



Sustainable Design Exhibition Space

CEE 220B FINAL PRESENTATION

Pascal Flury

Agenda



Location



Design
Goals



Key Design
Features



Walkthrough

Building Location

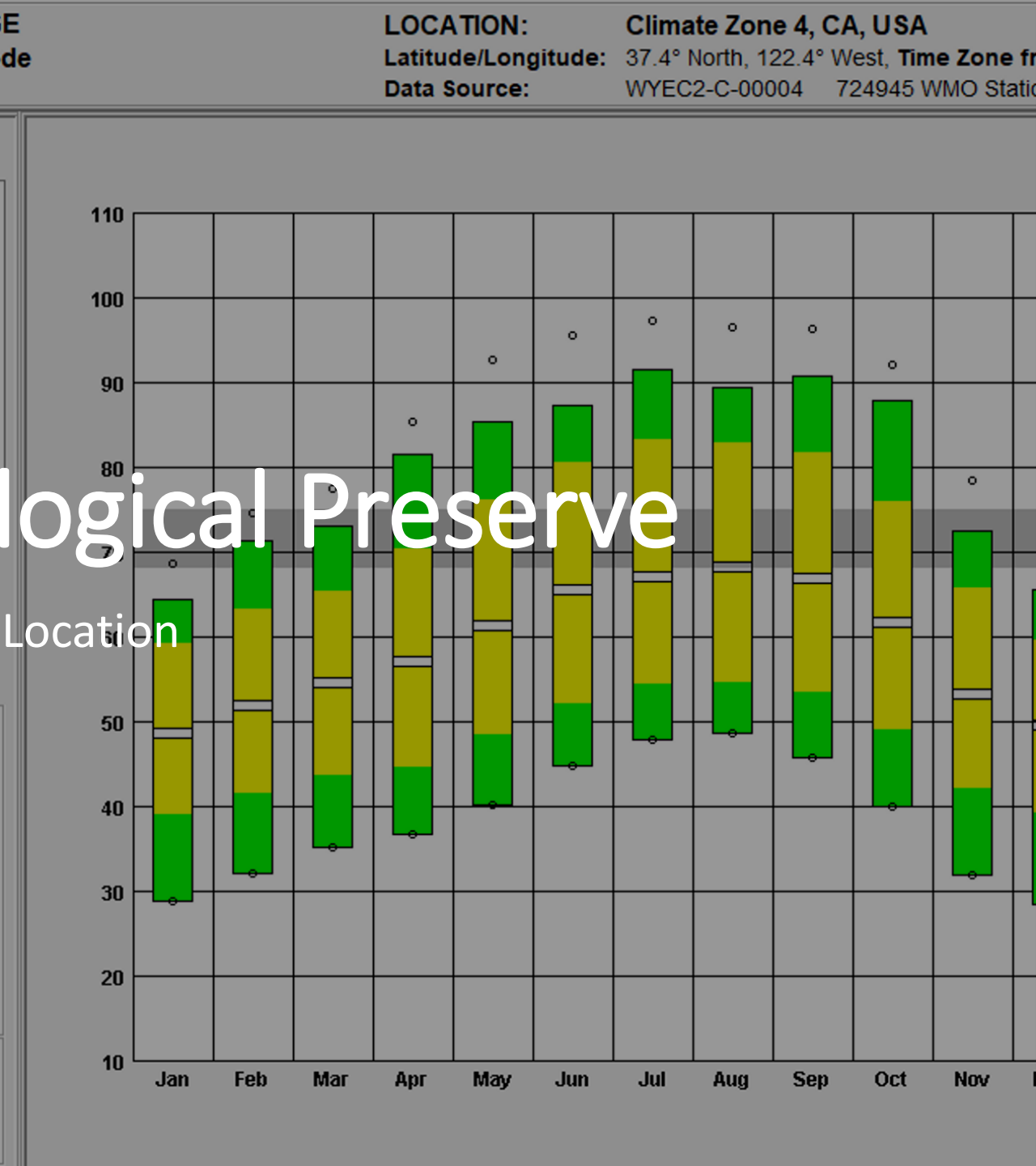
Project Context





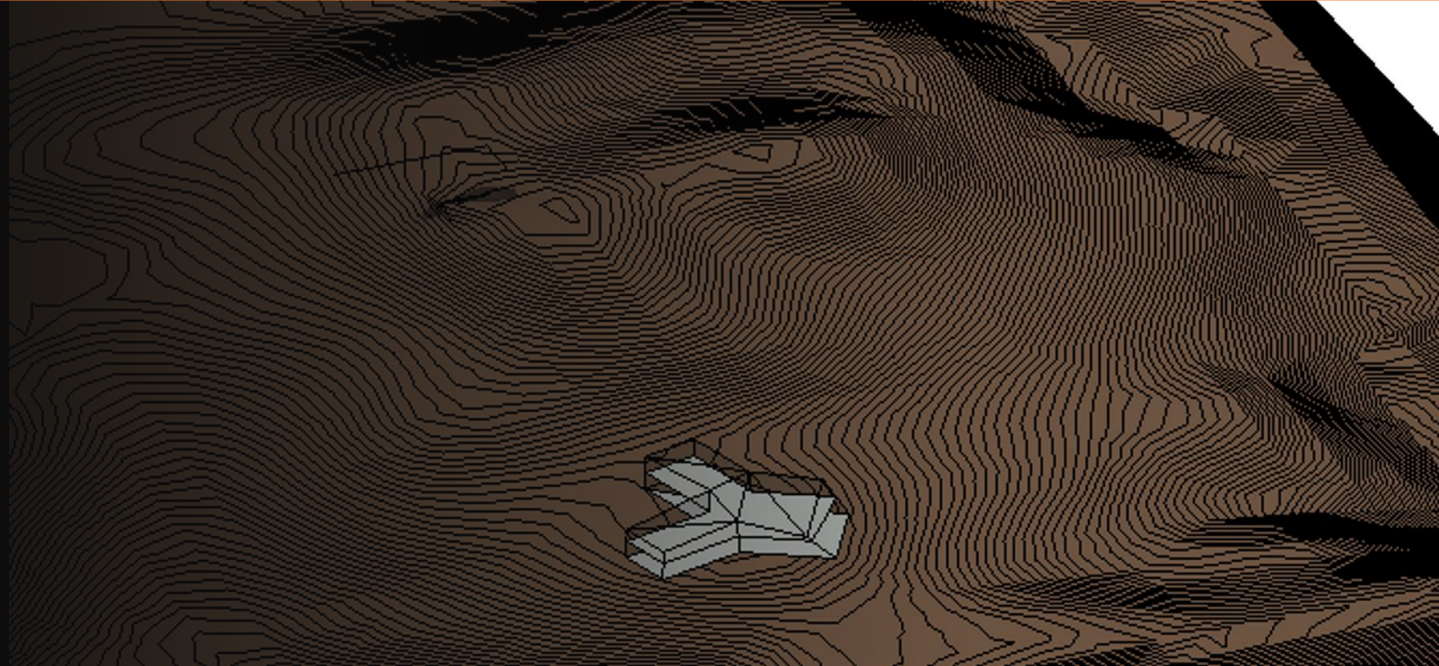
Jasper Ridge Biological Preserve

Building Location





Building Orientation & Topography



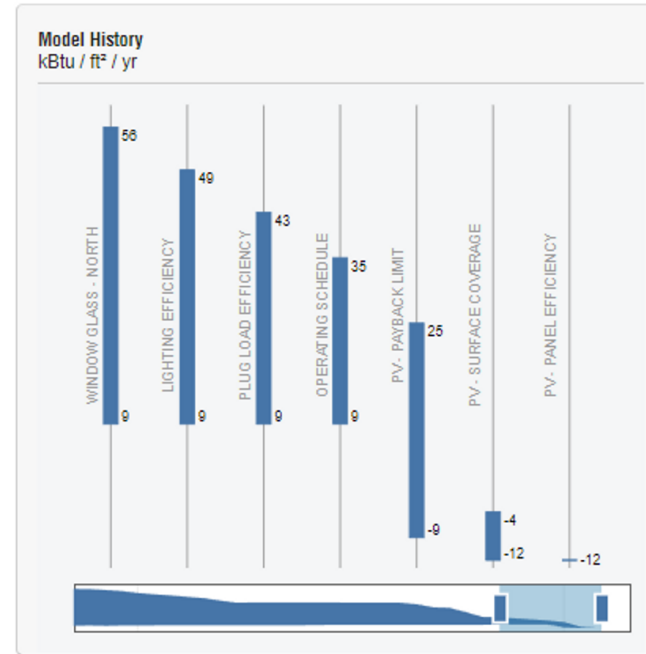
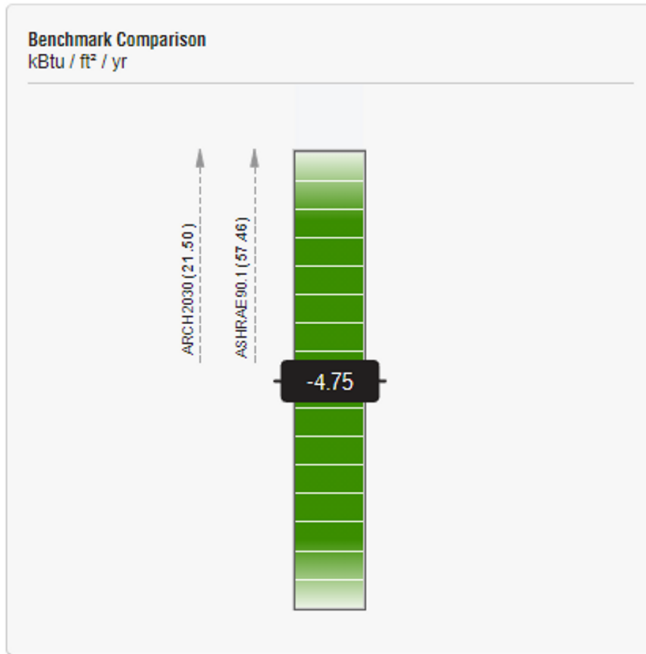
Key Design Goals

Project Context



Goal 1: Reducing Energy Use

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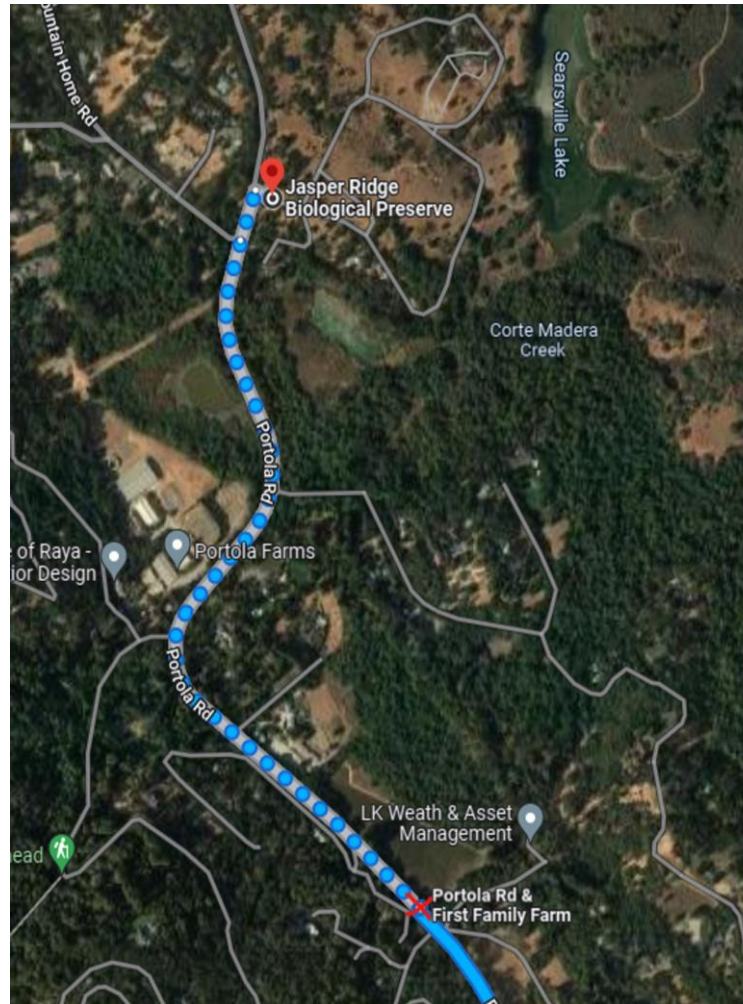
Goal 2: Sustainable Building Materials

- Prioritize timber structural elements like trusses and facades
- Minimize use of concrete
- If concrete is used, recycled fly ash should be utilized
- Prioritize recycled materials, like recycled steel
- Prioritize 'green' building materials (eg: Sheep Wool Insulation)

Goal 3: Green & Social Spaces

- Large Social Atrium
- Vegetated roof, provide habitat and promote biodiversity
- Re-use local soils (in-situ instead of importing where possible)
- Minimize Deforestation for Construction

Goal 4: Sustainable Transport

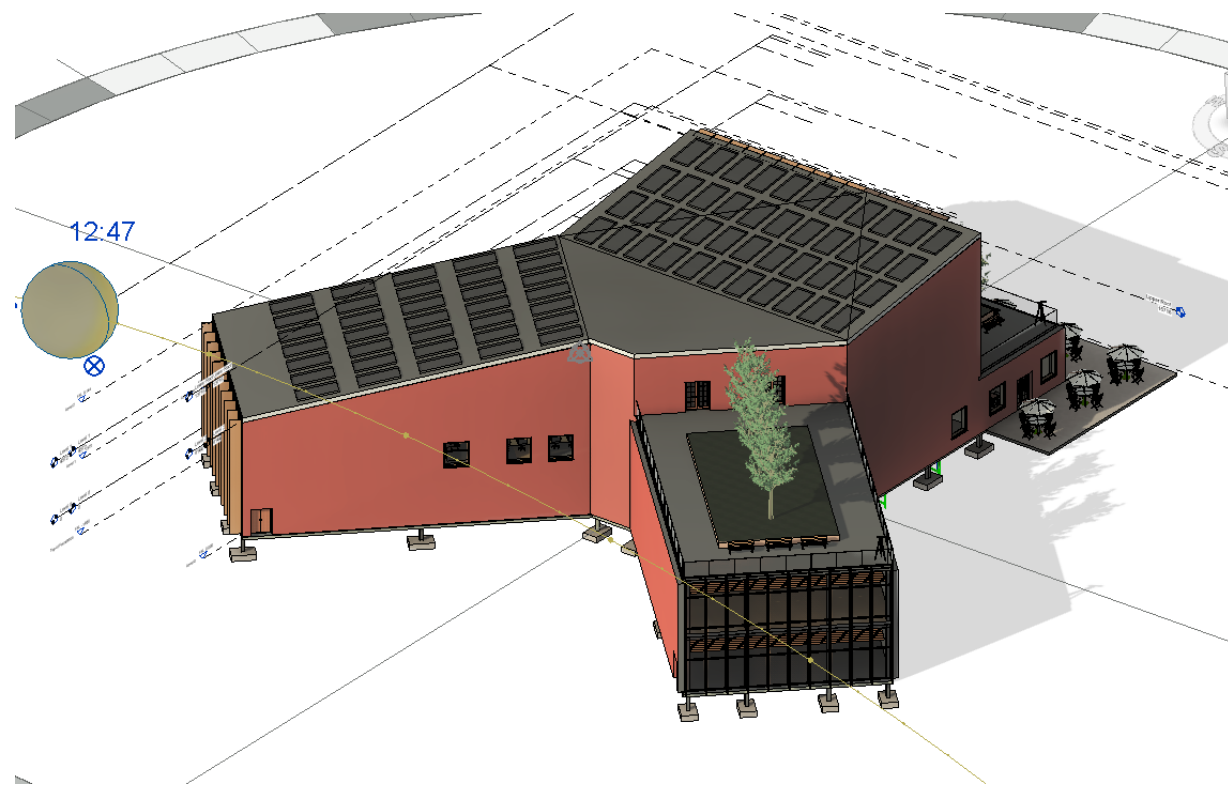
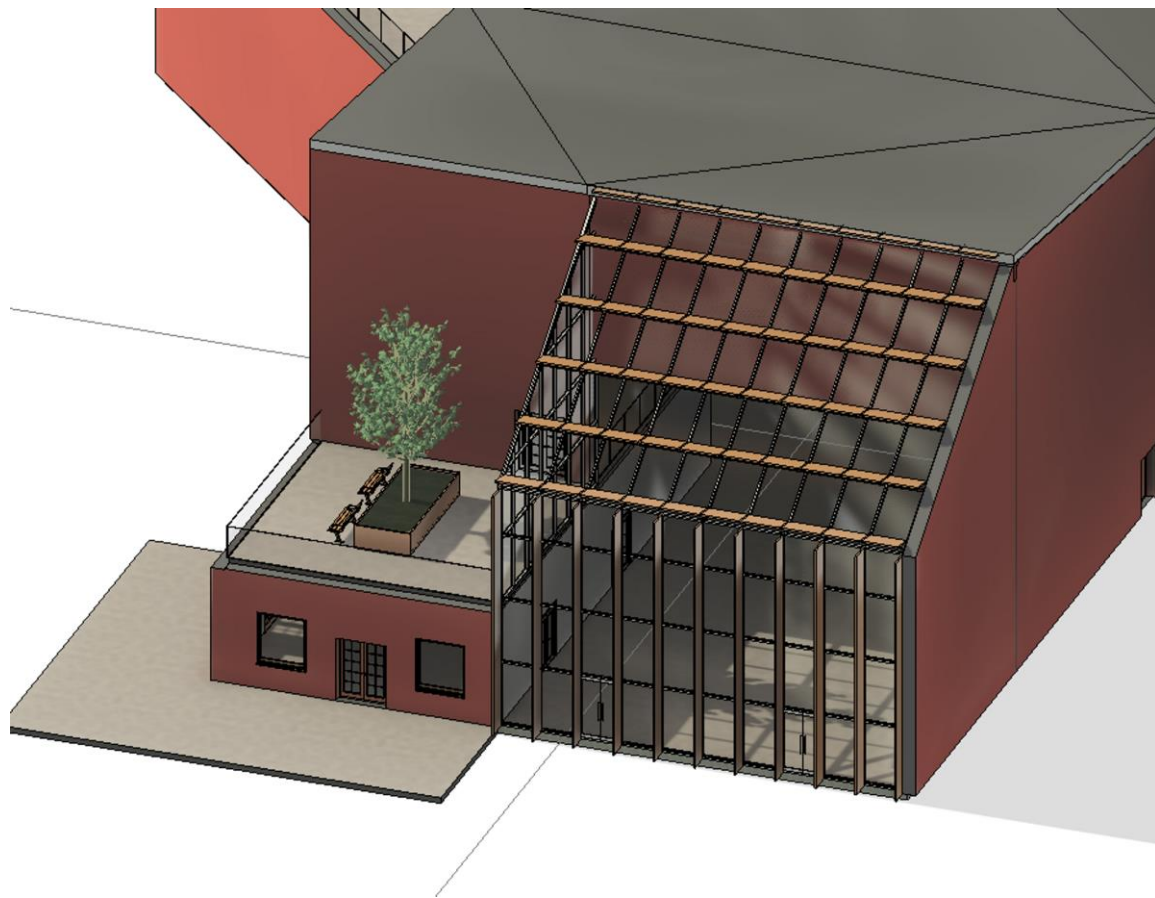


Building Walkthrough

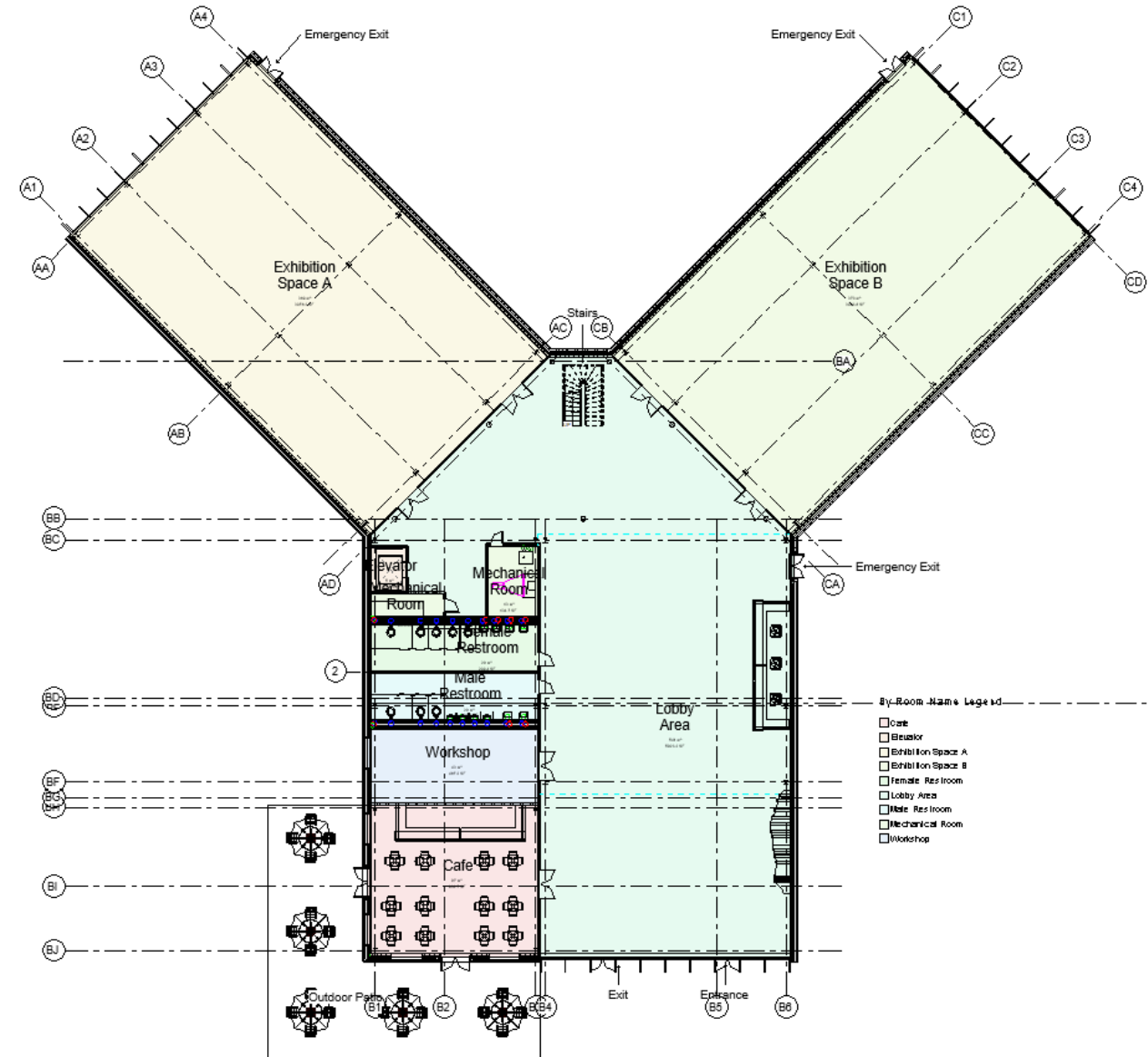
Floor Plan & First Person Render



Overview

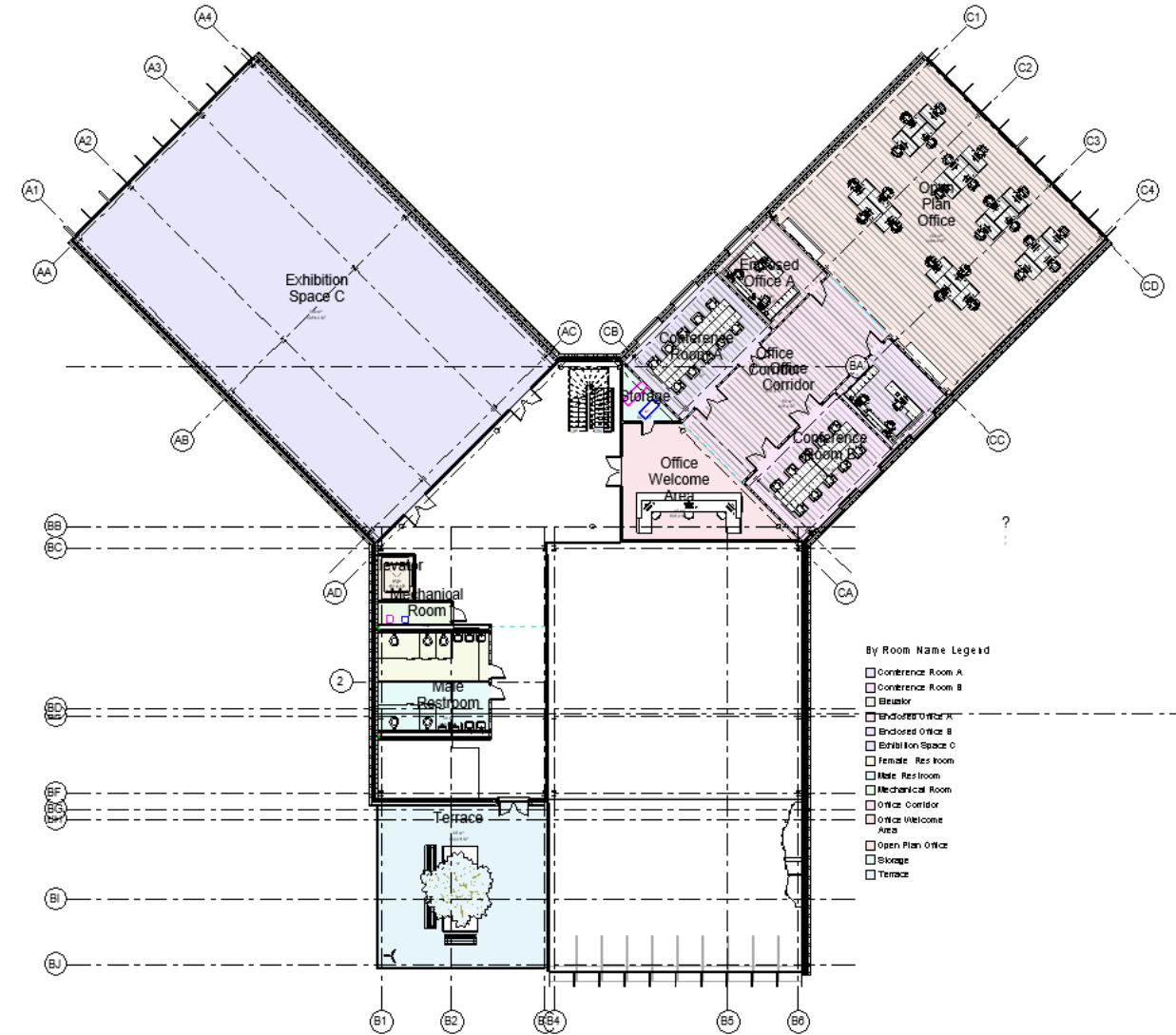


Ground Floor Plan View



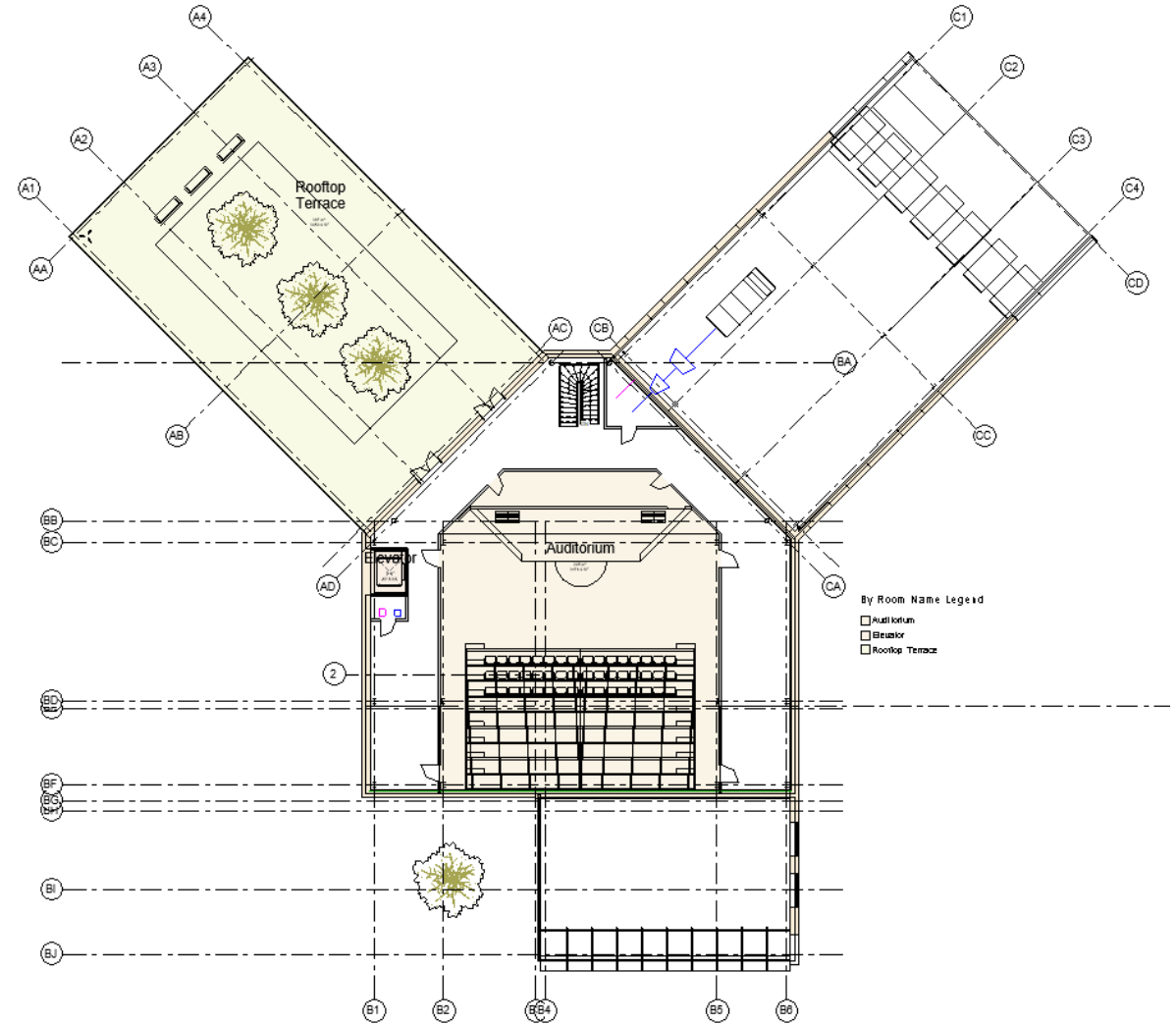
Ground Floor Walkthrough

First Floor Plan View



First Floor Walkthrough

Second Floor Plan View



Second Floor Walkthrough

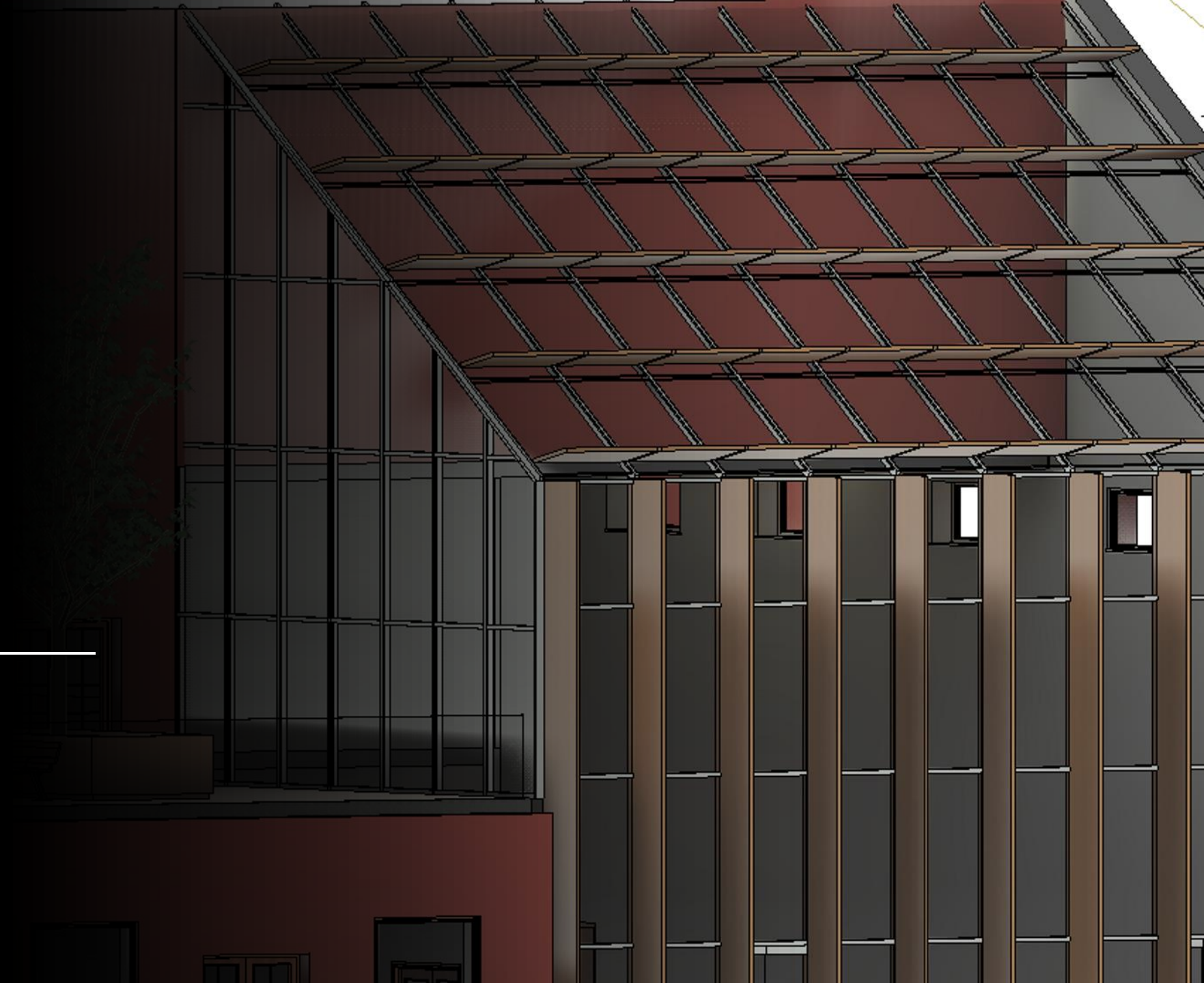
Key Design Features

Brief Outline





Atrium



Atrium – Cooling Concept

- Three Story Atrium
- Ventilated windows, 3 sides
- ‘Stack Effect’
- Natural Ventilation



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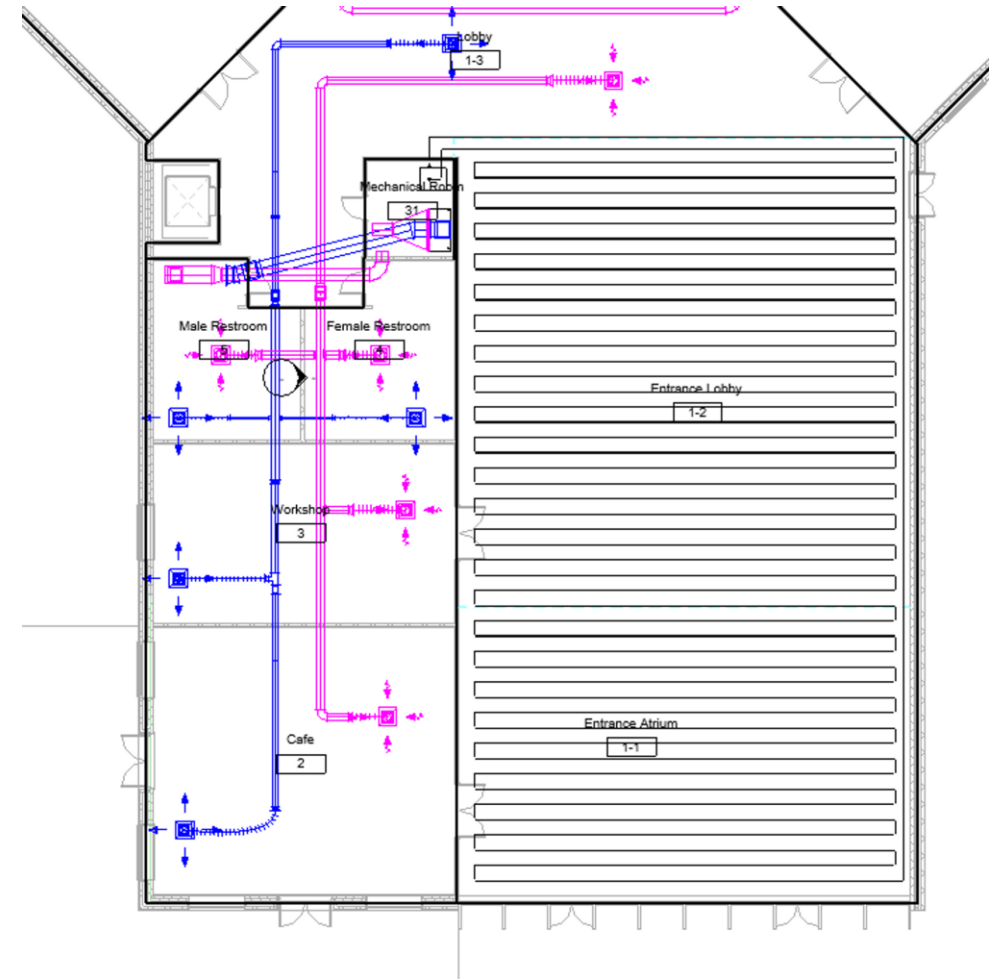
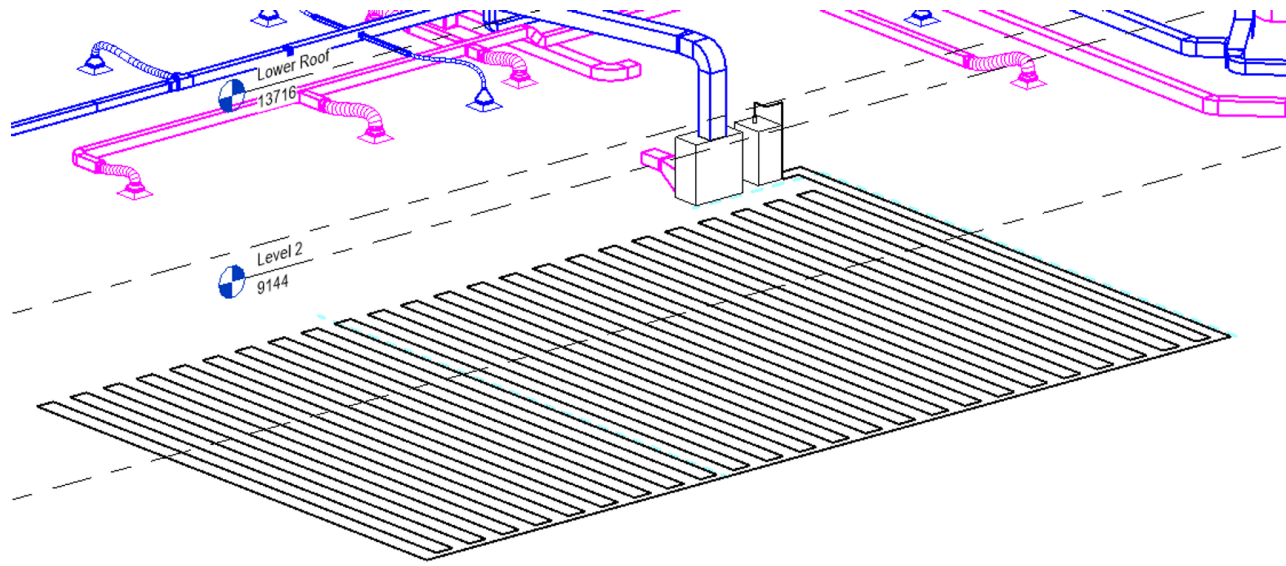




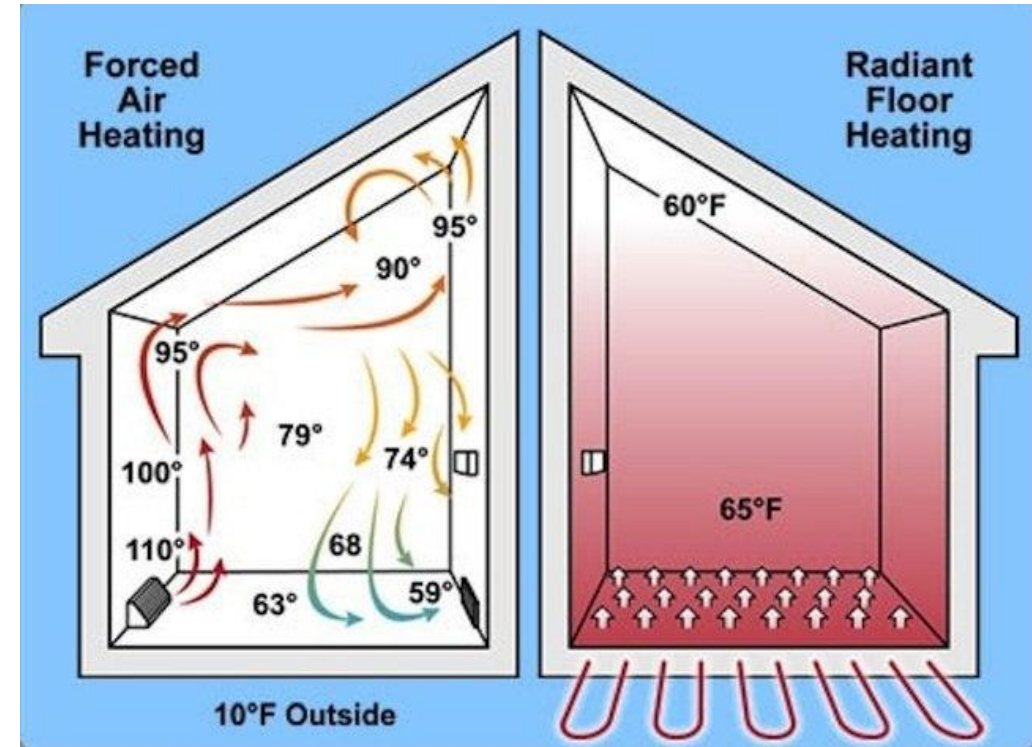
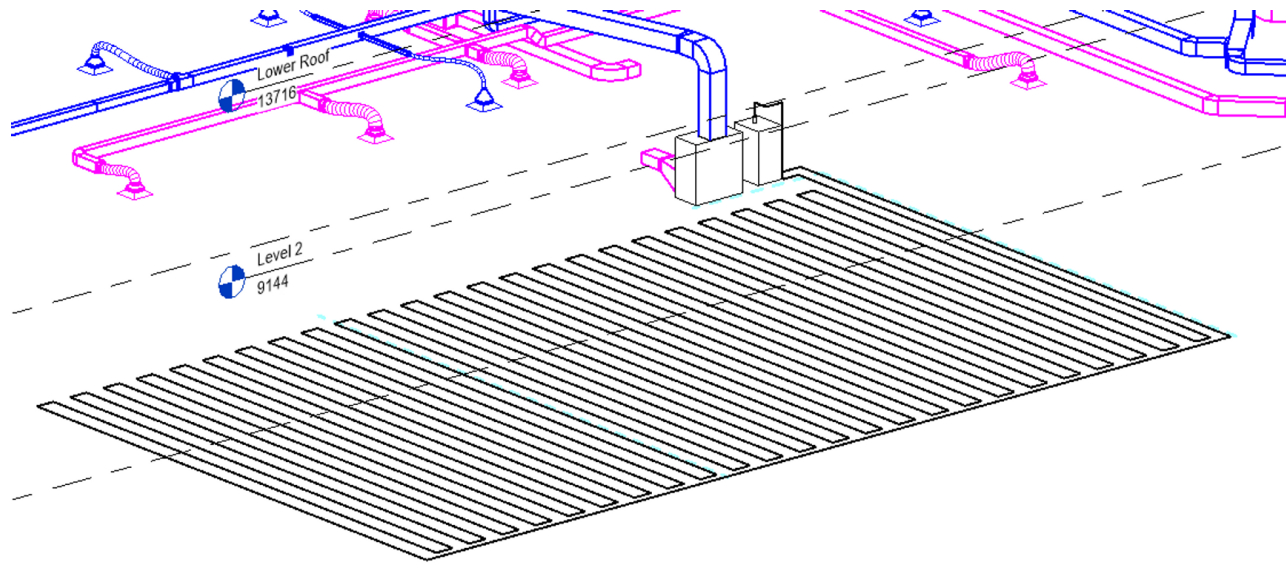
Radiant Floor Heating



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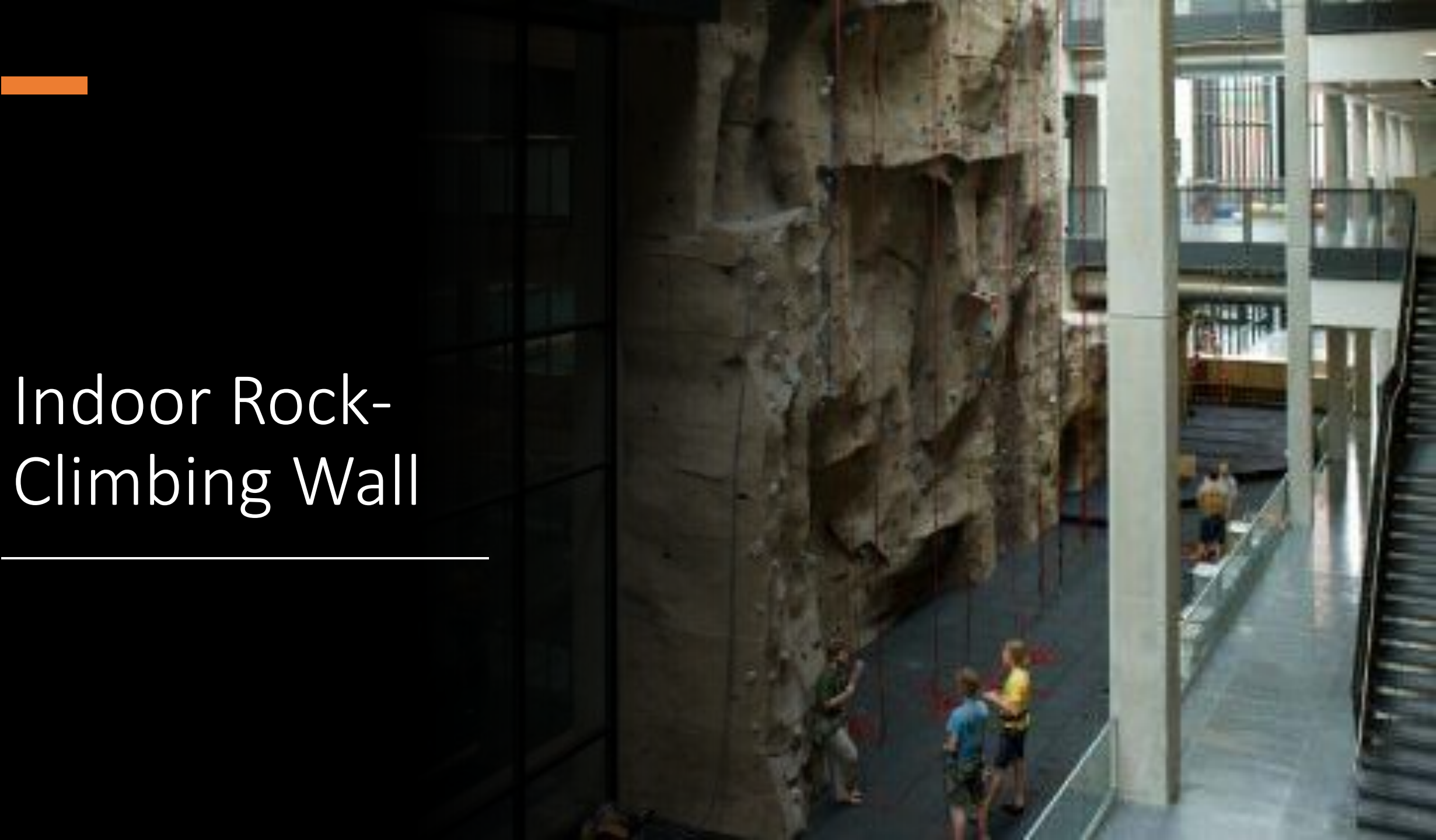


Radiant Floor Heating





Indoor Rock- Climbing Wall

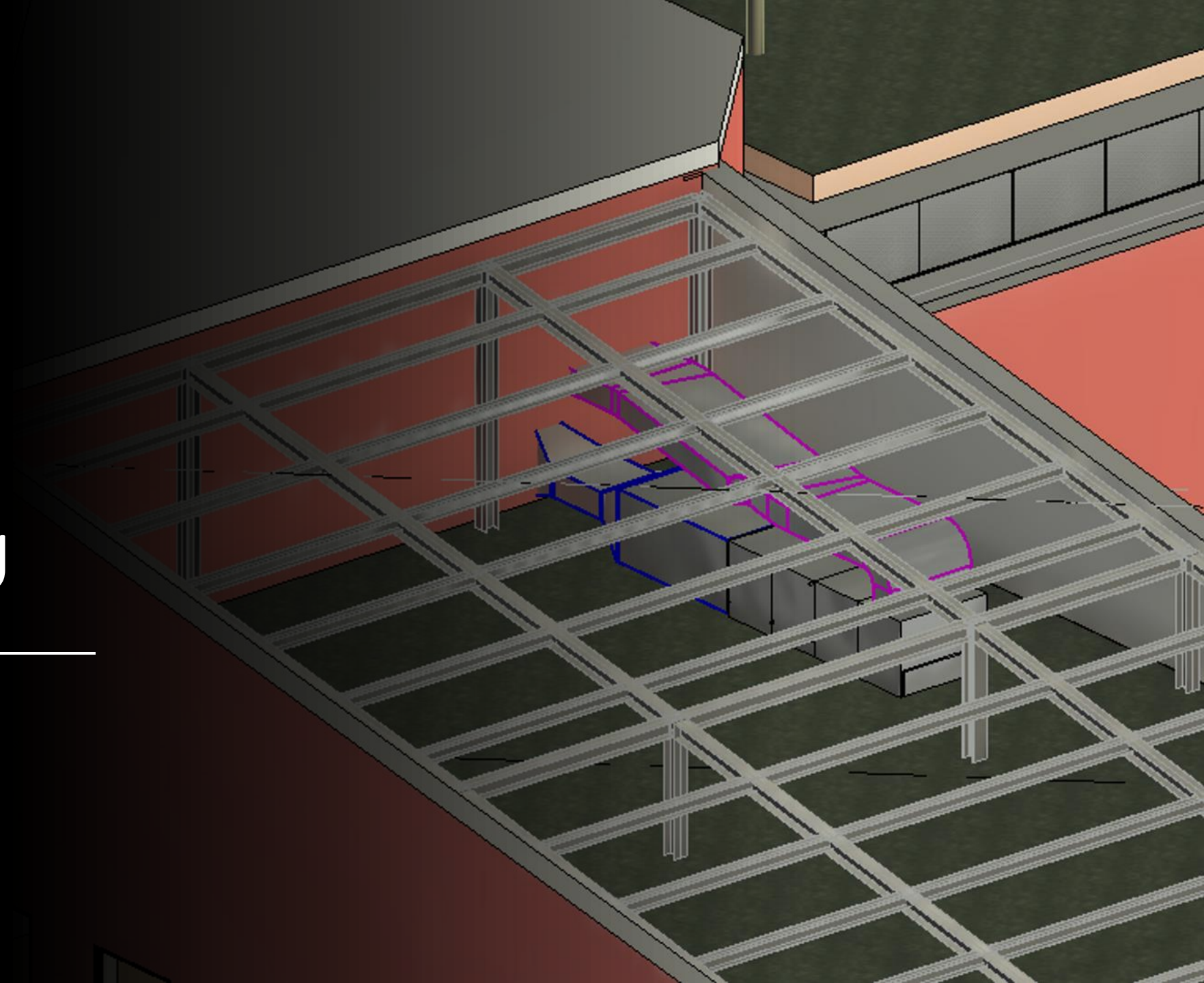


Indoor Rock-Climbing Wall



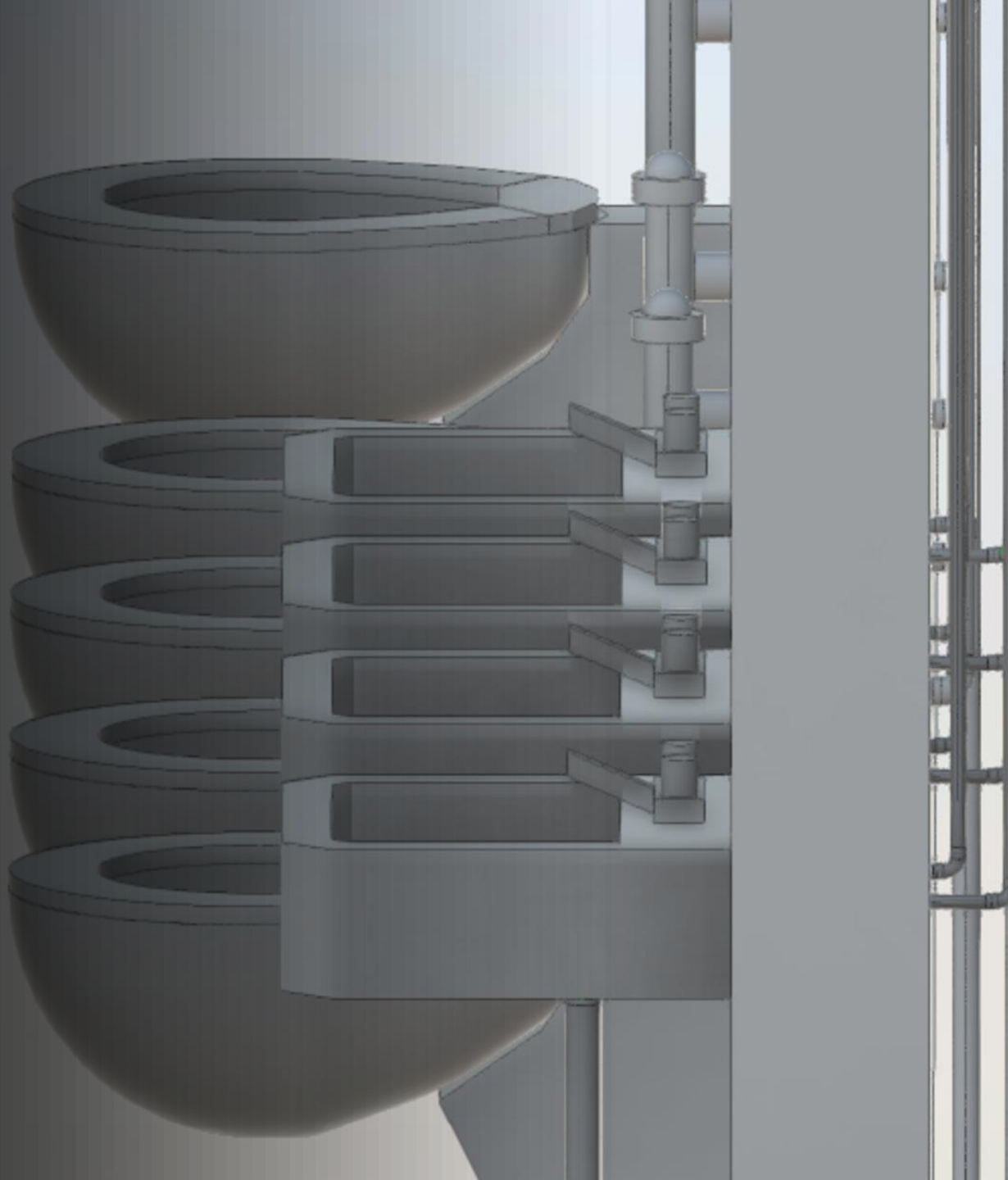


Sheltered Outdoor AHU





Plumbing System





Suspended Baffle Ceiling

Suspended Baffle Ceiling

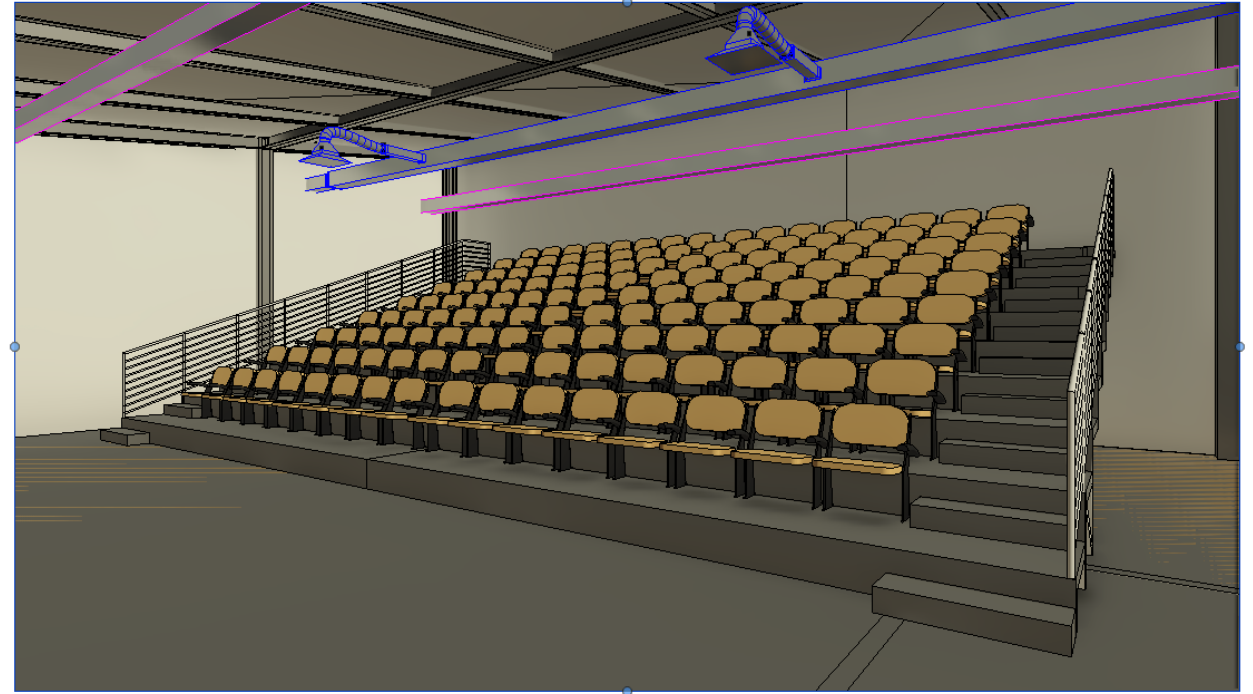




Auditorium



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THANK YOU

TO PROF. KATZ & THE TAs FOR YOUR SUPPORT AND GUIDANCE THROUGHOUT THE COURSE