

Residences of South Brookline

October 20, 2014

Residences of South Brookline

Stormwater Management

Comments RE :Peak Rates of Runoff and Runoff Volumes are Grossly Inaccurate

- Suggestion that 11,167,500 gallons would be runoff from the site would require a storm event that had over **6 FEET** of water falling on the site
- Calculations of Additional Runoff Volume are **incorrect by over 100%**
- Why and how are these estimates so wrong?

Residences of South Brookline

Stormwater Management

- **Runoff Rate and Volume** towards abutting residences along Russet and Asheville Roads will be **reduced**.
- Peak Rate Reduction from Project, and volume of runoff infiltrated, are in accordance with DEP and Town of Brookline Standards and requirements.

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Stormwater Management

- Use of monitoring wells to estimate Seasonal High Groundwater is appropriate.
- Contrary to statement that the time period leading up readings in April, 2014 were “extremely dry” again raise the question if Mr. Varrell is misinformed or intentionally misleading. In fact, 2014 precipitation through April was 28% higher than long term average and April also had more precipitation than the long term average.
- Frimpter Method cited by Mr. Varrell is not appropriate. The following quote is directly from the report:

Residences of South Brookline

Stormwater Management

From “Estimation of High Ground-water Levels for Construction and Land Use Planning – A Cape Cod Example”, 2006:

Explanation of Technique: ...most of Cape Cod consists of sandy deposits that have relatively uniform hydrologic properties from site to site. This technique is designed to be used at sites underlain by sandy and gravelly soils, not in wetlands or at sites where layers of clay, silt or till are present.

Residences of South Brookline

Stormwater Management

Suggestion that use of Stormtank chambers is inappropriate is baseless.

- Local Stormtank representatives have reviewed the soils reports and design plans, and agree that the system will function and perform as expected.
- System installation is inspected by local representatives

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Stormwater Management

Mr. Varrell statement that infiltration rates are 1/3 of what is required is incorrect.

- Infiltration rates meet DEP Standards
- Drawdown Calculations, in accordance with DEP Standards, included in Stormwater Report show that drainage basins will drain within 72 hours

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Stormwater Management

Mr. Varrell does not understand the proposed porous pavement design.

- Check dams formed out of soil
- Water will not be directed to residences on Russett Road. On the contrary, the proposed drainage design will intercept stormwater that currently flows towards Russett Rd. and divert it to the Town's drainage system.

Residences of South Brookline

Stormwater Management

Use of Stormceptors

- Commonly used as a component to a stormwater management system.
- Used as pretreatment prior to discharge to subsurface basins
- One used to treat stormwater that currently flows offsite with no treatment.

Residences of South Brookline

Vernal Pool

- The Applicant, the Town's peer review consultant, and the Town's Conservation Commission Agent are all on record stating that **the low point** on the west side of Independence Drive **is NOT a vernal pool.**
- The area is not indicated to be a potential vernal pool by DEP.

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Mosquito Control

Applicant is agreeable to implementation of a mosquito control plan that is consistent with mosquito control practices implemented by the Town of Brookline.

Residences of South Brookline

Sanitary/Stormwater Cross Contamination

Applicant is agreeable to water quality testing and testing locations suggested by the Town Engineer, and to further investigations should results of testing indicate cross contamination occurring on CHR property.

Residences of South Brookline

Final Transportation Comments

- BETA concurrence with traffic evaluation
- Abutter concerns (William Varrell)
- Fire/Police/DPW Responses

Abutter Concerns

I. Pedestrian Safety

– **Independence Drive:** BETA states that the project has adequately addressed pedestrian, bicycle and vehicular safety along Independence Drive; mitigation along Independence Drive is appropriate and is subject to further detailed review with the Town.

– **VFW Crossings:** Signal controlled pedestrian crossings are located at South Street and at the adjacent plaza that provide appropriate connections to the Hynes Field facilities in West Roxbury. BETA acknowledges that an additional crossing is beyond the scope of the project.

II. Traffic & Parking Issues

– BETA states that the project has adequately addressed project-related traffic and parking issues; site roadways and parking designed to industry standards.

III. Beverly Road Impacts

– Project impact is 5 vehicles or less which is inconsequential. BETA states that the project has adequately addressed Beverly Road operations; ample capacity is available to support the project.

IV. On-Site Roadways

– BETA has concurred that the on-site roadway system and parking has been designed according to industry standards and will be able to accommodate site traffic including during the winter months.

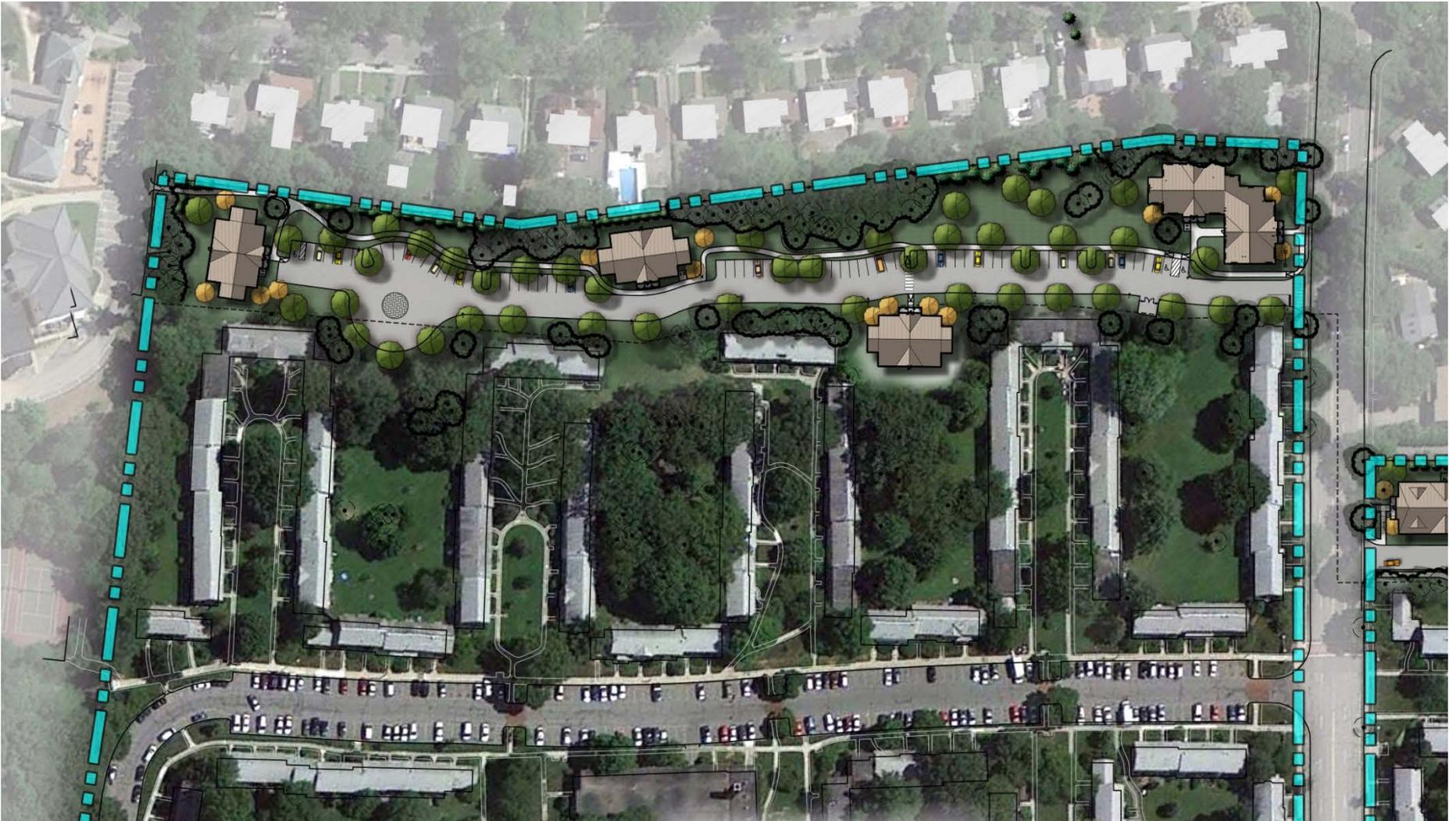
V. VFW Parkway/South Street

– Project traffic is estimated at 5% (6 trips or less) impact at this intersection which is inconsequential. BETA concurs that the project has minimal impact to VFW Parkway/South Street operations; study area included in the traffic study is adequate.

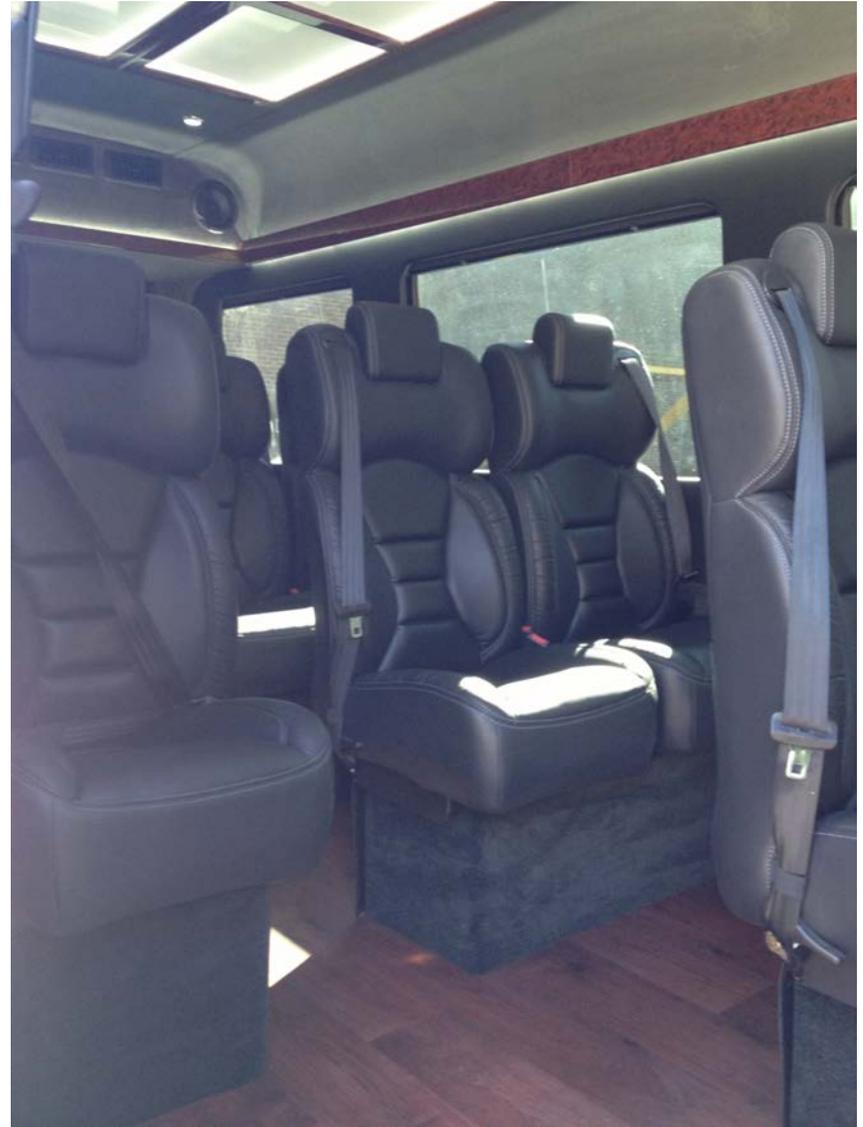
Fire/Police/DPW Responses

- **Fire Department**
 - **Response Time:** Brookline has a mutual aid agreement with neighboring Boston that would allow for response times that fall within NFPA recommended standard response times.
 - **VFW Access:** Additional access along VFW Parkway is being considered but is ultimately subject to DCR review and approval.
- **Police Department**
 - **VFW Access:** Additional access along VFW Parkway is being considered but is ultimately subject to DCR review and approval.
 - **Raised On-Site Crosswalks:** Site has been designed to include a comprehensive system of sidewalks and clearly visible crosswalks. Raised crosswalks are not proposed as such design elements are contrary to efficient emergency apparatus maneuverability.
- **DPW**
 - **Traffic Calming:** Applicant has committed to Complete Streets improvements along Independence Drive and is committed to pursuing a VFW Parkway access in collaboration with the Town. No warrants for additional traffic calming measures at this time or anticipated in the future.

Residences of South Brookline West Side



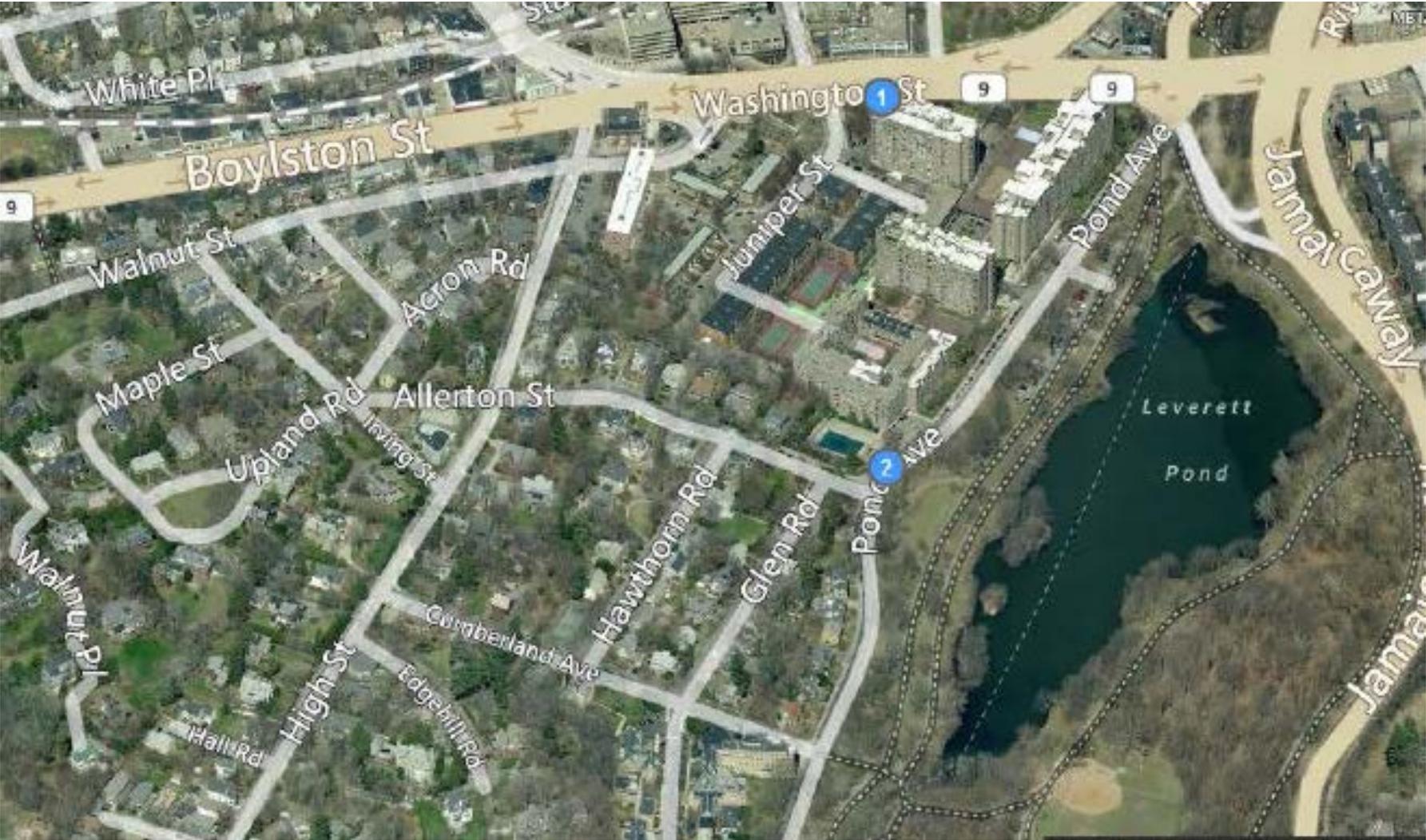
Hancock Village Shuttle



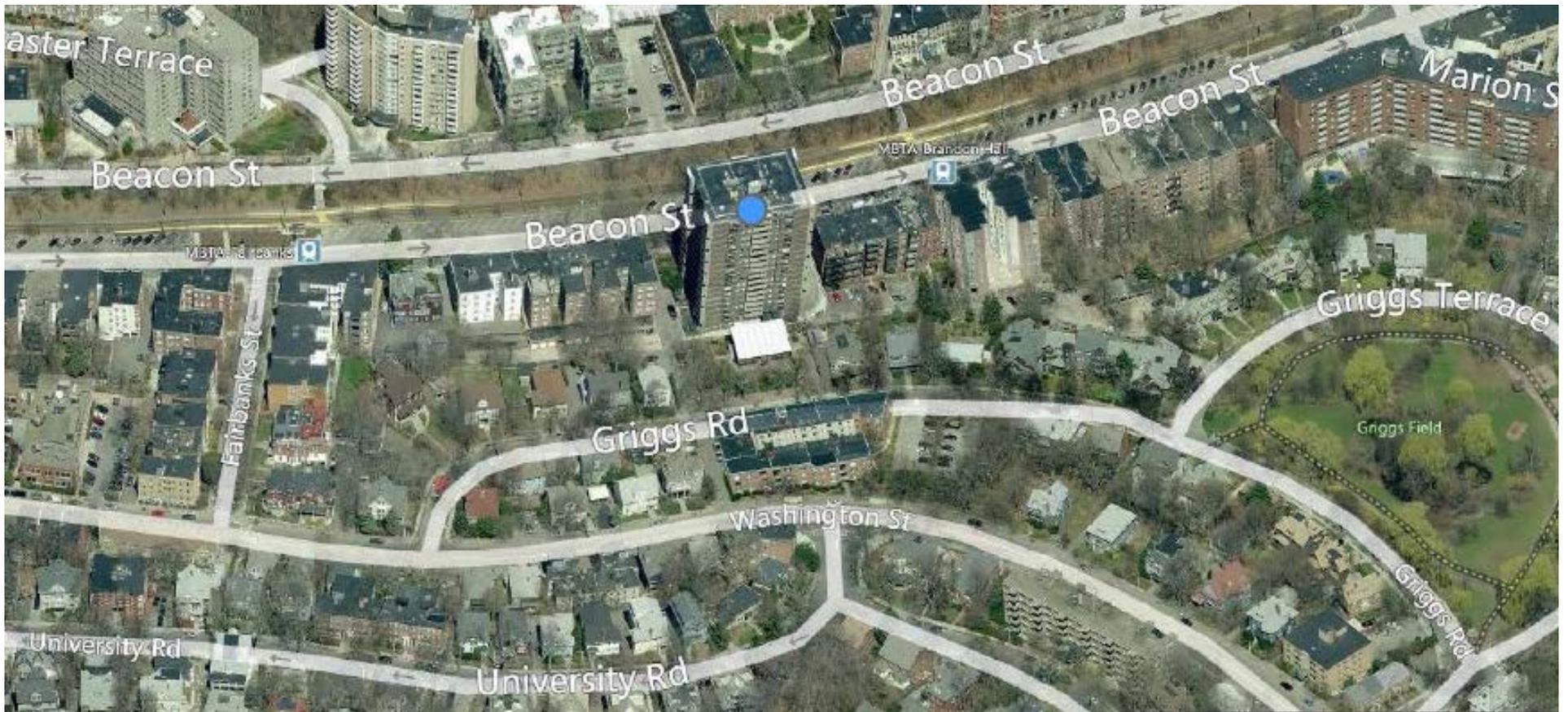
Planning Board Letter

- The Planning Board prefers locating our project in different locations at Hancock Village.
- Concerns were expressed about the location, height, and massing of the larger building.
- The Planning Board was concerned about the suitability of mid rise buildings near single family home developments.
- There are many examples of high rise construction adjacent to single family homes in Brookline.

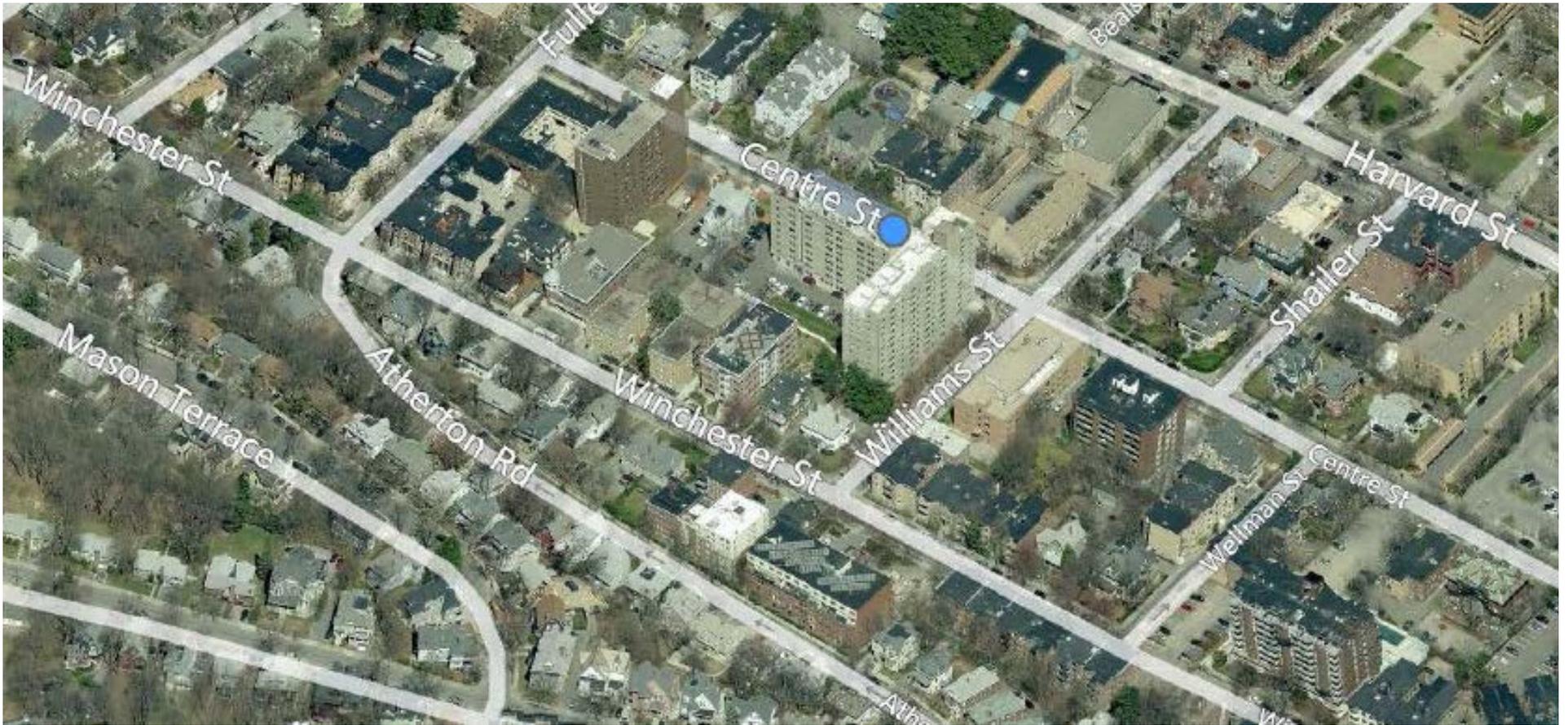
The Brookhouse



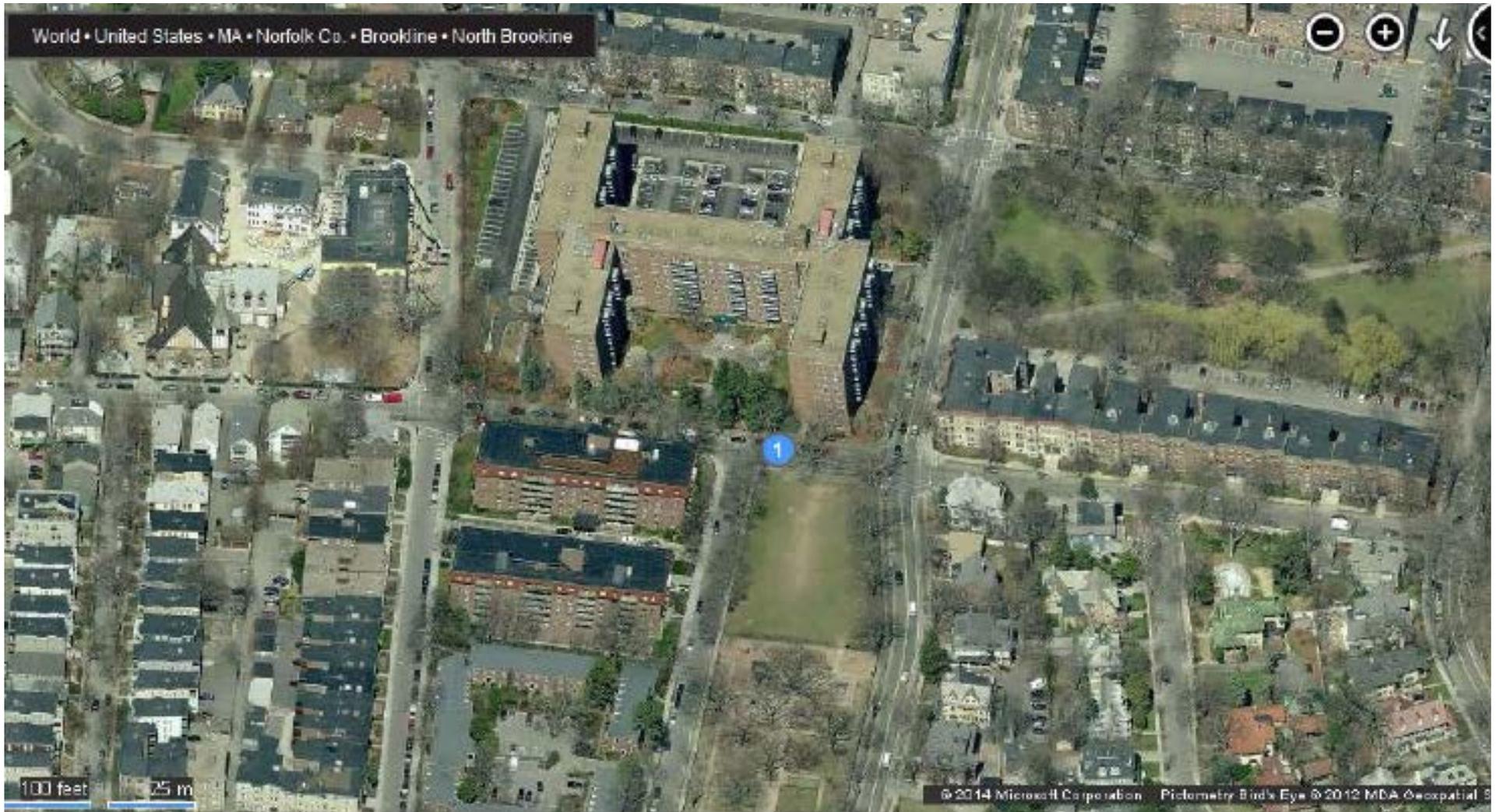
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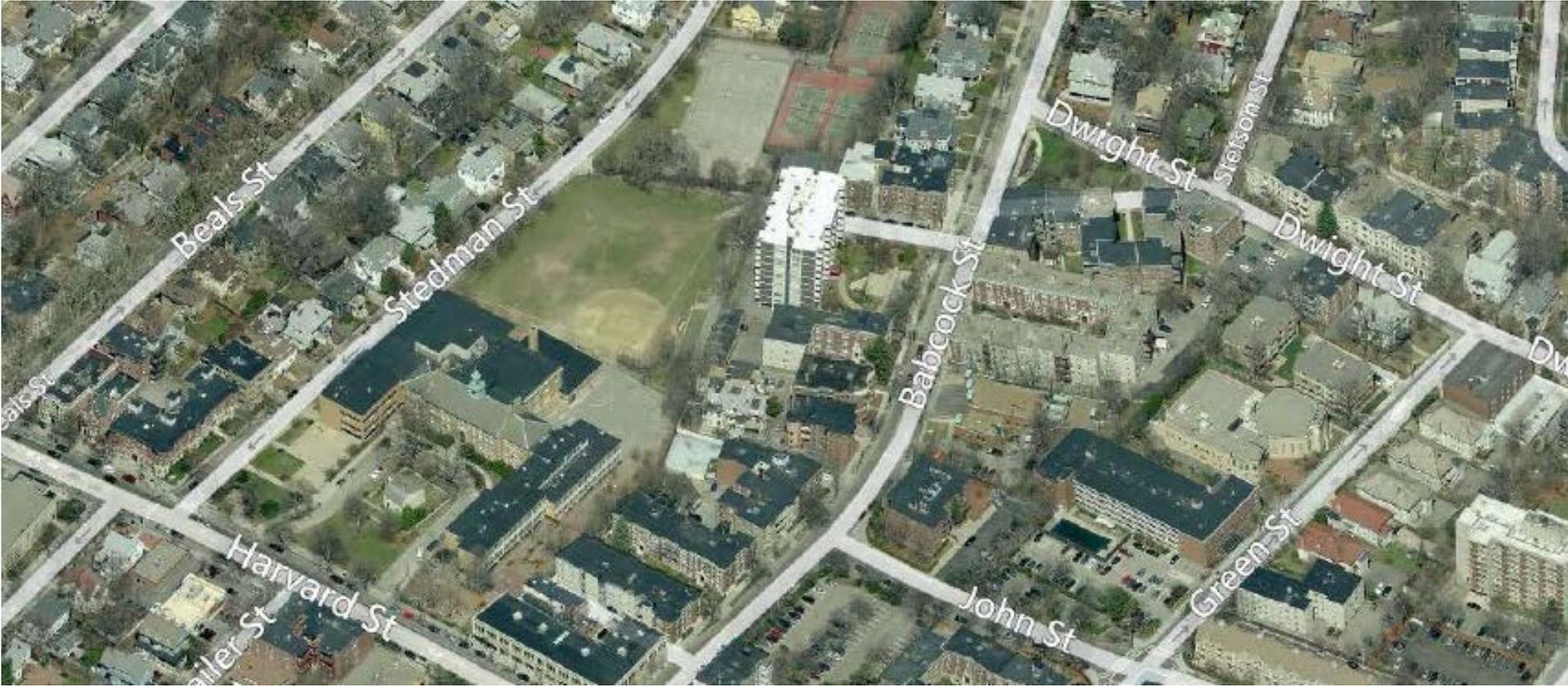
112 Centre St.



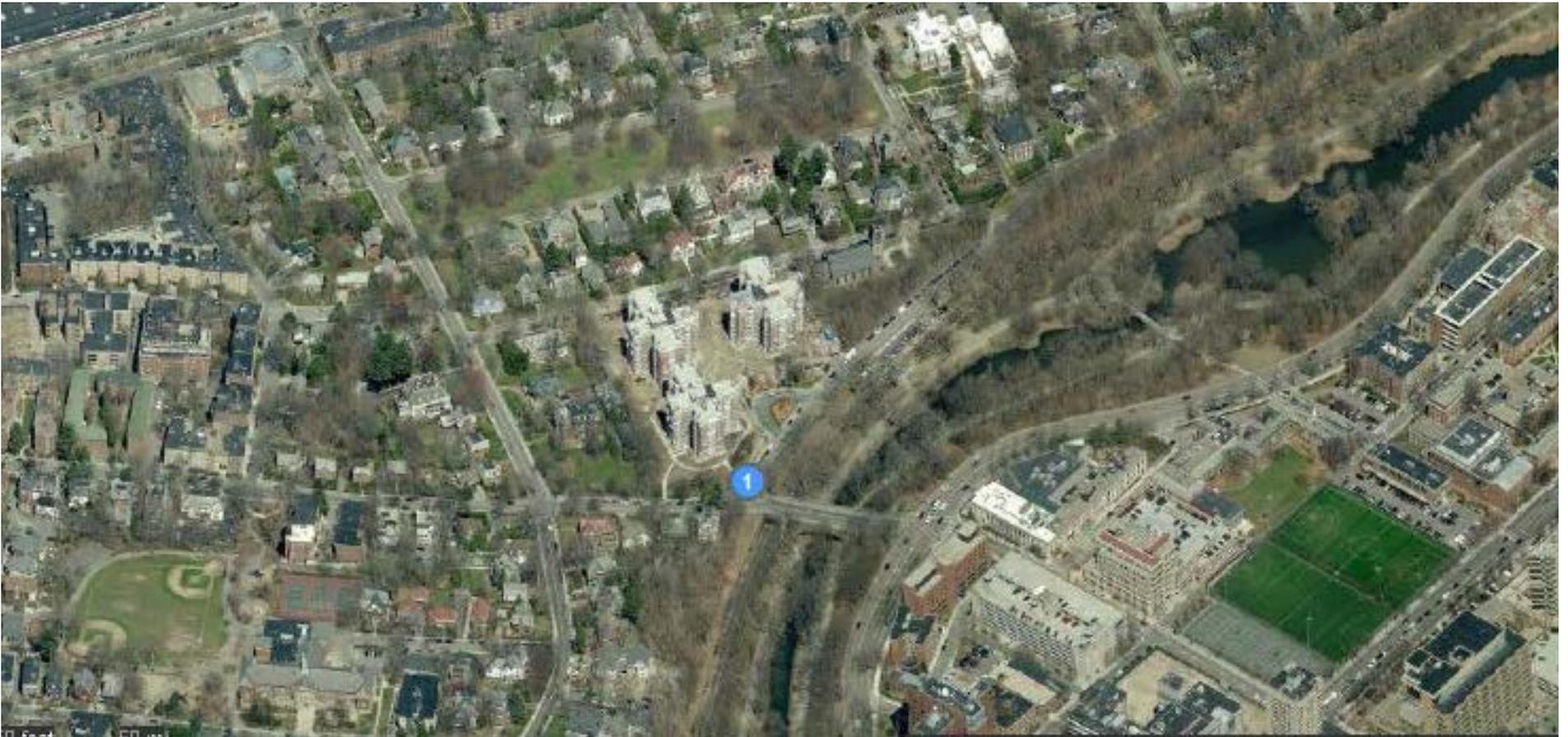
Dexter Park



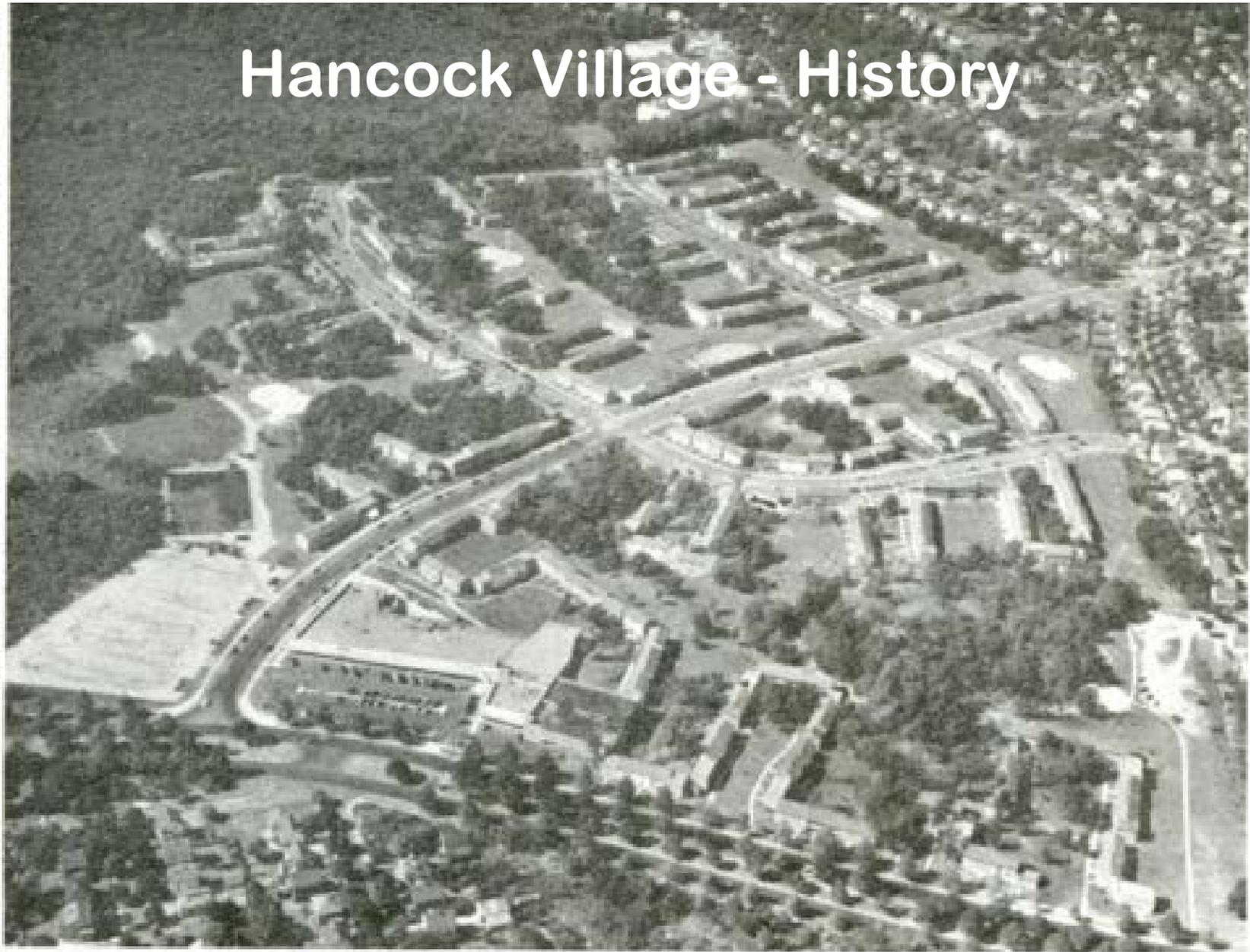
60 Babcock St.



Longwood Towers

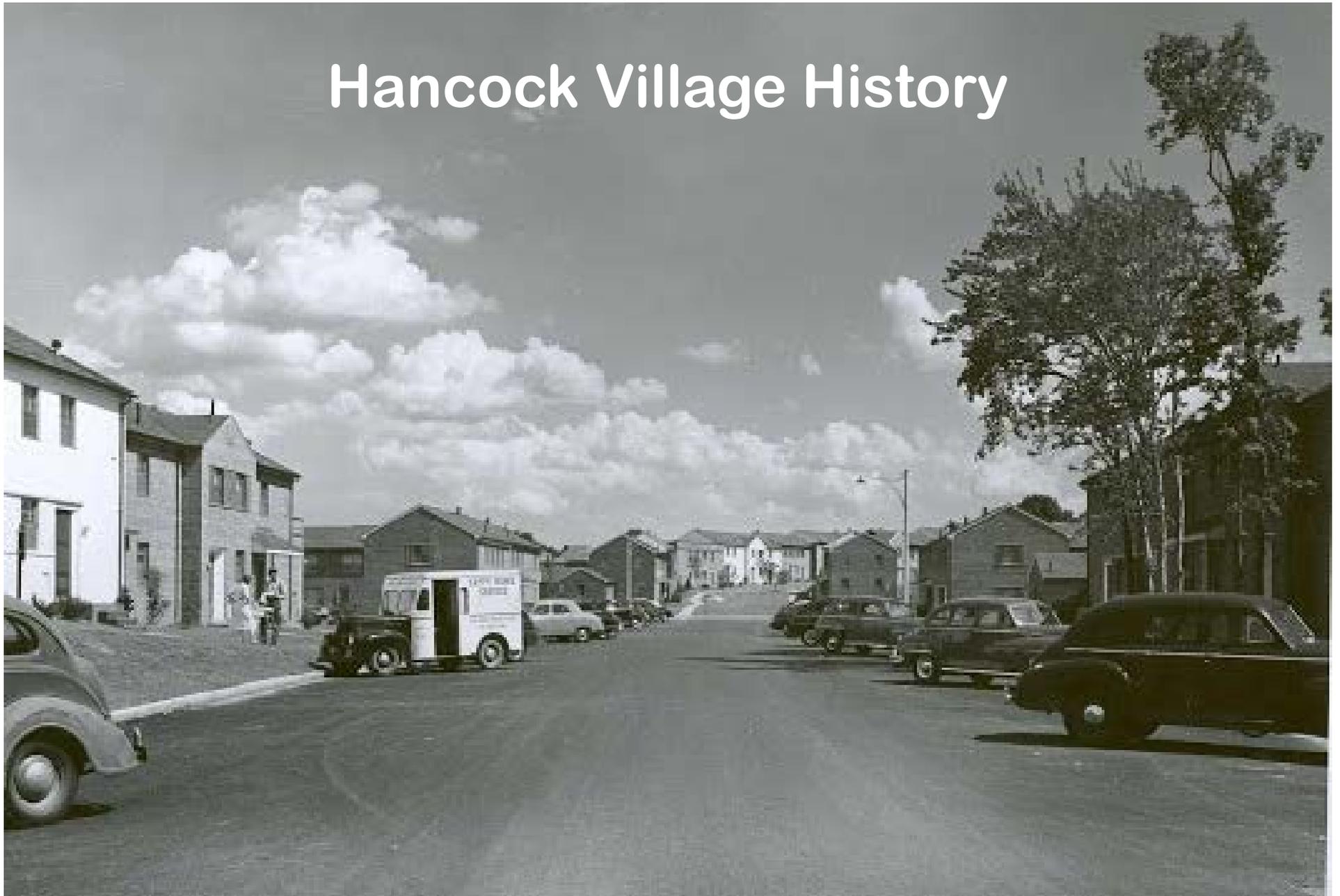


Hancock Village - History



AERIAL VIEW HANCOCK VILLAGE

Hancock Village History



Residences of South Brookline

ROCK REMOVAL FACTS

- The blasting industry is heavily regulated by a number of state and federal agencies as well as local regulations in many cities and towns, like Brookline.
- Before a controlled blast can happen, a pre-blast survey of any property within 250 feet of the subject property line is required by state law; we will go beyond that requirement.
- The upper limits for noise and vibration are set by law and are conservative and below the threshold of where damage is known to occur.
- A seismograph at the property line is used to measure vibration. Seismographs are set up next to the closest structure to the site.
- The contractor and fire department are required to keep detailed records of each blast. These records contain the size, time, and the location of each controlled blast, the amount of explosives used, and the results of the seismograph monitoring.
- The contractor usually does 1-3 controlled blasts per day and they last for approximately 30 seconds or so each.
- The Brookline Fire Department will have a detail on site during the blasting.
- The contractor is ready and willing to answer questions or address any additional concerns.

Comparison of 40B Projects

| 40 B Multi Family Projects | # of Units | Acreage | Units/Acre | City/Town |
|-----------------------------------|-------------------|----------------|-------------------|------------------|
| Charles River Landing | 350 | 7.9 | 44.3 | Needham |
| Avalon at Newton Highlands | 294 | 7.8 | 37.7 | Newton |
| Avalon at Chestnut Hill | 204 | 4.6 | 44.3 | Newton |
| Concord Mews | 350 | 30.0 | 11.7 | Concord |
| Arborpoint at Woodland Station | 180 | 8.8 | 20.5 | Newton |
| Watertown Mews | 206 | 6.5 | 31.7 | Watertown |
| Avalon at Hingham Shipyard | 235 | 9.9 | 23.7 | Hingham |
| Avalon 250 | 285 | 9.5 | 30.0 | Dedham |
| Jefferson at Dedham Station | 301 | 11.0 | 27.4 | Dedham |
| Avalon Natick | 407 | 6.5 | 62.6 | Natick |
| Reading Commons | 204 | 13.0 | 15.7 | Reading |
| Average of Above | 274 | 10.5 | 31.8 | |
| Residences of South Brookline | 184 | 8.6 | 21.4 | Brookline |

Current Plan 5 Story Building



Option A
6 Stories Stepping Down to 3 Stories
No Change in the S-7



Option B
5 Stories Stepping Down to 3 Stories
12 Units moved back to S-7



Option C

**4 Story Building with 12 Units moved back to S-7;
2 Bedrooms replace lofts in 22 infill units**



Current Plan

5 Story Building



Option A
6 Stories Stepping Down to 3 Stories
No Change in the S-7



Option B
5 Stories Stepping Down to 3 Stories
12 Units moved back to S-7



Option C

**4 Story Building with 12 Units moved back to S-7;
2 Bedrooms replace lofts in 22 infill units**



Current Plan 5 Story Building



Option A
6 Stories Stepping Down to 3 Stories
No Change in the S-7



Option B
Five Stories Stepping Down to 3 Stories
12 Units moved back to S-7



Option C

**4 Story Building with 12 Units moved back to S-7;
2 Bedrooms replace lofts in 22 infill units**



Current Plan

5 Story Building



Option A
6 Stories Stepping Down to 3 Stories
No Change in the S-7



Option B
5 Stories Stepping Down to 3 Stories
12 Units moved back to S-7



Option C

**4 Story Building with 12 Units moved back to S-7; 2
Bedrooms replace lofts in infill 22 units**



Current Plan

5 Stories



Option A
6 Stories Stepping Down to 3 Stories
No Change in the S-7



Option B
5 Stories Stepping Down to 3 Stories
12 Units moved back to S-7



Option C

**4 Story Building with 12 Units moved back to S-7;
Replace lofts in the infill units with 4BR units**

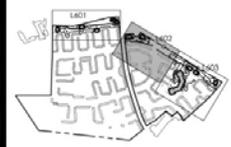


Current Plan and Option A



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| VARIOUS EDITS | 001 | 08/22/14 |
| VARIOUS EDITS | 002 | 07/21/14 |
| VARIOUS EDITS | 003 | 07/21/14 |
| VARIOUS EDITS | 004 | 06/23/14 |
| VARIOUS EDITS | 005 | 04/08/13 |
| COMPREHENSIVE PERMIT APPLICATION | 006 | 11/28/12 |
| Revised | 007 | 04/08/11 |

Permit Seal

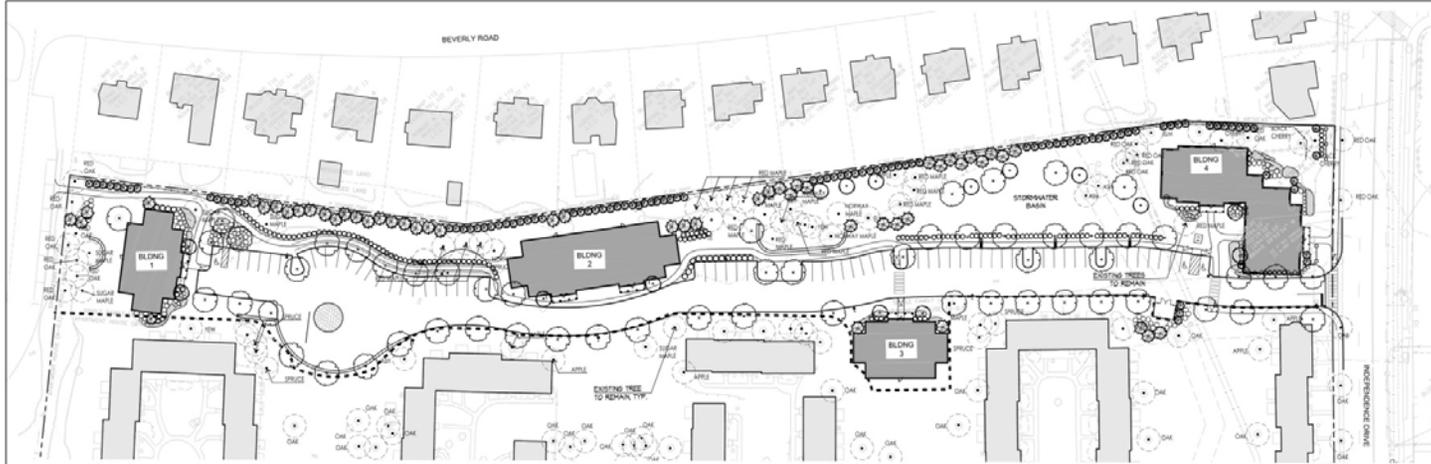
Client/Project
CHESTNUT HILL REALTY
THE RESIDENCES AT
SOUTH BROOKLINE
BROOKLINE, MA

Title
LANDSCAPE AND BUFFER
PLAN NORTHEAST

Project No. 210810271 Scale AS NOTED

Drawing No. L602

Options B and C



PLANTING NOTES

- EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM A SURVEY PREPARED BY REED LAND SURVEYING OF LANDSCAPE MANAGEMENT, DATED JUNE 8, 2008.
- THE LOCATIONS OF INTERFERING UTILITIES SHOWN ARE BASED ON THE SURVEY REFERENCED ABOVE. THE CONTRACTOR SHALL CONTACT DISSEAT AND THE PROPER LOCAL AUTHORITIES ON RESPECTIVE UTILITIES TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE DUE TO FAILURE OF THE CONTRACTOR TO CONTACT THE PROPER AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND WILL CONTINUE INTO FINAL WRITTEN ACCEPTANCE OF PLANT MATERIALS.
- CONTRACTOR SHALL VERIFY ALL TREE REMOVALS WITH OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES AND PLANTING BEDS.
- MAXIMUM SLOPE WITHIN DISTURBED AREAS SHALL NOT EXCEED 3:1 UNLESS OTHERWISE NOTED.
- THE LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTING SHOWN ON THIS DRAWING.
- ALL MATERIALS SHALL CONFORM TO THE SPECIFICATIONS ESTABLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
- ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS TO ORIGINAL GRADES BEFORE DIGGING.
- ALL PLANTS TO BE BALLED IN BURLAP OR CONTAINERIZED.
- MULCH FOR PLANTED AREAS TO BE APPLIED PER STANDARD, PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF HOODS, STIPS, THICKER THAN 1/4" HIGH.
- PLANTING SOIL SHALL BE LOAM THOROUGHLY INCORPORATED WITH ROTTED HAIRY HUMUS (PROPORTIONED 5 CY TO 1 CY OF SOIL) OR EQUIVALENT. FERTILIZER APPLIED PER RECOMMENDED RATES OF SOIL ANALYSIS.
- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF ACCEPTANCE.
- ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE, AT THE NURSERY AND AT THE SITE.
- ALL AREAS OF THE SITE WHICH HAVE BEEN DISTURBED AND NOT OTHERWISE DEVELOPED SHALL BE LOESSED AND RESEED WITH A MINIMUM DEPTH OF 6" DEPTH TOPSOIL.
- PLANT SPECIES AS INDICATED IN THE PLANT LIST ARE SUBSTITUTION ONLY. FINAL SELECTION OF SPECIES SHALL OCCUR AT THE TIME OF PLANT PURCHASE CORRODING ON AVAILABILITY. PLANT SIZE AND QUANTITY SHALL NOT CHANGE WITHOUT APPROVAL OF OWNER'S REPRESENTATIVE.

PLANTING LEGEND



PLANT SCHEDULE

| SYMBOL | BOTANICAL NAME | COMMON NAME | QTY | SIZE |
|-------------------------|---------------------------------|-------------------------------|-----|------------------|
| DECIDUOUS TREES | | | | |
| AR | ARJIS RUBRUM RED SWEET | RED SWEET MARBLE | 36 | 3-3 1/2" CAL. |
| LI | LIRIODENDRON TULIPIFERA | TULIP POPLAR | 26 | 3-3 1/2" CAL. |
| OP | QUERCUS SPICATA | RED OAK | 33 | 3-3 1/2" CAL. |
| PC | FRAXINUS C. CLEVELAND SELECT | CLEVELAND FLEMING PEAR | 33 | 3-3 1/2" CAL. |
| EVERGREEN TREES | | | | |
| TA | TAXUS AMER. | AMERICAN SPRUCE | 53 | 8"-10" PRINCIPAL |
| PS | PRUNUS STROBUS VASCULATA | WHITE PINE | 67 | 8"-10" PRINCIPAL |
| SP | SPINUS OCCIDENTALIS NIGRA | BLACK AMERICAN ARBORVITAE | 105 | 8"-10" PRINCIPAL |
| ORNAMENTAL TREES | | | | |
| BN | BETULA NANA HERITAGE | HERITAGE BIRCH WILLOW | 15 | 10"-12" WELLY |
| OK | OSYRIS KOSA | KOSA DOGWOOD | 20 | 7" CAL. |
| PO | PRUNUS CHAMA | CHAMA CHERRY | 20 | 7" CAL. |
| MI | MUNICIA LYONARD MISELLI | LYONARD MISELLI WAXONIA | 13 | 6-7" HT. |
| SHRUBS | | | | |
| AZ | AZALEA YARLEN | YARLEN AZALEA | 24 | 3-2 1/2" HT. |
| ES | ERUBA GREEN VELVET | GREEN VELVET BURNING | 50 | 18-24" HT. |
| NO | NOYX GRACEY NANO | NANO TENDER BUTTER | 24 | 1" CAL. |
| ST | STENOBIUS SPICATUS LADY STANLEY | LADY STANLEY ROSE OF SHARON | 18 | 4-4 1/2" HT. |
| IL | ILICORONIA ENDLESS SUMMER | ENDLESS SUMMER HYDRANGEA | 47 | 3-2 1/2" HT. |
| EL | ELIX GARDEN THUNDERBOLT | THUNDERBOLT HYDRANGEA | 50 | 2-2 1/2" HT. |
| W | WIKONIA MEXICANA BLUE PRINCESS | BLUE PRINCESS HOLLY | 24 | 4-5" PRINCIPAL |
| LI | LITSEA LITTLE HENRY | LITTLE HENRY PEA | 32 | 3-3 1/2" |
| HC | HOODENSONIA CONCHINGHAM WHITE | CONCHINGHAM WHITE HOODENSONIA | 20 | 2-2 1/2" HT. |
| HW | HOODENSONIA KNOCKOUT | KNOCKOUT ROSE | 28 | 2" CAL. |
| OS | OSYRIS KOSA | KOSA DOGWOOD | 20 | 2 1/2"-3" HT. |
| SP | SPINUS OCCIDENTALIS NIGRA | BLACK AMERICAN ARBORVITAE | 20 | 3" CAL. |
| SP | SPINUS OCCIDENTALIS NIGRA | BLACK AMERICAN ARBORVITAE | 15 | 3 1/2"-5" HT. |
| SI | SILVIA SPINOSA | GREEN HAZE TEA | 40 | 2-2 1/2" HT. |
| IT | IRIS SPINOSA | CONWAY'S REVEREND | 28 | 3-3 1/2" HT. |

STORMWATER BASIN SEED MIX

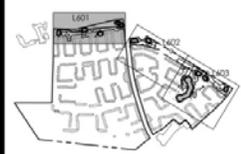
| BOTANICAL NAME | COMMON NAME |
|---|----------------------------|
| SEED MIX SUPPLIED BY NEW ENGLAND WETLAND PLANTS, INC FROM ANDOVER, MA | |
| CAREX ALPINA | LURE SEDGE |
| CAREX LASIOCARPA | BLUNT BROOM SEDGE |
| VERBENA HASTATA | BLUE VERBENA |
| SCIRPUS ATROCAUREUS | GREEN BURBUSH |
| CAREX LYLLONIA | HOP SEDGE |
| BECKMANNIA ERIOCHLOA | WADING BIRD MARSH |
| CAREX CANADICA | BREITLY/CORNING SEDGE |
| CAREX OENOPHORA | FRINGED SEDGE |
| ARCTOPHYLLON | SOFT RICE |
| SCIRPUS CHIROSIUS | WOOD GRASS |
| GLYCYRRHIZA | AMERICAN WHEAT GRASS |
| EUPATORIUM MACULATUM | SPOTTED JOE PEE WEE |
| EUPATORIUM HYPOCYRTUM | BONSET |
| ALBERGIA SUDORICATA | WEE PLANTAIN |
| ASTER SPICATUS | PURPLE STEMED ASTER |
| OLIGONEURUS CANADENSIS | KATHLEEN'S GRASS |
| SCIRPUS VILLOSIUS | SOFT TOSH BULLRUSH |
| ASCLIPYAS INCARNATA | SWAMP MILWADEE |
| MILLETUS BINOENSIS | SQUARE STEMED MONKEY FLONK |

RATE: 18 LBS./Acre



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|----------------------------------|----------|-----|----------|
| VARIOUS EDITS | 05/12/14 | JTW | 08.23.14 |
| VARIOUS EDITS | 04/10/14 | JTW | 07.11.14 |
| VARIOUS EDITS | 03/03/14 | JTW | 07.03.14 |
| VARIOUS EDITS | 02/03/14 | JTW | 06.23.14 |
| VARIOUS EDITS | 01/03/14 | JTW | 04.08.13 |
| COMPREHENSIVE PERMIT APPLICATION | 01/03/14 | JTW | 11.28.13 |
| ISSUED | 01/03/14 | JTW | 08.20.13 |

Client/Project
CHESTNUT HILL REALTY
THE RESIDENCES OF
SOUTH BROOKLINE
BROOKLINE, MA

Title
LANDSCAPE AND BUFFER
PLAN WEST

Project No. 210810271 Scale AS NOTED

Drawing No.

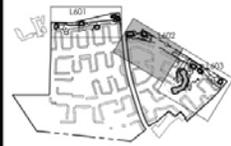
L601

Options B and C



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| Revised | By | Check | Date |
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| VARIOUS EDITS | GS | TK | 08.22.14 |
| VARIOUS EDITS | JK | TK | 07.11.14 |
| VARIOUS EDITS | MS | TK | 07.03.14 |
| VARIOUS EDITS | MS | TK | 06.22.14 |
| VARIOUS EDITS | MS | TK | 04.09.14 |
| COMPREHENSIVE PERMIT APPLICATION | JPM | TK | 11.26.13 |

Client/Project
CHESTNUT HILL REALTY
THE RESIDENCES OF
SOUTH BROOKLINE
BROOKLINE, MA

Title
LANDSCAPE AND BUFFER
PLAN NORTHEAST

Project No. 210810271 Scale AS NOTED

Drawing No. L602

Residences of South Brookline

| | Comp Permit Application | Current Plan | Option A | Option B | Option C |
|--|-------------------------|--------------|----------------------|----------------------|--------------|
| Apartment Building | 4 Story | 5 Story | 6 Story Stepped Down | 5 Story Stepped Down | 4 Story |
| Infill Buildings | 12 Buildings | 9 Buildings | 9 Buildings | 11 Buildings | 11 Buildings |
| Apartment Building Units | | | | | |
| One Bedroom | 56 | 57 | 39 | 41 | 60 |
| Two Bedroom | 60 | 83 | 101 | 85 | 56 |
| Total Units in Apartment Building | 116 | 140 | 140 | 126 | 116 |
| In-fill Building Units | | | | | |
| One Bedroom | 10 | 4 | 4 | 4 | 4 |
| One Bedroom Plus Loft | 0 | 4 | 4 | 4 | 0 |
| Total One Bedroom Units | 10 | 8 | 8 | 8 | 4 |
| Two Bedroom | 10 | 1 | 1 | 5 | 5 |
| Two Bedroom Plus Loft | 0 | 17 | 17 | 23 | 0 |
| Total Two Bedroom Units | 10 | 18 | 18 | 28 | 5 |
| Three Bedroom | 28 | 17 | 17 | 19 | 22 |
| Three Bedroom Plus Loft | 0 | 1 | 1 | 1 | 0 |
| Total Three Bedroom Units | 28 | 18 | 18 | 20 | 22 |
| Total Four Bedroom Units | 28 | 0 | 0 | 0 | 25 |
| Total Units in In-fill Buildings | 76 | 44 | 44 | 56 | 56 |
| Total # Units | 192 | 184 | 184 | 182 | 172 |
| Units per Acre | 22.33 | 21.40 | 21.40 | 21.16 | 20.00 |

Residences of South Brookline Site Plan

