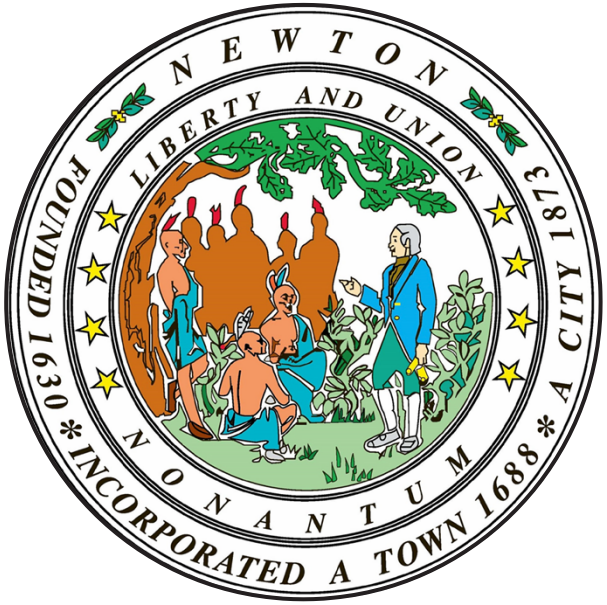


NewCAL

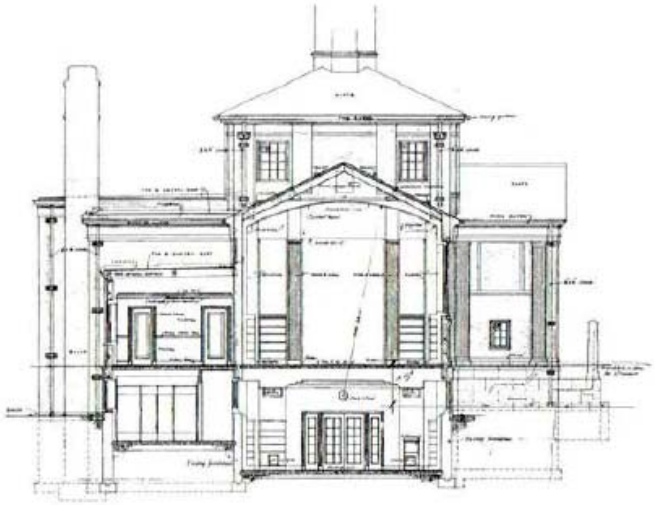
Feasibility Study Update
Presentation to the
Newton Design Review Committee

December 16, 2020

Existing Conditions

The small appendages at the rear of the building will be removed leaving the symmetrical front wing along Walnut Street

Existing Conditions

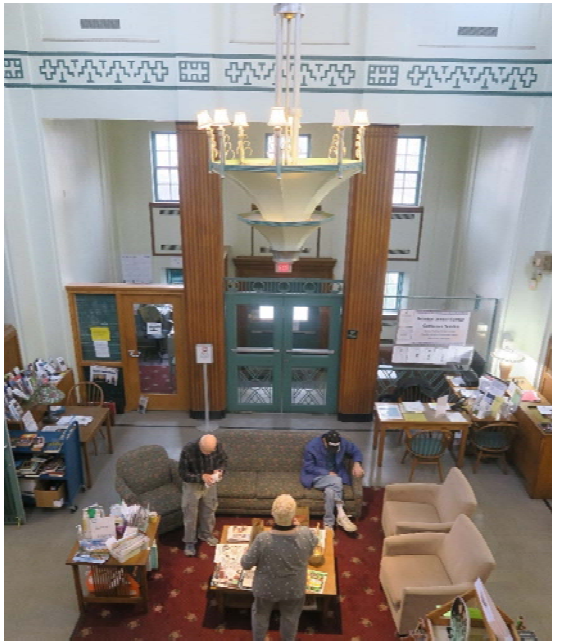


The original cross section drawing of the Library showing the raised main floor level 5 feet above outside grade.

The outside stairs take you up three feet to a landing

Inside stairs take you up the final two feet to the main floor level

One or both of the basement level wings would retain their windows in the proposed concepts that do not cover the front façade of the existing building. This could be secondary use space assuming the elevator is brought to that level.



Existing Conditions Assessment and Findings

Existing Conditions Studies Performed to Date

- Hazardous materials survey
- Structural assessment
- Geotechnical assessment
- Land survey
- Traffic and parking assessment

Hazardous Materials

- Presence of lead paint and asbestos detected
- Abatement cost estimate is $250,000
- Abatement required with both demolition and renovation

Structural

- No existing steel reinforcing in mass masonry walls
- Install seismic through-wall anchors at roof level only
- Replacement of steel masonry lintels that are rusted
- Removal of existing slate roof and gypsum plank roof system due to lack of support from gypsum plank; replace with metal deck, new roof will be required
- Installing a new seismic system at least near center, all to replace portion removed
- Carrying a $200k allowance for seismic retrofit work (before markups and burdens)
- Carrying an allowance for general structural repairs
- New elevator hoistway depth must be considered relative to existing footings due to undermining or pressure on foundation wall

Mechanical, Electrical, Plumbing and Fire Protection

- Total replacement of all systems will be required, therefore a detailed study of existing equipment is not of value
- Building and energy codes have changed and new requirements make reuse of existing system impractical

Existing Conditions Assessment and Findings

Geotechnical & Foundation Notes

- The site consists of 3 to 8 feet of fill on top of sandy and gravelly soil; excavate and replace this fill with compacted structural fill
- Slope of excavation 1:1 or sheet piling required at edges (shoring)
- Concrete Slabs may be designed as grade supported slabs but cracking may occur
- Recommend removing fill at slabs as well
- Groundwater not encountered or expected
- New footings must bear on structural fill. Some existing fill is likely suitable for reuse
- It is anticipated that conventional footings can be used for new construction

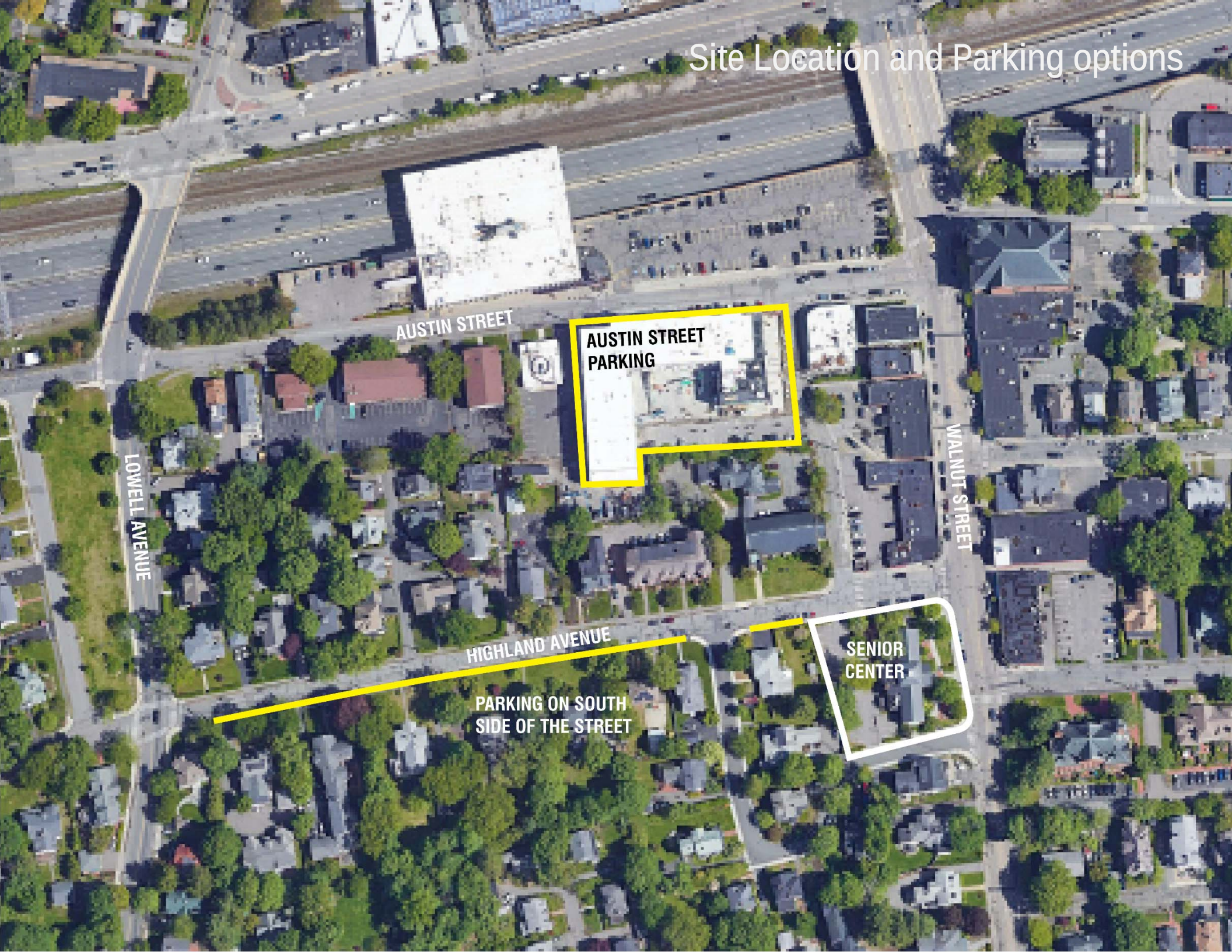
Land Survey

- A dimensional survey of the property has been completed

Traffic and Parking Notes

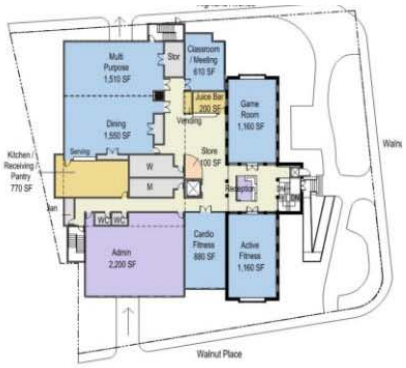
- Parking for 70 cars is recommended for typical day-to-day activities
- Parking for 97 cars is recommended for peak demand during large events
- Trip generation rates for senior centers relatively low, compared to other land users
- Larger amount of traffic for special events but these have minor impact, due to non-peak hours
- Trips are mostly outside of peak commuter hours
- Single point access/egress and one-way circulation to minimize internal conflict
- Slight distances assessed viewed as adequate for the speeds of Highland Avenue
- Expansion not anticipated to impact safety along roadway network
- Turning sightlines at Walnut Street and Highland Avenue are adequate for a parking entrance/exit on Highland Avenue, while close to the street corner, turning speeds are generally slower

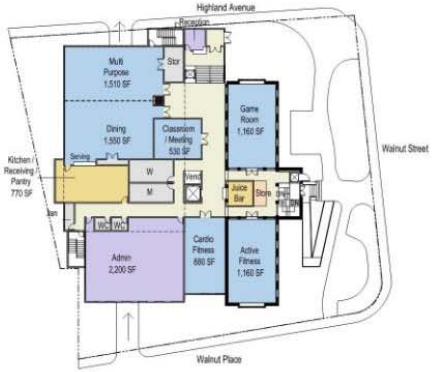
Site Location and Parking options

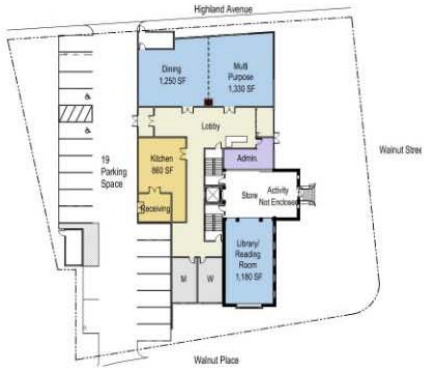


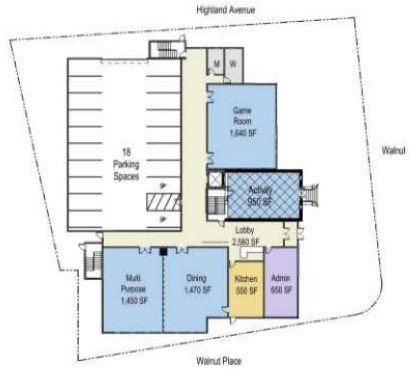
Options Considered

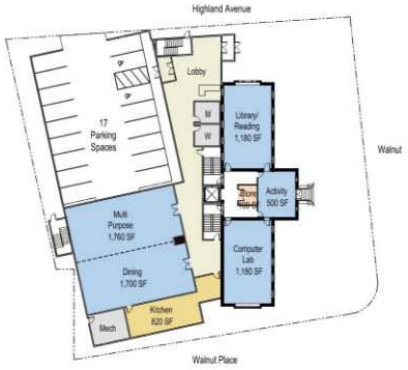
Renovate and Add to the Existing Senior Center Building

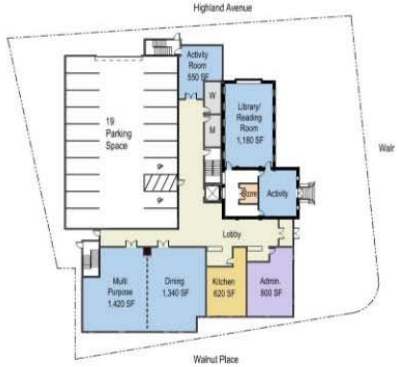




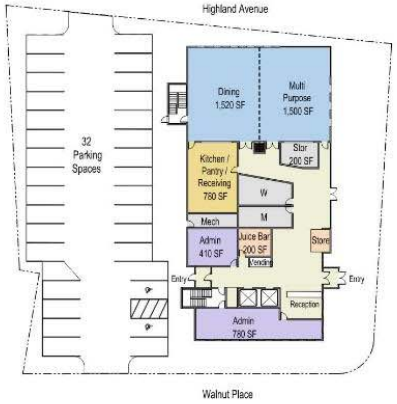


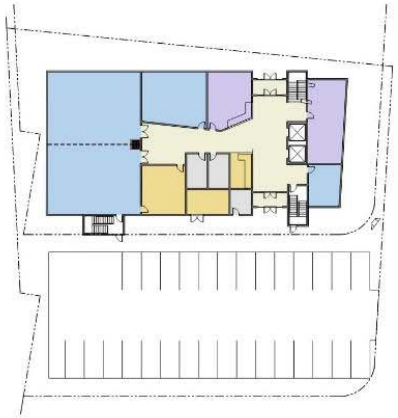


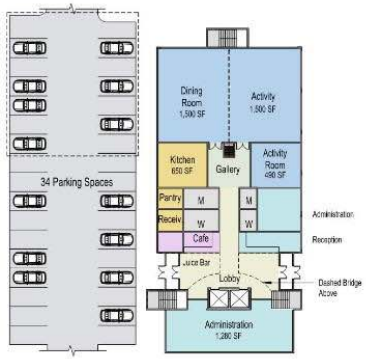


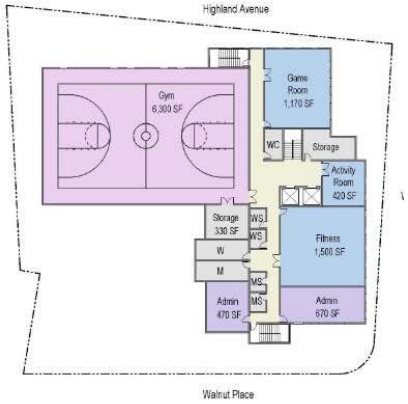


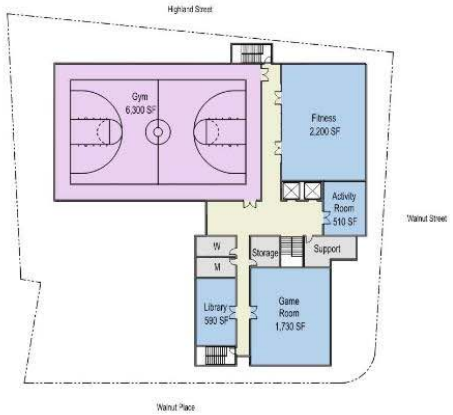
Build a New Building

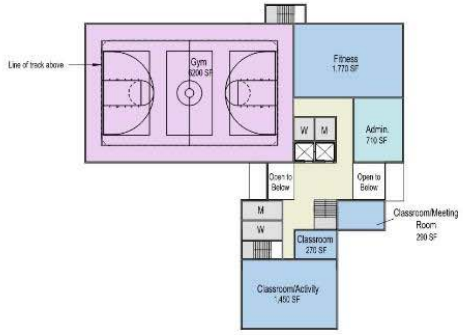


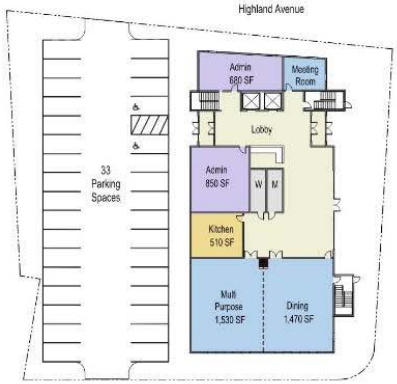






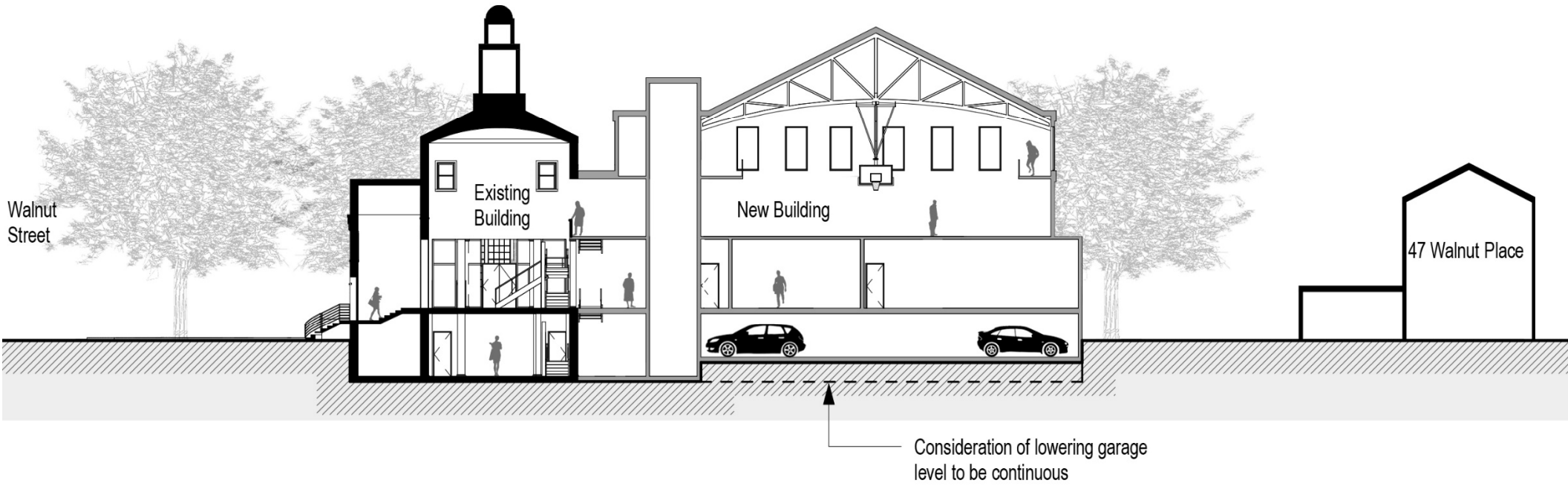




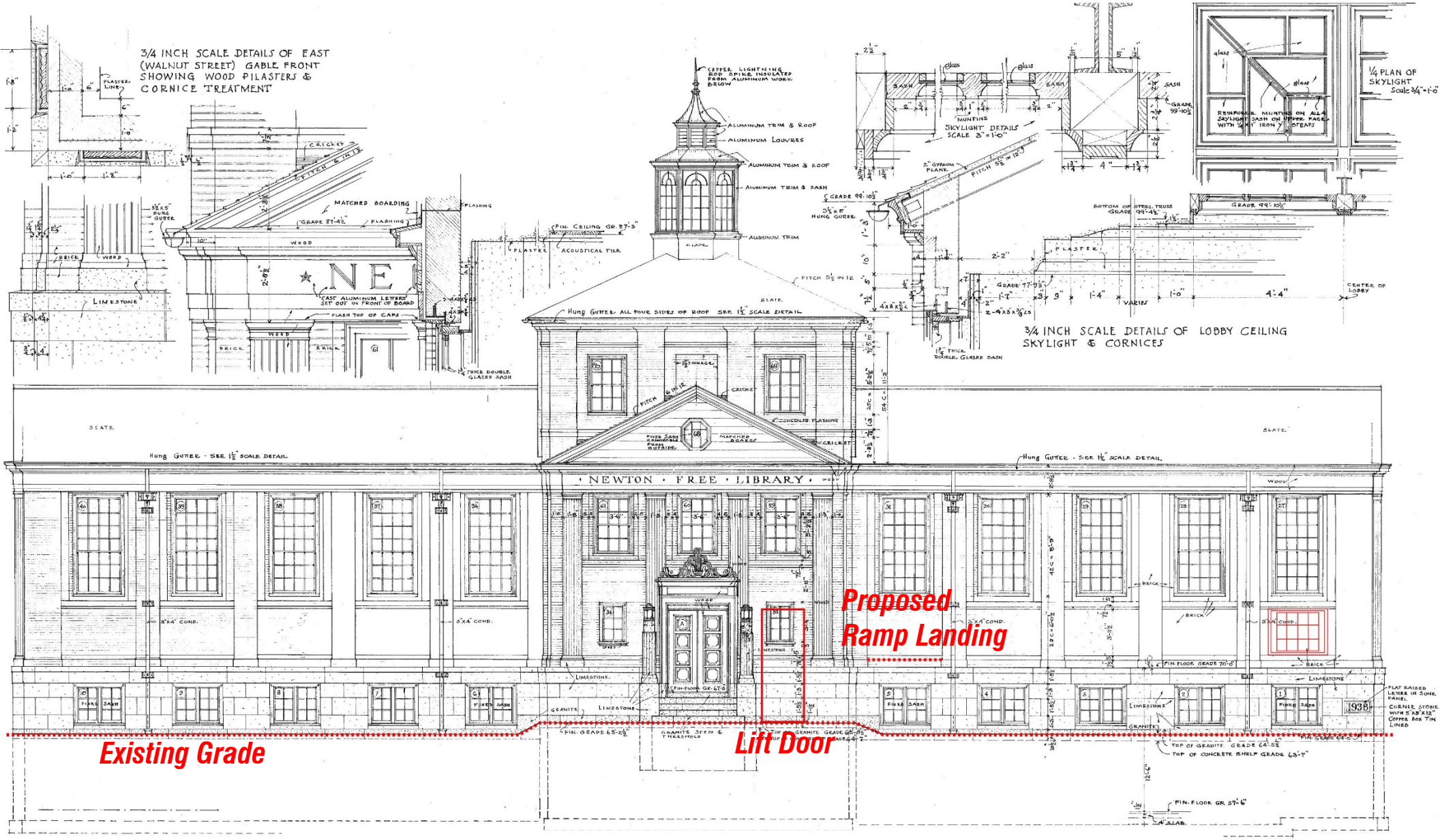


The Adaptive Reuse Alternative

Newtonville Retain Existing Building



This section shows the existing building with its main floor 6 feet above entry grade. When the new addition is constructed with its first floor contiguous with that of the library a more rational circulation system and program layout results. However, the raised entry creates an obstacle to accessible entry that needs to be overcome.



FRONT ELEVATION (EAST)
SCALE 1/4"=1'0"

SUPERSTRUCTURE
PROPOSED LIBRARY
WALNUT ST & HIGHLAND AVE.
NEWTONVILLE, MASS.
P.W.A. PROJECT: MASS 1547-F
ROBB & LITTLE, ARCHITECTS
250 STUART ST. BOSTON, MASS
DRAWN BY C.G.G. DEC. 27, 1938

NewCAL Newtonville Option F Reuse Existing Building with Addition Basement

33,612sf Includes Existing
30,612sf Without Including Existing Basement

N

Scale: 1" = 60'

0 30 60

Bargmann Hendrie + Archetype 9 Channel Center Street Boston, MA 02210 Tel: (617) 350-0450 12/04/20

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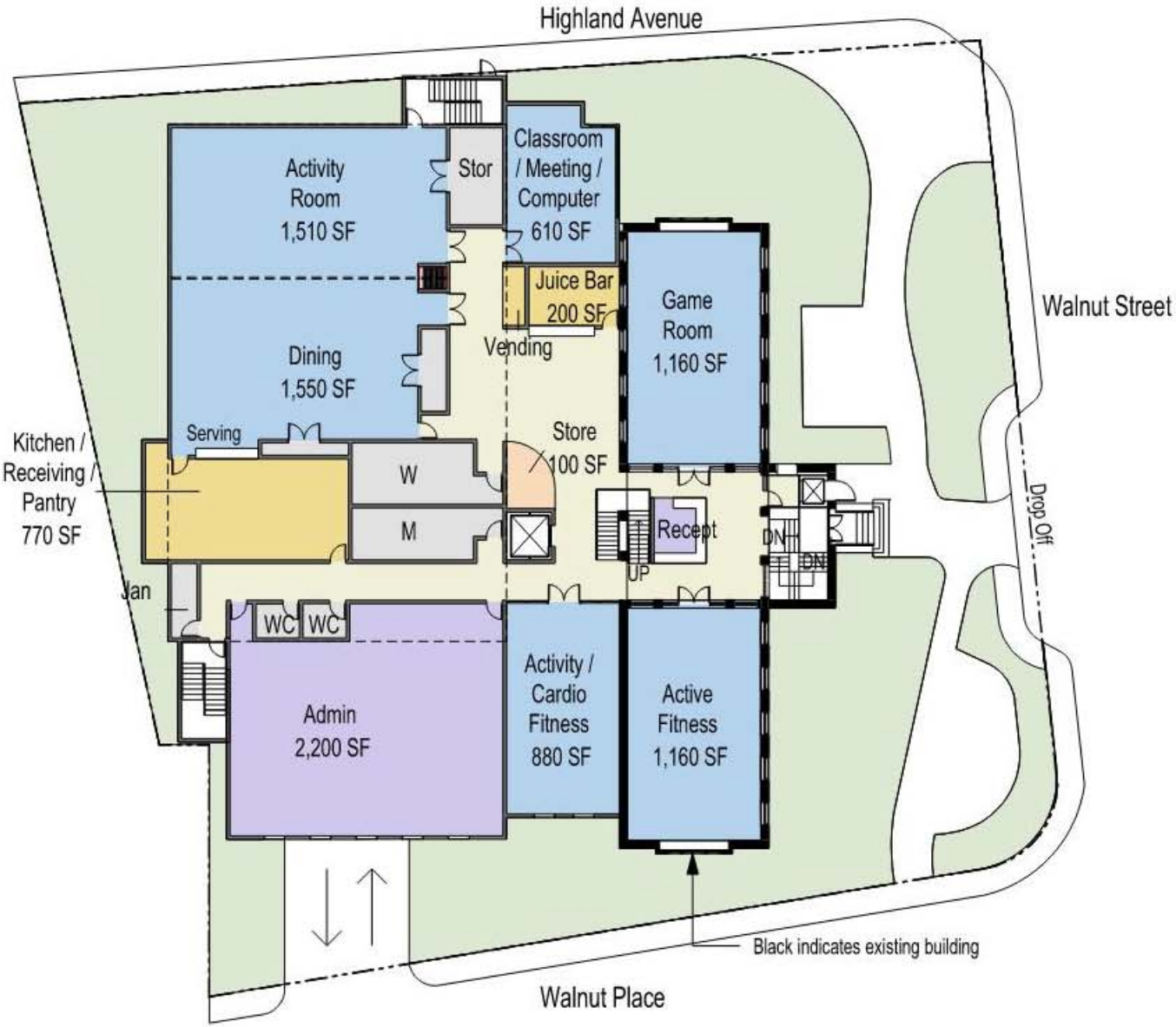

NewCAL Newtonville Option F Reuse Existing Building with Addition

First Floor Plan

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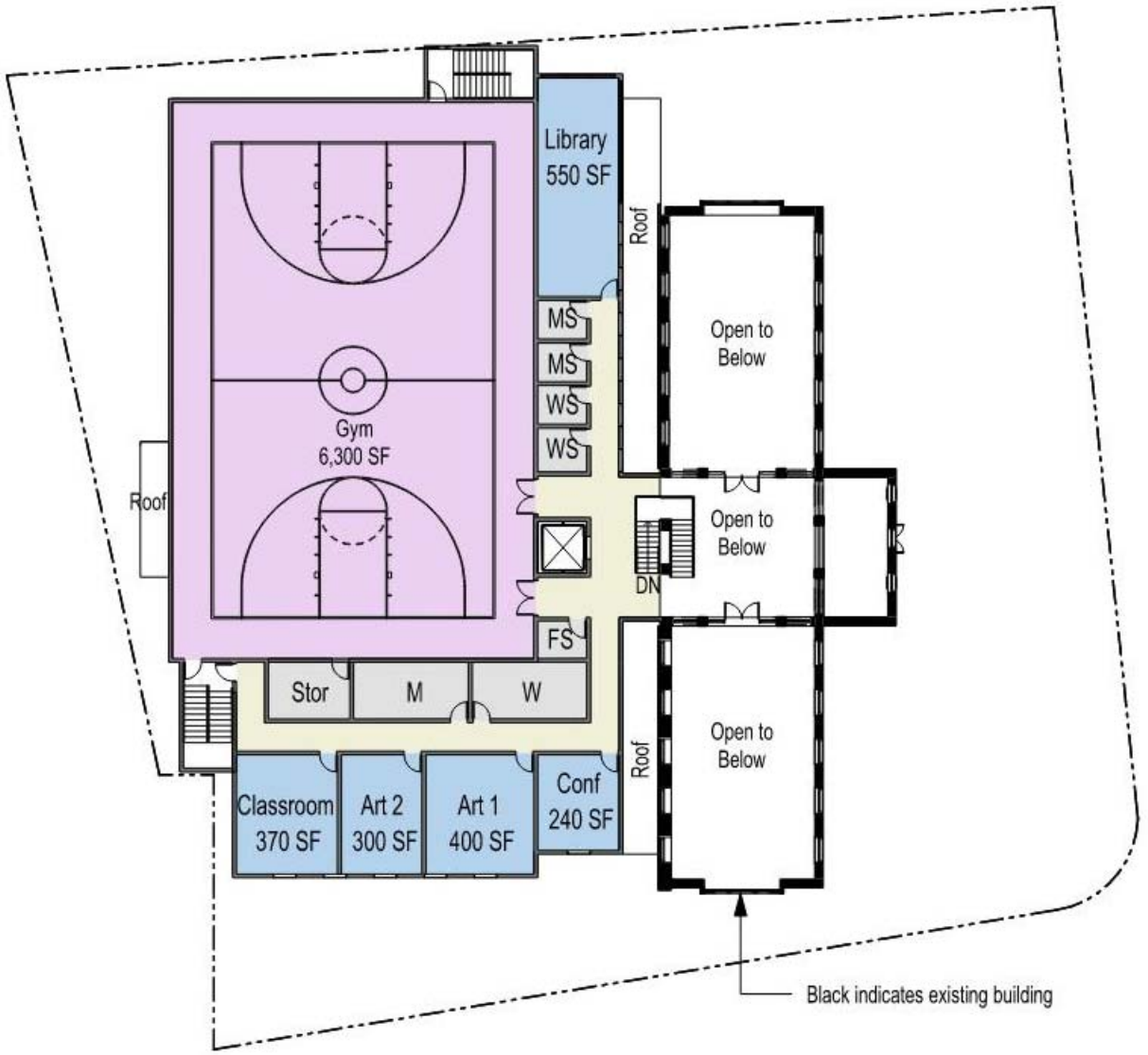
Entry vestibule with lift, no ramp.



NewCAL Newtonville Option F Reuse Existing Building with Addition

Second Floor Plan

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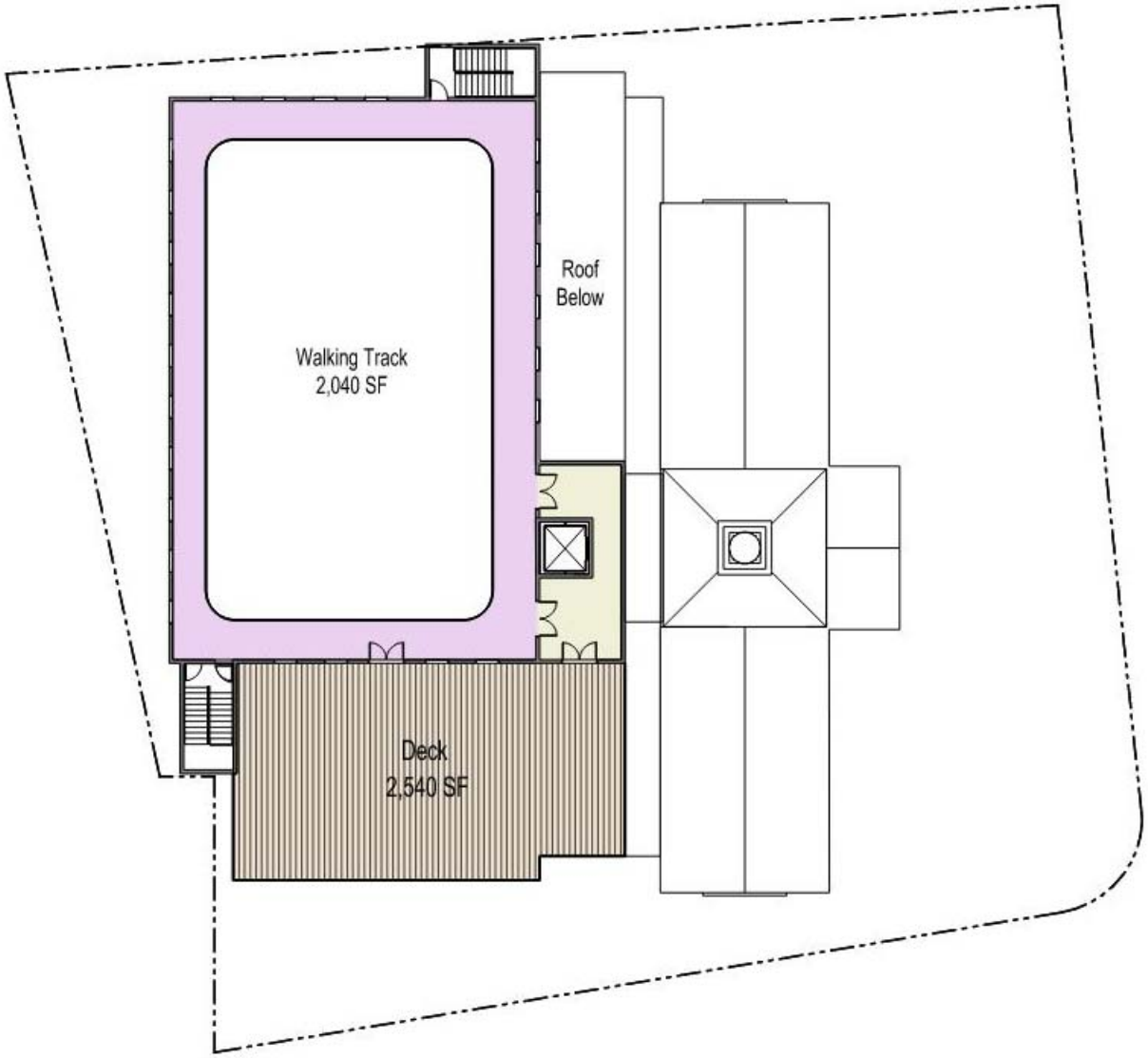

NewCAL Newtonville Option F Reuse Existing Building with Addition

Third Floor Plan

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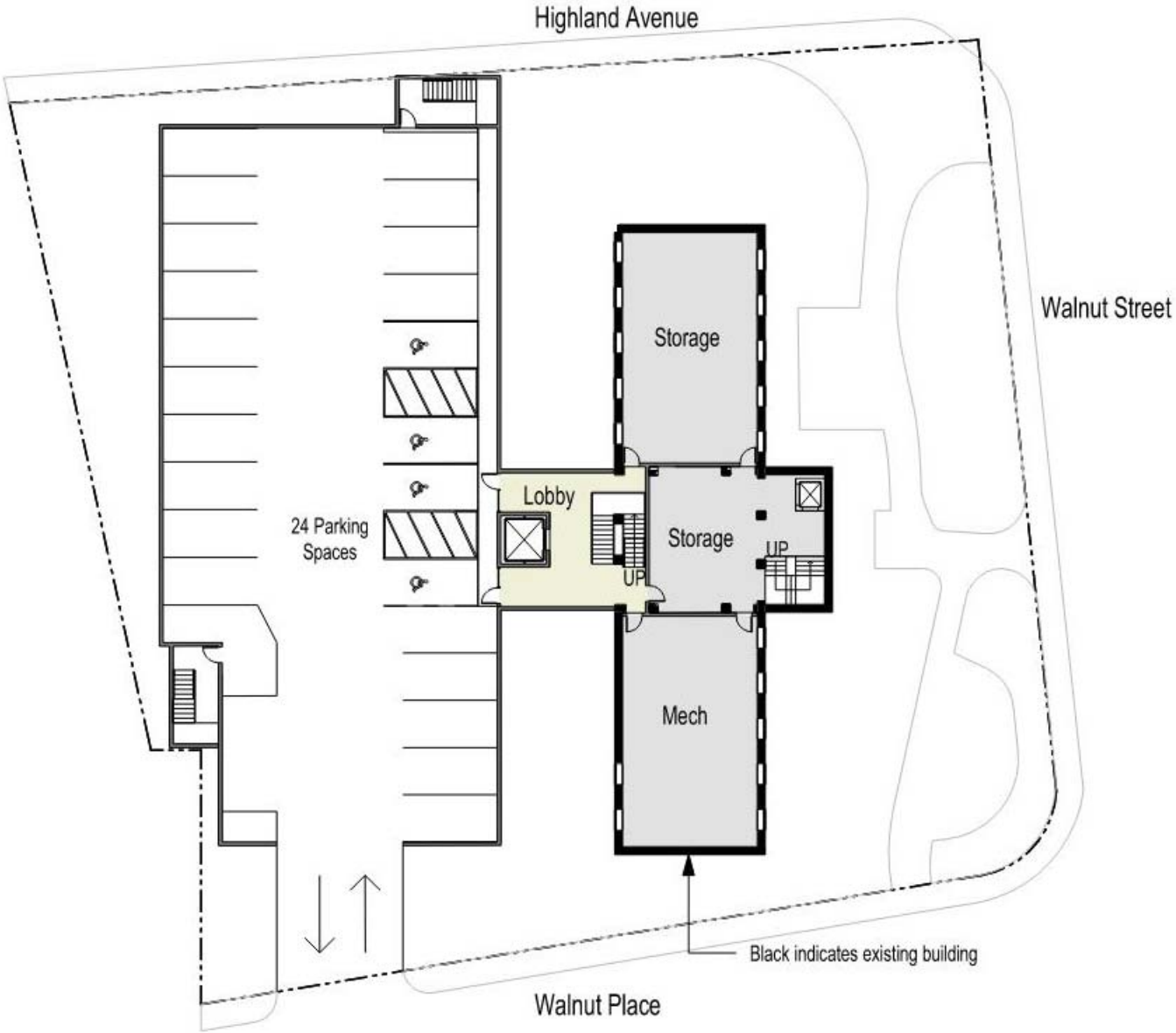

NewCAL Newtonville Option F Reuse Existing Building with Addition

Basement Plan

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NewCAL Newtonville Option F Existing Level Entry

Aerial View from Northeast

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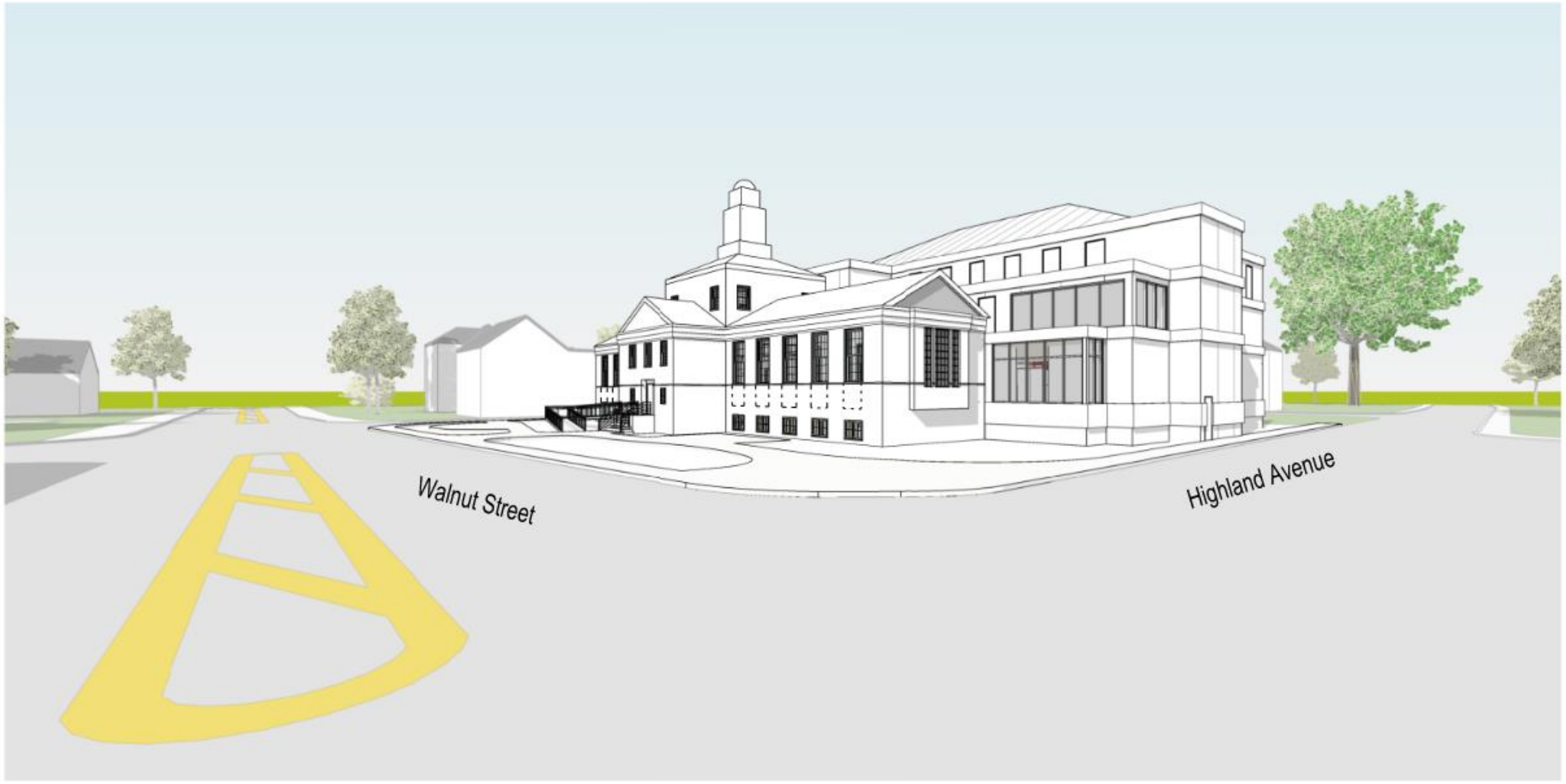

NewCAL Newtonville Option F Existing Level Entry

Street View from Northeast

Bargmann Hendrie + Archetype 9 Channel Center Street Boston, MA 02210 Tel: (617) 350-0450 12/02/20

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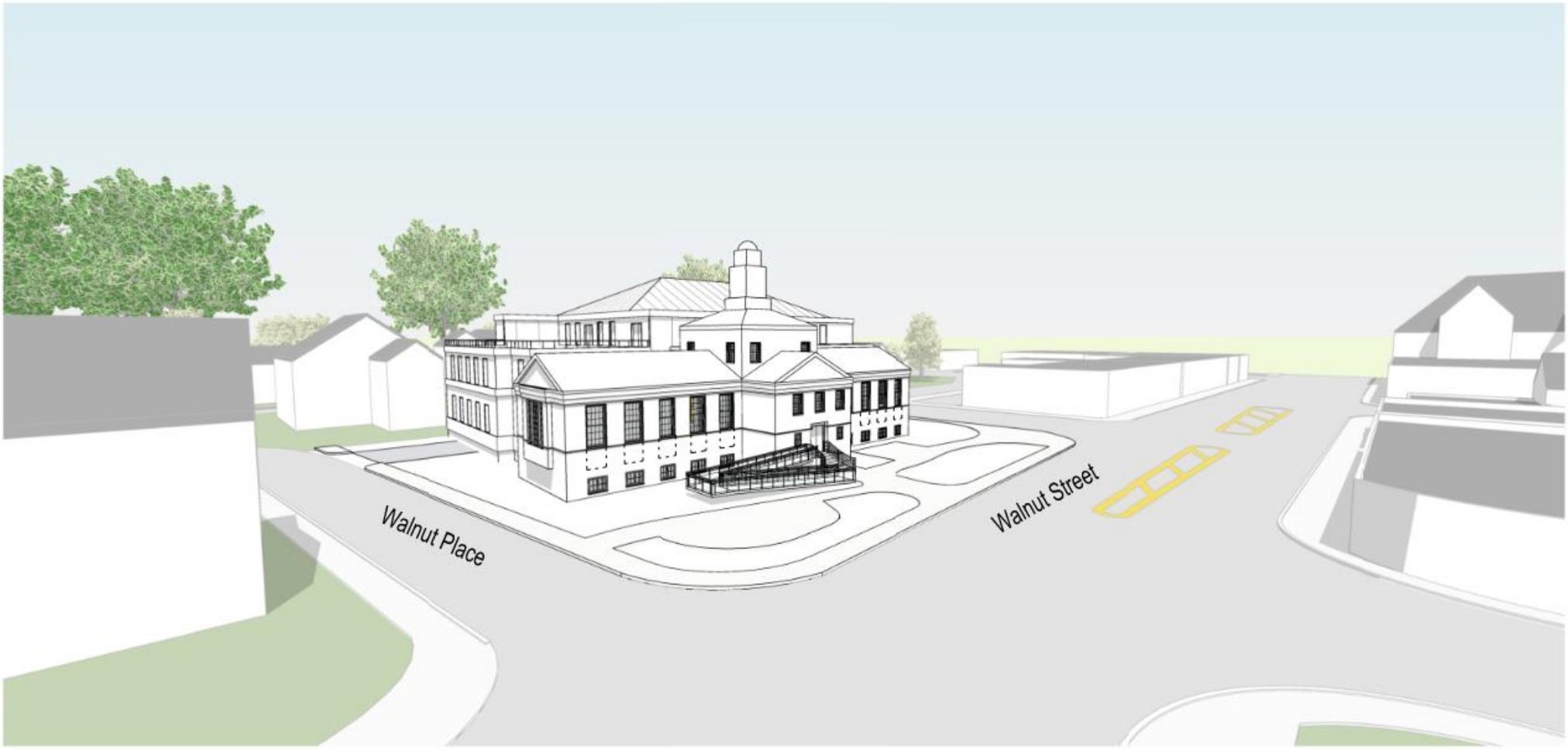

NewCAL Newtonville Option F Existing Level Entry

Street View from Southeast

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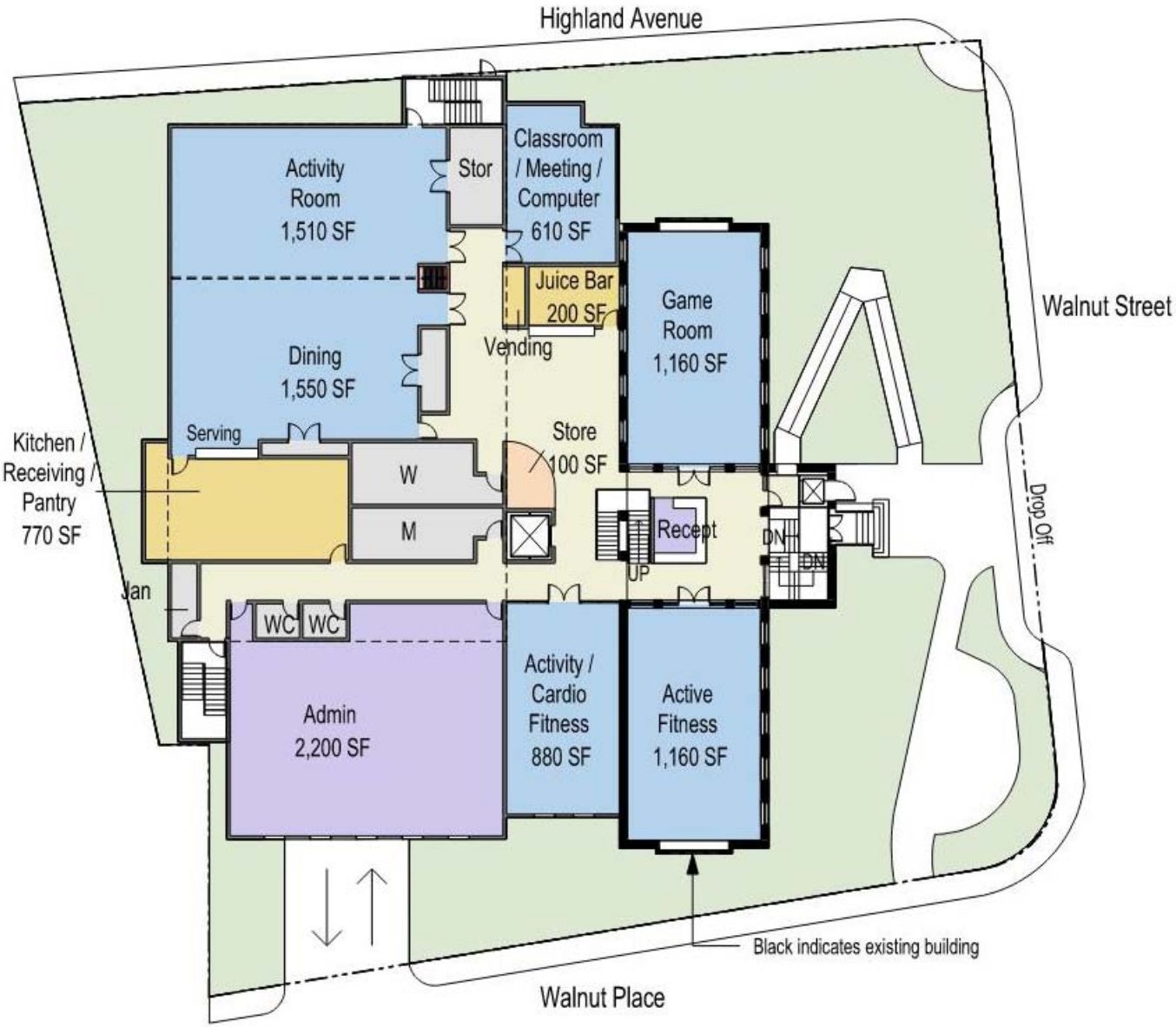
Needham Public Library



NewCAL Newtonville Option F Reuse Existing Building with Addition

First Floor Plan

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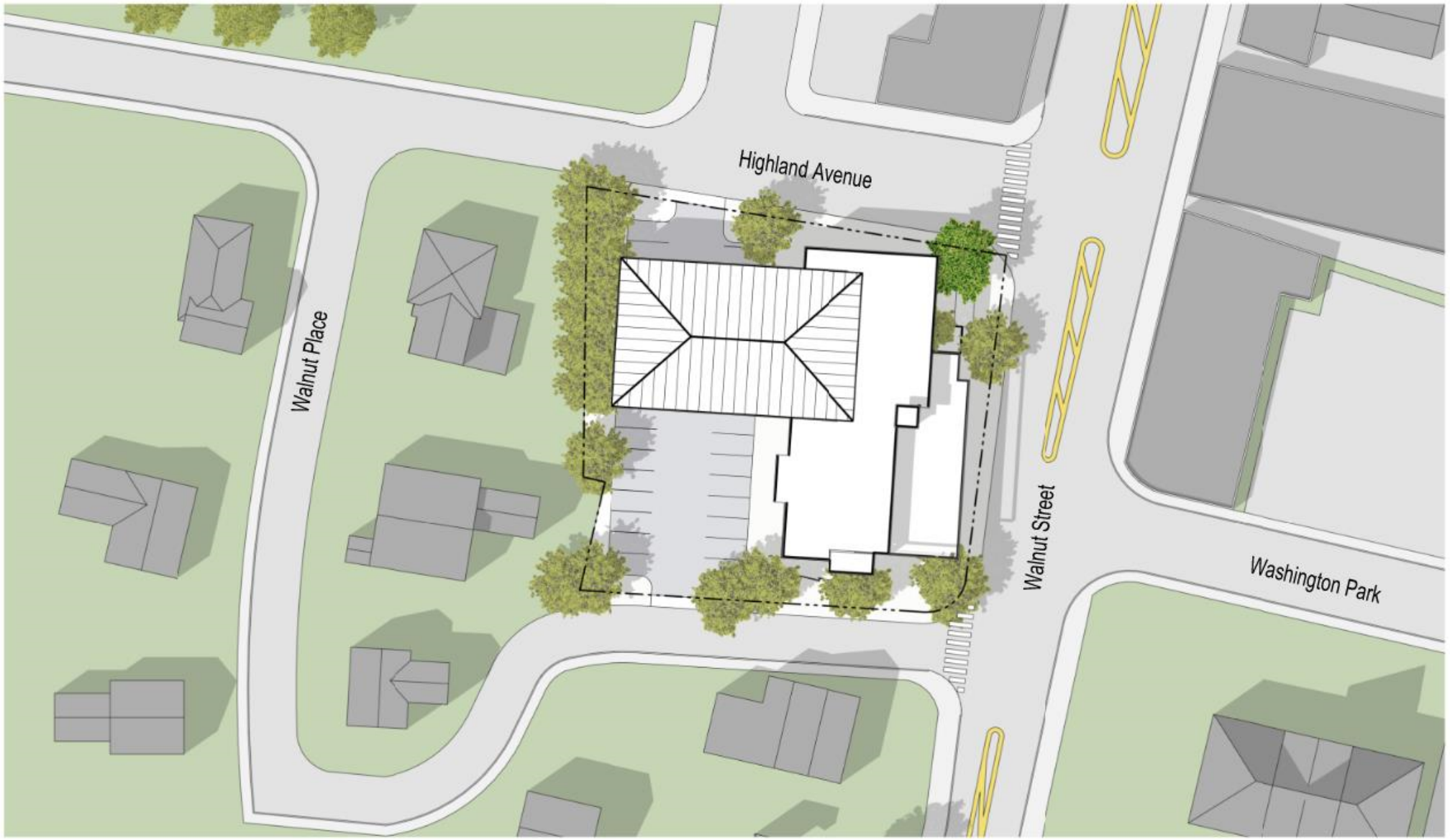
Lift with exterior door and ramp to first floor level.

The New Building Alternative



NewCAL Newtonville Option E1 New Building L Shape (3 Story) 32,471sf

Site Plan

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N

Scale: 1" = 60'

0 30 60

NewCAL Newtonville Option E1 New Building L Shape (3 Story)

First Floor Plan

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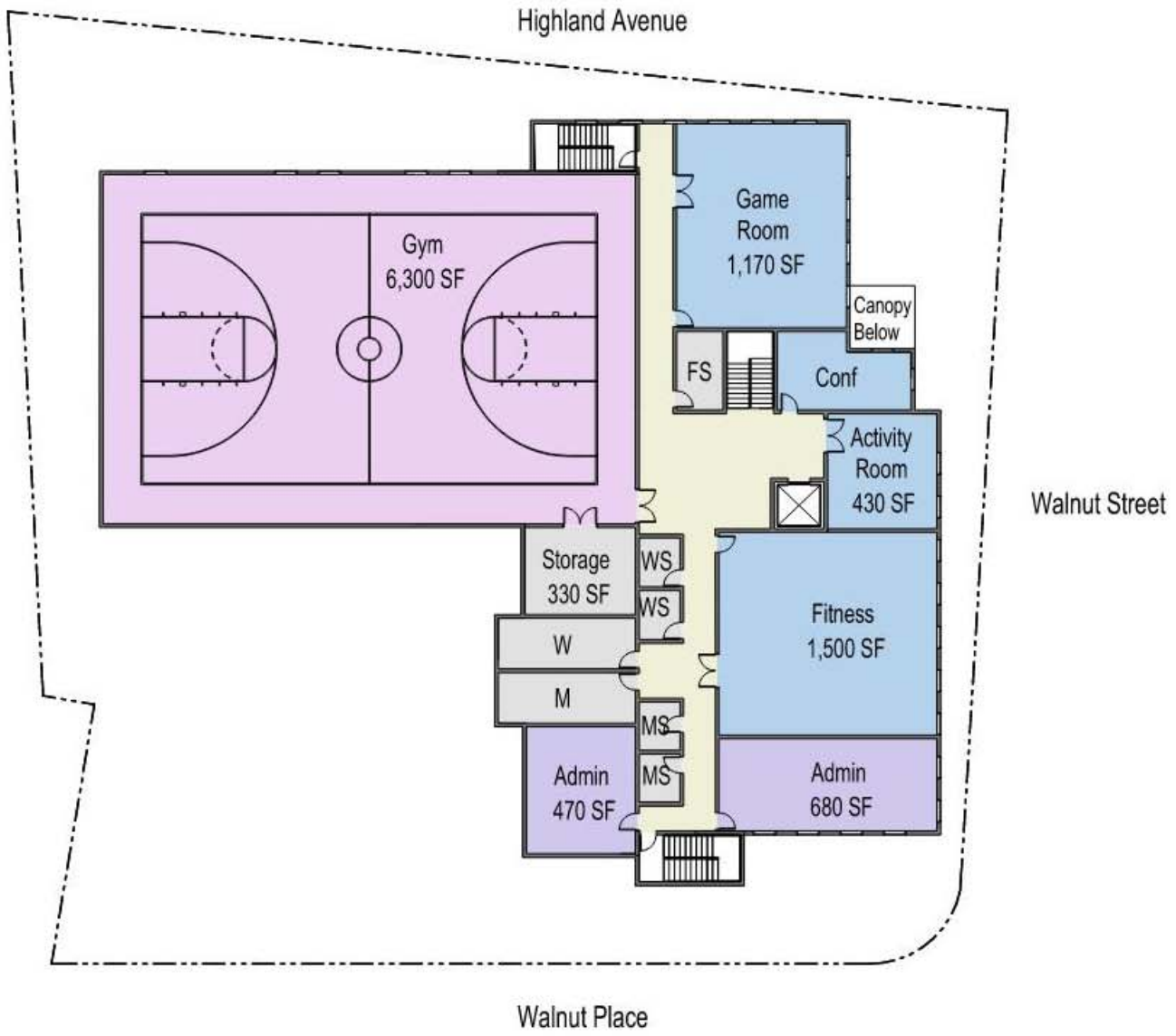
N

Scale: 1/32" = 1'-0"



NewCAL Newtonville Option E1 New Building L Shape (3 Story)

Second Floor Plan

Bargmann Hendrie + Archetype 9 Channel Center Street Boston, MA 02210 Tel: (617) 350-0450 11/13/2020

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N

Scale: 1/32" = 1'-0"

NewCAL Newtonville Option E1 New Building L Shape (3 Story)

Third Floor Plan

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N

Scale: 1/32" = 1'-0"

NewCAL Newtonville Option E1 New Building L Shape (3 Story)

Aerial View from Northeast

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NewCAL Newtonville Option E1 New Building L Shape (3 Story)

Street View from Northeast

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NewCAL Newtonville Option E1 New Building L Shape (3 Story)

Street View from Southeast

Bargmann Hendrie + Archetype 9 Channel Center Street Boston, MA 02210 Tel: (617) 350-0450 11/13/2020

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Questions & Comments