

**PERKINS —
EASTMAN**

Human by Design

CITY OF CAMBRIDGE

TOBIN MONTESSORI AND VASSAL LANE UPPER SCHOOLS PROJECT

DECEMBER 2020

COMMUNITY PRESENTATION



Carolyn Day
Senior Associate
Perkins Eastman



AGENDA

DECEMBER 2020
COMMUNITY
PRESENTATION

Project overview



Carolyn Day
Senior Associate
Perkins Eastman

Traffic update



Sean Manning
Principal
Vanasse Hangen Brustlin

Public art process



Hilary Zelson
Public Art Administrator
Cambridge Arts Council

Building design update



Caitlin Gilman
Associate
Perkins Eastman



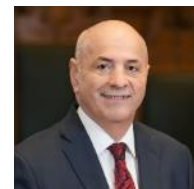
Carmen Torres
Perkins Eastman

Building walkthrough



Omar Calderon-Santiago
Principal
Perkins Eastman

Community feedback



Louis DePasquale
Manager
City of Cambridge

DESIGN PROCESS

14 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

CROSSROADS

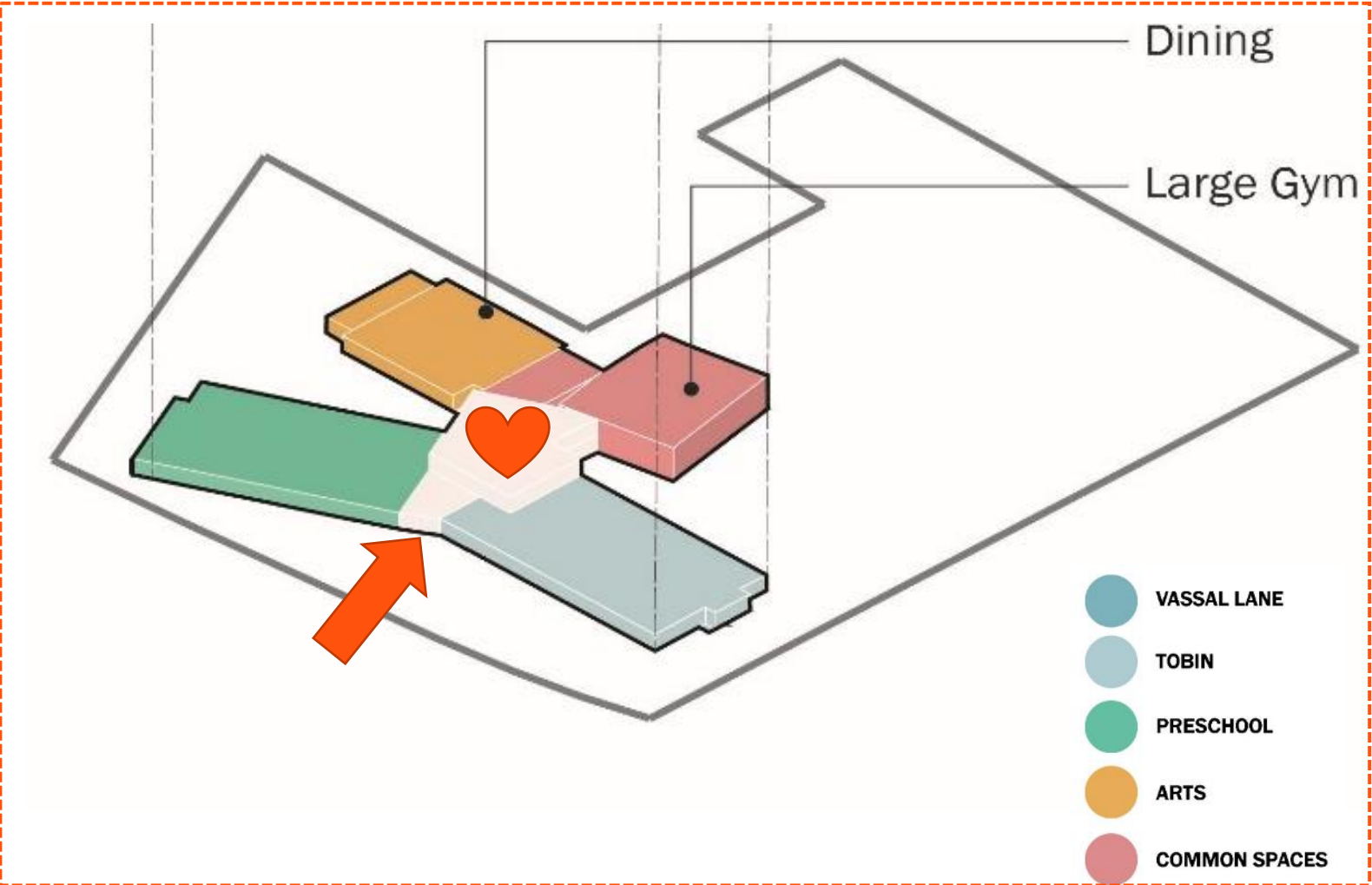
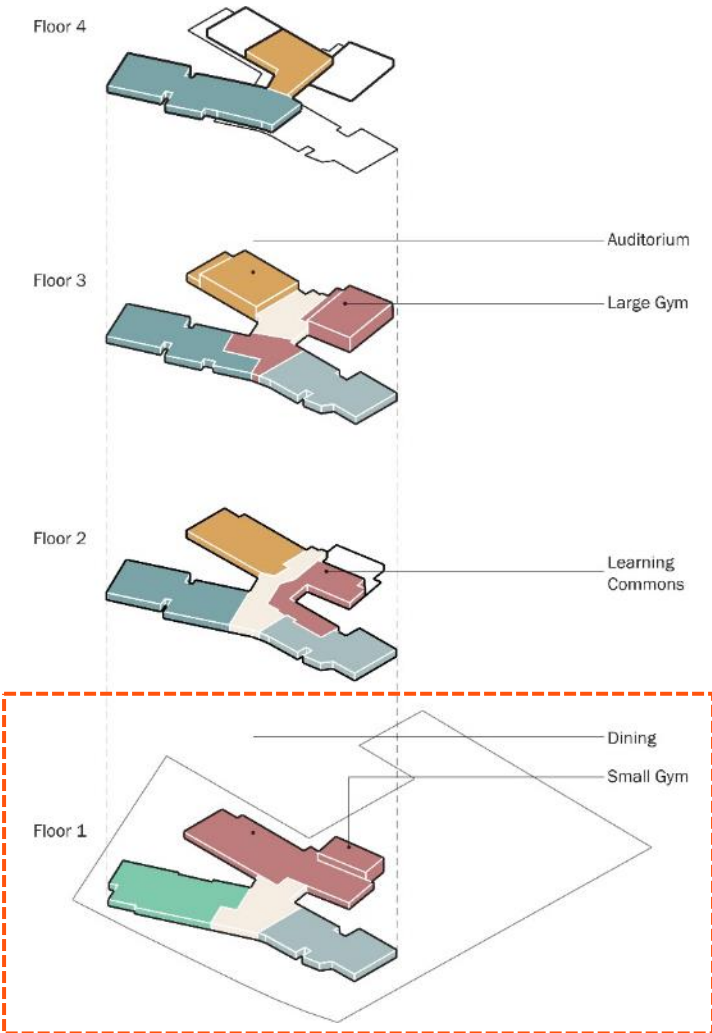
RELATIONSHIP BETWEEN THE PARTS

- 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



STACKING DIAGRAMS

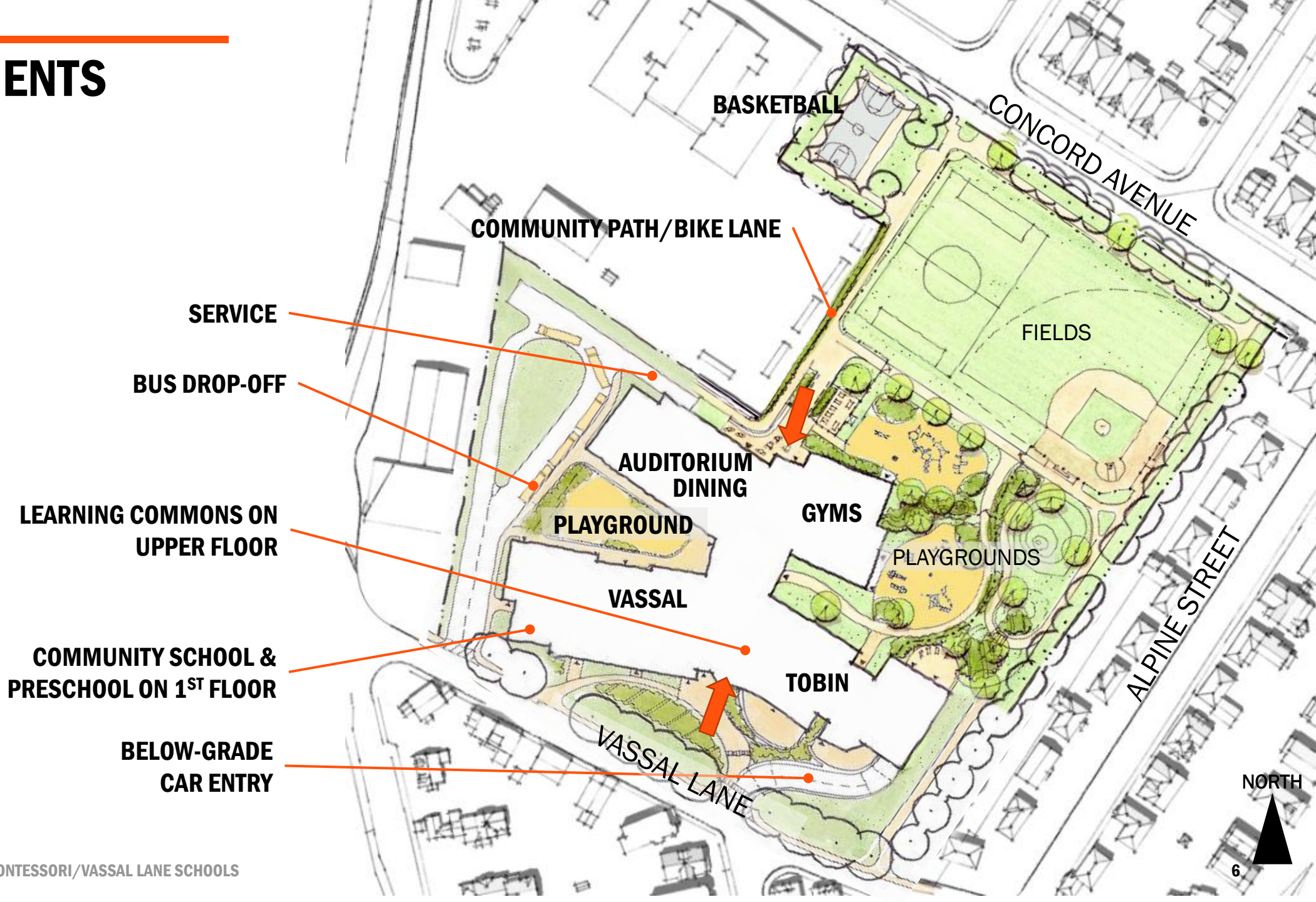
CROSSROADS



NOTE: Mechanical penthouses and rooftop terraces not shown
PERKINS EASTMAN TOBIN MONTESSORI/VASSAL LANE SCHOOLS

SITE ELEMENTS

CROSSROADS



LEARNING COMMONS ON
UPPER FLOOR

COMMUNITY SCHOOL &
PRESCHOOL ON 1ST FLOOR

BELOW-GRADE
CAR ENTRY

TRANSPORTATION



AGENDA

- Progress Update on Traffic Assessment
- Mitigation and Improvement Actions
 - Site Planning
 - Off-Site / Neighborhood
- Next Steps

PROGRESS UPDATE ON TRAFFIC ASSESSMENT

- Comprehensive traffic assessment has been developed by VHB in collaboration with TP&T
- TP&T has found the traffic assessment is in-line with typical TIS guidelines and although it doesn't require certification, TP&T believes it is an accurate and fair assessment of the project

MITIGATION + IMPROVEMENT ACTIONS

SITE PLANNING

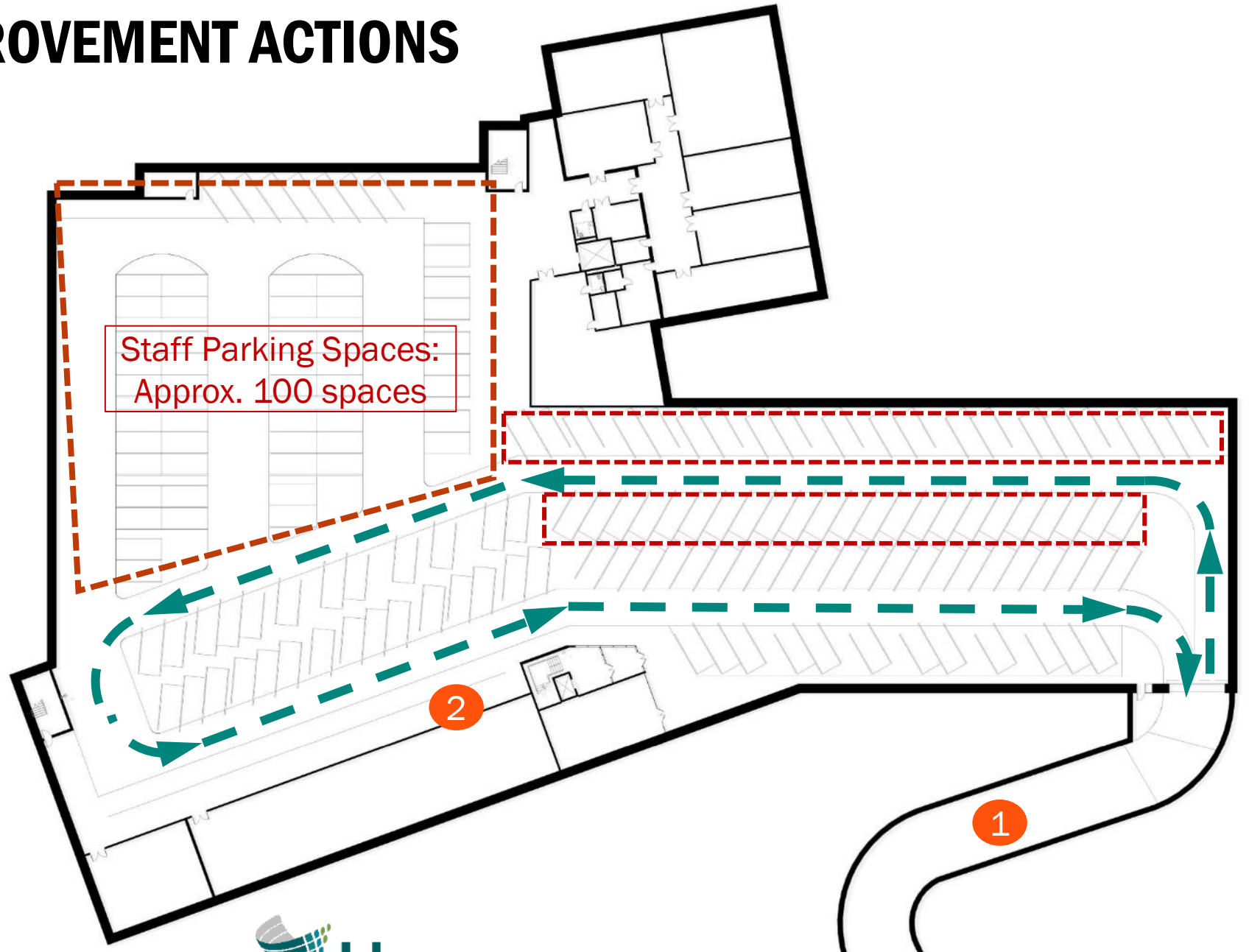


- 1 Pedestrian connection through school property + Service/Emergency access enabled via wide pedestrian ways
- 2 Internal Loading Area
- 3 Complete Area bicycle route connectivity (Envision Plan)
- 4 Bus Loop: Loading + emergency vehicle access with 8 bus capacity + mid-day use for visitors outside of arrival/dismissal periods

MITIGATION + IMPROVEMENT ACTIONS

SITE PLANNING

- 1 Sub-grade parking across from Standish
- 2 Student drop-off / pick-up



Parent/Student Drop-off / Pick-up
Travel Patterns 

MITIGATION + IMPROVEMENT ACTION OPPORTUNITIES

OFF-SITE / NEIGHBORHOOD

- 1 Concord Avenue at Fern Street
- 2 Concord Ave at Alpine Street
- 3 Vassal Lane at Standish Street + Proposed Garage Driveway
- 4 Vassal Lane, Standish Street and Lakeview Avenue



POTENTIAL RRFB TREATMENT

Rapid rectangular flashing beacon (RRFB)

- LED lights flash only when the pedestrian push button is activated to warn drivers that a pedestrian is present in the crosswalk
- Lights flash only for time needed to safely cross the street turn off



RRFB East Boston, MA

RADAR EMBEDDED SCHOOL ZONE FLASHERS

- Radar alerts drivers to their current speed in comparison to the posted speed limit to try to slow speeds and create driver awareness
- School zone flashers would alert drivers of a set 20 mph speed limit within a school zone with flashing yellow beacons when in effect



HIGH VISIBILITY CROSSWALK MARKINGS

- Wide retroreflective, textured pavement markings extended to face of curb
- Use inlay tape and thermoplastic tape rather than paint



TRANSPORTATION COLLABORATION

MOVING FORWARD

- TP&T reviews and approves Traffic Assessment prior to Planning Board review
- PTDM Plan includes:
 - Single-occupancy vehicle mode-share reduction commitment
 - Transit Subsidies up to 65% or \$60/month
 - Gold Level Hubway Membership
 - Other transportation demand management (TDM) measures
 - Annual monitoring and reporting

TRANSPORTATION COLLABORATION

MOVING FORWARD

➤ PTDM Plan includes:

- Employee Transportation Coordinator
- Preferential Carpool Spaces
- Bike/Walk incentives
 - Covered bicycle parking in garage and new Bluebikes station
 - Showers and changing rooms provided
 - Two shared use paths through site
 - Crossing officer

Hilary Zelson
Public Art Administrator
Cambridge Arts Council



PUBLIC ART PROCESS



STEPS IN THE PROCESS

	2019				2020				2021				2022				2023				2024			
	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
SUBMISSIONS:																								
Art jury formed, selects finalists																								
Community meetings																								
Site Committee formed and finalized																								
FINALISTS (VIRTUAL):																								
Finalists' proposal development																								
Community feedback on proposals																								
Site Committee interviews & selects finalists																								
ARTISTS' CONTRACTS:																								
Artists' contracts																								
Artists engage with community;																								
Detailed design development with stakeholders;																								
Public Art Commission feedback																								
FABRICATION																								

OUTDOOR ART SPACES

OVERALL SITE



Omar Calderon-Santiago
Principal
Perkins Eastman



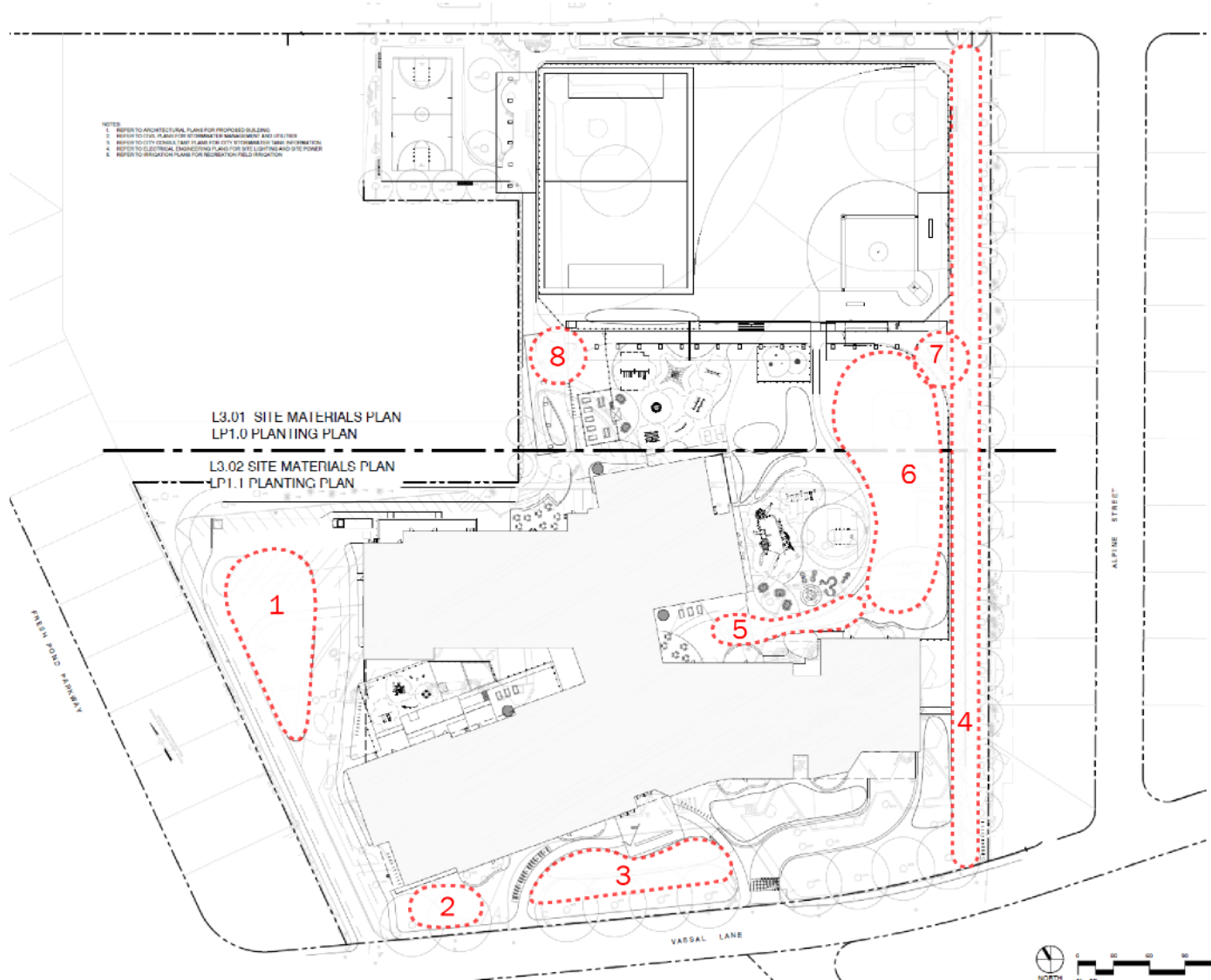
ART AS AN ENGAGING LEARNING EXPERIENCE

Some considerations:

- Hands-on, real world learning experiences
- Joyful, culturally responsive learning experiences
- Interpretive installations exploring wellness at all scales
- Interpretive experiences of the history of the place

OUTDOOR ART SPACES

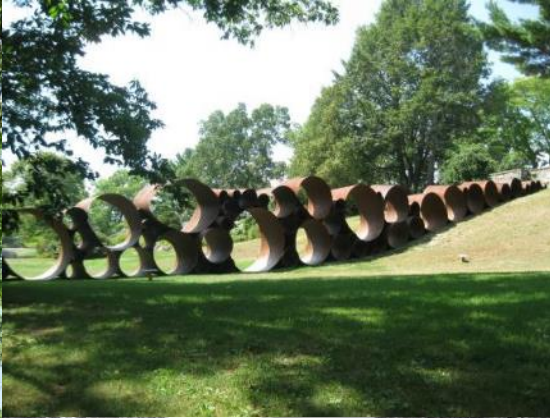
OVERALL SITE



ART AS AN ENGAGING LEARNING EXPERIENCE

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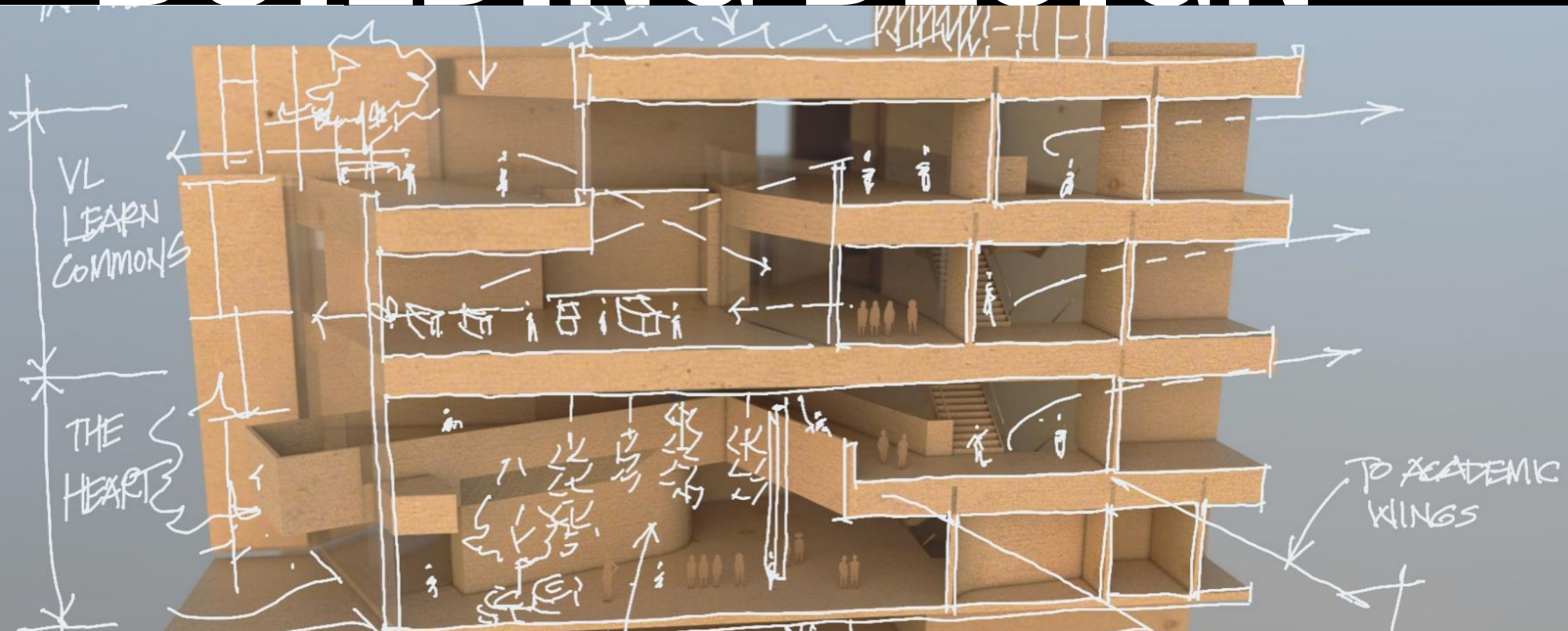
INSPIRATION



Caitlin Gilman
Associate
Perkins Eastman



BUILDING DESIGN



SITE

NEIGHBORING CONTEXT

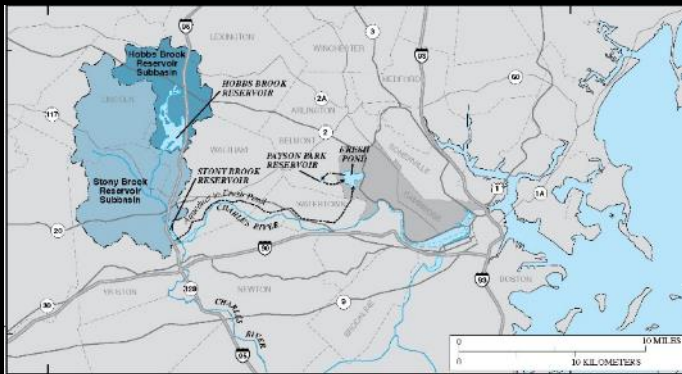


A BIT OF HISTORY

TIMELINE OF TRANSFORMATION



Last Ice Age – Kettle Lakes



Fresh pond, a kettle lake left behind.

Clay Deposits– Industrialization



Site was quarried to create manufactured ballast bricks.

Waste Collection Point



The site was used as a city waste site.

A BIT OF HISTORY

MORE RECENT TRANSFORMATION



Montessori students, agency and self guided inquiry using every available surface as a place for learning.

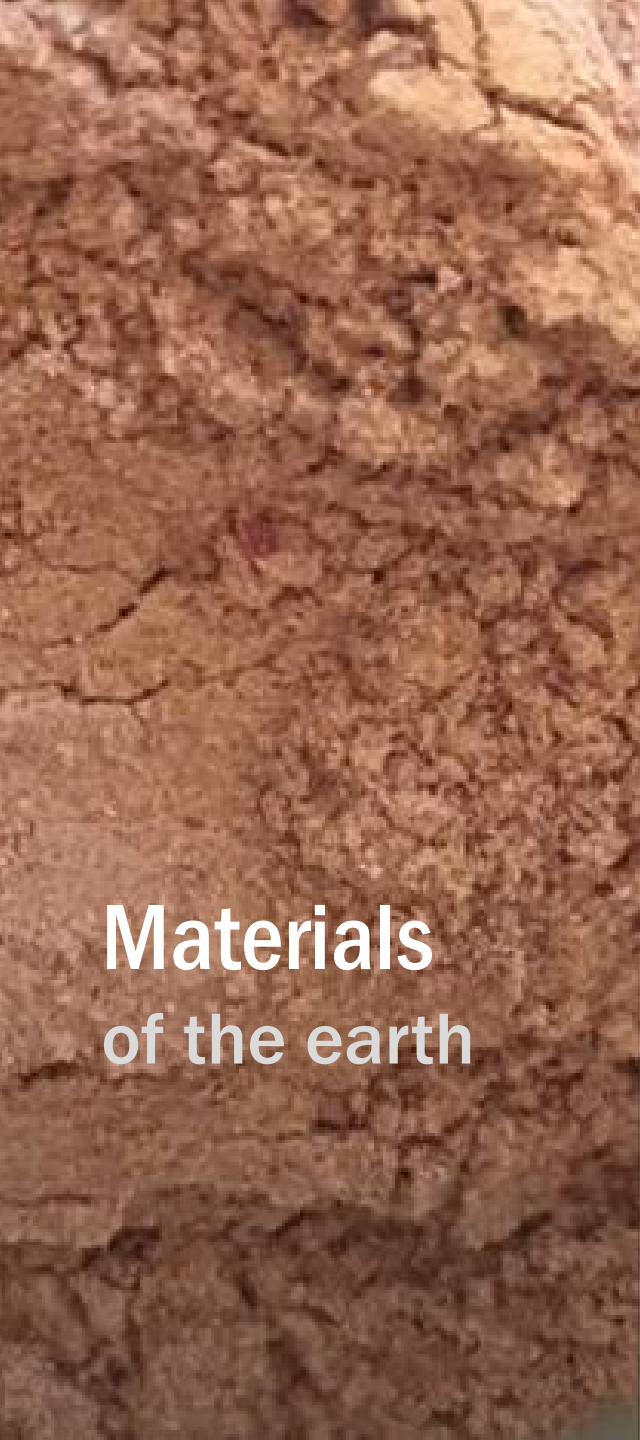


Tobin Montessori School

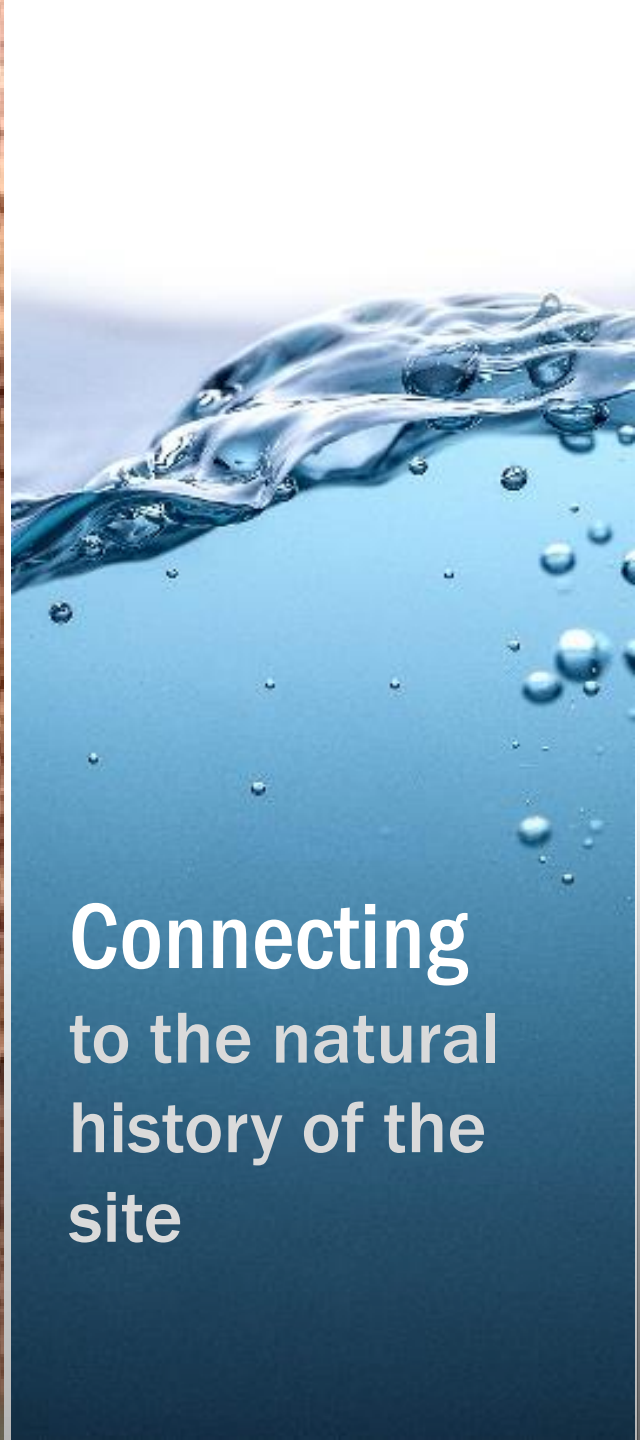


TOBIN MONTESSORI VASSAL LANE SCHOOLS





**Materials
of the earth**



**Connecting
to the natural
history of the
site**



**Industrial Past
and patterns of
use**



**Repair of the site
and an agency for
its expediting**

ELEMENTS

AIR



FIRE



WATER



EARTH



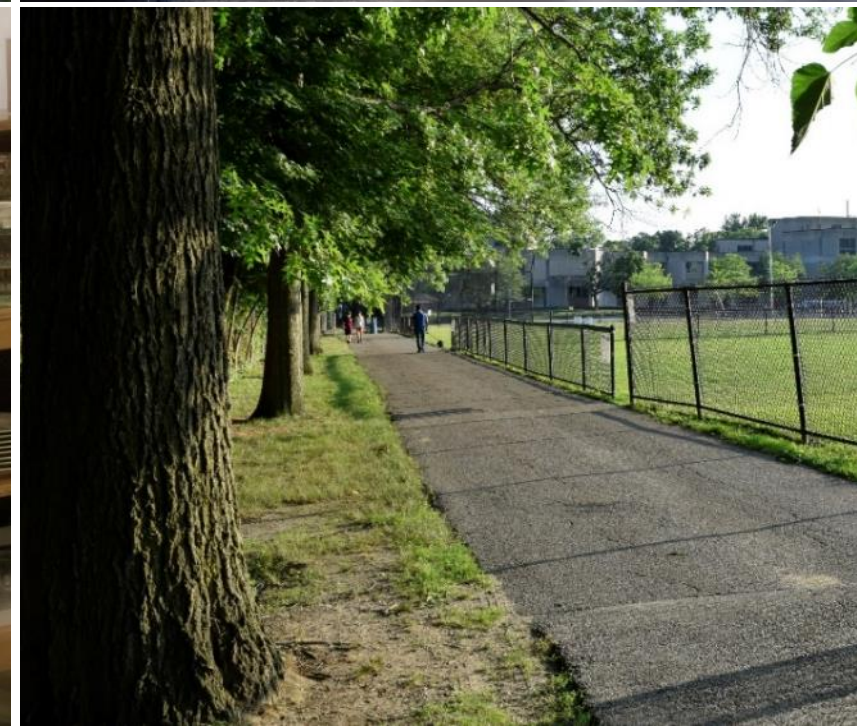
EARTH ASPIRATIONS



Education that grew
from a clay pit



Ties to Montessori
teaching philosophy



WATER ASPIRATIONS



History

Stormwater

Geothermal



AIR ASPIRATIONS



Indoor air quality

Occupant comfort,
health and wellness

Outdoor connection



FIRE

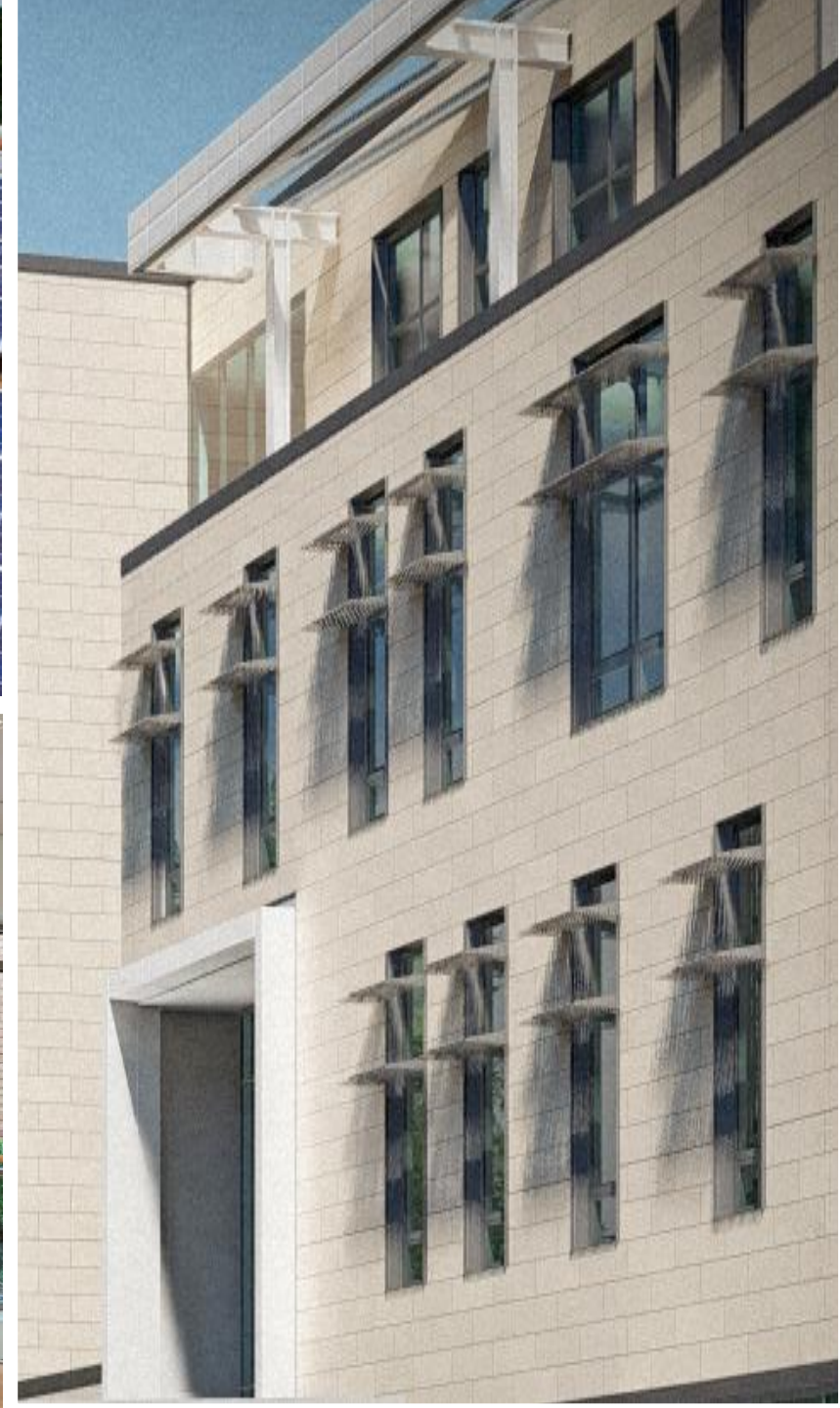
ASPIRATIONS



Solar energy and Net
Zero goals

Nurturing and shaping
school education

Daylighting



OPPORTUNITIES



Wayfinding



Building as a Teaching Tool



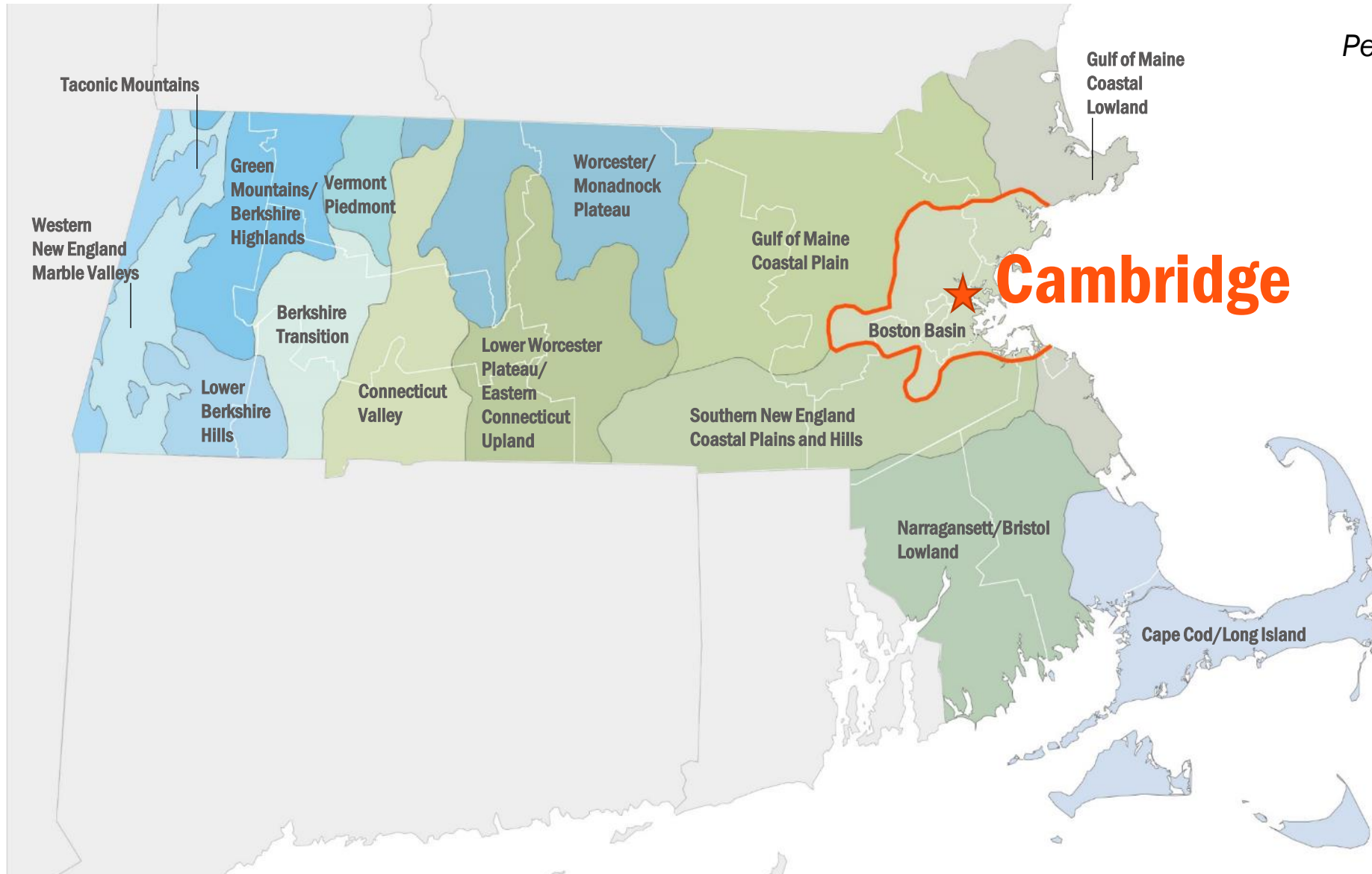
Neighborhood Identity



Engagement

ECOREGION

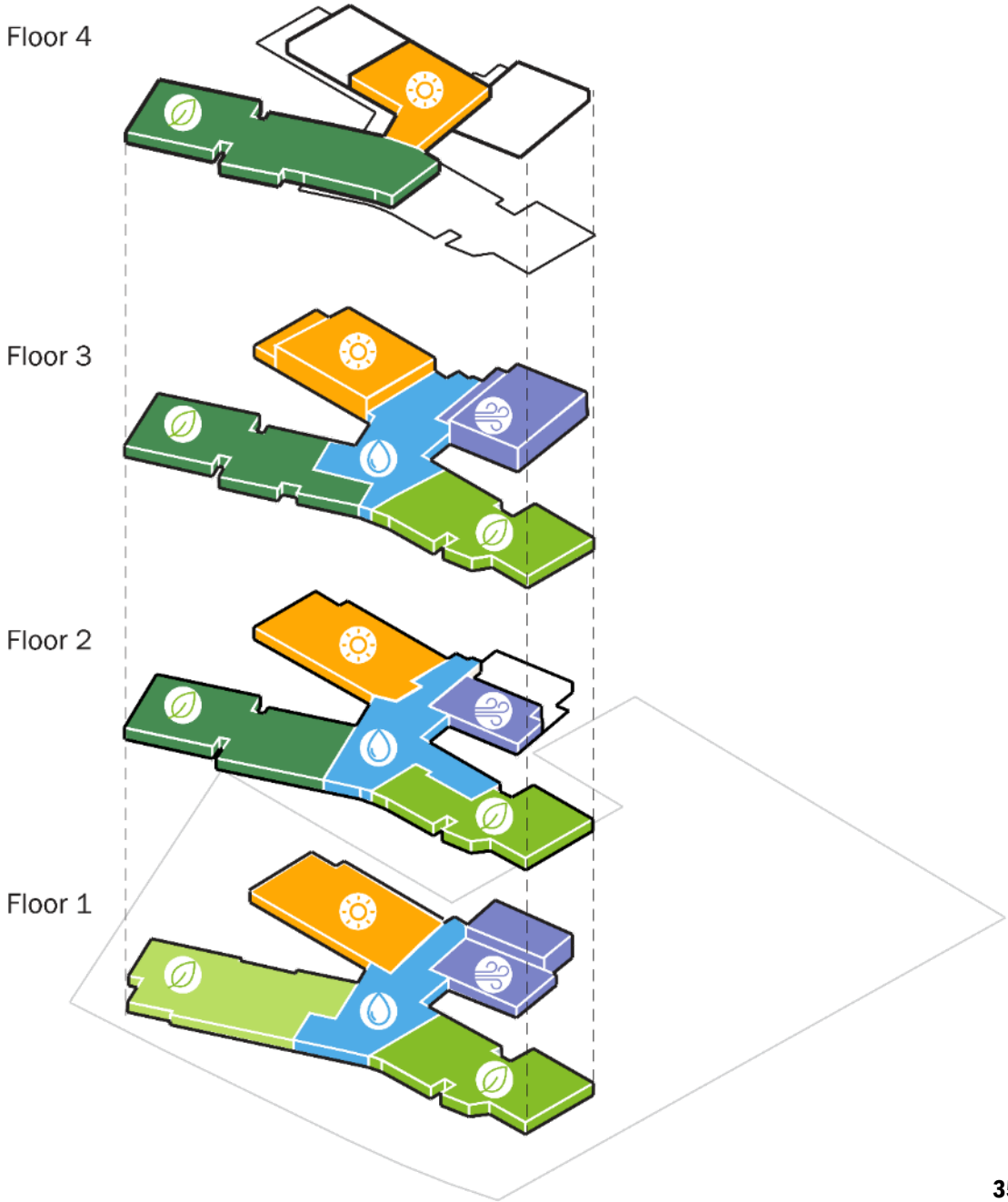
Carmen Torres
Designer
Perkins Eastman



Source: Griffith, G.E., Omernik, J.M., Bryce, S.A., Royte, J., Hoar, W.D., Homer, J.W., Keirstead, D., Metzler, K.J., and Hellyer, G. "Ecoregions of New England (Poster)", U.S. Geological Survey (2009) Web & Bplant.org

ORGANIZATION

-  WATER
-  EARTH
-  AIR
-  FIRE

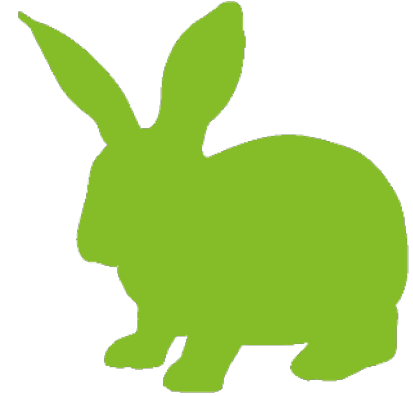




EXAMPLES OF OPPORTUNITIES



Plants

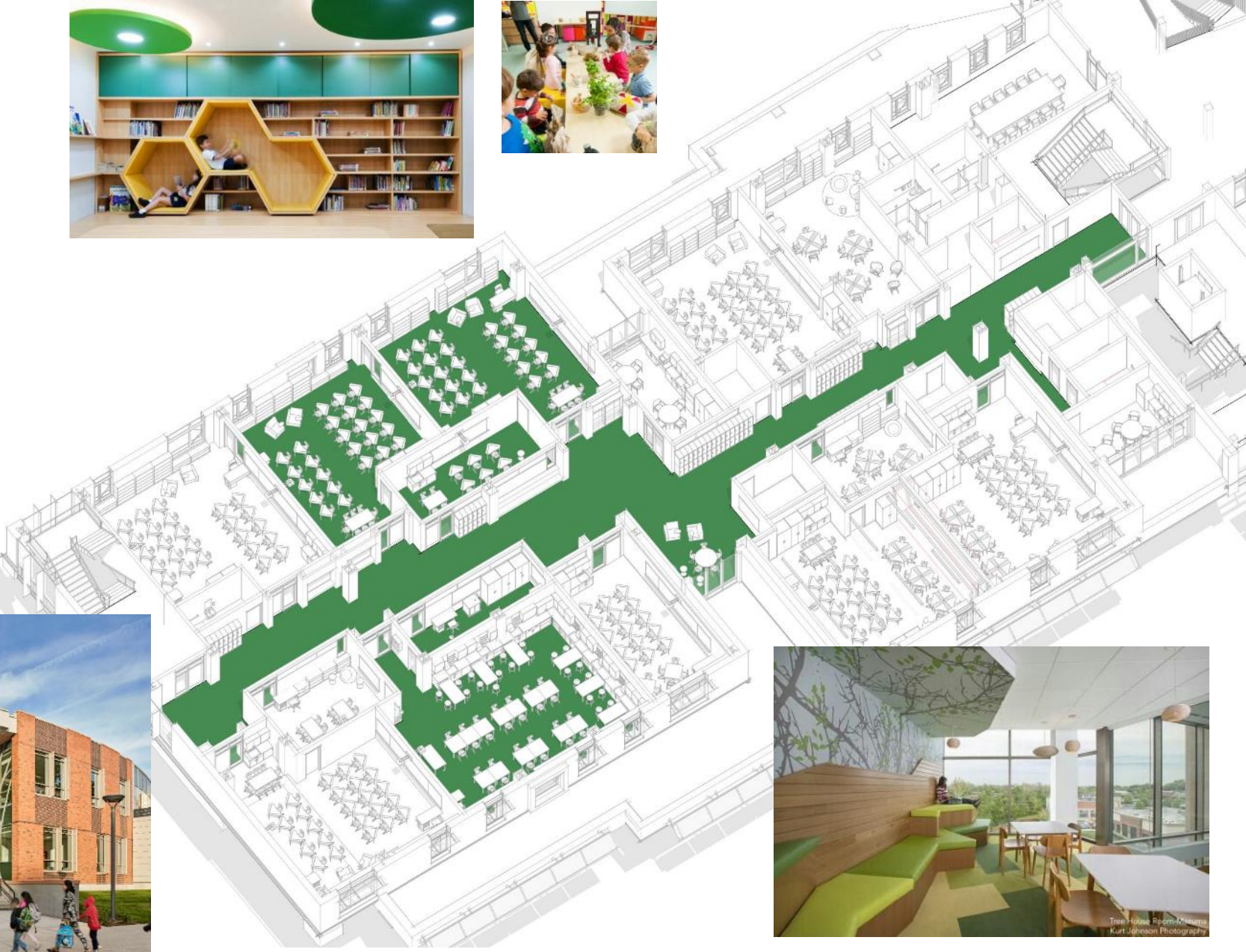


Mammals

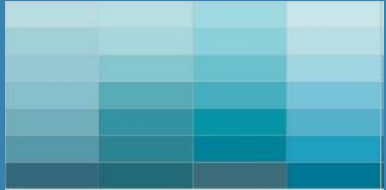
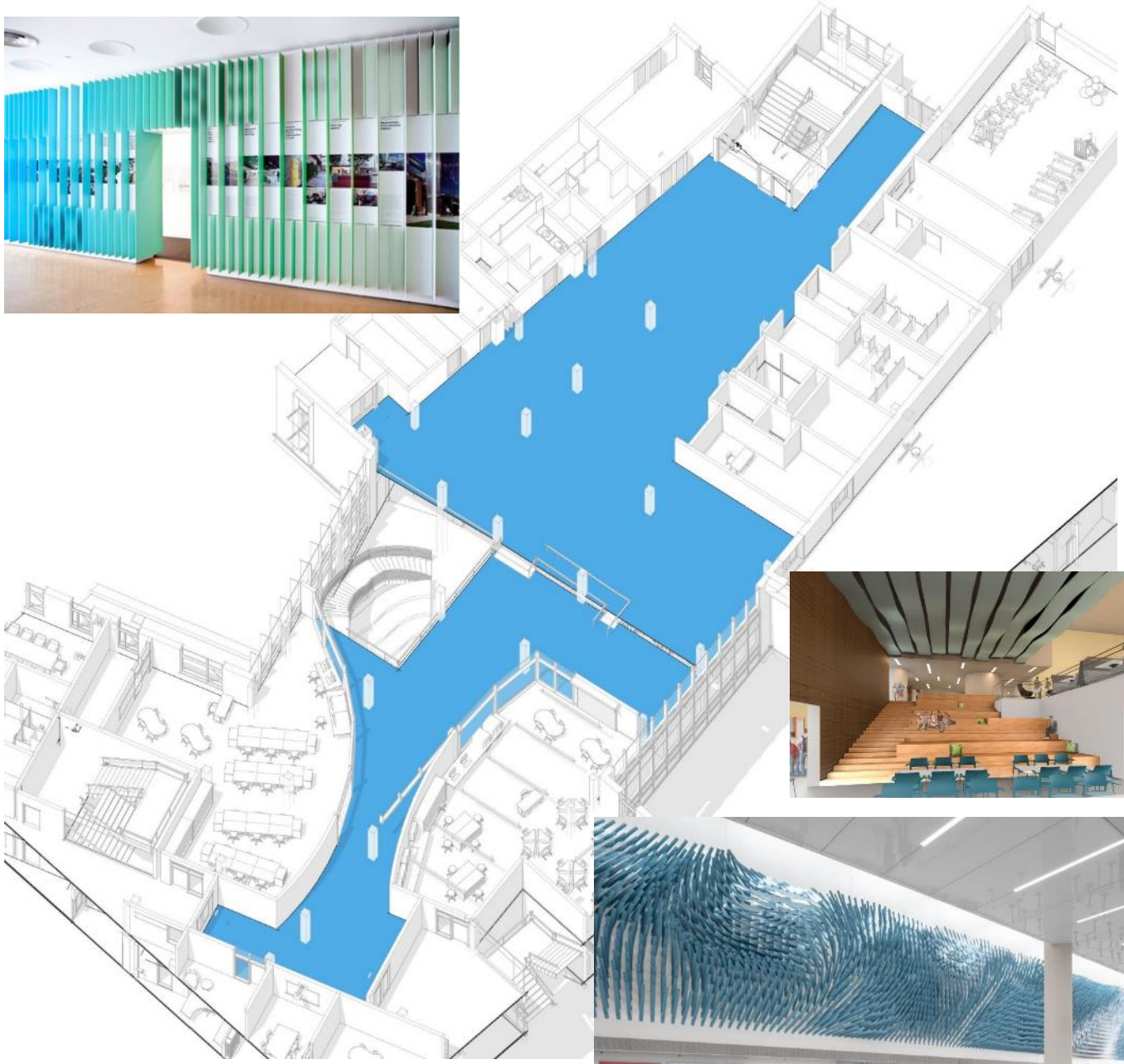


Amphibians

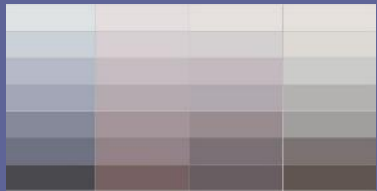
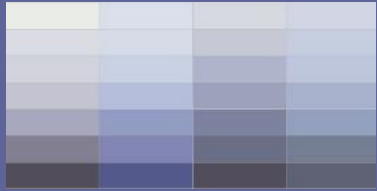
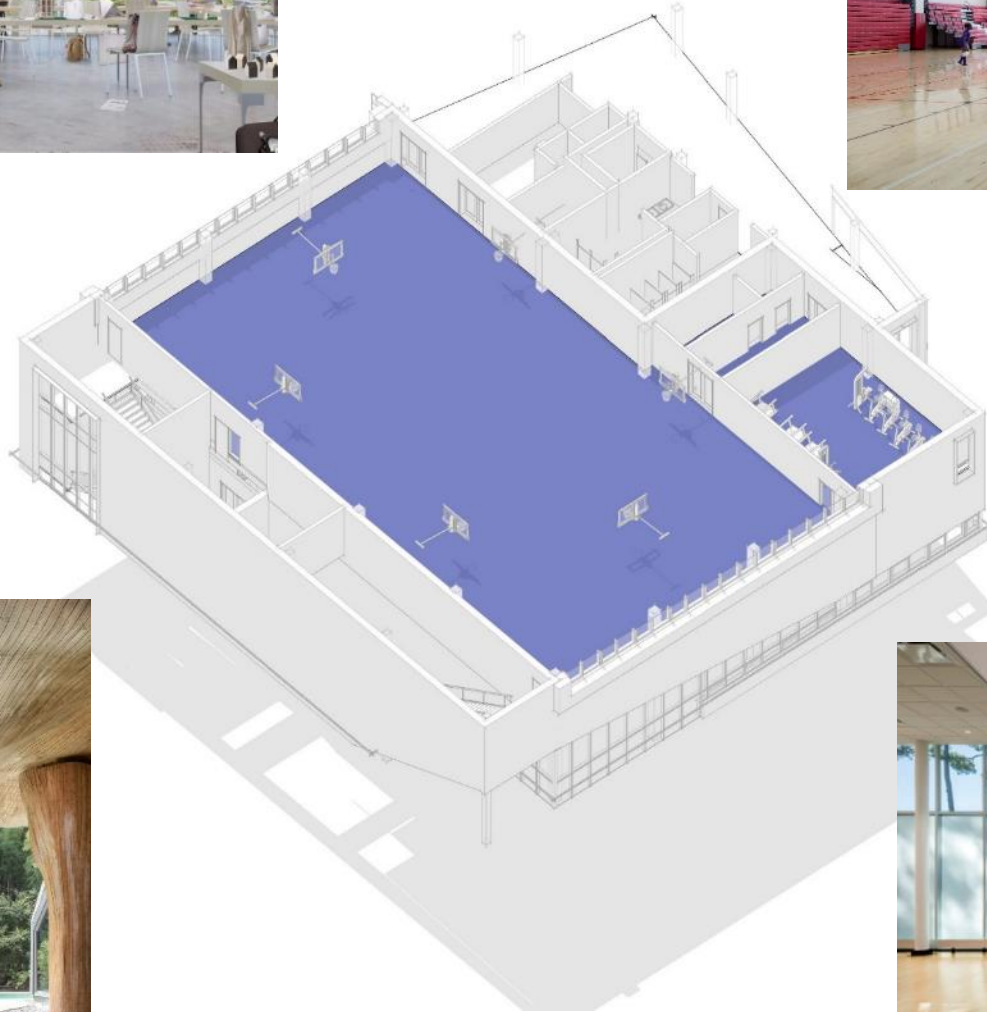
EARTH ECOREGION



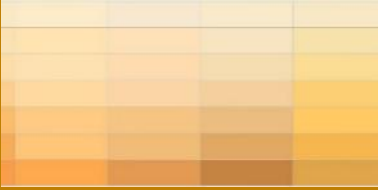
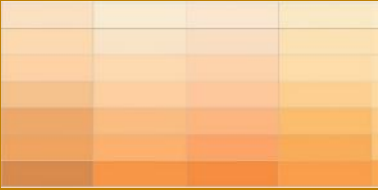
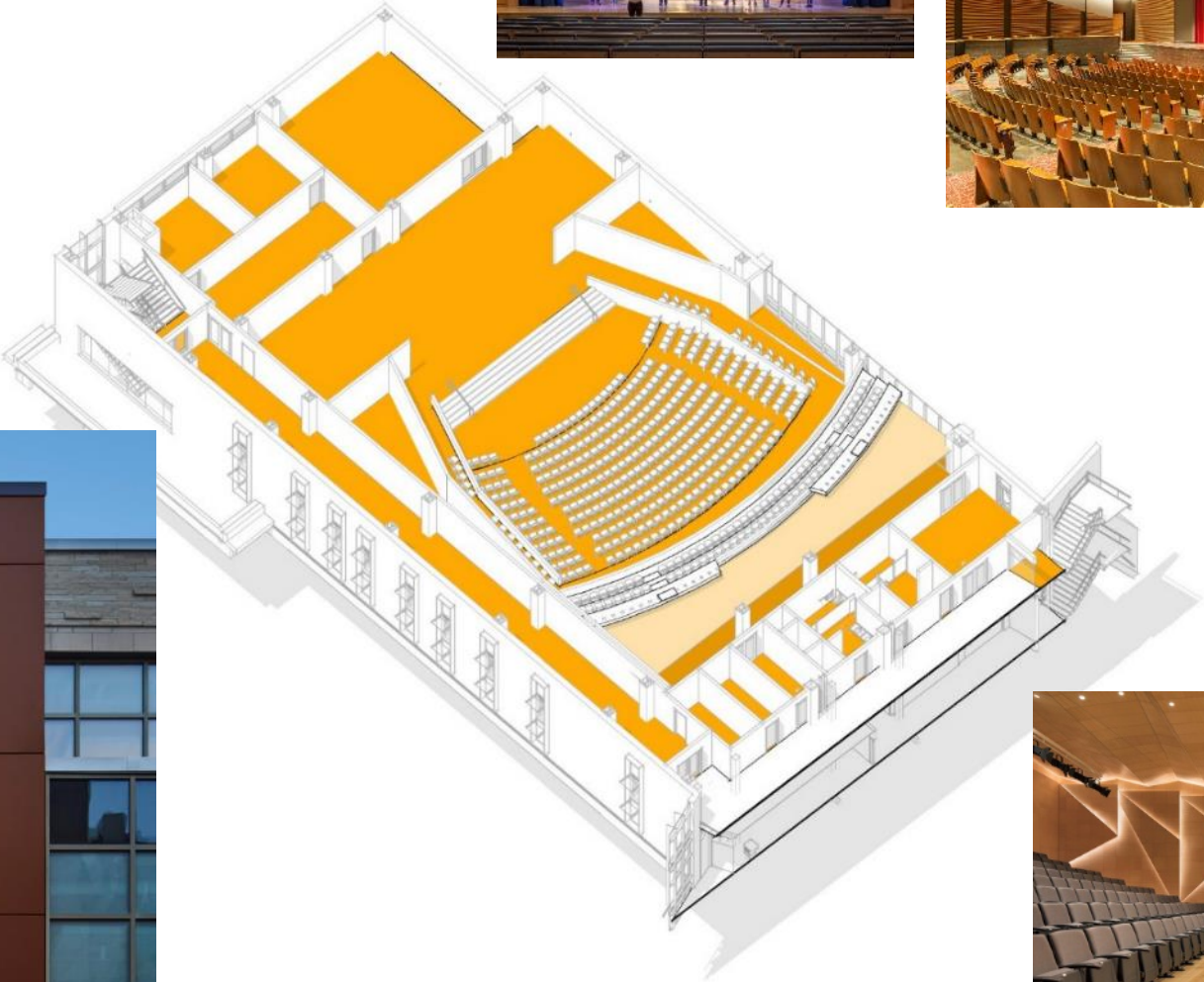
WATER ECOREGION



AIR ECOREGION



FIRE ECOREGION



PLEASE REFER TO VIDEO FOR THIS
PORTION OF THE PRESENTATION

ARRIVALS



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