CITY OF CAMBRIDGE

TOBIN MONTESSORI AND VASSAL LANE UPPER SCHOOLS PROJECT 01/16/2020

PERKINS — EASTMAN

Human by Design



AGENDA

16 JANUARY 2020

6:30 - 7:00 pm Presentation

Initial Feedback

Educational Program

Process

Traffic & Parking

Design Revisions

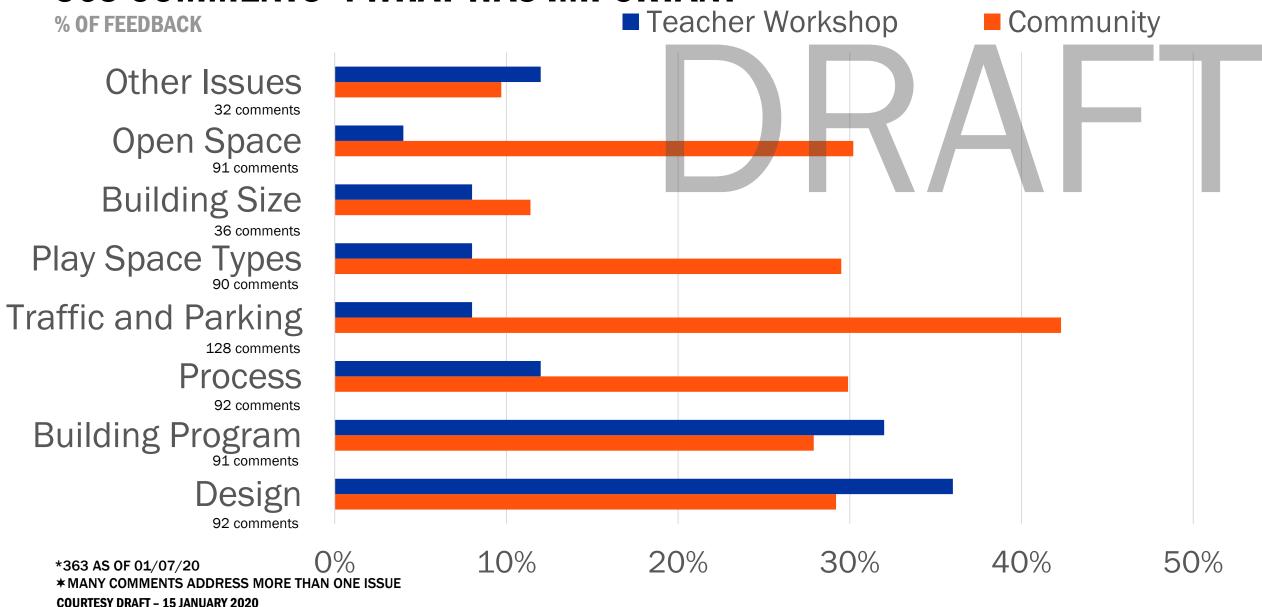
Open Space Thoughts

7:00 - 8:30 pm Discussion



363 COMMENTS*: WHAT WAS IMPORTANT*

PERKINS EASTMAN TOBIN MONTESSORI/VASSAL LANE SCHOOLS PROJECT



PROCESS



DESIGN PROCESS



10 MONTHS*

6 MONTHS

Feasibility Study

- Establish Program
- Establish Building Organization & Form

Schematic Design

- Begin Building & Site Design
- Choose Structure & Mechanical Systems

Design Development

- Refine Design
- Choose Products
- Begin Details

- Construction Documents
- Document Design
- Create Construction Details

^{*} Schedule extended to allow for additional community input COURTESY DRAFT - 15 JANUARY 2020

DESIGN PROCESS





6 MONTHS

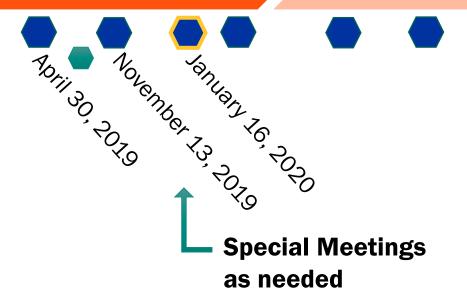
10 MONTHS

Feasibility Study

Schematic Design

Design Development

Construction Documents



Proposed Community
Meetings

^{*} Schedule extended to allow for additional community input COURTESY DRAFT - 15 JANUARY 2020

PREFERRED OPTION

PROCESS

- What it is
 - Selection of building form
 - Finalization of Education Program
- What it is Not
 - Actual building design
 - Final choice of site elements
 - Final choice of traffic and parking solution



STRATEGIES BASED ON COMMUNITY INPUT

PROCESS

DRAFT

Reduce Paved
Area with
Drop-off &
Parking Under
Building

Make
Building
Taller to
Increase
Open Space

Develop Circulation Options

Program
Open Areas
for Ageappropriate
Play

Program
Open Areas
for
Community
Use



SITE CIRCULATION - BUSES



OPTION A

Enter on Concord Shared use lane on East side of site Exit on Vassal

OPTION B

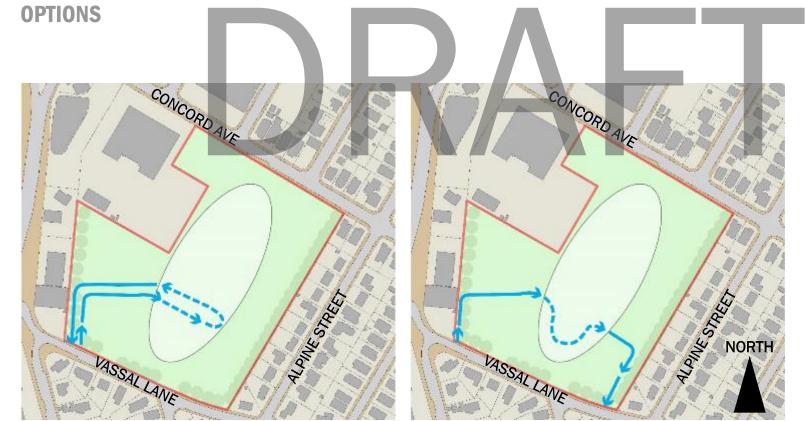
Enter and Exit on Concord
Bus loop at North end of building
(least preferred option)

OPTION C

Enter and Exit on Vassal Bus loop at South end of building

BICYCLE

SITE CIRCULATION - CARS





Pros for Underground Parking

- More green space
- Covered drop-off

OPTION A

Cars off Vassal Lane Enter AND Exit at Southwest corner Circulation below building **OPTION B**

Cars off Vassal Lane
Enter at Southwest corner
Circulation below building
Exit at Southeast corner

SITE CIRCULATION – UNDERGROUND PARKING



2070 100-YEAR STORM + SEA LEVEL RISE

EXTENT OF CONTAMINATED FILL

Cons of Underground Parking

- High water table + Flood zone
- More contaminated fill to remove
- High cost premium
- May not curb neighborhood parking
- Increase in dedicated space for vertical building entrance

SITE CIRCULATION - COMMUNITY PATH







OPTION A

Enter near Fern Street at North Travel along West side Enter near Lakeview at South **OPTION B**

Enter near Fern or Corporal Burns at North Travel along East Side Enter near Standish at south

SITE CIRCULATION - SERVICE







Access from Vassal Lane
Enter and Exit in Southwest corner

OPTION B

Access from Concord
Enter and Exit across from Fern St

NORTH

DES GN REVISIONS







































DESIGNS IN NOVEMBER



RENOVATION / ADDITION

- Re-uses Existing Building
- Buses on Vassal Lane
- Cars on Concord Ave
- Service and Parking at Site Interior
- Playing Fields on East Side

WINGS

- All New Building
- On-site Drive Aisle for Buses and Cars
- Service and Parking at Site Interior
- Playing Fields on South Side

PAVILIONS

- All New Building
- On-site Drive Aisle for Buses and Cars
- Service and Parking at Site Interior
- Playing Fields on West Side

STRATEGIES BASED ON COMMUNITY INPUT

Make Building Taller to Increase Open Space Reduce Paved Area with Develop Drop-off & Circulation Parking Under **Options** Building Program Open Areas Open Areas for Agefor appropriate Play Use

OPTION 1A: REPLACEMENT V2

NEW BUILDING INSTEAD OF ADDITION/RENOVATION

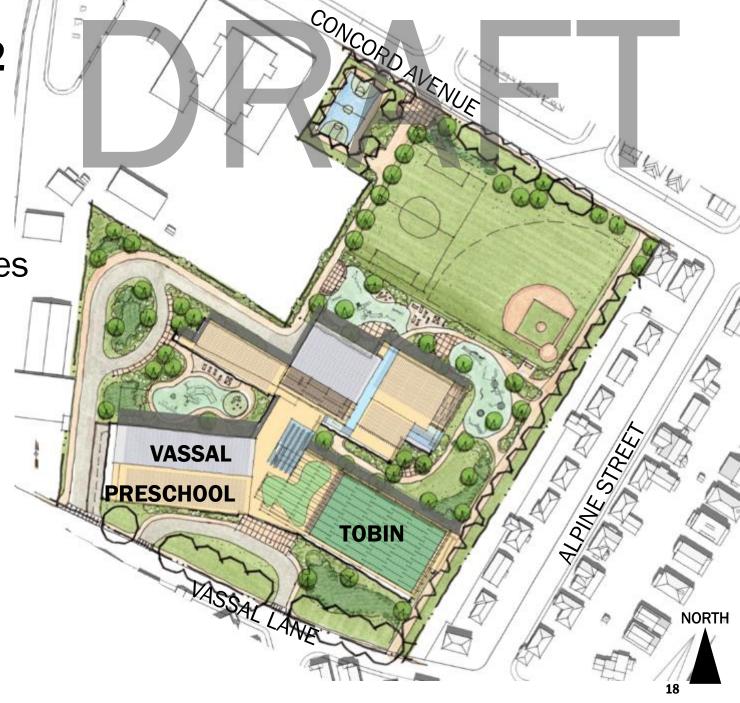
More compact shape

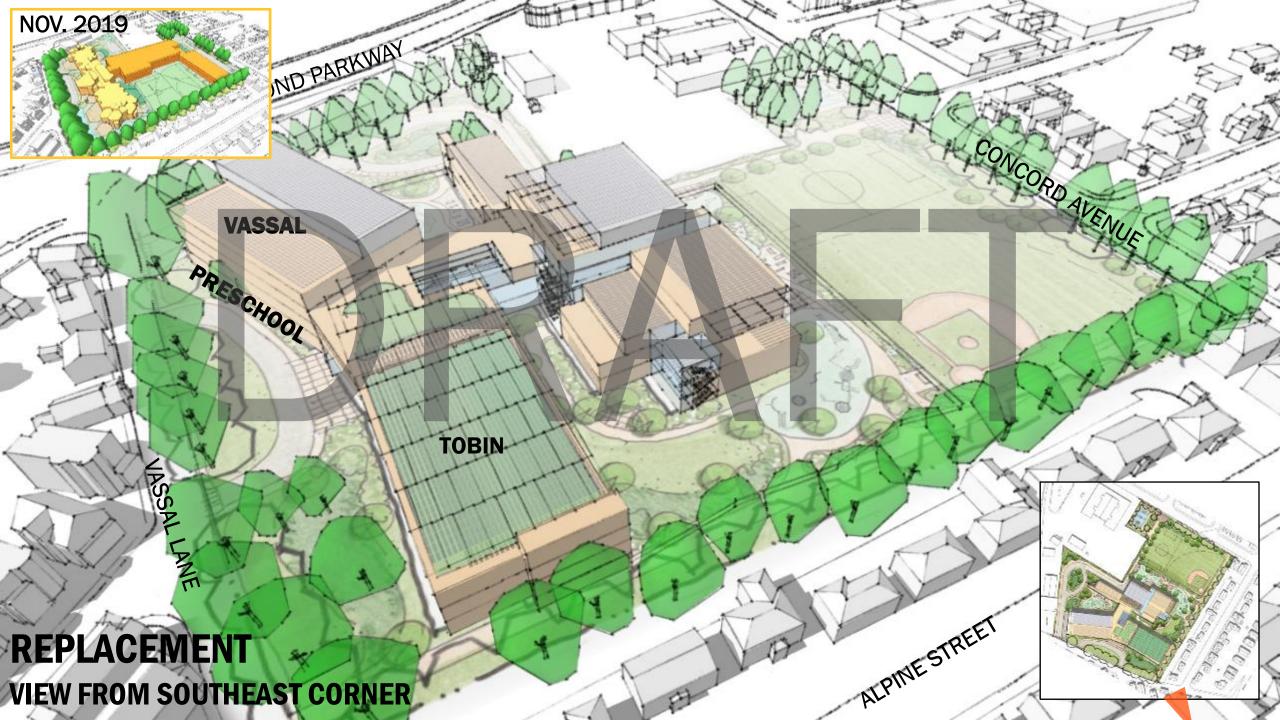
Playing Fields on North side

Community Path on Both sides

 Cars enter and exit on Vassal in SW corner of site

- Bus loop on Vassal
- Service entry on Vassal





OPTION 2: WINGS V2

BUILDING ORIENTED AROUND A COURTYARD

No significant form changes

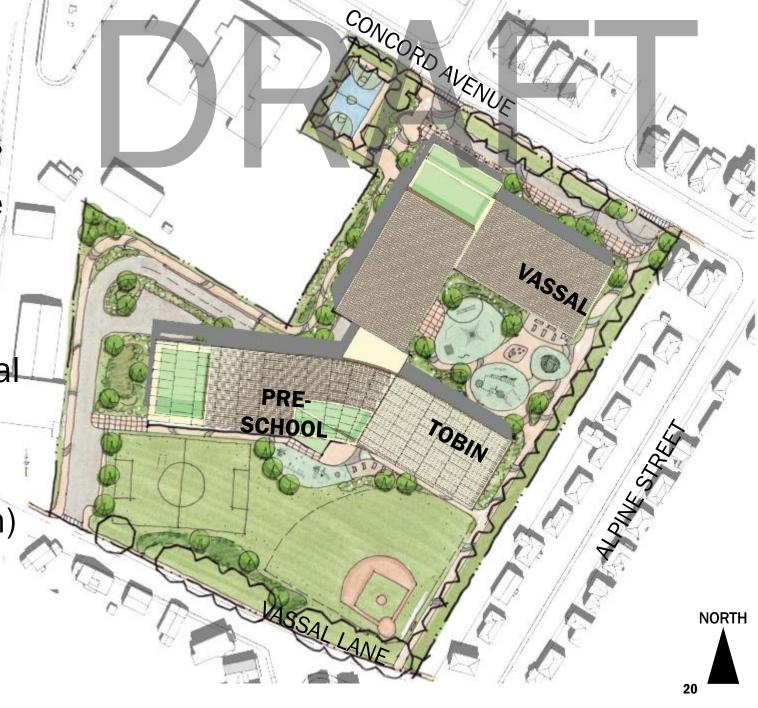
Playing Fields on South side

 Community path on both sides

 Cars enter and exit on Vassal in SW corner of site

Bus loop on Concord (other options under consideration)

Service entry on Vassal

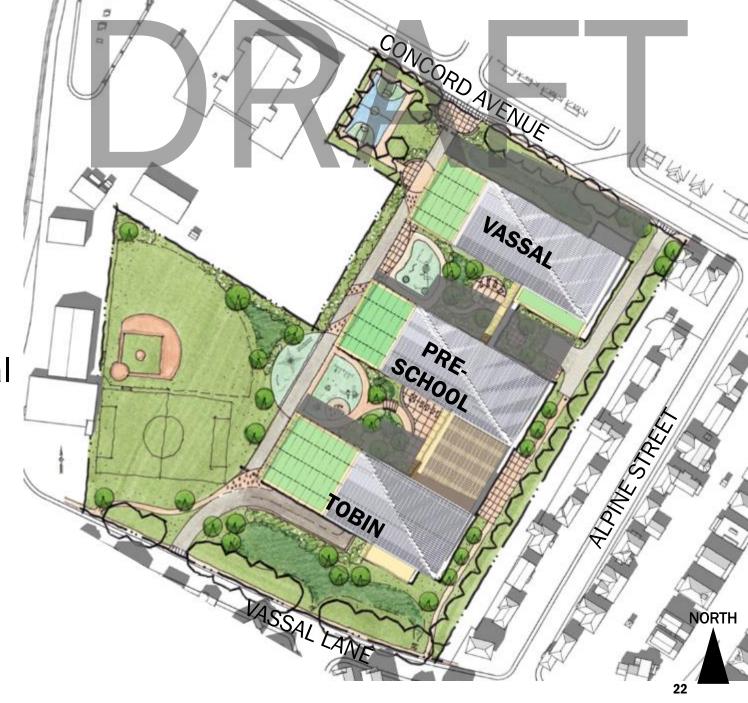


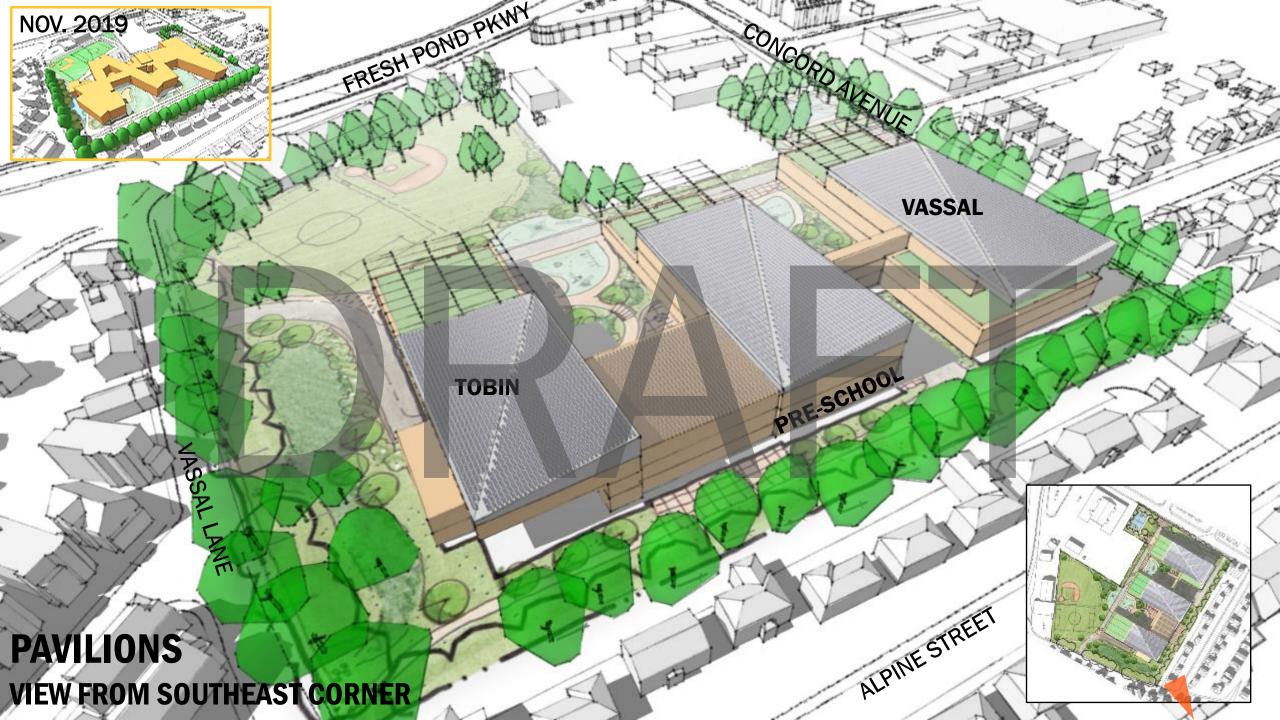


OPTION 3: PAVILIONS V3

SCHOOLS CONNECTED BY COMMON SPACE

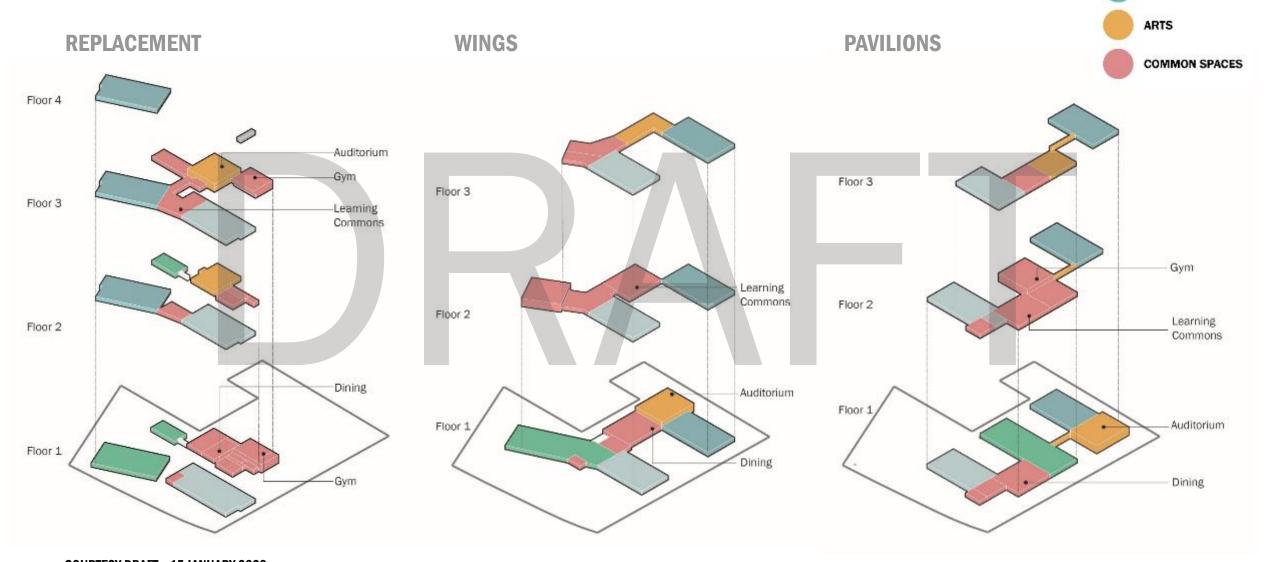
- Simplified building form
- Playing Fields on West side
- Community path on both sides
- Cars enter and exit on Vassal near center of site
- Bus lane from Vassal to Concord
- Service entry on Concord





STACKING DIAGRAMS

DESIGN REVISIONS

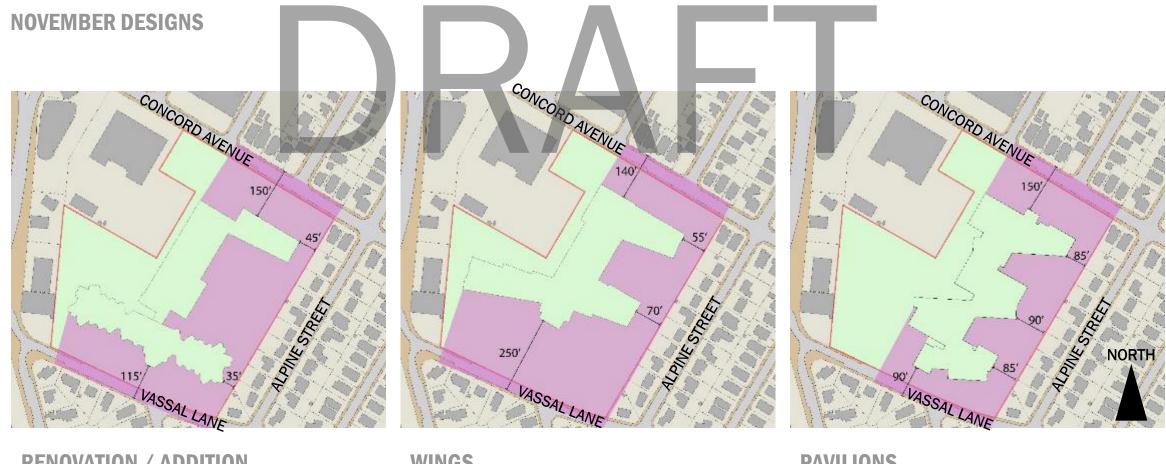


VASSAL LANE

PRESCHOOL

TOBIN

SETBACK FROM PROPERTY LINE

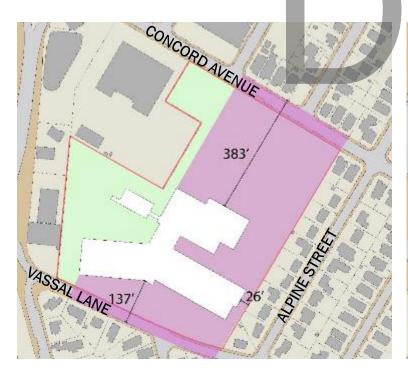


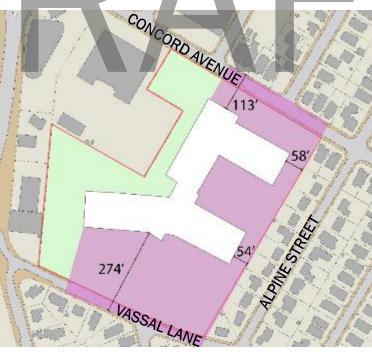
RENOVATION / ADDITION PAVILIONS WINGS

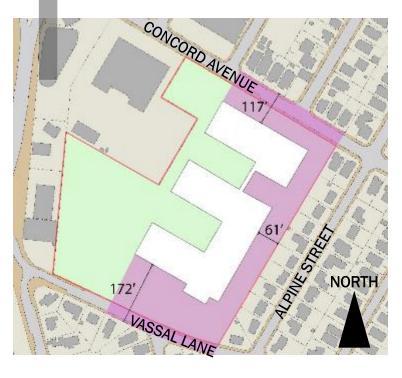
Note: previous presentation incorrectly showed existing setback on Vassal Lane as 90'

SETBACK FROM PROPERTY LINE

DESIGN REVISIONS







REPLACEMENT

WAS:

115' from Vassal (+22')

35' from Alpine (-10')

150' from Concord (+233')

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WINGS

WAS:

250' from Vassal (+24') 55' from Alpine (-1')

140' from Concord (-27')

PAVILIONS

WAS:

90' from Vassal (+82')

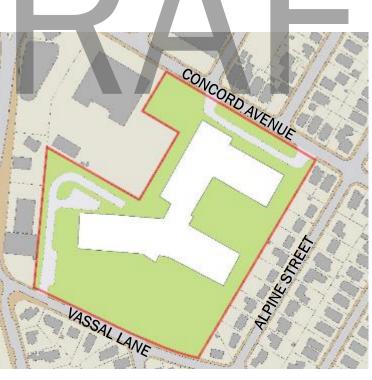
85' from Alpine (-24')

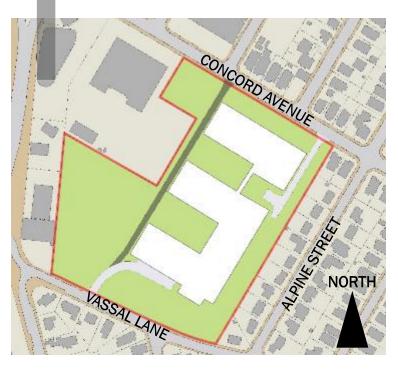
150' from Concord (-33')

OPEN AREA

DESIGN REVISIONS







REPLACEMENT: 6.3 ACRES + 0.4 ACRES GREEN ROOF

Building: 2.2 acres Roads: 0.6 acres WINGS: 6 ACRES + 0.4 ACRES GREEN ROOF

Building: 2.5 acres Roads: 0.6 acres **PAVILIONS: 5.8 ACRES**

+ 0.5 ACRES MULTI-USE LANE

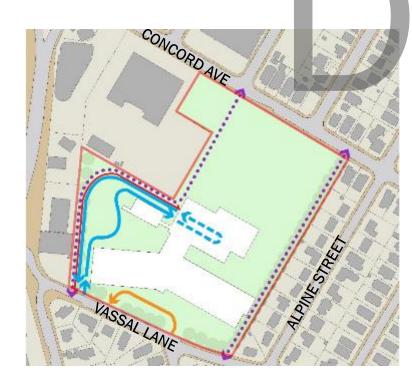
+ 0.8 ACRES GREEN ROOF

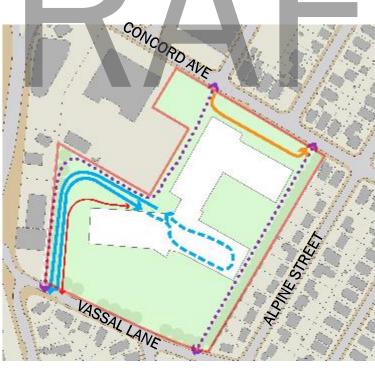
Building: 2.5 acres Roads: 0.3 acres

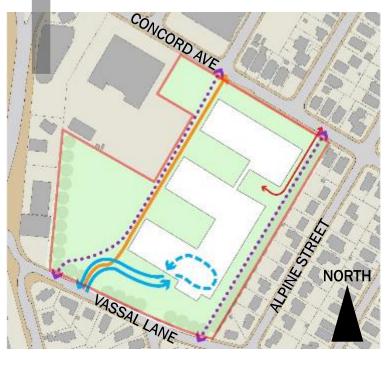
SITE CIRCULATION

POSSIBLE COMBINATIONS









COMBINATION 1

Shown on Replacement

Also works with Pavilions

COMBINATION 2

Shown on Wings

Also works with Replacement

COMBINATION 3

Shown on Pavilions

Also works with Wings

TOTAL FOOTPRINT SIZE

DESIGN REVISIONS

Building Footprint	November (square feet)	Current (square feet)	Change (square feet)
Existing		62,162	
Renovation + Addition	117,000		20 500
Replacement		96,500	- 20,500
Wings	106,500	108,000	+ 1,500
Pavilions	109,000	106,500	- 2,500

Open Area	November (acres)	Current (acres)	Change (acres)
Existing		6.6	
Renovation + Addition	5.4		. 0.0
Replacement		6.3	+ 0.8
Wings	5.4	6	+ 0.4
Pavilions	5.2	5.8	+ 0.6

OPEN SPACE IDEAS



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PLAY SPACE EXAMPLES – PRESCHOOL & ELEMENTARY

OPEN SPACE









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PLAY SPACE EXAMPLES – UPPER SCHOOL

OPEN SPACE









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LEARNING GARDEN EXAMPLES

OPEN SPACE









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COMMUNITY PATH EXAMPLES

OPEN SPACE









OPTION 1A: REPLACEMENT

Community use on all sides

Play spaces segregated by age

 Contiguous, separated sports fields

Community path on East and West

Bioswale at Southeast corner

Most play area near fields

Gardening and outdoor learning



OPTION 2: WINGS

Community use on all sides

 Large central play area for all age groups

 Contiguous, separated sports fields

Community path on East and West

- Bioswale near Vassal
- Some play area near fields
- Gardening and outdoor learning



OPTION 3: PAVILIONS

Community use on all sides

 Smaller play areas in "pocket parks" segregated by age

Shared-use lane on West

Contiguous, separated sports fields

Community path on East and West

Bioswale near Vassal

More play area near fields

Gardening and outdoor learning



