



Swarthmore College: Maxine F. Singer '52 Hall

SCUP MID-ATLANTIC SYMPOSIUM
October 16, 2019

Featured Speakers / Tour Guides



Jan Semler

Director

Capital Planning and
Project Management

Swarthmore College



John Cacciola

Partner

Owner's Representative
Project Management

Aegis Property Group



Craig Spangler, AIA

Partner

Architect +
Engineer

Ballinger



Scott Delaney

Project Director

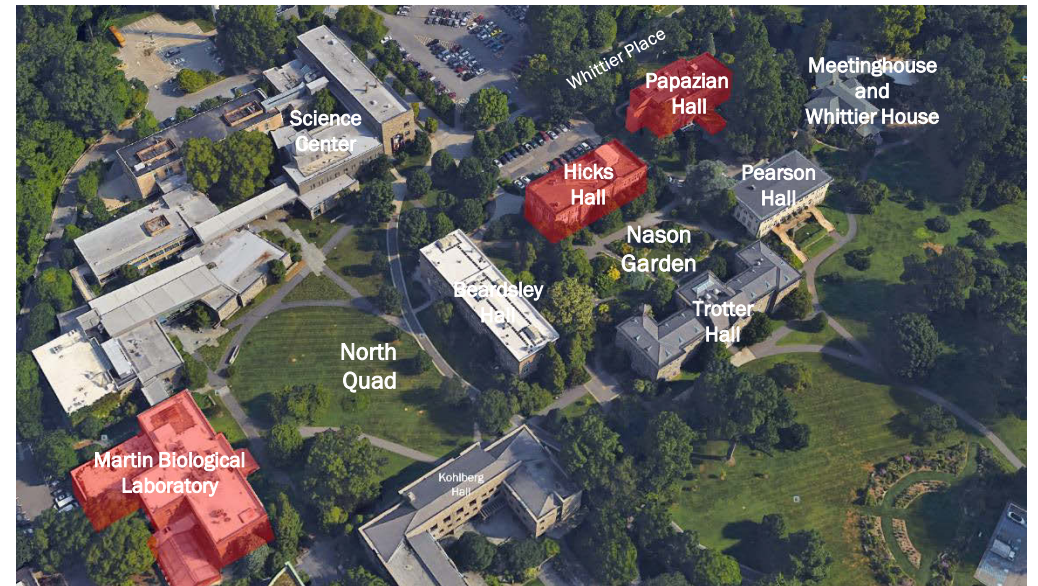
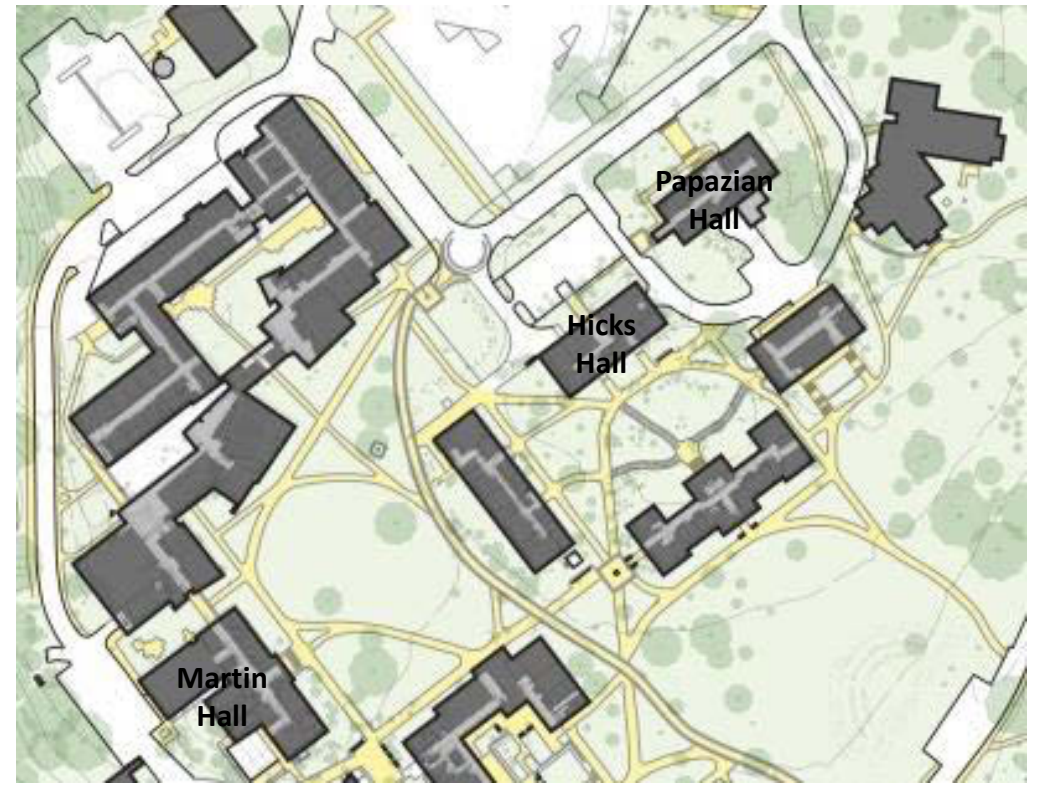
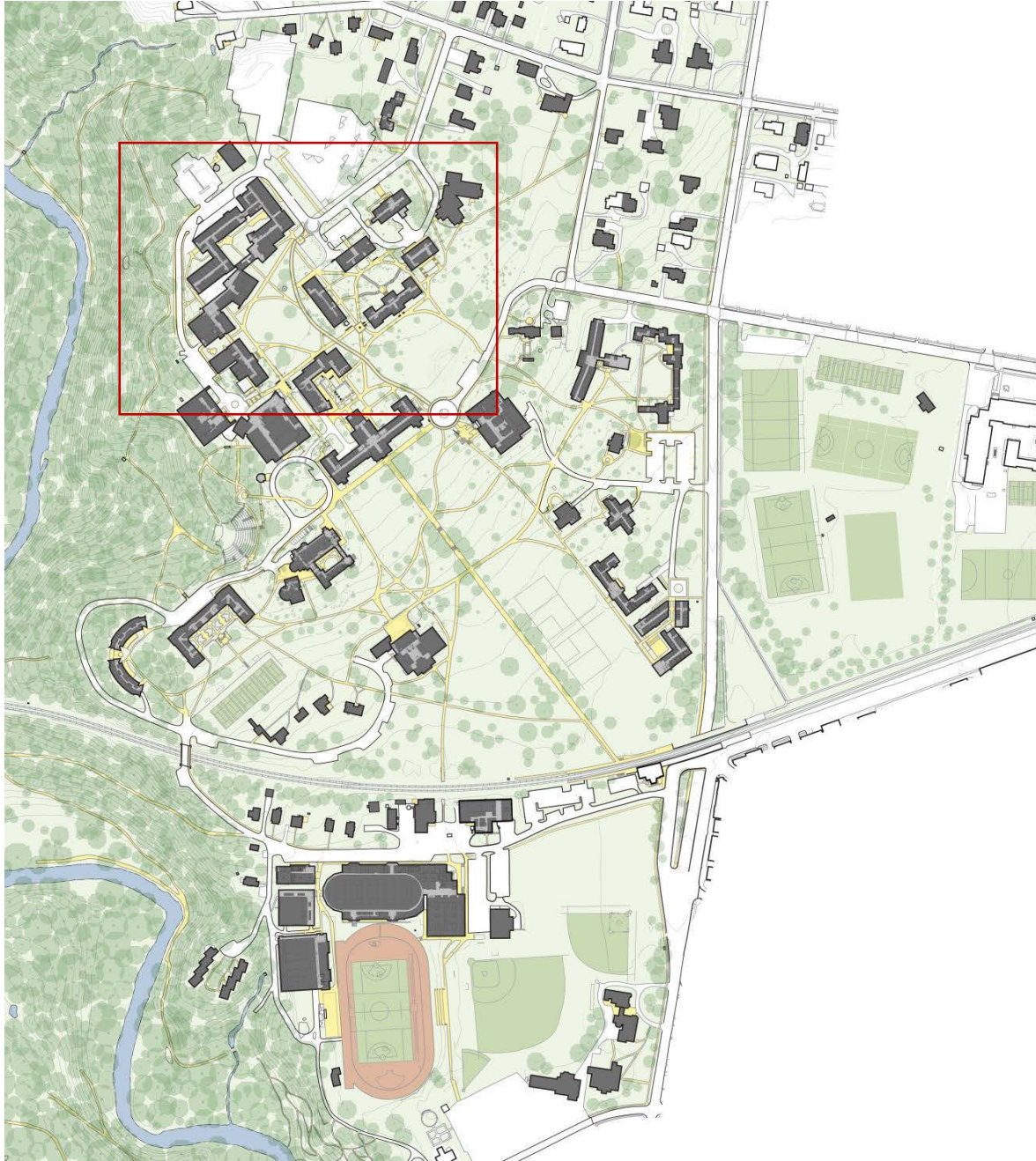
Construction
Management

Skanska

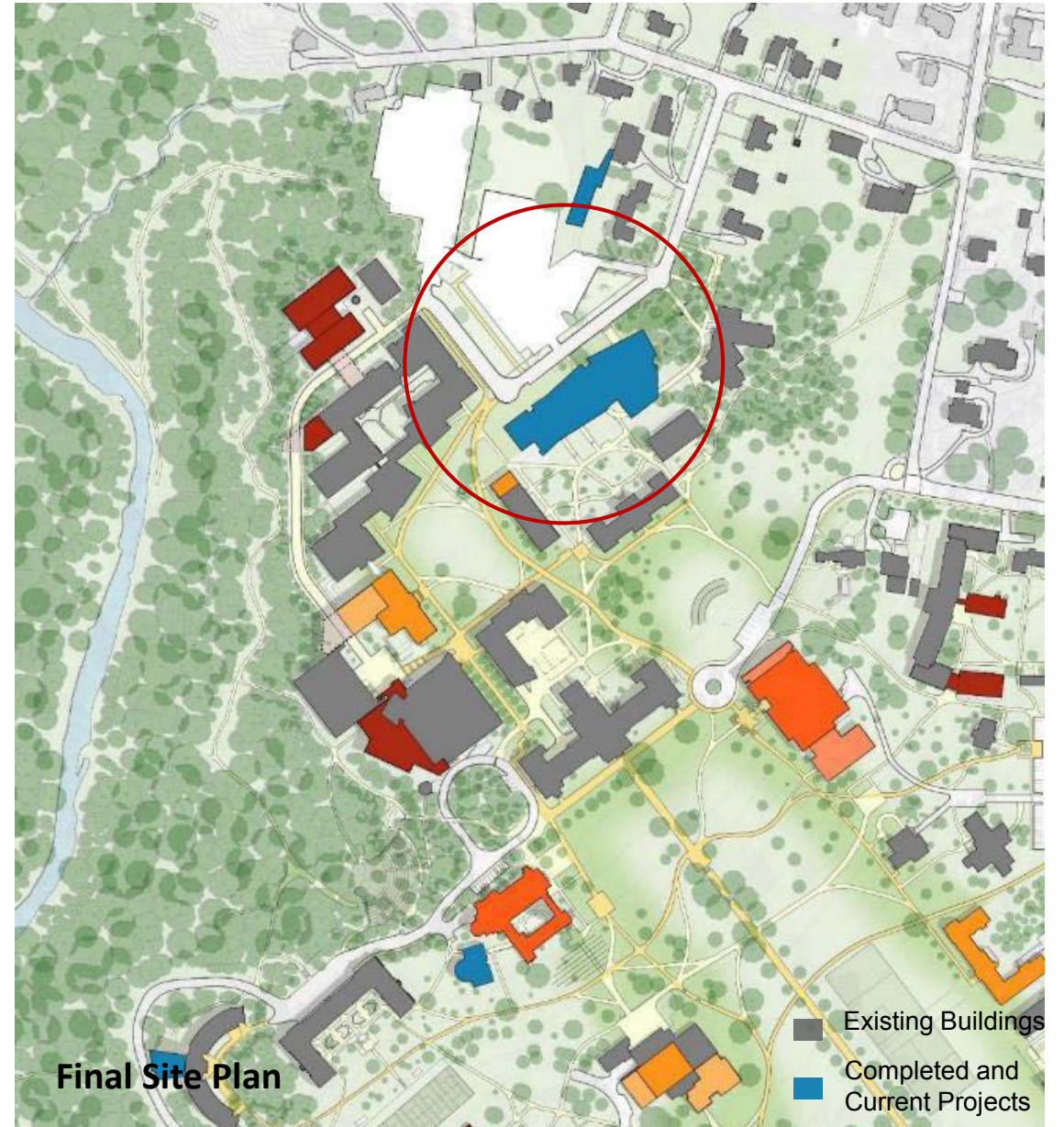
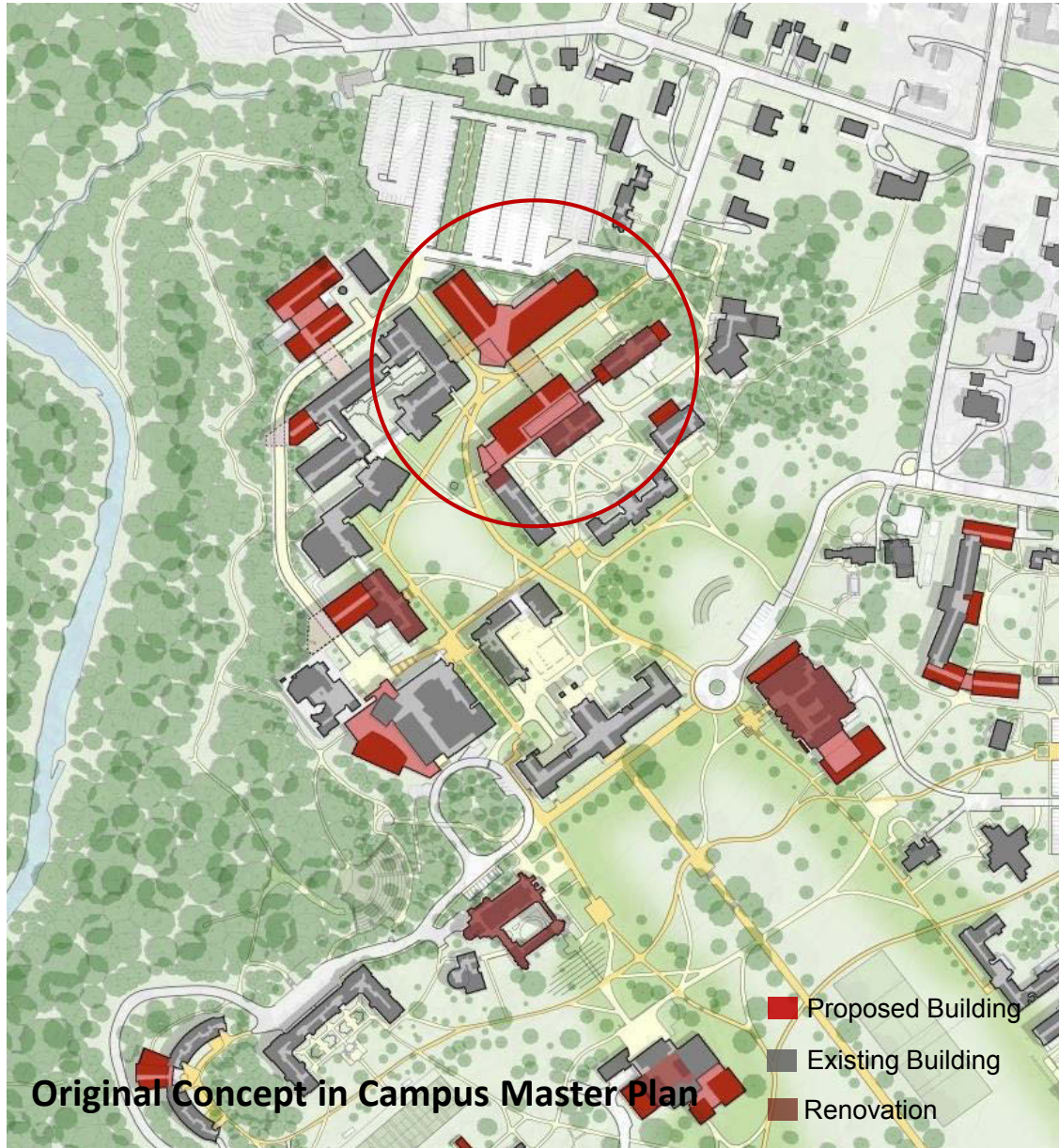
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- Opening Remarks
- Overview of Campus + Building 2:30 - 2:45 PM
- Tour of Maxine Frank Singer '72 Hall 2:45 - 4:00 PM
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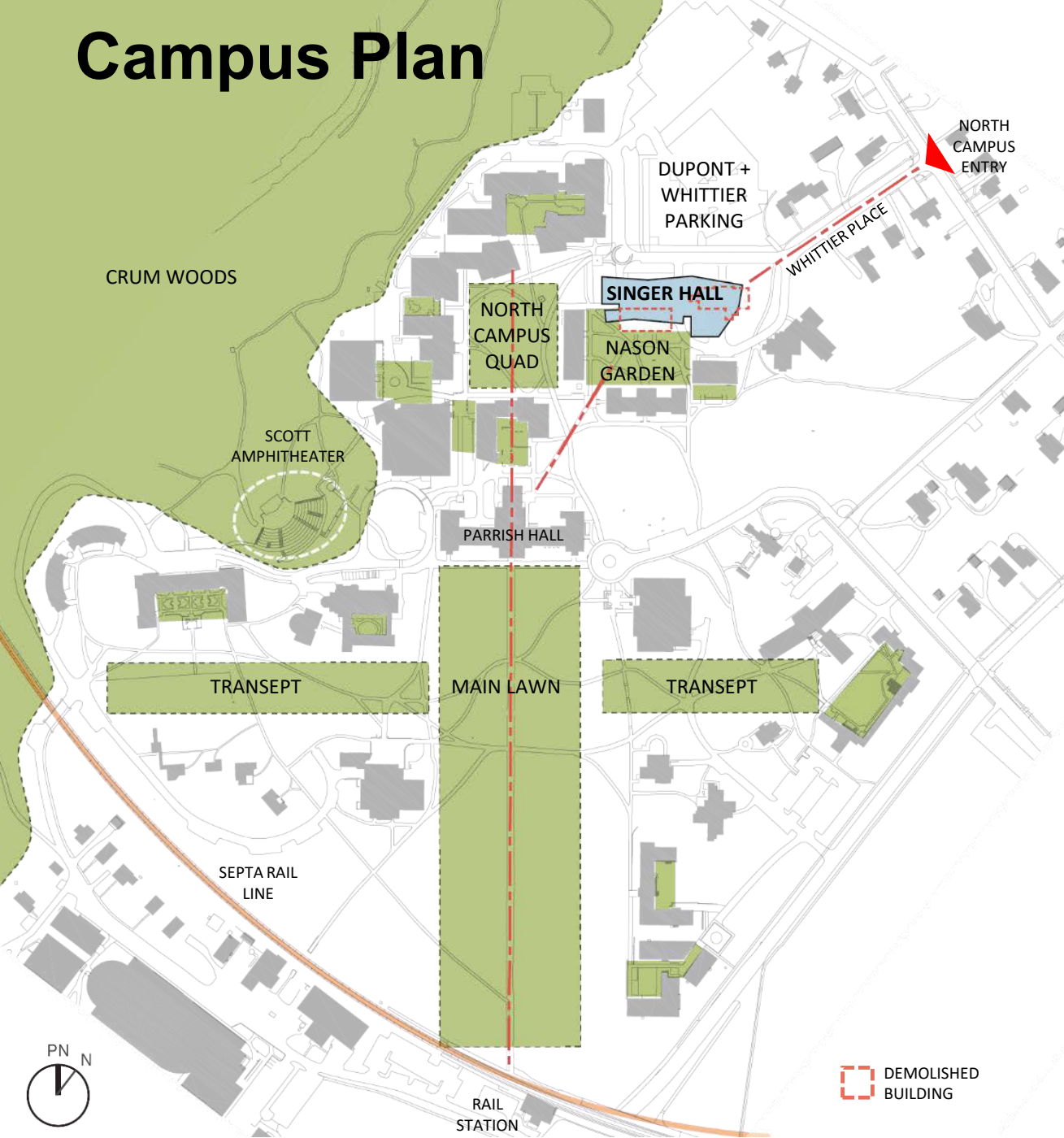
Project Context



Site Planning

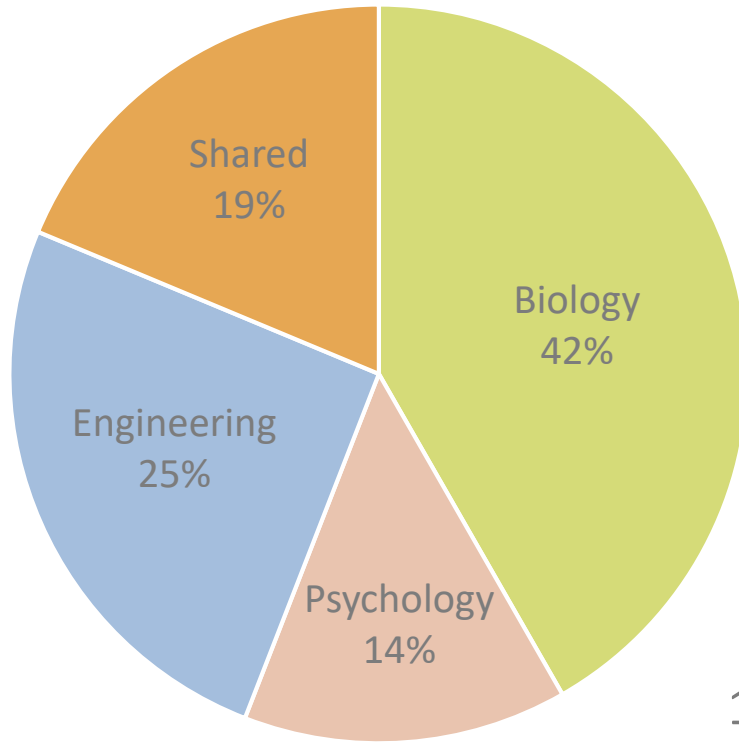


Campus Plan

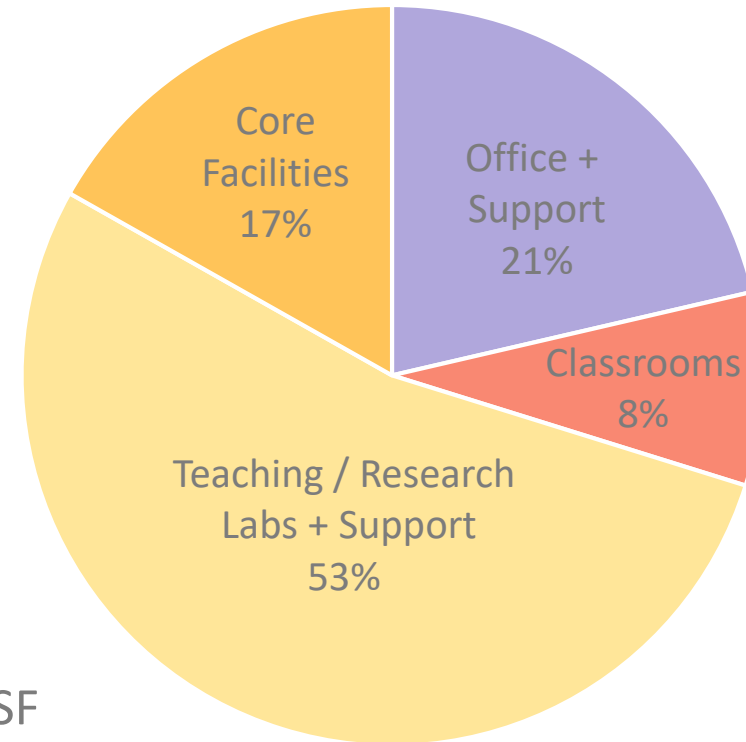


Maxine Frank Singer '72 Hall Metrics + Schedule

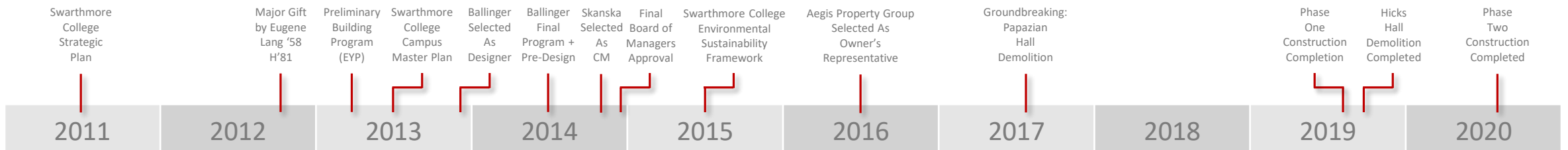
DEPARTMENTS



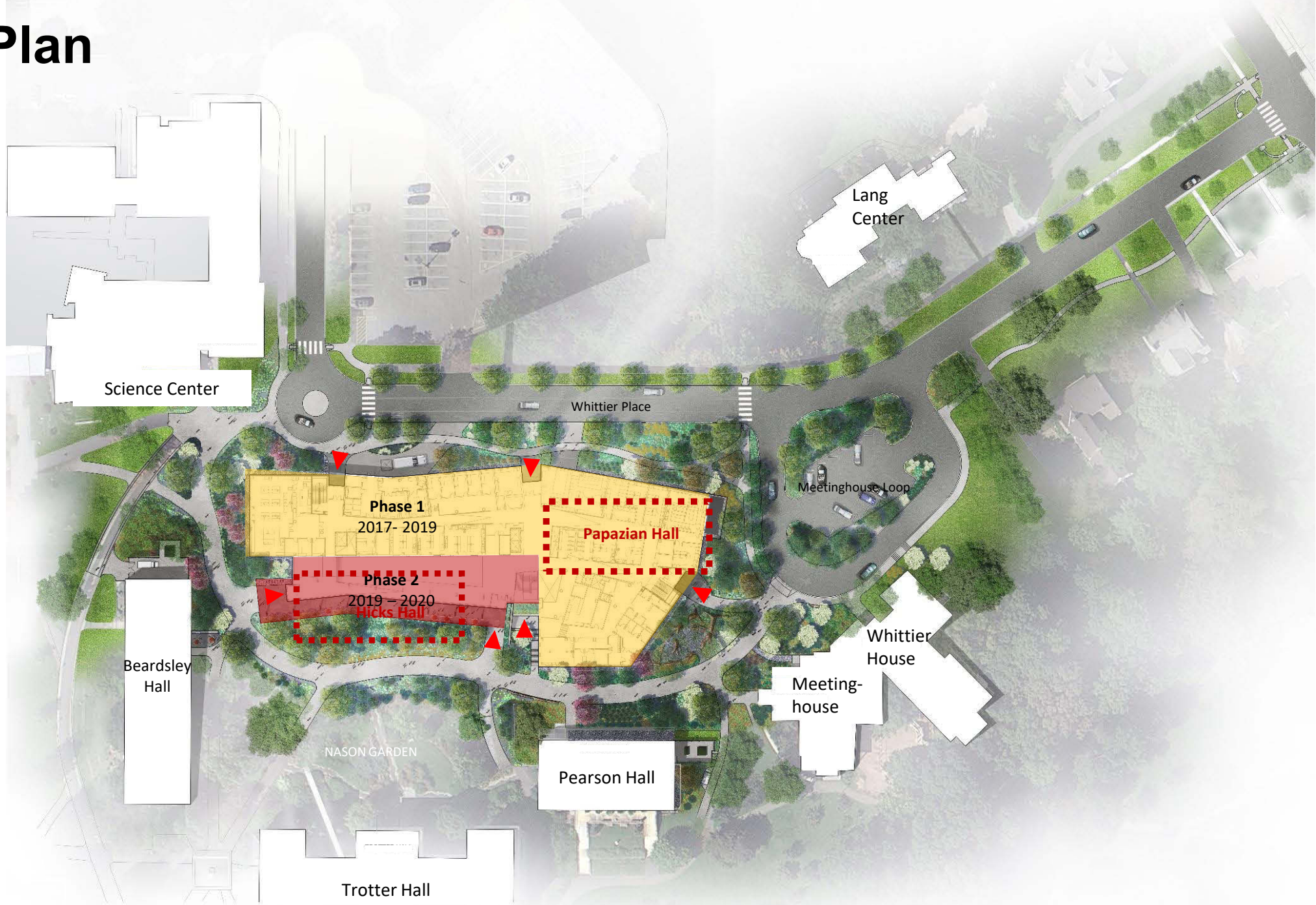
SPACE TYPES



159,000 GSF
59% N/G



Site Plan



Aerial Perspective



DuPont and Whittier Parking Lots

Science Center

Whittier House

Meetinghouse

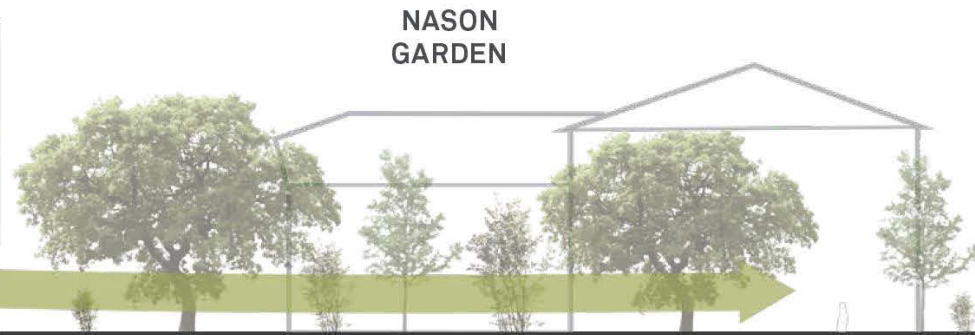
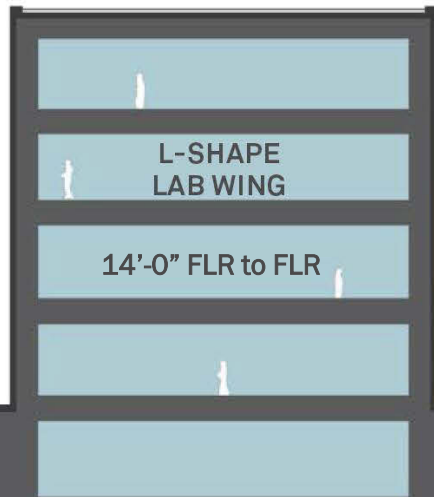
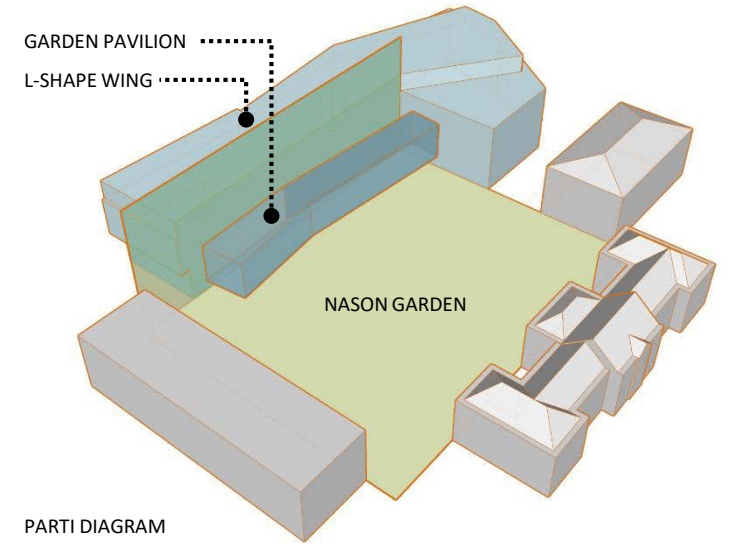
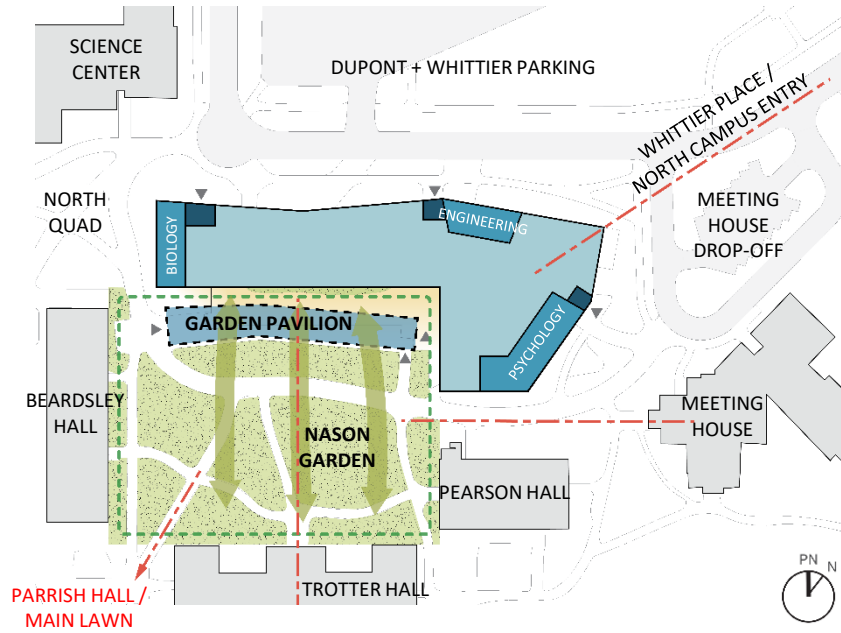
Pearson Hall

Nason Garden

Beardsley Hall

Trotter Hall

Concept



CONCEPTUAL SECTION DIAGRAM

Ground Floor

Whittier Place



View of Commons From Nason Garden



Commons w/ Future Green Wall



View From the Meetinghouse



View From DuPont + Whittier Parking



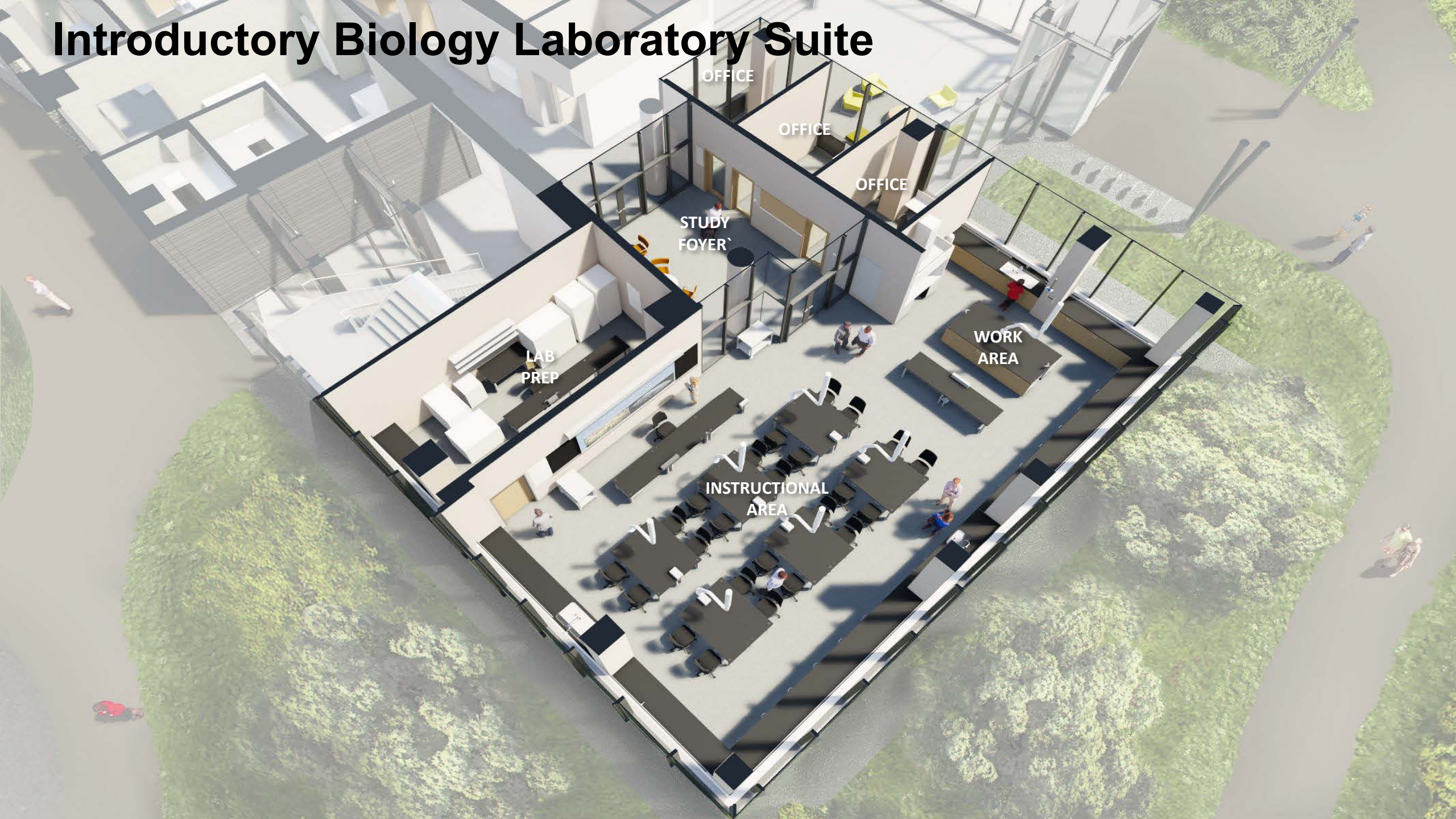
View of Engineering High Bay



View From the Science Center



Introductory Biology Laboratory Suite



OFFICE

OFFICE

OFFICE

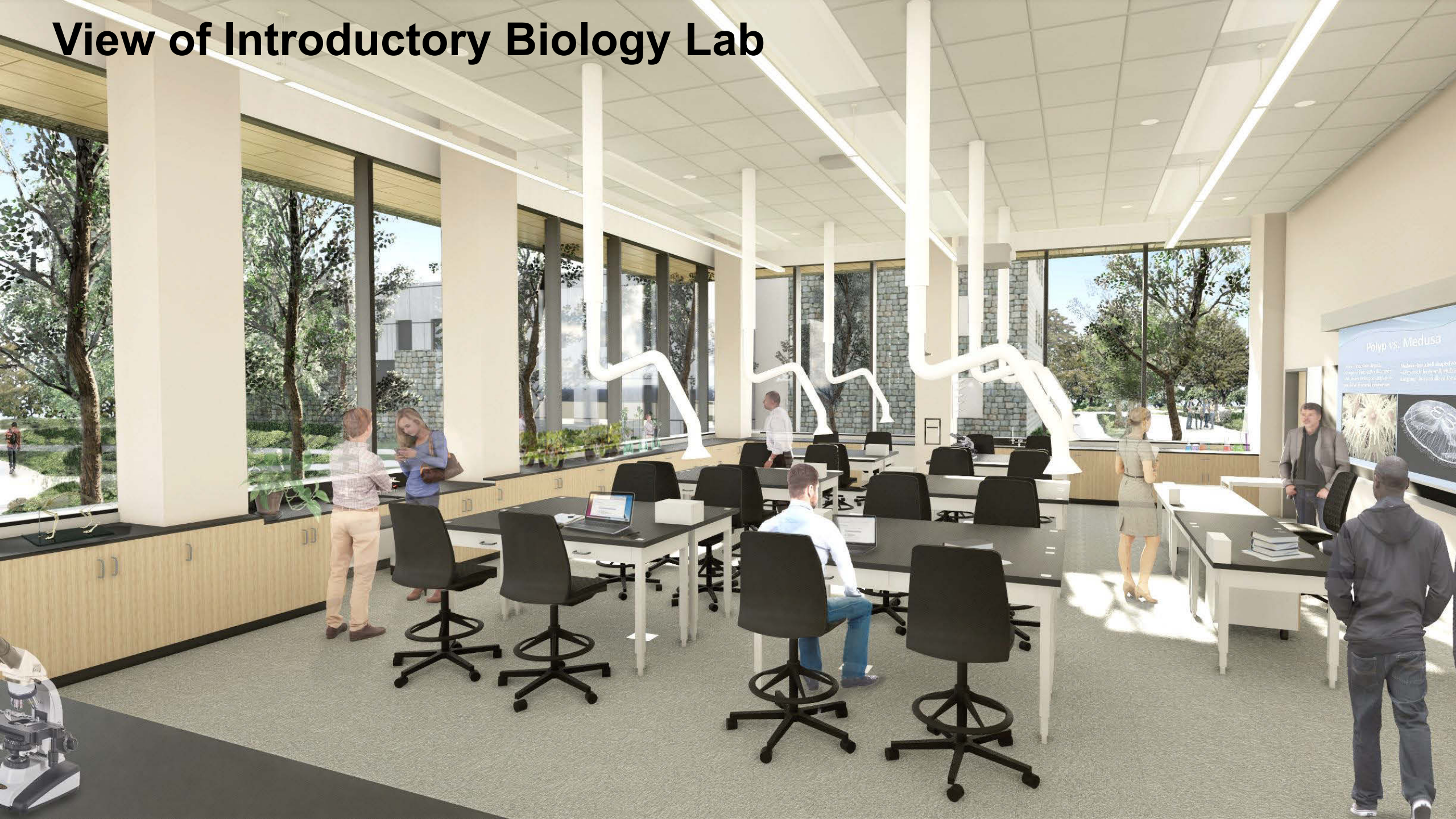
STUDY
FOYER

LAB
PREP

WORK
AREA

INSTRUCTIONAL
AREA

View of Introductory Biology Lab



Lower Level Floor Plan

Whittier Place



View of Tiered Classroom: 65 Seats



View of Divisible Flexible Learning Classroom: 79 Seats



Second Level

Whittier Place



Nason Garden

View of Front Porch + Department Office



Third Level

Whittier Place



- Biology
- Engineering
- Psychology
- Shared Program Spaces

Nason Garden

View of Typical Corridor



Teaching / Research Lab

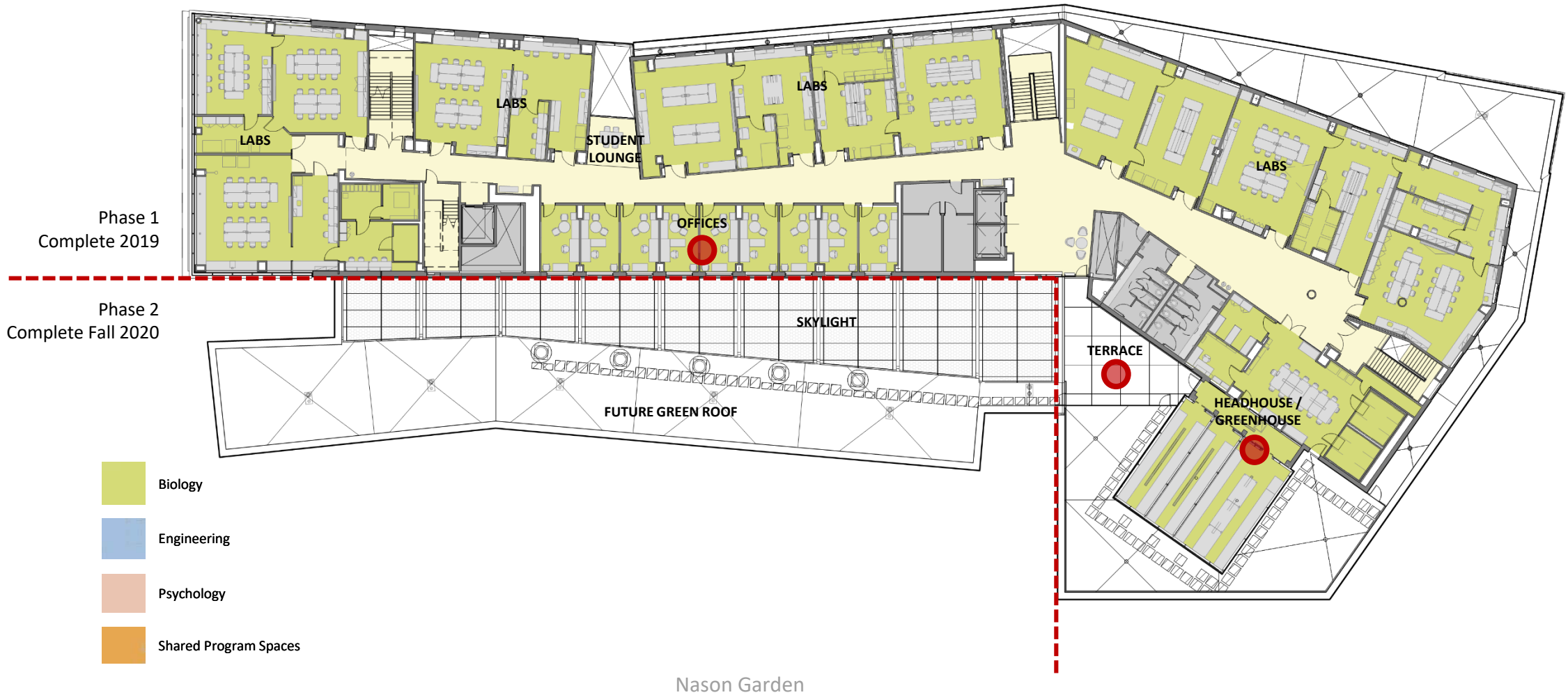


View of Typical Student Lounge



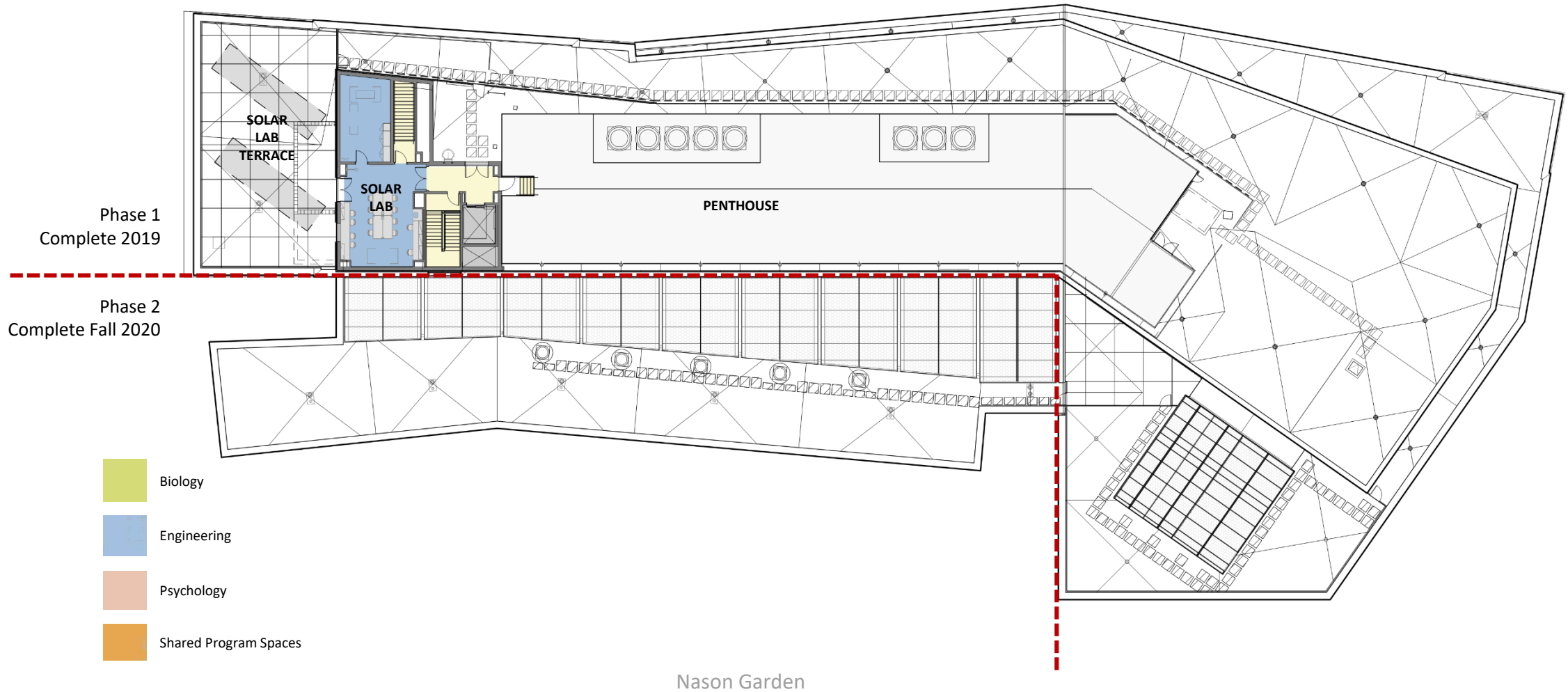
Fourth Level

Whittier Place



Roof Level

Whittier Place



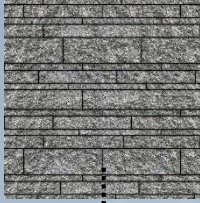
Nason Garden

View From Nason Garden

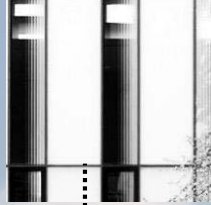


Exterior Materials

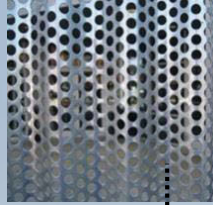
Ashlar Granite



Acid Etched Glass



Perforated Metal Panel Screen Wall



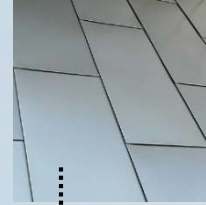
Painted Aluminum Sunshades



Inner Layer Frit Glass



Flat-Lock Zinc Panels



Simulated Wood Window Fascia



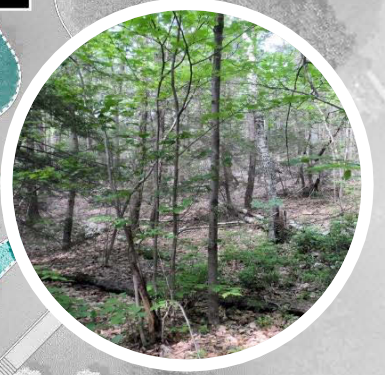
Landscape Strategies

SCIENCE CENTER

LANG CENTER

PIEDMONT
SUCCESSIONAL MEADOW

NEW JERSEY COASTAL
PLAIN HARDWOOD SWAMP



PIEDMONT BIRCH
WOODLAND

NEW JERSEY OUTER COASTAL
PLAIN CEDAR SWAMP



PIEDMONT
WOODLAND EDGE

NEW JERSEY INNER COASTAL PLAIN
MIXED OAK FOREST



WHITTIER HOUSE

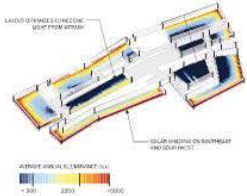
ON HALL

Sustainability Strategies



DAYLIGHT DISTRIBUTION + CONTROLS

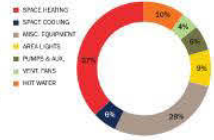
The atrium and skylights bring light deeper into the building. Advanced lighting controls, such as daylight dimming, will enhance the quality of space as well as conserve energy.



HIGH PERFORMANCE HEATING, VENTILATION, + AIR CONDITIONING



Heating will account for roughly 35-40% of the building's anticipated energy use, while lighting and equipment combined account for another 35-40%.



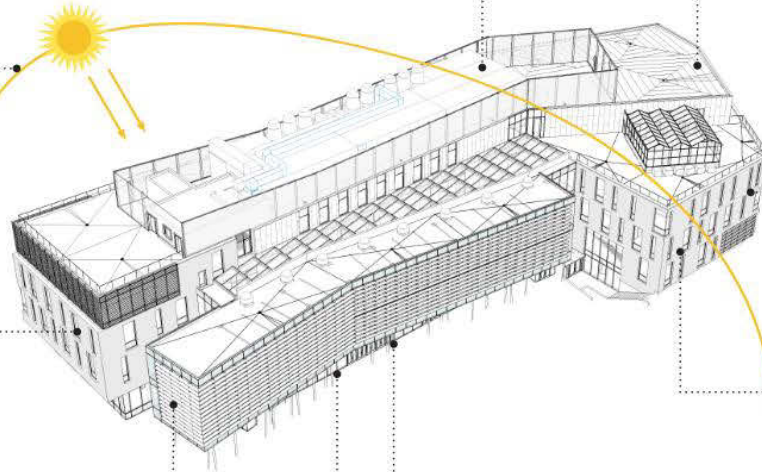
STORMWATER MANAGEMENT

The stormwater tank at the building will collect water from the roof to be repurposed. The water strategy is also closely tied to the landscape, with vegetated and pervious areas allowing for stormwater infiltration. The project will manage to the 98th percentile storm event.



WATER REUSE + CONSERVATION

Stormwater is collected to use for toilet flushing. The installation of high efficiency Water Sense labeled fixtures helps to conserve water.



CHILLED BEAMS

Chilled beams in the labs are coupled with sophisticated controls to modulate the amount of ventilation air delivered to each space.



MATERIALS

Specifying environmentally-responsible materials has a positive impact on building occupants, the building industry, and earth's natural resources. This project will focus on materials of high volume and high visibility for the largest impact.



OPTIMIZED BUILDING ENVELOPE INCLUDING EXTERNAL SHADING

External shading helps reduce unwanted solar heat gain during the summer and can enhance visual comfort by controlling daylight.



RADIANT FLOORING

A radiant floor in the atrium will provide efficient, direct heat to the space without heating the entire volume of the atrium.



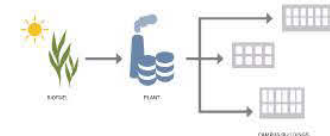
CONNECTION TO NATURE

The atrium space is enhanced by bringing the character of the Nason Garden in to the interior. Native and adaptive vegetation will be integrated into the landscape.



ENERGY SAVINGS

This project includes the first phase of a campus infrastructure renewal that replaces the steam system with a hot water system for improved energy efficiency system wide.



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