



# INTERDISCIPLINARY ENGINEERING BUILDING (IEB)

UNIVERSITY OF WASHINGTON

CUCAC Meeting  
14 June 2022



KIERANTIMBERLAKE



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# IEB Community

- Primary academic home for **freshmen and sophomore students**
- A place for teaching and interaction with **engineering faculty representing multiple fields and disciplines;**
- A place for **exchange with industry partners**
- A place to coalesce the College into **one community** and champion the **inclusion of historically underrepresented groups** in the engineering sciences
- A place that reshapes open space and campus connectivity for the **UW Community**

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# IEB Project Goals

## GROW

The IEB will...help us **grow** in terms of **numbers** and **to become** more **inclusive, collaborative, innovative, and adaptable**, with programs supported by facilities rivaling or exceeding those of our peer institutions.

## ENRICH

The IEB will be an important part of our **on-campus student experience** and will serve as a **home or "engineering central,"** offering the spaces needed to **educate students to solve major societal challenges.**

## COLLABORATE

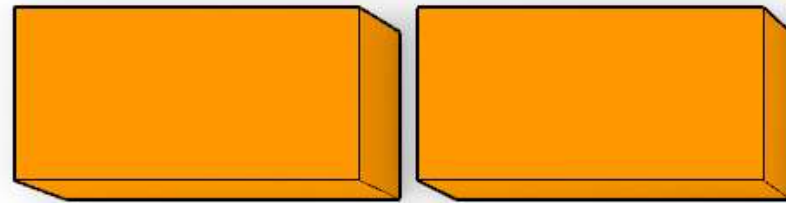
The IEB will embody our commitment to providing **exposure to the full range of engineering disciplines** right away, supporting **project-based learning, interdisciplinary teamwork, improved diversity,** and increased partnerships with industry, and more.

## ENGAGE

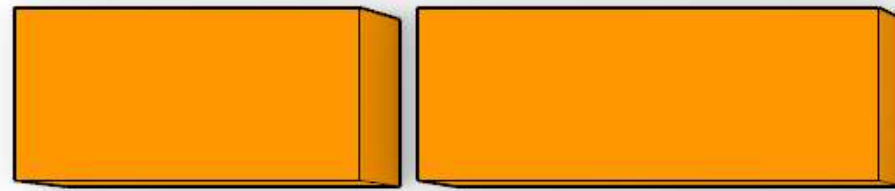
The IEB will provide a **silos-free learning environment** that students need to **prepare for industry and entrepreneurial careers** in collaboration with fellow students across campus.

## PROJECT SPACE

9,440 ASF



DESIGN / IDEATION STUDIO (x2)  
2,178 SF EA. / 4,356 SF TOTAL

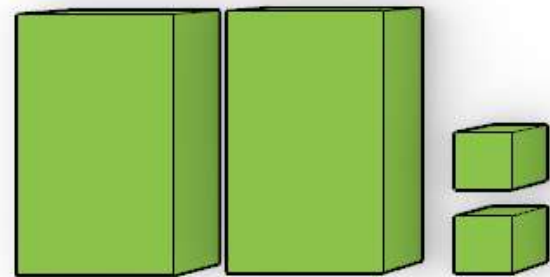


ASSEMBLY & TESTING  
2,178 ASF

FABRICATION SHOP  
2,904 ASF

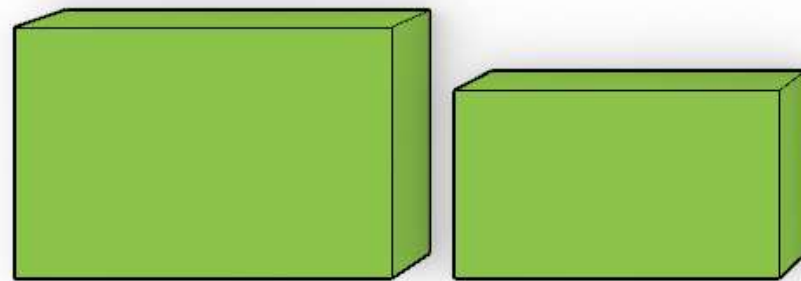
## CLASSROOM SPACE

10,990 ASF (25 sf/seat)



60p. ALC (x2)  
1,500 ASF EA.

STORAGE  
240 ASF

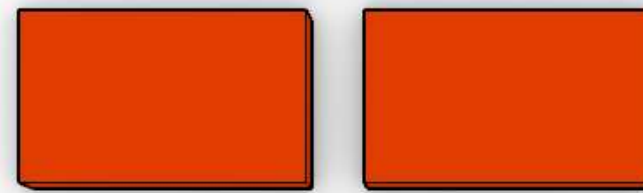
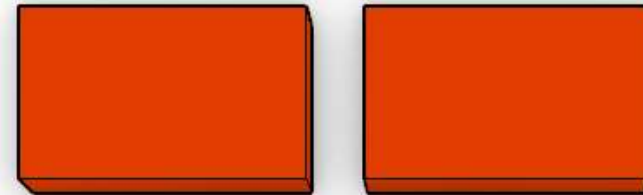


150p. ALC  
3,750 ASF

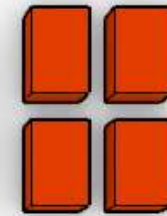
100p. ALC  
2,500 ASF

## CURRICULAR SPACE

7,990 ASF



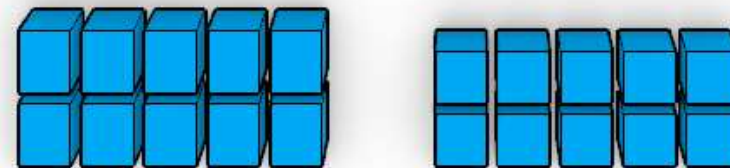
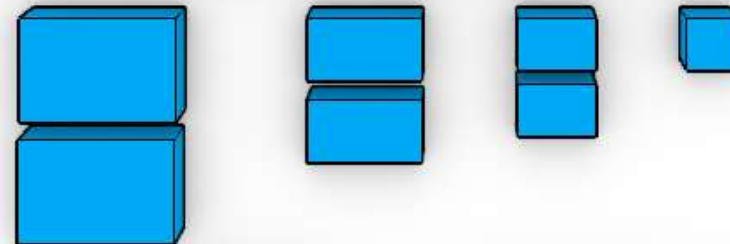
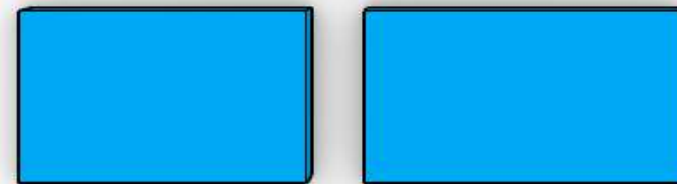
TEACHING LAB (x4)  
1,815 ASF



STORAGE  
726 ASF

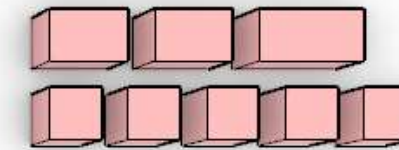
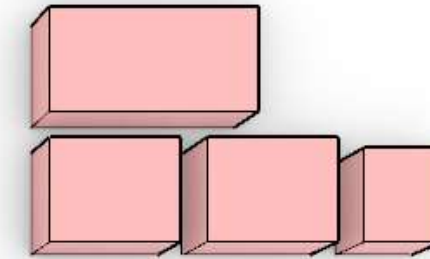
## STUDENT SOCIALIZATION

8,100 ASF



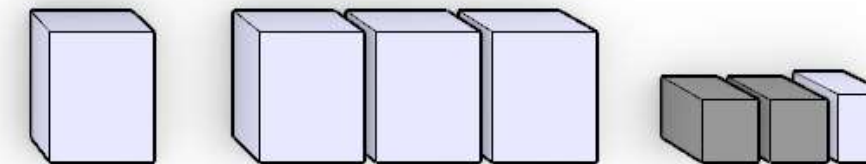
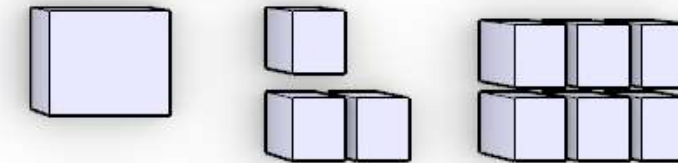
## AI EDUCATIONAL INSTITUTE

3,000 ASF

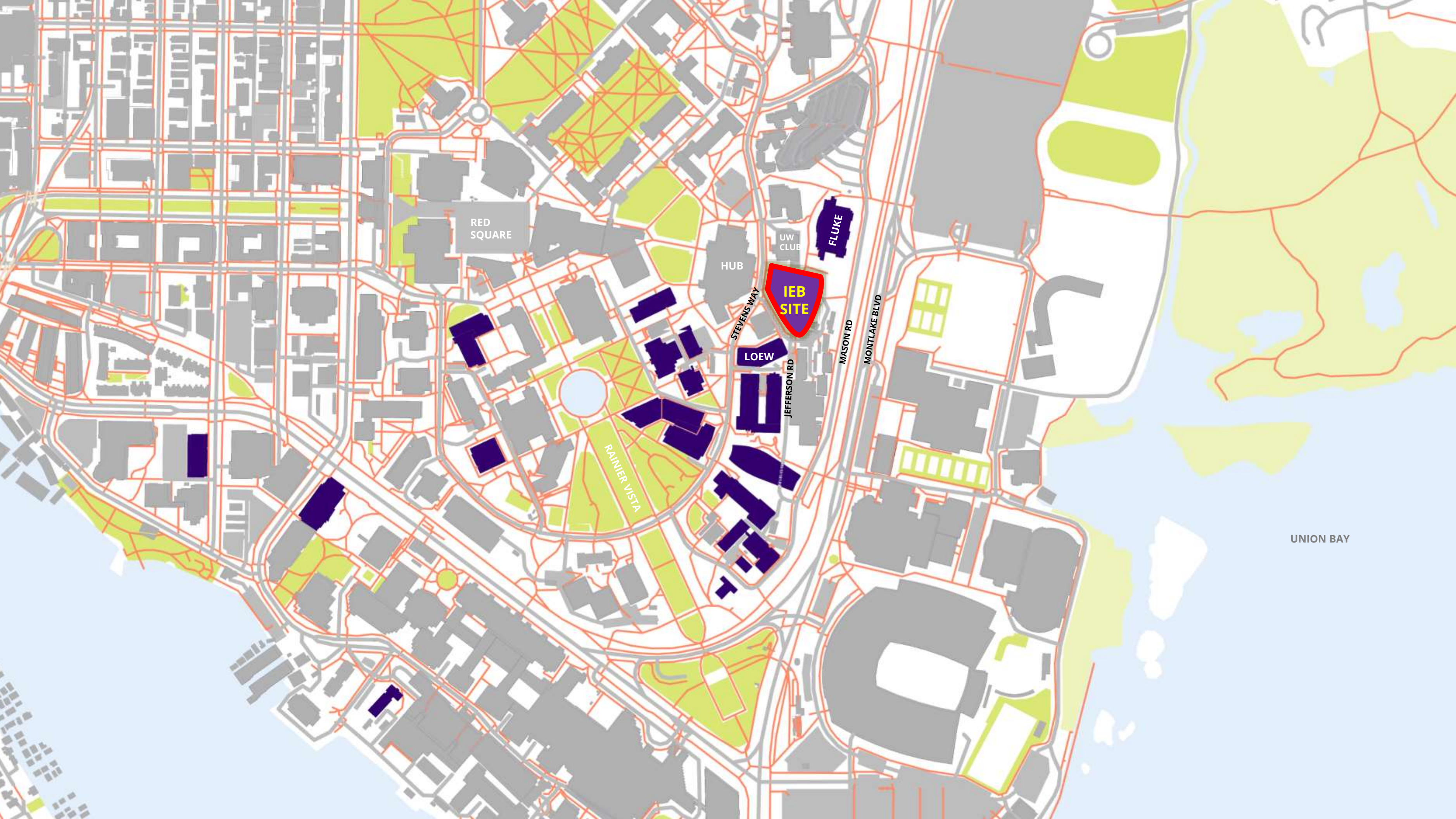


## STUDENT SUPPORT

5,500 ASF







RED SQUARE

HUB

UW CLUB

FLUKE

IEB SITE

LOEW

STEVENS WAY

JEFFERSON RD

MASON RD

MONTLAKE BLVD

RAINIER VISTA

UNION BAY









**OVERALL SITE PLAN**

UNIVERSITY OF WASHINGTON - INTERDISCIPLINARY ENGINEERING BUILDING

14 JUNE 2022 | © KIERANTIMBERLAKE | HENSEL PHELPS | PLACE



**HUSKY UNION BUILDING**

**STEVENS WAY**

**ANNEX 04**

**MASON RD**







CURRICULAR

CIRC.

CURRICULAR

CIRC.

PORCH

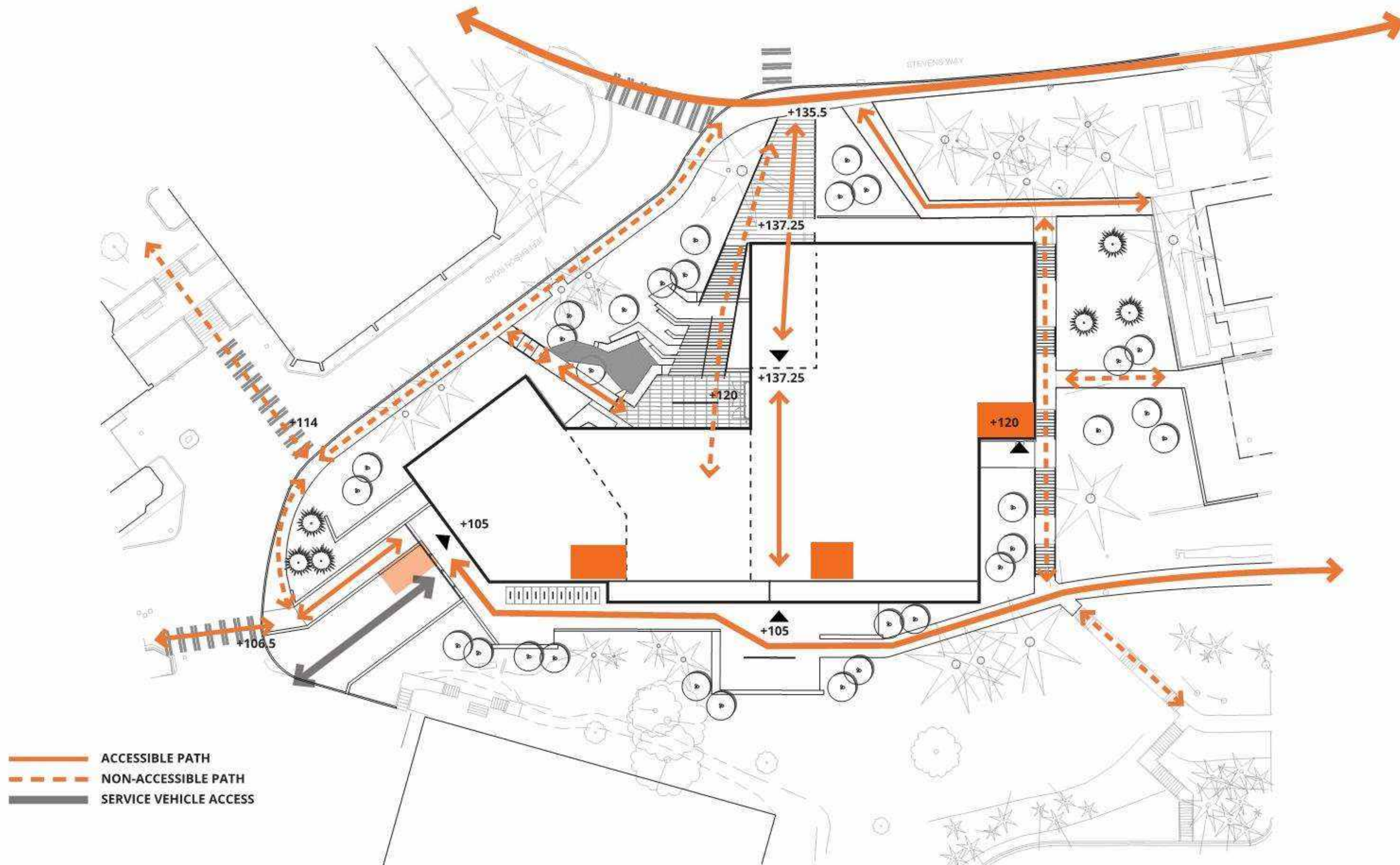
CIRC.

PORTAL

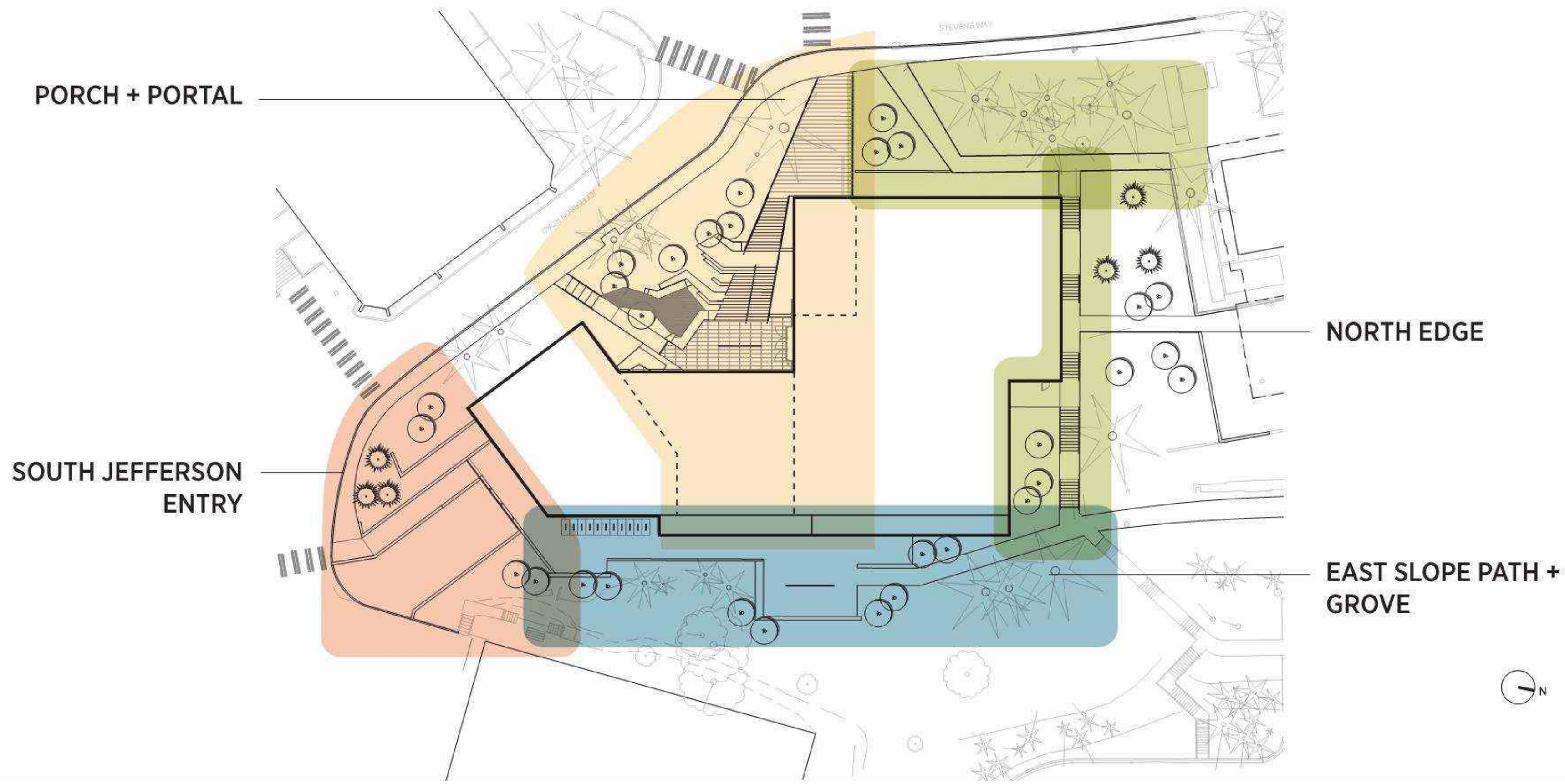
PROJECT SPACE

GROVE













**STEVENS ENTRY SEQUENCE**  
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**PORTAL DESIGN - JEFFERSON ENTRY (MAY 15, 3 PM)**  
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**CAMPUS OBSERVATIONS AND MATERIALS**

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**CAMPUS OBSERVATIONS AND MATERIALS**  
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**SITE OBSERVATIONS AND MATERIALS**  
UNIVERSITY OF WASHINGTON - INTERDISCIPLINARY ENGINEERING BUILDING







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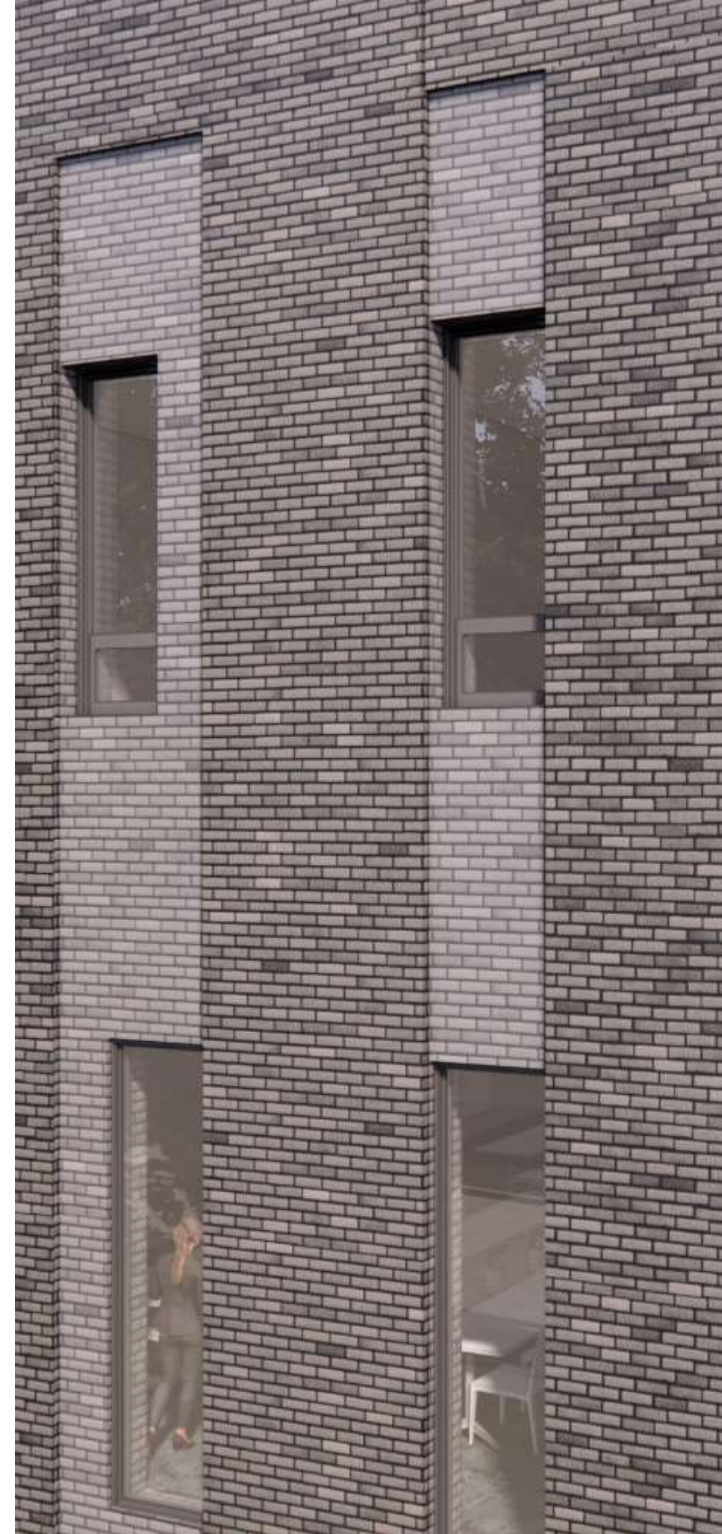
# ENVELOPE CONSTRAINTS





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# MASONRY DETAILING (ONGOING)





# MASONRY DETAILING (ONGOING)

## SOURCE AND COLOR



Classic Used  
Tumbled Used



Westport Used  
Tumbled Used

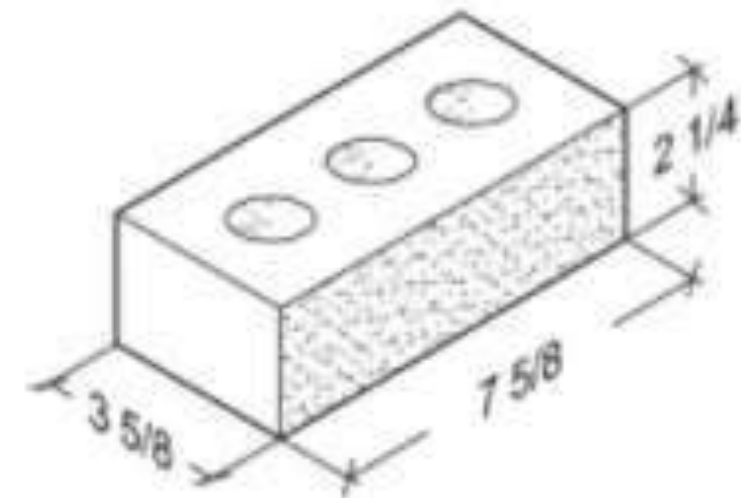


Midnight Sky

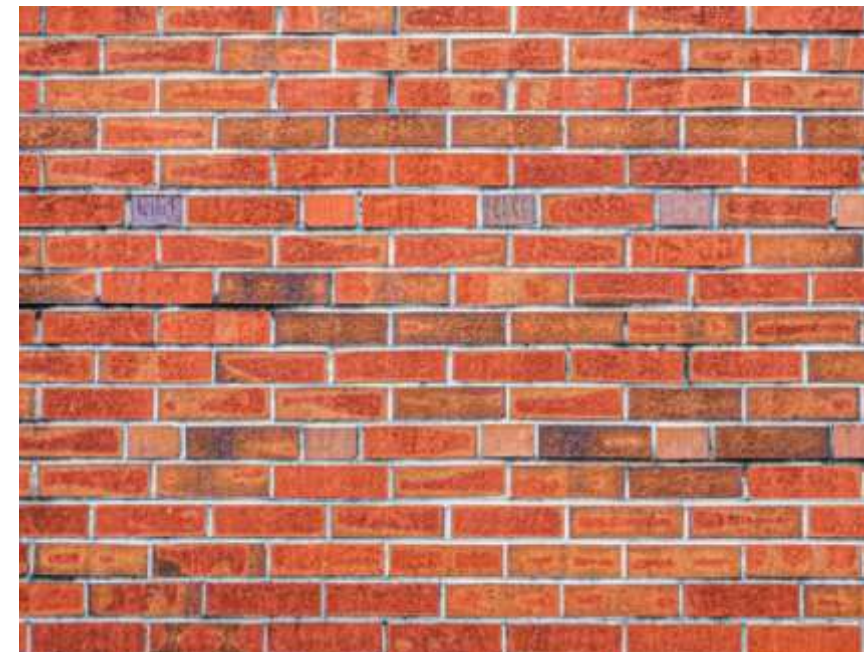


Mutual Used  
Tumbled Used

## DIMENSION



## COURSING



## CONSTRUCTABILITY AND CRAFT







VIEW FROM STEVENS WAY NORTH









VIEW FROM STEVENS WAY SOUTH





VIEW FROM MID SLOPE PATH





VIEW FROM MID SLOPE PATH



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# SUSTAINABLE DESIGN FEATURES

## OPERATIONAL CARBON

- ALL-ELECTRICAL, ZERO OPERATIONAL CARBON HVAC AND HOT WATER
- ON TRACK FOR 20% LIGHTING POWER DENSITY REDUCTION
- HIGH-EFFICIENCY BUILDING ENVELOPE @ 35% WWR
- ROOFTOP SOLAR ARRAY

## EMBODIED CARBON

- OPTIMIZATION FOR POST-TENSIONED CONCRETE STRUCTURE WITH CEMENT REPLACEMENT AND REBAR SOURCING
- MINIMUM EMBODIED CARBON PERFORMANCE REQUIREMENTS IN SPECIFICATION USING CLF DATABASE

## LIVING LAB

- INTEGRATION OF BUILDING IEQ, SEISMIC, AND STORMWATER METERING FOR COE CURRICULUM AND RESEARCH.

## WATER

- LOW-FLOW FIXTURES FOR 35-40% POTABLE WATER USE REDUCTION
- LANDSCAPE-INTEGRATED SWALES FOR NON-INFILTRATING BIO-RETENTION

## MATERIALS TRANSPARENCY

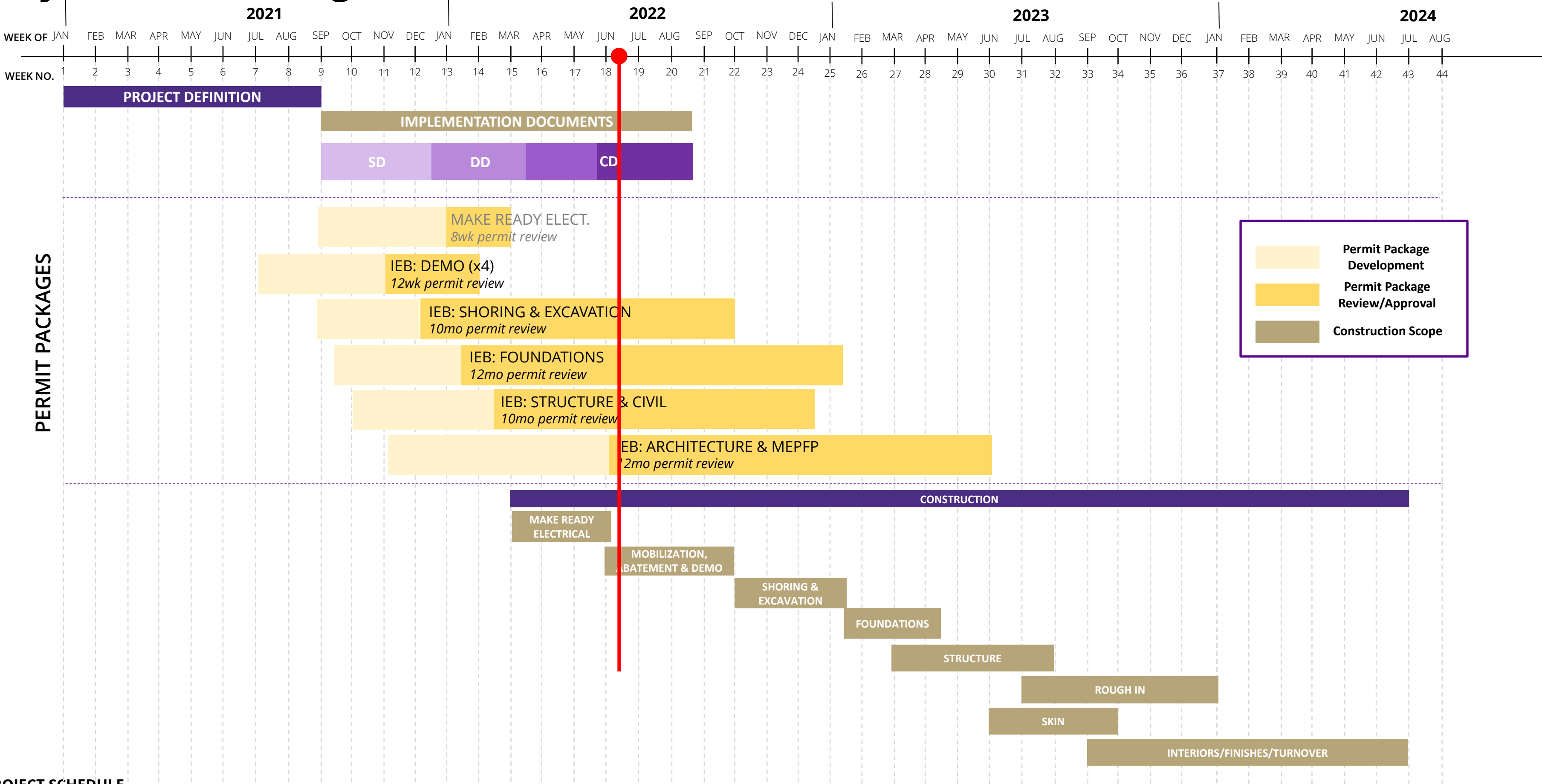
- ADOPTED POP HEALTH RED LIST PLAN TO ELIMINATE CHEMICALS OF CONCERN
- REQUIREMENTS FOR MATERIAL HEALTH DISCLOSURES WRITTEN INTO SPECIFICATIONS

## SUPPLY CHAIN EQUITY

- EARLY COORDINATION WITH SUPPLIERS TO IDENTIFY REQUIREMENTS TO MEET BUY CLEAN BUY FAIR



# Project & Permitting Schedule



**PROJECT SCHEDULE**



**END**