

**CITY OF CAMBRIDGE**

**TOBIN MONTESSORI AND VASSAL LANE UPPER SCHOOLS PROJECT**

**02/12/2020**

**PERKINS —  
EASTMAN**

*Human by Design*

# **COMMUNITY MEETING**



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# AGENDA

COMMUNITY MEETING – FEBRUARY 12, 2020

- Process and schedule review
- Program update
  - Population on site
  - Traffic impacts
- Option review
- Option analysis
- Building Design
- Final thoughts



# DESIGN PROCESS

10 MONTHS

## Feasibility Study

- Establish Program
- Establish Building Organization & Form

6 MONTHS

## Schematic Design

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

6 MONTHS

## Design Development

- Refine Design
- Choose Products
- Begin Details

10 MONTHS

## Construction Documents

- Document Design
- Create Construction Details



# CURRENT SCHEDULE

**We are here**

12 MONTHS\*

6 MONTHS

8 MONTHS

8 MONTHS

Feasibility Study

Schematic Design

Design Development

Construction Documents



02/06/19

04/30/19

11/13/19

01/16/20

Today



**Proposed Community Meetings**



**Special Meetings as needed**

\* Schedule extended to allow for additional community input

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# PREFERRED OPTION

## PROCESS

- What it is
  - Selection of building location
  - Selection of building scale
  - General configuration
- What it is Not
  - Actual building design
  - Final choice of site elements
  - Final choice of traffic and parking solution

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# MAJOR ELEMENTS

- Open area and park area
- Program size
- Building scale for neighborhood
- Site circulation and traffic

# PROGRAM UPDATE





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# SCHOOL POPULATION, ADJUSTED

**110 FEWER STUDENTS 19 FEWER STAFF**

- Preschool classrooms at this location
  - November program: 8 classes
  - Current program: 4 classes
  - 50% fewer
- Special Start classrooms at this location
  - November program: 5 classes
  - Current program: 3 classes
  - 40% reduction
- All other program needs met

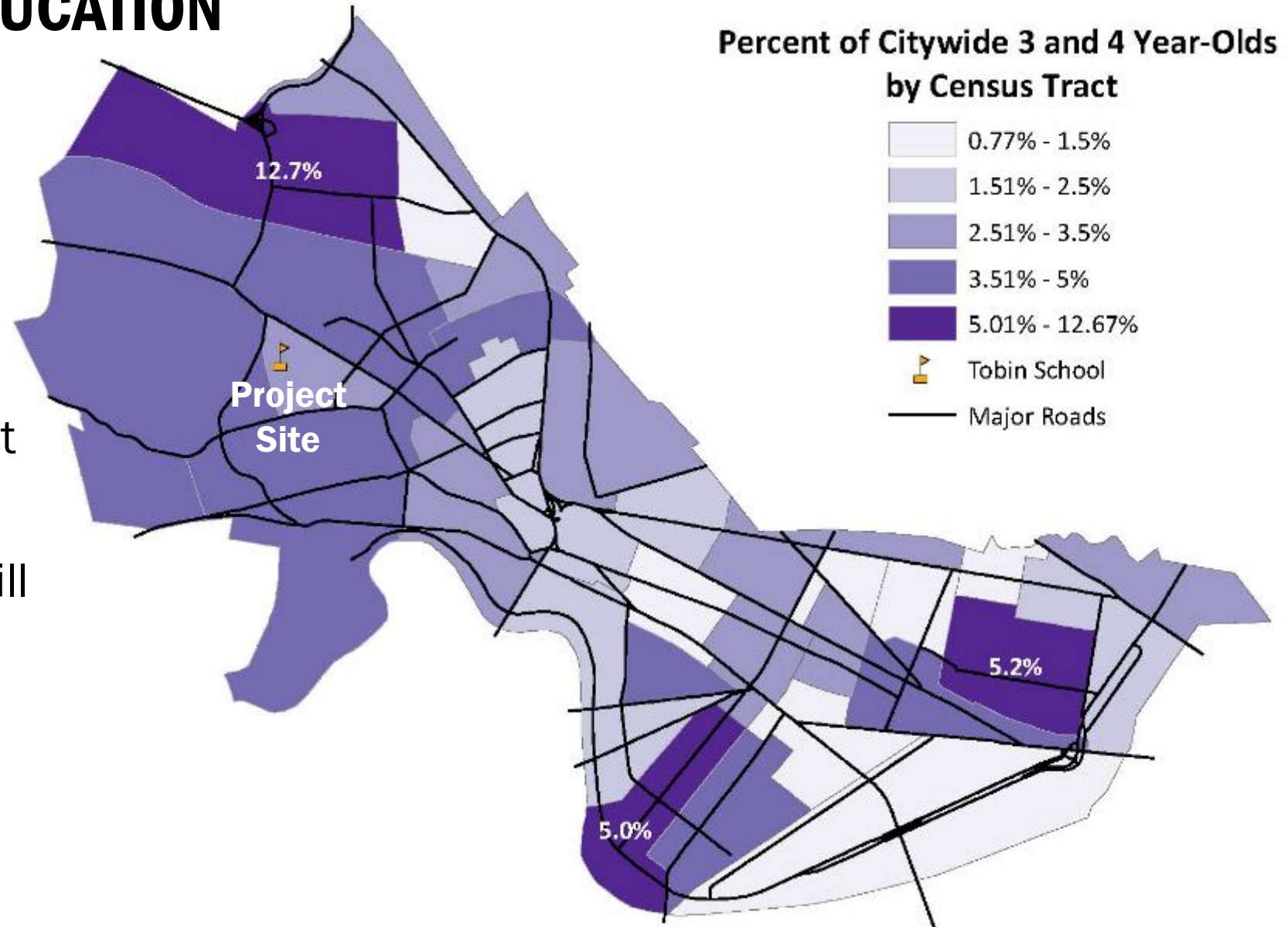




# EARLY CHILDHOOD EDUCATION

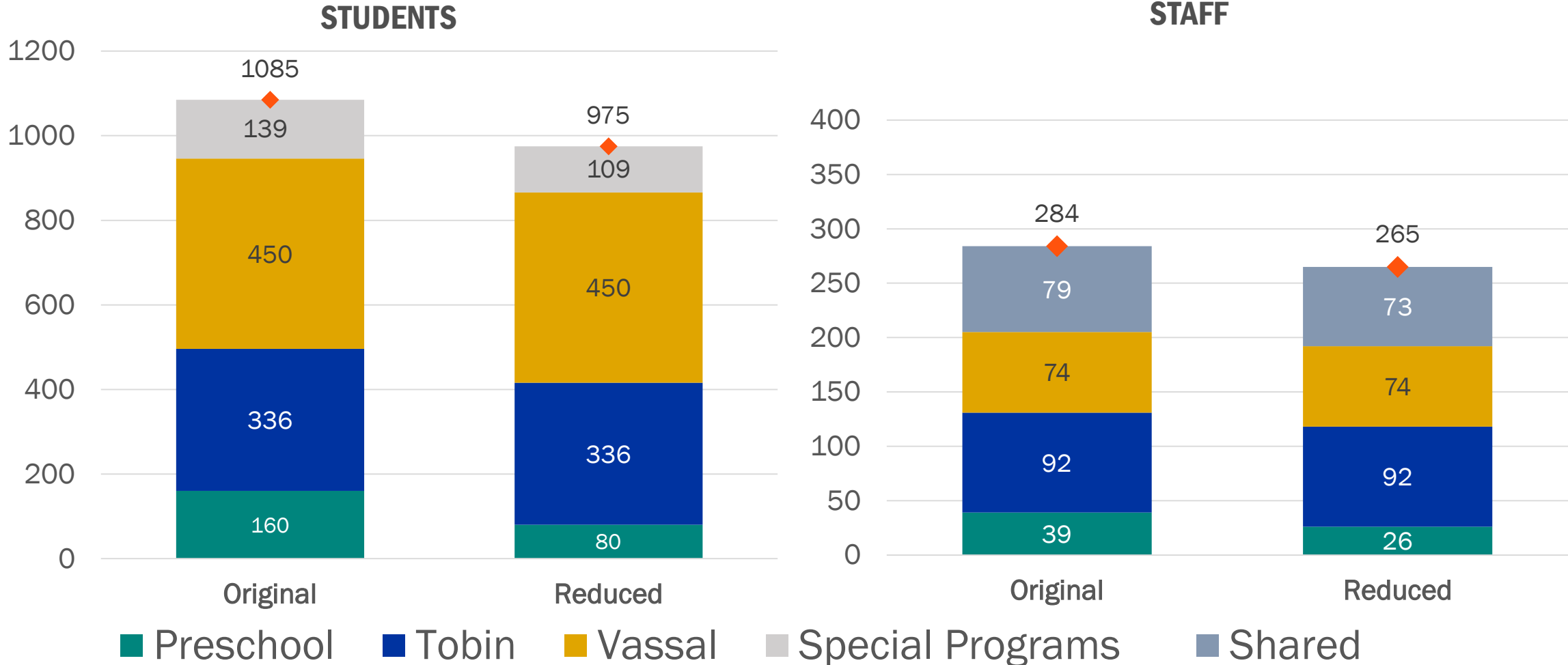
## 3 AND 4 YEAR-OLD DISTRIBUTION

- City is committed to providing preschool access
- North and West Cambridge have greatest need
- Preschool classrooms will be added at other sites
- Adjustment to school



# SCHOOL POPULATION: STUDENTS AND STAFF

110 FEWER STUDENTS 19 FEWER STAFF



Original: 8 preschool classrooms, 5 Special Start classrooms  
 Reduced: 4 preschool classrooms, 3 Special Start classrooms

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# TRAFFIC AND PARKING

## WHAT NEEDS TO BE STUDIED

- Traffic Impact Study (TIS) Certification
  - Required comprehensive analysis
  - Looks at existing infrastructure and anticipated impacts
  - Traffic, Parking, & Transportation Department reviews
  - Includes vehicle, pedestrian, and bicycle access and circulation
  - Opportunity for community input

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# TRAFFIC AND PARKING

## WHAT NEEDS TO BE STUDIED

- Parking & Transportation Demand Management (PTDM) Plan
  - National model, required when adding non-residential parking
  - Looks to improve access, reduce congestion, and reduce air pollution
  - Goal to increase safety by promoting walking bicycling, and public transit
- Key elements of PTDM include
  - Single-occupancy vehicle mode-share commitment
  - Comprehensive Transportation Demand Management (TDM) measures
  - Annual Single Occupancy Vehicle surveys
  - Biennial car and bicycle counts
  - Status of TDM measures







# 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

# DESIGNS IN JANUARY



## REPLACEMENT

- All new building
- Bus loop off Vassal Lane
- Parking below building
- Playing fields on north side



## WINGS

- All new building
- Bus loop off Concord Ave
- Parking below building
- Playing fields on south side



## PAVILIONS

- All new building
- On-site drive aisle for buses
- Parking below building
- Playing fields on west side



# EVOLUTION OF AN IDEA

November 2019:  
RENOVATION-  
ADDITION





# EVOLUTION OF AN IDEA

January 2020:  
REPLACEMENT v1





# EVOLUTION OF AN IDEA

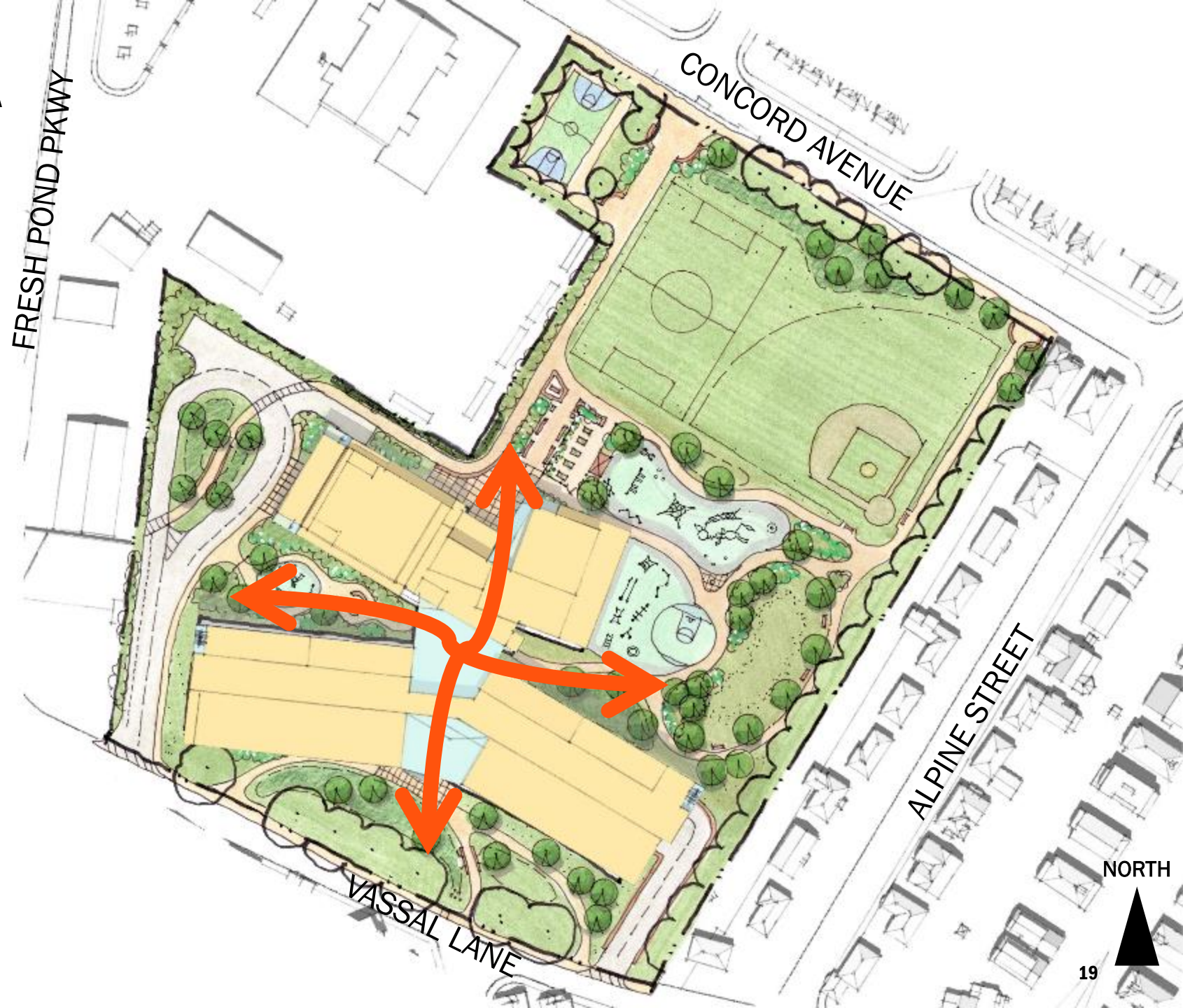
January 2020:  
REPLACEMENT v2





# EVOLUTION OF AN IDEA

February 2020:  
REPLACEMENT v3  
**CROSSROADS**

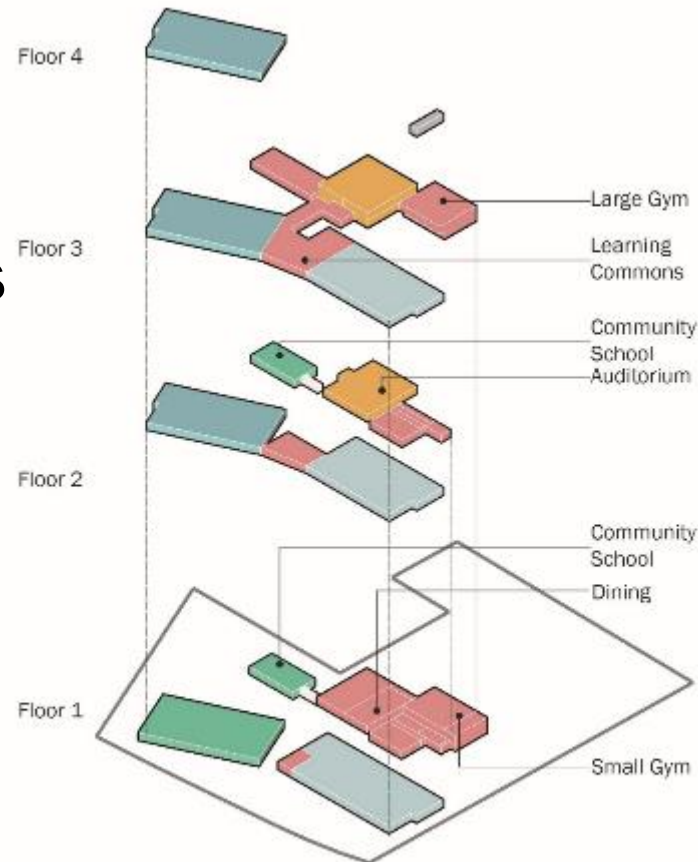


# STACKING DIAGRAMS

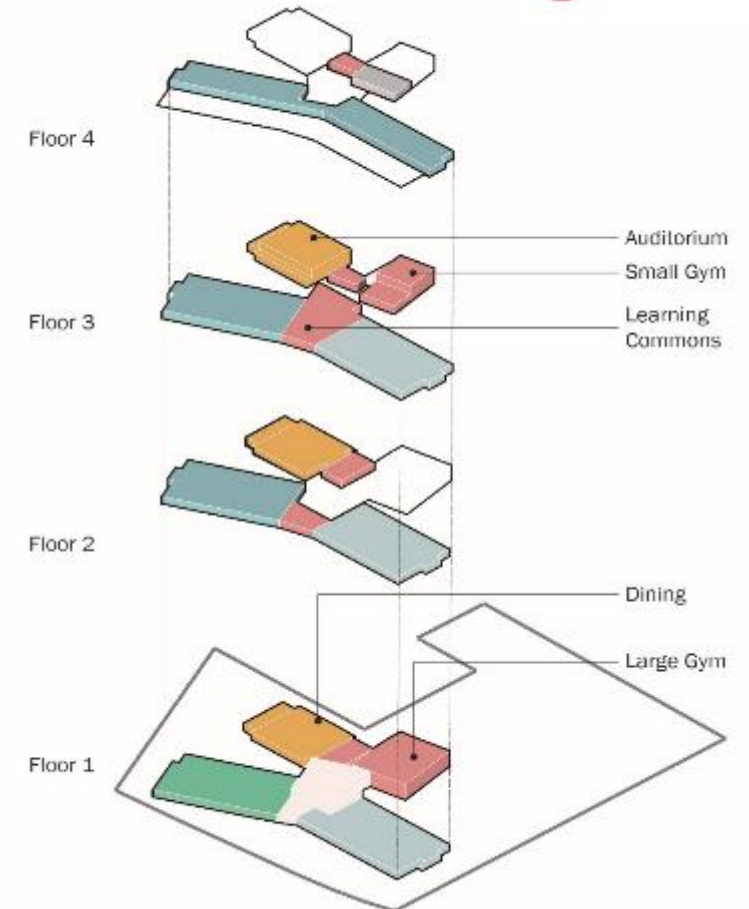
## DESIGN REVISIONS

- Community School moved from it's own wing to Preschool area
- Auditorium and gyms moved west
- 4<sup>th</sup> floor set back from Vassal Ln

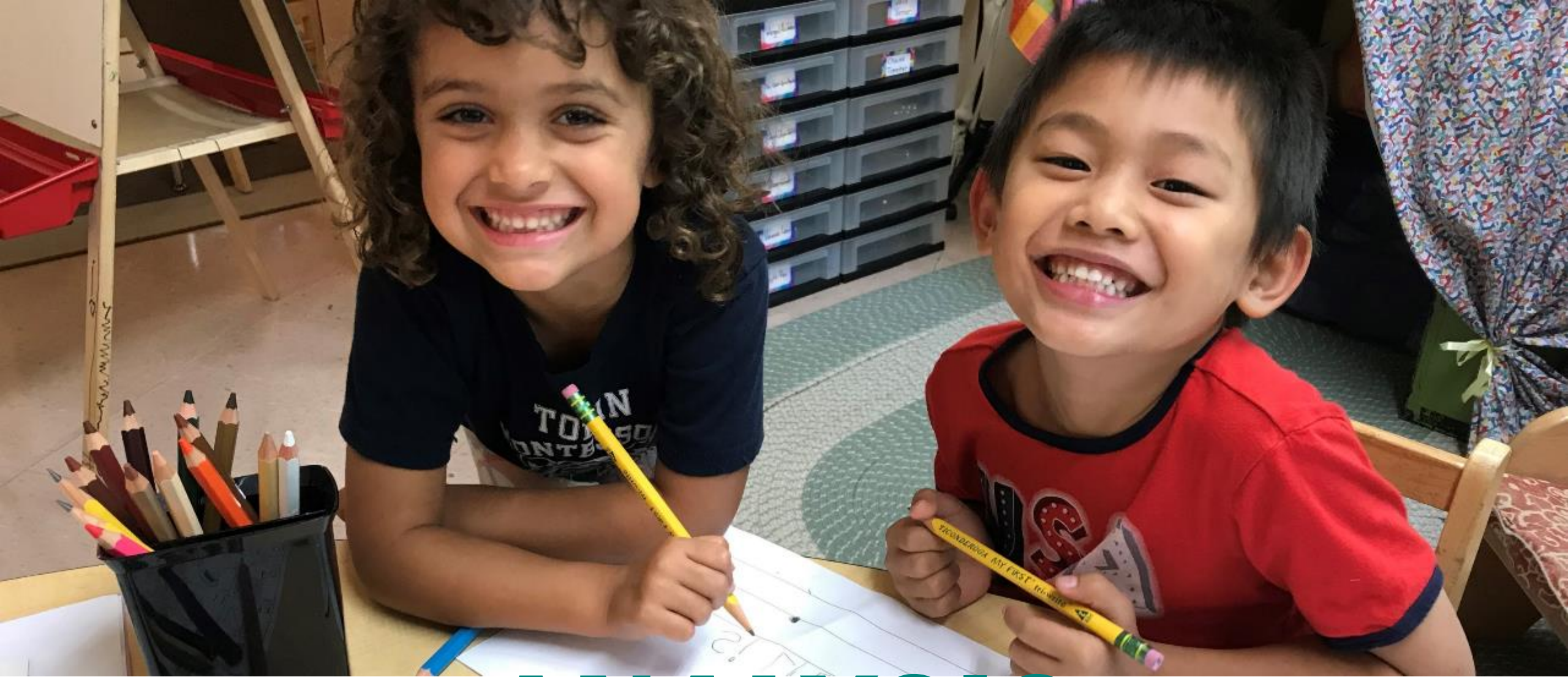
### REPLACEMENT



### CROSSROADS





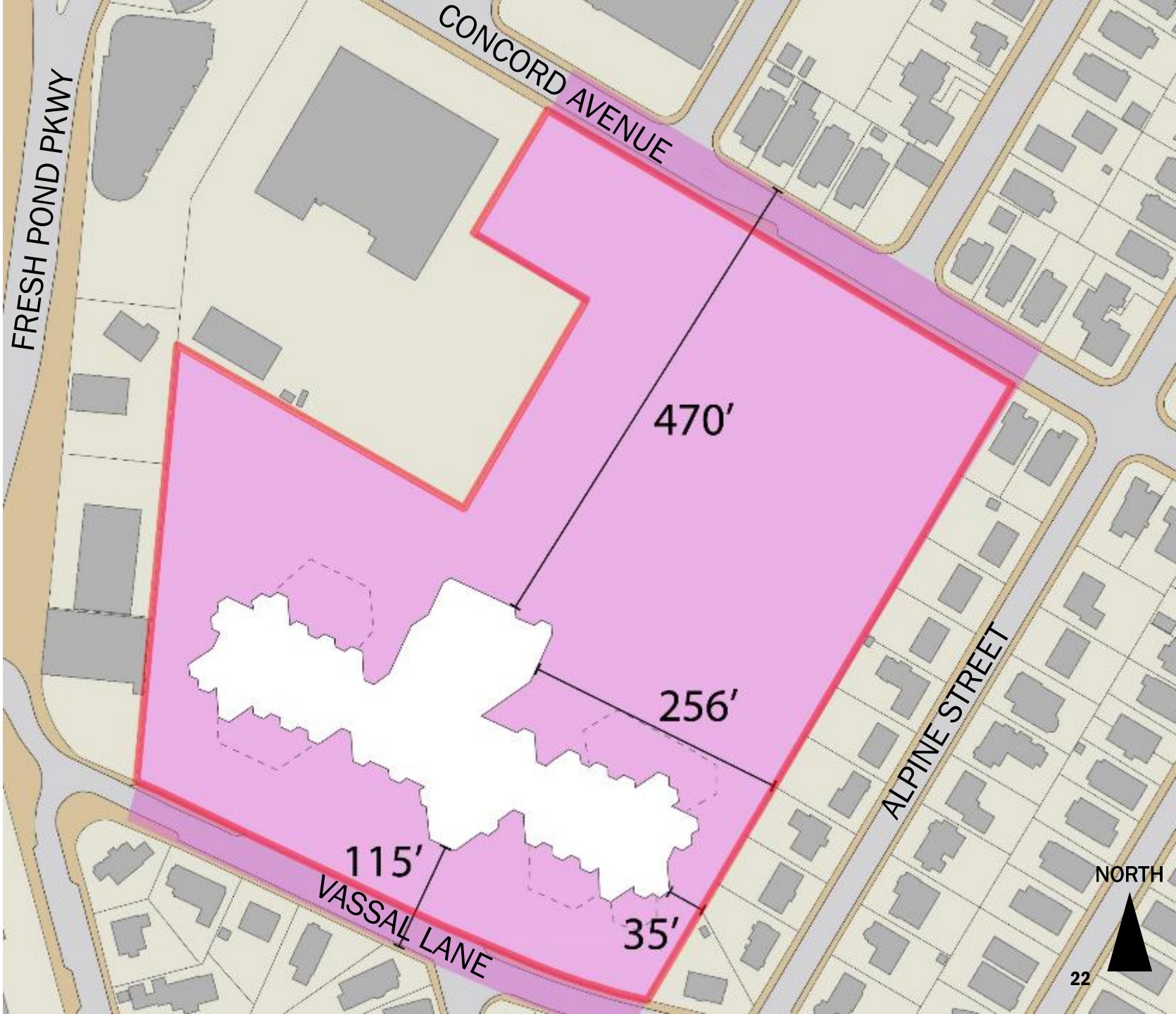


# ANALYSIS



# SETBACK

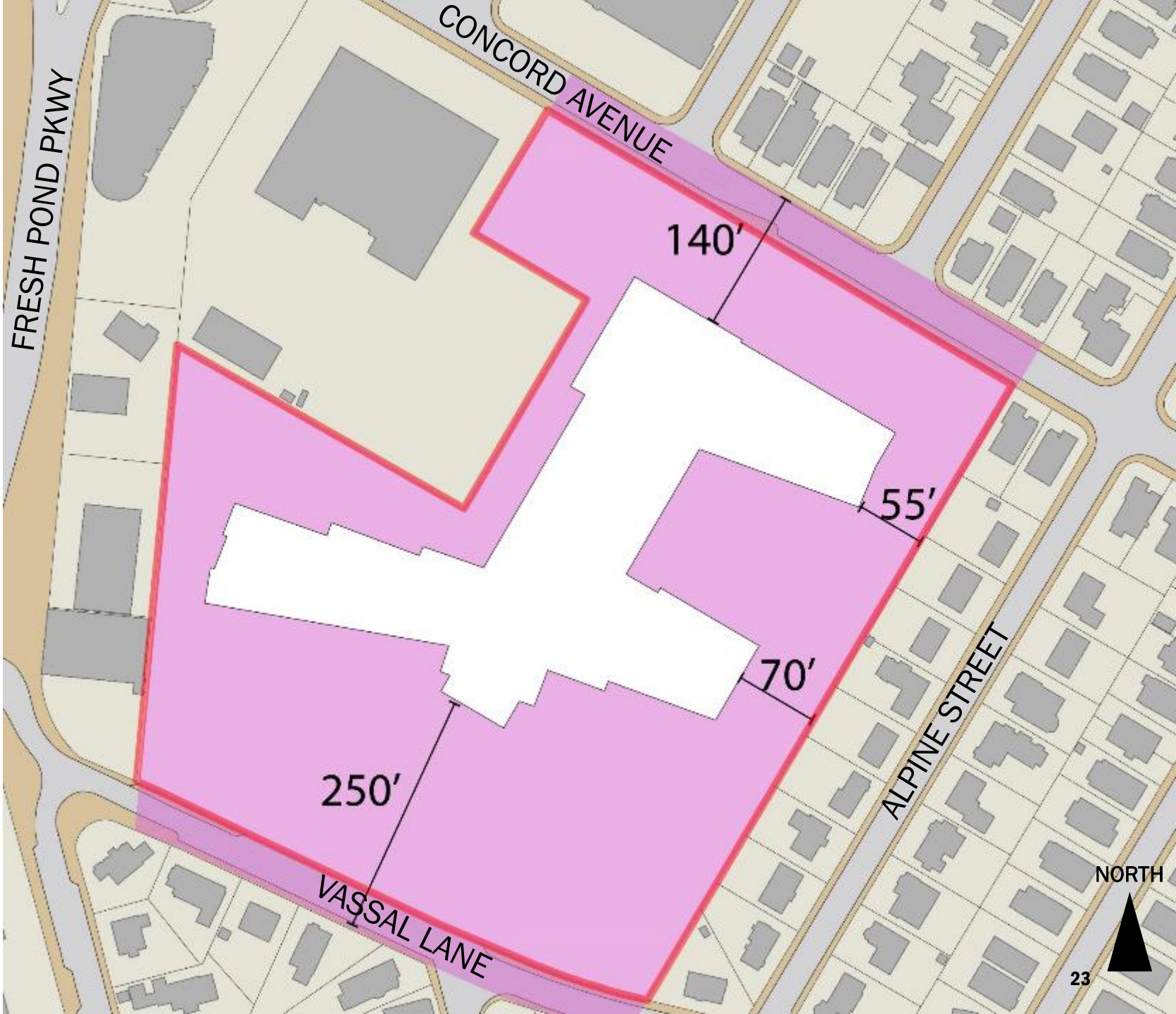
EXISTING



# SETBACK

## WINGS

November 2019

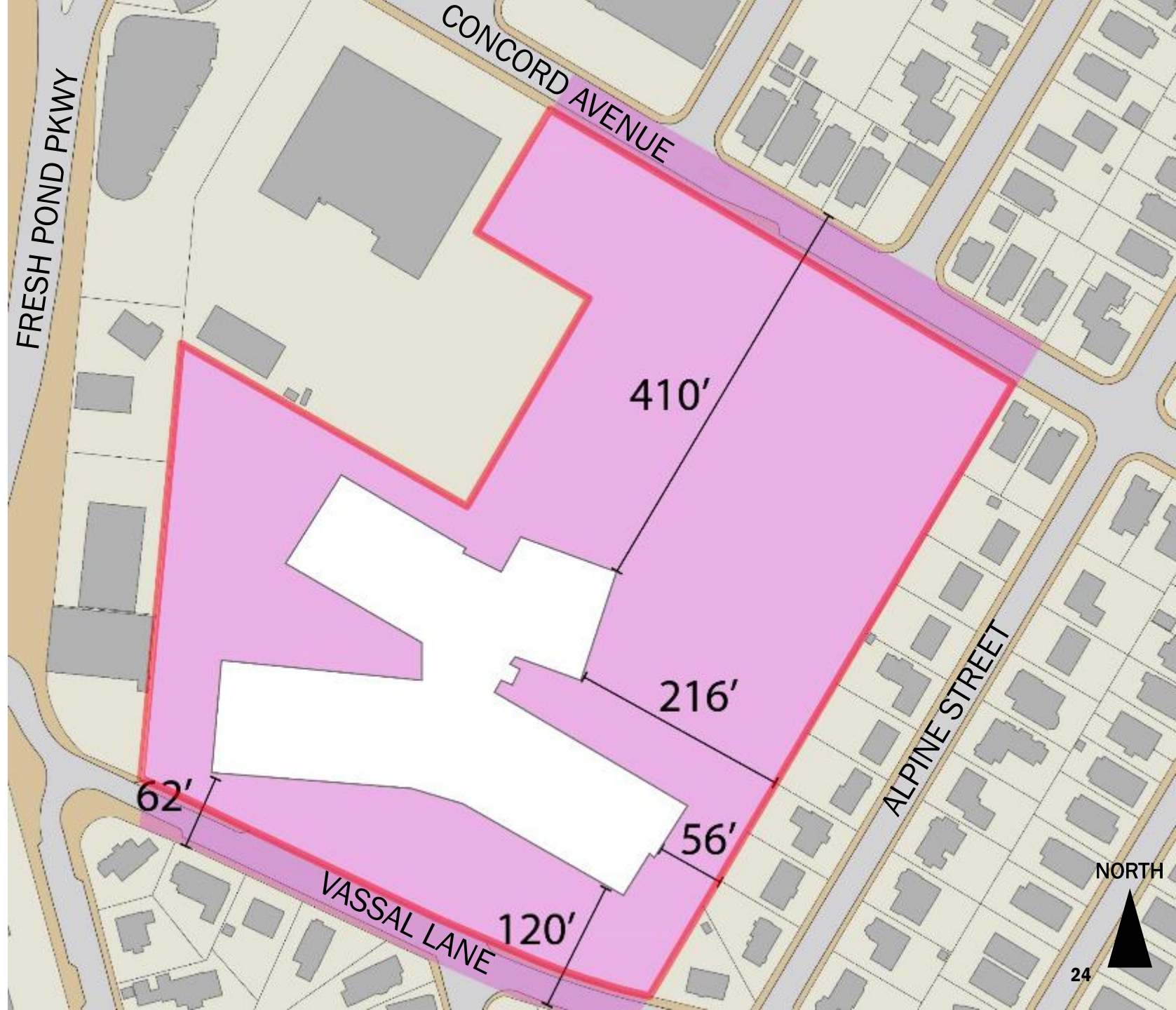




# SETBACK

## CROSSROADS

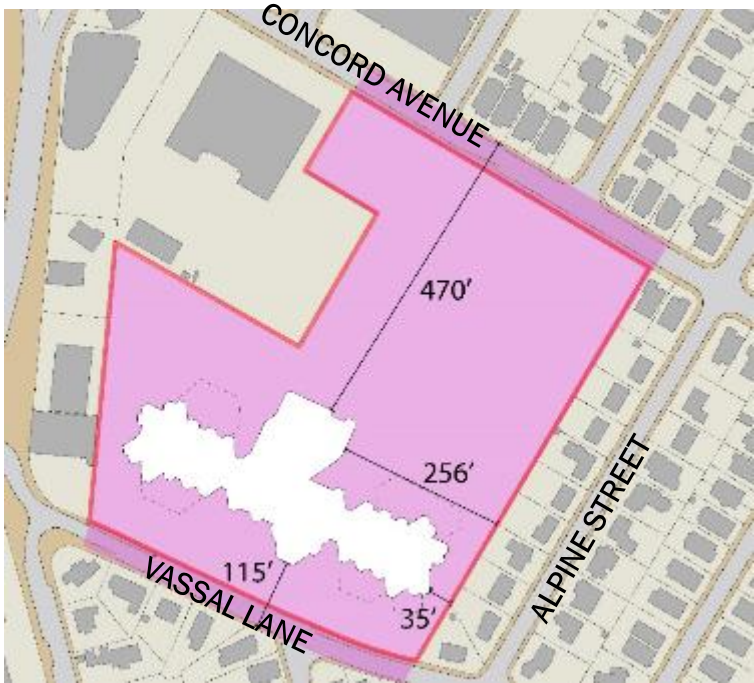
February 2020



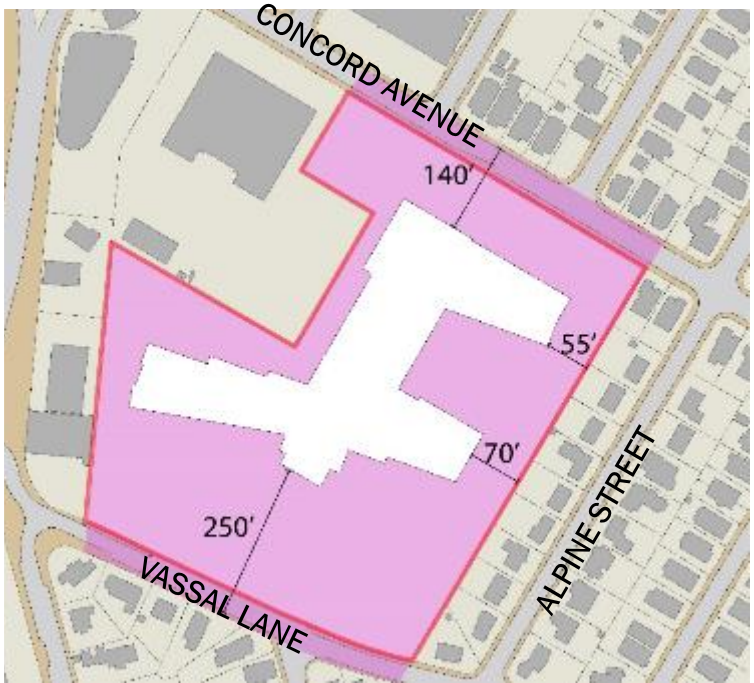


# SETBACK FROM PROPERTY LINE

EXISTING COMPARED TO PROPOSED

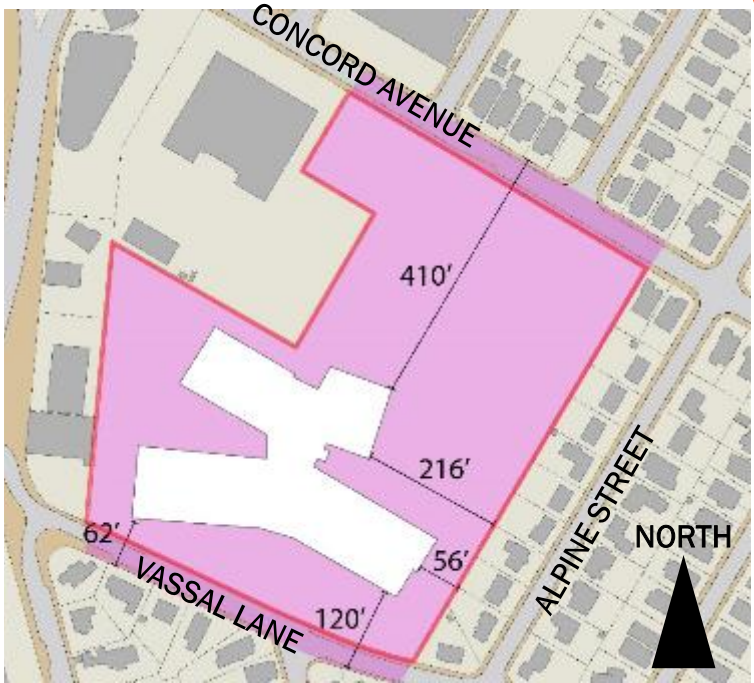


**EXISTING**



**WINGS**

November 2019



**CROSSROADS**

February 2020

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# OPEN AREA

## EXISTING

6.6 acres

Building: 1.4 acres

Roads: 1.1 acres





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# OPEN AREA

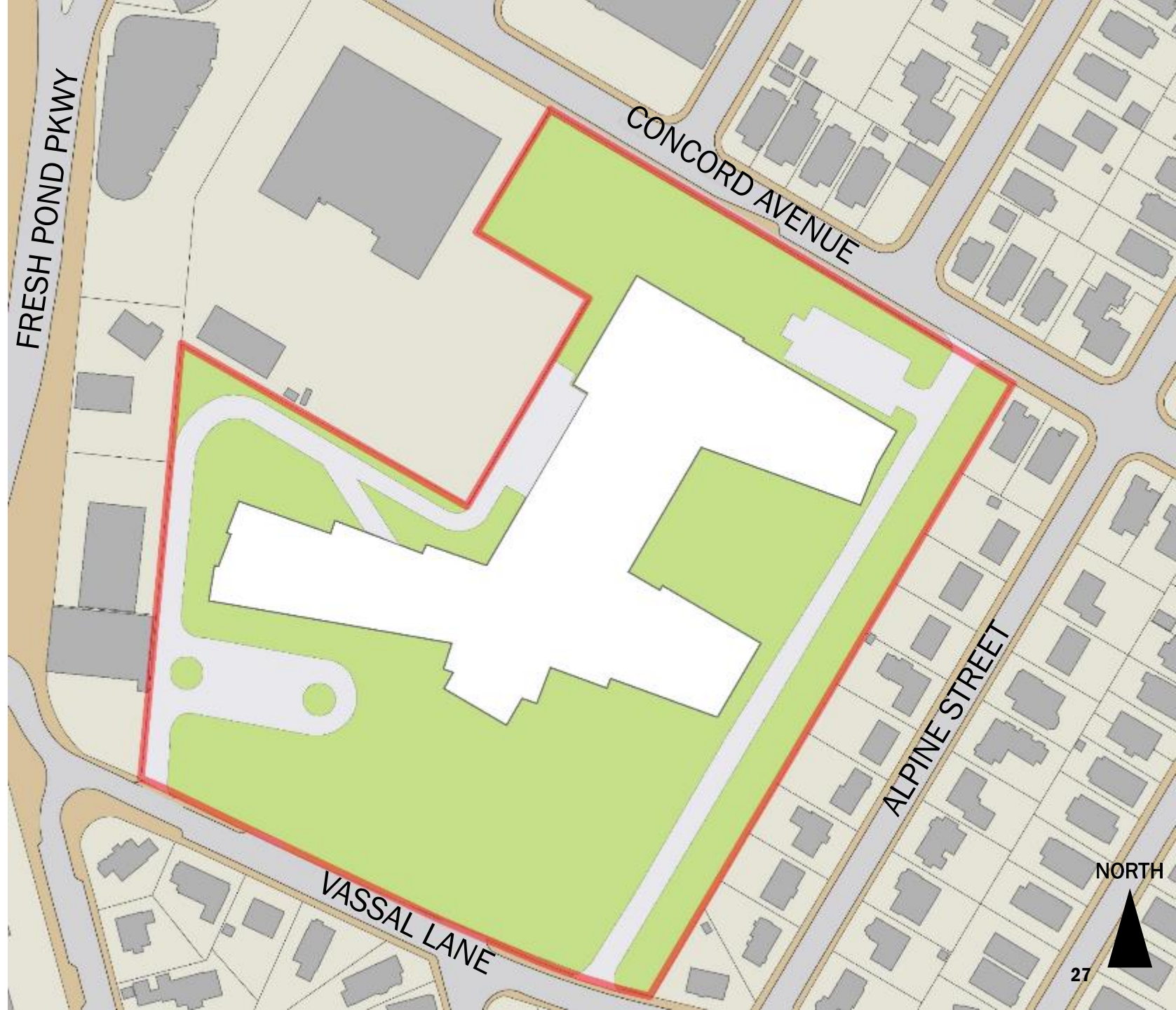
## WINGS

November 2019

5.4 acres

Building: 2.4 acres

Roads: 1.3 acres





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# OPEN AREA

## CROSSROADS OPTION

February 2020

6.5 acres

Building: 2.0 acres

Roads: 0.6 acres



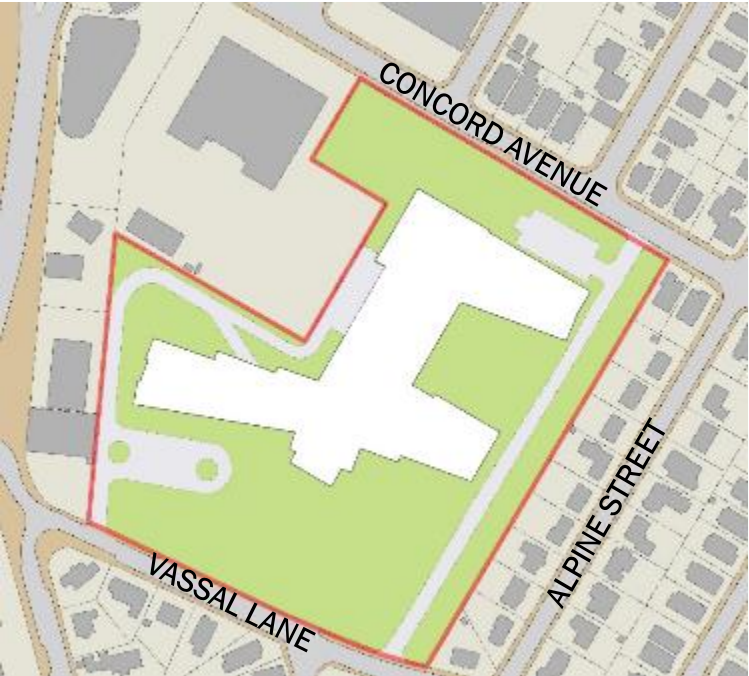


# OPEN AREA

## COMPARISONS

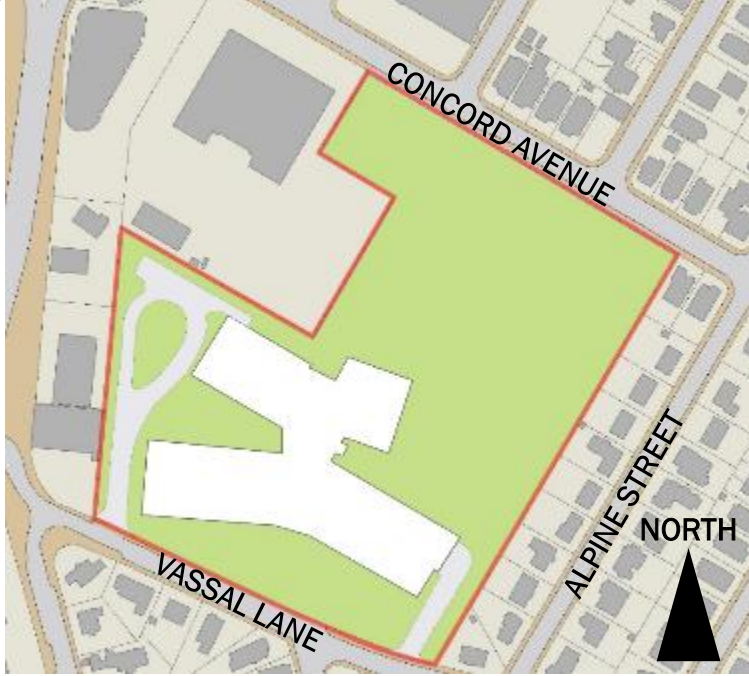


**EXISTING**



**WINGS**

November 2019



**CROSSROADS**

February 2020

# FATHER CALLANAN PARK

EXISTING  
4.5 acres





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# FATHER CALLANAN PARK

**EXISTING**

4.5 acres

**WINGS** November 2019

2.45 acres



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# FATHER CALLANAN PARK

## EXISTING

4.5 acres

## WINGS November 2019

2.45 acres

## REPLACEMENT

January 2020

3.9 acres





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# FATHER CALLANAN PARK

## EXISTING

4.5 acres

## WINGS November 2019

2.45 acres

## REPLACEMENT

January 2020

3.9 acres

## CROSSROADS

February 2020

4.55 acres

PERKINS EASTMAN TOBIN MONTESSORI/VASSAL LANE SCHOOLS



# FATHER CALLANAN PARK

EXISTING COMPARED TO PROPOSED

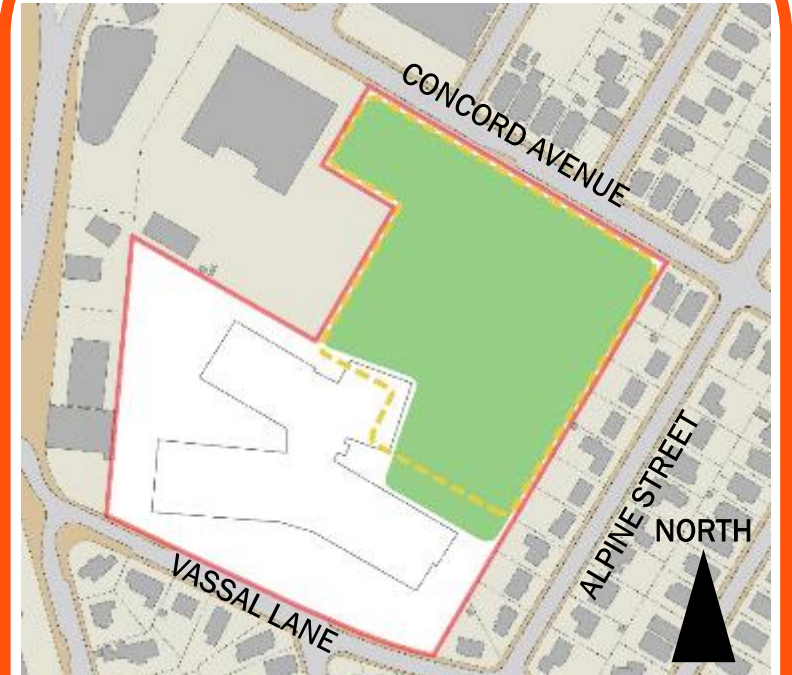


**EXISTING**



**WINGS**

November 2019



**CROSSROADS**

December 2020



# SITE AREAS

## DESIGN EVOLUTION

DESIGN	EXISTING	WINGS (NOV 2019)	CROSSROADS (FEB 2020)
Building Footprint	62,162 sq.ft.	106,500 sq.ft.	86,918 sq.ft.
Open Area	6.6 acres	5.4 acres	6.5 acres
Park	4.5 acres	3.9 acres	4.55 acres

# PREFERRED OPTION





# PREFERRED OPTION: REPLACEMENT v2

AS PRESENTED IN JANUARY

- More compact shape
- Playing fields on north
- Community path on both sides
- Cars enter and exit on Vassal in SW corner of site
- Bus loop on Vassal
- Service entry on Vassal





# PREFERRED OPTION REPLACEMENT v3: CROSSROADS

- Organized for smaller footprint
- Taller portions are away from neighbors
- Maximized contiguous park area
- Maximized open area

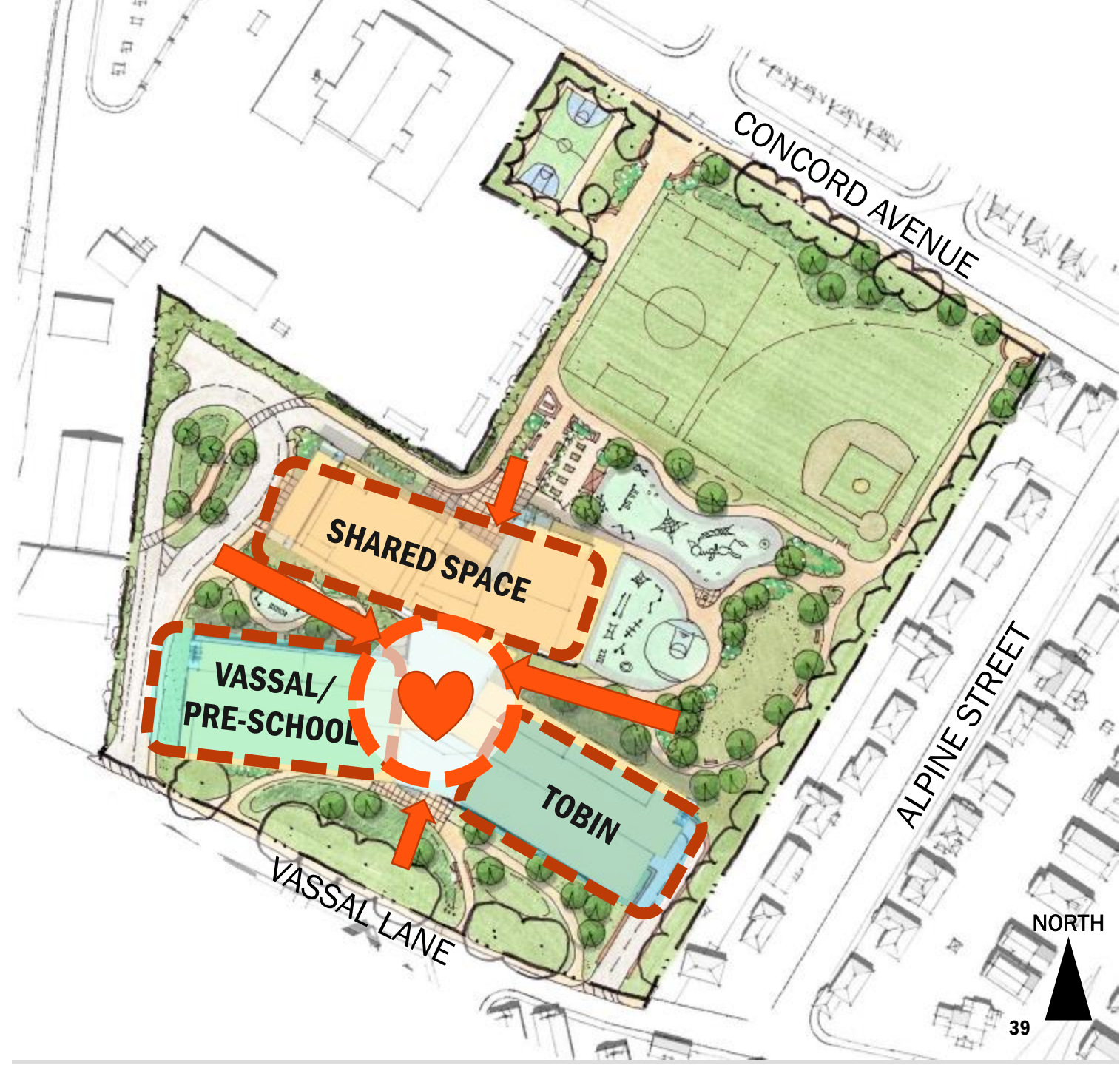




# CROSSROADS

## RELATIONSHIP BETWEEN THE PARTS

- All entries organized around “Heart of School”
  - Pedestrian entrances facing Vassal Lane and Concord Ave
  - Car arrival below grade
  - Bus arrival from west
- Short travel distances
- Easy to separate wings
  - Increased security
  - Weekend/evening use can be segregated





# CROSSROADS

## BUILDING AND SITE ELEMENTS

- SERVICE
- BUS DROP-OFF
- LEARNING COMMONS ON UPPER FLOOR
- COMMUNITY SCHOOL & PRESCHOOL ON 1<sup>ST</sup> FLOOR
- BELOW-GRADE CAR ENTRY





# CROSSROADS

## SITE CIRCULATION

-  **COMMUNITY PATH**
-  **SERVICE**
-  **CARS**
-  **BUSES**



# CROSSROADS

## SOME POTENTIAL CIRCULATION PATHS



Scenario A



Scenario B



Scenario C

As with the previous options, these scenarios are only a few of the possible solutions. Further study will be done during the Schematic Design phase.



NOV 2019

# CROSSROADS

VIEW FROM NORTHWEST CORNER



ALPINE STREET

VASSAL LANE

FRESH POND PARKWAY

TOBIN

VASSAL

PRESCHOOL

GYM

AUDITORIUM

DINING

CALLANAN PARK

SERVICE

COMMUNITY PATH

BUS DROP OFF

CONCORD AVENUE

ARMORY



NOV 2019

VASSAL LANE

ALPINE STREET

VASSAL

AUDITORIUM

DINING

TOBIN

GYMS

SERVICE

CALLANAN PARK

CONCORD AVENUE

COMMUNITY PATH

FRESH POND PARKWAY

# CROSSROADS

VIEW FROM NORTHEAST CORNER





NOV 2019

FRESH POND PARKWAY

COMMUNITY PATH

CONCORD AVENUE

AUDITORIUM

GYMS

CALLANAN PARK

VASSAL

PRESCHOOL

TOBIN

VASSAL LANE

CAR ENTRY

ALPINE STREET

# CROSSROADS VIEW FROM SOUTHEAST CORNER





NOV 2019

ALPINE STREET

CONCORD AVENUE

CALLANAN PARK

GYMS

TOBIN

COMMUNITY PATH

AUDITORIUM

ARMORY

SERVICE

VASSAL

BUS LANE

PLAYGROUND

VASSAL LANE

PRESCHOOL & COMMUNITY SCHOOL

# CROSSROADS VIEW FROM WEST





# FINAL THOUGHTS



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# YOUR VOICE MADE A DIFFERENCE

From November to Now:

- **18% smaller** building footprint  
19,582 square foot reduction
- **17% larger** park area  
0.65 acre increase
- **20% more** open area  
1.1 acre increase
- **30% fewer** vehicles per day  
~110 individual fewer vehicles
- Play fields **do not overlap**
- **No bus** lane along Alpine St properties
- **No parking** on the surface





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# LOOK AHEAD

Feasibility Study completion

- Continue revisions

- Report mid-March

Design begins Spring 2020

- In-depth studies, including traffic

- Building expression developed

Site work begins Summer 2020





# COMMENTS

- Callanan park **larger** than today
- **Compact** building
- **Fewer** students
- **No parking** on the surface
- **On-site traffic** reduced by  $>10\%$





PASSIONATE ABOUT WHAT WE DO...HERE'S WHY

*Human by Design*

