INTERDISCIPLINARY ENGINEERING BUILDING (IEB)
UNIVERSITY OF WASHINGTON

UWAC Meeting
14 March 2022
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
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 silo-free learning environment that students need to prepare for industry and entrepreneurial careers in collaboration with fellow students across campus.
NEXT STEPS – Agreed upon at January UWAC meeting

• Foundations & Structural permitting
• DD level design investigations of masonry/glazing envelope
• Articulation of operable windows within the fenestration
• Building exterior elements articulation
• Rooftop mechanical enclosure massing and material investigation
• Further design investigations of interiors
• Continued monitoring of market volatility and shelling strategies

NEXT MEETING

• UWAC – June 13th
UWAC Agenda

10 Min  Site Design
Progress Update

10 Min  Interior Design
Progress Update

6 Min   Envelope Design
Progress Update
SITE RESPONSE
UNIVERSITY OF WASHINGTON - INTERDISCIPLINARY ENGINEERING BUILDING
1. POTENTIAL CONVEYANCE
2. BIORETENTION
PORCH + PORTAL CONCEPT
UNIVERSITY OF WASHINGTON - INTERDISCIPLINARY ENGINEERING BUILDING
Hillside nooks
Jefferson entry
Portal terrace
Exceptional Douglas Fir
Stevens Way arrival bridge
Community porch
Portal plaza
PORTAL DESIGN – EAST OVERLOOK (MAY 15, 11 AM)
UNIVERSITY OF WASHINGTON - INTERDISCIPLINARY ENGINEERING BUILDING
PORCH + PORTAL

SOUTH JEFFERSON ENTRY

NORTH EDGE

EAST SLOPE PATH + GROVE
NORTH EDGE – MID SLOPE PATH
UNIVERSITY OF WASHINGTON – INTERDISCIPLINARY ENGINEERING BUILDING
entry bridge | light touch planking

guardrail character | enhance + disappear

handrails | clean detailing

connection pathways | visible edges

built in seating | warmth in materials

retaining walls | textural treatment

gathering plaza | accent finished concrete

terrace placemaking | sandset pavers
composition | native and adapted

shade loving groundcovers | deer + sword ferns

evergreen and fragrance | sarcococca

seasonal structure | yellow twig dogwood

woodland dappling | vine maple

midstory show | cornus mas

enhanced woodland grove | western red cedar

view framing | douglas fir
Interior Design

PROGRESS UPDATE
DETAILED INSIGHTS

Identifying space needs and requirements

UW GROUPS, COE FACULTY, STAFF & STUDENTS

SMALL GROUP MEETINGS
GOALS PER PROGRAM TYPE
CLASSROOMS
CURRICULAR SPACE
PROJECT SPACE
SOCIAL SPACE
ADVISING SPACE

ON-SITE SURVEYS
EXISTING AND EXEMPLARY SPACES AND ATTRIBUTES
SURVEY
REQUIREMENTS, EQUIP., FURNISHINGS PER SPACE TYPE

JUNE & JULY 2021

DETAILED INSIGHTS

01/12 – SITE & SHELL PROJECT WORK TEAM
01/19 – SITE & SHELL PROJECT WORK TEAM
01/20 – ELEVATOR DESIGN
01/26 – SITE & SHELL PROJECT WORK TEAM
01/26 – SITE ACCESSIBILITY & VEHICULAR ACCESS
01/27 – SUSTAINABILITY & “LIVING LAB”
01/28 – ACCESS CONTROL
02/09 – SITE & SHELL PROJECT WORK TEAM

02/09 – INTERIORS & MGMT PROJECT WORK TEAM
02/11 – ACCESS CONTROL
02/11 – SITE ACCESSIBILITY & VEHICULAR ACCESS
02/15 – ELEVATOR DESIGN

02/18 – DAN RATNER & DR. KAREN THOMAS-BROWN MEET WITH STUDENTS TO DISCUSS THE INTERIOR DESIGN APPROACH
02/16 - SITE & SHELL PROJECT WORK TEAM
02/22 – ENGINEERING ACADEMIC CENTER REVIEW
02/28 – ACCESS CONTROL

03/02 – INTERIORS & MGMT PROJECT WORK TEAM
03/09 – SITE & SHELL PROJECT WORK TEAM
Furniture Criteria

A1
- Easy to move / reconfigure
- Easy to store and swap for alternates
- Comfortable but not intended for extended stay
- Group focused

Program of Walls
Opportunities for Material Distinction

Acoustic Environment

A1
A2 // B1
B2 // C1
Scenarios

SCENARIO 1

SCENARIO 1A

SCENARIO 2

SCENARIO 3
ENVELOPE DESIGN

PROGRESS UPDATE
SITE OBSERVATIONS AND MATERIALS
UNIVERSITY OF WASHINGTON - INTERDISCIPLINARY ENGINEERING BUILDING
ENVELOPE CONSTRAINTS
MASONRY DETAILING
EXPLORING PATTERN AND TEXTURE

25%
5%
20%
10%
5%
10%
10%
25%
20%
25%

Ponderosa Pine Bark
Olympic National Forest
Forest on Dowsinh Land
Deodar Cedar Branches
Douglas Fir Tree
Ponderosa Pine Branches
Deodar Cedar Branches
Tree, Fir
INDIVIDUAL WINDOWS

TYPOLOGIES

UNIVERSITY OF WASHINGTON – INTERDISCIPLINARY ENGINEERING BUILDING
WINDOW Design Parameters

- Window Manufacturer
- Solar Exposure
- Ceilings
- Operability
- Placement (Inside)
- Aesthetic (Outside)
- Embodied Carbon
NEXT UWAC MEETING

June 13th