



TOWN OF ARLINGTON
MASSACHUSETTS
CONSERVATION COMMISSION

August 6, 2015

Kevin F. Greeley, Chair
Board of Selectmen
Town of Arlington
730 Massachusetts Avenue
Arlington, MA 02476

RE: Site Approval application for Thorndike Place

Dear Mr. Greeley and Members of the Board:

The Conservation Commission wishes to provide comments and information regarding SEB LLC's proposed mixed-income 219 rental unit development (the "Project") at a 17-acre property in East Arlington known as the Mugar Property. The Commission hopes this memo assists the Board of Selectmen in formulating its comments to MassHousing on SEB's Comprehensive Permit Site Approval Application (the "Application").¹

SEB submitted its Application to MassHousing to receive Site Approval (also called project eligibility approval) under the Commonwealth's comprehensive permit statute, G.L. c. 40B. As you may know, Site Approval is required before SEB can file a comprehensive permit application with the Arlington Zoning Board of Appeals. One of the criteria for MassHousing's Site Approval is that "the conceptual project design is generally appropriate for the site on which it is located, taking into consideration factors that may include . . . topography, [and] environmental resources, . . ." 760 CMR 56.04(4)(c).

The Conservation Commission takes no position as to whether the Project is "generally appropriate" for the Mugar Property. After a comprehensive permit application is filed with the ZBA, the Conservation Commission will evaluate whether the Project complies with standards in the state and Arlington wetlands rules and regulations.

The Application presents the project at a very conceptual or general level. The Commission anticipates that more details and additional information about the Project will be provided in the comprehensive permit application filed with the ZBA and any application filed with the Commission for a wetlands permit.

¹ The Commission reviewed a 196-page electronic copy of the Application. All page references are to the page number of the electronic PDF file.

1. Topography

The Mugar Property is generally level, varying in elevation by just a few feet.

a. Flooding & Groundwater

More of the Mugar Parcel likely is in the 100-year floodplain than shown in the Application. The Existing Conditions Plan, C-1.0 (on pages 70, 71 and 84) of the Application) appear to reflect the 100-year floodplain according to FEMA's old Flood Insurance Rate Map from 1982. The current FEMA Flood Insurance Rate Map, which was adopted by the Town in 2010, put more of the Mugar Property (and other portions of East Arlington) within the FEMA 100-year floodplain. Attached is an excerpt of the current FEMA floodplain map.

Superimposing the 2010 FEMA Flood Insurance Rate Map on the Preliminary Site Plan (page 90 of the Application) puts most of the proposed apartment buildings within the 100-year floodplain.

Neighborhoods surrounding the Mugar Property have a long history of street and basement flooding during and after storm events.

The Application on page 51 states groundwater levels are based on testing done during an earlier geotechnical study and are generally 3 to 6 feet in depth. Such groundwater depths are considered shallow. The groundwater levels likely will fluctuate quickly with rain events, since this parcel is along the bottom of the drainage basin. The proposed townhouses appear to have garages underneath and the apartments are also proposed to have parking below grade, so parking likely will be at or below groundwater. If the earlier geotechnical studies measuring groundwater levels are from circa 2000 or 2001, the data likely are no longer valid because of the extensive redevelopment of Acorn Park on the other side of Route 2.

b. Datum discrepancies

The datum on a plan is the fixed starting point for measurements such as the floodplain elevation. The narratives on pages 51 and 83 of the Application states that all elevations for the existing conditions plan use the NGVD 29 datum. When FEMA revised floodplain maps for Arlington in 2010, this datum was replaced by a new datum, NAVD 88. It does not appear that the maps and plans in the Application are at this new datum and thus corroborates the Commission's observation that the Application relies on outdated 100-year floodplain information. Small elevation differences on this relatively flat terrain can result in significant areas being within or outside of the 100-year floodplain.

c. Drainage patterns, stormwater surcharge

Sanitary sewer overflows are a documented problem in the Alewife drainage system. A large sanitary sewer line runs along Dorothy Road towards the bike path. Since it runs along the northwest side of the Mugar Property, this line is likely the tie-in for this proposed development. When large rainfall events occur, the sanitary sewers surcharge and overflow into the storm drains underneath Dorothy Road and down towards Margaret Street. They have surcharged up through the manhole covers, bubbling up onto the public streets and back onto private properties, which are all experiencing surface flooding during the same flood event. The sewage-contaminated flood waters eventually drain back into the waterways.

Alewife Brook runs “backwards” (away from the Mystic River) during large rain and flood events, which may contribute to flooding of the Property and its neighborhood.

The Project will require the removal of many acres of vegetation, much of it forest with dense understory and mature trees. This will reduce the capacity of the site to absorb or detain precipitation and flood water. The Project will occupy about 20% of the Mugar Property with buildings, parking, and paved areas (Application, page 15). This will also alter stormwater flow since impervious surfaces prevent rainfall from infiltrating into the ground.

2. Environmental Resources

a. Existing wetlands

There is more than one wetland on the property. The Application narrative speaks of a single “neglected wetland” (Application, pages 9 and 39-40), while an existing conditions plan (page 71) shows an additional wetland in the southeast corner.

There are additional wetlands in the northern portion of the property, as shown in the attached excerpt from Arlington’s Geographic Information System (“GIS”). This wetland seems to be located within the area of proposed building, parking, or roadways.

The boundaries of wetlands and the 100-year floodplain for this property have not been reviewed by the Conservation Commission or the Department of Environmental Protection since the 2002-2004 time period. Any approval of wetland or floodplain boundary lines from that time period have expired. There currently is no legally valid delineation of wetlands and other wetland resource areas on the site.

If an access ramp to the Project from Route 2 is constructed, a possibility mentioned during the June 23, 2015 site visit, it would be in a wetland and within the 100-year floodplain.

The waterway that links a small wetland on the eastern-most portion of the Mugar Property to a larger wetland in the southeast corner of the Mugar Property is not shown

on the plan on page 70, but is shown on the plan on page 71. This important hydraulic connection should be shown on all project plans.

b. Existing Vegetation

The Mugar Property is largely wooded, as shown by the photo on page 44 of the Application. There are many mature trees, with thick vegetation beneath. There are many invasive plant species. All the vegetation provides habitat for wildlife and helps to attenuate flooding and mitigate stormwater runoff.

The Project will require the removal of approximately seven acres of forest with mature trees, understory vegetation, and pervious ground. Buildings and impervious surfaces for roadways, parking areas, and walkways will prevent infiltration.

c. Vernal Pools and Wildlife Habitat

The Application on page 10 states that there are no documented vernal pools or areas designated by Natural Heritage as endangered species habitat. Given the site topography, there possibly vernal pools which are ecologically significant even if not documented.

This wooded property contains wildlife habitat values for non-endangered wildlife. Clearing of up to seven acres for the proposed buildings and roadways will decrease the amount of wildlife habitat on the Property.

Please contact the Conservation Commission should you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nathaniel Stevens', is written over a horizontal line. The signature is stylized and somewhat cursive.

Nathaniel Stevens, Chair



MAP SCALE 1" = 500'



NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0419E

FIRM
 FLOOD INSURANCE RATE MAP
 MIDDLESEX COUNTY,
 MASSACHUSETTS
 (ALL JURISDICTIONS)

PANEL 419 OF 656
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ARLINGTON, TOWN OF	250177	0419	E
BELMONT, TOWN OF	250182	0419	E
CAMBRIDGE, CITY OF	250186	0419	E
SOMERVILLE, CITY OF	250214	0419	E
WATERTOWN, TOWN OF	250223	0419	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
 25017C0419E

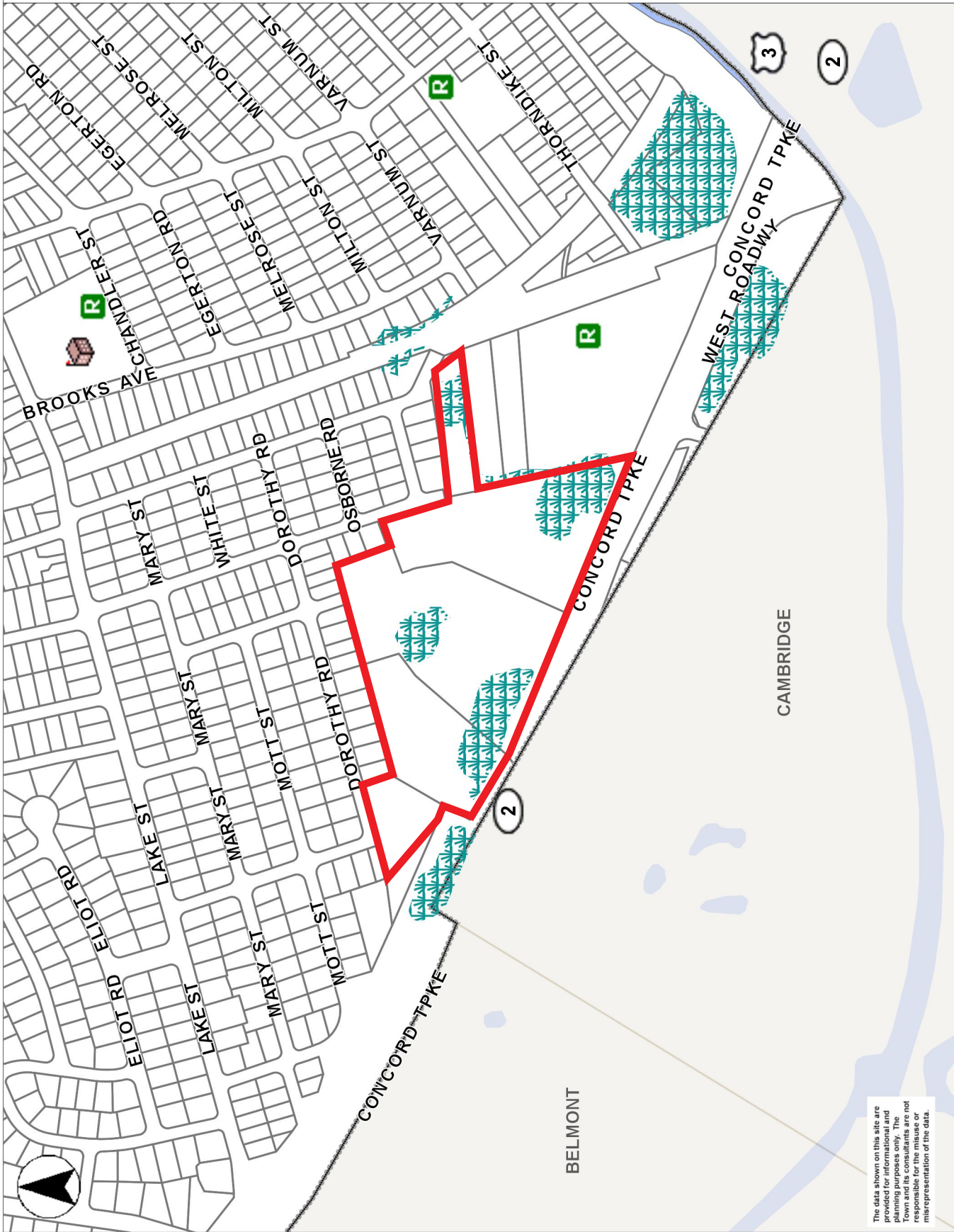
EFFECTIVE DATE
 JUNE 4, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



- Places by Category
- Police Station
 - Fire Station
 - School
 - Recreational Facility
 - Wetlands
 - Town Boundary
 - MA Highways
 - Interstate
 - US Highway
 - Numbered Routes
 - Abutting Towns
 - Local Streets
 - Other Streets
 - Cemetery Streets
 - Water Line
 - Water Body
 - Buildings
 - Parcels



Town of Arlington, MA

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