s. 10. The application shall also contain plans as required herein.~~

~~1. Copies of the complete application with plans for variance shall also be sent or delivered forthwith by the applicant, to the building commissioner, board of health, commissioner of public works, (engineering division), Planning Board and conservation commission for their recommendations to the Board of Appeals.~~

~~2. No building permit shall be issued by the department of code and inspections if there is an appeal from the building commissioner's denial until and unless the Board of Appeals has granted a variance under these regulations and restrictions.~~

~~3. The Board of Appeals may grant a variance from the FPOD under this section only if it finds that the proposed development and/or construction will not adversely affect the public health or safety, or endanger the health, safety or welfare of the occupants of the land in the FPOD all in accordance with G.L. c. 40A, s. 10, and the State Building Code requirements. In its consideration of any application for a variance under this section, but without limiting the generality of the foregoing, the Board of Appeals shall absolutely not relax the minimum conditions stated in the variance policy attached hereto and made a part hereof.~~

9.1.15 Variances to building code floodplain standards. The City of Lowell will request from the State Building Code Appeals Board a written and/or audible copy of the portion of the hearing related to the variance, delineating the technical reason for the variance, and stating that the variance is the minimum necessary (considering the flood hazard), and will maintain this record in the City's building permit files.

The City of Lowell shall issue a letter to the property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property, in writing over the signature of a

community official that (i) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction below the base flood level increases risks to life and property.

Such notification shall be maintained with the record of all variance actions for the referenced development in the floodplain overlay district.

9.1.14 Variance Policy to local Zoning Bylaws related to community compliance with the National Flood Insurance Program (NFIP).

A variance from these floodplain bylaws must meet the requirements set out by State law, and may only be granted if:

1. Good and sufficient cause and exceptional non-financial hardship exist;
2. The variance will not result in additional threats to public safety, extraordinary public expense, or fraud or victimization of the public; and
3. The variance is the minimum action necessary to afford relief.

~~FIA regards the 100-year frequency flood standard as essential to assure reasonable protection to future construction. At the same time, variances from this standard may be authorized in particular cases, primarily within areas that are almost entirely developed. However, since the use of such a variance results in expensive actuarial flood insurance rates, it may subject the property owner to a financial penalty that over the years could be far in excess of the one-time cost of elevating. The likelihood cannot be overemphasized; actuarial flood insurance rates increase sharply for each foot a structure falls short of the 100-year level. FIA does not set forth absolute criteria for granting variances. The community, after examining the applicant's hardships, will approve or disapprove a request. While the granting of variances generally is limited to a lot size less than one-half acre, deviations from that limitation may occur. However, as the lot size increases beyond the one-half acre, the justification for a variance issuance should significantly decrease. In all circumstances, FIA may review a community's justification for granting a variance and, if the community's evidence of unusual hardship or just and sufficient cause is found wanting through a pattern of variance issuances inconsistent with the objectives of sound floodplain management, we may institute suspensive action. Procedures for the granting of variances by a community are as follows:~~

- ~~1. Variances shall not be issued by a community for any new construction, substantial improvement, or other development in a designated floodway which would result in any increase in flood heights within the community during the recurrence of the 100-year flood discharge.~~
- ~~2. Variances may be issued by a community, without regard to the procedures set forth herein, for the reconstruction or restoration of structures listed on the National Register of Historic Places or a state inventory of historic places.~~
- ~~3. Variances may be issued by a community, in conformance with the procedures set forth herein, for new construction to be erected on a lot of one-half acre or less in size, contiguous to~~

~~and surrounded on all sides by lots with existing structures constructed below the flood protection elevation.~~

~~4. Variances shall not be issued by a community except upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the variance issuance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.~~

~~5. Variances may only be issued upon a determination that the variance shall be the minimum necessary to afford relief.~~

~~6. A community must notify the applicant that the issuance of a variance to locate a structure at an elevation below the 100-year flood level will result in increased actuarial rates for flood insurance coverage.~~

~~7. A community must (i) include, within its annual report submitted to the administrator, the number of variances issued, and (ii) maintain a record of all variances granted, including justification for their issuance.~~

9.1.16 Unnumbered A Zones. In A Zones, in the absence of FEMA BFE data and floodway data, the building department will obtain, review and reasonably utilize base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring new construction, substantial improvements, or other development in Zone A as the basis for elevating residential structures to or above base flood level, for floodproofing or elevating nonresidential structures to or above base flood level, and for prohibiting encroachments in floodways.

9.1.175. Health Regulations in the FPOD. The Board of Health, in reviewing all proposed water and sewer facilities to be located in the FPOD, shall require that:

1. New and replacement water supply systems and connections therewith, shall be designed to minimize or eliminate infiltration of flood waters into the systems.
2. New and replacement sewage systems and connections therewith shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
3. Backwater valves shall be installed in all new sewer connections below base flood elevation.

~~**9.1.16. Federal Flood Insurance Study.** For the purpose of clarification of any section contained in the FPOD, reference shall be made to the Federal Emergency Management Agency's Flood Insurance Study pamphlet, which study is herein incorporated and attached hereto. Reference to this pamphlet shall be made for clarification whenever possible. [Ord. 5-28-14]~~



Eileen M. Donoghue
City Manager

Kara Keefe Mullin
Assistant City Manager

December 3, 2021

Mayor John J. Leahy
And
Members of the Lowell City Council

Dear Mayor Leahy and Members of the Lowell City Council,

I am hereby requesting that the City Council vote to adopt the attached update its Floodplain Overlay District (FPOD) zoning ordinance to ensure that the City remains compliant with the National Flood Insurance Program (NFIP). The NFIP provides insurance to help reduce the socio-economic impact of floods and is managed by the Federal Emergency Management Agency (FEMA).

Floods can happen anywhere — just one inch of floodwater can cause up to \$25,000 in damage. Most homeowners insurance does not cover flood damage. Flood insurance is a separate policy that can cover buildings, the contents in a building, or both, so it is important to protect your most important financial assets — your home, your business, your possessions. The NFIP provides flood insurance to property owners, renters and businesses, and having this coverage helps them recover faster when floodwaters recede. The NFIP works with communities required to adopt and enforce floodplain management regulations that help mitigate flooding effects. Flood insurance is available to anyone living in one of the 23,000 participating NFIP communities. Homes and businesses in high-risk flood areas with mortgages from government-backed lenders are required to have flood insurance.

The Commonwealth has updated its Massachusetts Floodplain bylaw, which means we are required to amend our FPOD to ensure that it is complaint with all the requirements for NFIP communities. This proposed FPOD ordinance amendment is required for the City of Lowell to maintain its participation in the National Flood Insurance Program (NFIP). As a participant of the NFIP, City of Lowell residents are able to obtain federal flood insurance and have access to federal disaster assistance.

Please let me know if there any questions.

Sincerely,

Eileen M. Donoghue
City Manager

cc: Christine McCall, Assistant City Manager/DPD Director
Fran Cigliano, Senior Planner