

Chentian Liu



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2023 Fall Advanced Design Studio: The City of Lost Gold
Instructor: Mark Foster Gage
Team: Chentian Liu, Yuqing Wu
Role: project design, 3D modeling, 2D drawing, perspective visualization

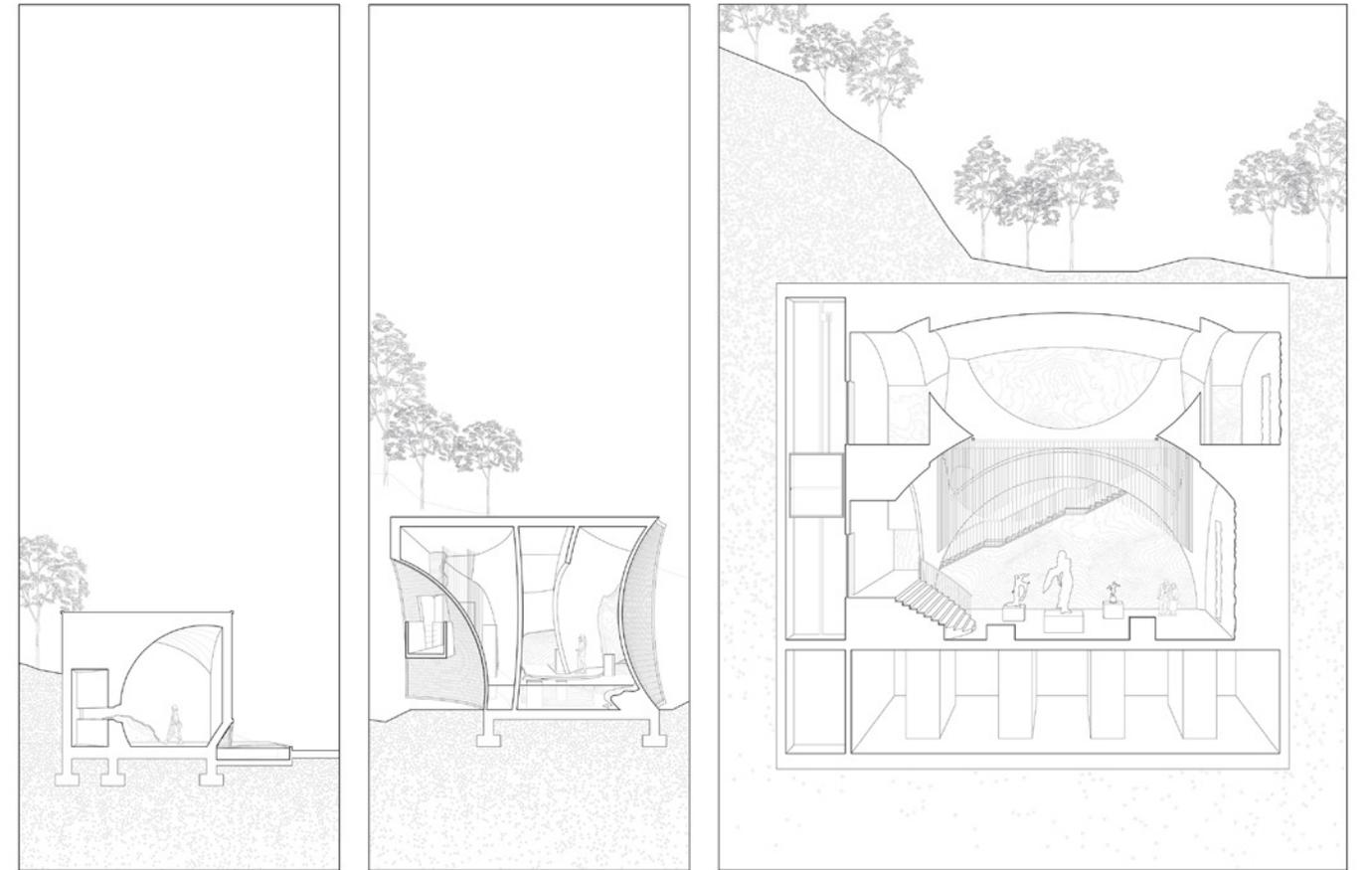
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Nestled within the historic Minas do Palácio Velho in Ouro Preto, Brazil, this project delves into the intricate interplay between gold, mining, and the profound narratives of colonization and slavery that have shaped the region's history. Echoing the prevalence of timber in the local architecture, the project selects charred wood for facades. Golden metal marks the entry points and circulation pathways as well as emphasizes the purpose of the space, a

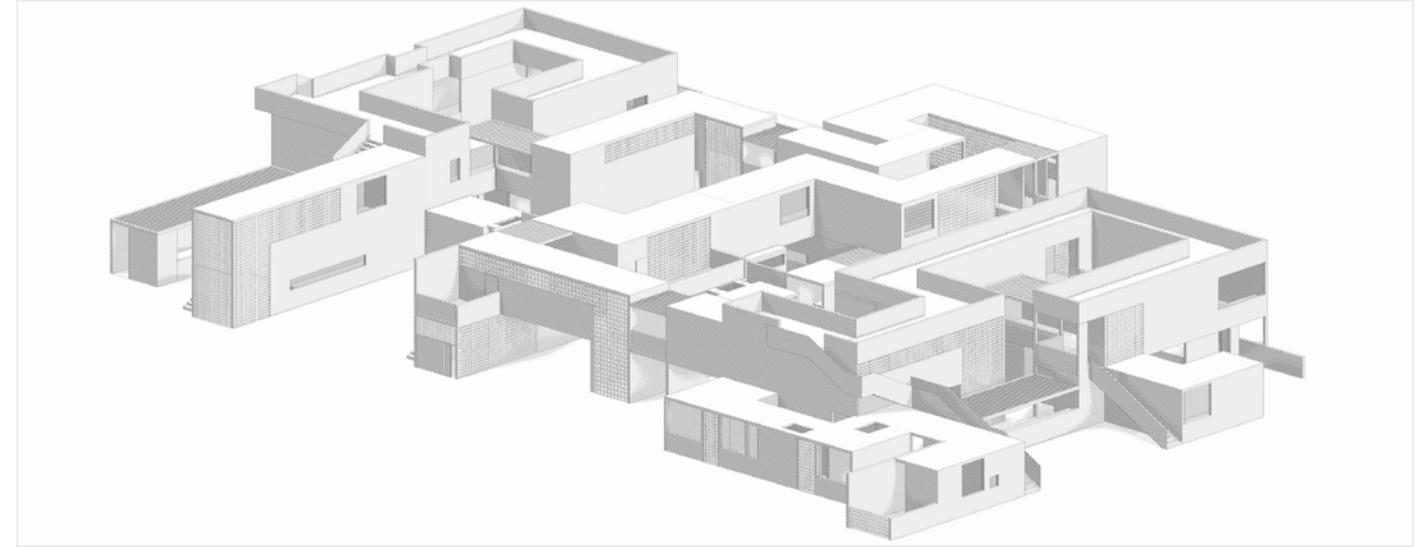
museum of gold. The design is organized along a meandering circulation path, which seamlessly weaves through a series of dispersed exhibition, mirroring the undulating topography of Ouro Preto. Through the journey, the visitors experience a frequent alteration between inside and outside, and each exhibition space has its unique spatial characters to surprise the visitors.

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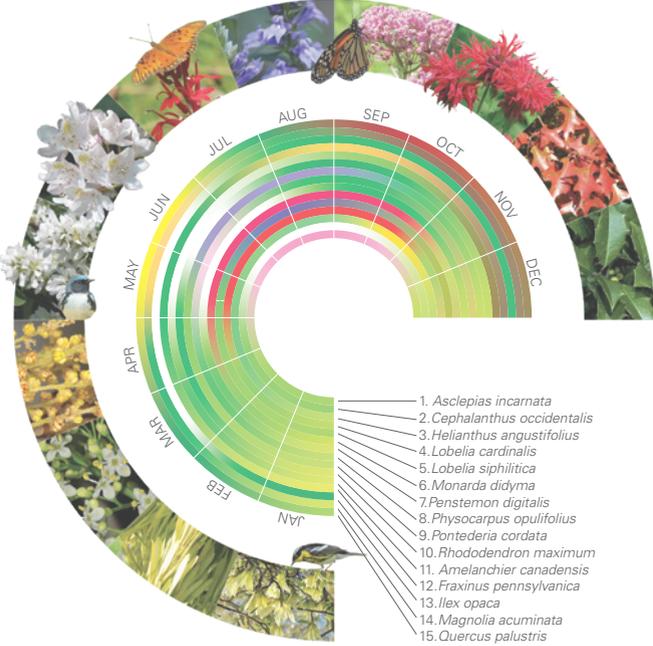
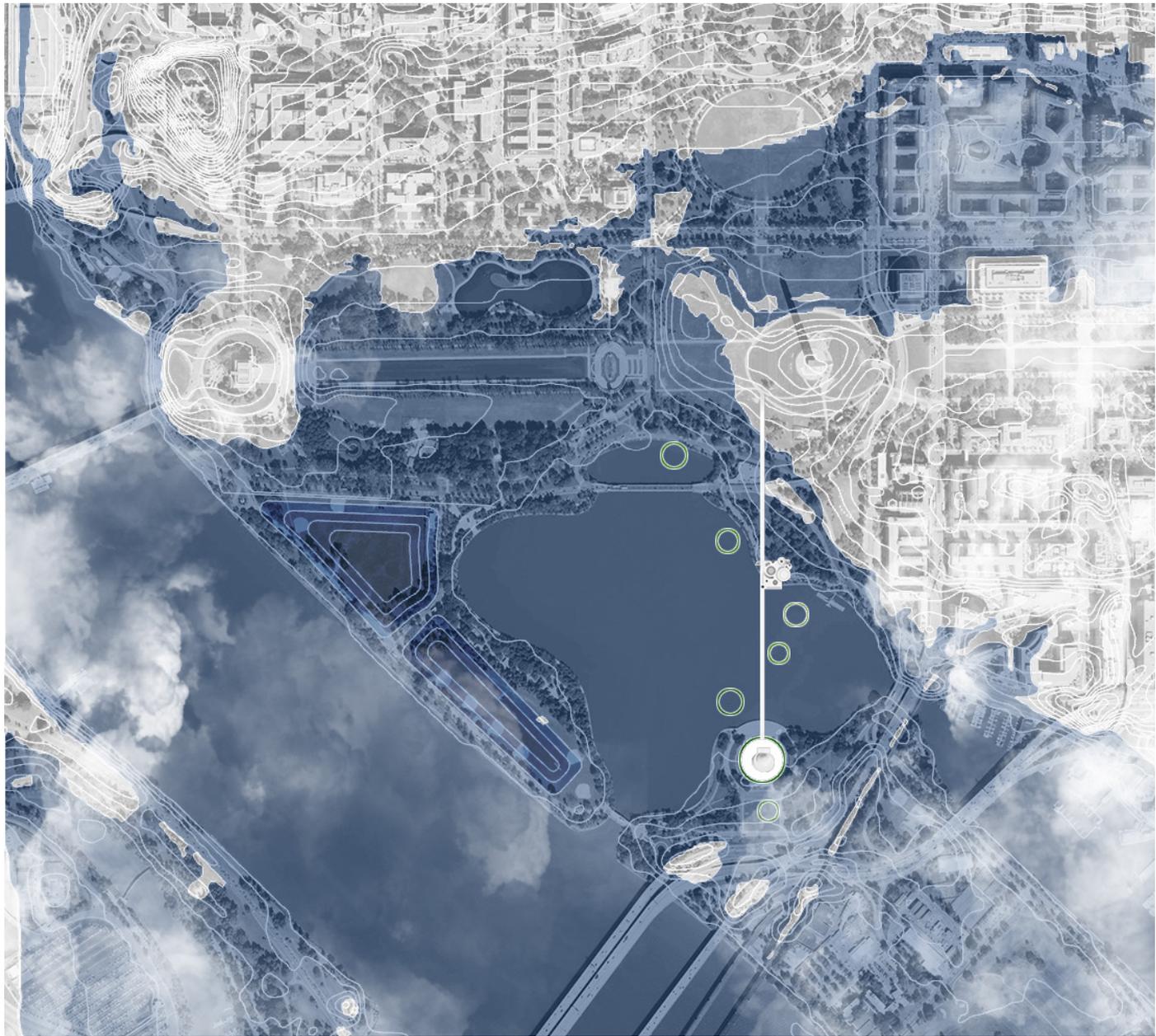
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2022 Fall Advanced Design Studio: Going Home Again
Instructor: Rachporn Choochuey, Surry Schlabs
Loose knots of domestic and urban lines blur the boundaries of interior and exterior, public and private, one's family bubble with another's.

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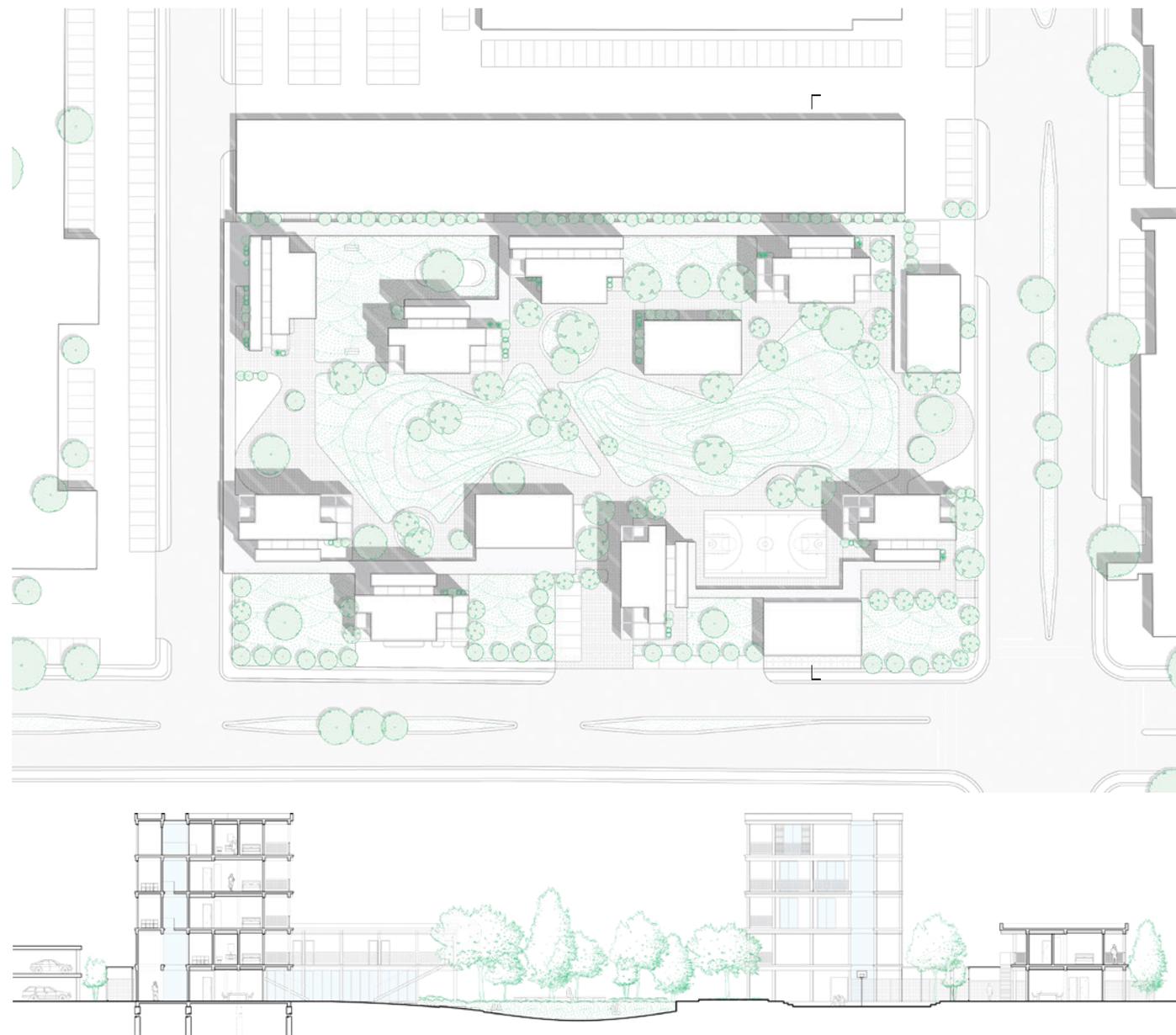
2021 Fall Individual Work: Tidal Basin 2120
 The project is a museum/bath house taking the 3.5m sea level rise as the premise. It collects and protects the endangered national treasures, promotes the social inclusiveness and the biodiversity.

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The project proposes a new multifamily construction for Gulfton in Houston, Texas. It is a large development with both shorter term rental units and longer term LEC (Limited Equity Cooperative) group-owned units. The short term rentals serve residents who may be new to Gulfton, Houston, or the US, therefore giving the project name "First Stop". The mix of rental studios, work-live units and two-bedroom apartments adds to the diversity of the neighborhood.

Financially, rents are kept low enough to qualify the development for LIHTC (Low-Income Housing Tax Credit), and a 3.6% return on investment is predicted at the end of a 10-year period.



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Floor Plan - Coliving Floor (3F)
1. co-living unit
2. communal kitchen
3. communal living room
4. laundry room
5. balcony

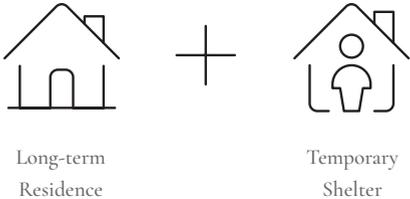


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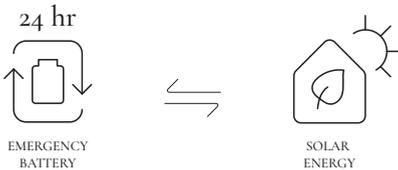
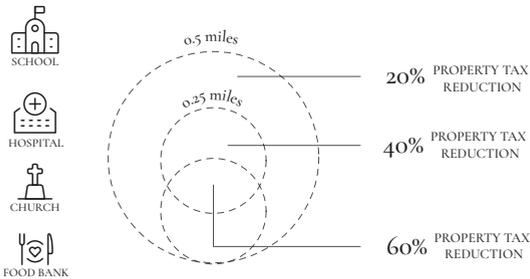
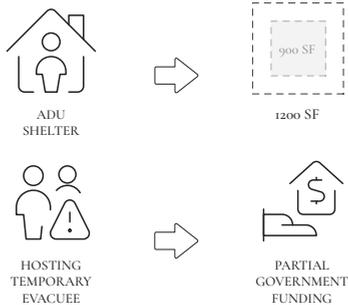
2021 Spring Design Studio: "First Stop" Affordable Housing
Instructor: Jesus Vassallo
Team: Chentian Liu, Xinyu Chen, Jeremy Harrienger
Role: project design, 3D modeling, 2D drawing, lead in perspective visualization

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Key Concept

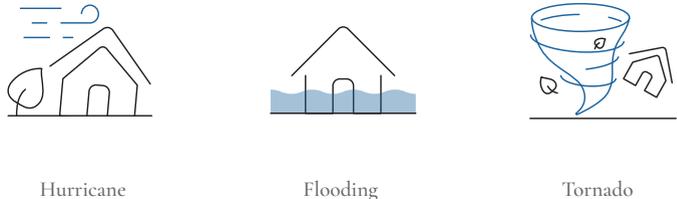


Proposed Policy Framework



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Natural Disasters of Concern



Policy 1: Use

If one ADU includes one shelter-standard safe room with the capacity of 5-10 people, 10 square feet per person, the ADU can be built to 1200 square feet maximum.

If the property owners sign an agreement to accommodate temporary evacuees in time of emergency situations, the ADU construction cost can be partially funded by the government.

Policy 2: Site

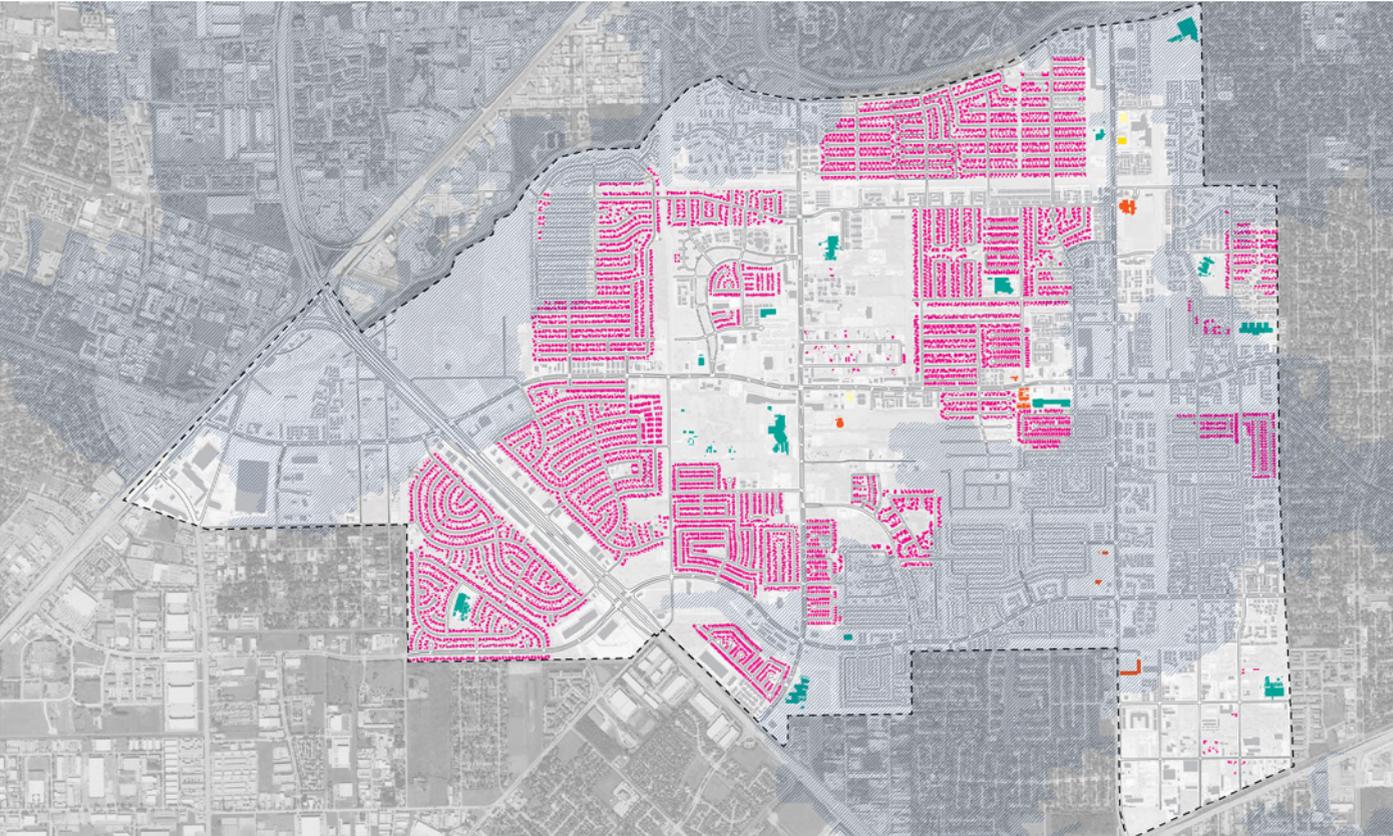
ADUs which are built 0.5 mile from potential emergency shelters or food distribution (including schools, hospitals, churches, food banks) can have 20% property tax reduction for five years.

ADUs built within 0.25 mile from the facilities may have 40% property tax reduction for five years.

ADUs built within 0.25 mile from two or more types of facilities, the property can have 60% tax reduction for five years.

Policy 3: Energy

Each Shelter ADU should incorporate a back-up power system generated by solar energy. The power capacity should sustain lighting and ventilation system of the ADU for 24 hours minimum.



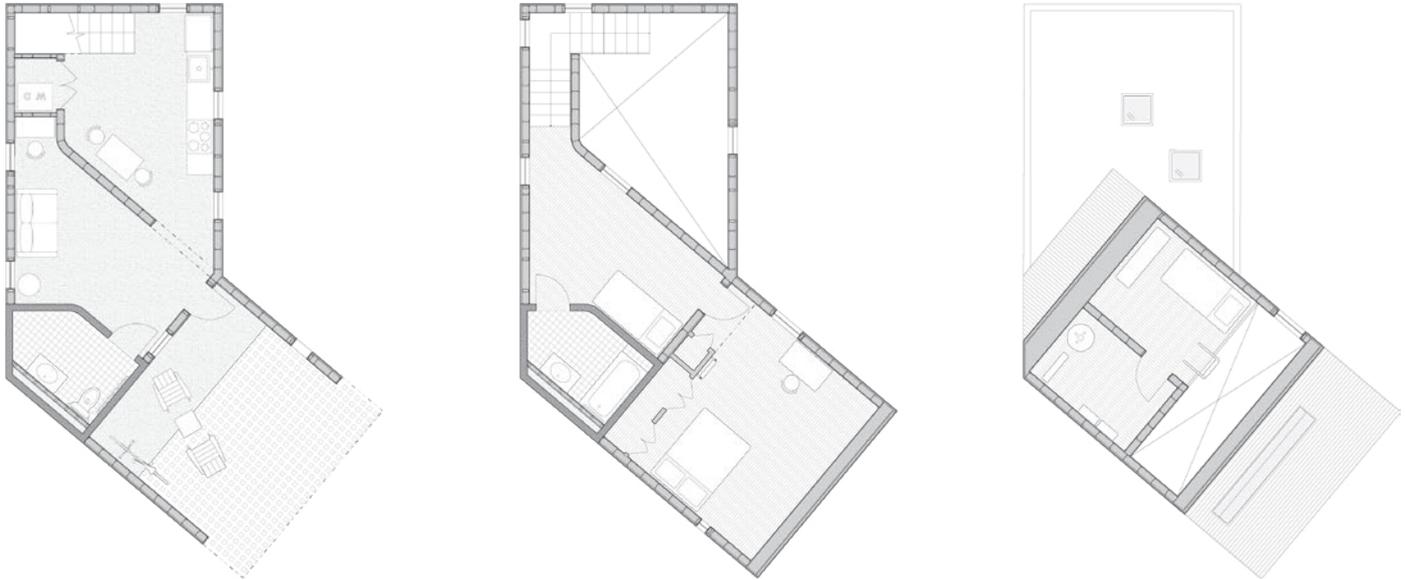
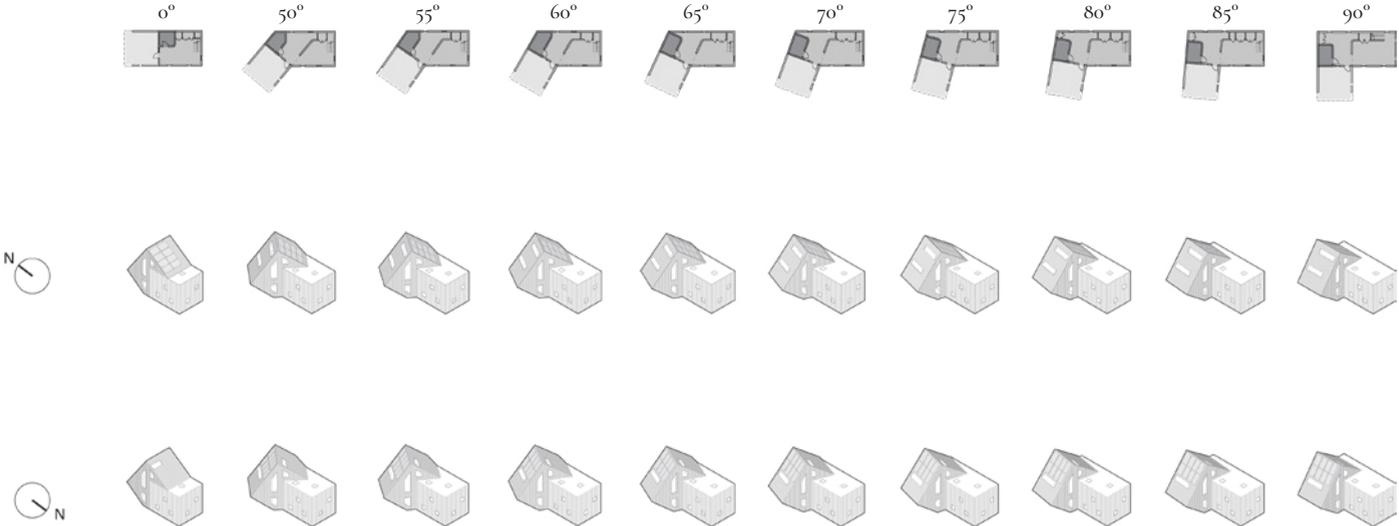
- Urban Metrics - Brays Oaks
- 500-yr floodplain
 - school
 - church
 - hospital
 - food bank
 - single family house outside floodplain
 - lots with 60% tax reduction
 - lots with 40% tax reduction
 - lots with 20% tax reduction
 - Shelter ADU

3035 single family lots are in 500-year floodplain. When it floods, the optimistic scenario provides shelter for 9126 households.

2020 Spring Design Studio: Shelter ADU in Houston
Instructor: Andrew Colopy
Team: Chentian Liu, Erin Chen
Role: project design, 3D modeling, 2D drawing, lead in perspective visualization and Grasshopper scripting

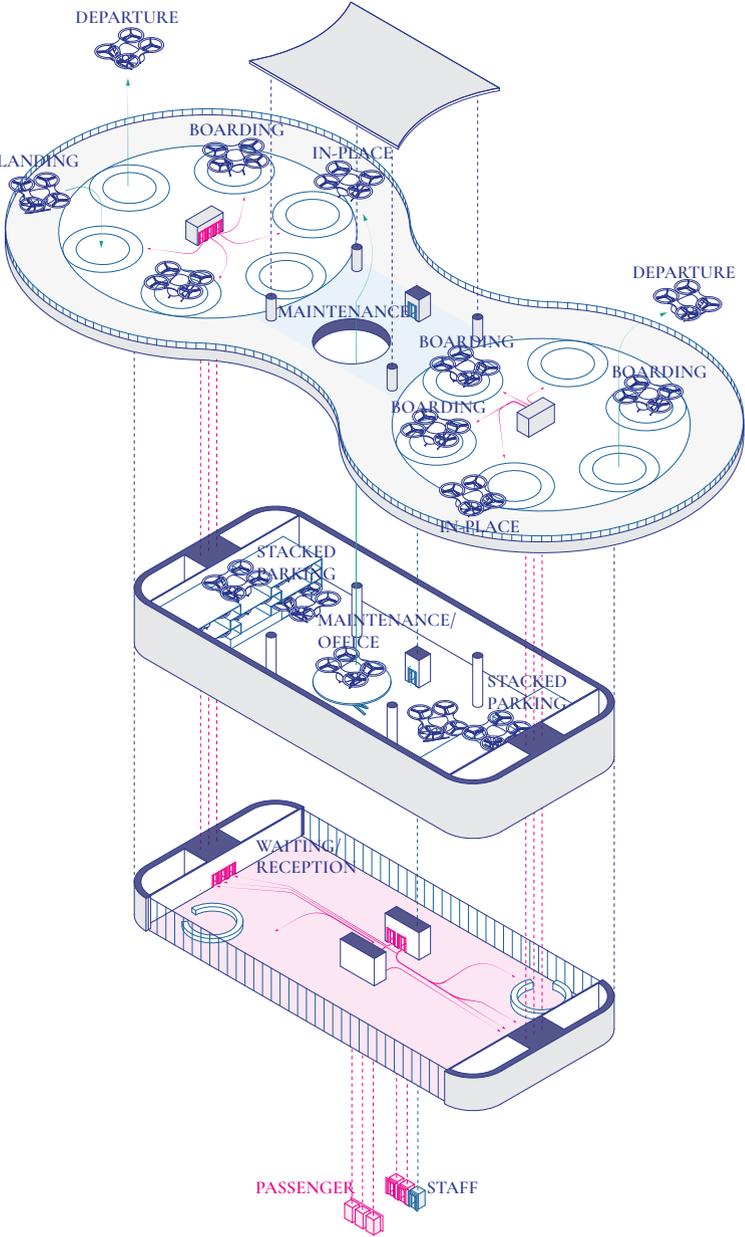
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Shelter ADU Types



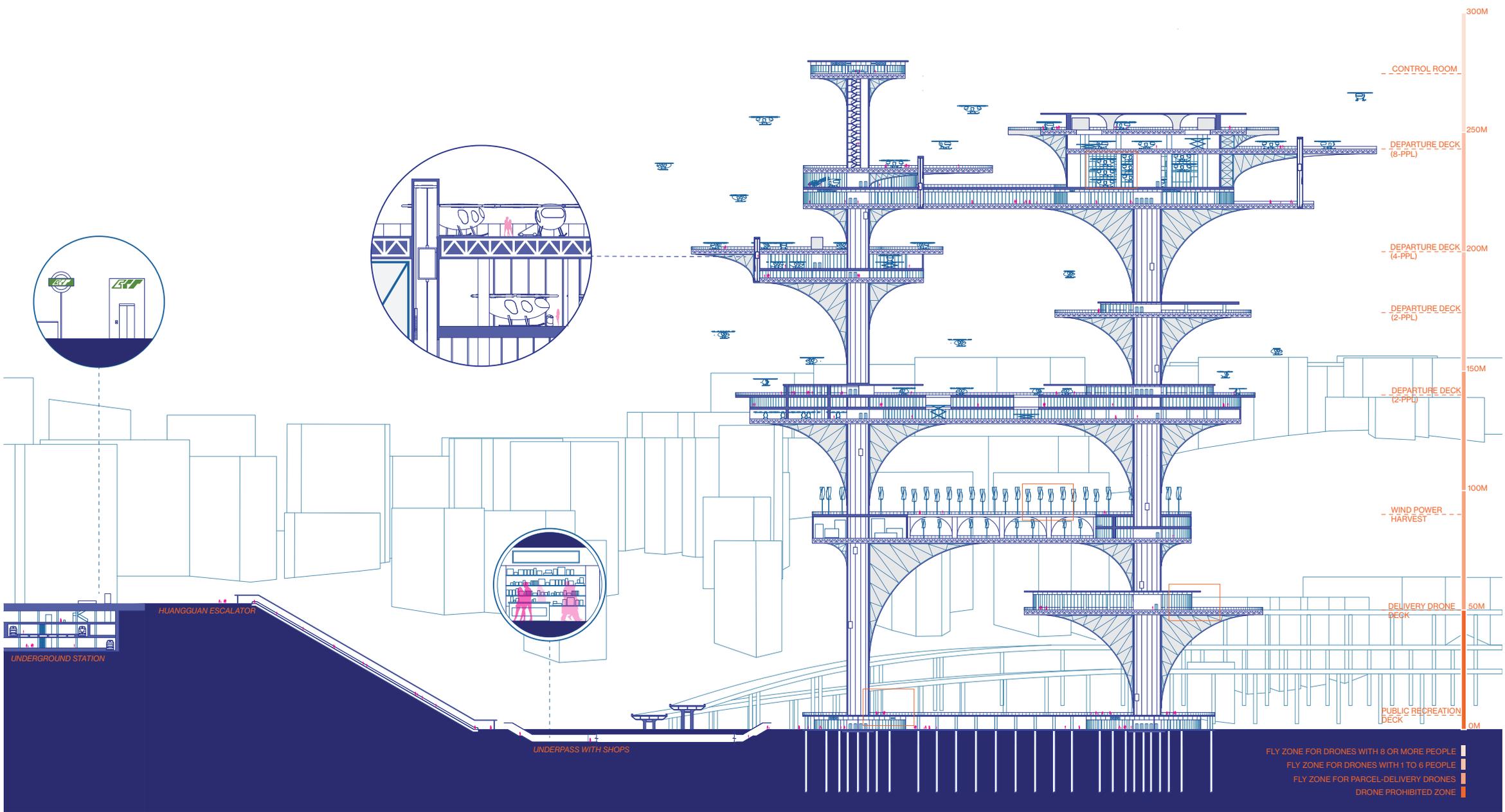
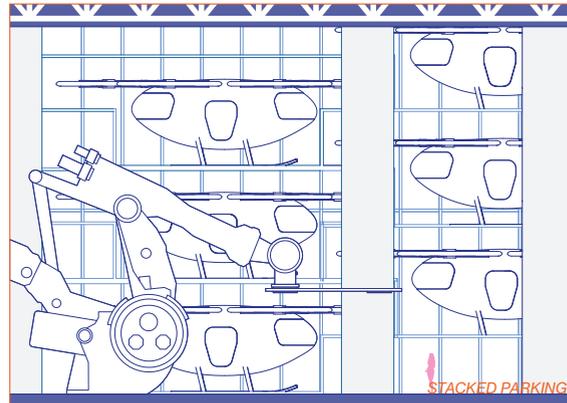
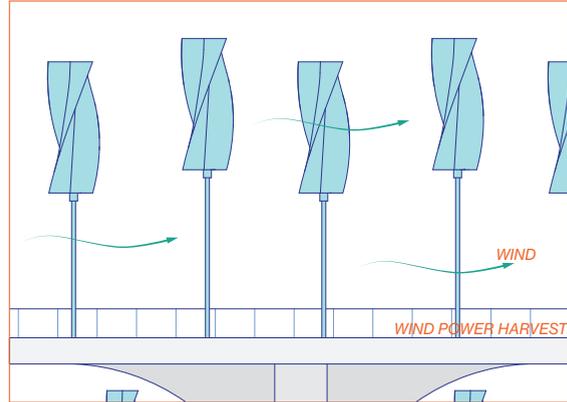
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2020 Winter Individual Work: Chongqing Terminal
The project serves as a terminal station for air taxis. It is located in front of Chongqing Train Station, taking advantage of the current transportation hub. project adds to the efficiency of the city and liberates the terrain from sinuous roads and bridges.

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The project is a competition entry for a service/exhibition building in Zifei Harbor in Shanghai, China. The building serves as an information and service center for the visitors to the region and it also contains a scientific exhibition of the ecology and environment of the harbor.

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The Service Building Design of Zifei Harbor
Professional Work at UDG | Atelier Alpha
Team: Zi Zeng, Chentian Liu, Jiawei Xu
Role: project design under guidance of Project Architect, 3D modeling, perspective visualization in D5

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The project is a commissioned hospitality project in Chengdu, China. The theme park is located at the suburbs of Chengdu. It includes a high-end hotel, a museum of paddy field agriculture, and a restaurant. The theme park/resort invites people to experience and enjoy the sceneries of farmlands.

Images on the left: Views of the hotel in Modern Chinese style.

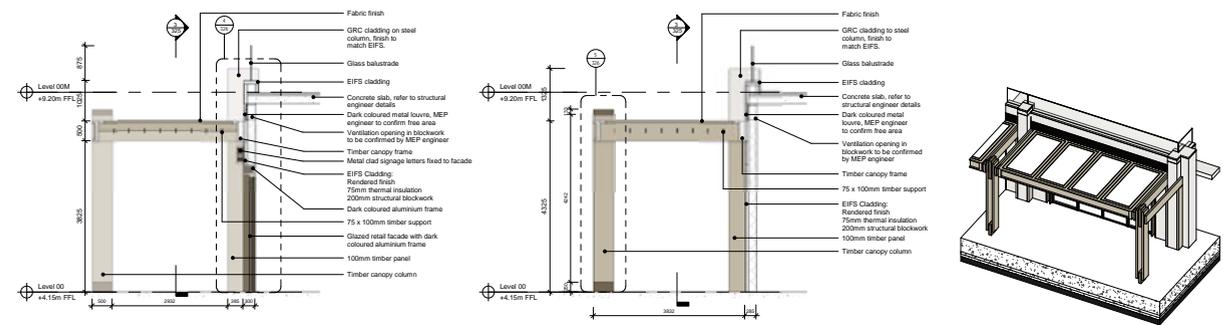
Image on the top right: Exterior of the Agriculture Museum

Image on the bottom right: Exterior view of the restaurant

All images are rendered by Chentian Liu in either Enscape or D5.

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Paddy Field Theme Park in Chengdu China
Professional Work at UDG | Atelier Alpha
Team: Zi Zeng, Qixing Wu, Chentian Liu, Jiawei Xu
Role: project design under guidance of Project Architect, 3D modeling, perspective visualization in Enscape and D5, Photoshop post-production

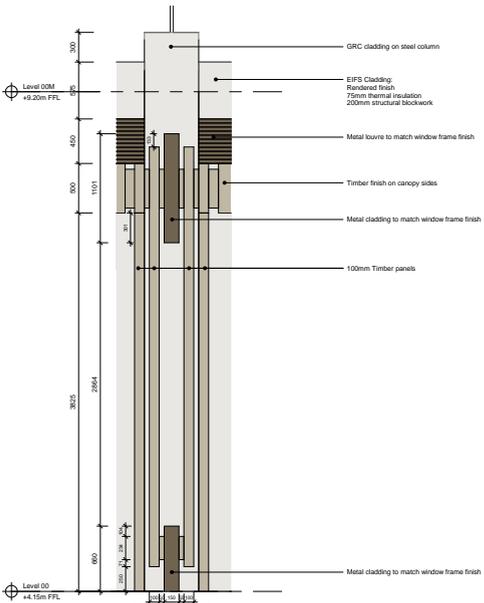


1. Balcony, canopy and roof drainage to be confirmed by local architect
2. Thermal insulation thickness and required U-value to walls and roofs to be confirmed by local architect
3. Handrail and transome heights to be confirmed by local architect
4. Slab edge SSC to be confirmed by local architect and structural engineer
5. Facade build up and fixing details to be confirmed with local architect and facade consultant

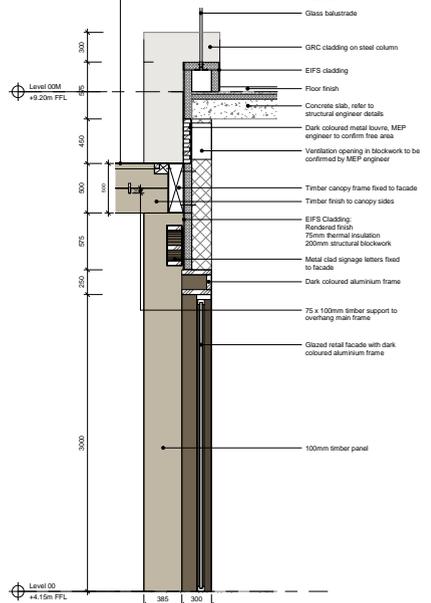
① Retail Facade Type 01 - Section 02
1 : 50

② Retail Facade Type 01 - Section 03
1 : 50

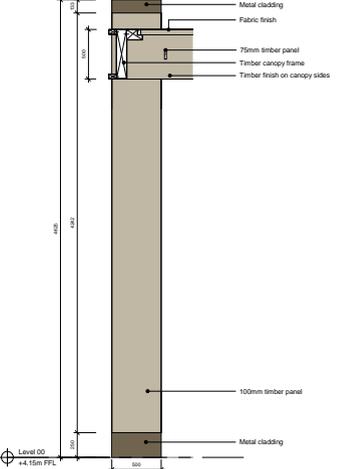
⑥ Retail Facade Type 01 - 3D Axo
1 : 50



③ Retail Facade Type 01 - Elevation - Callout 1
1 : 20



④ Retail Facade Type 01 - Section 01 - Callout 1
1 : 20



⑤ Retail Facade Type 01 - Section 03 - Callout 1
1 : 20

