Advisory Capital Subcommittee & Schools Subcommittee Joint Hearings on Warrant Articles 2, 3, and 4

November 28, 2018 and November 29, 2018

Feasibility vs. Schematic

PUBLIC SCHOOLS of BROOKLINE

	Feasibility Design (Sept. 2018 - Dec. 2018)	Schematic Design* (Dec. 2018 - Mar. 2019)
Classrooms, Learning Spaces, and Offices	Types of classrooms needed and how many should be constructed	Defining location of spaces relative to building and other structural supports for educational programming
Building Exteriors	Basic footprint and height	Facade and detailed elevations
Floor Plans	Size, location, and envelope of the building	Detailed sketches of site plan, including 3D models
Outdoor Play-Spaces	Basic drawings and preliminary locations	Exact layout including specific structures and other features
Traffic and Parking	Analysis and comparables to other schools and neighborhoods; initial recommendations	Specific alterations to roads, including traffic calming, sidewalk adjustments and safety measures
Where are students during construction?	Whether students will be on site or in swing space during construction	Specific plans for student safety during construction; specific costs and plan for swing space.

***Funding for Schematic Design is contingent upon Town Meeting Vote on 12/13**

Three-Part, Townwide Solution

PUBLIC SCHOOLS of BROOKLINE

On June 13, 2018, after the 6-month Alternative Site Study, which included more than 20 public meetings, the consideration of 20 initial options and 14 final options, six public listening sessions, public hearings, and the work of five town departments and HMFH Architects, the Select Board, School Committee, and Ad Hoc Subcommittee of the Advisory Committee voted to:

1. **Driscoll** – move renovation and expansion into a 4-section school into the Feasibility Design Phase
   - Prioritizes maintaining the existing amount of per student play space
2. **Baldwin School** – move a "2-section" school into the Feasibility Design Phase
   - Includes early education, RISE, and native language support classrooms
3. **Pierce** – reaffirmed School Committee decision to request partnership with Massachusetts School Building Authority to renovate Pierce

2018 Projections - Total Growth since FY2005

PUBLIC SCHOOLS of BROOKLINE

FY 2006: Actual K-8 Enrollment was **3,904** students

2018 K-8 Enrollment Projections *(including new housing developments)*

FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
5,503	5,499	5,474	5,356	5,452	5,310	5,214	5,171	5,097	5,032	4,984

According to 2018-19 K-8 Enrollment Projections:

- In FY24, enrollment will still be 1,400 students more than it was in FY2006
- In FY29, enrollment will still be 1,080 students more than it was in FY2006

Enrollment Growth since 2005 – By School

PUBLIC SCHOOLS of BROOKLINE

	2005-2006	2018-2019	# Growth since 2005	% Growth since 2005
Baker	647	762	115	18%
Coolidge Corner	670	873	203	30%
Driscoll	366	614	248	68%
Heath	360	522	162	45%
Lawrence	478	705	227	47%
Lincoln	410	581	171	42%
Pierce	546	865	319	58%
Runkle	427	581	154	36%
	3,904	**5,503**	**1,599**	**41%**

2005 - 2018 growth is equivalent to combined 2005 enrollment of Driscoll, Heath, Lincoln, and Runkle

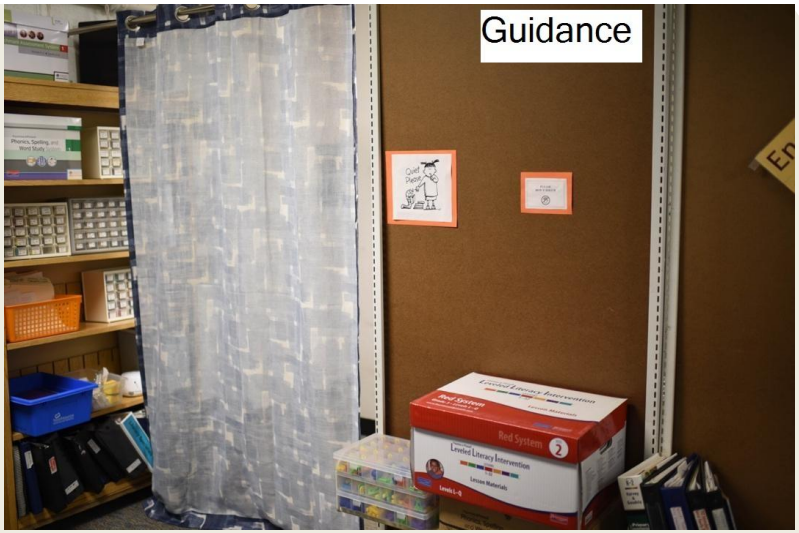
Townwide Challenges

PUBLIC SCHOOLS of BROOKLINE

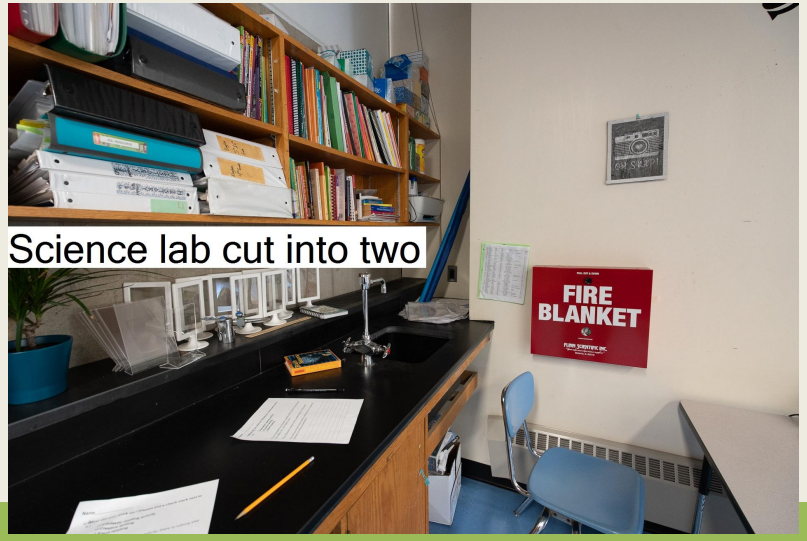
- **Historic and Ongoing Enrollment Growth -** Since 2005, we have absorbed the equivalent of three K-8 schools into our existing schools through expand in place. Every school is overcrowded and needs relief in some way.
- **Overdue Renovation and Updating of Facilities –** Driscoll and Pierce School need renovation to update facilities and address overcrowding. Driscoll has never completed a full renovation.
- **Core Facilities are Inadequate–** Core facilities in 7 of 8 K-8 schools (gyms, libraries, cafeterias, hallways) no longer have the capacity to handle the current student population.
- **Substandard Spaces –** at each school, we have substandard classrooms because they have been created out of offices, hallways, locker rooms, etc.
- **Temporary Rentals used for K-8 Classrooms –** Pierce and Baker Schools have a total of 6 classrooms that are in rented space
- **Early Education Programs** – currently 11 BEEP classrooms in rental space. With a new BEEP building 5 BEEP classrooms will remain in rental space. 5 more remain at Lynch Center.

Substandard Spaces in Brookline's Schools

PUBLIC SCHOOLS of BROOKLINE



Converted storage space - 4 educators, 4 different programs, no windows



Science lab cut into two

Hallway outside nurse's office - can't accomodate necessary medical equipment

At-a-Glance

PUBLIC SCHOOLS of BROOKLINE

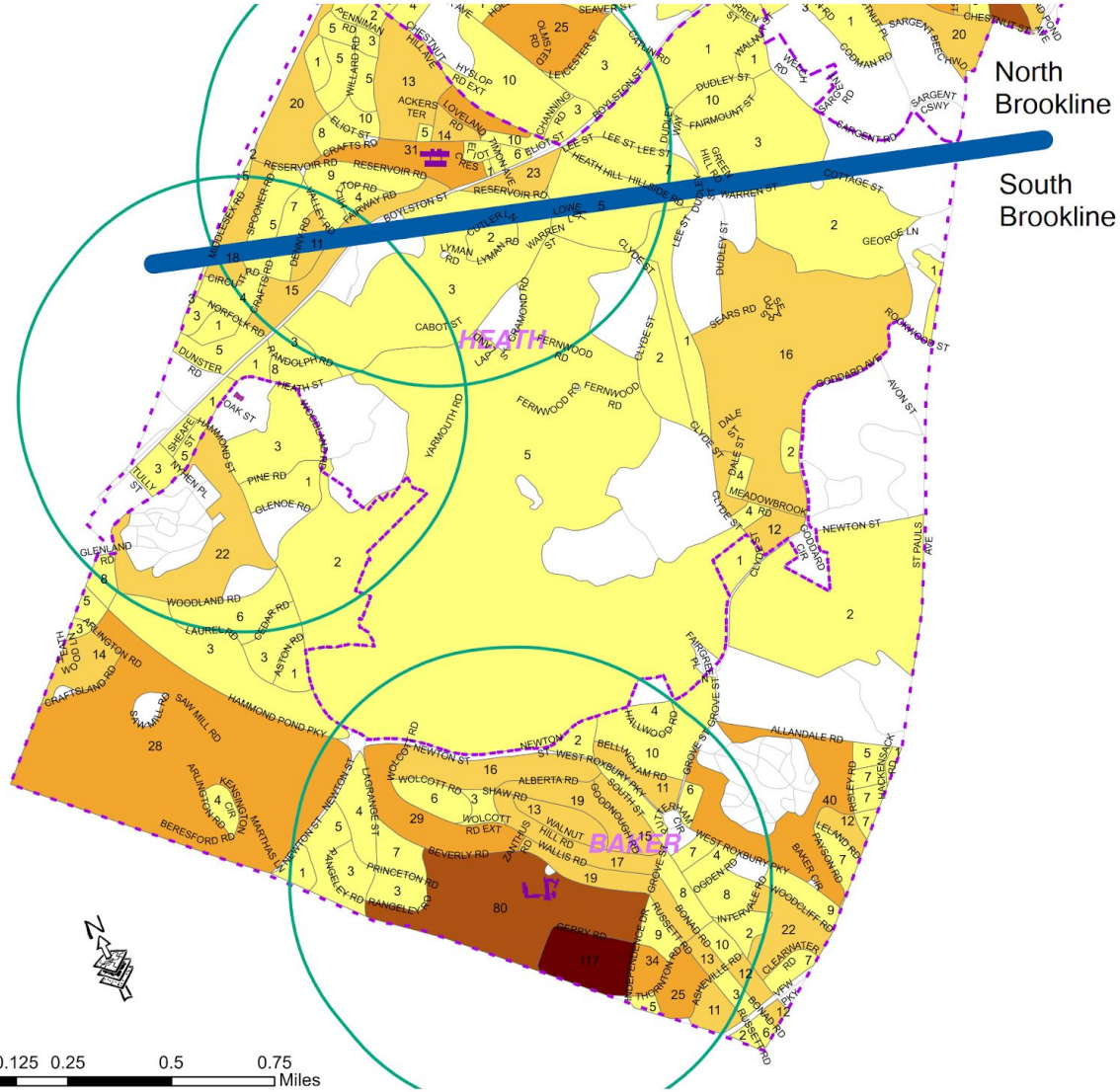
School Type	2 Section; K to 8th Grade *(Reduced from 3+ section design in May 2018 9th School Alternate Site Study)*
Expanded Services	Early Education and Pre-K (BEEP), Special Education (RISE - Reaching for Independence Through Structured Education), English Learner Education (ELE), Native Language Support Program
Projected Total Number of Students	450 students, as distributed: • *378 K-8, including METCO, Materials Fee, and ELE* • *45 Pre-K* • *27 RISE* *(Reduced from 640 Students in May 2018 9th School Alternate Site Study)*
Total Number of Core (K-8) Classrooms	18 *(Reduced from 27 core classrooms in May 2018 9th School Alternate Site Study)*
Preliminary Staffing	86, including Kitchen and Custodial
Preliminary Size of School	108,250 Sq. Ft. (Gross Square Feet) (*Reduced from 143,000 Sq. Ft. in May 2018 9th School Alternate Site Study*
Projected Transportation	121 cars, 3 buses, and 9 vans
	214 students live within a 0.5 mile radius of the Baldwin School • **138 public school students; 76 private school students**

Baldwin Catchment Area

PUBLIC SCHOOLS of BROOKLINE

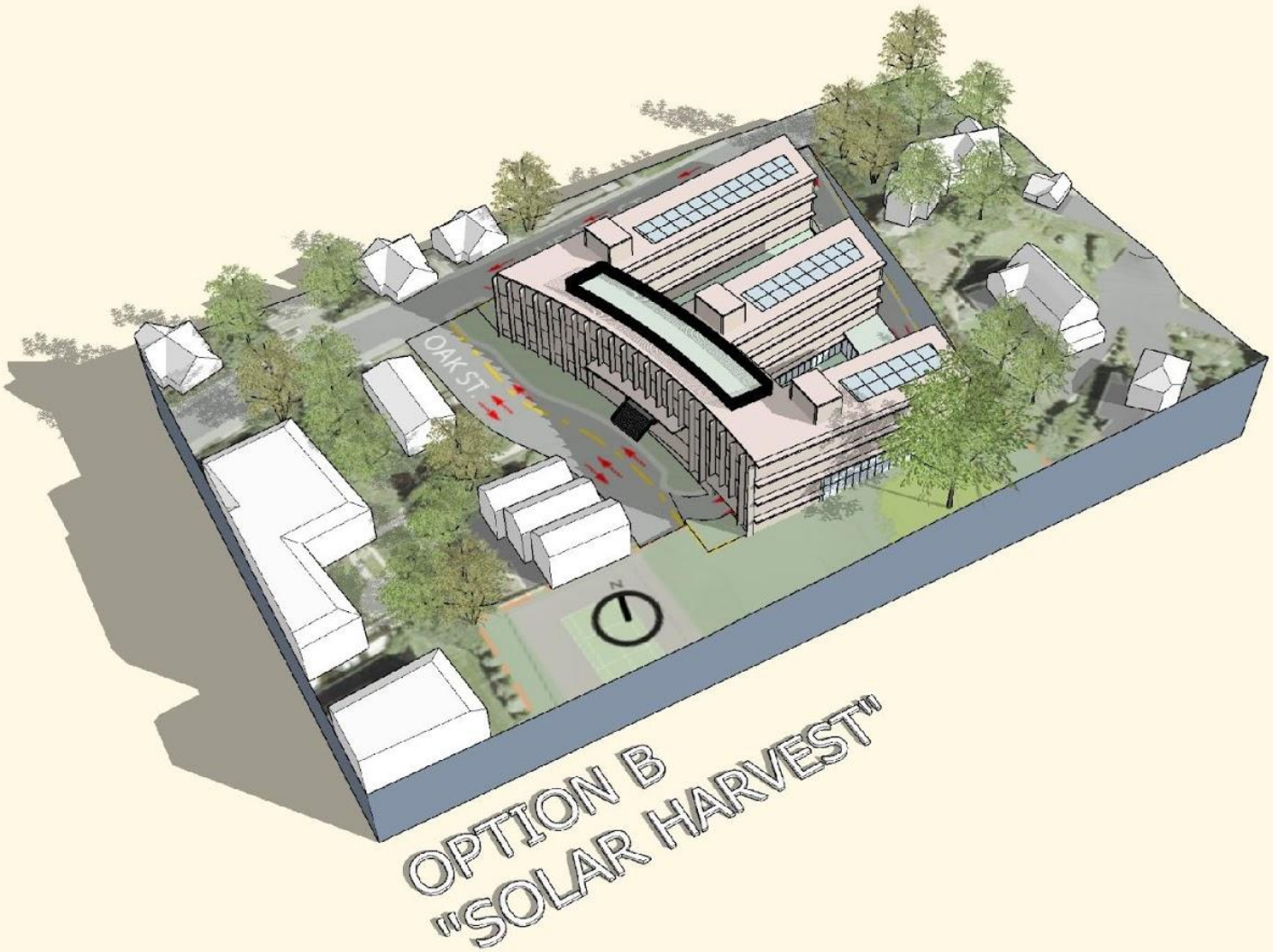
Total Number of resident students projected to live in South Brookline	1141
Total Students at Proposed Baldwin	450
# of K-8 resident students living in South Brookline anticipated to be assigned to Baldwin*	310*
# of K-8 resident students living in South Brookline anticipated to be assigned to Baker*	716*
Total number of K-8 resident students living in South Brookline projected to be assigned to Baker and Baldwin	1026
Number of K-8 resident students living in South Brookline that would have to go to a school other than Baker and Baldwin	115

*Does not include BEEP, METCO, RISE, and Materials Fee Students



Option B – Solar Harvest

Preliminary Concept Design Alternatives



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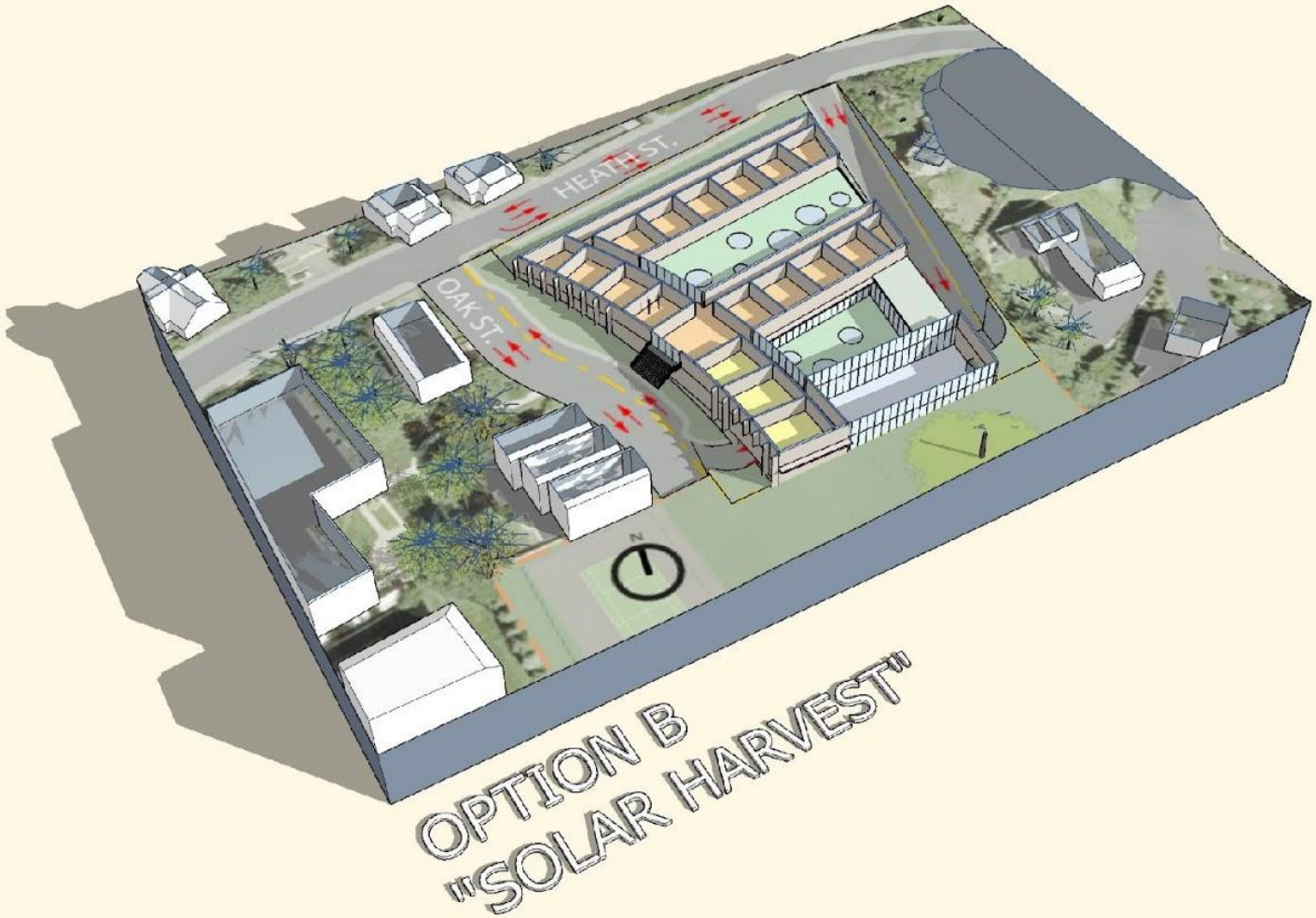

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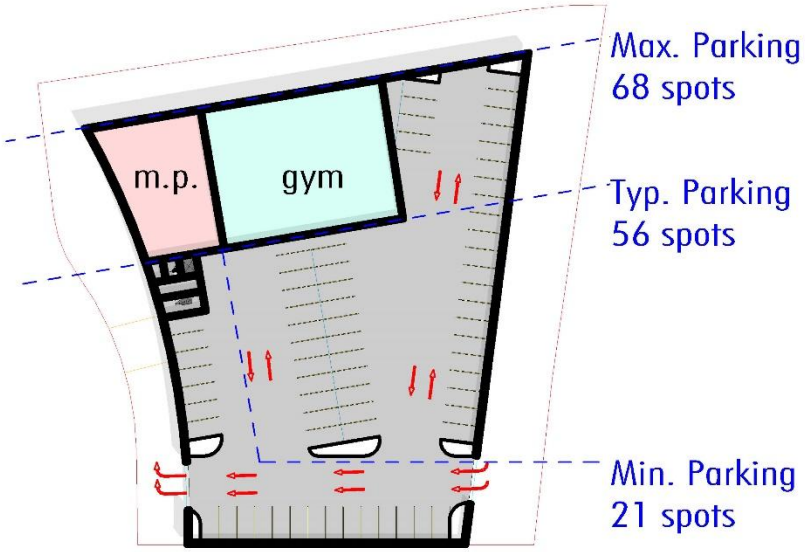
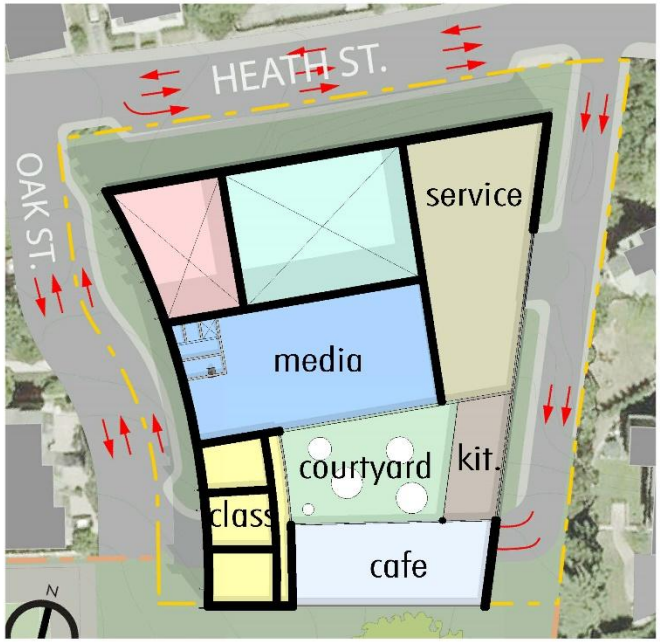
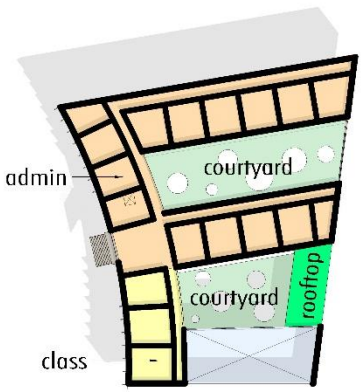


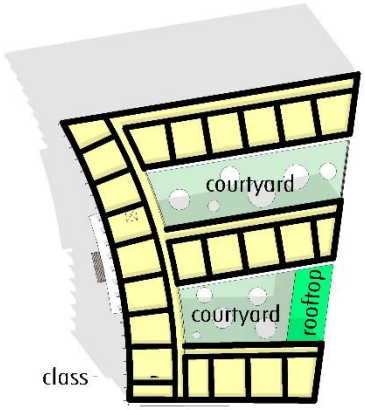
1 -1 GARAGE - OPTION B
1" = 50'-0"



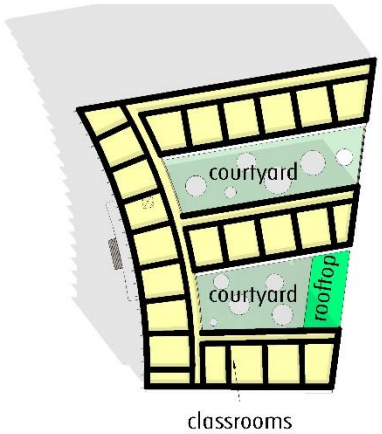
2 FIRST FLOOR PLAN - OPTION B
1" = 50'-0"



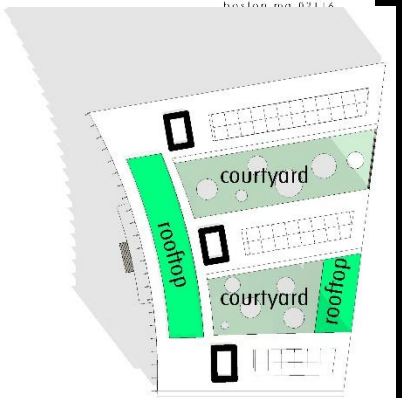
3 SECOND FLOOR PLAN - OPTION B
1" = 50'-0"



4 THIRD FLOOR PLAN - OPTION B
1" = 50'-0"



5 FOURTH FLOOR PLAN - OPTION B
1" = 50'-0"



6 ROOF PLAN - OPTION B
1" = 50'-0"

Preliminary Concept Design Alternatives

BALDWIN SCHOOL EXPANSION

Concept Options Evaluation Matrix

RATINGS: ● Advantageous ◒ Neutral ○ Disadvantageous

	PROJECT EVALUATION CRITERIA	OPTION A QUADRANGLE	OPTION B SOLAR HARVEST	OPTION C TWIN COURT	COMMENTS
	Project Cost				
1	Project Cost - Includes 10 On-Site Parking Spaces under building, $1M for Sidewalks	$70M - $74M	$72M - $76M	$73M - $77M	
	Project Cost - Includes 40 On-Site Parking Spaces under building, $1M for Sidewalks	$76M - $80M	$78M - $82M	$79M - $83M	
	Teaching and Learning				
2	Educational Program Accommodation	●	●	●	All accommodate program
3	Flexibility-Fixed Classroom Count per Cohort	●	●	●	Option B slightly less flexible due to courtyards along east side
4	Collaborative / Project Based Learning	●	●	●	All accommodate collaborative learning
5	Cohort Configuration, With Student Support	◒	●	◒	Option B has most successful cohort configuration with more defined wings
6	Core Space Location (Library/Cafeteria/Gym)	●	●	○	All have successful core space location
7	RISE	●	●	●	All can successfully include RISE
	Project Viability Issues				
8	Schedule	◒	●	◒	Option B open courtyards are best lay-down area for construction
9	Traffic	◒	◒	◒	All similar and conform with traffic recommendations
10	Risk	◒	◒	◒	All similar
	Site				
11	Construction Impact to Neighbors	◒	◒	◒	All similar
12	Open Space /Building Massing	○	●	○	Option B has more contextual massing and accessible open space
13	Community Use	◒	◒	◒	All allow convenient community use
	Building Environment				
14	Flexibility-Building Systems	◒	◒	◒	All similar
15	Provides Logical, Clear Interior Circulation	◒	●	○	Option B has clearest circulation, Option C would be least intuitive
16	Security	●	●	◒	Option C would be least open visually due to more convoluted circulation
17	Natural Light	○	●	○	Option B has best solar orientation for daylighting
18	Connects Interior with Natural Outdoors	◒	●	○	Option B has all classrooms relating to outdoor play areas, Option C has fewest
19	LEED / Sustainability	◒	●	◒	Option B most energy efficient due to solar orientation
	Long Term Costs	○	●	○	
20	Annual Maintenance Costs	◒	◒	◒	All similar
21	Annual Energy Costs	◒	●	◒	Option B most energy efficient due to solar orientation
	Total GSF	108,250	108,250	108,250	

Project Cost Estimate - Design Feasibility Phase

Feasibility Preferred Option B

- with 10 below grade parking spaces $72 - 76M
- with 40 below grade parking spaces $78 - 82M

Currently Proposed School Projects

Baldwin Feasibility Preferred Option B	**$82M, + 450 seats**	**$182k/seat**
Driscoll Feasibility Preferred Option H	$105M, + 172 seats	$610k/seat
Pierce K5/678 *	$173M, + 299 seats	$579k/seat
Pierce 5 Opt.1 *	$142M, + 110 seats	$1.3M/seat

Previously Studied School Projects

Baker 5 *	$138M, + 213 seats	$648k/seat
Baker 3/3 Opt.1 *	$163M, + 402 seats	$405k/seat
Heath *	$75M, + 234 seats	$321k/seat

*For previously studied and Pierce, based on HMFH 6/18 cost data and does not include full escalation, swing space or land acquisition.