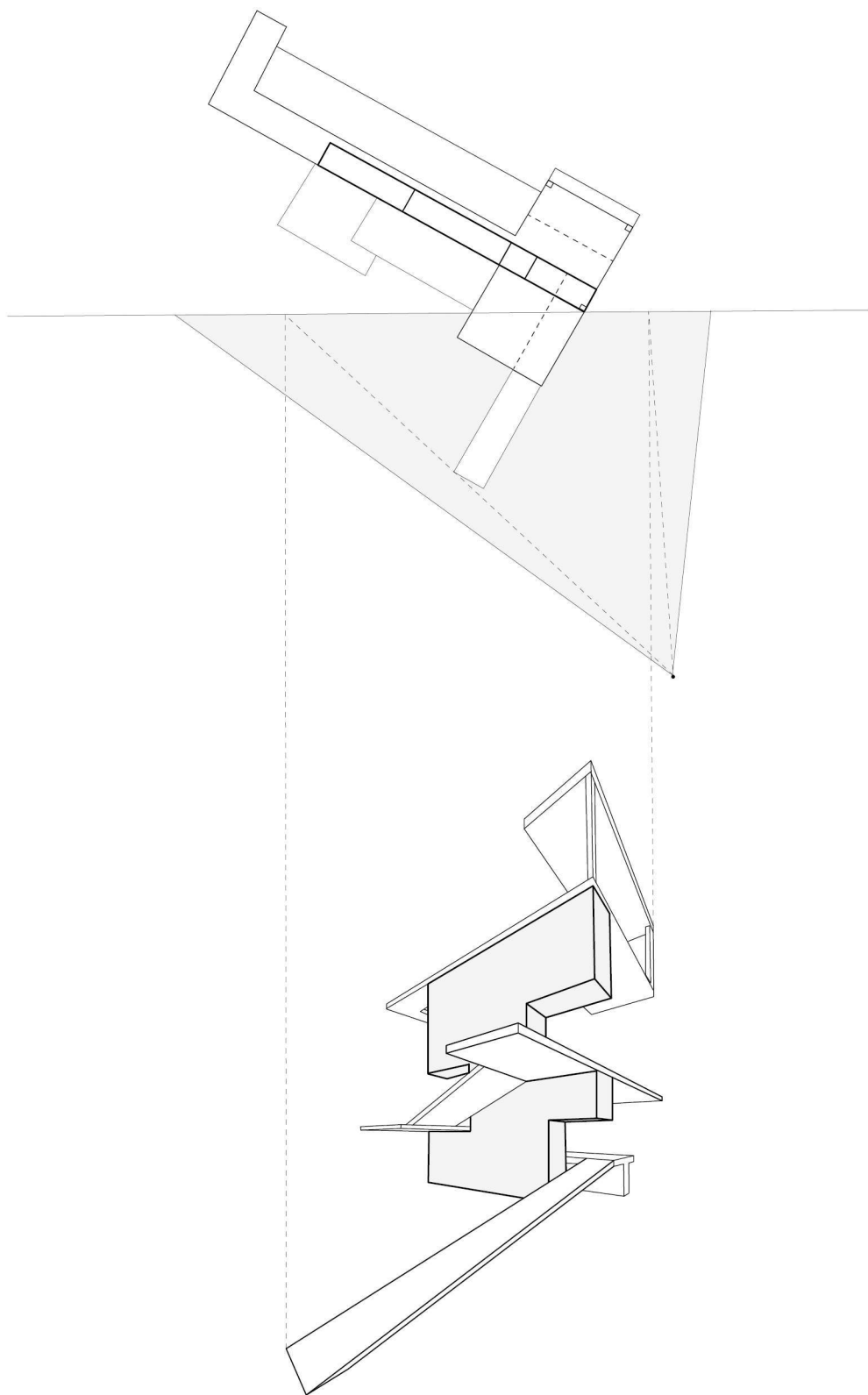




ETHAN OVERLAND

2025

Portfolio



Kit of Parts two-point Perspective
Spring 2020



Ethan Overland

Ethan Overland is driven by a profound passion for creative and purposeful design, combining his finely-tuned design skills with relentless determination to deliver awe-inspiring projects. He firmly believes that informed design and collaborative teamwork are pivotal to the success of any project. Ethan's positive outlook, diligence, and software proficiency make him an invaluable asset to any project team.

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Education

- 2019 - 2024 • **University of Kansas** | Lawrence, Kansas - 3.98 GPA , Graduate with Distinction
Master of Architecture, Bachelor of Arts in Architectural Studies
Graduate Certificate of Urban Design
- 2022-2023 • **Study Abroad in Asia**
Singapore and Malaysia
- 2022 • **Internship Abroad**
South Korea
- 2015 - 2019 • **Cretin-Derham Hall High School** | St. Paul, Minnesota - 4.05 GPA
High School Diploma with Honors

Experience

- 2024 - Present • **MANICA Architecture** | Kansas City, Kansas
Project Designer - 3D Visualization and Design
- 2023 - 2024 • **MANICA Architecture** | Kansas City, Kansas
Architectural Intern - 3D Visualization and Design
- 2022 - 2023 • **Student Shop Assistant** | Lawrence, Kansas
Universeity Laser and 3D Printing Lab
- 2022 • **Haenglim Architects** | Seoul, South Korea
Architectural Intern - Competition Studio and Model Shop
- 2018 • **Cunningham Group Architecture** | Minneapolis, Minnesota
Architectural Shadow with Michael Berg

Awards

- 2024 • **Excellence in Architecture** | Sports and Entertainment Design
University of Kansas
- 2023 • **Dezeen Publicaton**
“The University of Kansas presents 10 architecture projects” Dezeen.com
- 2022 • **Donald Ewart Memorial Scholarship**
University of Kansas
- 2022 • **Freeman Foundation Scholarship**
University of Kansas
- 2018 • **Eagle Scout Award**
Boy Scouts of America

Software

Proficient:
Rhino, Grasshopper, Unreal Engine, V-Ray, Enscape, Lumion, Adobe Creative Cloud

Familiar:
Sketchup, AutoCAD, Revit, Stable Diffusion

References

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Professor of Architecture
University of Kansas
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(785) 864-1150



Professional Works

01 *Chicago Bears Stadium*
Chicago, Illinois
01

02 *New Estadio Heliodoro Rodríguez López*
Tenerife, Spain
02

02 *Nissan Stadium*
Nashville, Tennessee
03

04 *Miami Freedom park*
Miami, Florida
04

Academic Works

05 *Solport-Skyhive*
Seoul, South Korea
05

06 *Chicago Fire Forge Park*
Chicago, Illinois
23

07 *Terra tower*
Oklahoma City, Oklahoma
35

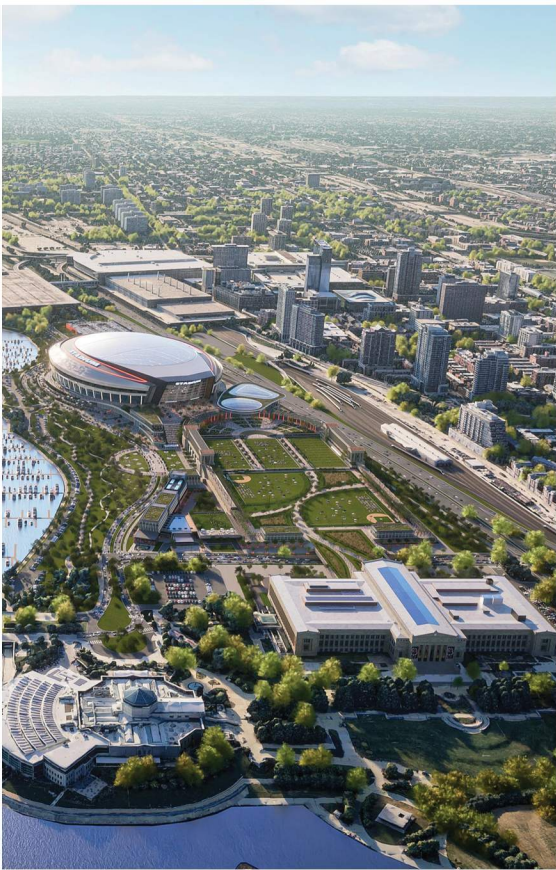
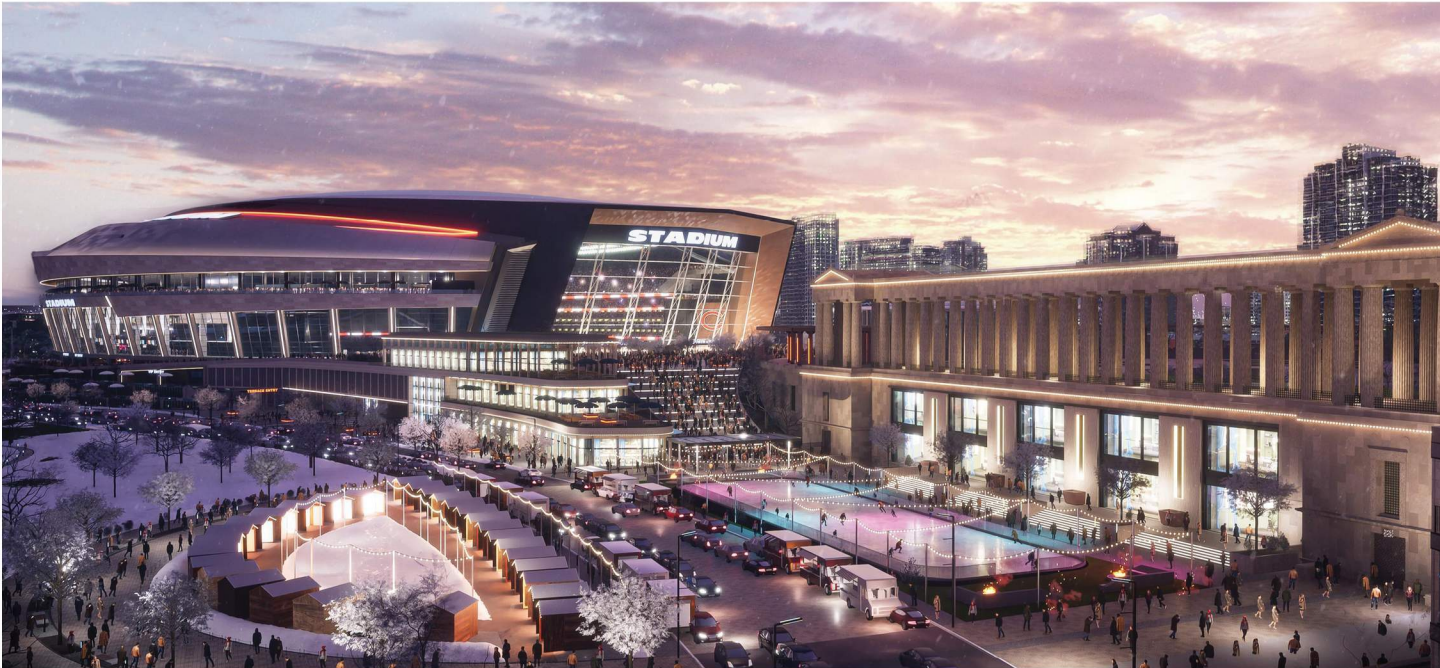
08 *The Psychedelic Movement Museum*
Portland, Oregon
49

Internship Abroad Works

09 *Pyeongtaek Children’s Experience Center*
Pyeongtaek-si, South Korea
67

10 *Uiwang Civic Center*
Uiwang-si, South Korea
68

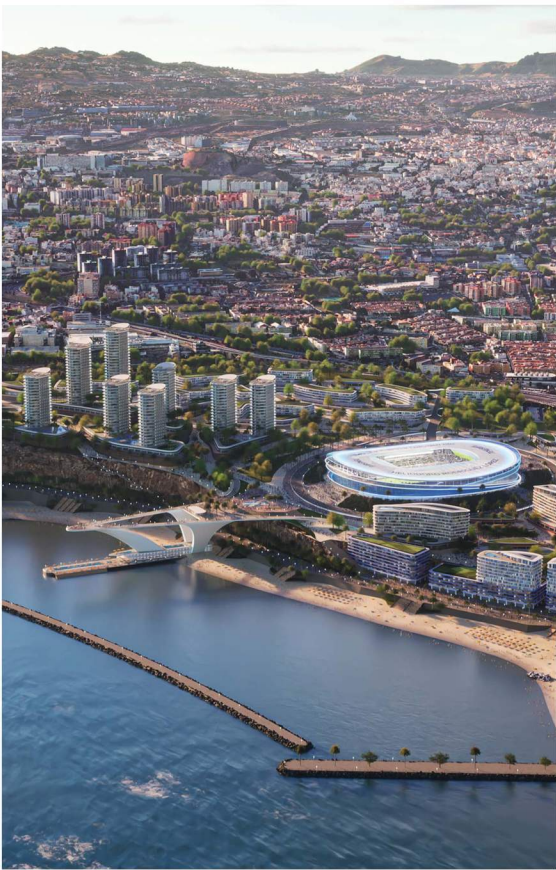
Professional Work



01 Chicago Bears Stadium | Chicago, Illinois
MANICA Architecture | Kansas City, Kansas

Construction: Concept

The proposed multi-purpose domed Chicago Bears Stadium, with a capacity of 60,400 spectators, is a state-of-the-art fixed-roof facility slated for construction on Chicago's Museum Campus. This transformative development aims to serve as the new home for the Chicago Bears while integrating seamlessly into the city's architectural and cultural fabric. The project emphasizes the expansion of public open and green spaces, fostering a safe and inviting environment for families to gather and engage in recreational activities. Anchored by the cutting-edge stadium, the campus will enhance downtown Chicago's vitality, strengthen connectivity to the adjacent museums, and enrich the cultural experience for residents and visitors. Designed as a year-round destination, the stadium and its surrounding campus will contribute to a more vibrant and dynamic urban landscape. My contributions to this ambitious project include the development, design, coordination and management of a 200-acre master plan model; collaboration with civil engineers to ensure seamless integration of infrastructure design; development of interior premium spaces; and the creation of Unreal Engine render and virtual interaction models to bring the vision to life.

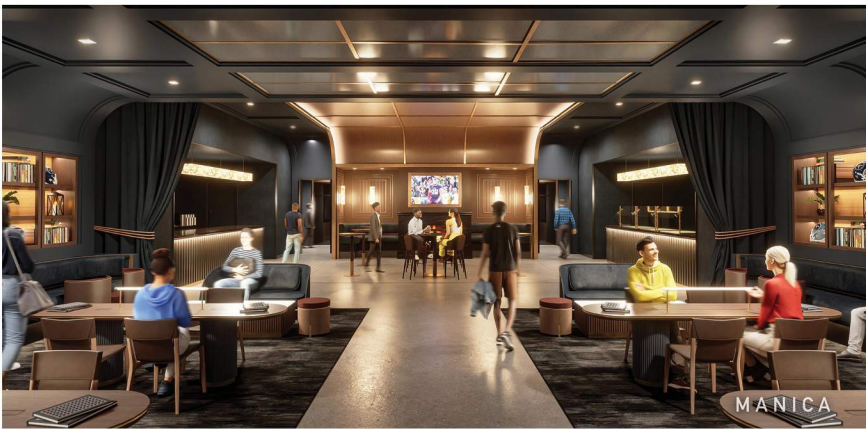


02 New Estadio Heliodoro Rodríguez López | Tenerife, Spain
MANICA Architecture | Kansas City, Kansas

Construction: Concept

Nestled on the island of Tenerife, the proposed new stadium for Club Deportivo Tenerife will be a landmark stadium with a seating capacity of 35,000. Positioned as a striking jewel within a 200-acre master plan, the stadium will be set in a revitalized site that reclaims a decommissioned oil refinery. The design of the stadium will offer an immersive experience, allowing spectators to engage with panoramic views of the Atlantic Ocean. The stadium will feature a dynamic façade, designed to respond to both the surrounding environment and the energy of the crowds, creating a sense of movement and excitement. The stadium's development will seamlessly integrate with the fabric of downtown Santa Cruz, creating a dynamic extension to the city. The design includes a connection to the historic Rambla de Santa Cruz, which extends through the site, linking key features such as vibrant stadium gardens, a central plaza, a sculptural elevated pier, and newly reclaimed waterfront access. As a design lead, I took on a leading role in the master plan design, development, and management of this project. I was integral in the decision and creation of unique fan experiences that elevate the spectator journey, as well as the development of a dynamic and responsive stadium façade.

Professional Work



03 Nissan Stadium | Nashville, Tennessee
MANICA Architecture | Kansas City, Kansas

Construction: In progress
The New Nissan Stadium will serve as the centerpiece of Nashville’s East Bank redevelopment, offering a modern, fully enclosed, and air-conditioned facility with approximately 63,500 seats. Its horse-shoe-shaped seating arrangement opens to breathtaking views of downtown Nashville across the Cumberland River, blending the city’s spirit and history with cutting-edge design. The stadium is envisioned as a multi-purpose venue for world-class events, including the Super Bowl, Final Four, and top touring concerts. Luxury experiences are emphasized through an array of clubs, lounges, studio box seats, and suites, dispersed across all levels. Outdoor terraces and rooftop-inspired spaces further enhance the venue’s connection to Nashville’s vibrant culture. As a driving force behind this transformative project, I played a pivotal role in crafting premium club spaces, developing immersive interior renderings, and designing elevated fan seating bowl experiences. I also reimagined the fan concourse as a dynamic hub of engagement and led the coordination of structural and MEP models, seamlessly integrating these elements into a cohesive and groundbreaking design.



04 Miami Freedom Park | Miami, Florida
MANICA Architecture | Kansas City, Kansas

Construction: In progress
The new Miami Freedom Park Stadium will serve as the centerpiece for the greater Freedom Park development in Miami, Florida. The simple, elegant stadium features a full 360-degree seating arrangement with a single rake bowl, placing its 27,000 spectators as close to the action as possible. The open-air stadium includes a large tensile canopy to provide shade and shelter from sun and rain over the full seating bowl and exterior concourse. The current design envisions a variety of clubs, loge seats, terraces, and suites primarily on the west side of the stadium concentrating most luxury experiences for spectators near the VIP entrance to the stadium. The Main Concourse features 360-degree views of the lush gardens surrounding the stadium as well as simple to navigate access to seats and amenities. As part of the design team, I contributed to the interior premium experience design, created immersive Unreal Engine renderings, applied Grasshopper scripting for the canopy structure, and worked closely with structural engineers. Combining cutting-edge design with versatility, Miami Freedom Park Stadium will be a world-class destination for sports and entertainment.

Located in Jungu-gu, Seoul, South Korea, the Solport-Skyhive represents the inaugural vertiport in a network that integrates seamlessly with Seoul's transportation system. This cutting-edge structure aims to revolutionize transportation in a city renowned for its efficient public transit. Moreover, it serves as a blueprint for other cities looking to establish their own vertiport transit networks. Derived from the Korean word for pine trees, "sol," the Solport-Skyhive stands as a towering testament to sustainable construction, being the first mass timber skyscraper in South Korea. Drawing inspiration from the Korean red pine, the national tree, the vertiport embraces a modular design, symbolizing organic growth akin to a flourishing tree. Initially equipped with three terminals, the vertiport possesses the flexibility to expand over time, much like the branches of a tree responding to changing needs.

As a transit hub, the Solport-Skyhive seamlessly integrates with the city's existing transit network, boasting direct access to four subway lines and multiple bus routes in close proximity. Beyond its practical function, the vertiport also doubles as a vibrant retail space, enriching the bustling shopping district where it proudly stands. Designed with the environment in mind, the structure incorporates lush greenery and calming water features, drawing inspiration from the aesthetic elements of the nearby Cheonggyecheon Stream and Dongdaemun Design Plaza (Designed by Zaha Hadid).

05

Solport - SkyHive

Location: Jungu-gu Seoul, South Korea

Completion Date: May 2023

Project Team: Alex Lamoureux and Ethan Overland

Professor: Dr. Kapila D. Silva

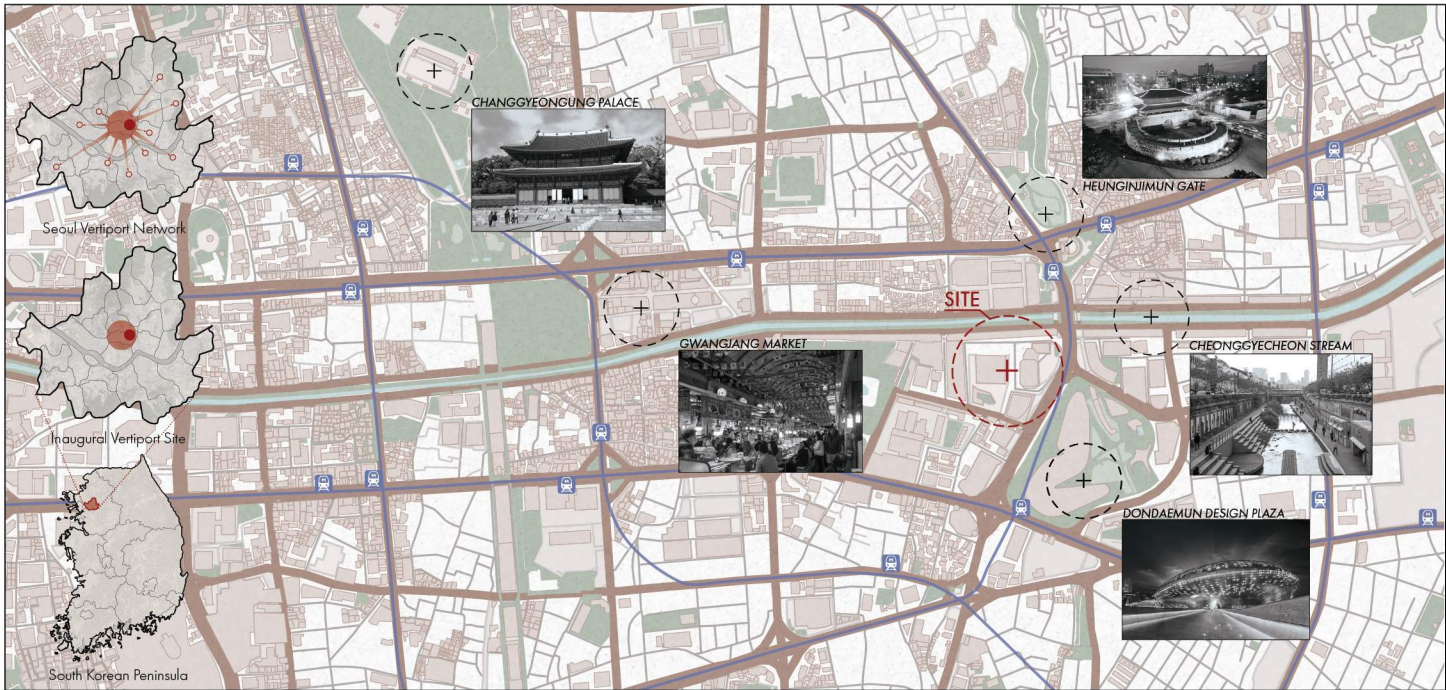
Use Type: Vertiport (Urban Air Mobility Transit Hub)

(Rhino, Grasshopper, Escnape, Photoshop, Illustrator)



SITE RESEARCH

A Dynamic Fusion of Tradition and Modernity



The Continuity of Seoul and Its Culture



Ha - Nok
한옥

Korean hanok design is a traditional architectural style characterized by wooden structures, curved tiled roofs, and open courtyards, harmonizing with the natural environment. Its significance lies in its reflection of Korean cultural values, emphasizing balance, connection to nature, and a sense of serenity in domestic spaces.

So - Na - Mu
소나무

Korean red pine, known for its straight, tall trunks and resilient wood, is a symbol of strength and longevity in Korean culture. It is highly valued for its durability and aesthetic qualities, often used in traditional architecture, furniture, and even spiritual practices, representing harmony with nature and enduring vitality.

Jae - Rae - Si - Jang
재래시장

Korean street markets are bustling centers where a variety of foods, goods, and crafts are sold, offering a taste of the country's rich culinary and artisanal heritage. These markets play an important role in fostering community interaction, preserving traditional crafts, and reflecting the vibrancy of Korea's urban culture.

Ja - Ha - Cheol
지하철

Seoul's subway network, comprising 23 lines and over 700 stations, serves as a vital transportation system for the city's residents and visitors. It plays a crucial role in reducing traffic congestion, supporting economic activity, and providing a sustainable and eco-friendly mode of travel for millions of daily commuters.

Existing Site Buildings



During a visit to the site and the surrounding Jung-gu district in the summer of 2022, it was found that the office buildings, malls, and small retail spaces currently located there are largely underutilized or abandoned, likely due to the impacts of COVID-19 and other factors. This distinctive site was not only positioned adjacent to key urban landmarks such as Dongdaemun Design Plaza and the revitalized Cheonggyecheon Stream, but it also presented a unique opportunity for integrating a vertiport into the dense, vertical urban fabric.

THE VERTIPORT TYPOLOGY

The Future of Mass Transit

1932 **Modernist Movement**

During the modernism movement of the 30s and 40s, architects such as Frank Lloyd Wright, Ralph Rapson, and Paul Laszlo began to include personal helicopters into their sketched designs, most famously the Broadacre City.

1936 **Things to Come**

Things to Come, directed by H.G. Wells depicts a future where advanced personal aircraft, developed by the technocratic order Wings Over the World, enable rapid global travel, enforce peace, and symbolize progress, shaping a utopian society rebuilt after war and societal collapse.

1953 **Post-war England**

In 1950s England, ambitious plans for helicopter travel envisioned a future of rapid urban air mobility, with proposed city-center heliports and networks promising to revolutionize transportation.

1990 **The Civil Tiltrotor Program**

Seventeen studies were funded in the U.S. and Canada as part of the Civil Tiltrotor (CTR) program that found significant variance in the ability of cities to locate vertiports as a function of available space, economics, and public acceptance.

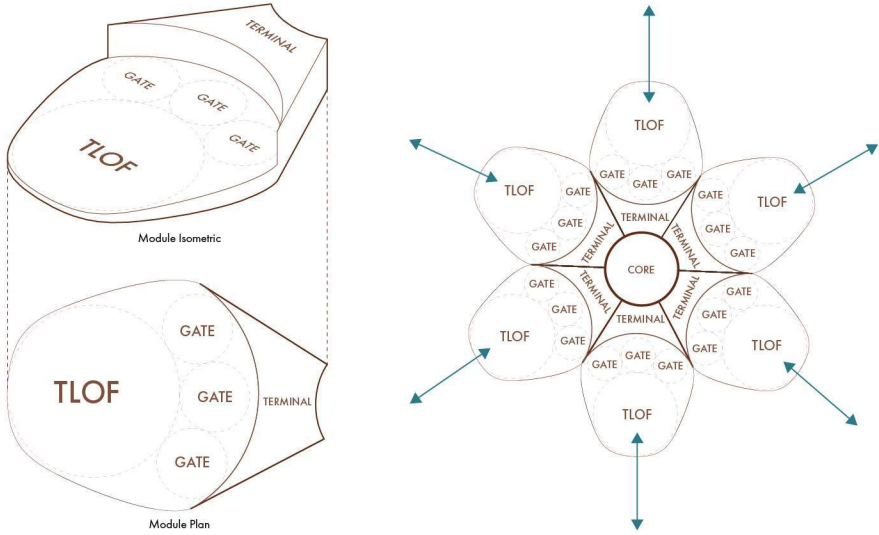
2020 **Conceptual Proposals**

As urban air mobility enters its commercialization phase, various architecture firms worldwide are proposing innovative designs and aesthetics for vertiports. Notable among them is a Norman Foster design in Dubai, which has secured funding, highlighting the growing interest in integrating advanced air transport into urban landscapes.

2022 **FAA Guidelines**

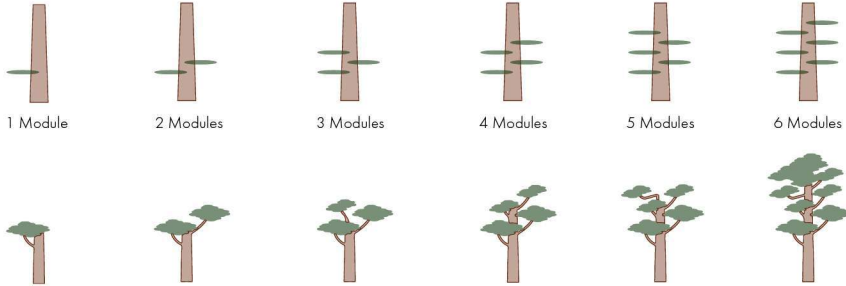
The FAA's 2022 Vertiport guidelines establish safety, design, and infrastructure standards for eVTOL aircraft, enabling urban air mobility. These regulations support safe, scalable deployment, facilitating vertiport development and advancing sustainable aerial transportation in cities, shaping the future of advanced air mobility (AAM).

Landing Pad Parti

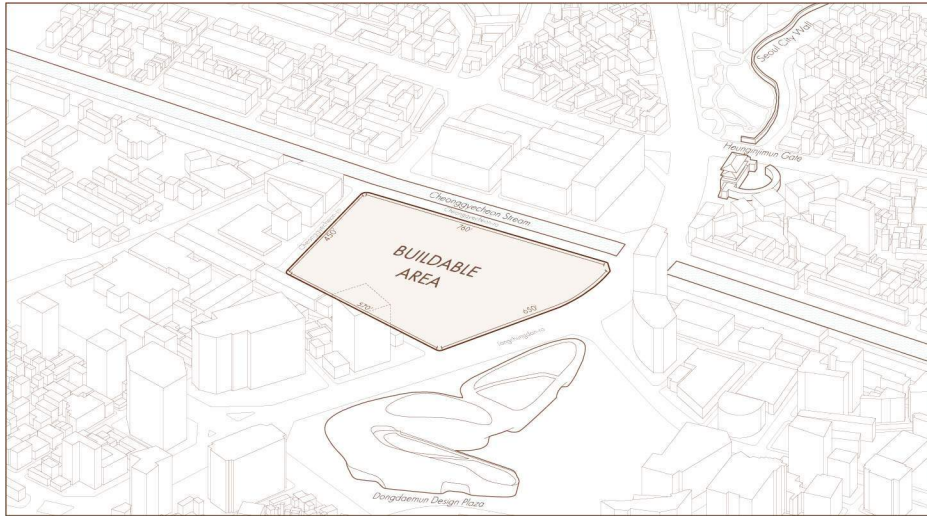


Encircling the central vertiport core, there are six terminal modules in an array. Each module has a passenger terminal, three parking gates, and one designated touchdown and lift-off area (TLOF) specifically designed for E-VTOLS. The arrangement of these landing modules was essential to adhere to efficiency requirements given the urban site constraints.

Red Pine Modularity

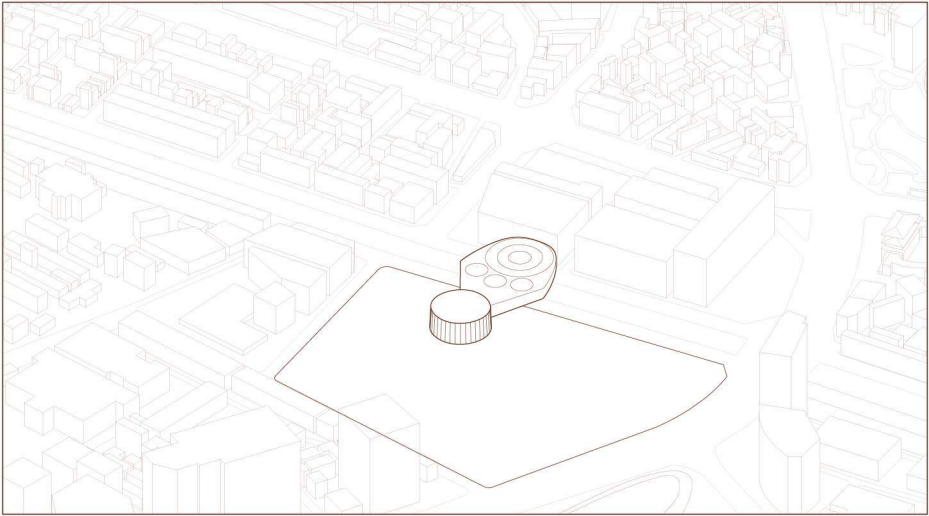


Seoul's advanced public transit network required a modular design to accommodate the possible growing demand for E-VTOL flights and the establishment of new vertiports. The modular approach allows the vertiport and its E-VTOL network to expand efficiently as more landing pad modules are added, reflecting the natural growth pattern of a Korean red pine tree. This scalable design approach ensures that the vertiport can efficiently integrate into the urban fabric.



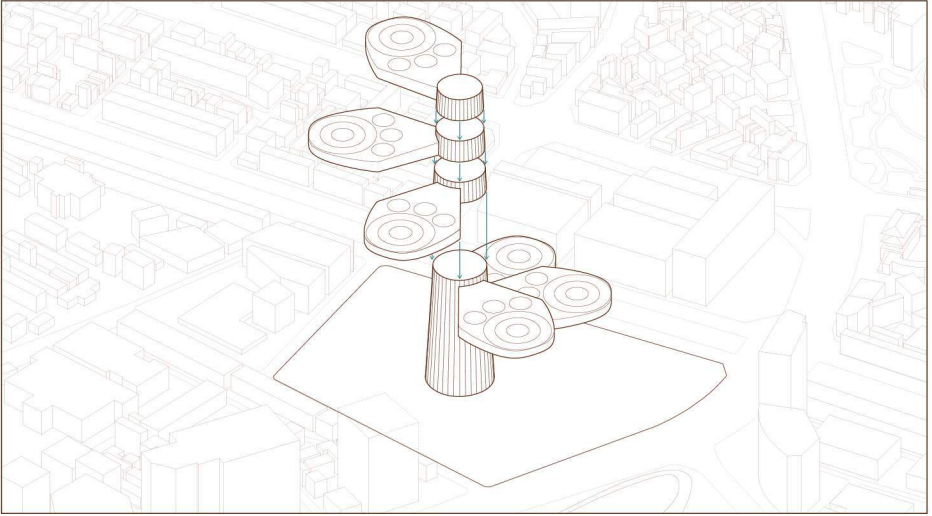
01 Site + Context

The site is located in the district of Jung-gu in Seoul, South Korea. The site has adjacencies to the Dongdaemun Design Plaza and Cheonggyecheon Stream. The site also has proximities to the historic East Gate and the Seoul Fortress Wall.



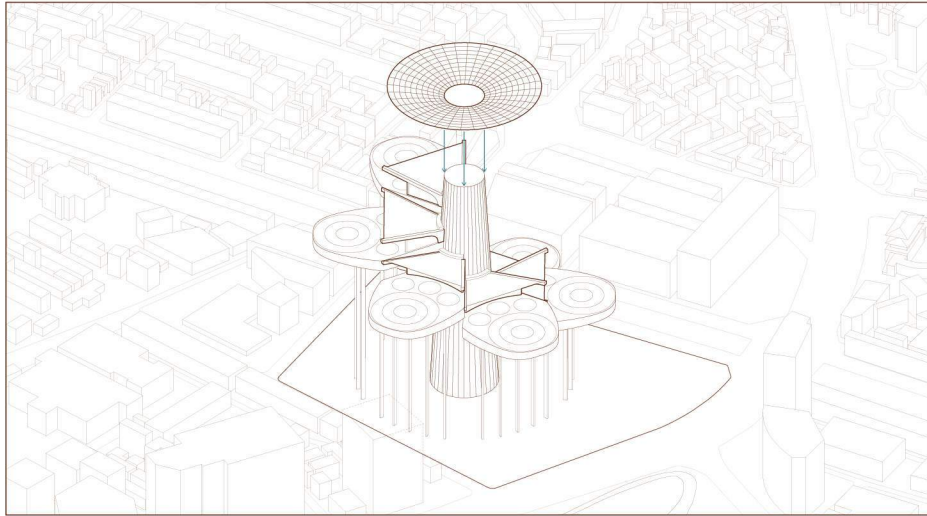
02 Establishing a Module

A module was established with one landing pad and three boarding gates. This module was created as a response to the site constraints, particularly the site's size and the heights of nearby buildings, necessitating a module that could have varying flight paths.



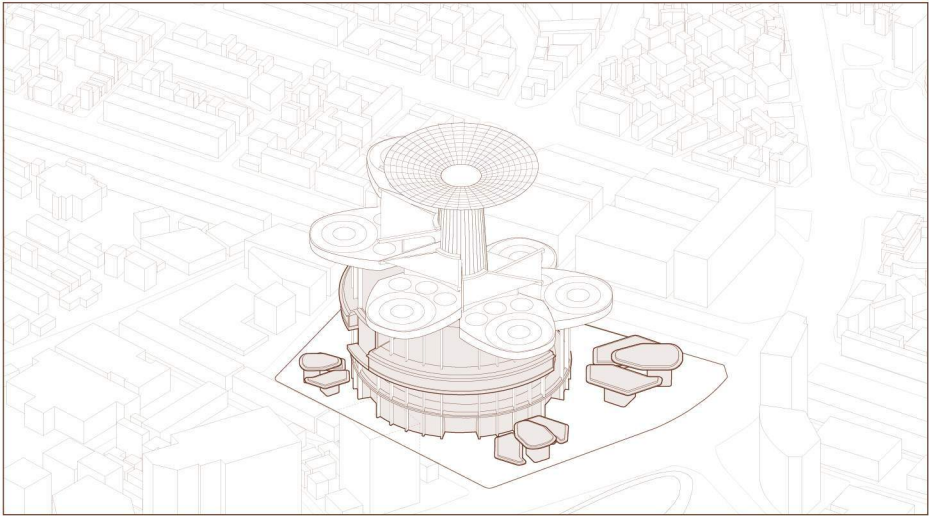
03 Growing the Tree

Like a tree, the module would grow over time, responding to the demands of the vertiport and providing the number of landing pads and gates needed. The modular approach also allows the vertiport to continue running even if one landing pad must close down.



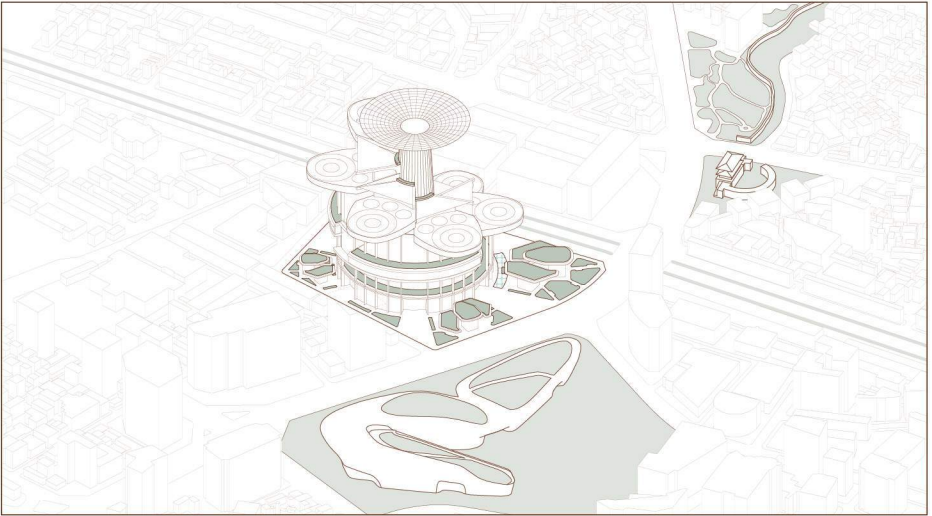
04 Forming the Canopy

The vertiport, like a tree, has a canopy at the top. The top canopy serves as a photo-voltaic array and storm-water collection device. Canopies are also placed on the vertiport modules, creating overhangs that protect passenger boarding and deplaning the eVTOLs.



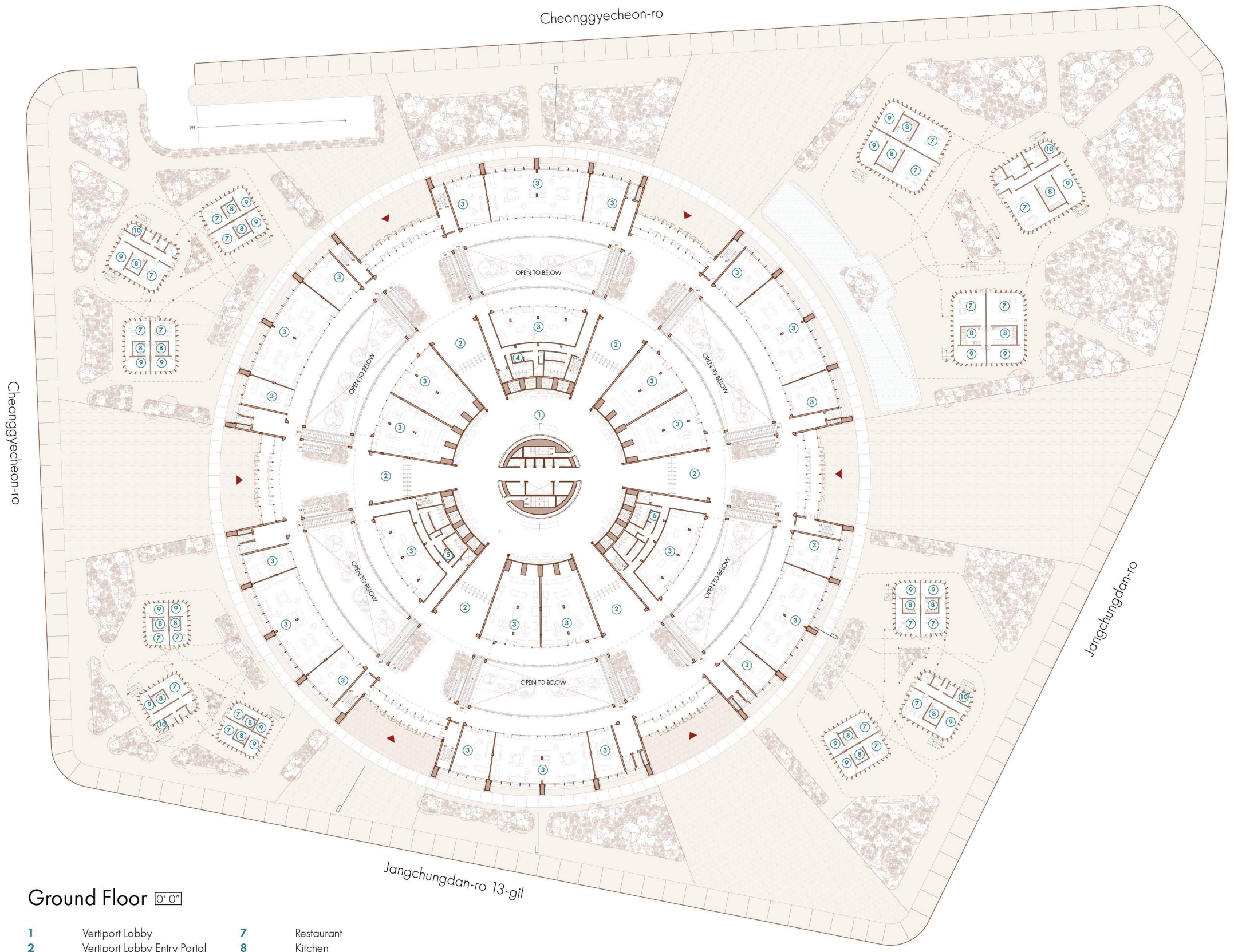
05 Grafting Program

Additional branches of the support program are "grafted" onto the tree - Creating retail, dining, and public space.



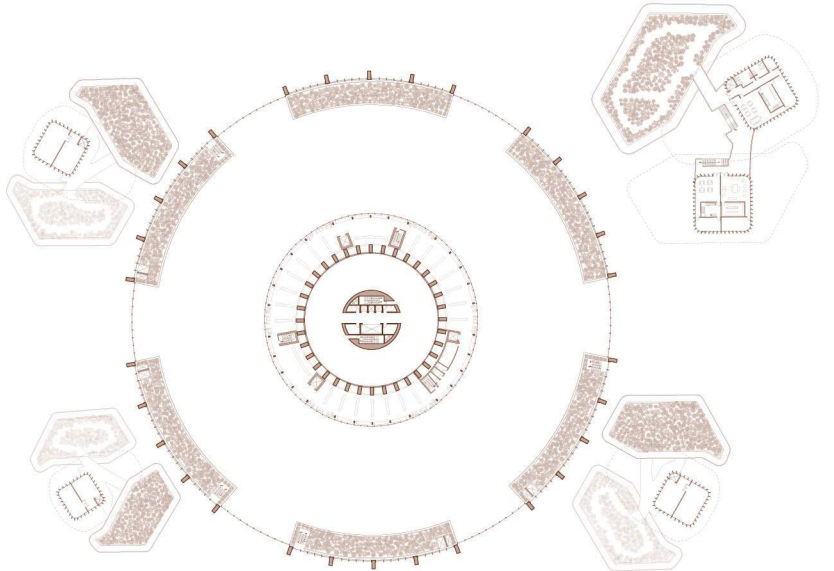
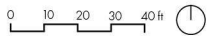
06 Connecting to Nature

Green space is brought horizontally onto the site and vertically onto the building, connecting the vertiport with nature and evoking the image of the tree.

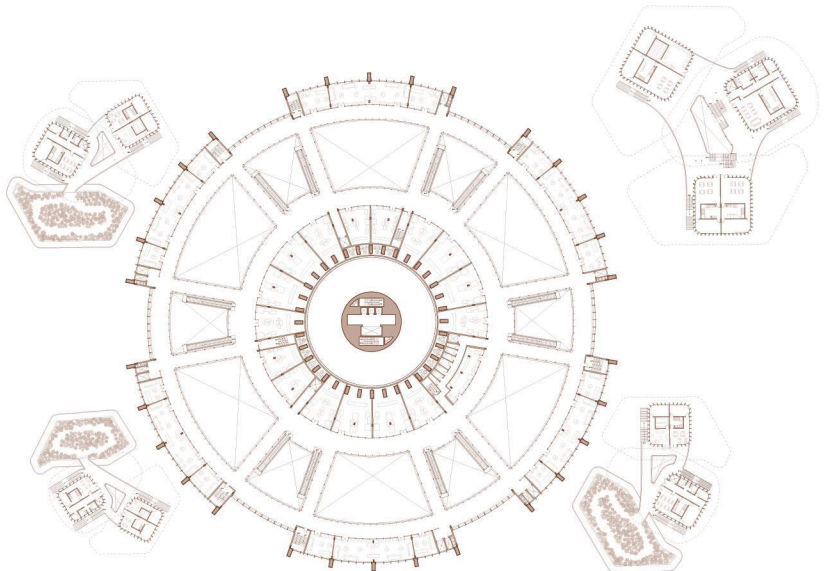


Ground Floor 0' 0"

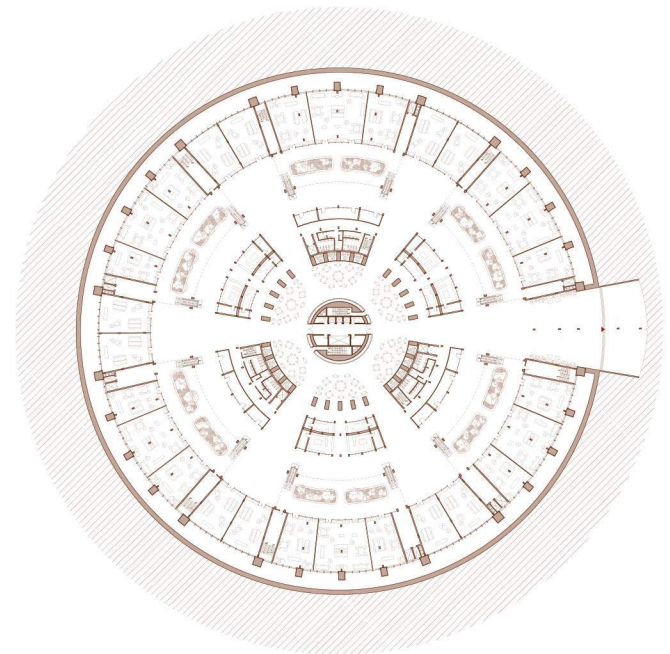
- | | | | |
|---|------------------------------|----|--------------------------|
| 1 | Vertiport Lobby | 7 | Restaurant |
| 2 | Vertiport Lobby Entry Portal | 8 | Kitchen |
| 3 | Retail Store | 9 | Commercial Back of House |
| 4 | Lactation Room | 10 | Trash Room |
| 5 | Pet Relief Area | | |
| 6 | Prayer Room | | |



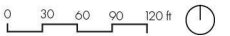
Third Floor 40' 0"



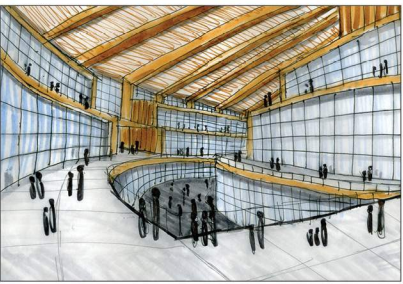
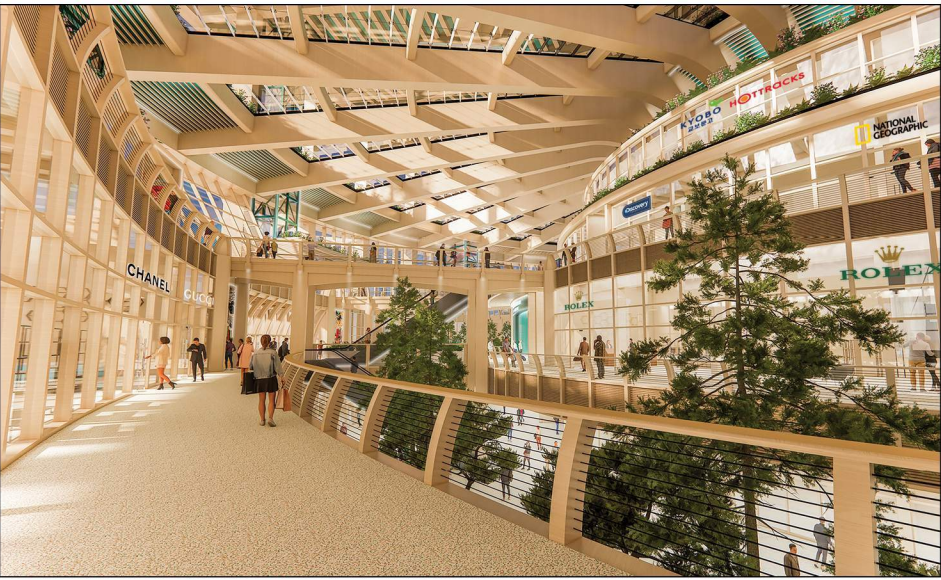
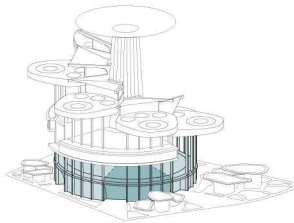
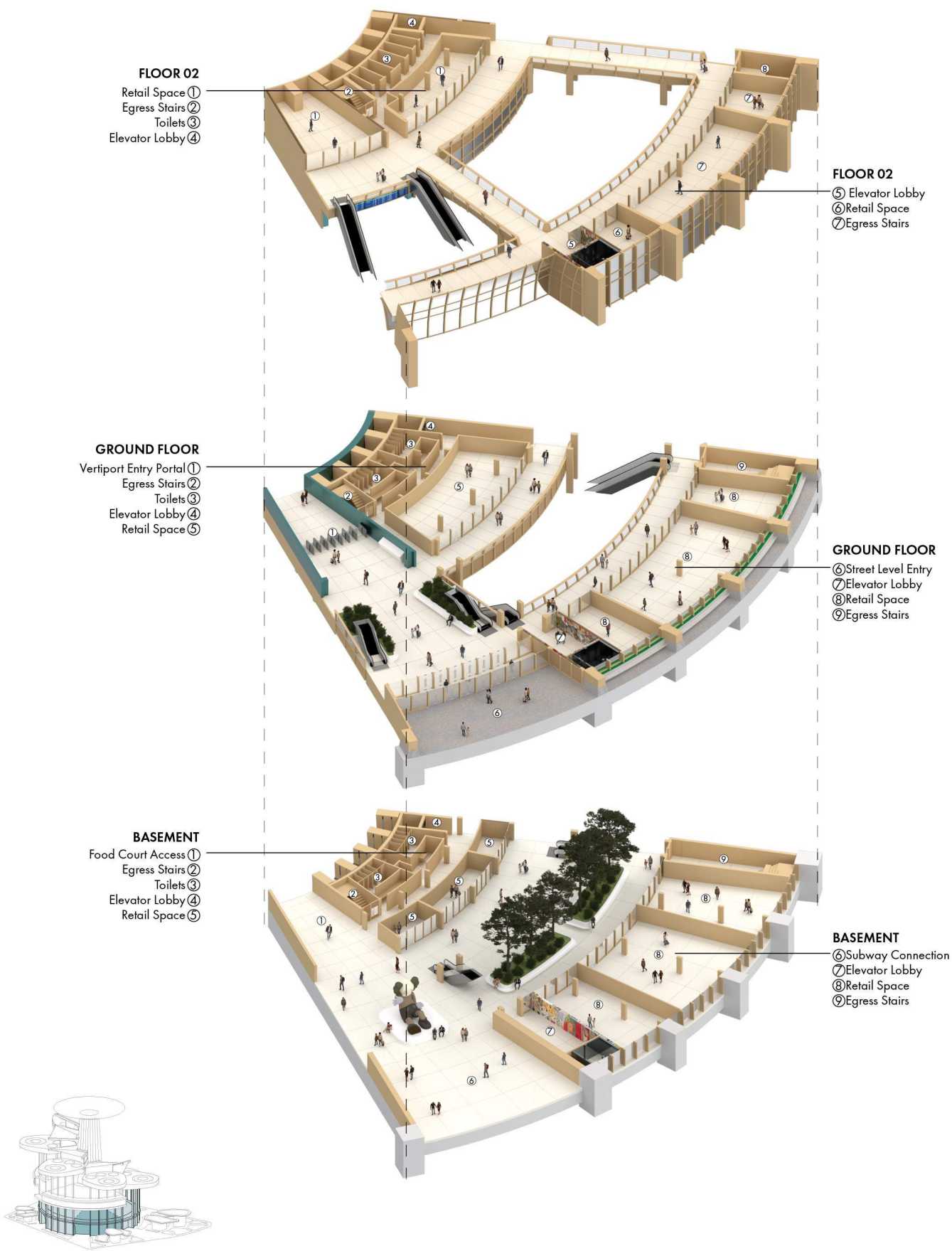
Second Floor 20' 0"



Basement Floor -20' 0"

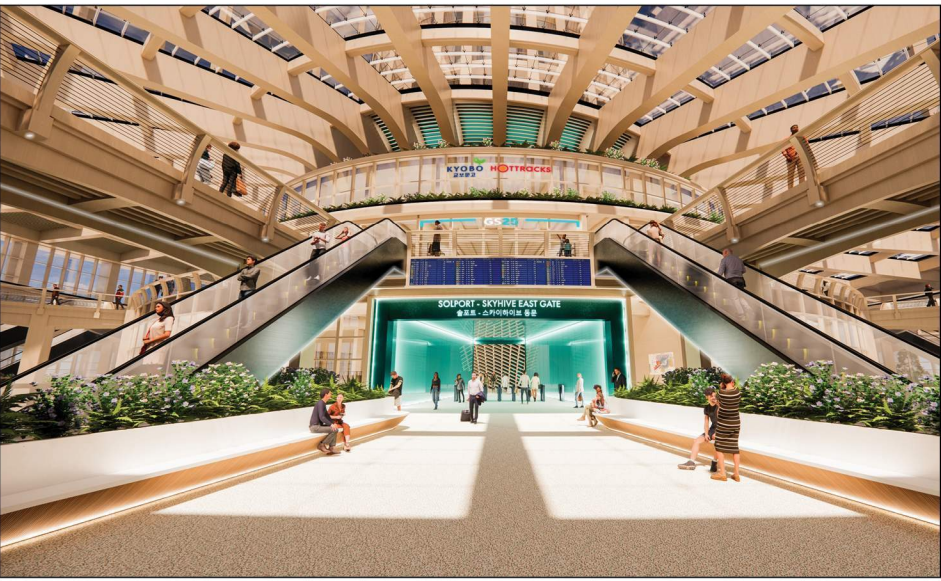


MALL MODULE EXPLODED AXONOMETRIC



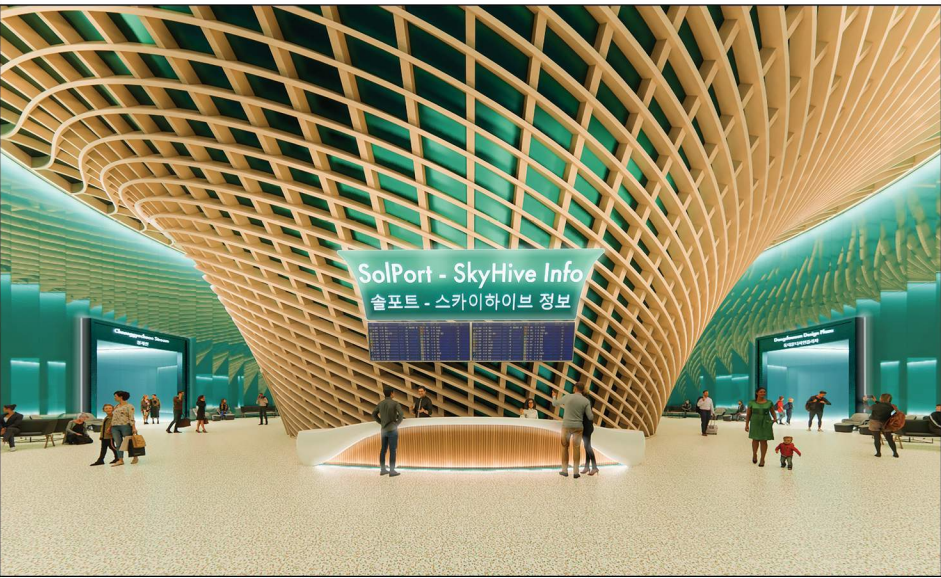
Mall Concourse

In tandem with the vertiport, the Solport-Skyhive boasts a circular mall at its base. It features an expansive glass atrium that bathes the concourse in natural light, creating an open, airy atmosphere. The blend of luxury and department stores seamlessly intertwines with the surrounding lush greenery and iconic Korean red pine trees, adding to the mall's unique ambiance.



Vertiport Entry Portal

At the base mall, passengers can access the vertiport through six distinct entry portals, distinguished by the vibrant teal color, symbolizing creativity, immortality, and hope in Korean culture.

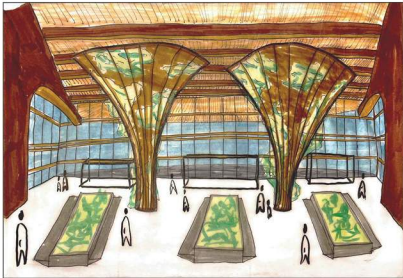
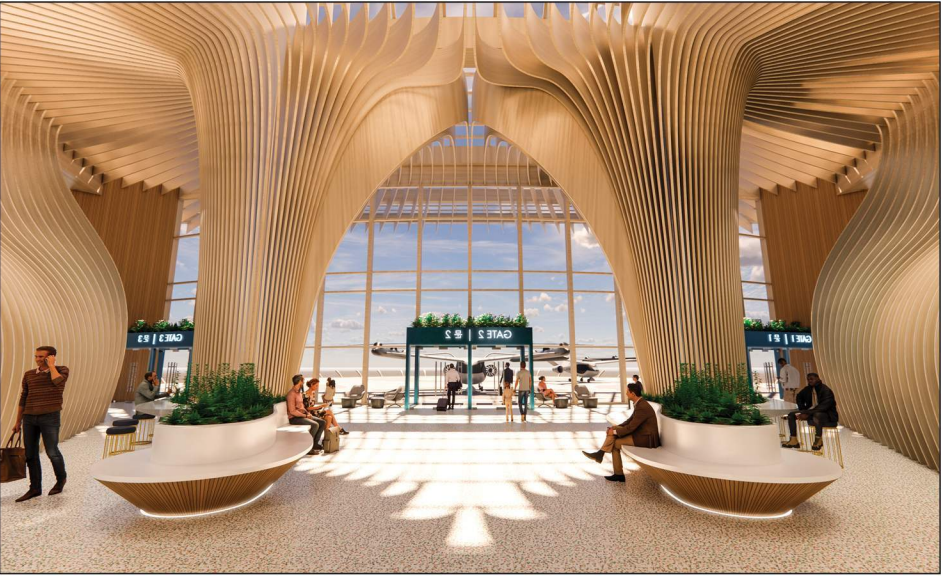
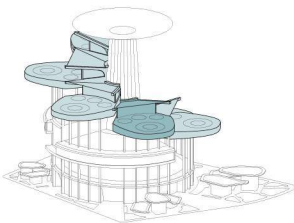
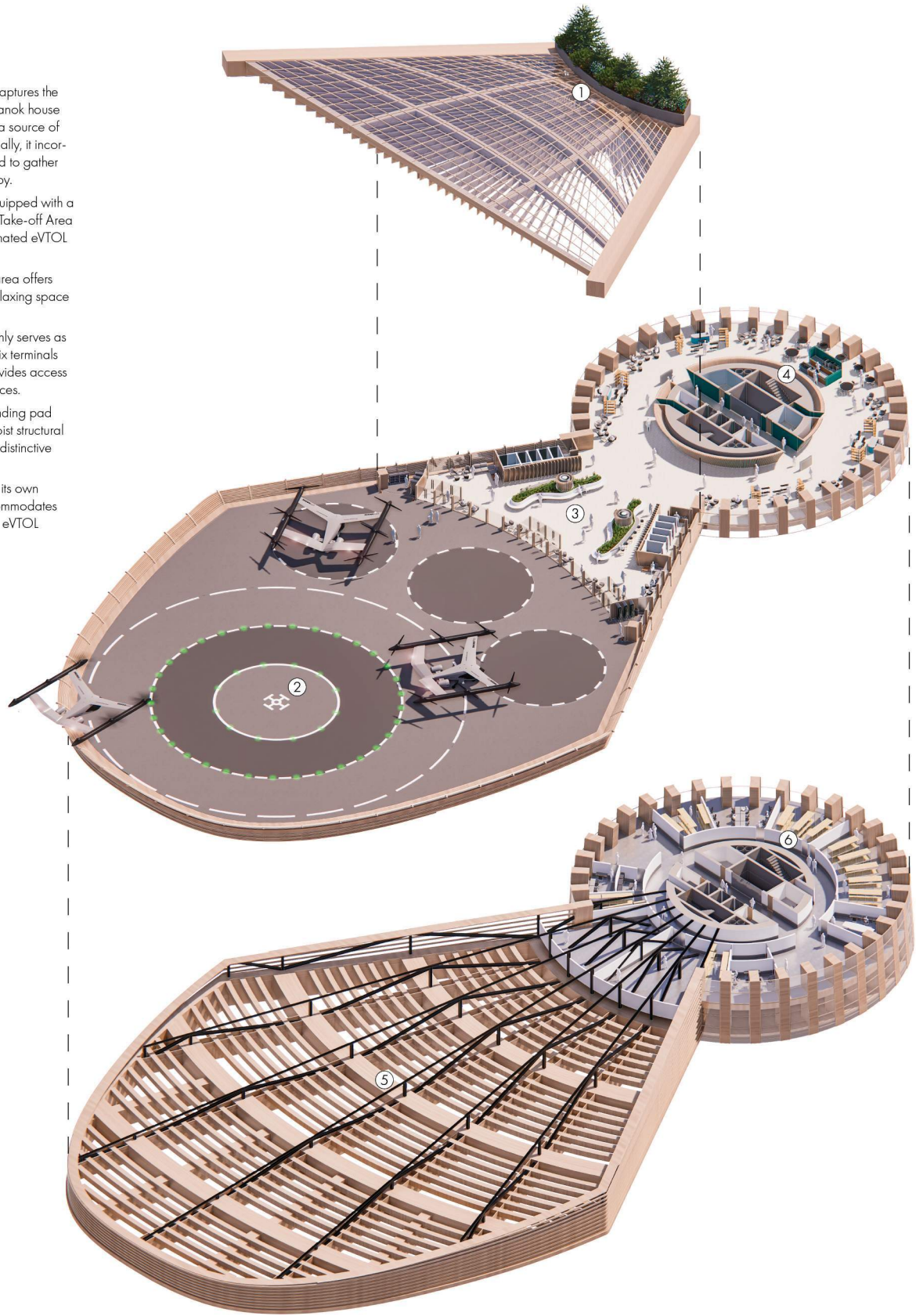


Vertiport Terminal Lobby

The vertiport's lobby features an expansive wood lattice structure, creating an elegant and inviting atmosphere. Its efficient layout allows passengers to easily access their designated gates through the core elevators for a seamless boarding process.

TERMINAL MODULE EXPLODED AXONOMETRIC

- ① The terminal canopy not only captures the essence of a classic Korean Hanok house in its design but also serves as a source of shade for passengers. Additionally, it incorporates a rear planter designed to gather rainwater runoff from the canopy.
- ② The modular landing pad is equipped with a single eVTOL Touchdown and Take-off Area (TLOF), along with three designated eVTOL parking gates.
- ③ A passenger terminal seating area offers passengers a distinctive and relaxing space to wait for their flight.
- ④ The central vertiport core not only serves as the central access point to all six terminals within the vertiport but also provides access to maintenance and office spaces.
- ⑤ Underneath each terminal's landing pad lies a mass timber open-web joist structural system, enabling the vertiport's distinctive form and modularity.
- ⑥ Each terminal module includes its own maintenance floor, which accommodates various mechanical rooms and eVTOL maintenance bays.



Passenger Terminal

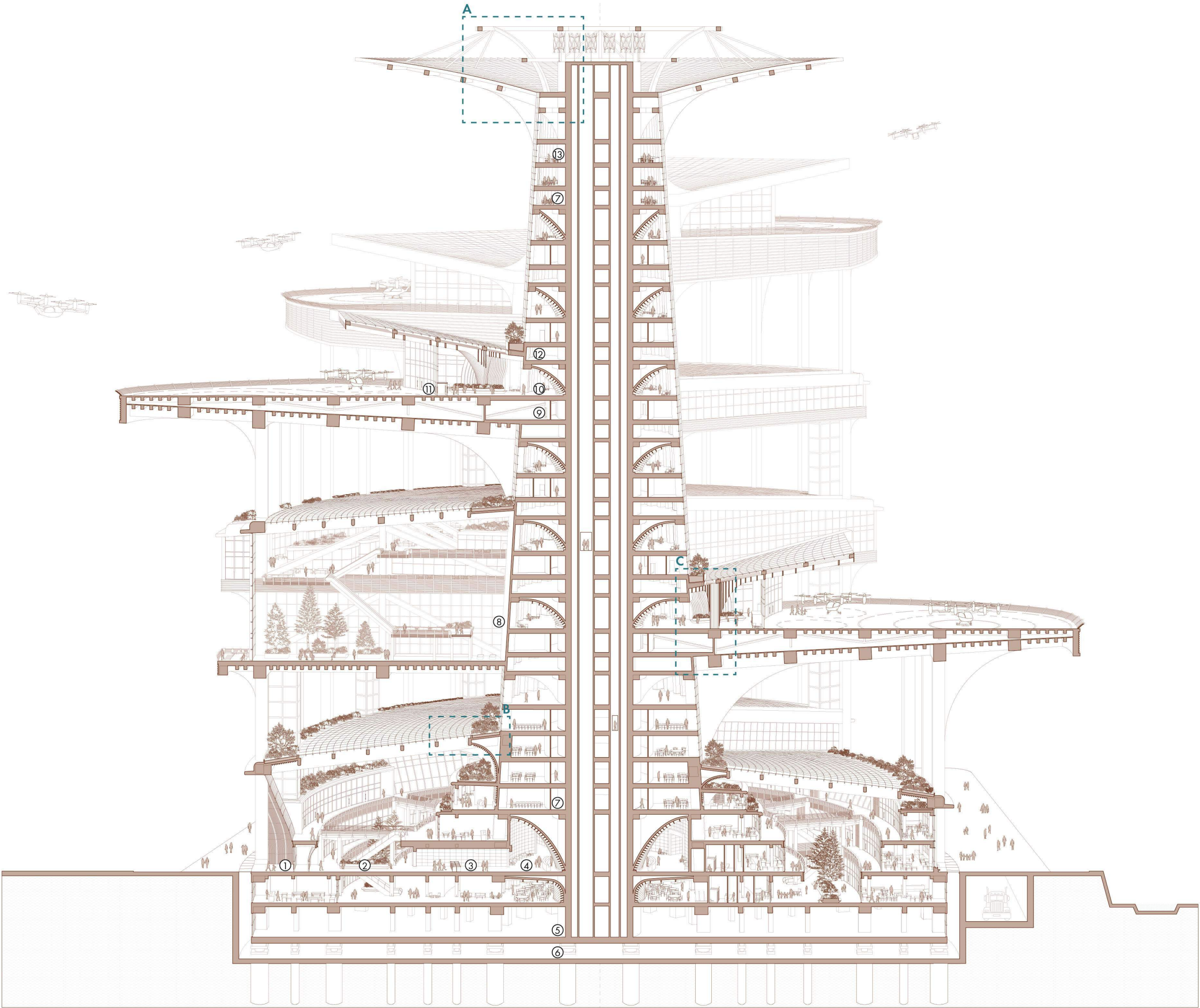
The vertiport terminal modules comprise three gates, each designated for an individual E-VTOL. On either side of the terminal's central axis, there are two gluelam fin columns that grow towards the landing pad's periphery, guiding passengers seamlessly through the space.



Terminal Landing Pad

Upon landing, eVTOLs will dock at one of the three gates located beneath a distinctive glass canopy. This canopy draws inspiration from the traditional typology of Korean Hanok architecture, seamlessly blending the landing pad into the passenger terminal.

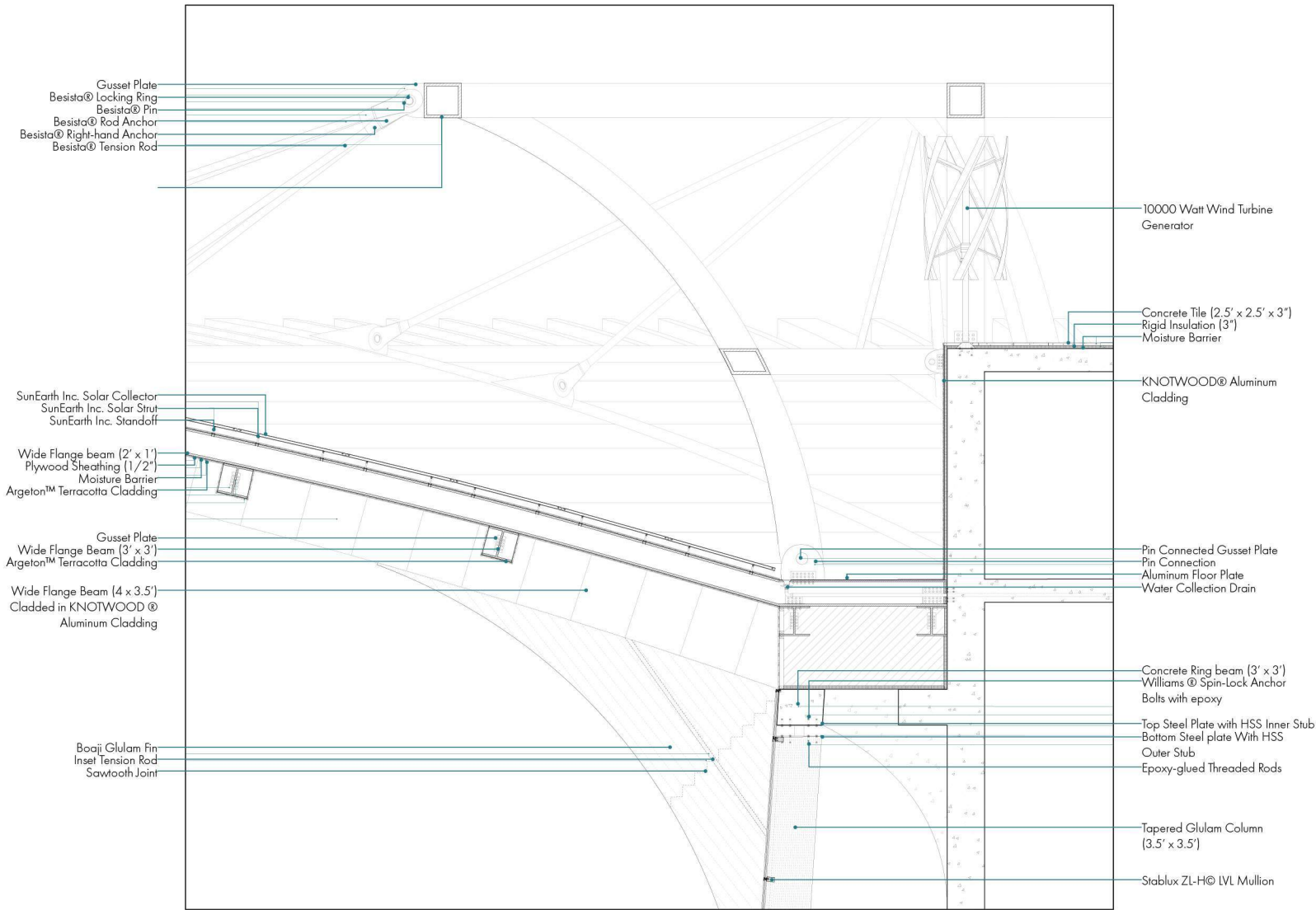
- ① Mall Entry Portal
- ② Mall
- ③ Vertiport Entry Portal
- ④ Vertiport Terminal Lobby
- ⑤ Service Level
- ⑥ Seismic Isolation System
- ⑦ Offices
- ⑧ Raised Mall
- ⑨ Landing Pad Maintenance Floor
- ⑩ Passenger Terminal
- ⑪ Landing Pad
- ⑫ AHU Level
- ⑬ Air Traffic Control



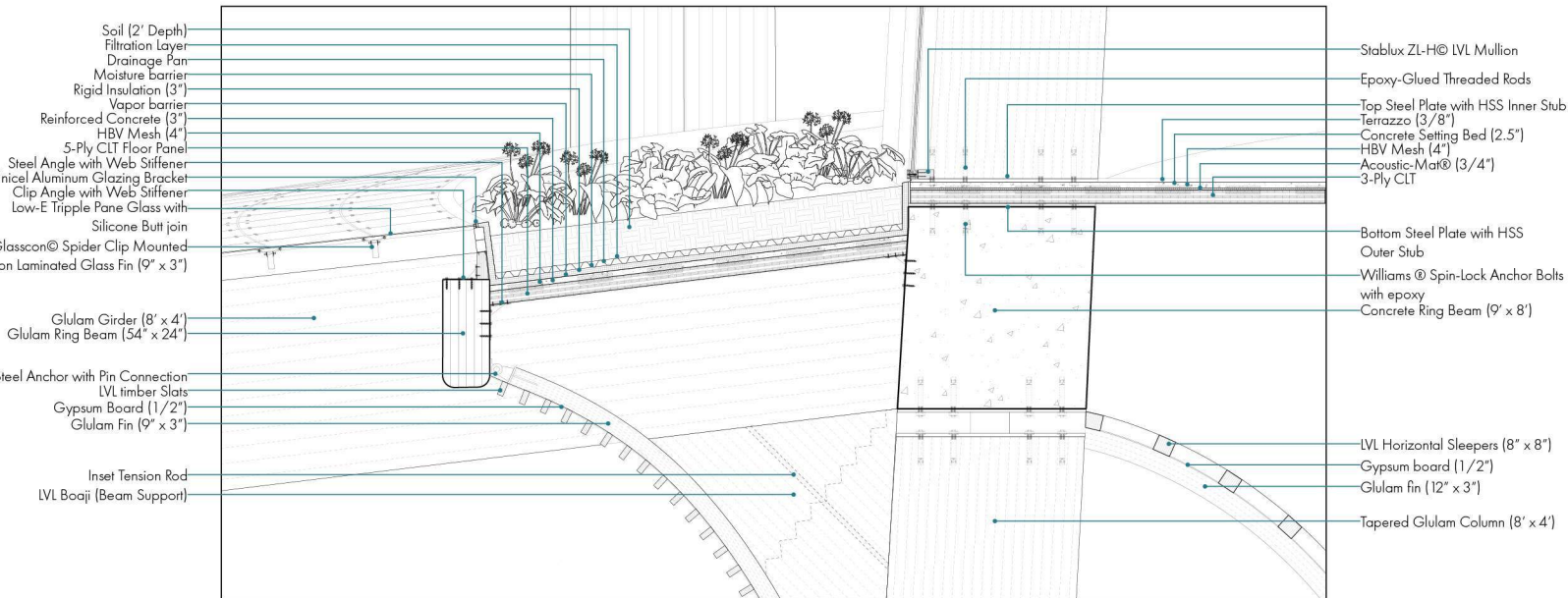
Multi-focal
Perspective Section

0 15 30 45 60 ft

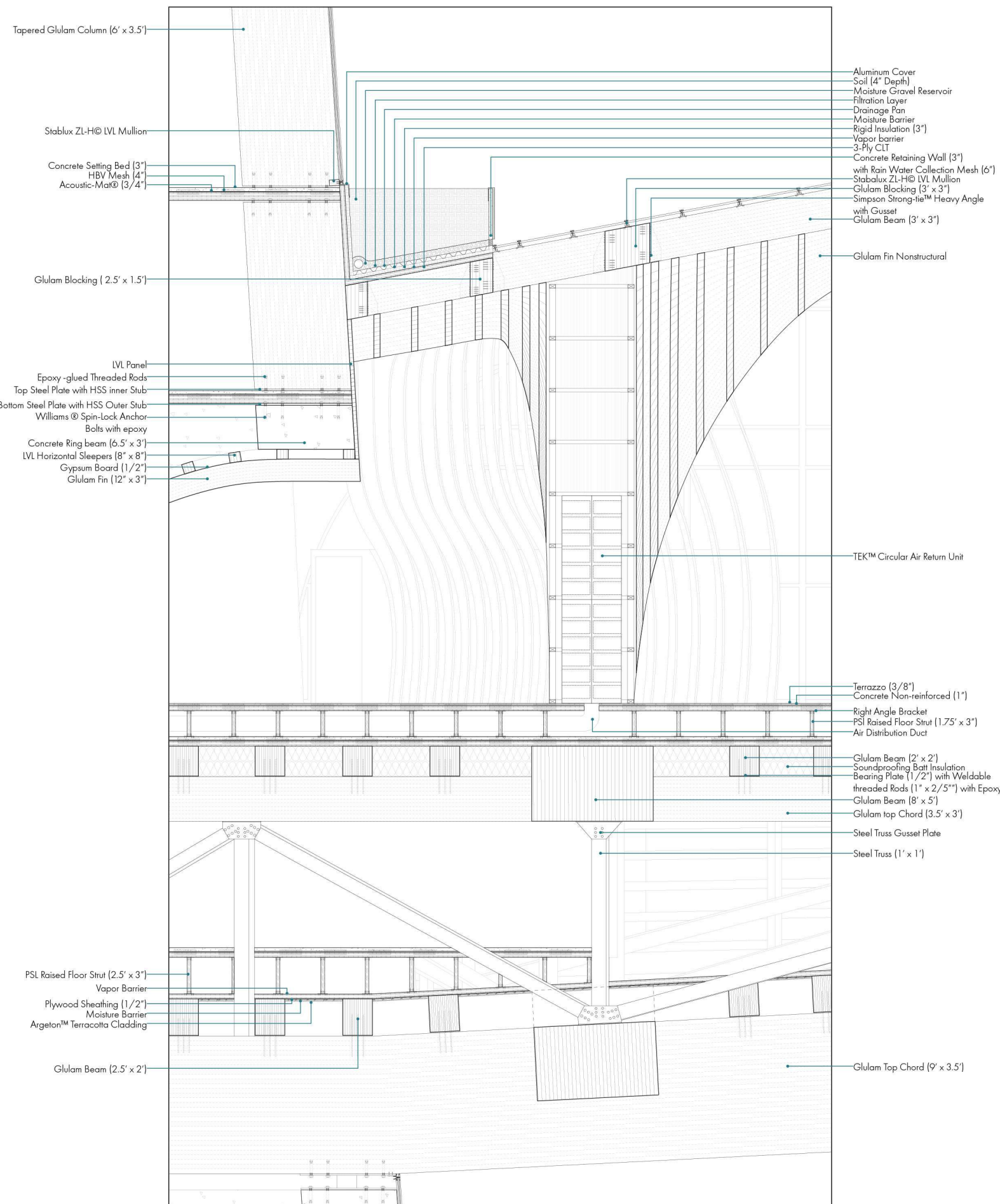
DETAIL A



DETAIL B



DETAIL C





Jangchungdan-ro Street



06

Chicago Fire Forge Park

Location: Chicago, Illinois

Completion Date: May 2024

Project Team: Graylon Sestak

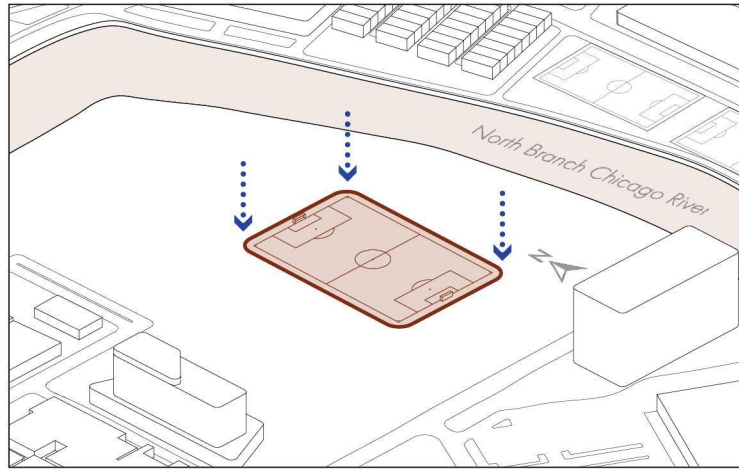
Professor: Dr. Gustavo Do Amaral

Use Type: Stadium and Master Plan

(Rhino, Grasshopper, Revit, Enscape, Photoshop, Illustrator)

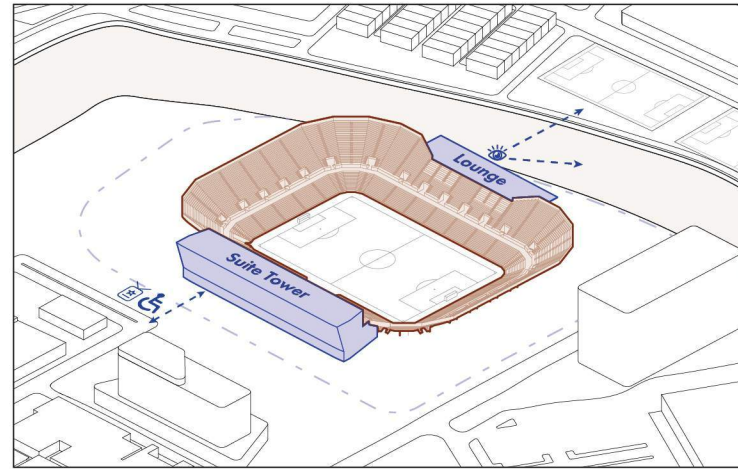
Chicago Fire Forge Park serves as the new home of Chicago Fire Football Club, bringing a 24,000-seat stadium and a 59-acre master plan to Wicker Park, just three miles northwest of downtown Chicago along the North Branch River. This transformative project redefines how stadiums can seamlessly integrate into the urban fabric of American cities. Drawing inspiration from Chicago's architectural legacy—including the Chicago Bungalow and The Rookery Building, both emblematic of the city's resilience after the Great Chicago Fire of 1871—the stadium is clad in terracotta battens, establishing a strong sense of place within the local architectural vernacular. An inboard amenity concourse fosters continuous fan movement throughout the stadium and its surrounding development. Designed with an intimate, high-energy matchday experience in mind, the stadium's steep seating bowl, featuring a super-riser configuration, brings fans closer to the action. The venue offers a range of premium viewing experiences, including a riverside lounge, patio club, and luxury suites, creating an unparalleled atmosphere for spectators.

Integrating into Chicago's urban fabric, the stadium's master plan revitalizes the North Branch River, transforming underutilized land and abandoned industrial sites into a communal landscape. Elevated on a 20-foot podium near the river, Chicago Fire's new stadium enhances public engagement with a boardwalk, retail frontage, and stepped landscape plazas, reconnecting Chicagoans to a once-inaccessible waterfront. Three pedestrian bridges provide access, while a recreational trail extension under the Kennedy Expressway anchors community practice fields, a repurposed warehouse food court, townhomes, residential towers, and retail stores.



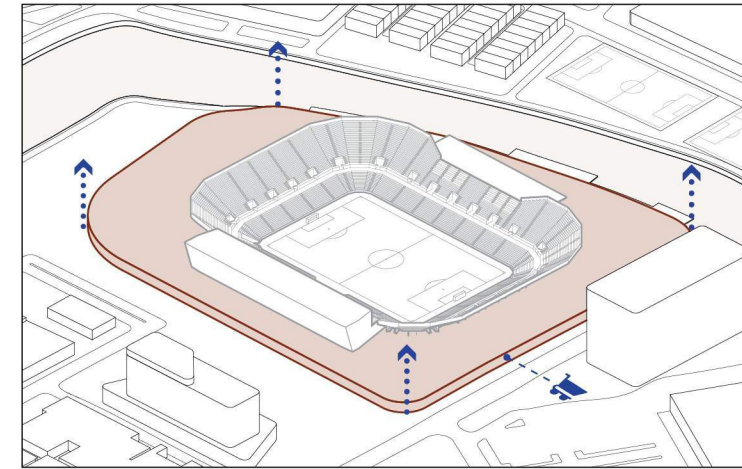
01 Site and Field Placement

The site is situated along the North Branch of the Chicago River, just east of the Wicker Park neighborhood. To accommodate the fluctuating water table influenced by the river, the field is positioned at grade with a north-south orientation, optimizing shading for spectators and players.



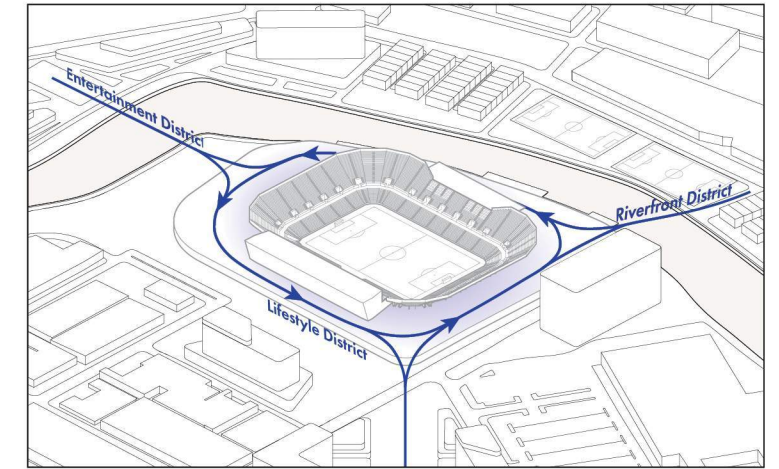
02 Seating Bowl and Premium Program

Seating approximately 24,000 fans, the stadium features a compact bowl with a super-riser design for an immersive experience. Carved-out bowl sections house premium spaces, including an east-side riverside lounge with views of Lake Michigan and a west-side suite tower offering luxury suites and club spaces.



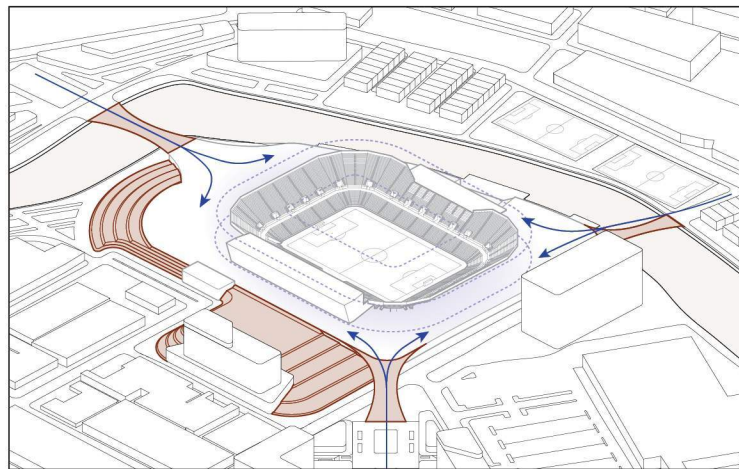
03 Raising the Podium

A 20-foot podium elevates the main concourse level, enhancing accessibility for patrons. This podium also serves as a multi-functional base, housing essential event-level spaces, a parking garage, and retail frontage that activates the North Branch River Boardwalk.



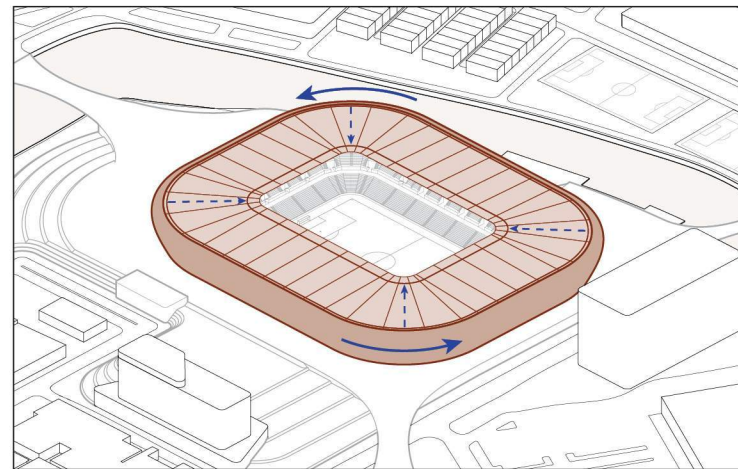
04 Master Plan Axes

To seamlessly integrate the raised podium with the surrounding development, site axes establish connections with pedestrian flow and key public transit stops. A continuous circulation route around the stadium enhances accessibility, creating a seamless movement between the stadium and the urban fabric.



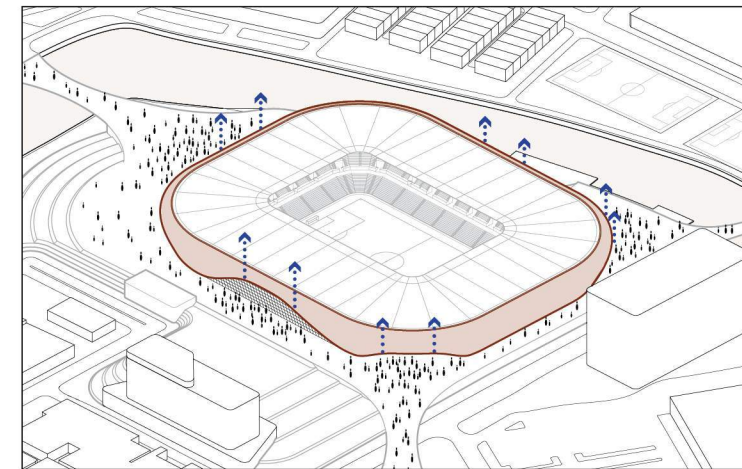
05 Podium Integration

Providing access to the raised podium, three pedestrian bridges are placed, offering direct connections to the Lifestyle, Riverfront, and Entertainment Districts. Additionally, two landscaped stepped plazas are designed in the northwest and west, offering convenient access from grade level.



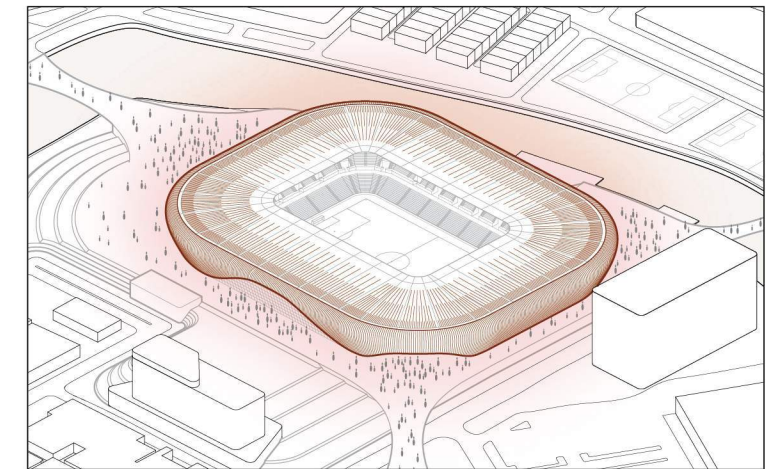
06 Enclose and Cover

Through the use of a compression ring structural system, the main concourse is enclosed to ensure the stadium can be securely controlled, while the seating bowl is covered by an ETFE canopy, offering shade without compromising the natural grass growth on the pitch.



07 Patron Entry

Entries along the stadium's façade are unveiled, following the master plan axes and connections to premium spaces. These openings are arched, echoing the Romanesque arches found throughout Chicago, such as those in The Rookery Building, originally constructed as the city's city hall after the Great Chicago Fire of 1871.



08 Permeation and Materiality

The stadium's façade is wrapped in terracotta battens, producing a dynamic interplay of light and shadow that enhances the atmosphere of both the concourse and premium spaces throughout the venue.



Master Plan Predominant Features

- 1. 24,000 Seat Stadium with 20' Podium
- 2. Clybourn Metra Rail Station
- 3. The 606 Trail Extension

Stadium District

- 4. Hotel with Retail/ Parking Podium
- 5. West Plaza
- 6. Team Store/ ADA + VIP Entry
- 7. Northwest Plaza
- 8. Supporters Bridge and Plaza
- 9. Boardwalk with Retail Frontage

Lifestyle District

- 10. Ramped Plaza
- 11. Residential with Retail/ Parking Podium
- 12. Two-story Retail

Entertainment District

- 13. Theatre
- 14. Two-story Retail
- 15. Reclaimed North Branch Food Social
- 16. Hotel with Retail/ Parking Podium

Riverfront District

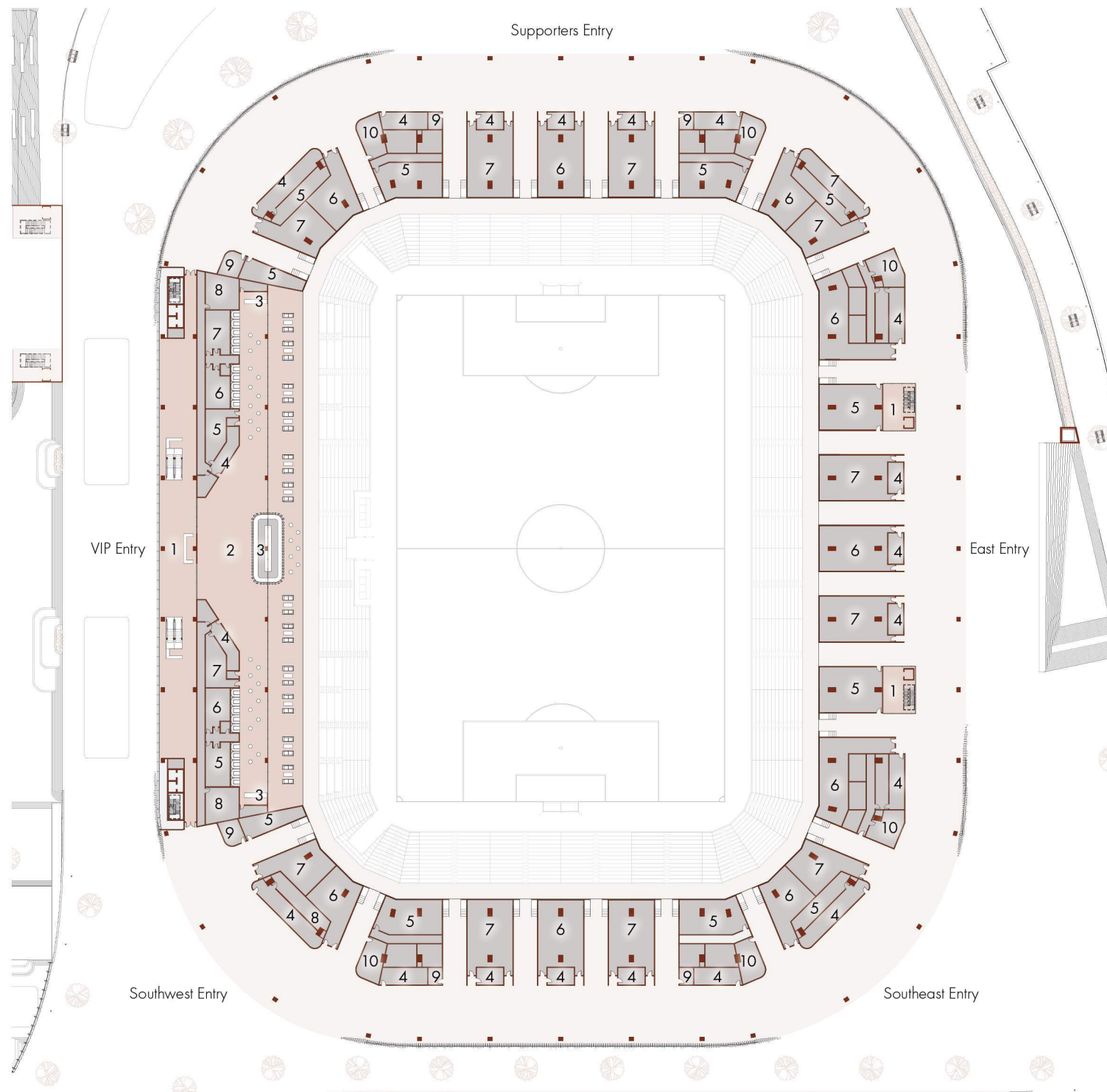
- 17. Residential with Retail/ Parking Podium
- 18. Townhouses
- 19. Community Practice Fields
- 20. Office with Retail/ Parking Podium

Gross Area

Residential: 1,133,000 sq ft
 Hotel: 327,000 sq ft or 630 Keys
 Retail: 661,600 sq ft
 Office: 217,600 sq ft
 Parking: 375,700 sq ft or 2,100 spots

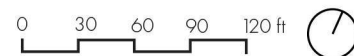
Key

- 606 Trail Extension
- Vehicle/ Truck Access
- ↔ Pedestrian Circulation



Main Concourse 20' 0"

- | | | | |
|---|---------------------|----|-----------------|
| 1 | VIP Lobby | 6 | Mens Restroom |
| 2 | Patio Club | 7 | Womens Restroom |
| 3 | Bar | 8 | Storage |
| 4 | Concession Stand | 9 | Family Restroom |
| 5 | Kitchen/ Commissary | 10 | Guest Services |



North Branch River Boardwalk



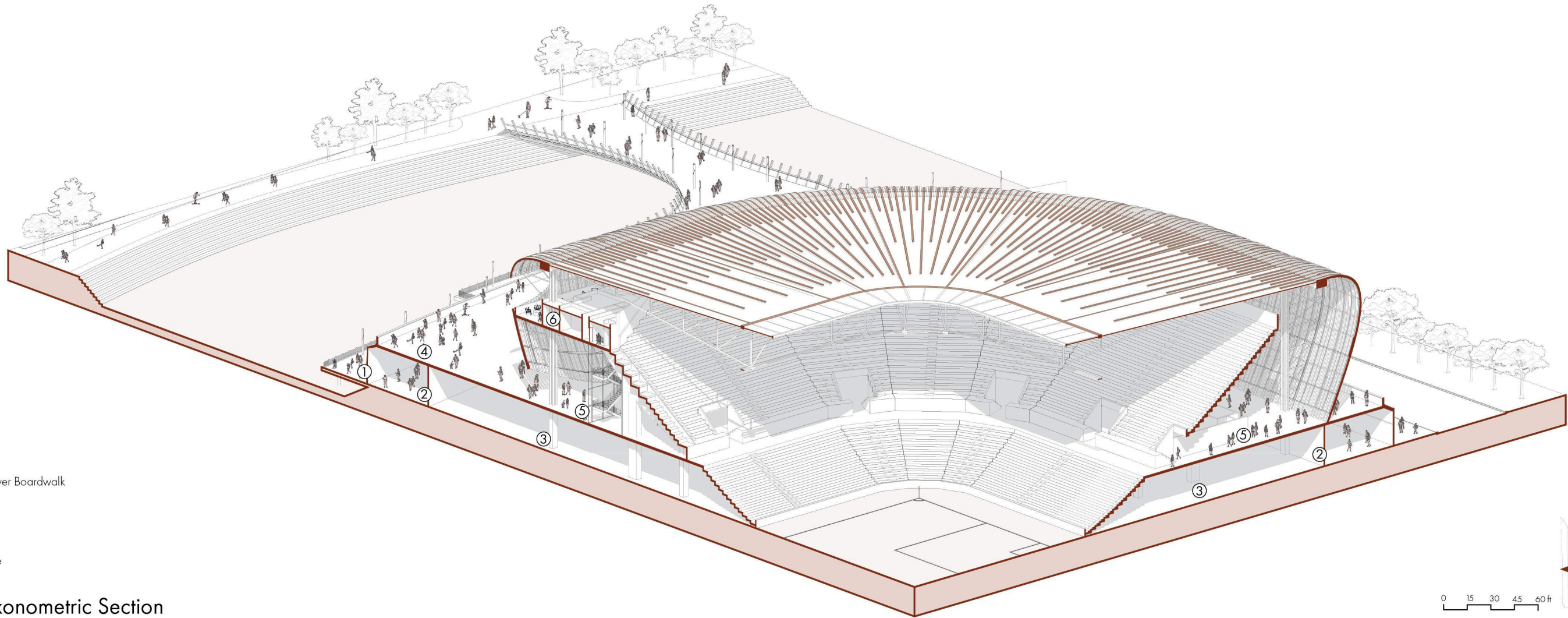
Player Tunnel Field Entry



Seating Bowl

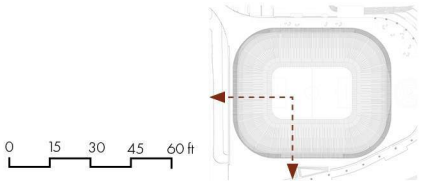


Riverside Bar



- ① North Branch River Boardwalk
- ② Retail Store
- ③ Event Level
- ④ Podium Plaza
- ⑤ Main Concourse
- ⑥ Riverside Bar

Multi-cut Axonometric Section





Lifestyle District Ramped Plaza

Terra Tower, located in the Arena District of the Oklahoma City Core-to-Shore plan, reimagines the future of urban dwellings in the United States. Terra Tower is a mixed-use cross-laminated timber high-rise that looks to create a unique experience for the residents of Oklahoma City. The building's name, Terra Tower, is derived from the building's modulated terraces. These terraces are populated with trees and greenery to create vertical urban forests for the building occupants to enjoy. These vertical urban forests promote activity, solitude, noise reduction, better air quality, and thermal comfort within the high-density residential tower, unlike most current residential towers, which feature little to no biophilic design.

Terra tower would provide 250 housing units and 225 hotel rooms, strengthening Oklahoma City's population and bringing the city closer to a high-density future. The program of the building consists of a 525 ft residential tower, a four-story hotel, a sports betting lounge, and a shared central courtyard public space. Integrating itself within an Arena District that would feature many sporting events, Terra Tower houses a sports betting lounge, a new typology in a nightlife experience, and a shared courtyard space. These programmatic elements allow Terra tower to come alive within Oklahoma City's urban fabric and aid in reinventing the image of Oklahoma City.

07

Terra Tower

Location: Oklahoma City, Oklahoma

Completion Date: December 2022

Project Team: Ethan Overland

Professor: Eddy Tavio


Use Type: Mixed-use Residential and Urban Development

(Rhino, Grasshopper, V-Ray, Photoshop, Illustrator)




HISTORY

Oklahoma City: Technological Innovation and Design Evolution




1889 Land Run

More than 100,000 people pour into the Cherokee Strip of Oklahoma to claim valuable land that had once belonged to Native Americans.




1928 Economic Boom

Indian Territory Oil Illuminating Company and Foster Petroleum made a historic discovery with the Oklahoma City No. 1 oil and gas well south of the city limits; this discovery would cement its culture and economy for the next century in Oklahoma City.




1930 Great Depression

The Great Depression was period of worldwide economic depression between 1929 and 1939. The Depression became evident after a major fall in stock prices in the United States.



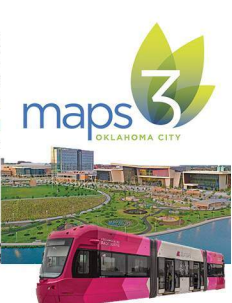
1960 The Pei Plan

The Pei Plan was an urban redevelopment initiative designed for downtown Oklahoma City, Oklahoma, United States, in the 1960s and 1970s. The plan called for the demolition of hundreds of antiquated downtown structures in favor of renewed parking, office building, retail developments, and public spaces.



1993 Metropolitan Area Projects

Metropolitan Area Projects Plan (MAPS) is a multi-year, municipal capital improvement program, consisting of a number of projects, originally conceived in the 1990s in Oklahoma City by its then mayor Ion Norick.



2022 MAPS 3

The Metropolitan Area Projects Plan 3 is a \$777 million public works and redevelopment project in Oklahoma City, Oklahoma funded by a temporary voter-approved sales tax increase.

Current Core-to-Shore Conditions




Located south of downtown Oklahoma City, the Core-to-Shore site is an area of underdevelopment and abandonment. The officials and citizens in Oklahoma city recognize this underdeveloped district and advocate for its urban growth. The government and its citizens have pushed for plans such as the Metropolitan Area Projects, MAPS, to help improve the area. These projects have propelled the vision of a Core-to-Shore framework plan in Oklahoma City, connecting downtown to the Oklahoma River.


THE FUTURE OF OKLAHOMA CITY

What if 10,000 people moved to downtown Oklahoma City?

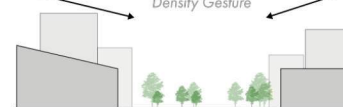
- 1. Creating an interconnected series of mixed-use districts that build community
- 2. Established variety in public and green space to build equity between districts
- 3. Created density and an engaging environment within the downtown framework



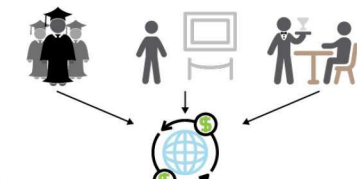
Construct Housing to Promote Density
5,250 units



Provide Parking for New Density
6,000 stalls



Integration of Existing Green Space
31 acres



Design for Economic Growth
6 Education, 3 Exhibition, 22 Food/ Nightlife

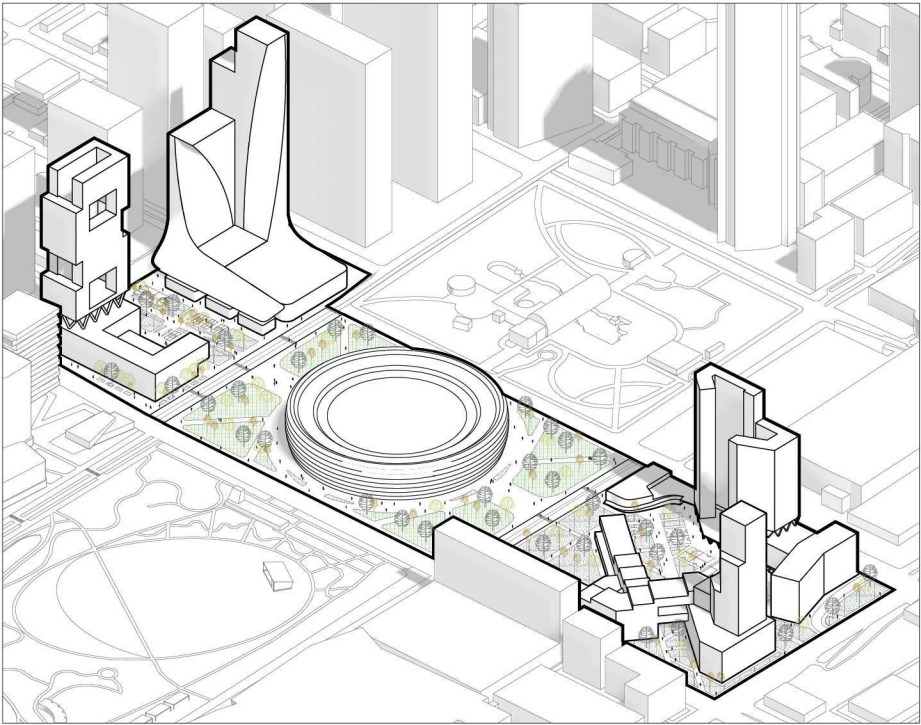
Proposed Future of Core-to-Shore



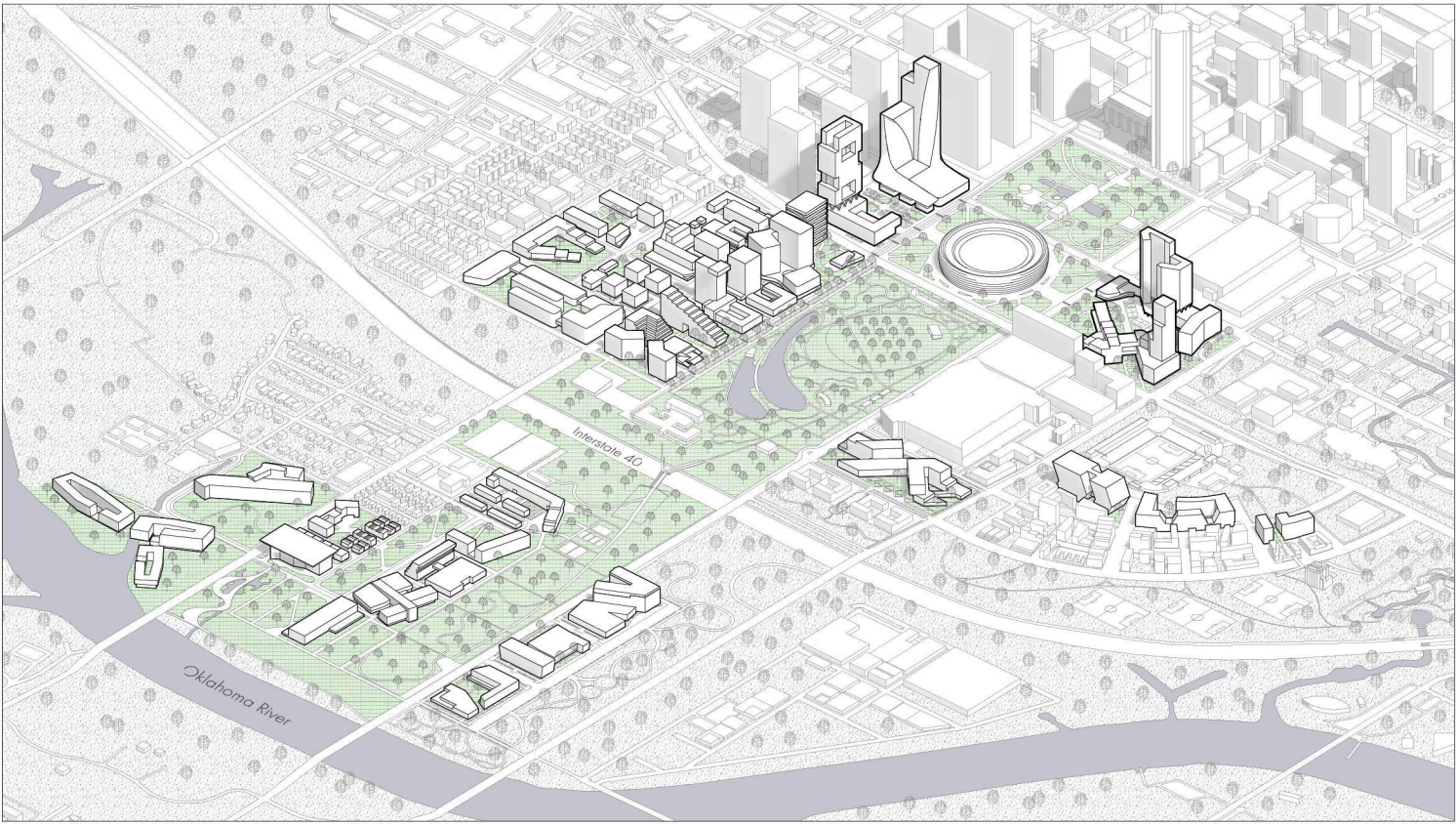
Using the existing site conditions of the Core-to-Shore plans, such as Scissortail Park, the Oklahoma River, and other existing public spaces, the proposed plan aims to create unique projects along a primary axis from downtown Oklahoma City to the Oklahoma River. The plan takes advantage of existing roads and abandoned plots to construct a new image for Oklahoma City that is both unique and inviting.

PROPOSED ARENA DISTRICT

Within the Core-to-Shore framework plan for Oklahoma City, an Arena District is proposed in the north. Planned around a new location for the Paycom Center, the arena for the Oklahoma City Thunder, the district aims to create large public spaces that integrate a unique nightlife atmosphere and engaging activity spaces for the city. In the mixed-use development of the arena district, there are bars, restaurants, hotels, a sports betting lounge, and a sports academy.



Arena District



Proposed Core-to-Shore Plan

THE FUTURE OF ARENA DISTRICTS

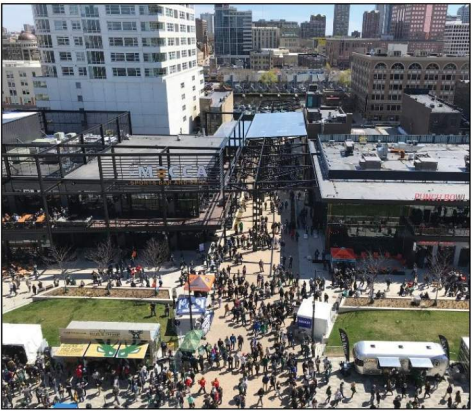
Existing Arena Districts



Jurassic Park, Toronto



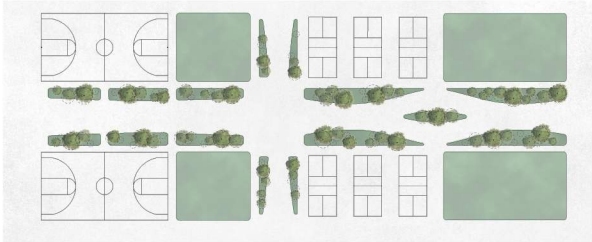
Titletown, Green Bay



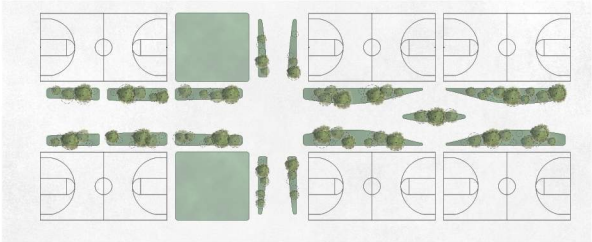
Deer District, Milwaukee

In today's urban plans for arena districts, designers aim to create a lively atmosphere that integrates into a major city's urban fabric. Predominantly, there are two typologies of urban planning in arena districts, large event plazas, and programed activity spaces.

Designing an Arena Super-block



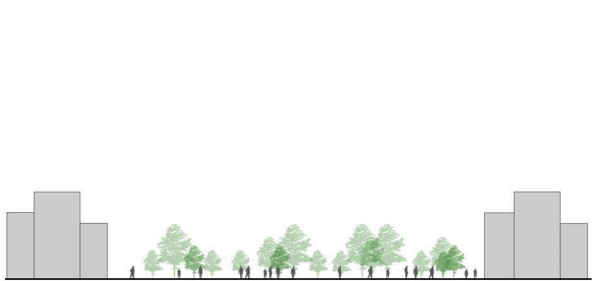
Nightlife Configuration



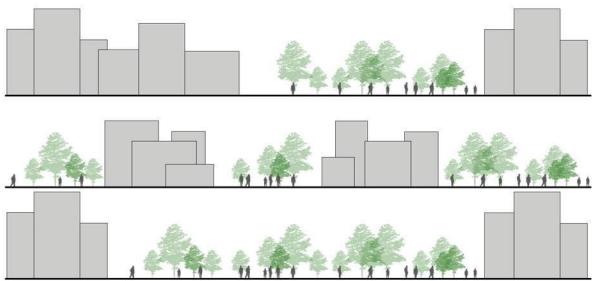
Competitive Configuration

Based on current arena districts, the arena super-block will combine those design ideas into one sizable, flexible space, allowing all arena district typologies to be present in one location. Two primary configurations are designed for this public space, a nightlife configuration, and a competitive configuration. Both layouts feature a permanent basketball court and green space to the east, while to the west, the space can be altered into pickleball courts, turf fields, or additional basketball courts. These two configurations integrate with the sports betting lounge and sports academy, flanking the space.

Integration of Greenery

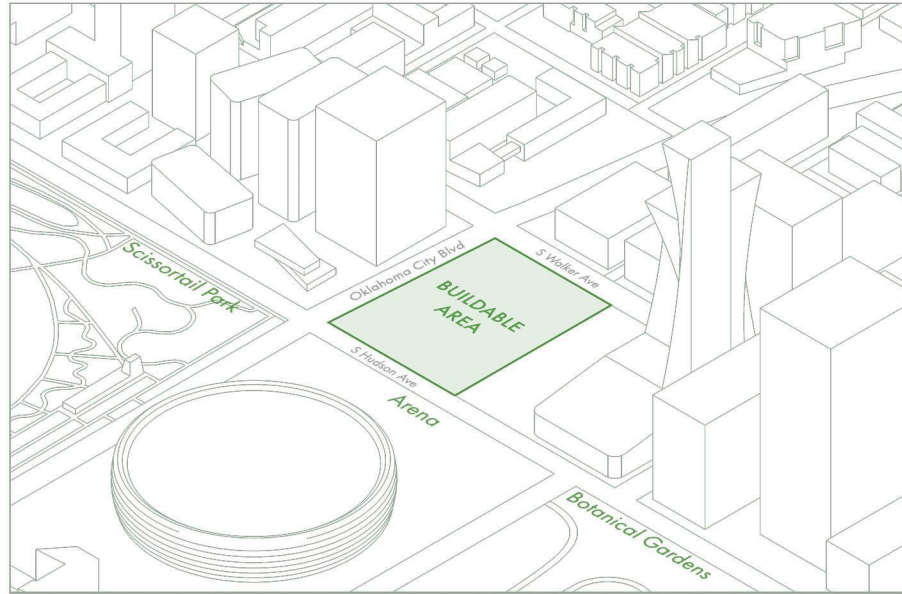


Horizontal Urban Forests



Vertical Urban Forests

The block's public spaces and mixed-use buildings will integrate horizontal and vertical forests to give the arena super-block a unique character and promote interaction with nature. This design will provide the public and residents of the apartment towers with a special connection with nature, promoting activity and solitude within the block.



01 Site + Context

The project is a mixed-use residential tower between Scissortail Park and the Myriad Botanical Gardens in downtown Oklahoma City. Situated across the street from a newly proposed arena for the NBA Oklahoma City Thunder, the project aims to create an arena district for the city.



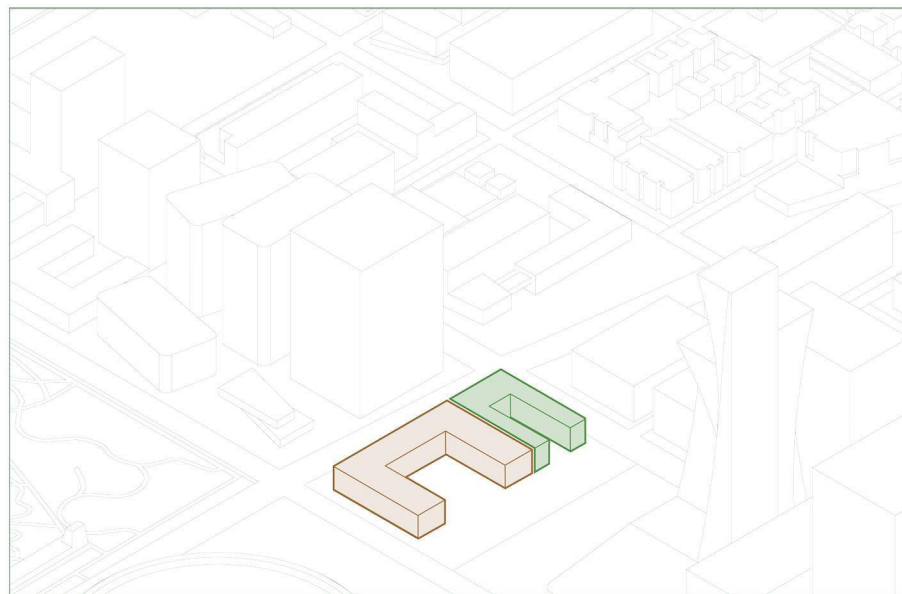
02 Programming Site

Within the building site, the project is split into two halves. The site's eastern section houses the project's hotel and sports betting lounge, while the western section provides space for a parking garage and residential tower.



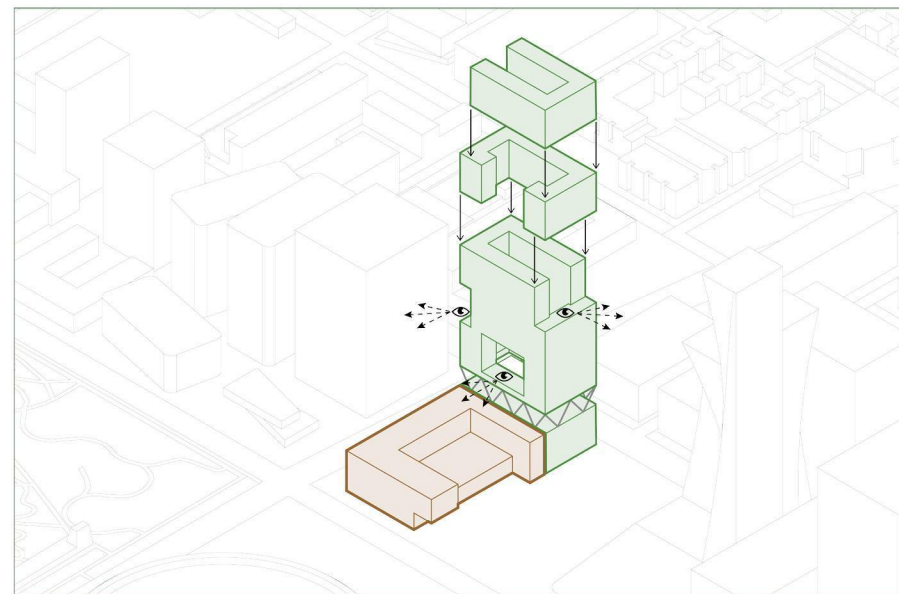
03 Axes

Axes within the site's context create organization within the site. An arena axis provides space to develop a unique arena district and a gathering axis for city residents and the project. A southern axis provides a split between the project's programmatic space.



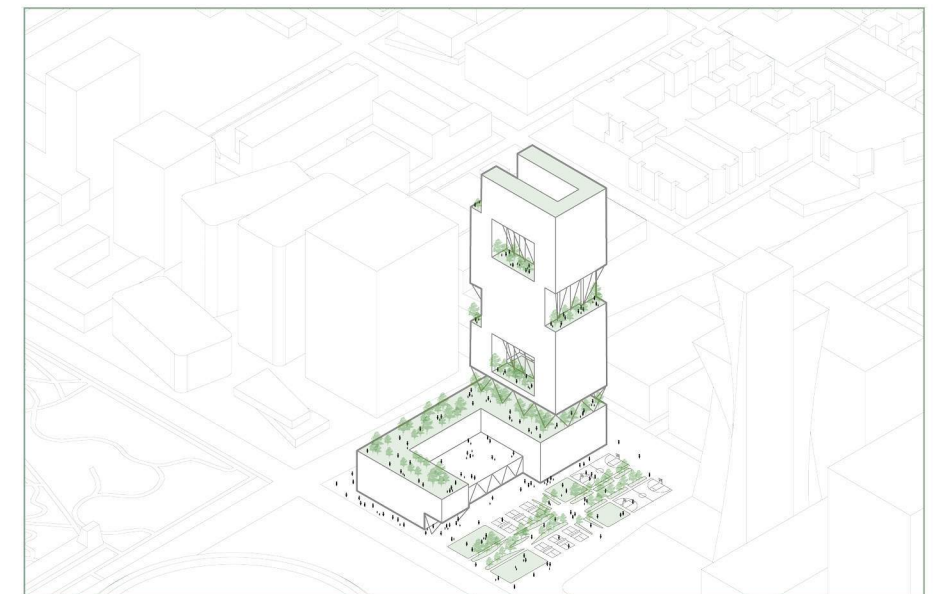
04 Establishing a Module

As a primary step in the project's form, a half courtyard module is formed, which will be used in both the hotel and residential tower. The module allows the form to embrace the gathering axis, sun angles, and views of the surrounding context.



05 Stacking Modules/ Creating Terraces

Stacking the half-court modules creates terraces for the residents and guests. In the residential tower, the module is rotated to allow for views of Scissortail Park, the arena, the Myriad Botanical Gardens, and downtown Oklahoma City.



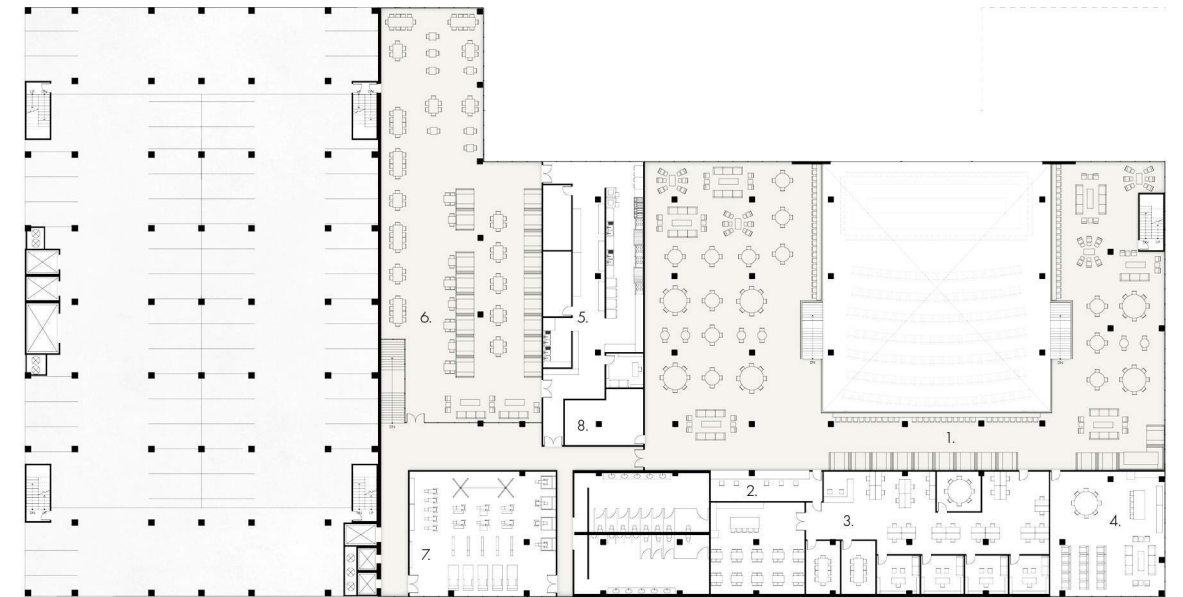
06 Terraced Forests/ Arena Landscape

Within the modulated terraces of the residential tower and the hotel roof, vertical forests are created in a dense arena district. Additionally, landscaping and activity space is created between this project and a project to the north, creating a unique arena district.



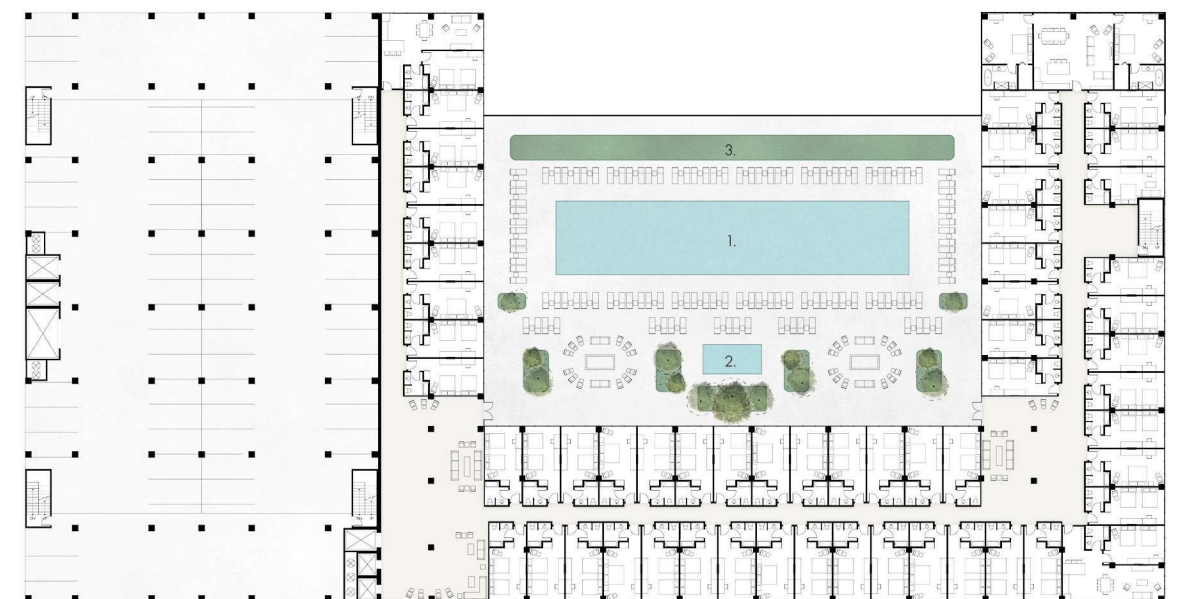
Ground Floor 0'0"

1	Sports Betting Lounge	6	Hotel Offices	11	Loading Dock
2	Kitchen	7	Lobby Bar	12	Residential Lobby
3	Bookies	8	Storage		
4	Offices	9	Trash		
5	Hotel Lobby	10	Mechanical		



2nd Floor 15'0"

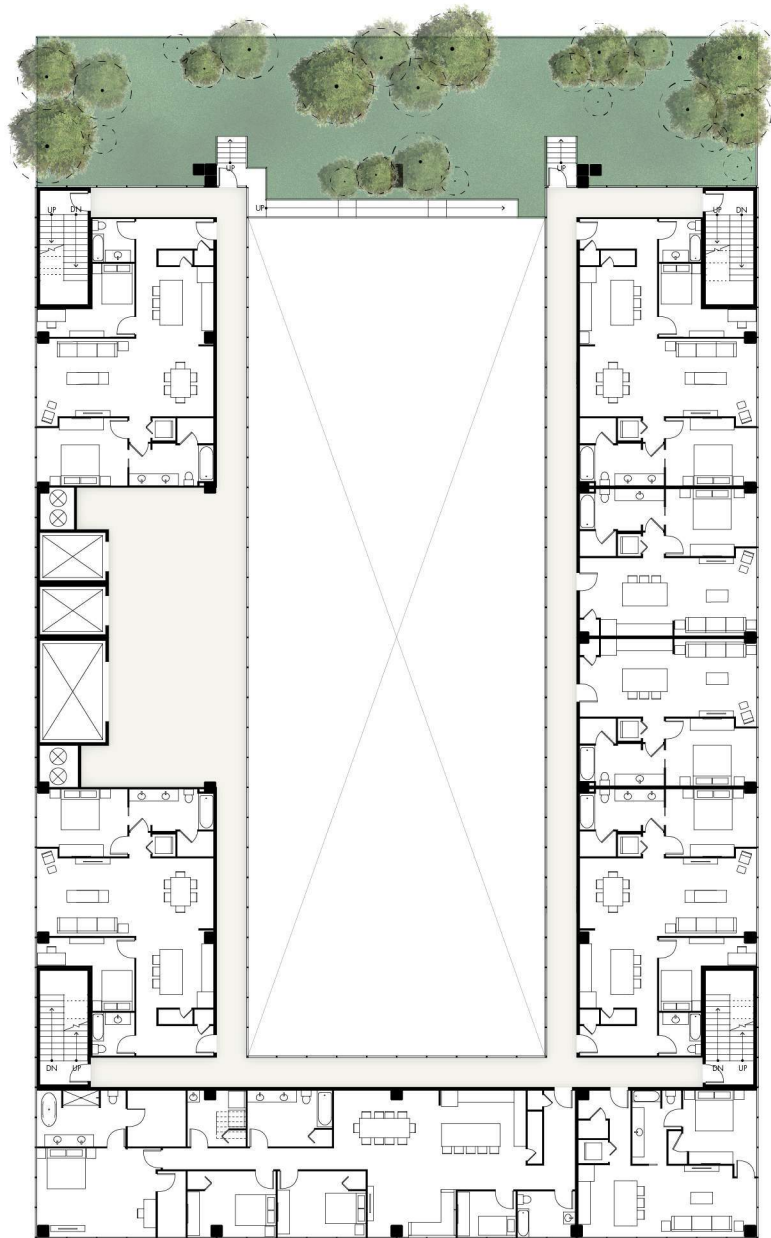
1	Sports Betting Lounge	6	Restaurant
2	Bookies	7	Hotel Gym
3	Offices	8	Storage
4	Private Lounge		
5	Kitchen		



Hotel Floor (4) 30'0" - 69'0"

1	Pool	Singles	count: 15	Double Suite	count: 2
2	Hot Tub	Doubles	count: 38	Dual Single Suite	count: 1
3	Turf Lawn				





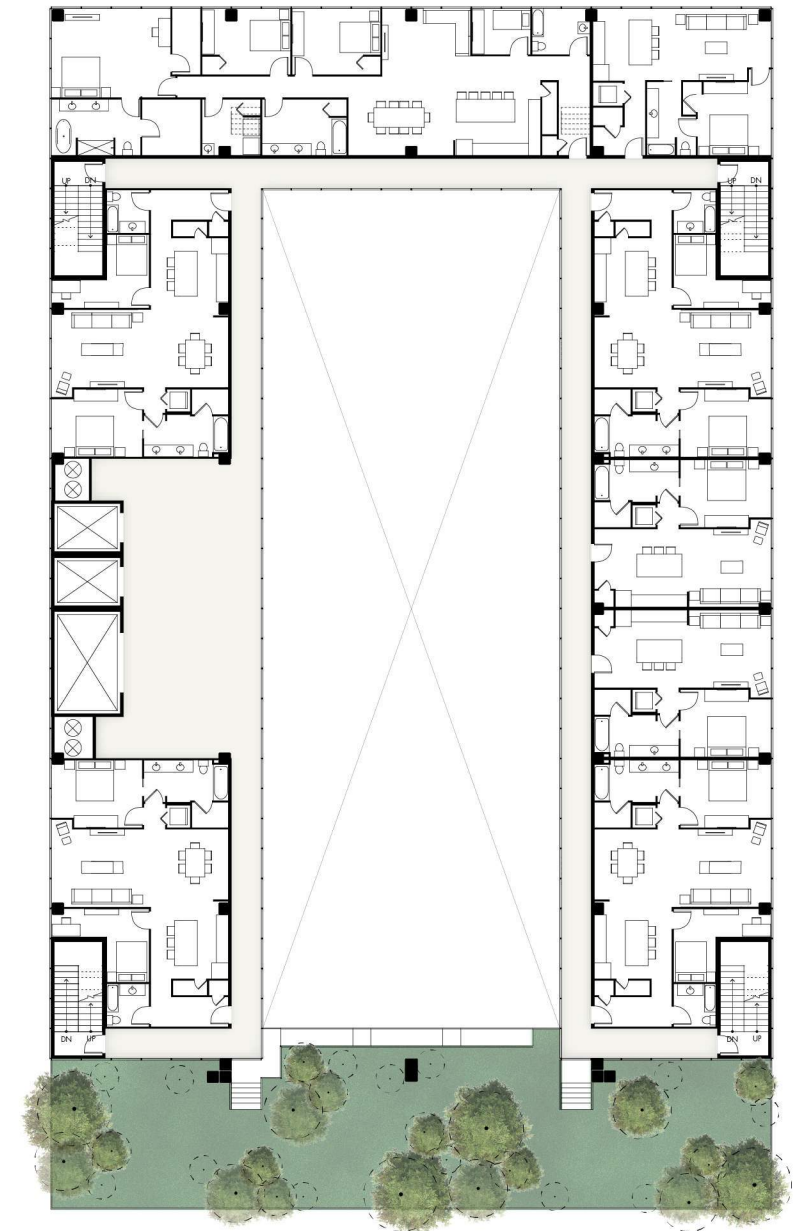
Residential Floor North (6) 290'0" - 355'0"

Singles count: 3
Doubles count: 4
Quads count: 1



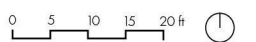
Residential Floor East (12) 134'0" - 199'0", 368'0" - 433'0"

Singles count: 8
Doubles count: 2



Residential Floor South (11) 212'0" - 277'0", 446'0" - 498'0"

Singles count: 3
Doubles count: 4
Quads count: 1





Sportsbook Lounge



Residential Terrace



08

The Psychedelic Movement Museum

Location: Portland, Oregon

Completion Date: December 2021

Project Team: Ethan Overland

Professor: Dr. Kapila D. Silva

Use Type: Museum

(Rhino, Grasshopper, AutoCAD, Lumion, Photoshop, Illustrator)

The Psychedelic Movement, which began in the mid-1960s, had an effect on music and many aspects of popular culture. One of the center points of the psychedelic movement was the experimentation and exploration of psychedelic drugs such as LSD, psilocybin mushrooms, MDMA, DMT, and Ketamine. This exploration into psychoactive drugs allowed for new individual human experiences called the psychedelic experience. A psychedelic experience is characterized by the striking perception of aspects of one's mind which was previously unknown and intangible. The Psychedelic Movement Museum aims at embodying a similar journey to one explored in a psychedelic experience, providing visitors a new and unique museum experience.

Within the Psychedelic Movement Museum, guests experience a vertical ascension via central circulation elements, providing access to visual exhibits as well as contemporary exhibits such as the art, hippie, clothing, and music exhibits. This vertical ascension through the museum embodies the experience of rising to a higher consciousness while on psychoactive drugs popular during the psychedelic movement. At the climax of the museum's ascension are the Celestial Womb and Divine Consciousness exhibits. These exhibits represent an experience that one would receive on the most intense psychedelic experience, manifested in the form of a projected universe in the Celestial Womb and a stark white cube, symbolizing a higher universal power in the Divine Consciousness exhibit.

HISTORY

Psychedelics: A National Impact



The Psychedelic era was the time of social, musical, and artistic change influenced by psychedelic drugs, occurring from the mid-1960s to the mid-1970s. The era was defined by the proliferation of LSD and its influence on the development of psychedelic music and psychedelic film in the Western world. By the mid-1960s, the psychedelic lifestyle had already developed in California, and an entire subculture had developed.

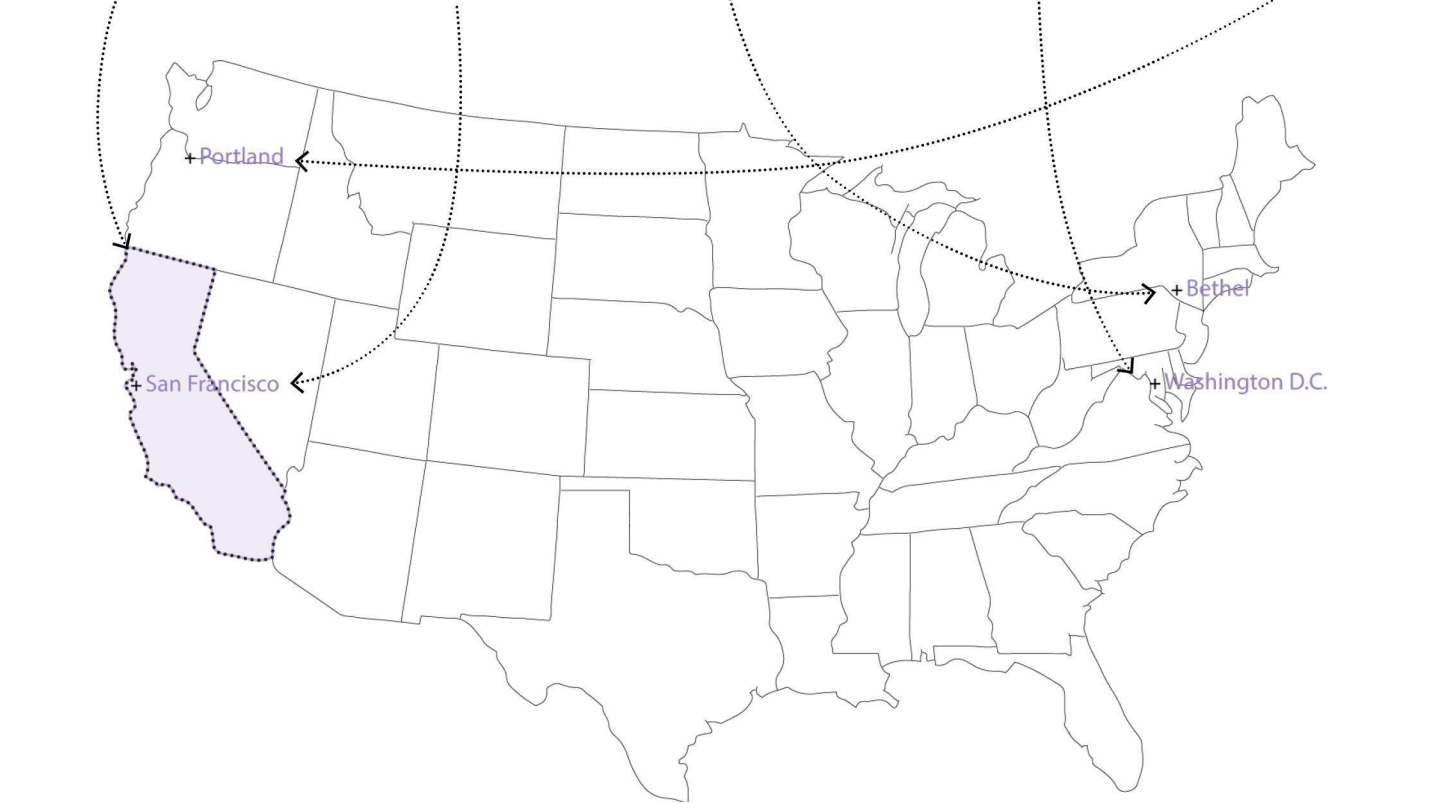
1960 **Psychedelic Movement**

1965 **Owsley Stanley**

1969 **Woodstock**

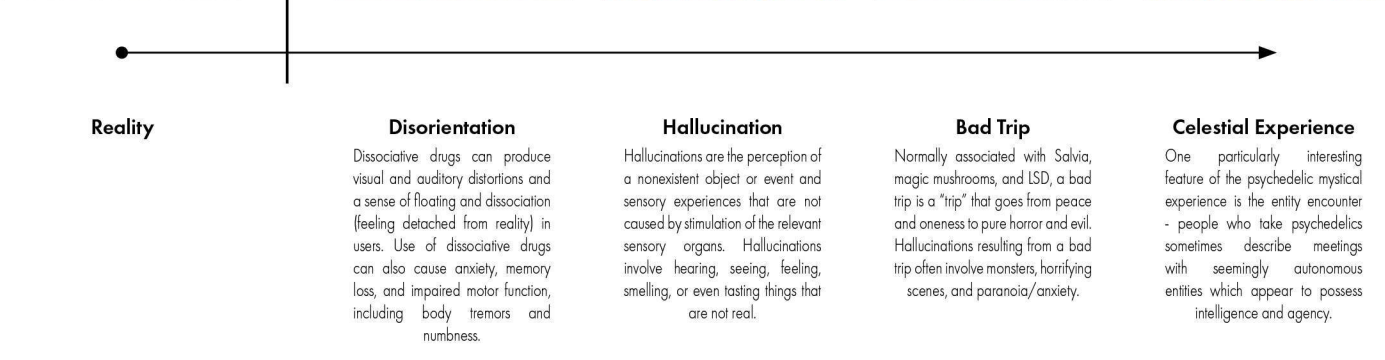
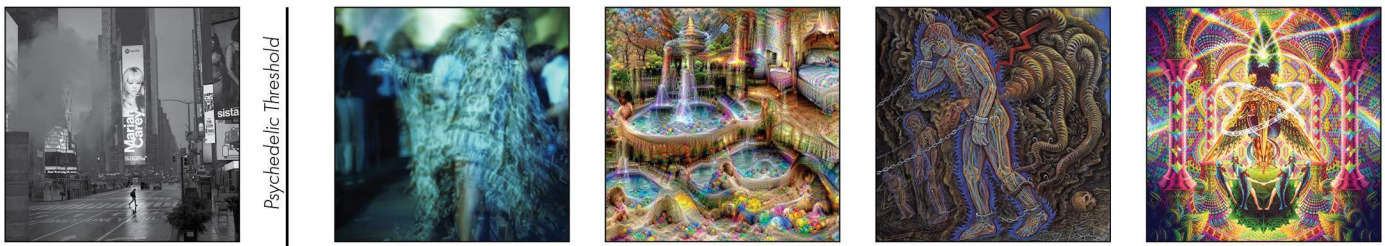
1971 **War on Drugs**

2020 **Measure 109: Path to Legislation**



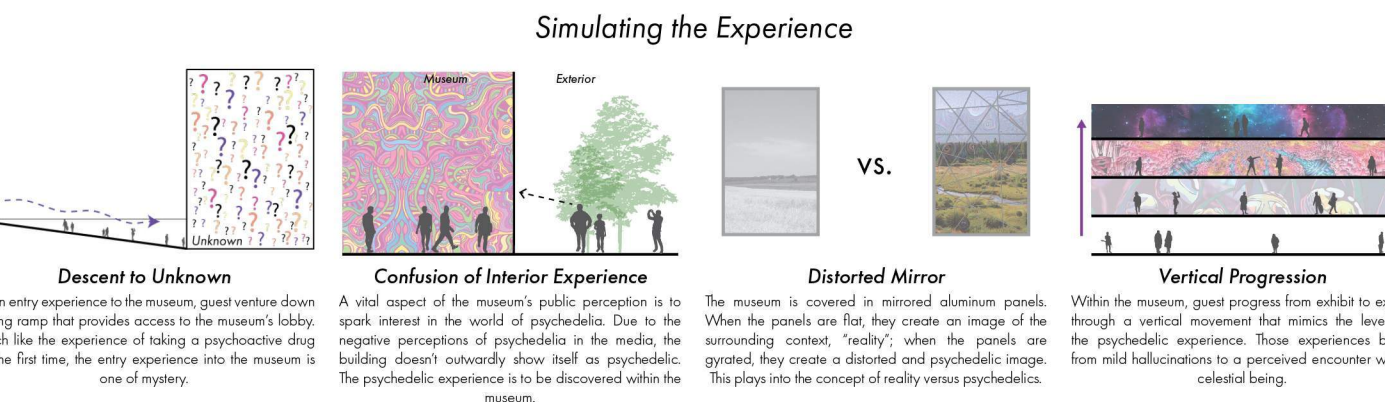
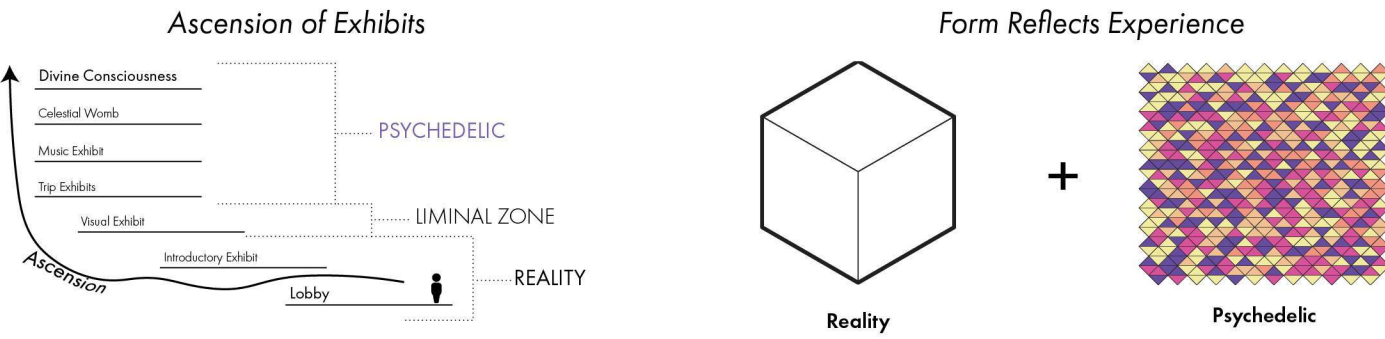
THE PSYCHEDELIC EXPERIENCE

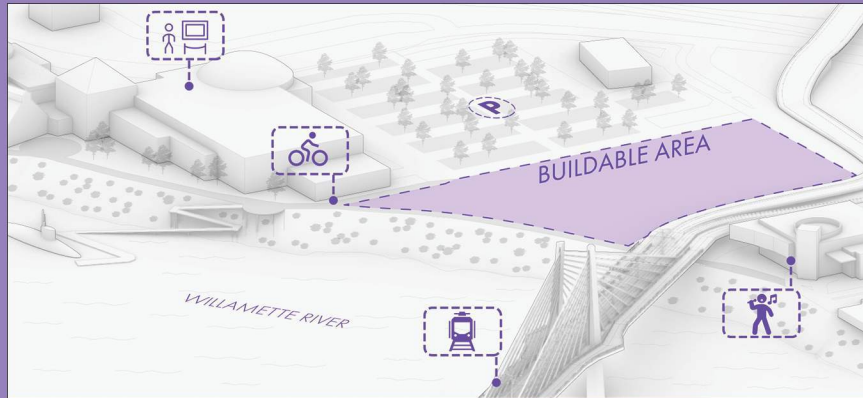
Progression of Possible Experiences



Why do People want these Experiences?

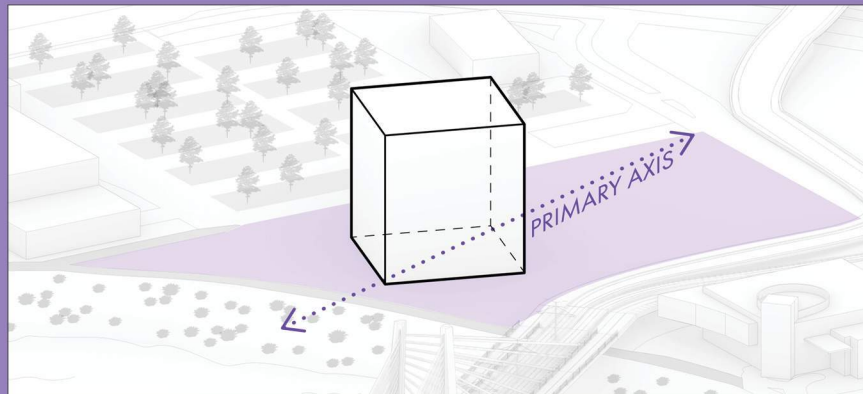
Hallucinogens' effects vary slightly from substance to substance. However, most of them cause a combination of sensory distortion, altered thinking patterns, and heightened emotions. These drugs can temporarily transport an individual to another level of consciousness. For this reason, taking hallucinogens is often referred to as a 'trip.' Although tripping can be intense and sometimes overwhelming, many people enjoy the experience. Others may not relish the effects of hallucinogens but endure them for their spiritual or therapeutic impact.





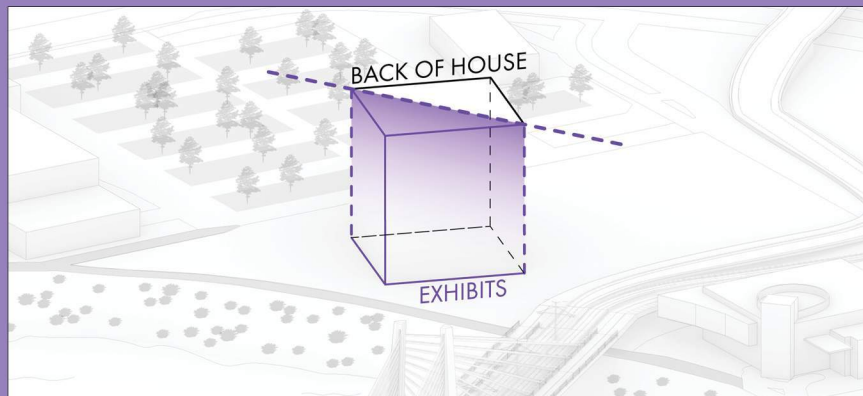
01 Site + Context

The project is a museum located in East Portland along the Willamette River. The museum will improve the Willamette Riverfront and interact with the East-bank Esplanade path, which runs along the eastern side of the river.



02 Orientation

The primary axis of the museum is orientated to provide access to the site from the nearby light rail station and a parking lot. Additionally, the axis is angled towards the Willamette River to interact with the river and the museum. Corners of a cube are placed on this axis.



03 Liminal Line/ Programming

The liminal line separates the cube into the psychedelic and reality portions of the museum, the liminal line acting as the transition between both zones. The Psychedelic section houses the museums' exhibits, and the reality section contains the museum back of house services.



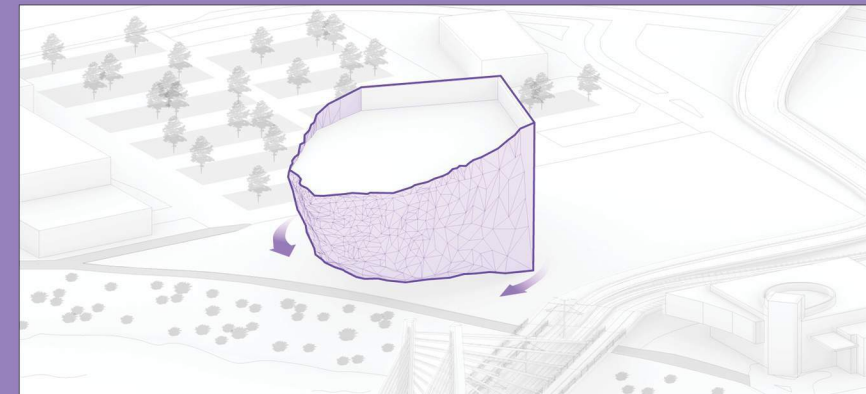
04 Liminal Line/ Circulation

Along the liminal line, the museum's vertical circulation elements are places. This physically represents the liminal line and emphasizes the transition between reality and the psychedelic sections of the museum.



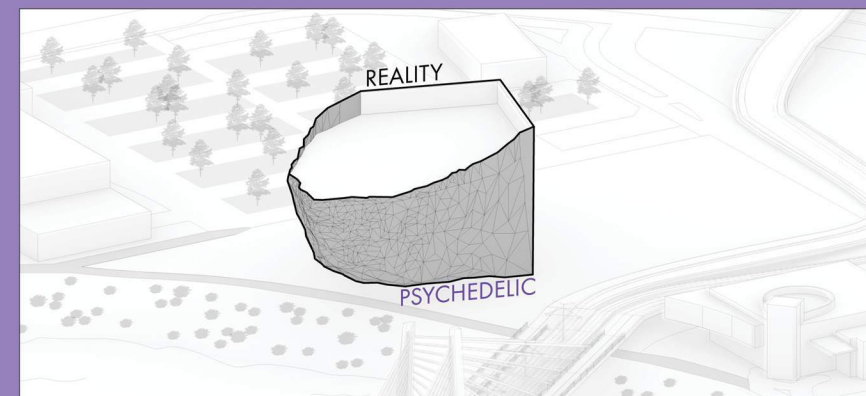
05 Journey

From the liminal line, the museum exhibits formed. The exhibits are stacked to provide vertical ascension within the museum; exhibits extended to create a protrusion into the riverfront.



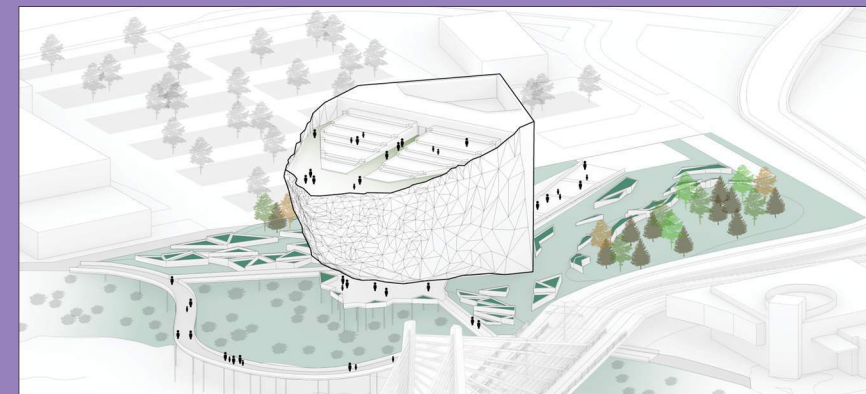
06 Warp + Wrap

Exhibits are warped around with a polygonal warp that extends from the back end of the cube. This hides the exhibits within the museum and instills curiosity into pedestrians as to what the museum contains.



07 Materiality

Cladded on the polygonal warping of the museum are anodized aluminum mirrored panels. On the reality side of the liminal line, the surrounding built environment is reflected accurately on the panels, while on the psychedelic side of the liminal line, the polygonal warping creates a distorted reflection of the built environment.



08 Public Interaction

The museum's roof is activated and designed to be a multi-use event space for events such as concerts or private parties. The museum's surrounding site is improved to feature planters, hills with trees to act as a noise barrier, and an expansion of the East-bank Esplanade to give pedestrians a view of the museum.

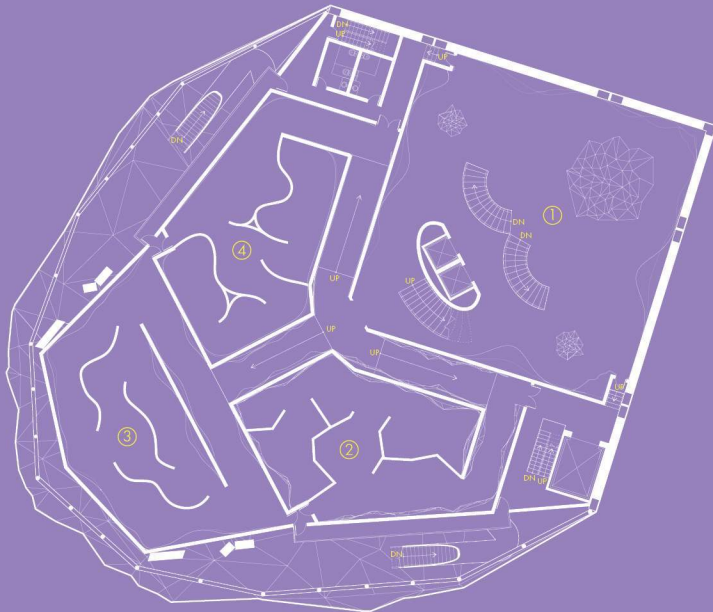
Entry Floor -11' 0"

- 1 Lobby
- 2 Auditorium
- 3 Classroom
- 4 Gift Shop
- 5 Cloak Room



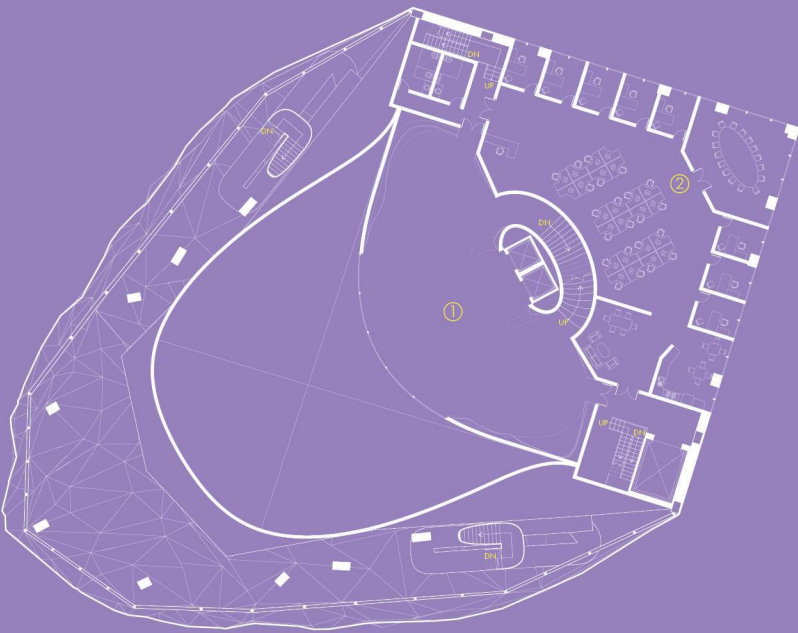
Second Floor 0' 0"

- 1 Introductory Exhibit
- 2 Cafe
- 3 Cafe Kitchen
- 4 Temporary Exhibit
- 5 Cafe Balcony



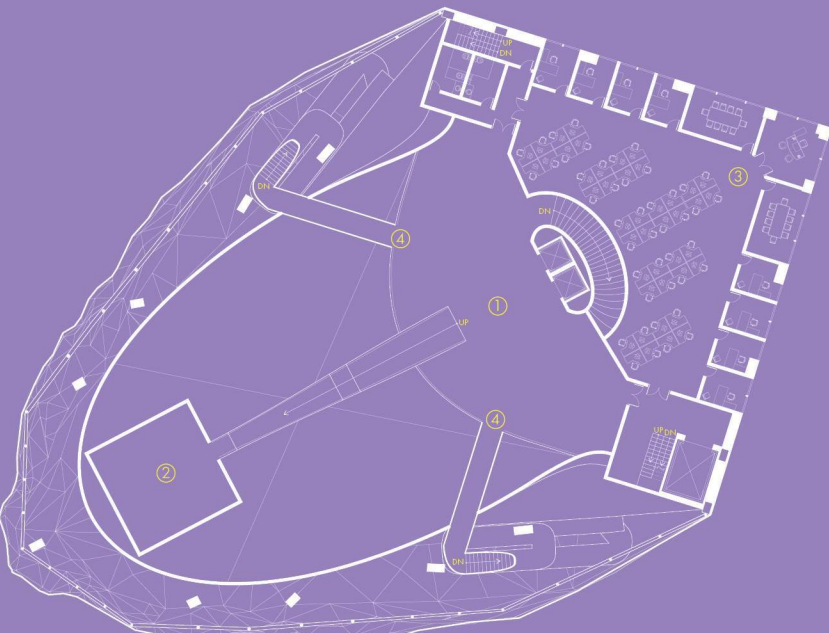
Third Floor +15' 0"

- 1 Visual Space
- 2 Art Exhibit
- 3 Hippie Exhibit
- 4 Clothing Exhibit



Fourth Floor +35' 0"

- 1 Music Exhibit
- 2 Offices



Fifth Floor +50' 0"

- 1 Celestial Womb
- 2 Divine Consciousness
- 3 Offices
- 4 Exit Stairs





① Entry Ramp



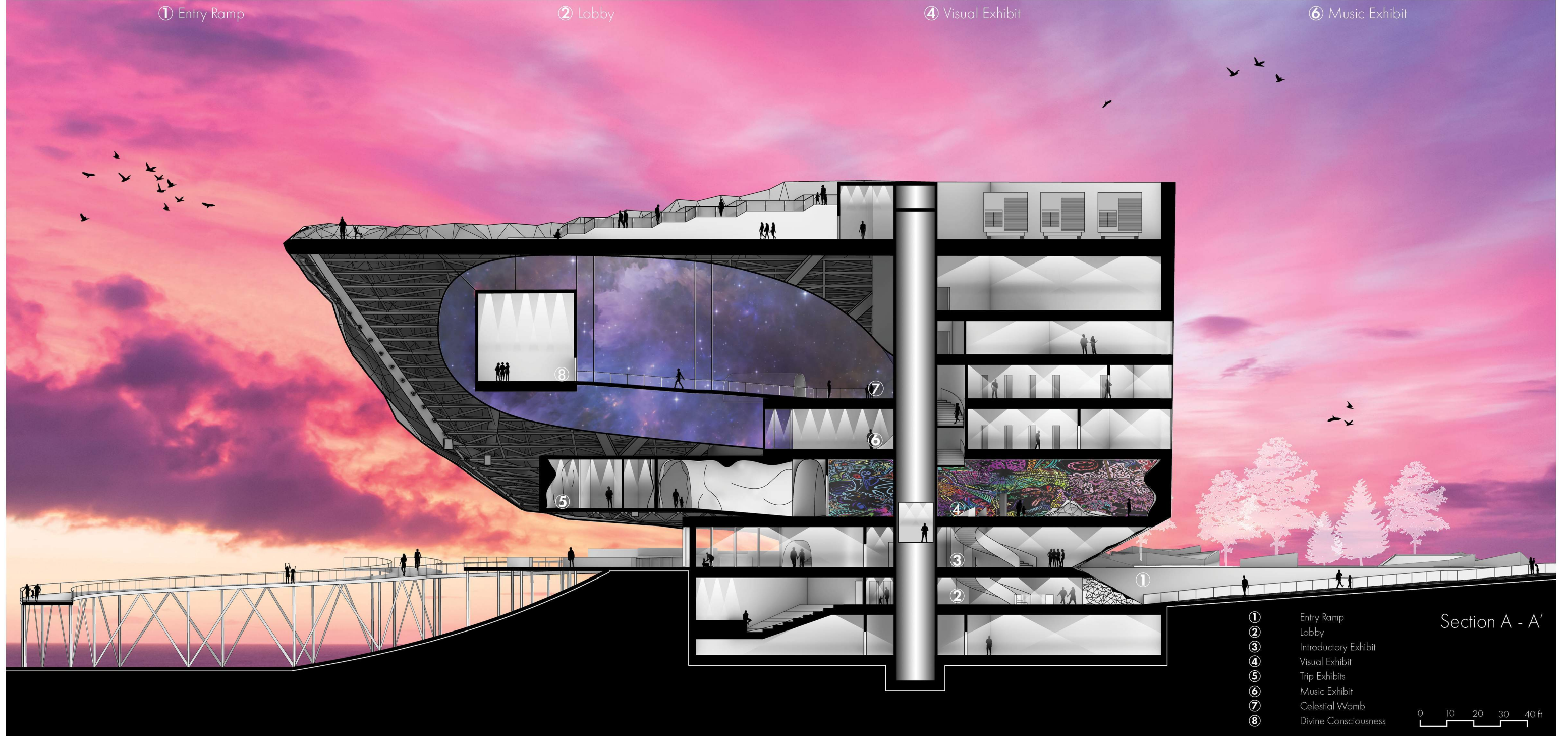
② Lobby



④ Visual Exhibit



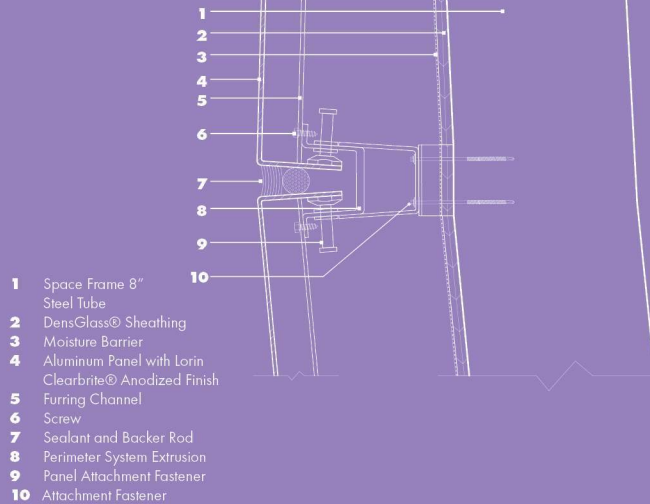
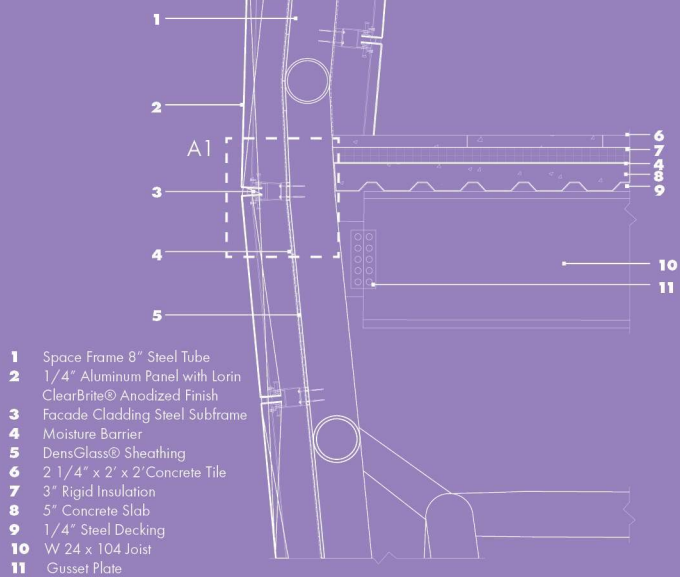
⑥ Music Exhibit



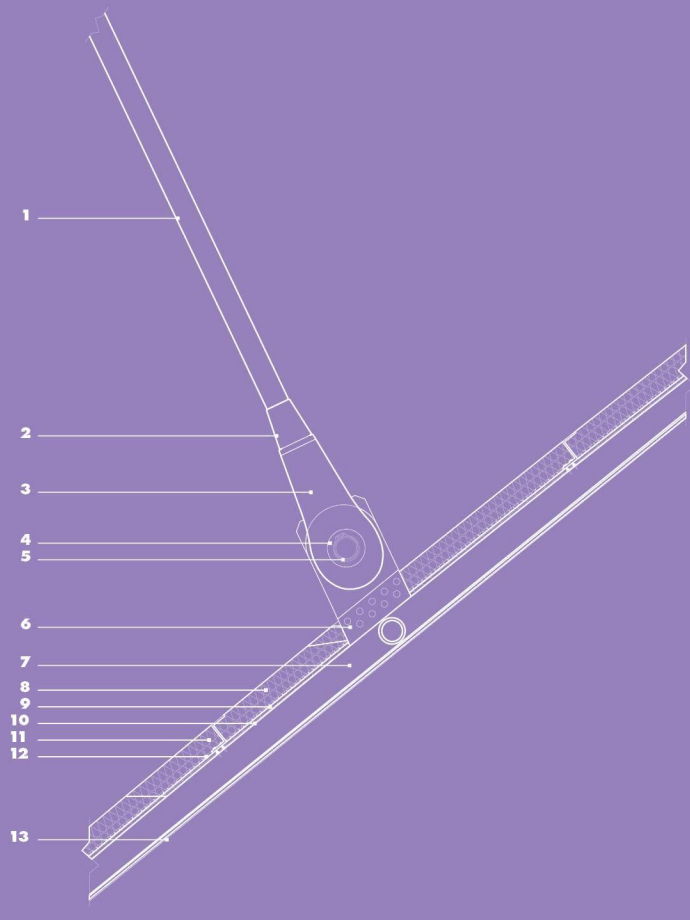
Wall Section Southwest

A

A1

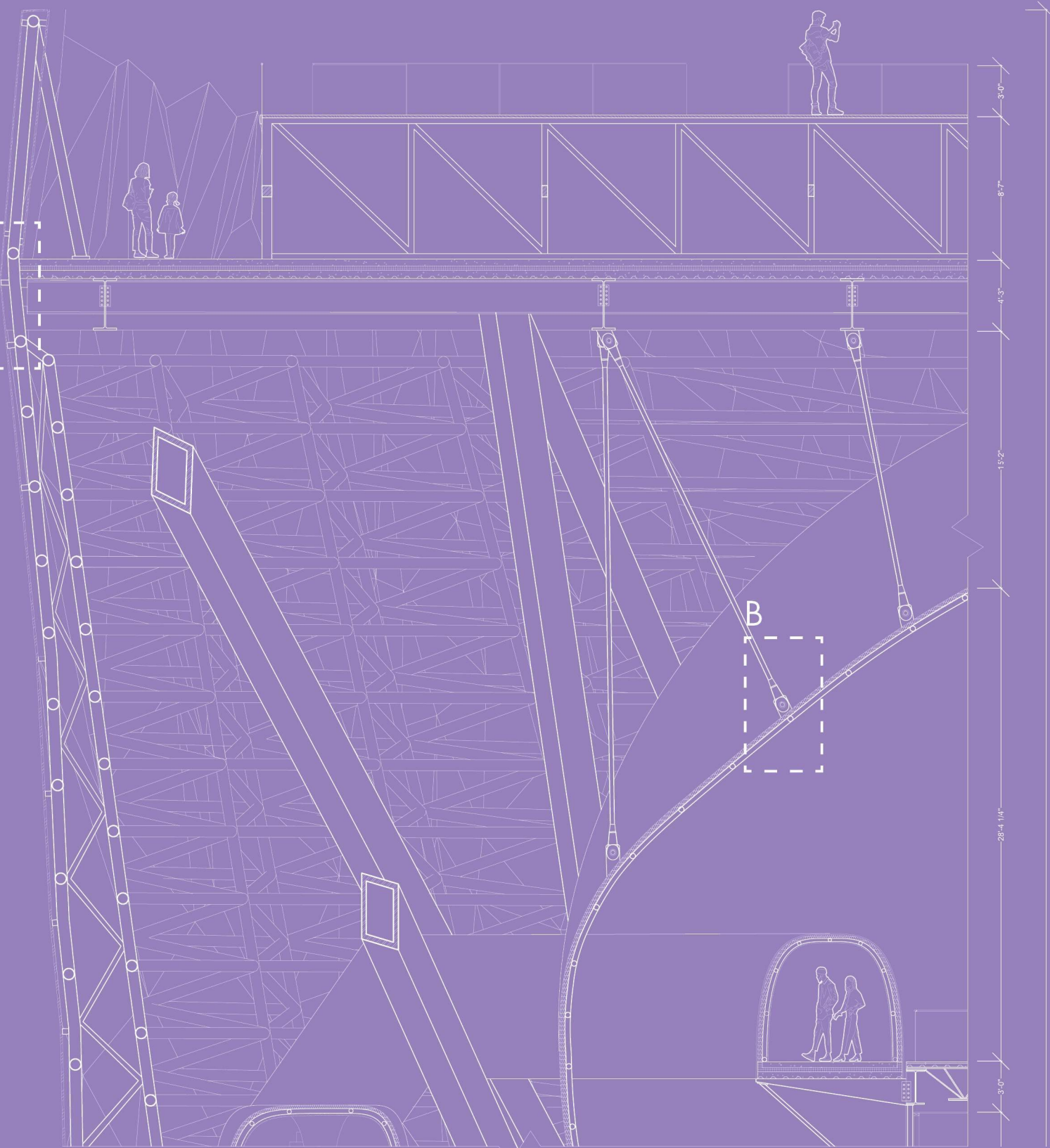


B



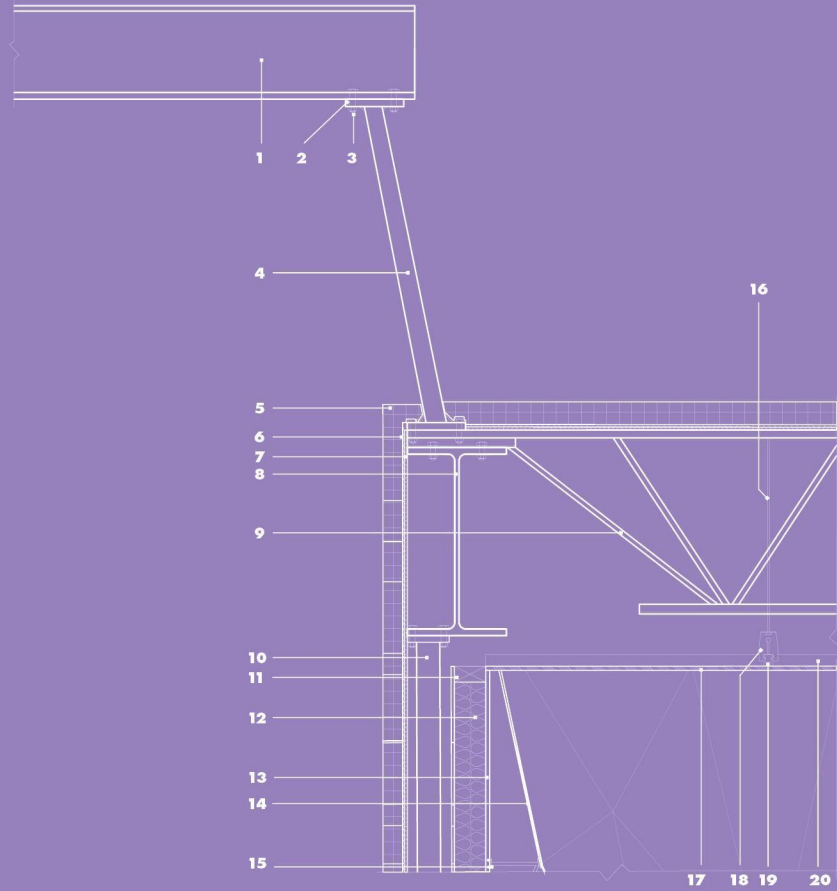
A

B



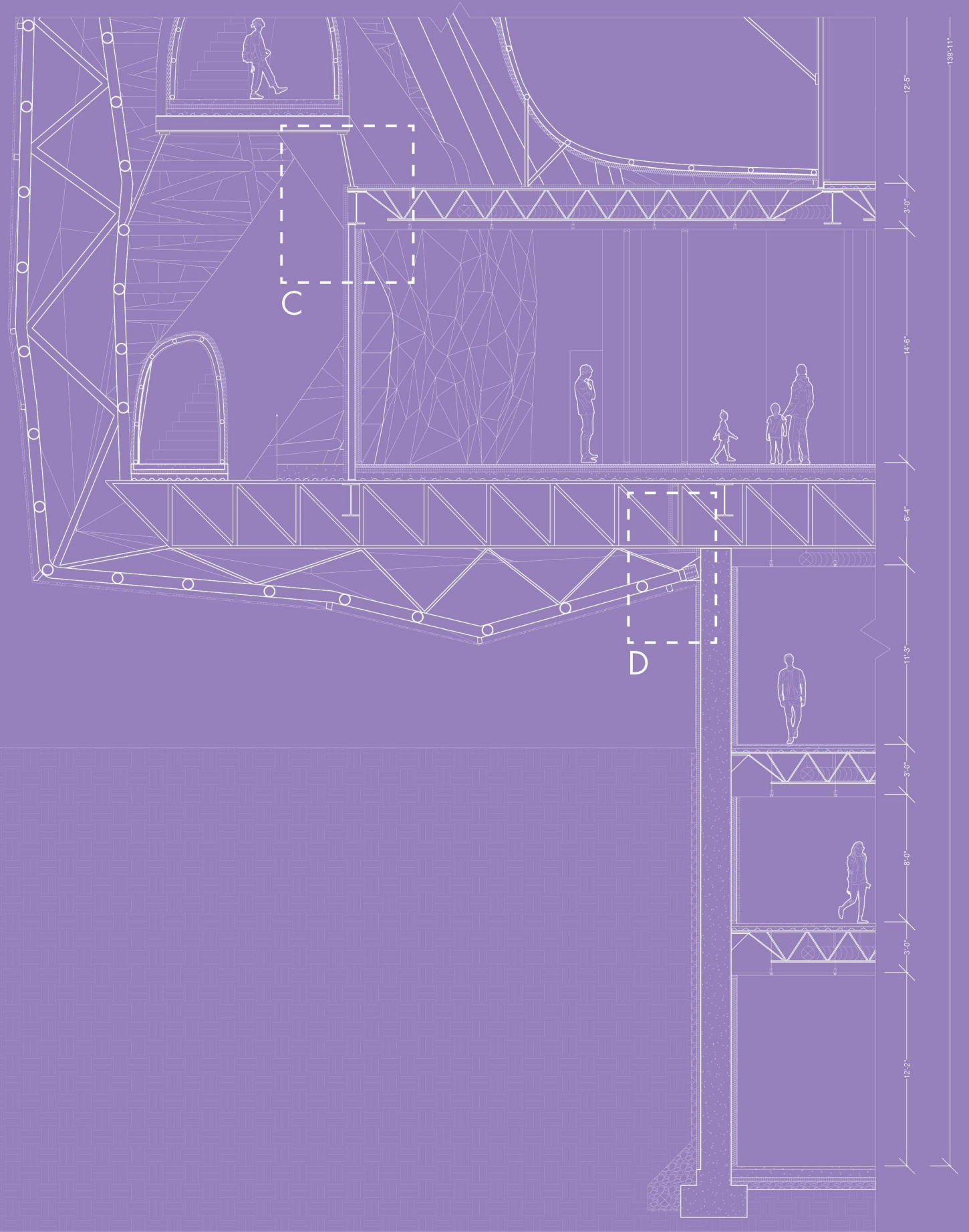
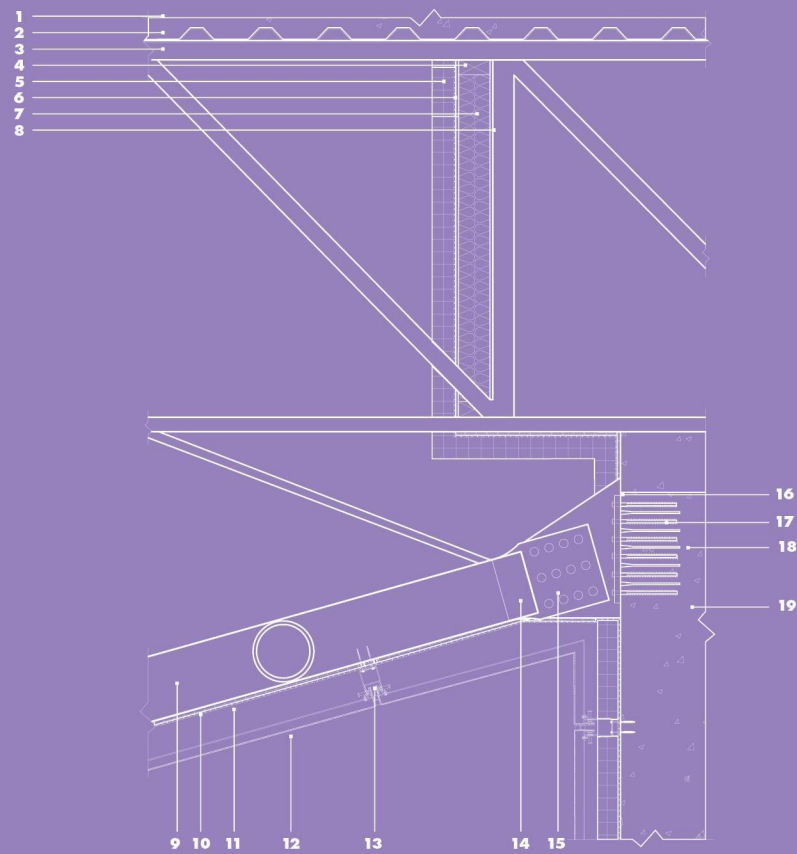
C

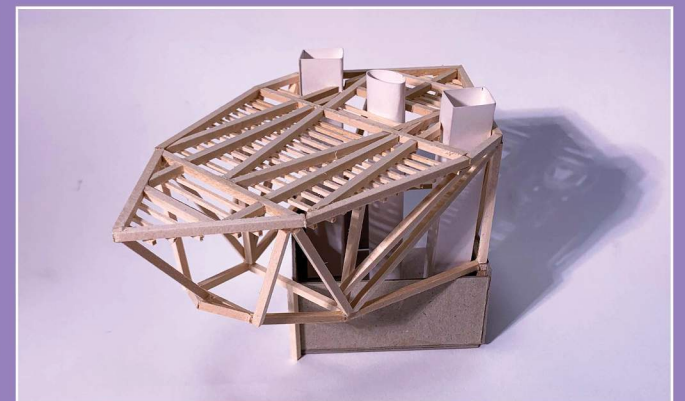
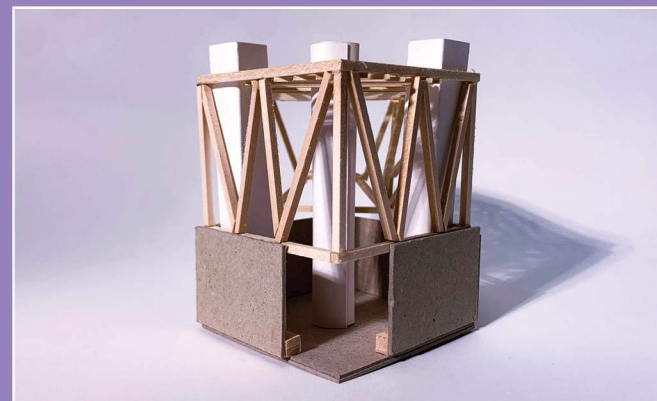
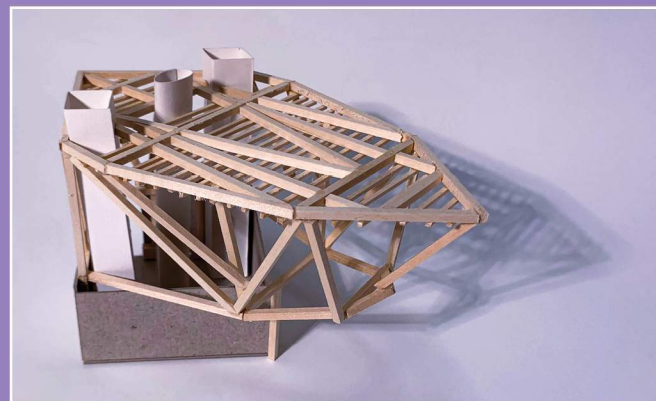
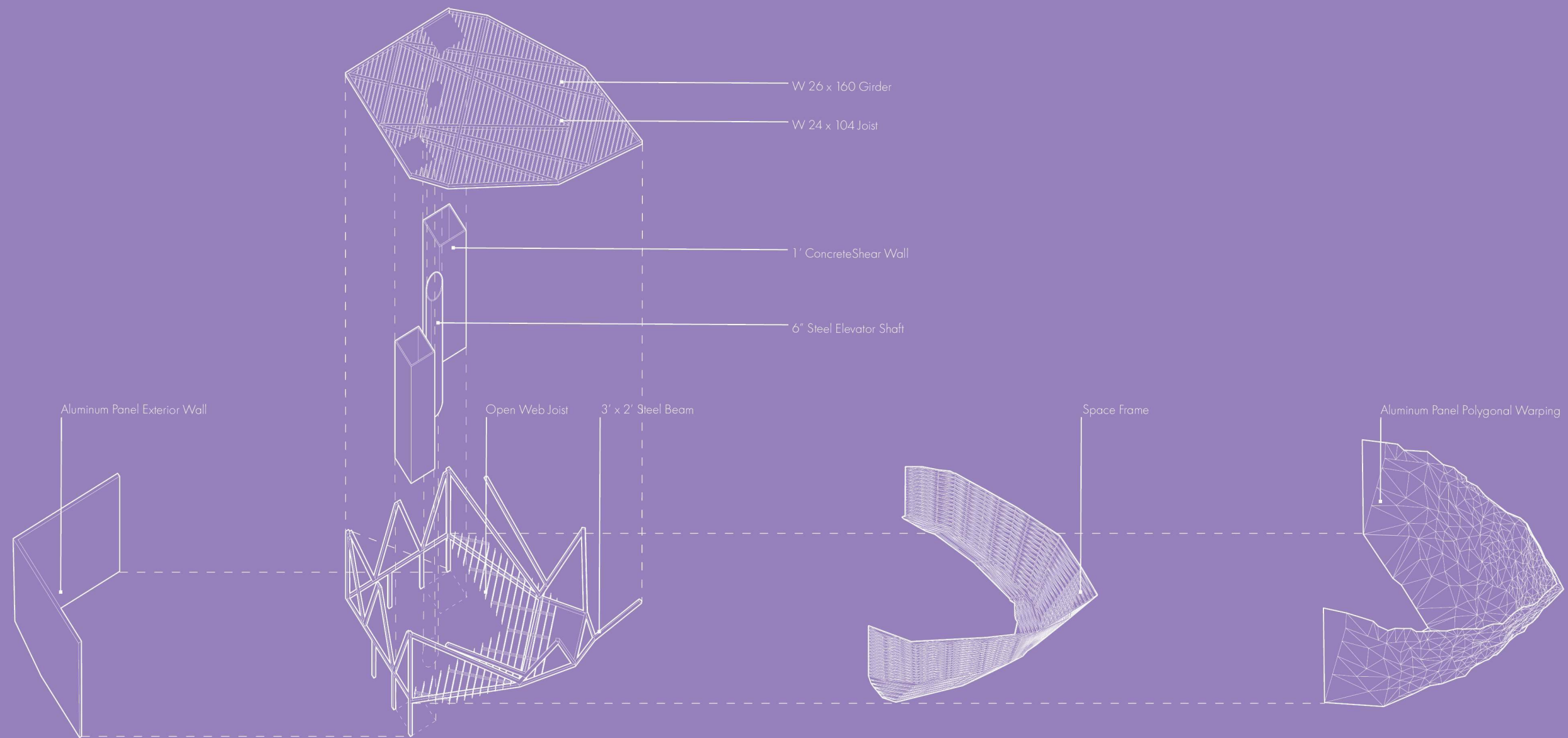
- 1 W 12 x 65 Beam
- 2 Steel Support Connection Plate
- 3 2 1/2" Steel Support
- 4 Group A Bolt
- 5 3" Rigid Insulation
- 6 Vapor Barrier
- 7 1/2" DensGlass® Sheathing
- 8 W 24 x 104 Beam Steel
- 9 Steel Open Web Joist 3"
- 10 3" Steel Support Column
- 11 2x4 Timber Stud Wall
- 12 Batt Insulation
- 13 1/2" Gypsum Board
- 14 Aluminum Interior Cladding
- 15 Interior Cladding System
- 16 Key-Lock® Suspension Rod
- 17 Aluminum Ceiling Tiles
- 18 Key-Lock® Suspension Clip
- 19 Key-Lock® Top Cross Rail
- 20 Key-Lock® Furring Channel



D

- 1 4" Concrete Slab
- 2 1/4" Steel Decking
- 3 Open Web Joist
- 4 2x4 Timber Stud
- 5 3" Rigid Insulation
- 6 Vapor Barrier
- 7 4" Batt Insulation
- 8 1/2" Gypsum Board
- 9 Space Frame 8" Steel Tube
- 10 1/2" DensGlass® Sheathing
- 11 Moisture Barrier
- 12 1/4" Aluminum Panel with Lorin ClearBrite® Anodized Finish
- 13 Facade Framing Steel Subframe
- 14 Cast Connex® Cast Connector
- 15 Cast Connex® Gusset Connecting End
- 16 Gusset Plate
- 17 Bolt
- 18 Shear-plate
- 19 11" Concrete Column





Rigid Structure Model
Built to 1/32" = 1' 0"



Celestial Womb + Divine Consciousness Exhibits

Internship Abroad Works



Pyeongtaek Children's Experience Center | Pyeongtaek-si, South Korea
Haenglim Architects | Seoul, South Korea | Summer 2022

Competition: Winning Entry

The Children's Experience Center is a revolutionary children's museum that blends cutting-edge technology with hands-on learning experiences, inspiring curiosity and creativity while fostering a deeper connection to the world and nature around them. The museum's design features a circular form with an inner courtyard that provides an interchange of space between the exhibits, while also fostering a seamless connection to the surrounding natural environment and the nearby park. As part of this studio, I played a pivotal role in shaping the museum's conceptual framework, contributing to the development of its architectural language through a series of form studies and concept research. Additionally, I was involved in designing the exterior perforated screen façade, a key feature that balances aesthetics, functionality, and environmental considerations, strengthening the museum's connection to both its surroundings and its innovative educational mission.



Uiwang Civic Center | Uiwang-si, South Korea
Haenglim Architects | Seoul, South Korea | Summer 2022

Competition: Winning Entry

The design for the new Civic Center in Uiwang-si, South Korea, incorporates two primary theaters, a series of gallery spaces, a café, and various supporting facilities. The center's striking dynamic louvered façade, coupled with a parametric light-filtering roof structure, harmonizes with the thoughtful site planning to establish a distinctive and inviting gathering space for the citizens of Uiwang. Although I joined the project midway through the concept design phase, I played a pivotal role in shaping and refining the final drawings and visual representations submitted for the competition, ensuring a cohesive and compelling presentation of the design vision.

The background of the entire page is a complex, abstract geometric pattern composed of numerous triangles of various sizes. The color palette is primarily shades of purple and pink, with some triangles in a lighter, almost white, tone. The triangles are arranged in a way that creates a sense of depth and movement, with some pointing towards the viewer and others receding.

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