MEMORANDUM

TO: ZONING AND PLANNING COMMITTEE OF THE BOARD OF ALDERMEN

FROM: CANDACE HAVENS, INTERIM DIRECTOR OF PLANNING AND DEVELOPMENT
ANNE PHELPS, SR. ENVIRONMENTAL PLANNER
MARIA P. ROSE, ENVIRONMENTAL ENGINEER

DATE: FOR JUNE 14, 2010 WORKING SESSION

CC: BOARD OF ALDERMEN
EILEEN MCGETTIGAN, ESQ.

PETITION #141-10(2) Watershed/floodplain ordinance amendments to Section 22-22

BACKGROUND

To retain membership in the National Flood Insurance Program, FEMA required adoption of specific language, new flood panels, incorporation of dates of the Flood Insurance Study and effective dates of the new panels by June 4, 2010. These changes were intended to make explicit which State laws relate to our building code and FEMA regulations. While updating this section of the Newton Ordinances, the Engineering Division also recommended text and elevation changes to more accurately reflect the 1% chance of flooding (also known as the100-year flood event) shown on the FEMA maps. The new regulations were approved by the Board of Aldermen on June 7, 2010.

In response to questions raised at the May 24th meeting of the Zoning and Planning Committee, staff contacted local FEMA representatives about their notification process who indicated they are required to issues two legal public notices in the newspaper of record for our area. There were countywide public informational meetings held for Middlesex County in Winchester, Cambridge, Arlington and Medford which were advertised in two different press releases to over 300 media outlets in the county within the last three months. FEMA does not issue letters directly to homeowners as they do not have individual addresses. If the community wishes to do outreach, such as sending out letters, presses releases, etc., FEMA will supply templates. Individual insurance agencies may also send out letters on this subject. City staff has received many calls from property owners who have been aware of possible changes to the flood maps, many of whom have properties that are not particularly close to flood zones. This anecdotal evidence suggests that their efforts are effective in reaching people with properties that are even remotely affected.

As noted at the previous meeting, several street names and other references were changed in the revised ordinance. These corrections were made so that street or dam names match those provided in the FEMA Flood Profiles for consistency. Where a street name change occurred at a city/town boundary (typically at a bridge), the Newton street name was referenced (although the current ordinance also refers to some streets bordering the City)

Finally, there were questions regarding the changes to elevations in the ordinance. Engineering staff will present maps at the meeting that show the previous and current flood elevations next to each other to show the degree of variation.

SUMMARY OF CHANGES

Below is a summary of the approved changes for reference:

Floodplain District as an overlay district to all other districts
Language was added to Sec. 22-22(a)(4) to identify the State Law(s) by which floodplain requirements take precedence over municipal laws for new development and redevelopment All development in the district, including structural and nonstructural activities, whether permitted by right or by special permit, must be in compliance with Chapter 131, Section 40 of the Massachusetts General Laws (MA Wetlands Protection Act) and with the following:

- Section of the Massachusetts State Building Code which addresses floodplain and coastal high hazard areas (currently 780 CMR 120.g, "Flood Resistant Construction and Construction in Coastal Dunes")
- Wetlands Protection Regulations, Department of Environmental Protection (DEP) (currently 310 CMR 10.00)
- Inland Wetland Restriction, DEP (currently 310 CMR 13.00)
- Minimum Requirements for the Subsurface Disposal of Sanitary Sewage, DEP currently 310 CMR 15, Title 5)

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.

Incorporation of new map panels and effective date(s)

- Language was added to Sec. 22-22(f) to incorporate the new Flood Insurance Study (FIS) and the preliminary Federal Insurance Map Panels which were issued September 2007, and became effective June 4, 2010. FEMA did ***not*** restudy the Charles River Watershed as part of this update. However, a section of the Charles River was restudied in 1990 and more accurate culvert data for South Meadow Brook was completed in 1988; this information was put on the updated 1990 FEMA maps, but our Watershed/Floodplain Ordinance was not updated at that time. The 1990 changes were incorporated into the recent revisions. New maps are being issued as part of a national change from "community only" panels (maps) to countywide panels, a digital conversion, and to overlay aerials onto the FEMA maps. There have been ***no changes*** to the 100-year flood elevations since 1990.
- Language was removed that allowed for a challenge to the flood zone determination at the local level.
- Applications for revisions to the rate maps must be submitted to FEMA for review and approval through the Letter of Map Amendment or Letter of Map Revision Process.

Corrections for prior mathematical errors and locational references

- Changes were made to Sec. 22-22(g), elevations at reference points along the Charles River and other perennial streams in Newton, to correct for prior errors; differences in elevations may have been due to conversion errors between the FEMA's elevation datum and the City of Newton Datum, or human error. Newton's Engineering Division reviewed the new maps and noted inconsistencies between the original hand-drawn floodplain district maps and the corresponding FEMA maps from the 1980s. Since staff relies primarily on the FEMA maps and not the data values contained in the ordinance, these discrepancies went unnoticed for years.
- Place names also were revised to be consistent with FEMA references to locations. Footnotes at the end of the Charles River list and the South Meadow list of reference points (Sec. 22-22(g)1. and Sec. 22-22(g)2., respectively) include updated dates and page and study numbers from the most recent Flood Insurance Study and the Federal Insurance Map Panels (September 28, 2007) and their effective date (June 4, 2010).

Special emphasis on "floodways," notification of change to a watercourse, and summary of other requirements:

- New language was added after Sec. 22-22((g)5. that includes a requirement for protection of "floodways," which refers to the channel of a river and adjacent land areas that will be inundated in a 100-year flood. These areas must be protected from development so not to increase the lateral spread of floodwater.
- Any "alteration" or "relocation" of a river must be reported to adjacent communities, the National Flood Insurance Program Coordinator, Department of Conservation and Recreation, and to the National Flood Insurance Program Specialist, FEMA, Region I.
- In Zones AE (A flood zones determined by a specific elevation) along watercourses that have a regulatory floodway designated on the Middlesex County Federal Insurance Rate Maps (FIRMs), encroachments are prohibited in the regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- All subdivision proposals must be designed to assure that a) such proposals minimize flood damage; b) all public utilities and facilities are located and constructed to minimize or eliminate flood damage; and c) adequate drainage is provided to reduce exposure to flood hazards.

Attachment: Ordinance Z-66 dated June 7, 2010

ATTACHMENT A

#141-10

CITY OF NEWTON

IN BOARD OF ALDERMEN

June 7, 2010

ORDINANCE Z-66

BE IT ORDAINED BY THE BOARD OF ALDERMEN
OF THE CITY OF NEWTON AS FOLLOWS:

Amend ARTICLE II of Chapter 22, **Sec. 22-22. Floodplain/watershed protection provisions.** as follows:

I. In subsection (a) insert after paragraph (4) before the sentence "The areas of the city included in this district are set forth in subsection (g) of this section." the following new provisions:

"The Floodplain District is established as an overlay district to all other districts. All development in the district, including structural and non-structural activities, whether permitted by right or by special permit must be in compliance with Chapter 131, Section 40 of the Massachusetts General Laws and with the following:

Section of the Massachusetts State Building Code which addresses floodplain and coastal high hazard areas (currently 780 CMR 120.g, "Flood Resistant Construction and Construction in Coastal Dunes");

Wetlands Protection Regulations, Department of Environmental Protection (DEP) (currently 310 CMR 10.00);

Inland Wetland Restriction, DEP (currently 310 CMR 13.00);

Minimum Requirements for the Subsurface Disposal of Sanitary Sewage, DEP currently 310 CMR 15, Title 5);

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."

II. Delete in its entirety subsection (f) and insert in place thereof the following new language:

(f) The boundaries of the Floodplain/Watershed Protection District are intended to correspond with the maximum lateral extent of floodwater which will result from the one-percent chance flood (100-year flood). The district includes all special flood hazard areas within the City of Newton 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 Newton are panel numbers 25017C0532E, 25017C0534E, 25017C0551E, 25017C0552E, 25017C0553E, 25017C0554E, 25017C0556E, 25017C0558E, 25017C0561E, 25017C0562E. 25017C0566E dated June 4, 2010. 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 September 28, 2007. The FIRM and FIS report are incorporated herein by reference and are on file with the city clerk, planning board, inspectional services, conservation commission and engineering. Said boundaries have been determined by reference to data prepared for the city pursuant to the National Flood Insurance Program, as currently administered by the Federal Emergency Management Agency. Said boundaries, so determined, shall be presumed accurate

III. Amend subsection (g) Floodplain/Watershed Areas*:

Amend "Along Charles River from:" as follows:

Delete numbers (1) through (16) and insert in place thereof the following:

(1) Newton/West Roxbury line to Kendrick Street bridge.....96.7–96.5

(2) Nahanton Street bridge to Silk Mill Dam .....95.6—95.5

(3) Silk Mill Dam (foot) to Metropolitan Circular Dam (crest).....80.5—80.5

(4) Metropolitan Circular Dam (foot) to Route 9 bridge.....72.5—72.5

(5) Route 9 bridge to Route 128 bridge .....72.5—71.7

(6) Route 128 bridge to Walnut Street bridge.....71.7—70.5

(7) Wales Street bridge to Cordingly Dam and Falls (crest).....70.5—69.2

(8) Cordingly Dam and Falls (foot of falls) to Newton Lower Falls Dam (crest) .....55.5—52.-5

(9) Newton Lower Falls Dam (foot) to Washington Street Route 16 bridge.....49.0—49.0

(10) Washington Street Route 16 bridge to M.D.C. RR bridge.....49.0—47.5

(11) M.D.C. bridge to Concord St bridge.....47.5—45.5

(12) Concord St bridge to Norumbega bridge-Route 30.....45.5—44.5

(13) Norumbega bridge-Route 30 to Newton/Waltham boundary (west).....44.5—44.5

(14) Newton/Waltham boundary (east) to Bridge Street bridge (west).....27.5—24.5

(15) Bridge Street bridge (east) to Watertown Dam (crest).....23.5—17.5

(16) Watertown Dam (foot) to Newton/Boston boundary .....10.5—10.5

Amend "Along Paul Brook from:" as follows:

Delete numbers (17) through (23) and insert in place thereof the following:

(17) 150 feet south of Route 9 to Hagen Road .....127.5—125.9

(18) Hagen Road to Haynes Road (north side of culvert).....125.9—125.5

(19) Haynes Road (south side of culvert) to Olde Field Road .....124.5—122.6

(20) Olde Field Road to Great Meadow Road .....122.6—122.0

(21) Great Meadow Road to Parker Street (east side of culvert).....122.0—121.3

(22) Parker Street (west side of culvert) to Mildred Road .....121.0—120.5

(23) Mildred Road to the confluence of South Meadow Brook.....120.5—120.3

Amend "Along South Meadow Brook from:" as follows:

Delete numbers (24) through (28) and substitute in place thereof the following:

(24) The confluence of Paul Brook to Dedham Street (east side of culvert) .....120.3—119.5

(25) Dedham Street (west side of culvert) to Upland Ave ..... 119.3—118.8

(26) Upland Ave to Winchester Street Streets.....118.8—118.5

(27) Winchester Streets to Needham Street (east side of culvert to trash tack).....118.5—117.5

(28) Needham Street (west side of culvert) to Tower Road Culvert .....116.5—115.5

Amend " Along Cheese Cake Brook from: " as follows:

Delete numbers (29) through (32) and substitute in place thereof the following:

(29) Watertown Street culvert to Dunstan Street (west side of culvert) .....46.7—45.-5

(30) Dunstan Street (east side of culvert) to Cross Street (west side of culvert).....45.0—44.5

(31) Cross Street (east side of culvert) to Parsons Street (west side of culvert).....44.0—43.8

(32) Parsons Street (east side of culvert) to Eddy Street.....43.5—42.5

In "*" delete the existing language and substitute in place thereof the following language:

*The data in this table are to be used in determining the location of the floodplain and represent information obtained from FEMA's Flood Insurance Study, Preliminary Release dated September 28, 2007 volumes 1, 2, 3, and 4 and the corresponding Flood Insurance Rate Maps (FIRMs), which were then converted to City of Newton base. No changes to the Preliminary Release are expected for Newton and thus the FIRMs will become effective on June 4, 2010; if any discrepancies arise, the more conservative of the two shall apply. Plans showing the general location of the floodplain, to be used only as a guide, are available for viewing at the Engineering Division of the Department of Public Works or Inspectional Services Department.

IV.In Floodways***

South Meadow Brook

Amend Cross Section Distance **** as follows:

In C delete in (Feet) "86" and replace with "80"
In D delete in (Feet) "48" and replace with "40"

In *** delete after the word "Table" the number "2" and replace with "8". Delete after "8" the words "on page 11". Delete after "Flood Insurance Study" the words "City of Newton, Mass." and insert "No. 255226CV00A". After the words "Middlesex County" insert "MA, June 4, 2010."

V. Insert at the end of the chapter after Ord. references the following new language:

In Zones A and AE, along watercourses that have not had a regulatory floodway designated, the best available federal, state, local or other floodway data shall be used to prohibit encroachments in floodways which would result in any increase in flood levels within the community during the

occurrence of the base flood discharge.

In a riverine situation, the planning department shall notify the following of any alteration or relocation of a watercourse:

- Adjacent communities
- NFIP State Coordinator, MA Department of Conservation and Recreation, 251 Causeway Street, Suite 600-700
- NFIP Program Specialist, Federal Emergency Management Agency, Region I, 99 High Street, 6th Floor, Boston, MA 0210

Other Use Regulations

1) In Zones AE, along watercourses that have a regulatory floodway designated on the Middlesex County FIRMs, 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.
2) All subdivision proposals must be designed to assure that:

a) such proposals minimize flood damage;
b) all public utilities and facilities are located and constructed to minimize or eliminate flood damage; and
c) adequate drainage is provided to reduce exposure to flood hazards.

Approved as to legal form and character:

DONNALYN B. LYNCH KAHN
City Solicitor

Under Suspension of Rules
Readings Waived and Adopted
20 yeas 0 nays 4 absent (Aldermen Lennon, Merrill, Sangiolo, and Swiston)

(SGD) DAVID A. OLSON
City Clerk

(SGD) SETTI D. WARREN
Mayor