

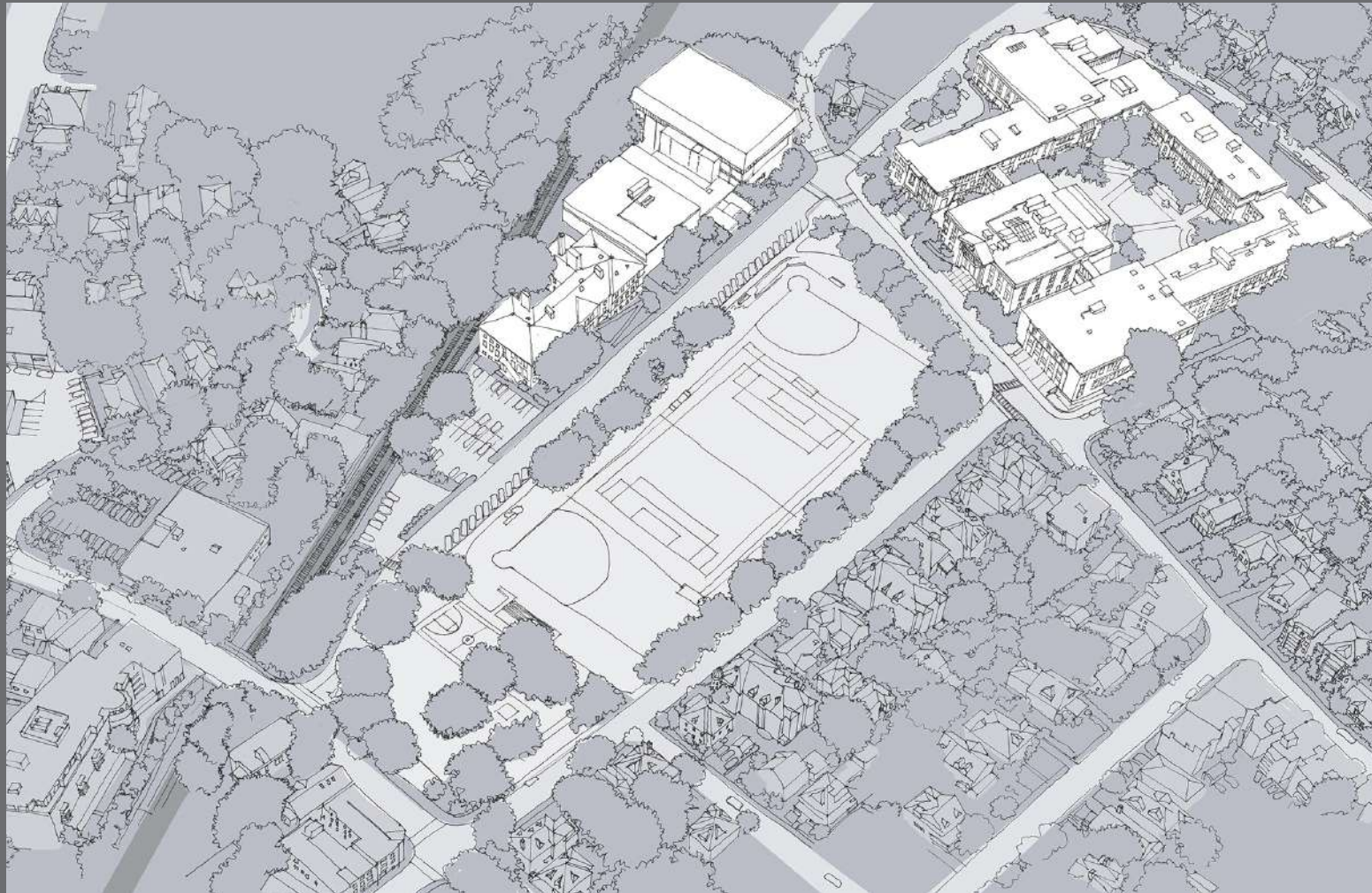


Brookline High School Building Committee

Brookline High School Campus Expansion Update

Feasibility Study

APRIL 26, 2017



HMFH ARCHITECTS

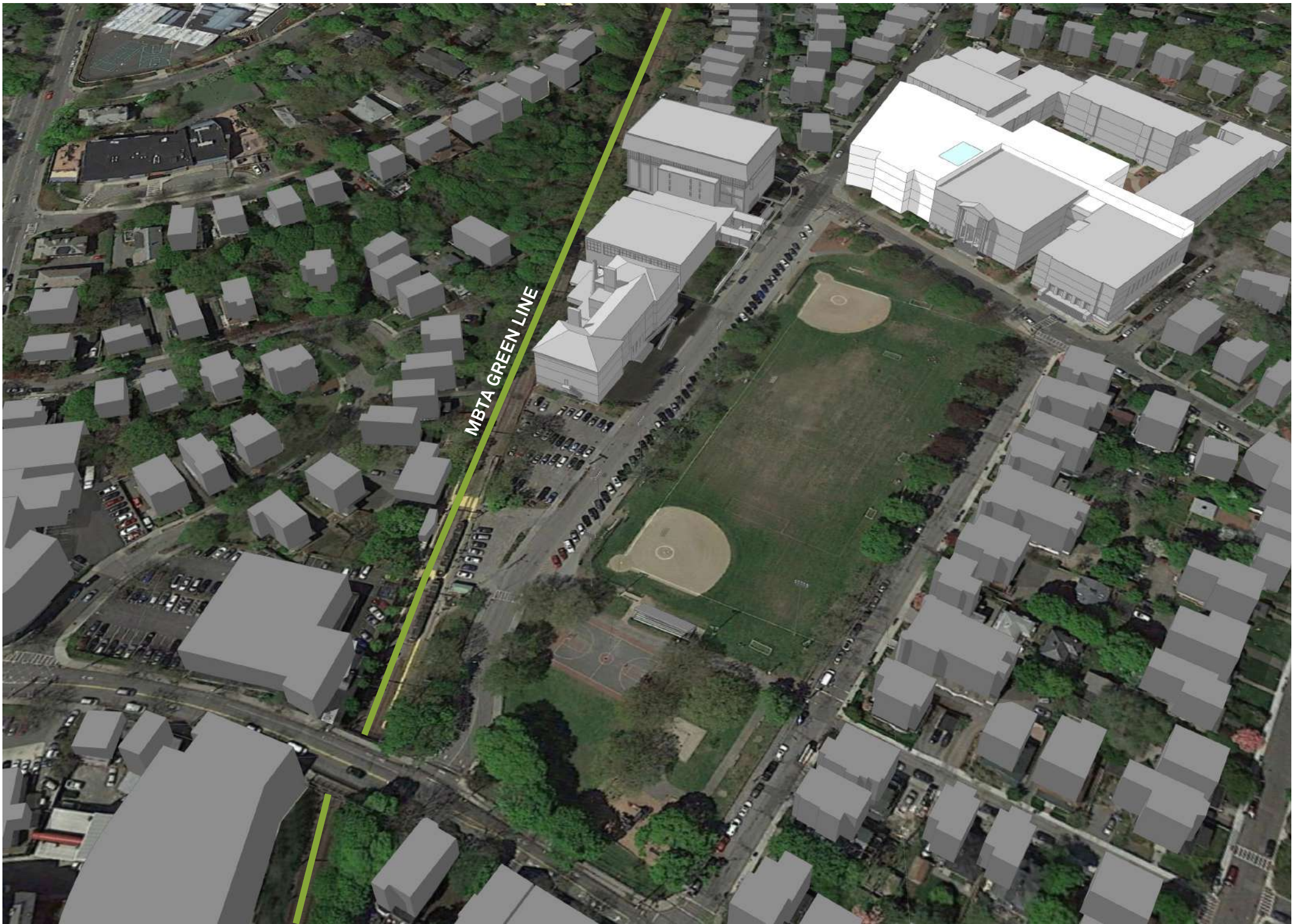
130 Bishop Allen Drive, Cambridge, MA 02139 617 492 2200 hmfh.com

Existing



Massing

OPTION 1
Enrollment Accommodation

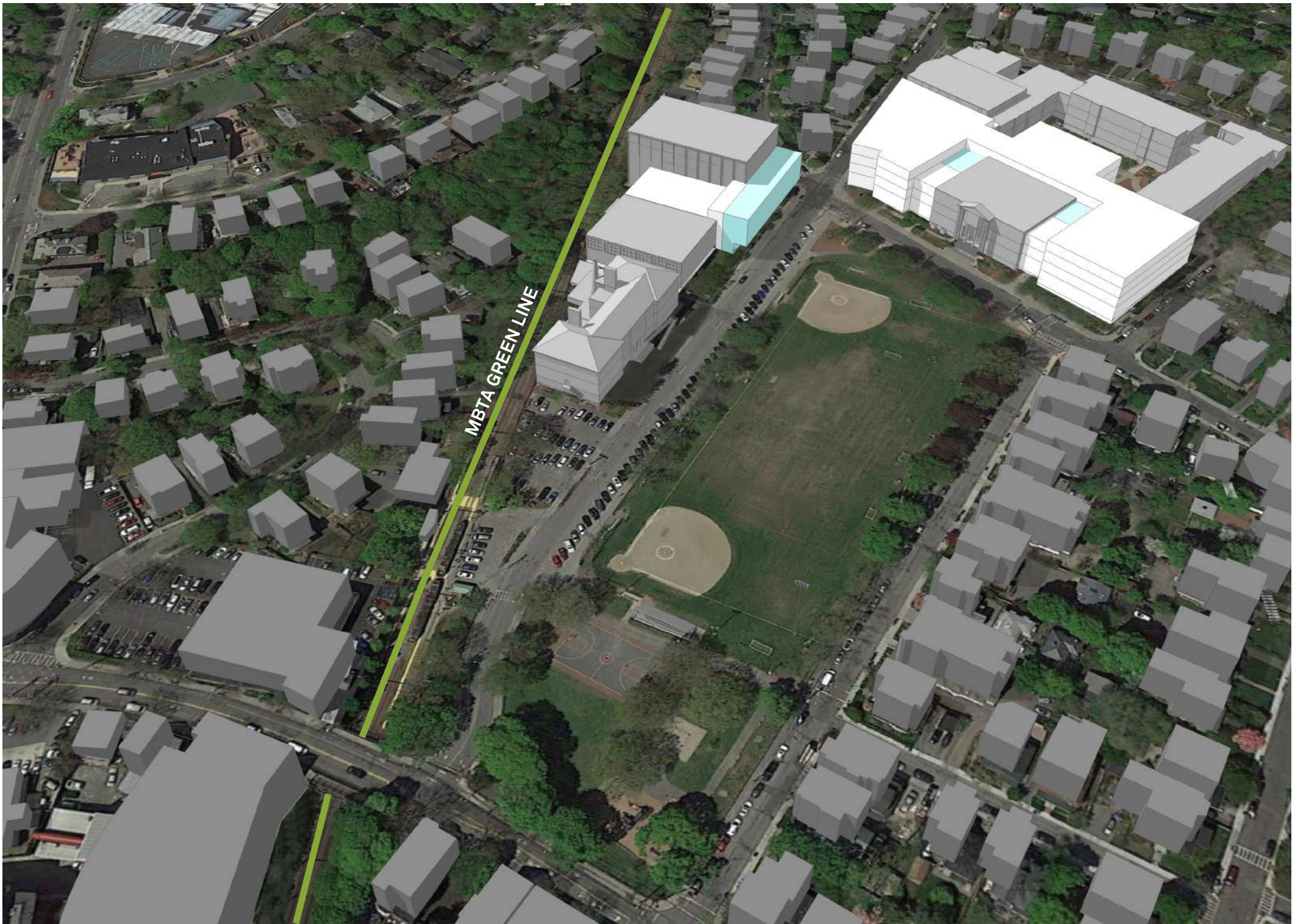


BHS Existing to Remain
294,310 sf

New Construction at BHS
165,000 sf

Massing

OPTION 2
MA State Standard with Competition Gym at Tappan Gym



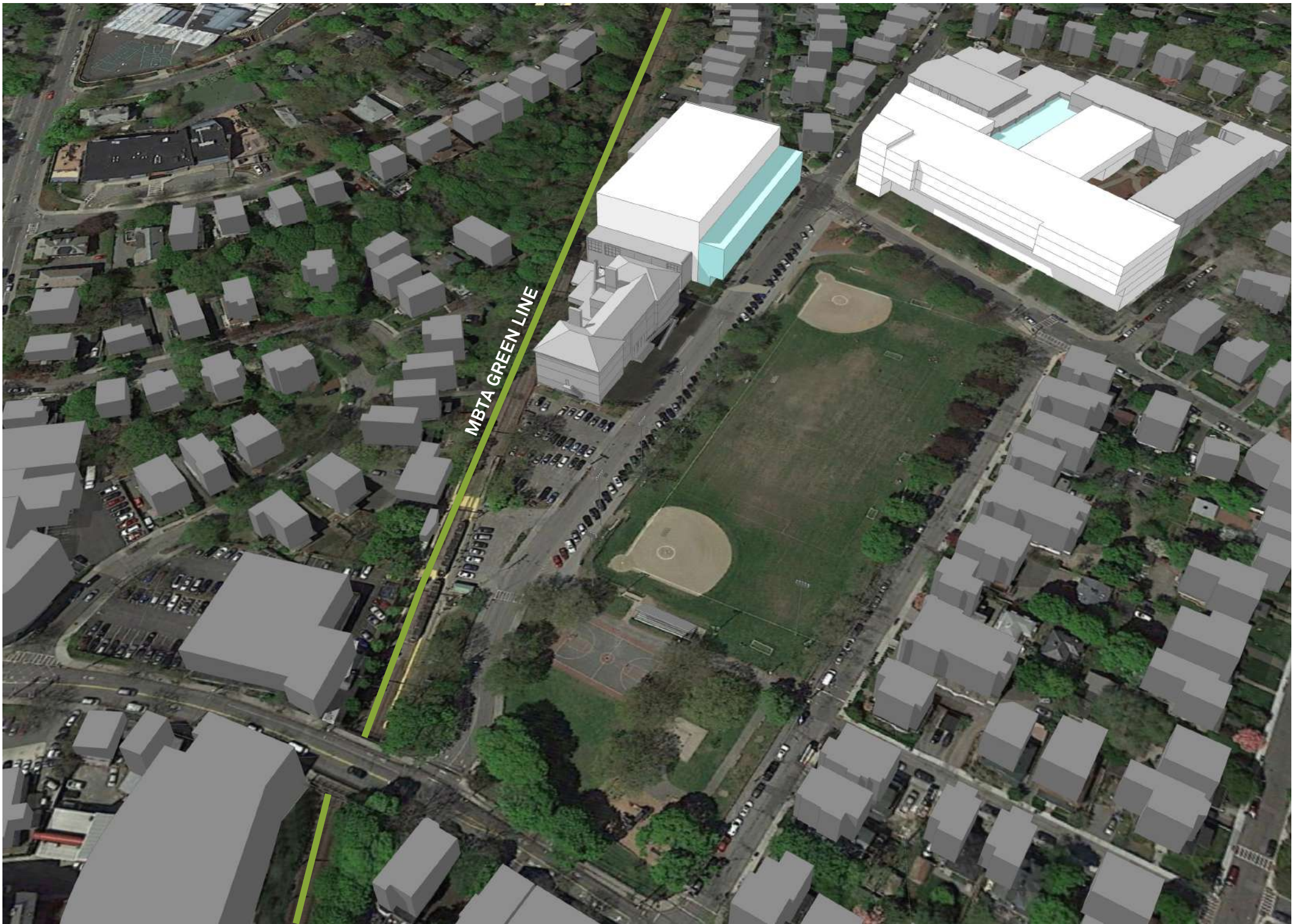
BHS Existing to Remain
242,280 sf

New Construction at BHS
228,690 sf

plus
2. Tappan Gym Moderate
Renovation with
Competition Gym and
Practice Gym Addition

Massing

OPTION 3
BHS Educational Plan and with Field House Addition to Tappan Gym



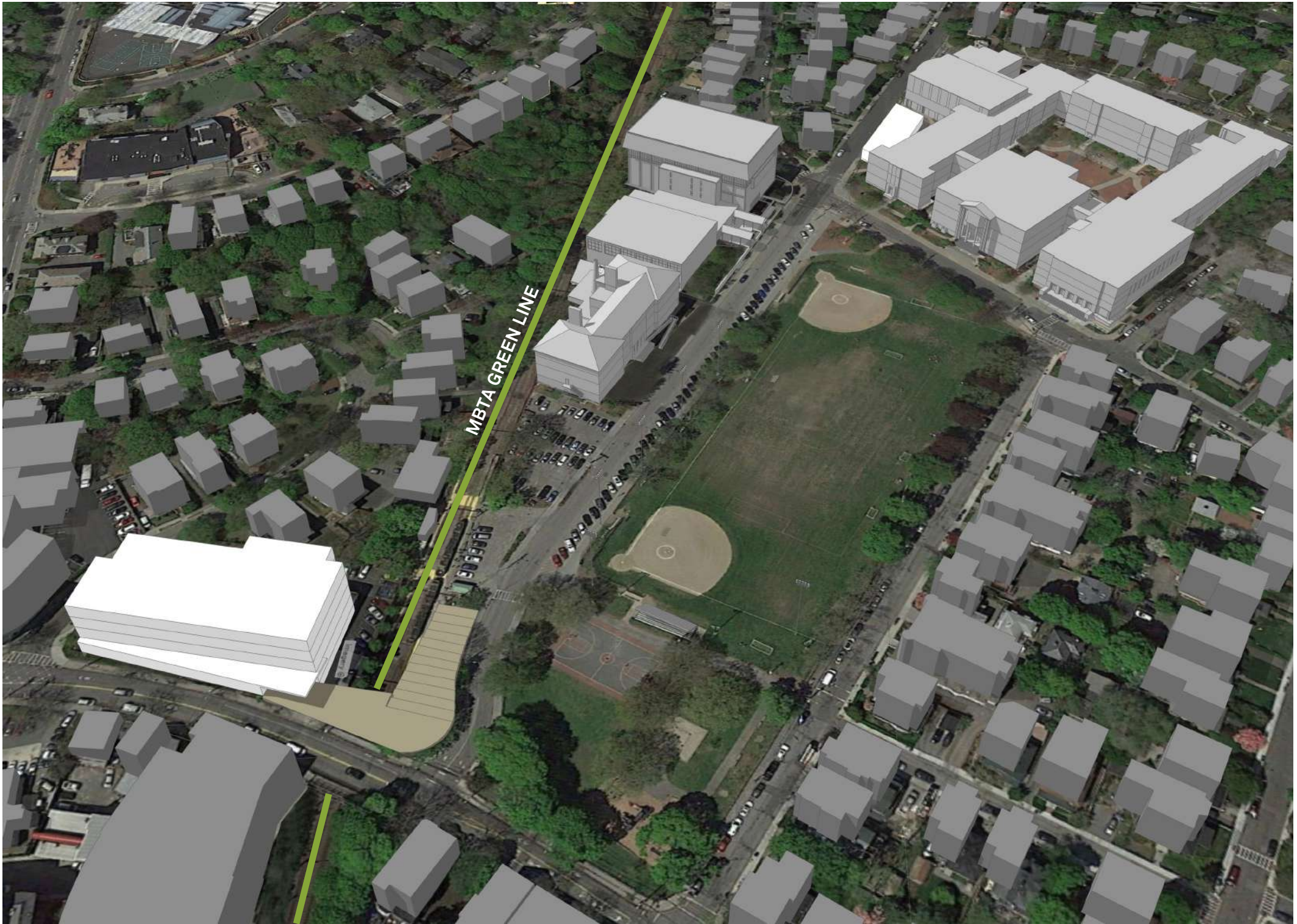
BHS Existing to Remain
181,050 sf

New Construction at BHS
298,130 sf

plus
3. Tappan Gym
Field House Addition

Massing

OPTION 4A
New Cypress Building with BHS-Greenough
Renovate Existing Science & New 5-Classroom Addition



Renovate Existing BHS
Science
35,500 sf

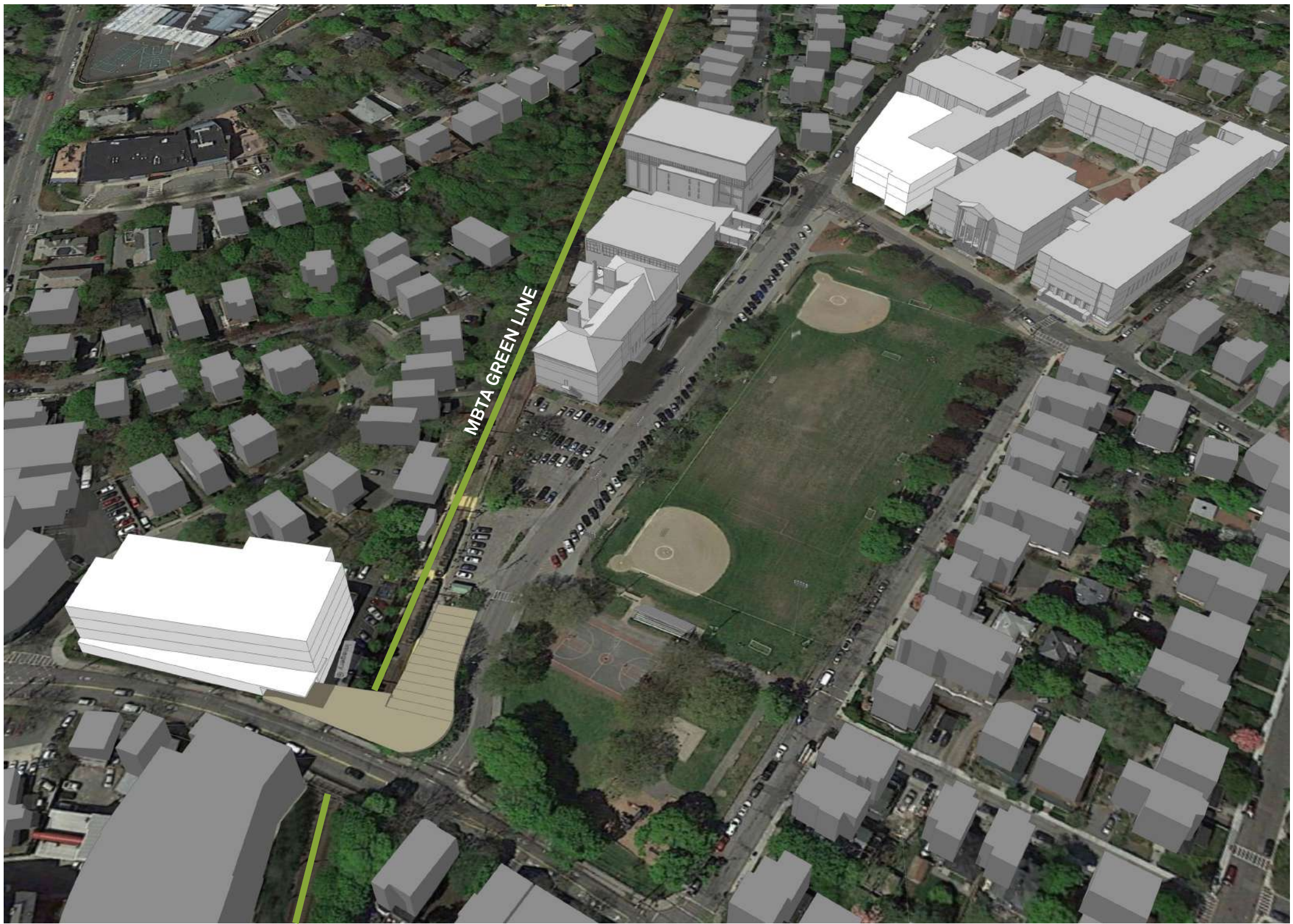
New Construction at BHS
7,500 sf

New Construction at
Cypress Building
109,810 sf

Massing

OPTION 4B

New Cypress Building with BHS-Greenough
New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



Renovate Existing BHS
Science into Classrooms
36,500 sf

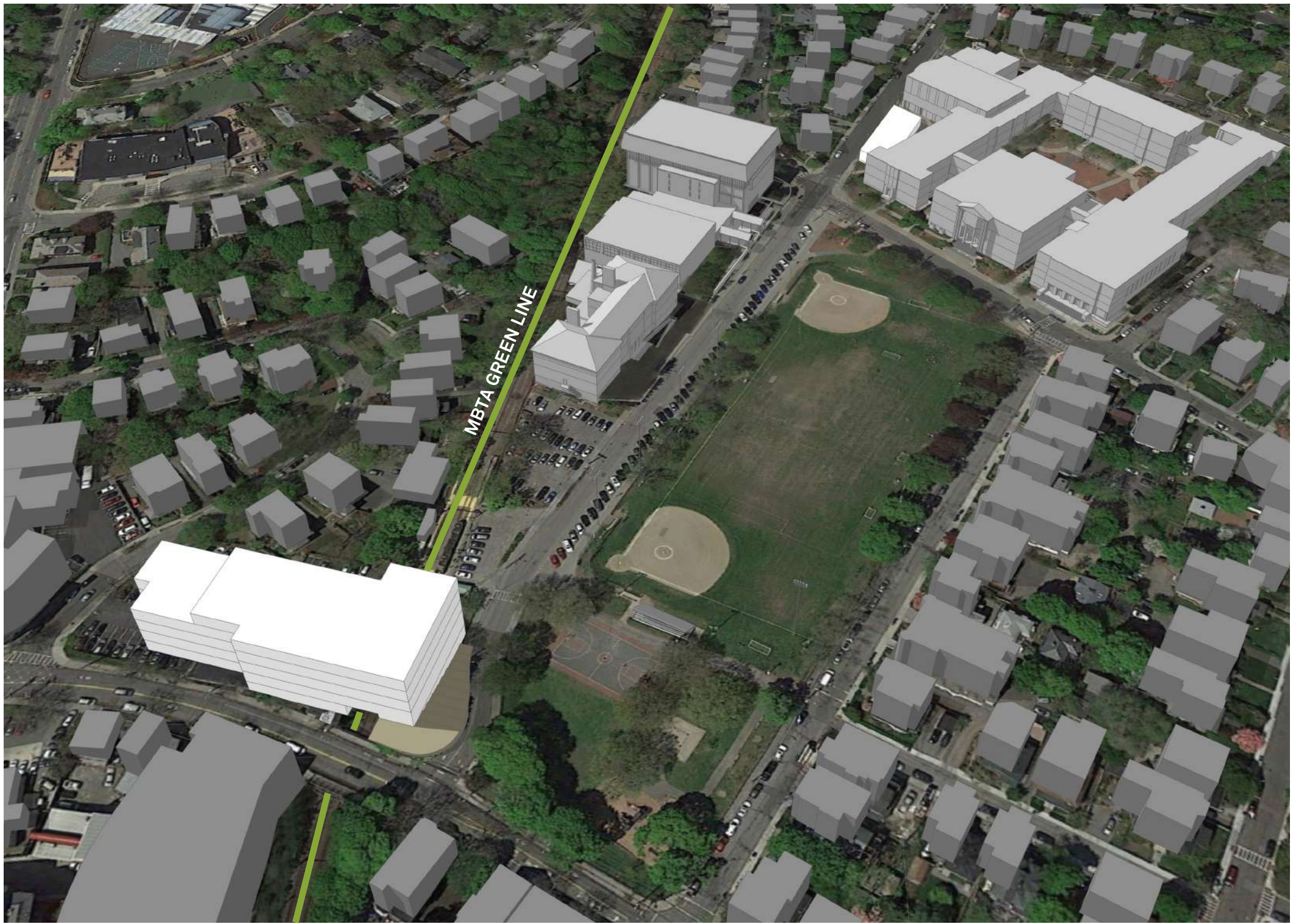
New Construction at BHS
44,100 sf

New Construction at
Cypress Building
109,810 sf

Massing

OPTION 4C

New Cypress Building over the MBTA with BHS-Greenough
Renovate Existing Science & New 5-Classroom Addition



Renovate Existing BHS
Science
35,500 sf

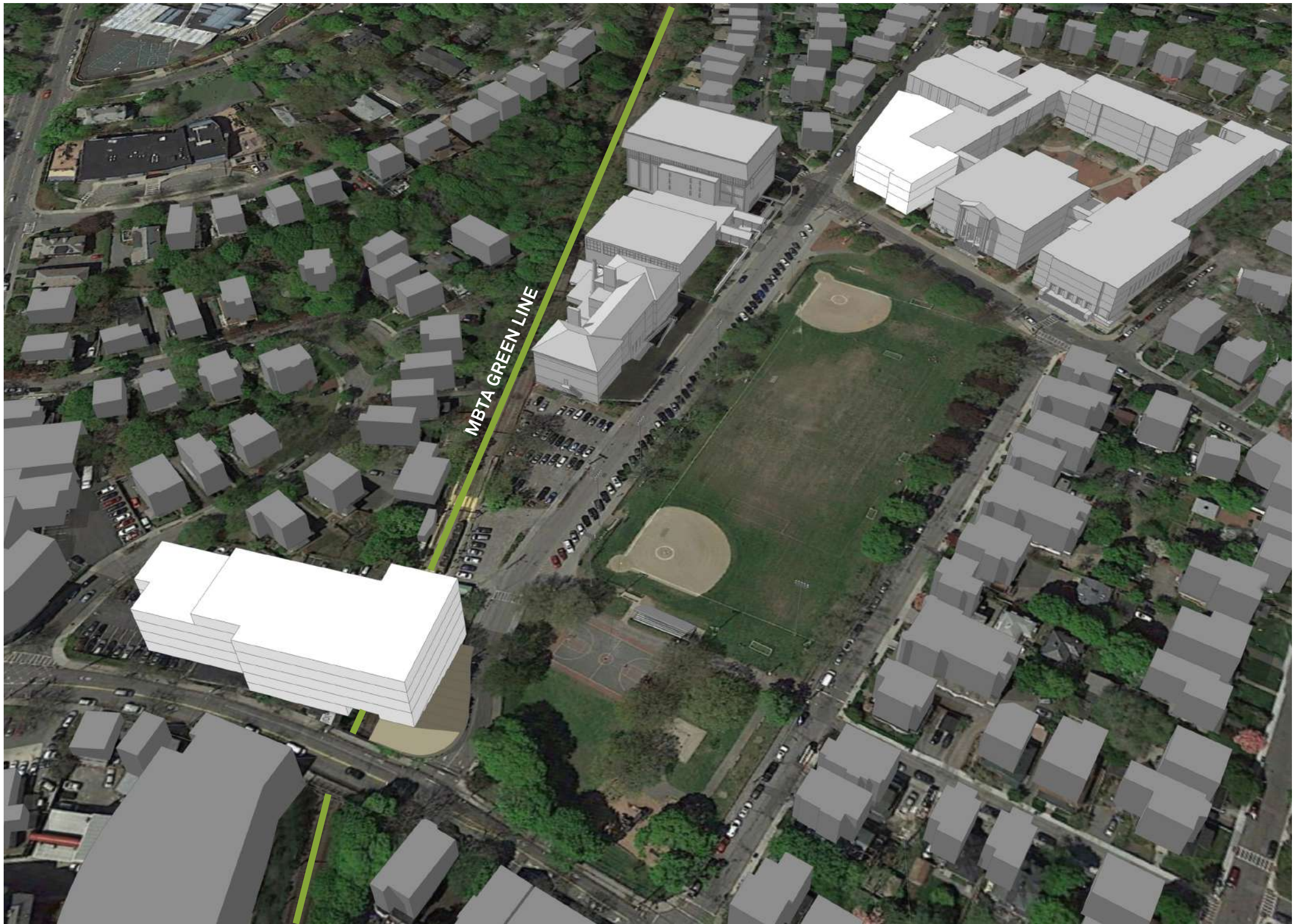
New Construction at BHS
7,500 sf

New Construction at
Cypress Building
112,700 sf

Massing

OPTION 4D

New Cypress Building over the MBTA with BHS-Greenough
New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



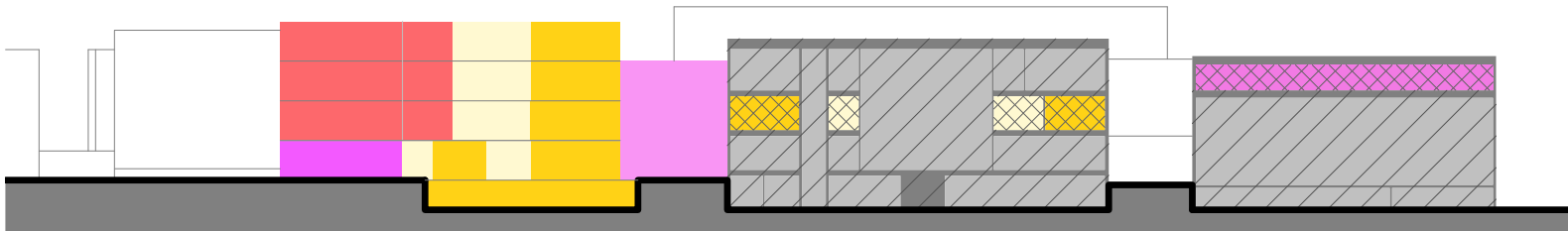
- Renovate Existing Science into Classrooms
36,500 sf
- New Construction at BHS
50,400 sf
- New Construction at Cypress Building
112,700 sf

Massing

OPTION 1
Enrollment Accommodation



Massing



Section

- CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

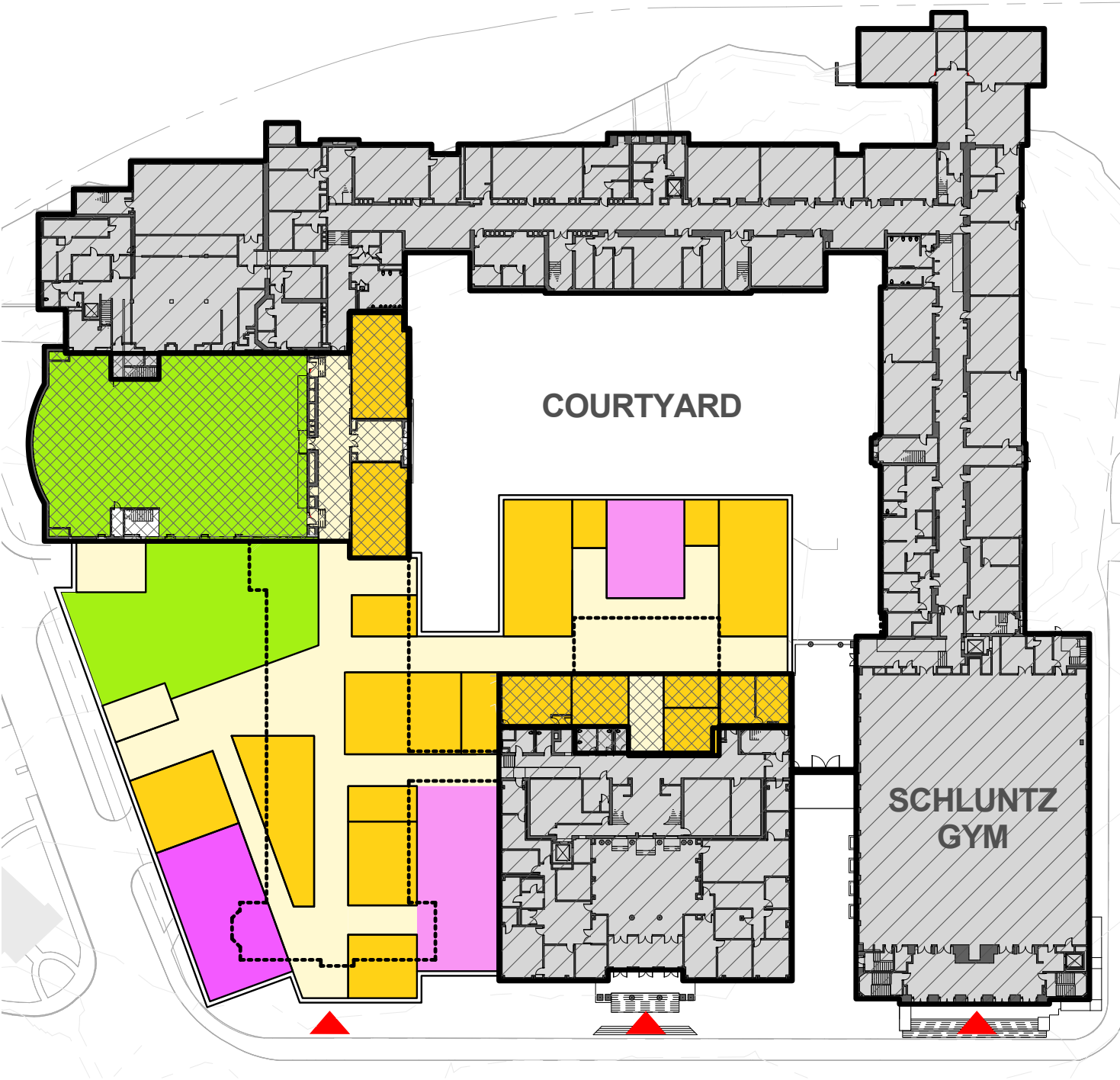
PERFORMANCE
- EXTENT OF DEMOLITION

EXISTING - NO WORK

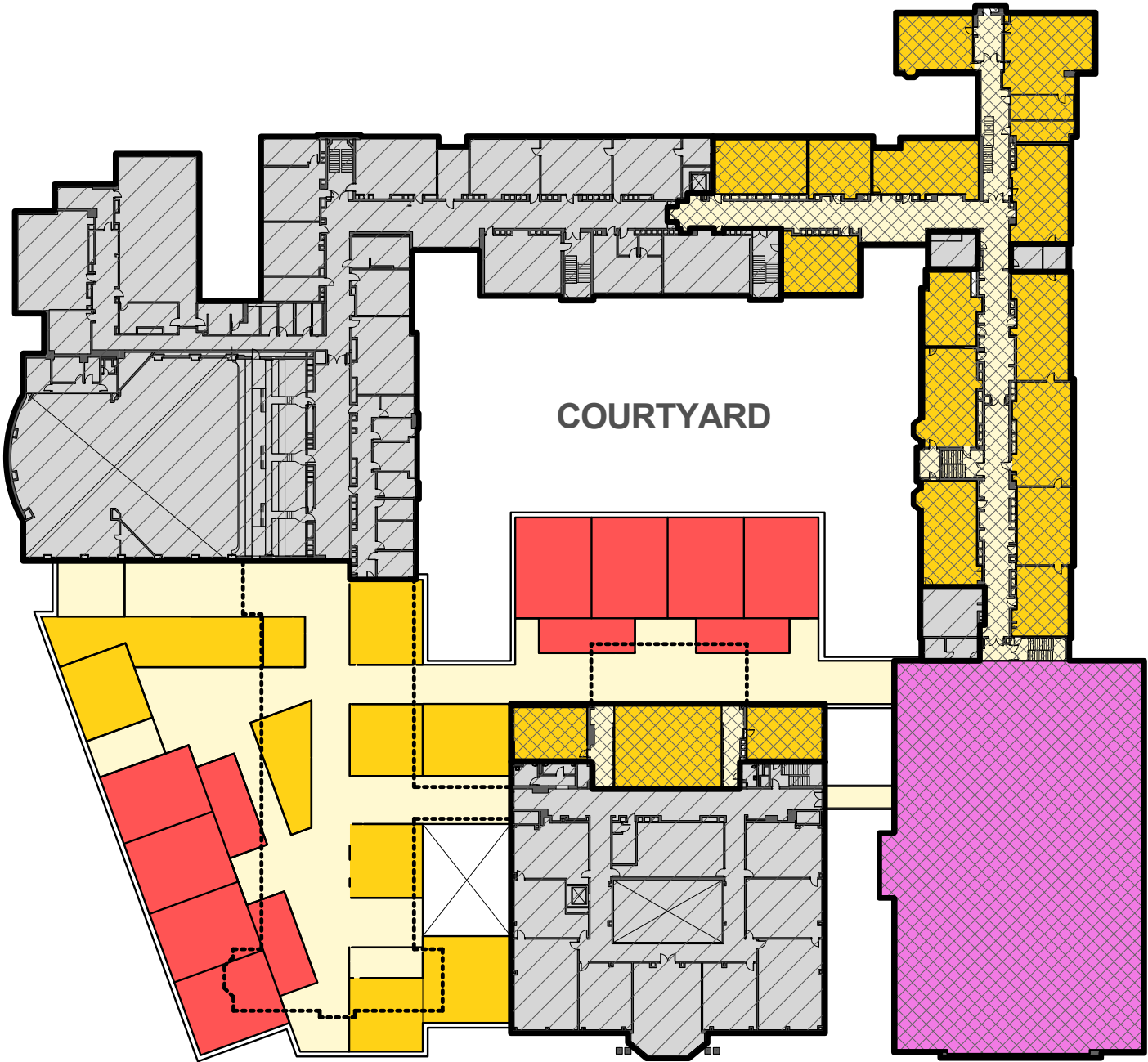
RENOVATION

OPTION 1

Enrollment Accommodation



1st Floor Plan



3rd Floor Plan

CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

PERFORMANCE

..... EXTENT OF DEMOLITION

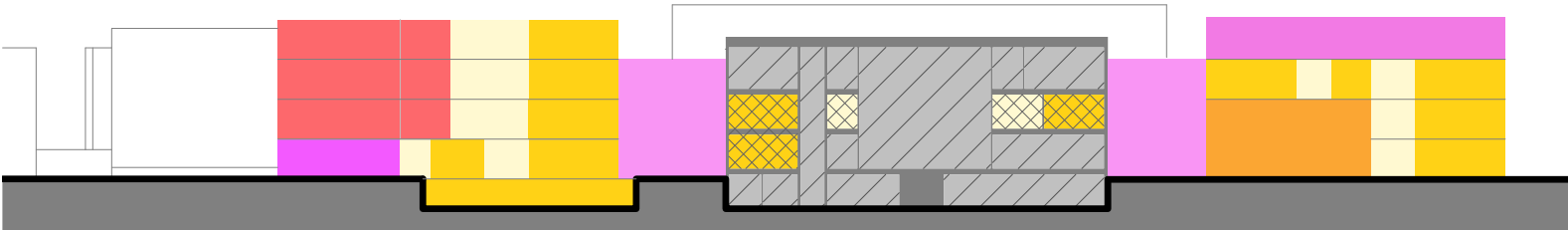
EXISTING - NO WORK

RENOVATION

OPTION 2
MA State High School Standards



Massing



Section

- CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

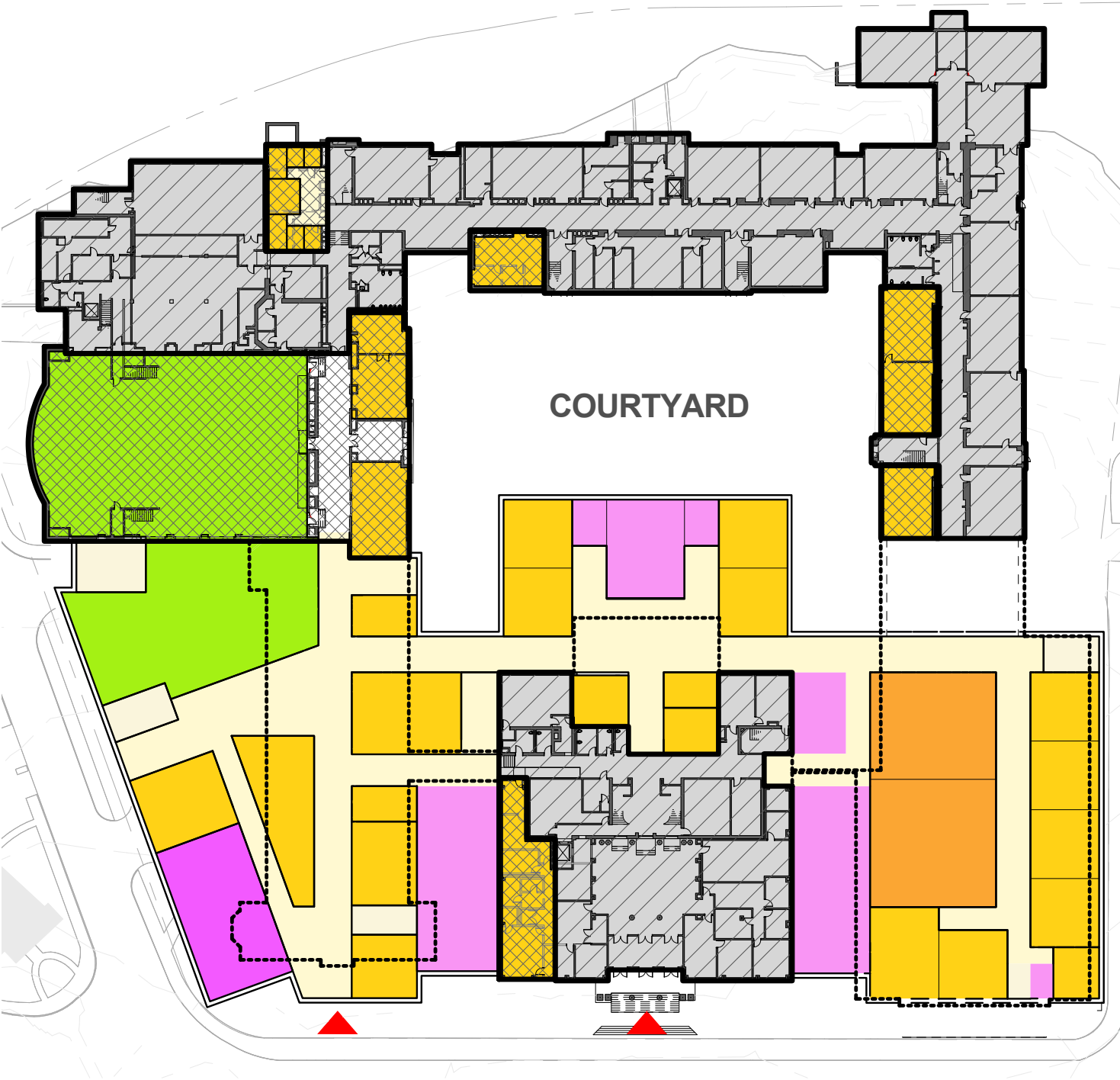
DINING COMMONS

PERFORMANCE
- EXTENT OF DEMOLITION

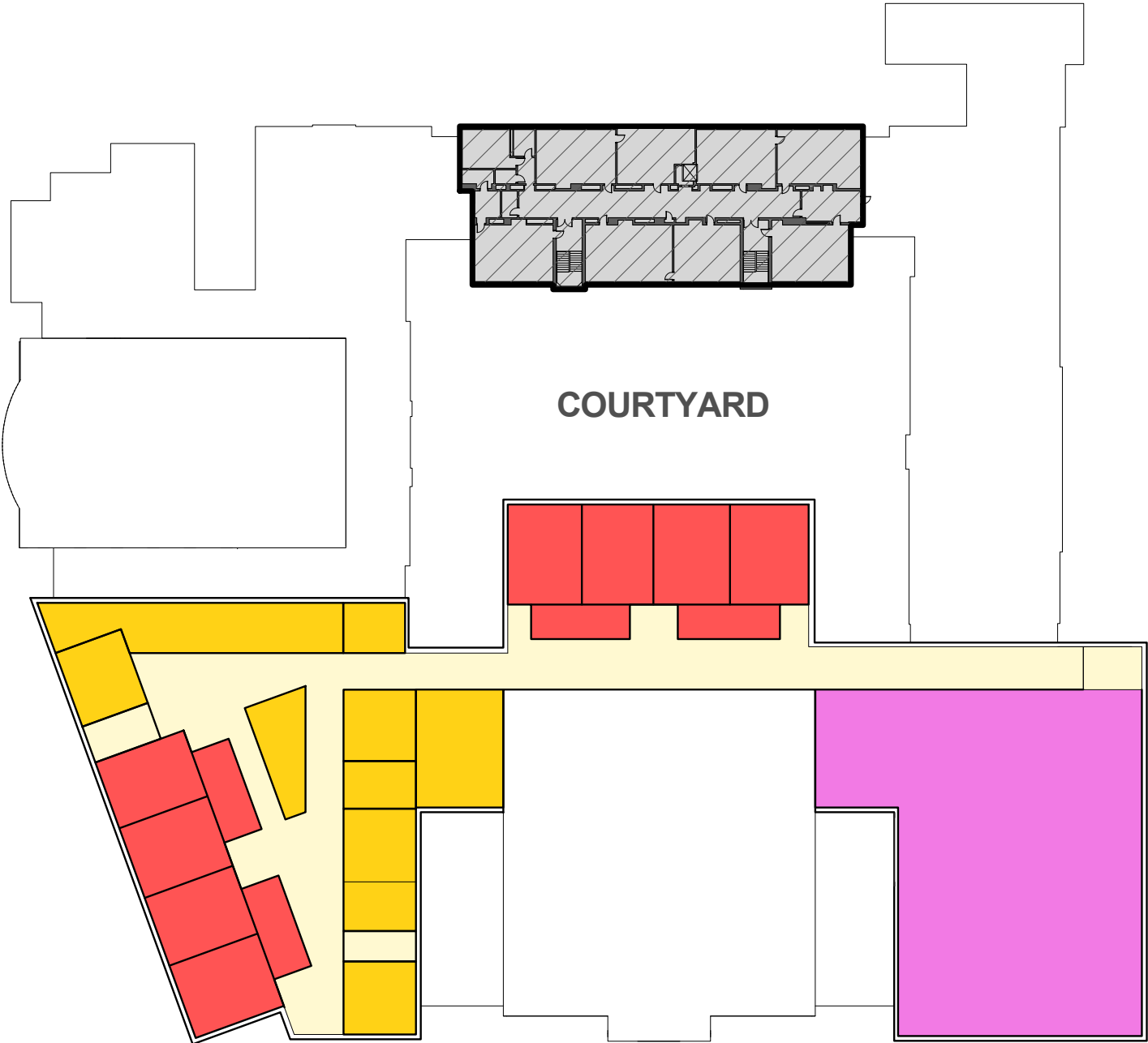
EXISTING - NO WORK

RENOVATION

OPTION 2 MA State High School Standards



1st Floor Plan



4th Floor Plan

CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

PERFORMANCE

..... EXTENT OF DEMOLITION

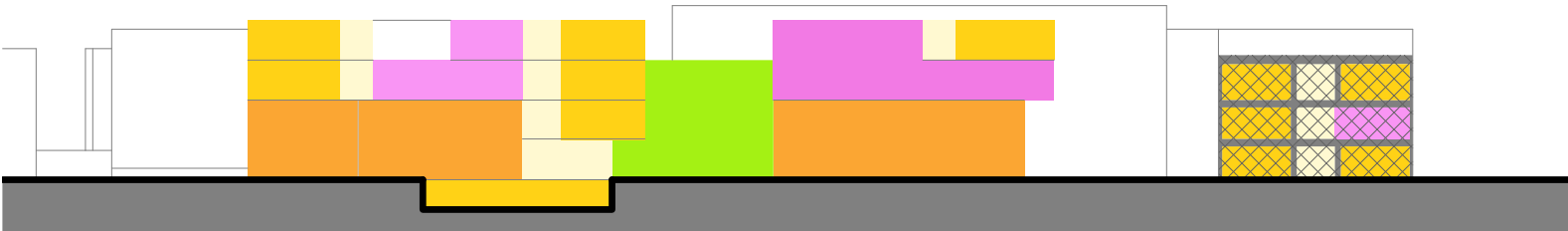
EXISTING - NO WORK

RENOVATION

OPTION 3
Brookline High School Education Plan



Massing 3 With Tappan Gym

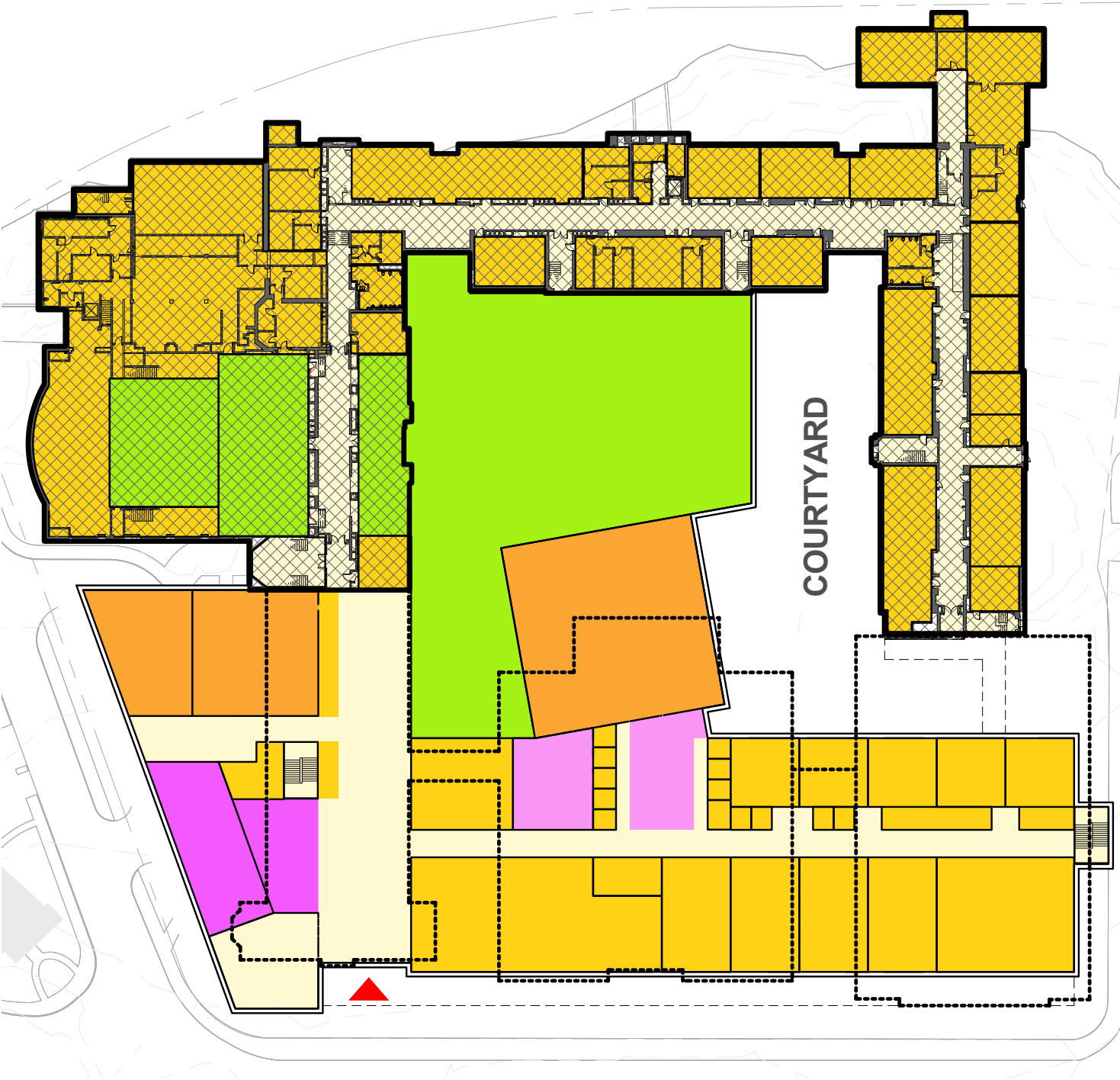


Section 3

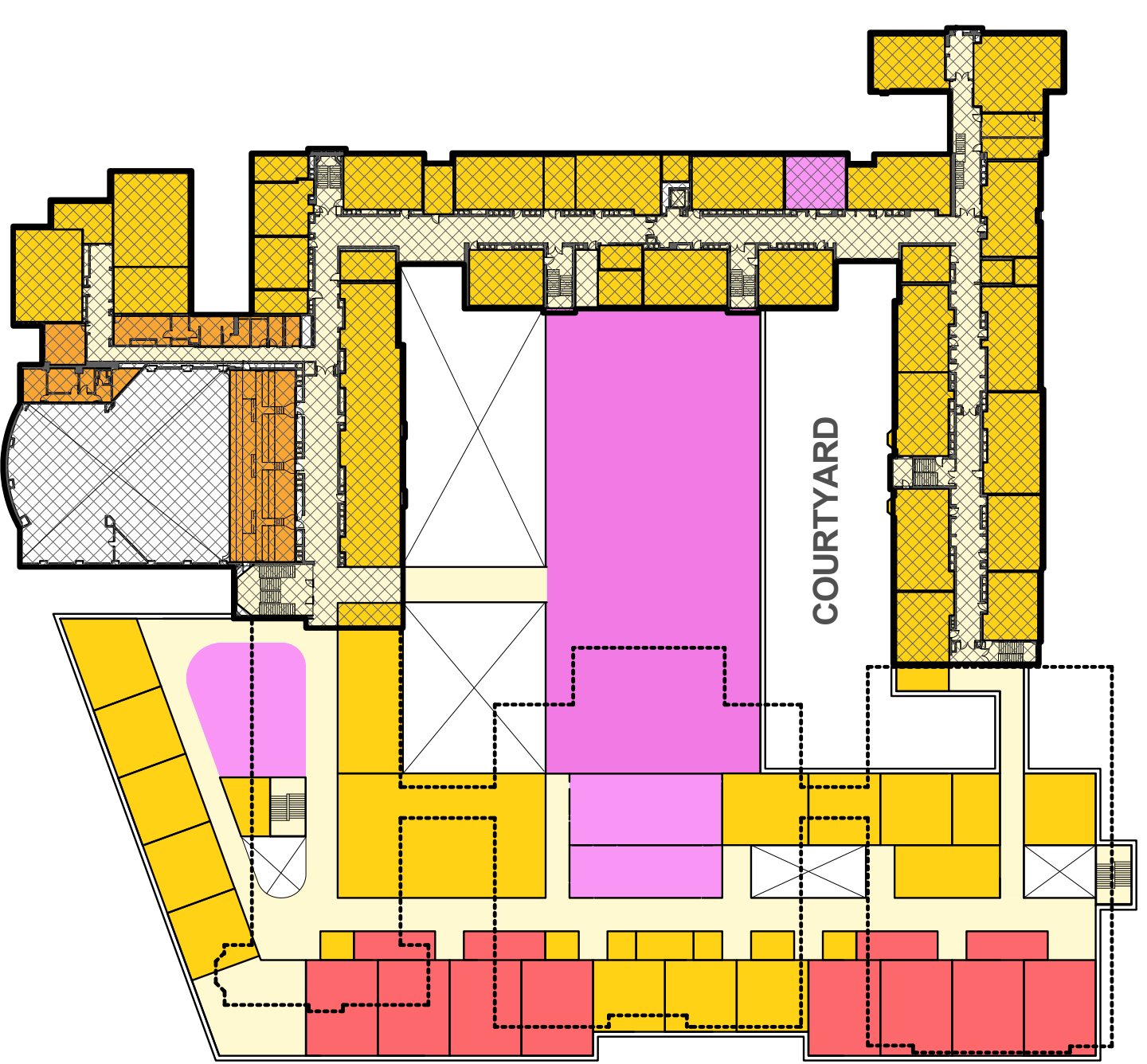
CIRCULATION CORE ACADEMICS SCIENCE COLLABORATIVE LIBRARY CULINARY ARTS DINING COMMONS PERFORMANCE EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION

OPTION 3

Brookline High School Education Plan



1st Floor Plan



3rd Floor Plan

CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

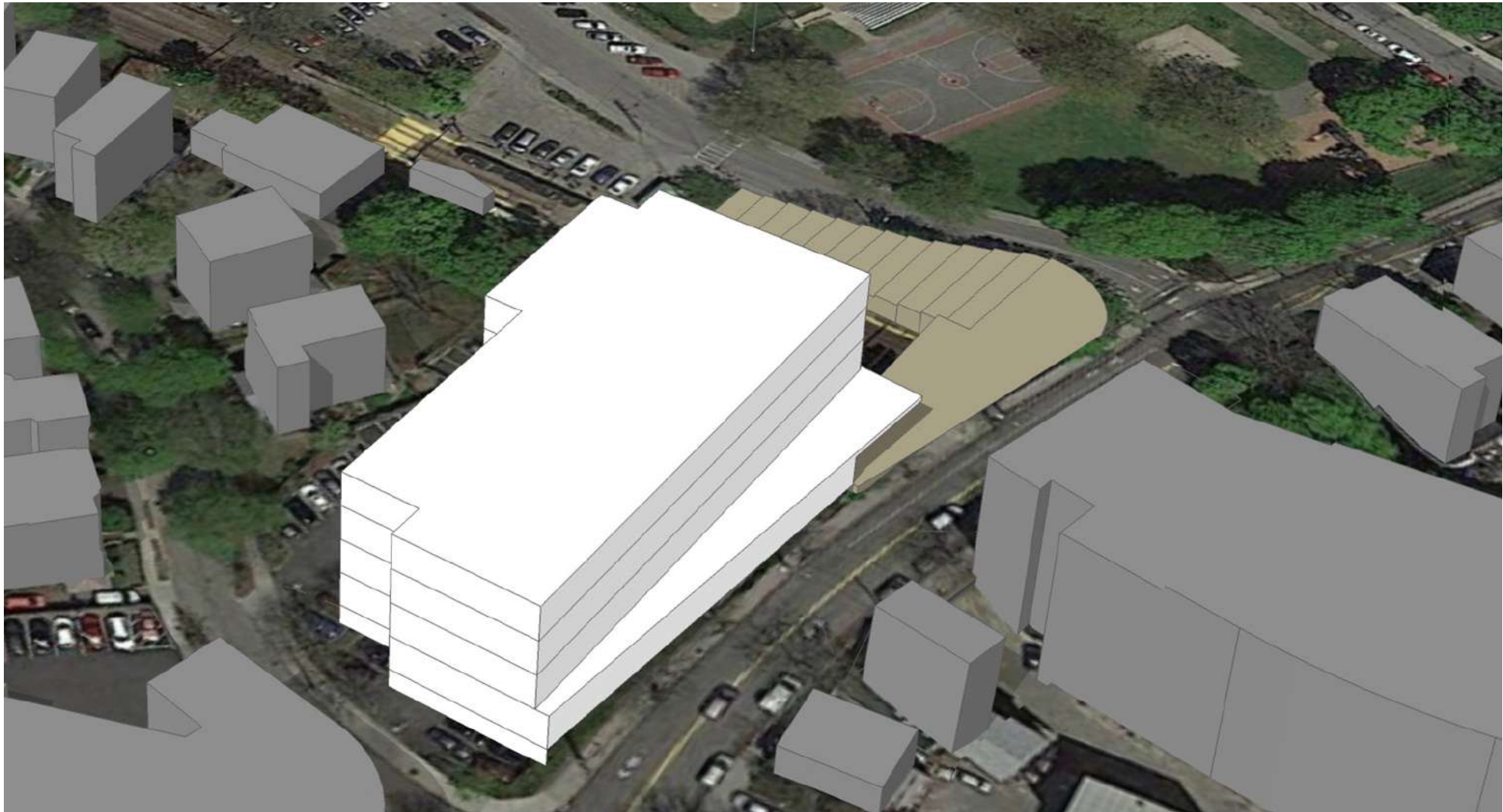
PERFORMANCE

EXTENT OF DEMOLITION

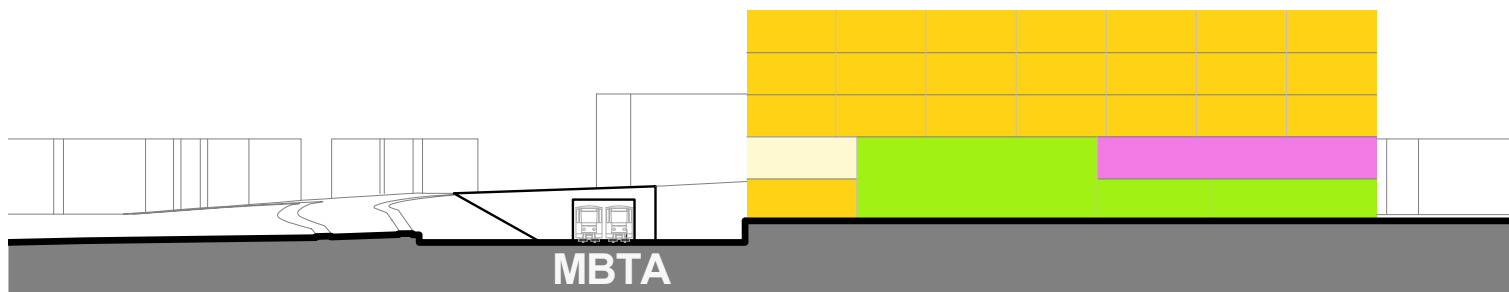
EXISTING - NO WORK

RENOVATION

OPTION 4A & 4B
New Cypress Building



Massing 4A & 4B



Section 4A & 4B

CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

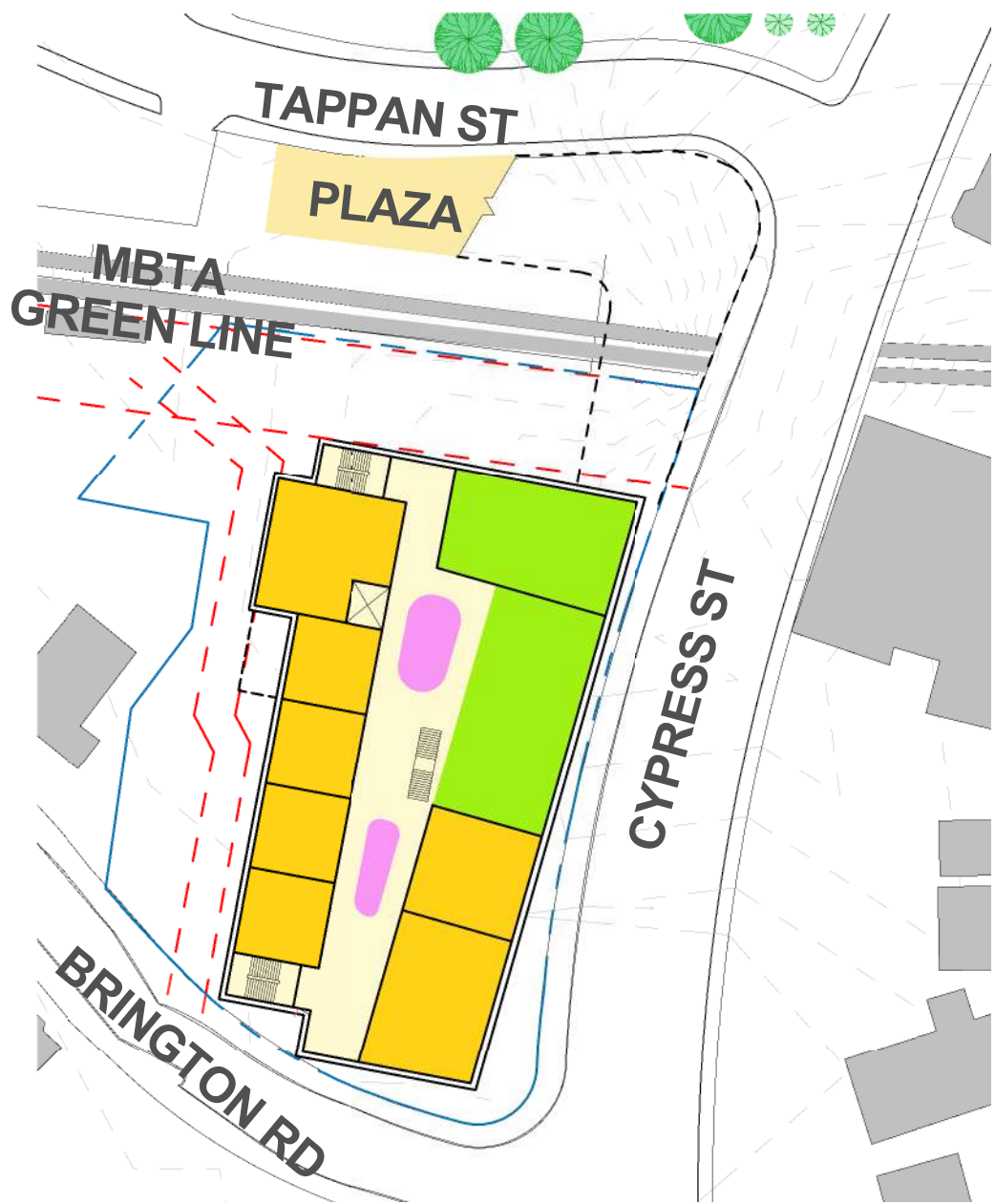
PERFORMANCE

..... EXTENT OF DEMOLITION

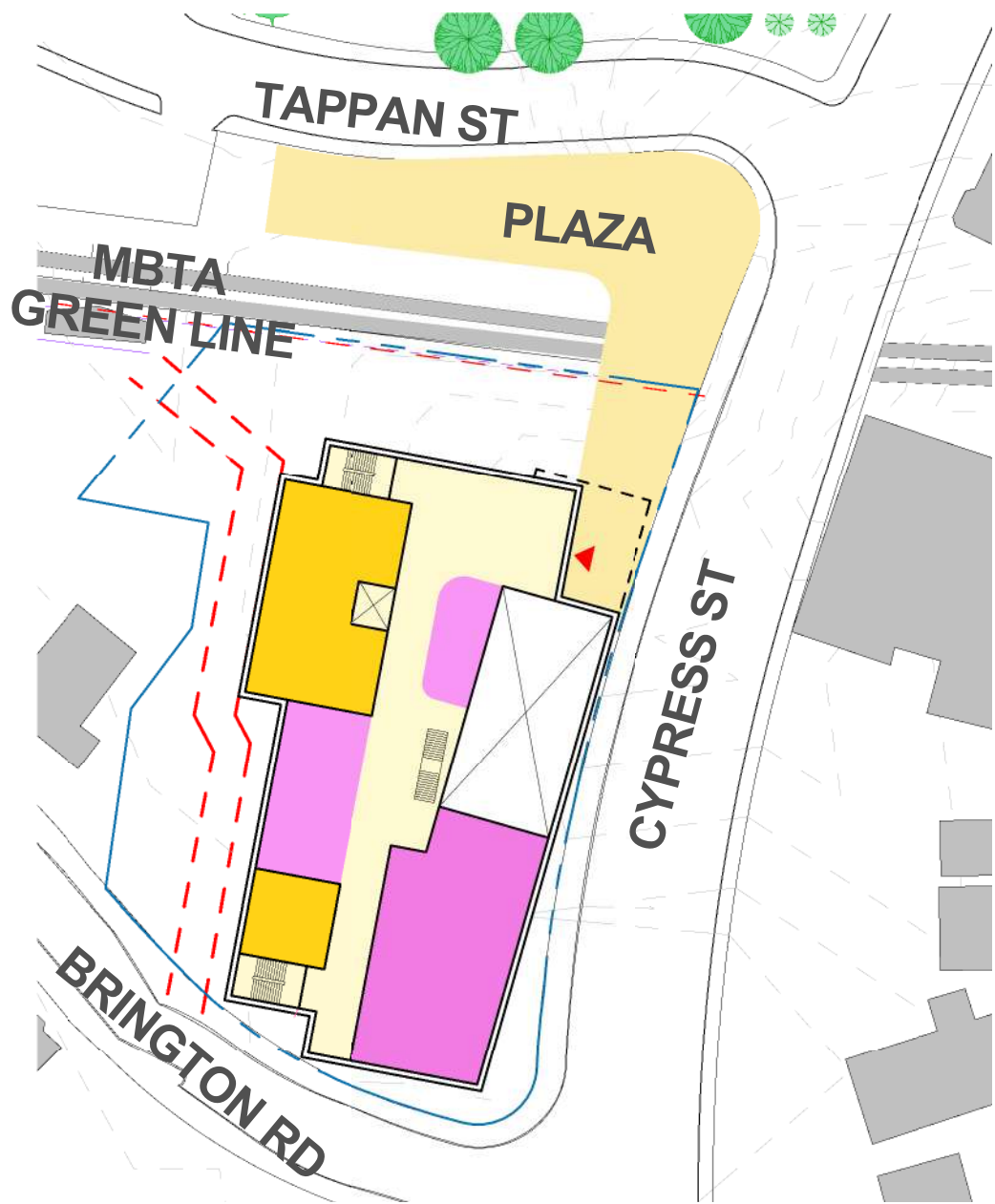
EXISTING - NO WORK

RENOVATION

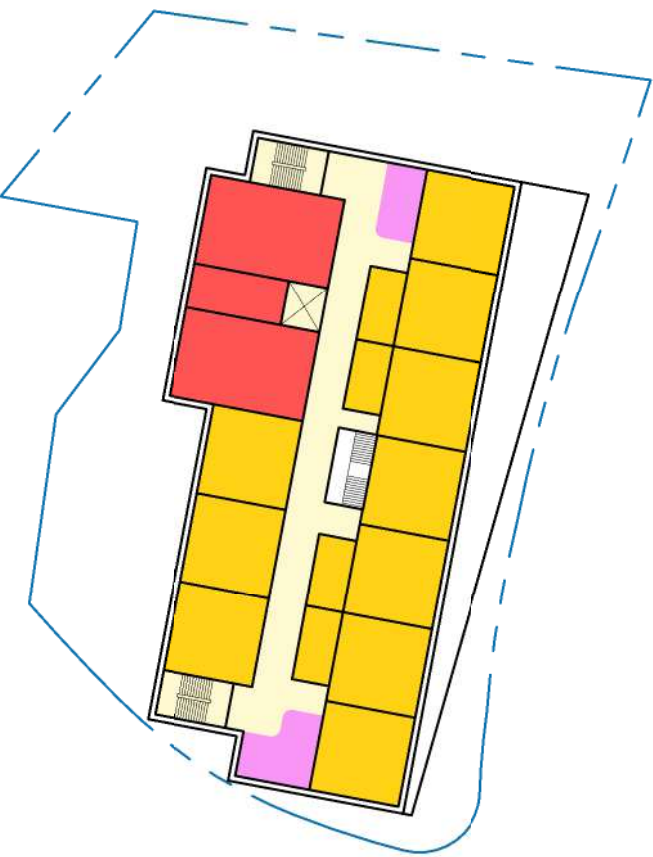
OPTION 4A & 4B New Cypress Building



Ground Level Plan



1st Floor Plan



2nd - 4th Floor Plan

CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

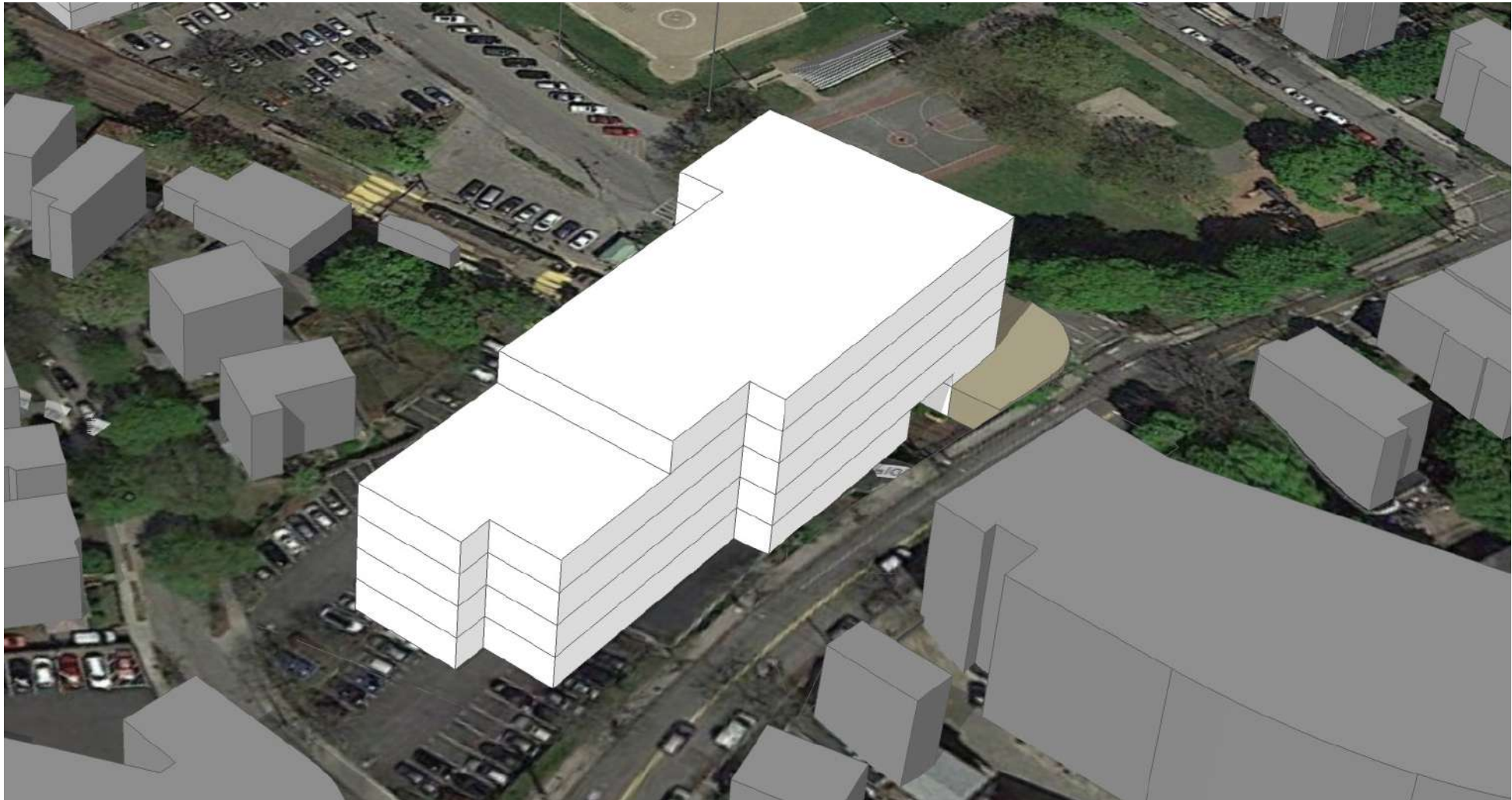
PERFORMANCE

..... EXTENT OF DEMOLITION

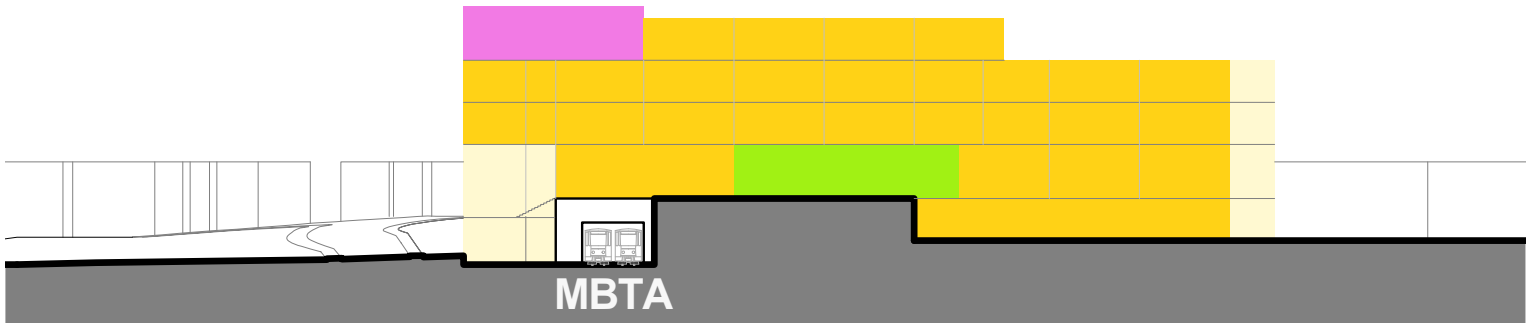
EXISTING - NO WORK

RENOVATION

OPTION 4C & 4D:
New Cypress Building over the MBTA



Massing 4C & 4D



Section 4C & 4D

- CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

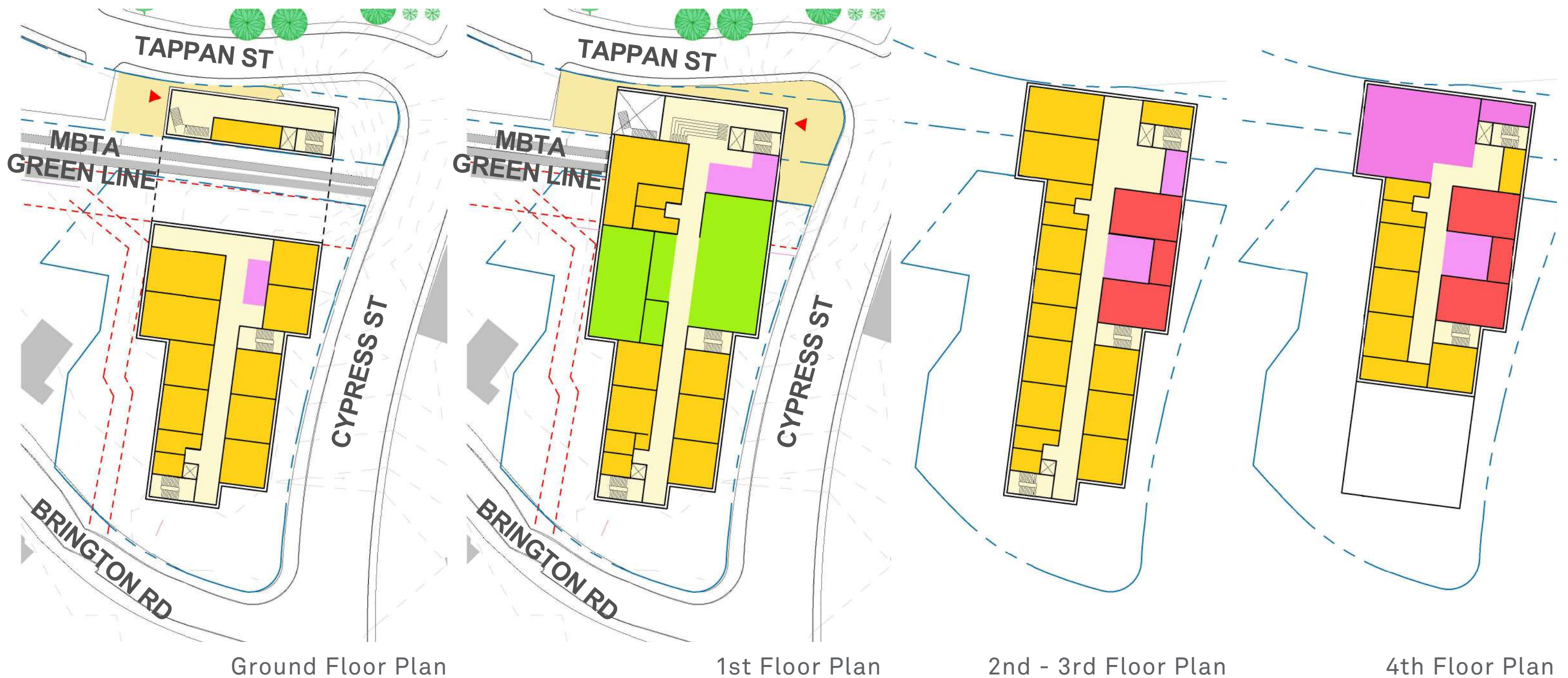
DINING COMMONS

PERFORMANCE
- EXTENT OF DEMOLITION

EXISTING - NO WORK

RENOVATION

OPTION 4C & 4D: New Cypress Building over the MBTA

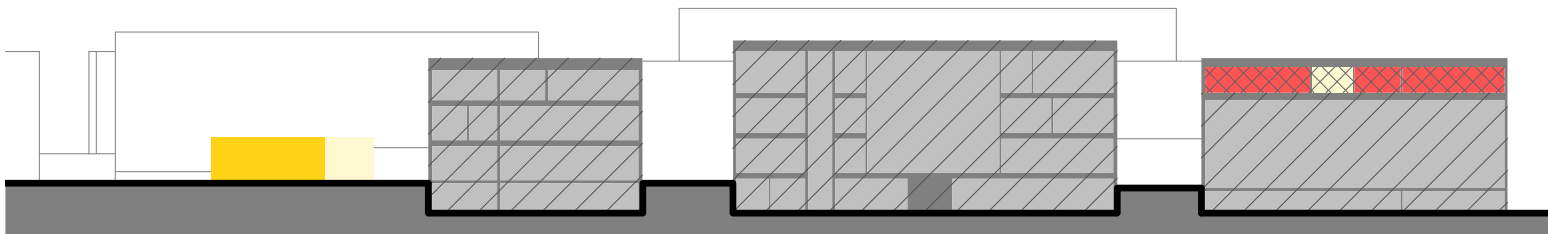


OPTION 4A & 4C

Brookline High School New 5-Classroom Addition & Renovate Existing Science



Massing 4A & 4C



Section 4A & 4C

- CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

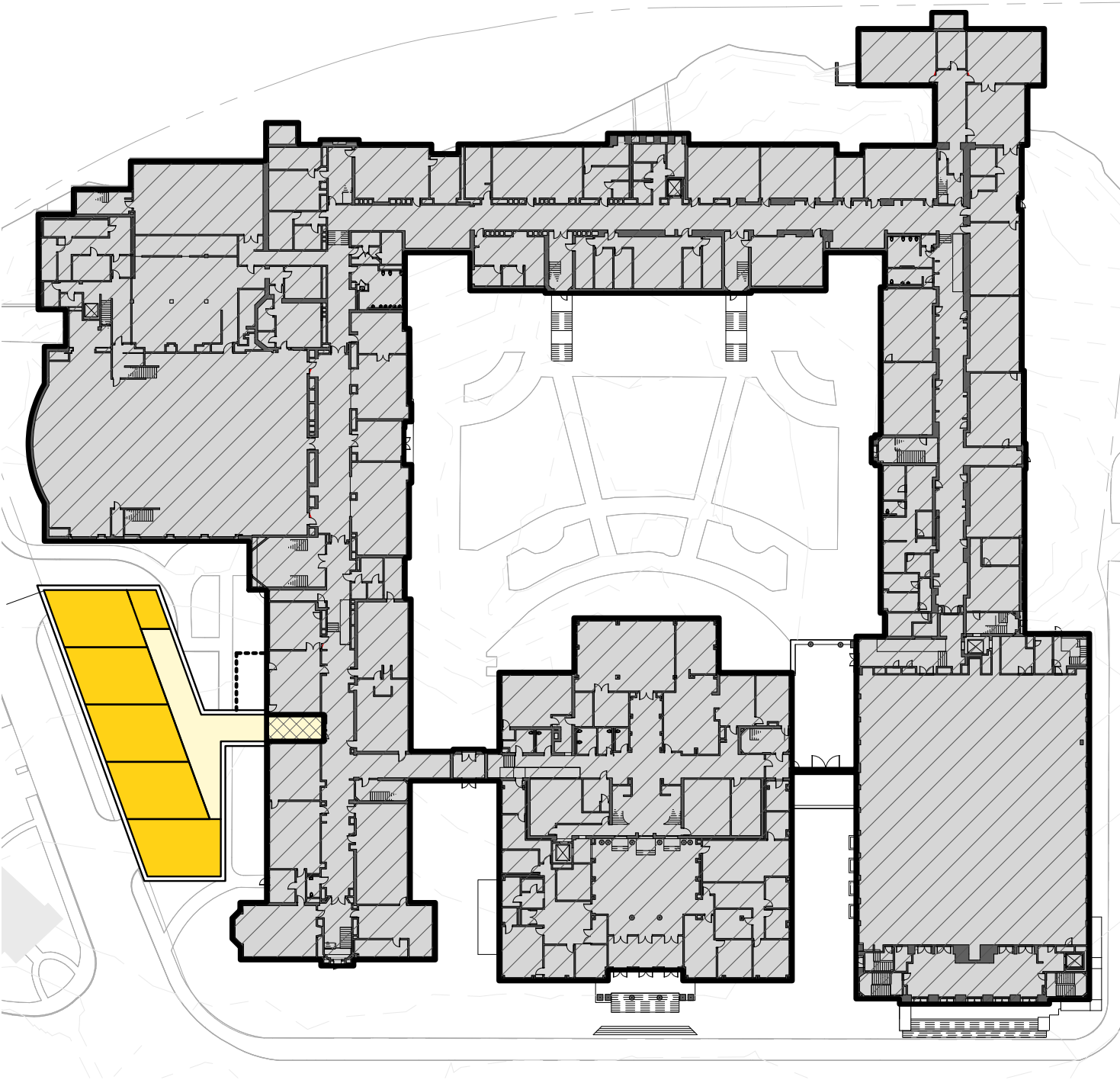
PERFORMANCE
- EXTENT OF DEMOLITION

EXISTING - NO WORK

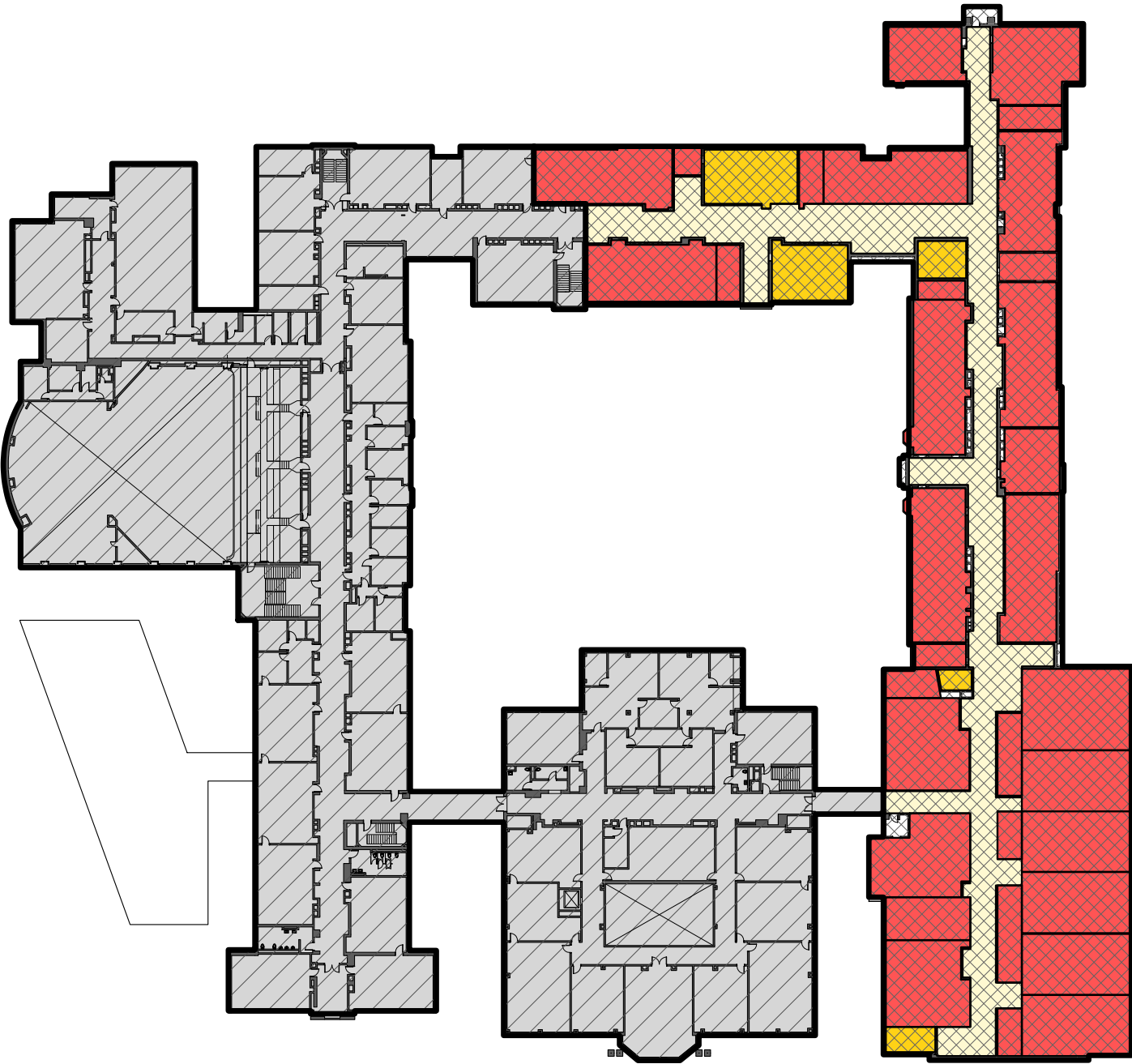
RENOVATION

OPTION 4A & 4C

Brookline High School New 5-Classroom Addition & Renovate Existing Science



1st Floor Plan



3rd Floor Plan

CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

PERFORMANCE

..... EXTENT OF DEMOLITION

EXISTING - NO WORK

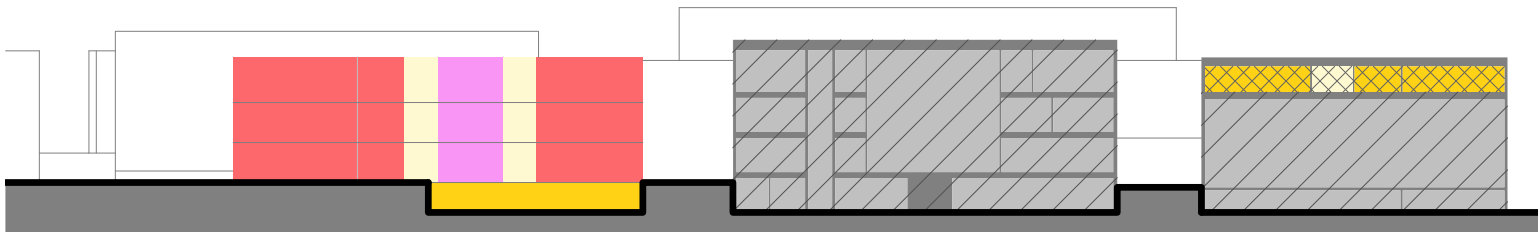
RENOVATION

OPTION 4B & 4D

Brookline High School New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



Massing 4B & 4D

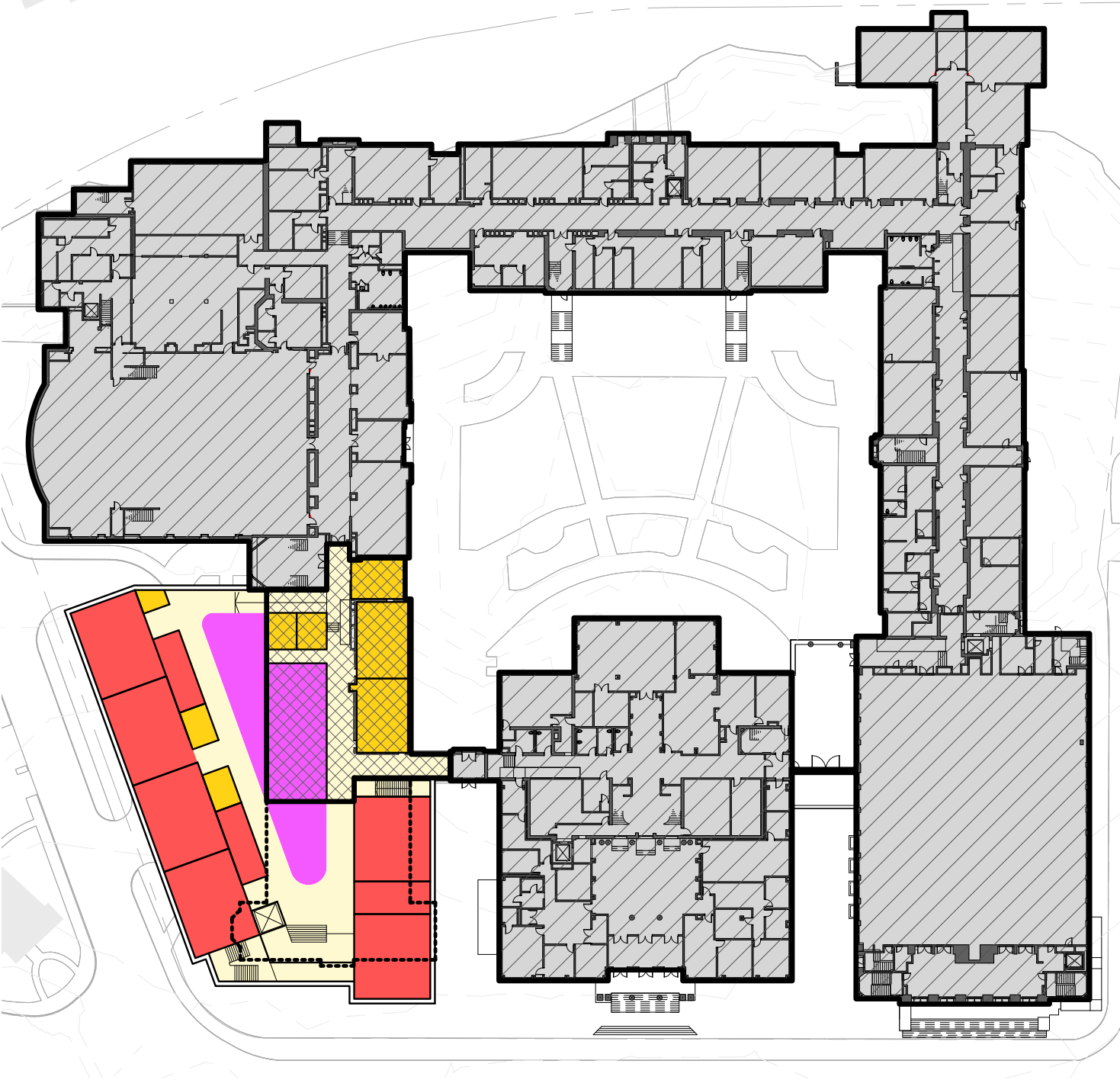


Section 4B & 4D

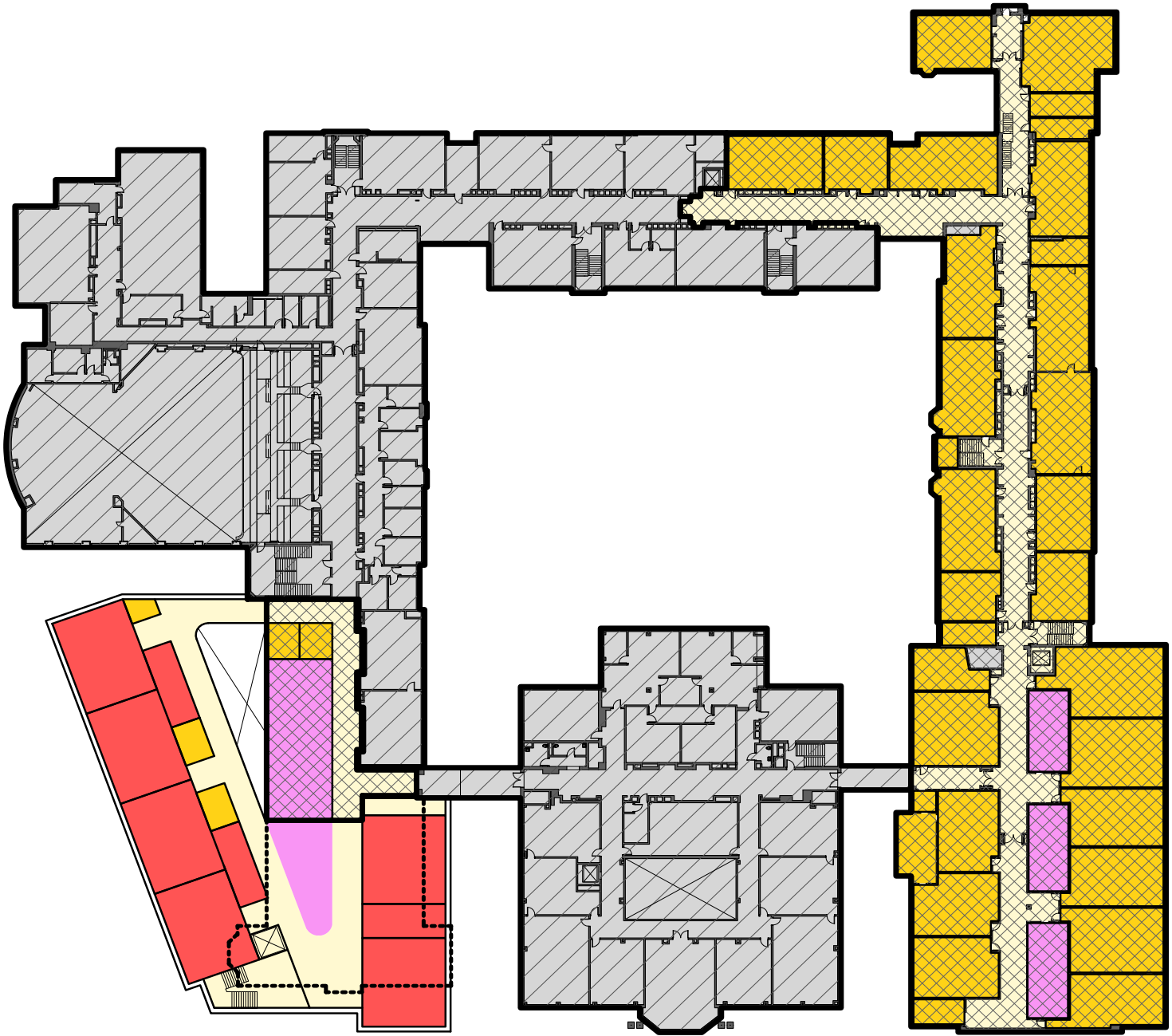
CIRCULATION CORE ACADEMICS SCIENCE COLLABORATIVE LIBRARY CULINARY ARTS DINING COMMONS PERFORMANCE EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION

OPTION 4B & 4D

Brookline High School New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



1st Floor Plan



3rd Floor Plan

CIRCULATION

CORE ACADEMICS

SCIENCE

COLLABORATIVE

LIBRARY

CULINARY ARTS

DINING COMMONS

PERFORMANCE

..... EXTENT OF DEMOLITION

EXISTING - NO WORK

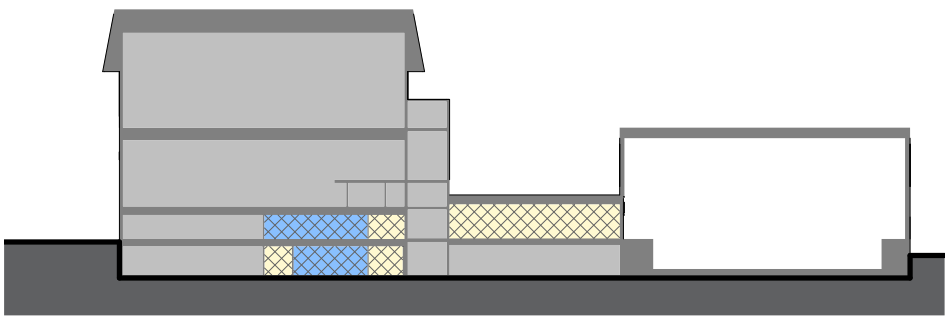
RENOVATION

OPTIONAL PROJECT - with Option 1 or Option 4

1. Tappan Gym - Minimal Renovations



Tappan Gym Massing



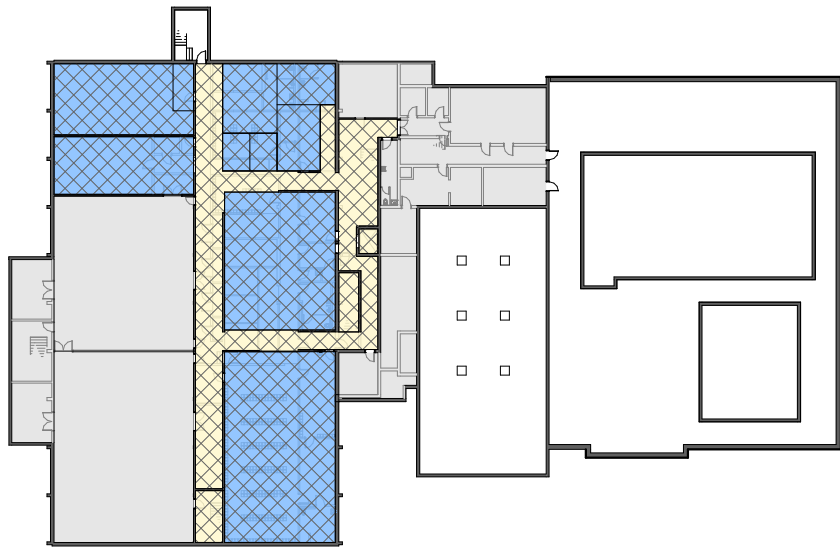
Tappan Gym Section

CIRCULATION HEALTH AND PHYSICAL EDUCATION

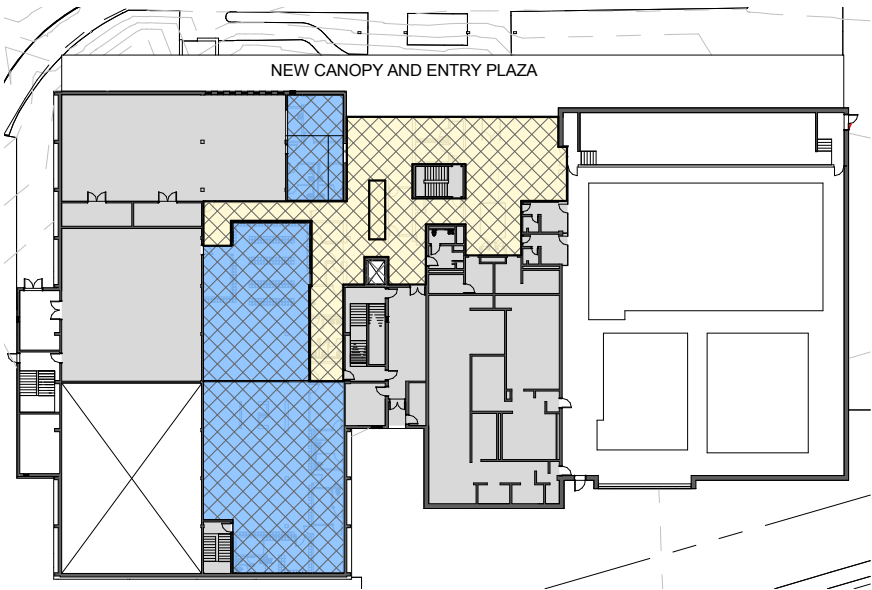
..... EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION

OPTIONAL PROJECT - with Option 1 or Option 4

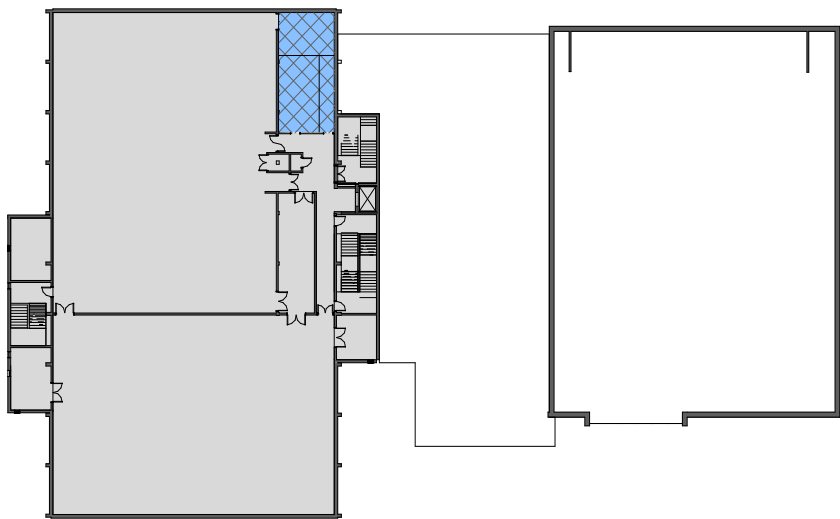
1. Tappan Gym - Minimal Renovations



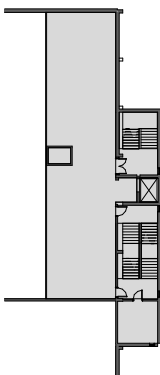
Basement



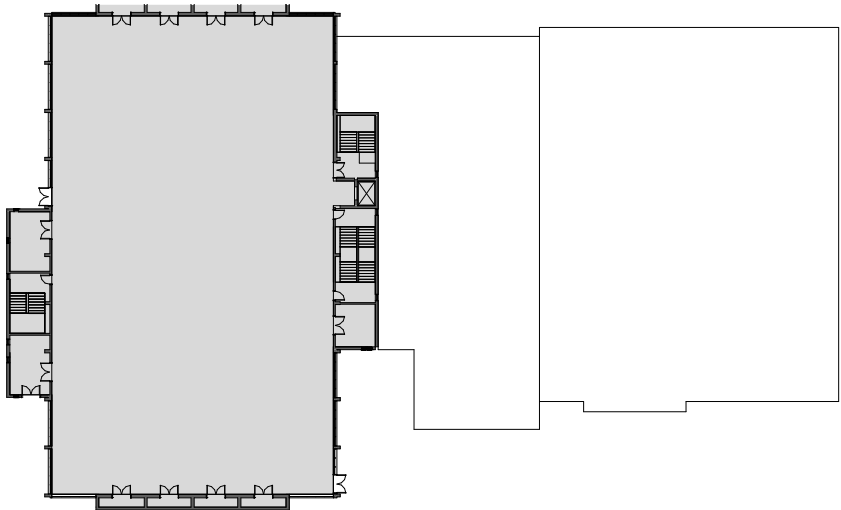
First Floor



Second Floor



Mezzanine



Third Floor

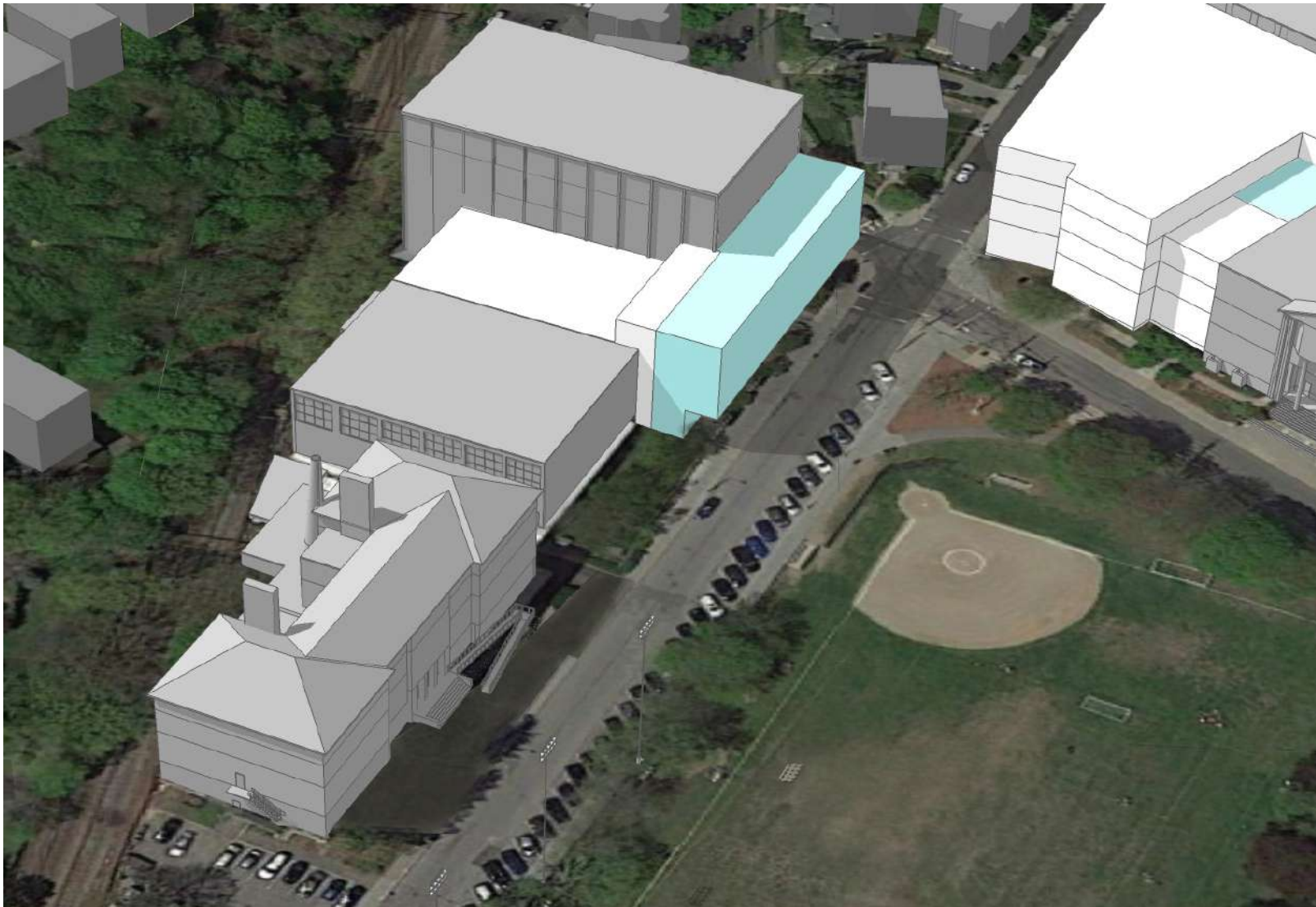
CIRCULATION HEALTH AND PHYSICAL EDUCATION

..... EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION

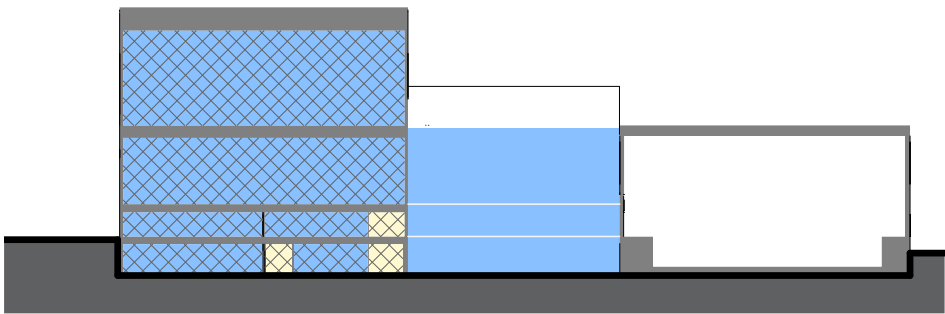
OPTION 2

MA State High School Standards

2. Tappan Gym - Moderate Expansion with Competition & Practice Gym



Tappan Gym Massing



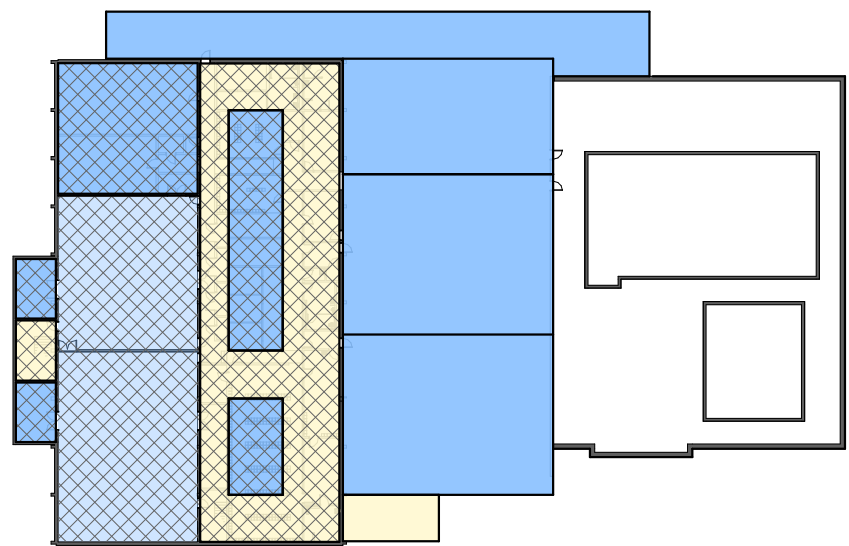
Tappan Gym Section

CIRCULATION HEALTH AND PHYSICAL EDUCATION EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION

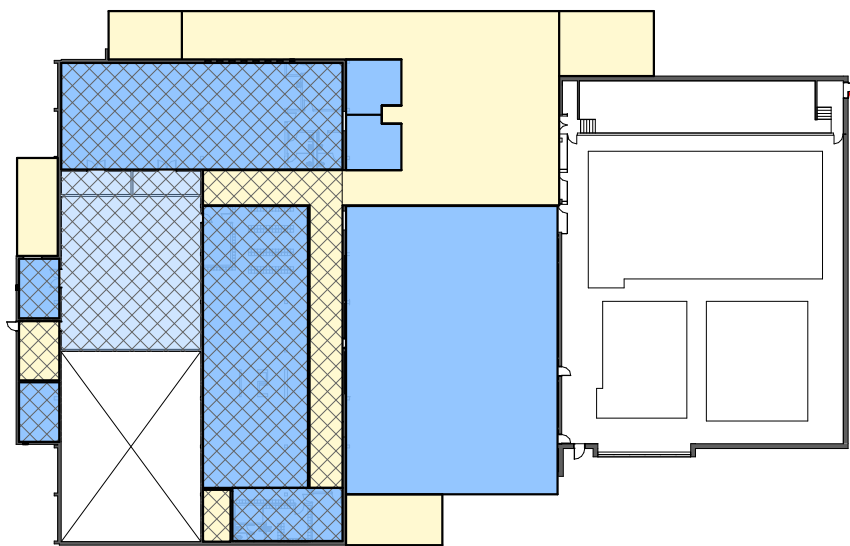
OPTION 2

MA State High School Standards

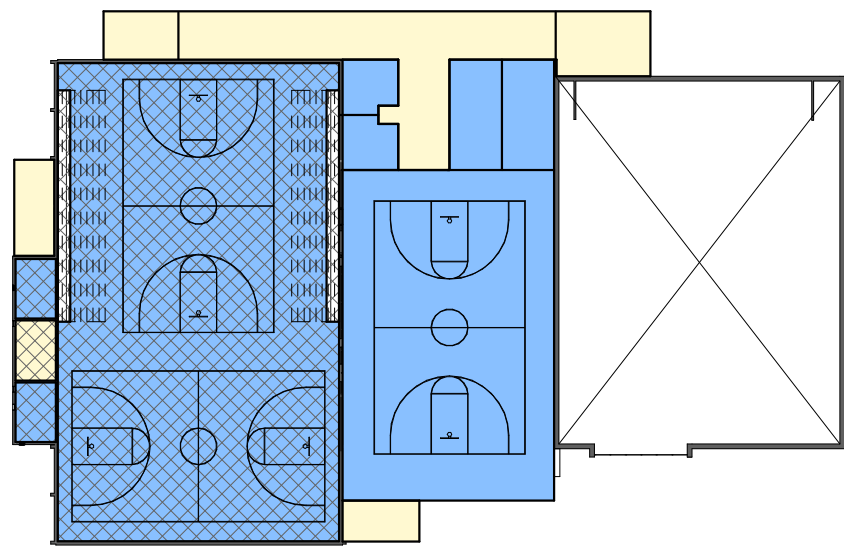
2. Tappan Gym - Moderate Expansion with Competition & Practice Gym



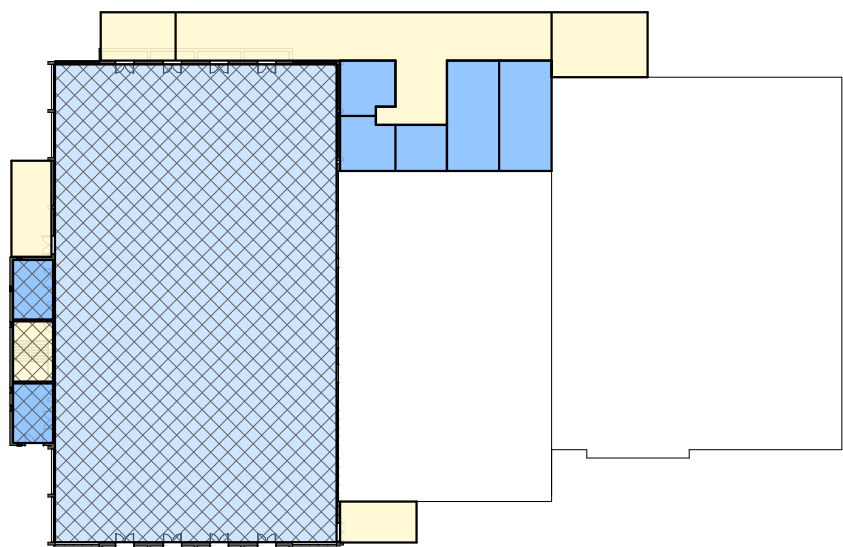
Basement



First Floor



Second Floor



Third Floor

CIRCULATION

HEALTH AND PHYSICAL EDUCATION

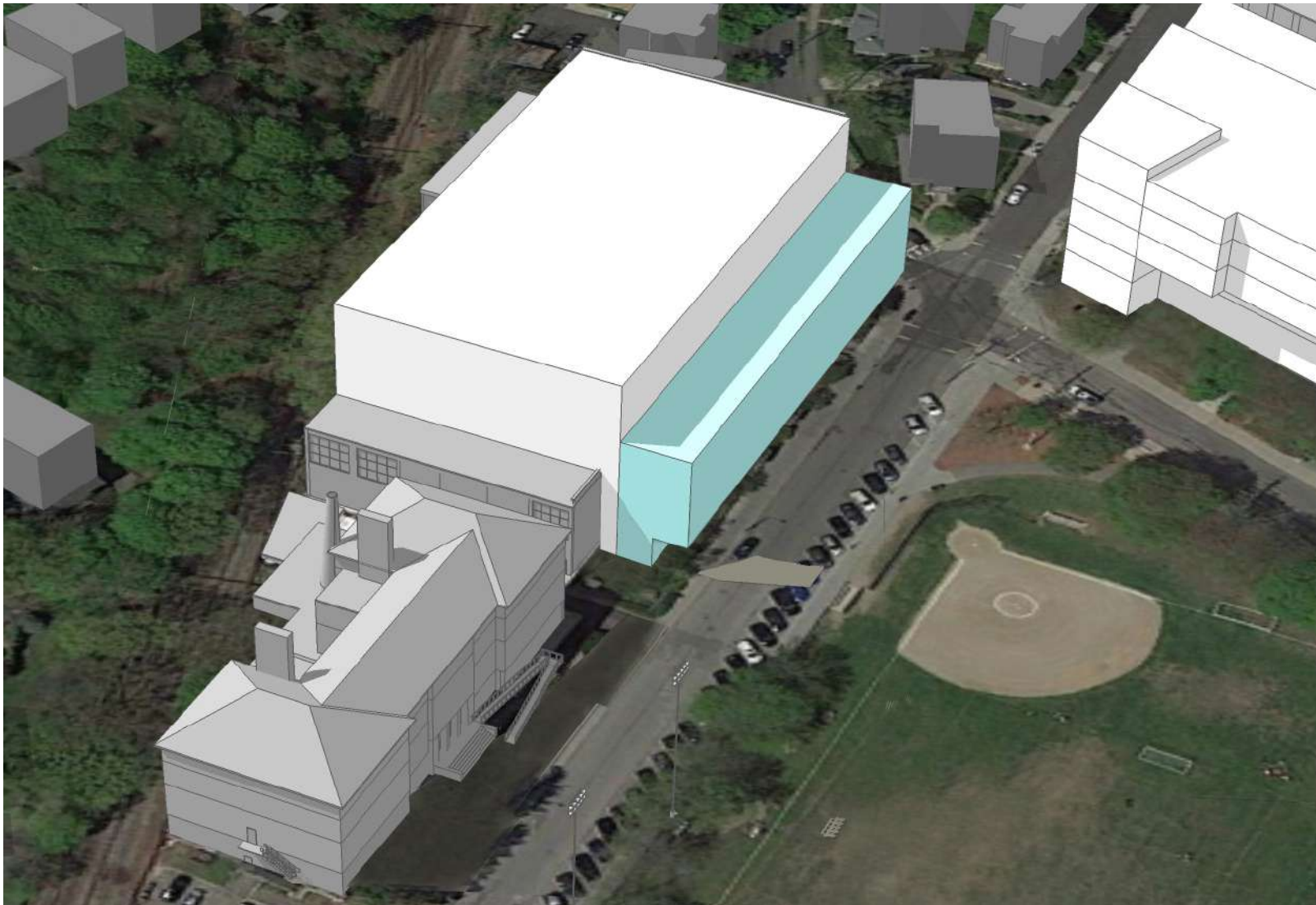
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EXTENT OF DEMOLITION

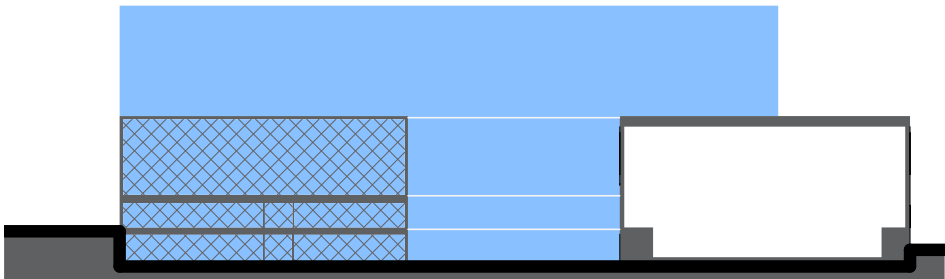
EXISTING - NO WORK

RENOVATION

OPTION 3
Brookline High School Education Plan
3. Tappan Gym - Education Plan with Field House



Tappan Gym Massing



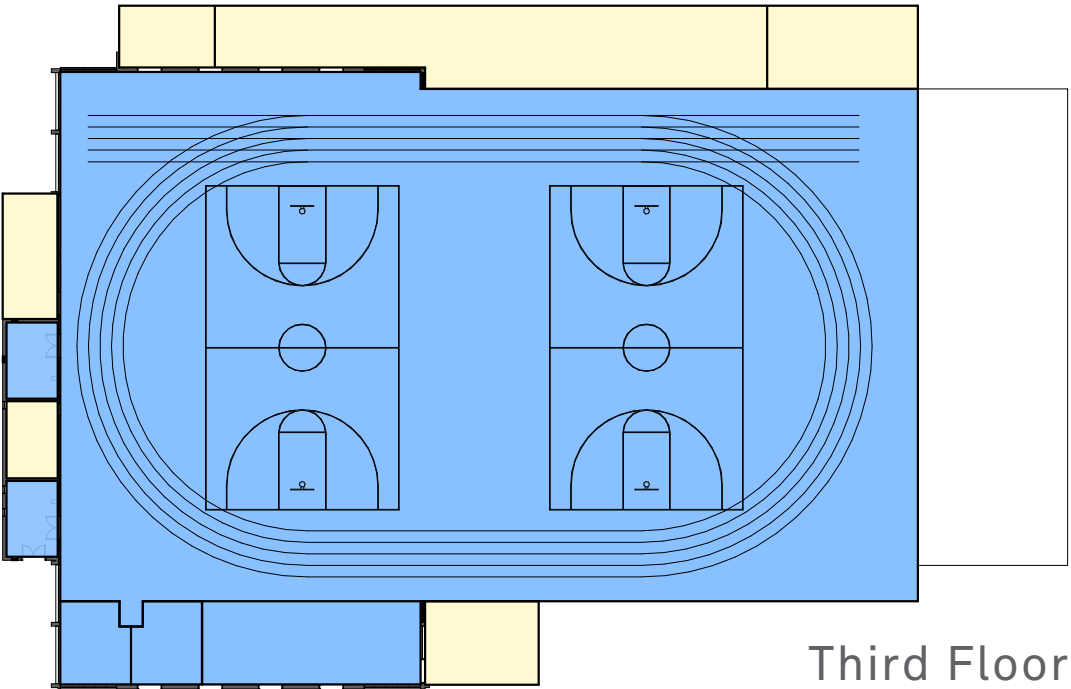
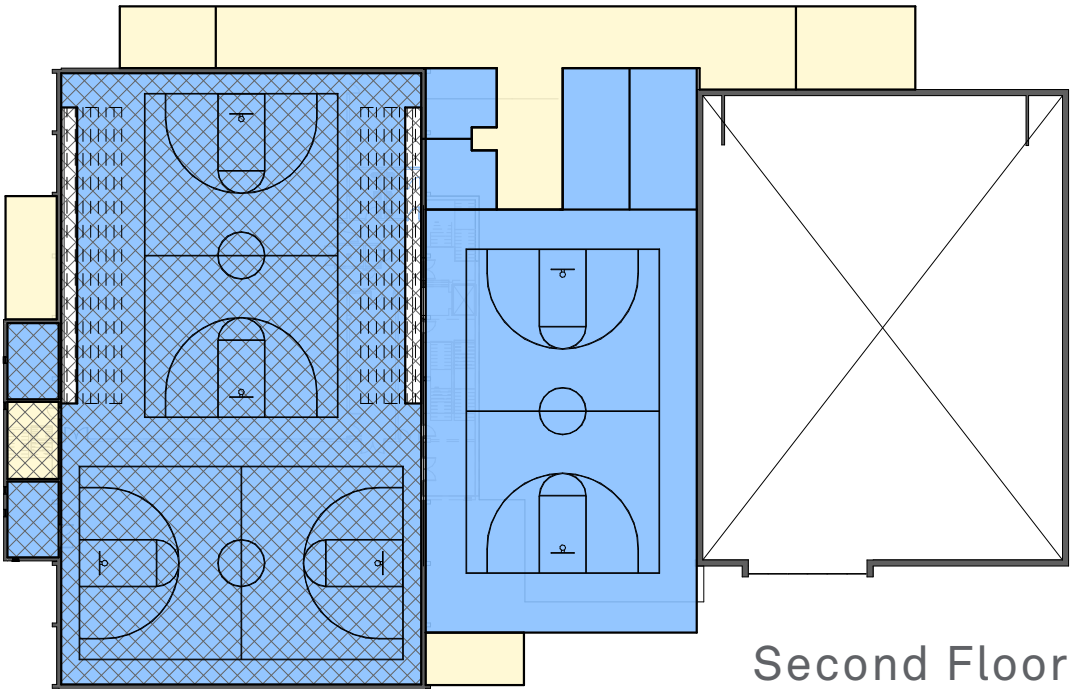
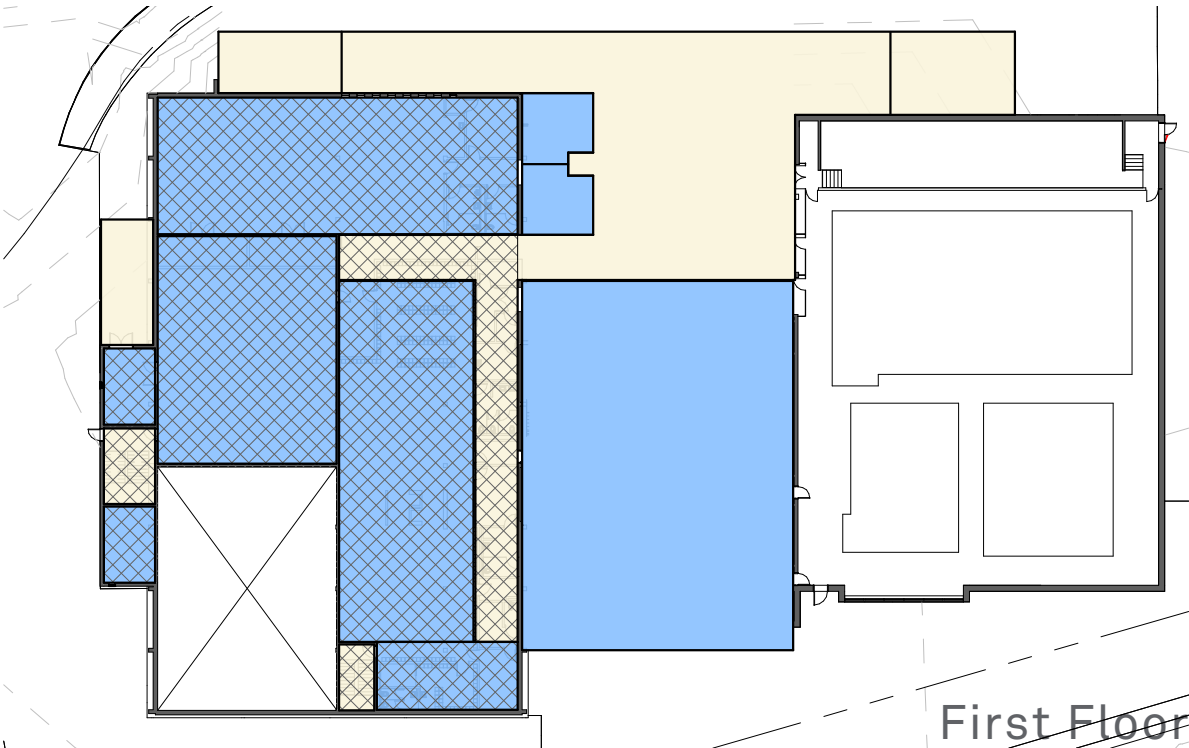
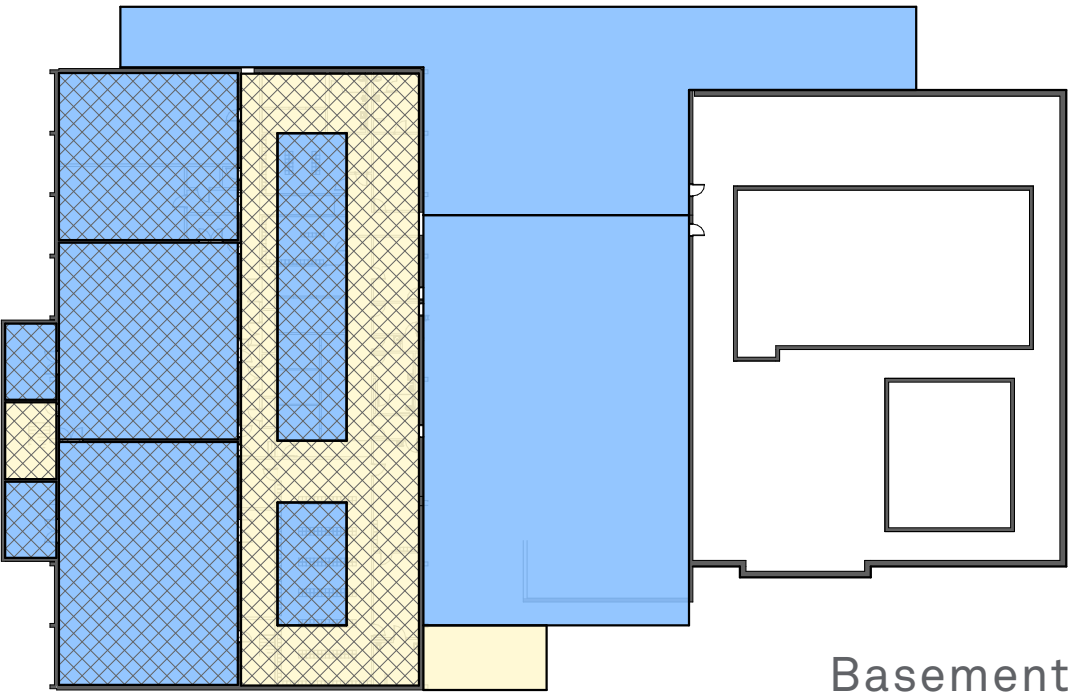
Tappan Gym Section

 CIRCULATION  HEALTH AND PHYSICAL EDUCATION EXTENT OF DEMOLITION  EXISTING - NO WORK  RENOVATION

OPTION 3

Brookline High School Education Plan

3. Tappan Gym - Education Plan with Field House



CIRCULATION

HEALTH AND PHYSICAL EDUCATION

.....

EXTENT OF DEMOLITION

EXISTING - NO WORK

RENOVATION

Program Priorities

	Option 1	Option 2	Option 3	Option 4	Option 4	Option 4
Core Academics	Enrollment Accommodation	MA State High School Standards	Brookline BHS Education Plan	Stand-alone Cypress Building	Main Building Renovate Science	Main Building New STEM Wing
Classrooms						
Existing	62	38	40		65	56
New Classrooms	30	57 New	58	26 New	5	14
Science Classrooms						
New Science	24	24 New	24 New	6 New		18 New
Renovate Science					18	
Special Education						
Learning Centers	8	12	13	6 New	Existing to Remain	Existing to Remain
OT/PT	1 New	1 New	1 New	1 New		

Program Priorities

	Option 1	Option 2	Option 3	Option 4	Option 4	Option 4
	Enrollment Accommodation	MA State High School Standards	Brookline BHS Education Plan	Stand-alone Cypress Building	Main BHS Renovate Science	Main BHS New STEM Wing
Collaborative Learning						
Small Group Rooms		16 New	34 New	1 New		
Maker-Spaces	1 New	2 New	4 New	1 New	Existing to Remain	2 New
Collab.Learning Common	Existing to Remain	4 New	11 New	5 New	MLK Room to Remain	2 New
Library	Relocate Reno/Expand	New & Expanded	New & Expanded	1 New Satellite	Existing to Remain	Existing to Remain
Cafeteria	Reno/Expand Existing	Reno/Expand Existing	New & Expanded	1 New Satellite	Existing to Remain	Existing to Remain
Career Ed. Technology	New Culinary Arts at BHS	New Culinary Arts at BHS	New Culinary Arts at BHS	Culinary Arts at BHS	Existing to Remain	New Culinary Arts at BHS
OPTIONAL Project	Existing UAB to Remain	Renovations at UAB	Renovations & Expand at UAB	Existing UAB to Remain	Existing UAB to Remain	Existing UAB to Remain

Program Priorities

	Option 1	Option 2	Option 3	Option 4	Option 4	Option 4
	Enrollment Accommodation	MA State High School Standards	Brookline BHS Education Plan	Stand-alone Cypress Building	Main BHS Renovate Science	Main BHS New STEM Wing
Performing/ Visual Arts						
Music & Perform Space	New Black Box	New Black Box and White Box	New Black Box, White Box and 400 seat Theater	1 New	Existing to Remain	Existing to Remain
Ensemble & Music Practice	New Chorus	New Band and Chorus	New Expanded Band & Chorus	3 New		
Arts Studios	New at BHS	New at BHS	New at BHS	1 New	Existing to Remain	Existing to Remain
OPTIONAL Project	Existing UAB to Remain	Renovations at UAB	Renovations & Expand at UAB	and at UAB to Remain	Existing UAB to Remain	Existing UAB to Remain
Physical Ed. Facilities						
Schluntz Gym (Competition)	Existing to Remain	Replace at Tappan	Replace at Tappan	Existing to Remain	Existing to Remain	Existing to Remain
Health/Fitness	Existing to Remain	2. Tappan Moderate Renovation	3. Tappan Renovation Expansion with Field House & Competition Gym	2 New Health Classrooms	Existing to Remain	Existing to Remain
Tappan Facility	Existing to Remain	Expansion with Competition Gym		Existing to Remain	Existing to Remain	Existing to Remain
OPTIONAL Project	1. Renovate Tappan Gym			1. Renovate Tappan Gym		

Option 1, 2 & 3

Summary and Cost

Option 1



Existing to Remain at BHS
294,310 sf

New Construction at BHS
165,000 sf

Project Cost
\$181,572,560

Option 2

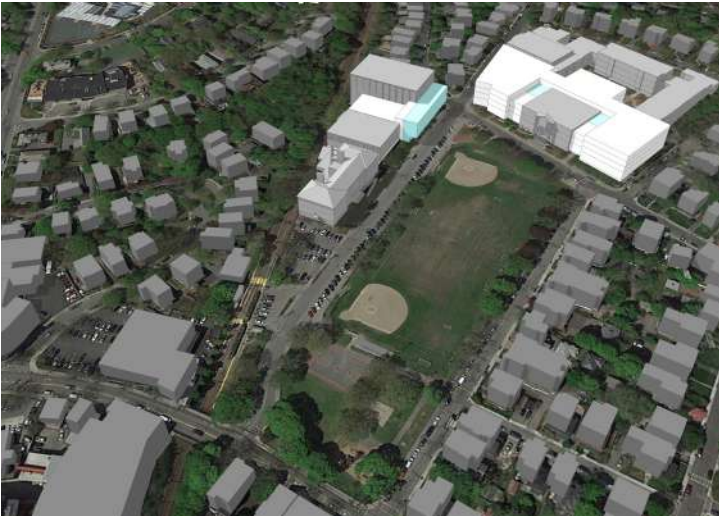


Existing to Remain at BHS
242,280 sf

New Construction at BHS
228,690 sf

Project Cost
\$212,261,728

Option 2 with Tappan



Existing to Remain at BHS
242,280 sf

New Construction at BHS
228,690 sf

Renovation at Tappan Gym
60,330 sf

New Construction at Tappan Gym
49,300 sf

Project Cost
\$271,178,244

Option 3



Existing to Remain at BHS
181,050 sf

New Construction at BHS
298,130 sf

Renovation at Tappan Gym
60,130 sf

New Construction at Tappan Gym
64,050 sf

Project Cost
\$348,352,647

Option 4

Summary and Cost

Option 4A



Renovate Existing BHS
Science
35,500 sf

New Construction at BHS
7,500 sf

New Construction
Cypress Building
109,810 sf

Project Cost
\$105,342,903

Option 4B



Renovate Existing BHS
Science into Classrooms
36,500 sf

New Construction at BHS
44,100 sf

New Construction
Cypress Building
109,810 sf

Project Cost
\$131,117,378

Option 4C



Renovate Existing BHS
Science
35,500 sf

New Construction at BHS
7,500 sf

New Construction Cypress
Building over the MBTA
112,700 sf

Project Cost
\$110,838,332

Option 4D



Renovate Existing BHS
Science into Classrooms
36,500 sf

New Construction at BHS
50,400 sf

New Construction Cypress
Building over the MBTA
112,700 sf

Project Cost
\$136,612,807

OPTIONAL PROJECTS

Tappan Gym Upgrades

1. Minimal Renovations



Project Cost
\$13,290,000

2. Moderate Expansion with Competition & Practice Gym



Project Cost
\$62,266,000

Note: Option 2. Tappan Gym Moderate Expansion is included in the program, planning for the BHS OPTION 2. State High School Standards. Costs have been summarized both with and without this Tappan Gym Upgrade

2.1 Min.Moderate Expansion with Practice Gym only



Project Cost
\$52,706,000

3. Education Plan with Field House



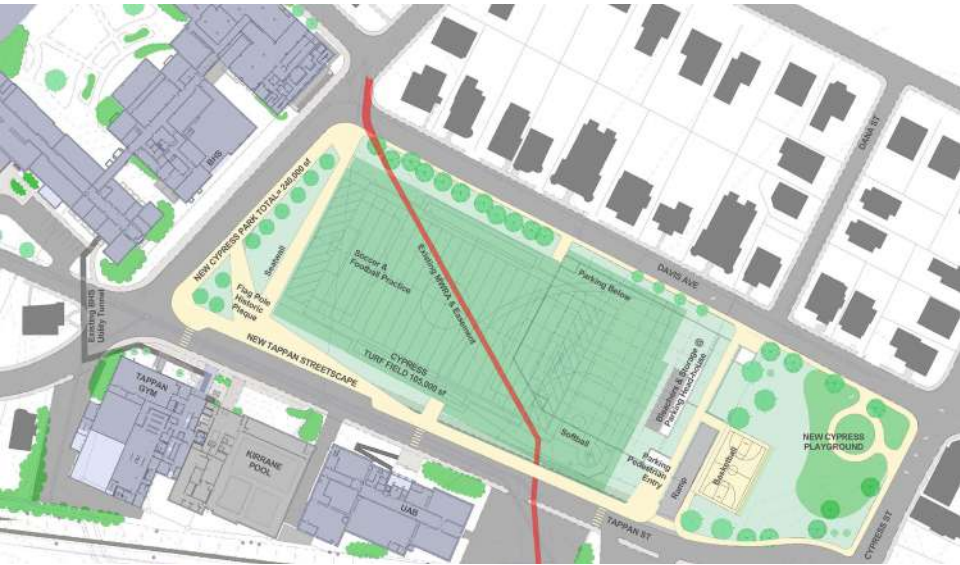
Project Cost
\$74,000,000

Note: Option 3. Tappan Education Plan with Field House is included in the program, planning, and costs for the BHS OPTION 3. Education Plan

OPTIONAL PROJECTS

Cypress Park Field & Playground

1. Field & Playground Renovation



Project Cost
\$13,335,500

2. Field & Playground Renovation with Greenough St. Re-alignment



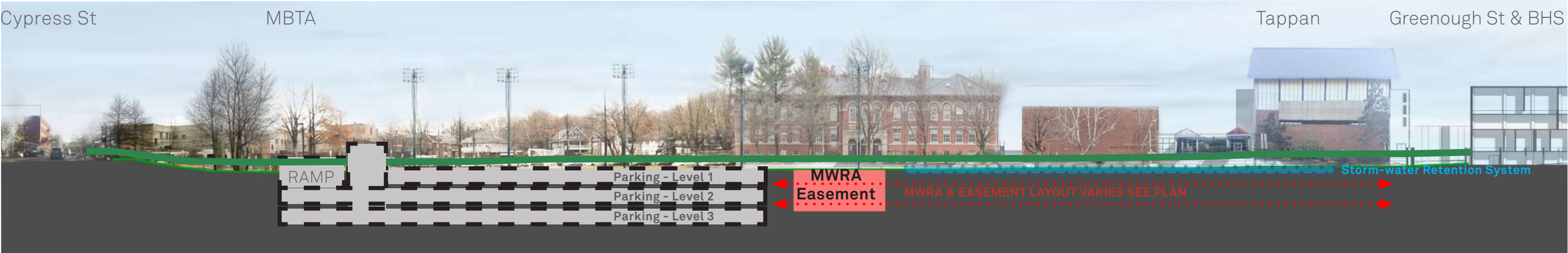
Project Cost
\$14,638,500

Underground Parking

1. Typical Plan for Parking below Cypress Park



Project Cost
1-Level 100 cars = \$21,051,500
2-Levels 200 cars = \$33,769,600
3-Levels 300 cars = \$46,806,000



Site Section: Underground Parking Structure Below Cypress Park - Field @ +/- 100 Cars per Level

