

## **BROOKLINE PLANNING BOARD**

~~Proposed-deleted items-~~      ***Proposed changes***

### Amendment No. 4

#### **I200      Floodplain Ordinance**

##### Section I200 - Floodplain Ordinance

Reasons for proposed changes:

FEMA updated the floodplain maps and in order for Brookline residents to get the lowest flood insurance rates, the Ordinance needs to be updated.

Update reference to new FEMA floodplain maps, update definitions, update building inspector to Building Official, and clarify the record keeping of Variances to the Floodplain Ordinance. Formatting changes were also made that don't affect the meaning of the Ordinance.

Recommended by the Planning Board.

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## **1200.00 FLOODPLAIN ORDINANCE**

### **1201.00 Purpose and Intent**

The following regulations shall apply to all lands designated as special flood hazard areas by the Federal Emergency Management Agency (FEMA) in its "Flood Insurance Study for the County of Hillsborough, N.H." dated September 25, 2009 or as amended, together with the associated Flood Insurance Rate Maps dated September 25, 2009 or as amended, which are declared to be a part of this ordinance.

### **1202.00 DEFINITIONS ~~Definition of Terms~~**

*Definitions shall have the meaning as noted in Section 200 and as noted below.*

Area of Special Flood Hazard. The land in the floodplain within the Town of Brookline subject to a one percent (1%) or greater chance of flooding in any given year. The area is designated as Zone A and AE on the Flood Insurance Rate Map.

Base Flood. The flood having a one percent (1%) chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE) *The elevation of surface water resulting from the "base flood."*

Basement. Any area of the building having its floor subgrade (below ground level) on all sides.

Building. See Structure.

~~1201.05 Breakaway Wall. A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation.~~

Development. See Section 200 Definitions.

FEMA. Federal Emergency Management Agency.

Flood or Flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from:

- a. The overflow of inland or tidal waters.
- b. The unusual and rapid accumulation or runoff of surface waters from any source.

~~Flood Elevation~~ 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.

~~Flood Hazard Boundary Map. (FHBM) an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the flood, mudslide (i.e., mudflow) related erosion areas having special hazards have been designated as Zones A, M, and/or E.~~

Flood Insurance Rate Map. (FIRM) an official map of a community, on which the Federal Emergency Management Agency has delineated both the special hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study. See Flood Elevation study.

Flood Opening An opening in a foundation or enclosure wall that allows automatic entry and exit of floodwaters. See FEMA "Technical Bulletin 1, Openings in Foundation Walls and Walls of Enclosures."

Flood Plain or Flood-Prone Area. Any land area susceptible to being inundated by water from any source (see definition of flooding).

Floodproofing. Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway. See Regulatory Floodway.

~~1201.16 Functional 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 facilities, but does not include long term storage or related manufacturing facilities.~~

Highest Adjacent Grade. Means 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). 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 buildings lowest floor provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this Ordinance.

Mean Sea Level. For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929, *North American Vertical Datum (NAVD) of 1988*, or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

Manufactured 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 attached to the required utilities. For floodplain management purposes the term "manufactured home" includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. This includes manufactured homes located in a manufactured home park or subdivision.

Manufactured Home Park or Subdivision. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

New Construction. For the purposes 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, and includes any subsequent improvements to such structures. 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 and includes any subsequent improvements to such structures.

~~1201.24 — 100-year Flood. See Base Flood.~~

Recreational Vehicle. A vehicle which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the largest horizontal projection; (iii) designed to be self-propelled or permanently towable by a light duty truck, and (iv) 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 more than one foot at any point. These areas are designated as floodways on the Flood Boundary and Floodway Maps.

Riverine. Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Special Flood Hazard Area. See "Area of Special Flood Hazard".

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 home.

Start of Construction. Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds, not occupied as dwelling units or not part of the main structure.

Substantial Damage. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement. *means 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. The term does not, however, include either:*

- 1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions;*  
*or*
- 2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."*

~~Any combination of repairs, reconstruction, alteration, or improvements to a structure in which the cumulative cost equals or exceeds fifty (50) percent of the market value of the structure. The market value of the structure should be (1) the appraised value of the structure prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or any alteration of a structure listed on the National Register of Historic Places.~~

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 44CFR Chapter I, part 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.

Water Surface Elevation. The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, *North American Vertical Datum (NAVD) of 1988*, (or other datum, where specified) of floods of various magnitudes and frequencies in flood plains of coastal or riverine areas.

### **1203.00 Provisions Procedure**

All proposed development in any special flood hazard areas shall require a permit.

The Building ~~Inspector~~ *Official* shall review all building permit applications for new construction or substantial improvements to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall;

1. be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic load, including the effects of buoyancy,
2. be constructed with materials resistant to flood damage,
3. be constructed by methods and practices that minimize flood damages,
4. be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located *as to prevent water from entering or accumulating* within the components during conditions of flooding.

Where new and replacement water and sewer systems (including on-site systems) are proposed in flood-prone areas the applicant shall provide the Building ~~Inspector~~ *Official* with assurance that new and replacement sanitary sewage systems will be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems will be located to avoid impairment to them or contamination from them during periods of flooding.

The Building ~~Inspector~~ *Official* shall maintain for public inspection, and furnish upon request, any certification of flood-proofing and the as built elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and include whether or not such structures contain a basement. If the structure has been floodproofed, the as built elevation (in relation to mean sea level) to which the structure was floodproofed. This information must be furnished by the applicant.

~~1202.05~~ The Building Official shall review proposed developments 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. It shall be the responsibility of the applicant to certify these assurances to the Building Official.

~~1202.06~~ In riverine situations, prior to the alteration or relocation of a watercourse, the applicant for

such authorization shall notify the Wetlands Bureau of the New Hampshire Department of Environmental Services and submit copies of such notification to the Building ~~Inspector~~ *Official*, in addition to the copies required by the RSA 482-A:3. Further, the applicant shall be required to submit copies of said notification to those adjacent communities as determined by the Building ~~Inspector~~ *Official*, including notice of all scheduled hearings before the Wetlands Bureau.

With the altered or relocated portion of any watercourse, the applicant shall submit to the Building ~~Inspector~~ *Official*, certification provided by a registered professional engineer assuring that the flood carrying capacity of the watercourse has been maintained.

*Until a Regulatory Floodway is designated along watercourses, no new construction, substantial improvements, or other development (including fill) shall be permitted within Zone AE on the FIRM, unless it is demonstrated by the applicant that the cumulative effect of the proposed development, when combined with all existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.*

Along watercourses that have a designated Regulatory Floodway no encroachments, including fill, new construction, substantial improvements, and other development are allowed within the designated Regulatory Floodway *unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment that would not result in any increase in flood levels within the community during the base flood discharge.*

The Building ~~Inspector~~ *Official* shall obtain, review, and reasonably utilize any floodway data available from a Federal, State, or other source as criteria for requiring that all developments located in Zone A meet the floodway requirements: “*No encroachments, including fill, new construction, substantial improvements and other developments are allowed within the floodway that would result in any increase in flood levels with the community during the base flood discharge*”.

#### **1204.00        *Special Flood Areas***

*In a special flood hazard area, the Building Official shall determine the base flood elevation in the following order of precedence according to the data available:*

*In Zone AE, refer to the base flood elevation data provide in the community’s Flood Insurance Study and accompanying FIRM.*

In Zone A, the Building *Official* shall obtain, review and reasonably utilize any *base flood elevation* ~~100-year flood elevation~~ data available from any Federal, State or other sources including data submitted for development proposals submitted to the community (i.e., subdivisions, site plan approvals). *Where a base flood elevation is not available or not known for Zone A, the base flood elevation shall be determined to be at least 2 feet above the highest adjacent grade.*

~~1202.08~~    The Building ~~Inspector’s~~ *Official’s* ~~100-year~~ base flood elevation determination will be used as criteria for requiring in *Special Flood Hazard Areas* ~~Zone A~~ that:

1. All new construction and substantial improvements of residential structures have the

lowest floor (including basement) elevated to or above the ~~100-year~~ *base* flood level;

2. All new construction and substantial improvements of nonresidential structures have the lowest floor (including basement) elevated to or above the ~~100-year~~ *base* flood level; or together with attendant utility and sanitary facilities, shall;
  - a. Be floodproofed so that below the ~~100-year~~ base flood elevation the structure is watertight with walls substantially impermeable to the passage of water or be constructed with materials resistant to flood damage;
  - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy and;
  - c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section;
3. All manufactured homes to be placed or substantially improved within special flood hazard areas shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood level; and be securely anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces;
4. Recreational vehicles placed on sites within Zone A *and AE* shall either (i) be on the site for fewer than 180 consecutive days, (ii) be fully licensed, *on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions and ready for highway use*, or (iii) meet all standards of ~~this ordinance 44CFR Chapter I part 60.3 (b) (1) of the National Flood Insurance Program regulations~~ and the elevation and anchoring requirements for Manufactured Homes in ~~this ordinance paragraph (c) (6) of section 60.3~~. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding are permitted providing the enclosed areas meet the following requirements:
  - a. The enclosed area is unfinished or flood resistant, usable solely for parking of vehicles, building access or storage;
  - b. The area is not a basement;
  - c. Shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
    - i. A minimum of two *flood* openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.



- ii. The bottom of all openings shall be no higher than one foot above grade.
- iii. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters;

~~1202.09 This Ordinance may be amended by a majority vote of any legal Town meeting when such amendment is included in the Official Town Warrant.~~

~~1202.10 It shall be the duty of the Selectboard to enforce the provisions of this Ordinance.~~

1202.11 The Building ~~Inspector~~ *Official* shall not in any case be liable for any damage resulting from construction done under his *or her* permit whether or not such construction is in conformity with the provisions of the Ordinance.

~~1202.12 The invalidity of any provision or part of a provision of this Ordinance shall not affect the validity of any other provisions.~~

~~1202.13 Every person, persons, firm, or corporation violating any of the provisions of this Ordinance shall be fined as determined by the Selectboard for each day such violation may exist.~~

### **1205.00 Variance and Appeals Procedure**

Any order, requirement, decision or determination of the building Official made under this Ordinance may be appealed to the Zoning Board of Adjustment as set forth in RSA 676:5.

If the applicant, upon appeal, requests a variance as authorized by RSA 674:33, I(b), the applicant shall have the burden of showing in addition to the usual variance standards under state law:

1. that the variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense.
2. that if the requested variance is for activity within a designated regulatory floodway, no increase in flood levels during the base flood discharge will result.
3. that the variance is the minimum necessary, considering the flood hazard, to afford relief.

The Zoning Board of Adjustment shall notify the applicant in writing that: (i) the issuance of a variance to construct 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 a record of all variance actions.

The ~~community~~ *Zoning Board of Adjustment Secretary* shall (i) maintain a record of all variance actions, including their justification for their issuance, and (ii) *inform the Building Official of*

*all variance actions. The Building Official will report such variances issued in its annual or biennial report submitted to FEMA's Federal Insurance Administrator.*

***1206.00 Conflicts and Severability***

*This Section shall comply with Section 2900 of this Ordinance.*