

Angier Elementary School



Board of Aldermen School Committee Meeting

November 19, 2012

Feasibility Study Criteria

- Establish educational program
- Investigate building options
 - Alternative sites
 - Renovation/addition
 - New facility at Angier School site
- Develop probable project cost
- Establish project schedule
- Recommend preferred design option for schematic design

Educational Program

	2007 Long Range Master Plan			Angier School 2012 Ed Specifications			MSBA Guidelines 2010 Update		
	Enrollment: 476			Enrollment: 465			Enrollment: 465		
	Qty	NFA	Total	Qty	NFA	Total	Qty	NFA	Total
Core Academic									
Kindergarten w/ sink + toilet	4	1,000	4,000	4	1,200	4,800	4	1,200	4,800
1st - 5th Grades w/ sink	19	850	16,150	18	950	17,100	16	950	15,200
Classroom Subtotal	23		20,150	22		21,900	20		20,000
Special Education									
Learning Centers	3	400	1,200	2	450	900	2	500	1,000
Inclusion Facilitator	1	150	150	1	300	300	-		-
Literacy Specialist	-	-	-	1	250	250	-		-
Reading Program (Literacy)	1	850	850	1	900	900	-		-
Math Coach	-	-	-	1	125	125	-		-
Speech + Language	1	500	500	1	250	250	-		-
OT/PT	1	850	850	1	900	900	-		-
Quiet Room (Safe Room)	2	100	200	1	100	100	-		-
Breakout Rooms	-	-	-	6	125	750	-		-
IEP Conference Room	1	150	150	1	300	300	-		-
Psychologist	1	150	150	1	150	150	-		-
Social Worker	2	150	300	1	150	150	-		-
ELL Program	1	650	650	1	200	200	-		-
Small Group/Tutorial	2	250	500	-	-	-	1	500	500
Therapeutic Room	1	250	250	-	-	-	-		-
Observation Room	1	150	150	-	-	-	-		-
Self Contained SPED	-	-	-	-	-	-	4	950	3,800
Self Contained Toilet	-	-	-	-	-	-	4	60	240
Special Education Subtotal	18		5,900	19		5,275	11		5,540

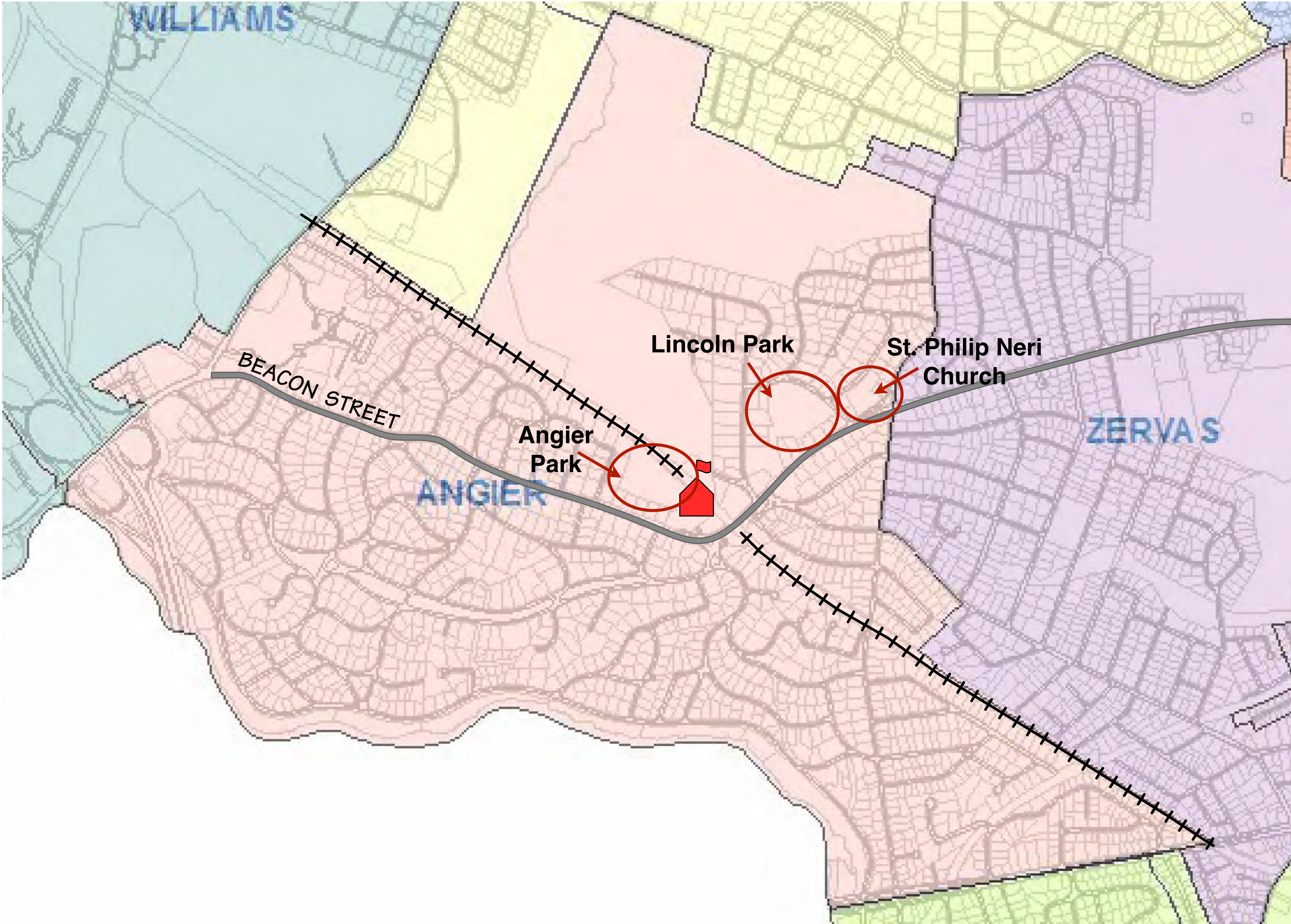
Educational Program

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	Enrollment: 476			Enrollment: 465			Enrollment: 465		
	Qty	NFA	Total	Qty	NFA	Total	Qty	NFA	Total
Art & Music									
Art Classroom	2	1,000	2,000	1	1,000	1,000	1	1,000	1,000
Art Workroom w/ Stor & kiln	2	150	300	1	150	150	1	150	150
Music Classroom	2	1,200	2,400	1	1,200	1,200	1	1,200	1,200
Music Practice/ Ensemble	4	75	300	1	150	150	3	75	225
Music Practice/ Ensemble	-	-	-	1	100	100	-	-	-
Art & Music Subtotal	10		5,000	5		2,600	6		2,575
			-			-			-
Health & PE									
Gymnasium	1	6,000	6,000	1	6,000	6,000	1	6,000	6,000
Gym Storeroom	1	300	300	1	150	150	1	150	150
Health Instructor's Office	1	150	150	1	150	150	1	150	150
Health & PE Subtotal	3		6,450	3		6,300	3		6,300
Library / IMC									
Library	1	2,900	2,900	1	2,770	2,770	1	2,763	2,763
Library / IMC Subtotal	1		2,900	1		2,770	1		2,763
Dining & Food Service									
Cafeteria/Dining	1	3,570	3,570	1	3,000	3,000	1	3,488	3,488
Stage	1	750	750	1	1,000	1,000	1	1,000	1,000
Chair/Table/Equip Storage	1	300	300	1	355	355	1	355	355
Kitchen	1	1,400	1,400	1	1,765	1,765	1	1,765	1,765
Staff Lunch Room	1	500	500	1	300	300	1	216	216
Dining Subtotal	5		6,520	5		6,420	5		6,824

Educational Program

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	Qty	NFA	Total	Qty	NFA	Total	Qty	NFA	Total
Medical									
Office/Toilet/Rest Rooms	1	550	550	1	510	510	1	510	510
Medical Sub Total	1		550	1		510	1		510
Administrative & Guidance									
General Office / Waiting Room	1	400	400	1	383	383	1	383	383
Teachers' Mail / Time Room	1	100	100	1	100	100	1	100	100
Duplicating Room	1	150	150	1	150	150	1	150	150
Records Room	1	110	110	1	110	110	1	110	110
Principal's Office	1	250	250	1	300	300	1	375	375
Principal's Secretary / Waiting	1	125	125	Included in General Office			1	125	125
Assistant Principal's Office	-		-	1	125	125	-		-
Spare Office	1	120	120	-		-	1	120	120
Extended Program	1	1,450	1,450	1	450	450	-		-
Conference Room	1	250	250	1	200	200	1	250	250
Guidance Office	-		-	-		-	2	150	300
Guidance Storeroom	1	35	35	-		-	1	35	35
Teachers' Work Room	1	300	300	2	250	500	1	383	383
Administrative Subtotal	11		3,290	10		2,318	12		2,331
Custodial & Maintenance	1	2,300	2,300	1	1,880	1,880	1	2,065	2,065
Total Program Area			53,060			49,973			48,908
Gross SF (Program x 1.5)			79,590			74,960			73,362

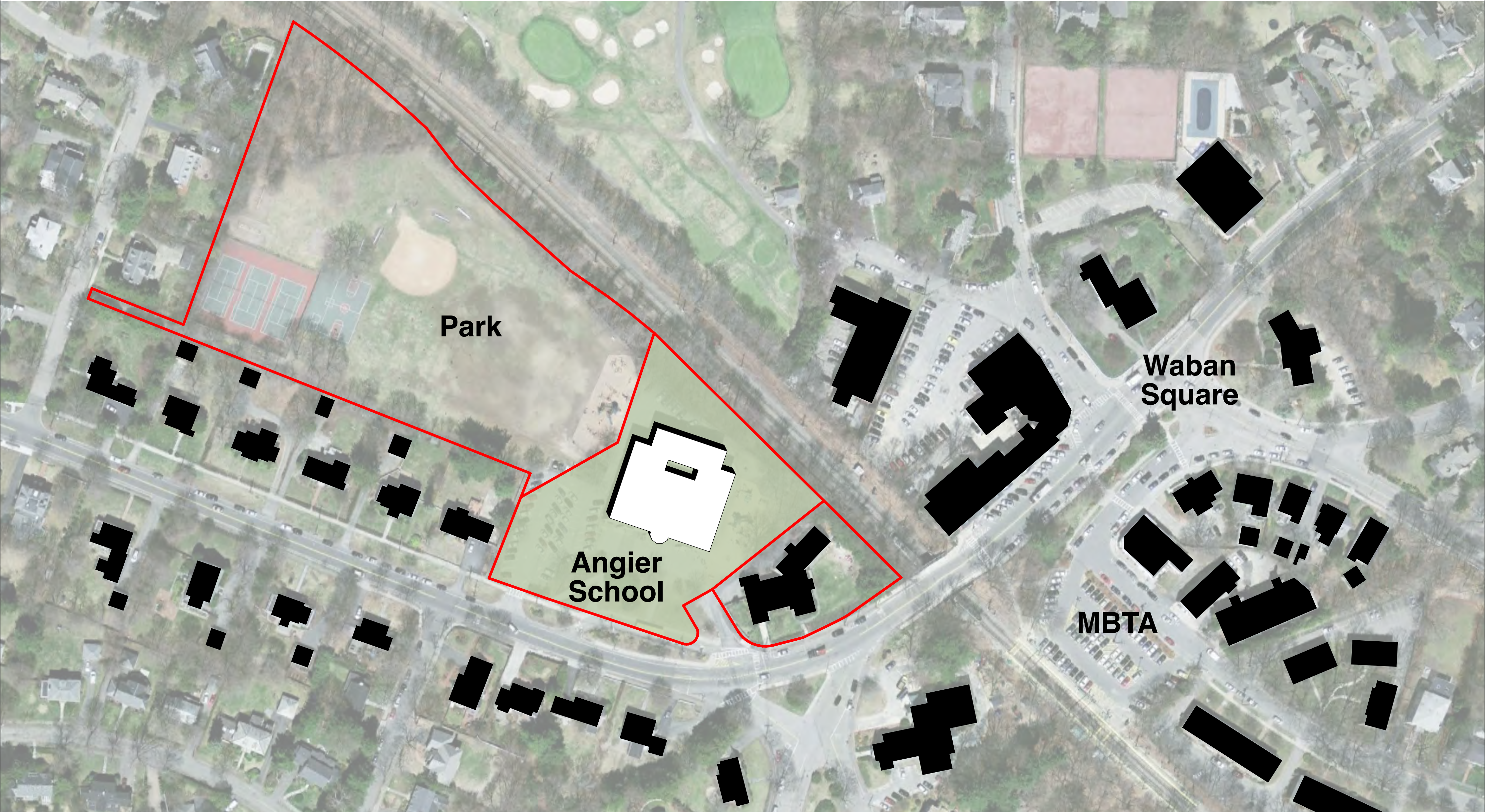
Feasibility Study Criteria - Alternative Sites



Design Criteria - Site

- Manage traffic flow on and off site
- Building massing appropriate to neighborhood scale
- How will new building engage street?
- Classroom orientation North/South - daylight harvesting
- Maximize usable property area
- Safe and easy access to playfields
- Maximize parking
- Reinforce “Green Boulevard”

Site Analysis



Angier School 2012



Traffic - Parking



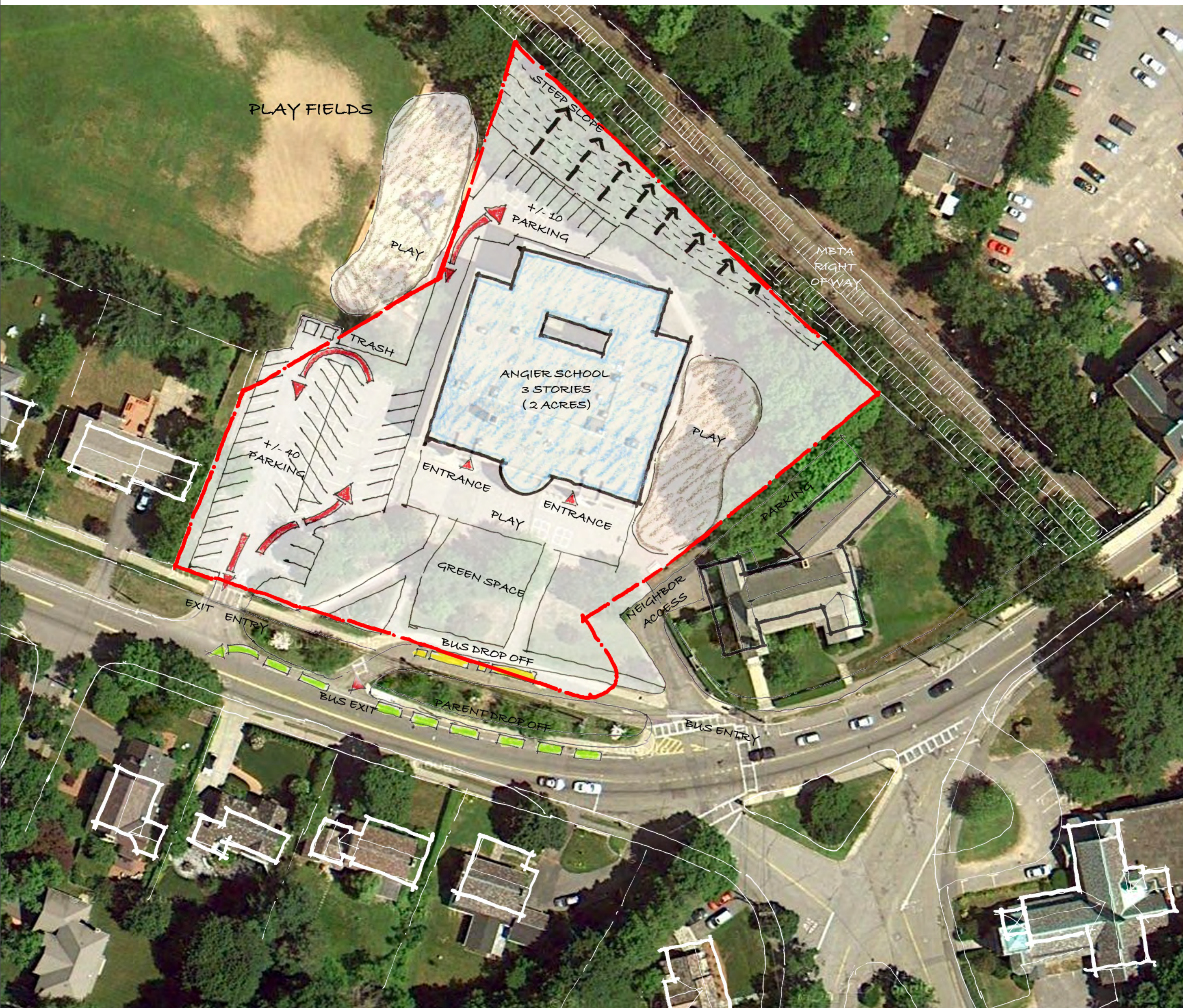
Traffic - Drop Off



Traffic - Crosswalks



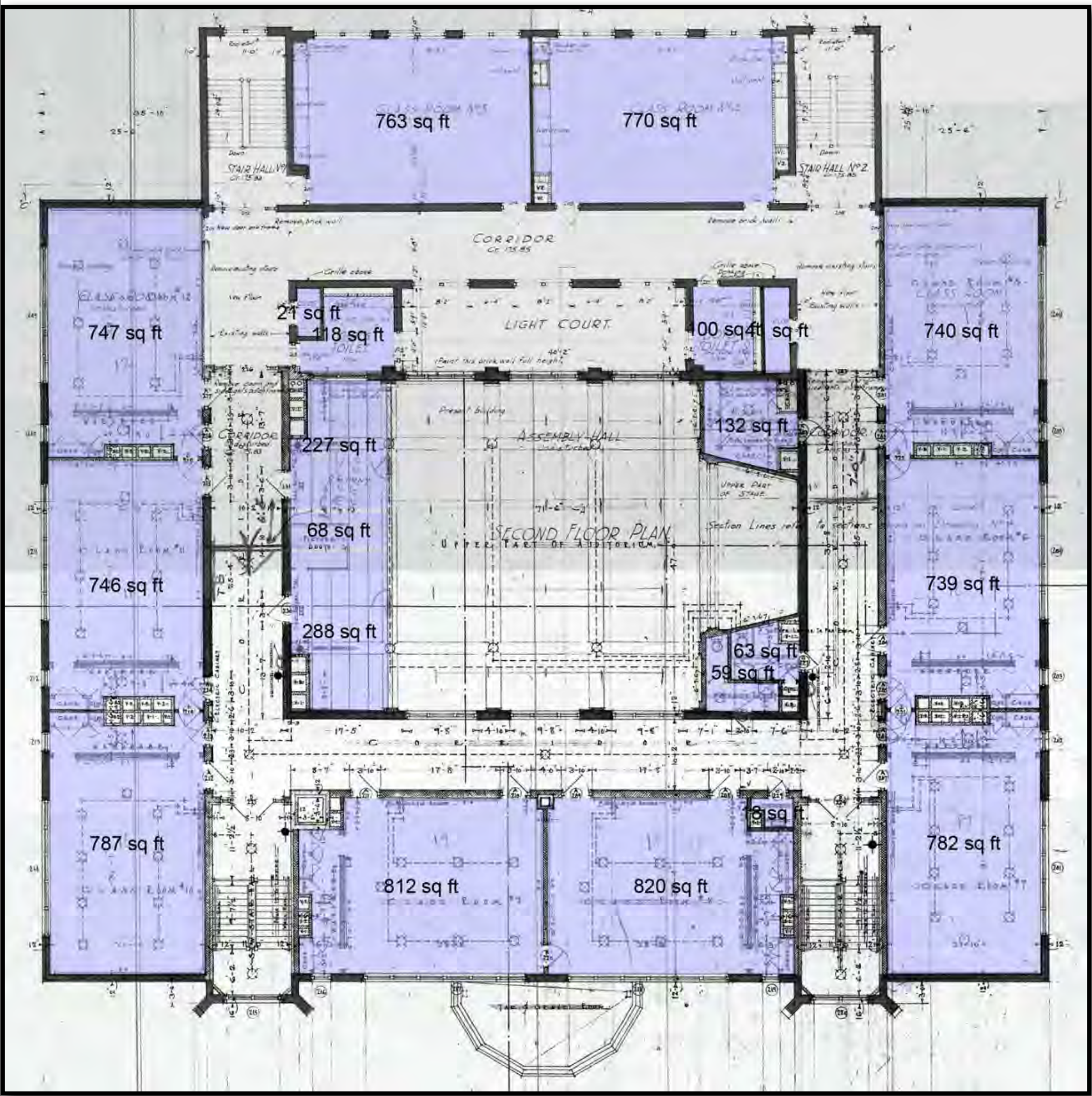
Site Analysis



Existing Site Utilization

- 2 Acres - undersized
- Inefficient use of site area
- Unusable building area - steep slope
- Unsafe student dropoff
- Congested traffic flow
- Inadequate parking
- Accessible & safe playfields

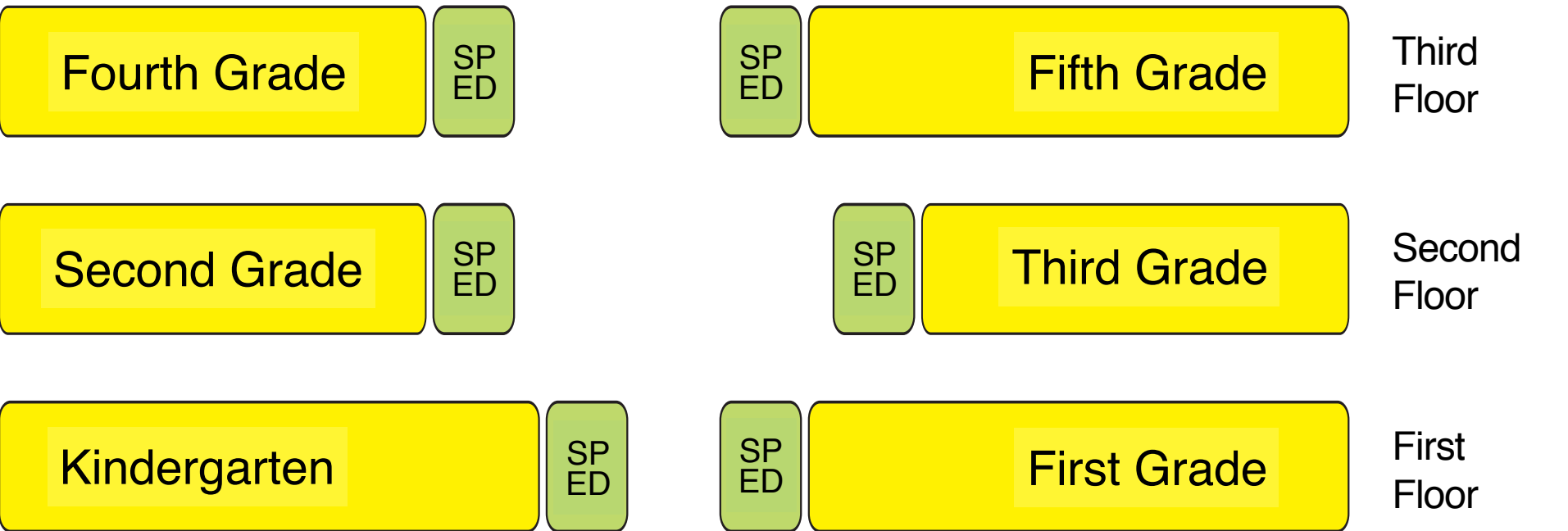
Design Options - Existing Conditions - 2nd Floor



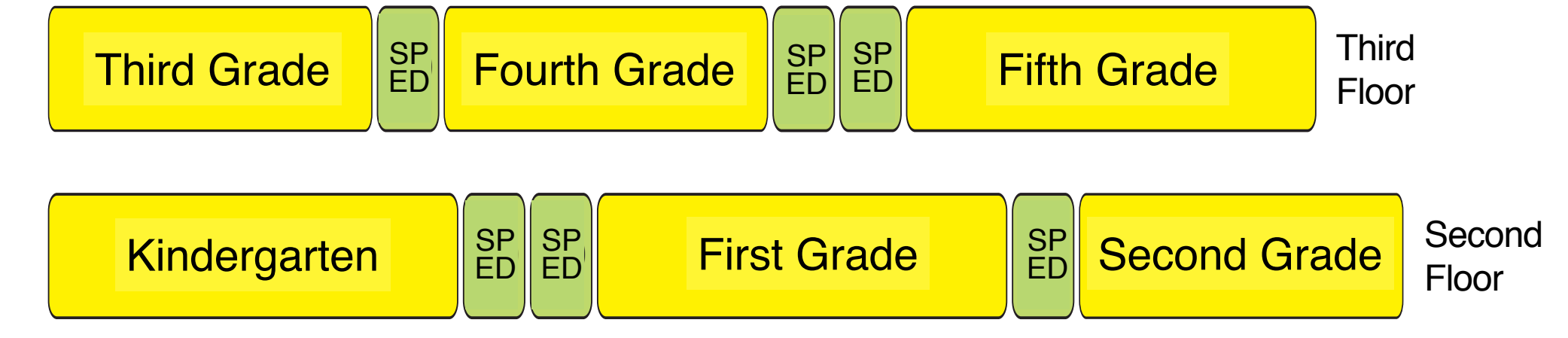
Design Criteria - Building

- A “welcoming” central space
- Transparency to school activities
- Large meeting space - school and community
- Special education spaces - adjacent to classrooms
- Multiple teaching zones within classrooms
- Zoned for community use off-hours
- Grades organized in “pod arrangement” - collaborative teaching
- Reinforce curriculum philosophy

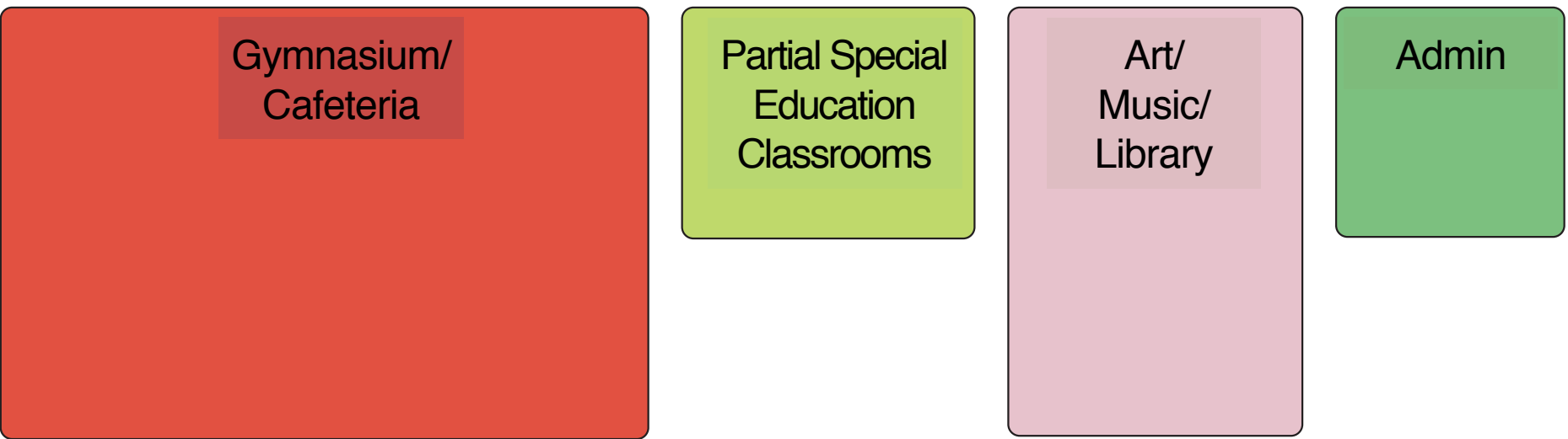
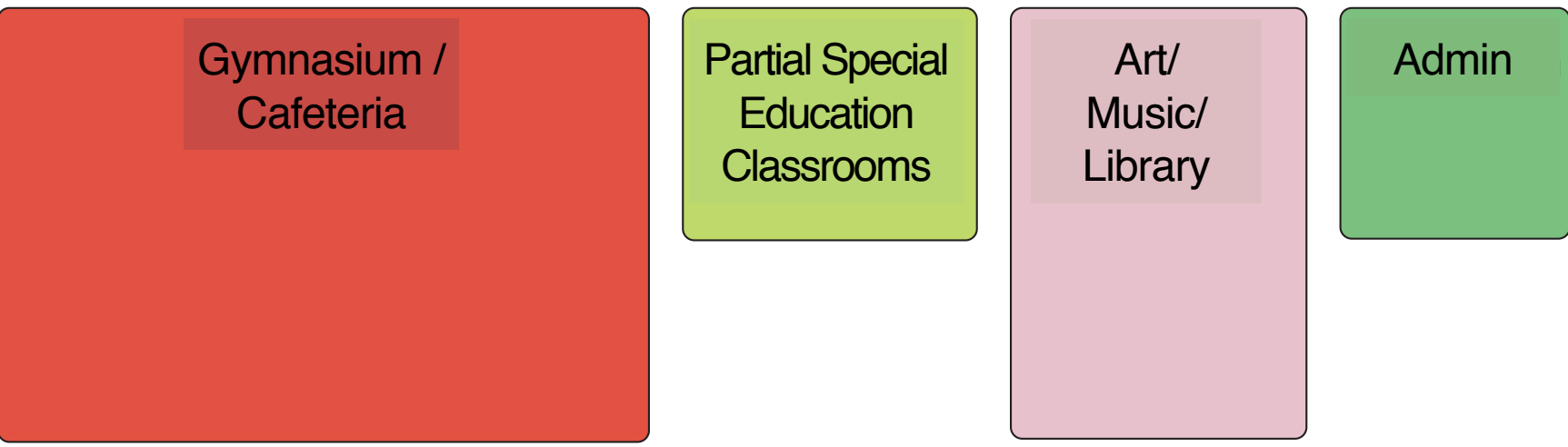
Internal Design Influences - Program



3 story classroom wing



2 story classroom wing



Planning Concepts - Renovation Addition



Option A.1



Option A.2



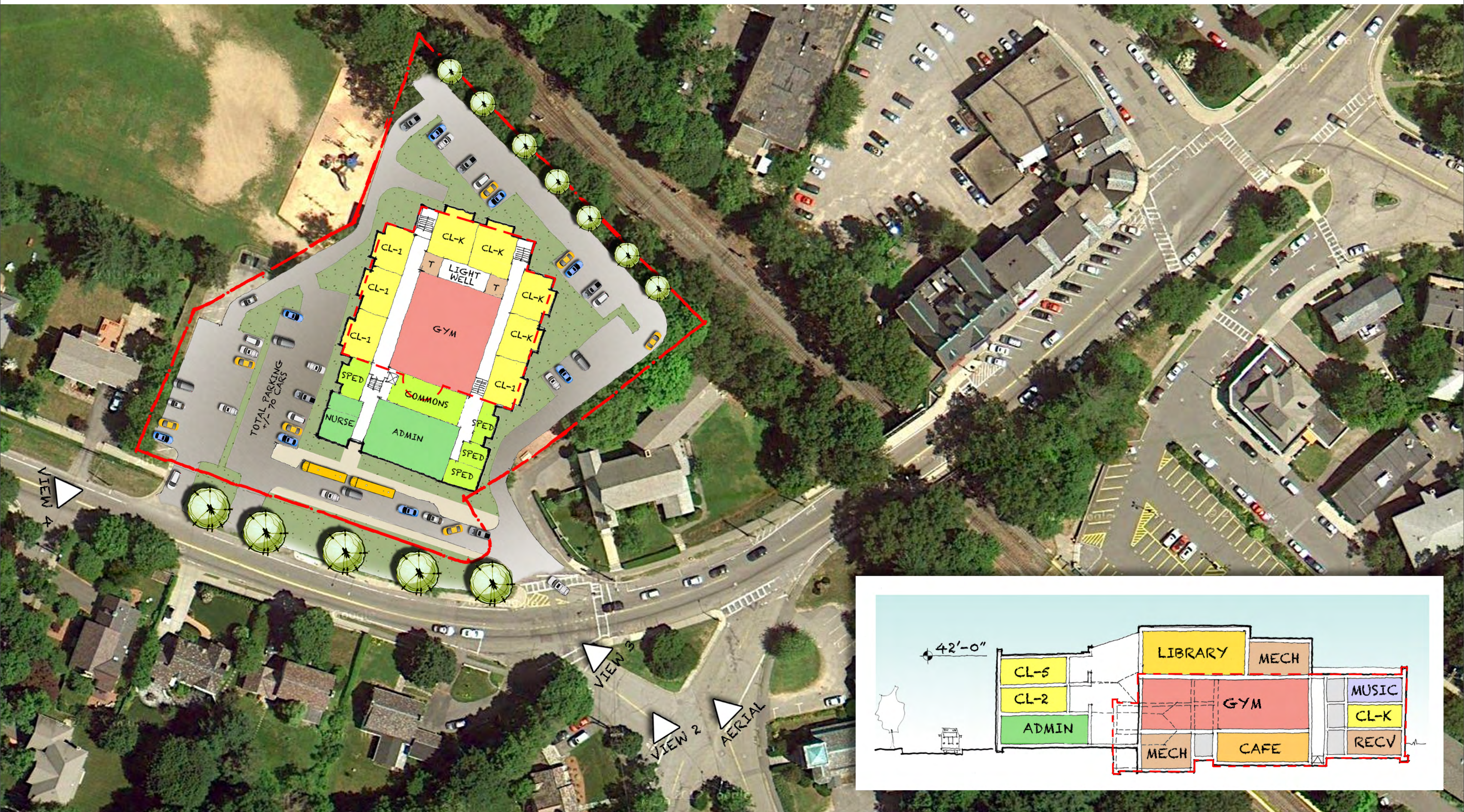
Option A.3

Test Viability Reuse

- Accommodate 21st century education program
- Adapt new building codes
- Preserve original character
- Economically viable

Planning Concepts A.1

Renovation Addition
No Lower Level Academic



Planning Concepts A.1

Renovation Addition
No Lower Level Academic



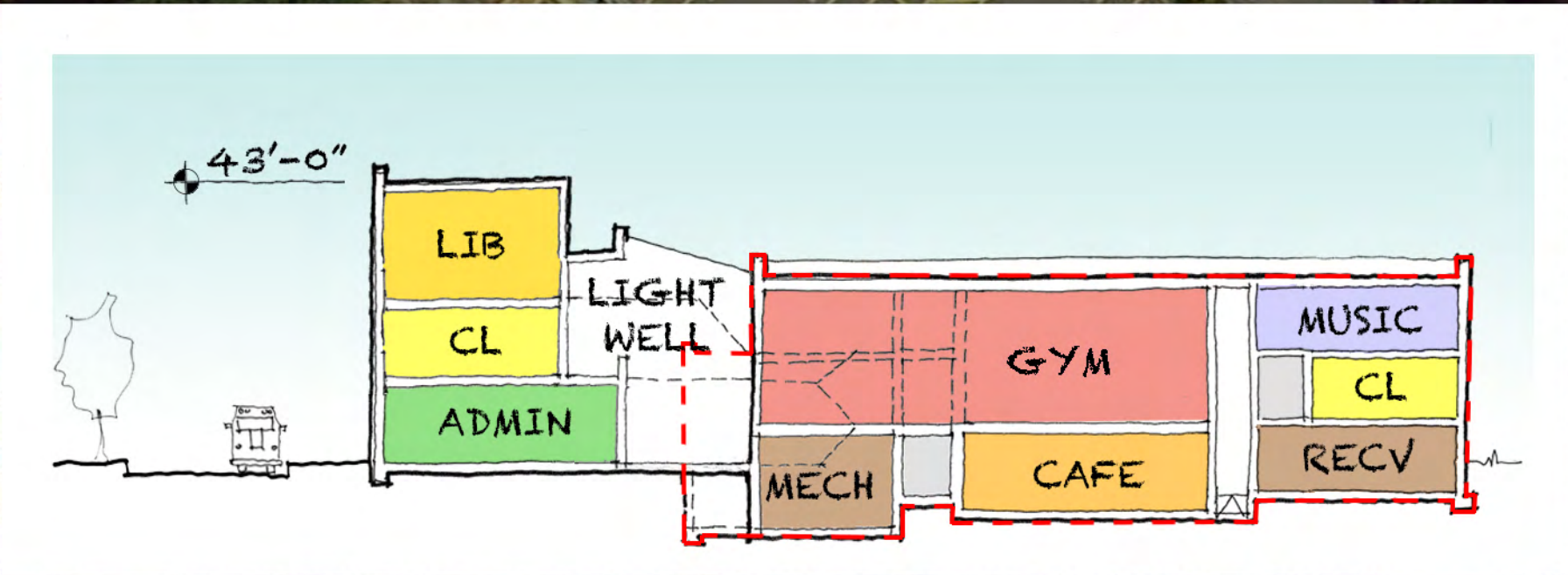
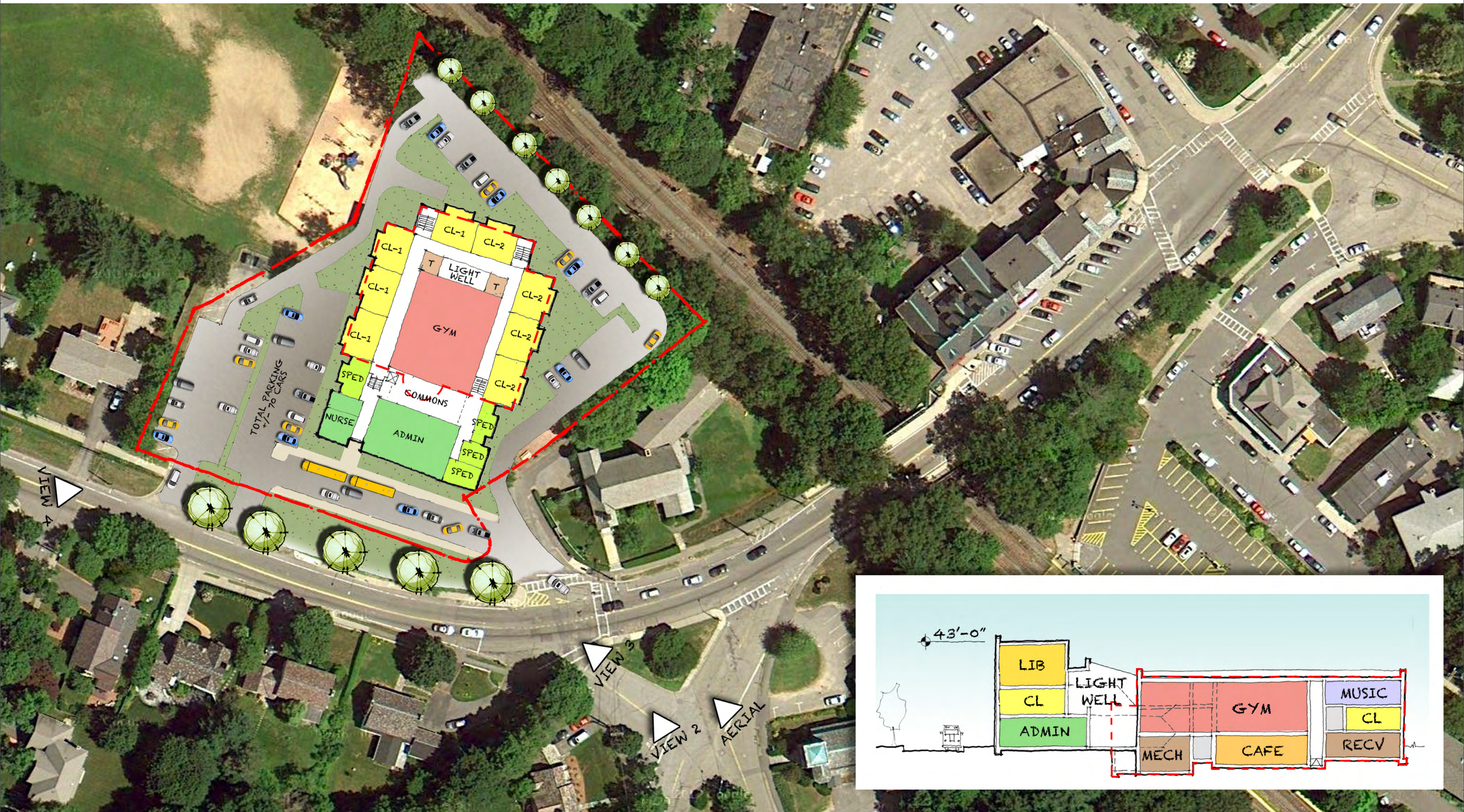
Planning Concepts A.1

Renovation Addition
No Lower Level Academic



Planning Concepts A.2

Renovation Addition
Lower Level Academic / Smallest Addition



Planning Concepts A.2

Renovation Addition
Lower Level Academic / Smallest Addition



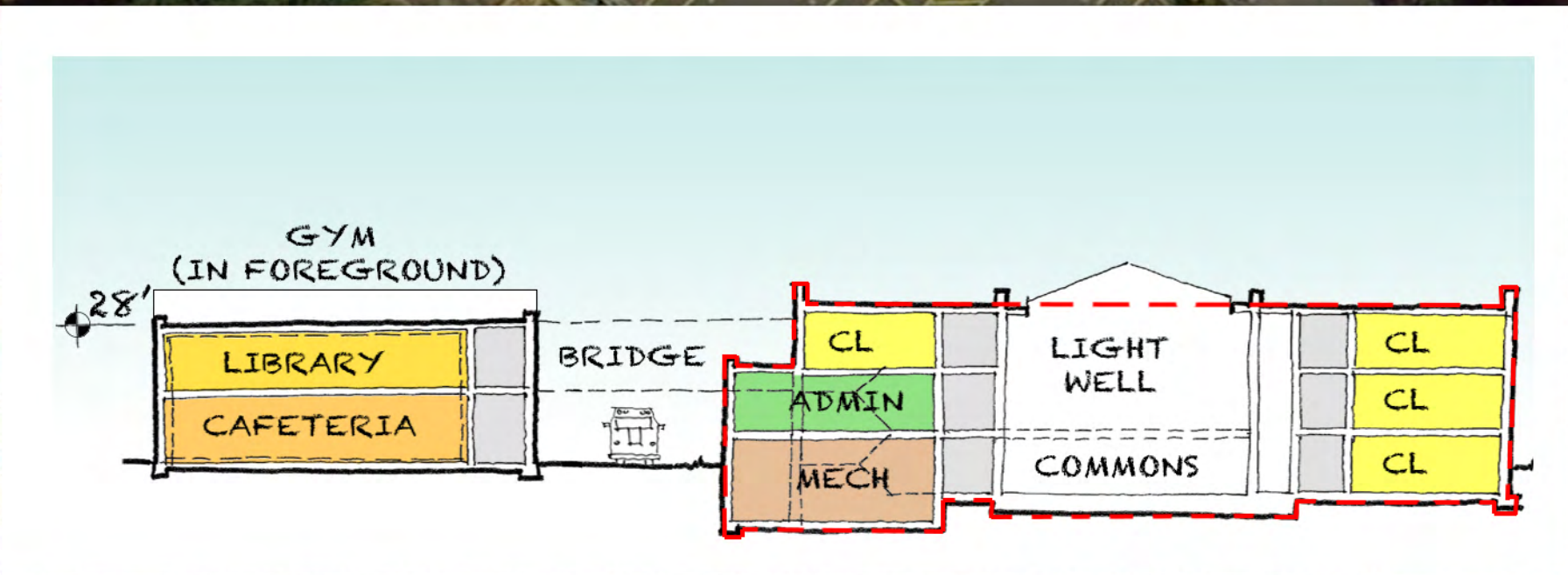
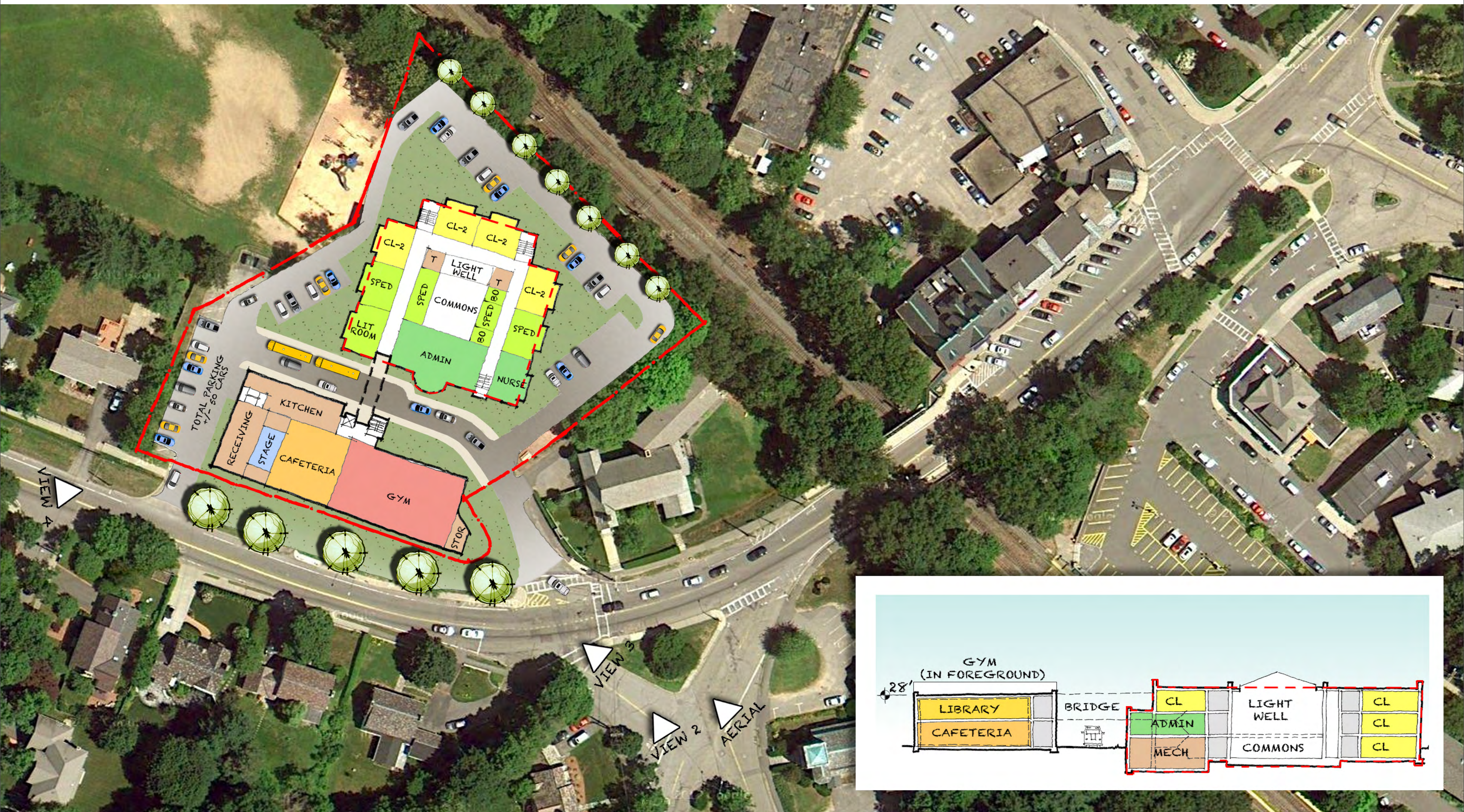
Planning Concepts A.2

Renovation Addition
Lower Level Academic / Smallest Addition



Planning Concepts A.3

Renovation Addition
Lower Level Academic / Large Addition



Planning Concepts A.3

Renovation Addition
Lower Level Academic / Large Addition



Planning Concepts A.3

Renovation Addition
Lower Level Academic / Large Addition



Planning Concepts - New Construction



Option B



Option B.1



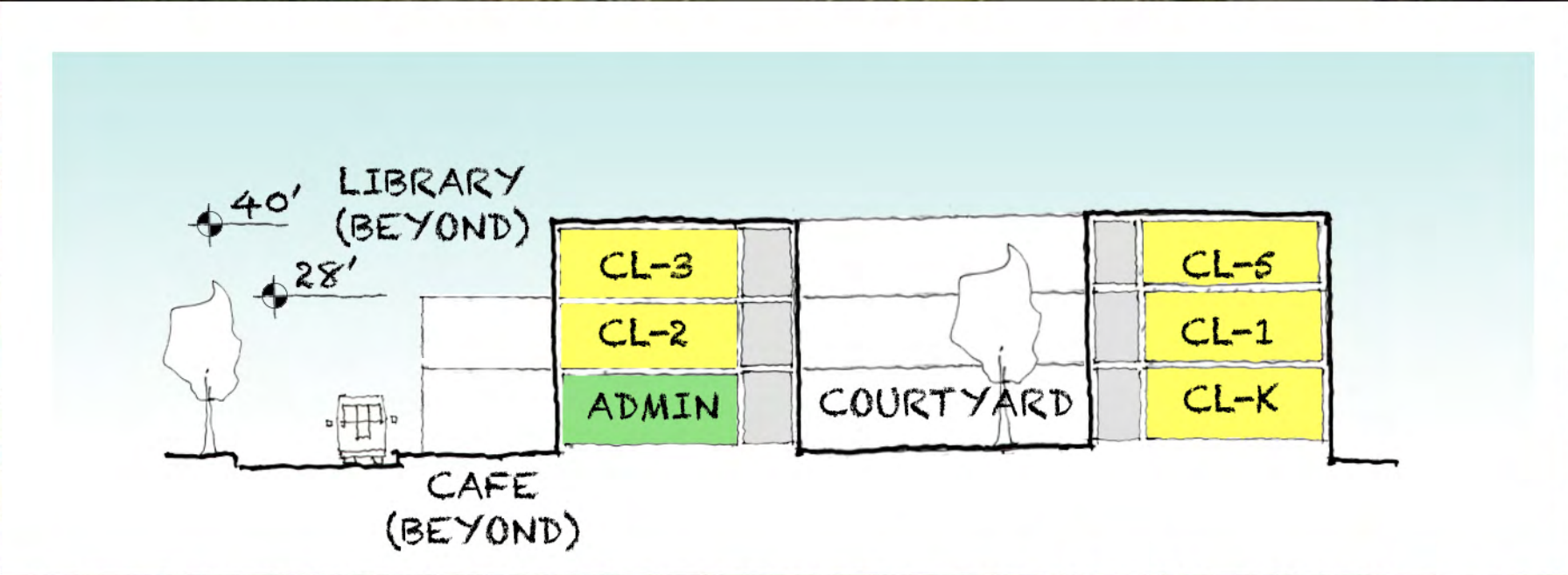
Option B.2



Option B.3

Planning Concepts B

New Construction
3-Story Interior Courtyard



Planning Concepts B

New Construction
3-Story Interior Courtyard



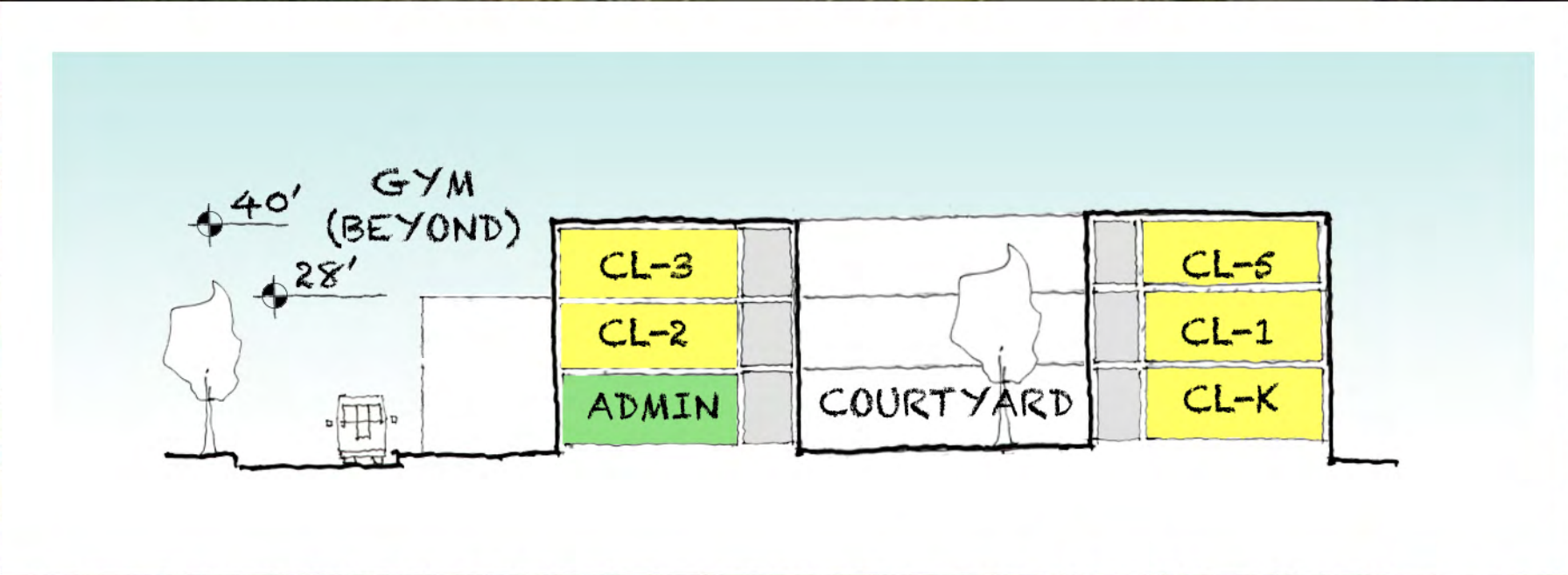
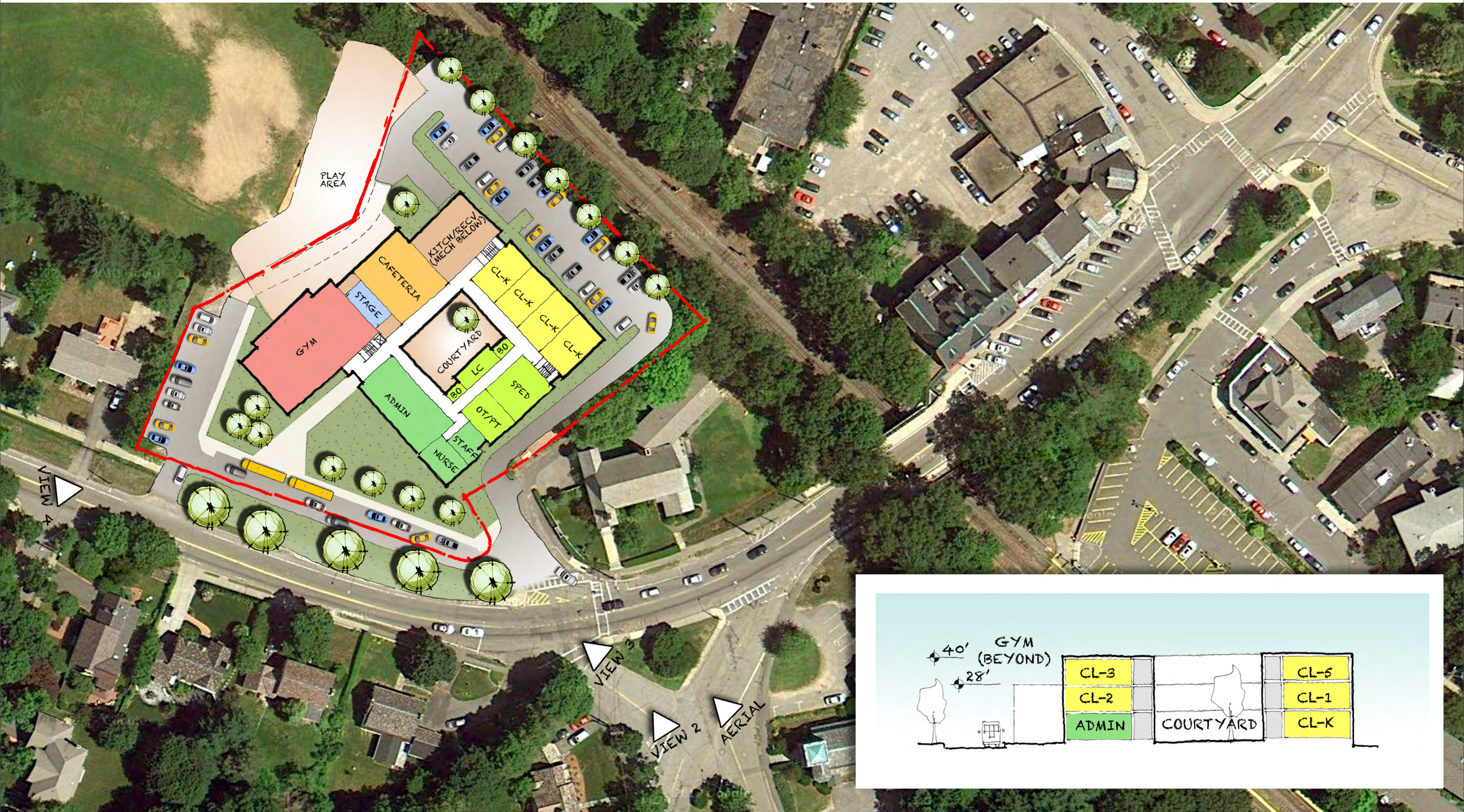
Planning Concepts B

New Construction
3-Story Interior Courtyard



Planning Concepts B.1

New Construction
Optional Core Relationship



Planning Concepts B.1

New Construction
Optional Core Relationship



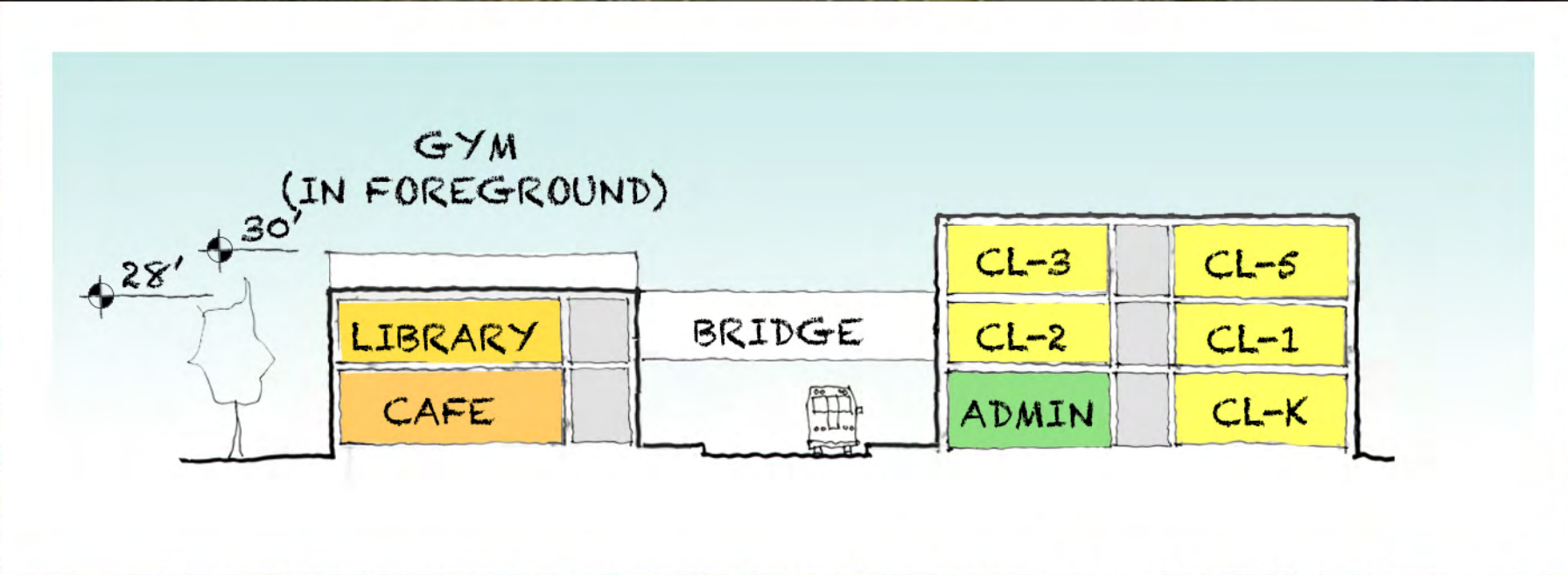
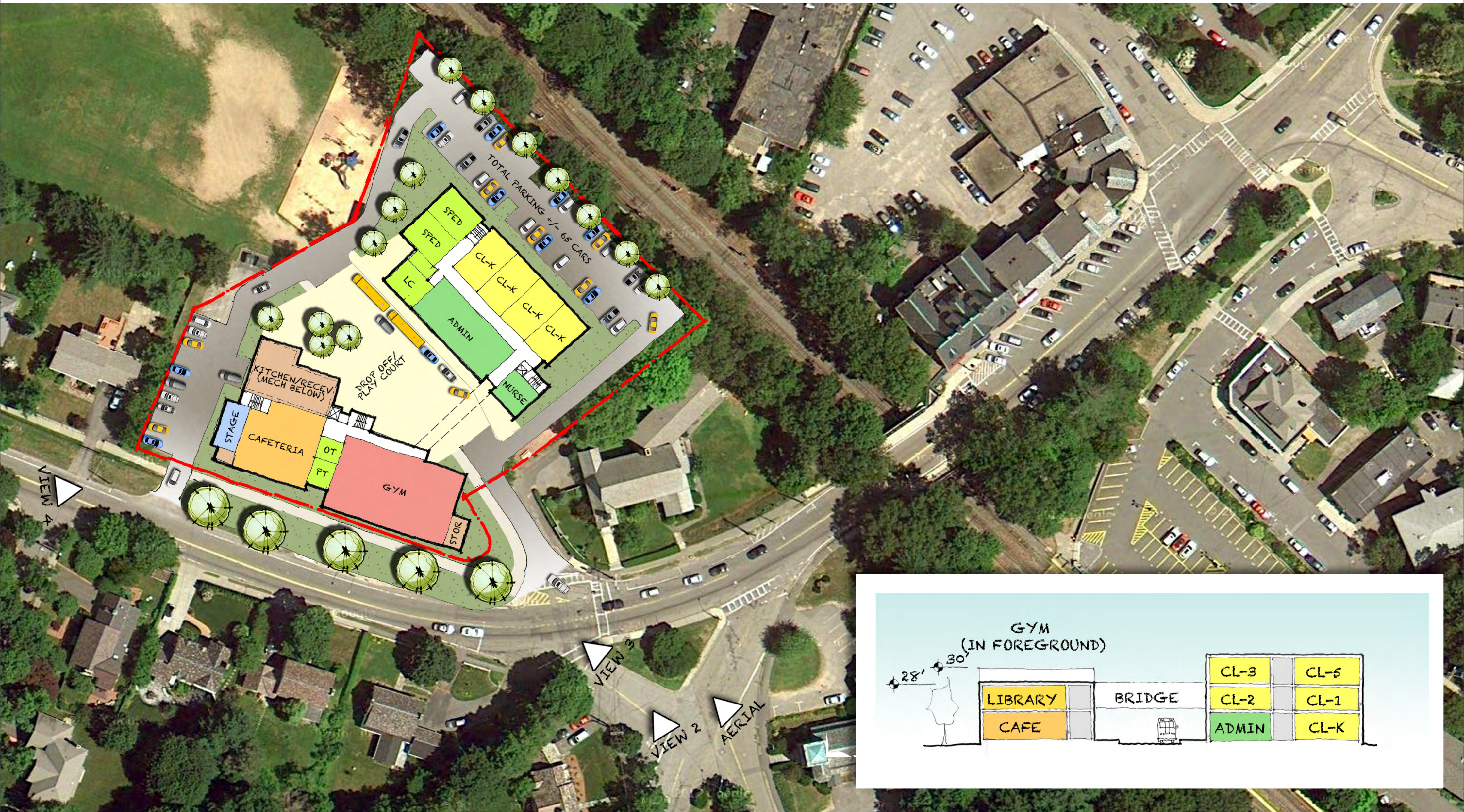
Planning Concepts B.1

New Construction
Optional Core Relationship



Planning Concepts B.2

New Construction
3 -Story Exterior Courtyard



Planning Concepts B.2

New Construction
3 -Story Exterior Courtyard



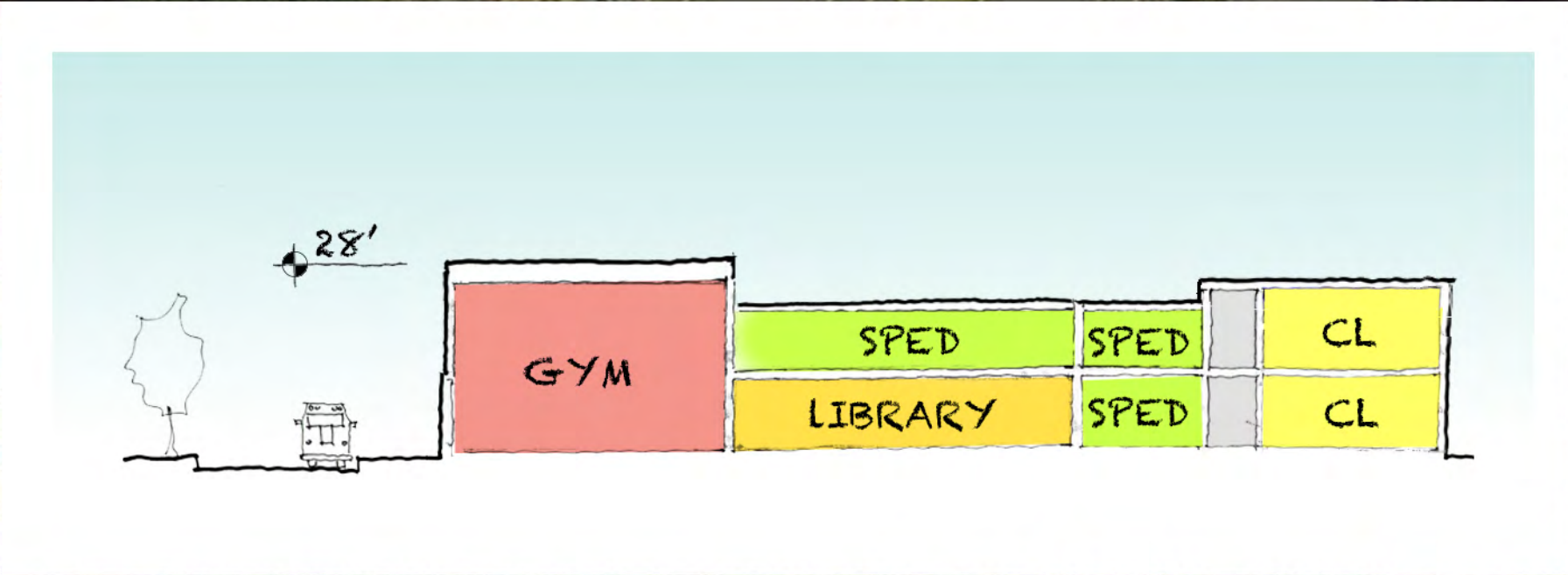
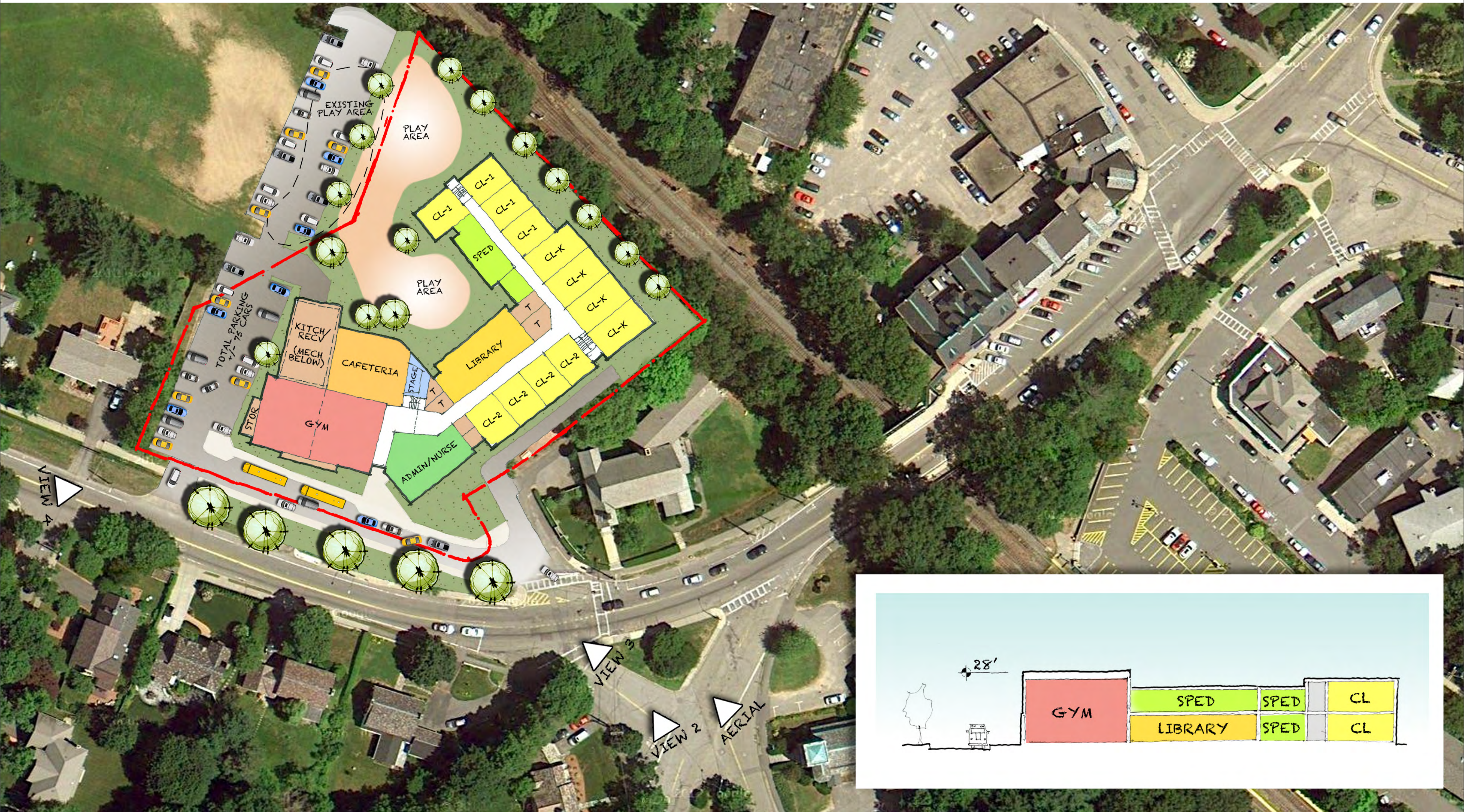
Planning Concepts B.2

New Construction
3 -Story Exterior Courtyard



Planning Concepts B.3

New Construction
2 -Story Exterior Courtyard



Planning Concepts B.3

New Construction
2 -Story Exterior Courtyard



Planning Concepts B.3

New Construction
2 -Story Exterior Courtyard



Massing Study



Design Evaluation Criteria Matrix

Angier Elementary School - Newton, MA		Options and Criteria Evaluation Matrix					
<input checked="" type="radio"/> Favorable <input type="radio"/> Neutral <input type="radio"/> Unfavorable Costs: 0, \$, \$\$, \$\$\$ = Not a viable option							
* Note: All design options will meet current building codes.		Proposed Site Strategy Alternatives					
		1	2A	2B	3	4A	4B
Criteria		Full renovation, no addition	Full reno + required net addition	Partial reno, partial demo + larger addition	Full demo + new construction (existing site)	New construction (remote site)	New construction (adjacent site)
Building and Site Facts							
1	Student enrollment population	465	465	465	465	465	465
2	Existing wetlands						
3	Size of site (acres)	1.9	1.9	1.9	1.9		
4	Site acquisition cost + potential legal issues	\$0	\$0	TBD	\$0		
General							
1	Relative capital cost						
2	Relative operating cost						
4	Allows students to move in to new school Fall 2016						
5	Minimizes disruptions to school + neighbors during construction						
6	Maintains the MSBA approvals schedule						
7							
Educational							
1	Meets educational program for all students + design enrollment						
2	Provides flexibility for future growth						
3	Provides flexibility for educational innovations						
4							
Community							
1	Provides accessibility to community used space						
2	Accommodates community program needs						
3	Accommodates Angier After School Program (AASP)						
4							

Design Evaluation Criteria Matrix

Angier Elementary School - Newton, MA Options and Criteria Evaluation Matrix

● Favorable

◎ Neutral

○ Unfavorable

Costs: 0, \$, \$\$, \$\$\$

= Not a viable option

* Note: All design options will meet current building codes.

Proposed Site Strategy Alternatives

Criteria	1	2A	2B	3	4A	4B
	Full renovation, no addition	Full reno + required net addition	Partial reno, partial demo + larger addition	Full demo + new construction (existing site)	New construction (remote site)	New construction (adjacent site)

Building

1	Provides a contextually sensitive design					
2	Acknowledges historical features					
3	Allows attainment of Green School objectives					
4	Maximizes use of natural light					
5	Maximizes connection of outdoor/indoor space - integration with site					
6	Provides a reasonable and appropriate height and number of stories					
7	Meets ADA requirements					
8	Incorporates an open and inviting accessible entry					
9	Maximizes security					
10	Connects interior and exterior spaces; integration of building w/ site					
11	Fosters a sense of school community					
12	Maximizes operable windows and indoor air quality					

Site

1	Maximizes building set backs to lot lines (MSBA, Street, Fields, Church)					
2	Accommodates outdoor program space					
3	Provides adequate green space					
4	Meets program for on site drop off					
5	Meets program for off site drop off					
6	Separates bus and automobile circulation					
7	Provides sufficient parking for teachers, staff + visitors					
8	Accommodates additional parking and circulation for special events					
9	Minimizes off site traffic impact					
10						

Angier Elementary School



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