

TOWN OF BROOKLINE

Public Schools Classroom Expansion Program

Select Board Presentation

March 5, 2019



Jonathan Levi Architects

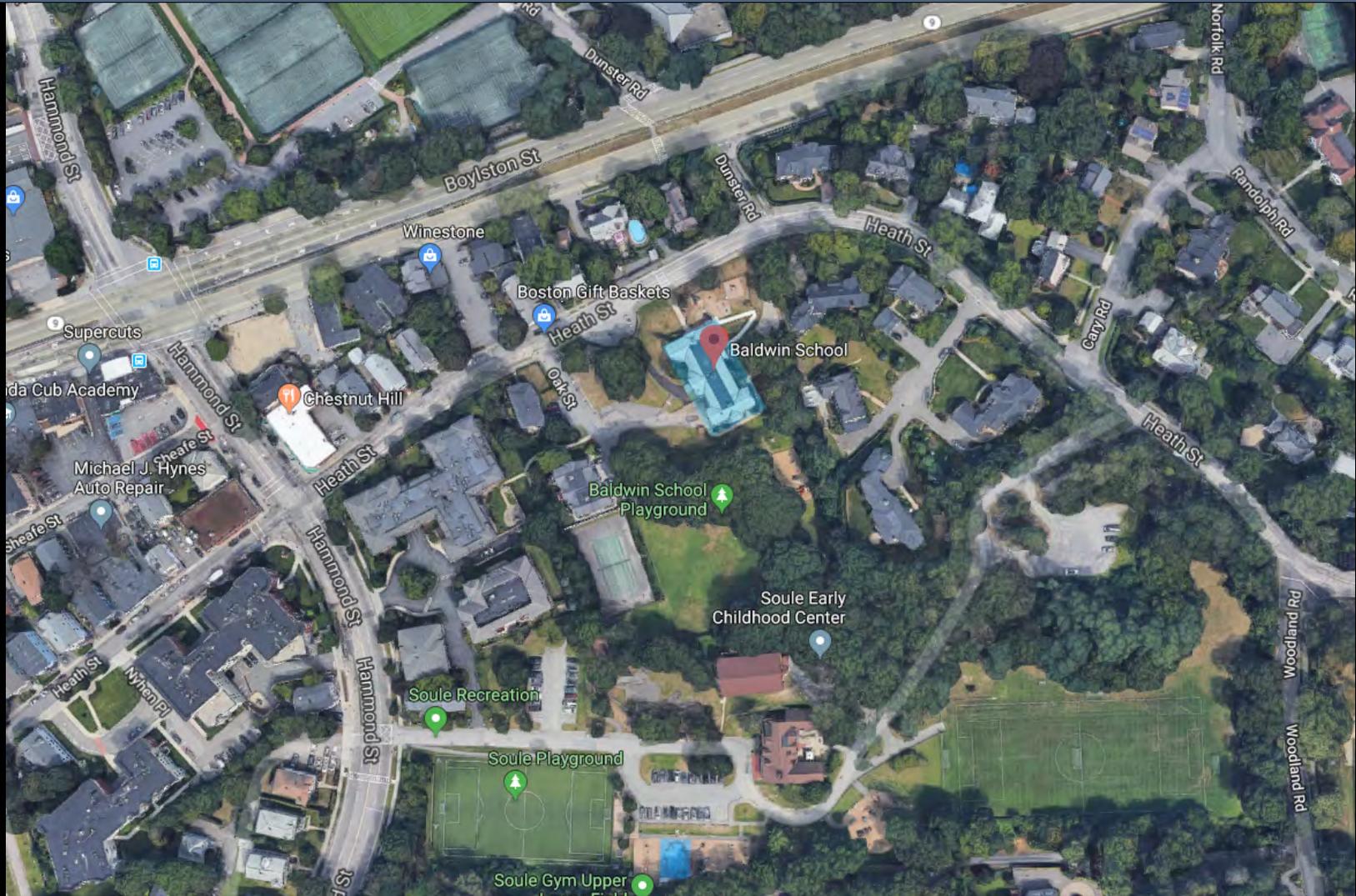
TOWN OF BROOKLINE

Public Schools Classroom Expansion Program

PHASE 1	Net Added Classrooms	Classrooms Online
Baldwin School, PK – 8 w RISE	27	Sept. 2022
Driscoll School, PK - 8	10	Sept. 2022
PHASE 2		
Pierce School, PK - 8	TBD	Sept. 2024



Baldwin Neighborhood



Baldwin Site Plan



Baldwin Area Existing Sidewalk Locations

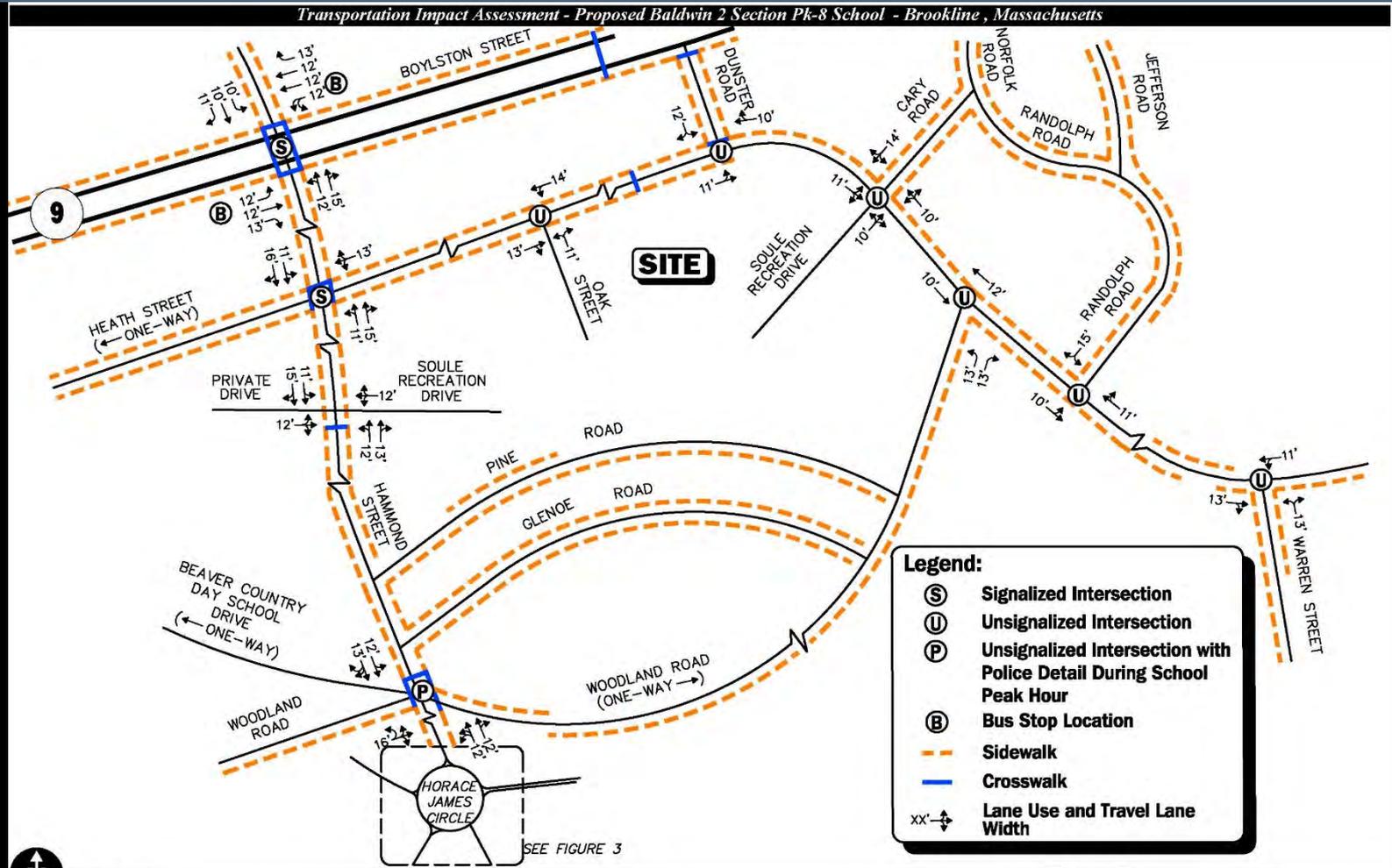


Figure 2

Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities

Woodland Road Traffic / Pedestrian Improvements - East



Scale: 1" = 140'

BROOKLINE ENGINEERING/TRANSPORTATION DIVISION
 325 WASHINGTON ST 4TH FLOOR, BROOKLINE, MA
 TELEPHONE : (617) 730-2139 FAX: (617) 284-6430

Woodland Road Proposed Traffic Calming Improvements

Woodland Road Traffic / Pedestrian Improvements - West



Scale: 1" = 140'

BROOKLINE ENGINEERING/TRANSPORTATION DIVISION
 235 WASHINGTON ST 4TH FLOOR, BROOKLINE, MA
 TELEPHONE : (617) 730-2138 FAX: (617) 264-8400

Woodland Road Proposed Traffic Calming Improvements

Baldwin Town Traffic / Pedestrian / Bike Improvements

- **Horace James Circle Improvements**
 - Town Discussions with DCR

- **Woodland Road**
 - Alternatives Developed
 - Signal at Hammond Street

- **Hammond Street**
 - Road Diet under review
 - Bicycle Lanes

- **Heath Street (West)**
 - Contra flow bike lane – Concept level

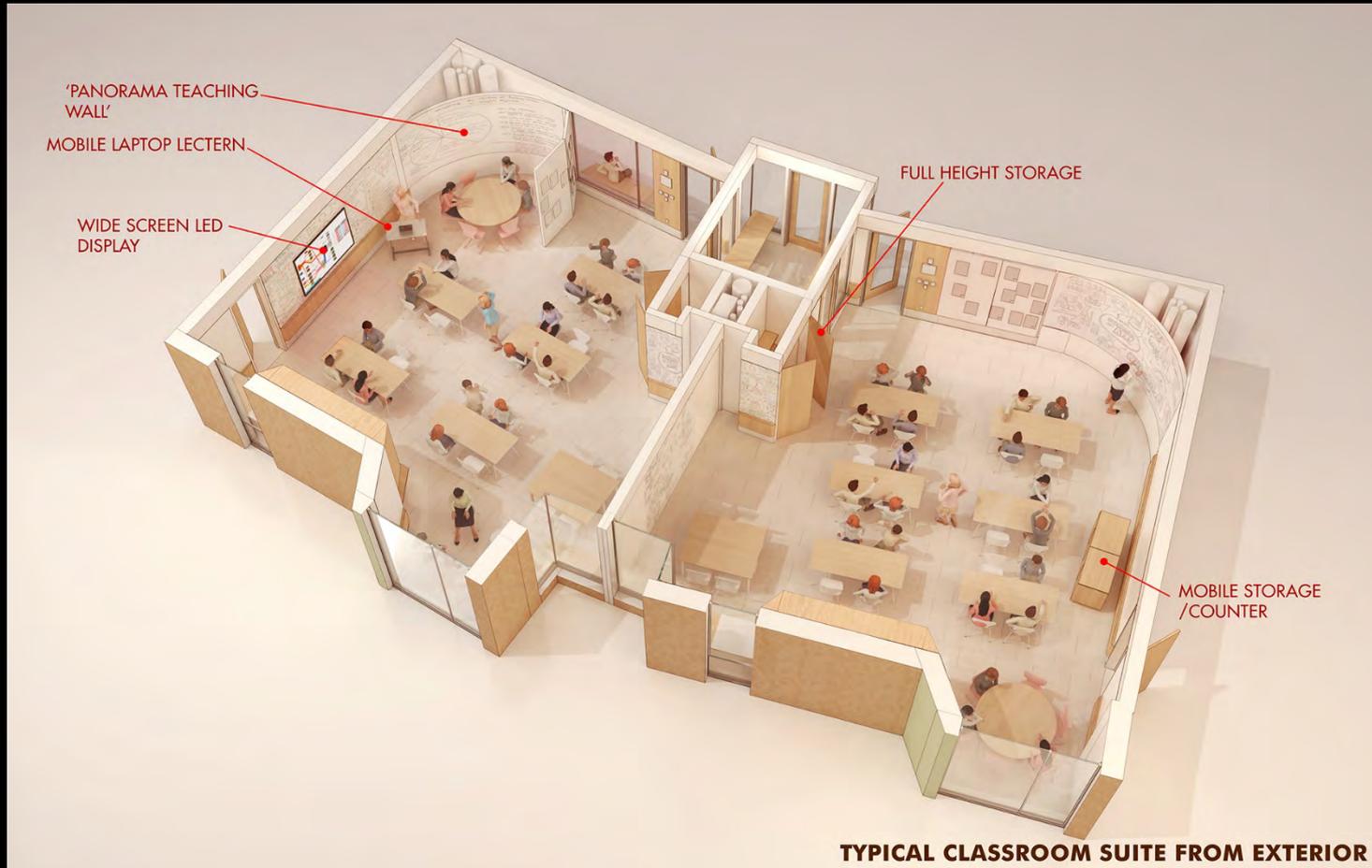
- **Area sidewalks upgrades**

- **Route 9 pedestrian crossing safety upgrades**

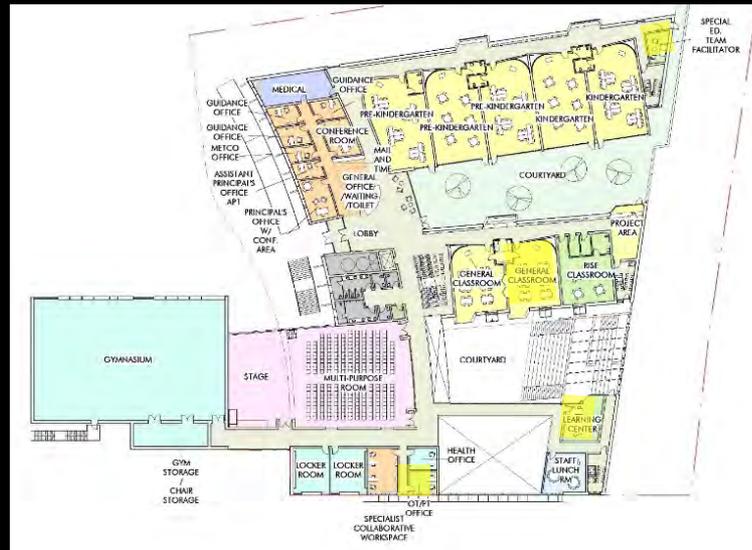
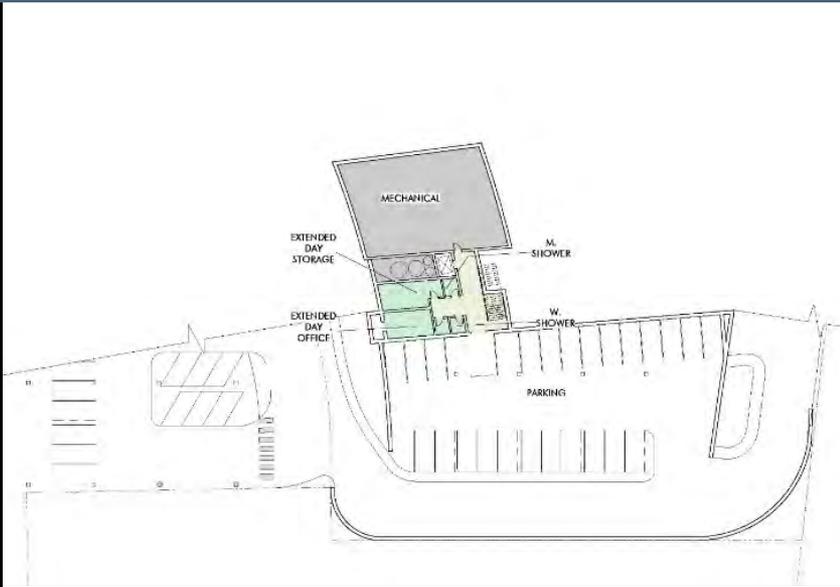
- **Hammond Street at Heath Street**
 - Signal Changes

- **Hammond Street at Route 9**
 - Consider Leading Pedestrian Interval (LPI)

Anatomy of a Classroom



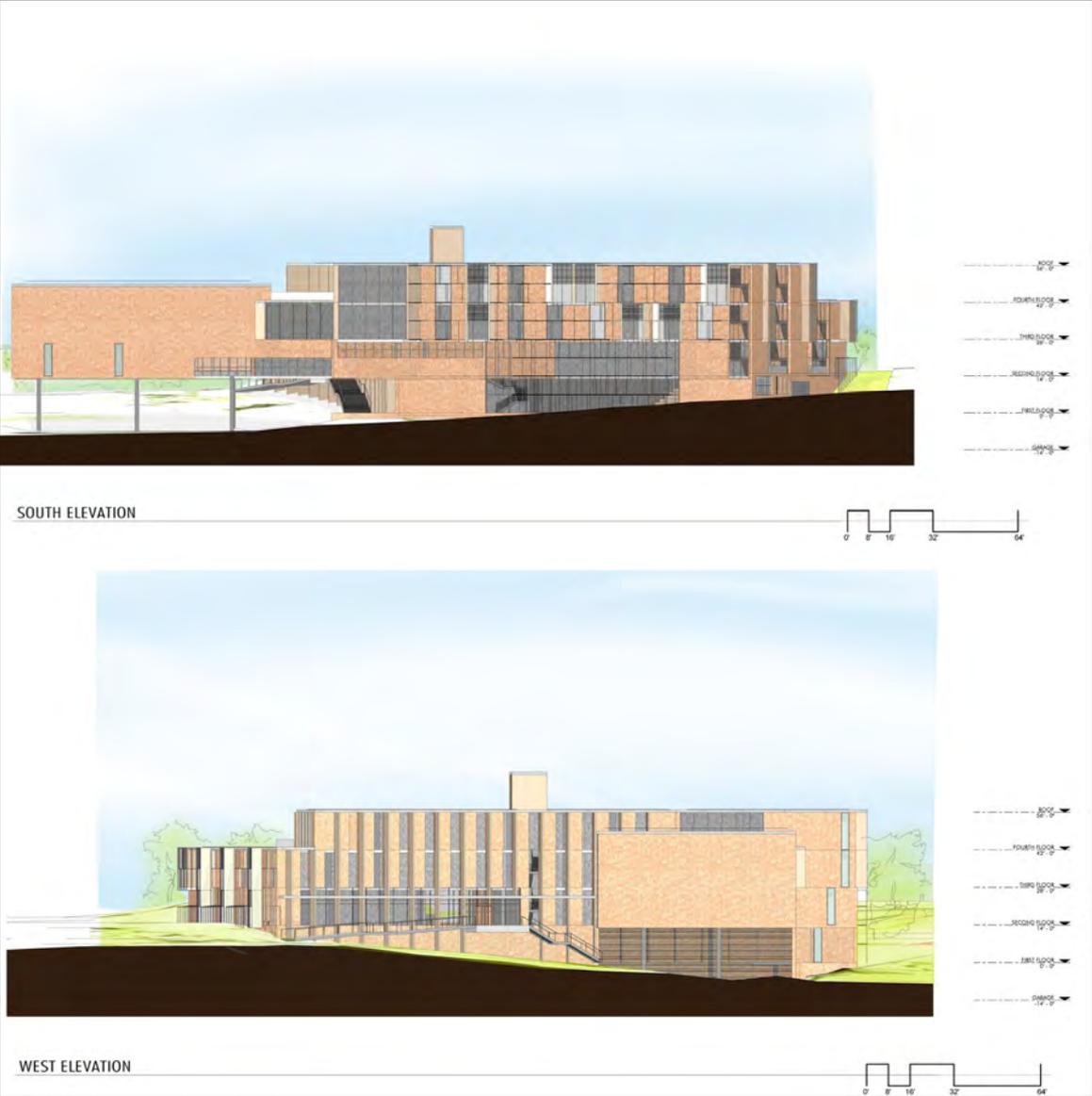
Floor Plans Baldwin



Floor Plans Baldwin



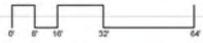
Schematic Elevations



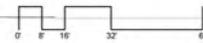
Schematic Elevations



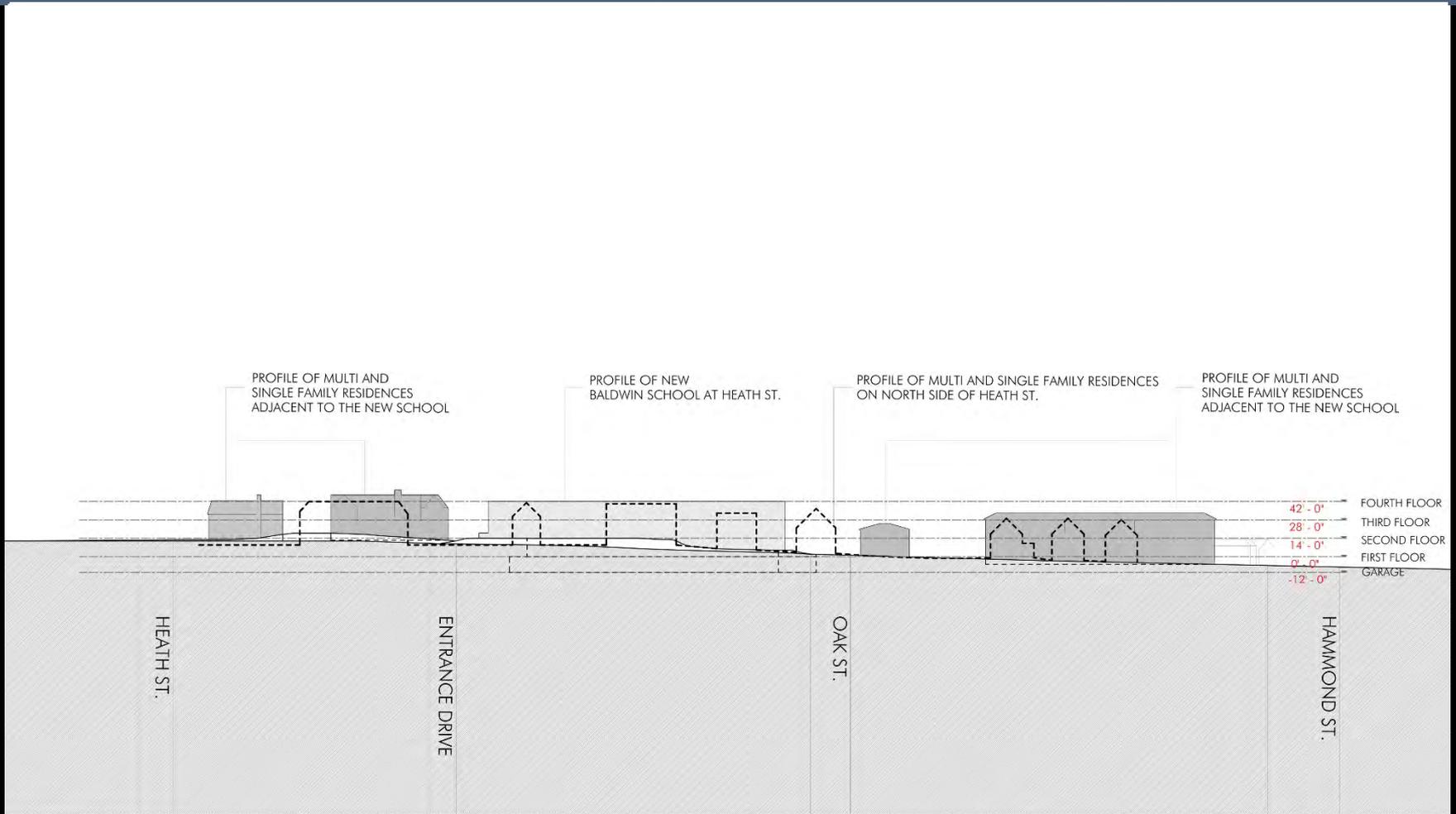
NORTH ELEVATION



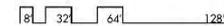
EAST ELEVATION



Street Massing Diagram



 Jonathan Levi Architects



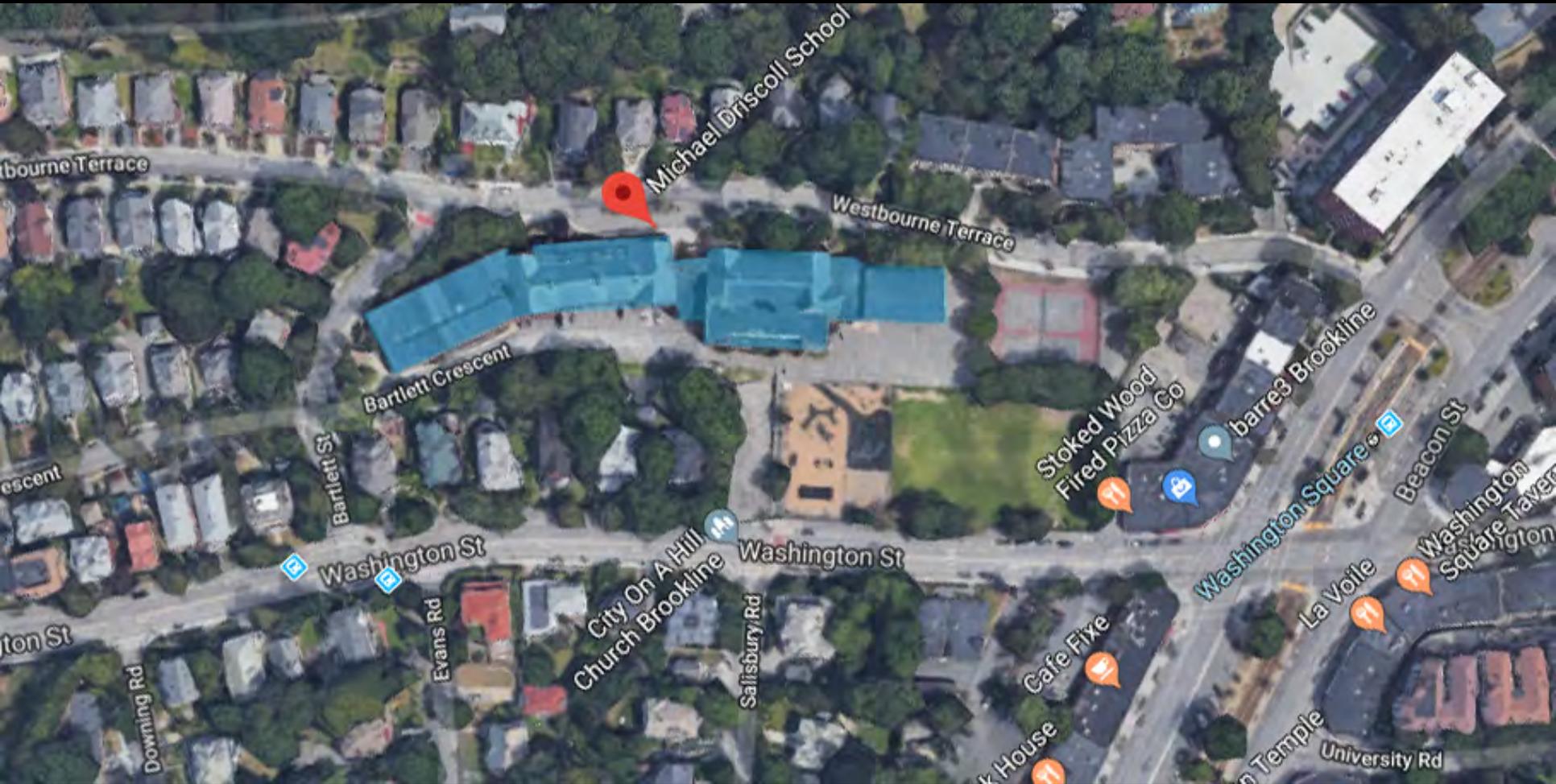
HEATH STREET ELEVATION
MASSING DIAGRAM
BALDWIN SCHOOL, BROOKLINE

 Jonathan Levi Architects

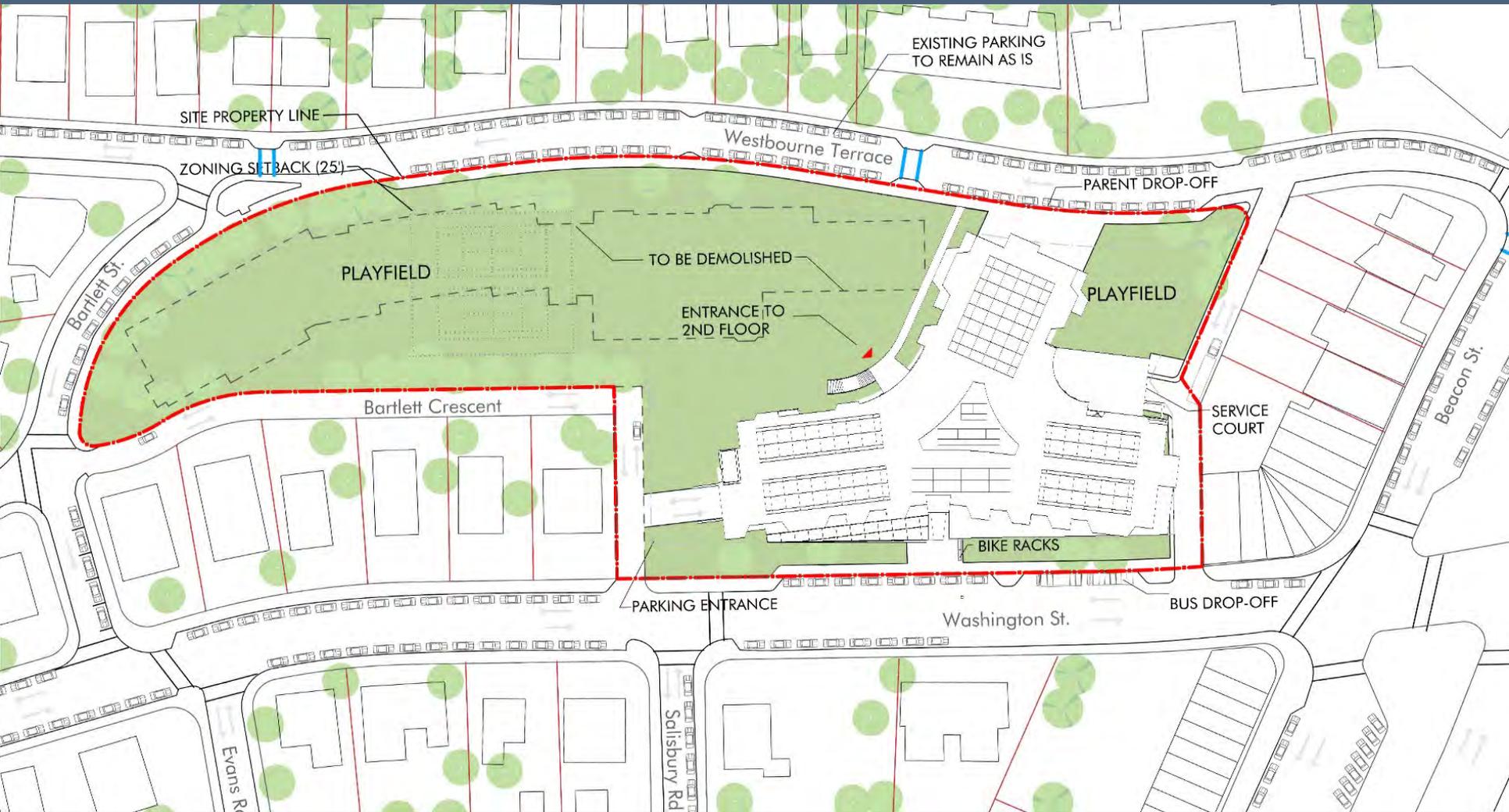
Baldwin Video Tour



Driscoll Neighborhood



Driscoll Site Plan



Driscoll Open Space Metrics

	LOT	BUILDING		OPEN SPACE			
Concept Alternative	Total Lot Area	Building GSF	Building Footprint	Usable Play Area (with tennis)	Vehicle / Pedestrian	Unutilized Area	Total Open Area
Existing	173,000 SF	97,000 SF	39,500 SF	72,500 SF	32,000 SF	29,000 SF	133,500 SF
H Modified Star	173,000 SF	155,500 SF	42,000 SF	97,000 SF	21,500 SF	12,500 SF	131,000 SF
Lincoln	187,308 SF	87,500 SF	44,369 SF	61,851 SF	13,633 SF	67,455 SF	142,939 SF
Runkle	132,858 SF	104,800 SF	52,609 SF	40,446 SF	0 SF	39,802 SF	80,248 SF
Coolidge Corner	292,723 SF	200,000+ SF	88,880 SF	143,211 SF	6,982 SF	53,650 SF	203,843 SF

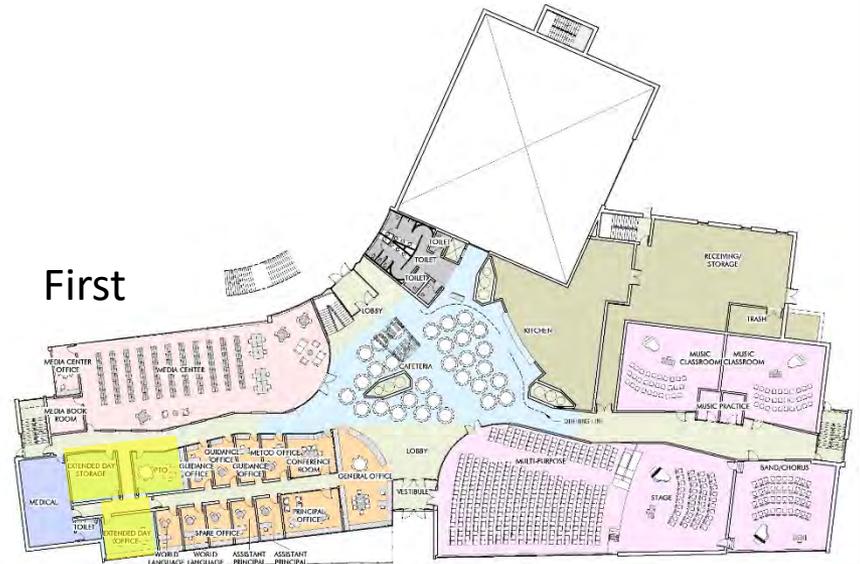


Driscoll Floor Plans

Basement



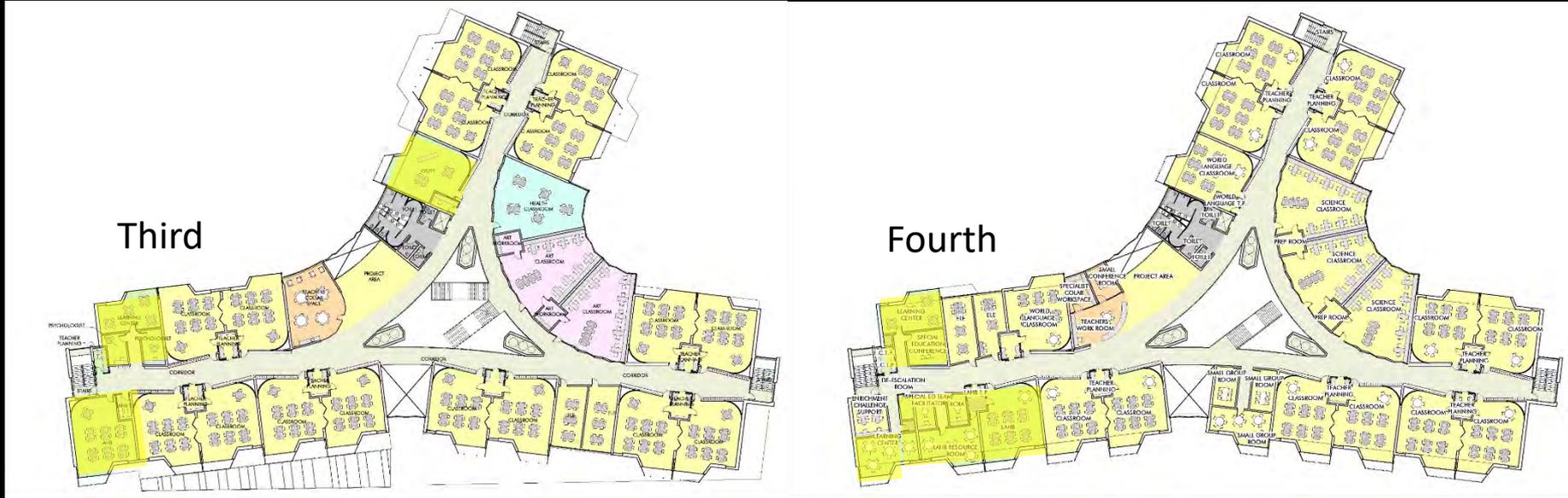
First



Second



Floor Plans Driscoll



Schematic Elevations



SOUTH ELEVATION



WEST ELEVATION



Schematic Elevations



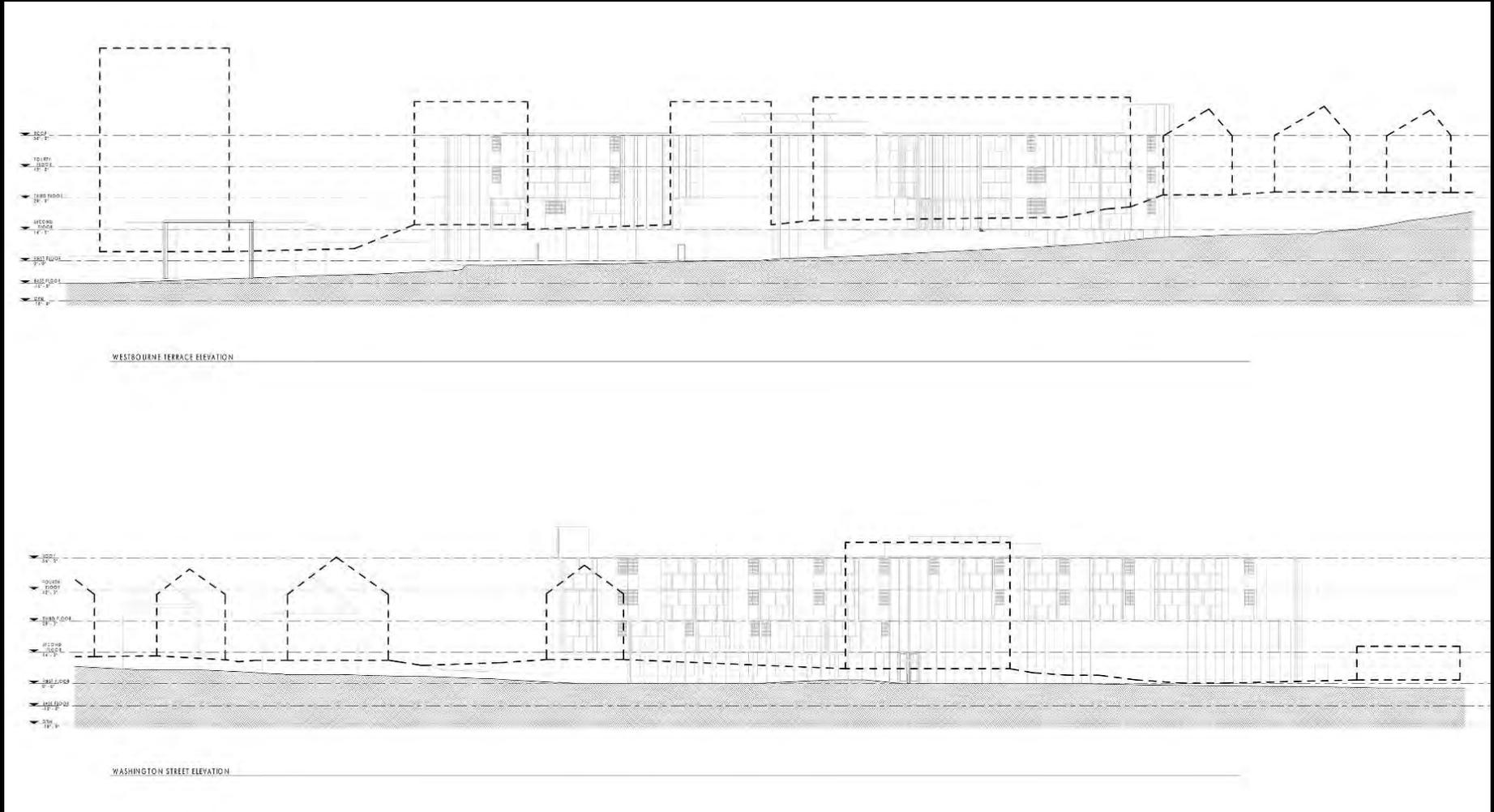
NORTH ELEVATION



NORTH-WEST ELEVATION



Driscoll Street Massing Diagram



Driscoll Video Tour



Construction Costs Drivers - Driscoll

Construction estimate includes several cost drivers not found in typical MSBA projects including:

- Boston Metro Area cost index – Construction costs approximately 20% above less developed areas in Massachusetts
- Structured Parking
- Fossil fuel free systems
- Pre-K program – requires additional sf per student and increased staff to student ratio
- Brookline K-8 standard Multipurpose Room – adds additional sf, double height

Additional Construction Costs Drivers - Baldwin

1. RISE program – requires additional sf per student and increased staff to student ratio
2. Small School Premium
3. Brookline soil conditions – typically ledge
4. Neighborhood improvements – sidewalks, crossing signals, etc.

Construction Costs

Total Construction Cost

Estimated Bid or Guaranteed Maximum Price (GMP)

Includes:

Trade Costs:

- Hazmat Abatement
- Demolition
- Earthwork
- Utilities
- Landscaping
- Road and Sidewalk
- The Building

Markups:

- Design Contingency
(% reduces over time during design)
- General Conditions
- Bonds and Insurance
- Escalation (% reduces over time during design)
- CMR



Total Project Costs - Baldwin

Total Project Costs include:

- Construction Costs: \$66.9M
- Architectural / Engineering Fees: \$6.7M
- Owner's Project Manager Fee: \$2.3M
- CMR Pre-Construction Fee: \$300K
- Legal Fees: \$100K
- Commissioning: \$87K
- Testing and Inspections: \$120k
- Utility Fees: \$250K
- Furniture, Fixtures, and Equipment: \$900K
- Technology: \$630K
- Moving Expenses: \$50k
- Security: \$100k
- Advertisement and Printing: \$30k
- Construction Contingency (Hard Cost): \$3.1M
- Owner's Contingency (Soft Cost): \$1.3M

Total Costs - Baldwin

	<u>Construction</u> <u>Cost</u>	<u>Total Project</u> <u>Cost</u>
<u>Building and Site:</u>	\$58.2M	<u>\$72.2M</u>
<u>Play Area:</u>	\$2.0M	<u>\$2.5M</u>
<u>Structured Parking:</u>	\$2.8M	<u>\$3.4M</u>
Pedestrian and Bike Safety		
• Sidewalk Upgrades,		
• Crosswalks, Signage, Signals		
• Route 9 Pedestrian		
<u>Crossing Safety Upgrades</u>	\$1.4M	<u>\$1.7M</u>
<u>Fossil Free Allowance:</u>	\$2.5M	<u>\$3.1M</u>
Total	\$66.9M	\$82.9M

Cost Comparison to Feasibility Study - Baldwin

	Construction Cost	Total Project Cost
<u>Feasibility Study:</u>	\$62.6M - \$67M	\$77.6M - \$83M
<u>Schematic Design:</u>	\$66.9M	\$82.9M

Total Project Costs - Driscoll

Total Project Costs include:

- Construction Costs: \$87.2M
- Architectural / Engineering Fees: \$8.7M
- Owner's Project Manager Fee: \$3M
- CMR Pre-Construction Fee: \$300k
- Legal Fees: \$100k
- Commissioning: \$125k
- Testing and Inspections: \$120k
- Utility Fees: \$100k
- Furniture, Fixtures, and Equipment: \$1.6M
- Technology: \$1.1M
- Moving Expenses: \$90k
- Security: \$100k
- Advertisement and Printing: \$30k
- Construction Contingency (Hard Cost): \$4.2M
- Owner's Contingency (Soft Cost): \$2.0M

Projected Total Costs - Driscoll

	<u>Construction</u> <u>Cost</u>	<u>Total Project</u> <u>Cost</u>
<u>Building and Site:</u>	\$77.4M	\$96.6M
<u>Play Area:</u>	\$2.0M	\$2.5M
<u>Structured Parking:</u>	\$2.8M	\$3.4M
<u>Fossil Free Allowance:</u>	\$5.0M	\$6.3M
Total	\$87.2M	\$108.8M

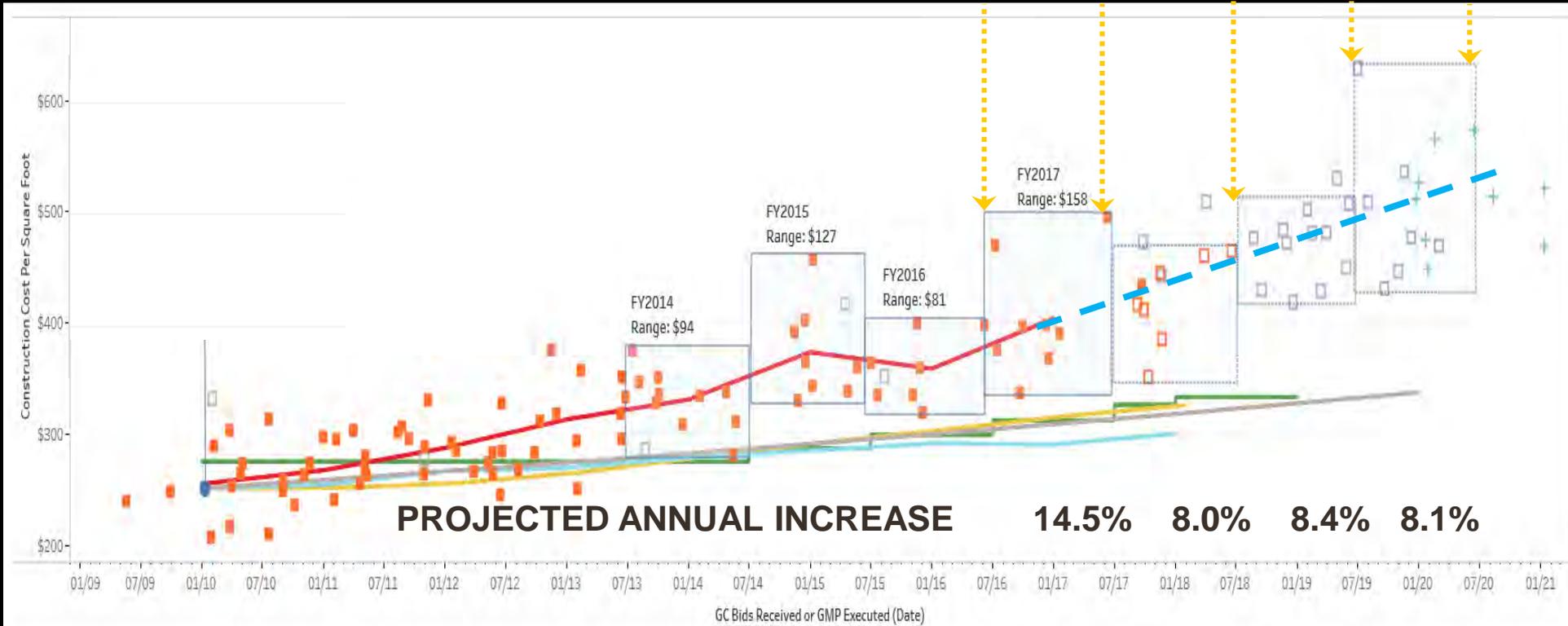
Cost Comparison to Feasibility Study - Driscoll

	Construction Cost	Total Project Cost
<u>Feasibility Study:</u>	\$84.3M - \$89M	\$104.5M - \$110.3M
<u>Schematic Design:</u>	\$87.2M	\$108.8M

ESCALATION - RECENT MSBA SCHOOL PROJECTS

 = Projected average school cost increase based on MSBA pipeline

FY2017 FY2018 FY2019 FY2020



The information and data contained in this chart is based on the MSBA's review of construction cost estimates, contracts and other documentation provided by cities, towns, and regional school districts. This information and data is intended for informational purposes only. The data may have changed based on actual construction bids or contract amendments, for example, and the MSBA shall have no responsibility or duty to update any of the information. Please contact the Districts for the most current information. The MSBA hereby disclaims any and all liability and responsibility that may arise in connection with the information contained in this chart. (Updated August 2018)

RECENT MIDDLE SCHOOL PROJECTS

(Sorted by Total Project Cost, adjusted for escalation)

Project Name	Students	Cost Escalated to 2020 Start (\$M)
Lynn Middle Schools	1,660	\$213
Saugus Middle/High School	1,360	\$186
Coolidge Corner School	1,010	\$154
Beverly Middle School	1,395	\$136
Holyoke Lawrence Middle School	1,100	\$132
Abington Middle/High School	1,115	\$129
Natick Kennedy Middle School	1,000	\$116
Dennis-Yarmouth Mattacheese Middle School	940	\$113
Westport Middle/High School	860	\$112
New Driscoll	800	\$109
Boston Dearborn STEM Academy	600	\$94
New Baldwin	450	\$83
Quincy Sterling Middle School	430	\$70

RECENT MIDDLE SCHOOL PROJECTS

(Sorted by Cost per Square Feet, adjusted for escalation)

Project Name	Students	Cost/SF
Coolidge Corner School	1,010	\$783
Baldwin Including Parking and Fossil Free	450	\$764
Boston Dearborn STEM Academy	600	\$730
Quincy Sterling Middle School	430	\$727
Baldwin Base Building, Landscape, and Pedestrian Improvements	450	\$703
New Driscoll Including Parking and Fossil Free	800	\$698
Saugus Middle/High School	1,360	\$693
Lynn Middle Schools	1,660	\$674
Natick Kennedy Middle School	1,000	\$638
New Driscoll - Base Building and Landscape	800	\$636
Holyoke Lawrence Middle School	1,100	\$617
Dennis-Yarmouth Mattacheese Middle School	940	\$614
Westport Middle/High School	860	\$597
Beverly Middle School	1,395	\$586

Total Cost

Brookline Public School Classroom Expansion Project, Phase 1

Total Project Cost 1

Baldwin School: \$82.9M

Oak Street Acquisition: \$4.7M

Driscoll School: \$108.8M

\$196.4M



Jonathan Levi Architects