

HUMAN ENGINEERING



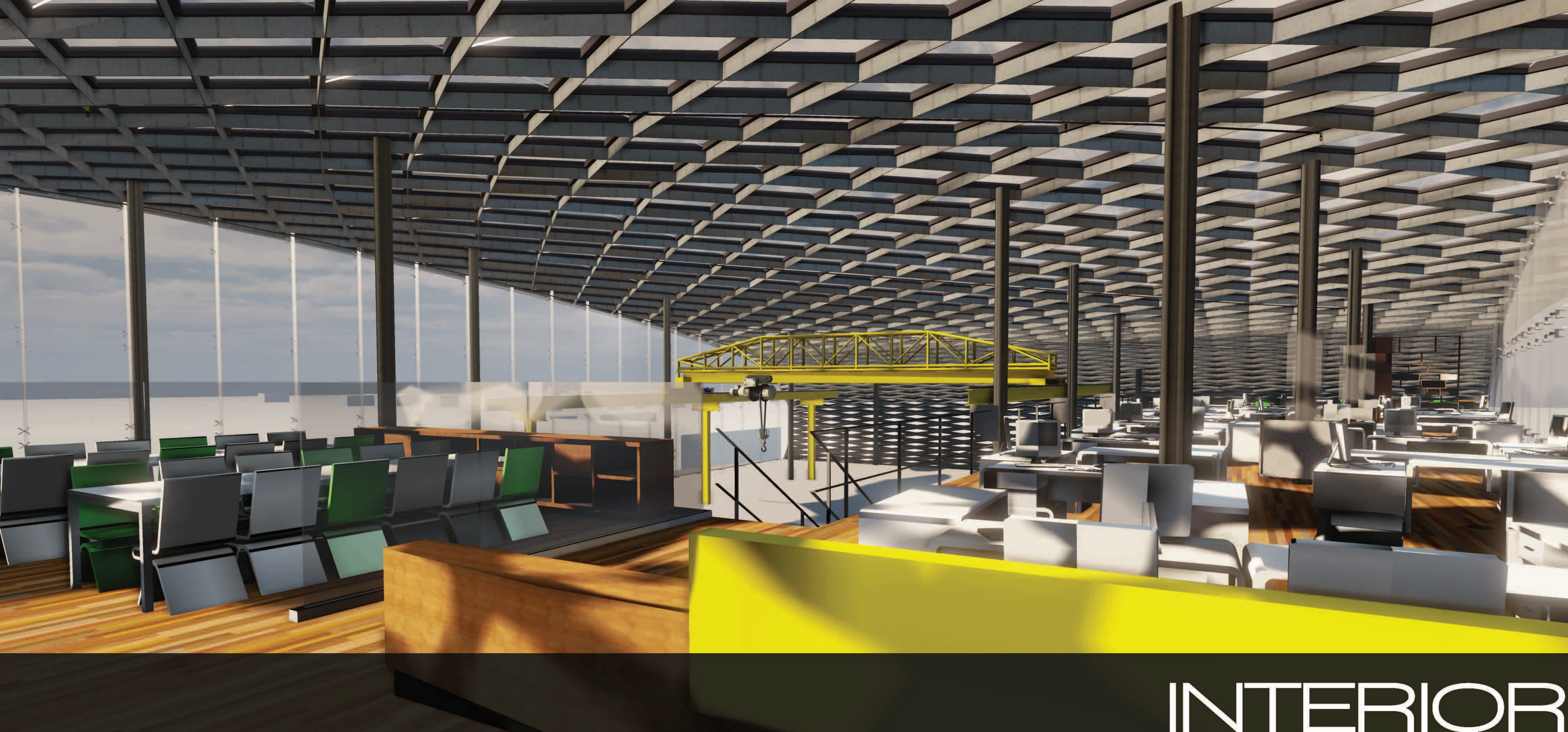
2nd Ave NW

15th St NW

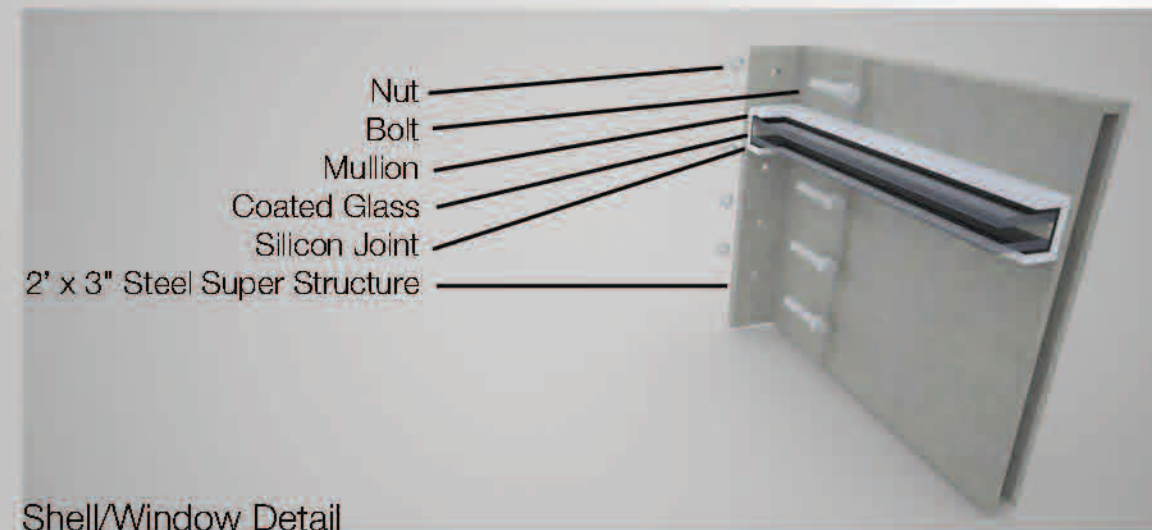
12th St NW

The Human Engineering building is sandwiched between Caterpillar's original building and the expansion building in West Fargo. The expansion building was created for the purpose of recycling steel which the research and development facility would use for its super structure. The facility is connected to both of the Caterpillar buildings with a long corridor. The expansion building is the only one with a freight elevator to get materials into the research and development facility.

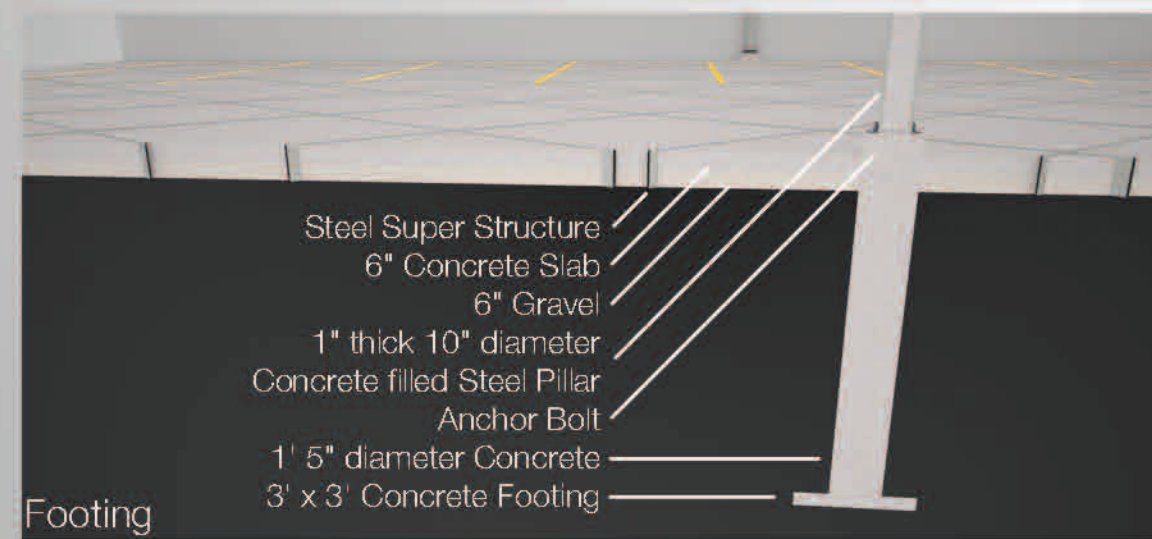
SITE



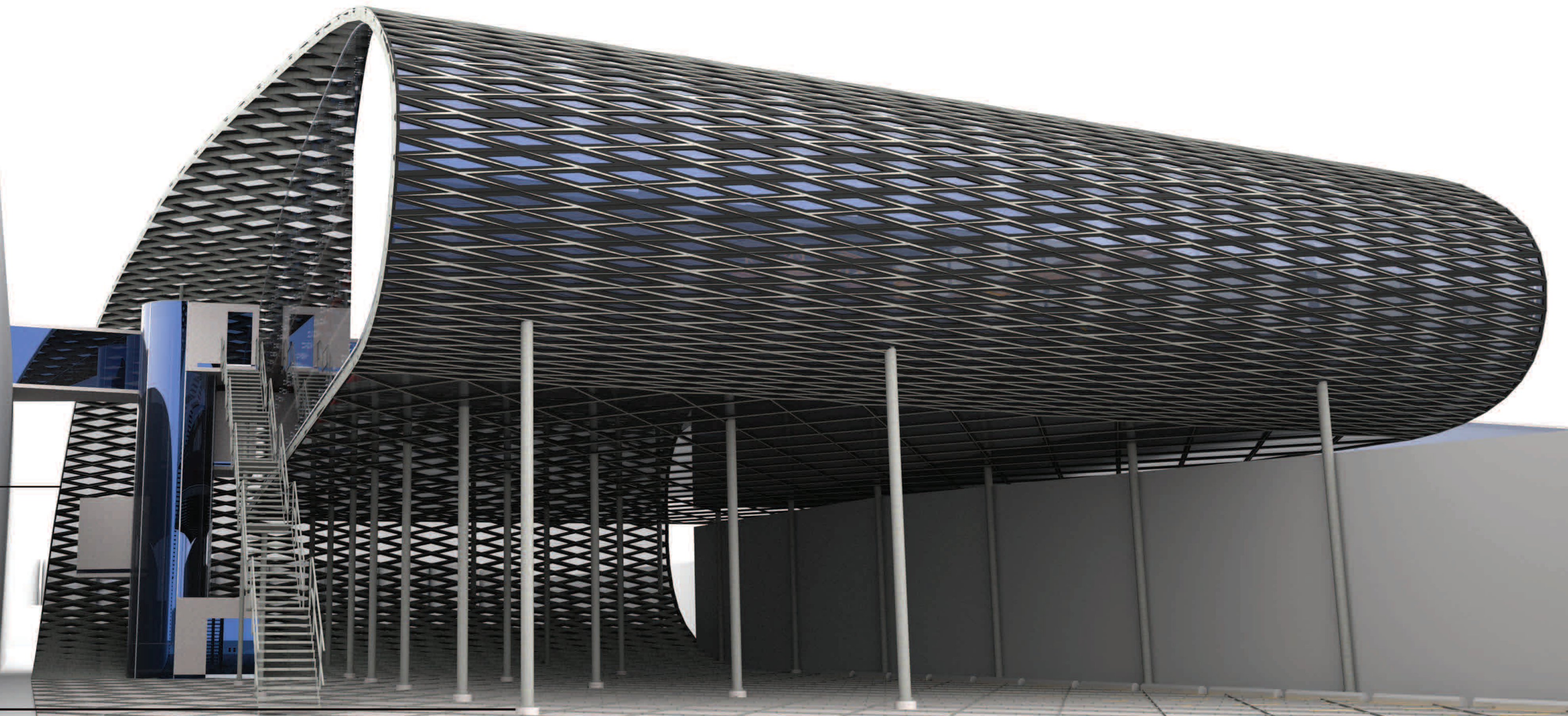
INTERIOR



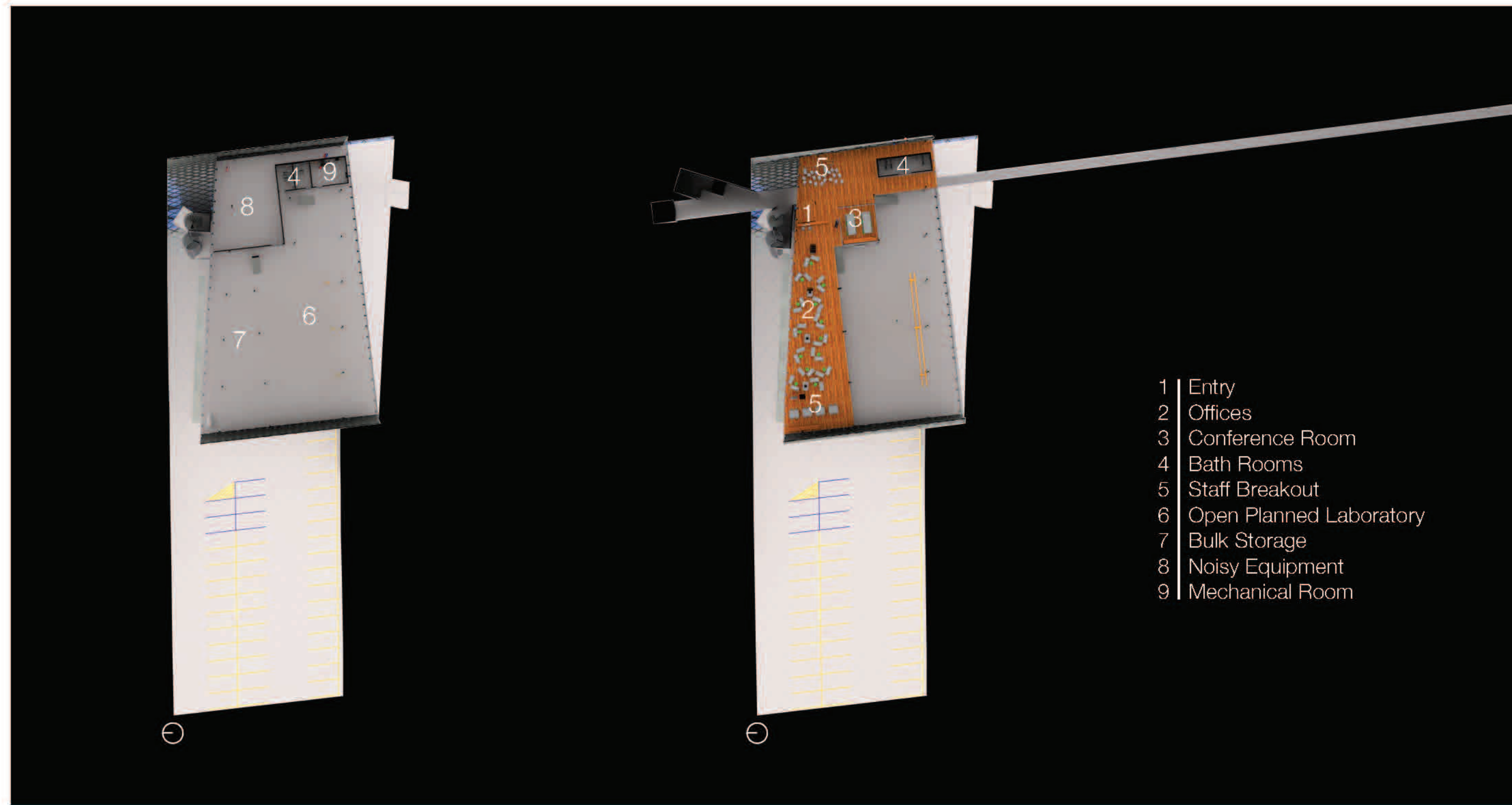
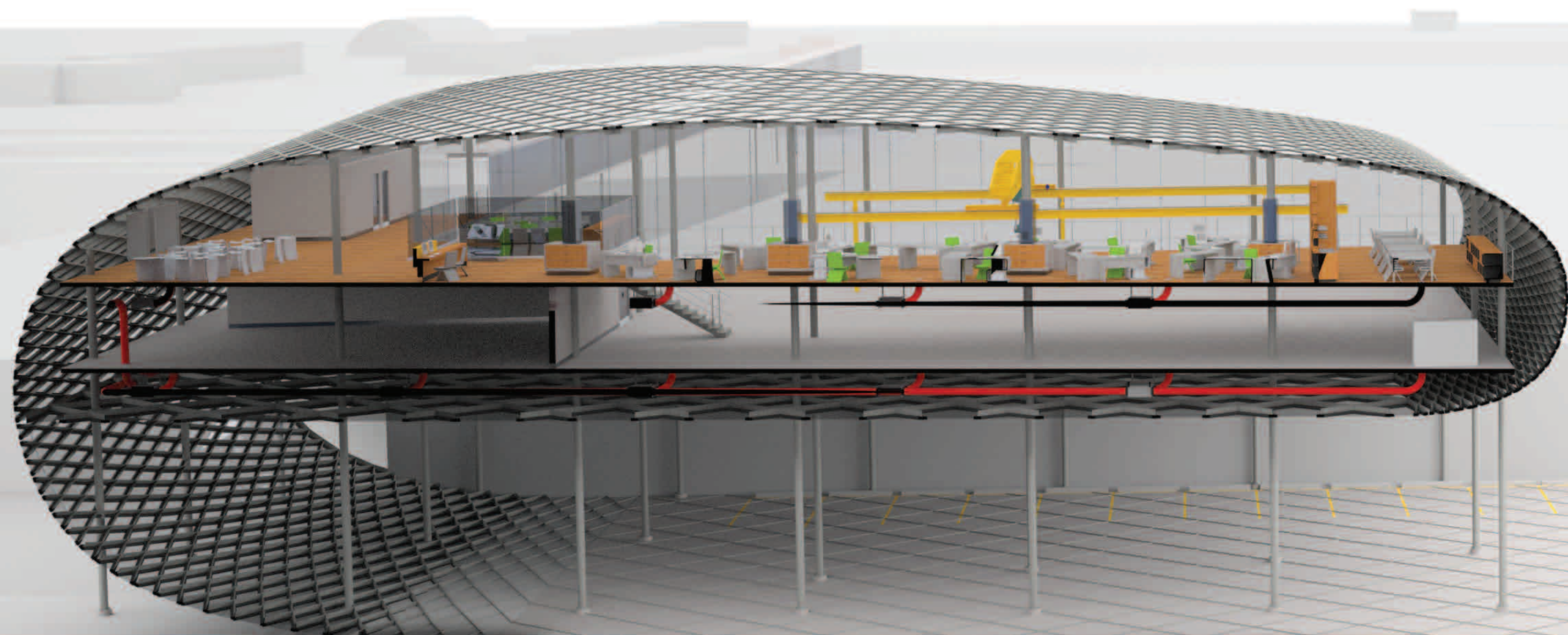
Shell/Window Detail



Footing



ENTRANCE



- 1 | Entry
- 2 | Offices
- 3 | Conference Room
- 4 | Bath Rooms
- 5 | Staff Breakout
- 6 | Open Planned Laboratory
- 7 | Bulk Storage
- 8 | Noisy Equipment
- 9 | Mechanical Room

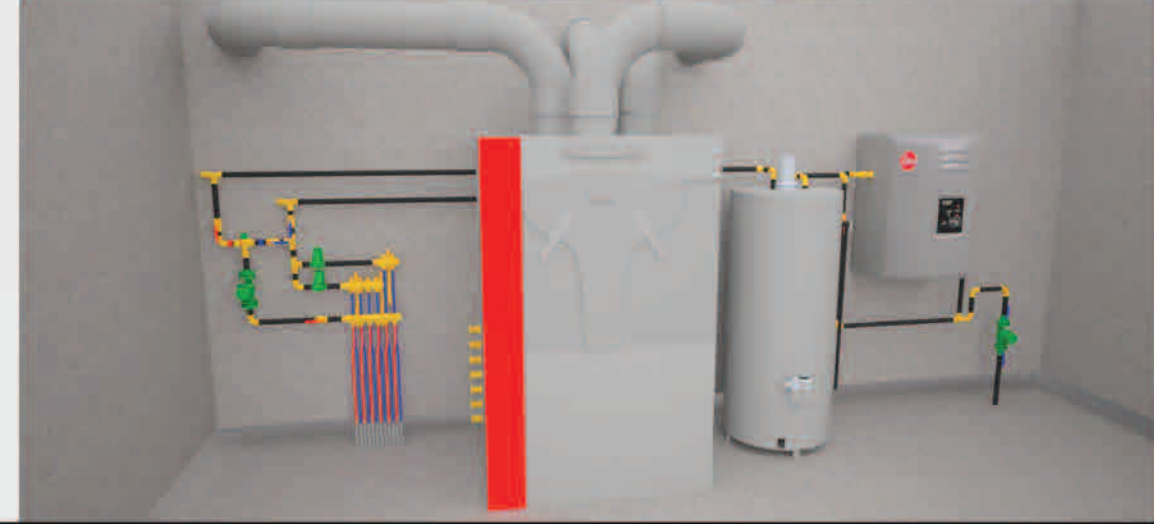
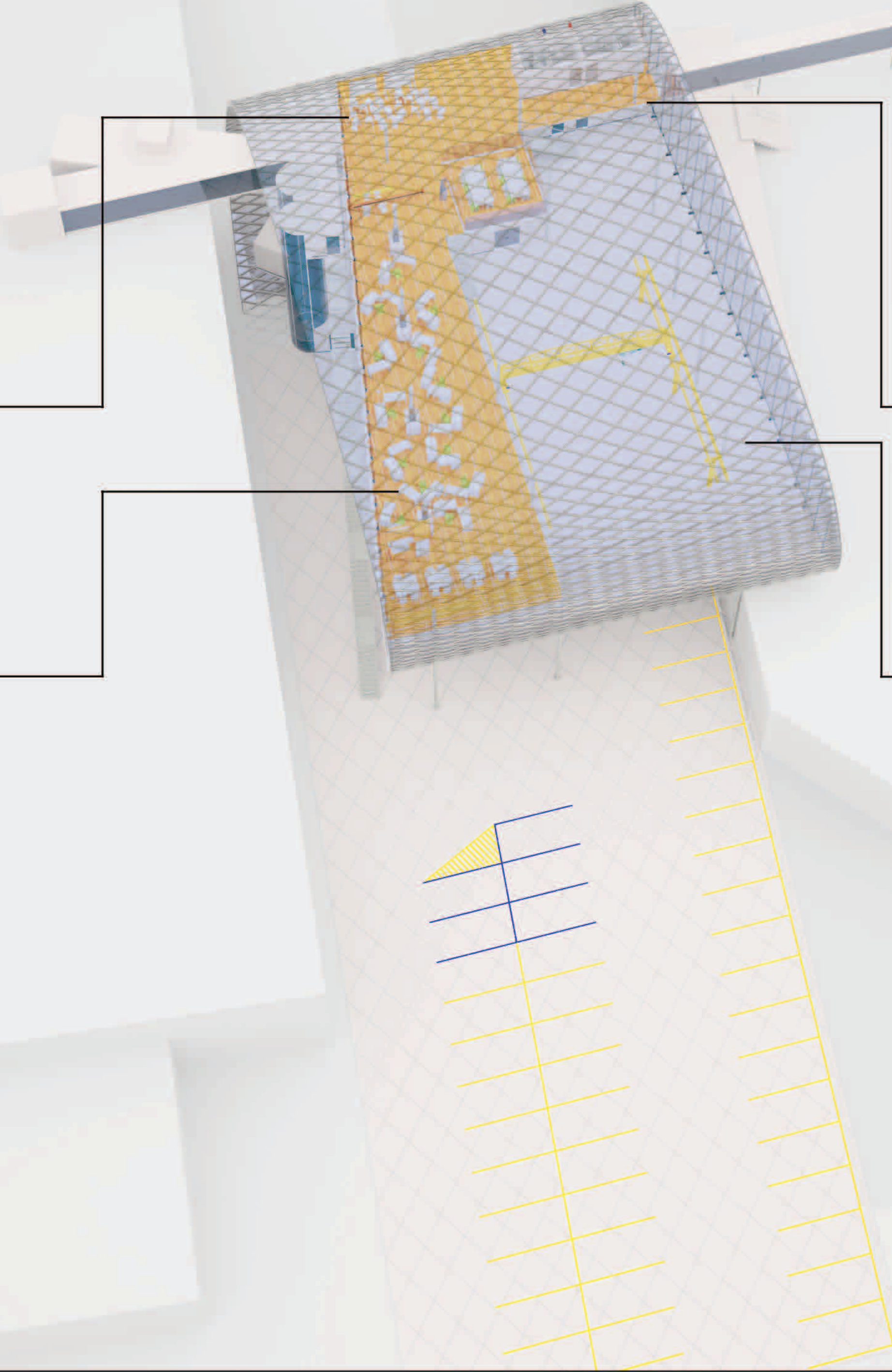
Staff Breakout

The staff breakout space is used for gathering the researchers together and brainstorming new and/or improving on projects. One of the strategies to encourage alertness and critical thinking that I am applying is the use of stools. With chairs people feel more comfortable to lean back and take a passive approach to critiquing, while an upright position keeps one alert and engaged.



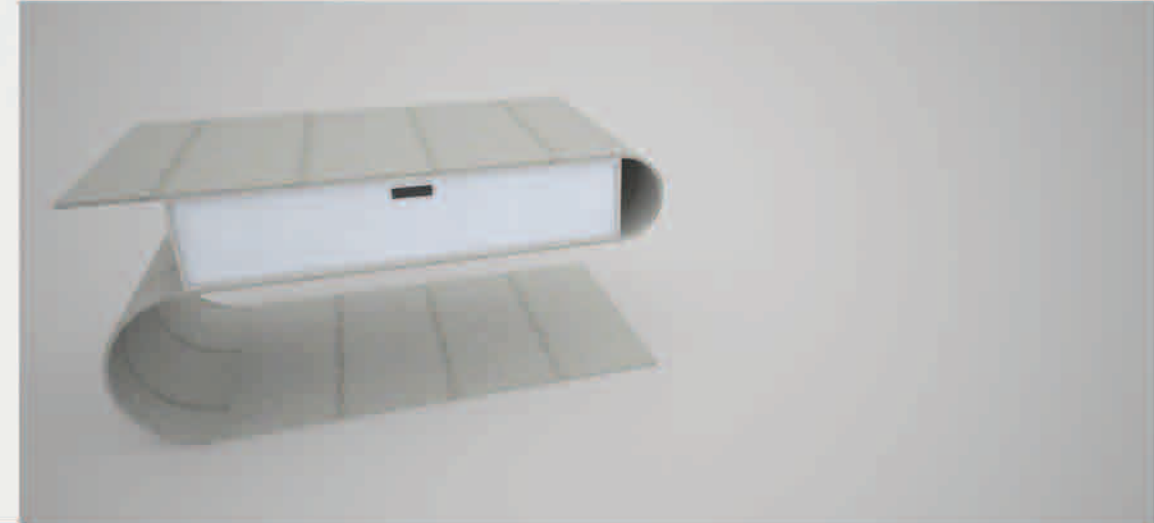
Office Space

The researcher's office space is an open space, without walls or office cubicles to encourage productivity and the ease of flexibility. Walls often stagnates innovation, separating the workers from one another. While with open floor plan the researchers have access to one another and it promotes creativity. Being able to see others' design work encourages stimulation of one's own mind furthering their abilities. This allows the workers to work as a team as well as on their own.



Mechanical Room

In the mechanical room there is a heat recovery ventilation unit, an instant water heater, and a radiant heated floor system. The heat recovery ventilation unit is always ventilating fresh tempered air throughout the facility, this system allows the building to have the freshest air possible. Since most the flooring in the building is concrete it make a great choice for a radiant heated floor system since it is a very good thermal mass.



Work Bench

Since the building is a research facility projects will come and go therefore the building is designed so that it can accommodate all sorts of different projects. Module units have been incorporated into this design as to accommodate multiple projects and offer more space to the workers.