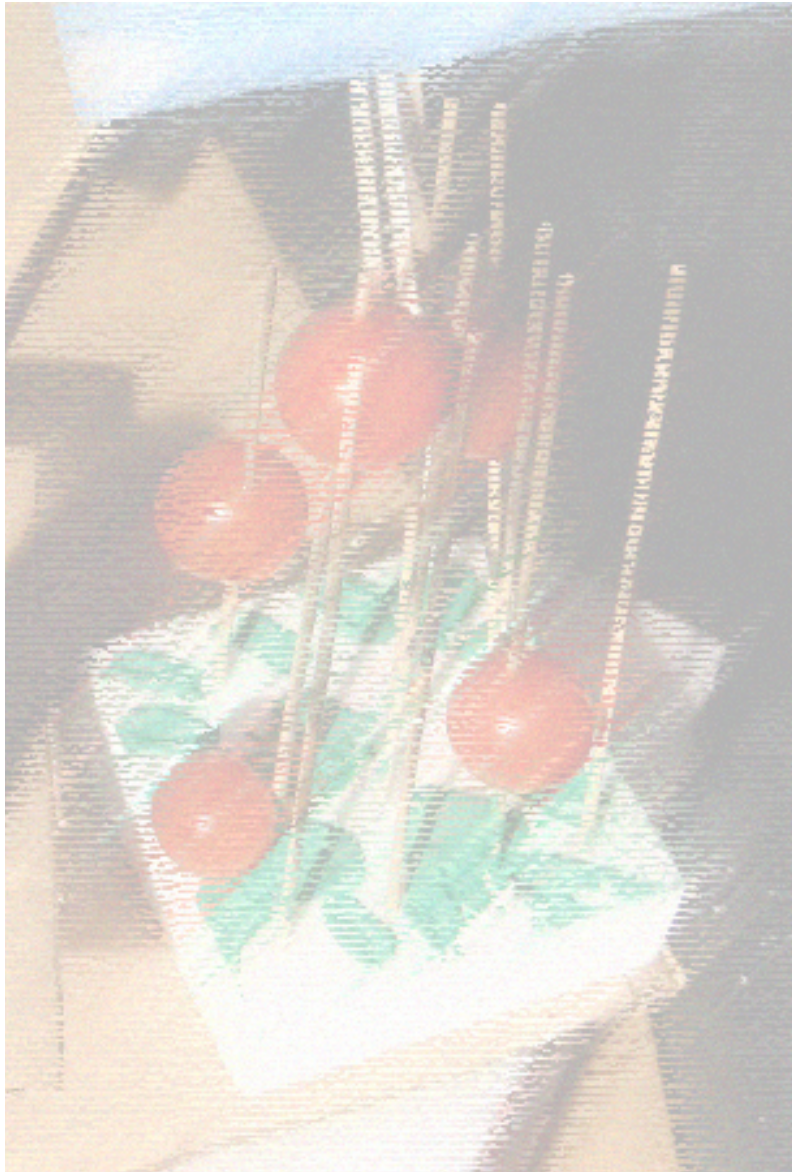




*Gastronomic Architecture  
-Towards a diverse food space in Berlin Friedrichshain*



## INDEX

01   Research-by-Design Journal	03
02   Final Design - Posters	100
03   Final Reflection	104





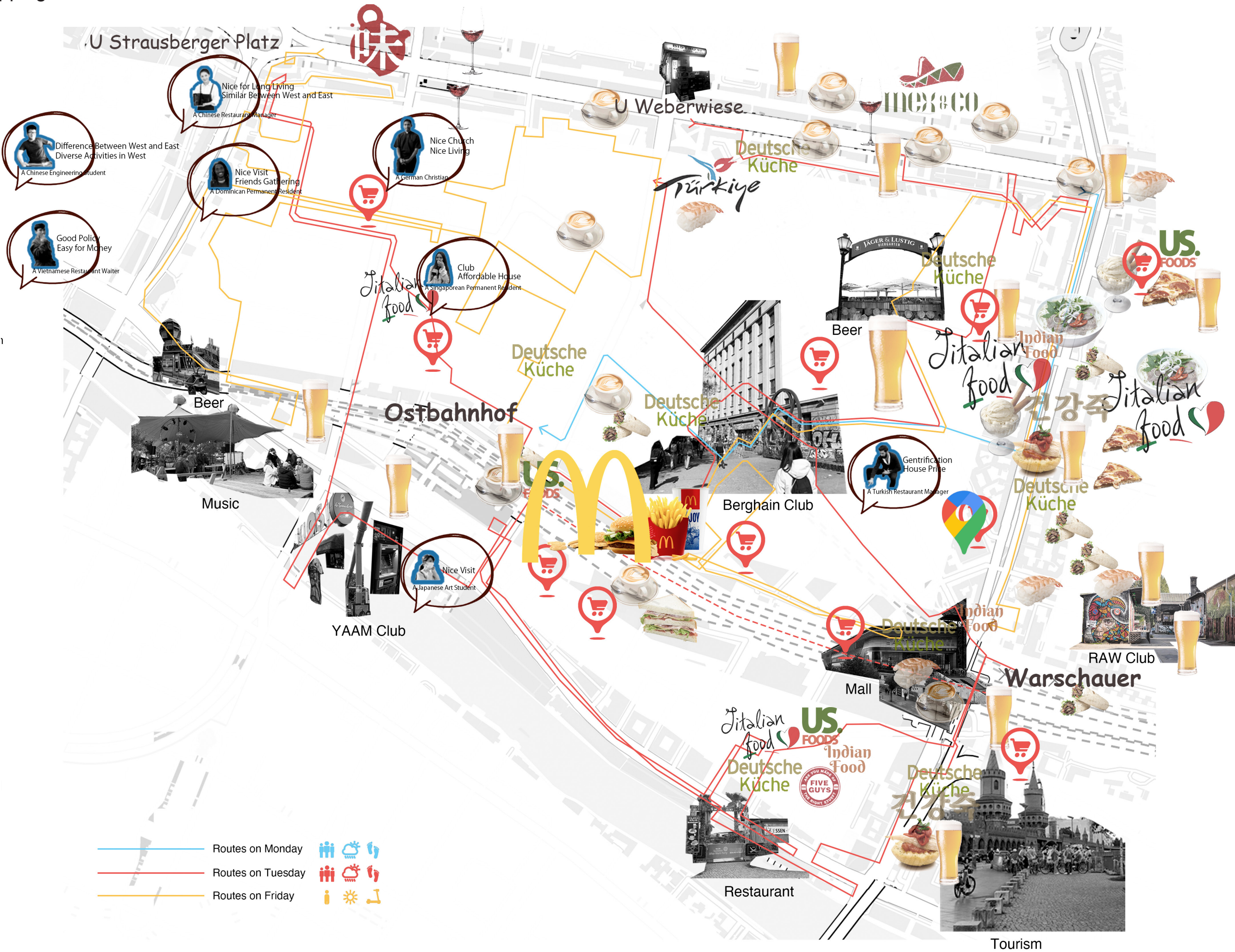








Food Mapping





WEST

EAST



Commercial



Checkpoint Charlie



Im Sony Center



Kaiser Wilhelm Church



Zoologischer Garten



Alexandar Platz



Monbijouplatz

Steet Market



Apostel-Paulus-Kirche



Apostel-Paulus-Kirche

Moving Food



Axel Springer Neubau

Food&Drinks



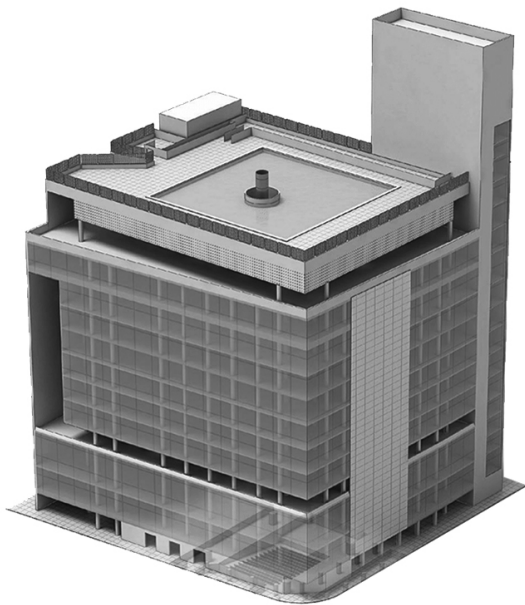
Event & Activity



"Public Condenser"

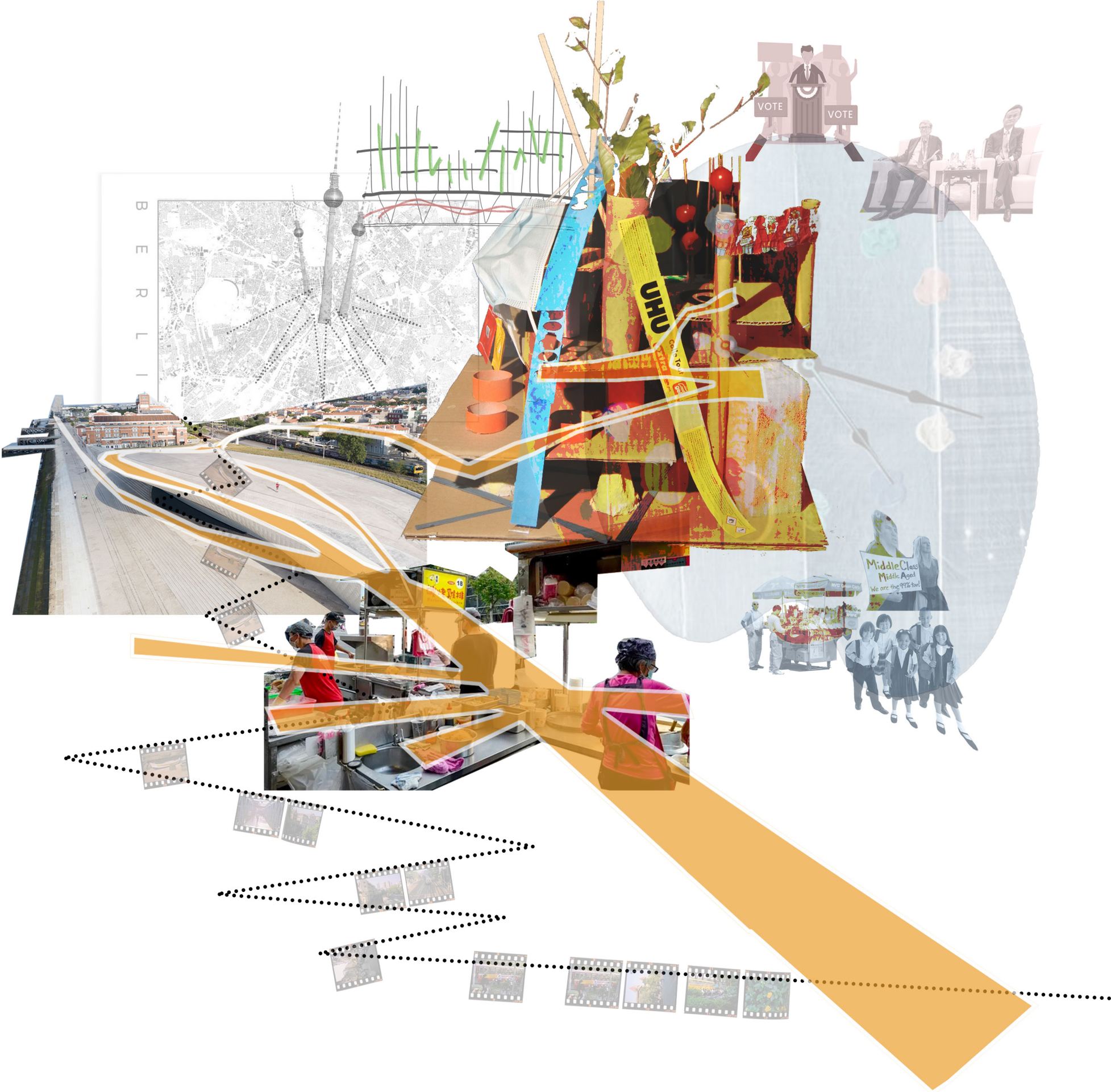


?





"Common"









Prinzessinnengarten

<https://brightspace.tudelft.nl/d2l/le/content/503104/viewContent/2997906/View>

Culture 2.0  $\longrightarrow$  Culture 3.0  
Consumerism  $\longrightarrow$  Prosumerism

*Culture 3.0 encourages individuals to activate their capacity of expression by participation and production*

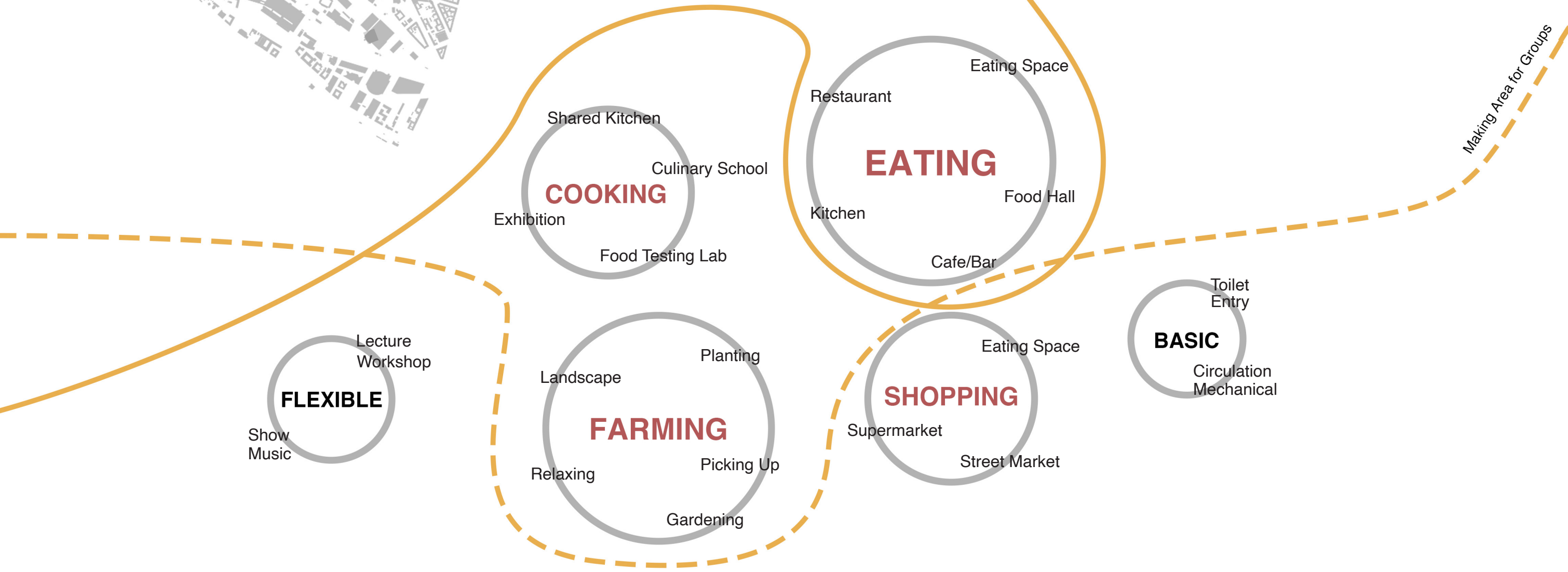
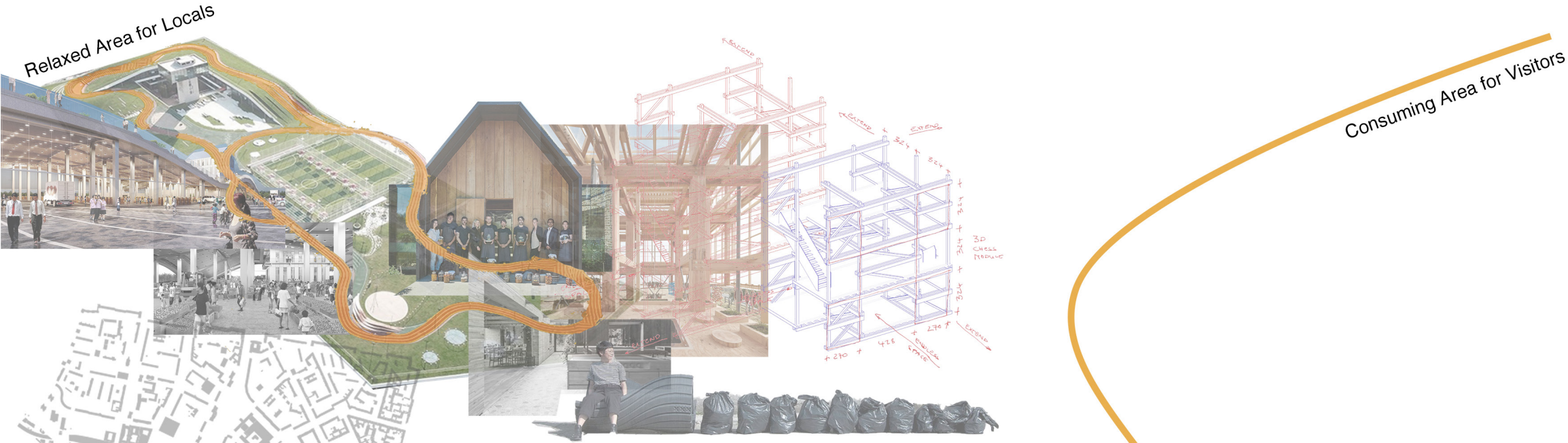
*- 'not simply by hearing music, but playing;  
not simply reading texts, but writing'.*

*[Sacco, 2010, p.7]*

FOOD ACTIVITIES

Planting > Growing > Picking Up > Education > Food Research > Entertainment > Cooking > Shopping > Selling > Eating



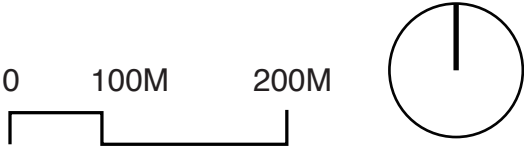


**FLEXIBLE**

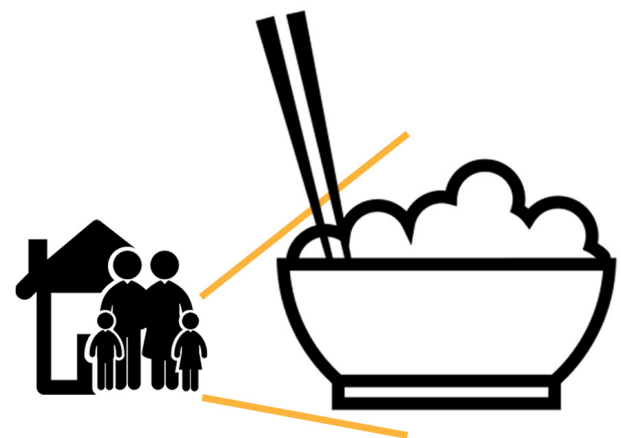
Lecture Workshop

Show Music





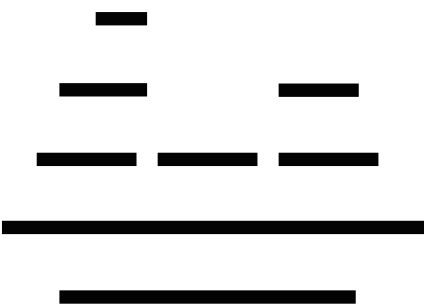




Social Issue



Site Issue



Design Issue

## Research Question

How can we condense diverse food activities into one prototype, including farming, cooking, shopping, and eating, and then corporate it into the specific site?





?

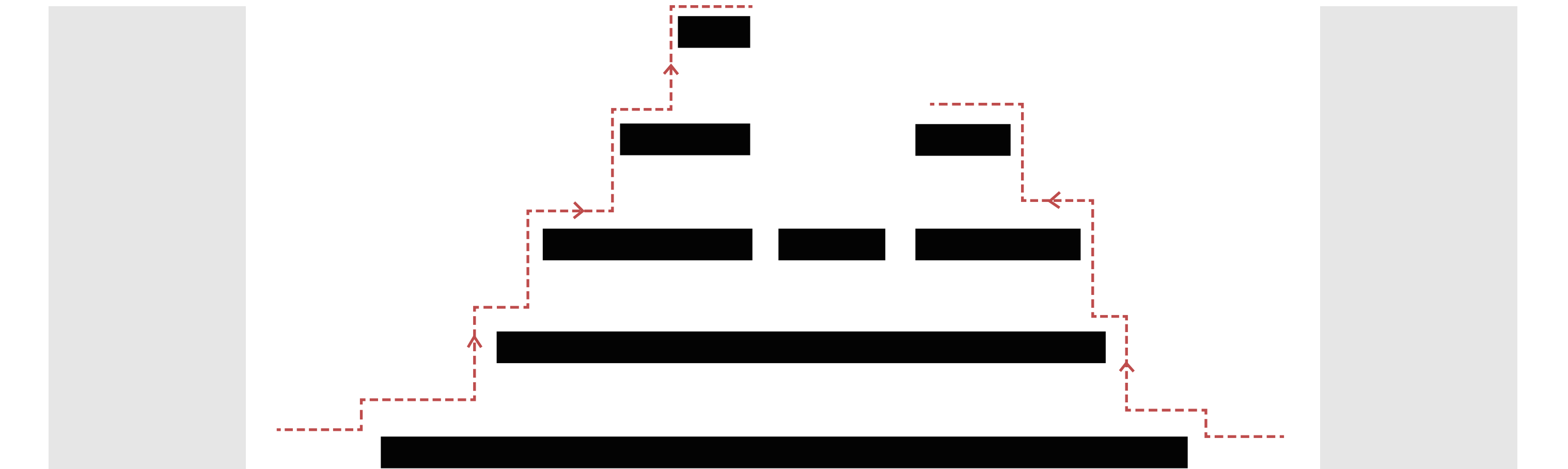


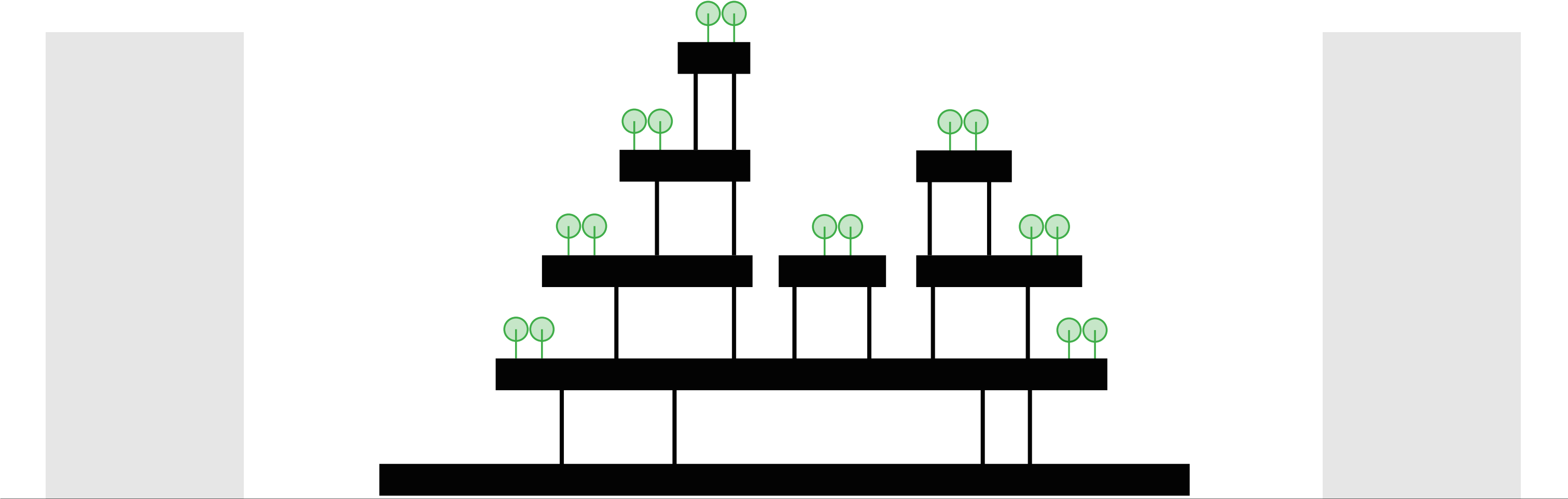


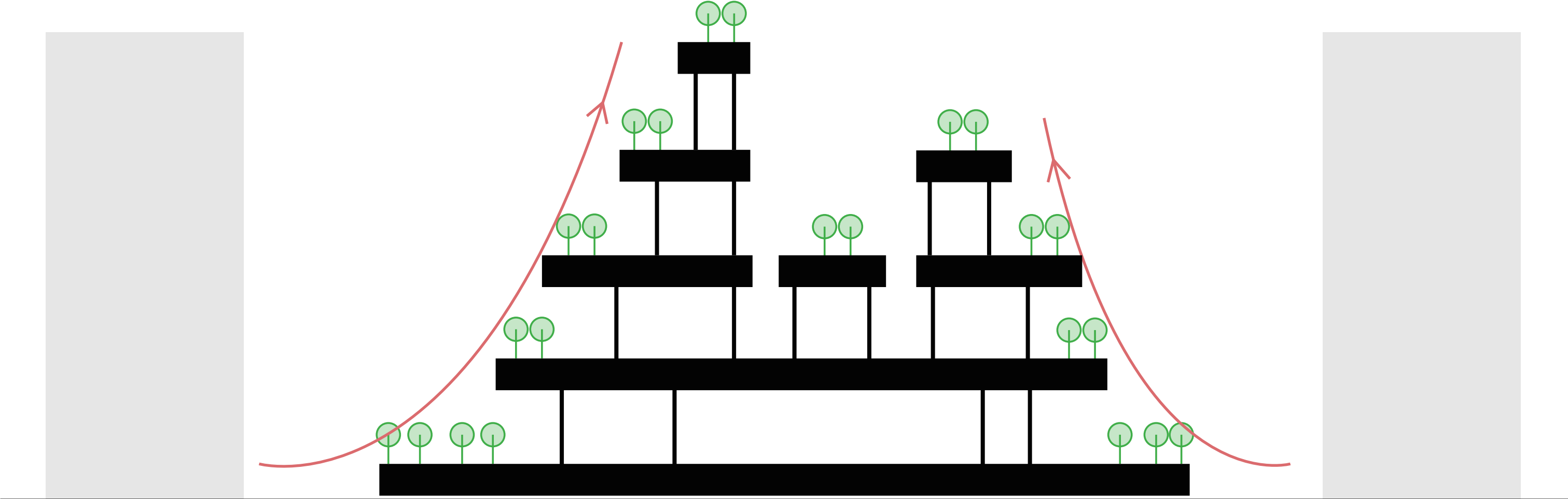














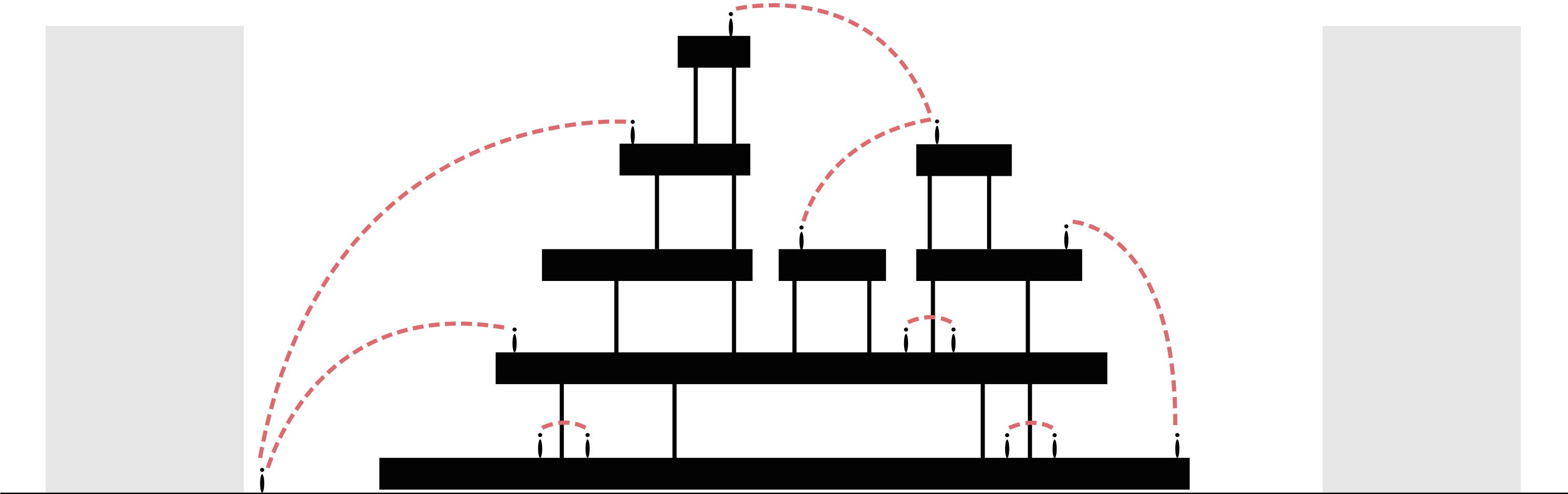




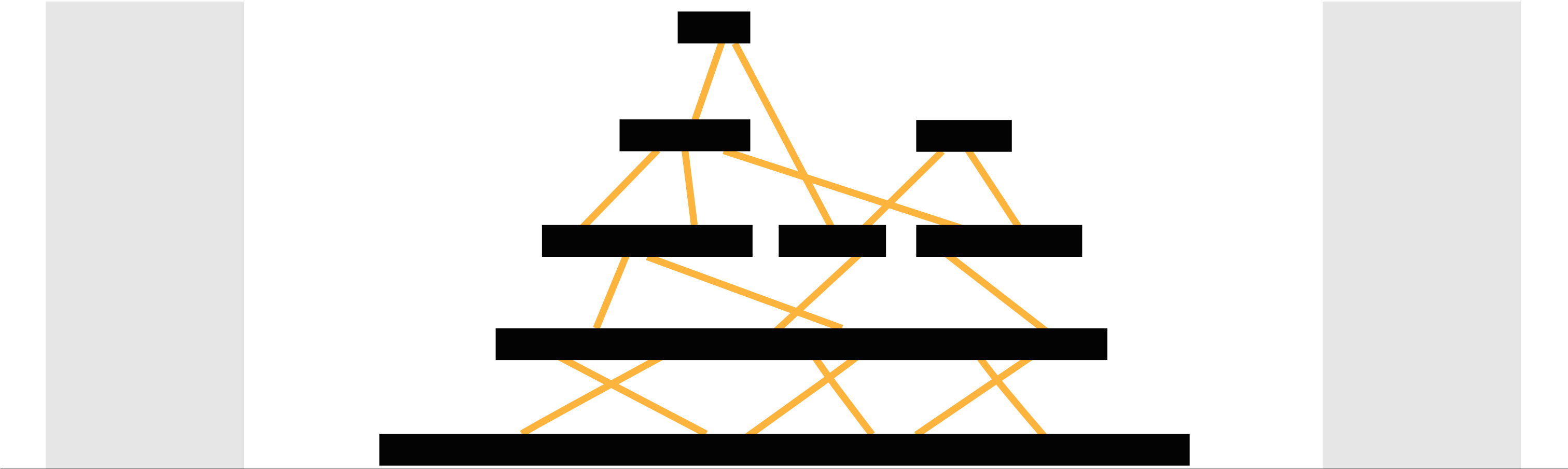
Jane Jacobs

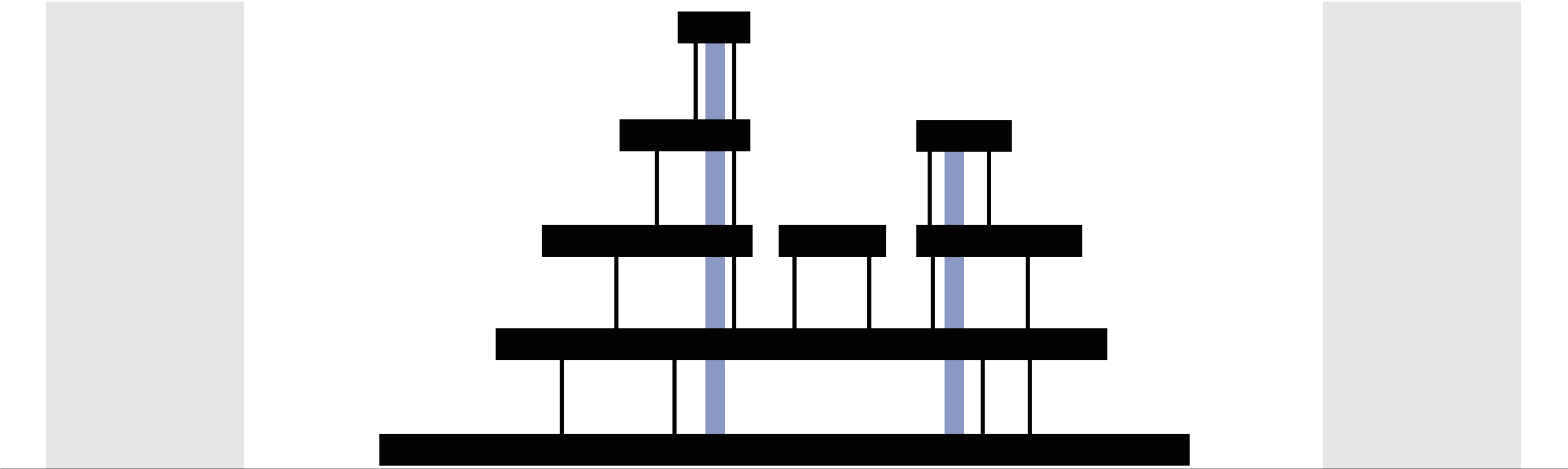


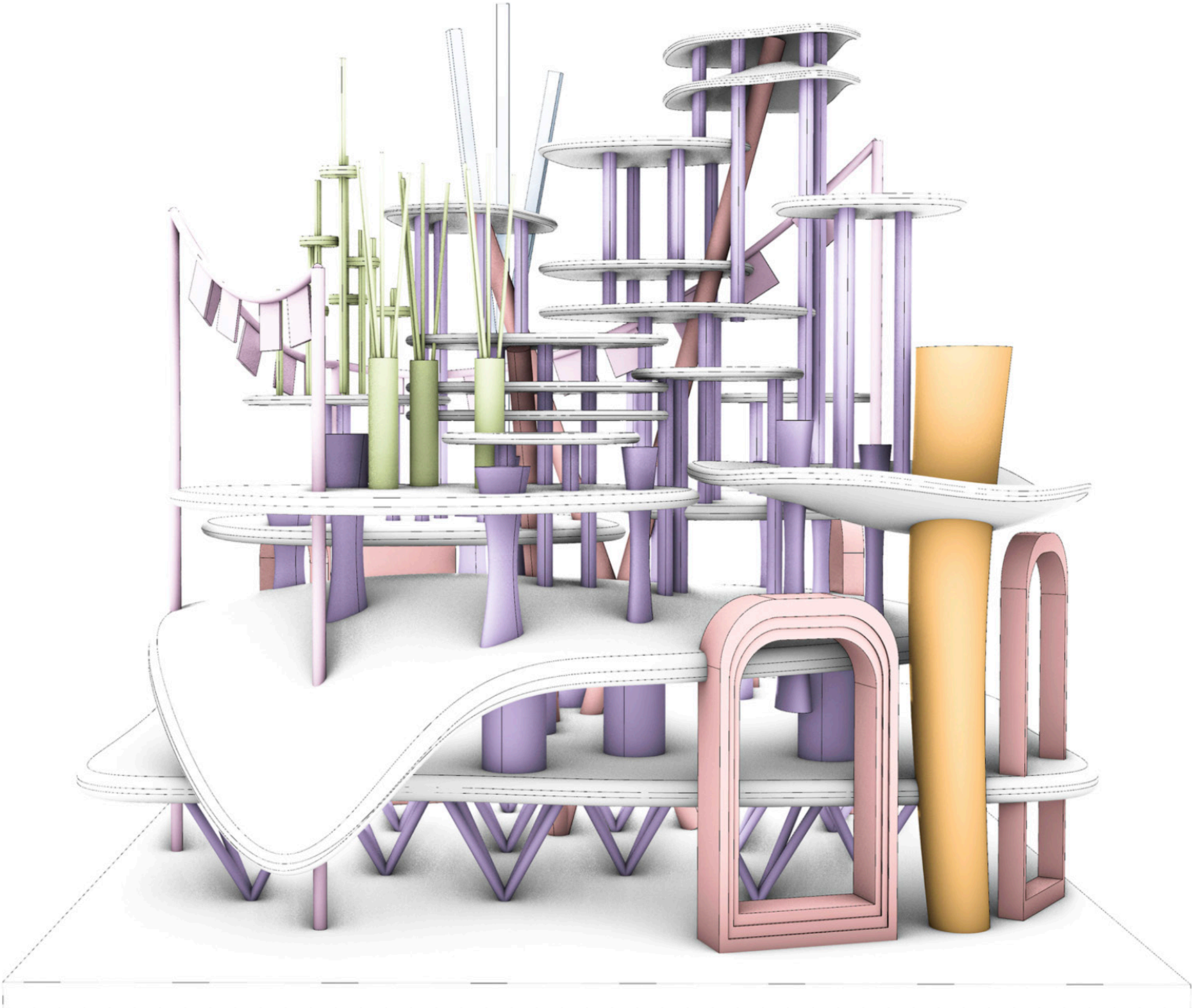
Jan Gehl



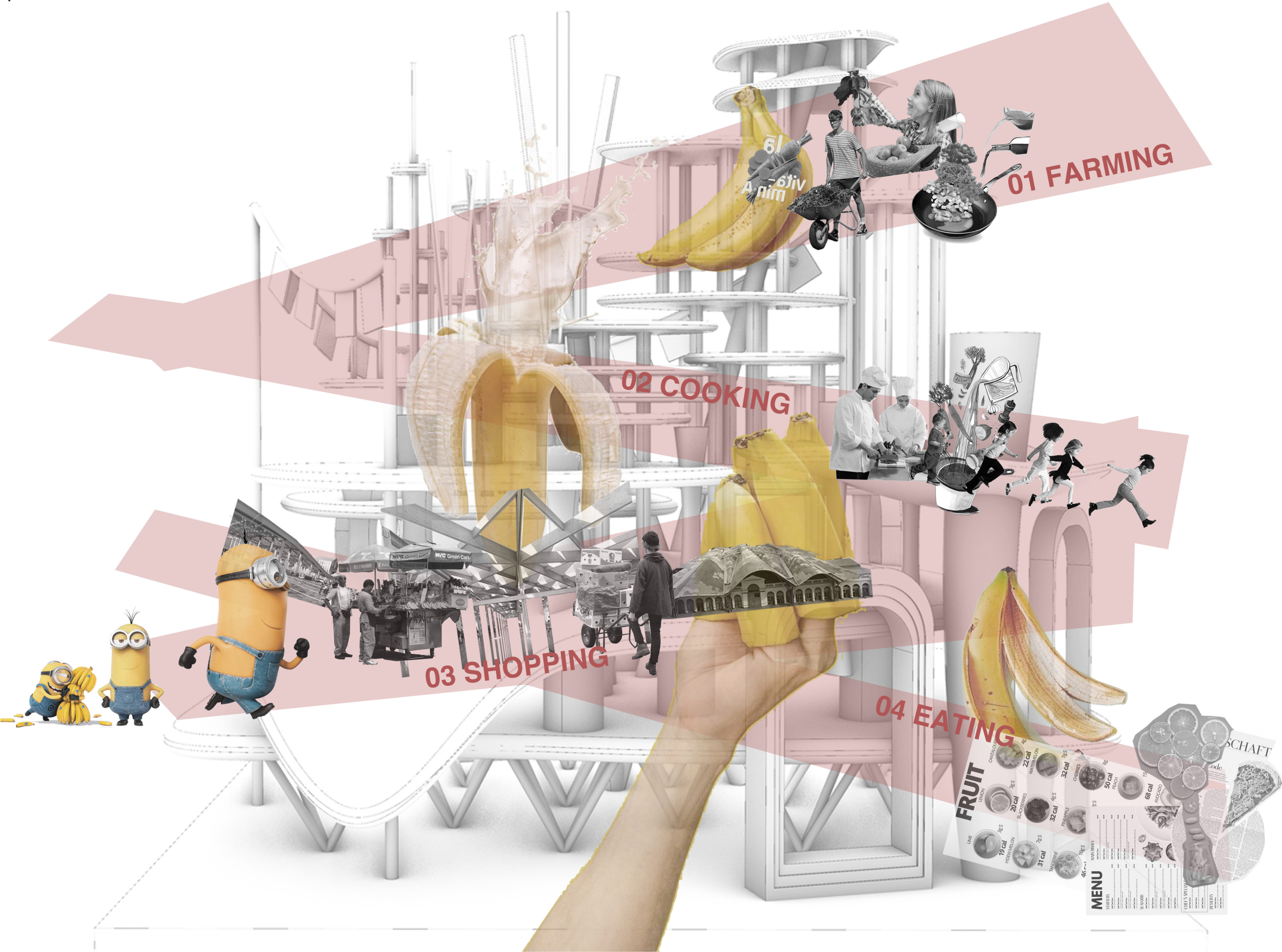




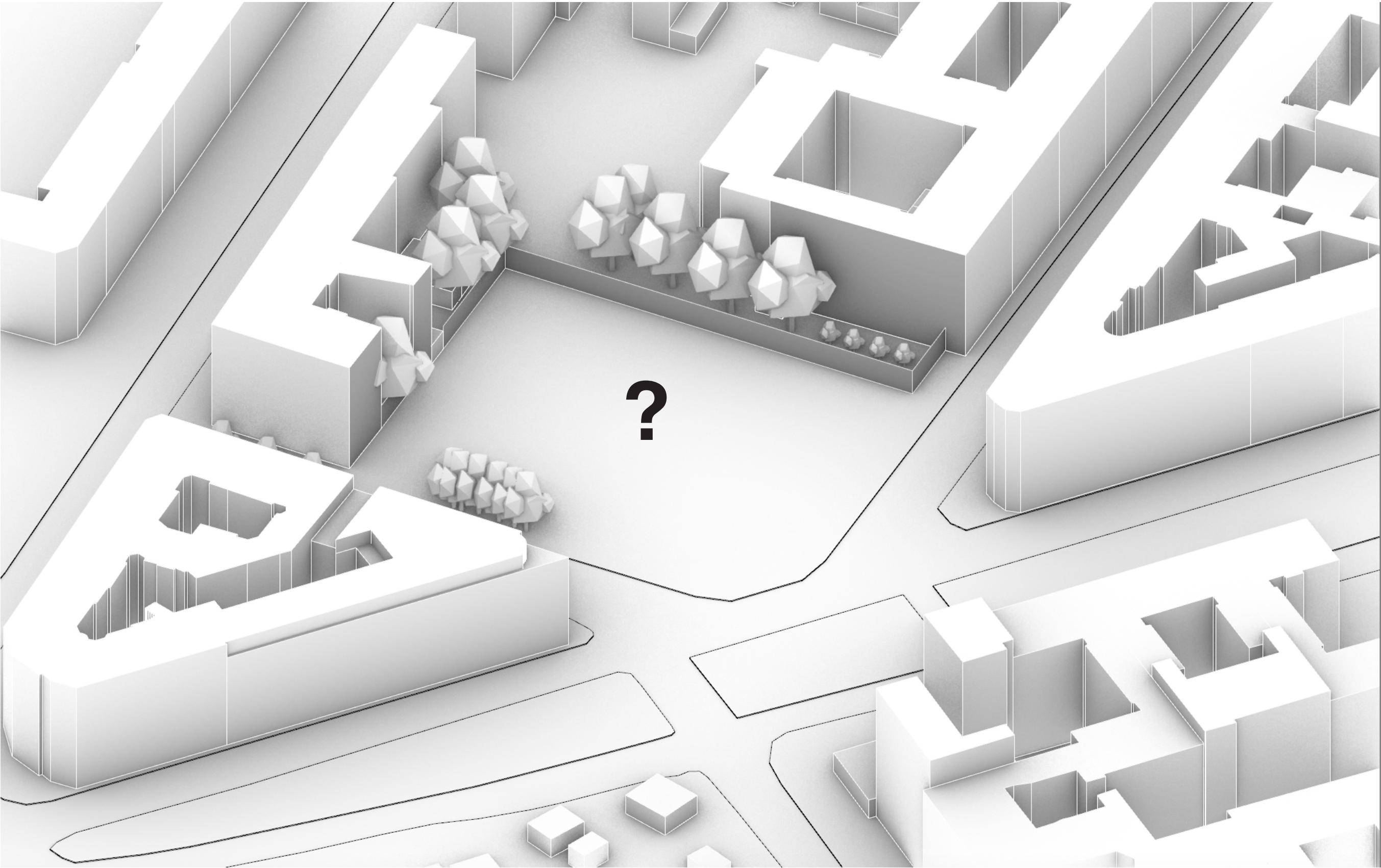




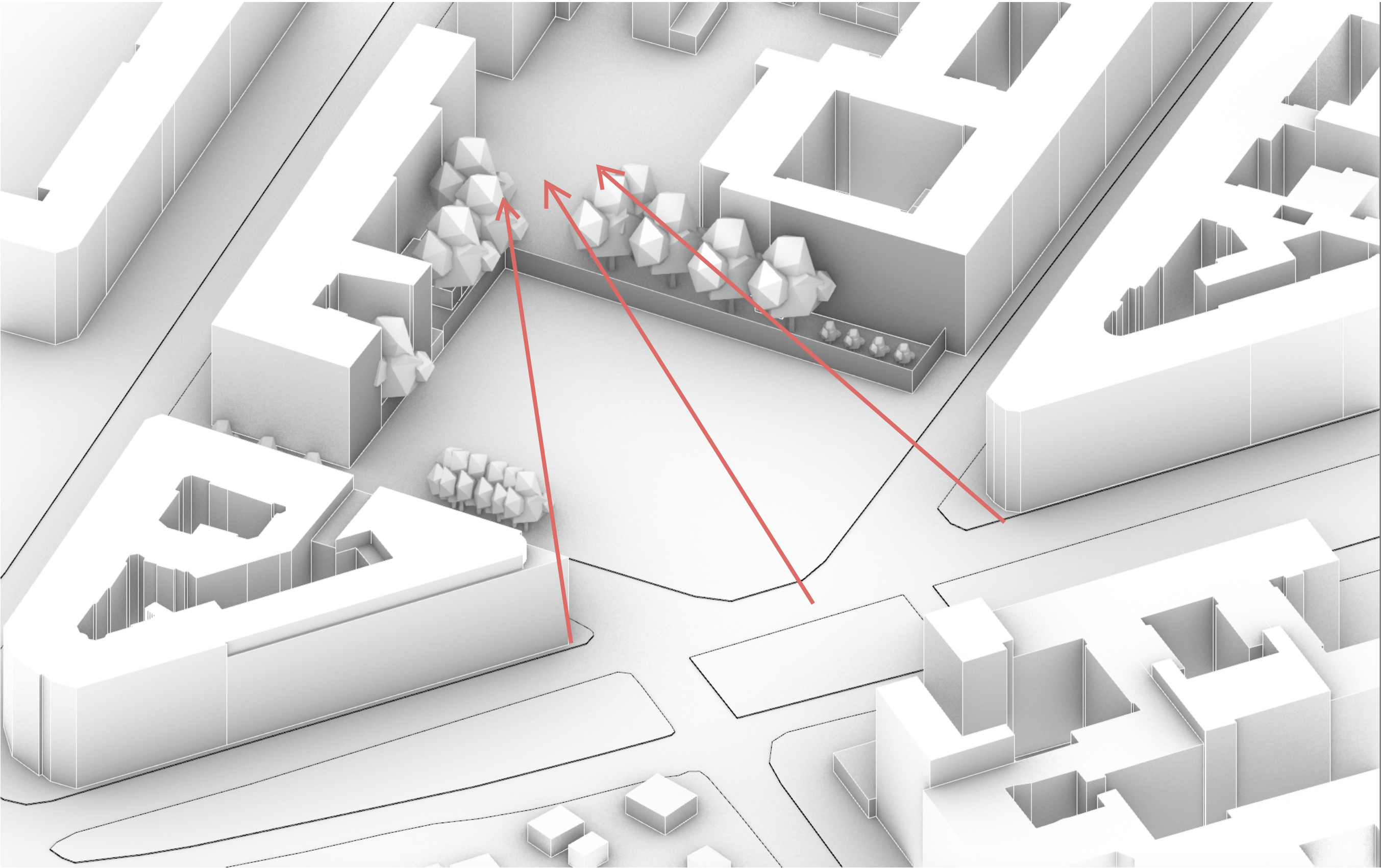




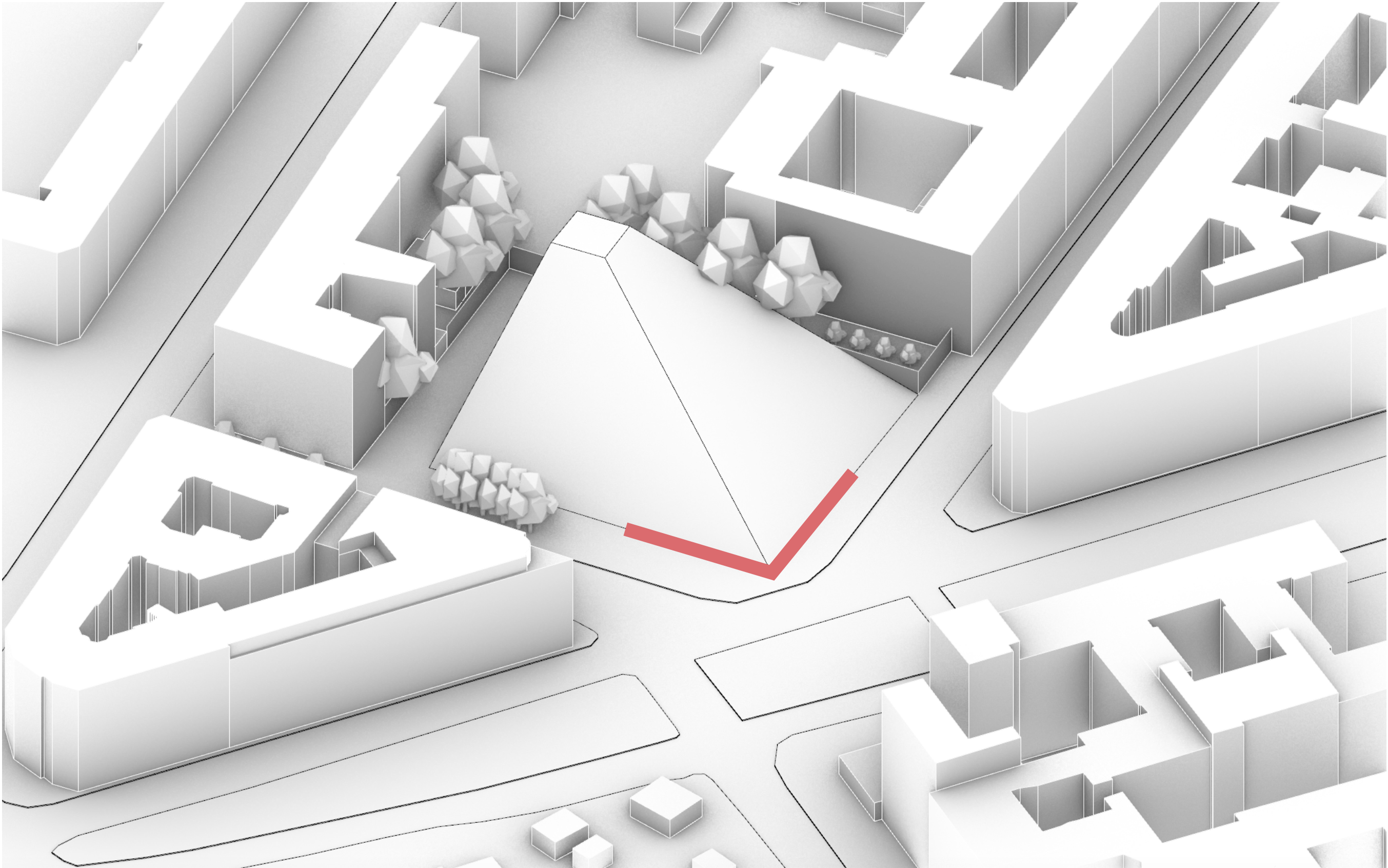








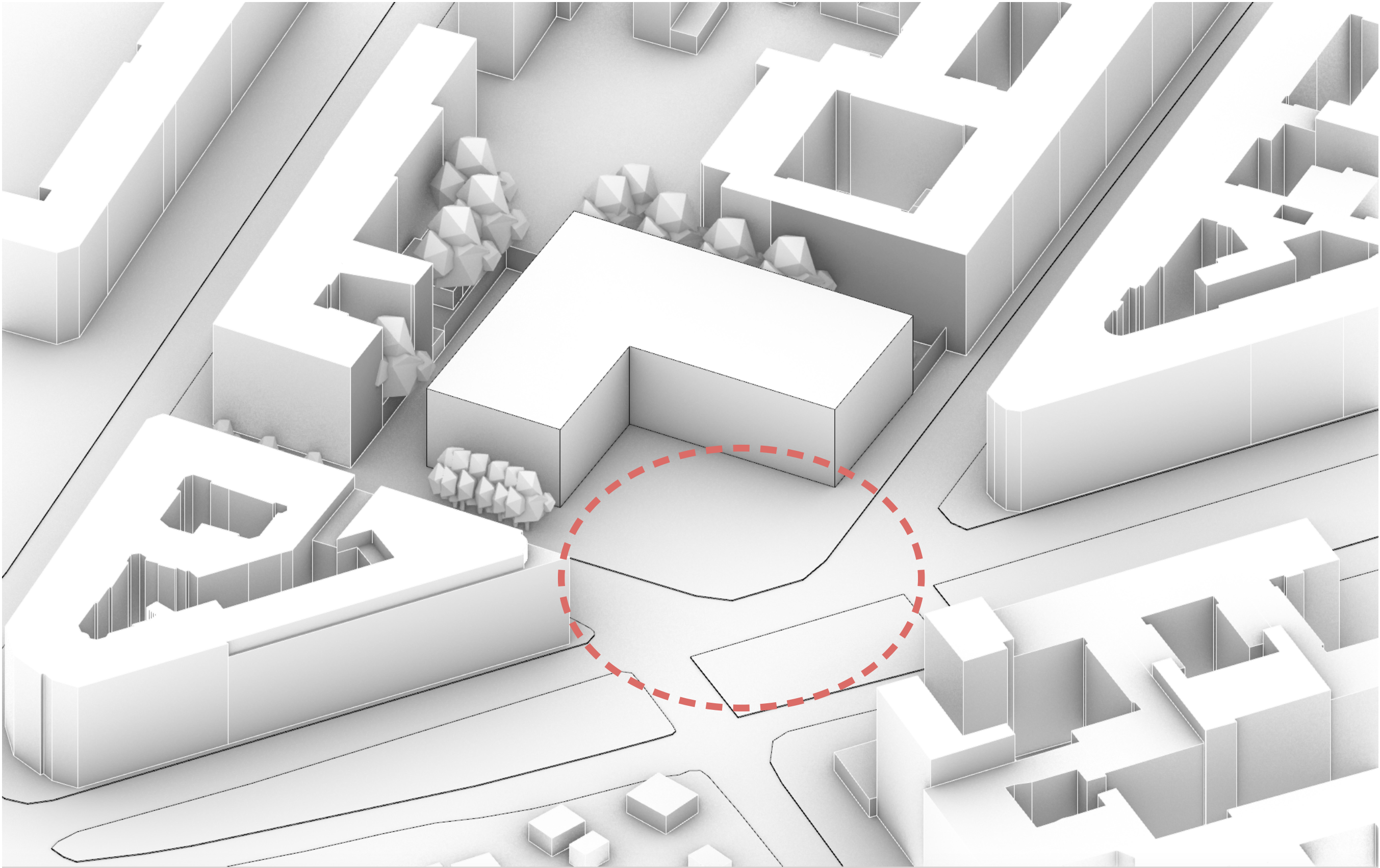




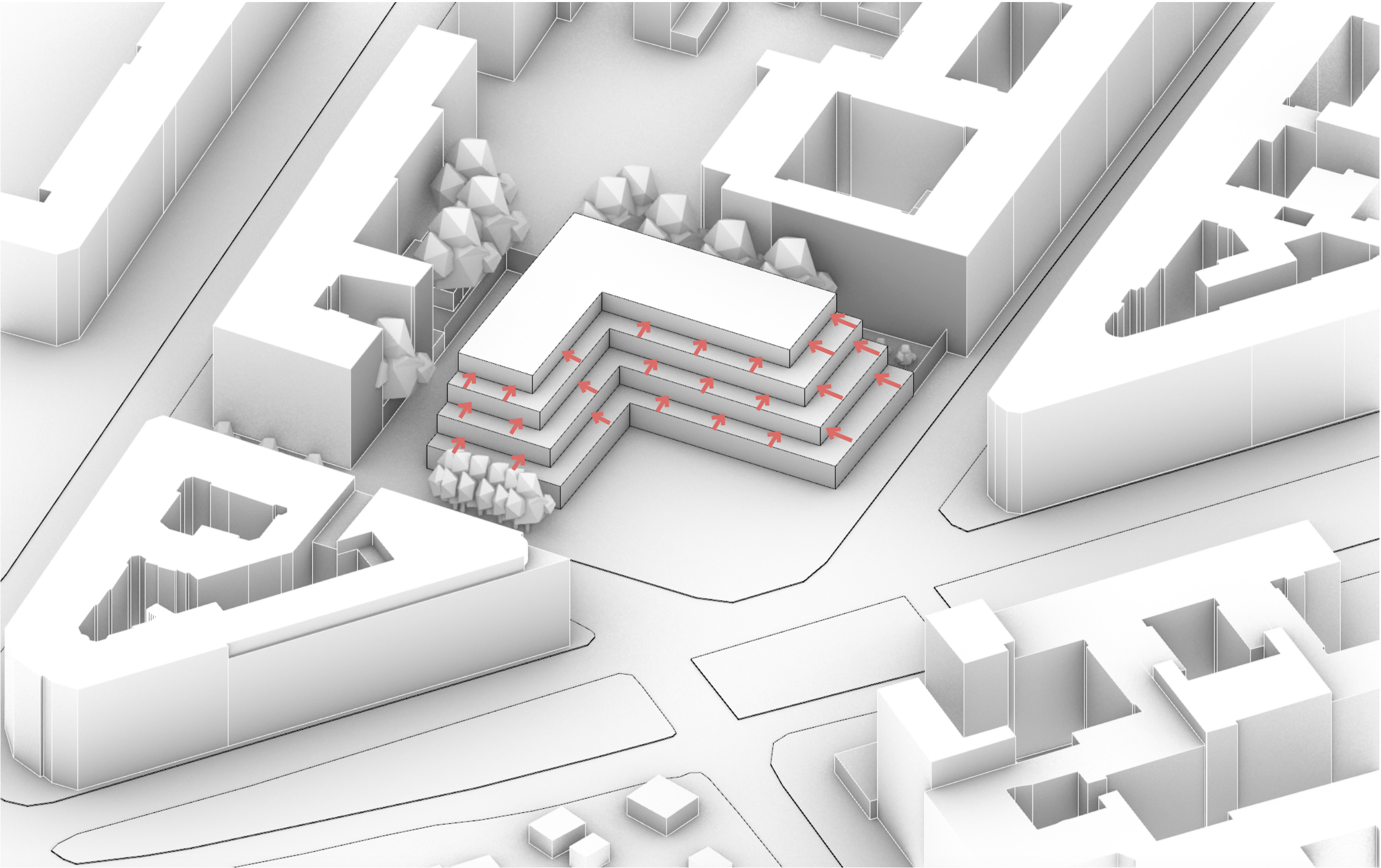




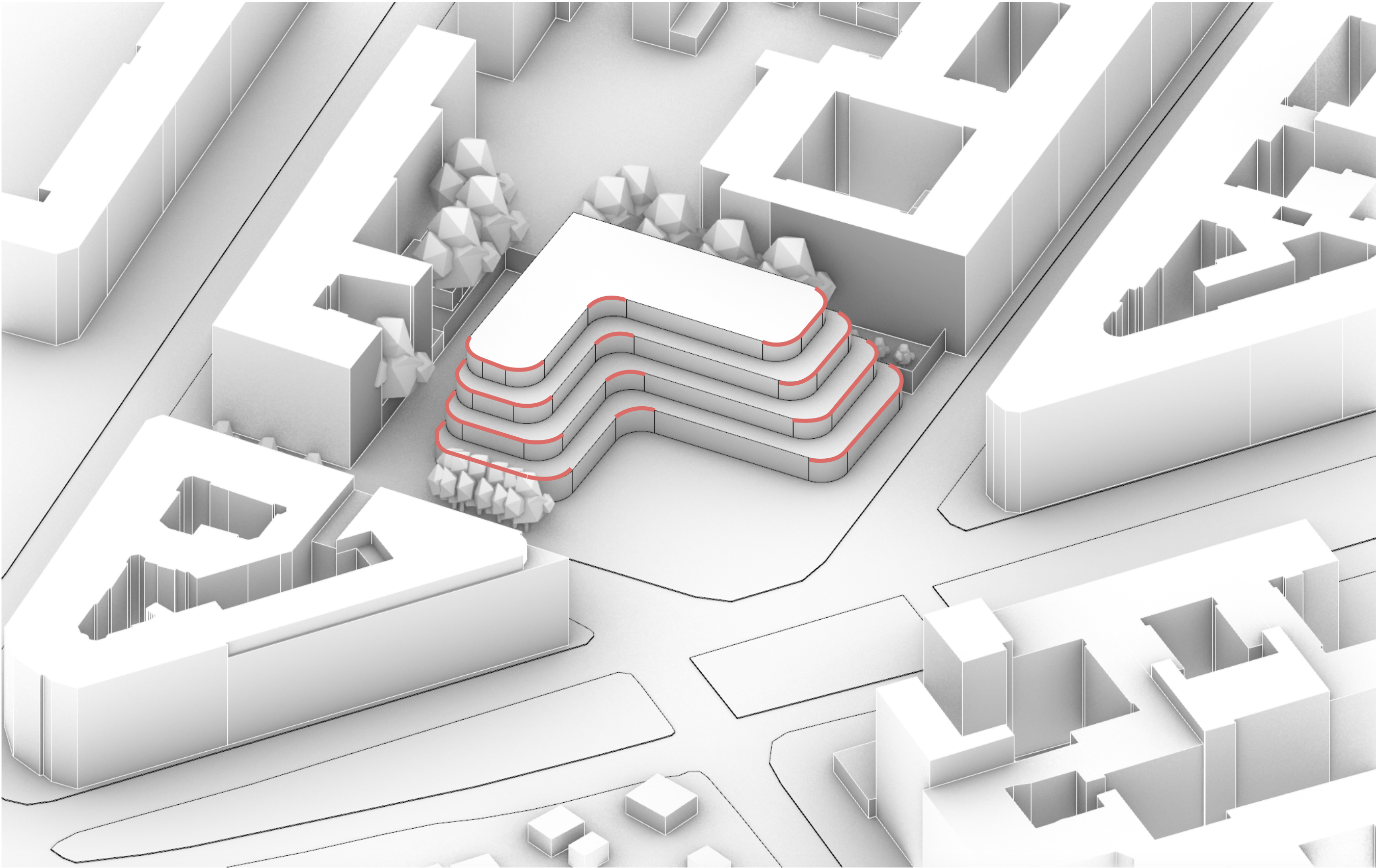




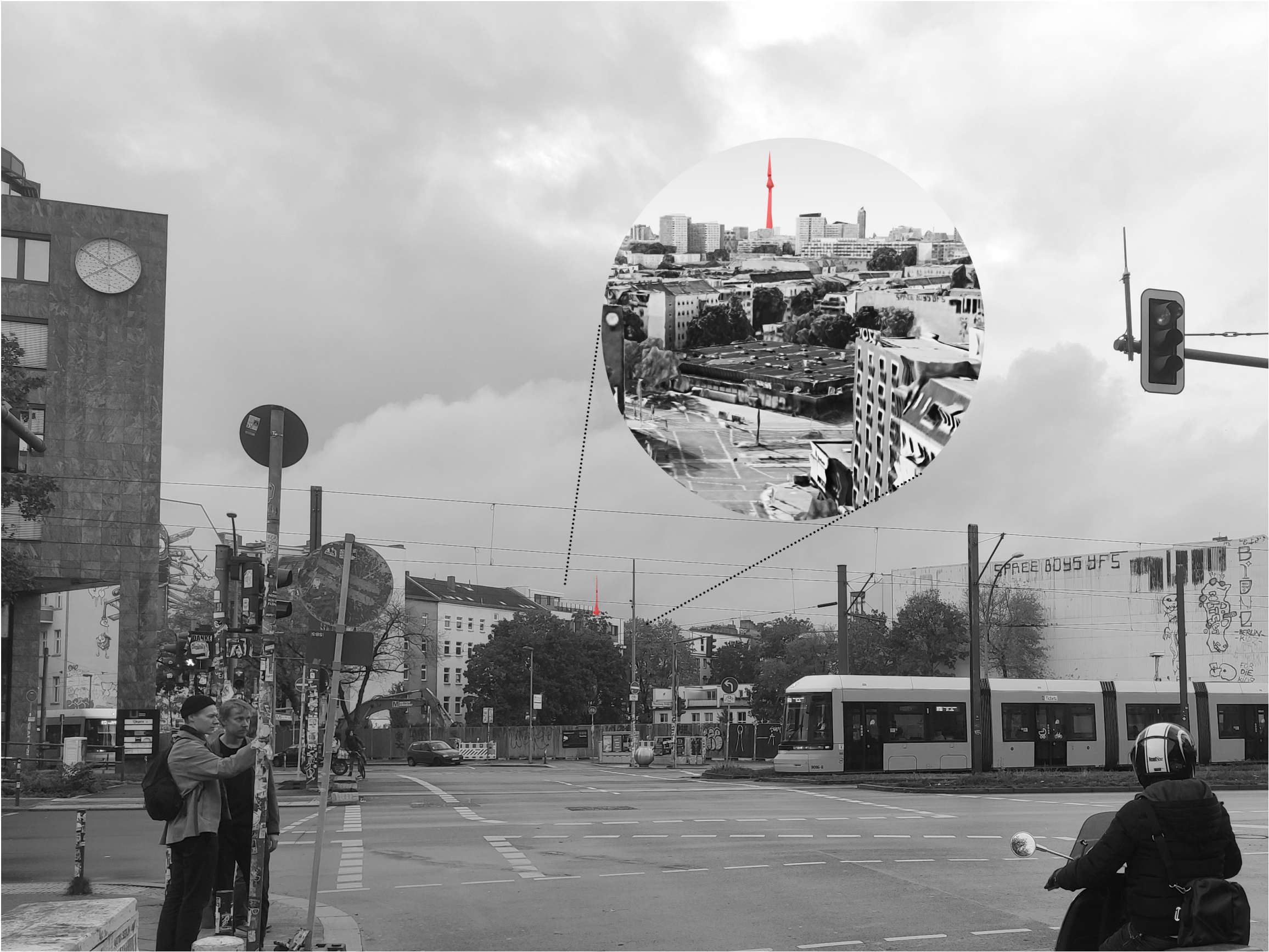




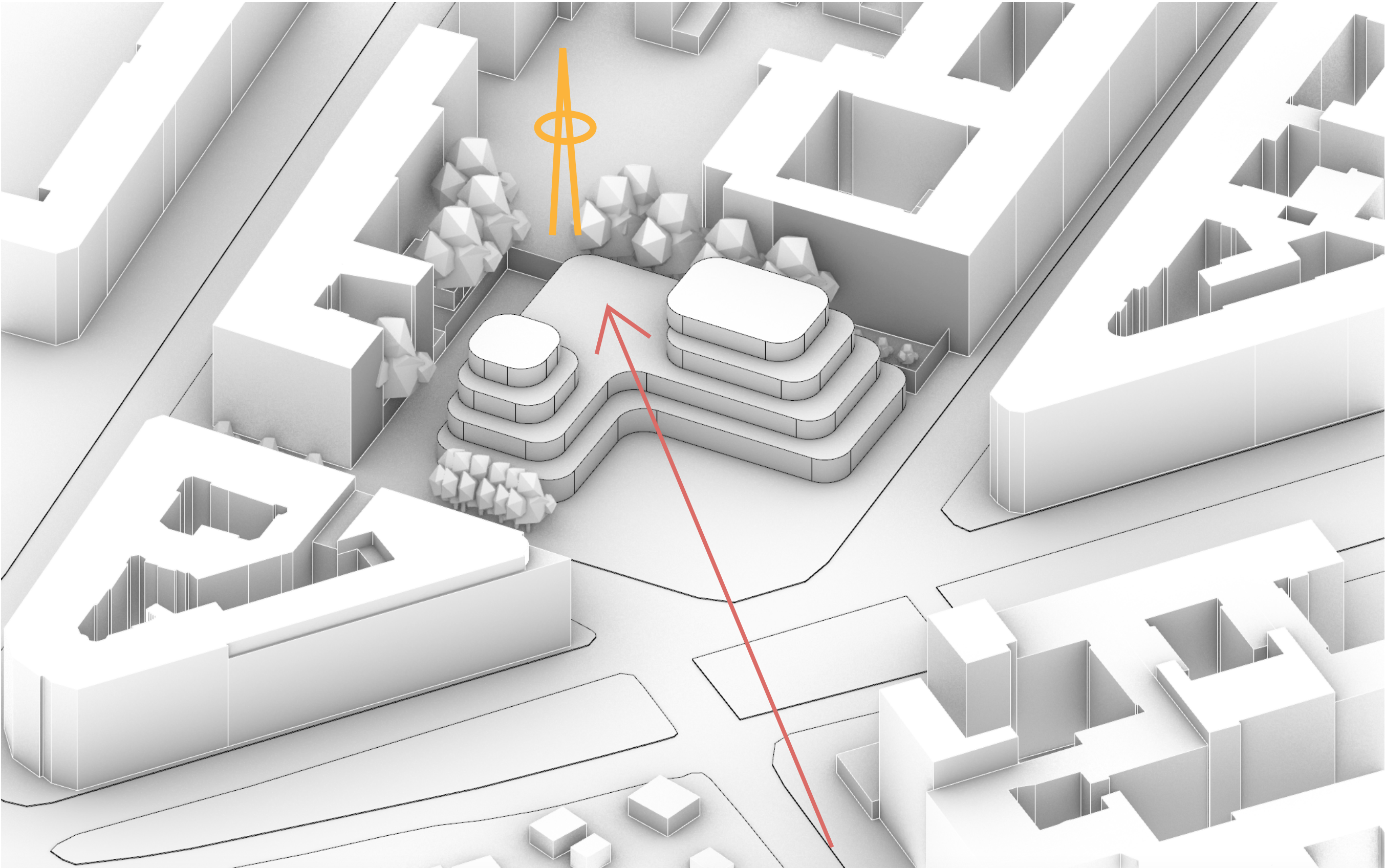




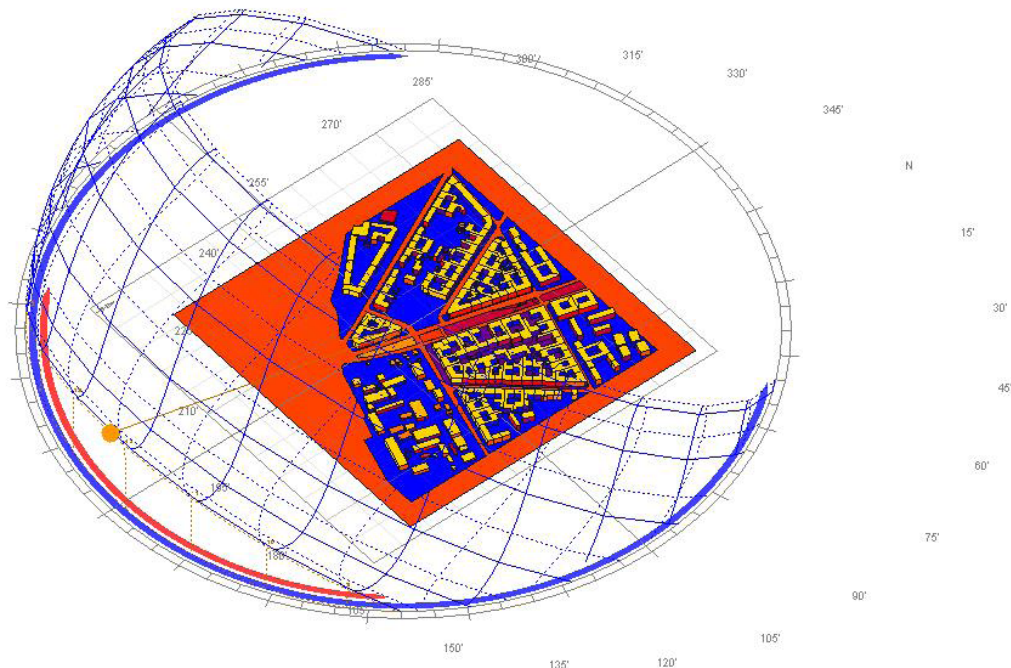




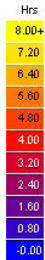




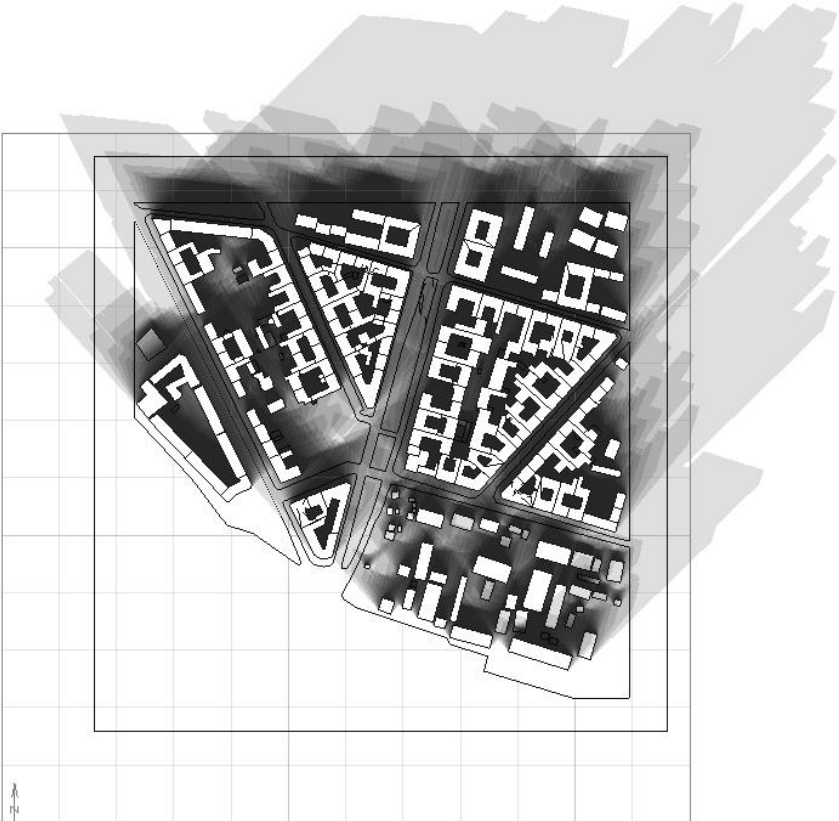
**OBJECT ATTRIBUTES**  
Total Sunlight Hours  
Value Range: 0.0 - 8.0 Hrs  
(c) ECOTECT v5



**OBJECT ATTRIBUTES**  
Total Sunlight Hours  
Value Range: 0.0 - 8.0 Hrs  
(c) ECOTECT v5

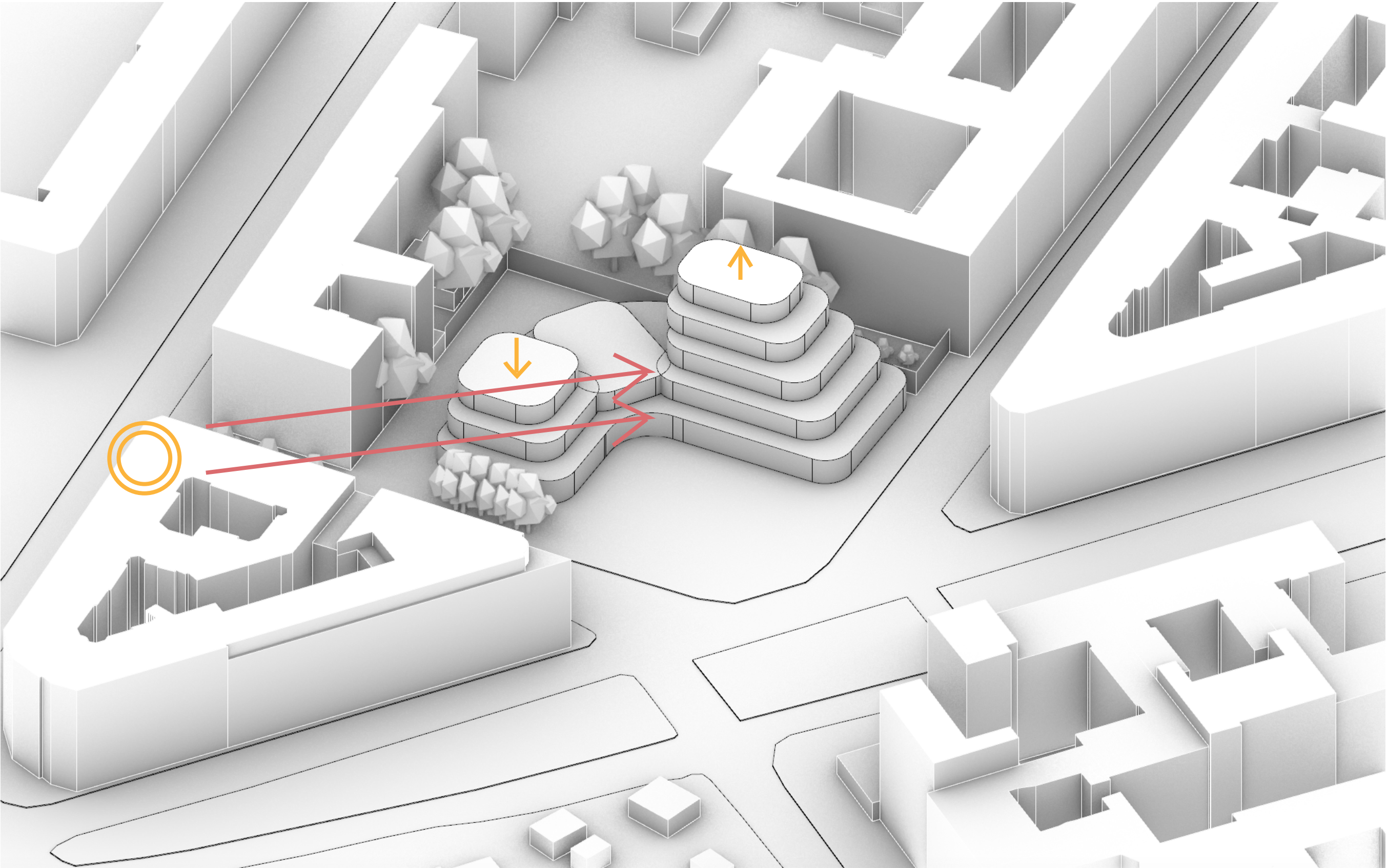


Sun analysis

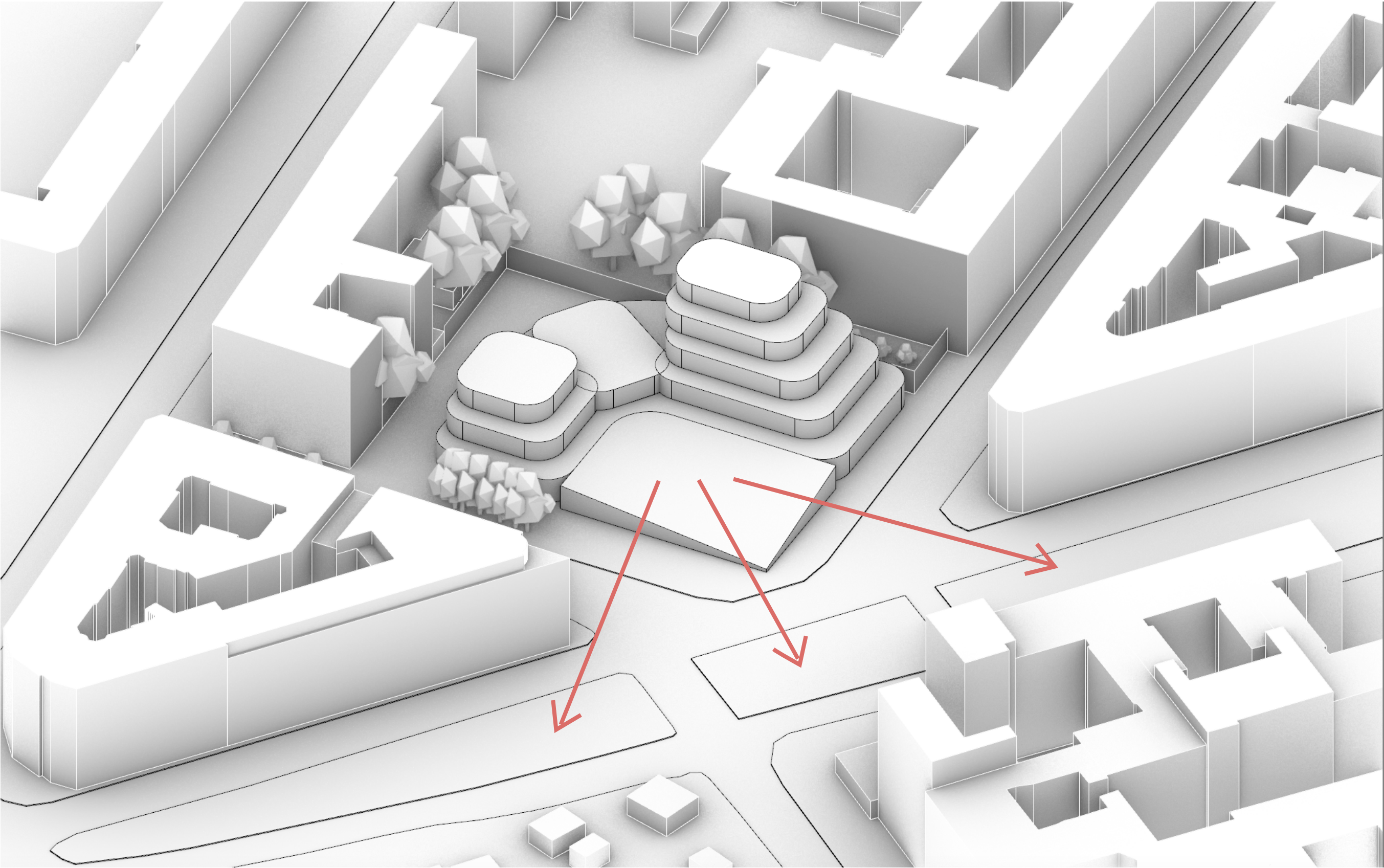


Shadow

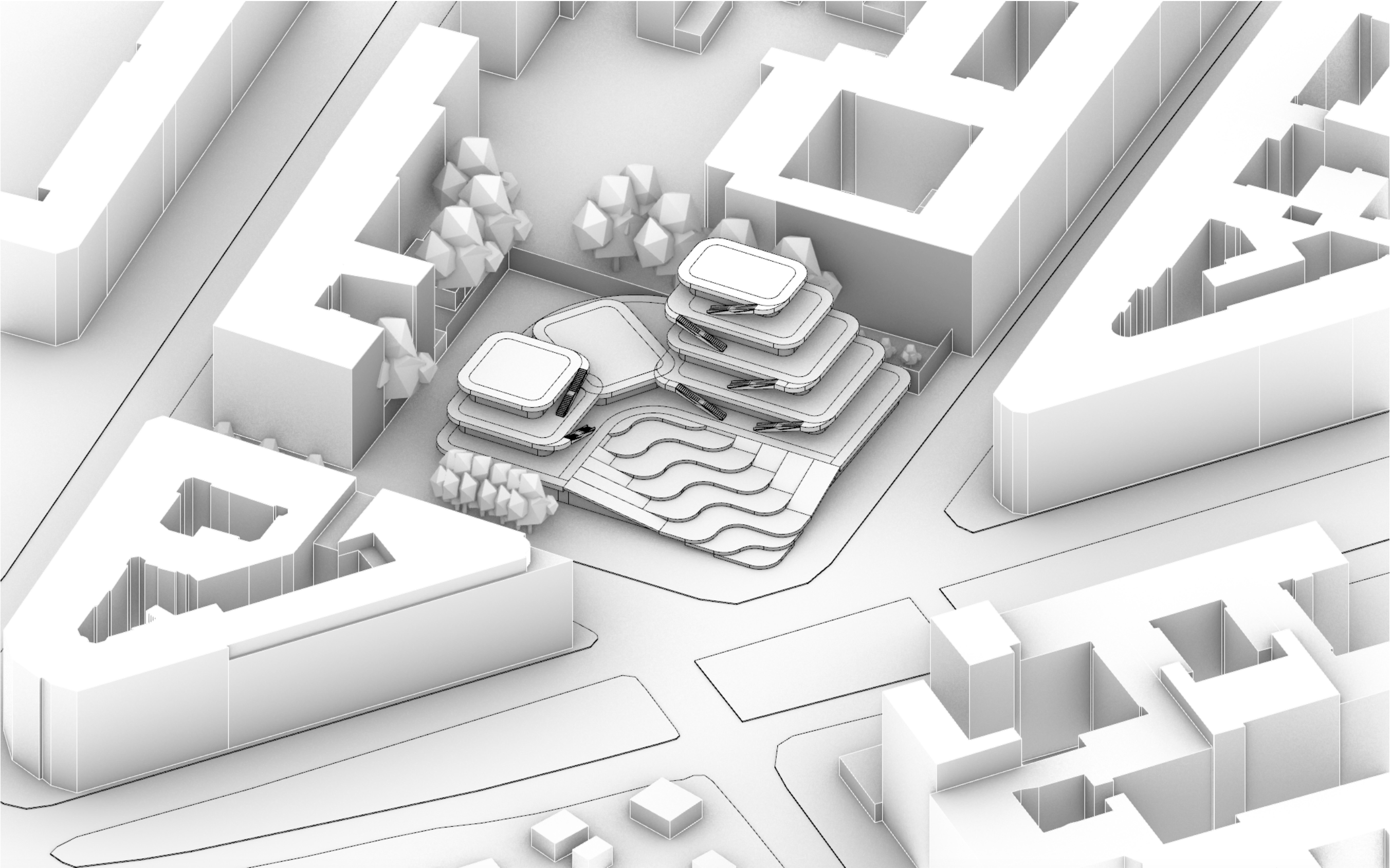


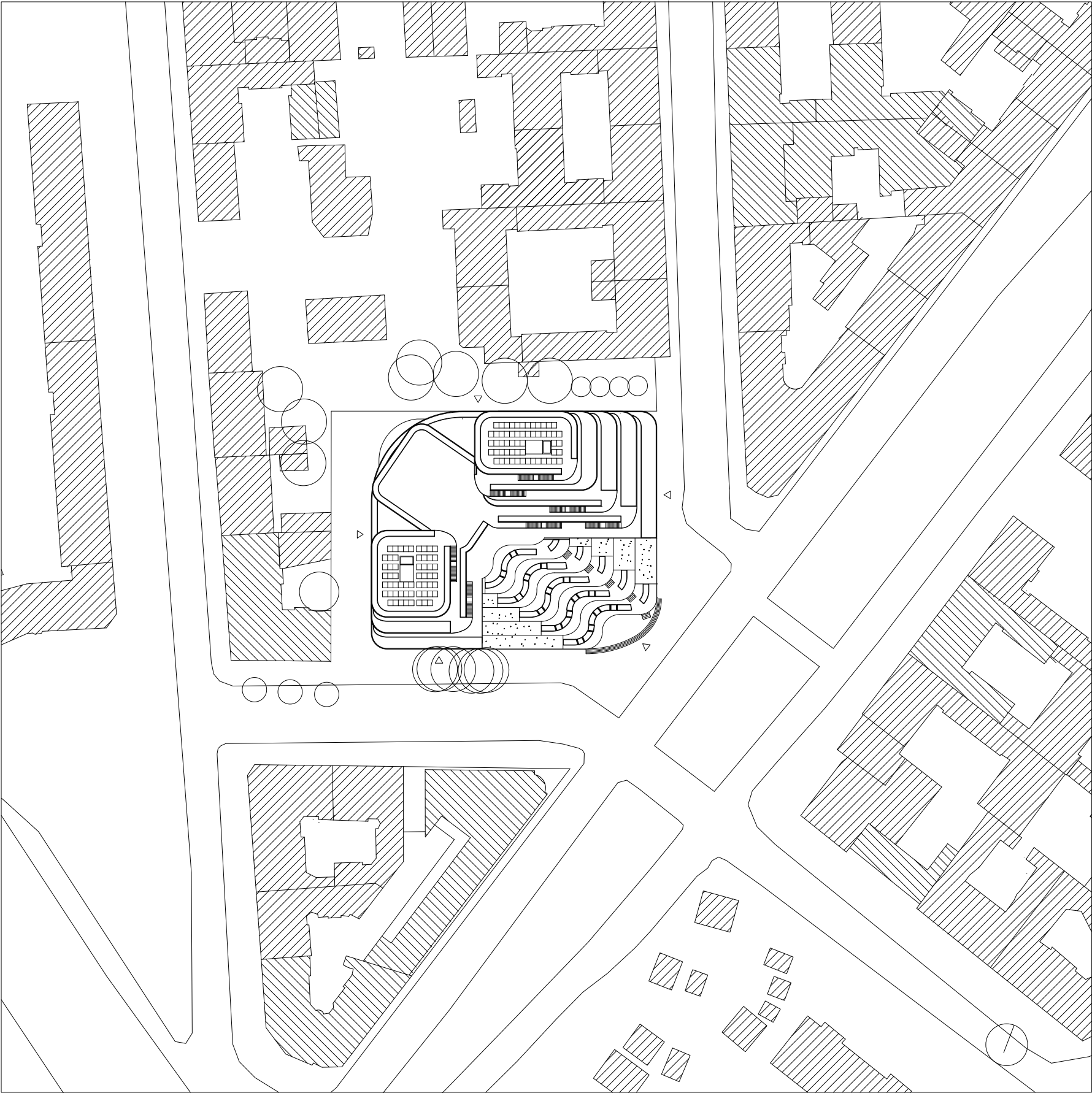




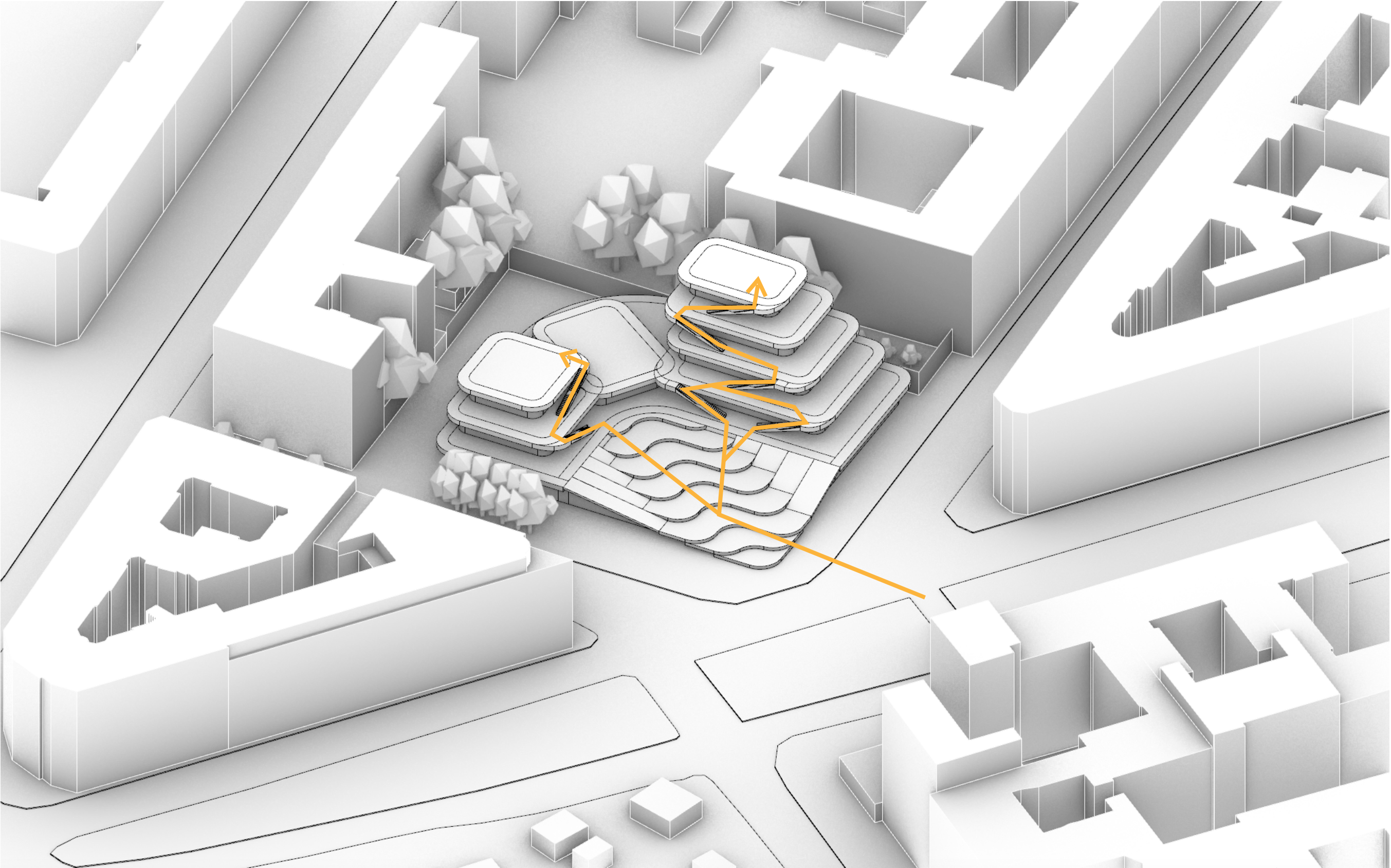




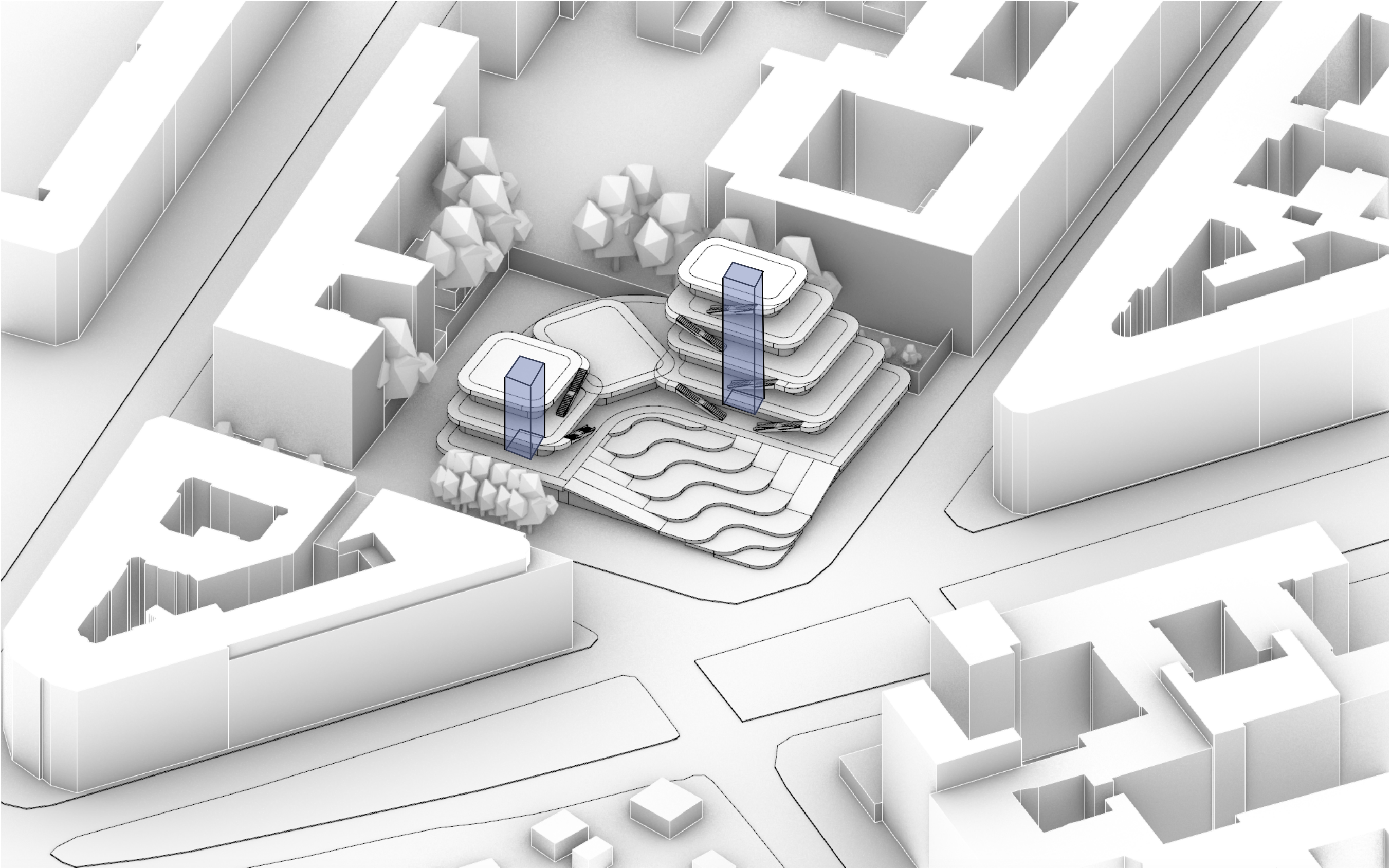






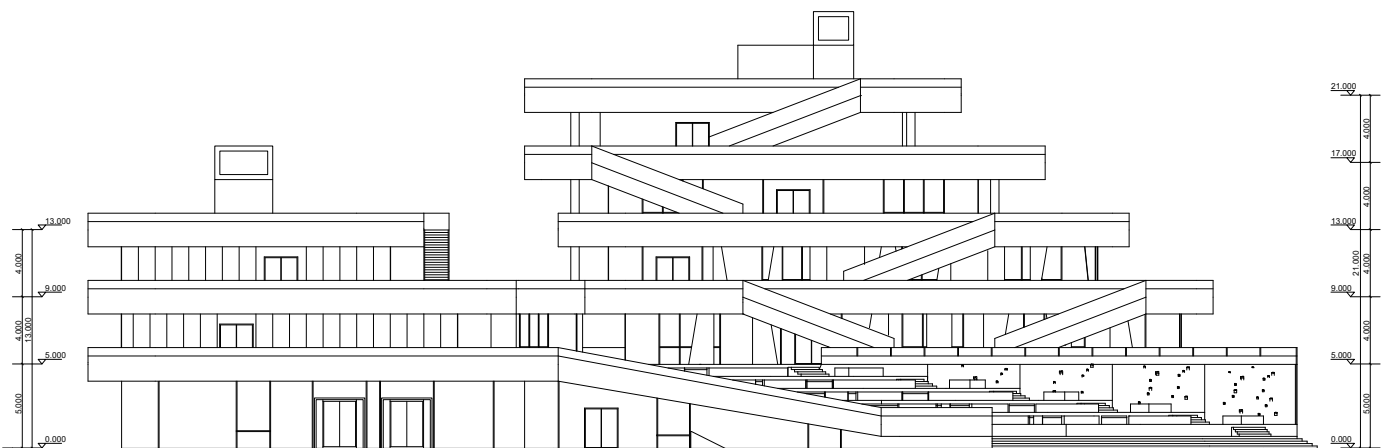
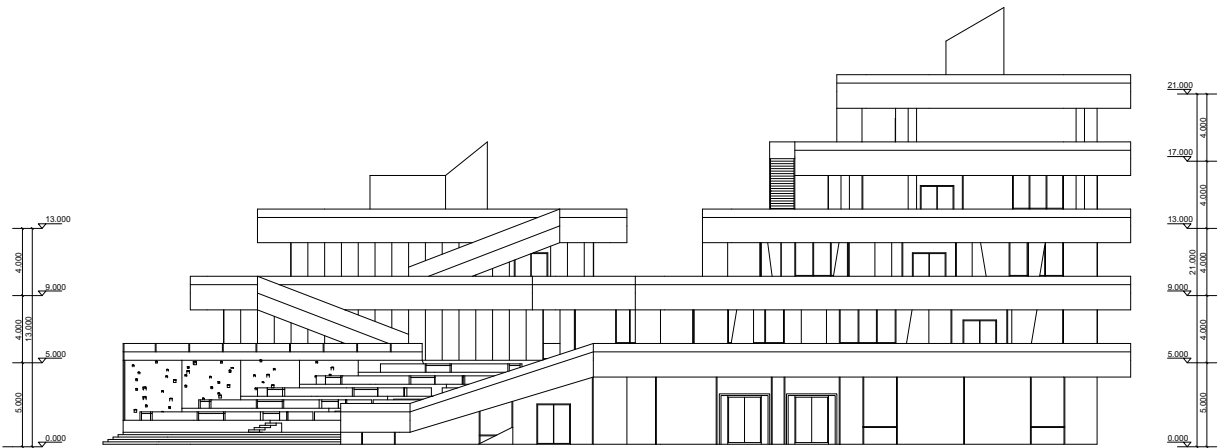
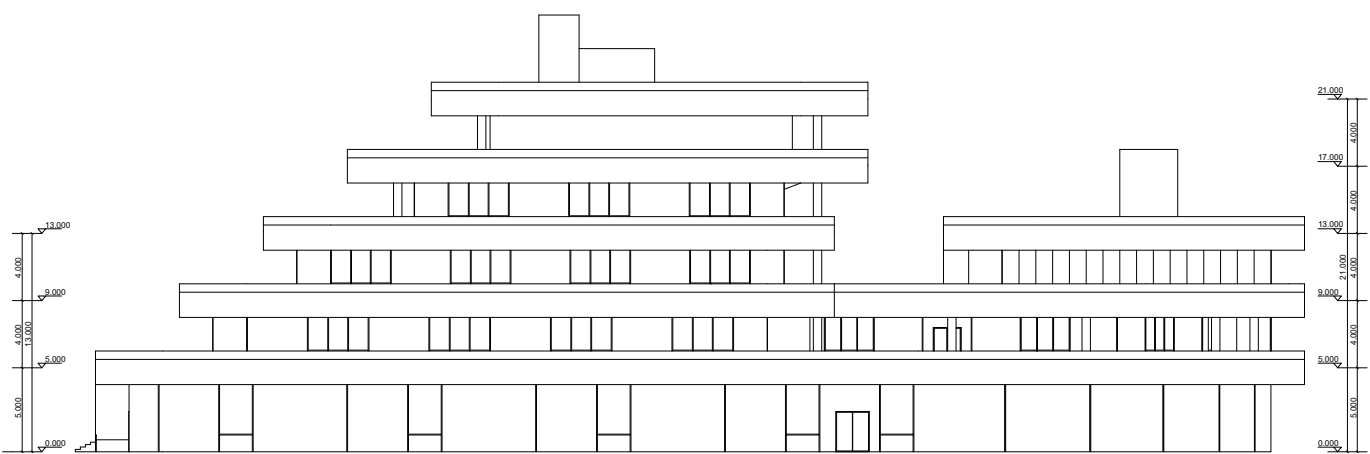
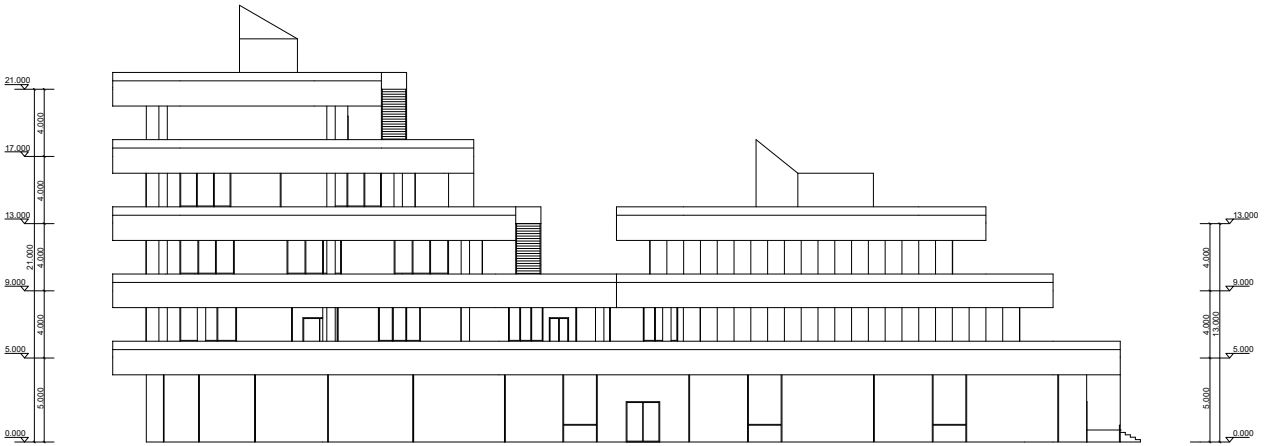


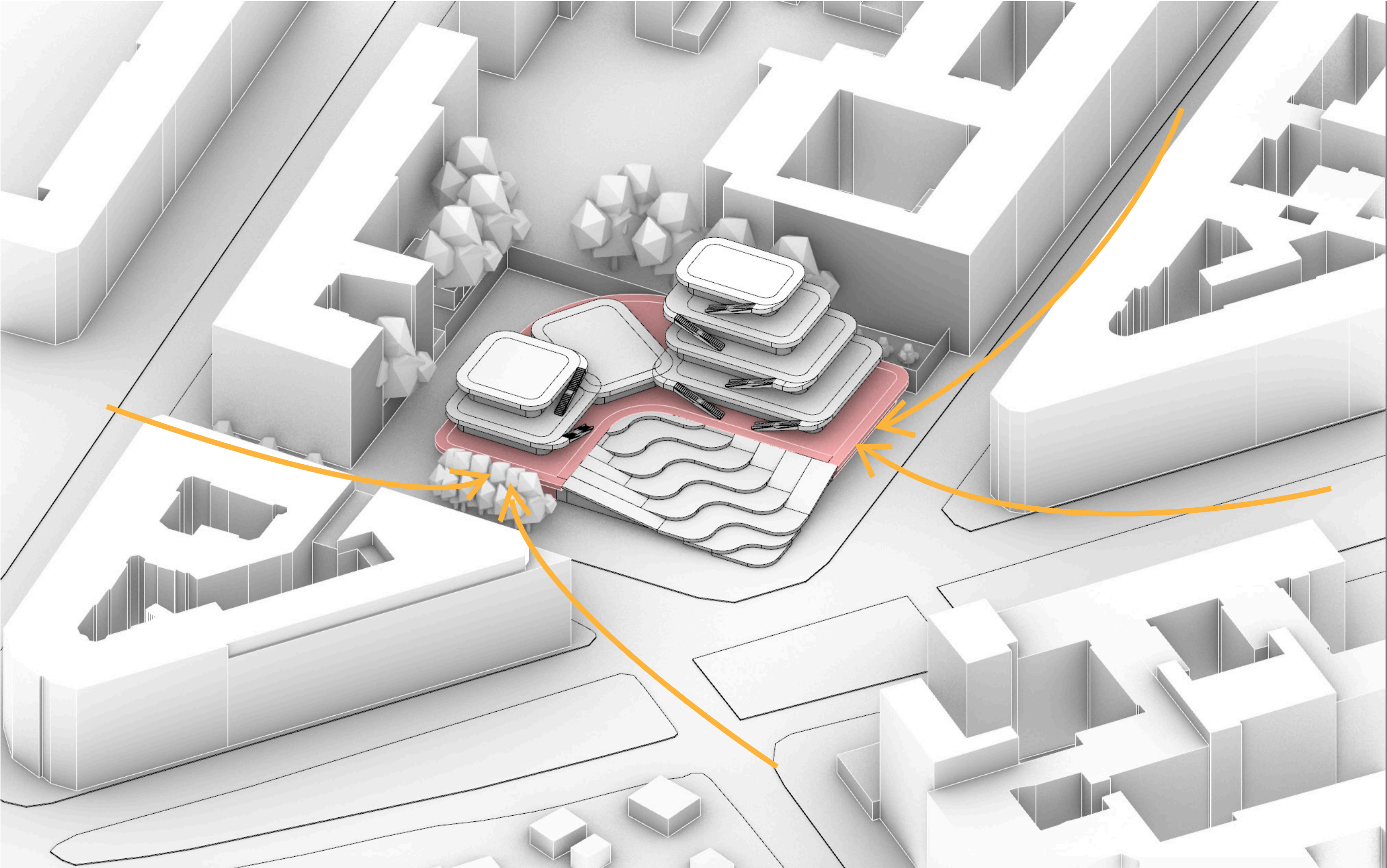




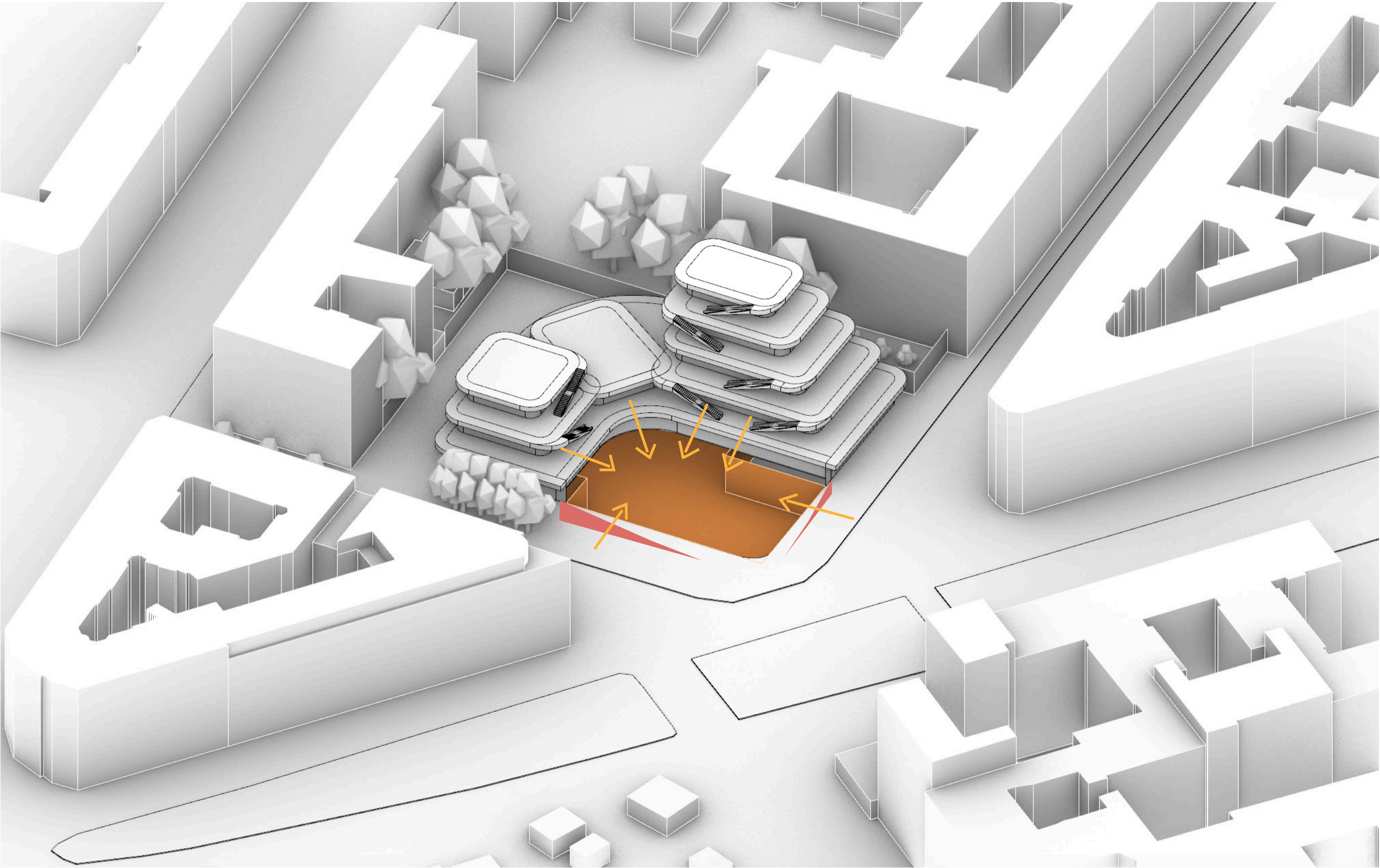


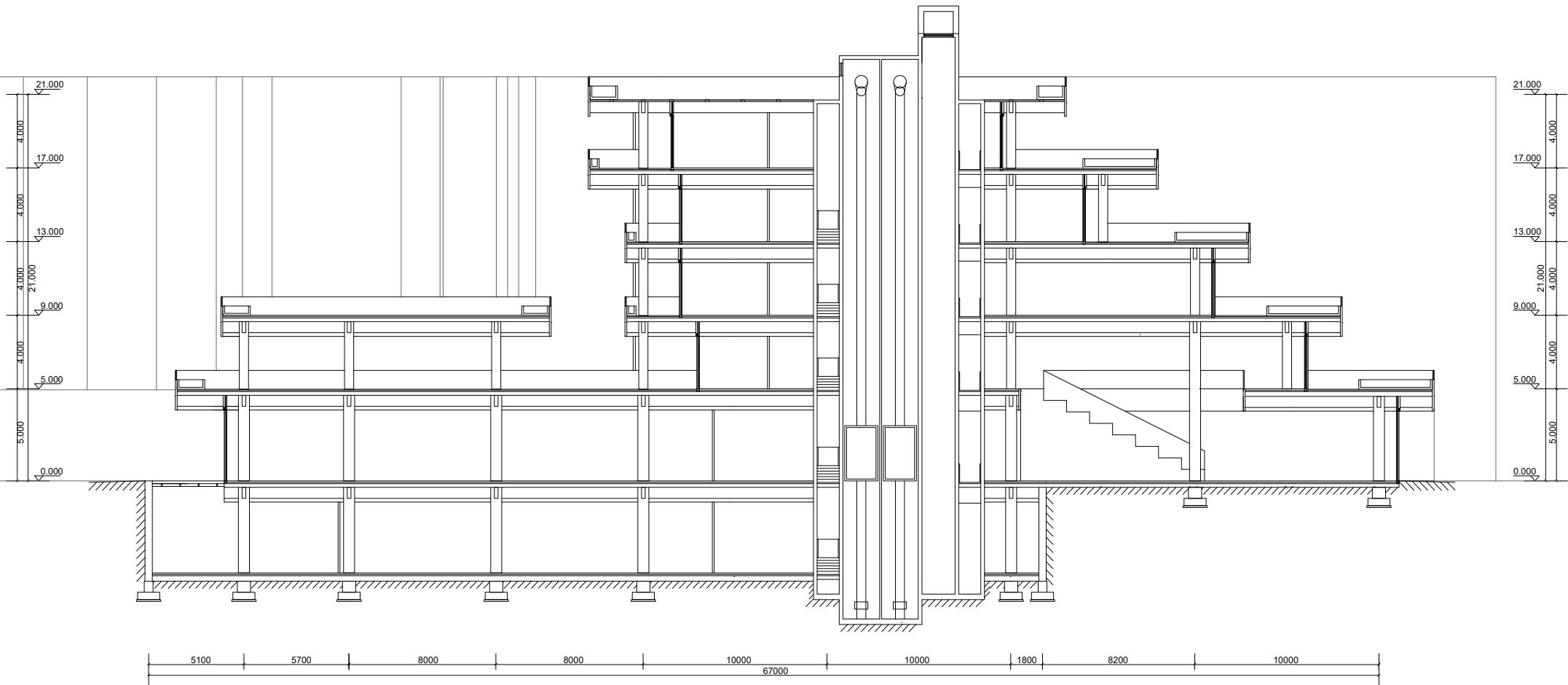
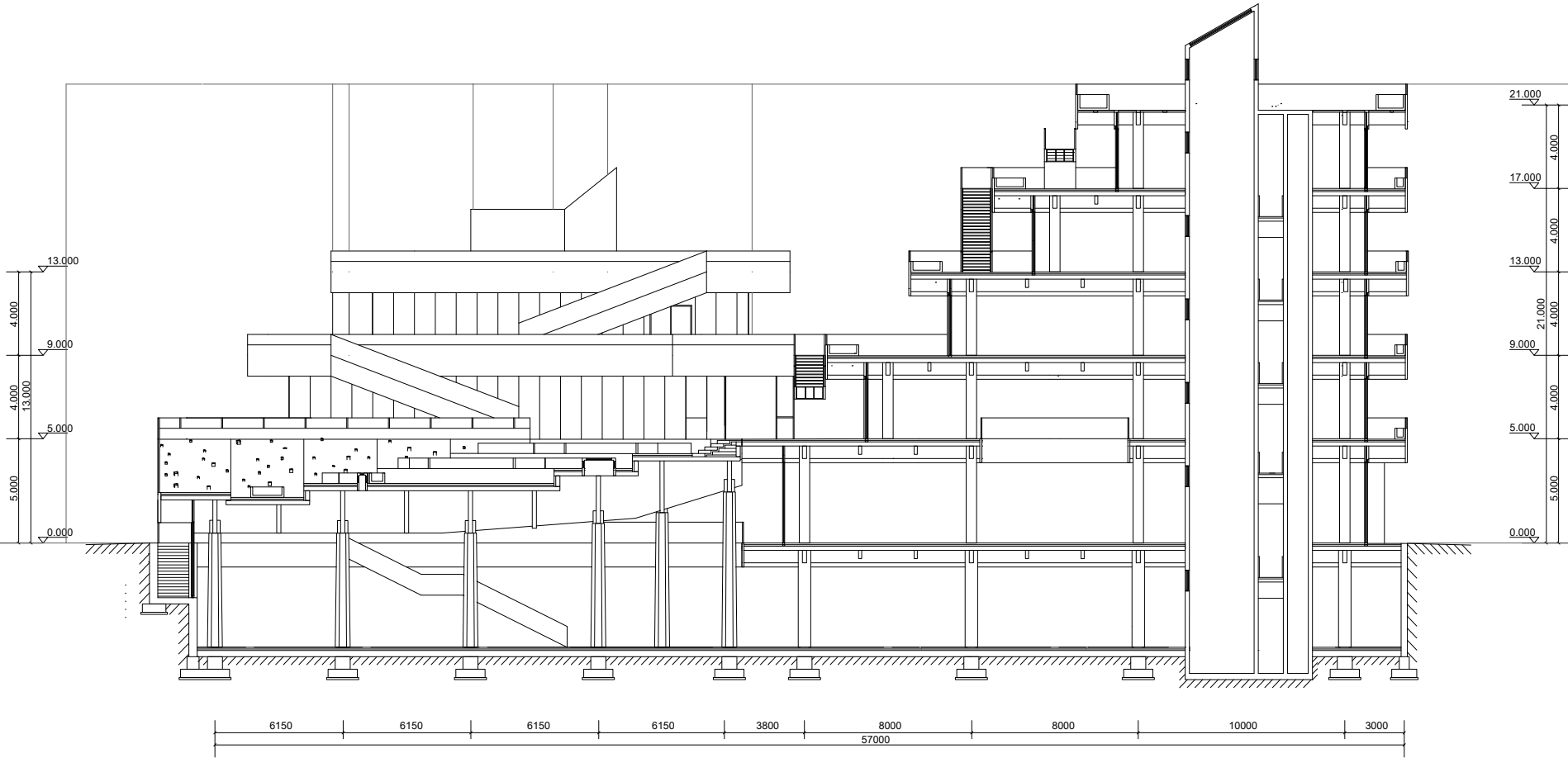
Facades



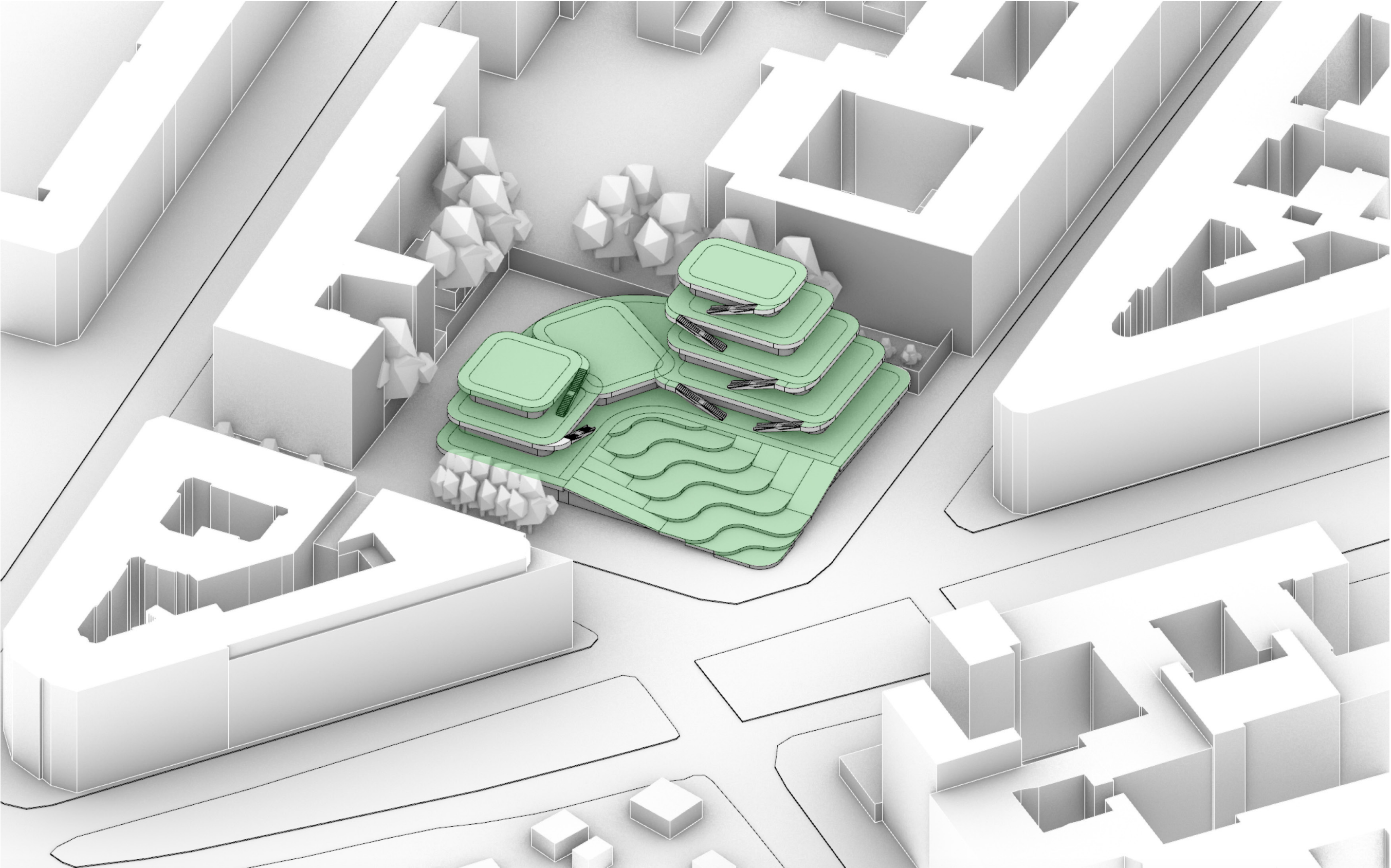




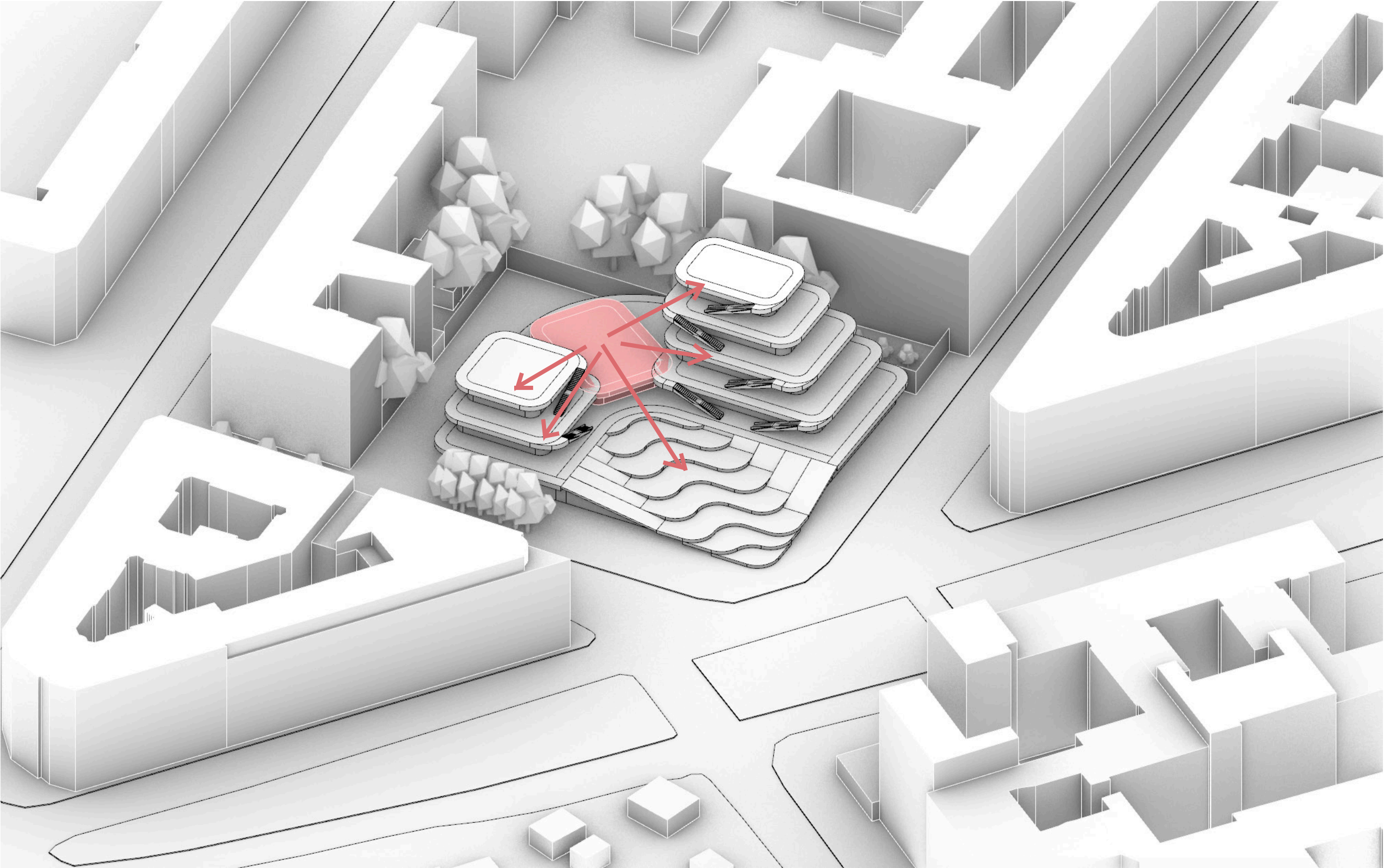




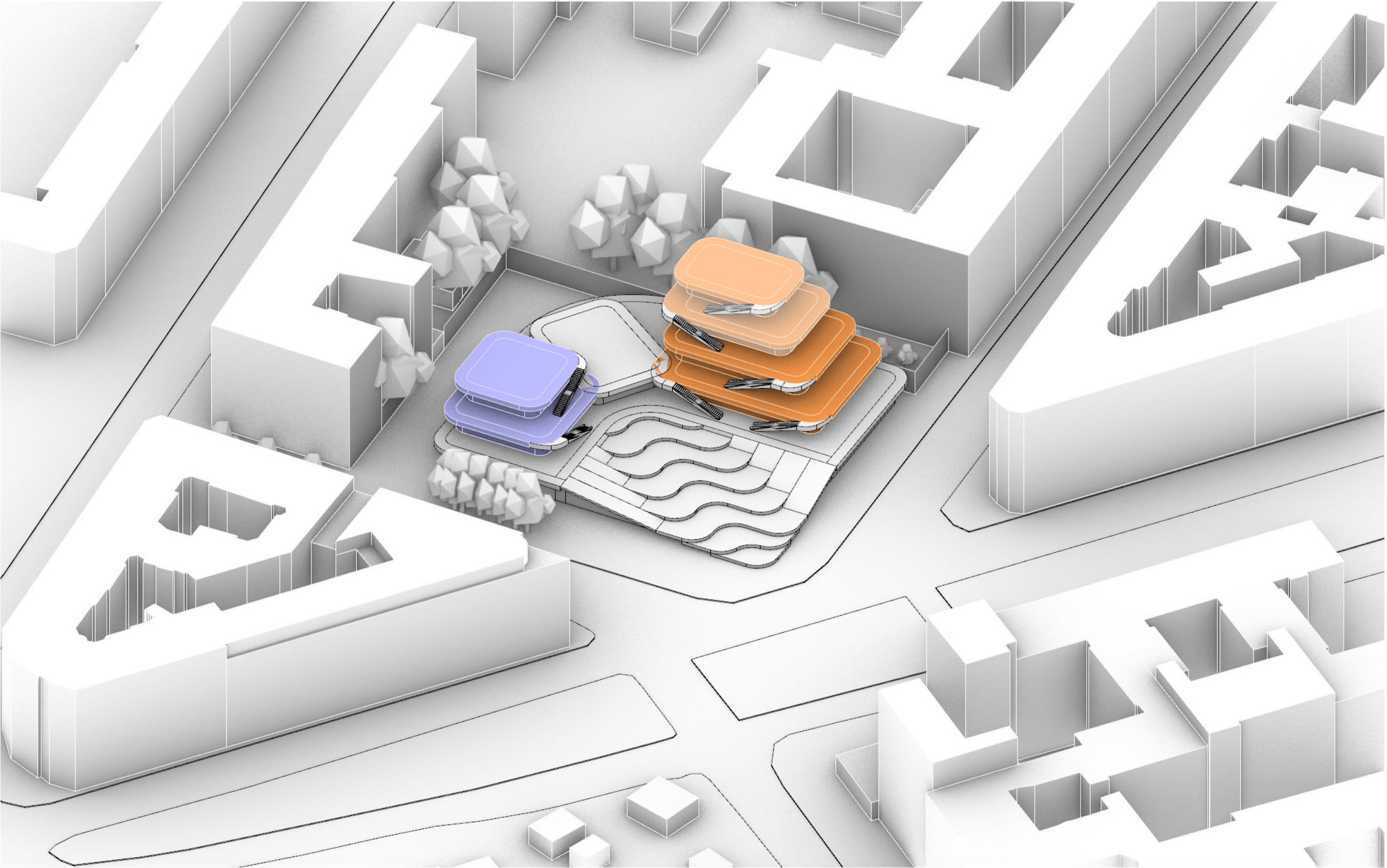












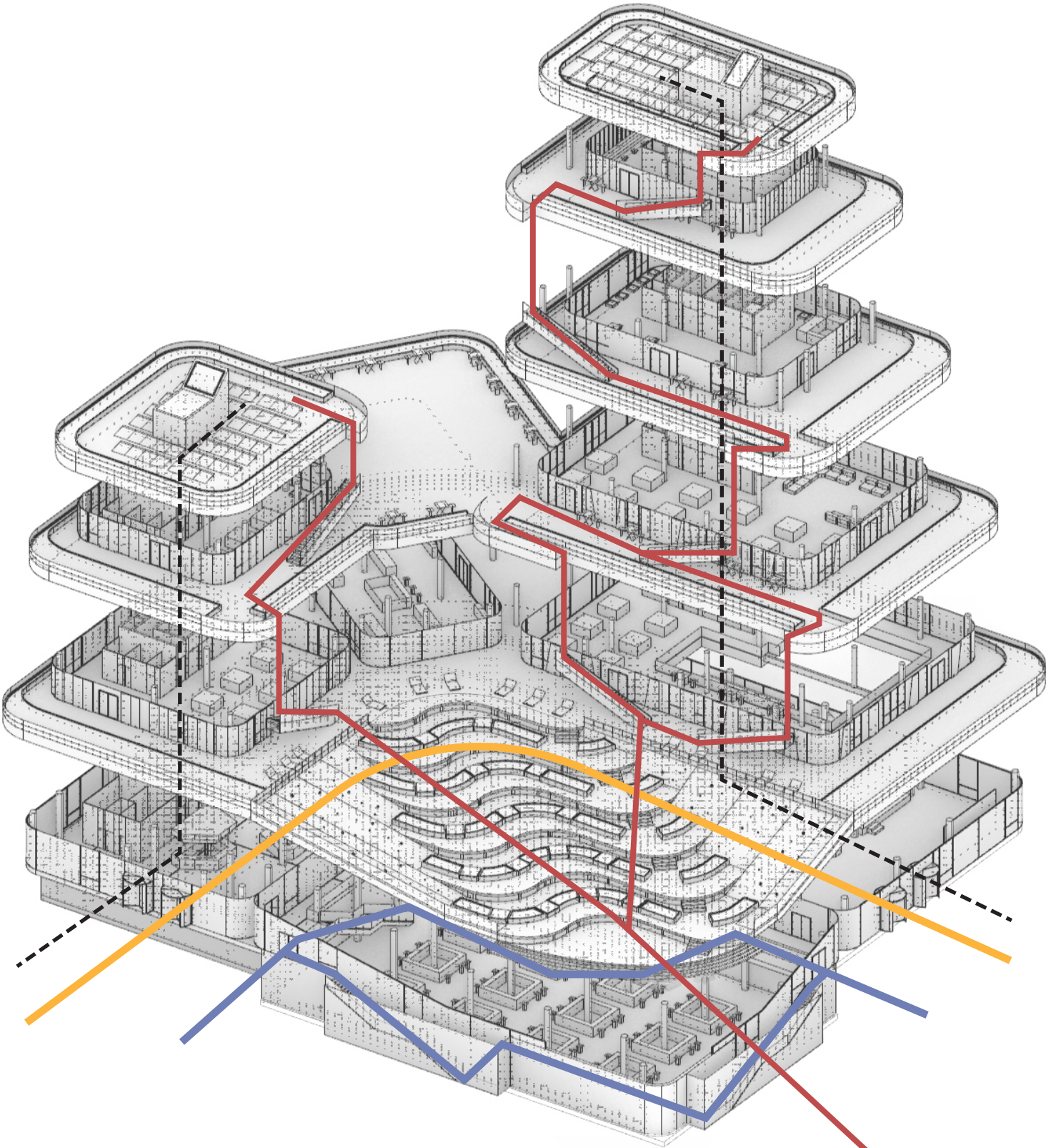


Exterior Rendering



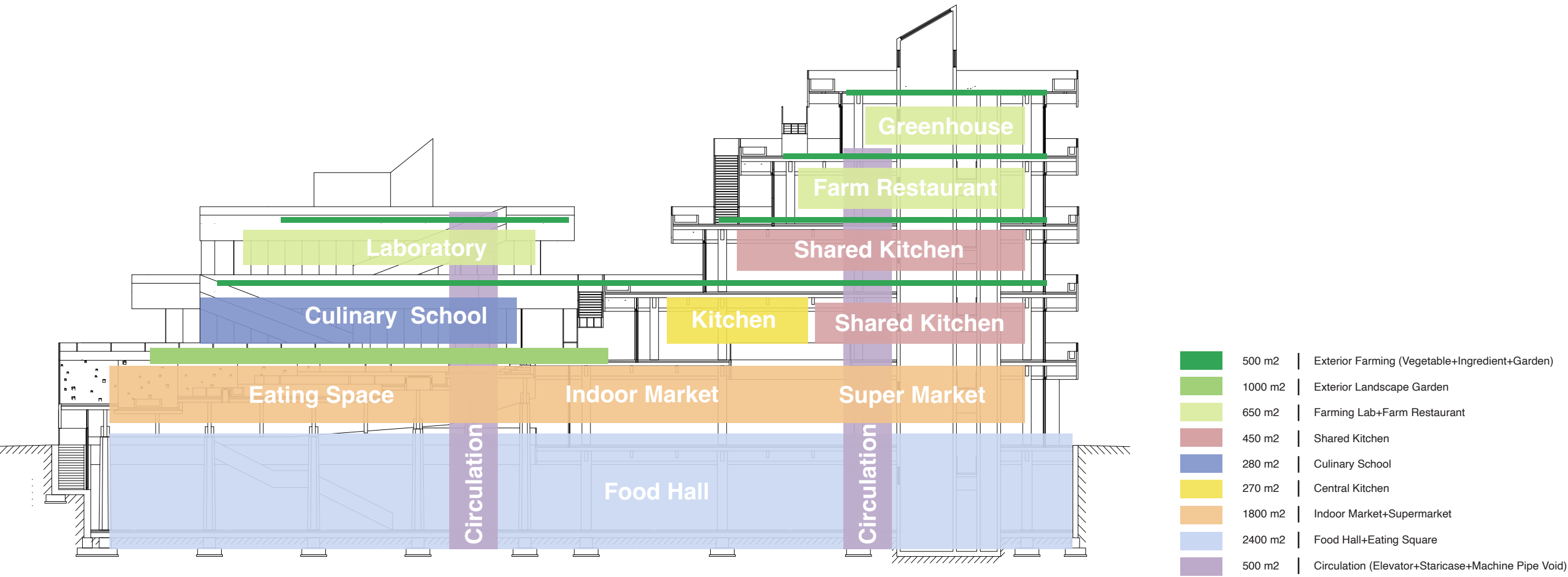


Space Circulation

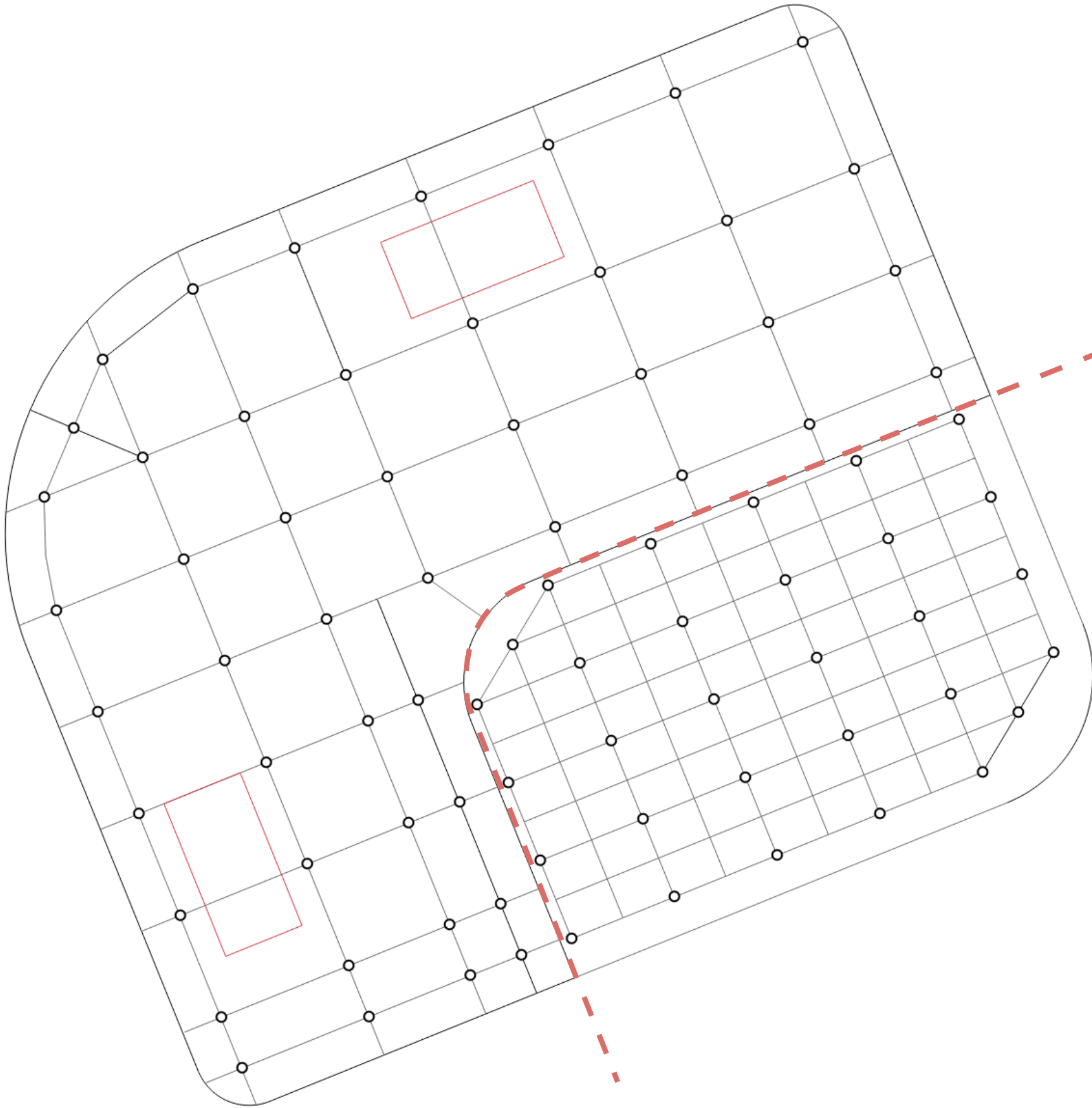


- Making Line for Community
- Market Line for Locals
- Food Hall Line for Visitors
- - - Vertical Circulation

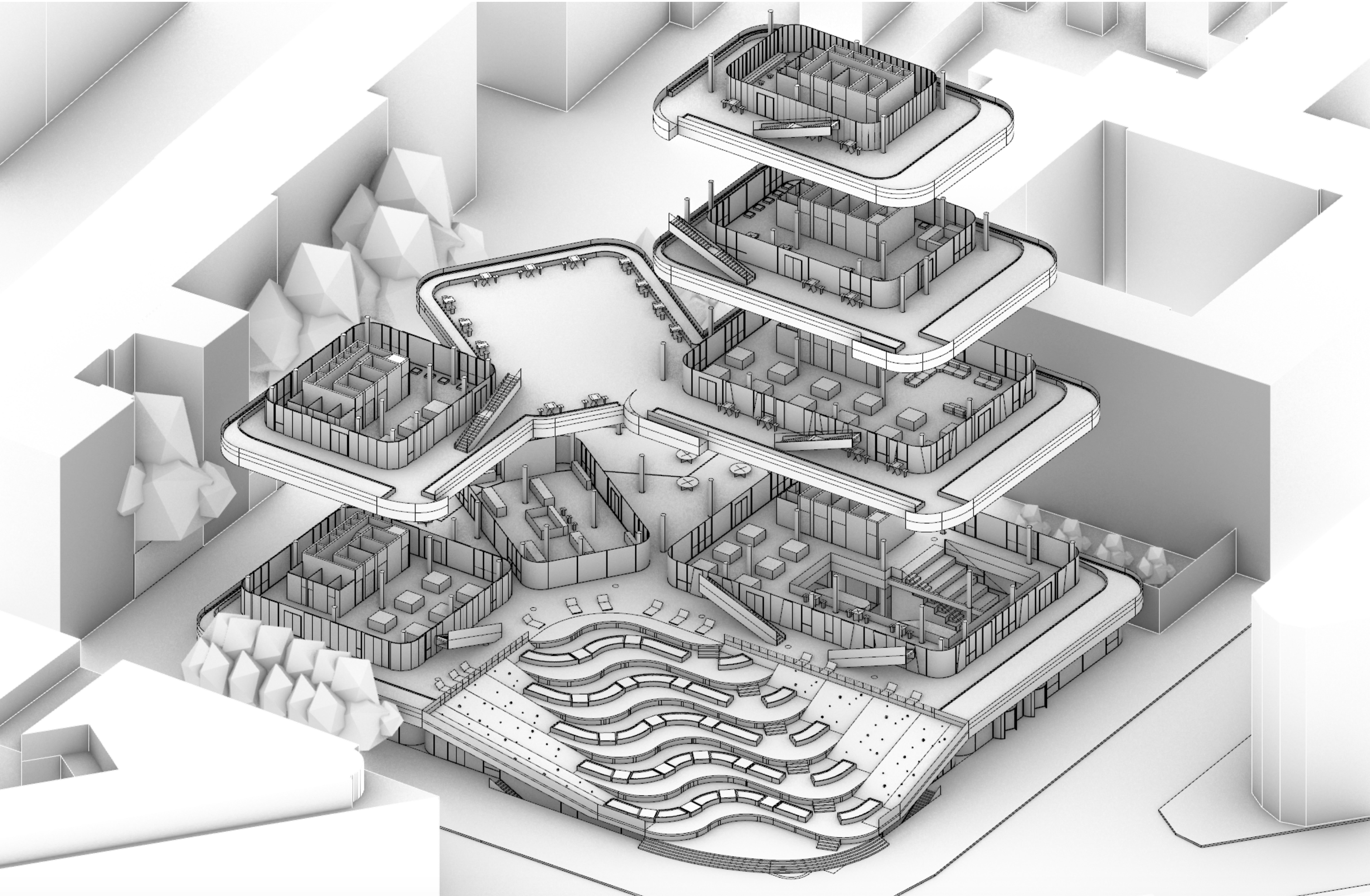
Program Distribution





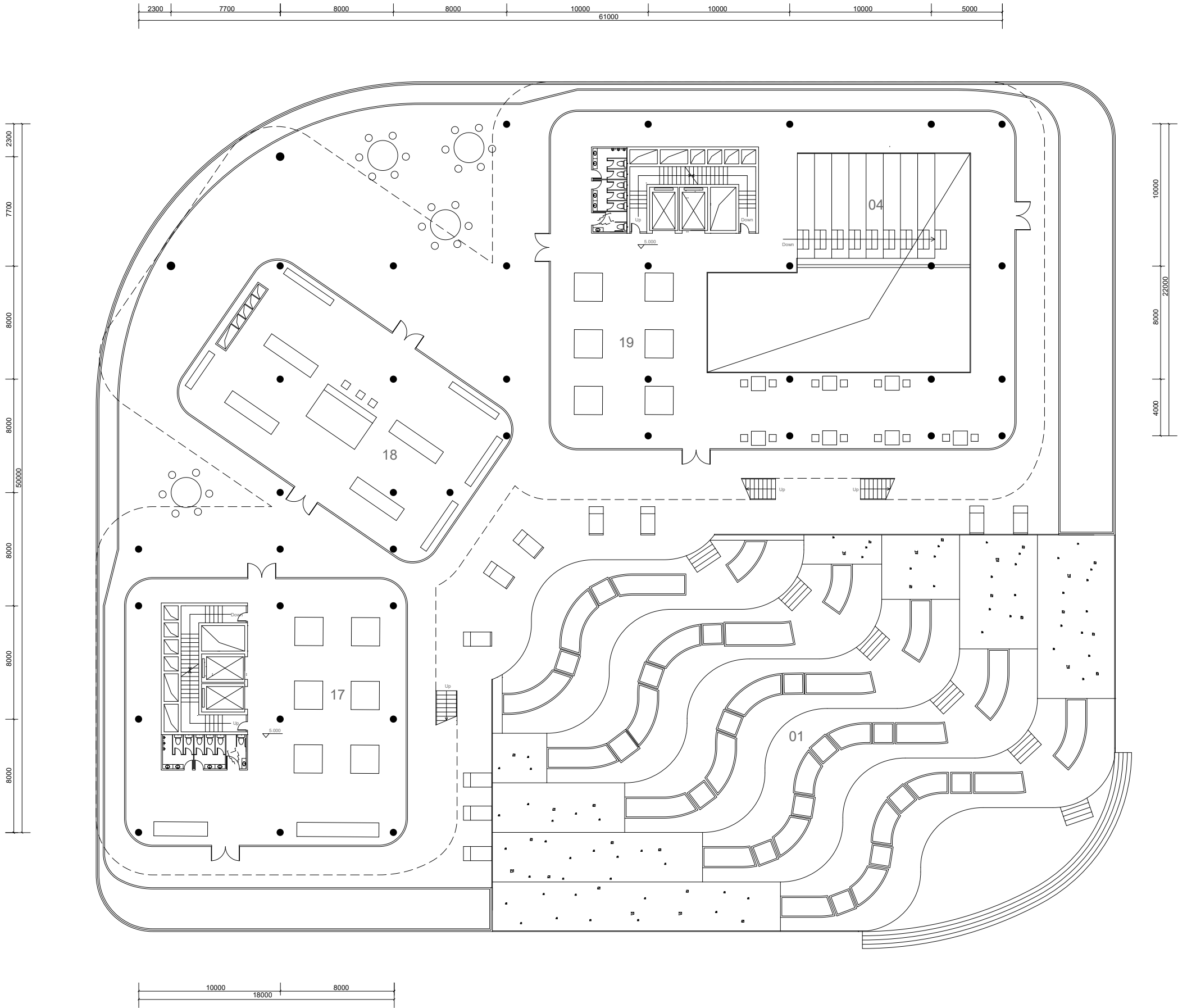








Space Montage-First Floor





Rooftop Landscape Rendering

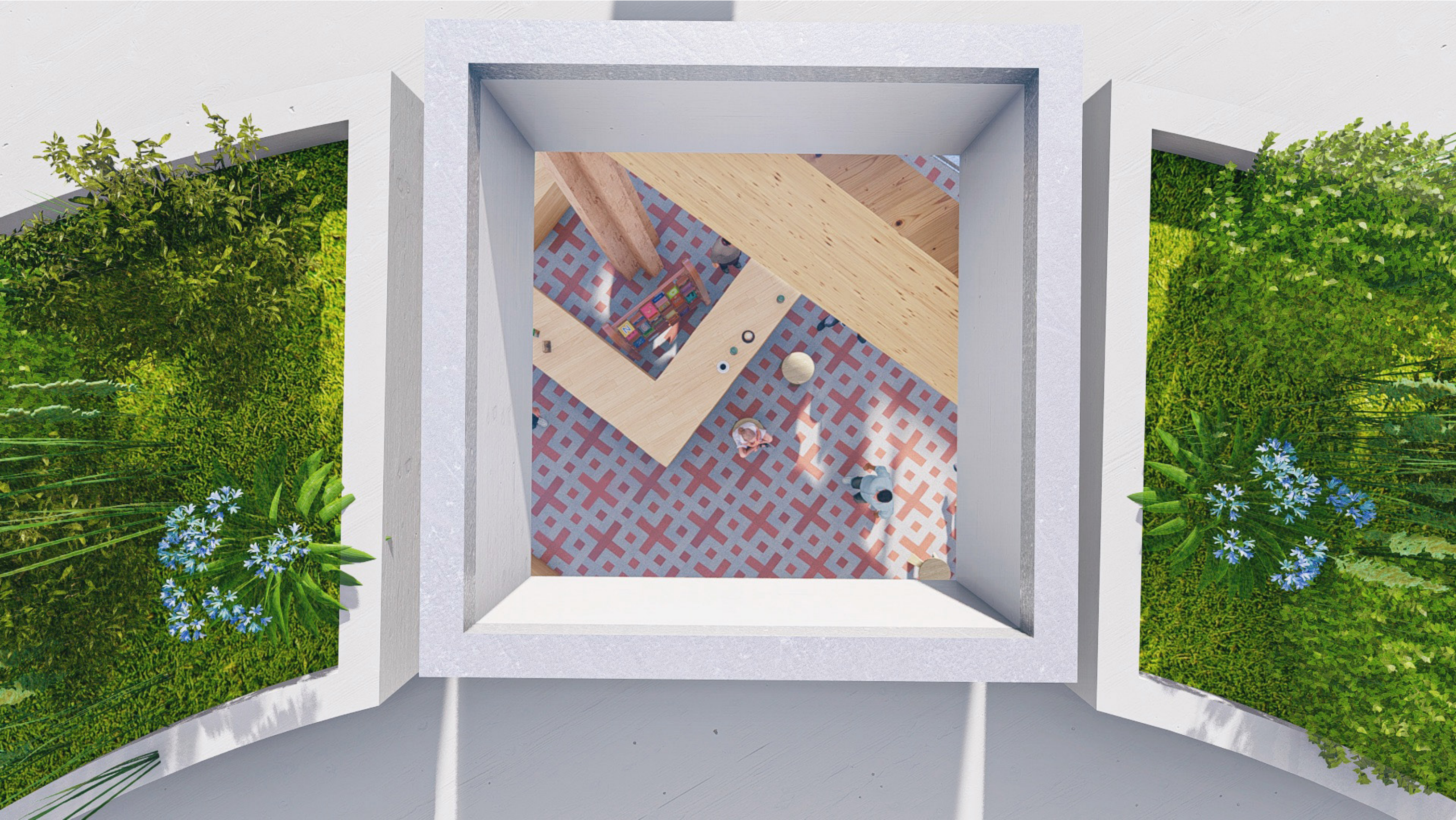




Rooftop Landscape Rendering

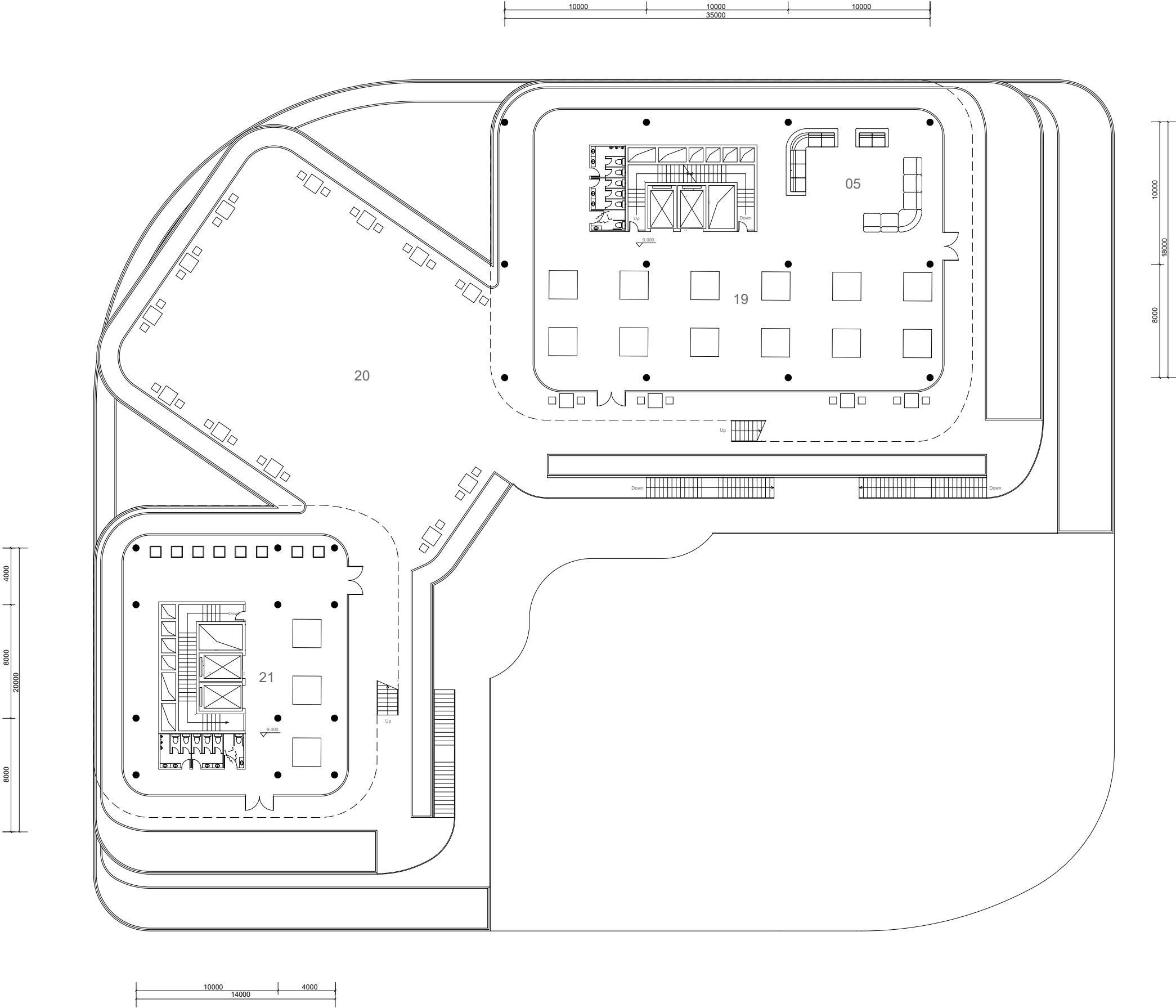








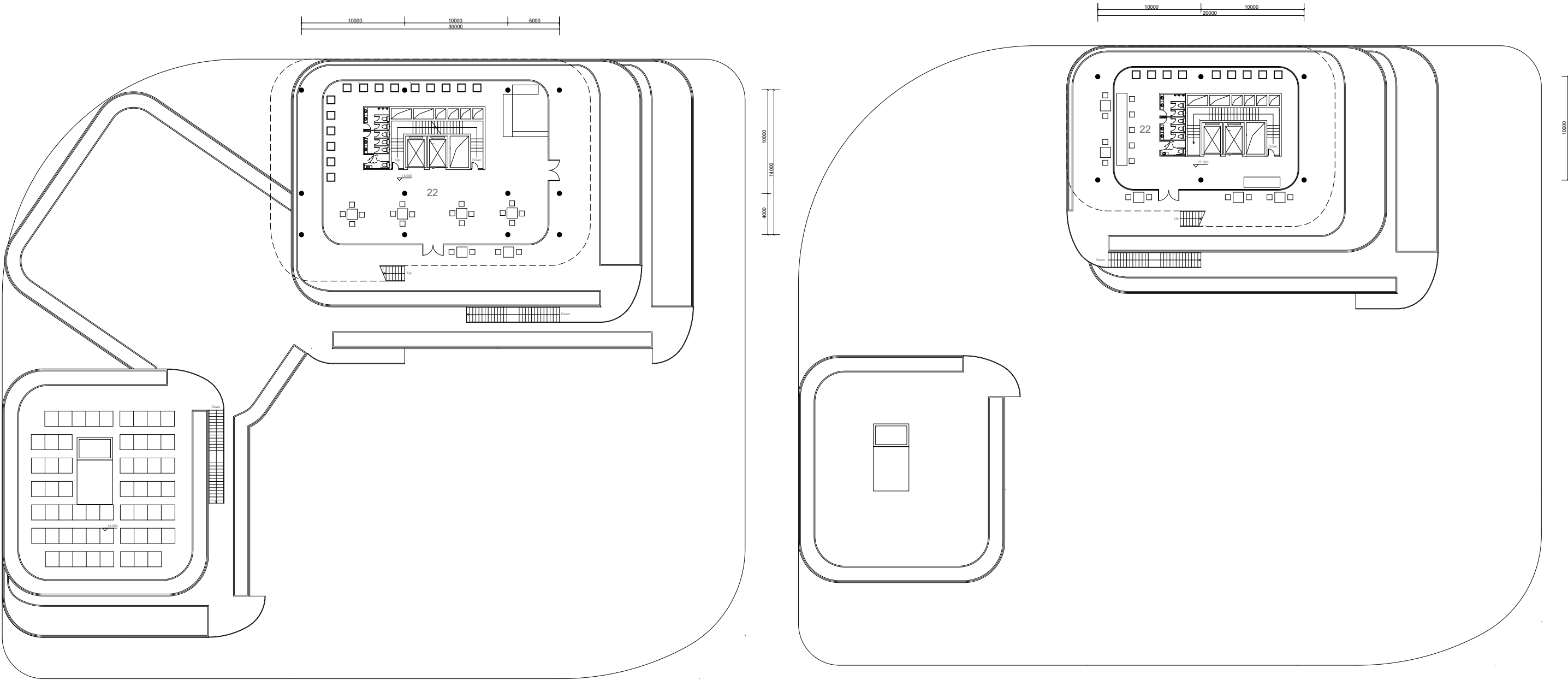
Space Montage-Second Floor







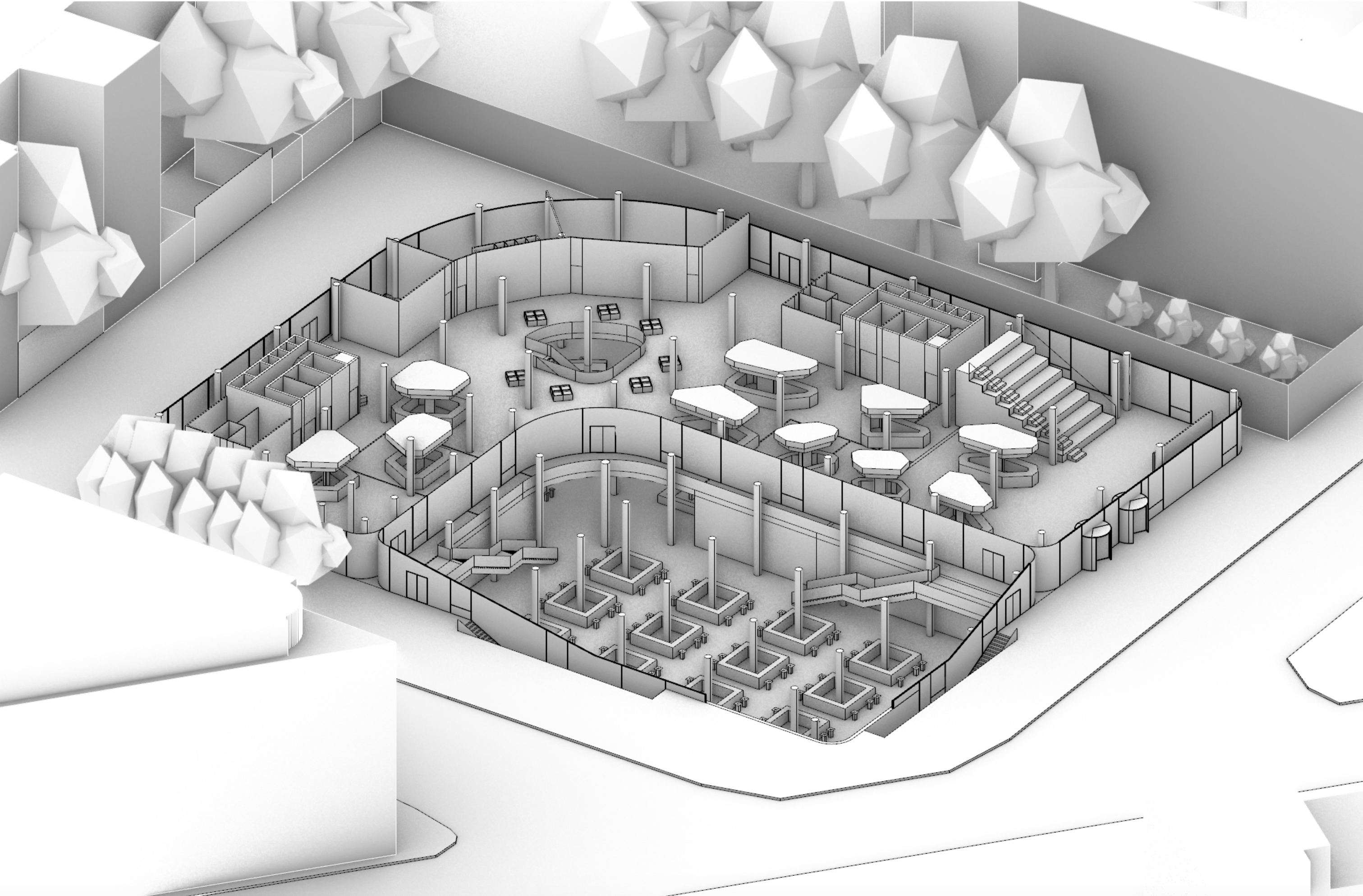




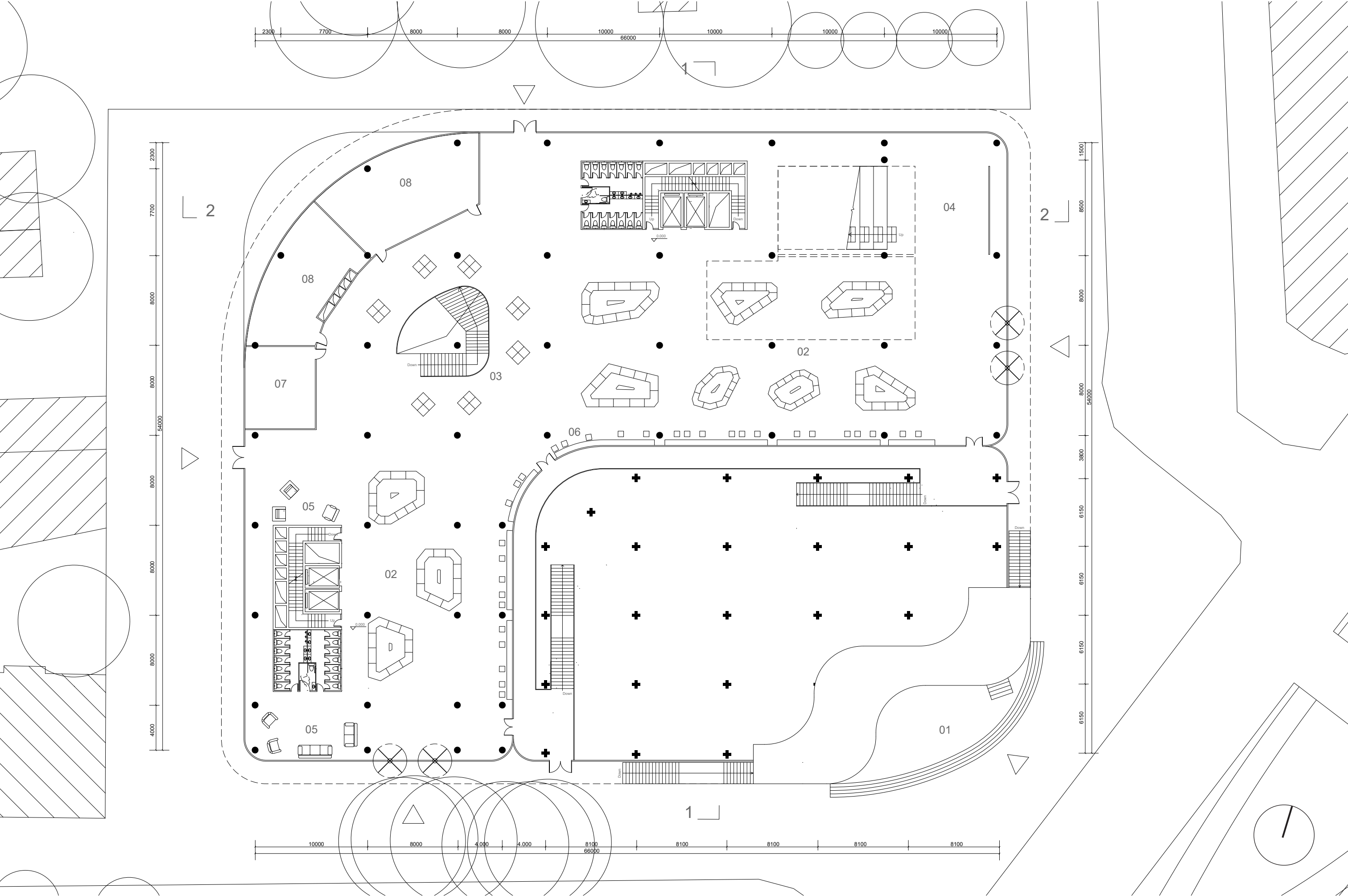








Space Montage-Ground Floor 1:300





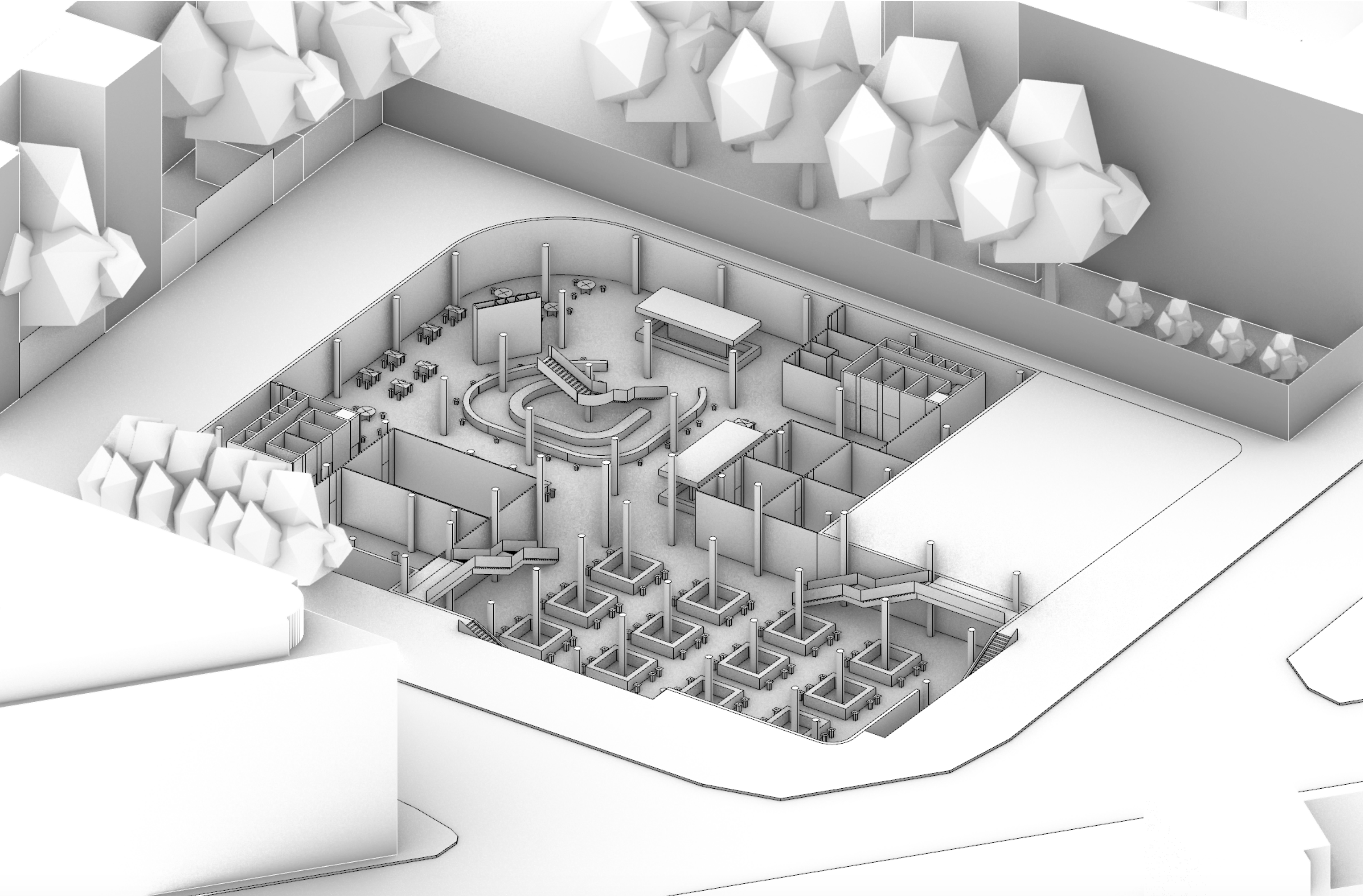




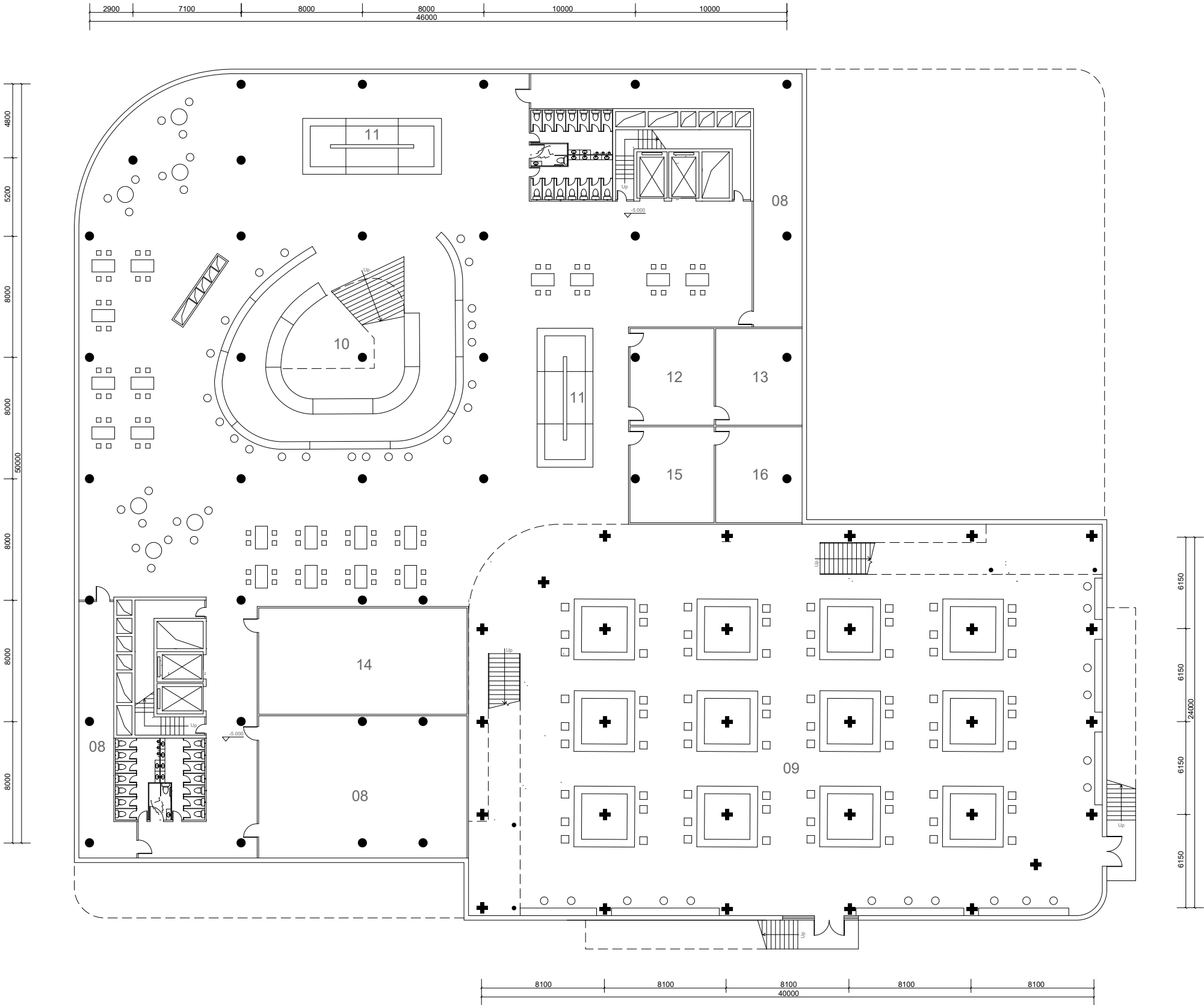
In-between Corridor Rendering







Space Montage-Underground Floor 1:300





Food Square Rendering













Grey Outside



VS.

Organic Plants



<https://www.kickstarter.com/projects/minijunglesponges/minijungle-sponge-self-watering-soilless-grow-sponges>

Warm Inside



CLT-by-Stora-Enso-technical-brochure-EN



<b>EBONY</b> *black tone	<b>DEEP MAHOGANY</b> *red tone	<b>WALNUT</b> *dark brown tone	<b>LIGHT WALNUT</b> *light brown tone
			
<b>DARK OAK</b> *brownish - greenish tone	<b>LIGHT OAK</b> *yellowish tone	<b>ANTIQUE</b> *orangish tone	<b>CAPPUCCINO</b> *rugged brown tone
			
<b>NATURAL PINE</b> *untreated	<b>CLEAR COAT</b> *treated	<b>WHITEWASH</b> *light white tone	
			



# Farming Elements in Winter

## Vegetable, Crop, Fruit for Eating



Spinacia oleracea  
<https://www.ouriquesfarm.com/store/seeds/vegetables/spinach/>



Solanum lycopersicum  
<https://www.freepik.com/premium-photo/bunch-organic-ripe-red-juicy-tomato-greenhouse>



Daucus carota  
<https://plantwiseplusknowledgebank.org/doi/10.1079/PWKB.Species.18018>



Solanum tuberosum  
<https://www.insectimages.org/browse/subthumb.cfm?sub=11305>



Fragaria  
<https://housing.com/news/fragaria-ananassa-a-great-plant-to-beautify-your-garden/>

## Ingredients for Cooking



Allium cepa  
<https://www.ebay.com.au/itm/153887934982>



Ocimum basilicum  
<https://www.gardenia.net/plant/ocimum-basilicum>



Cymbopogon citratus  
<https://santarosagardens.com/cymbopogon-citratus/>



Mentha  
<https://plants.ces.ncsu.edu/plants/mentha-spicata/>



Allium sativum  
<https://www.gardenia.net/plant/allium-sativum>



Zingiber officinale  
<https://www.ethnoplants.com/gb/spice-plant-seeds/409-zingiber-officinale-ginger-plant.html>

## Bush for Aesthetics



Lavandula angustifolia  
<https://www.provenwinners.com/plants/lavandula/sweet-romance-lavender-lavandula-angustifolia>



Sorbus aucuparia  
<https://online.brunns.de/en-us/article/3062>



Rosmarinus officinalis  
<https://shop.rosebarni.it/en/perennials/515-rosmarinus-officinalis.html>



Color, Material



Facade Finish: Laminated Timber Balustrade  
<https://www.benacci.com/>



Exterior and Interior Ceiling: Fir-Faced Plywood  
<https://www.pinterest.com/pin/789537378441638925/>



Main Structure: CLT Wood  
<https://www.architonic.com/en/story/giovanna-dunmall-getting-high-on-wood/>



Interior Floor: Oak Reveal  
<https://afium.nl/>



Exterior Floor: Porcelain Wood Tile  
<https://www.vivesceramica.com/en/products/floor-and-porcelain-tiles/71-ORSA-14,4X89,3>



Landscape Roof Structure: CLT Waffle  
<https://www.designboom.com/architecture/forstberg-ling-a-house-for-two-artists-sweden-10-20-2020/>







Color, Material

Color	Psychological Impact	Physiological Impact	The character of people who like this color	The age of the one who like it	Identity	Influence on appetite	Influence on consumption desire
Red	Active, positive, enthusiastic Dangerous, distressed, scared	The pituitary gland reacts, adrenaline secretes, blood pressure rises, shortness of breath, faster pulse, faster blood flow. Taste buds and olfactory become sensitive	Confident, passionate, powerful	<1, 10-19, 20-30 years	Brick, nostalgia, measurable, pedestrian, plebeian	Red is an appetite stimulant and stimulates conversation. Fast food franchises use red and it's a valuable tool in drawing attention	Red draws attention to itself and calls for action to be taken and stimulates the physical senses such as the appetite, lust and sexual passion
Orange	Tolerant, gentle, brave, warm, free, energetic Irritated, dull, thoughtless, arrogant, vain	Stimulate appetite regulation, make appetite become strong, make people sleepy, reduce blood circulation speed, stimulate immunity, and help treat	Like to socialize, be close to people, have strong understanding ability, express fluently, think quickly, and be full of vitality	<1, 2-10, 10-19, >55 years		Orange is related to need, hunger, energy and excitement. Red and orange in fast food space encourage people to eat quickly and leave	Orange encourages sales in restaurants, making people stay longer and spending more. It is good for youth and teen market
Yellow	Joyful, intelligent, clear, noble Sinful, obscene, thoughtless, selfish	It can alleviate diseases, secrete hormones, generate energy, and promote motor nerves	Pursue new things, be free and unrestrained, have rich expressions and give people warmth	<1, 20-30 >55 years		Yellow is a sociable color. Yellow is a color that makes everyone feel good. Yellow stimulates the appetite and enlivens the spirit	Use yellow where you want to keep people moving. It is a highlight color, good for children's products, playful and fun activities



Family Meal  
(McNuggets®)

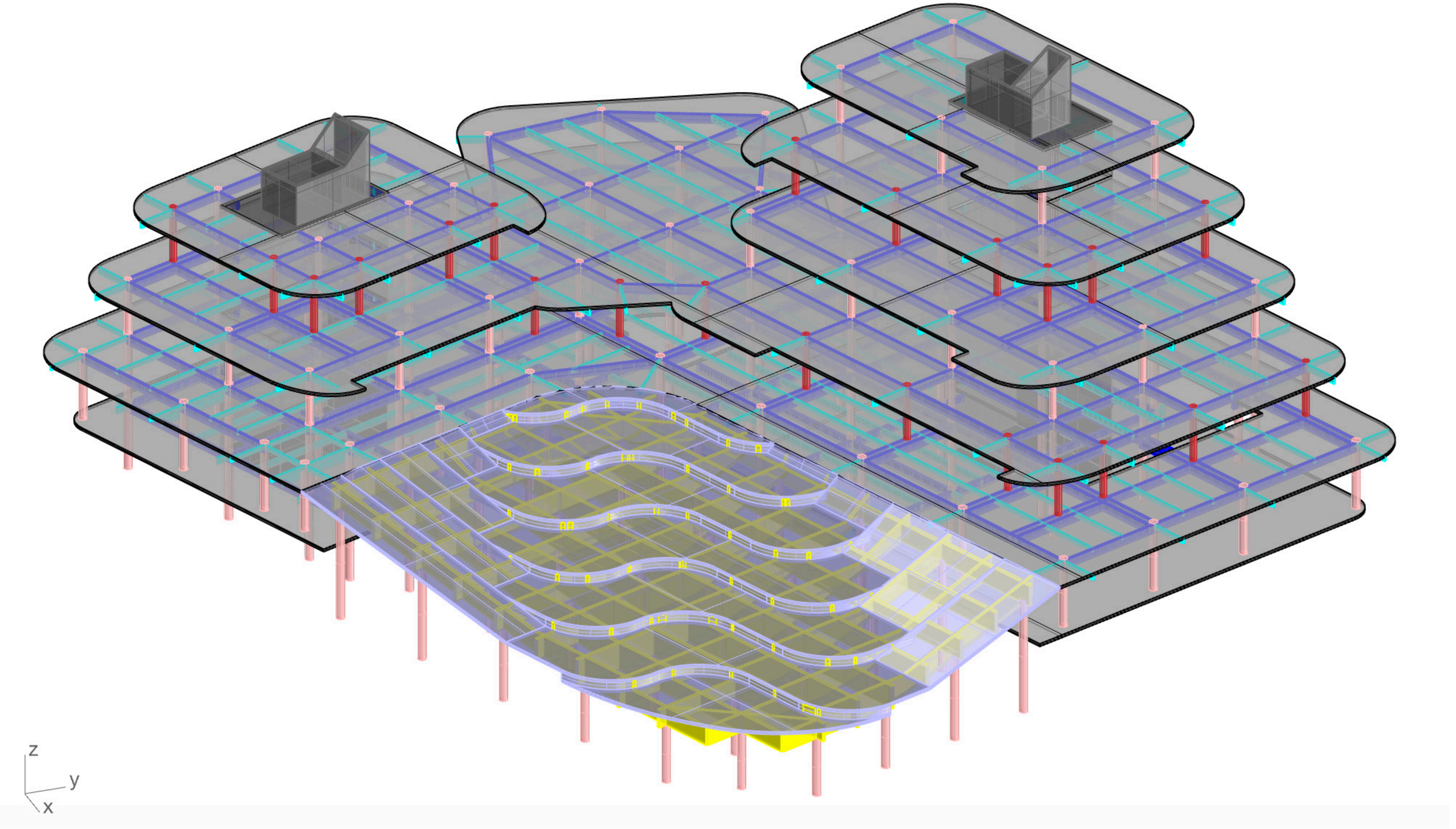
Delight the family with a McSpicy® Meal, Filet-O-Fish® Meal and a 4pc Chicken McNuggets® Happy Meal®!



Nighttime Rendering









Column



Wood

$$D \geq 300 \text{ mm} \quad D = \frac{1}{8} H \sim \frac{1}{10} H$$

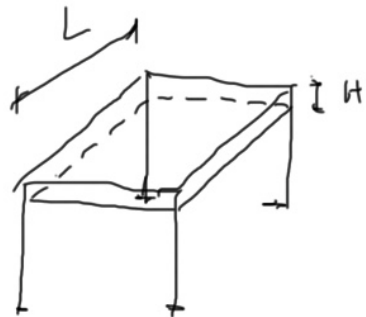
$$5 \text{ m} / 10 = 500 \text{ mm}$$

$$7 \text{ m} / 10 = 700 \text{ mm}$$

Material: Pine, Cedar, Douglas Fir, oak.

Slab

CLT



$$H \geq 80 \text{ mm} \quad \text{Max} = 350 \text{ mm}$$

$$\text{Roof Slab} \quad H = \frac{1}{40} L$$

$$5 \text{ m} / 40 = 125 \text{ mm}$$

$$\text{Floor Slab} \quad H = \frac{1}{20} L \sim \frac{1}{30} L$$

$$5 \text{ m} / 20 = 250 \text{ mm}$$

Wall

CLT

Non-Structure Wall

$$100 \text{ mm} - 150 \text{ mm}$$

Beam

CLT

$$W \geq 60 \text{ mm} \leq 300 \text{ mm} \quad W = \frac{1}{6} H \sim \frac{1}{3} H$$

$$\text{Roof Beam} \quad H = \frac{1}{15} L$$

$$5 \text{ m} / 15 \approx 330 \text{ mm} \quad W \approx 150 \text{ mm}$$

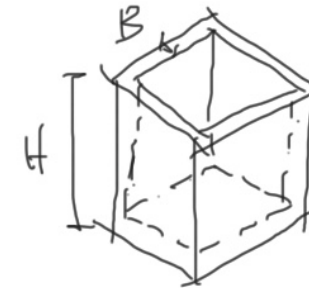
$$\text{Main Beam} \quad H = \frac{1}{8} L \sim \frac{1}{12} L$$

$$8 \text{ m} / 12 \approx 660 \text{ mm} \quad W \approx 200 \text{ mm}$$

$$\text{Secondary Beam} \quad H = \frac{1}{12} L$$

$$4 \text{ m} / 12 \approx 330 \text{ mm} \quad W \approx 100 \text{ mm}$$

Shear Wall

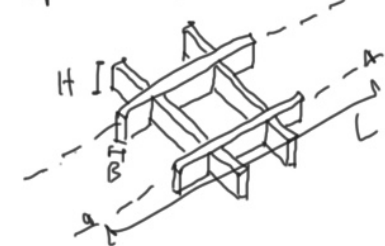


Concrete

$$B \geq 160 \text{ mm} \quad B = \frac{1}{20} H$$

$$5 \text{ m} / 20 = 250 \text{ mm}$$

Waffle Beam

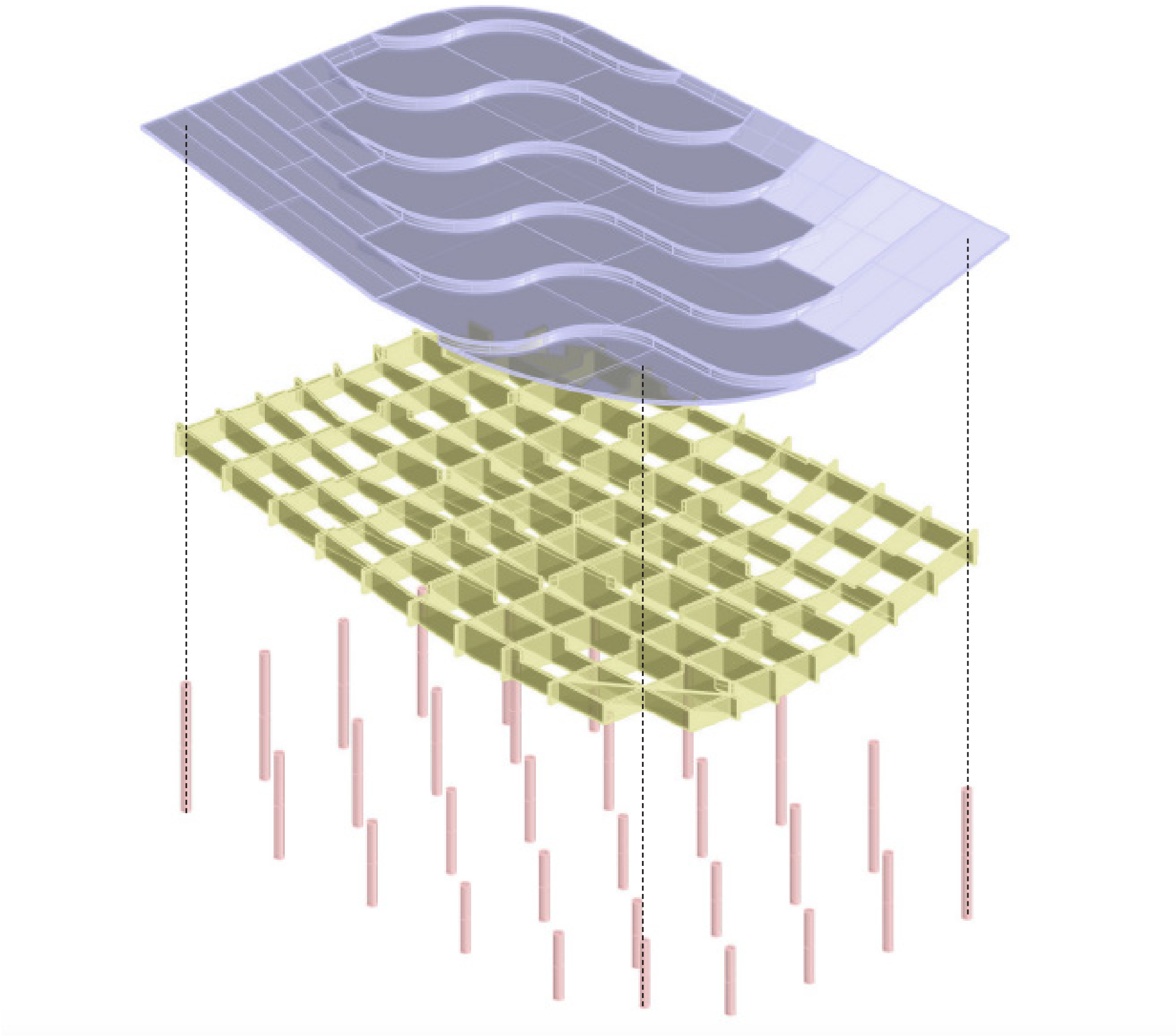


CLT

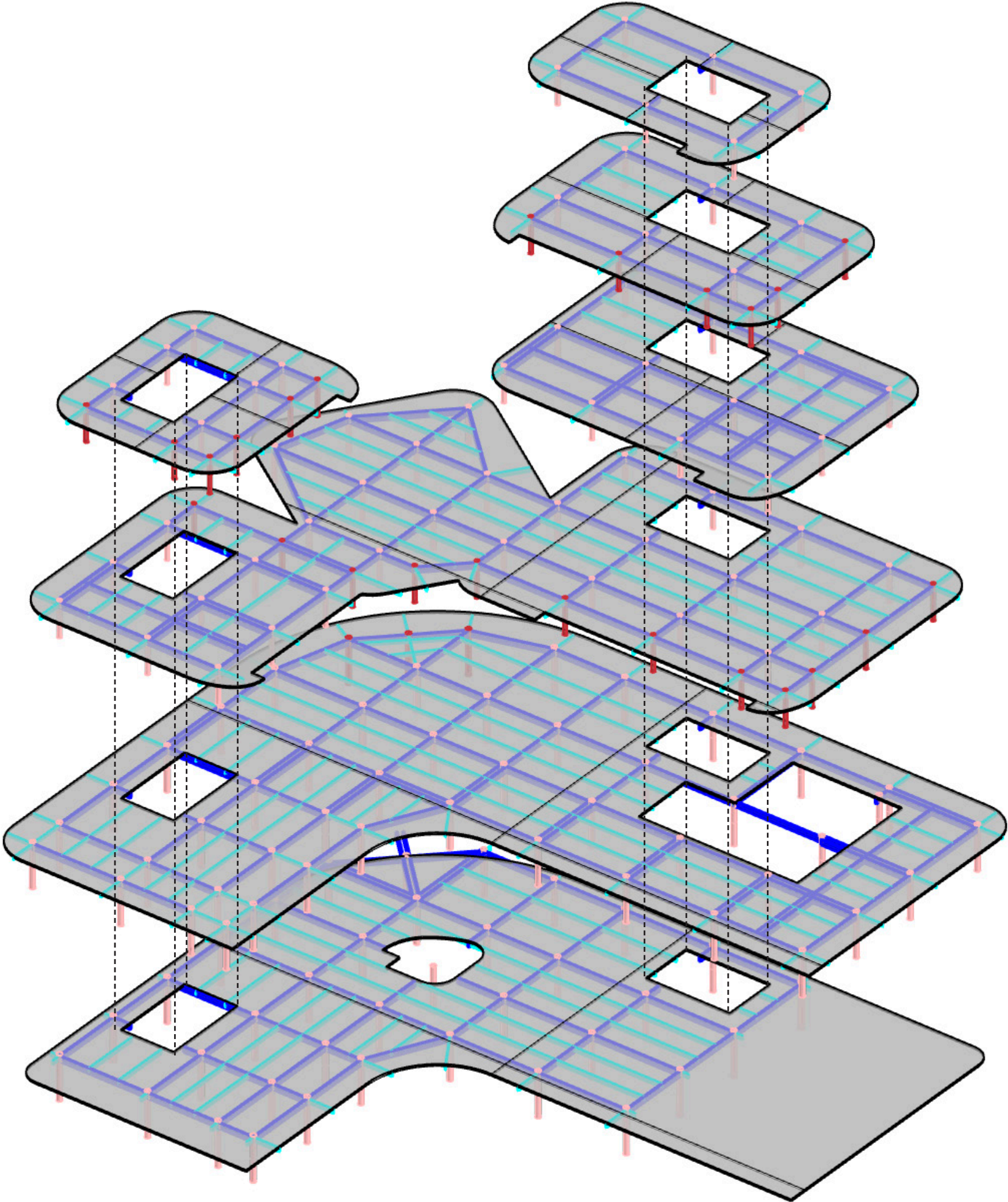
$$H = \frac{1}{15} L \sim \frac{1}{10} L \quad B = \frac{1}{4} H$$

$$24 \text{ m} / 15 \approx 1600 \text{ mm} \quad B \approx 200 \text{ mm}$$

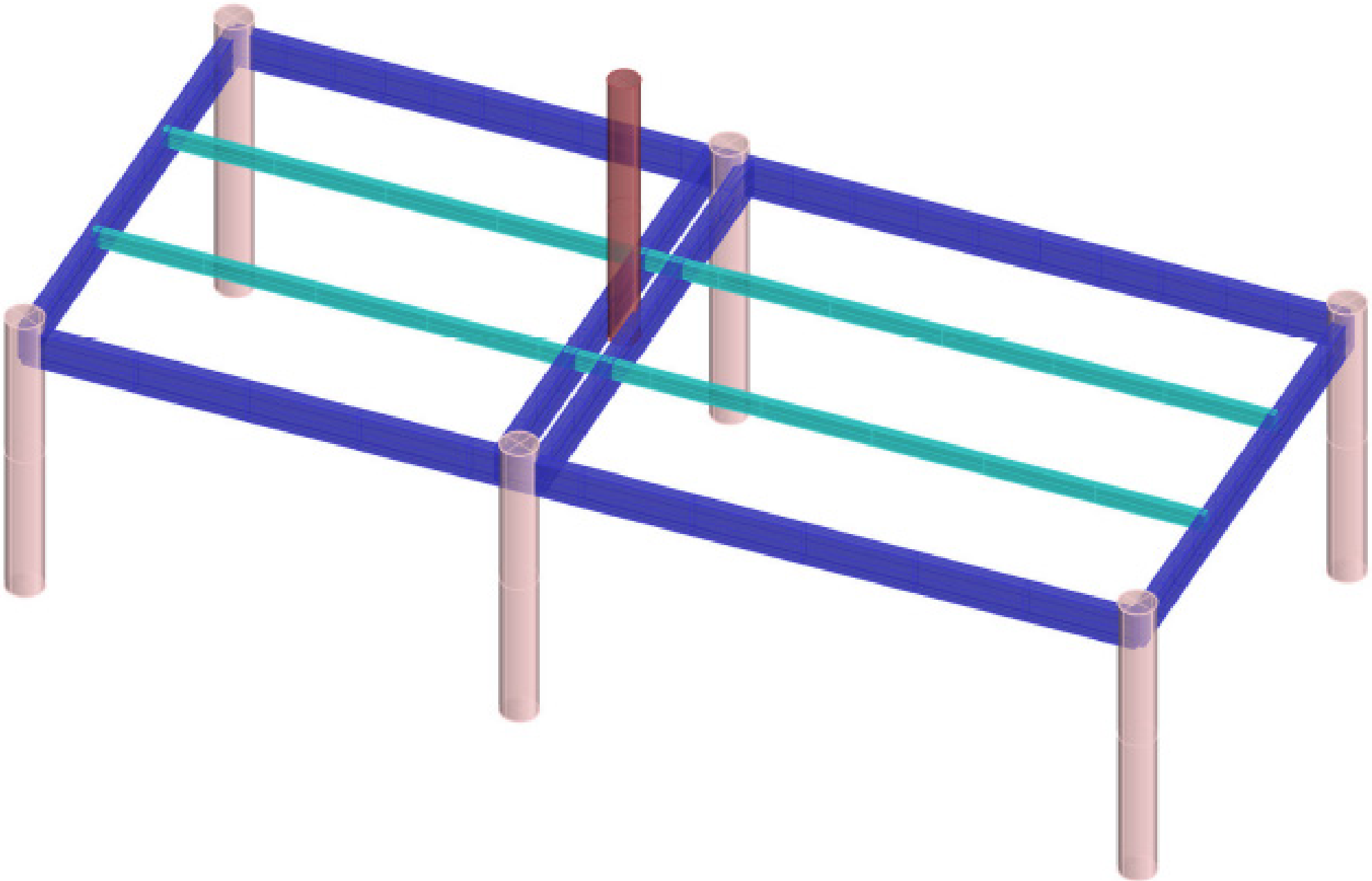




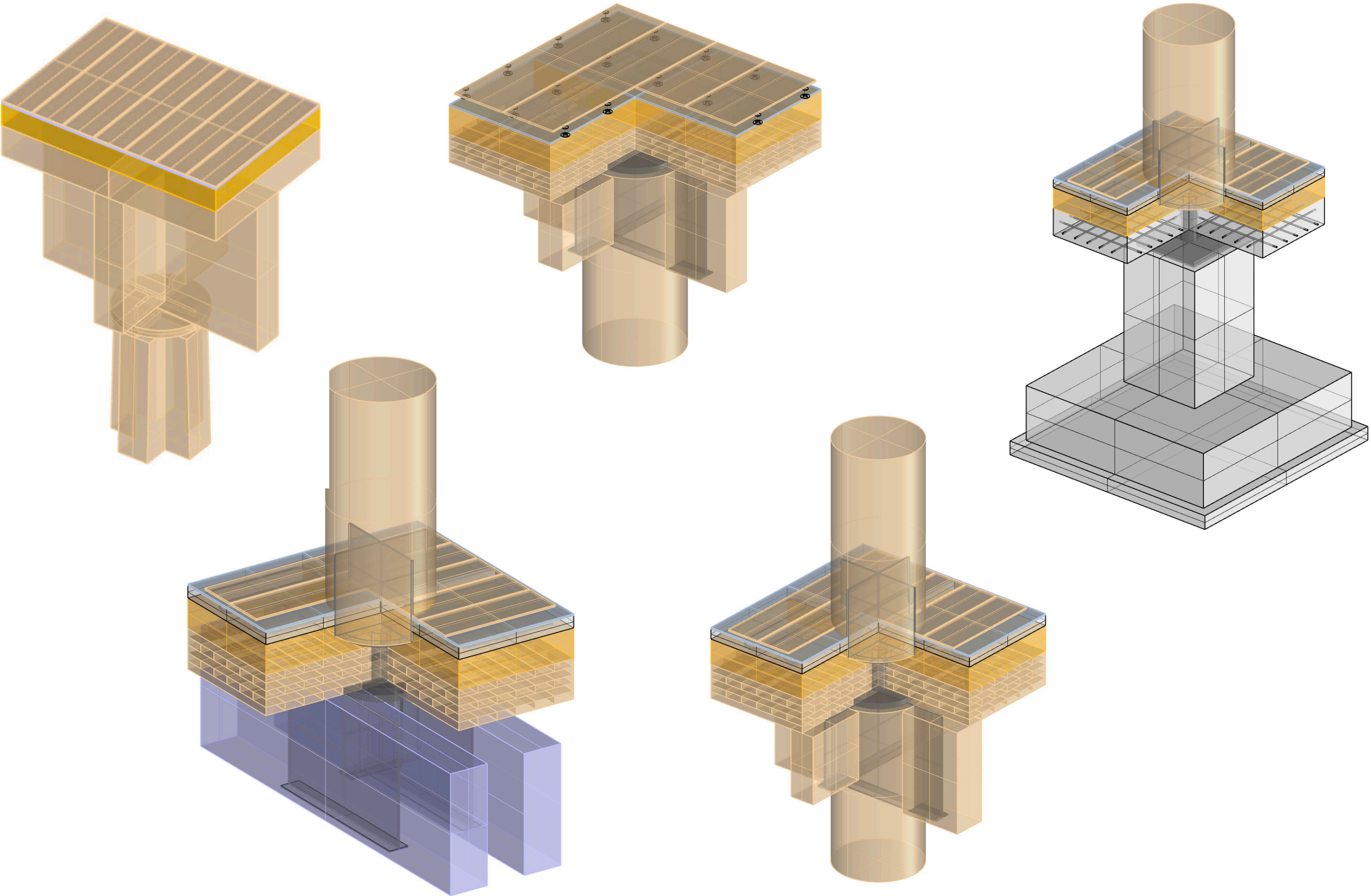






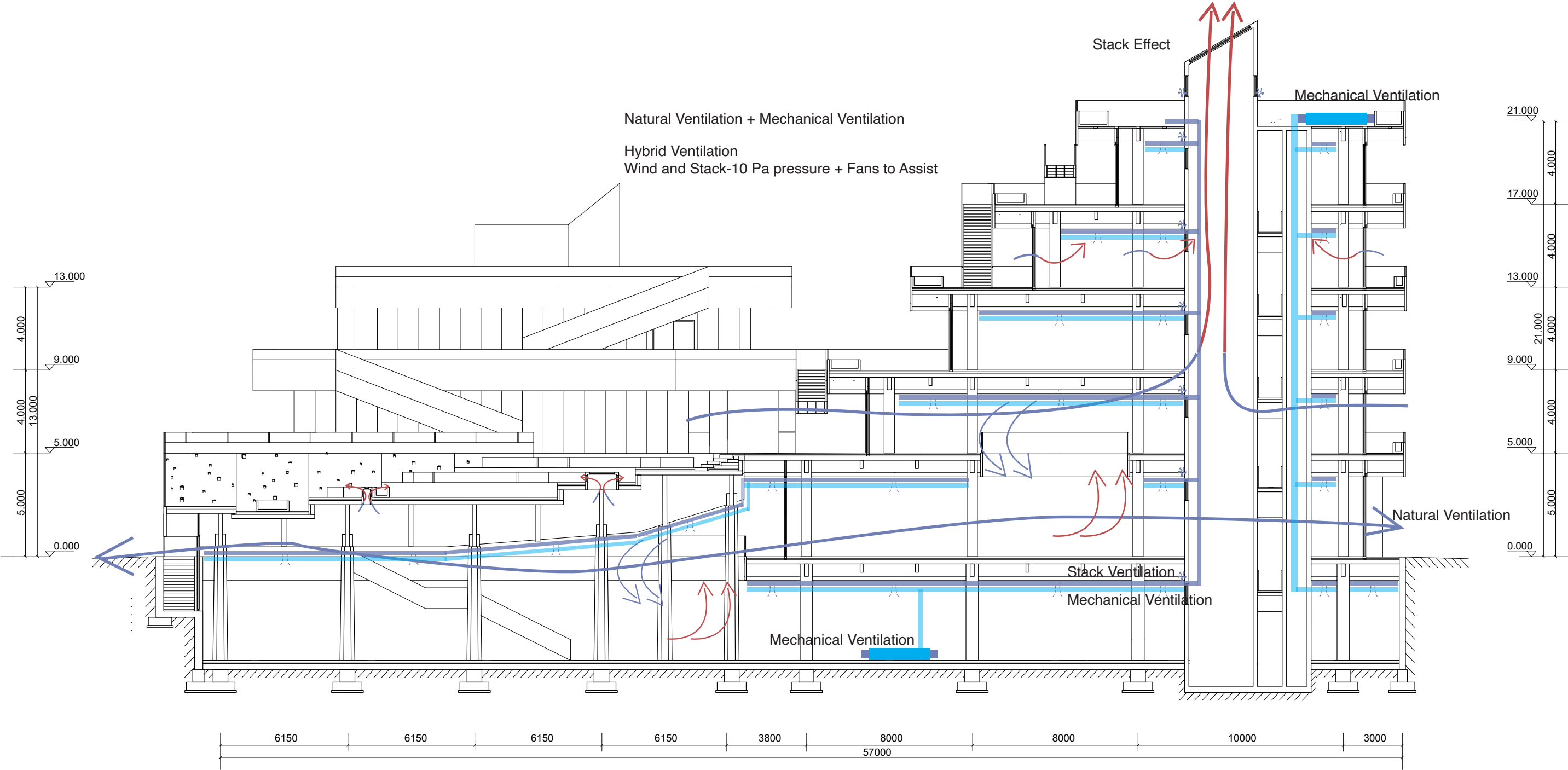




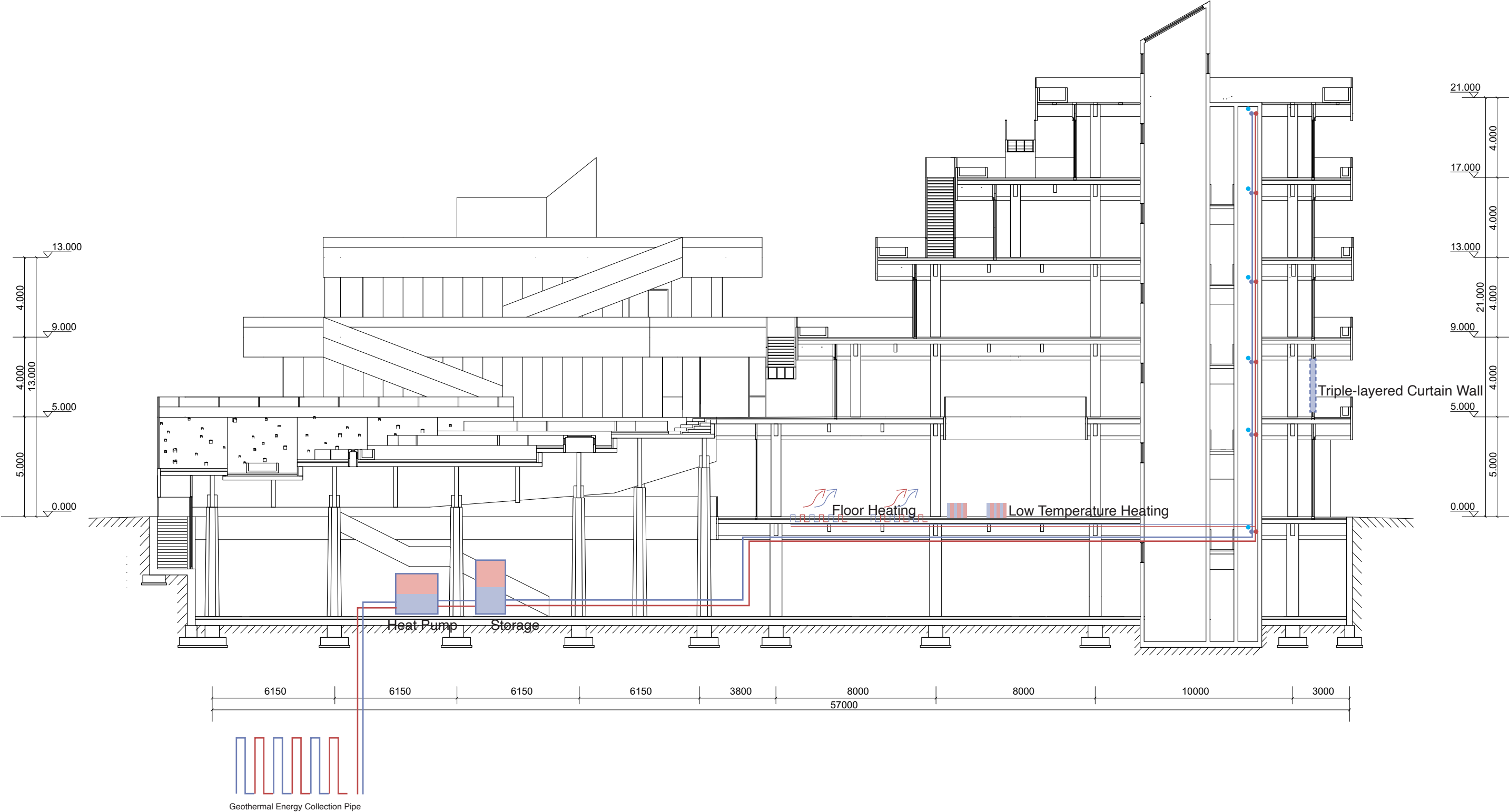




Climate System, Ventilation

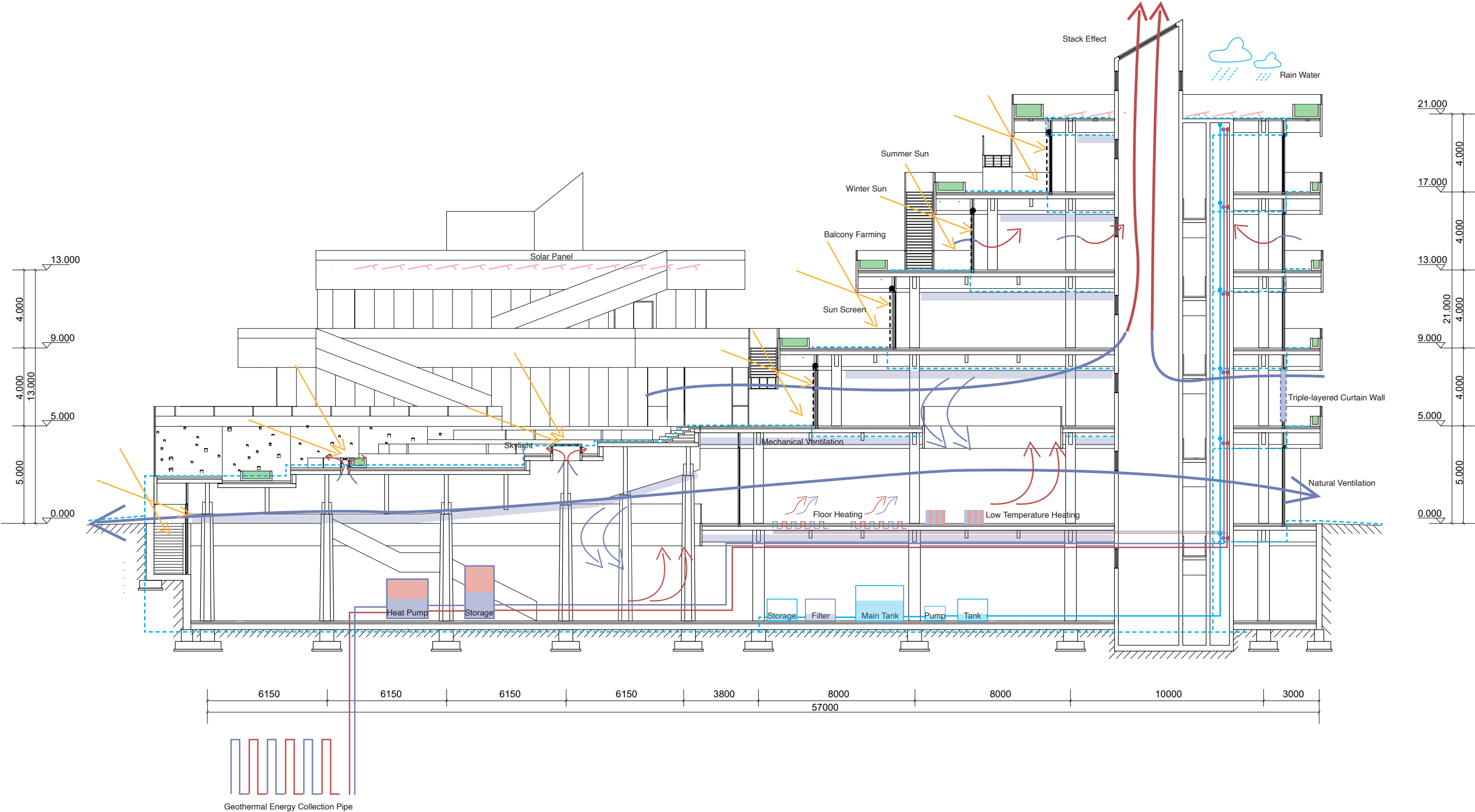








Climate System, Section 1:200



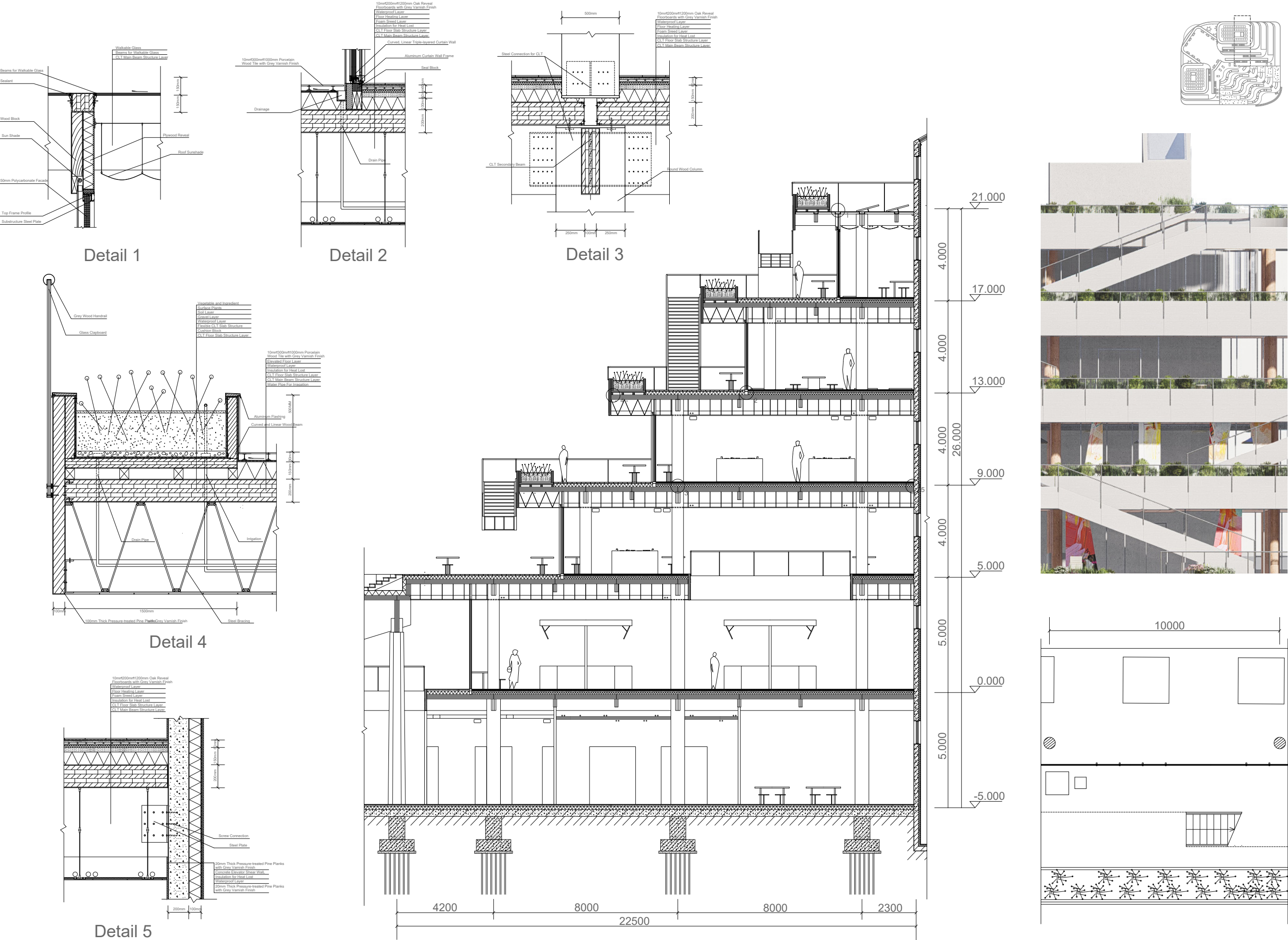


Terrace Space Rendering

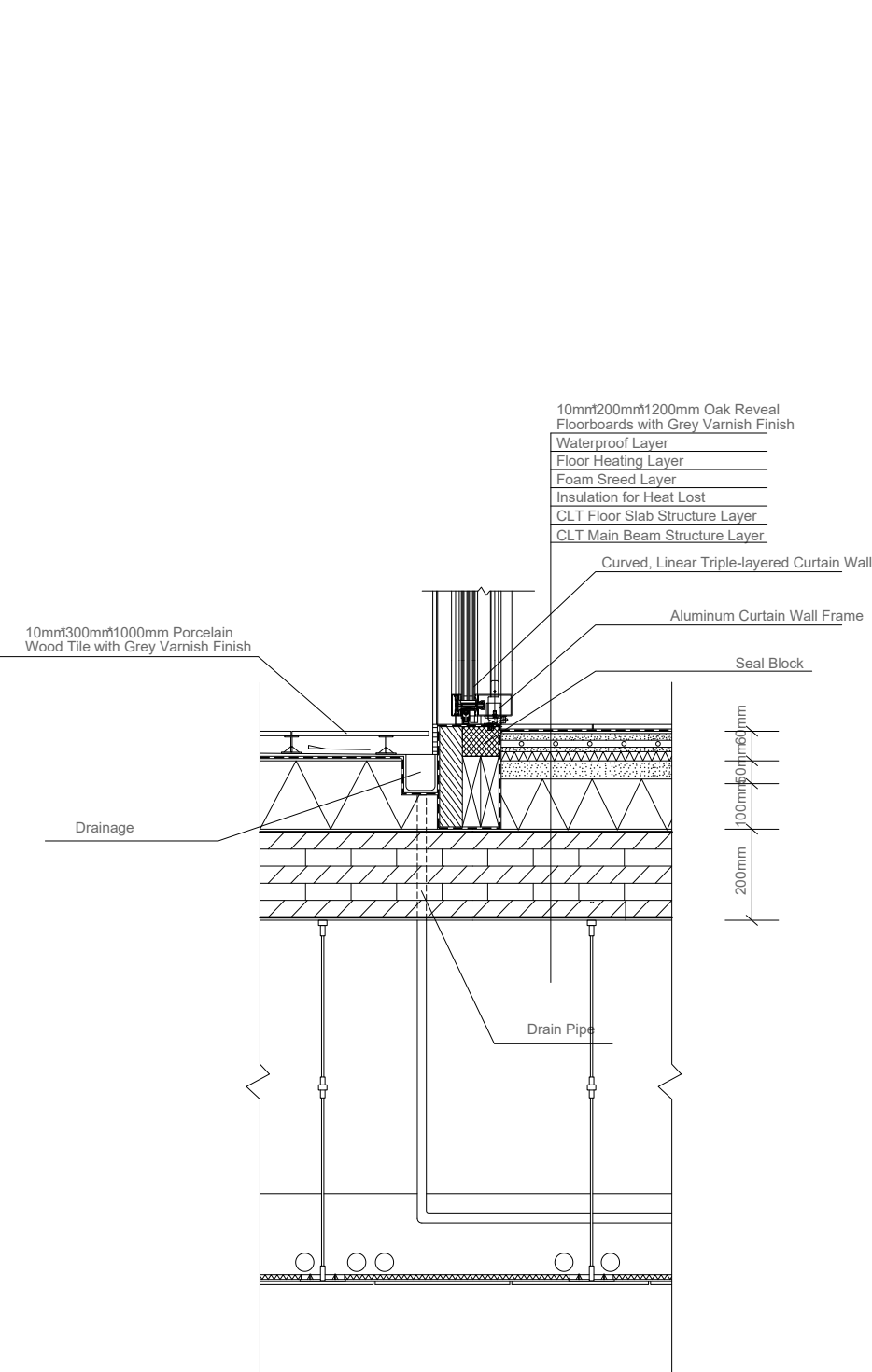




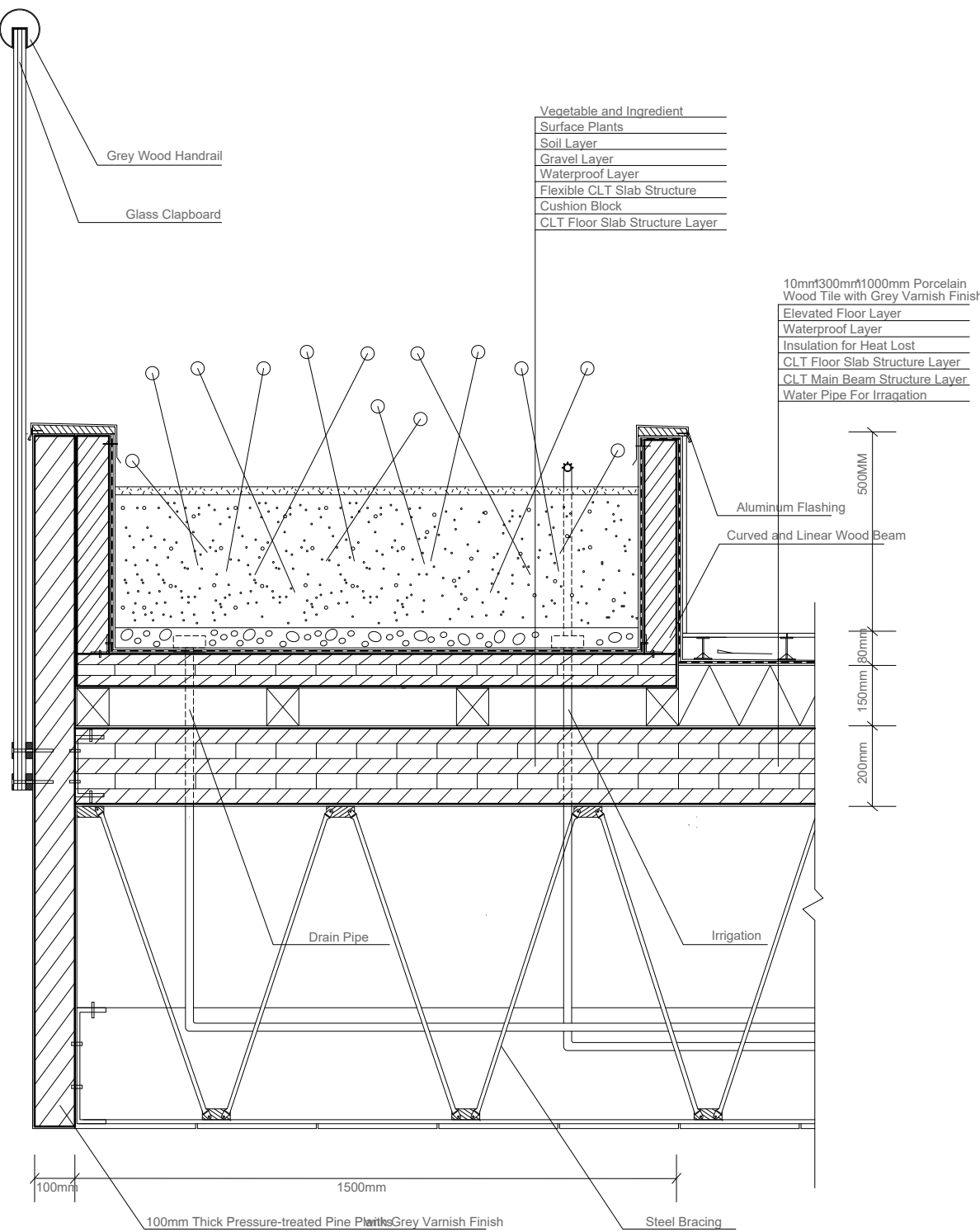
Fragment+Detail







Detail 2



Detail 4

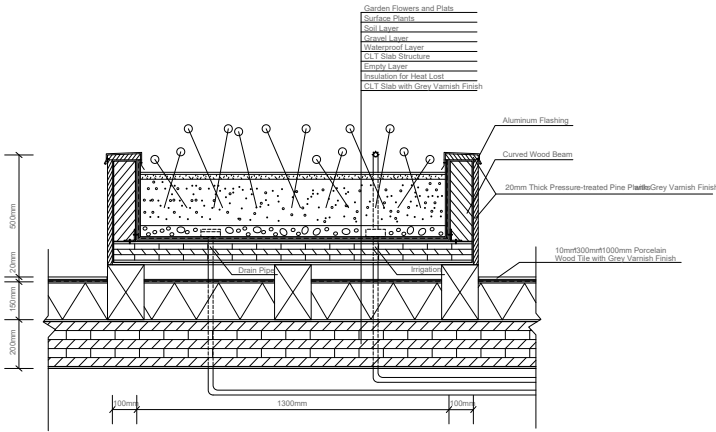


Balcony Farming Rendering

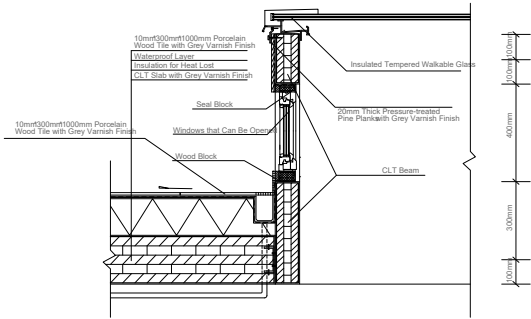




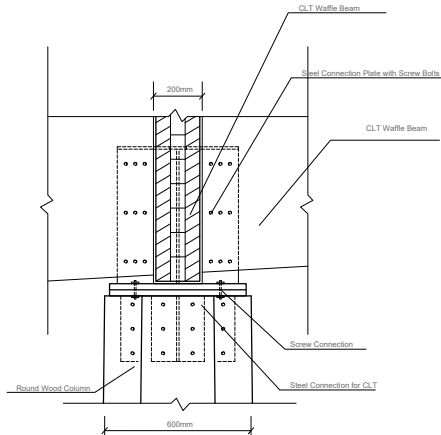
Fragment+Detail



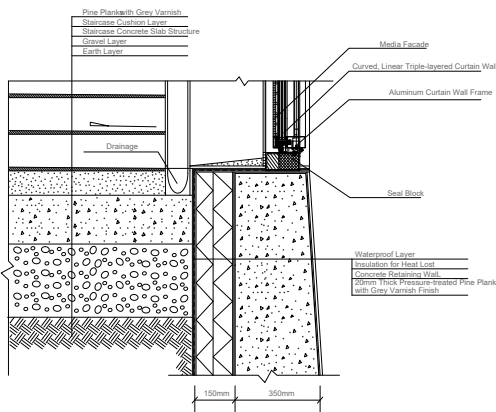
Detail 1



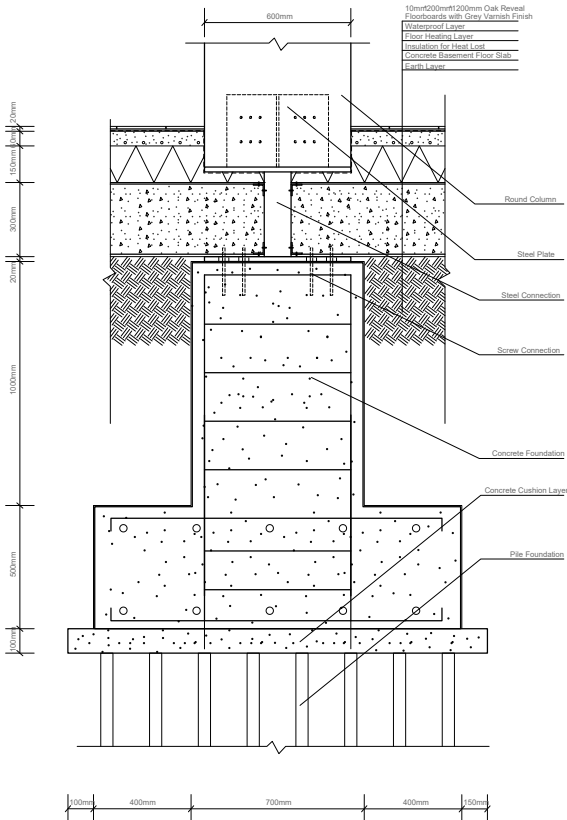
Detail 2



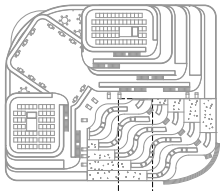
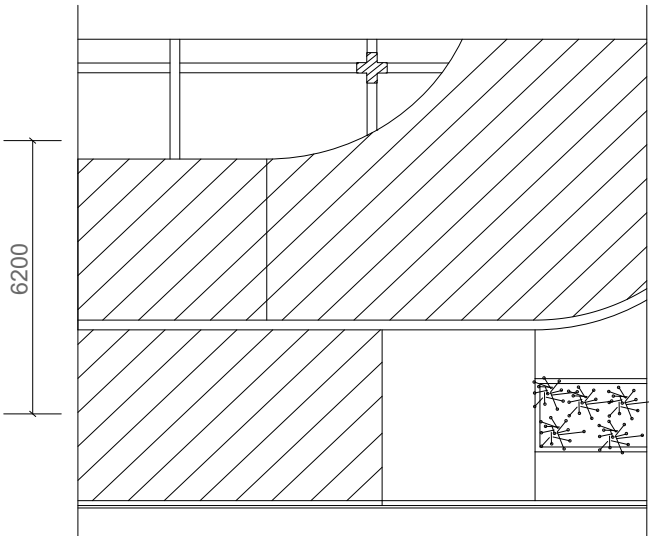
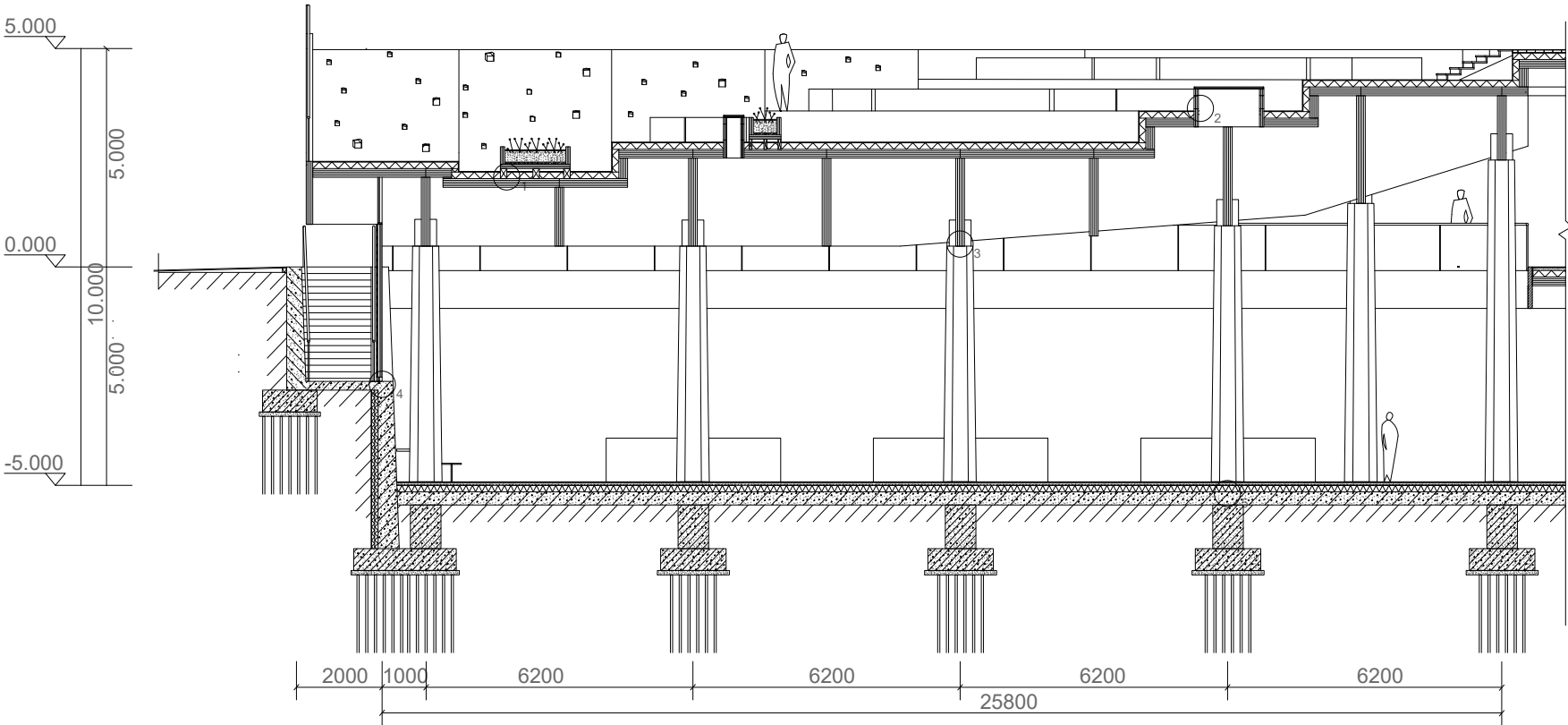
Detail 3



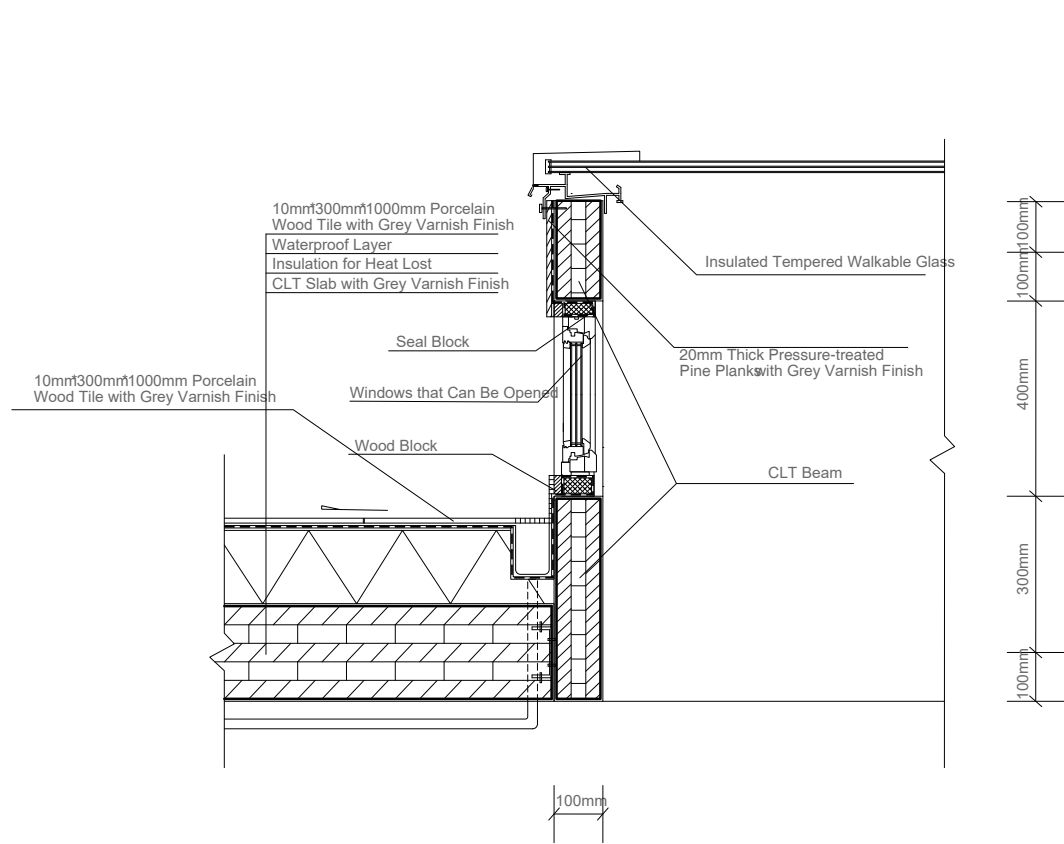
Detail 4



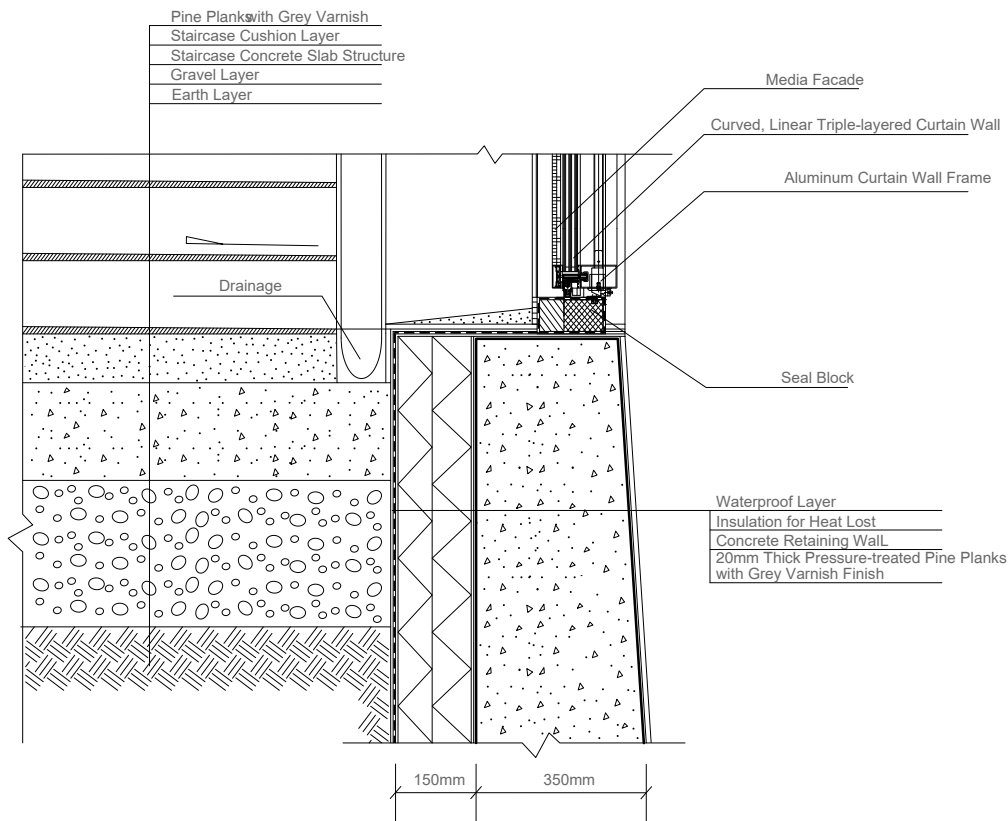
Detail 5







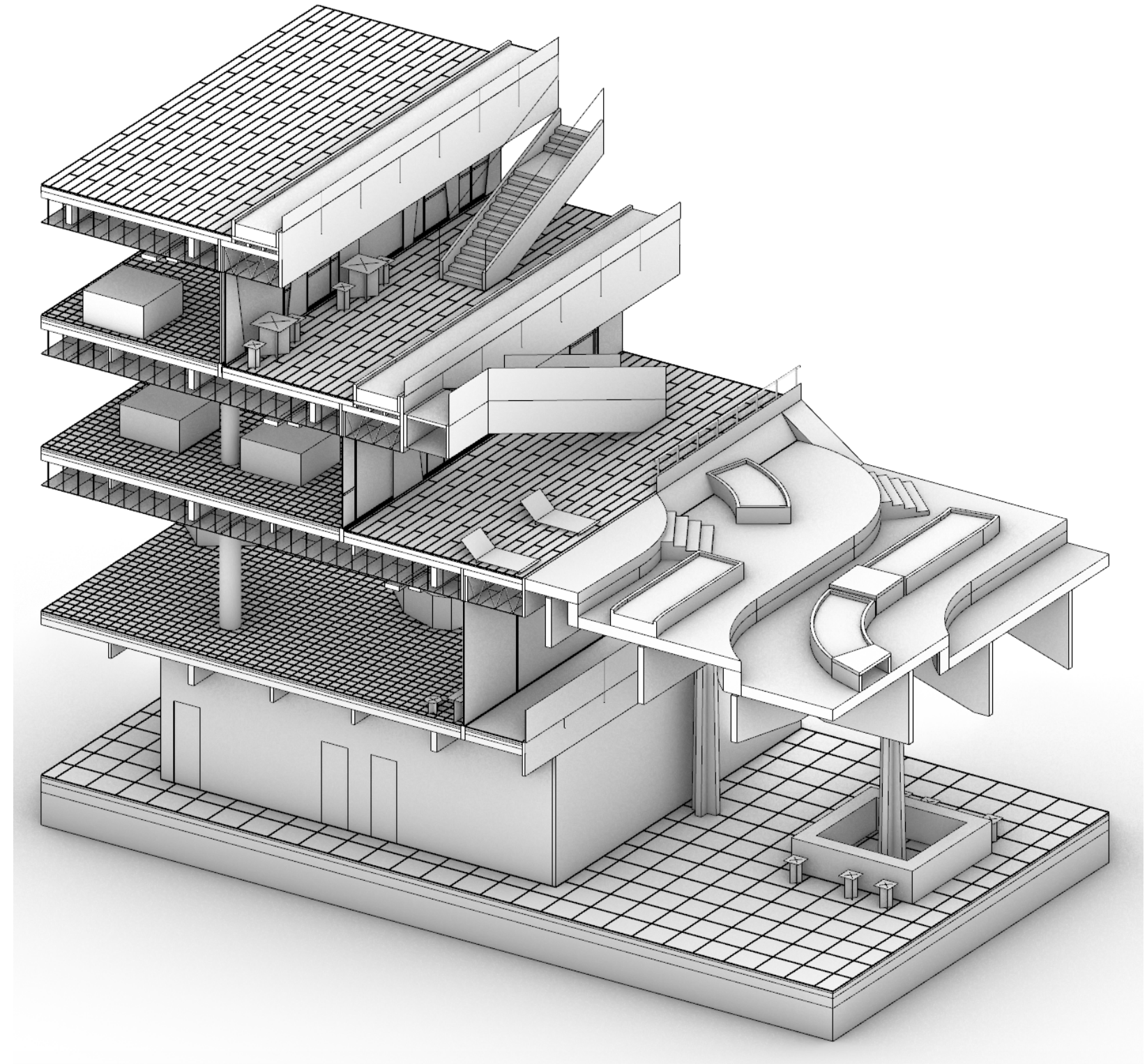
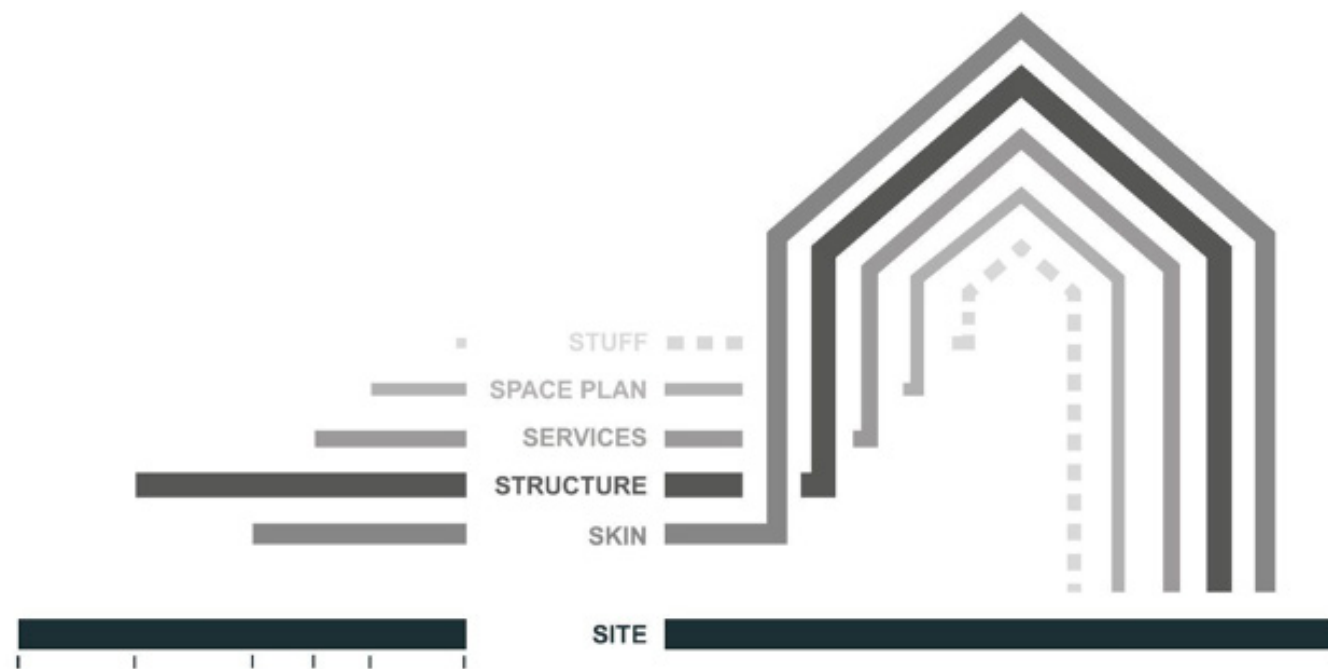
Detail 2



Detail 4



**Steward Brand estimation\*:**  
SITE > Eternal  
STRUCTURE > 30 to 300 years  
SKIN > 20  
SERVICES > 7 to 15 years  
SPACE PLAN > 30 years on average  
STUFF > every few weeks, months, etc

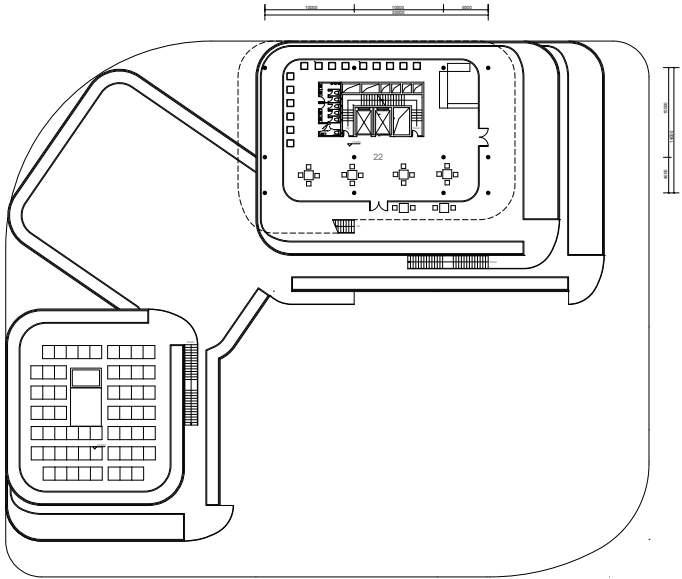
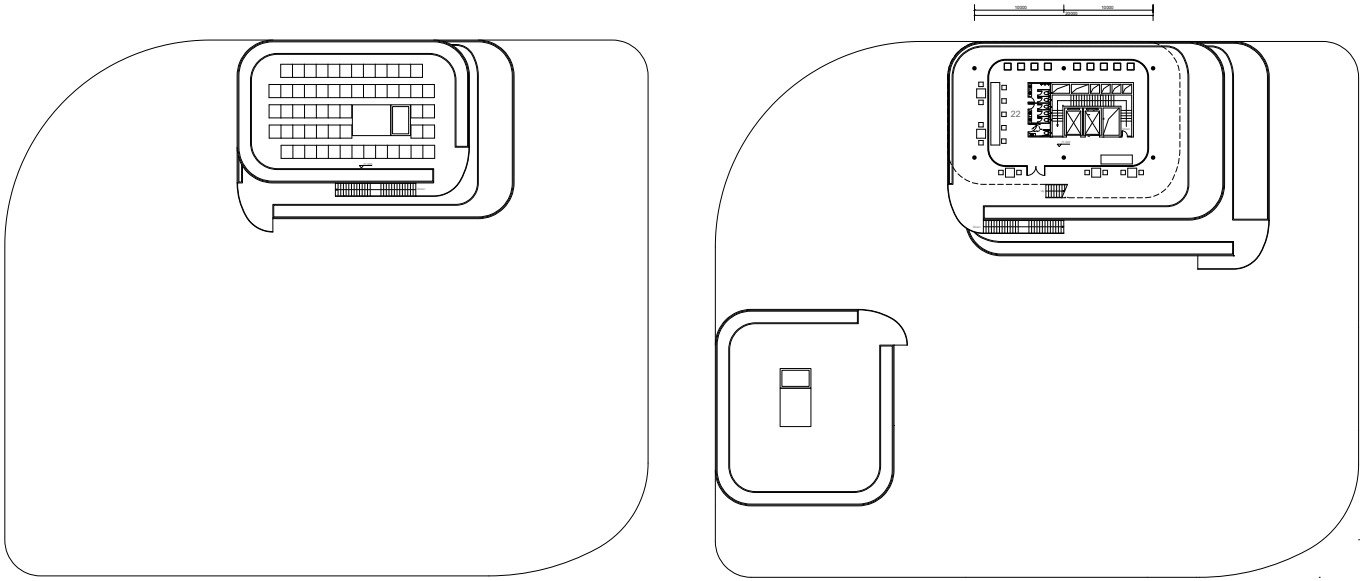




Urban Balcony Rendering

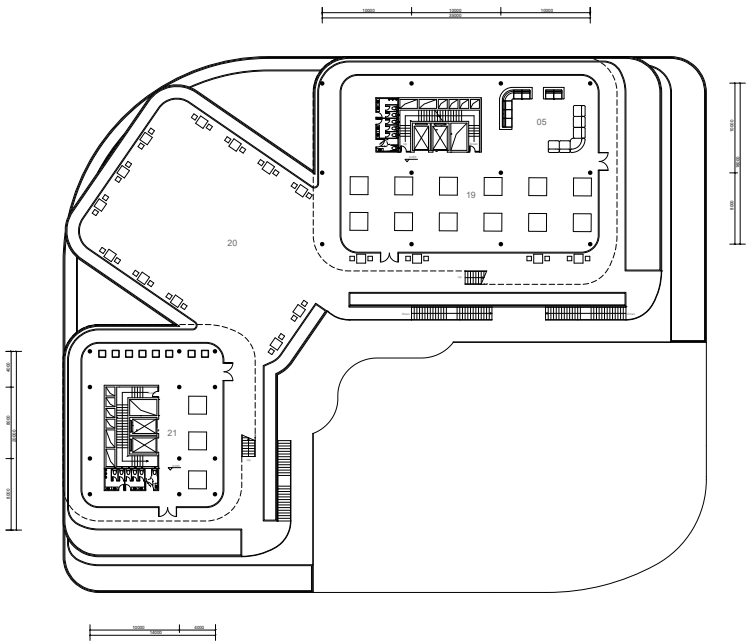




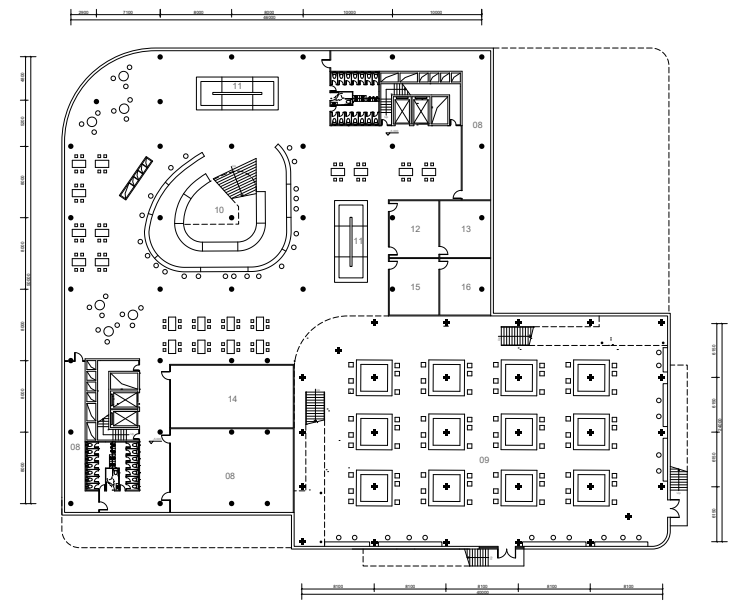
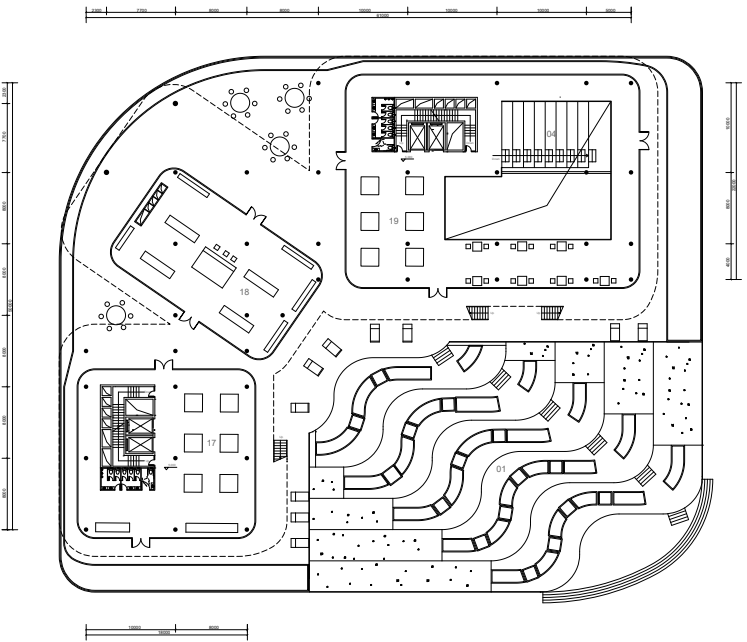


# Gastronomic Architecture

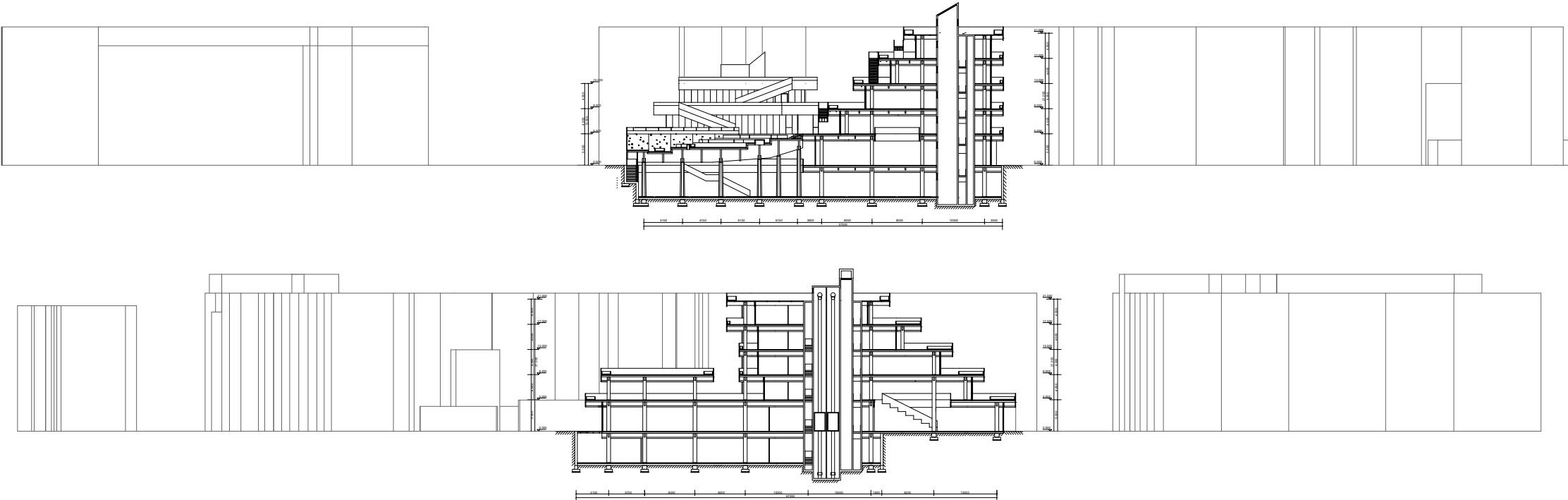
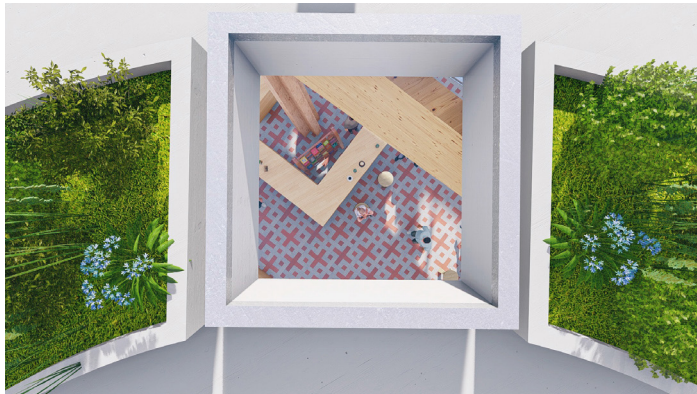
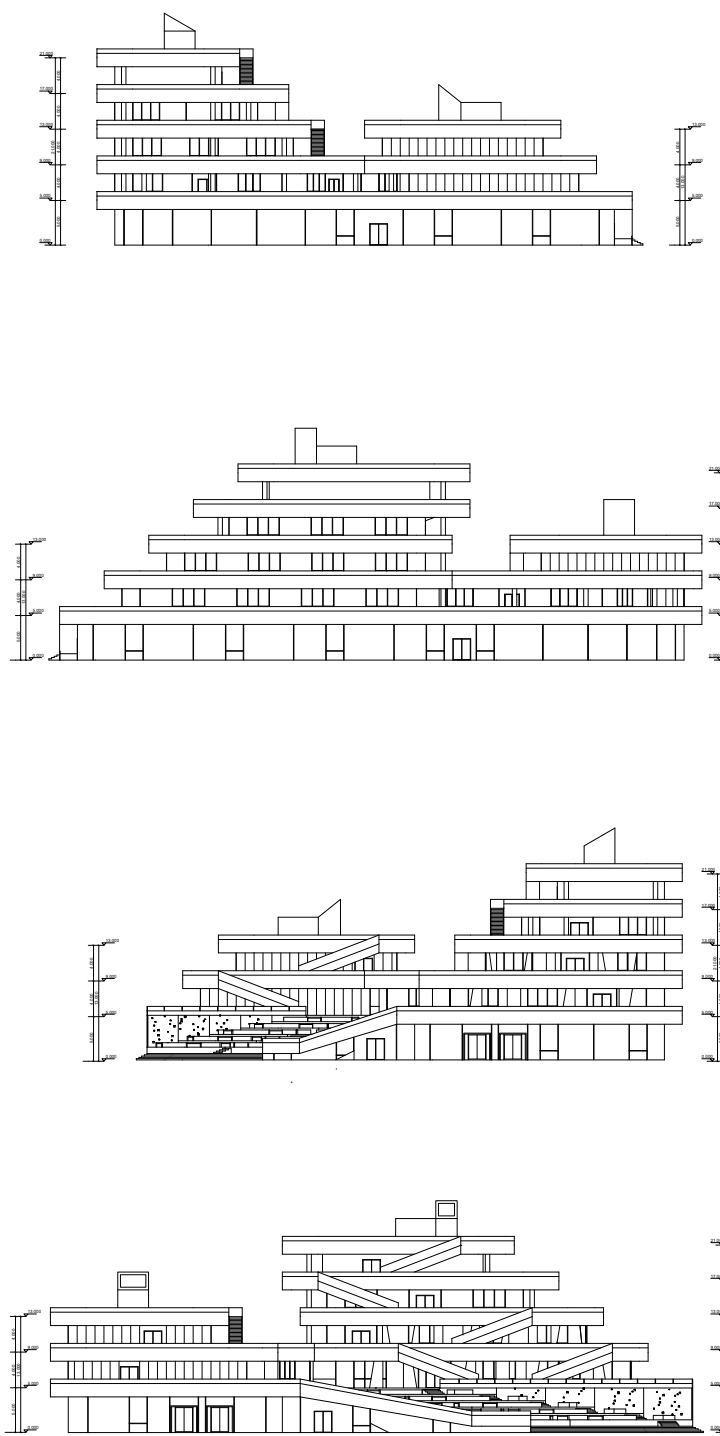
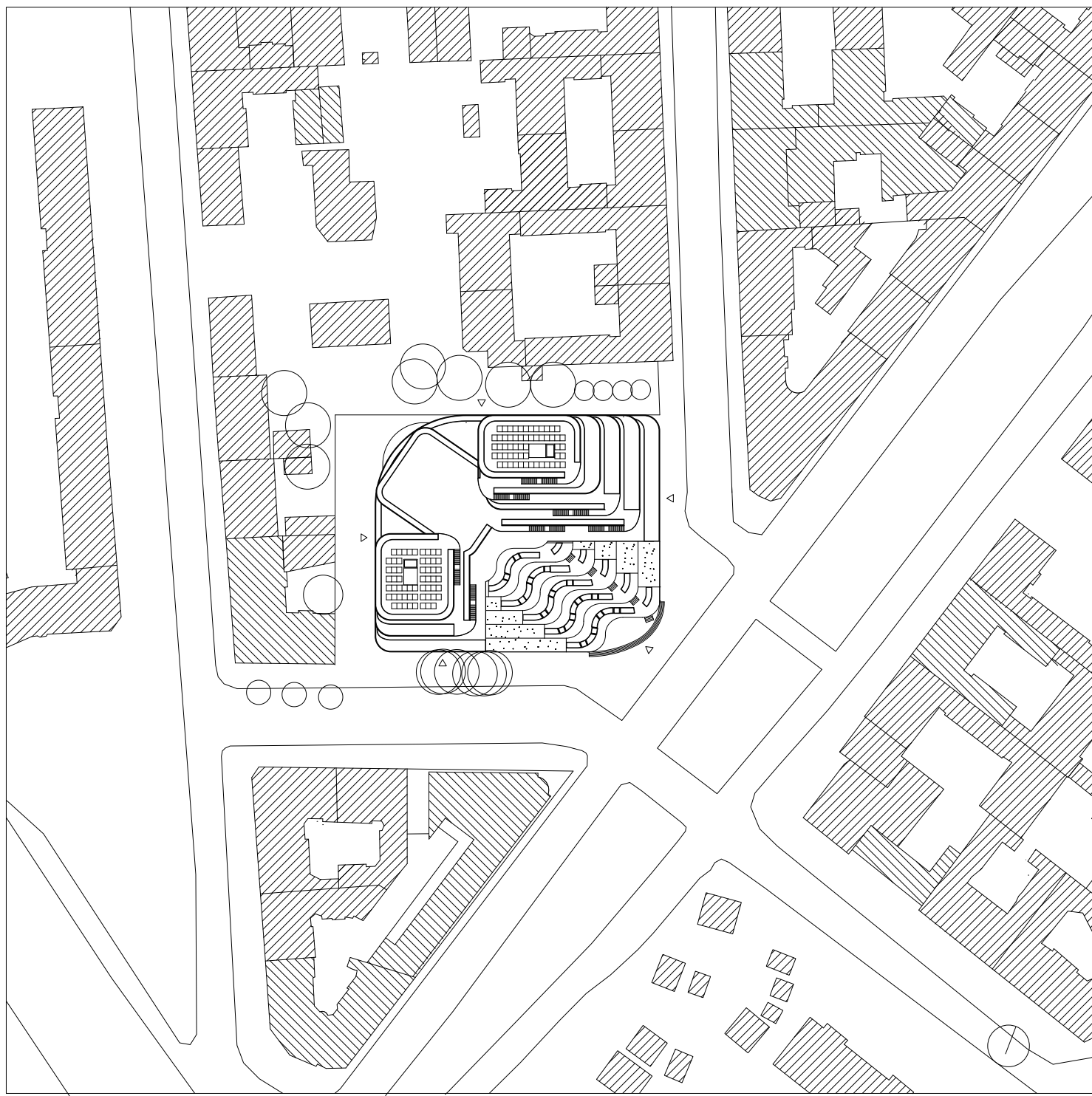
-Towards a diverse food space in Berlin Friedrichshain



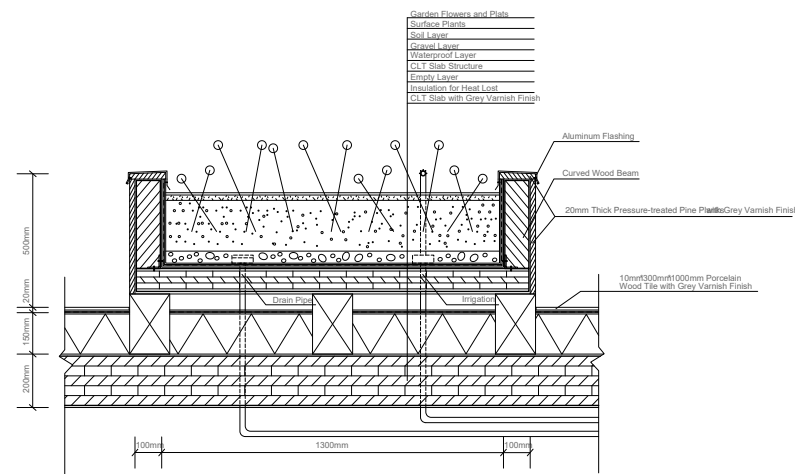
- 01 Terrace Garden
- 02 Indoor Market
- 03 Supermarket
- 04 Lecture Hall
- 05 Relaxed Space
- 06 Long Table Eating
- 07 Staff Office
- 08 Storage
- 09 Eating Square
- 10 Round Kitchen
- 11 Food Stall
- 12 Water Equipment
- 13 Heating Equipment
- 14 Ventilation Equipment
- 15 Strong Current Room
- 16 Weak Current Room
- 17 Culinary Campus
- 18 Central Kitchen
- 19 Shared Kitchen
- 20 Flexible Space
- 21 Food Lab/Exhibition
- 22 Farming Restaurant



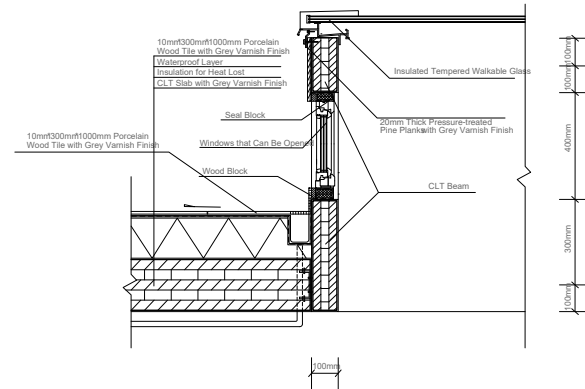




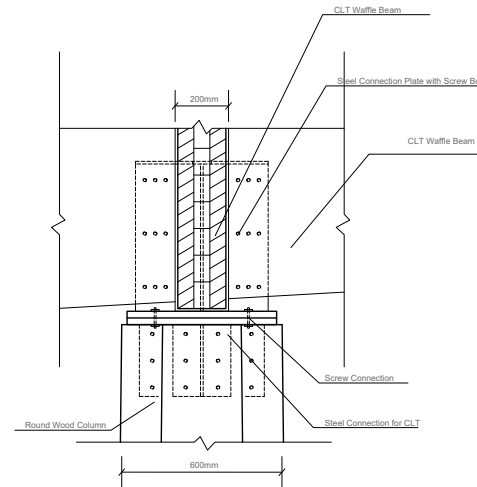




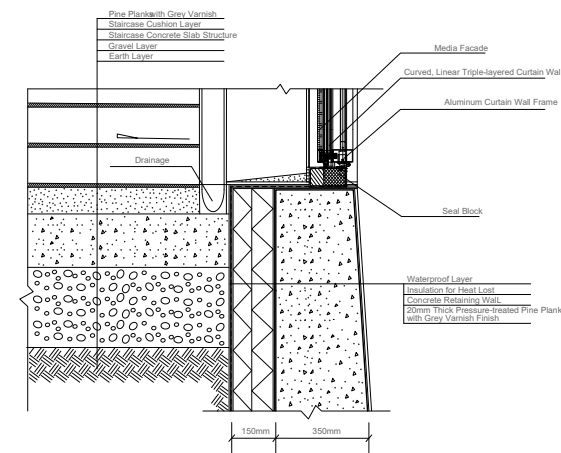
Detail 1



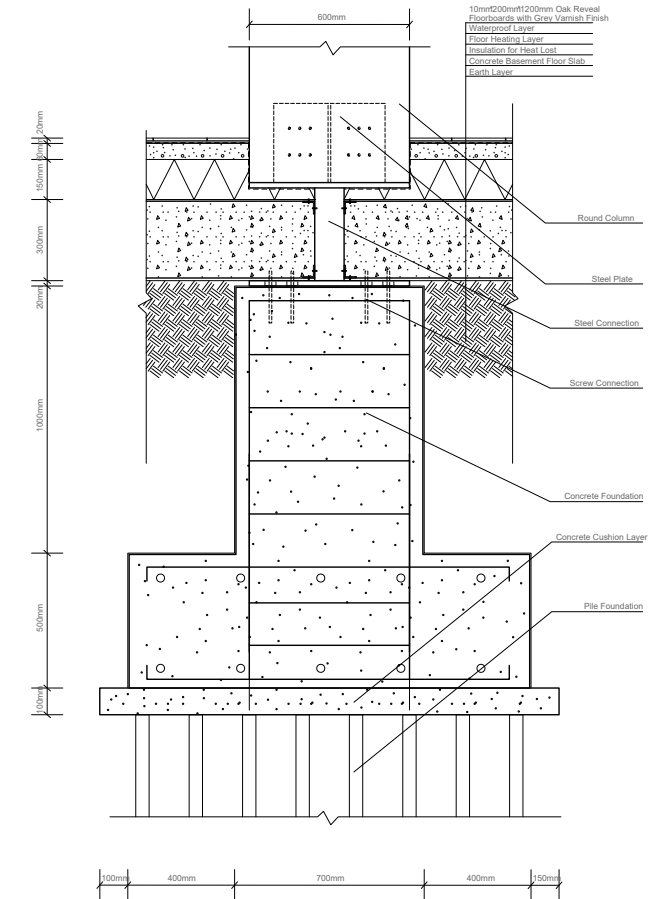
Detail 2



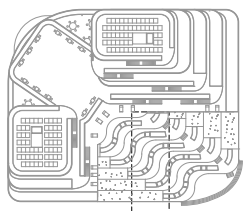
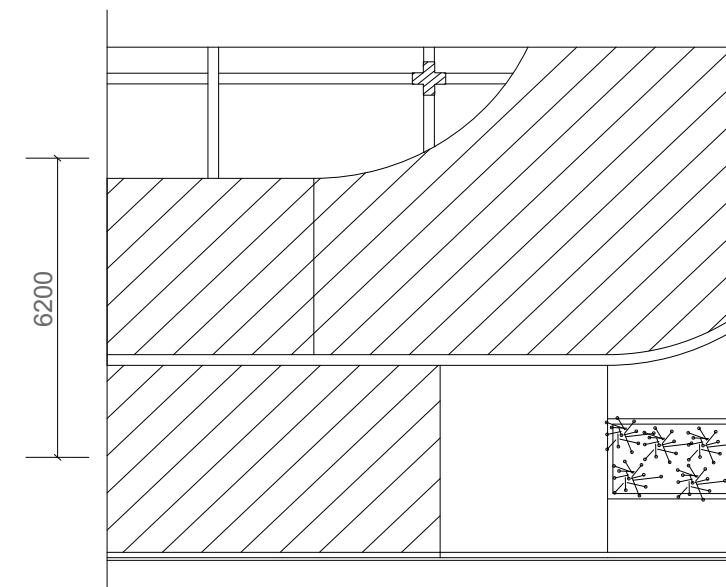
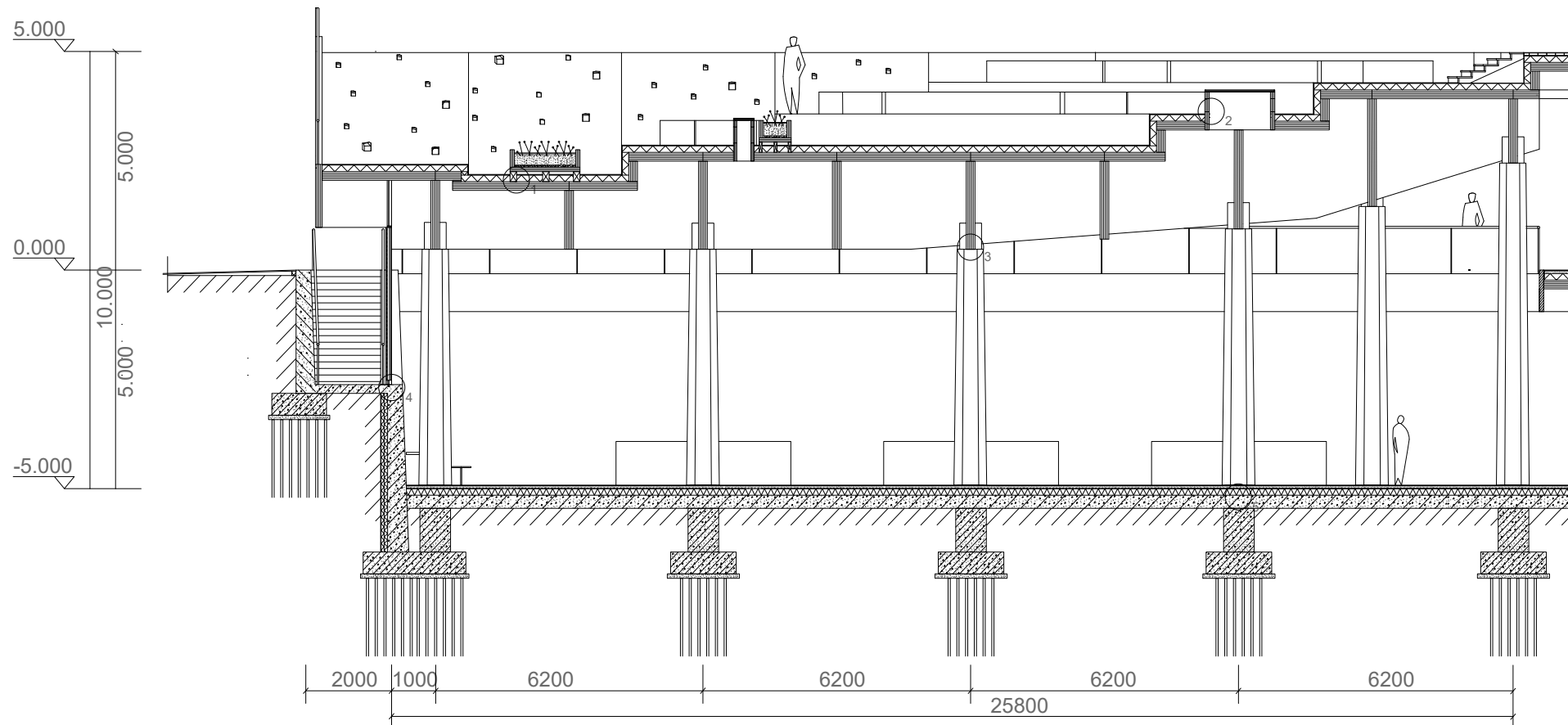
Detail 3



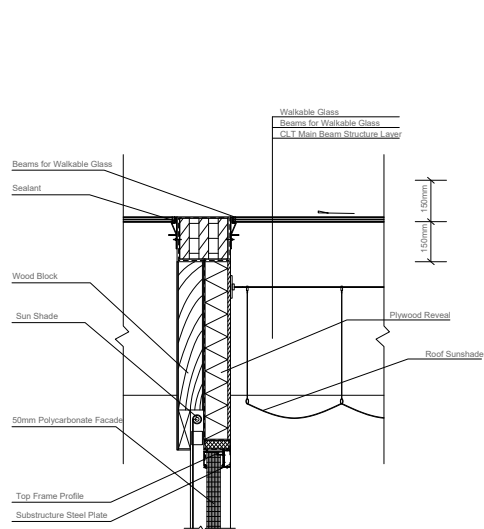
Detail 4



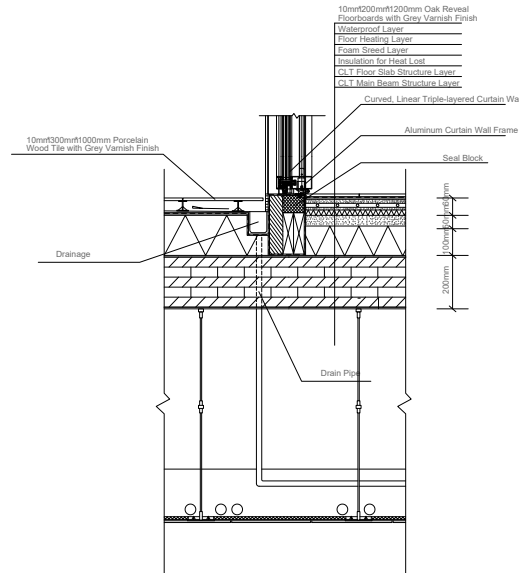
Detail 5



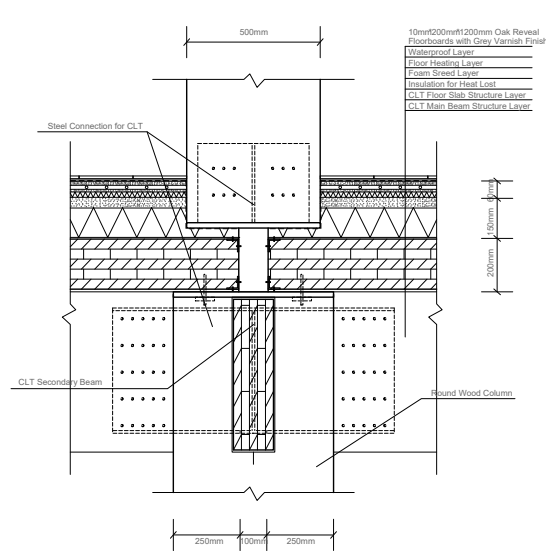




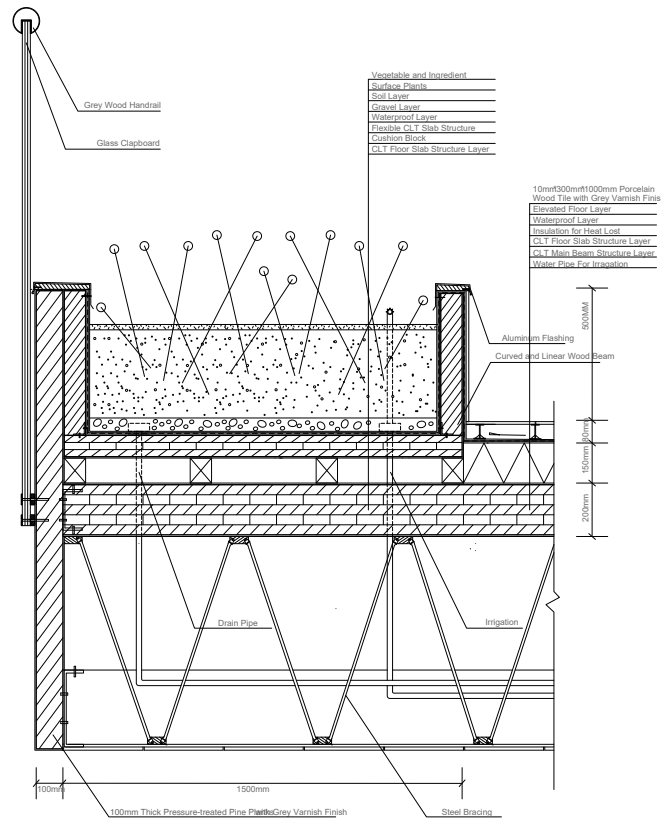
Detail 1



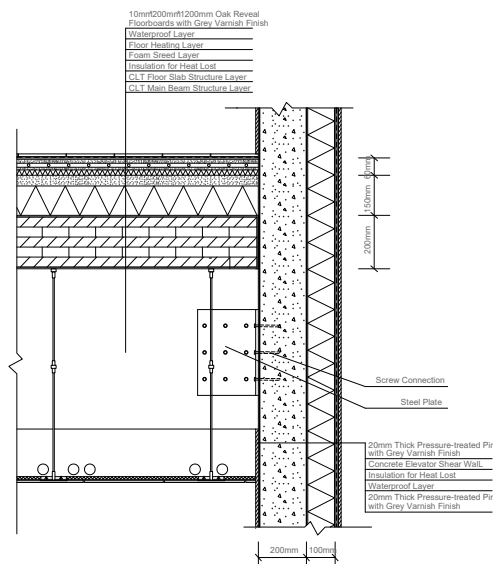
Detail 2



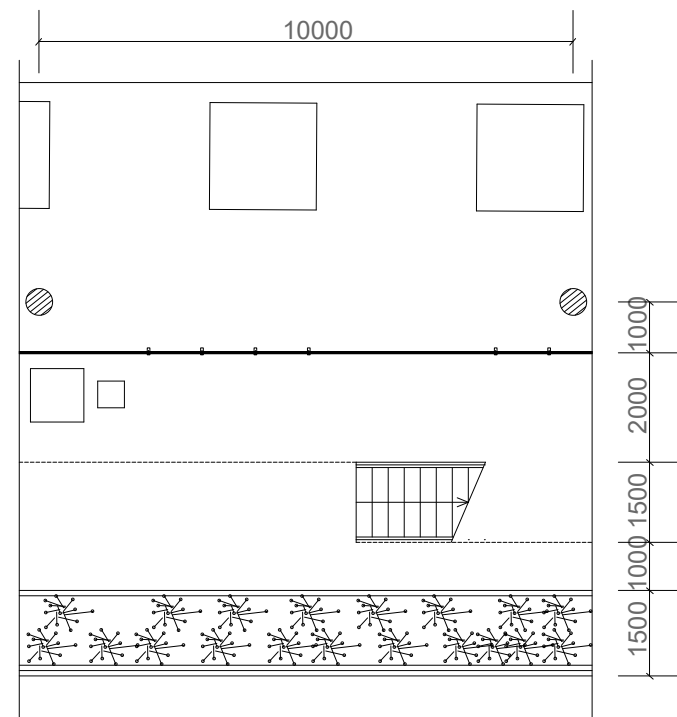
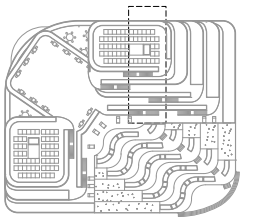
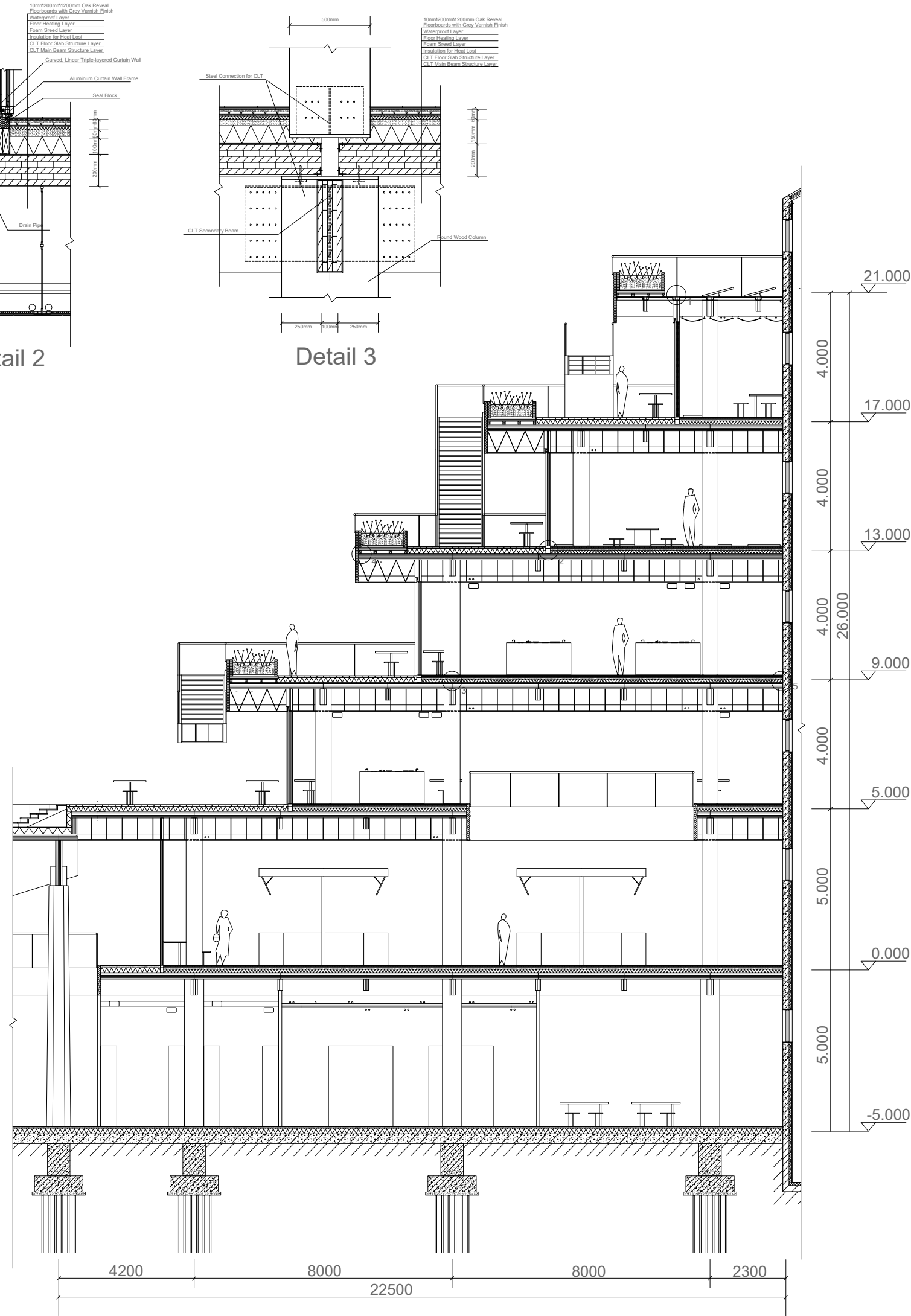
Detail 3



Detail 4



Detail 5





## Introduction

Our project starts from [Berlin](#), a huge and diverse city in Europe, full of not only political issues but art and life as well. So before I went there, the variation, uncertainty, and hybridity of the city fascinated me a lot. The existence of the Berlin Wall has forced me to connect this city with [history and politics](#), as well as its interesting culture that has evolved. I have visited many different regions of Berlin, and I am thinking about the differences in their changes. Due to the influence of different ideologies in history, the large-scale city in [East Berlin](#) is not conducive to the development of dynamic commercial activities, which is why I was initially interested in how to implant food spaces in the East Berlin region. In addition to the feeling on the site, we also understand this project with consideration for some key words, like "Common" and "Public Condenser". Kousoulas mentioned that "[Common](#)" space is a space where people can consistently make and collectively participate.<sup>[1]</sup> Rem Koolhaas discovered that a building in New York compressed all the events together,<sup>[2]</sup> with different stories on each floor, and it was impossible to tell the stories inside from outside, full of confusion, and surprise.

## Gastronomic Architecture

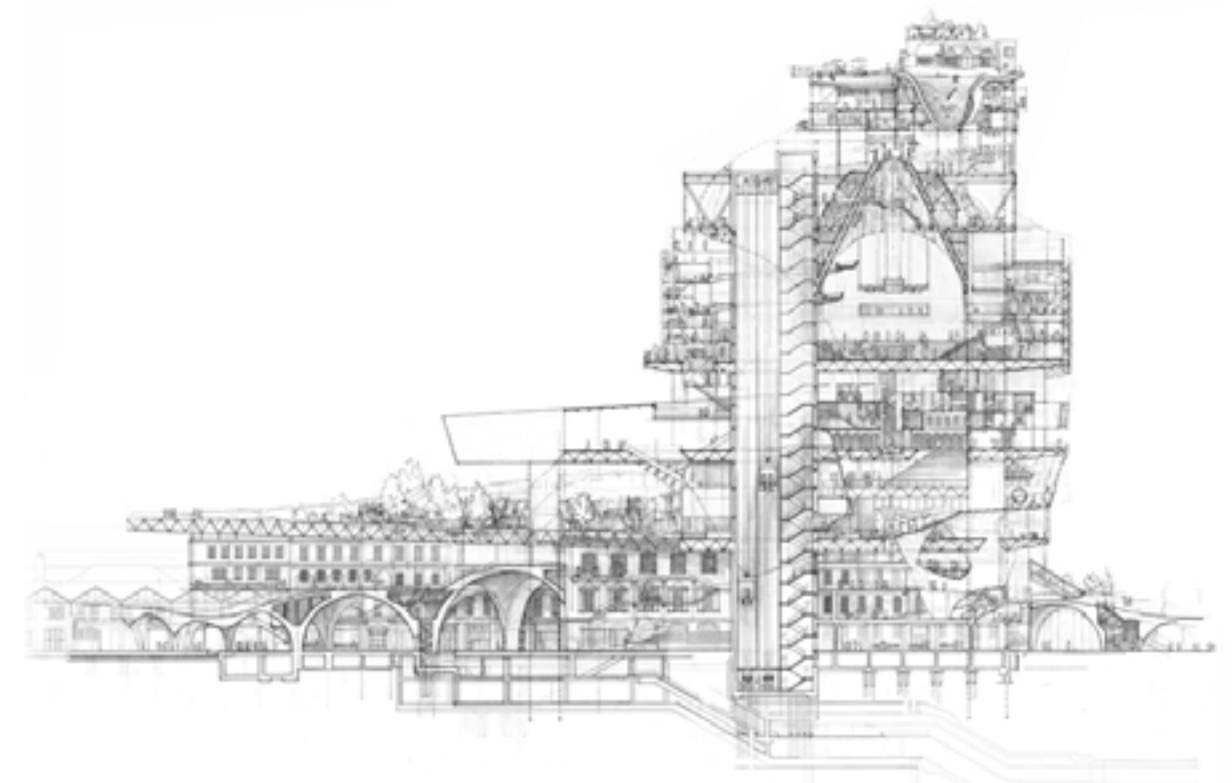
My project starts from the city Berlin. After visiting the site in [Friedrichshain](#), I found that people who lived there were not satisfied with the [food-eating space](#) nearby throughout my interviews. They said that even though there were some restaurants, the community was lack of diverse food space, and they were willing to go to the [West Berlin](#) for food. To check if they were right, I made a food mapping of the community. I found that there are a few restaurants and supermarkets there, but not too many. And there was just one flexible exterior street market nearby, so basically they were right. Based on this, designing a food-eating space for the community came into my mind.

To follow up on the locals' idea, I went to the west of Berlin and found many diverse food-related activities. There are not just many restaurants in the West, but also many street markets, and an interesting Prinzessinnengarten where people can farm, make and cook inside. At the time, based on the topic of our project "[Public Condenser](#)", I think if I condense many kinds of food-related activities([farming, making, shopping, and eating](#)) into one building, it will provide more opportunities for people to encounter, which also suits my understanding towards the word "[Common](#)", where people can make something together, and participate into activities constantly. Then food could be a good medium to connect people in Berlin from different backgrounds. Furthermore, facing the trend that eating become more private and people do not want to go out for food and feel lonely, a food condenser can take people out and solve these issues very well. From the food mapping, I consider the [REWE supermarket](#) as the best location to build. Because it sits in the street full of restaurants, they can work well together economically. And the site is also near the Warschauer Straße station, so it is accessible for the locals and outsiders. Finally, the original supermarket will be turned down, and a better new flexible market space will show up in the new building.

After making sure of my topic about food, I divided the program into four parts, [from farming, making, and shopping to eating](#). In the [farming part](#), people can grow some vegetables, ingredients, and some plants in the balcony, rooftop garden, or indoor area. In the [making part](#), people can cook the food they pick up from the farming part in the shared kitchen, chefs can learn cooking from the culinary school, and chefs can explore their recipes in the food laboratory, citizens can see the food exhibition, they can also order the food in the kitchen that is already cooked by the chefs. In the [shopping part](#), people can shop, eat, and socialize in a flexible market space, including a long indoor market, some eating space, and relaxed space. They can also listen to lectures about food culture in the hall. In the [eating part](#), people can enjoy a big food square. They can also order in two big round-shaped food bars, and find food in some open restaurants. To condense these multiple food-related spaces in one building, I worked out a prototype, I call it "[Vertical Food Forest](#)", which will be situated at a specific site and create various food experiences as an interesting and complicated system. Thus, I named it as "[Gastronomic Architecture](#)", which means that it is a place about various food activities.



Berlin wall by Rem Koolhaas  
<https://socks-studio.com/2011/03/19/exodus-or-the-voluntary-prisoners-of-architecture/>



Stuart Franks' City in a Building  
<https://socks-studio.com/2012/01/15/stuart-franks-city-in-a-building-and-other-drawings/>



Method

I used various methods during the research and design stage. During the research phase, I used [reading](#) as my method to directly gain a deeper understanding of general concepts and background knowledge. At the same time, I can also think about the types of changes in a certain type of space in [historical research](#). From this, I can predict the future development direction of these spaces based on current development opportunities and challenges; Furthermore, I had a broad understanding of previous students' [academic graduation work](#). From their achievements, I can see some research and design ideas, from how to raise questions, generate concepts, conduct research, and ultimately implement them in design and detail

Furthermore, I used [mapping](#) as a good method for site research. Through extensive mapping, we can identify site issues, stories, and points that we may overlook. When I presented everything on a drawing, problems arose. As I studied deeper into mapping time and time again, I discovered many interesting phenomena and connections between events

Finally, [a book](#), “[How to Study Public Life](#)” by Jan Gehl and Birgitte Svarre,<sup>[3]</sup> gave me a lot of research inspiration. It mentions many research methods, such as counting, mapping, tracing, tracking, looking for tracks, photography, keeping a diary, and test walks. I have adopted different ways of walking around the venue, including walking, cycling, and taking public transportation. Along the way, I have recorded many details using [photography and videos](#), which helped me build an understanding of local culture and provides me with researchable on-site information for future design. In addition, I stayed in somewhere and traced in one area I found many people from different culture and I made an [interview](#) with them, including German, Dominican, Turkish, Singaporean, Japanese, Vietnamese, and Chinese. Some of them becme good friends of mine in the end. And then I can get more information from the locals with different perspectives.

During the design phase, [Case study](#) is the method I used the most. Through research on the projects with relevant scale and topic, from concept to final design and detail. I can find their research and design ideas, explore different types and scales of spaces, and handle different venues. Among them, when knowing how to combine different spaces into a building, I found that the spatial distribution of many projects is divided into primary and secondary. Most projects focus on designing the main program and circulation first and then deciding on the design of other spaces. At the same time, in food-themed projects, it was also found from the case that the social space needed by people can be roughly divided into three scales: large, medium, and small. The privacy and publicity of each space are determined by the attributes of the program and the organization of the space; [Conceptual model](#) is another method of mine, which is necessary for studying the combination of different spaces together. Every attempt came from a bold 'what if', such as what if there is a long street market on the ground floor, what if there is a vertical market in this building, or what if the farming part is on the top or the bottom, what if the farming is in each floor. I can choose the best solution based on these attempts. The conceptual model is also a good way to test whether these plans can best fit the site.



Book-how to study public life by Jan Gehl & Birgitte Svarre



Site Survey, Visit Route, Food Mapping



## Feedback

I received fruitful feedback during P2 and P3, which really helped me advance my design. [From the PD tutor](#), my transportation core is the significant part of my building, which includes various functions such as toilets, stairs, elevators, pipelines, etc. How to handle the relationship between these things and how to make them work together is crucial for the rationality of my building. And I also need to pay attention to how my narrative is organized and arranged to make it more logical and clear to the audience. [From the TBD tutor](#), the help I received is how to handle my loop and circulation, how to design the waste factory, site issue, structure, climate, and facade; [From the TD tutor](#), I need to think about how to use the outdoor landscape platform in winter, what kind of crop I plant in the farming area, and how much energy I consume to implement the concept of a loop. I also need to consider how my food space is organized, how people get their food, and where they go to eat. [From Nathalie de Vries](#), I need to think about whether my outdoor landscape platform is an encounter space, what people can do in the farming space, and whether a larger encounter space for meetings is needed inside.

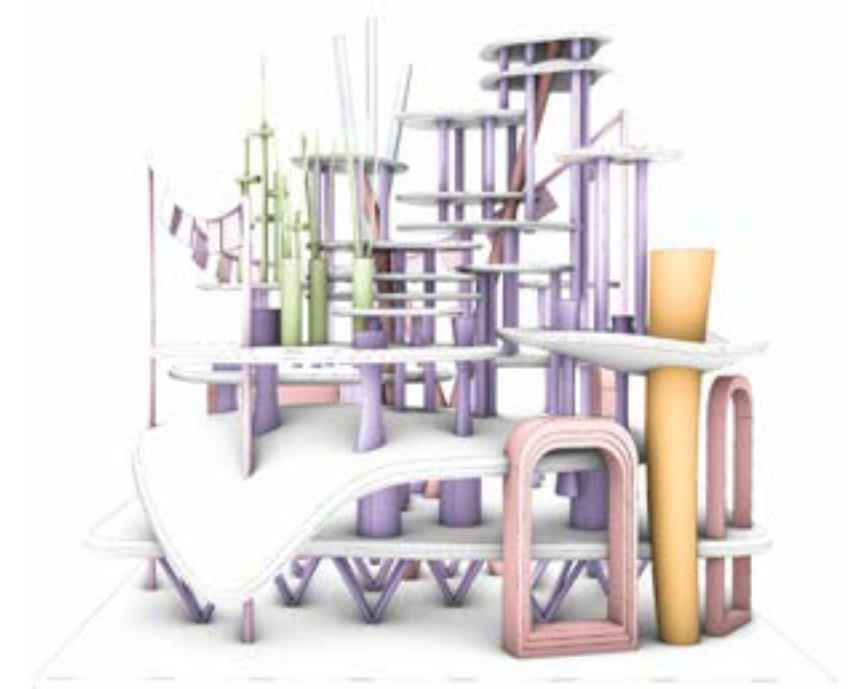
At the same time, I also received a lot of feedback [from fellow students](#), which helped me a lot. Through communication with them, I developed the idea of using L-shaped or round-shaped to handle the site. I attempted to diversify the landscape space in the project and learned some interesting cases and ideas of sensory design, as well as some specific spatial design techniques and effects.

## What I Can Learn, What the Next Is

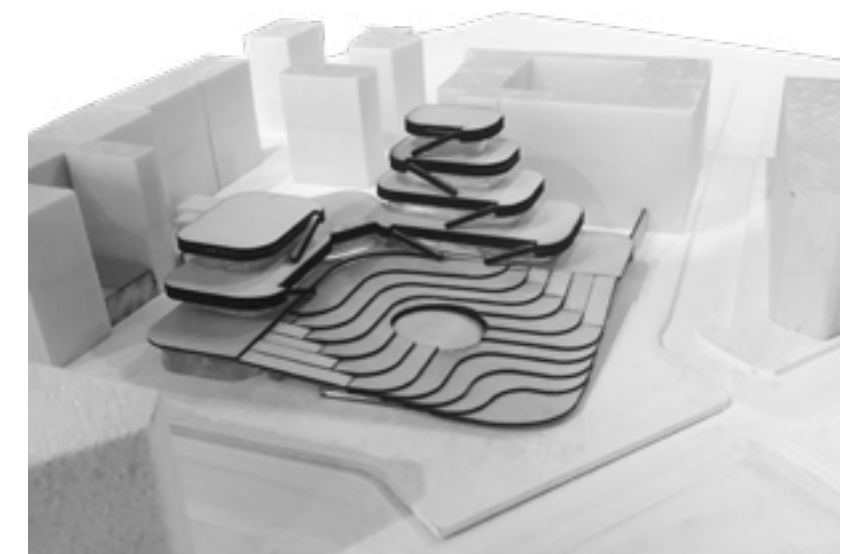
The two biggest points I have learned are [conceptual model](#) and [case study](#). From the conceptual model, I used to build a space which is more like an architecture. But after tutoring, I think it is better to not think about architecture before designing, think about what we can do and what we can learn from the other field, and then build it up to see if there is some possibility to transfer it to the space.

From the case study, I used to just look at a few parts of one project and I used to search for some relevance which is not suitable for the scale of the project. But after tutoring, I think it is better to focus on relevant space on the same scale and I have to focus on the project from the beginning to the end. And to use my sketch or analysis to study it could be a good way to find more details.

For the further step, I am going to make the space out by using a [physical model](#) on a bigger scale. That would help me to find the problem deeply and help me to see if the scale of the space is good in reality.



Conceptual Model



Physical Model



## Relation, Value

1. What is the relation between your graduation project topic, your master track (Ar, Ur, BT, LA, MBE), and your master programme (MSc AUBS)?

The relationship goes in two directions, from the small to the big field and from the big to the small field. What I learned from MSc, like the method, the theory, and the history benefits me a lot during Architecture track learning. And what I learned from the Architecture track, like a design studio, elective, lecture input, and workshop benefits me a lot for my graduation project; The design topic is about “food”, which is a good point that fits in the Public Building studio topic “common” well. Then this type of public building could be a good contribution to the architecture track. The research and design methods that are used in the graduation projects, can be a good devotion to the MSc program.

2. How did your research influence your design/recommendations and how did the design/recommendations influence your research?

The relationship between the research and design is tight. Firstly, research is the cornerstone of design. I cannot design without doing any research, because I know nothing about the project and cannot design anything accordingly. Secondly, design is the direction of research and they are woven together. If without designing, I do not know what to research and how to research. So the better way to do is that I design a bit and find something missing, and get back to research a bit. Thirdly, design is also a way to research. Personally, the best way to research the space is to design the space. What we should do is to learn from them and do our job to make something new out and it could be a good result for the research outcome.

3. How do you assess the value of your way of working (your approach, your used methods, used methodology)?

Personally, what I have done with my methods is good. I use many methods from research to design. But unfortunately, they are many so I cannot go further on my one point. For example, for the site group analysis, I have already interviewed a few local people. But I think that is not enough. If I have time or I focus on one method, I can get more data from the street, or maybe use some methods like getting the data from social media. That would strengthen my research and find more issues.

4. How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?

For academics, the research and design methods are good to be learned. And the design logic from a prototype to the site design is good to be followed. For society, it is a new way to organize a community space so it can provide a strategy for the developer. And at the same time, the loop space is also a kind of education space where people can see each step of food production and get well educated from the space like a waste factory.

5. How do you assess the value of the transferability of your project results?

Firstly, this new type of food space, from farming, making, and shopping to eating, could be a good pattern for public space strategy. Secondly, the prototype of the space could be applicated to different sites or in different programs. Thirdly, the specific site design tricks, like using L-shaped to solve the "not welcomed" issue are also good to be transferred to other similar sites.

## Reference

- [1] Stavrides, S. (2016). Common space: The city as commons. Bloomsbury Publishing.
- [2] Koolhaas, R. (2014). Delirious New York: a retroactive manifesto for Manhattan. The Monacelli Press, LLC.
- [3] Gehl, J., & Svarre, B. (2013). How to study public life.