

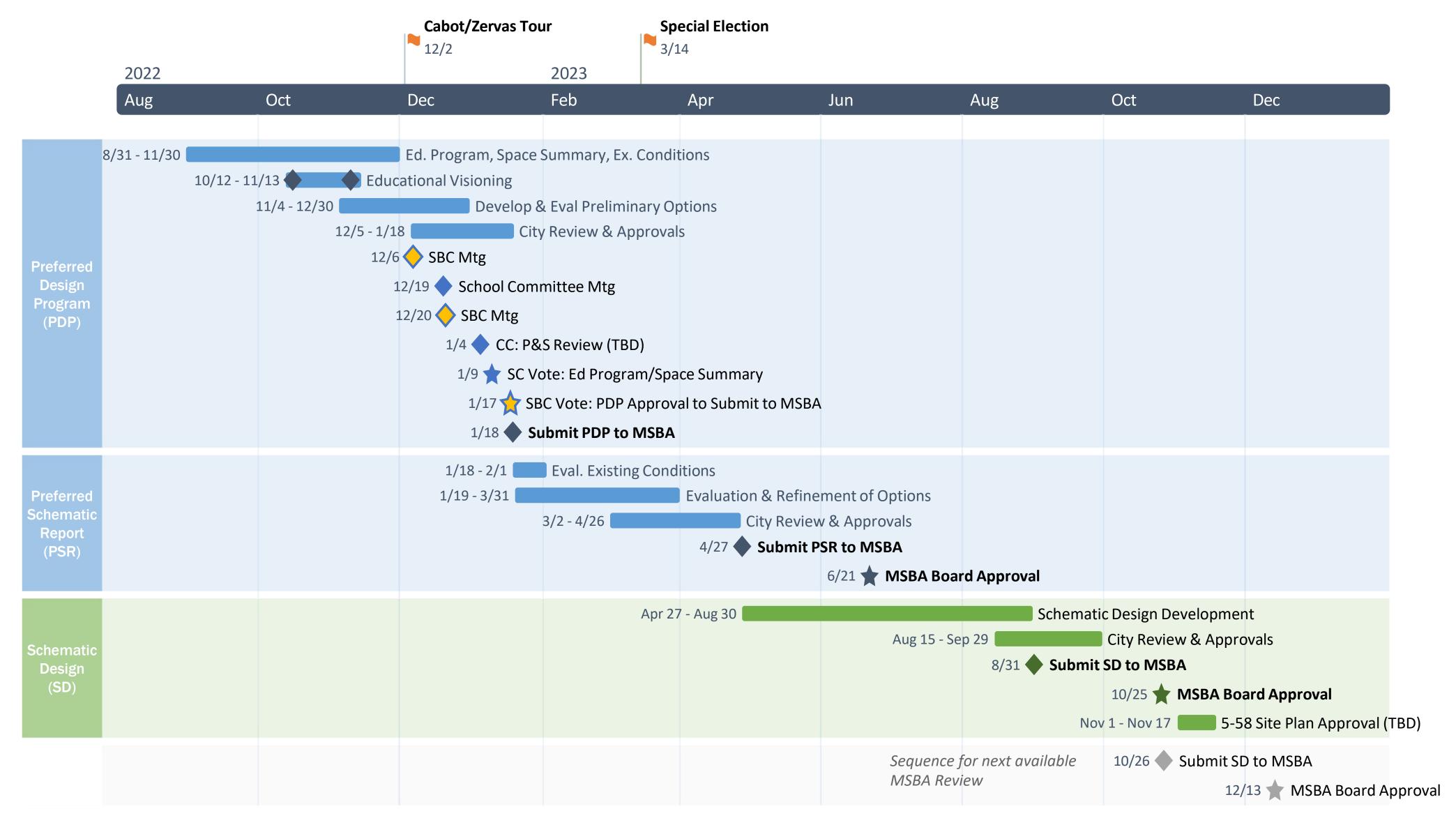
Programs and Services Committee Meeting

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA



Project Timeline/Schedule





MSBA Process

Module 3 Activities - Feasibility Study:

Submit Preliminary Design Program (PDP)

- Educational program and Space Summary
- Existing conditions report
- Establish design parameters
- Develop and evaluate alternates

Preferred Schematic Report:

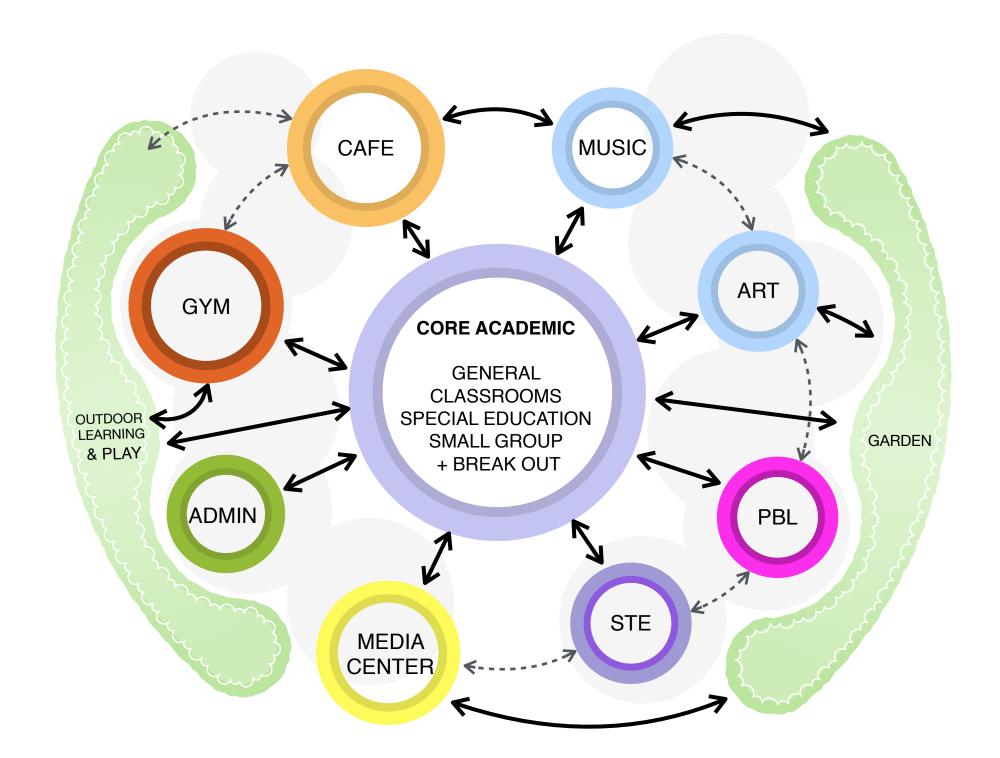
- Summarize the process and conclusions of the Preliminary and Final Evaluation of Alternatives
- Cost comparison table
- Document District's selection and recommendation of the most cost effective and educationally appropriate preferred solution to the MSBA
- Submit Preferred Schematic Report (PSR)



MSBA Process | Educational Program

- Identifies special education programs offered district-wide
- Identifies programs to be offered within the "new" Countryside School
- Massachusetts School Building Authority

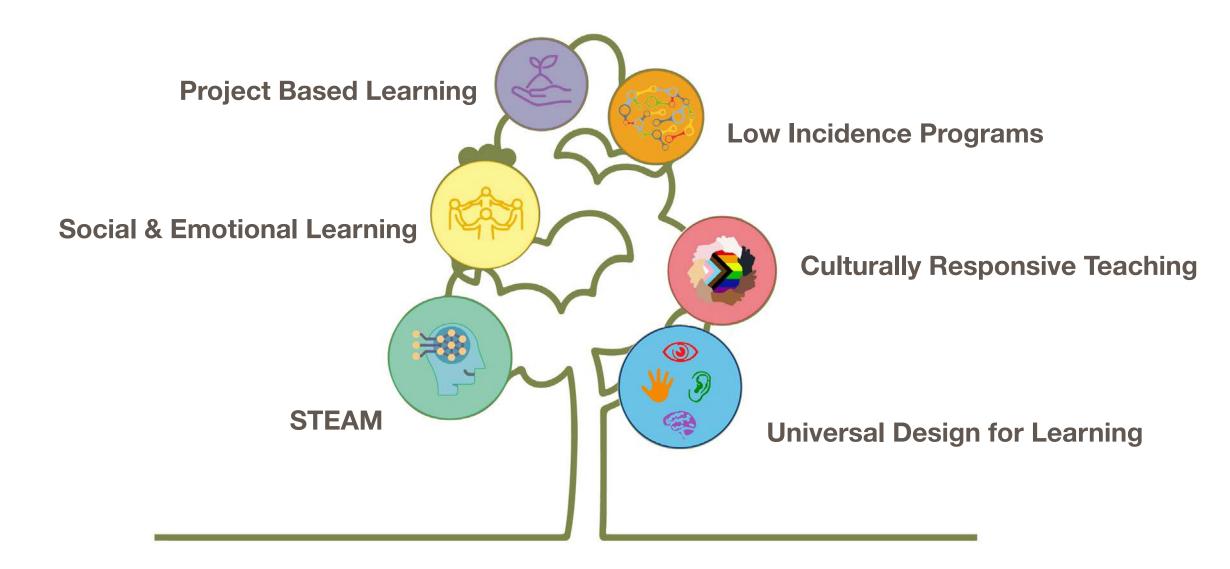
- Identifies programmatic spatial relationships and adjacencies
- The program defines the space needs and total square footage for the project



Visioning Sessions | Educational Goals

- Student Centered Learning
- Personalized Learning and Support
- Inclusive and Differentiated Instruction
- Tiered Approach to Intervention
- Special Education Support
- Responsive Classroom Approach

- Multi-Sensory Approach
- Social-Emotional Learning
- Project-Based Learning
- Outdoor Learning and Connections
- Movement and Play
- Building School Community





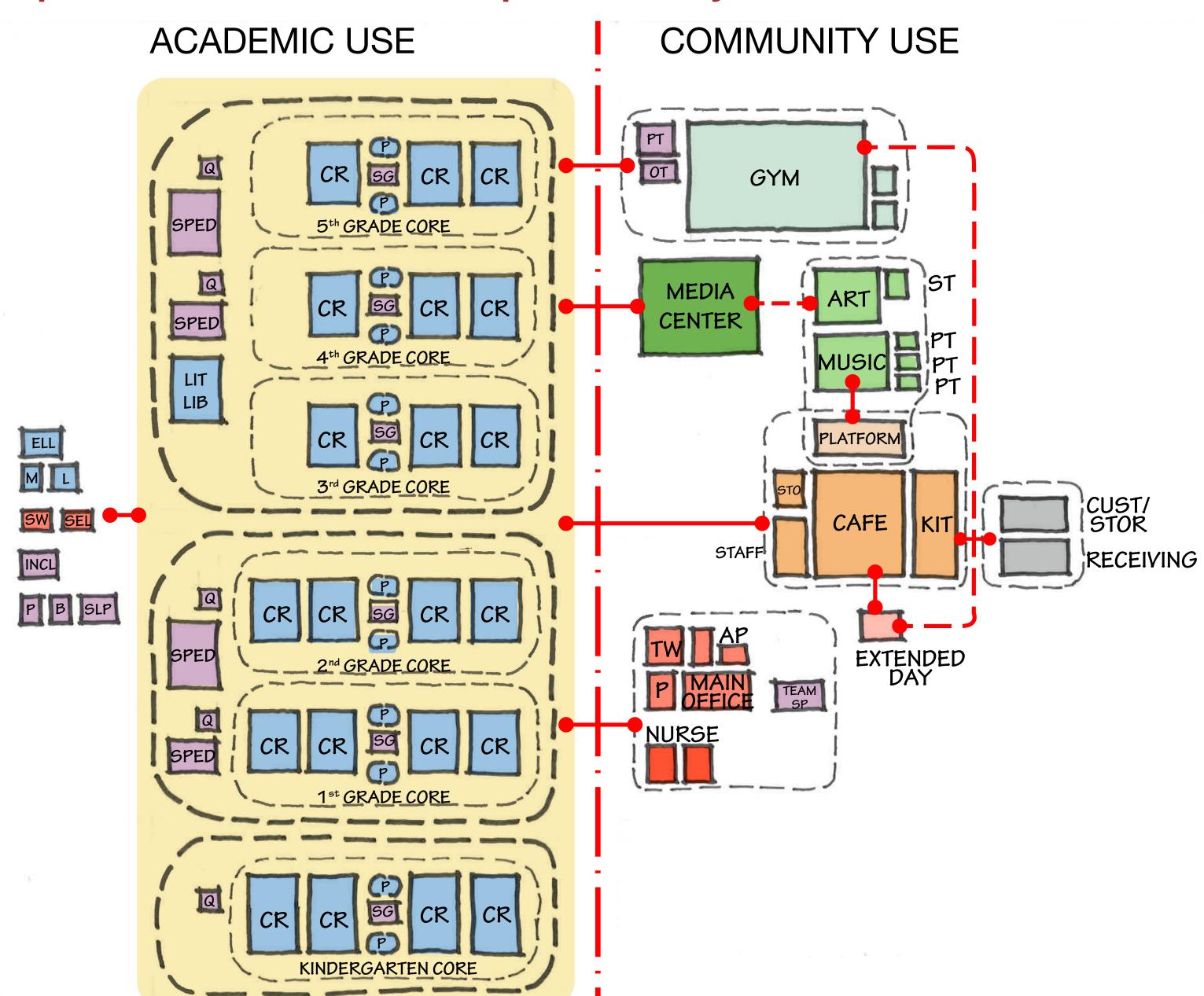
Visioning Sessions | Architectural Goals

- Warmth and Welcome
- Comfort, Flexibility and Safety
- Acoustics
- Wayfinding and Streetscapes
- Display and Exhibition
- Practicality and Durability
- Thoughtful Grade Level Configuration
- Classroom Neighborhoods
- Agile Classrooms

- Special Educational Spaces
- Enrichment Spaces
- Collaborative and Gathering Spaces
- Breakout and Quiet Spaces
- Connectivity
- Professional Work Areas
- Meeting and Small Group Spaces
- Outdoor Learning Spaces
- Sustainability



Spatial Relationships & Adjacencies



What we know:

1st floor

- Administration
- Cafetorium
- Gym
- Kindergarten Classrooms
- Receiving

To be determined:

Location of:

- Library
- Art Room
- Music Room

Site Priorities

- Main entry at drop off area
- Separate bus and parent drop off areas
- Cafetorium connected to play area
- Receiving area in proximity to kitchen
- Gym with access to fields



Preliminary Design Program | Enrollment Alternatives

Class Size Policies

Kindergarten through Second Grade 1 to 22 students

Third through Fifth Grade 1 to 24 students



Option 1 - 340 Student Enrollment

GOAL Class Size	K	1	2	3	4	5	Total
# Students (Average)	57	57	57	57	56	56	340
Average # students/class	22	22	22	24	24	24	
# of classrooms	2.59	2.59	2.59	2.37	2.37	2.37	14.88
Total Classrooms / Grade	3	3	3	3	2	2	16

Option 2 - 465 Student Enrollment

GOAL Class Size	K	1	2	3	4	5	Total
# Students (Average)	78	78	78	77	77	77	465
Average # students/class	22	22	22	24	24	24	
# of classrooms	3.55	3.55	3.55	3.20	3.20	3.20	20.25
Total Classrooms / Grade	4	4	4	3	3	3	21

- Average class size 21 22 students, respectively
- Provides flexibility for larger than typical grade

Preliminary Space Summary 340 Student Enrollment

Program	Countryside Existing Conditions	Countryside Space Requirements	MSBA Guidelines	Differences	Comments
Core Academic	18,135 NFA	17,025 NFA	15,000 NFA	2,025 NFA	MSBA does not automatically include ELL, Lit / Math Specialists
Special Ed.	3,530 NFA	5,185 NFA	4,530 NFA	655 NFA	DESE reviews / approves Special Ed spaces
Art/Music	1,480 NFA	2,500 NFA	2,500 NFA	0 NFA	
Health & PE	2,545 NFA	6,300 NFA	6,300 NFA	0 NFA	
Media Center	1,265 NFA	2,200 NFA	2,200 NFA	0 NFA	
Dining (Cafe, Kitchen, Stage, Staff Dining)	4,785 NFA	5,703 NFA	5,703 NFA	0 NFA	Maximize size of cafetorium to accommodate any future expansion
Medical / Admin	1,120 NFA	2,440 NFA	2,565 NFA	-125 NFA	May require slightly more space depending on final layout
Custodial / Main	105 NFA	1,750 NFA	1,940 NFA	-190 NFA	May require slightly more space depending on final layout
Other (Extended Day)	765 NFA	250 NFA	0 NFA	250 NFA	MSBA does not reimburse for "other" spaces
Sub Total Program	33,730 NFA	43,353 NFA	40,738 NFA	2,615 NFA	
Total Gross Sq. Ft. (GSF) (Gross SF / NFA = 1.5)	56,100 GSF	65,030 GSF	59,613 GSF	3,923 GSF	

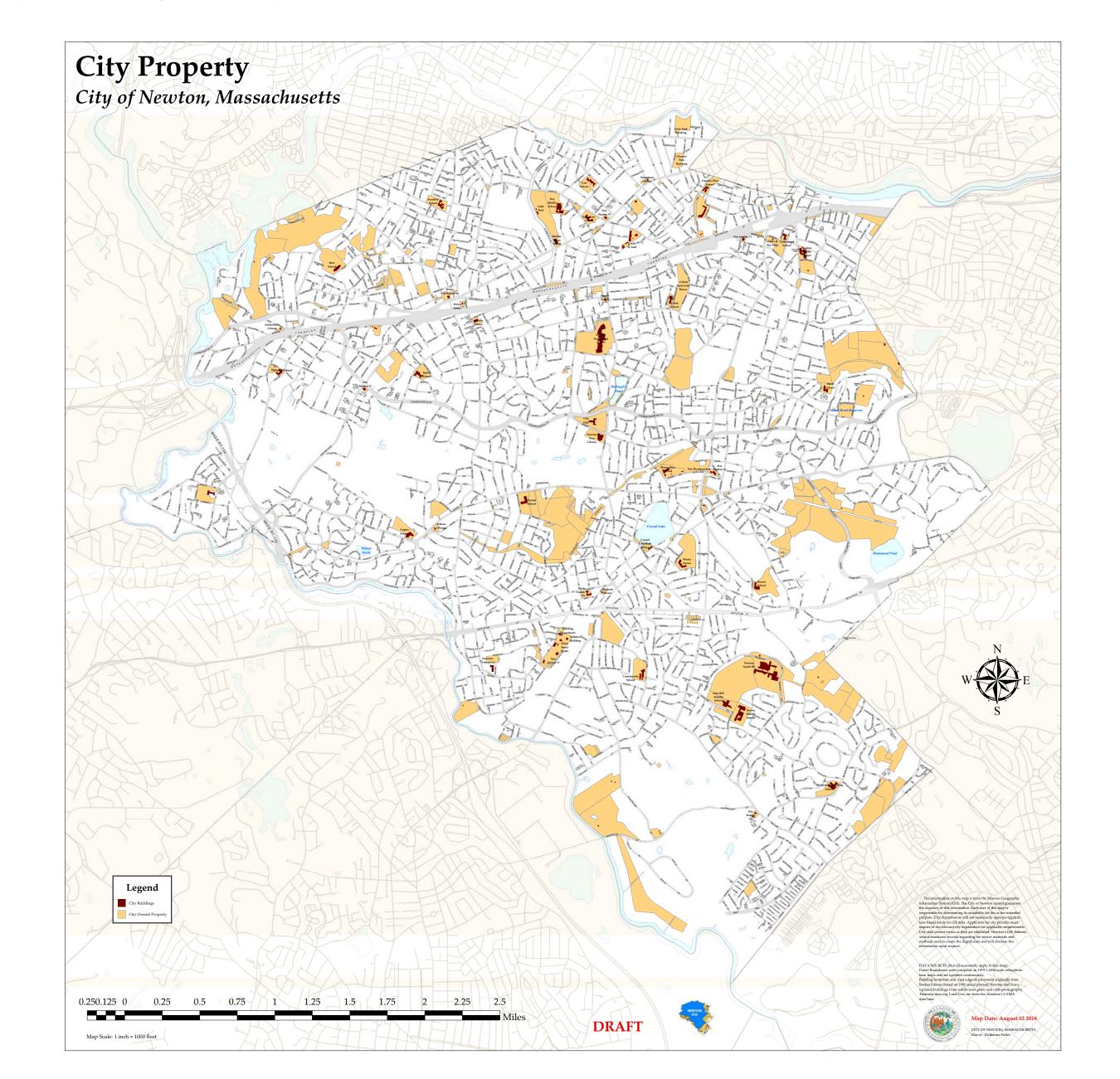
Preliminary Space Summary | 465 Student Enrollment

Program	Countryside Existing Conditions	Countryside Space Requirements	MSBA Guidelines	Differences	Comments
Core Academic	18,135 NFA	21,875 NFA	20,950 NFA	925 NFA	MSBA does not automatically include ELL, Lit / Math Specialists
Special Ed.	3,530 NFA	5,860 NFA	5,540 NFA	320 NFA	DESE reviews / approves Special Ed spaces
Art/Music	1,480 NFA	2,575 NFA	2,575 NFA	0 NFA	
Health & PE	2,545 NFA	6,300 NFA	6,300 NFA	0 NFA	
Media Center	1,265 NFA	2,763 NFA	2,763 NFA	0 NFA	
Dining (Cafe, Kitchen, Stage, Staff Dining)	4,785 NFA	6,350 NFA	6,823 NFA	-473 NFA	 3 seatings vs 2 seatings Smaller kitchen per Angier design
Medical / Admin	1,120 NFA	2,585 NFA	2,840 NFA	-255 NFA	May require slightly more space depending on final layout
Custodial / Main	105 NFA	1,830 NFA	2,065 NFA	-235 NFA	May require slightly more space depending on final layout
Other (Extended Day)	765 NFA	250 NFA	0 NFA	250 NFA	MSBA does not reimburse for "other" spaces
Sub Total Program	33,730 NFA	50,388 NFA	49,856 NFA	532 NFA	
Total Gross Sq. Ft. (GSF) (Gross SF / NFA = 1.5)	56,100 GSF	75,582 GSF	74,749 GSF	798 GSF	

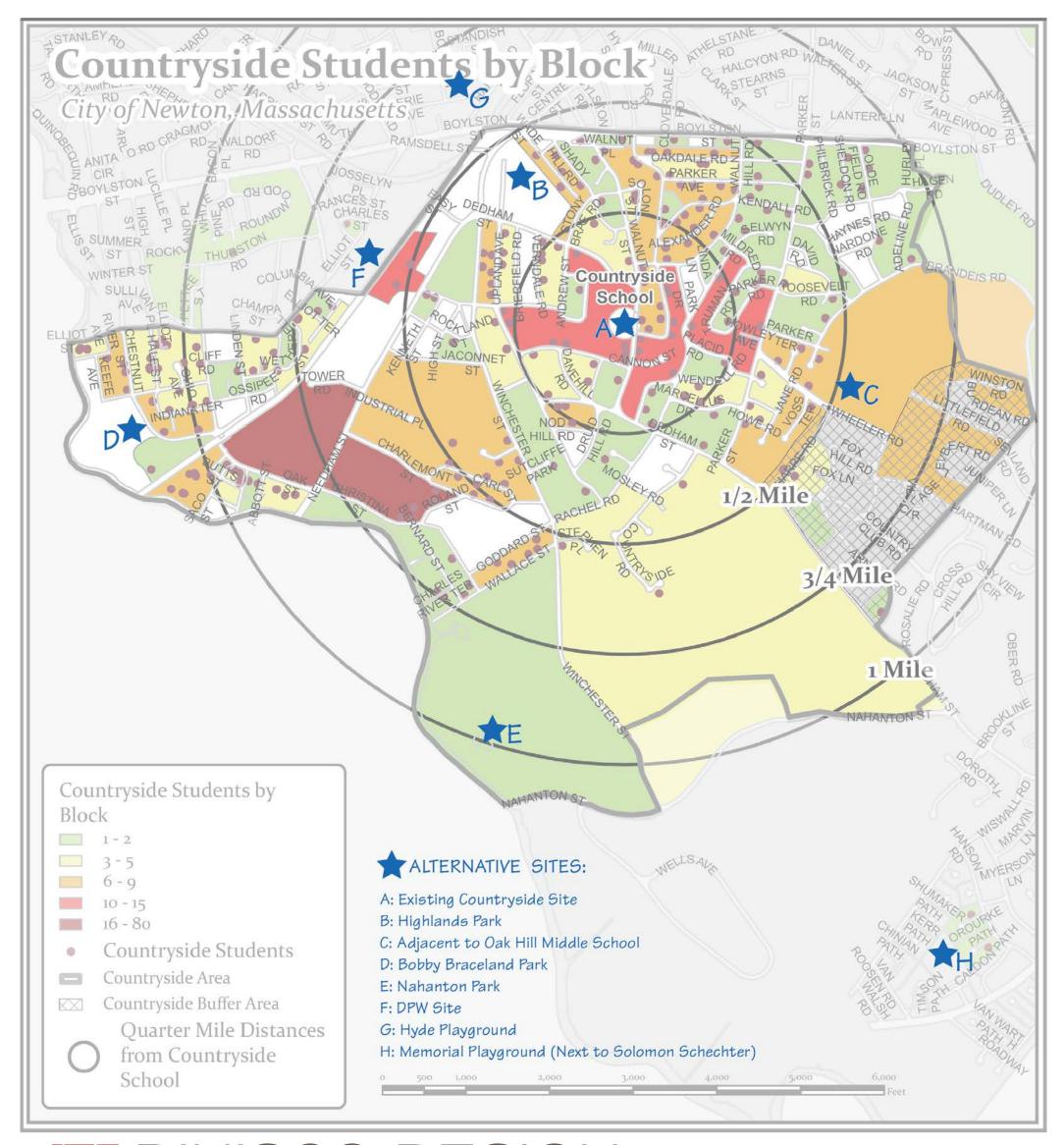
Preliminary Space Summary | Enrollment Comparison

Program	340 Students @ MSBA Standards	340 Students MSBA Guidelines	465 Students @ MSBA Standards	465 Students MSBA Guidelines	Comments
Core Academic	17,025 NFA	15,000 NFA	21,875 NFA	20,950 NFA	MSBA does not automatically include ELL, Lit / Math Specialists
Special Ed.	5,185 NFA	4,530 NFA	5,860 NFA	5,540 NFA	DESE reviews / approves Special Ed spaces
Art/Music	2,500 NFA	2,500 NFA	2,575 NFA	2,575 NFA	
Health & PE	6,300 NFA	6,300 NFA	6,300 NFA	6,300 NFA	
Media Center	2,200 NFA	2,200 NFA	2,763 NFA	2,763 NFA	
Dining (Cafe, Kitchen, Stage, Teacher Dining)	5,703 NFA	5,703 NFA	6,350 NFA	6,823 NFA	465 Enrollment: • 3 vs 2 seatings; Smaller kitchen (Angier)
Medical / Admin	2,440 NFA	2,565 NFA	2,585 NFA	2,840 NFA	May require slightly more space depending on final layout
Custodial / Main	1,750 NFA	1,940 NFA	1,830 NFA	2,065 NFA	May require slightly more space depending on final layout
Other (Extended Day)	250 NFA	0 NFA	250 NFA	0 NFA	MSBA does not reimburse for "other" spaces
Sub Total Program	43,353 NFA	40,738 NFA	50,388 NFA	49,856 NFA	
Total Gross Sq. Ft. (GSF) (Gross SF / NFA = 1.5)	65,030 GSF	59,613 GSF	75,582 GSF	74,749 GSF	

Site Selection | City Property



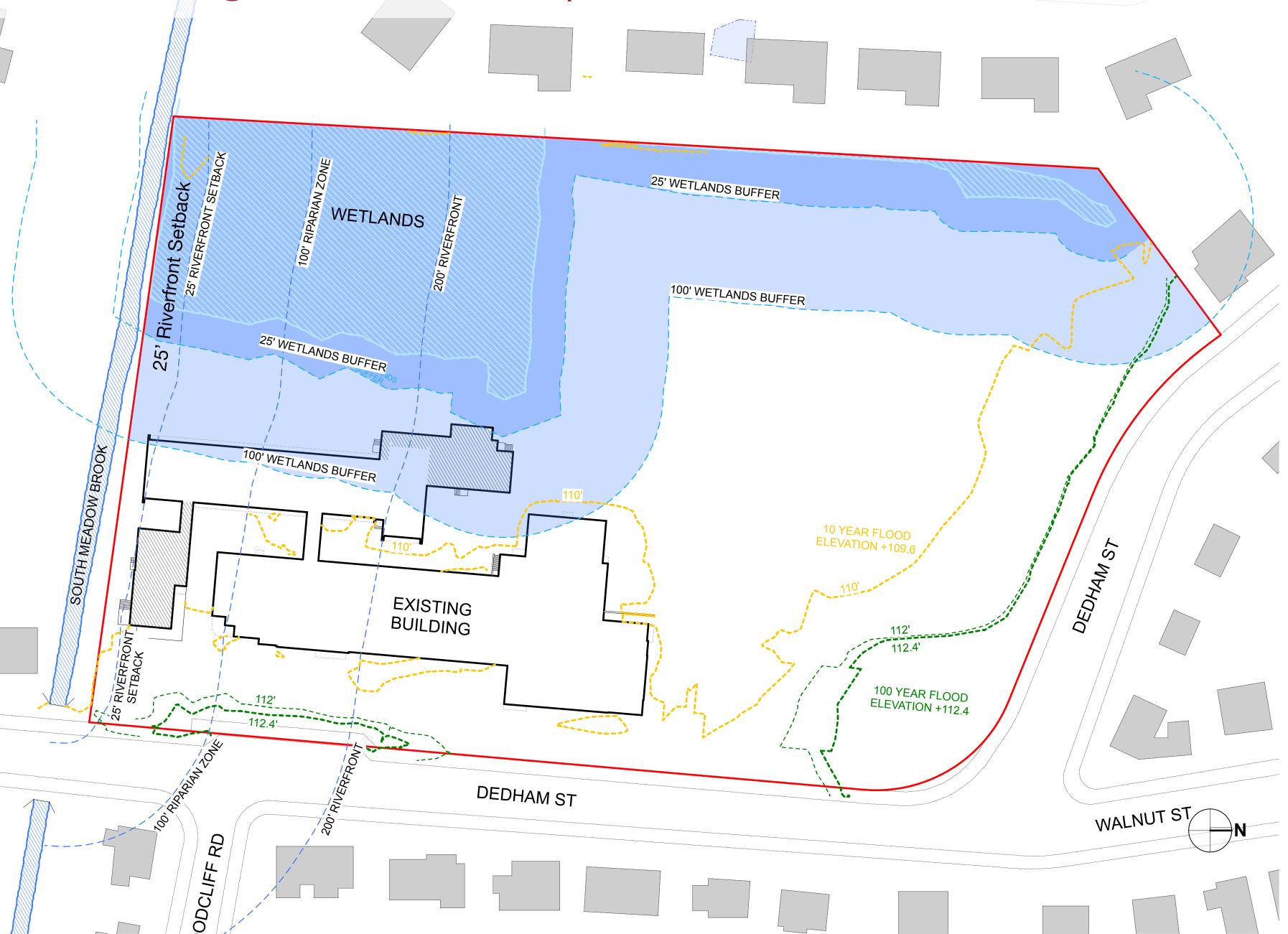
Site Selection | Alternative Sites Within Countryside District



	• Favorable			IN CC	UNTRYS	IDE DIS	STRICT		
	NeutralUnfavorable	Α	В	С	F	D	G	н	E
<u>Cou</u> Site	ITERIA Intryside ES Comparison: e size: 7.39 acres able site area: ~5.37 acres	Existing Countryside site	Highlands Park	Adjacent to Oak Hill Middle School	DPW site (Elliot St)	Bobby Braceland Park	Emerson Playground	Memorial Playground (Next to Solomon Schechter)	Nahanton Park
SIT	Έ								
1	Maintains neighborhood 'walkability'	•	0	0	0	0	0	0	0
2	Distance from existing Countryside (miles)		0.4	0.6	0.6	1.2	0.95	1.64	0.94
3	Size of site (acres)	7.4	12.6	3.1	11.7	8.8	1.0	2.9	2.29
4	Maximum buildable area	5.4	7.4	3.1	2.7	4.0	1.0	2.8	2.29
5	Current land use restrictions	•	0	•	•	0	0	0	0
6	Legal restrictions	•	0	•	•	0	0	0	0
7	Site acquisition and legal issues	•	•	•	•	•	•	•	•
8	Minimizes busing	•	0	0	0	0	0	0	0
9	Optimizes parking and play capacity	•	•	0	0	0	0	0	0
10	Minimizes building height	•	•	•	•	•	0	•	•
11	Does not increase demand for on street parking	•	•	•	•	•	•	•	•
CO	ST								
1	Minimizes phasing logistics	•	•	•	•	•	•	•	•
2	Minimizes busing	•	•	•	•	•	•	•	•
3	Reduces need for swing space	•	•	•	•	•	•	•	•
RE	CREATIONAL								
1	Minimizes recreational impact		•	•	•	•	•	•	•
GR	OSS SCORING	12	-1	-1	-1	-3	-5	-4	-4



Existing Conditions Resource Areas



- Site bounded by wetlands and South Meadow Brook
- Existing school located inside riverfront area and wetland buffer
- Existing school first floor less than 1 foot above 10 year flood elevation (+el. 110.5)
- Site almost entirely within 100 year flood elevation

Existing Conditions Flood Zone WETLANDS SOUTH MEADOW BROOK DEDHAM ST EXISTING BUILDING 100 YEAR FLOOD ELEVATION +112.4 DEDHAM ST WALNUT ST

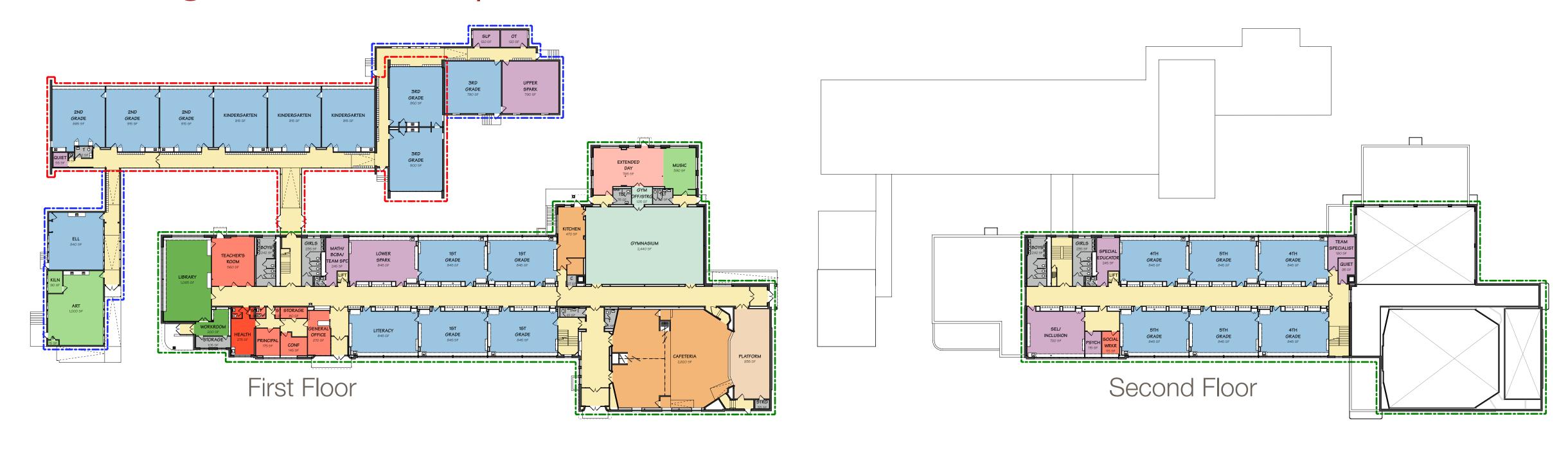
ODCLIFF RD

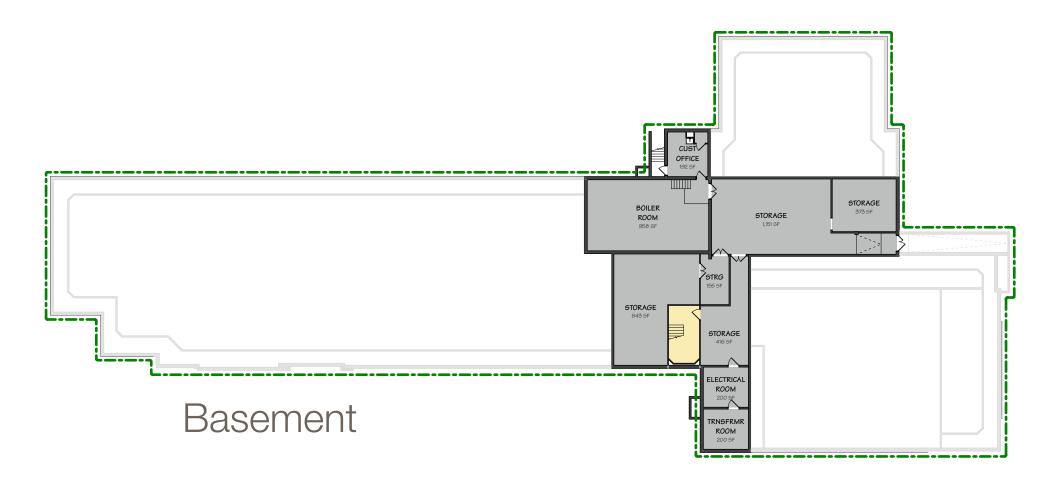
- Site almost entirely within 100- year flood elevation
- IBC states improvements exceeding 50% of value must comply with flood requirements for first floor construction
- ASCE 24* requires 1st floor to be 1-ft above base flood elevation (100-yr flood elevation)
- Compensatory flood storage required if new development exceeds existing building volume within 100-year floodplain (build on piers, for example)

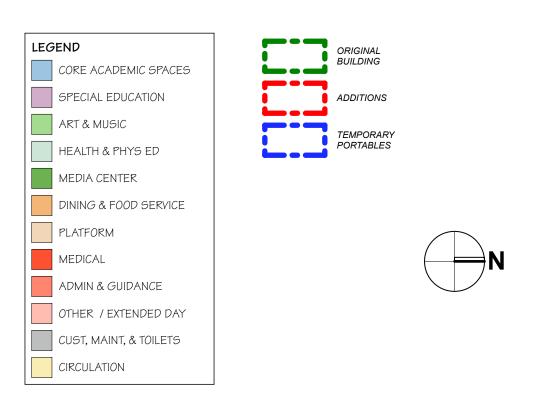


- Constructed
 1953 / 1958 / 1986 / 1991-2000
- 56,150 SF including portables + basement
- 372 Students
- 7.39 Acre Site

Existing Conditions | Existing Countryside Elementary School





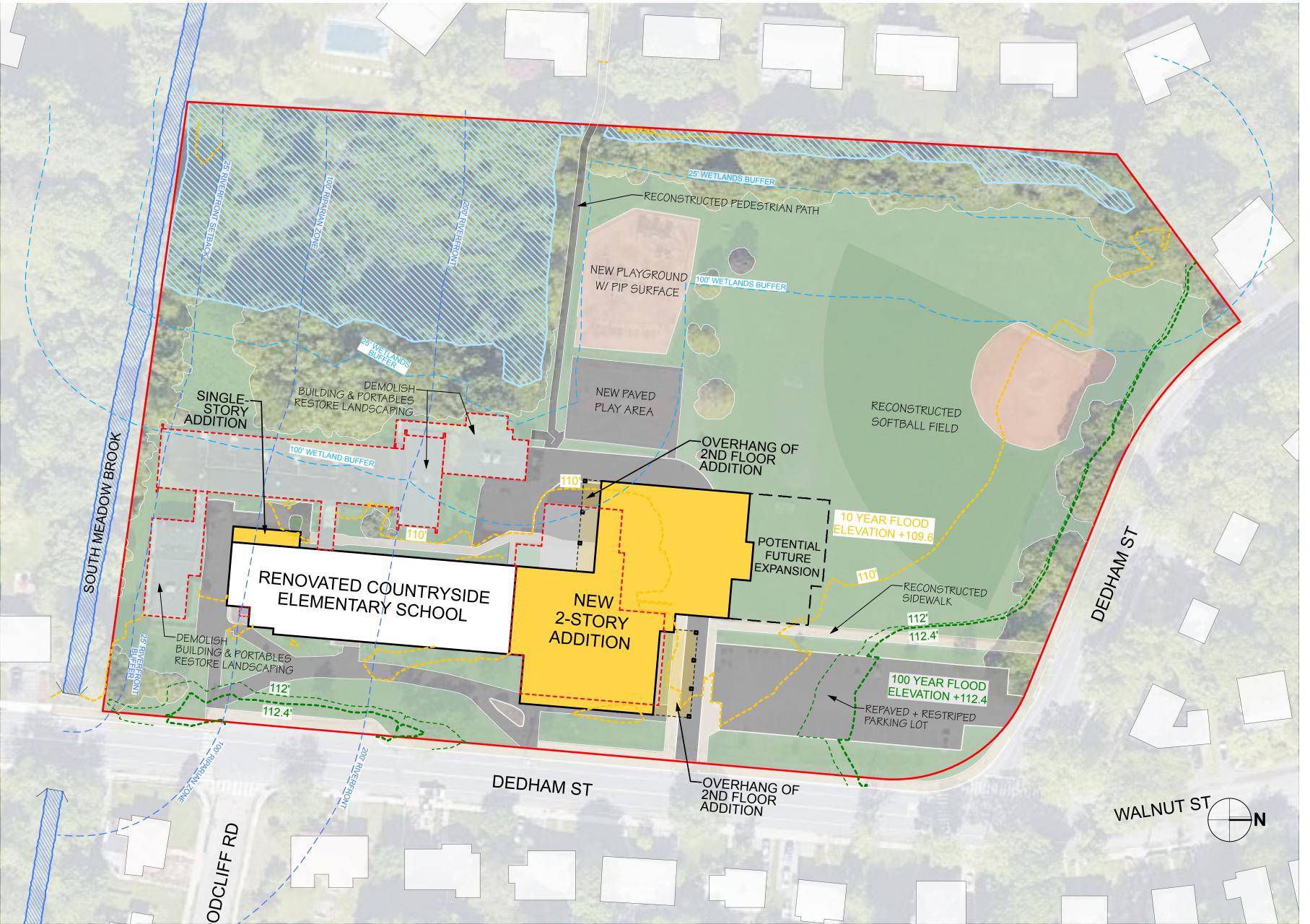


Approach 1 340 Students | Repair/Code Upgrades



- Code Upgrade / Repairs only
- Requires building to be vacant during construction
- Include portable classrooms
- Does not improve the educational quality of spaces
- Does not meet MSBA Space Guidelines
- Assumes construction value exceeds 50% market value therefore construction must elevate entire first floor above base flood elevation (BFE) (ASCE 24*)
- Elevating first floor to above BFE is not viable

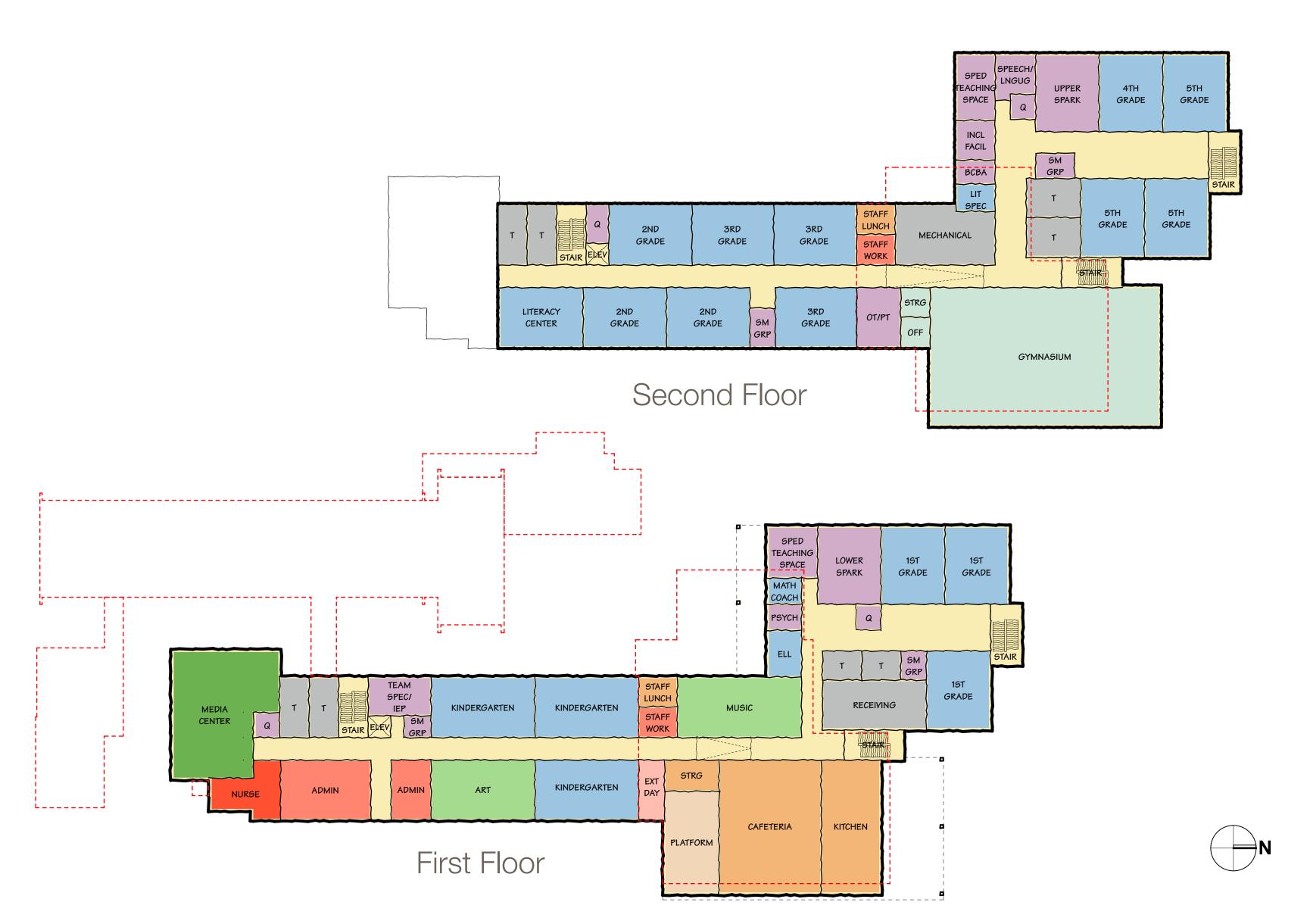
Approach 2 | 340 Students | Renovation/Addition | 62,635 SF



- Maintain 22,895 SF of existing building; 2-story Addition 39,740 SF
- Demolish 1958 wing, cafeteria & gym wing & portable classrooms
- Requires building to be vacant
- Site improvements
- Future expansion can only occur on upper floor on piers due to floodplain restrictions
- Matches existing building volume within floodplain
- Majority of building outside the 100ft wetland buffer
- Assumes construction value exceeds 50% market value therefore construction must elevate entire first floor above base flood elevation (BFE) (ASCE 24*)
- Elevating first floor to above BFE is not viable

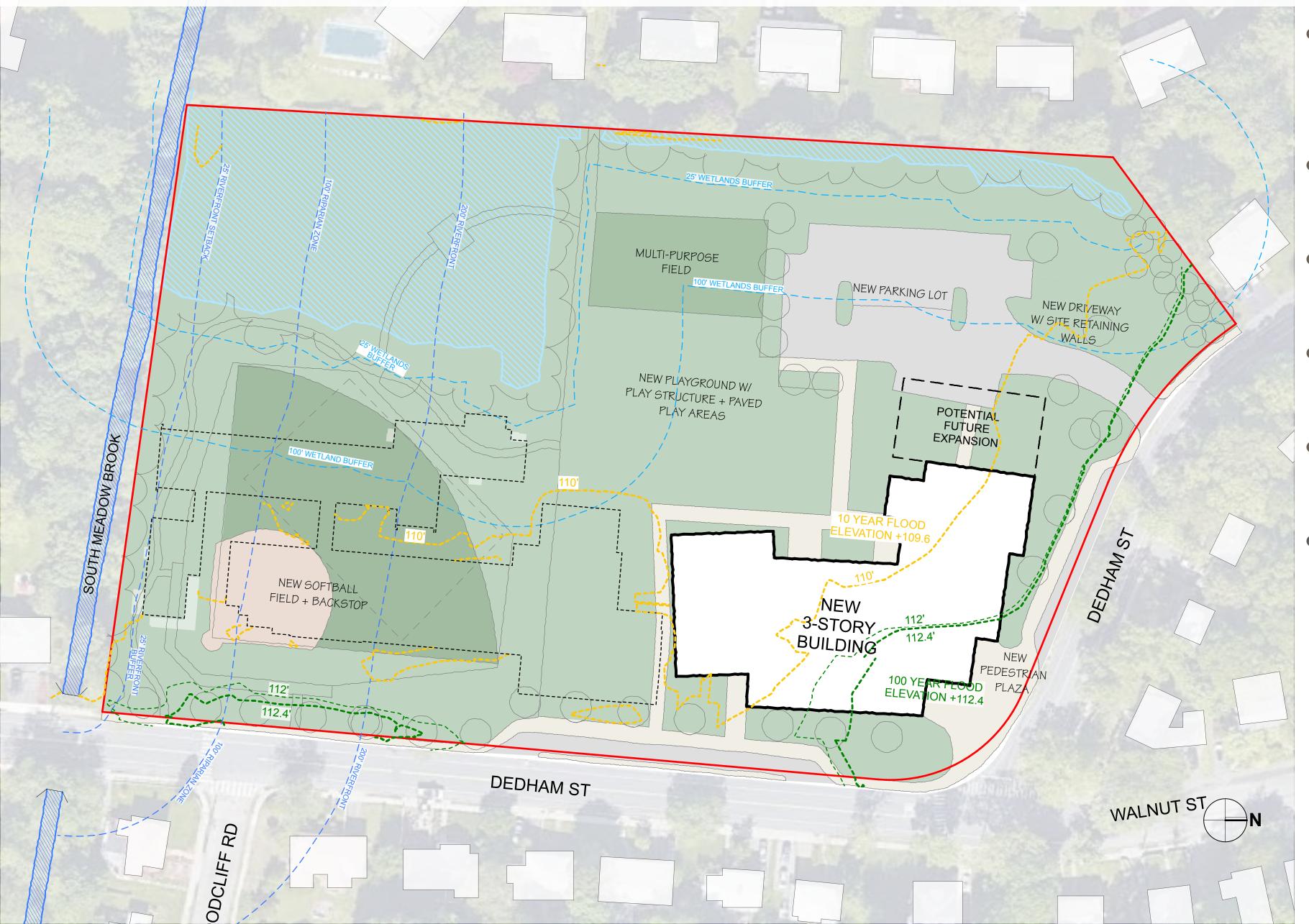
*American Society of Civil Engineers

Approach 2 | 340 Students | Renovation/Addition | 62,635 SF



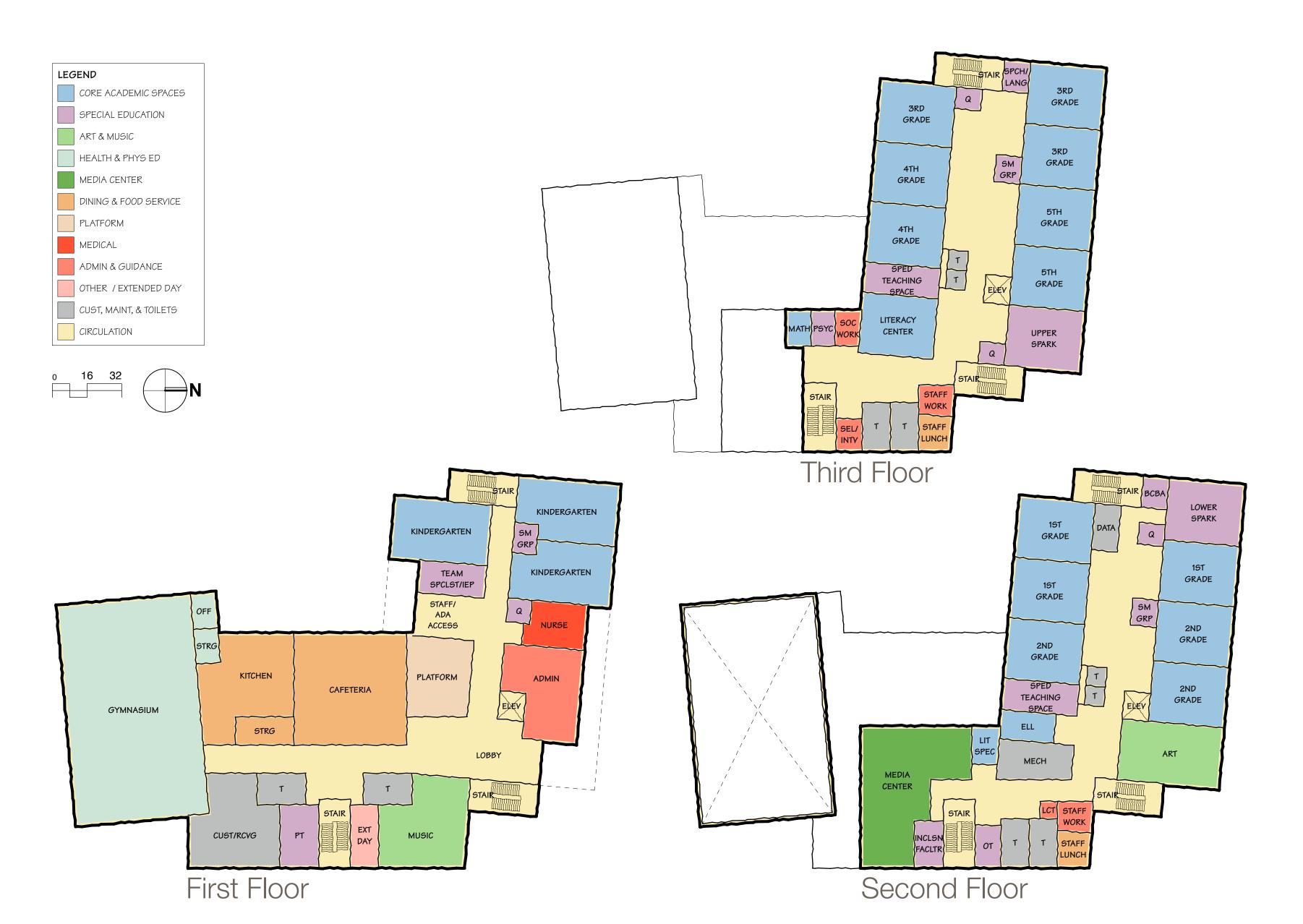
- Does not include the existing portable classrooms
- Meets MSBA Space Guidelines
- Adequate spatial relationships and adjacencies
- Gymnasium on second floor
- Does not provide project areas within renovated building
- Second floor footprint larger than first floor at addition
- East / West solar orientation classrooms

Approach 3 | 340 Students | New Construction | 65,000 SF



- Matches building volume within floodplain; may require partial construction on piers
- Building outside 100-ft wetland buffer
- Separate drop off for cars, buses, vans and service
- Site improvements include new playground, fields and parking
- Provides opportunity for occupied site during construction
- Future expansion can only occur on upper floors on piers due to floodplain restrictions

Approach 3 | 340 Students | New Construction | 65,000 SF



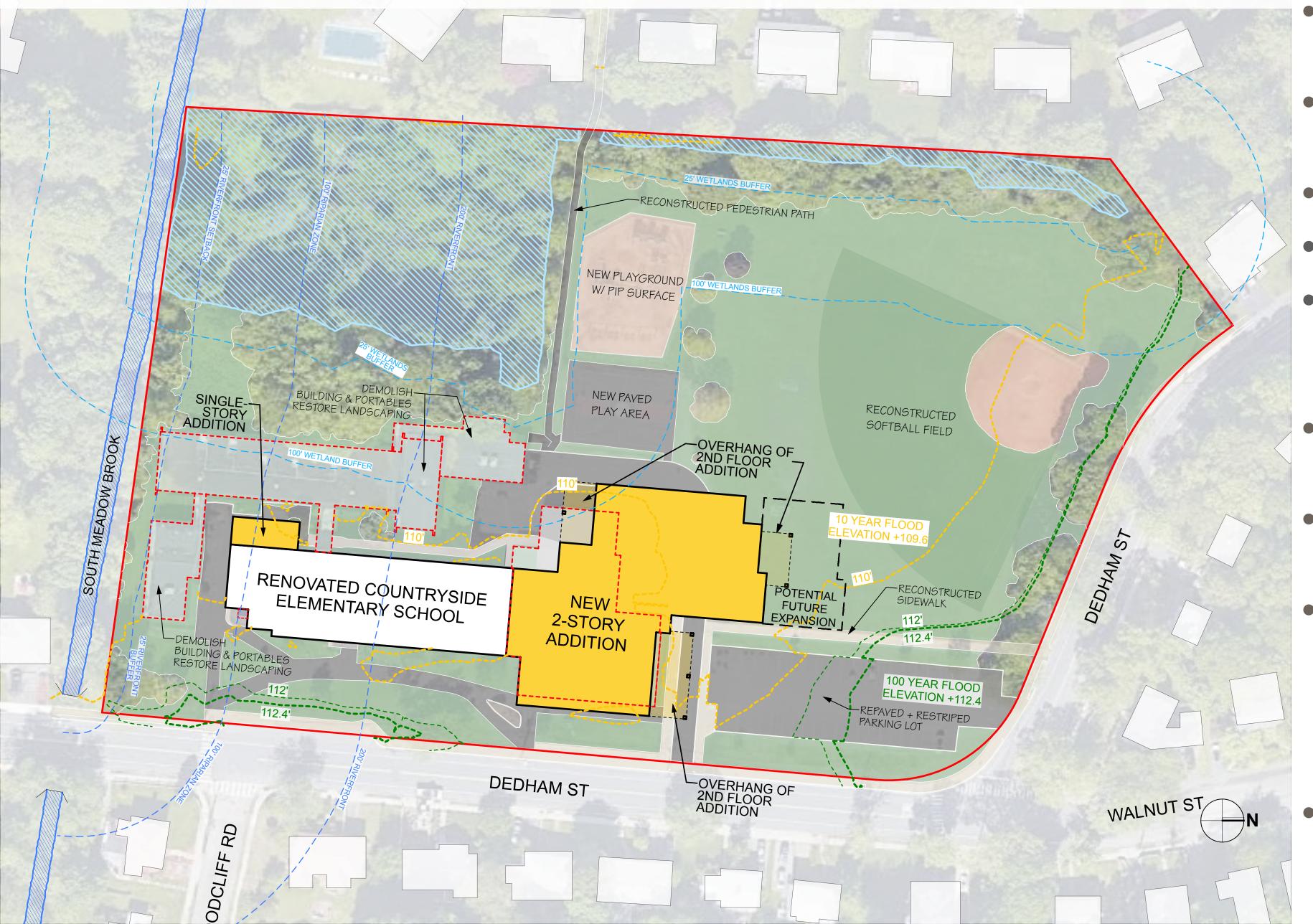
- Meets MSBA Space Guidelines
- Ideal spatial relationships and adjacencies
- Gymnasium on first floor
- Compact footprint (more time on learning)
- North / South solar orientation classrooms

Approach 4 | 465 Students | Repair/Code Upgrades



- Code Upgrade / Repairs only
- Requires building to be vacant
- Include portable classrooms
- Does not improve the educational quality of spaces
- Does not meet MSBA Space Guidelines
- Assumes construction value exceeds 50% market value therefore construction must elevate entire first floor above base flood elevation (BFE) (ASCE 24*)
- Elevating first floor to above BFE is not viable

Approach 5 | 465 Students | Renovation/Addition | 69,765 SF



- Maintain 22,895 SF existing building; 2-story Addition 46,870 SF
- Demolish 1958 wing, cafeteria & gym wing & portable classrooms
- Requires building to be vacant
- Site improvements
- Future expansion can only occur on upper floors on piers due to floodplain restrictions
- Matches existing building volume within floodplain
- Majority of building outside the 100ft wetland buffer
- Assumes construction value exceeds 50% market value therefore construction must elevate entire first floor <u>above</u> base flood elevation (BFE) (ASCE 24*)
- Elevating first floor to above BFE is not viable

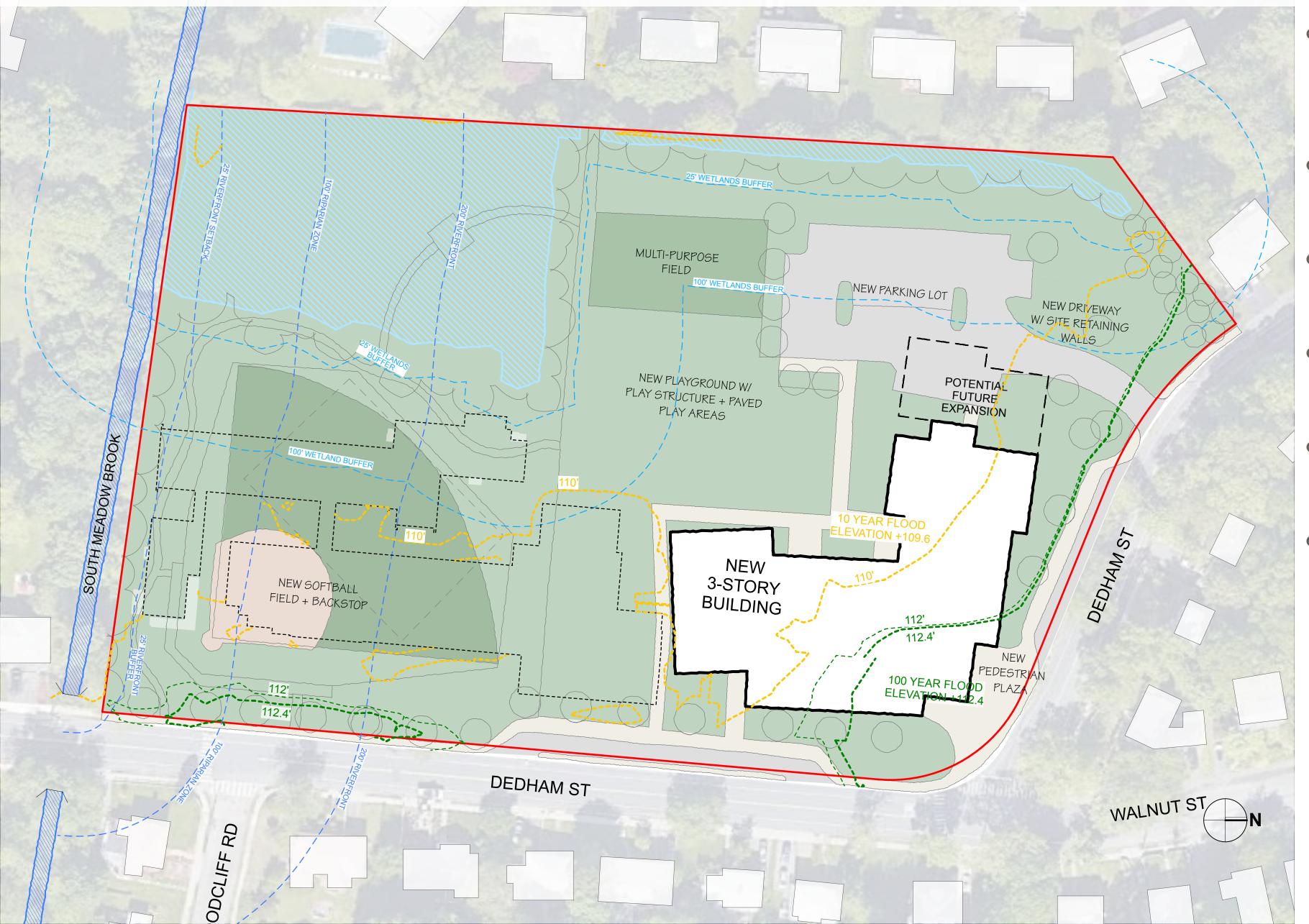
*American Society of Civil Engineers

Approach 5 | 465 Students | Renovation/Addition | 69,795 SF



- Does not include the existing portable classrooms
- Meets MSBA Space Guidelines
- Adequate spatial relationships and adjacencies
- Gymnasium on second floor
- Does not provide project areas within renovated building
- Second floor footprint larger than first floor at addition
- East / West solar orientation classrooms

Approach 6 | 465 Students | New Construction | 75,500 SF



- Matches building volume within floodplain; may require partial construction on piers
- Building outside 100-ft wetland buffer
- Separate drop off for cars, buses, vans and service
- Site improvements include new playground, fields and parking
- Provides opportunity for occupied site during construction
- Future expansion can only occur on upper floors on piers due to floodplain restrictions

Approach 6 | 465 Students | New Construction | 75,500 SF



- Meets MSBA Space Guidelines
- Ideal spatial relationships and adjacencies
- Gymnasium on first floor
- Compact footprint (more time on learning)
- North / South solar orientation classrooms

Criteria Matrix

CRITERIA MATRIX December 19, 2022

COUNTRYSIDE ELEMENTARY SCHOOL — 191 Dedham Street, Newton, MA

Criteria Matrix

■ Favorable Neutral Unfavorable

	340 STUDENT ENROLLMENT		
	1 REPAIR ONLY Full renovation,	2 ADD/RENO Renovation +	3 NEW CONST. Full demo +
BUILDING EVALUATION CRITERIA MATRIX	no addition	Addition	new construction
Building and Site Facts			
Student enrollment population	340	340	340
Size of site (acres)	7.39	7.39	7.39
Site Environmental (wetlands, etc.)	2.02	2.02	2.02
Meets MA Flood Regulations (prereq.)	NO *	NO*	YES
Site usable (acres)	5.37	5.37	5.37
Classroom count	19	16	16
Building gross square feet (GSF)	56,150	62,635	65,000
Site improvements area (SF)			
Equity to Other Recently Updated Elementary Schools			
Comparable programs			
Comparable square footage			
Cost and Schedule			
Project Cost, \$million			
LCCA /annual expenses			
Allows students to move in to new school 2026			
Requires swing space			
Requires CM@Risk (i.e. due to scheduling for early release packages)			
Maintains standard site plan approval schedule			
Educational			
Meets educational program for all students (pre-req.)			
Meets space program (prereq.)			

46E S	TUDENT ENROLLI	MENT
4 REPAIR ONLY Full renovation, no addition	5 ADD/RENO Renovation + Addition	6 NEW CONST. Full demo + new construction
465	465	465
7.39	7.39	7.39
2.02	2.02	2.02
NO*	NO*	YES
5.37	5.37	5.37
19	21	21
56,150	69,765	75,500

^{*} Subject to verification that costs exceed 50% of assessed value and local jurisdiction approval

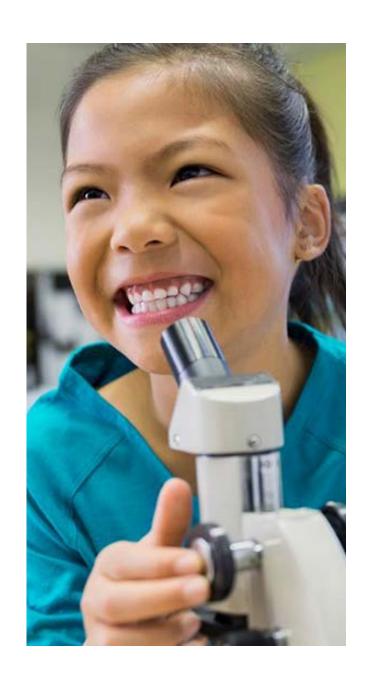
Criteria Matrix

		340 STUDENT ENROLLMENT		465 S	TUDENT ENROLL	MENT	
		1	2	3	4	5	6
BI	JILDING EVALUATION CRITERIA MATRIX	REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction	REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction
3	Provides flexibility for future growth						
4	Provides flexibility for educational innovations / pedagogy						
5	Optimizes configuration and adjacency of teaching spaces						
6	Provides outdoor learning opportunities						
7	Allows for efficient program design layout						
8	Minimizes school disruption						
Sa	fety & Security						
1	Optimizes safety and efficiency of on-site bus and van drop off						
2	Separates safe circulation of bus, vehicle, pedestrian and bike access						
3	Improves off site traffic impact						
4	Optimizes site for safe pedestrian and bike access						
5	Optimizes safe building access						
Co	mmunity						
1	Provides accessibility to community used spaces (interior)						
2	Accommodates community program needs / extended day program						
3	Enhances community connections						
4	Enhances community green/open space and playground						
5	Construction Impact on abutters						
Bu	ilding						
1	Meets current building codes (prereq.)						
2	Meets MAAB/ADA requirements (prereq.)						
3	Meets healthy building environment (prereq.)						
4	Meets hazardous material remedial requirements (prereq.)						
5	Allows for a contextually sensitive design						
6	Optimizes use of natural light and daylighting						
7	Optimizes connection of outdoor/indoor space, integration with site						
8	Allows efficient attainment of Green School/Stretch Code requirements						

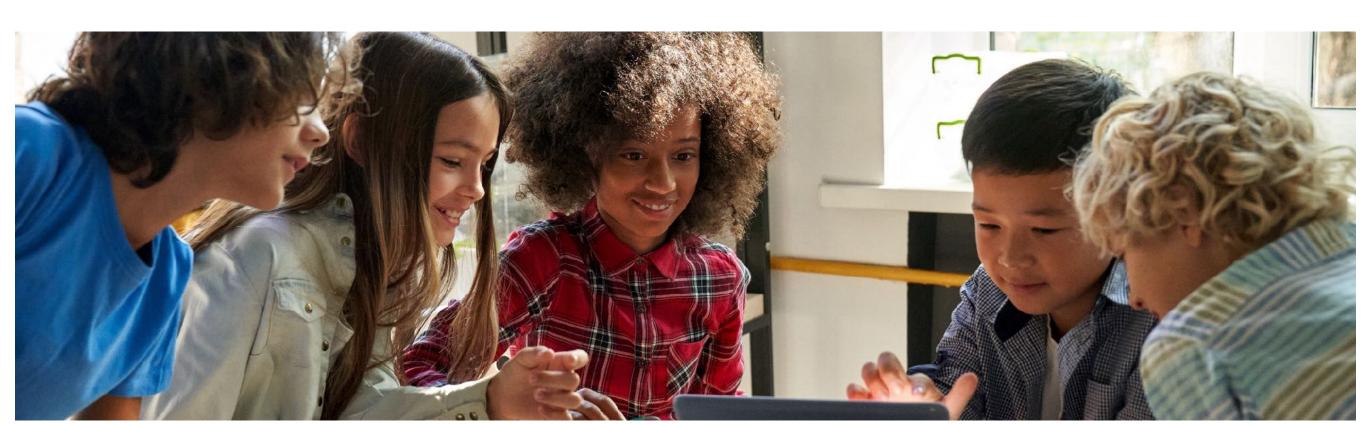
Criteria Matrix

		340 S	TUDENT ENROLLI	MENT
		1	2	3
Bl	JILDING EVALUATION CRITERIA MATRIX	REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction
0:1				
Sit				
1	Meets MAAB/ADA requirements (prereq.)			
2	Meets environmental remedial requirements (prereq.)			
3	Maximizes efficient utilization of site			
4	Optimizes outdoor program space and green space			
5	Optimizes safety and efficiency of on-site bus and van drop off			
6	Separates safe circulation of bus, vehicle, pedestrian and bike access			
7	Provides sufficient parking for teachers, staff + visitors			
3	Improves off site traffic impact			
9	Optimizes site for safe pedestrian and bike access			
10	Allows for future expansion			
Su	stainability			
1	Minimizes embodied carbon footprint with building reuse			
2	Achieves City goal for fossil free building HVAC systems			
3	Optimizes building orientation			
4	Optimizes solar (PV) opportunities			
5	Allows efficient attainment of Green School/Stretch Code requirements			
6	Optimizes building envelope thermal performance			

465 STUDENT ENROLLMENT								
4	5	6						
REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction						







Programs and Services Committee Meeting

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

