

GRADUATION REPORT

The Vertical Campus | Campus Haagsche Park

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AR3AP100 | Public Building Design

MSc Architecture, Urbanism and Building Sciences | TU Delft

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Research by Design Journal

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1. Graduation Plan | Overview

Problem statement

With the advent of hybrid education since the COVID-19 pandemic, the demand for campuses and educational buildings has undergone a transformation. The introduction of hybrid education has led to classrooms being more readily vacated than before, as students now have the option to attend classes remotely from home.

To address this increase in vacancy, educational buildings that center around hybrid education should incorporate hybrid programming. This is where the significance of hybrid architecture for educational buildings becomes evident, also in case of the Vertical Campus that will be designed for a new green area near The Hague Central Station.

Research question

How can hybrid architecture and hybrid education be connected through a building designed with hybrid building technologies located in a new green area near The Hague Central Station?

Intended Targets

Designing an educational building suited for hybrid education using hybrid building technologies and hybrid design solutions for the programming whilst being located in a new green area near The Hague Central Station

1. Graduation Plan | Process

Method description

This graduation thesis will consist of multiple parts, commencing with a literature study into the realms of hybrid architecture and hybrid education. In conducting this literature study, the focal points will include identifying the similarities between these two subjects and exploring how they can seamlessly be formed into a singular entity: the hybrid vertical campus.

Moving forward, the thesis transitions into the next part — case studies. In tandem with defining the requirements for the hybrid campus, in collaboration with the Program of Requirements provided by the Public Building Design studio, case studies will be conducted. These case studies will delve into various campuses, ranging from the more traditional ones to the more progressive ones. The most noteworthy aspects that have been found from these campuses will constitute the findings of the case studies, serving as starting elements in the design process of the hybrid vertical campus.

1. Graduation Plan | Process

Literature and general practical references

The selected literature will consist of literature that focuses on hybrid architecture, different design options for educational buildings and hybrid education. This literature will mainly be used in the initial phase of the thesis when the literature study will be carried out.

For the second part of the thesis, case studies focusing on multiple types of campuses will be conducted. These case studies will naturally consist of reference projects. As mentioned in the method section above, the results of these case studies will be used for the design of the hybrid campus.

List of references

Ujjwal Dawar, ‘’Architectural Hybridization’’, Rumour, Volume 73: Futurity (2020), pp 22-27.
Published by Bout, part of Technical University of Delft.

Joseph Fenton, ‘’Hybrid Buildings’’, Pamphlet Architecture, Number 11: Hybrid Buildings (1985)
Published by Princeton Architectural Press

Galina Ptichnikova, ‘’Hybridization in Architecture’’, Advances in Social Science, Education and Humanities Research, Volume 471 (2020).
Proceedings of the 2nd International Conference on Architecture: Heritage, Traditions, and Innovations

Erik Tritsch, ‘’A Brief History of Online and Hybrid Schools’’, Fairborn Digital Academy, published on September 9, 2021
(https://fairborndigital.us/2021/09/09/a-brief-history-of-online-and-hybrid-schools/)

1. Graduation Plan | Importance of the project

Relation between graduation topic, studio topic, master track & master program

The relationship between my graduation topic (hybrid architecture) and the various other components is certainly present. Mixed-use, which is in principle also a form of hybrid, plays a major role within Public Building. For this reason, my graduation topic and the studio's interests are linked.

Furthermore, hybrid architecture is part of architecture, something I will certainly show with my graduation thesis. Hybrid architecture is a form of architecture that not only addresses the programmatic side of architecture but also the aesthetic side.

Relevance

Although my graduation thesis focuses on buildings with a (hybrid) educational use function, the outcome of my graduation project, a Hybrid Vertical Campus building, also applies to other buildings with a (hybrid) public use function.

2. Design brief | Explanation

Program selection

On the next page my proposed design brief for the Vertical Campus can be found. Derived from the Program of Requirements given by the Public Building Design studio, I did not change to much of the information for the design of the Vertical Campus. For now the total of the design brief, including building amenities, comes to **34.180 square meter**.

The only new component I have added relates to my personal graduation plan: the hybrid workplaces. The idea of these workplaces is that students, university employees or people who have a subscription to the building can use these workplaces by reserving them online. The hybrid workspaces are going to be designed as modular as possible so that they can be used in a as wide range as possible. The modular design aspect will also be applied to the furniture that will be used within the hybrid workspaces.

Legend

I divided the Program of Requirements into three different categories: publicly accessible areas, non-publicly accessible areas and finally building related areas.

Publicly accessible areas

Non-publicly accessible areas

Building related areas

2. Design brief | Program of Requirements

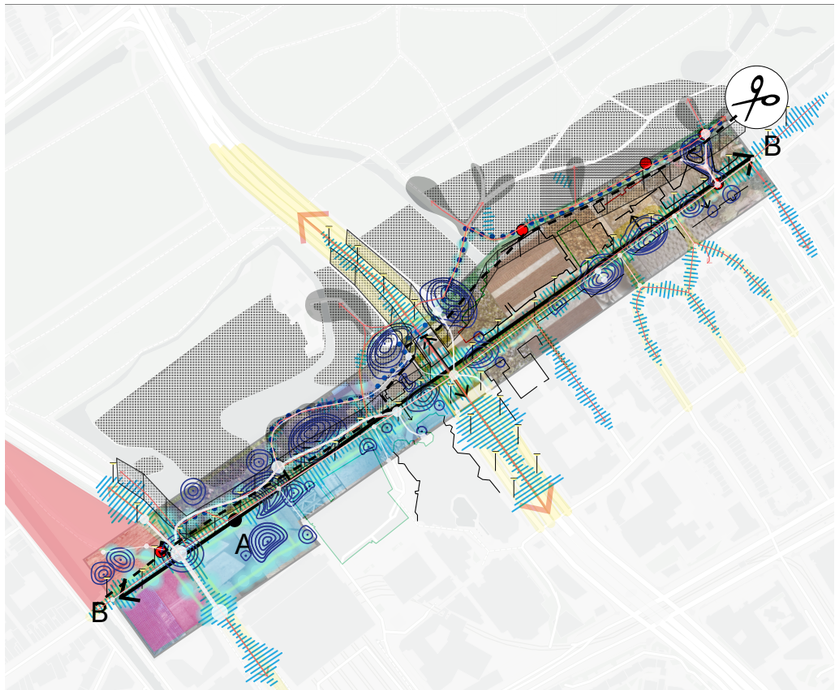
Entrance	400 sqm
Commercial Spaces	1.000 sqm
Café and Lounge	600 sqm
Play and Learn | Daycare & elementary school	2.000 sqm
Learn and Discover | Studio spaces	1.000 sqm
Library and Media Center	2.000 sqm
Work shops	400 sqm
Centre for advanced virtuality	500 sqm
Learn and Develop | Research Spaces	2.000 sqm
Teaching, Learning & Development Spaces	1.000 sqm
Theatres	1.000 sqm
Exhibition Space	500 sqm
Sports	500 sqm
Office spaces	10.000 sqm
Miscellaneous	7.500 sqm
Hybrid Workspaces	2.500 sqm

3. Process documentation | Overview projects

Psychogeographical map

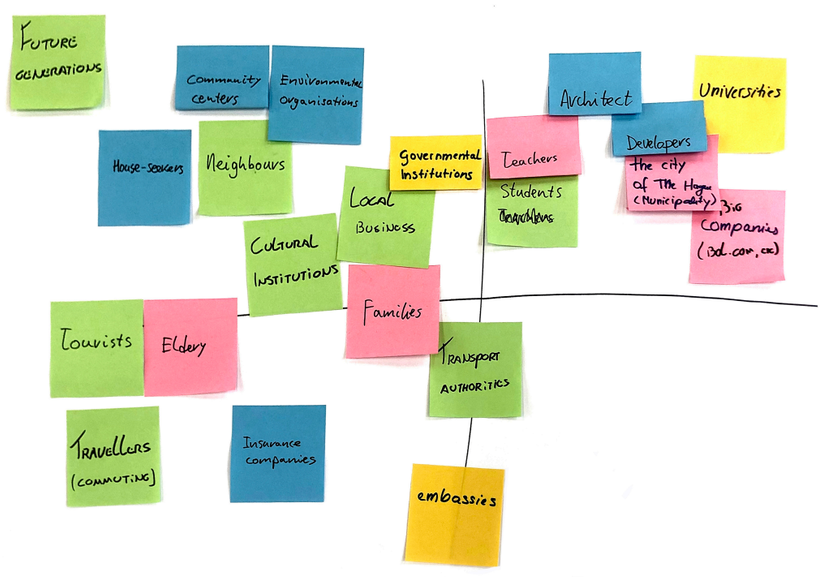
By creating the psychogeographical map (see the top right picture), a better picture was created of the characteristics of the area where the Vertical Campus will be built. The aim of the map is to show that there are many different stimuli in the area, some positive, some negative, but what is especially striking is that there is a ‘hard’ separation between the park and the city.

This last aspect was of great importance to me personally and I therefore included it in the further development of my urban plan.



Design thinking

While the psychogeographical map provided more clarity about the characteristics of the area, the overview of the design thinking assignment provided more clarity about the users of the area. The most important thing to take away from this is that people value the park, but would like to see its ‘quality’ improved.



Stakeholder map for the area

3. Process documentation | Overview projects

Diagram

Just as it emerged in the psychogeographical map that there is a hard separation between the park and the city, this was also the main theme when creating the diagram.

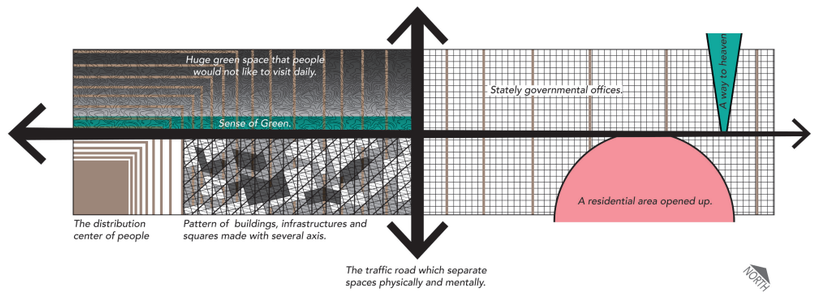
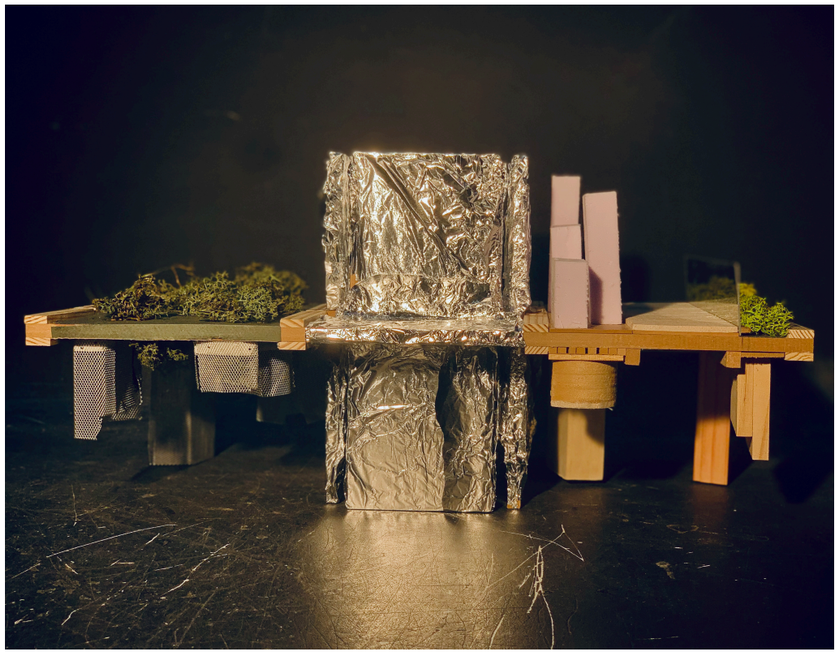


Diagram portraying the seperation between park and city

Performative Conceptual Model

The aim of the model was to show what had already emerged in the previous assignments, namely that there is a hard separation between the park and the city. Because the park brings a certain quality to the city, something that the users of the area also confirm, the model shows what happens if this separation between city and park remains so ‘hard’.

In a continuous cycle, the model shows what happens if no attention is paid to the qualities of the park. The city is becoming overpopulated and ultimately the quality of life in the city decreases because publicly accessible greenery cannot be enjoyed. Subsequently, a utopia is created in which greenery takes over the abandoned city and thus the cycle repeats itself.



Performative conceptual model

3. Process documentation | Overview projects

Collage and montage

For the collage and montage, the focus was mainly on the implementation of hybrid education and what this could look like within the environment of the vertical campus.

Sustainability diagram

The sustainability diagram was mainly a first approach towards the subject of sustainability. The possibilities in the field of sustainability were examined for my design of the Vertical Campus. For each of the four spheres of sustainability, an explanation has been made of how the characteristics of this sphere can be applied to the design of the Vertical Campus.

Ultimately, it was decided to focus more on applying circular design solutions in the design of the Vertical Campus, because there is a good connection with the hybrid philosophy of the building. With hybrid, the different spaces are used by multiple, different users. With circular design solutions it is possible to design spaces that are as universal, and therefore as hybrid, as possible.



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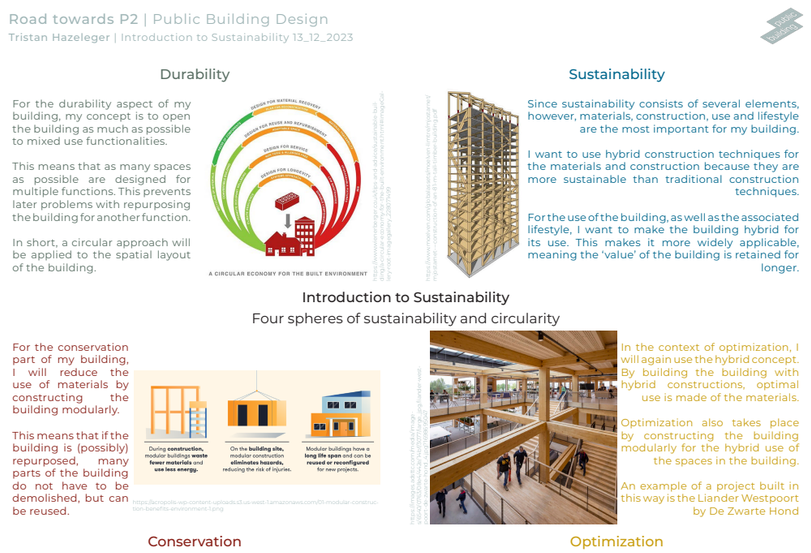
Top Left | Hybrid Campus I
Hybrid education leads to new possibilities to study outside of the traditioinal classroom

Top Right | Hybrid Campus II
Hybrid education suggests that a educational building that focusses on hybrid education can be more than what is commonly known today as a 'campus'

Bottom Left | Intertwining in The Hague
Places for campus buildings to be placed with the intertwining theory in mind

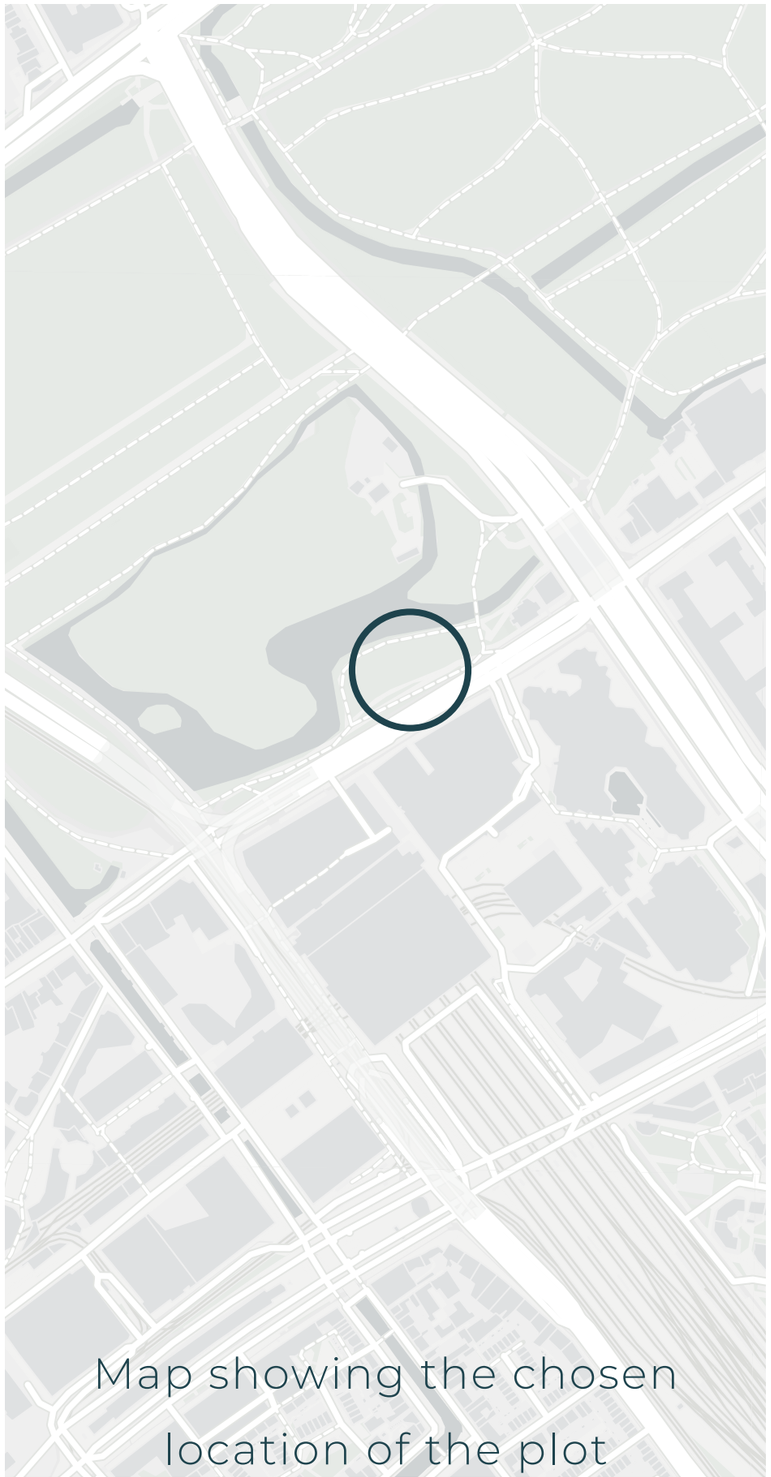
Bottom Right | Intertwining with Icons
Showing the heart of the area, Bezuidenhoutseweg, and that from there on there should be intertwining movement in both directions

Overview of the montages



Sustainability diagram

4. Integrated design proposal - P2 | Where



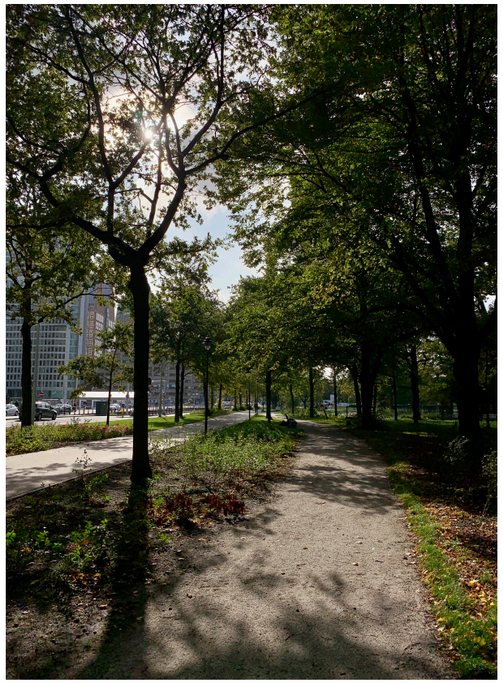
Map showing the chosen location of the plot

Reasons that I chose this location:

- The campus is located close to the station, even within the area set out by the Public Building Design studio. This makes the campus easy to reach by public transport, which will probably be the main form of transport by its users.
- Due to my redesign of the urban plan, the connection between park and city has also improved. This improvement mainly focused on ‘intertwining’: the mixing of the park with the city.
- Finally, there is the reason that the campus I proposed already has a lot of facilities available and these facilities can therefore be used on a broader scale. For example, the New Babylon building is a good example of a mixed-use building; there are different shops, offices, rentable meeting rooms, cafes and other services. In addition, there is the building of the University of Leiden, a building that certainly fits within the campus as this building already has an educational function and educational facilities.

4. Integrated design proposal - P2 | Photos of the location





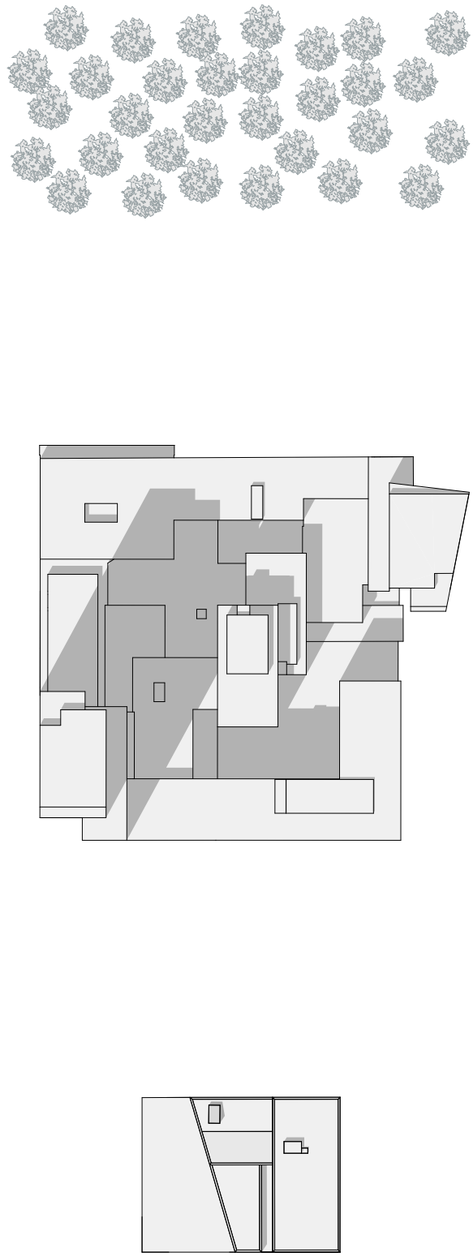




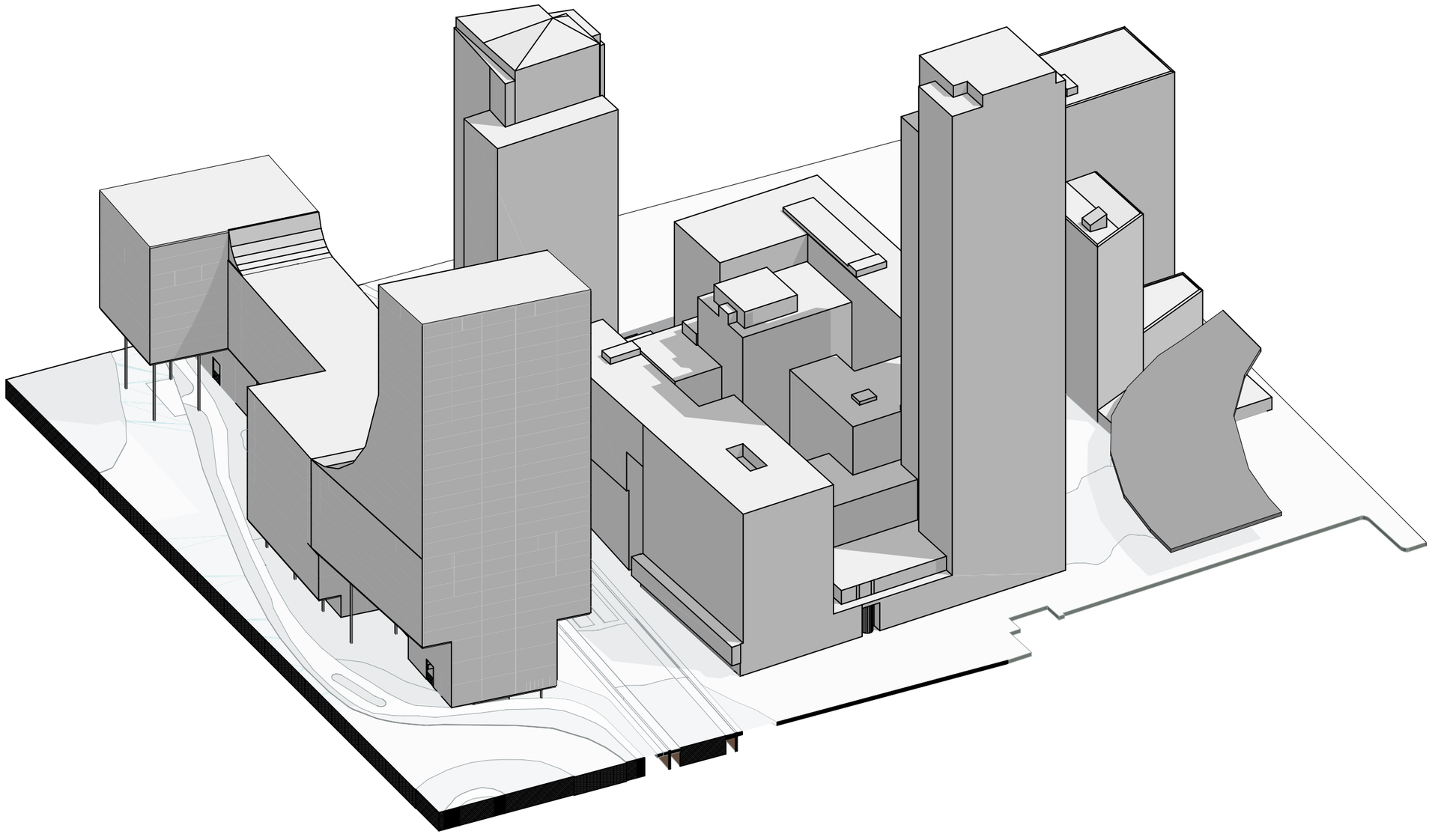




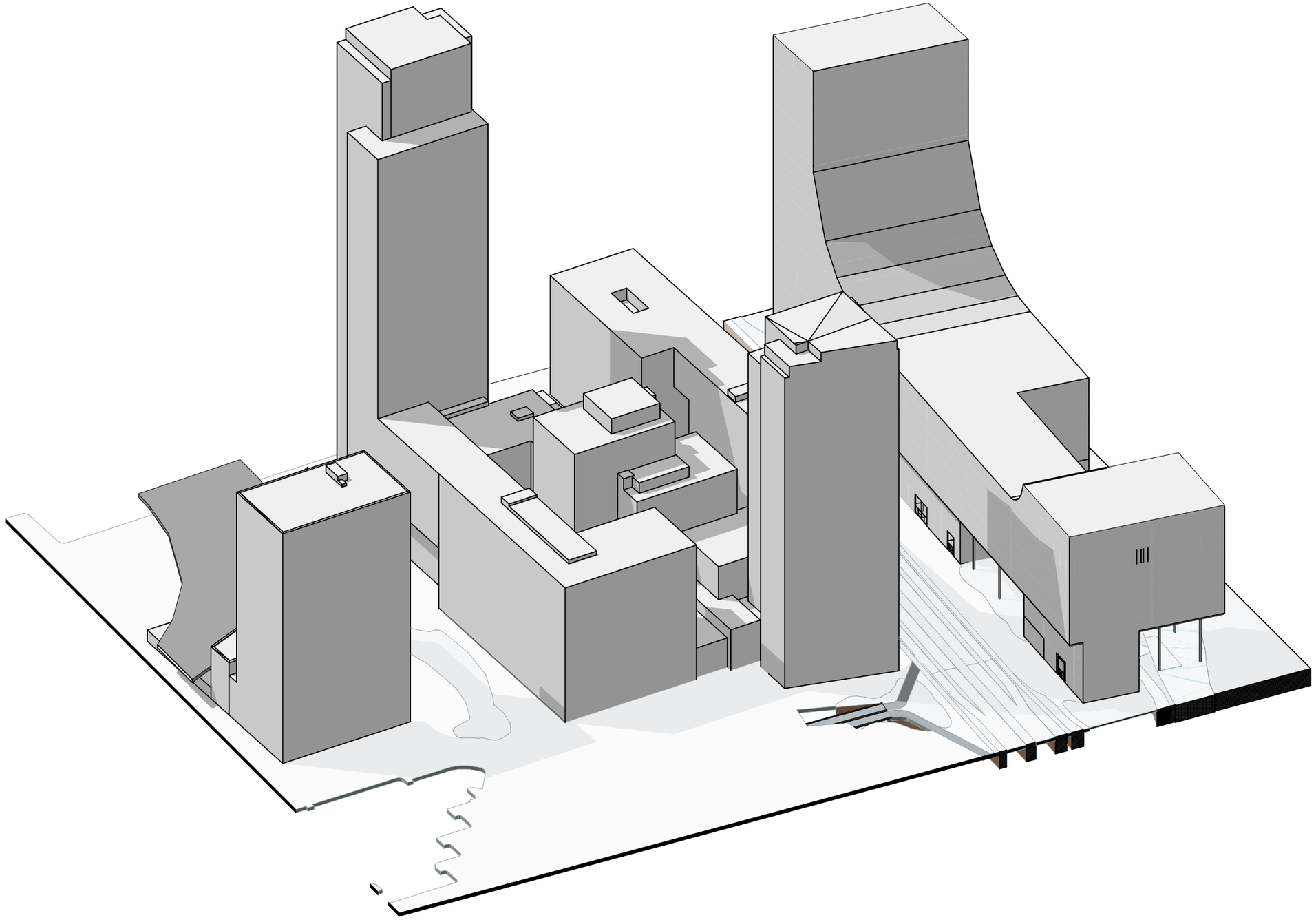
4. Integrated design proposal - P2 | Overview of the building stock



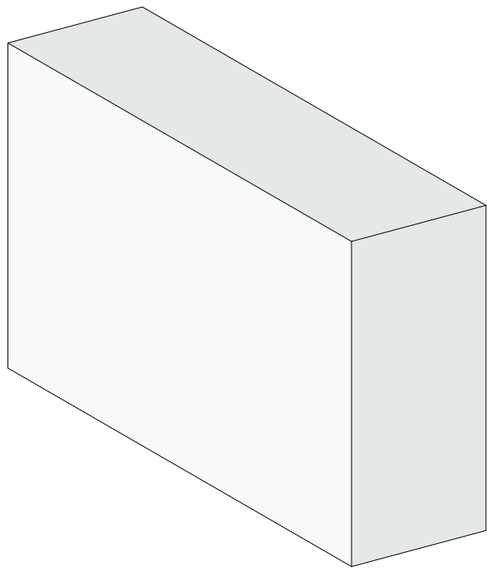
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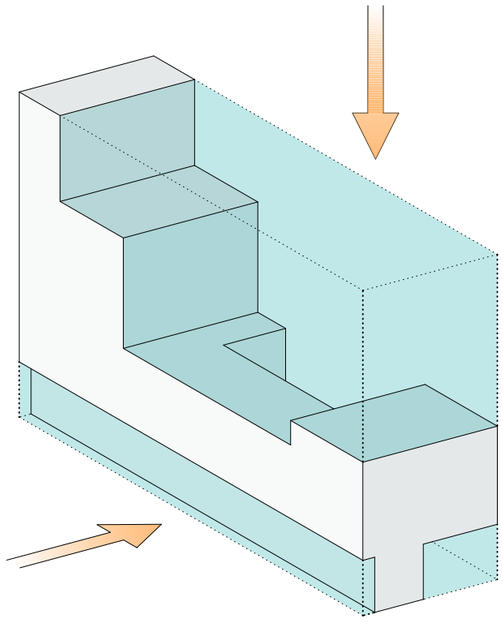


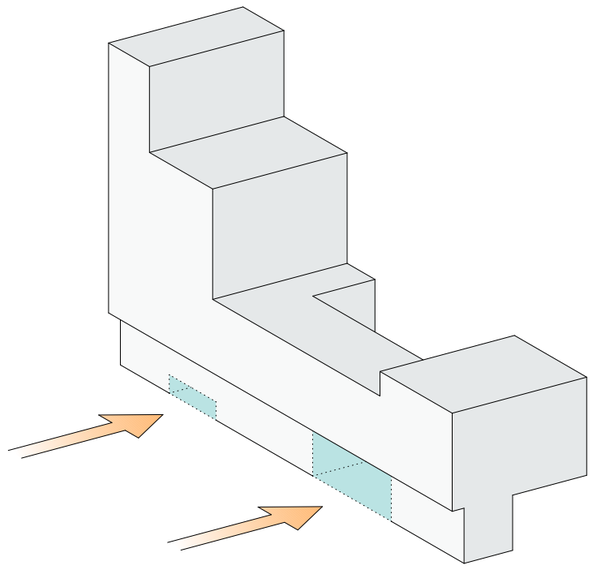
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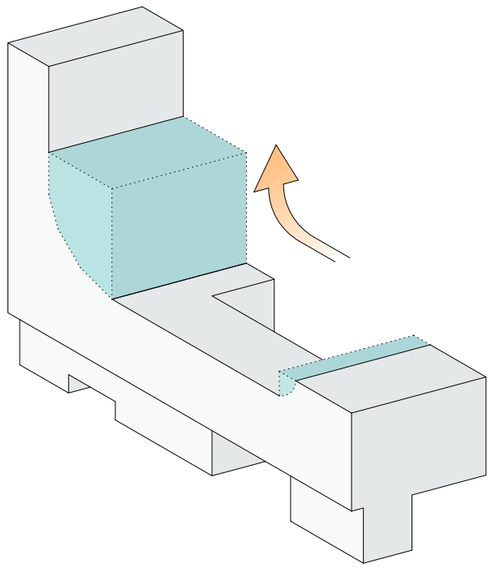


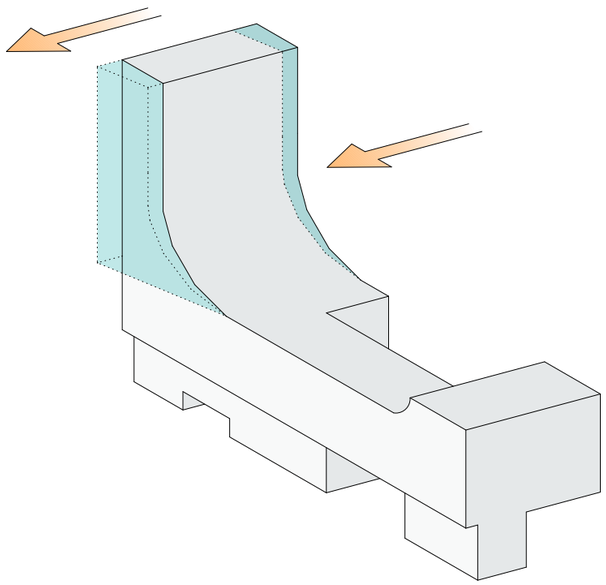
D. Integrated design proposal - P2 | Shaping the building

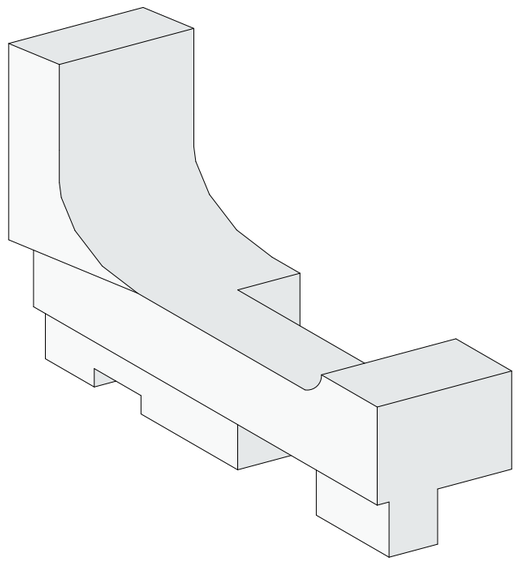




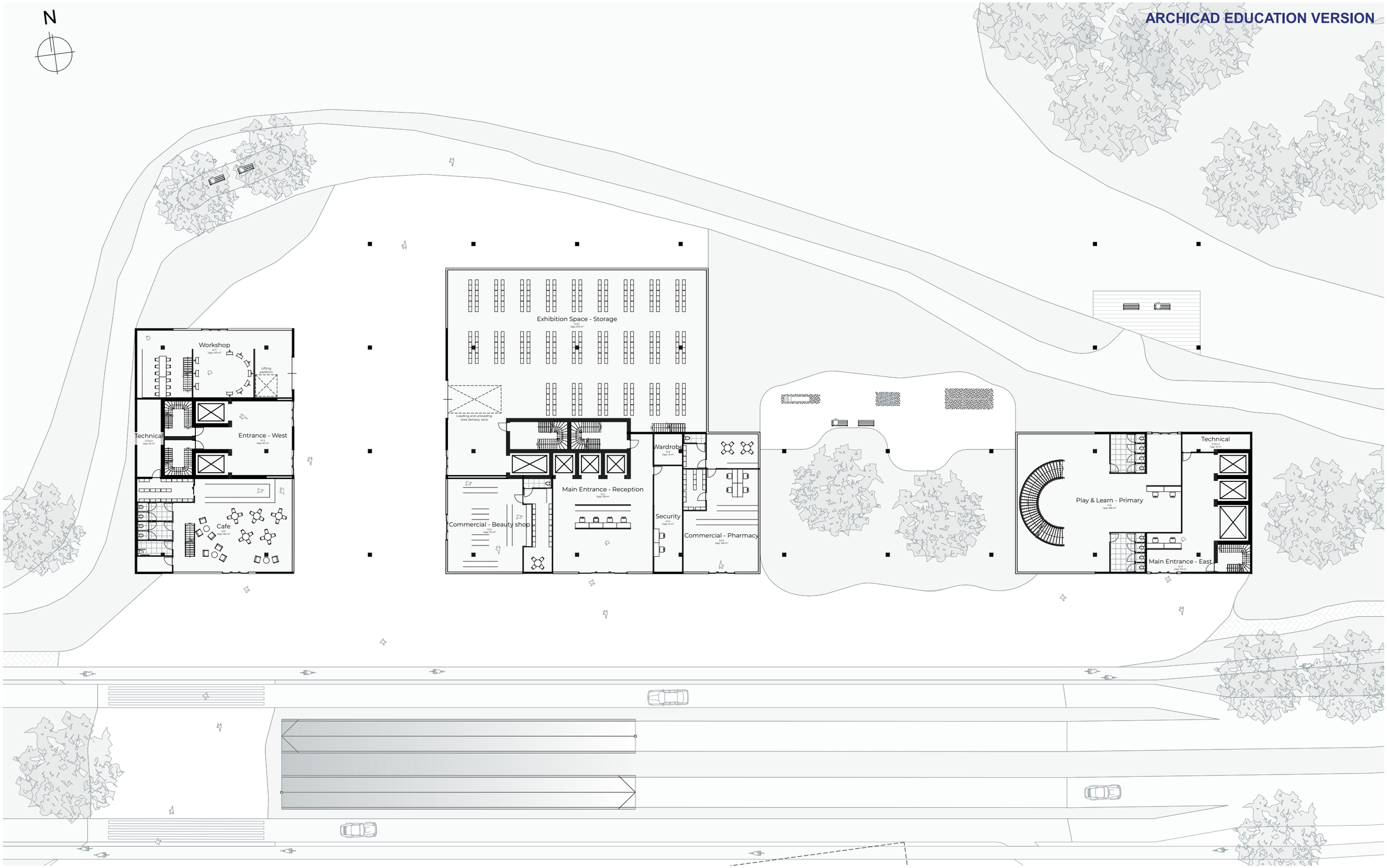




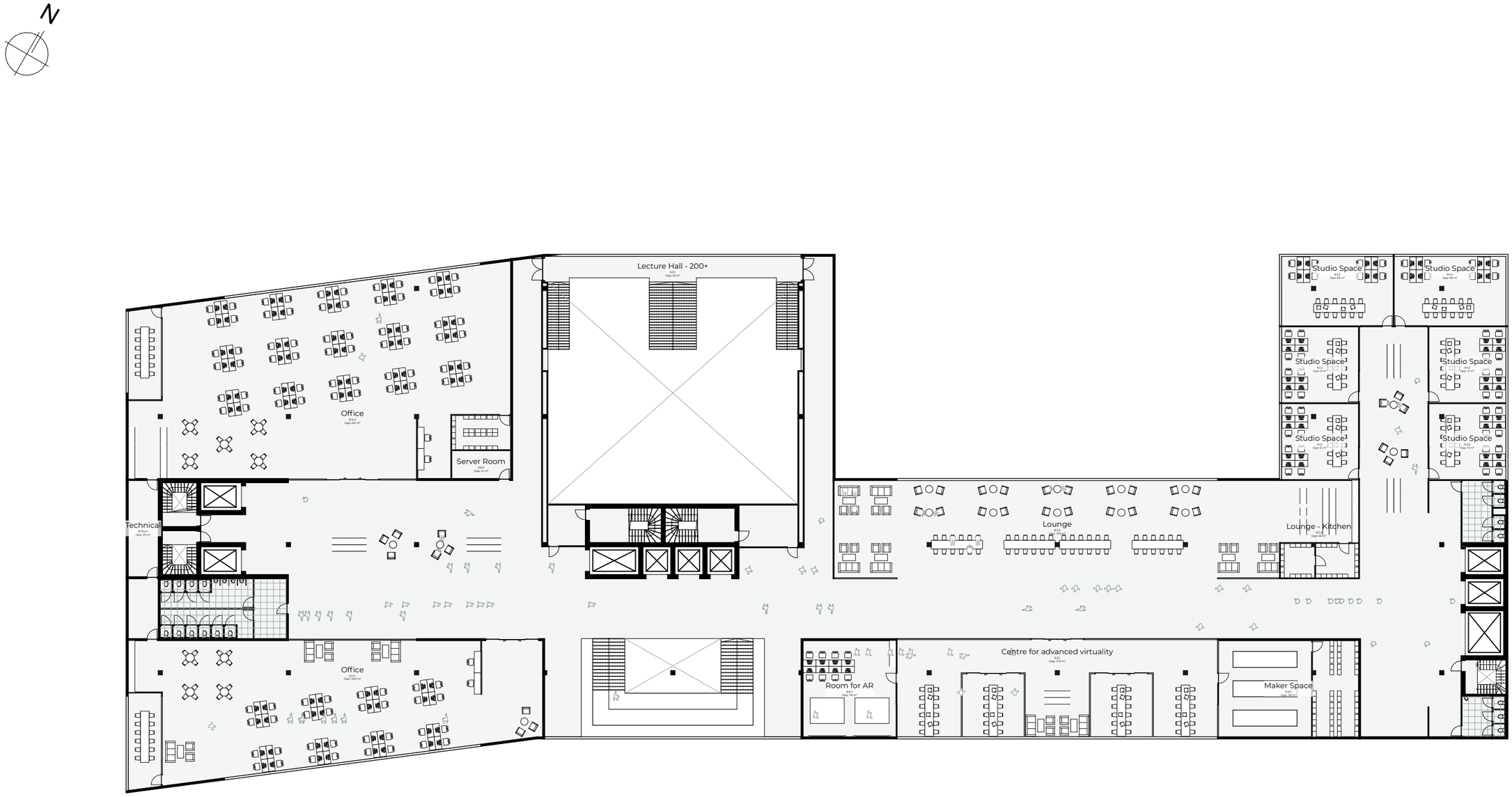




4. Integrated design proposal - P2 | Floor Plan - Ground Floor



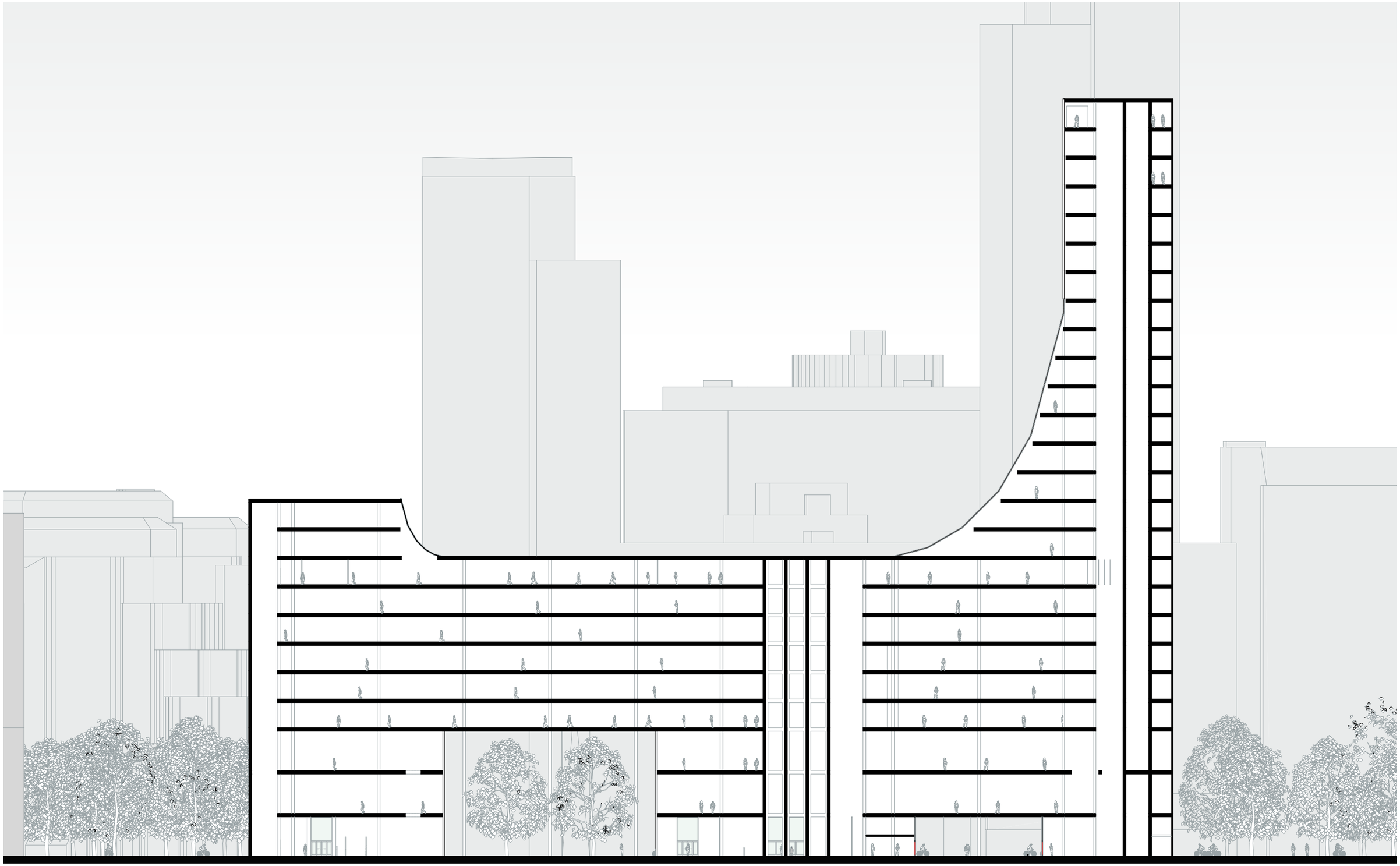
4. Integrated design proposal - P2 | Floor Plan - 8th Floor



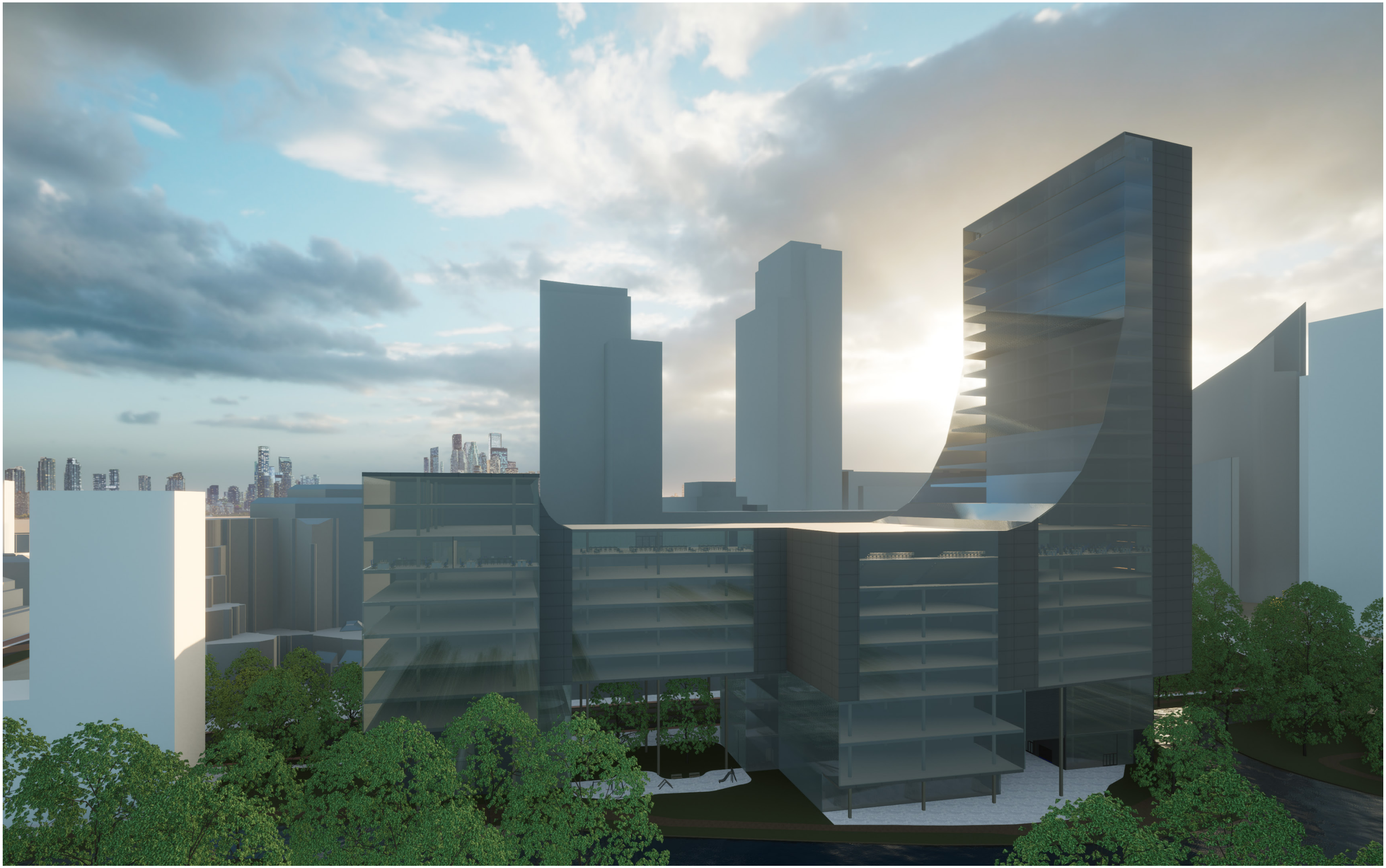
4. Integrated design proposal - P2 | Floor Plan - 24th Floor



4. Integrated design proposal - P2 | Section - Towards south



4. Integrated design proposal - P2 | Impression - Exterior



4. Integrated design proposal - P2 | Impression - Interior



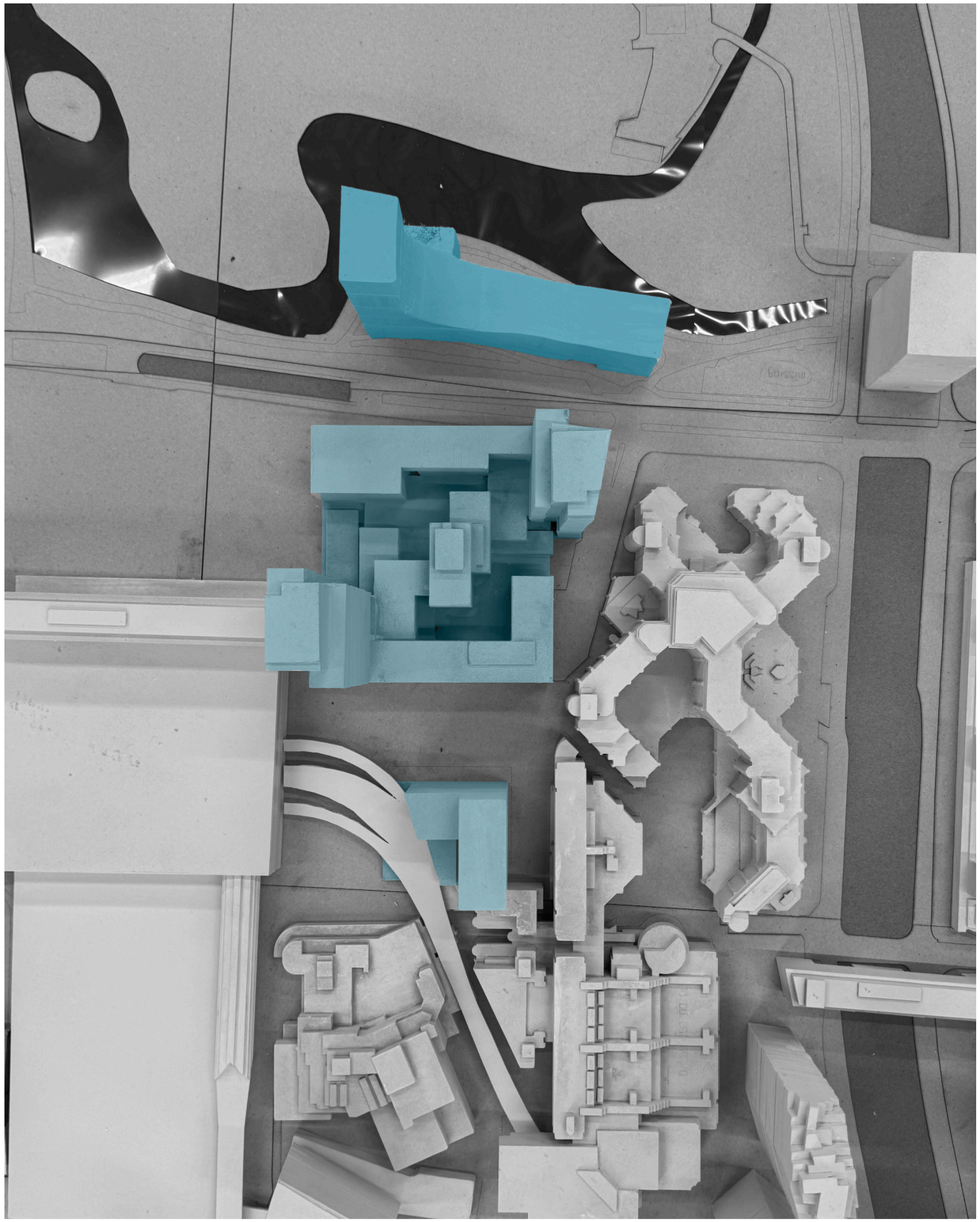
4. Integrated design proposal - P2 | Afterwards

What was good

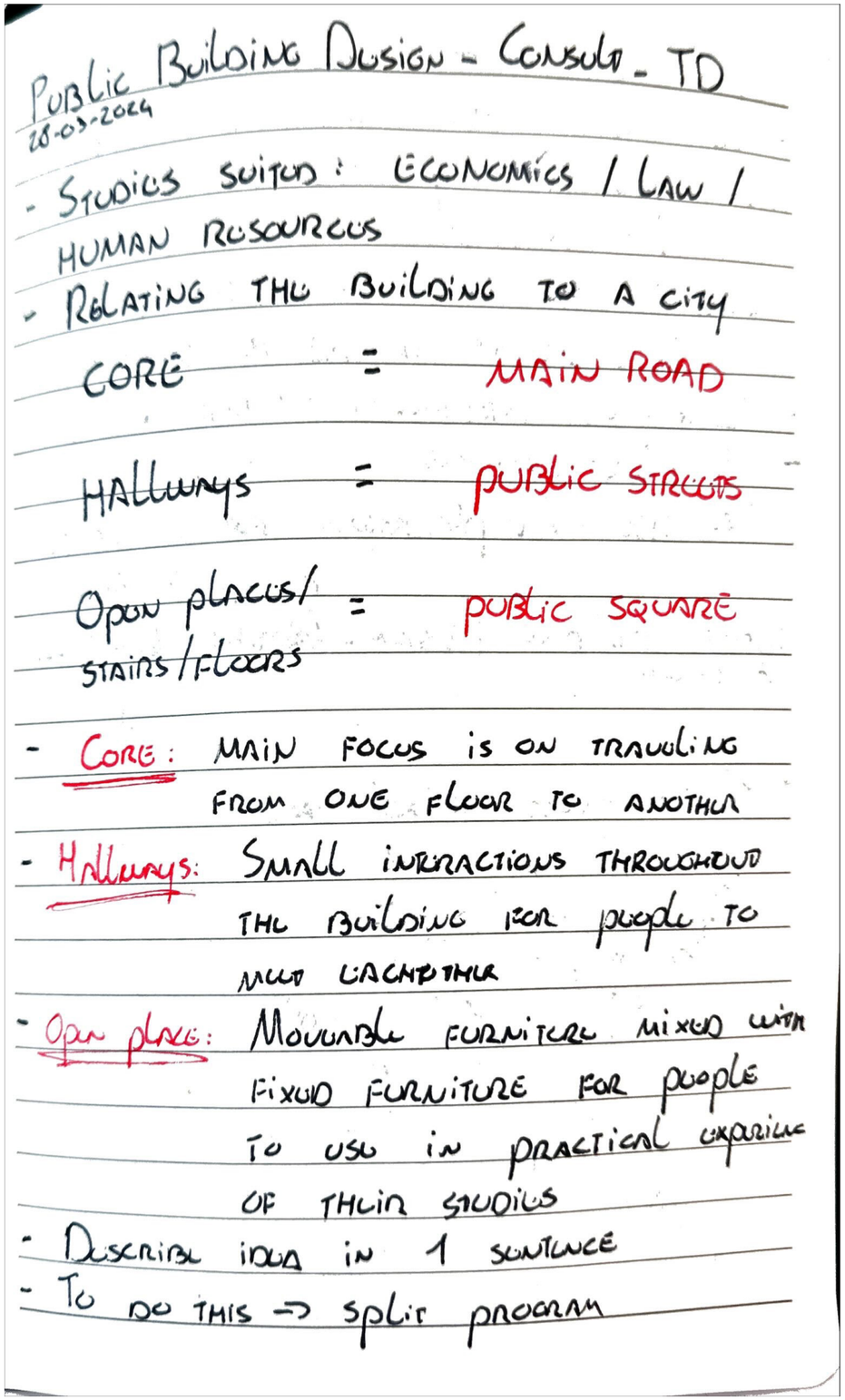
- The assembly of the chosen buildings was certainly suitable as a campus
- The chosen location is a challenge, but it certainly offers opportunities
- Concept of the idea

What needed improvement

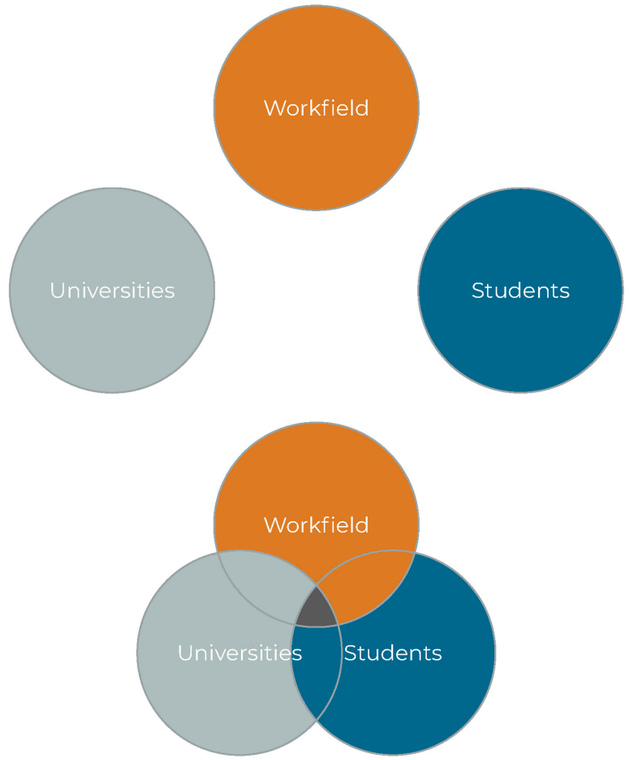
- Shape of the building, let it make sense. Looks too much like sculptures now
- Uniformity of the facade gives little impression, so the building does not look like an impressive university building but rather an office building
- What exactly is hybrid in the building? Is it the concept, the aesthetic, the construction? There needs to be clarity about this
- Cross section of the building is still too simple. This can be done more playfully for a better experience of the building

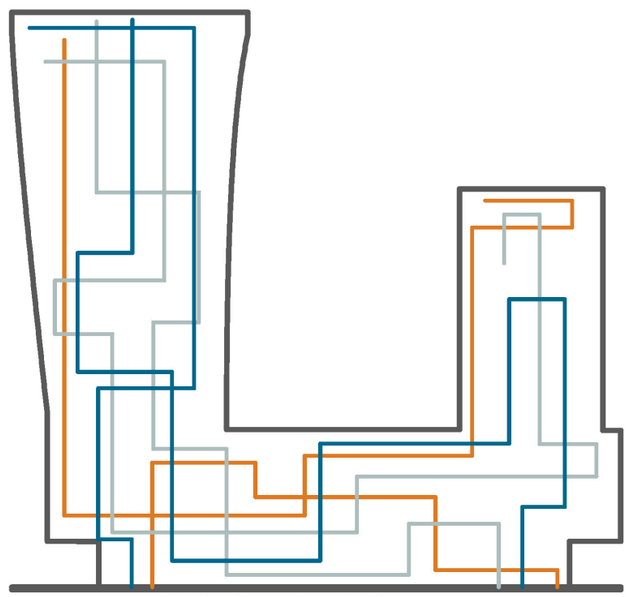


5. Integrated design proposal - P3 | Redefying the concept



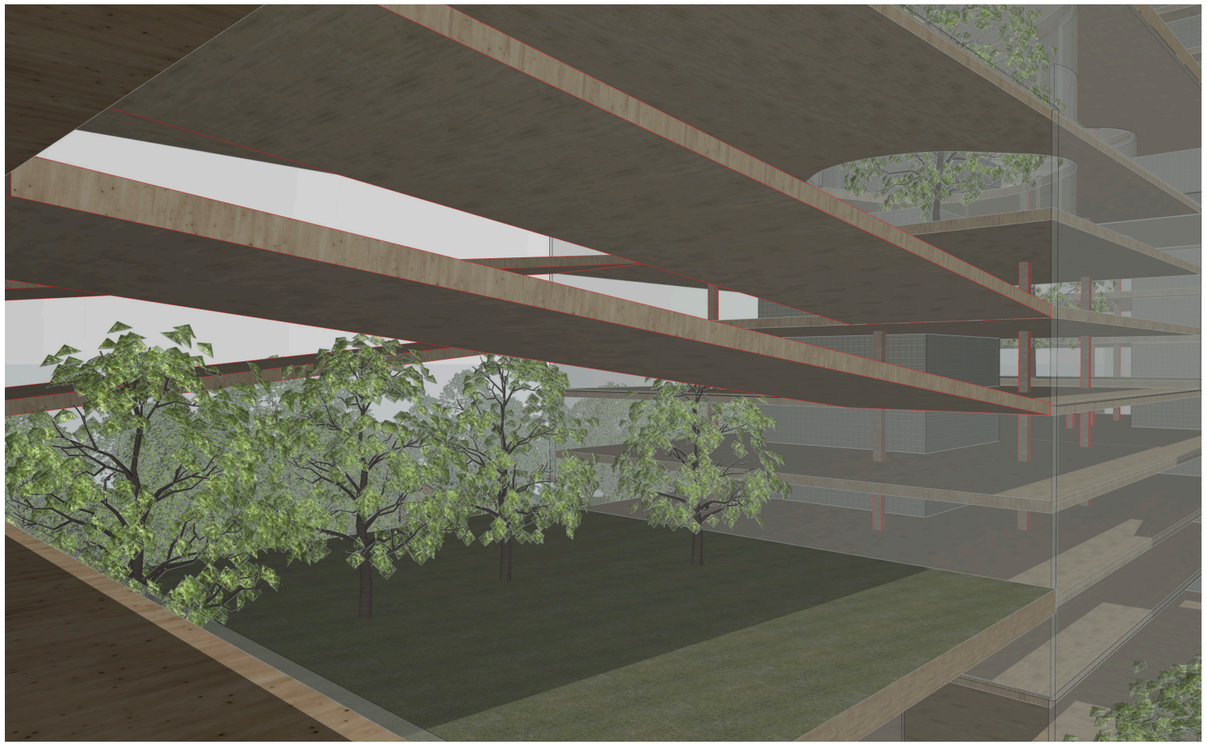
Notes from the consult with Sang about the concept





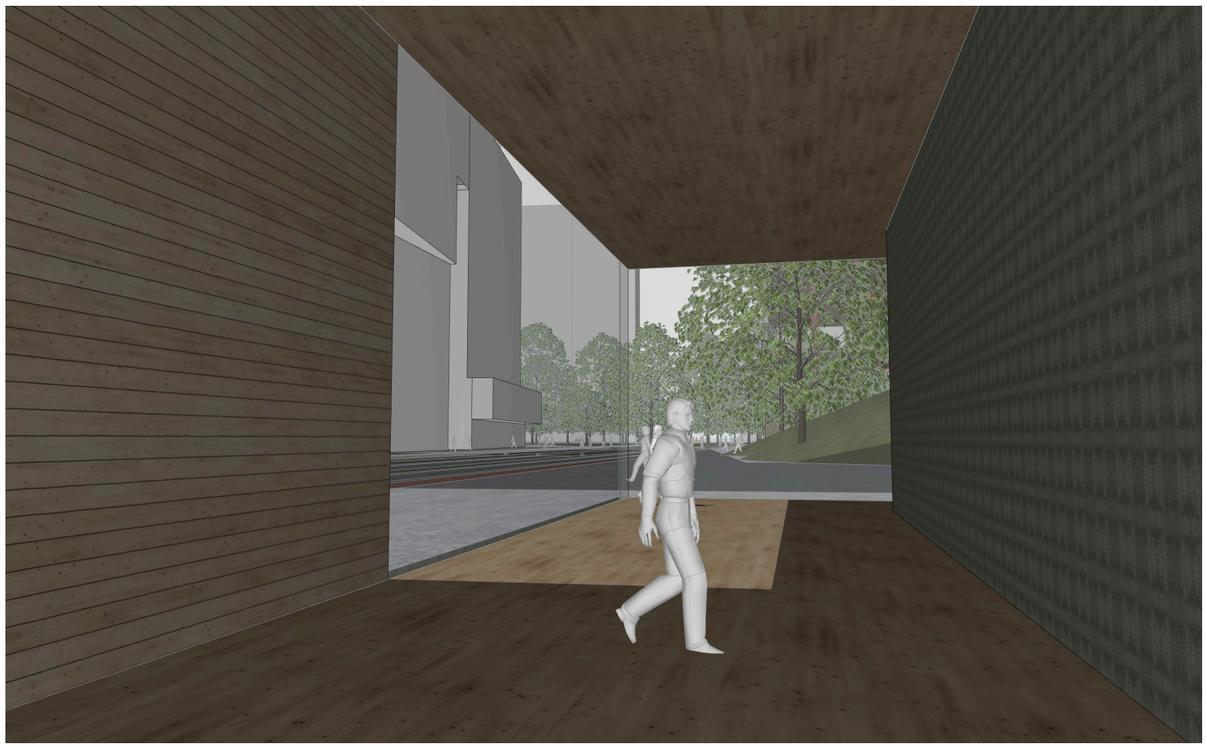
Hybrid Learning Environment

5. Integrated design proposal - P3 | Impressions of new idea

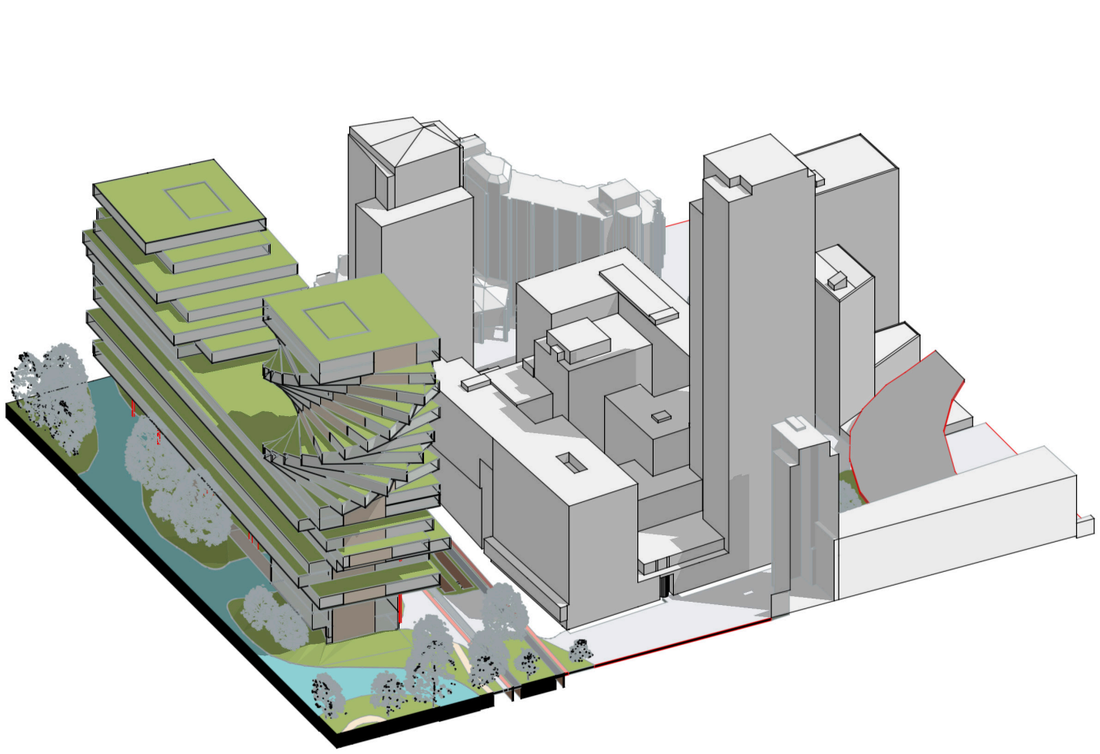


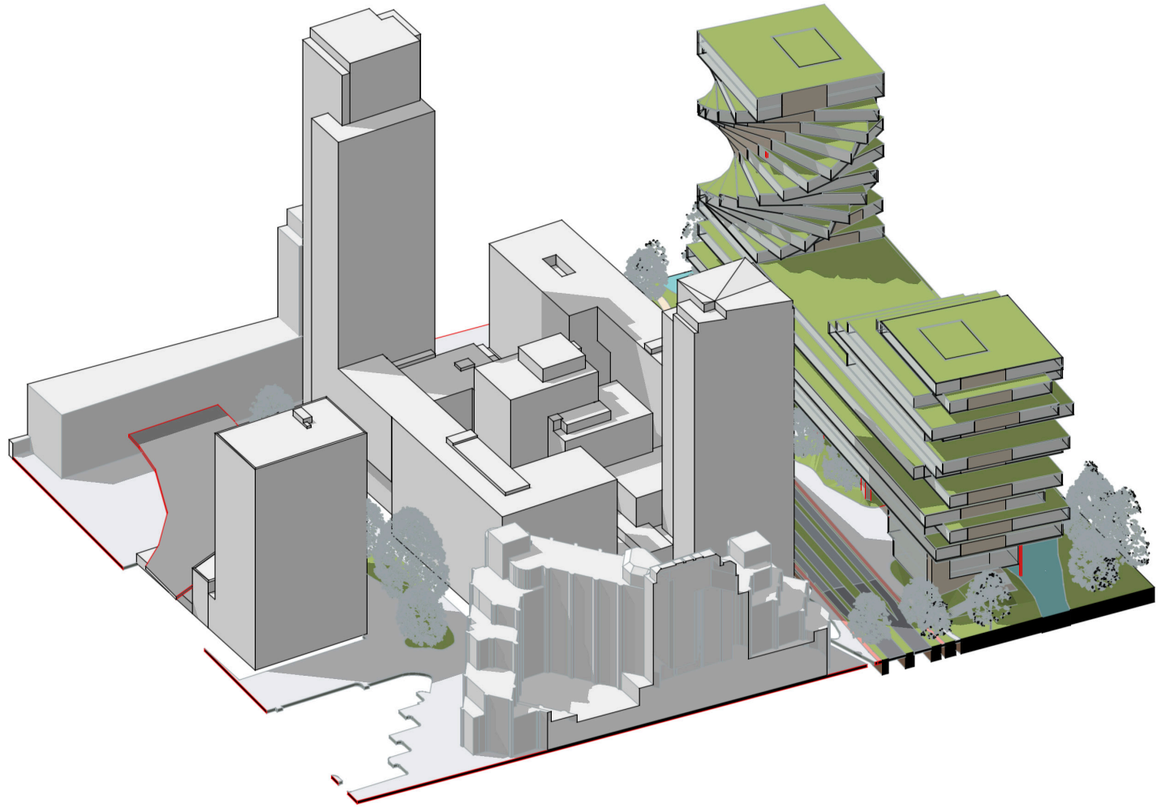






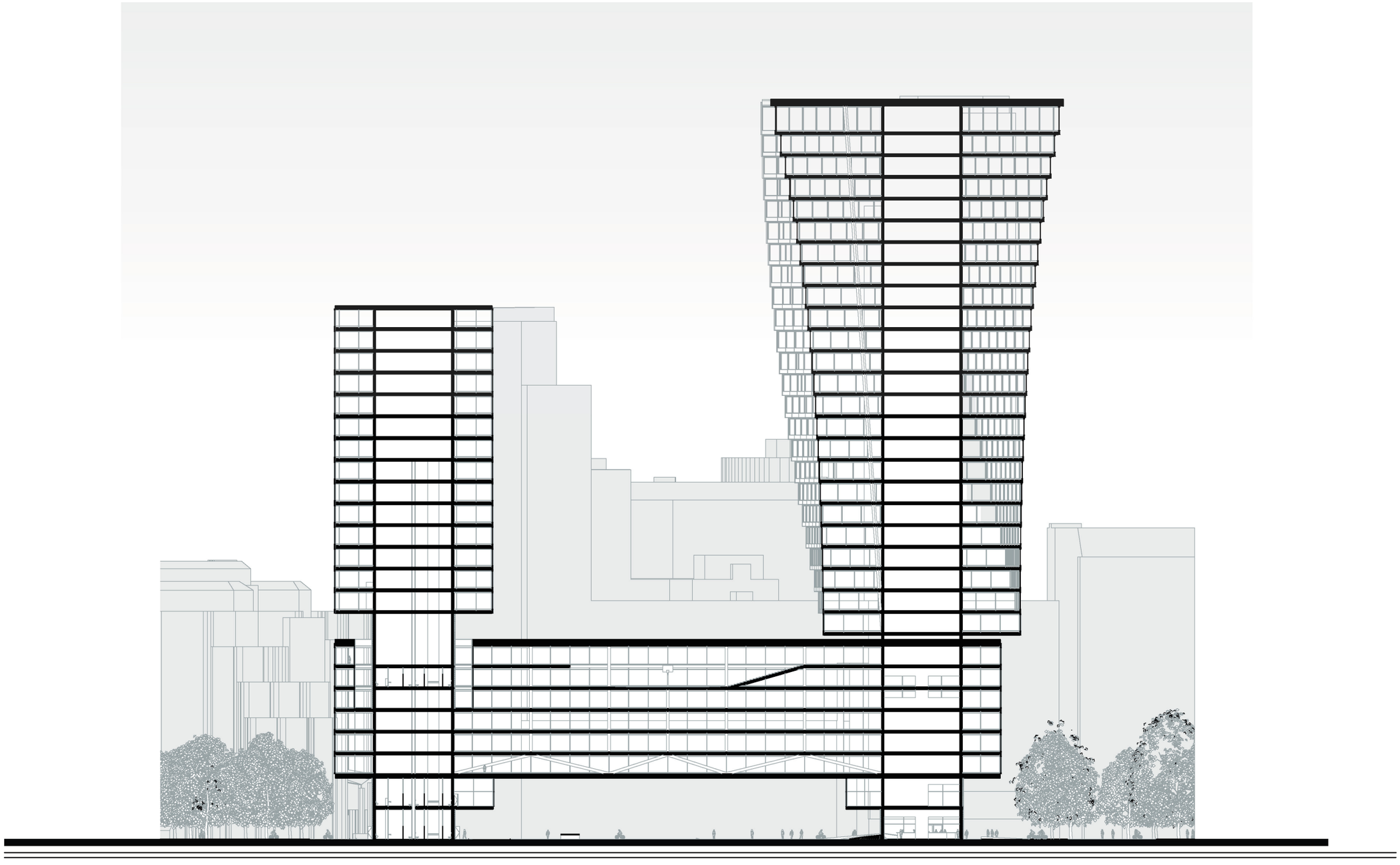
5. Integrated design proposal - P3 | Reshaping the building mass





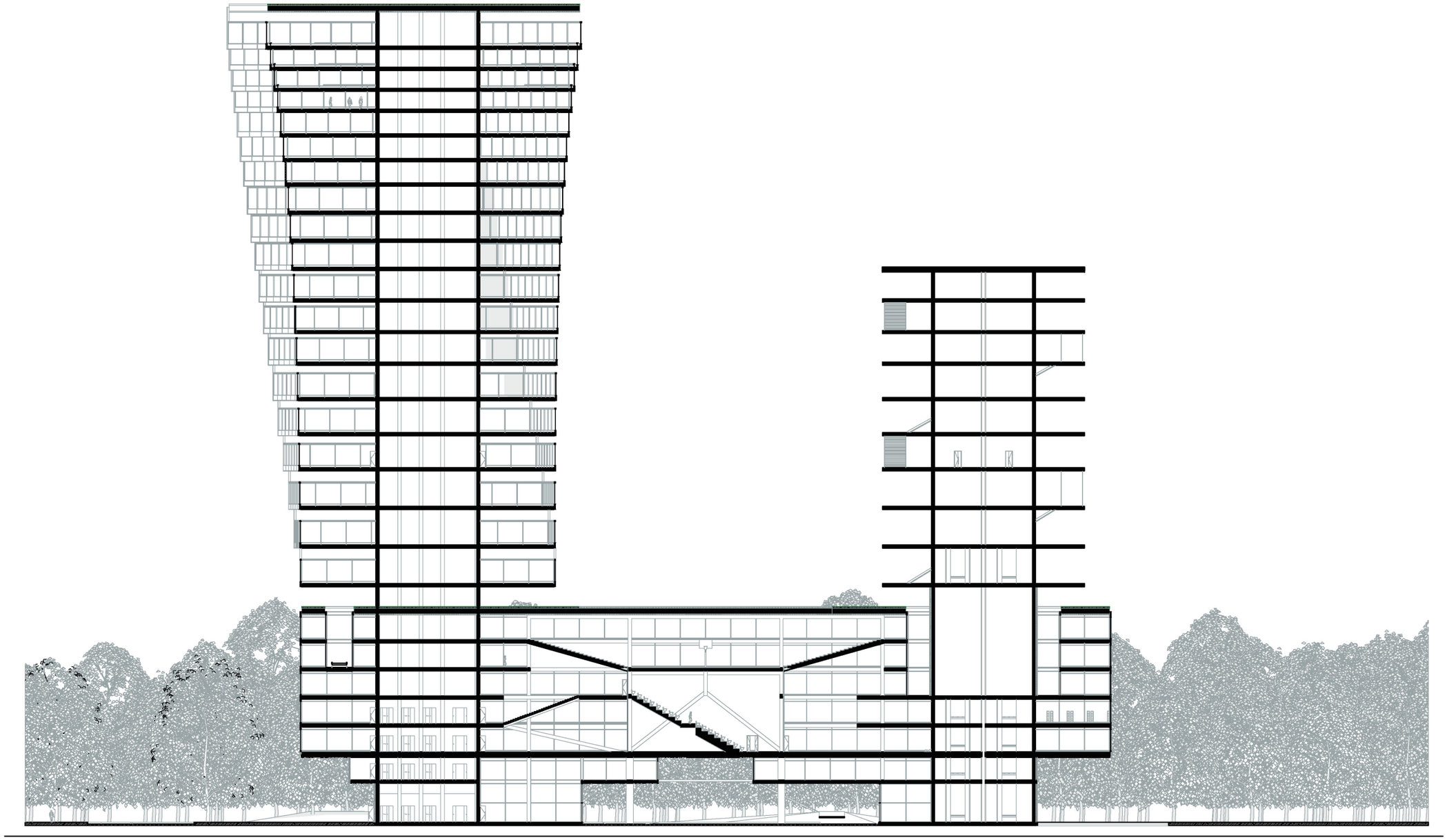
The ‘twisting’ notion gets added to the highest tower. Besides that the body of the building gets more a clear distinction between the three elements: plinth, tower and body.

5. Integrated design proposal - P3 | Reshaping the building mass



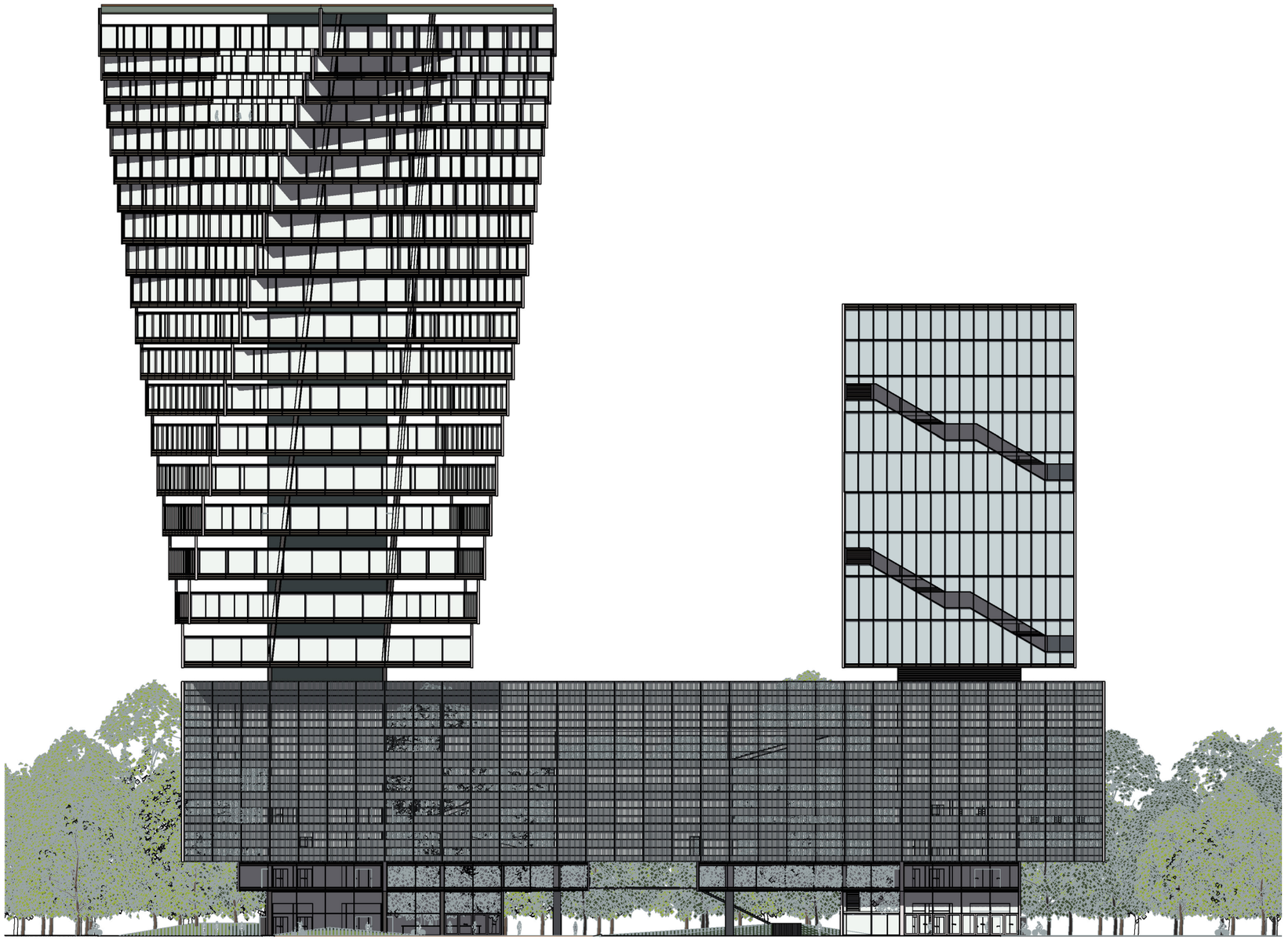
The ‘twisting’ notion gets toned down to be less radical in comparison to the rest of the building. Main construction of the building gets added to the section.

5. Integrated design proposal - P3 | Final Shape - Section



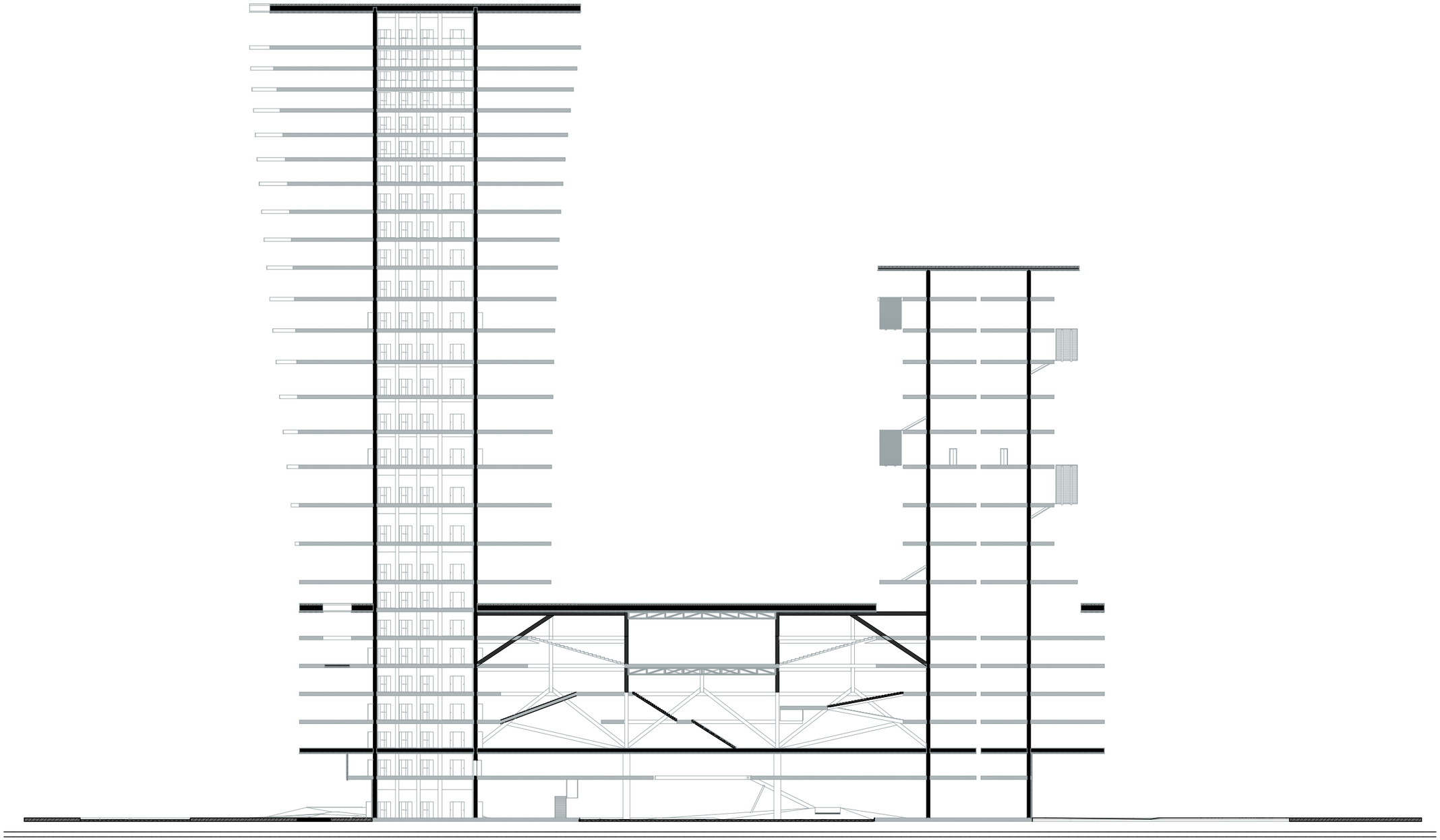
The construction gets improved after consult. Also does the plinth get lowered a bit, this to tone down the ‘gate’ effect the corridor had in previous iterations.

5. Integrated design proposal - P3 | Final Shape - Facade



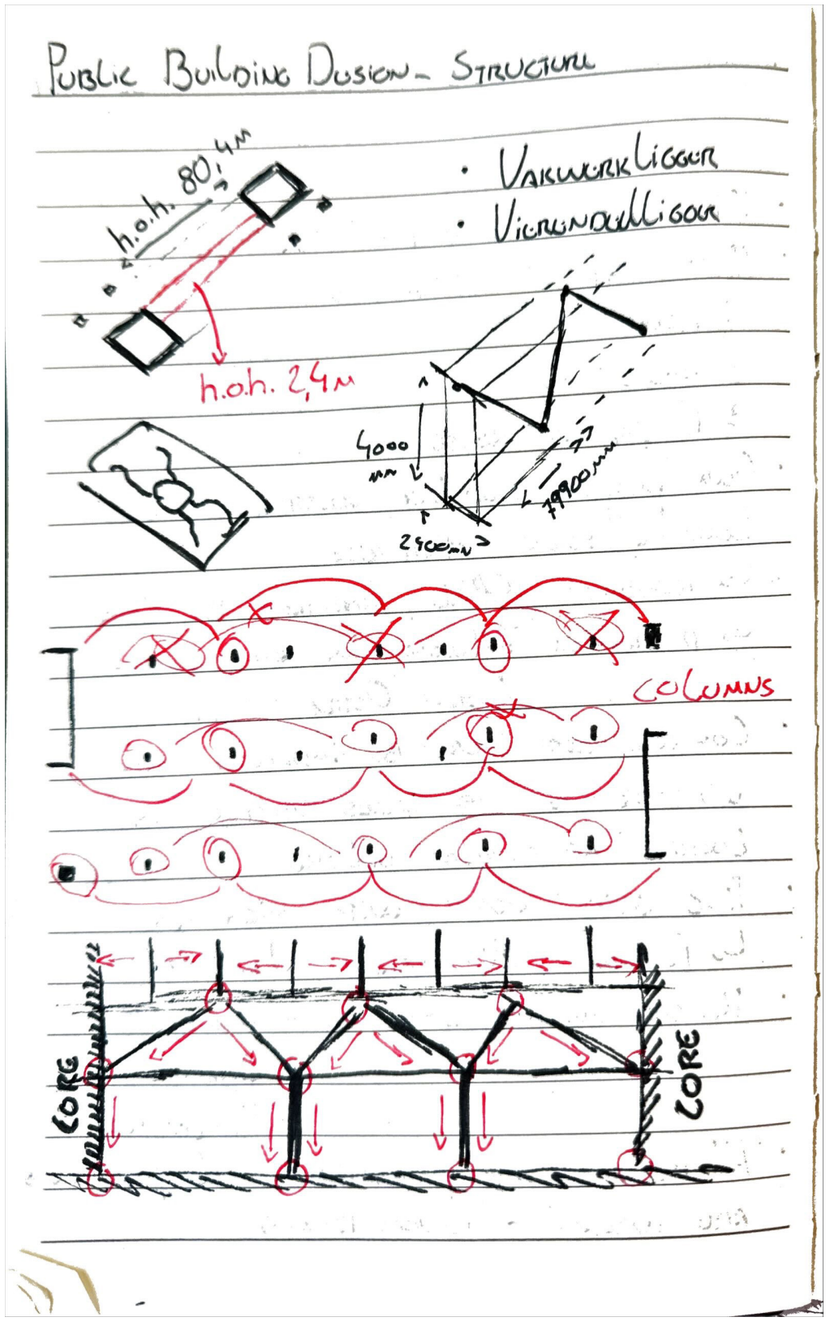
A first try out for the facade gets designed

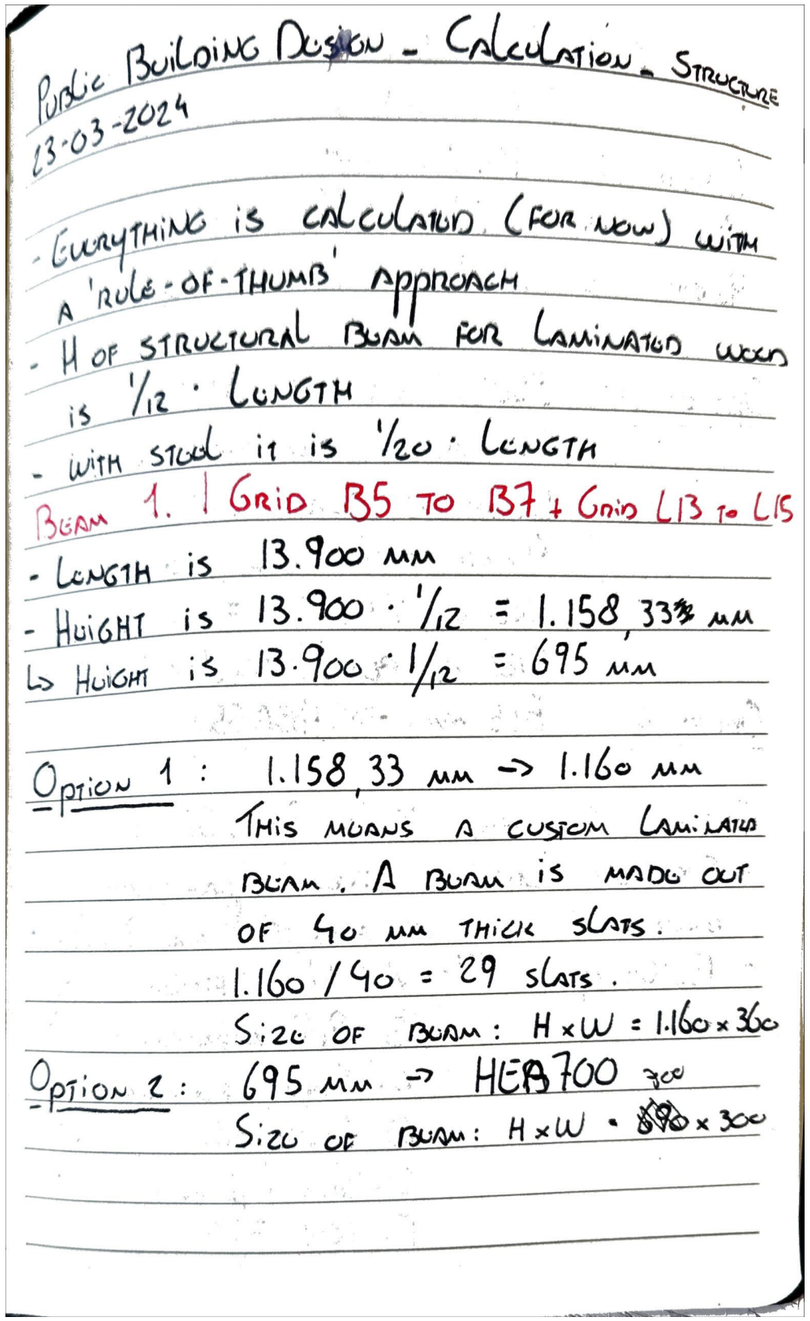
5. Integrated design proposal - P3 | Constructive Section

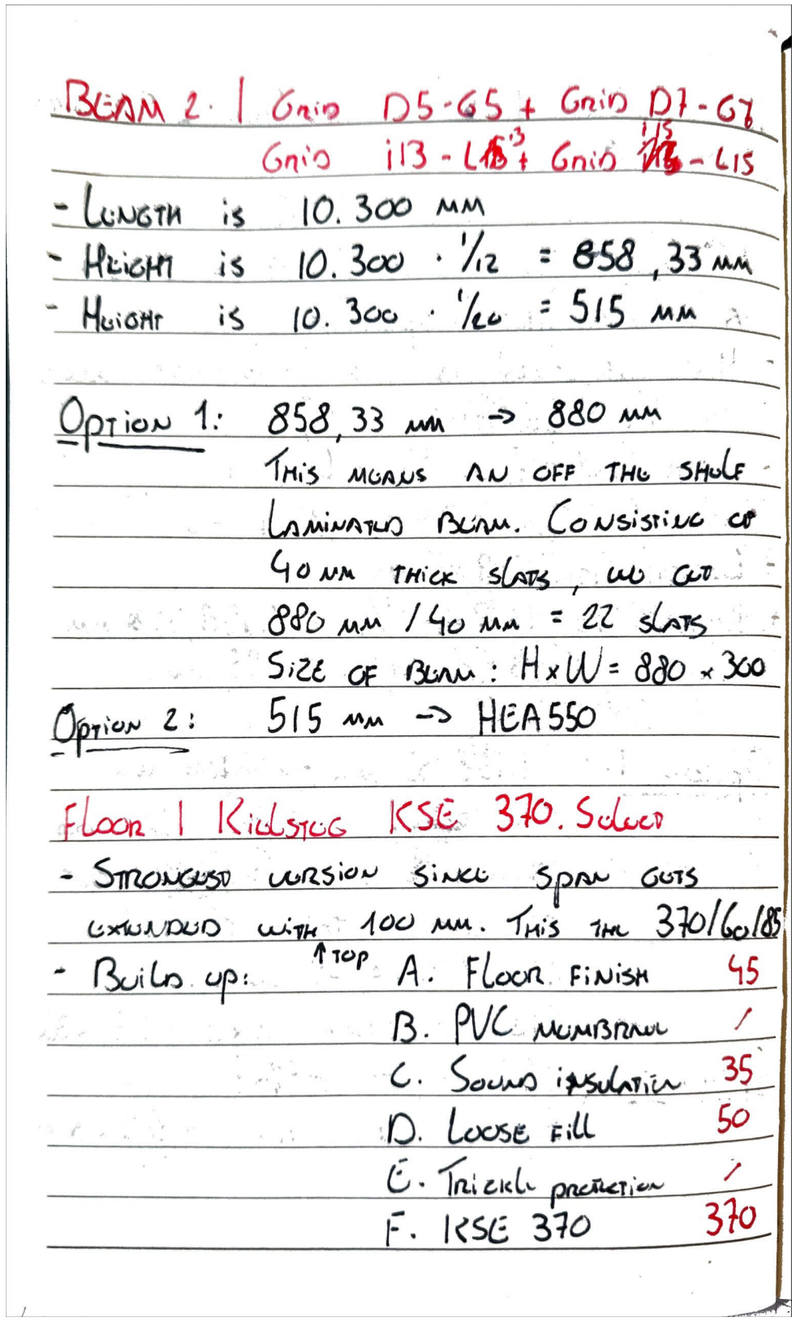


Clear section with focus on the construction

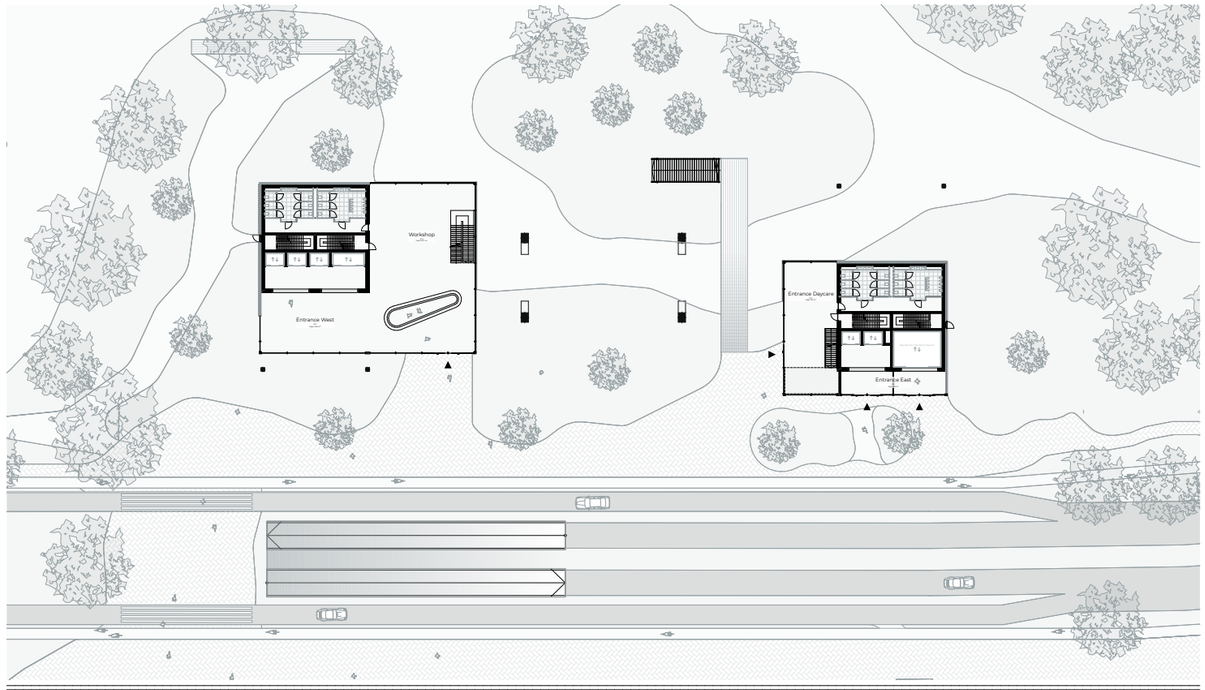
5. Integrated design proposal - P3 | Calculation for the structure





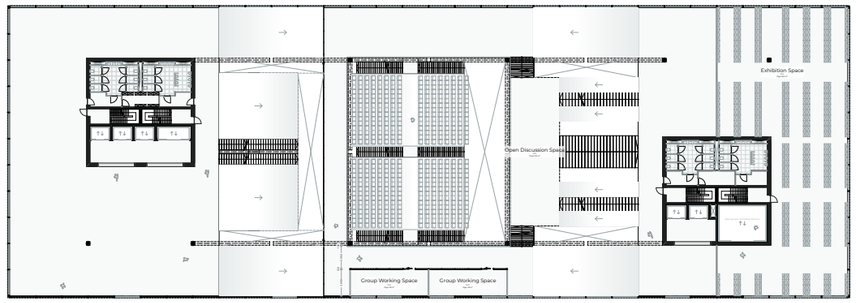


5. Integrated design proposal - P3 | Semi-final floor plans



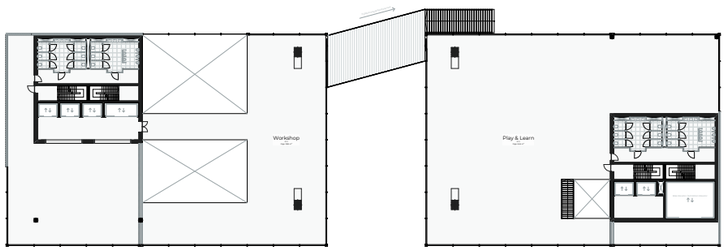
Building - Floor Plan | Ground Floor | 1:400
Tristan Hazeleger | 21-03-2024

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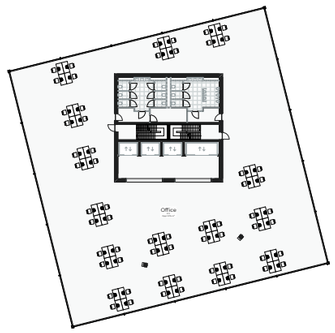
Building - Floor Plan | 3rd Floor | 1:400
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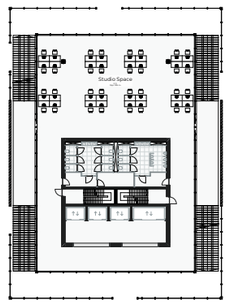
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Building - Floor Plan | 1st Floor | 1:400
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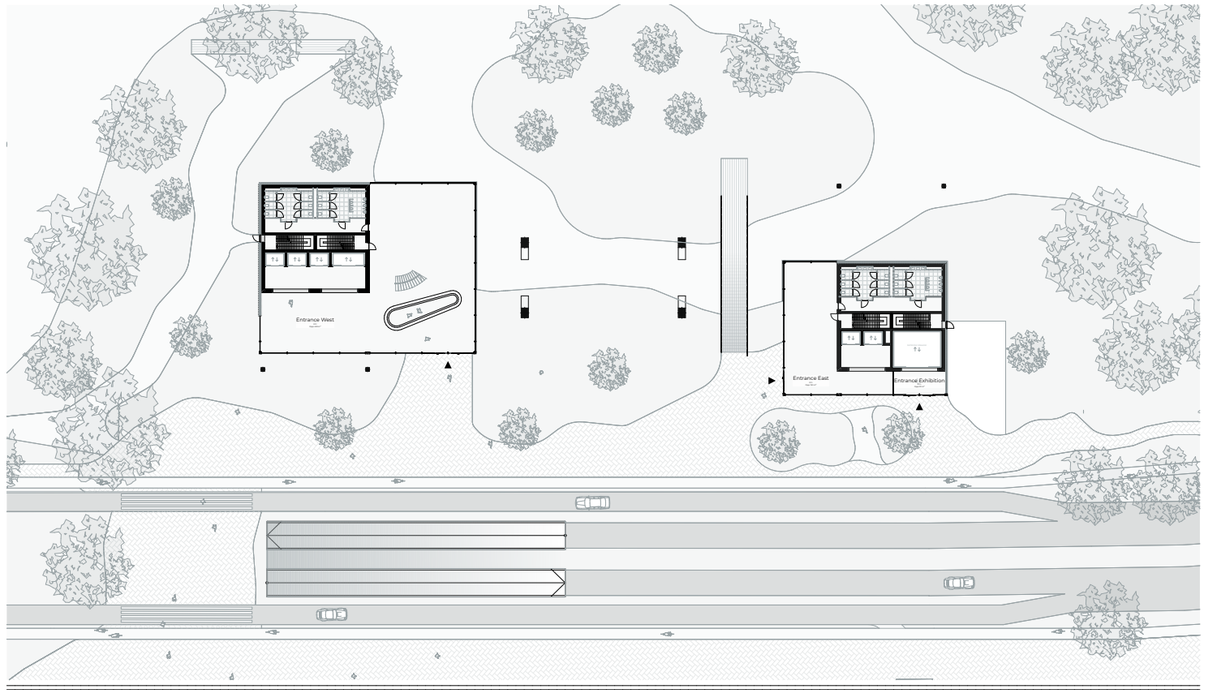




Buidling Floor Plan | 15th Floor | 1:400
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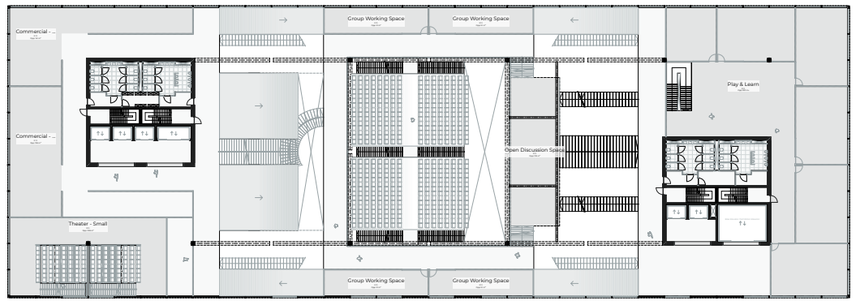
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5. Integrated design proposal - P3 | Pre-presentation floor plans



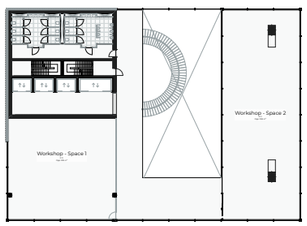
Building - Floor Plan | Ground Floor | 1:400
Tristan Hazeleger | 28-03-2024

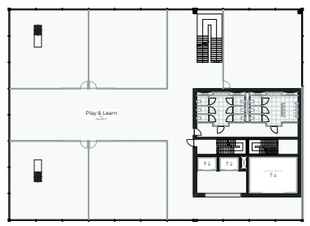
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Building - Floor Plan | 3rd Floor | 1:400
Tristan Hazeleger | 28-03-2024

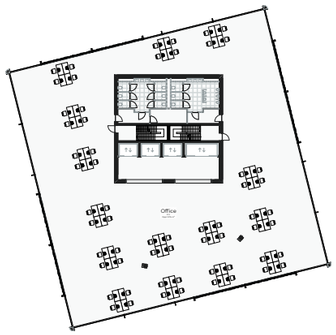
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AR3AP100 Public Building Design

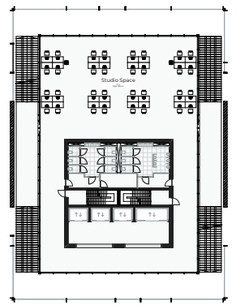




Building - Floor Plan | 1st Floor | 1:400
Tristan Hazeleger | 28-03-2024

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AR3AP100 Public Building Design

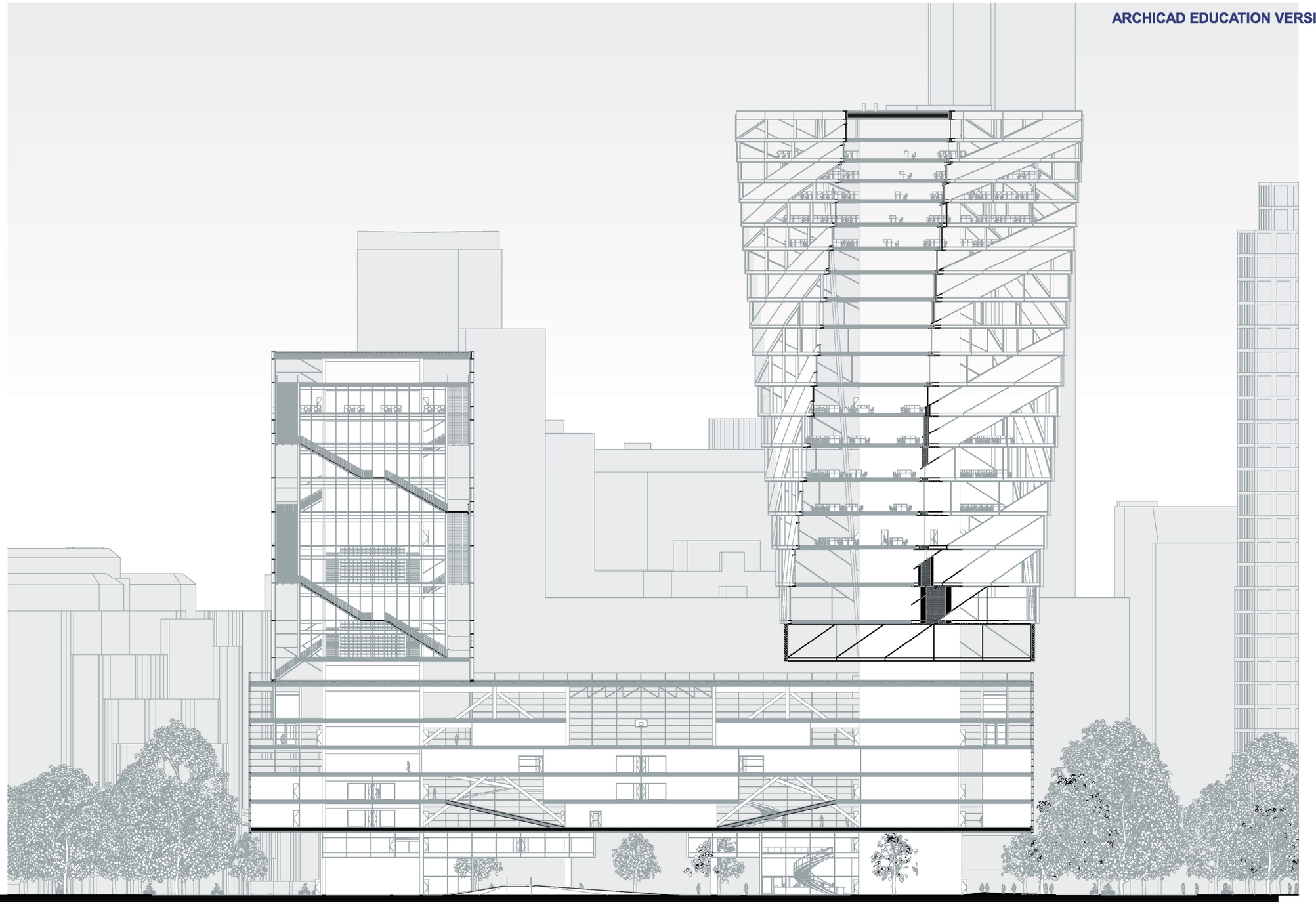




Buidling Floor Plan | 15th Floor | 1:400
Tristan Hazeleger | 28-03-2024

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5. Integrated design proposal - P3 | Pre-presentation section



Building - Section South | 1:500

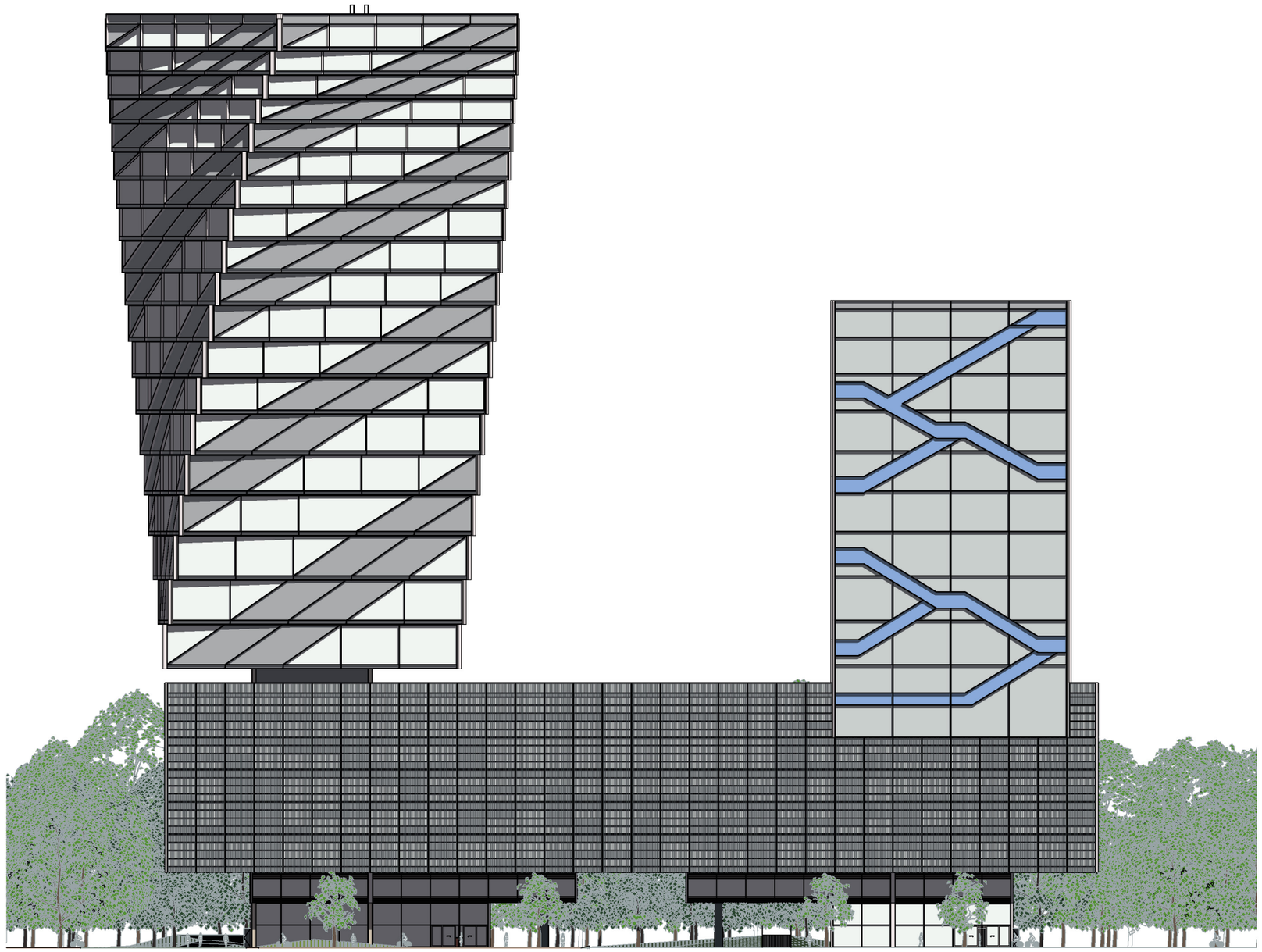
Tristan Hazeleger | 28-03-2024

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5. Integrated design proposal - P3 | Pre-presentation section

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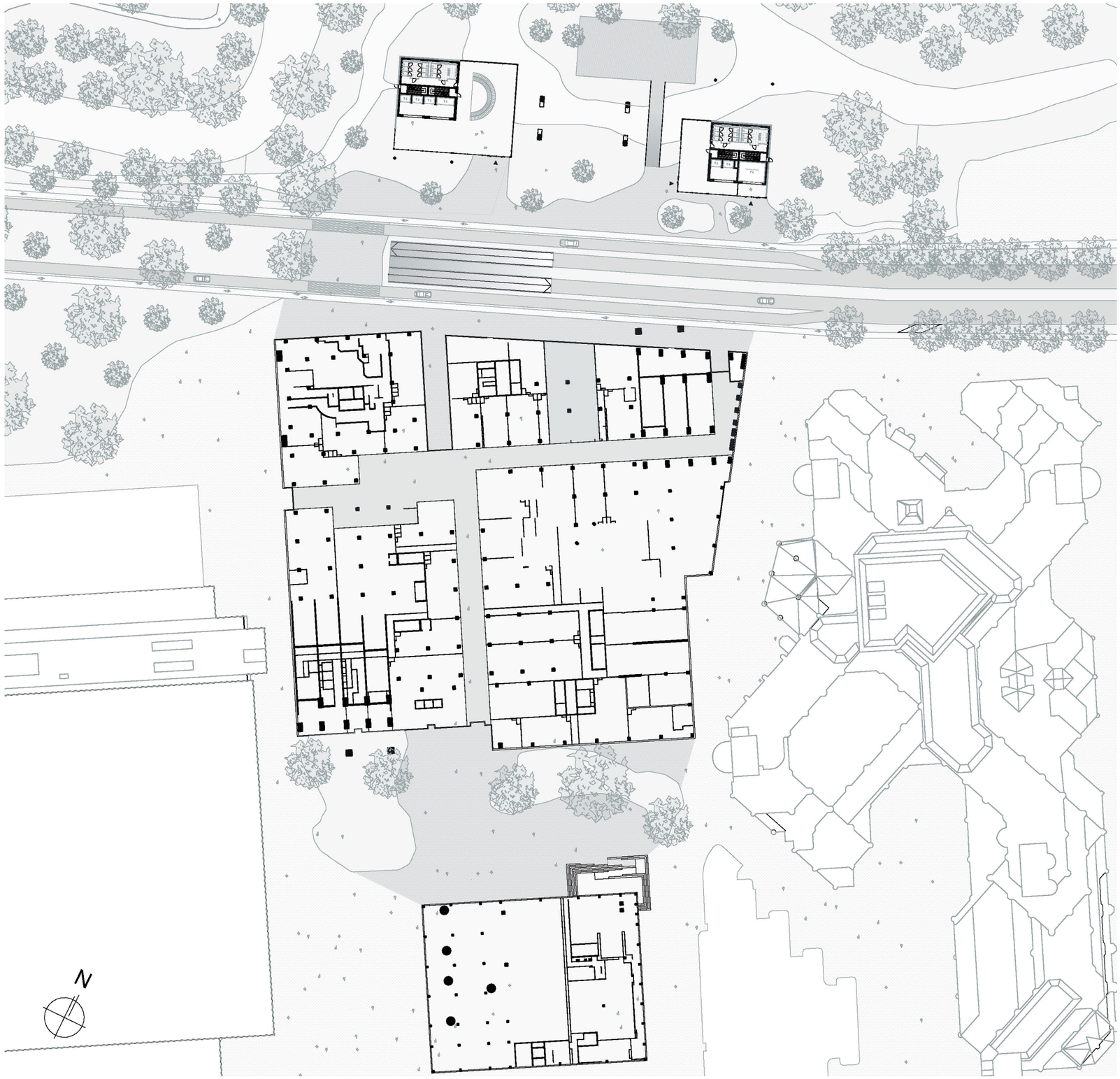
Building - Façade North towards park | 1:500

Tristan Hazeleger | 28-03-2024

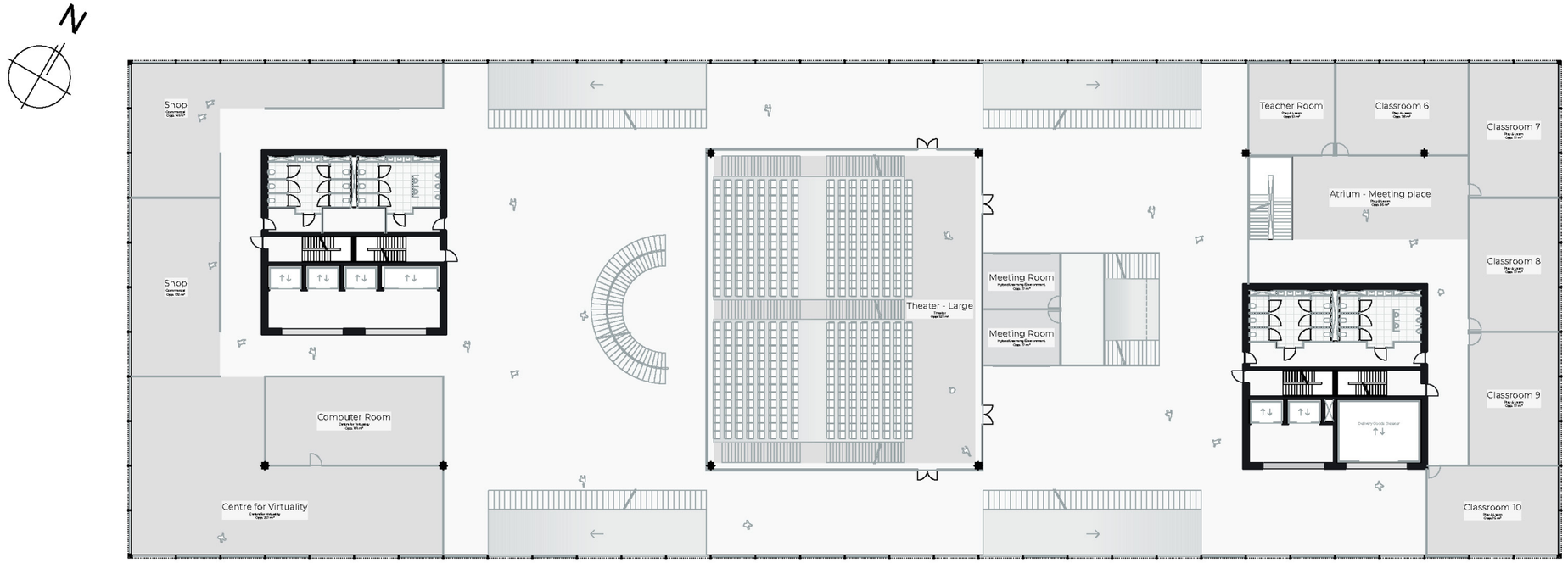
MSc3 / MSc4 The Vertical Campus

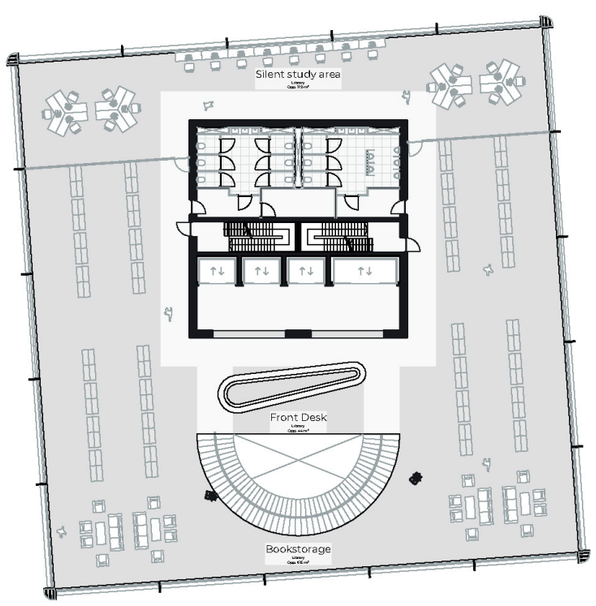
AR3AP100 Public Building Design

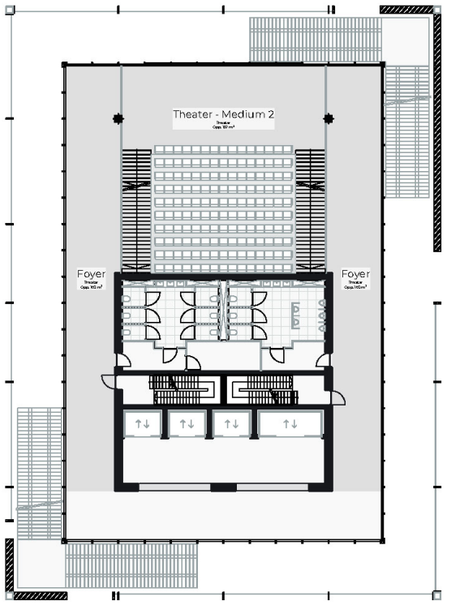
5. Integrated design proposal - P3 | Presentation - Site plan



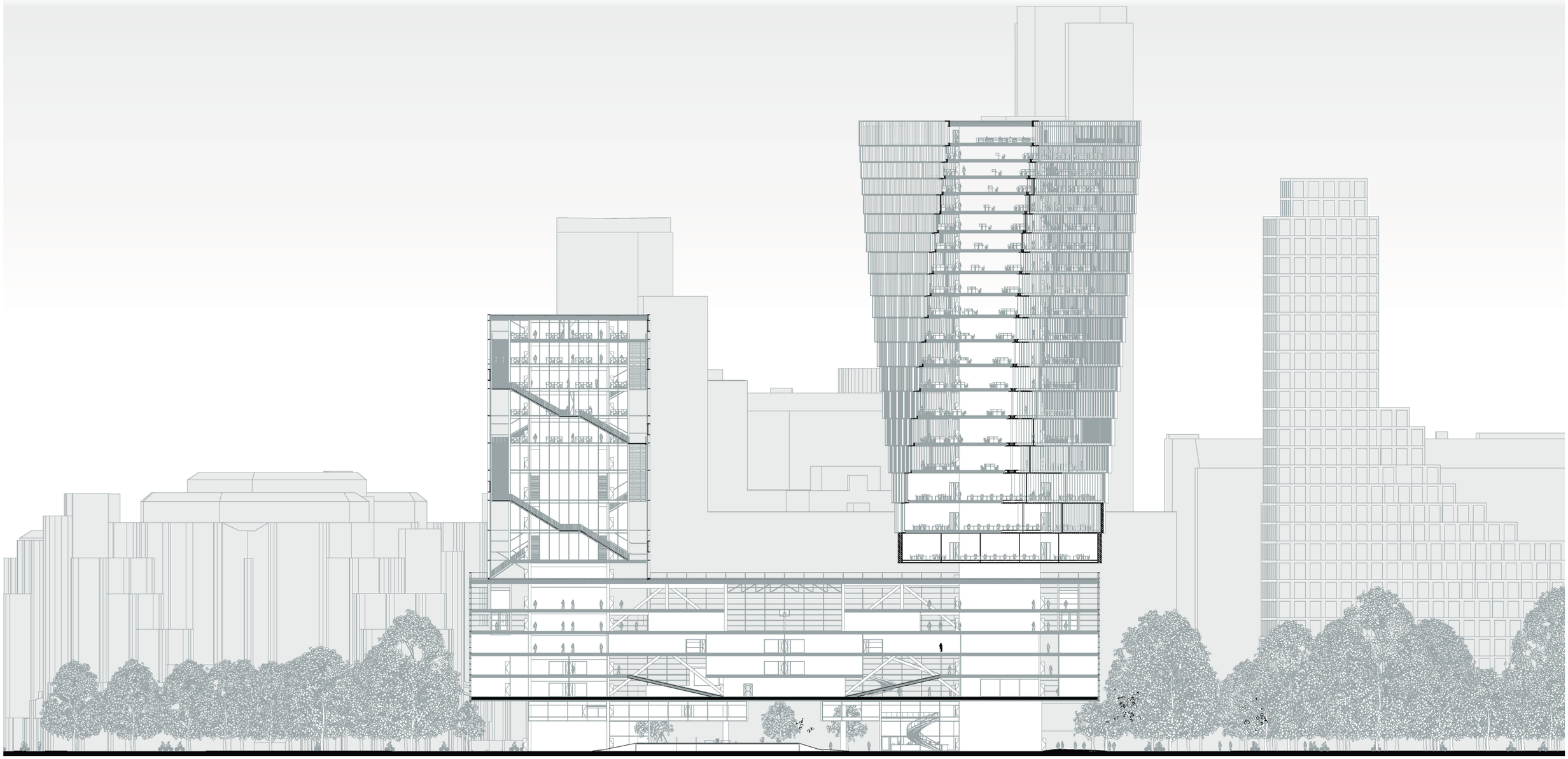
5. Integrated design proposal - P3 | Presentation - Floor plans





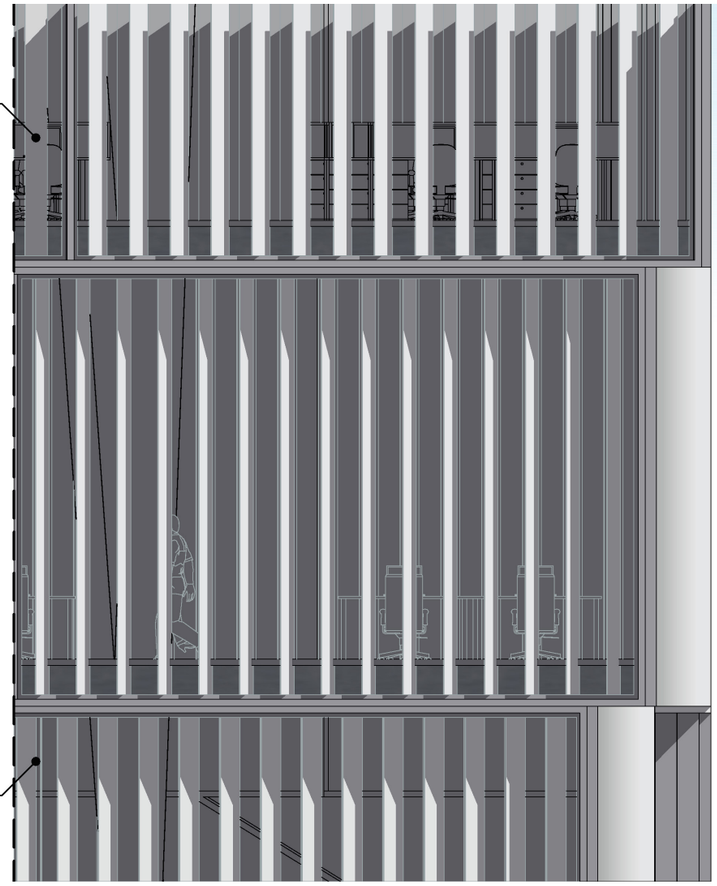


5. Integrated design proposal - P3 | Presentation - Section

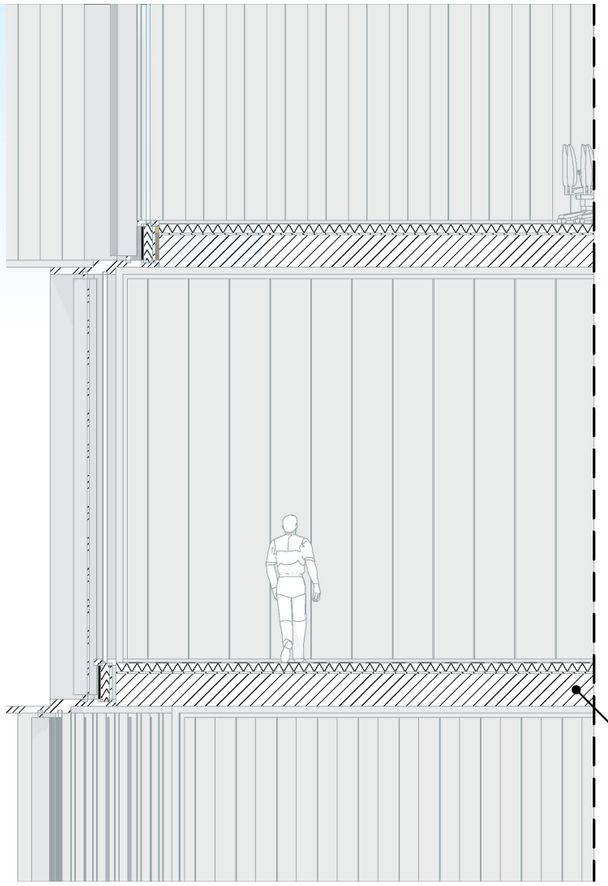


5. Integrated design proposal - P3 | Presentation - Fragment

Rotating Facade Fins
- Construction material: aluminium
- Dimensions: 300mm x 10mm



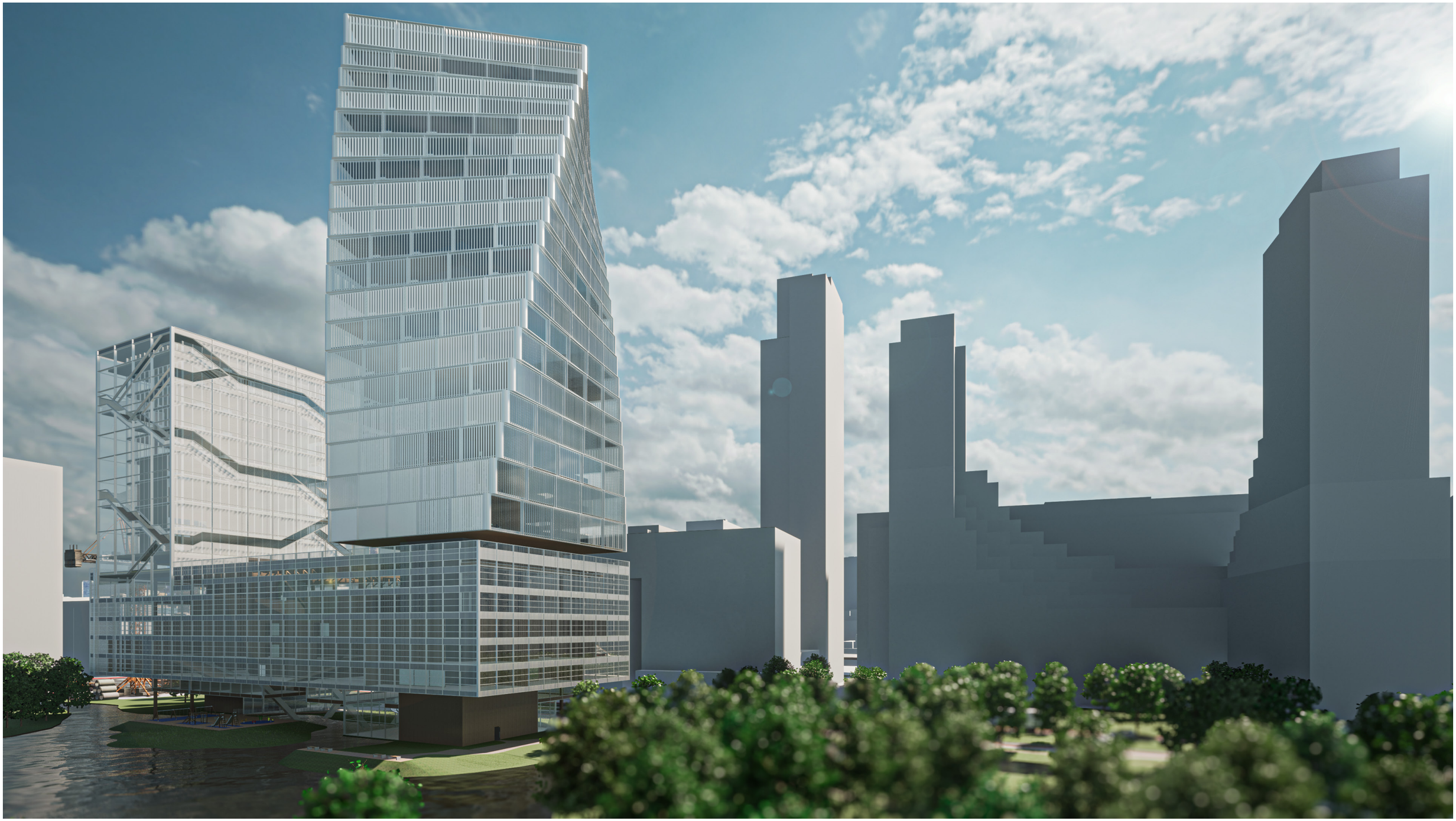
Facade | 750mm
- Double facade system by Scheldebouw
- Main construction material: aluminium
- 1st facade: Rotating fins to let in or block out sunlight
- 2nd facade: Standard facade with HR++ glass and circular found aluminum facade panels.



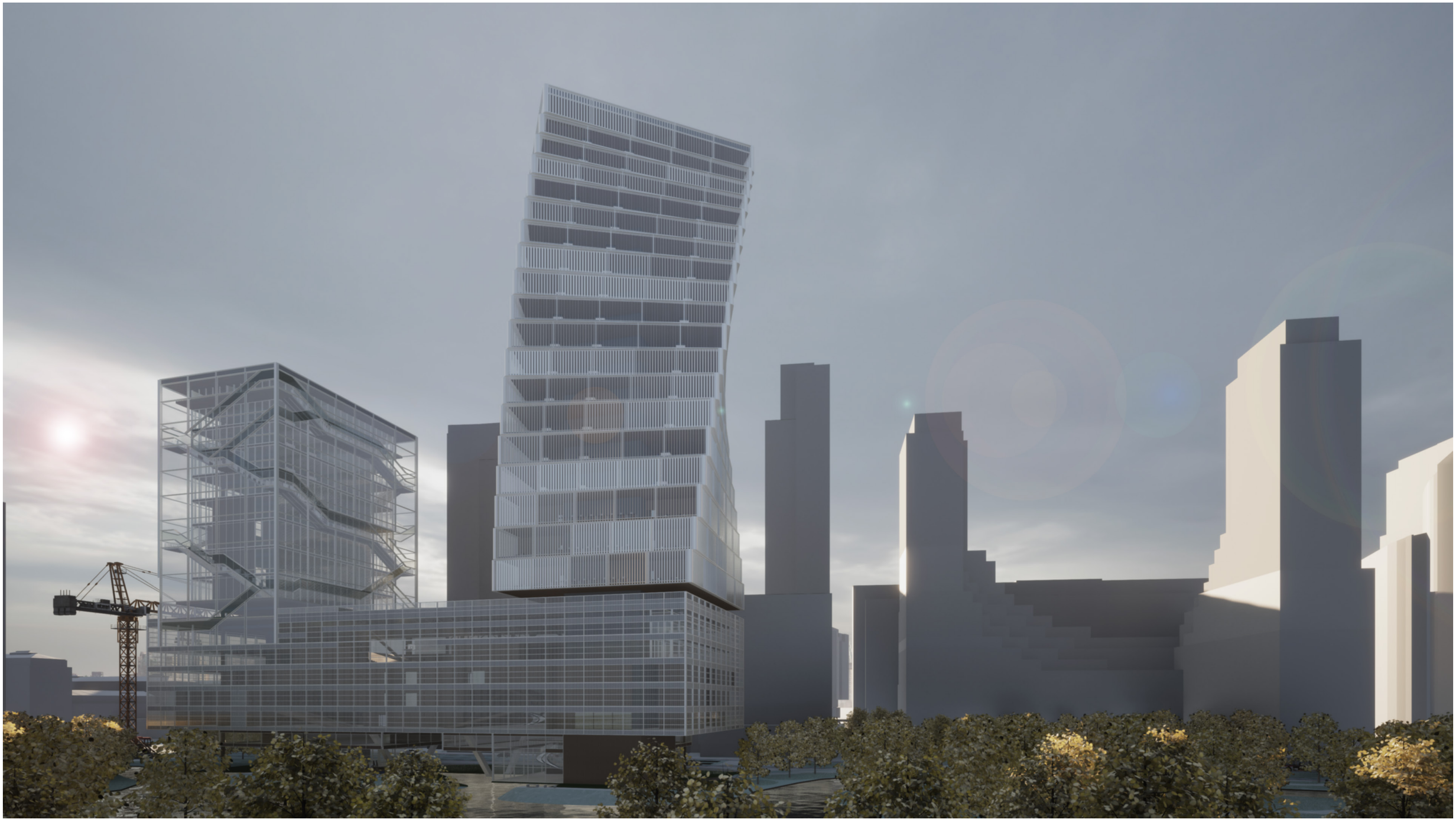
Floor Height | 4500mm
The floor height varies per floor. The floor height range runs from a maximum of 5000mm to a minimum of 2500mm.

Floor | 500mm
- Circular vinyl tiles by Forbo Flooring Systems
- Compression-resistant, acoustic insulation
- Structural OSB plate
- Kielsteg Floor system

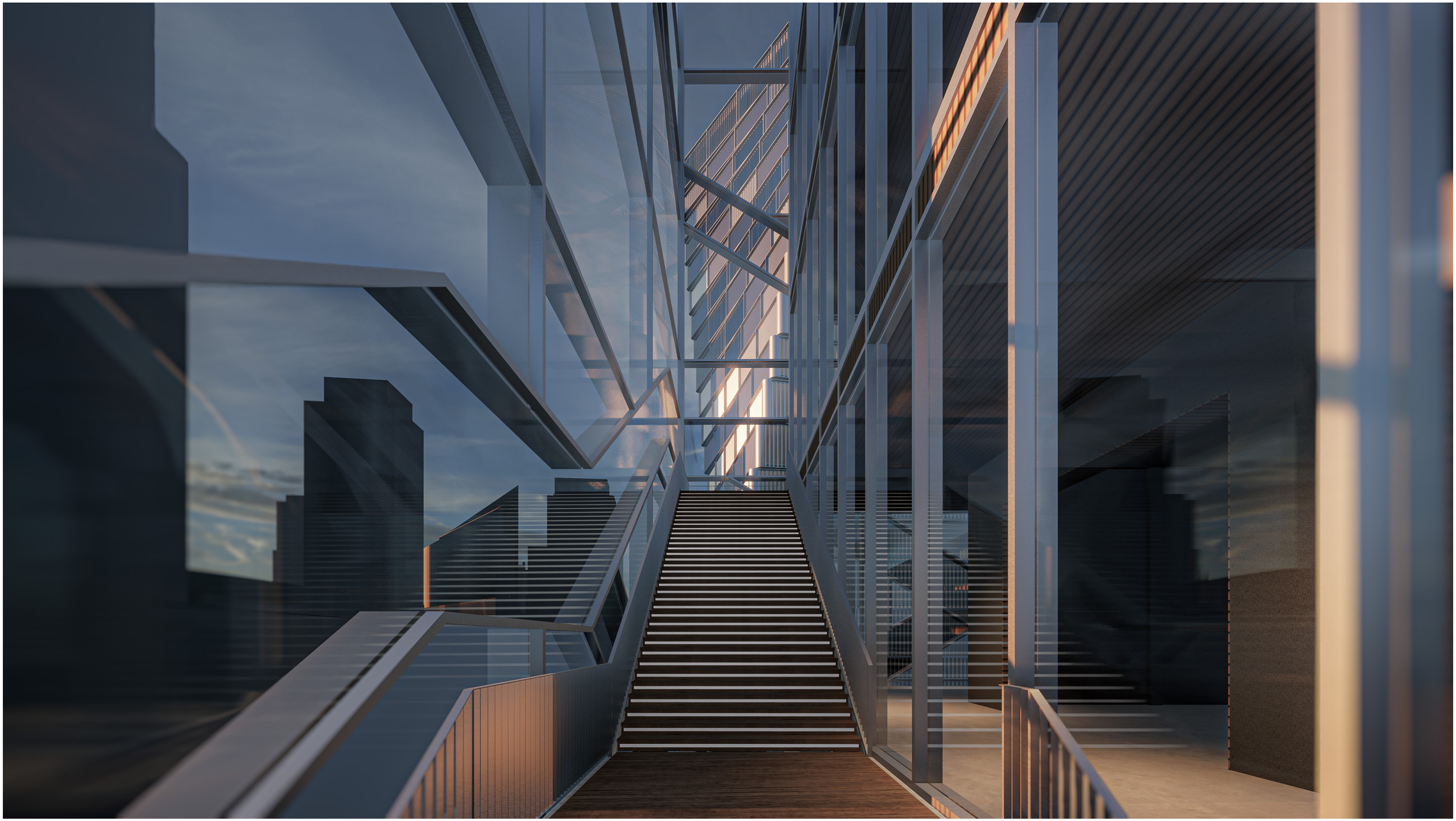
5. Integrated design proposal - P3 | Presentation - Impressions



5. Integrated design proposal - P3 | Presentation - Impressions



5. Integrated design proposal - P3 | Presentation - Impressions



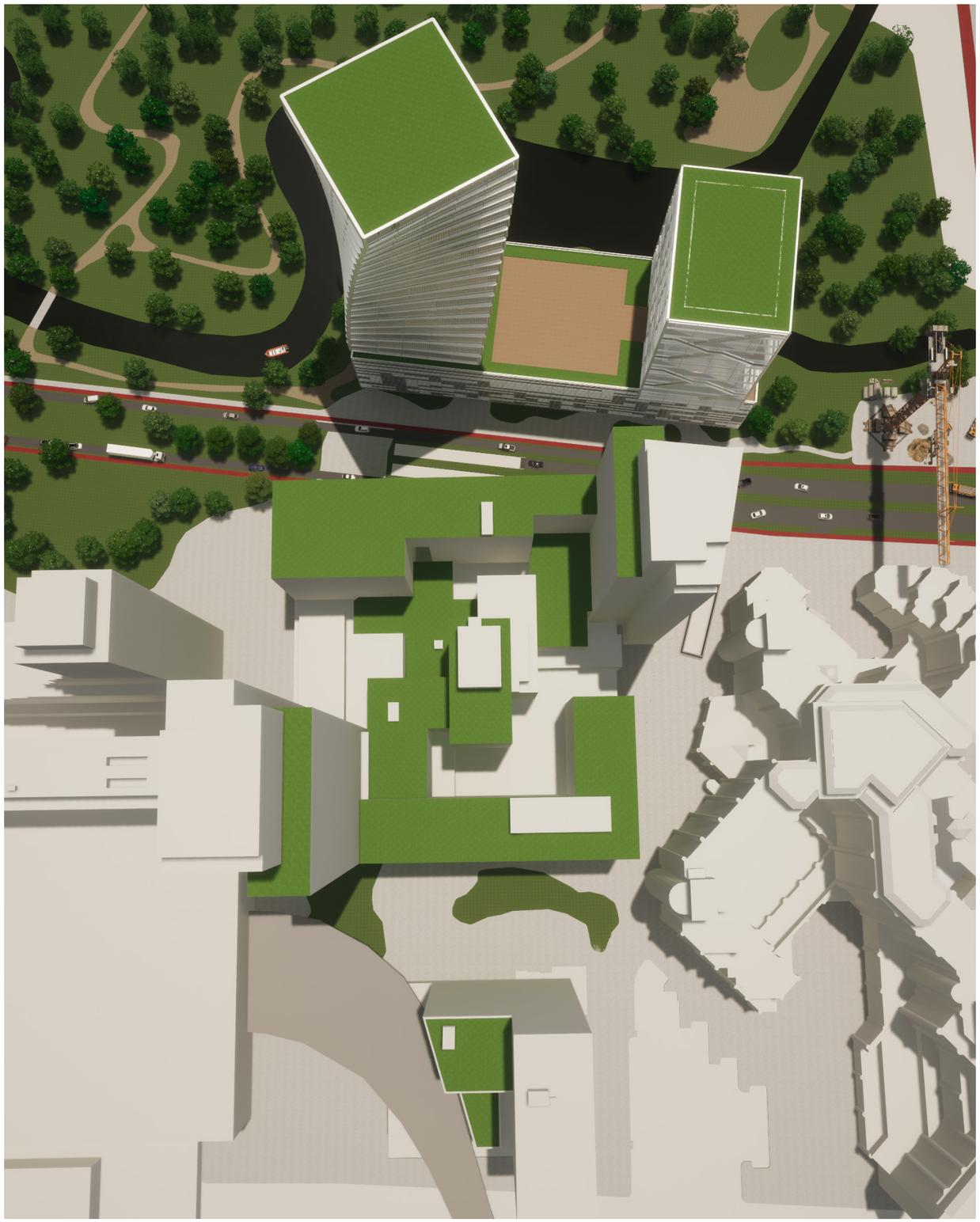
5. Integrated design proposal - P3 | Presentation - Impressions



5. Integrated design proposal - P3 | Presentation - Impressions

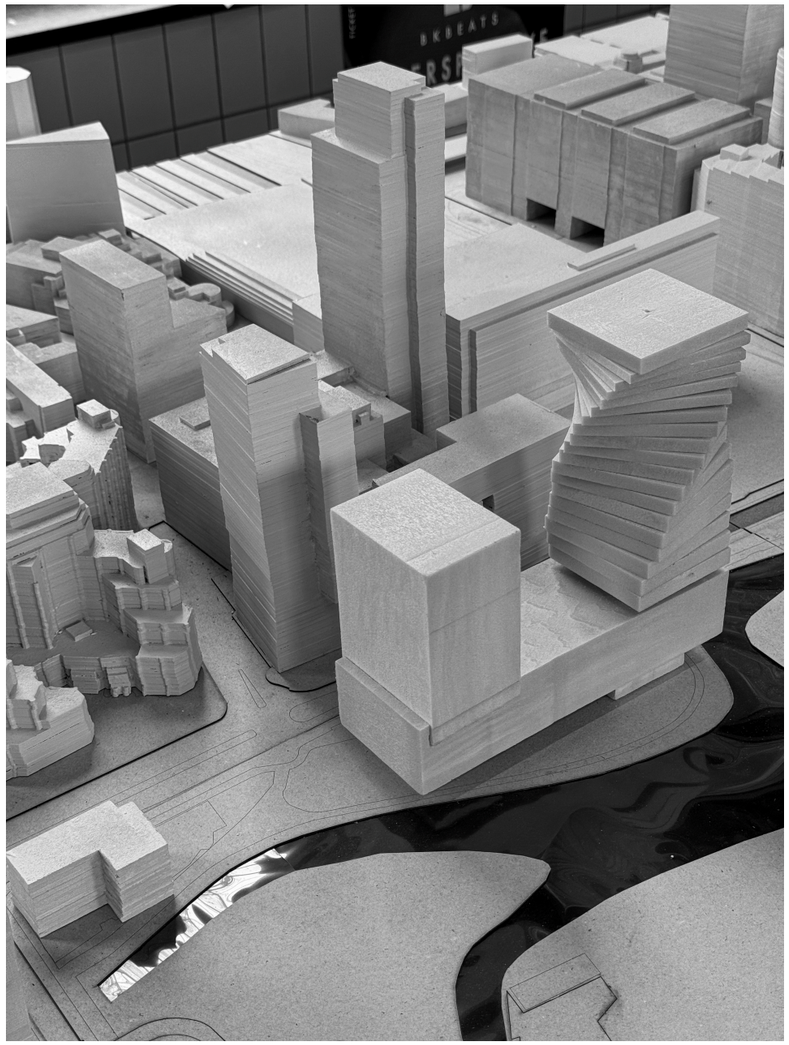


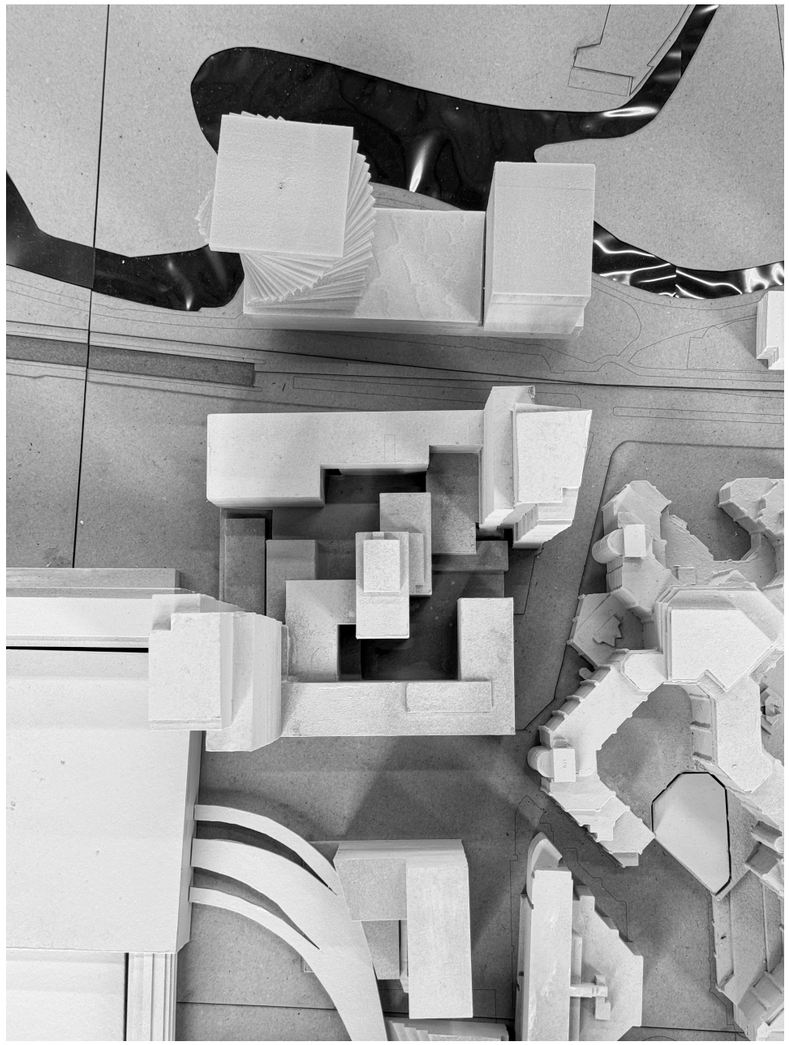
5. Integrated design proposal - P3 | Presentation - Impressions



5. Integrated design proposal - P3 | Presentation - Maquette







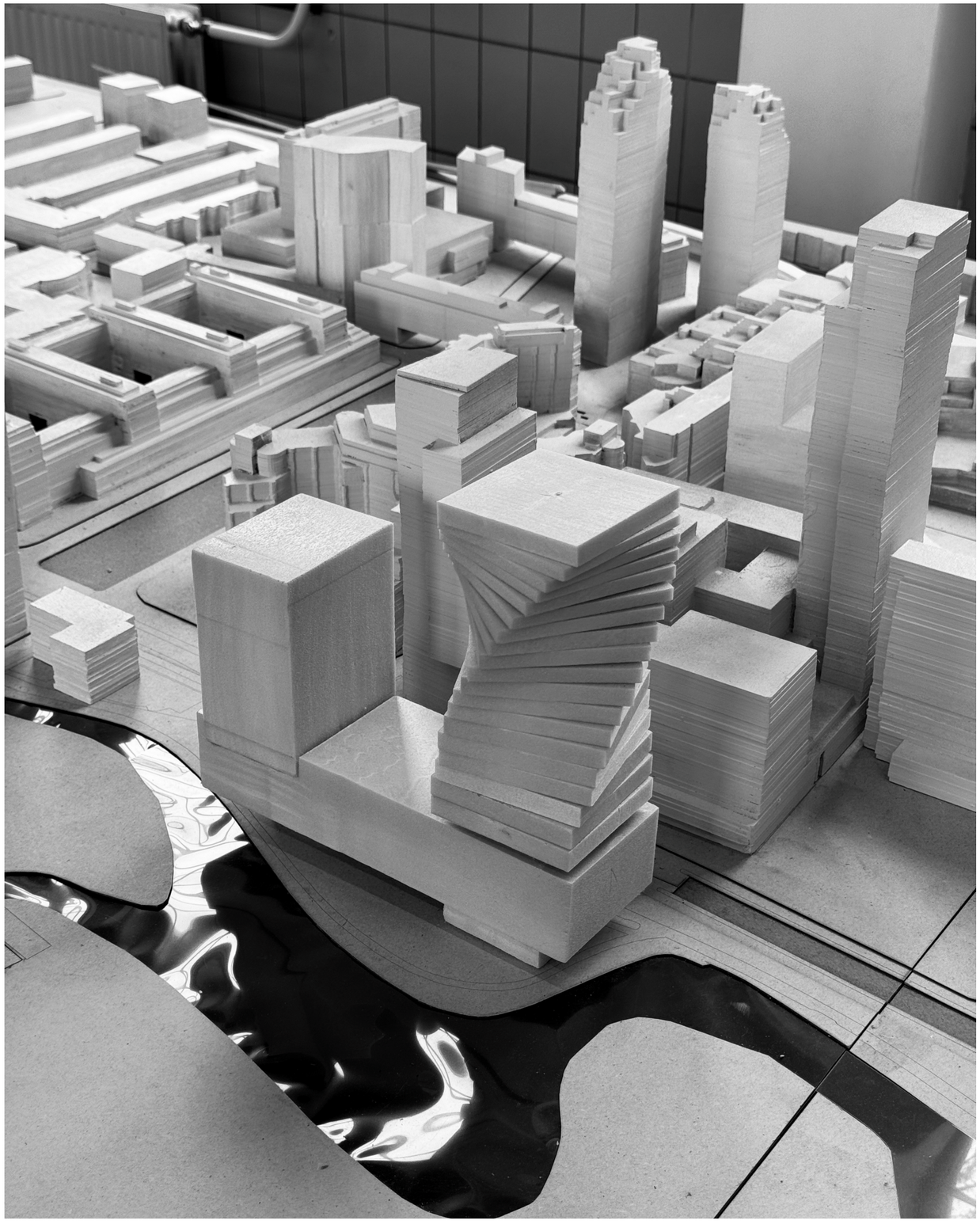
5. Integrated design proposal - P3 | Afterwards

What was good

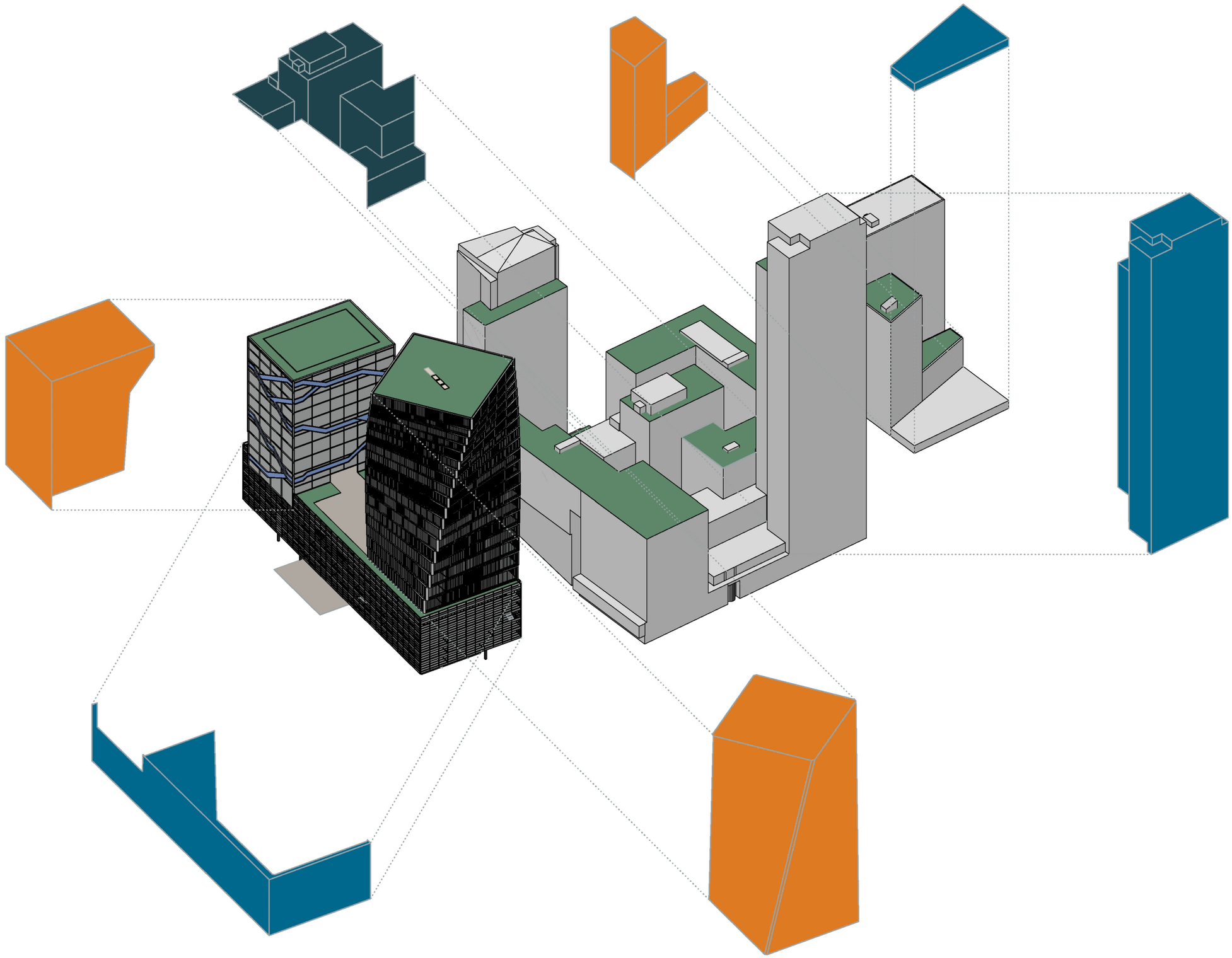
- On a grahpic level, the presentation and the other presented material looked way better
- Explanation regarding the concept is clear

What needed improvement

- How the Hybrid Learning Environment actually gets used in practicality? This is not clear enough yet.
- Again like the previous point, what is the overall goal of the Hybrid Learning Environment? This is alos quite unclear.
- What are the connections between the different buildings of the campus?



6. Integrated design proposal - P4 | Re-evaluating the campus



Blue

These parts of the campus are the parts of the campus that either have a public function and are publicly accessible or are forms of housing, which in that case they are of course not publicly accessible.

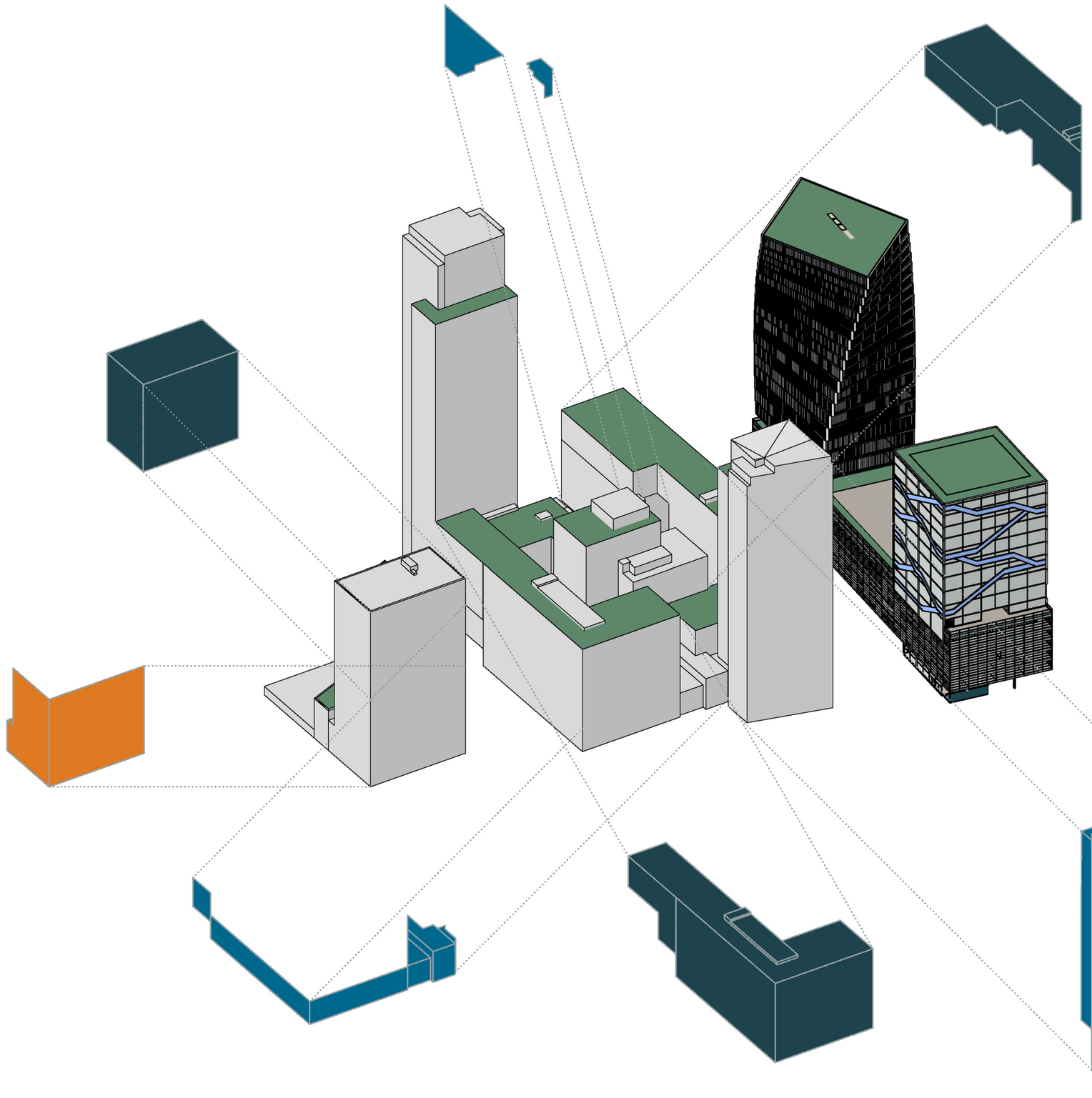
Orange

These parts of the campus are focussed on education. This can be either 100% education without any changes or this can be focussed on the Hybrid Learning Environment.

Navy

These parts of the campus focus on either offices, work environments or any other function that is not / less publicly accessible.

6. Integrated design proposal - P4 | Re-evaluating the campus



Blue

These parts of the campus are the parts of the campus that either have a public function and are publicly accessible or are forms of housing, which in that case they are of course not publicly accessible.

Orange

These parts of the campus are focussed on education. This can be either 100% education without any changes or this can be focussed on the Hybrid Learning Environment.

Navy

These parts of the campus focus on either offices, work environments or any other function that is not / less publicly accessible.

6. Integrated design proposal - P4 | Changing the shape





Consider whether the twist in the tower is the right decision. Comparison with the previously mentioned option of fragmentation. In the context of design explanation and the ‘logic’ herein, fragmentation was chosen.

6. Integrated design proposal - P4 | Final stage of development



Building - Floor Plan | Ground Floor | 1:400

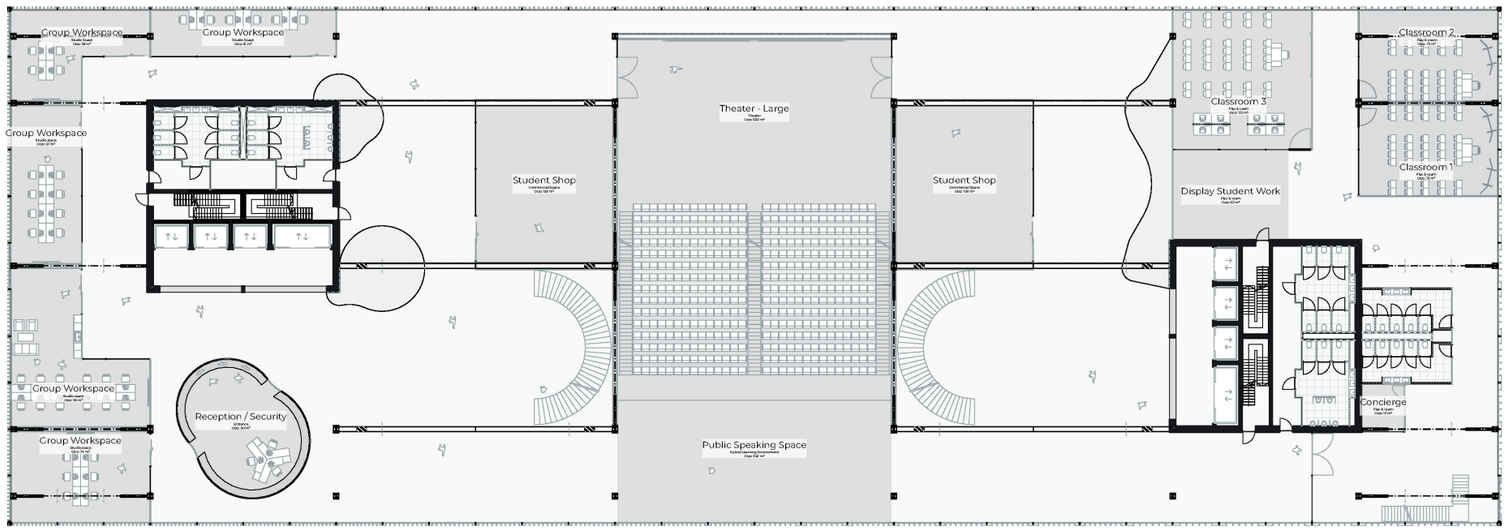
Tristan Hazeleger | 02-05-2024

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6. Integrated design proposal - P4 | Final stage of development

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Building - Floor Plan | 2nd Floor | 1:400

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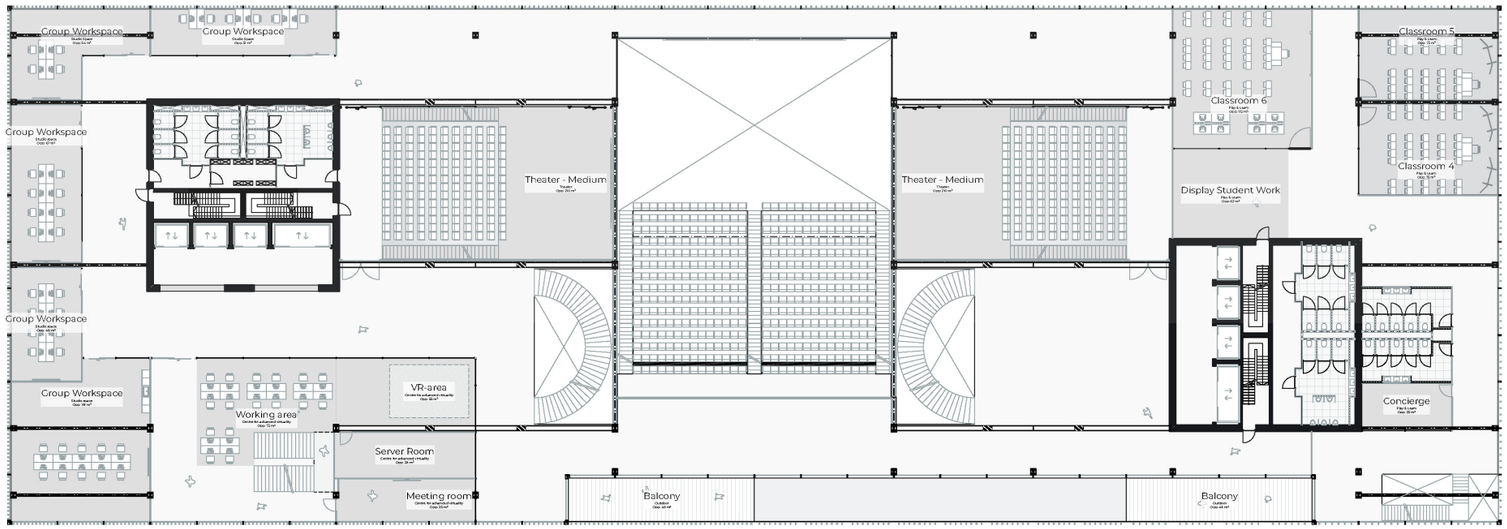
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6. Integrated design proposal - P4 | Final stage of development



ARCHICAD EDUCATION VERSION



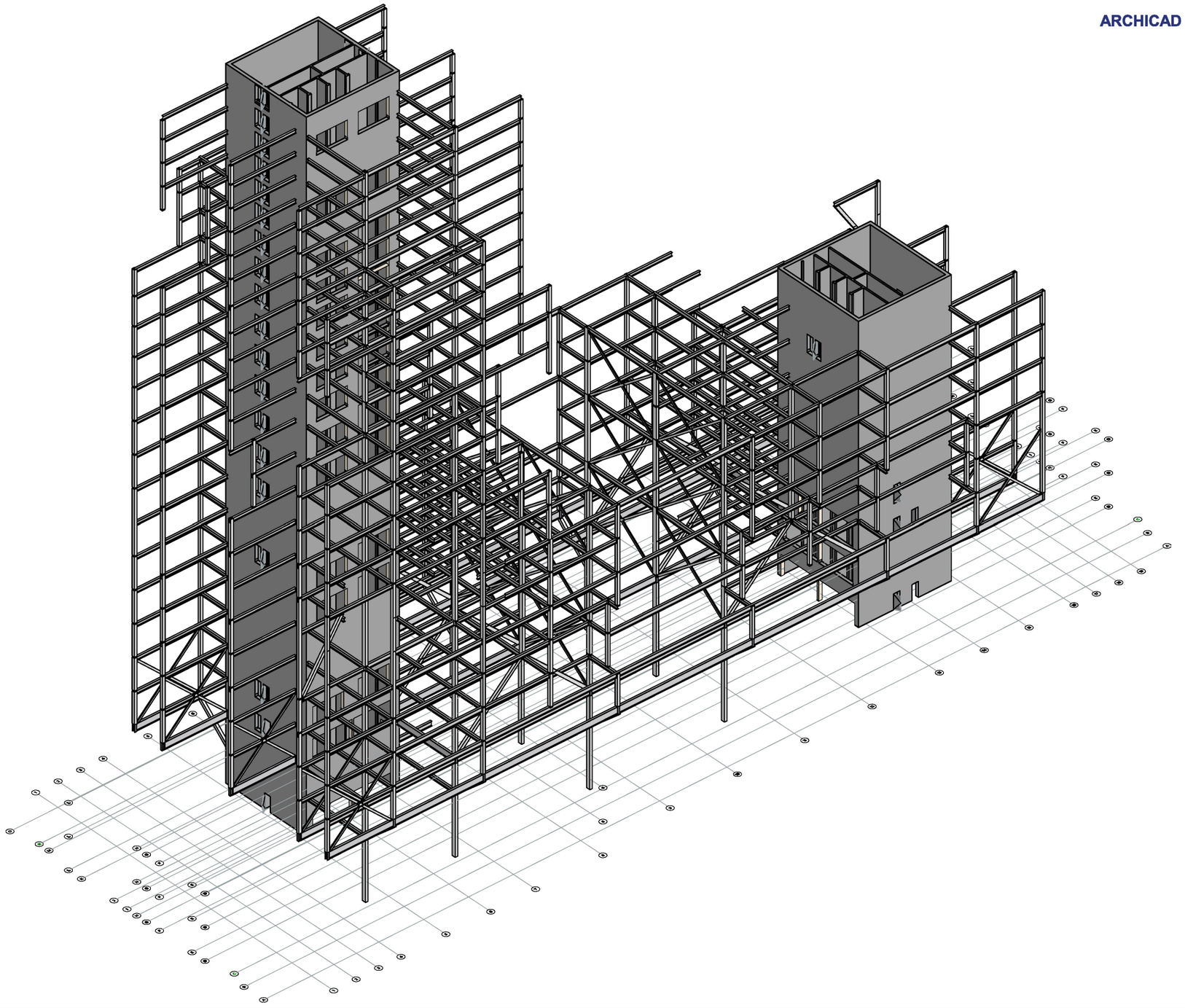
Building - Floor Plan | 3rd Floor | 1:400

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6. Integrated design proposal - P4 | Final stage of development



Building - Axo Structure 1 | 1:558,13

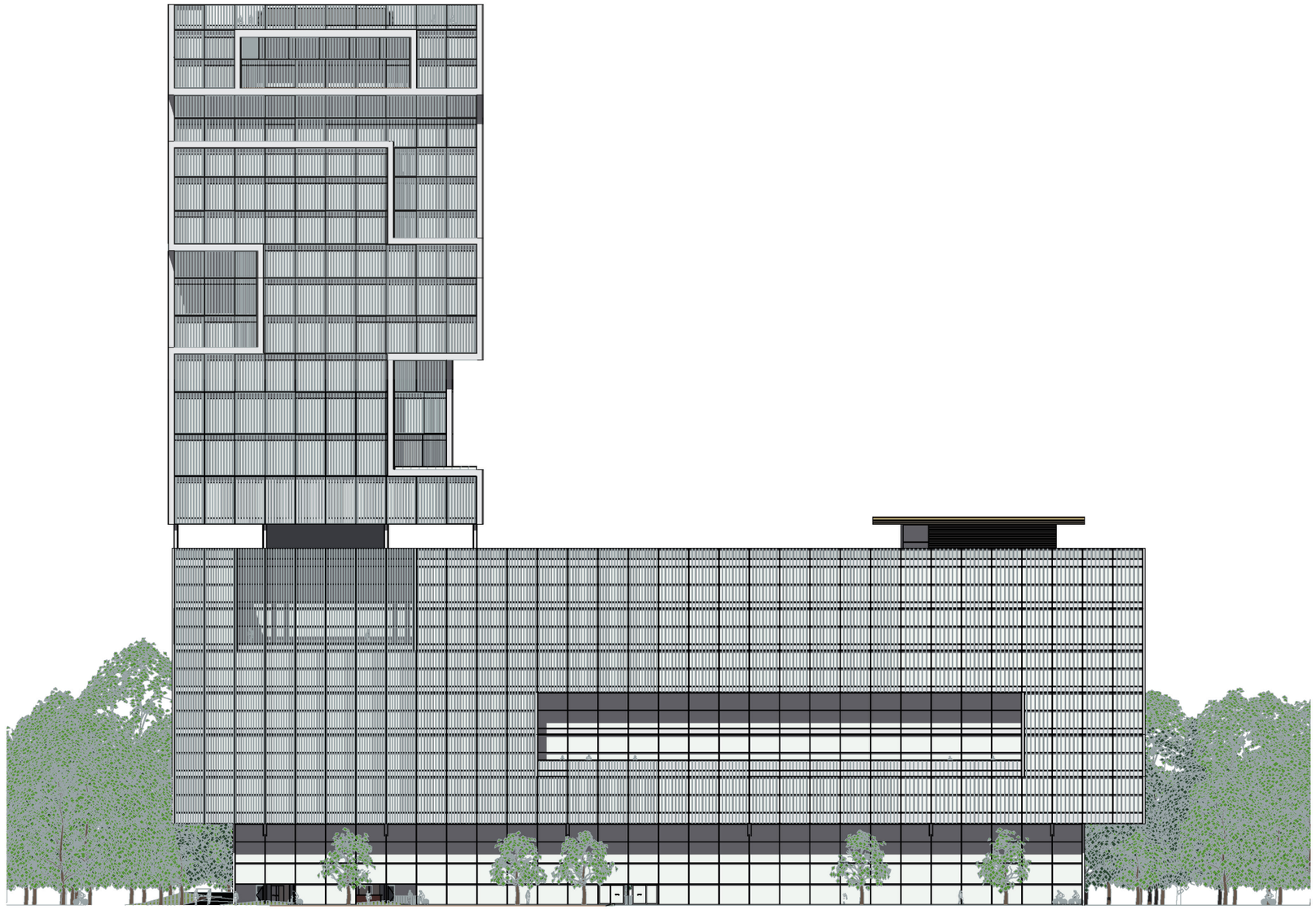
Tristan Hazeleger | 02-05-2024

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6. Integrated design proposal - P4 | Final stage of development

ARCHICAD EDUCATION VERSION



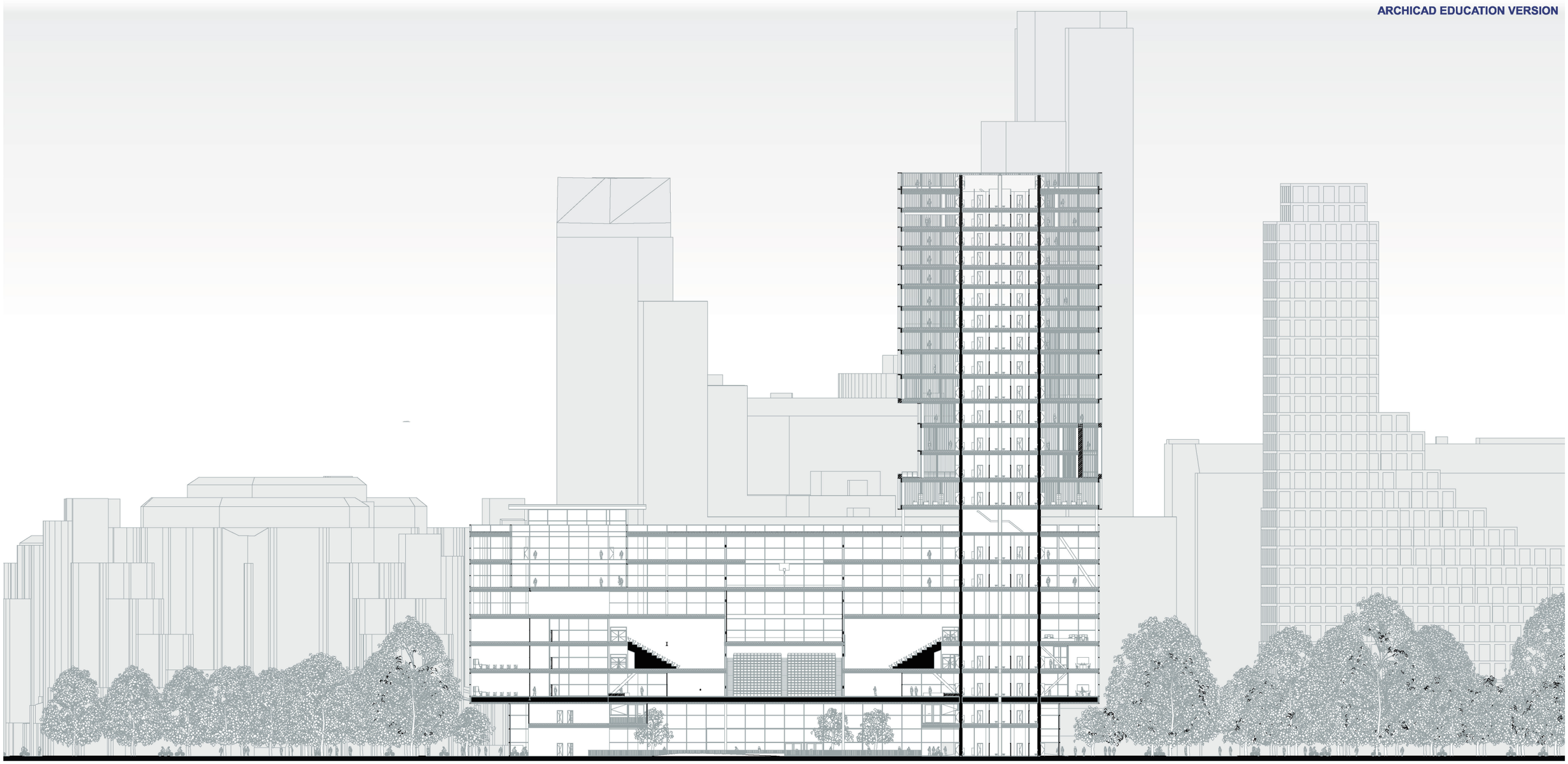
Building - Façade North towards park | 1:500

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6. Integrated design proposal - P4 | Final stage of development



The Vertical Campus | Final Reflection

Version 1 | 8 - 5 - 2024

Tristan Hazeleger | 5658608

AR3AP100 | Public Building Design

MSc Architecture, Urbanism and Building Sciences | TU Delft

Final Reflection

Reflection | Process

Initially, I aimed to explore what aspects could be hybrid and how they could be applied to the overall project concept. However, upon reflection, I realize it would have been more effective to determine what should be hybrid and what can be hybrid. In my attempt however, I attempted to make every aspect of the project hybrid, leading to confusion about the meaning of ‘hybrid’ and obscuring the project’s core concept.

Regarding my research method, which included a literature study and field research with case studies, I believe it was successful, particularly due to the execution of the field research. Interviewing students from various practical studies helped shape the areas of the campus representing hybrid learning and served as a solid foundation for my design choices.
However, I struggled with articulating the rationale for the exterior design of my building and its relationship to the city and other campus buildings. It wasn’t until later stages that I broadened my focus, studying the buildings that are also part of the campus and nearby buildings to inform the design.

Reflecting on feedback from my mentors, particularly that from my Project Design mentor Stefano Corbo, I am grateful for his guidance in refining the project’s concept and design. His encouragement to explore different approaches was invaluable. Similarly, my Theory & Delineation mentor Sang Lee’s metaphors helped clarify my concept, while my Technical Building Design mentor Florian Eckardt’s technical expertise ensured sound design decisions.

To conclude, I am nothing but positive and grateful for the feedback I have received from my mentors over the past few months. Each time they were there to support me and to push me in the right direction by asking the right questions, showing, and telling me which possibilities there are and finally encouraging me to push on forward each time.

Looking back, I've learned the importance of taking a step back to reflect on design decisions and ensuring they are well-justified. If I were to redo the project, I would prioritize this aspect of the process. After P3 I realized the value of doing this during my design process and eventually it is something I wished I had done before.

As I approach the end of my graduation phase, I am confident that my P4 presentation will demonstrate not only a well-integrated design but also a thoughtful solution to the problem statement. After (hopefully) succeeding at my P4 presentation, I want to focus my attention to completing the overall graduation project for the P5 presentation by making all the necessary extra products to really make the graduation project as complete as possible.

Reflection | Design

Whilst reflecting on my design, I can say with confidence that I was able to fulfill my initial design ambitions. From the start of the graduation studio I wanted to create a building that would function as a ‘gateway’ from the city, specifically the area around The Hague Central Station, and the park.

During the period prior to P1, I realized that the need for such a gateway is there in the city as well, given that during the interviews with locals, visitors and people working there, they all mentioned that in their opinion the park is nice and should not be replaced, but that the area of the park near the Bezuidenhoutseweg needs an improvement in quality. I saw this as an opportunity to place part of my Vertical Campus here. In the end, by combining my own designed building together with the existing buildings of New Babylon and the building from the Leiden University, I managed to create a Vertical Campus that is not only hybrid in its program, but also in its construction and that provides in giving the best opportunities for hybrid learning, all whilst connecting on a broader urban level the city with the park and the existing situation with the new situation.

Looking at my design process, I can say that it went quite well in the end. Like I mentioned before in this document, I had some struggles with finding the correct and fitting rationale for the exterior design of my building. While I was aware and also familiar with the surrounding area and the influence that the other buildings of the campus had on the design, specifically the massing, of my building, I struggled finding the right ‘connection point’ to make sure that my building was not just some addition to the overall project but actually had some value to it and therefore also would be related to mainly the other buildings of the campus but also the other buildings in the area of the Central Station.

For me, it was after P3 that this connection point was found. Even though it was a bit late in the overall design process, I still believe that this connection point, which consist of dissecting the campus buildings into different fragments, holds great value and therefore only benefits the overall design language of not just my building, but the whole campus

As mentioned before, my design for the Vertical Campus focusses on the concept of hybrid. For a building with mainly an educational characteristic, this means that also the way of teaching and therefore learning should be hybrid. This does not only benefit the students, as they get more familiar with the work field, but also benefits the companies that invest themselves into this hybrid learning environment. Given that my research question is the following **''How can hybrid architecture and hybrid education be connected through a building designed with hybrid building technologies located in a new green area near The Hague Central Station?''**, I decided that for my design of the Vertical Campus there should be more so-called intersections where people from different entities (students, people from the university or companies) should connect with each other.

This meant not only focusing on specific rooms or areas within the campus, but also focusing on the circulation space within the design. Meanwhile, it was also of great importance that the aspect of greenery, and so the connection with the park, gets more attention and that the newly designed building does not replace the park but rather improves it quality.

To conclude, the Vertical Campus provides in multiple ways of hybridity. It provides a hybrid learning environment, an environment that not only benefits for students, but also companies and universities. The Vertical Campus is also hybrid in its program, by intertwining public, private and publicly accessible functions all in to one campus. Besides that, the newly designed building itself is also hybrid in its construction by mixing concrete, steel, and wood elements to create a building that not only has lower environmental impact but that also has a circular aspect as the steel and wood elements of the building are demountable. Finally, the Vertical Campus is a hybrid between the old and the new but also a hybrid between nature and city.

Reflection | Graduation topic, studio topic, master track and master program

The relationship between my graduation topic (hybrid architecture) and the various other components is certainly present. Mixed-use, which is in principle also a form of hybrid, plays a major role within Public Building. For this reason, my graduation topic and the studio's interests are linked. Besides that, my design for the Vertical Campus also relates to the master track and the master program by showing the urban side of my design for the Vertical Campus.

The newly designed building does not just connect to the other (existing) buildings, it also works on a greater scale by connecting the area of the Central Station more with the park. In the current situation, the relationship between park and city is distorted given that the quality of this part of the park has been declining and that right now it almost solely functions as an outdoor circulation space rather than a place for leisure. By extending the Vertical Campus into the park, the quality of this part of the park gets improved which results in a better urban quality.

Finally, my design for the Vertical Campus also is related to the more technical master tracks. By researching into the different possibilities of building structure, I was able to design a structure that has a relatively low environmental impact, but besides that is also circular in the fact that parts of the building are demountable and can be reused in many different future design opportunities.

The Vertical Campus

P4 PRESENTATION

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AR3AP100 | Public Building Design
MSc Architecture, Urbanism and Building Sciences | TU Delft

1. Intro | Creating a Hybrid Learning Environment



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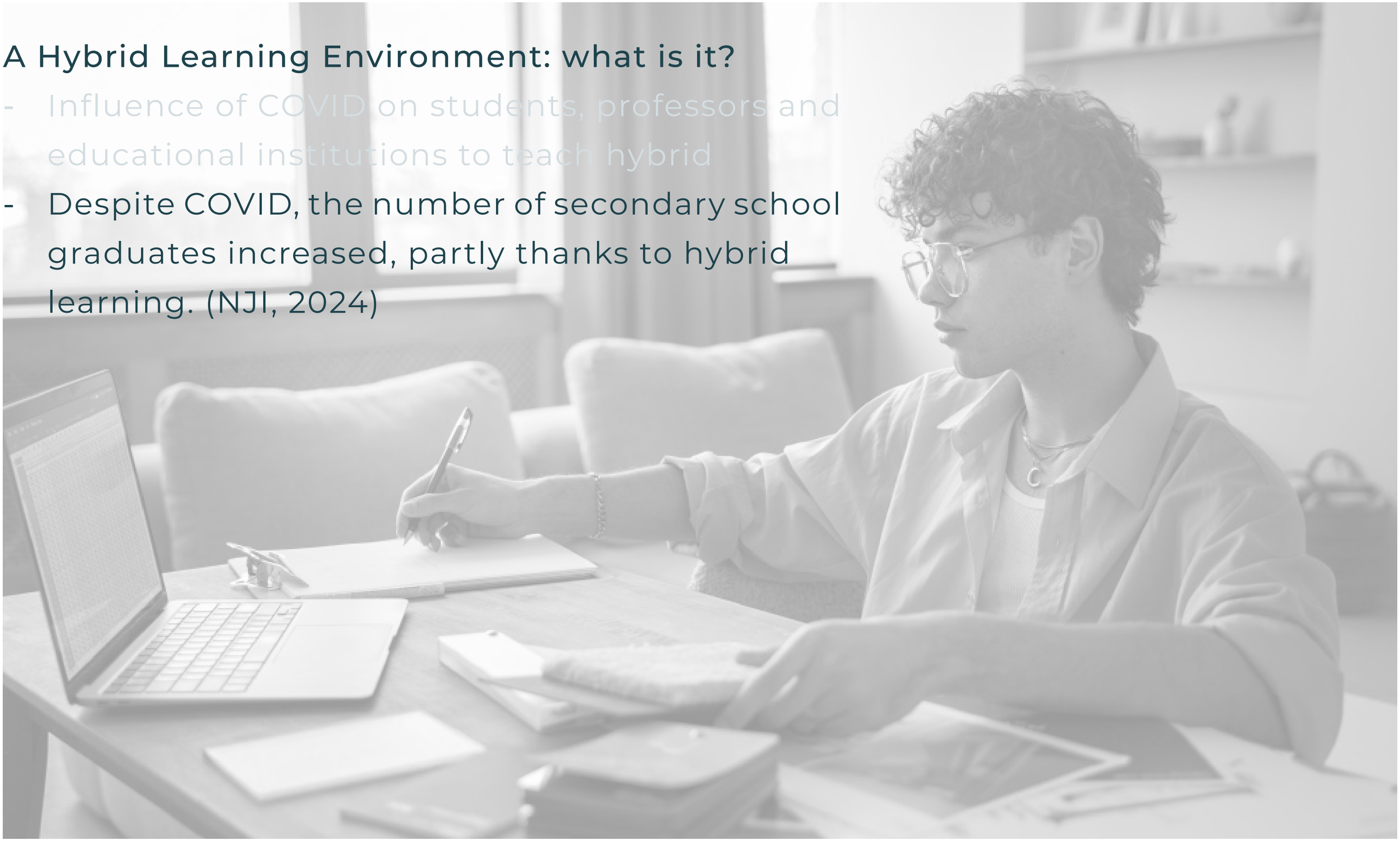
A Hybrid Learning Environment: what is it?

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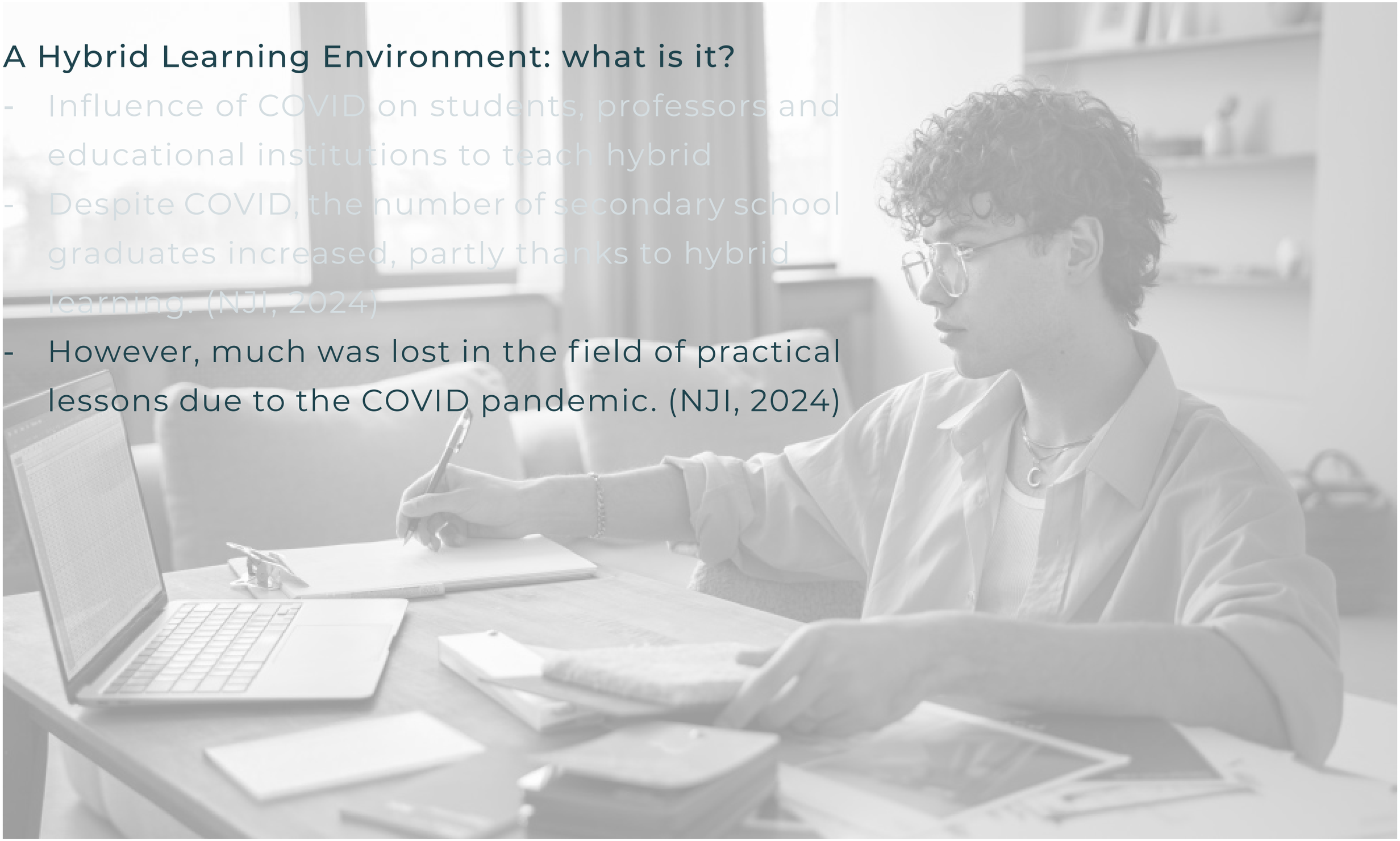
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That is why a hybrid learning environment on Campus Haagsche Park: where practice and theory come together.

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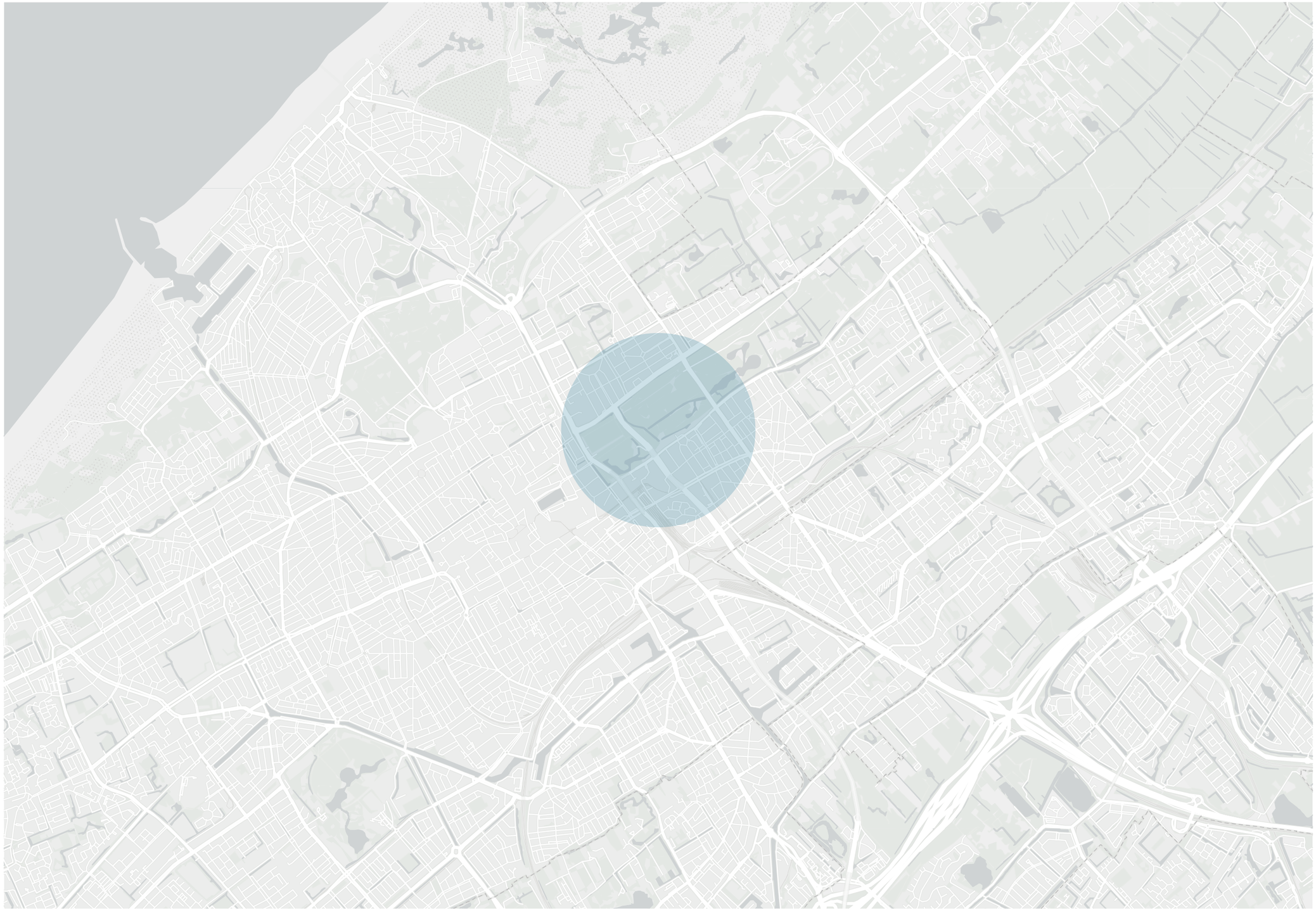
- Hybrid in the construction of the new campus building in order to apply sustainability and circularity.

- Hybrid on an urban scale by mixing the park with the city and by combining old and new.

2. Location | The city of The Hague



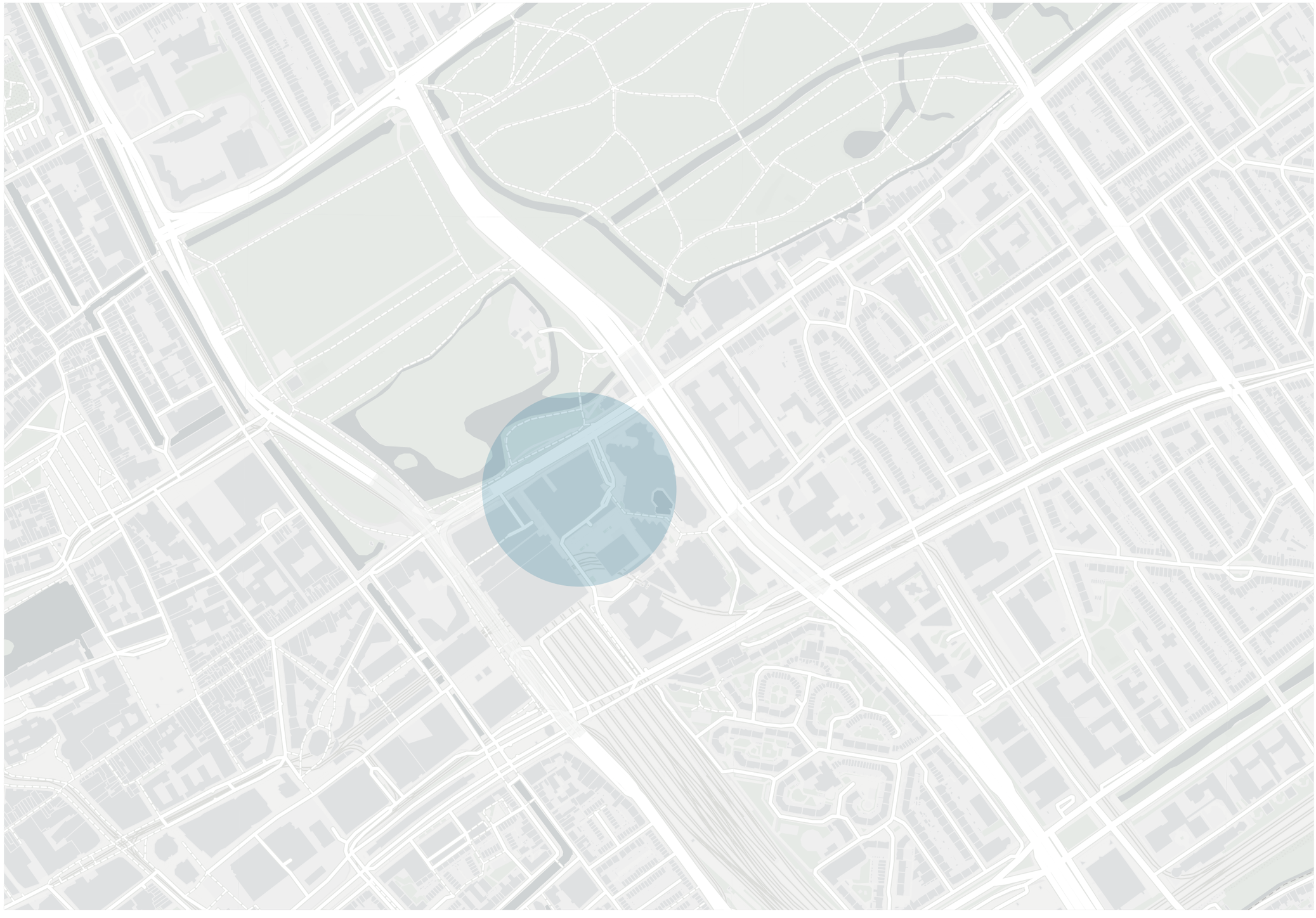
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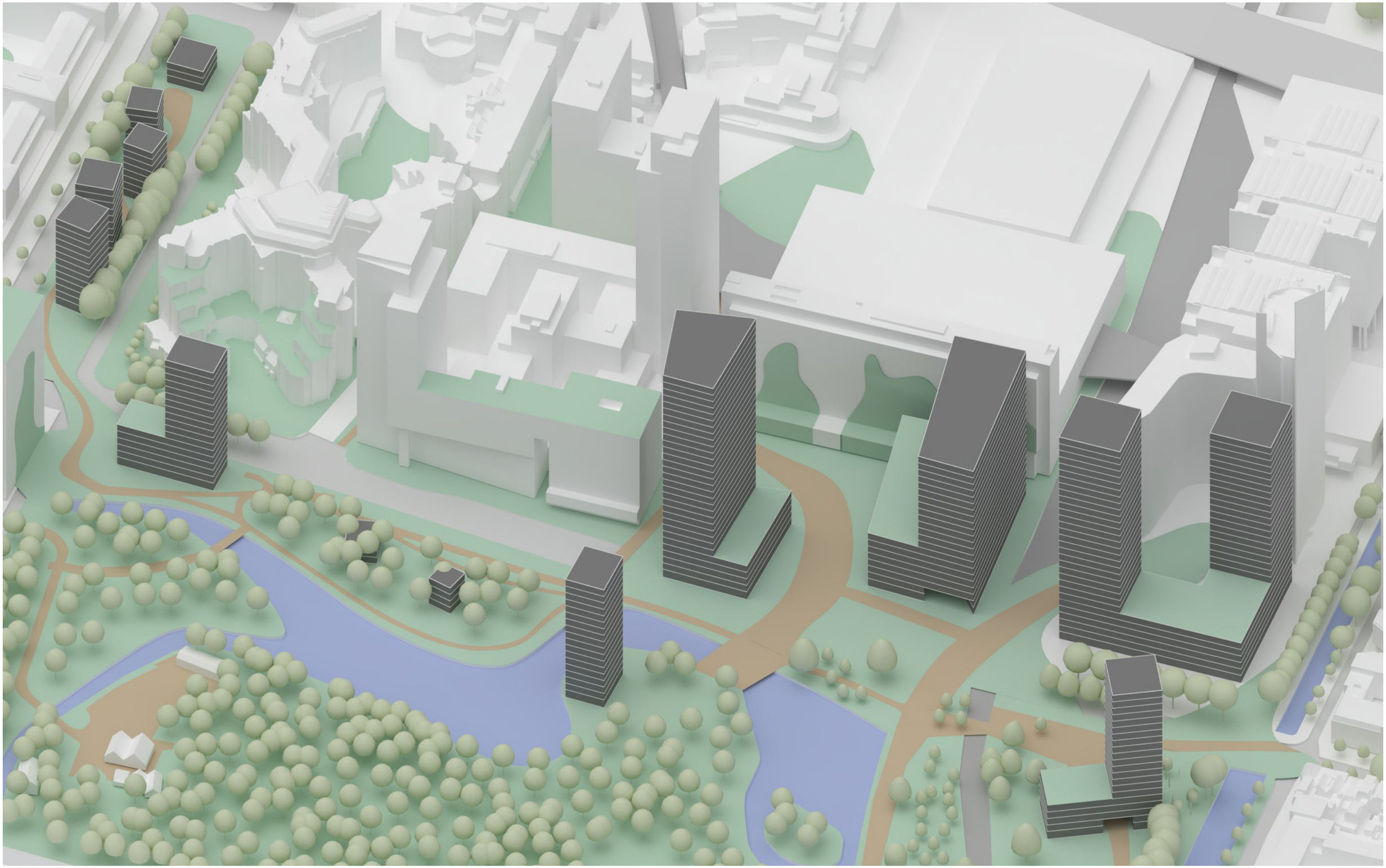


2. Location | Recap from P1

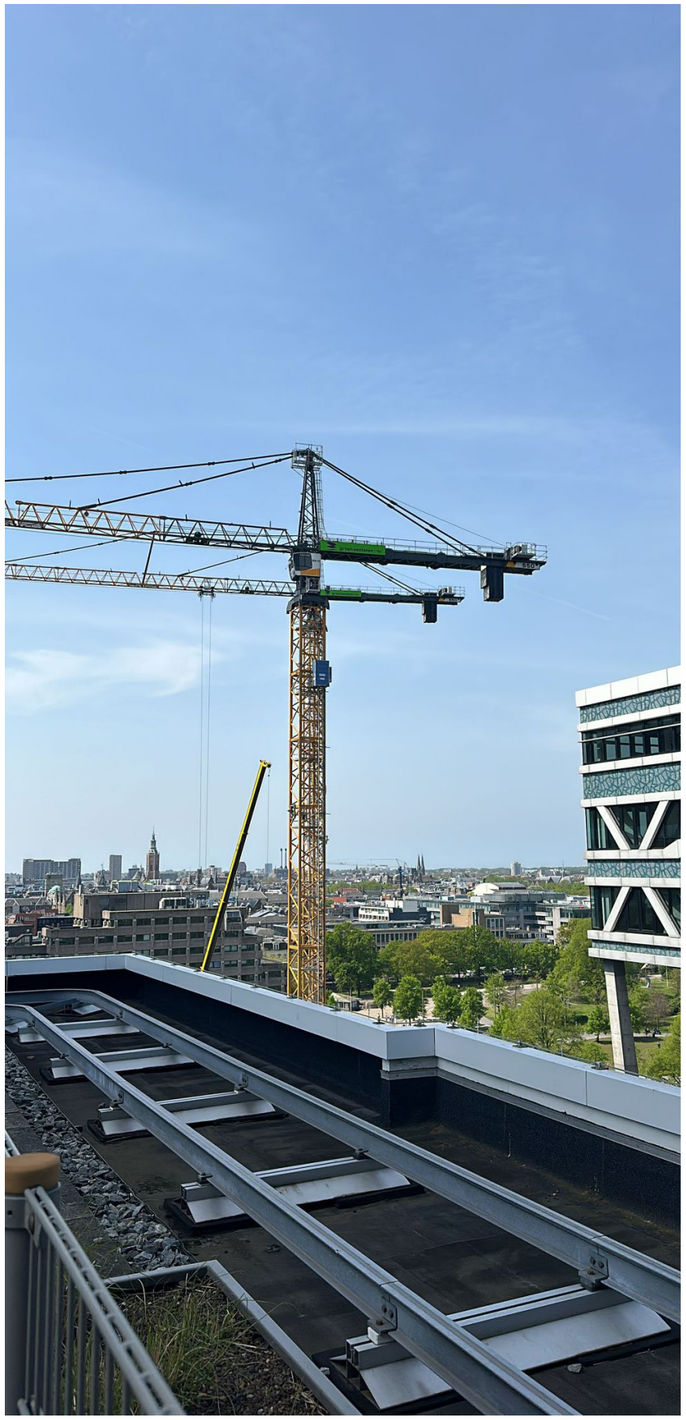
- Main narrative point: **intertwining park and city**
- More publicly accessible green into the city
- Activating the current park by adding publicly accessible buildings in it

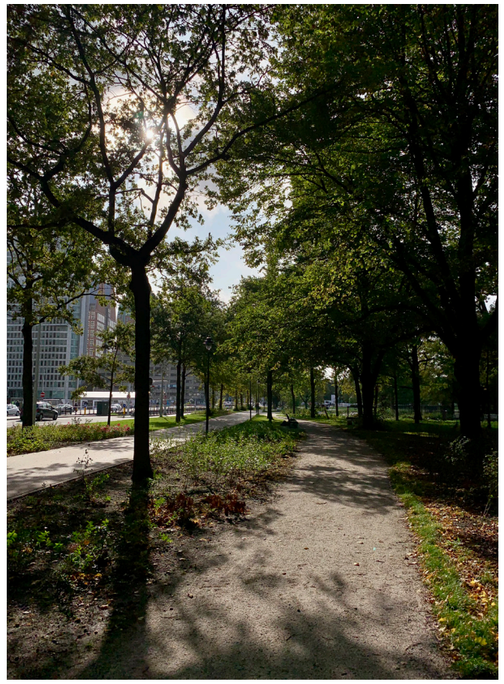


2. Location | Recap from P1



2. Location | Pictures of the area



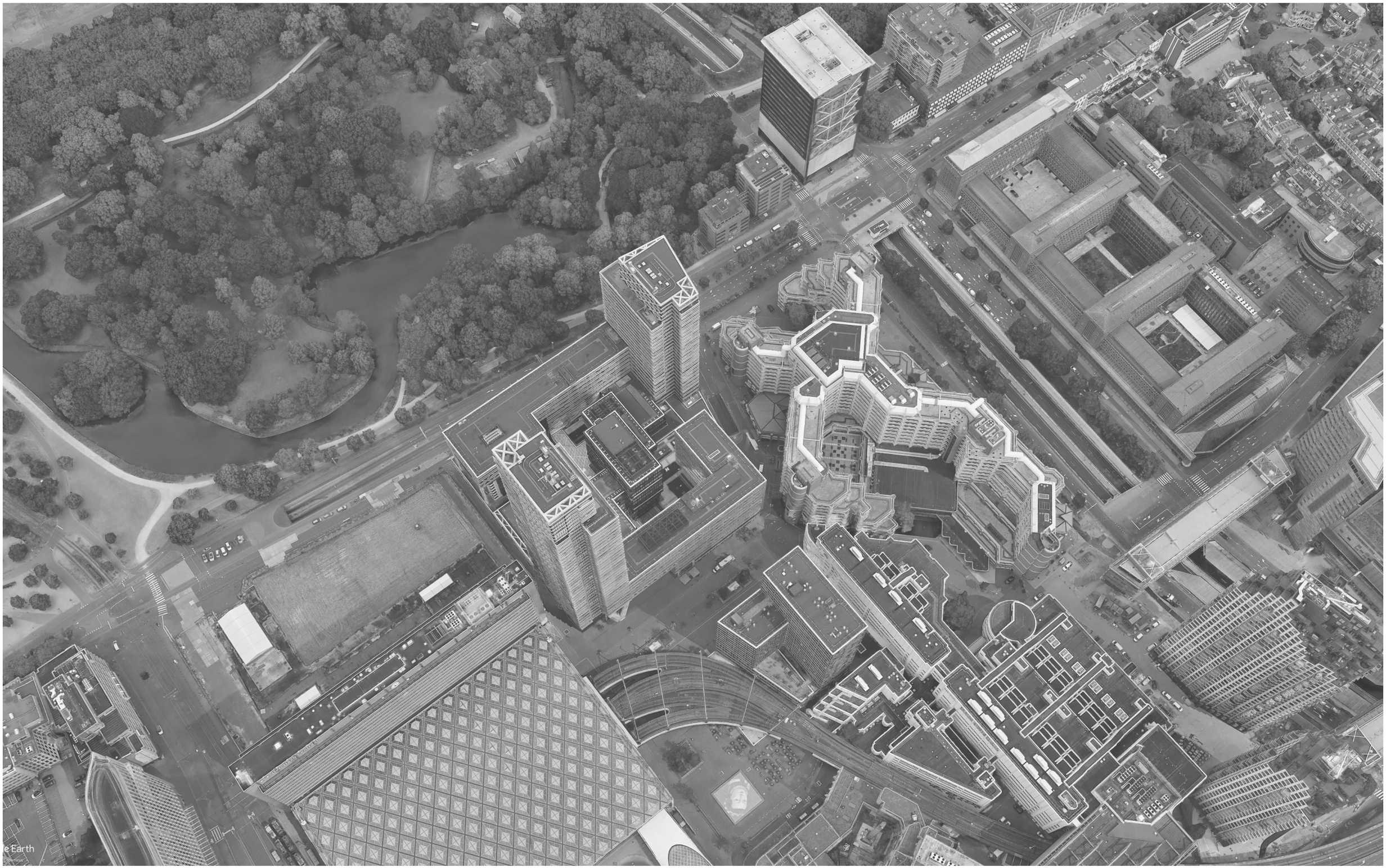




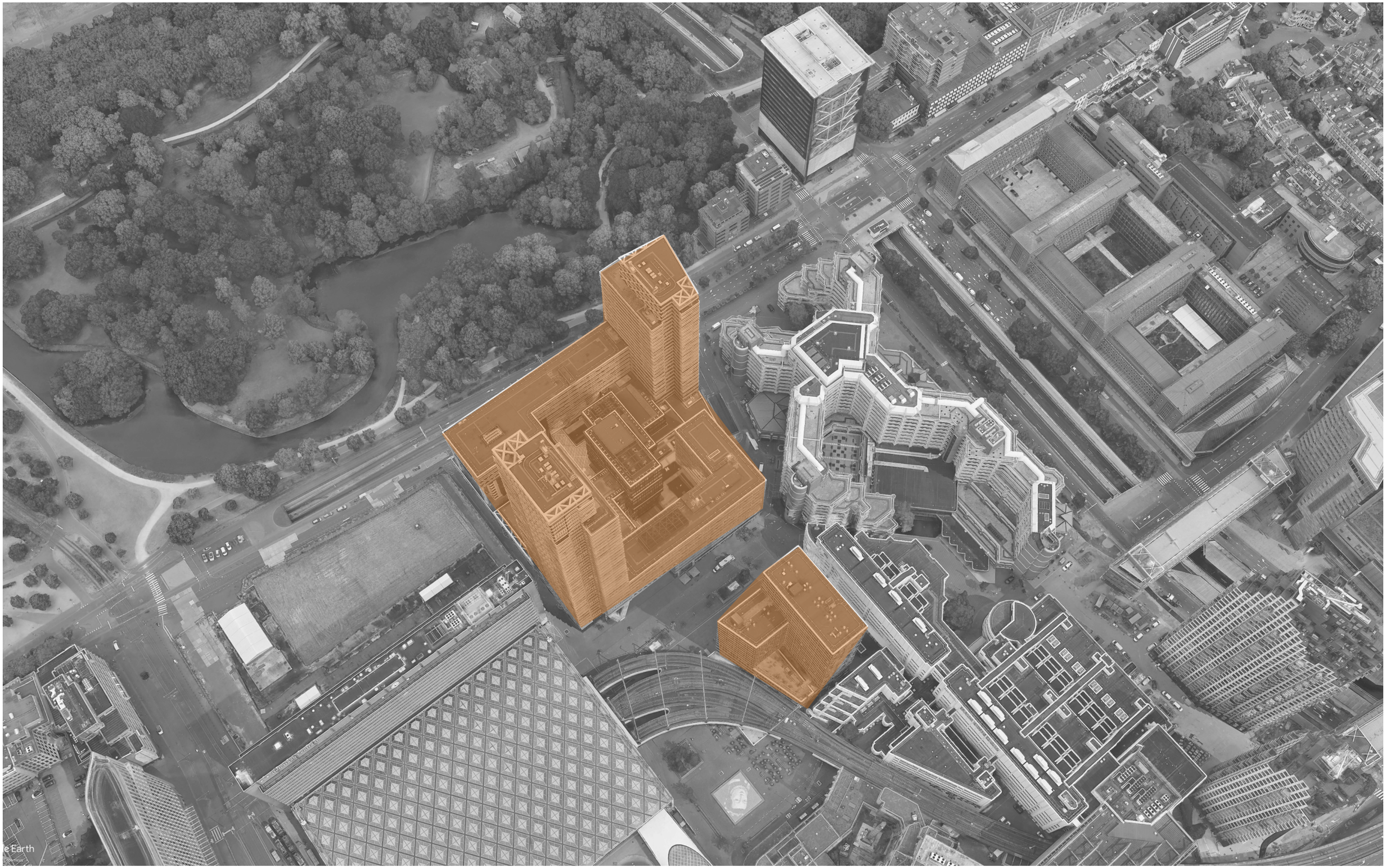




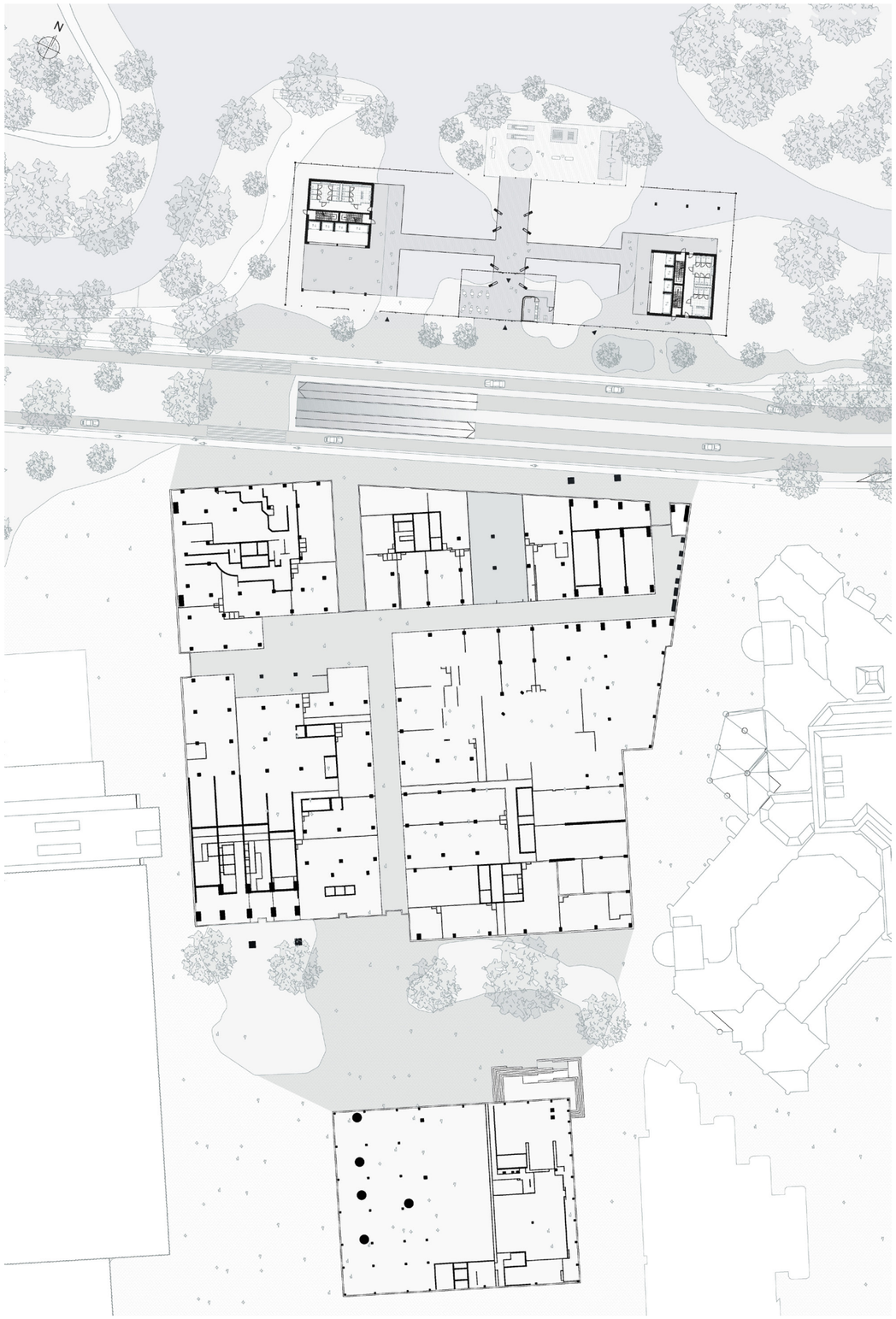
2. Location | Forming the campus



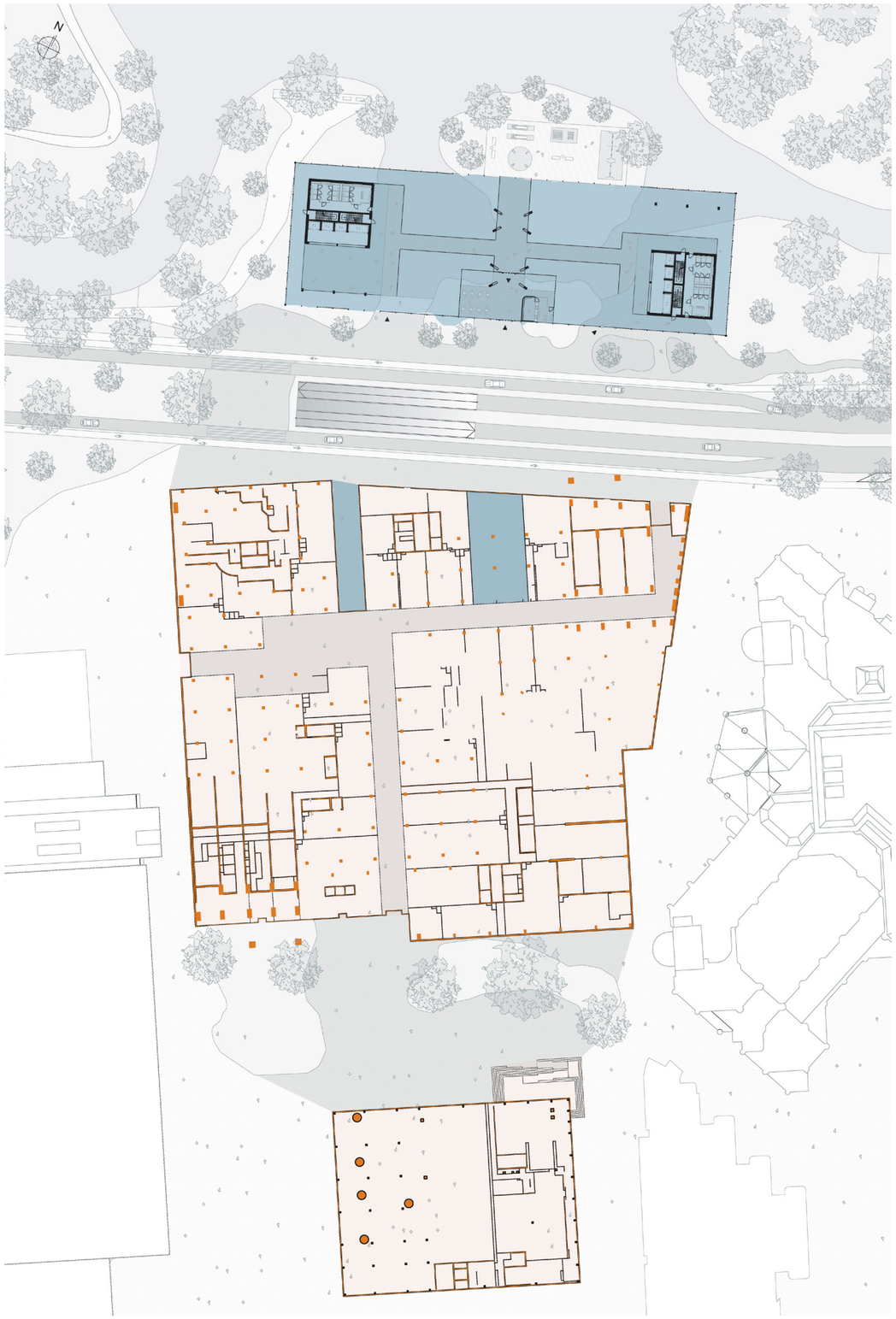
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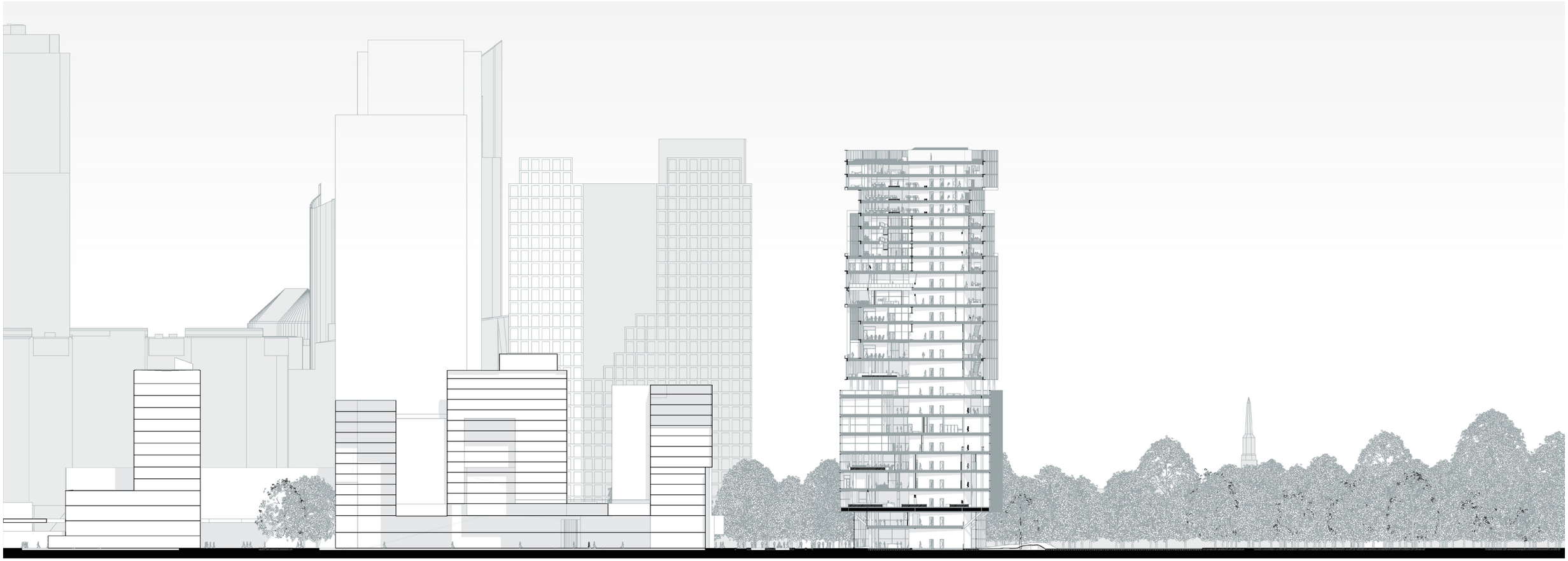
3. Architectural Design | Urban Floor plan



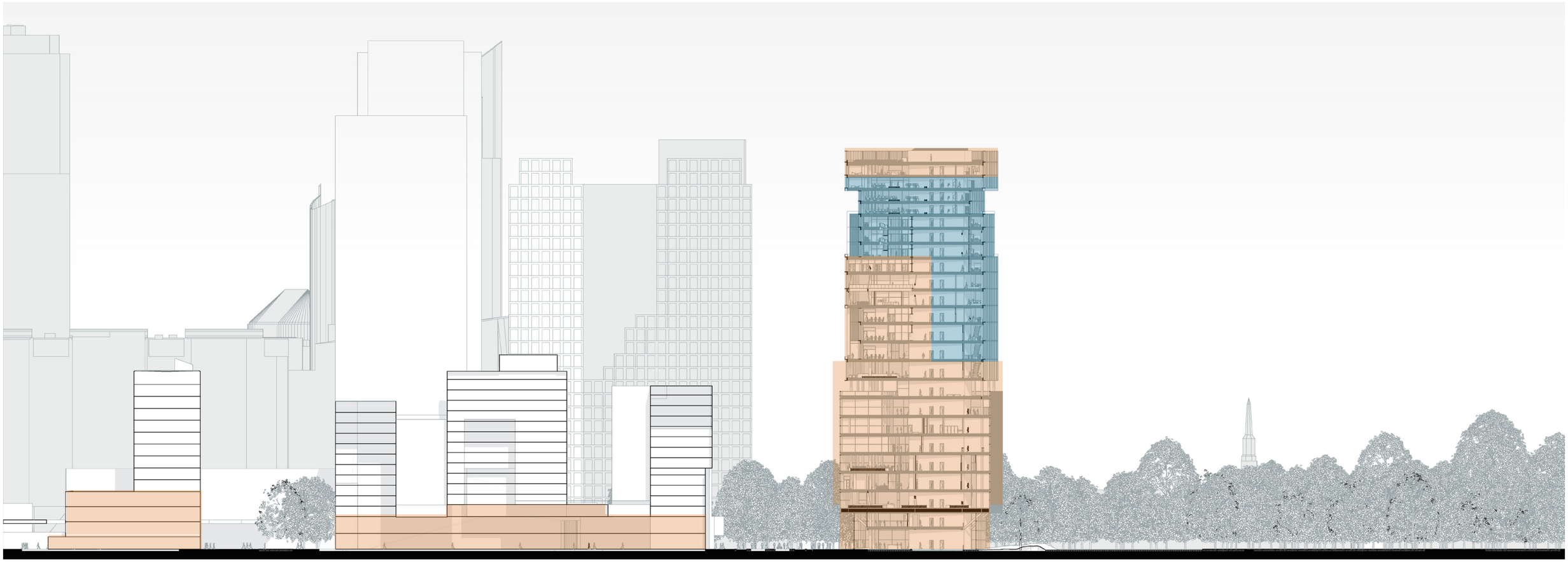
3. Architectural Design | Urban Floor plan - Existing & New



3. Architectural Design | Urban Section



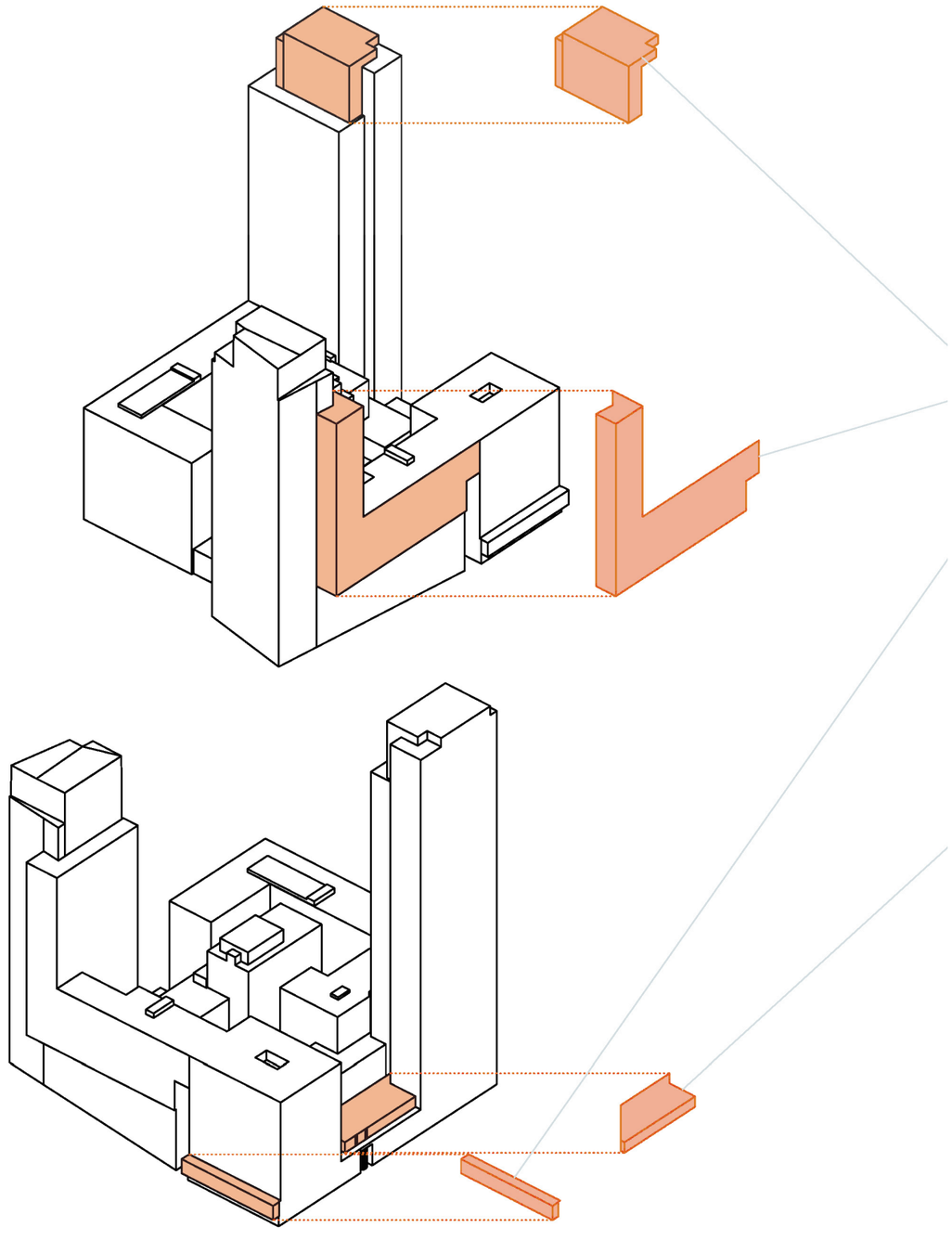
3. Architectural Design | Urban Section with program

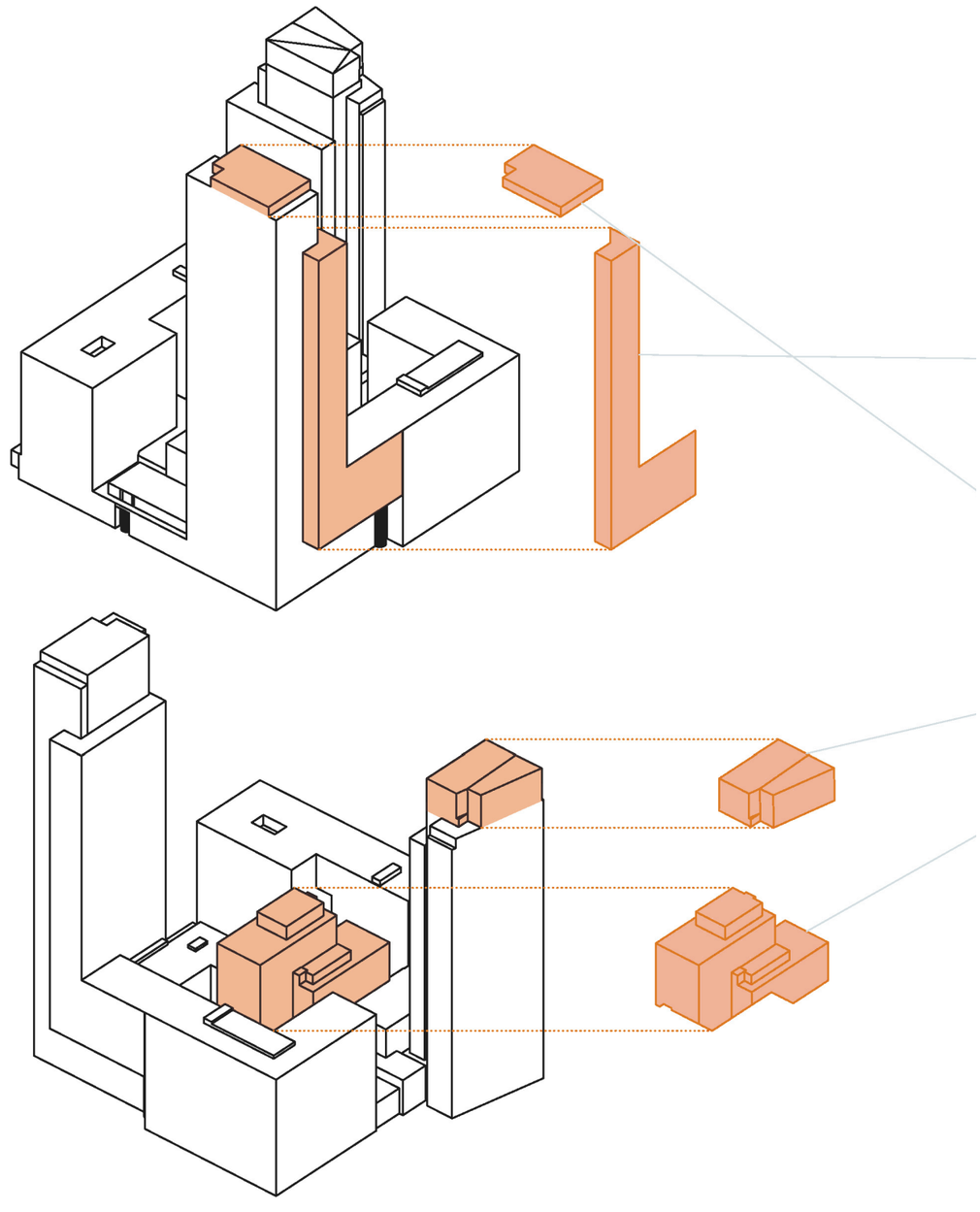


Publicly accessible functions

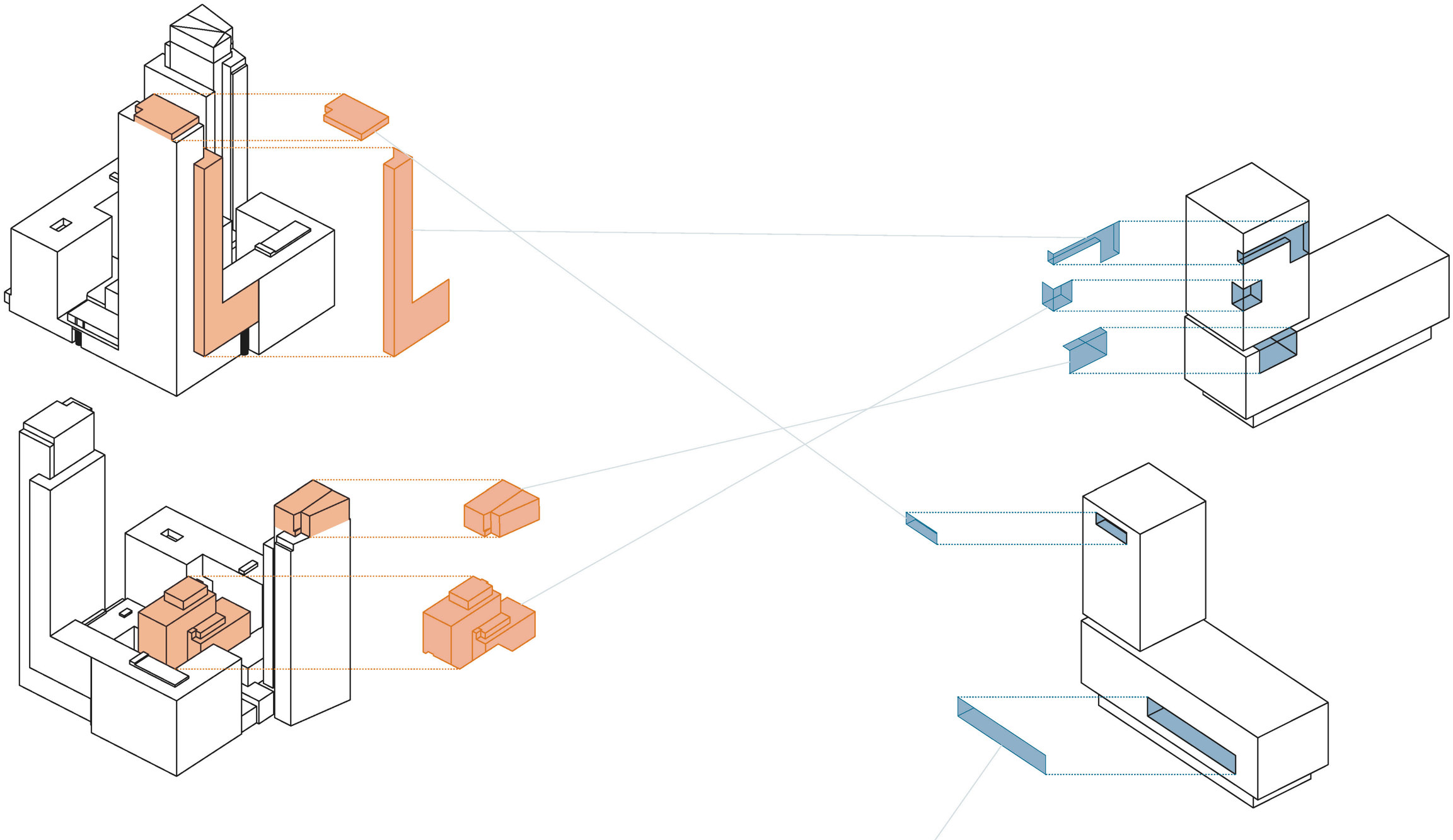
Non-publicly accessible functions

3. Architectural Design | Shape of the new volume

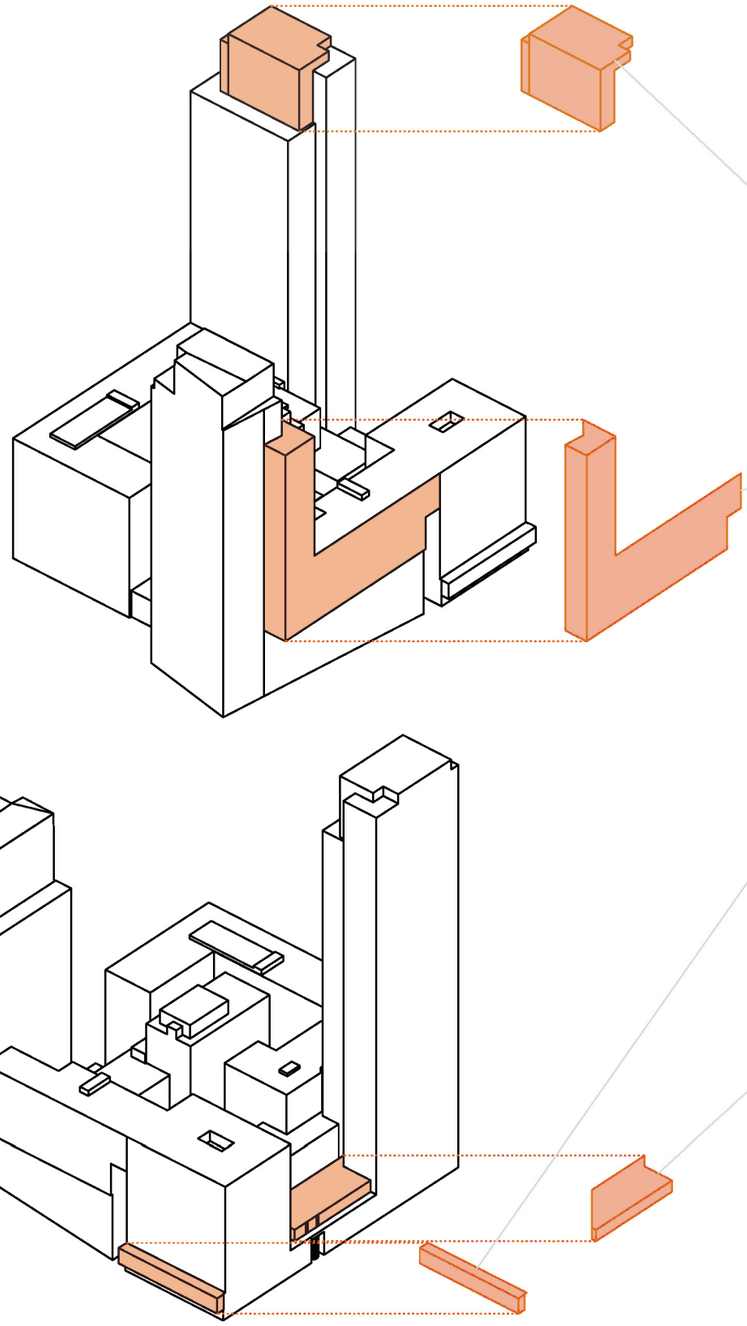


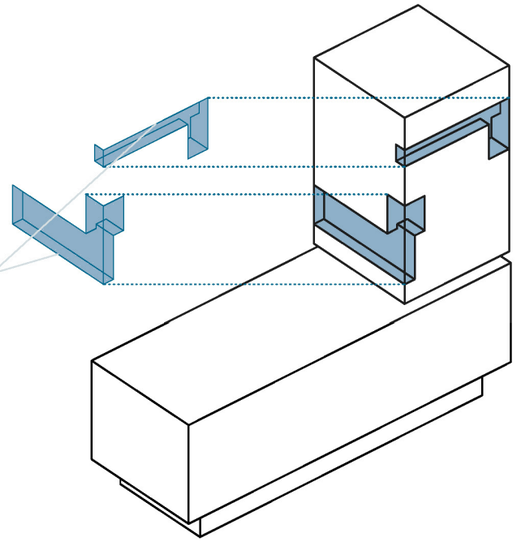


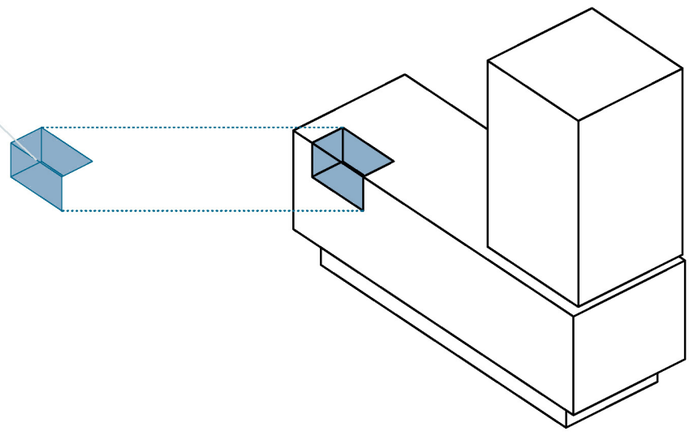
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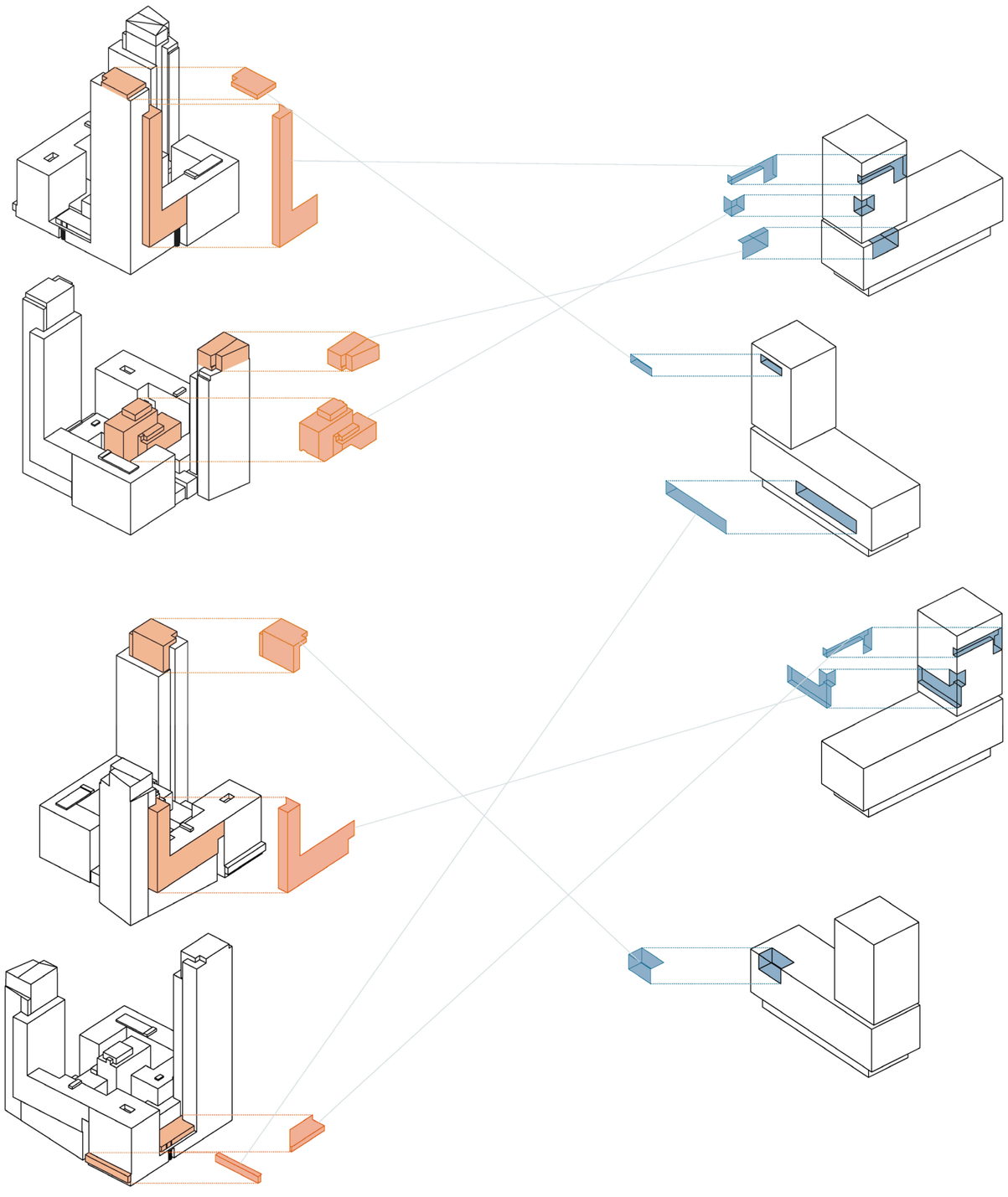
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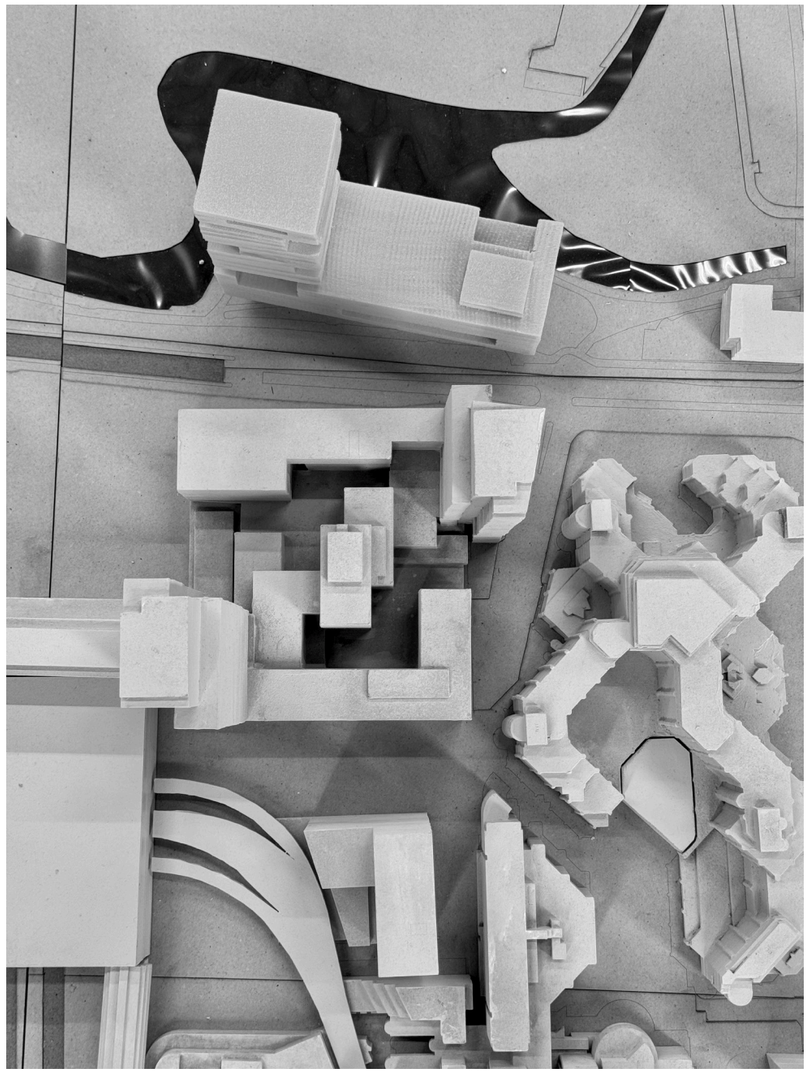
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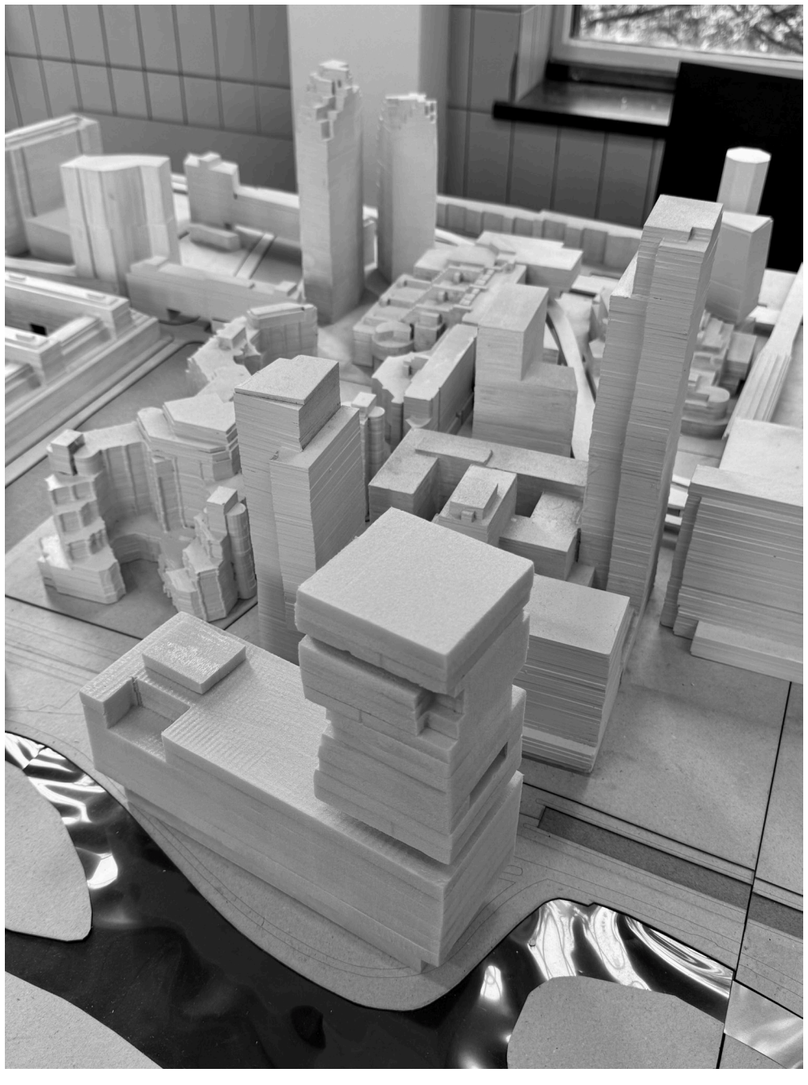
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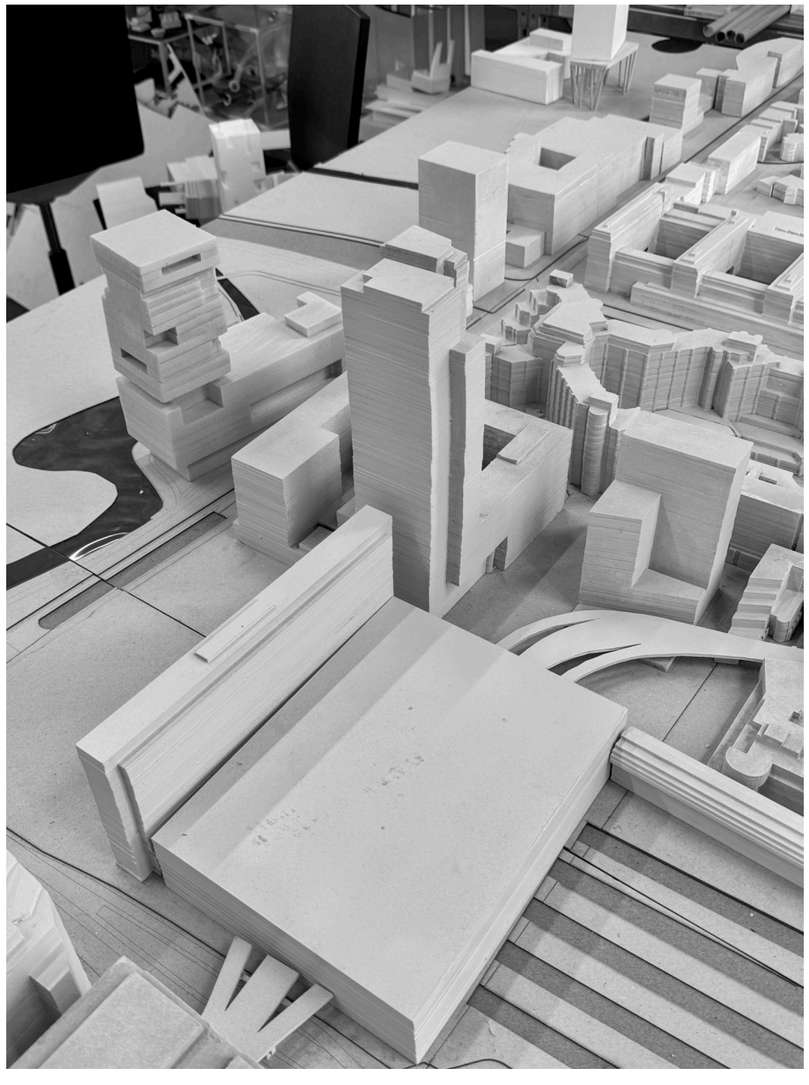


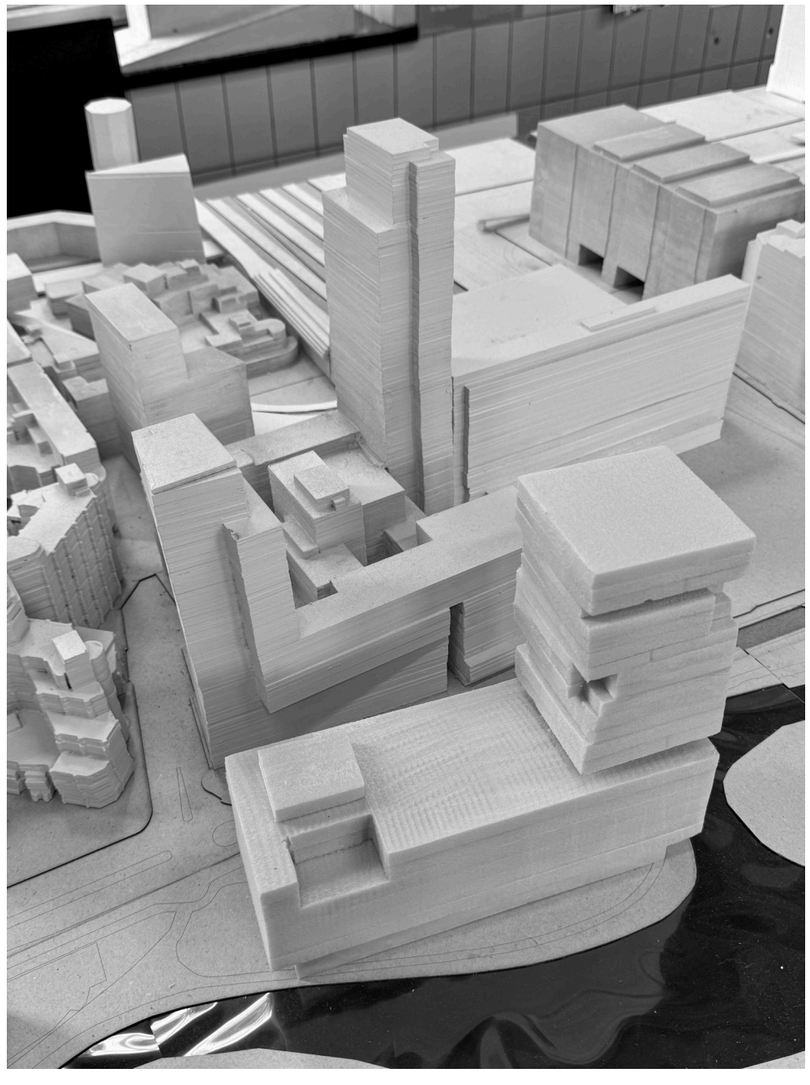




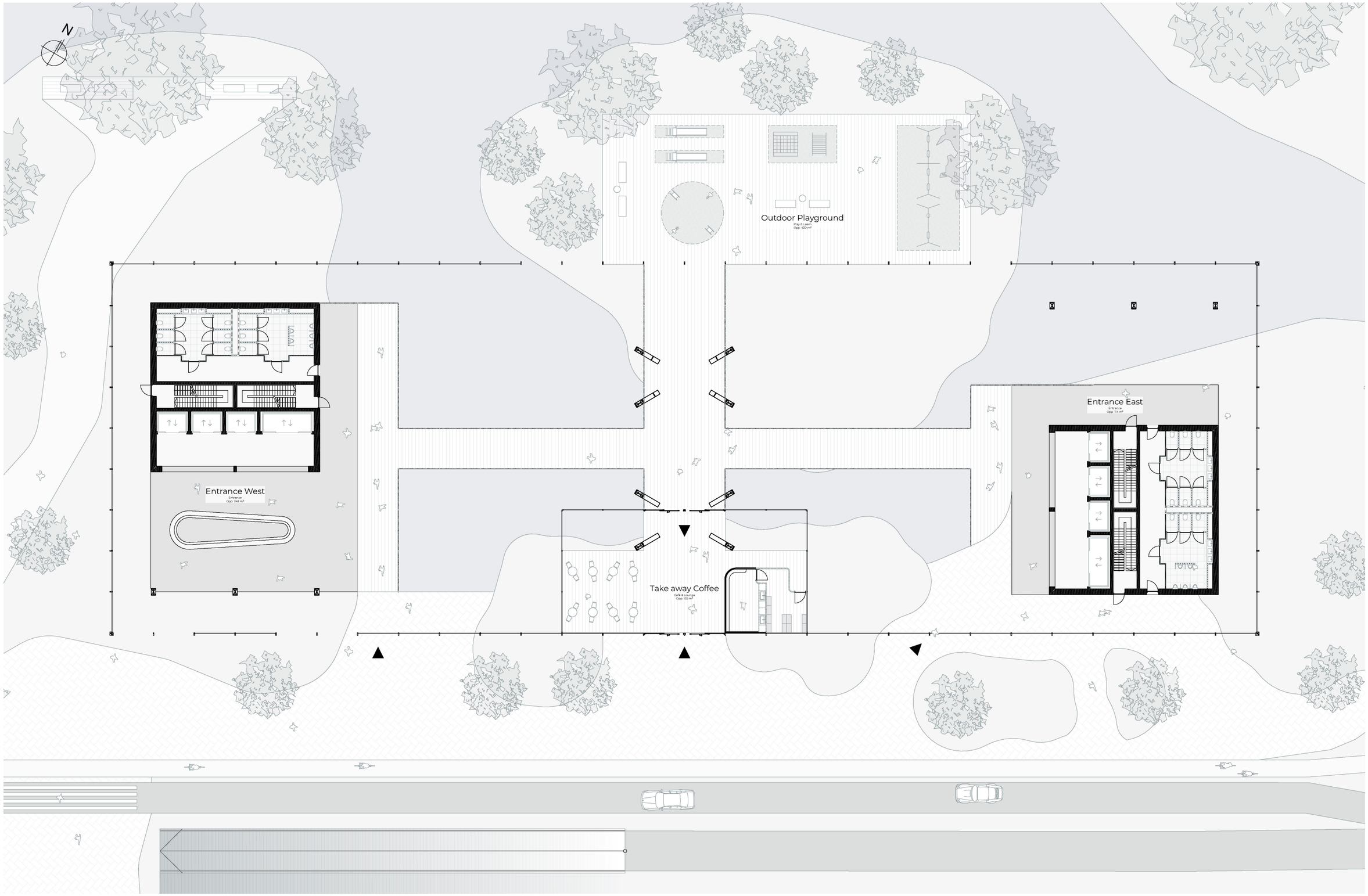
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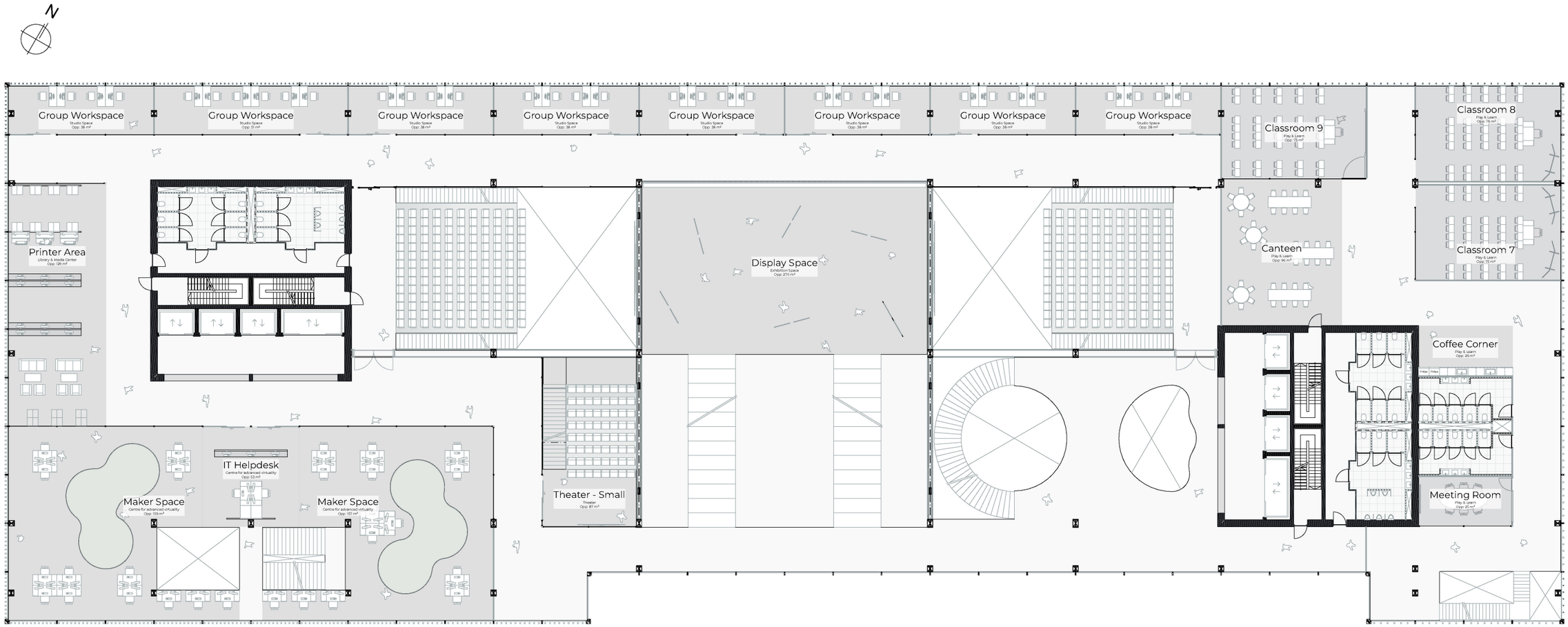




3. Architectural Design | Floor Plan - Ground Floor



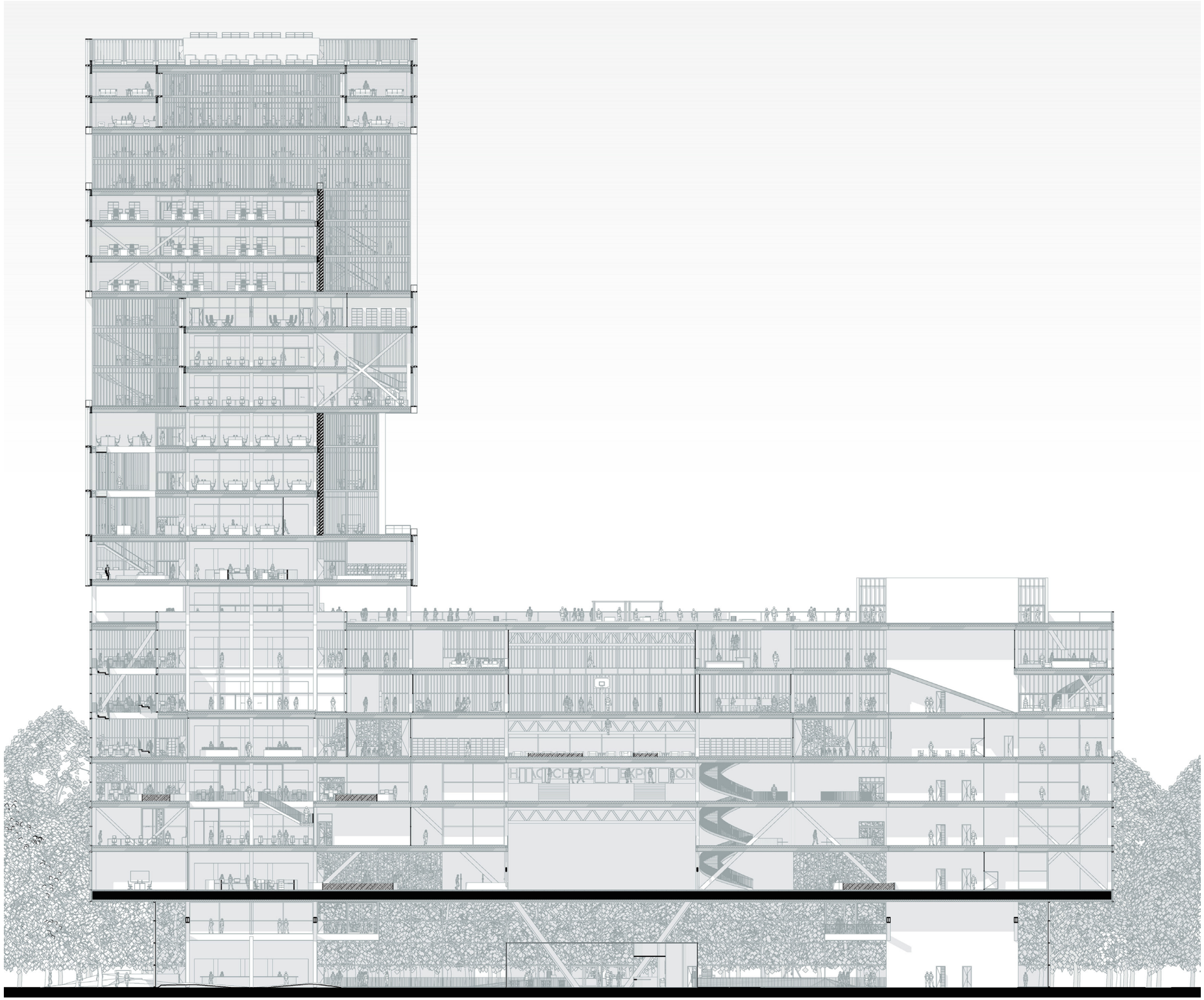
3. Architectural Design | Floor Plan - 4th Floor



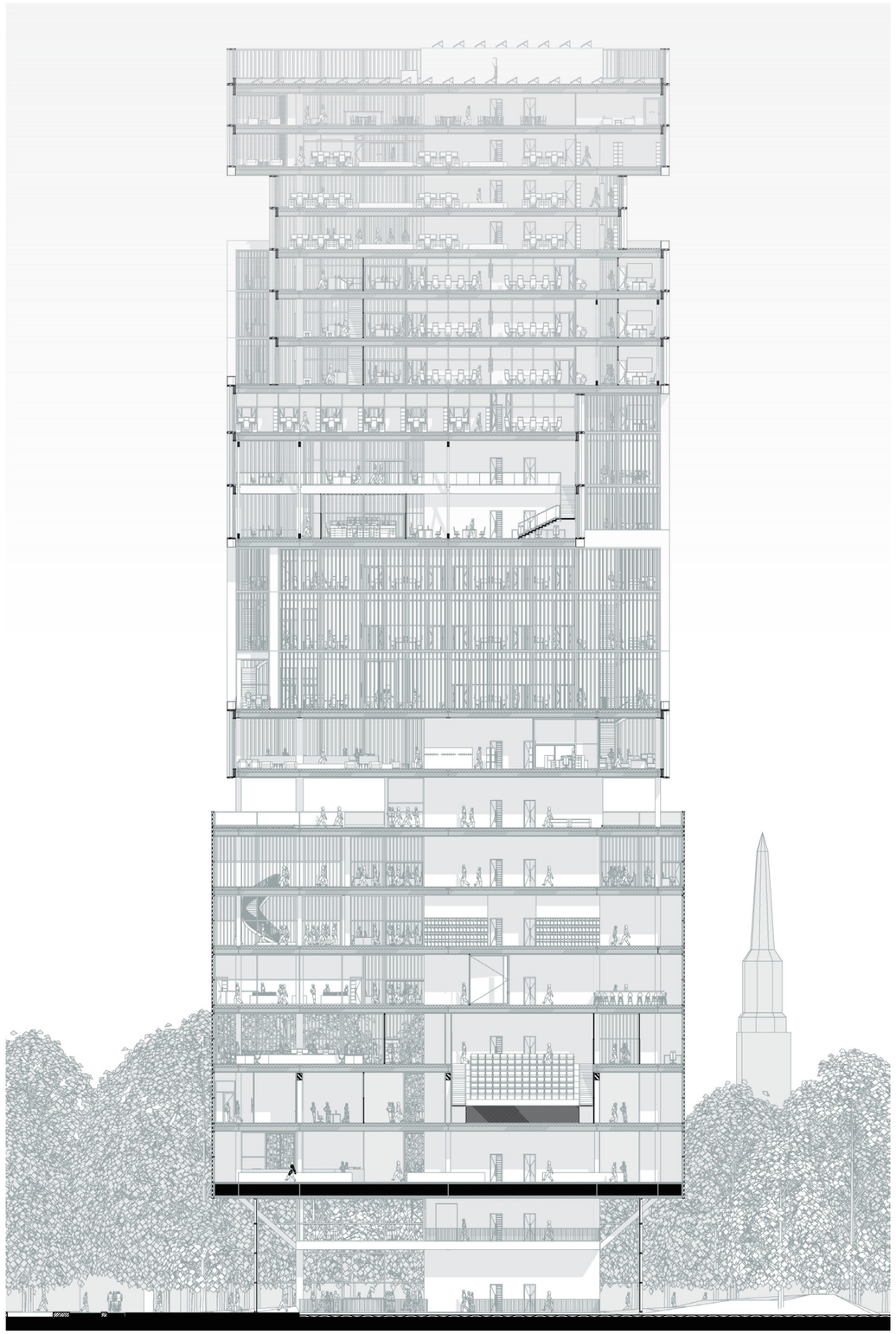
3. Architectural Design | Floor Plan - 13th Floor



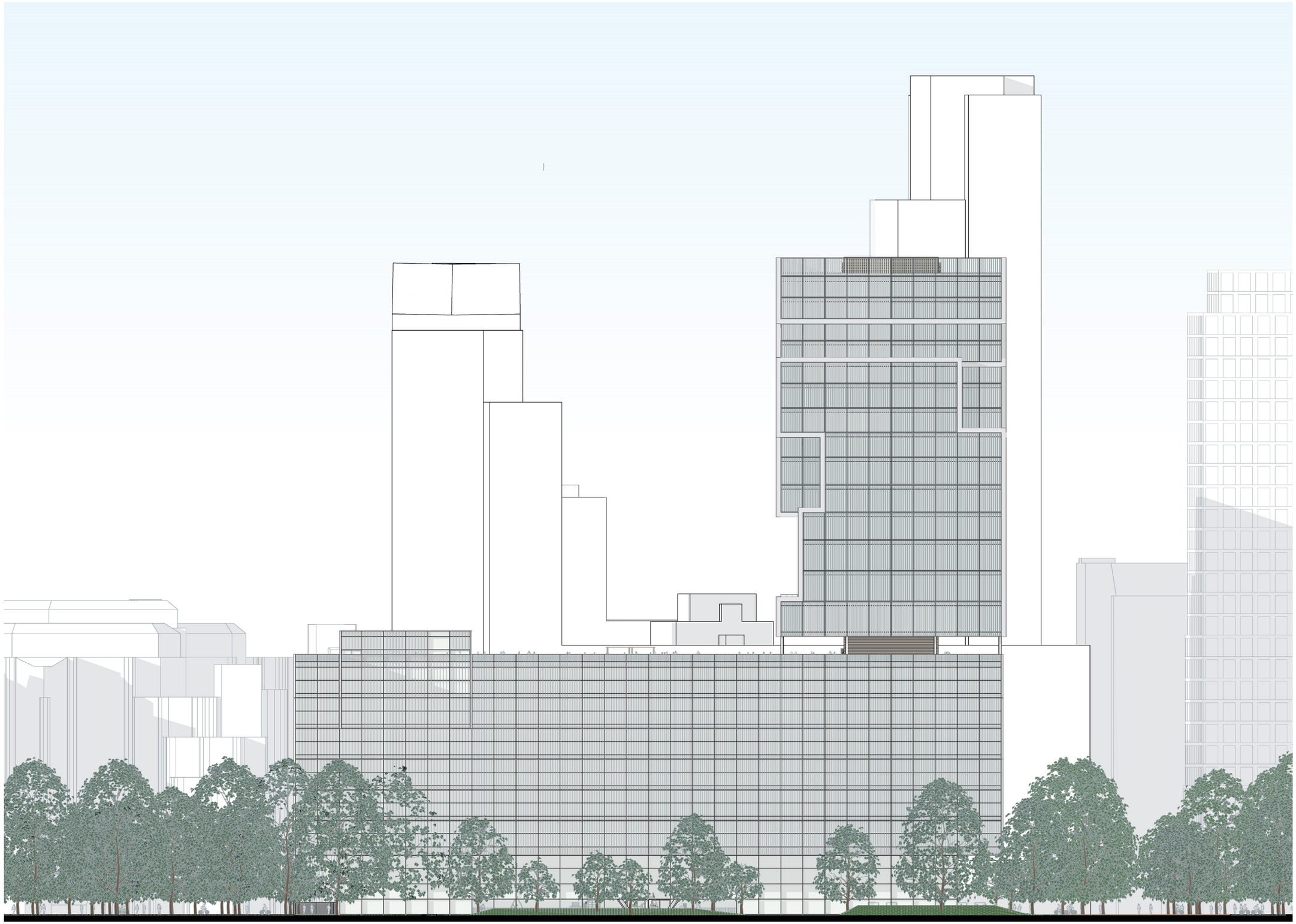
3. Architectural Design | Section - Looking towards the north



3. Architectural Design | Section - Looking towards the west

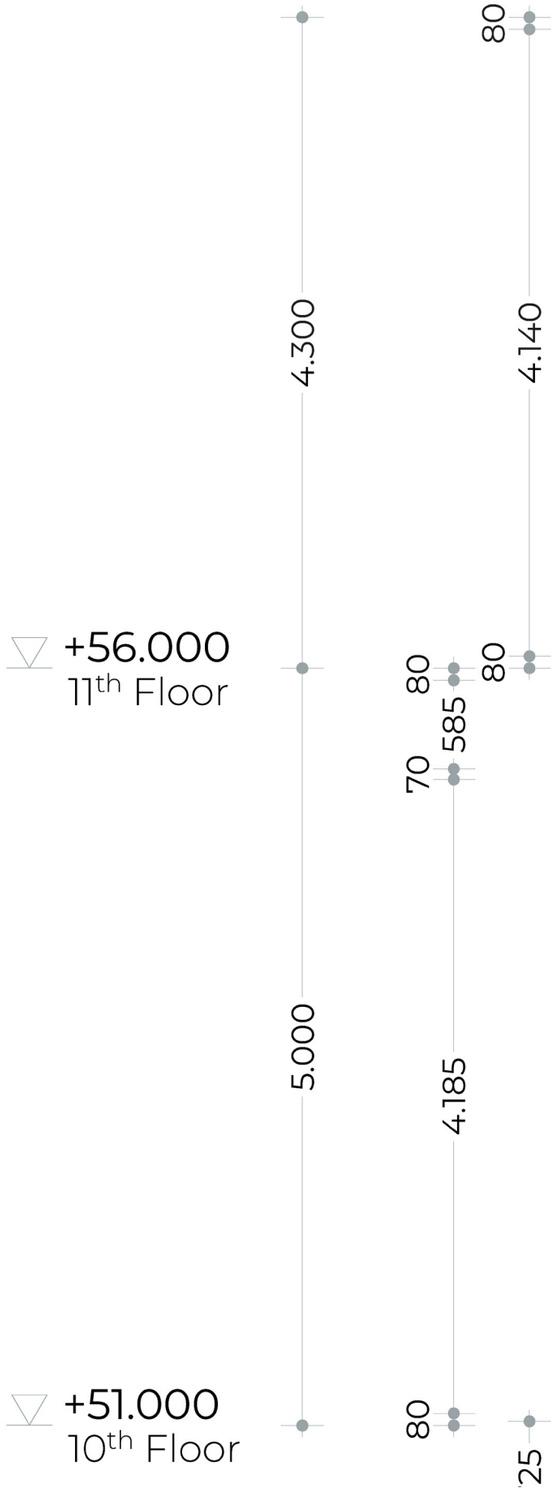


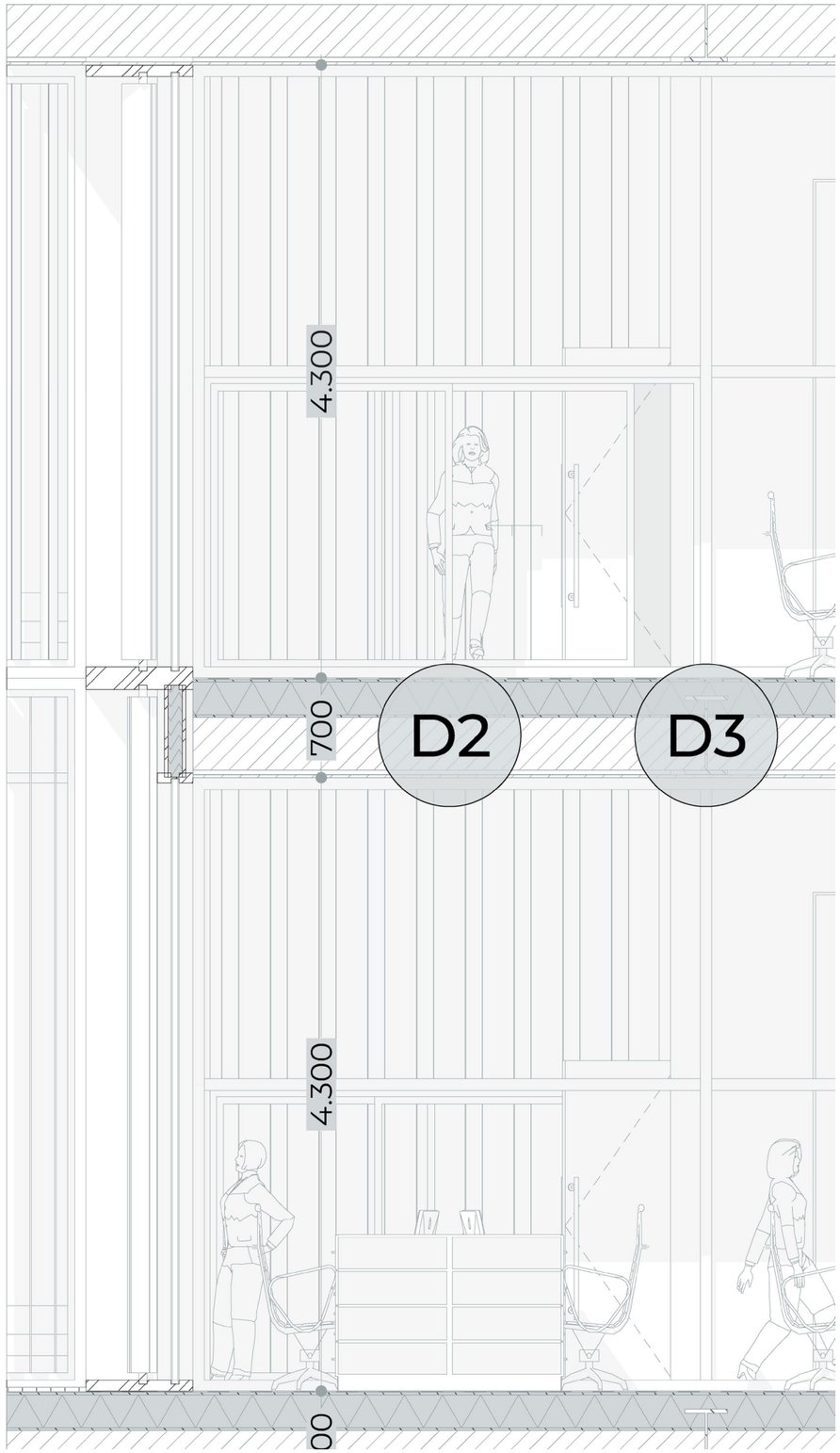
3. Architectural Design | Elevation - Looking towards the south



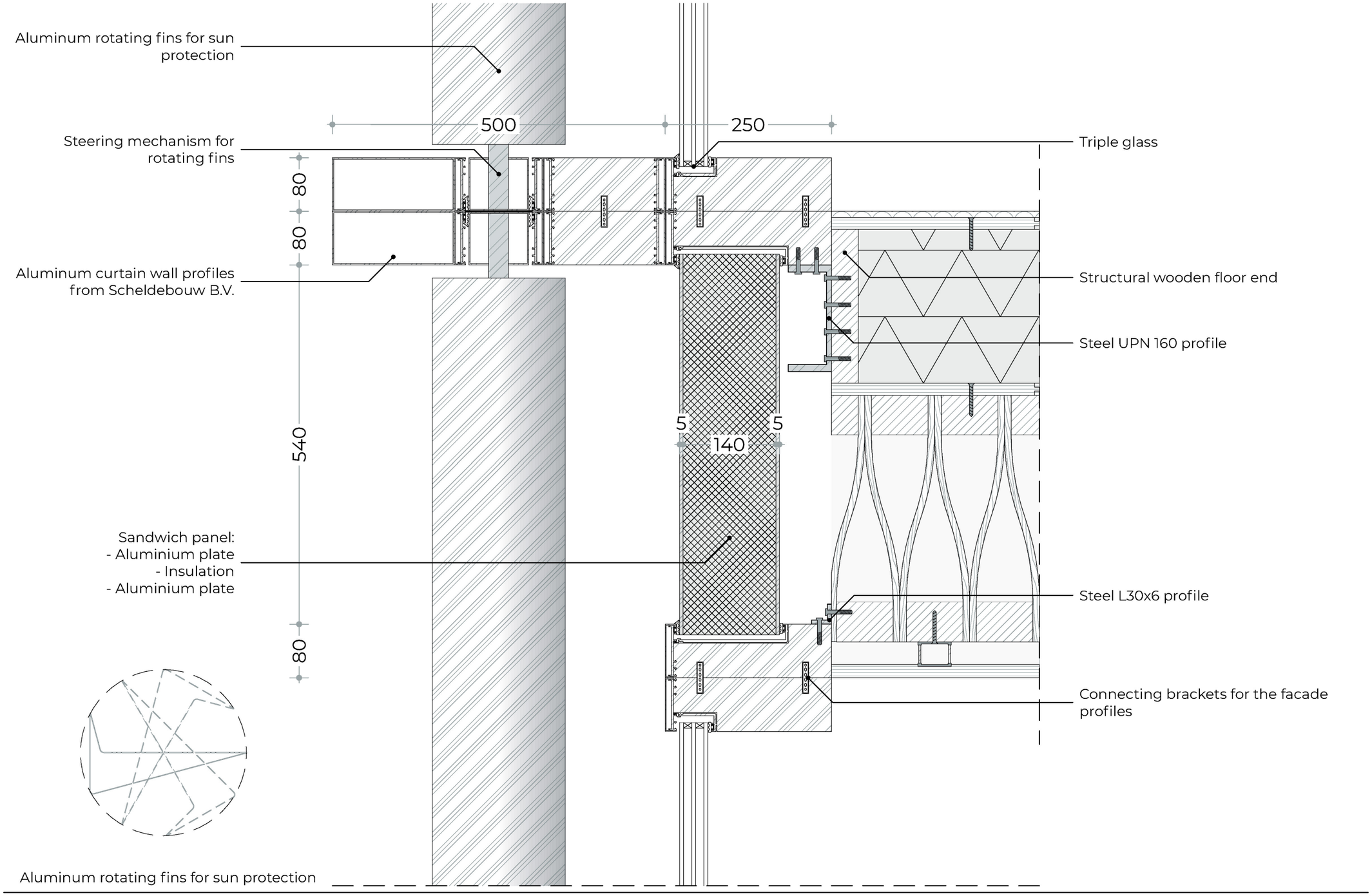
3. Architectural Design | Fragment elevation & section







4. Technical Design | Detail 1



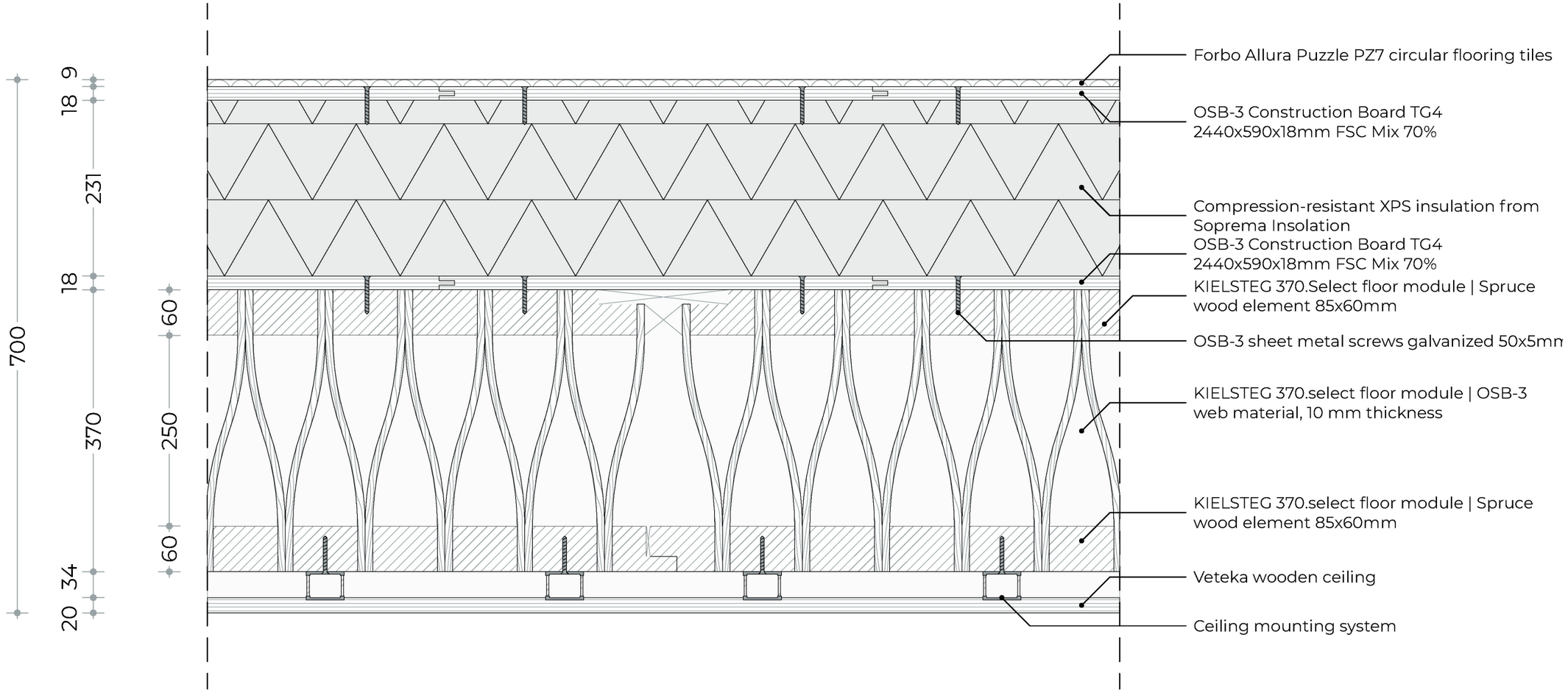
Detail 1 - Facade | 1:5

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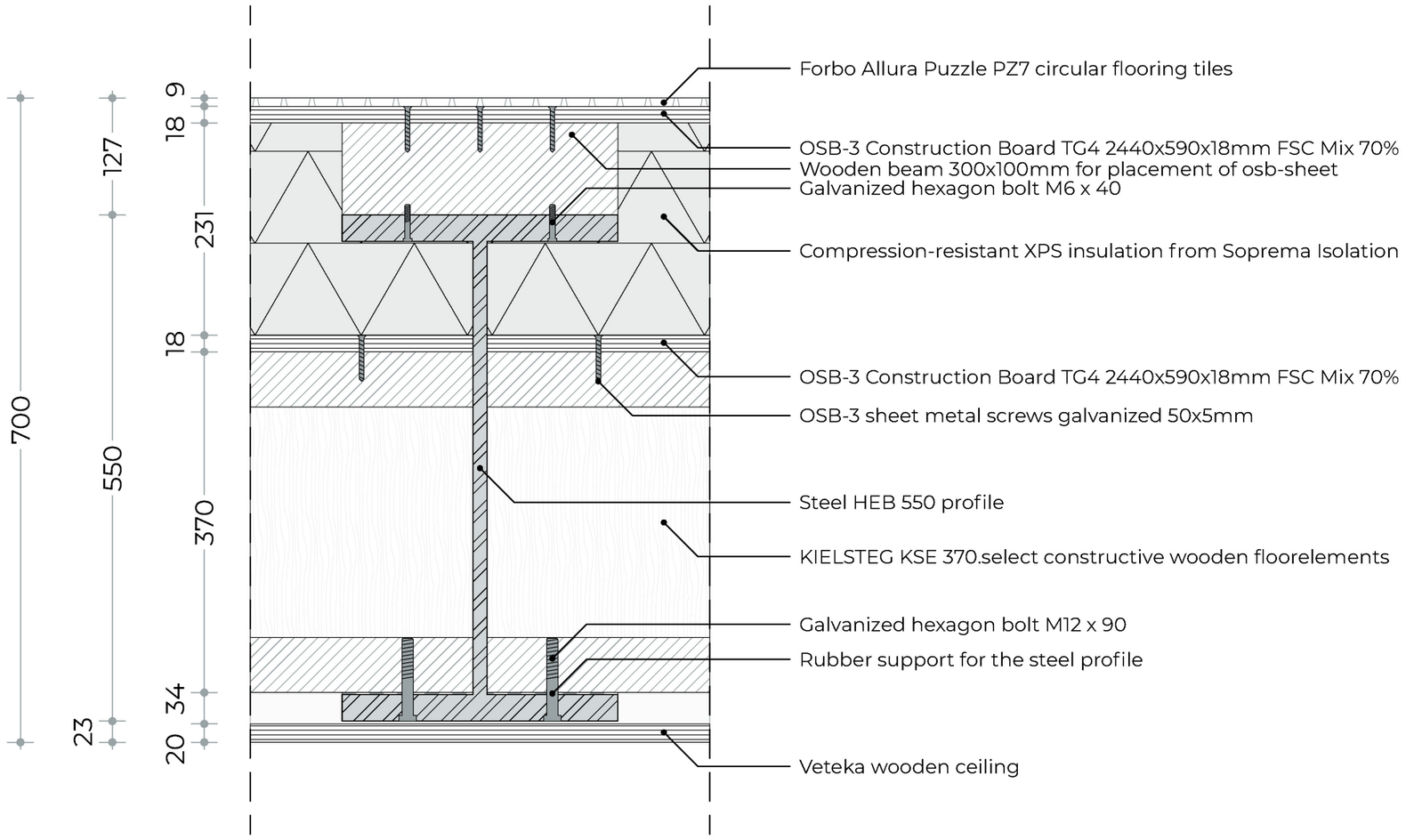
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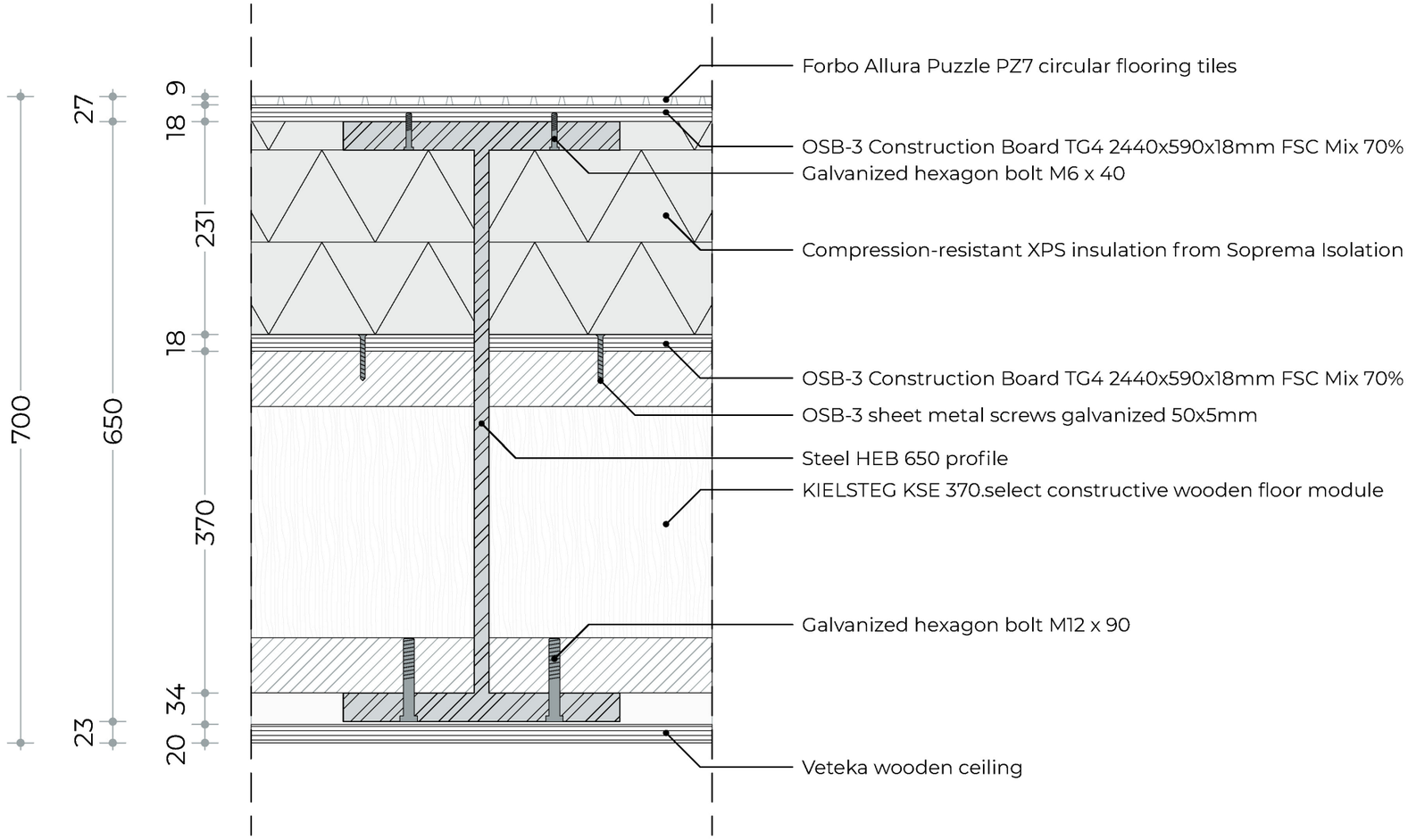
4. Technical Design | Detail 2



4. Technical Design | Detail 3

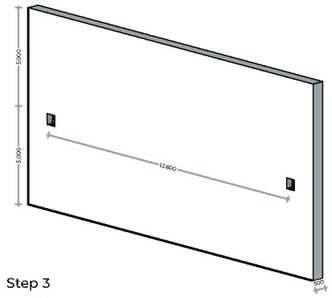


4. Technical Design | Detail 3

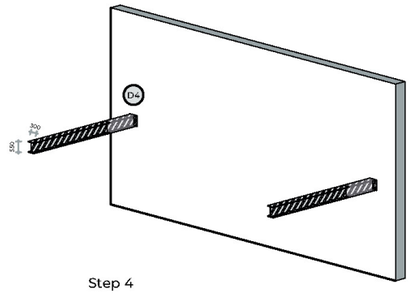


4. Technical Design | Building Sequence

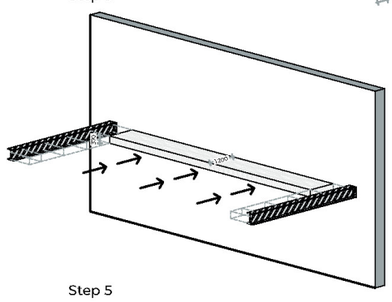
Step 1



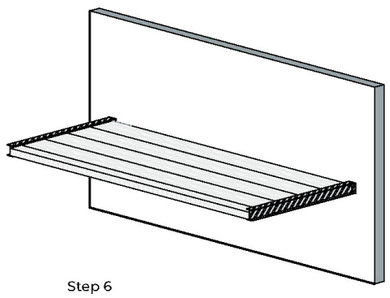
Step 2



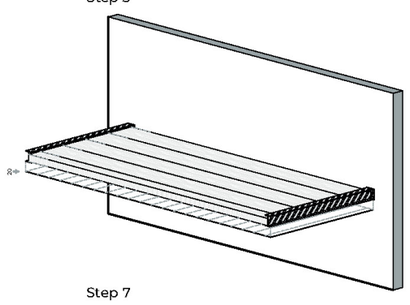
Step 3



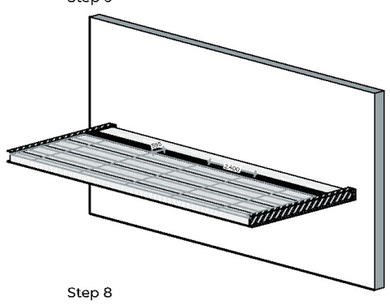
Step 4



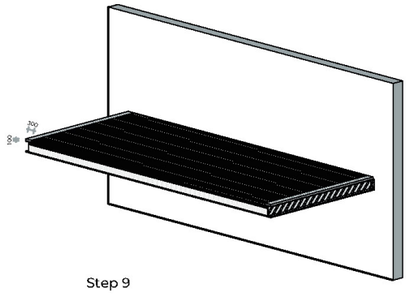
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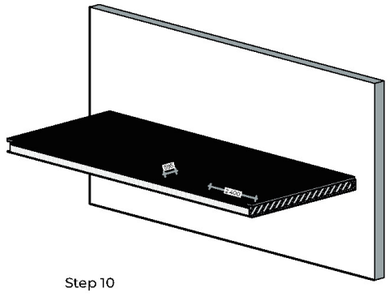
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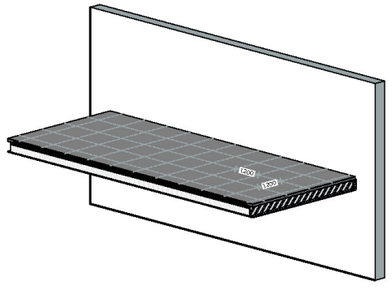
Step 7



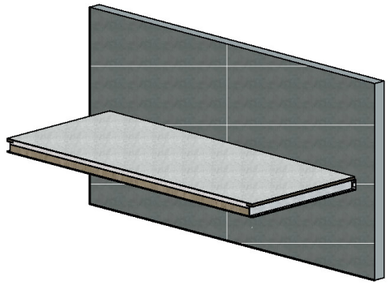
Step 8



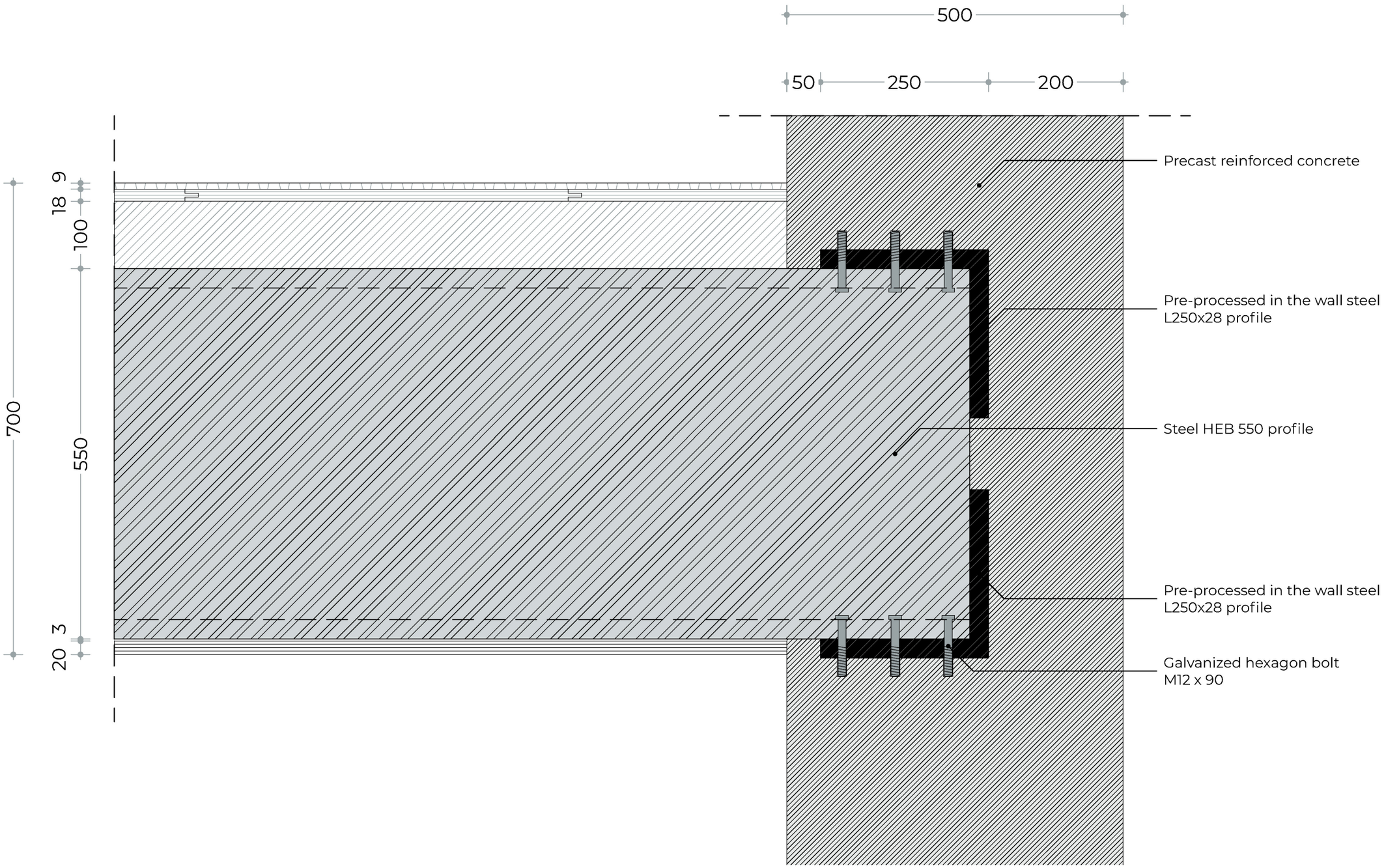
Step 9



Step 10



4. Technical Design | Detail 4



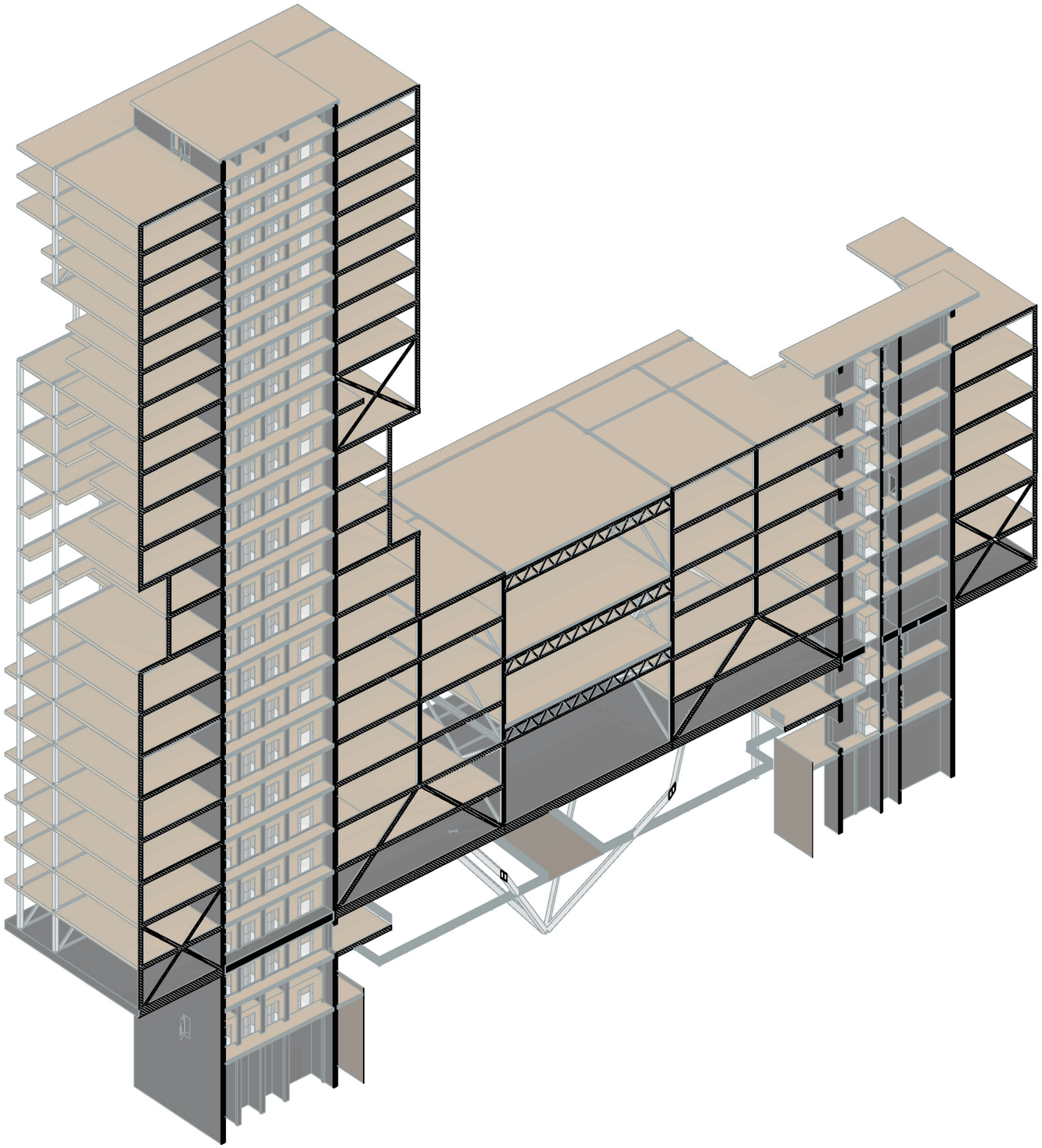
Detail 4 - Core connection | 1:5

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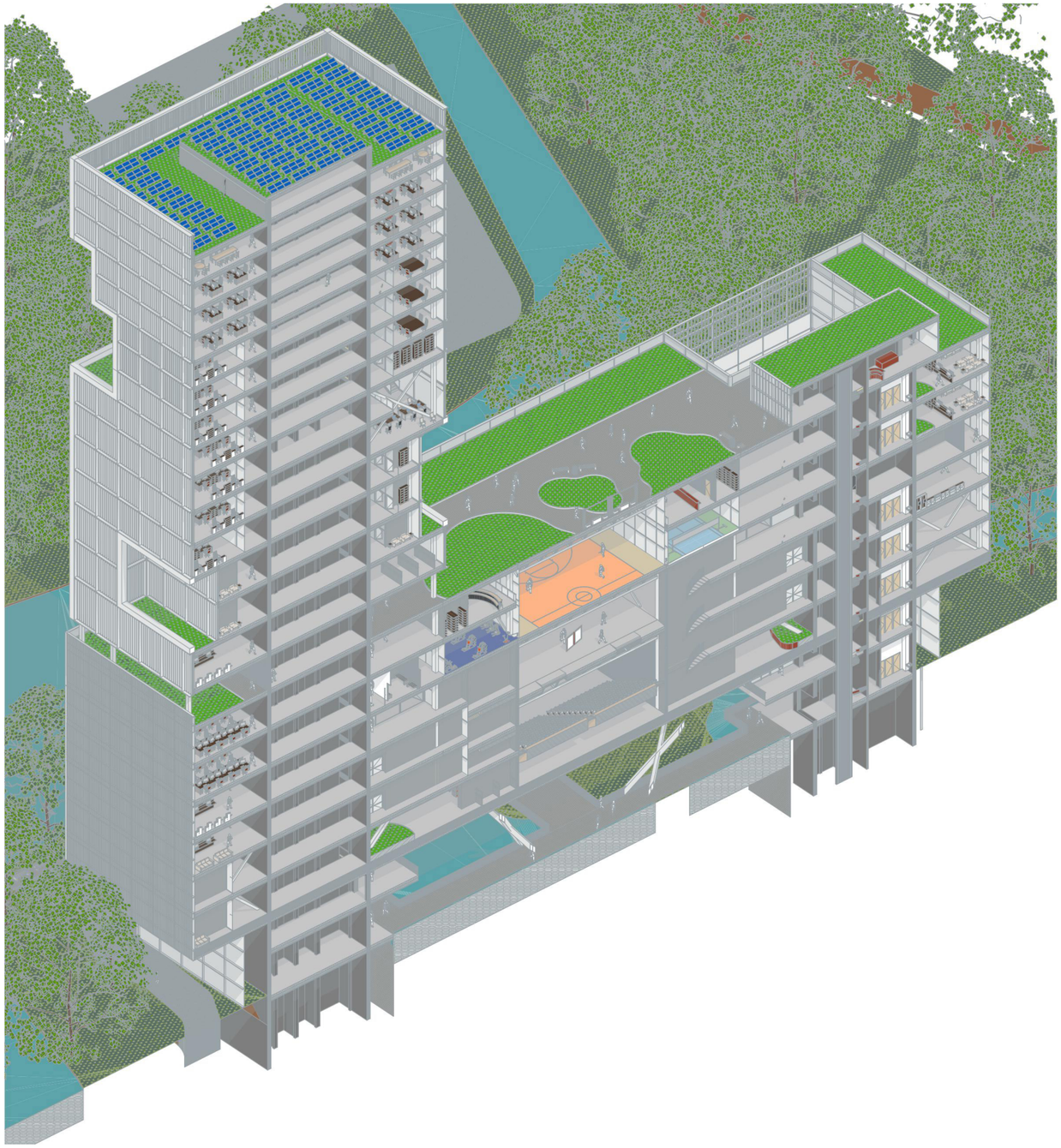
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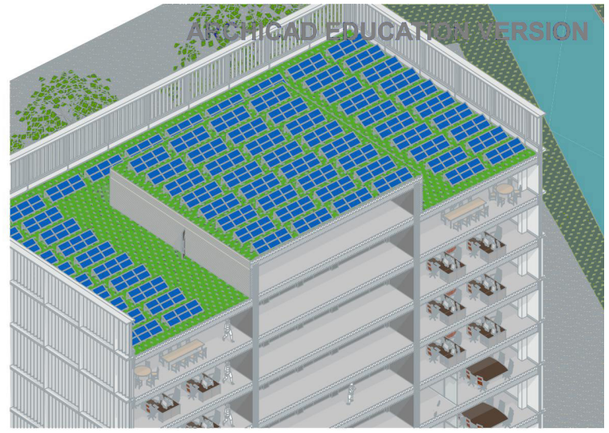
4. Technical Design | Axonometric section of the structure



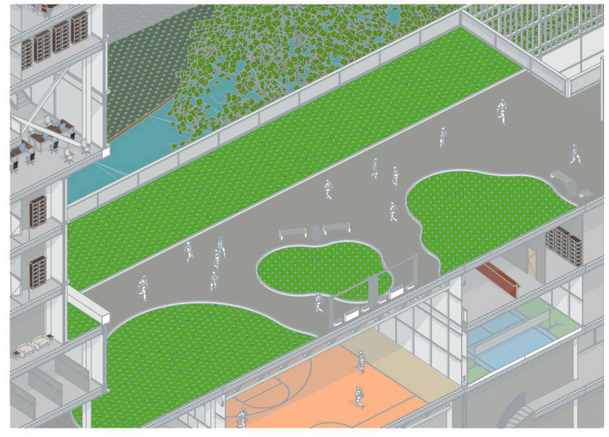
4. Technical Design | Sustainability aspects



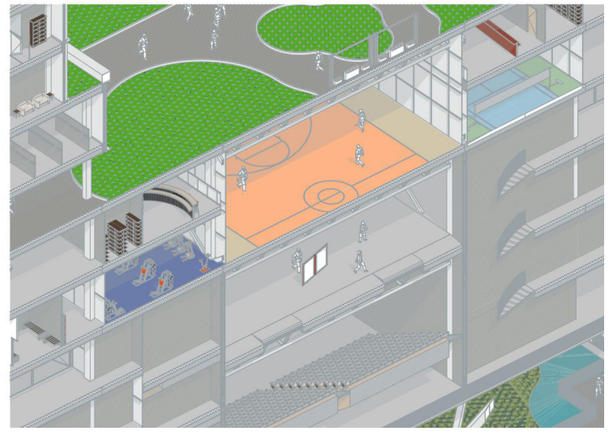
Generating sustainable energy through solar panels on the roof



Green roof to reduce the warming of the building mass



The climate can be controlled per room. This means that the entire building, including empty spaces, does not need to be heated or cooled.



5. Impressions | Interior



5. Impressions | Hybrid Learning Environment



5. Impressions | From the park during winter



THE END

P5 PRESENTATION

The Vertical Campus | Campus Haagsche Park

Tristan Hazeleger | 5658608

AR3AP100 | Public Building Design

MSc Architecture, Urbanism and Building Sciences | TU Delft



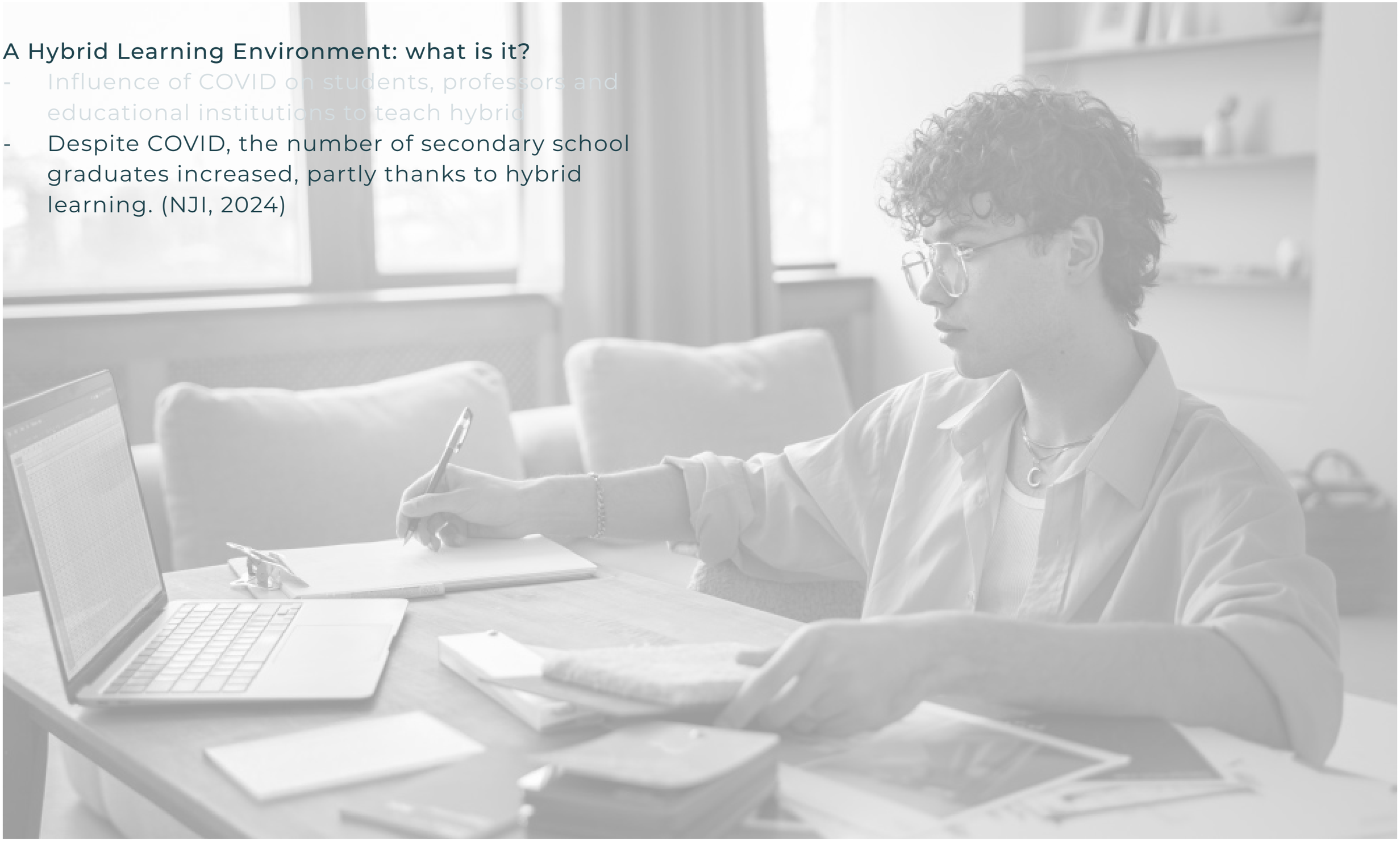
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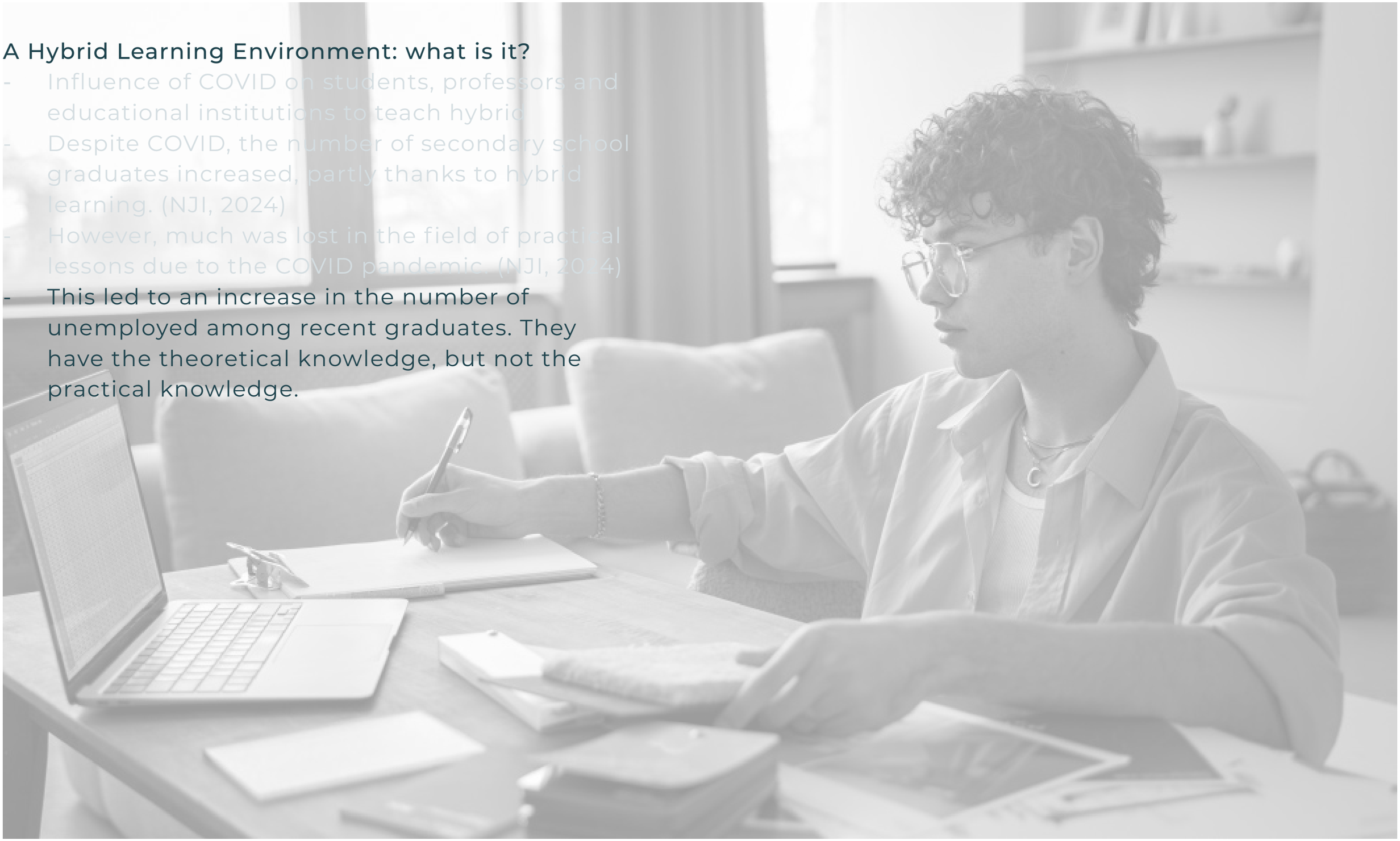
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That is why a hybrid learning environment on Campus Haagsche Park:
where practice and theory come together.

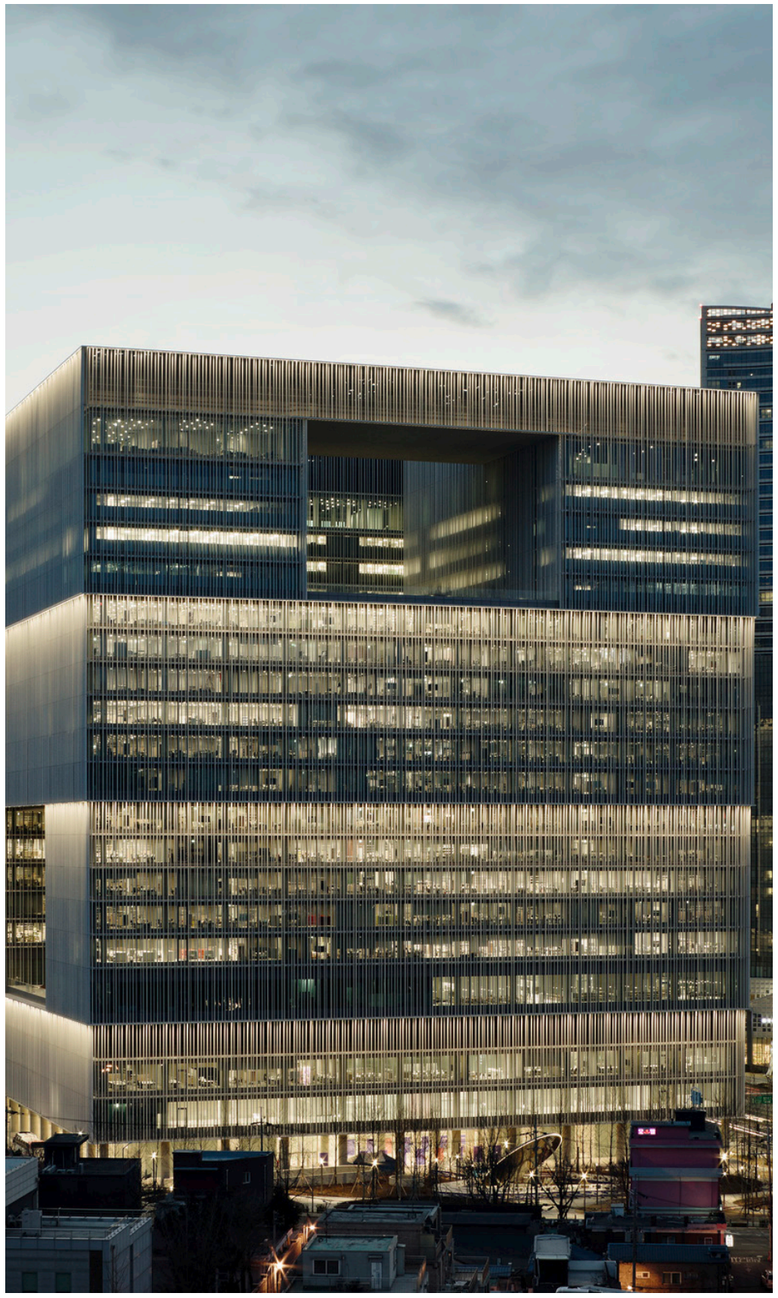
However, it is not only in education that the term ‘hybrid’ is applied, also in the following parts of Campus Haagsche Park:

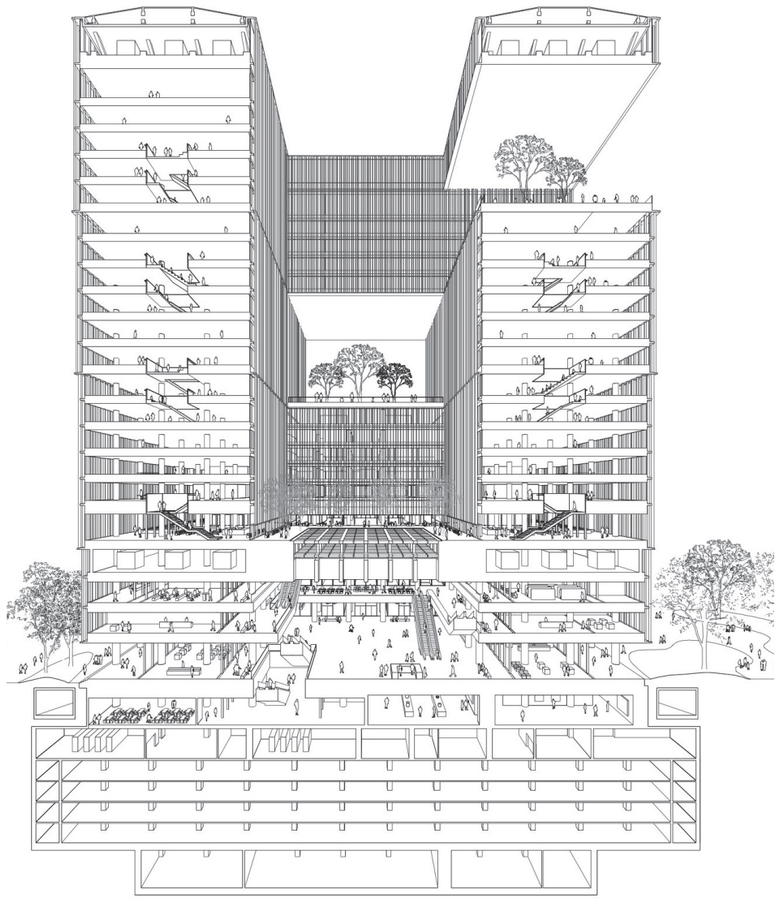
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Reference | Amorepacific Headquarters - David Chipperfield

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Reference | Marga Klompé Building - Powerhouse Company

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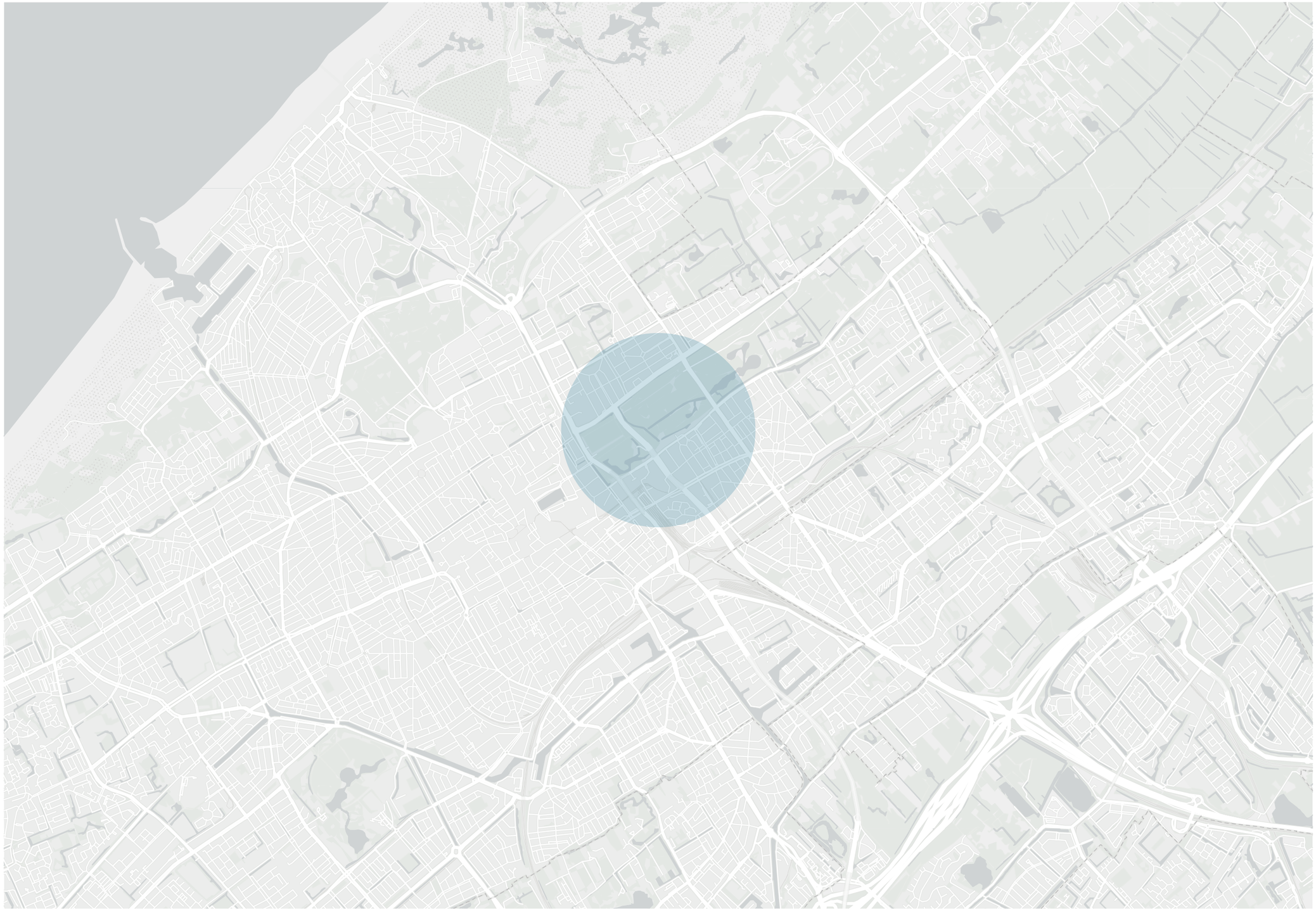


Reference | Deventer City Hall - Neutelings Riedijk Architecten

2. Location | The city of The Hague



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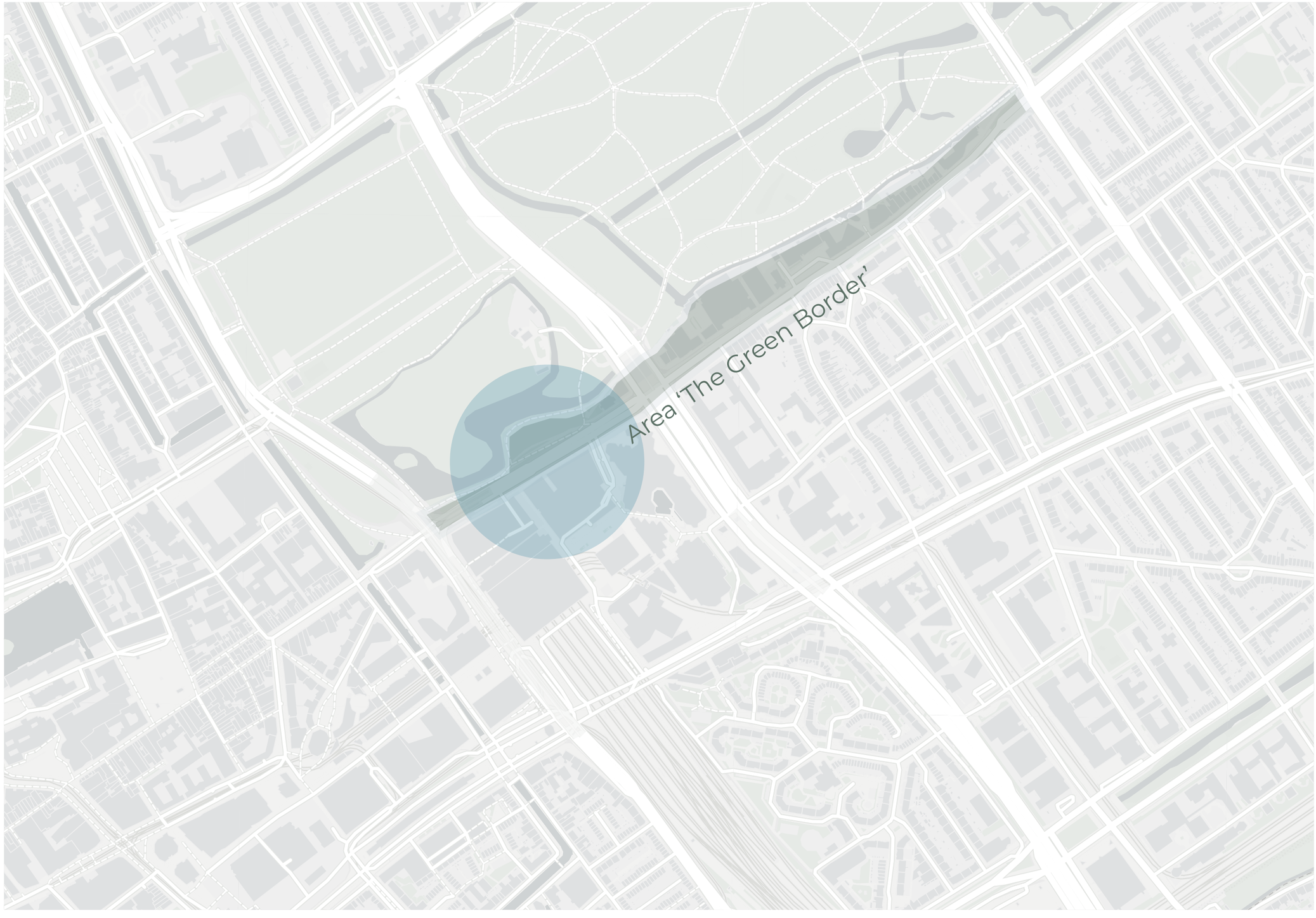
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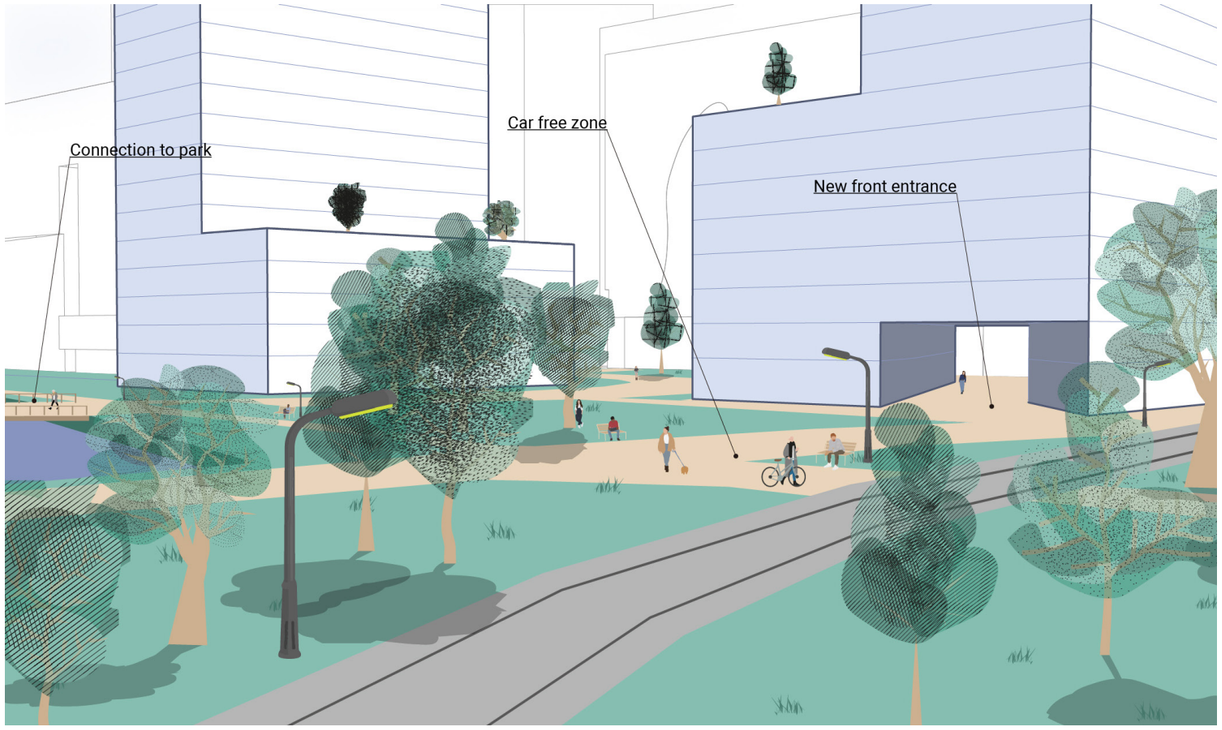


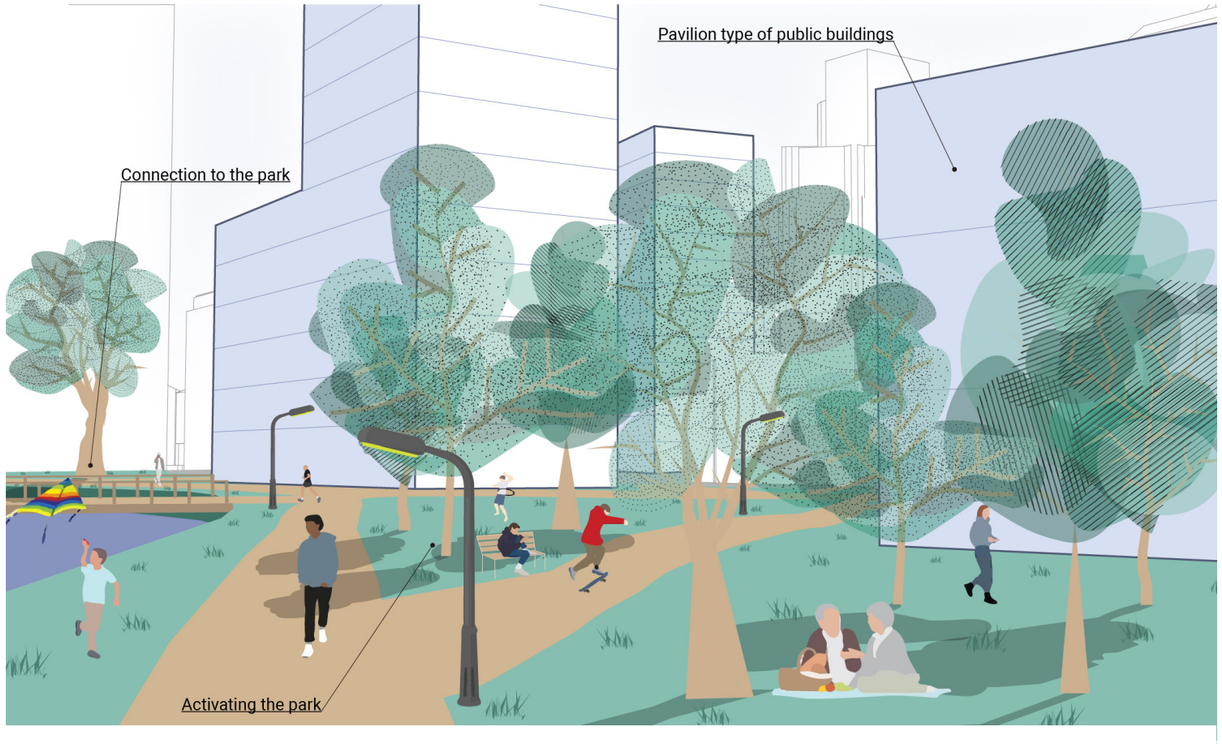
2. Location | Recap from P1

- Main narrative point: **intertwining park and city**
- More publicly accessible green into the city
- Activating the current park by adding publicly accessible buildings in it

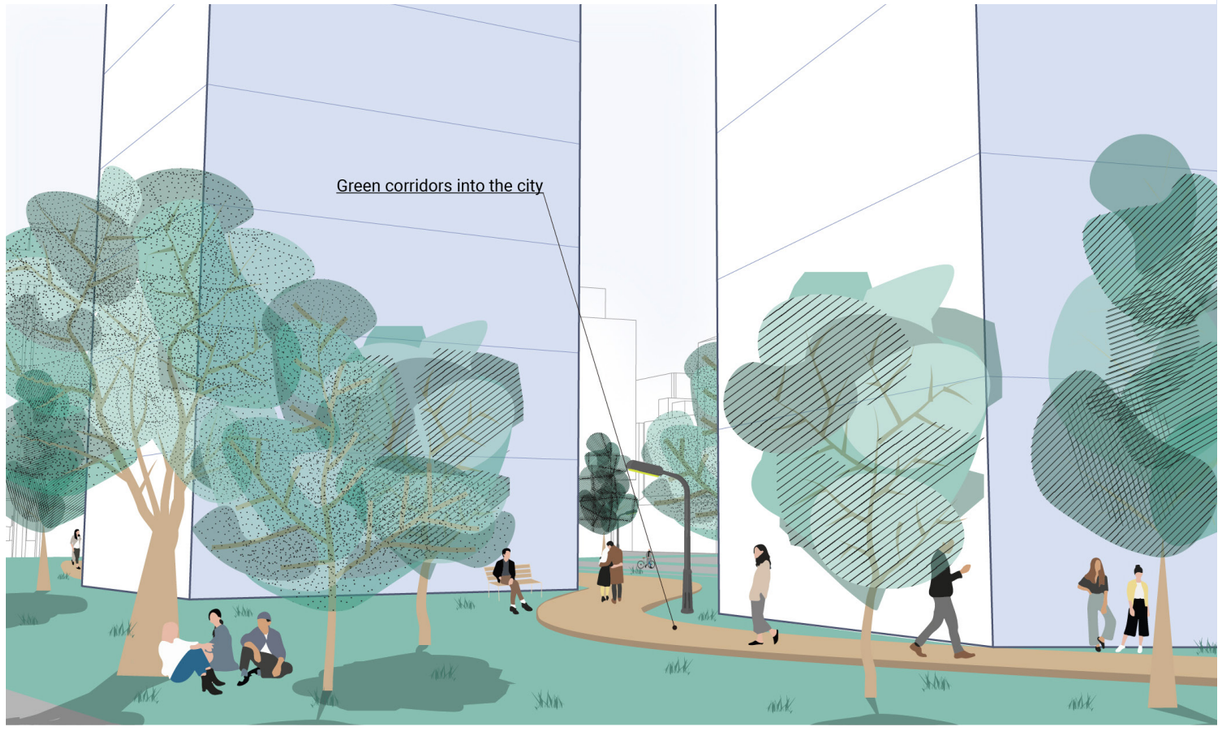


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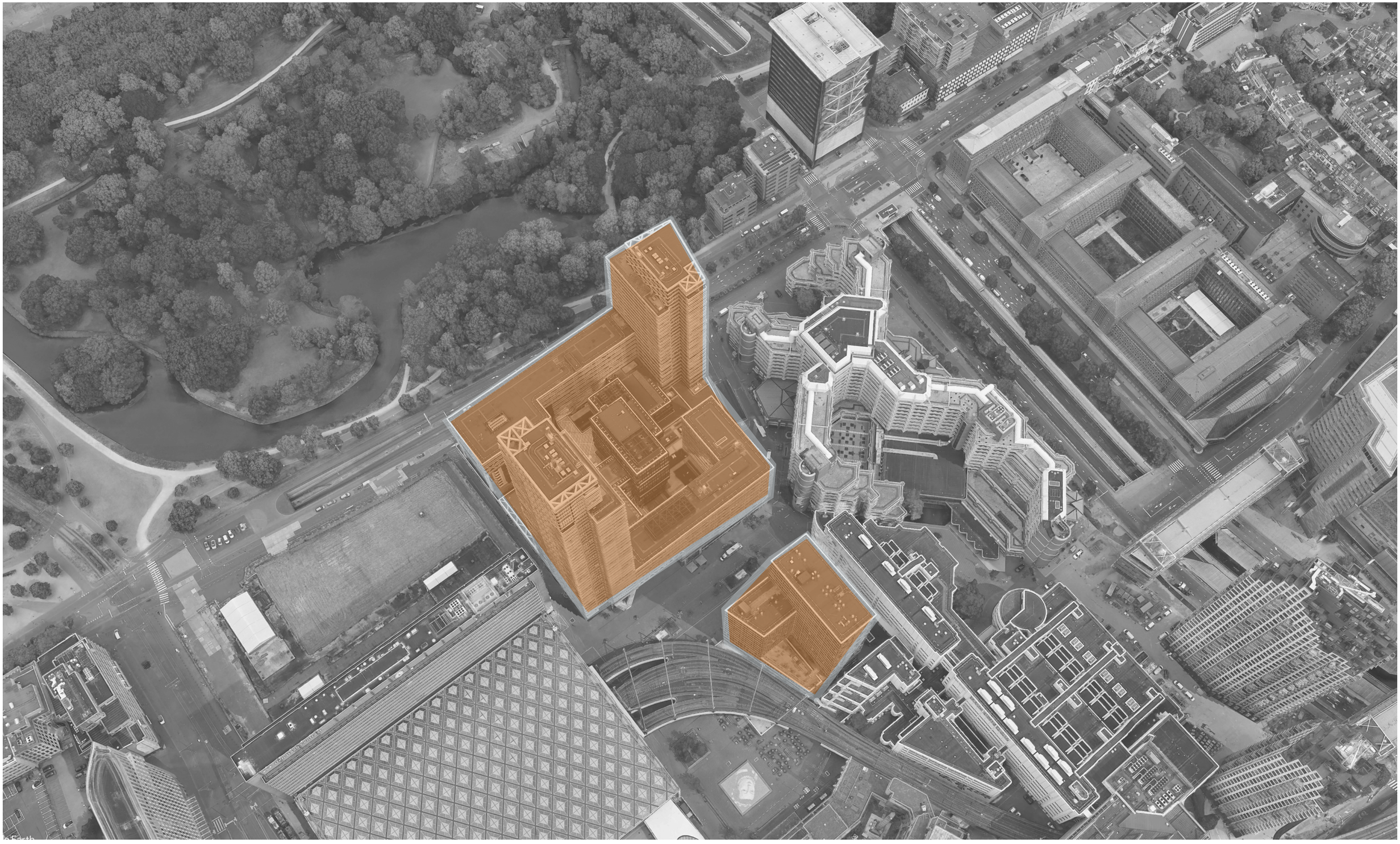




2. Location | Forming the campus

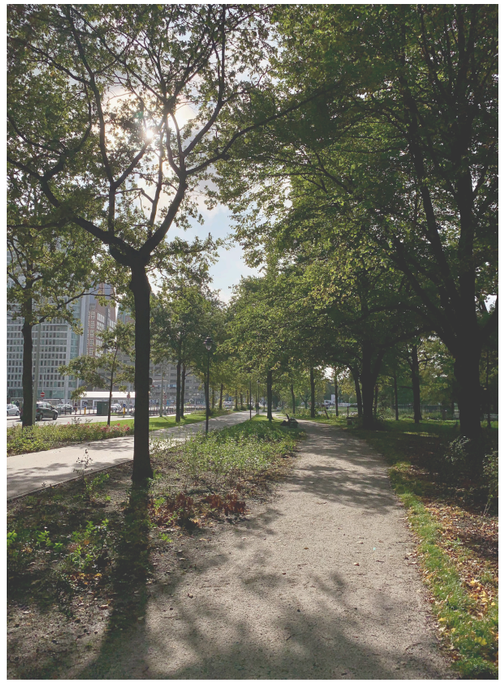


2. Location | Forming the campus



2. Location | Pictures of the area







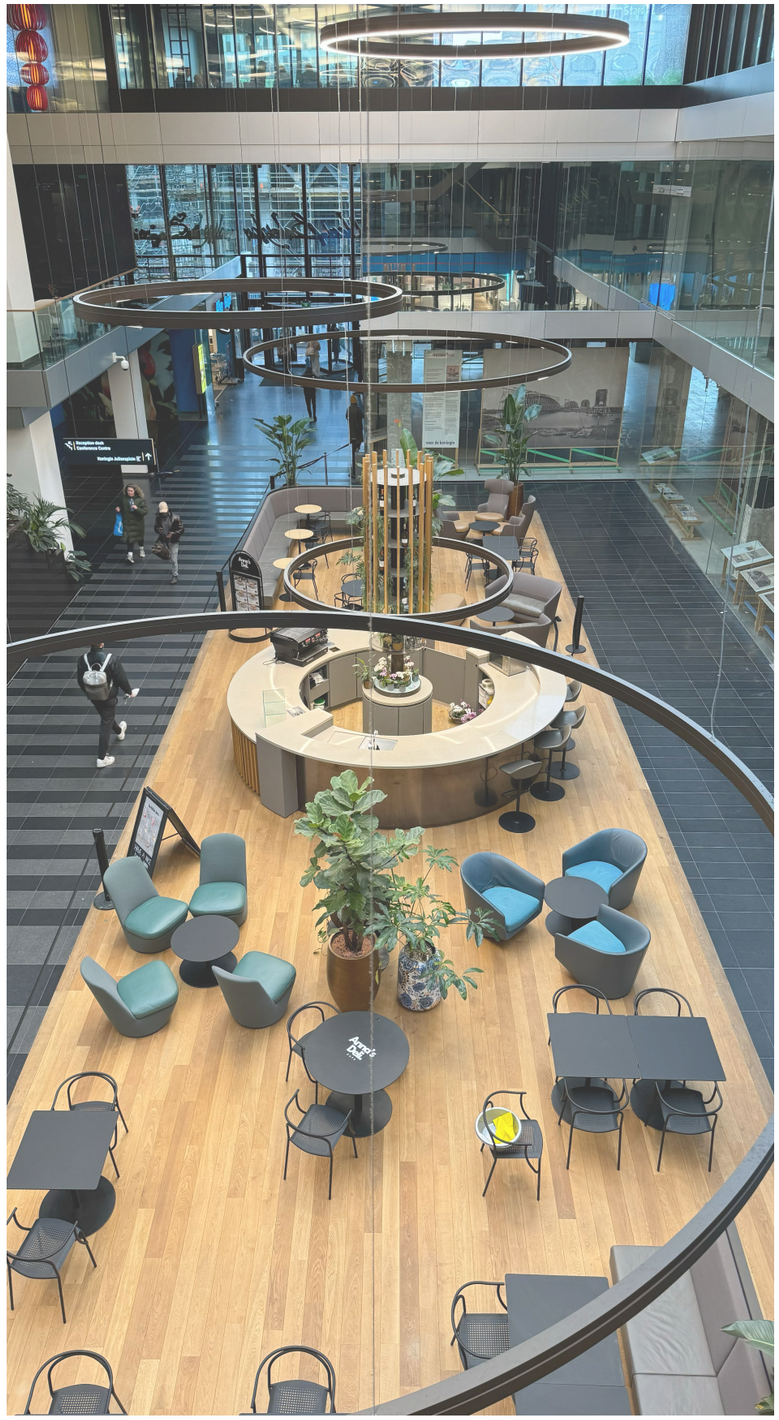




2. Location | Existing building of the campus: New Babylon







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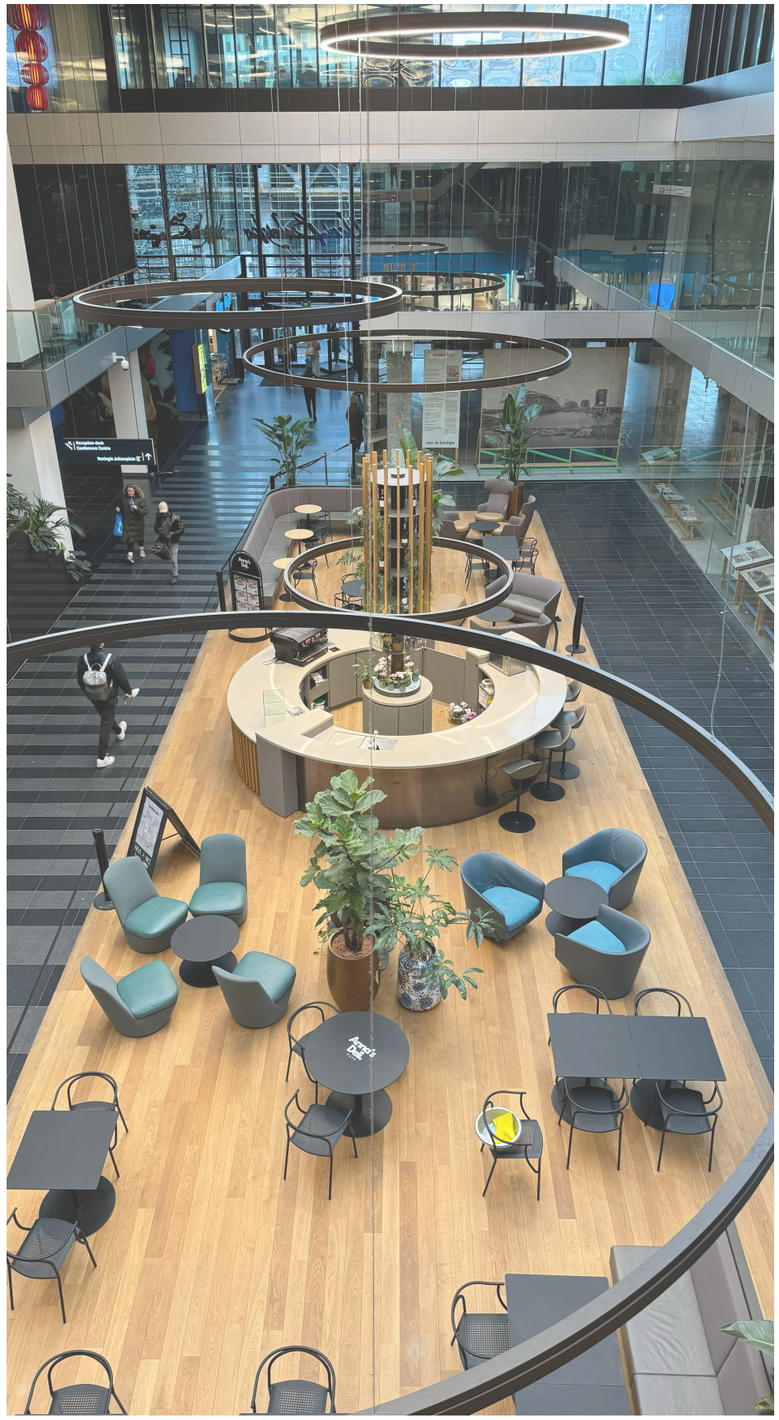
About New Babylon

- The original New Babylon dates from 1978 and was designed by J.A. Lucas and W.Th. Ellerman. (Wicona, 2022)

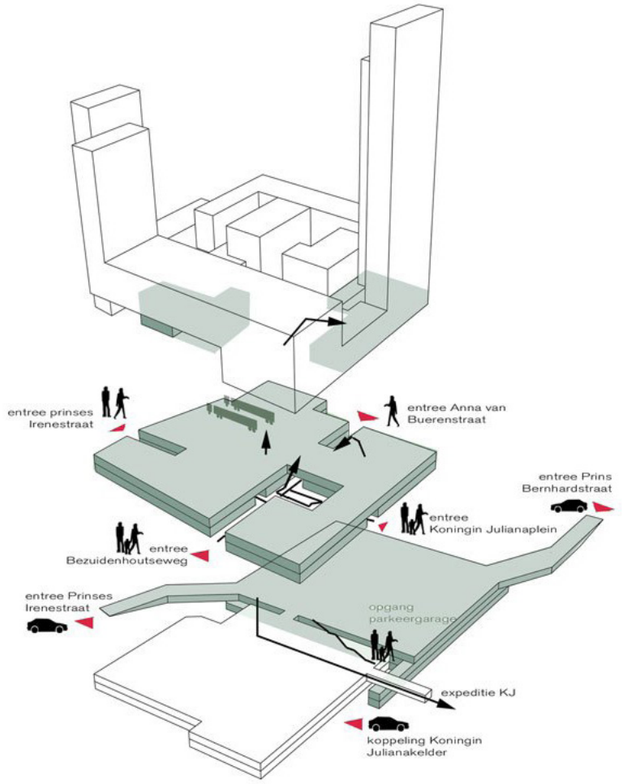
- The current design of the building was completed in 2012, this design comes from MVSA architects.

- The complex has a gross area of 143.000 sqm

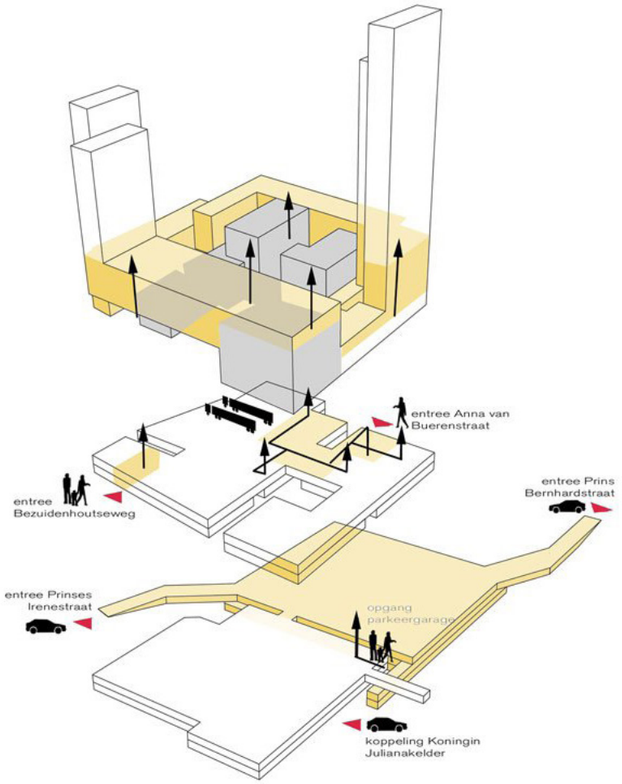
Source:
MVSA, no date



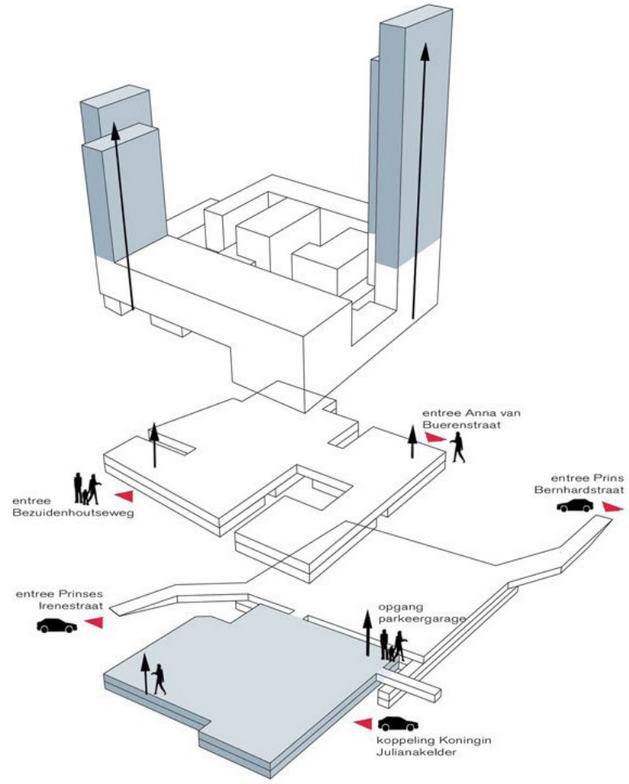
2. Location | Existing building of the campus: New Babylon



Public



Working



Living

2. Location | Existing building of the campus: Leiden University Anna van Buerenplein







2. Location | Existing building of the campus: Leiden University Anna van Buerenplein



About Leiden University

- Designed by Wiel Arets Architects in 2012.
- Focus on student housing and the associated facilities.
- 396 residences for students of the Leiden University.
- The complex has a gross area of 24.500 sqm

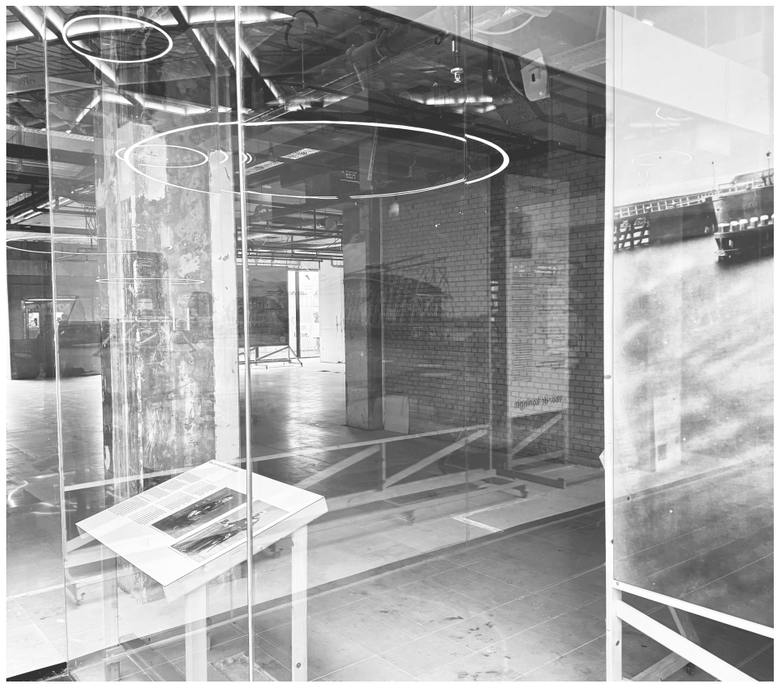
Source:
Kuitenbrouwer, P., 2014 in DASH Magazine no. 10



2. Location | Problems in het current situation









2. Location | Solution to the posed problem





2. Location | Solution to the posed problem



ProDemos
Huis voor democratie en rechtsstaat

TU Delft

Universiteit Leiden

THE HAGUE
CONFERENCE CENTRE
New Babylon





ProDemos
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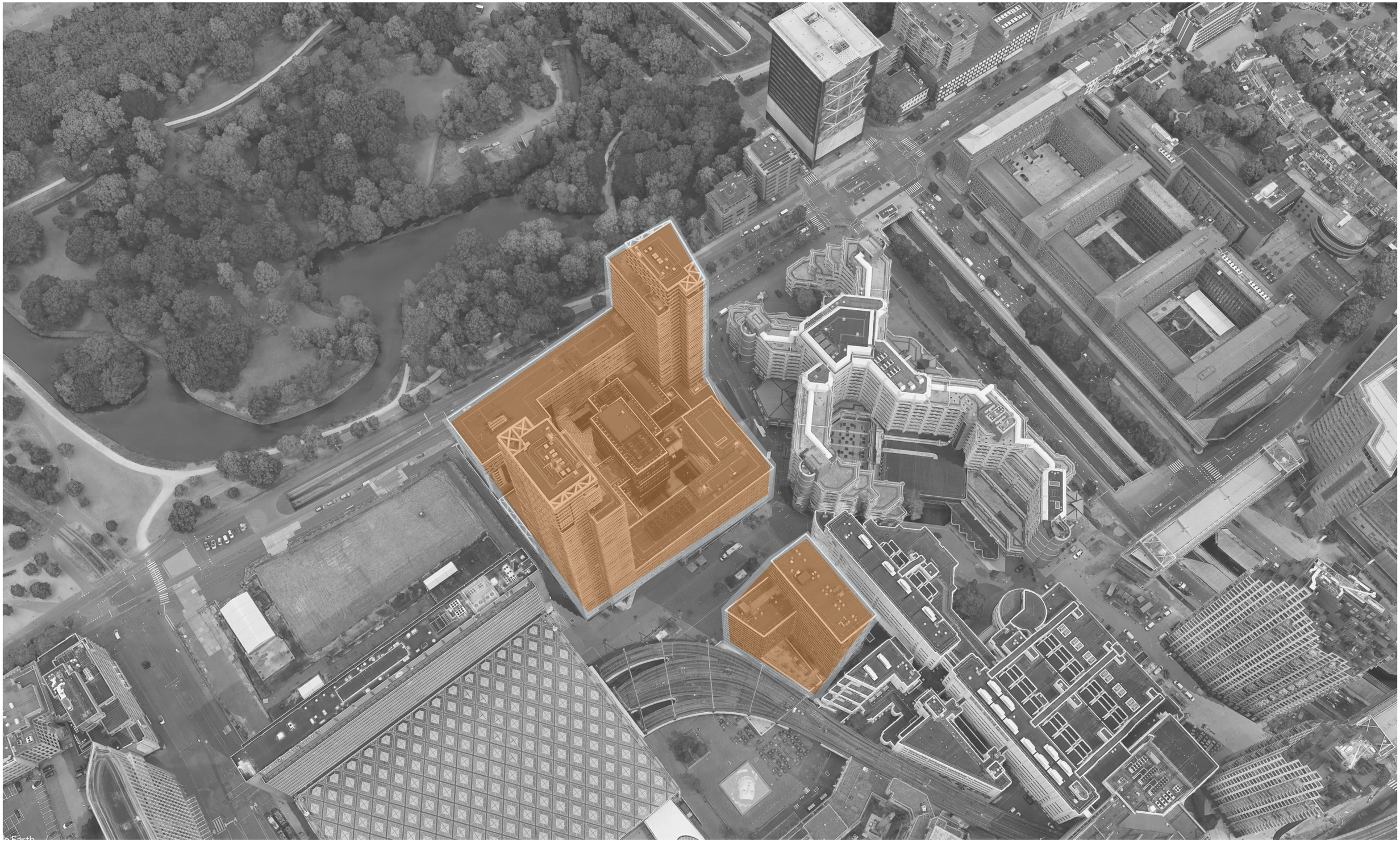
CAMPUS HAAGSCHE PARK

Universiteit Leiden

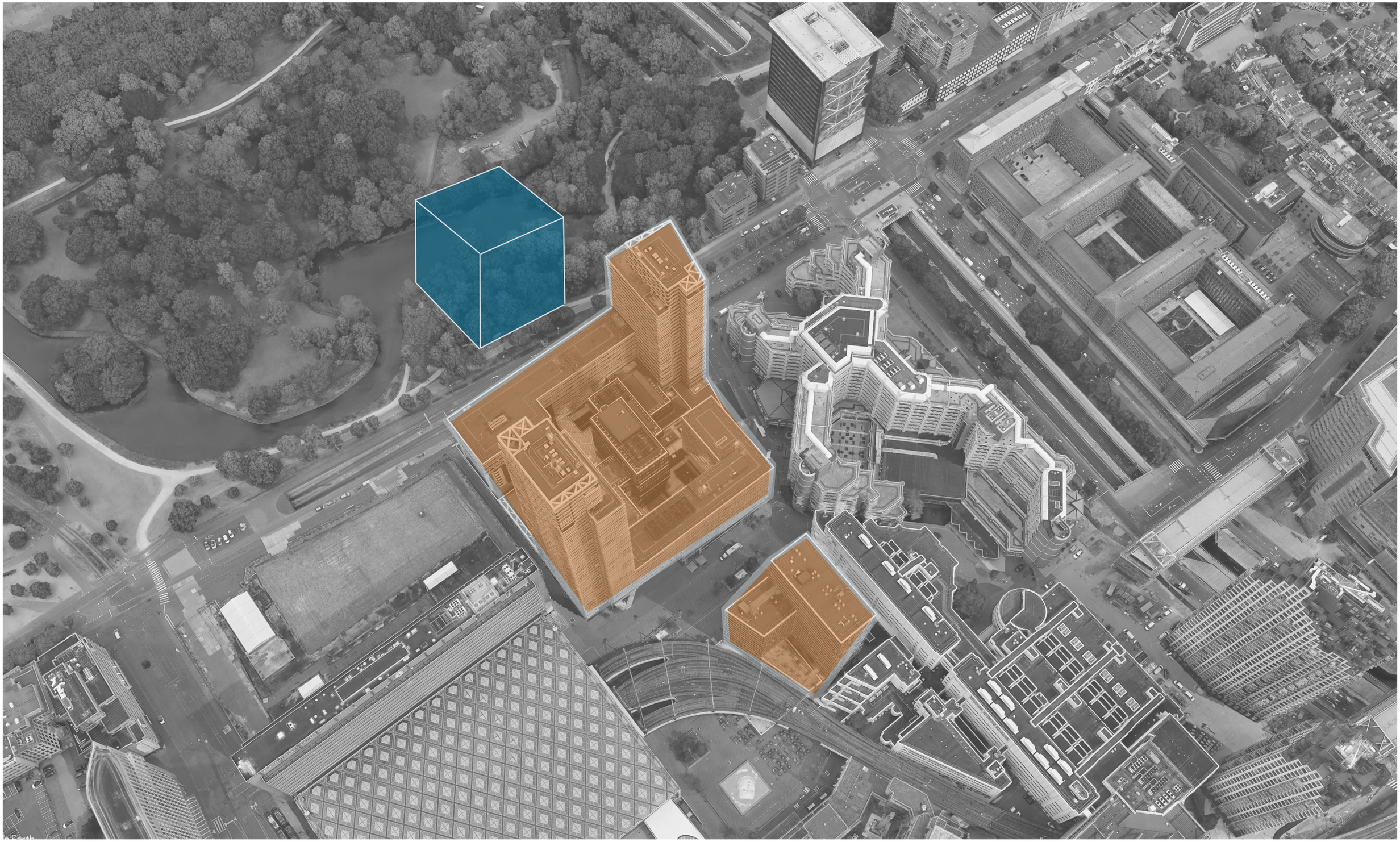
THE HAGUE CONFERENCE CENTRE
New Babylon



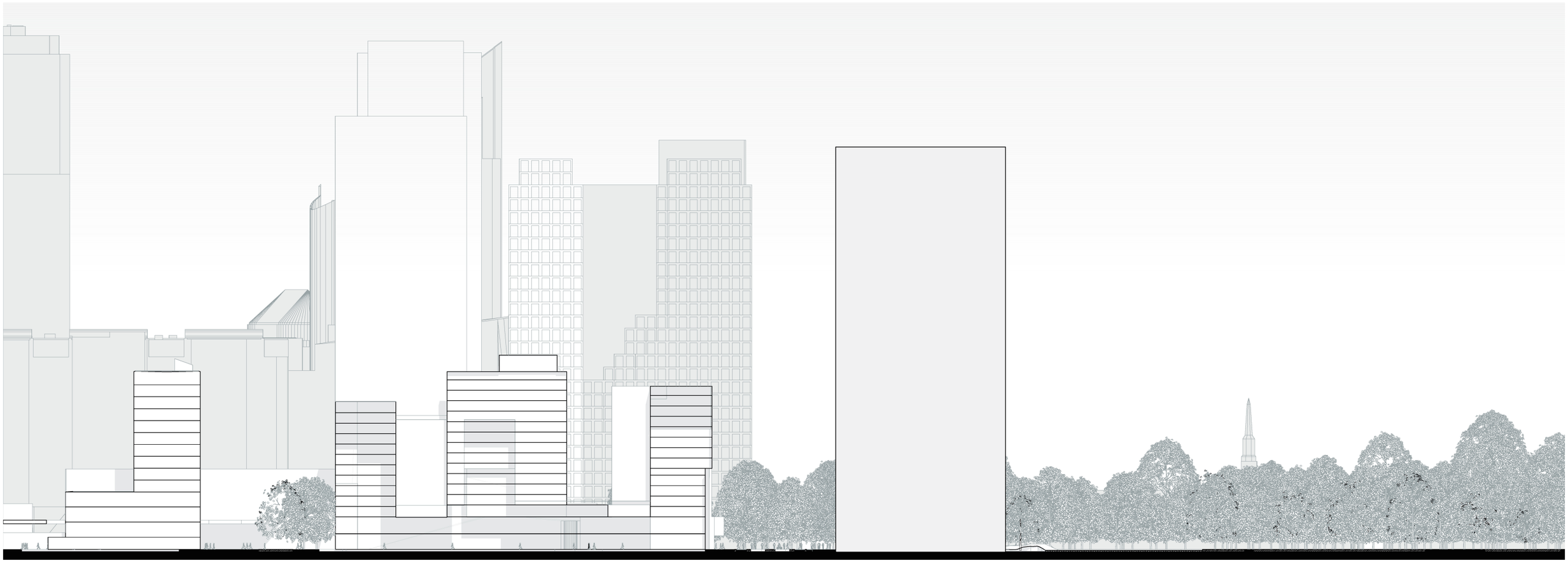
2. Location | Forming the campus



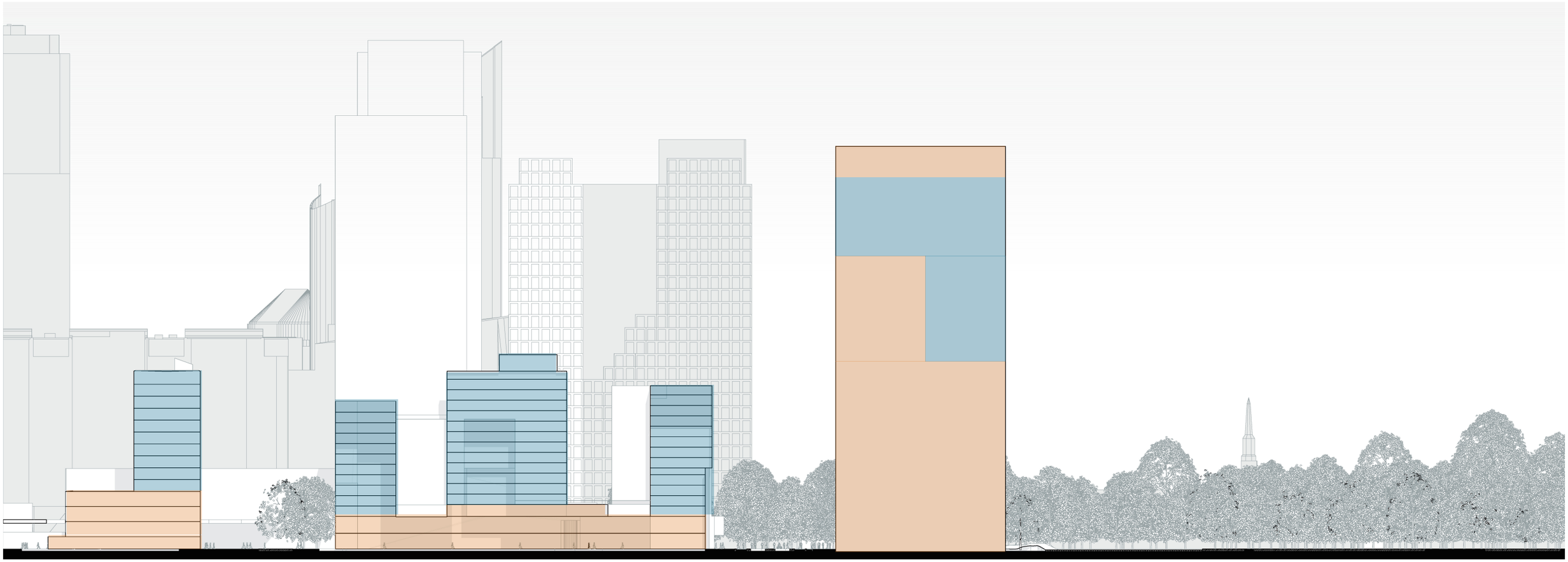
2. Location | Forming the campus



3. Architectural Design | Urban Section with the new volume

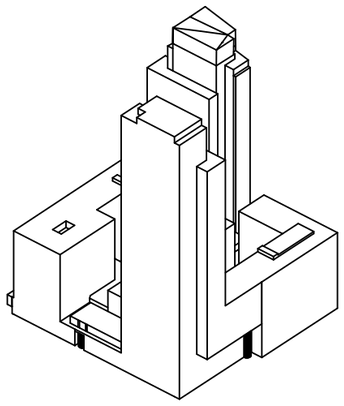


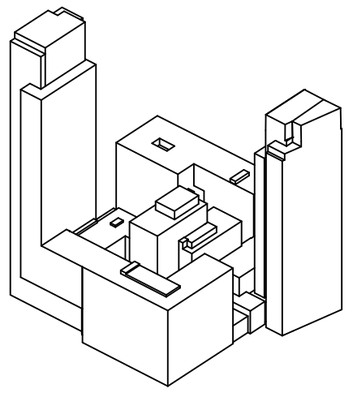
3. Architectural Design | Urban Section with proposed program

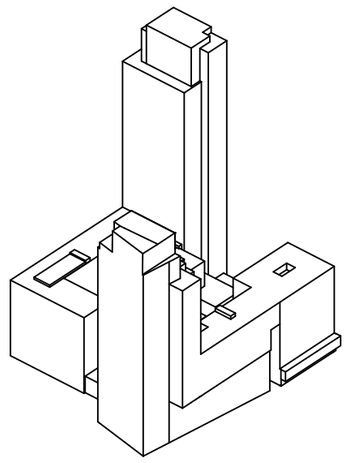


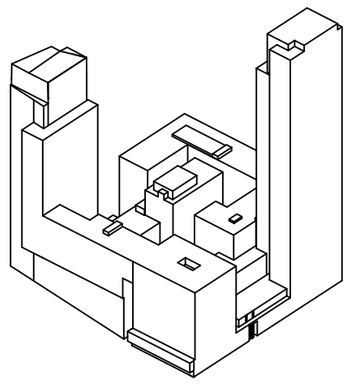
Publicly accessible functions

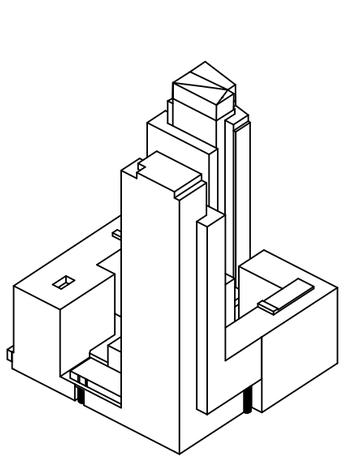
Non-publicly accessible functions

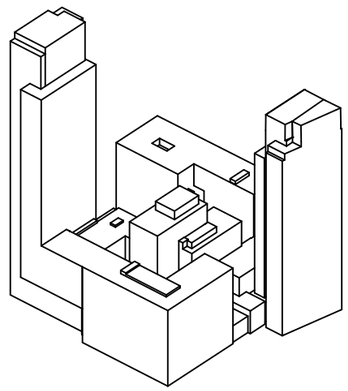


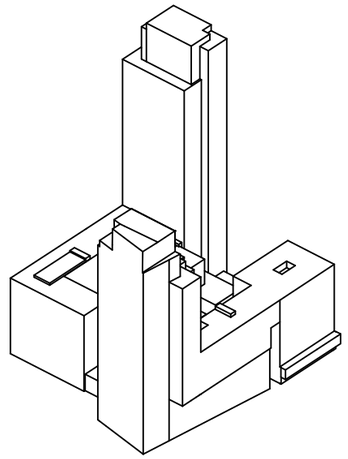


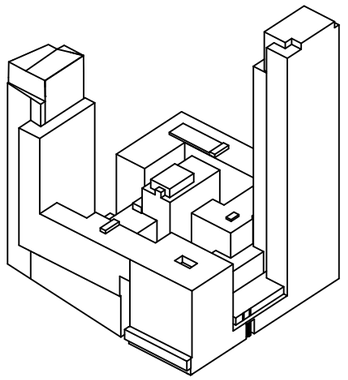


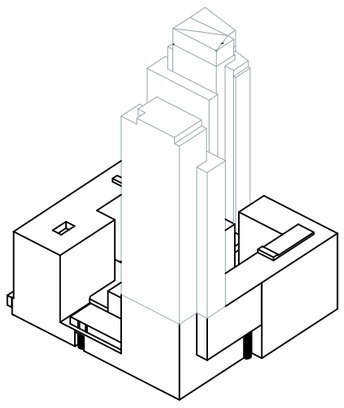


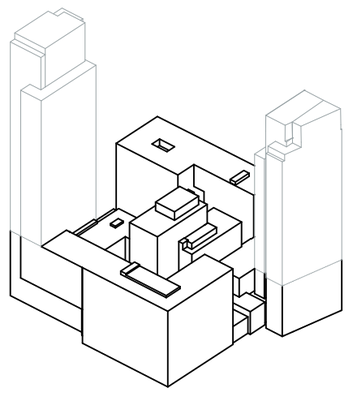


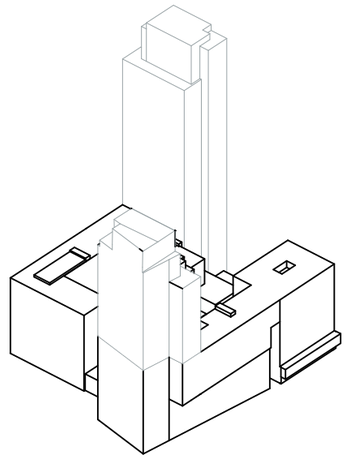


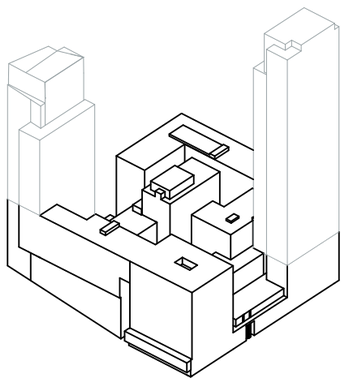


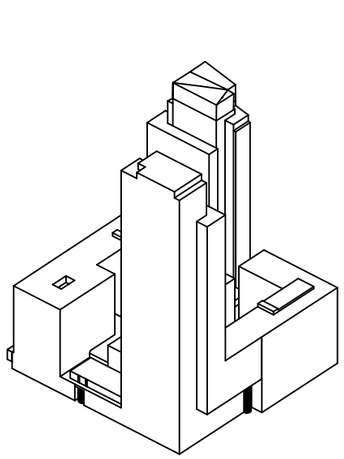
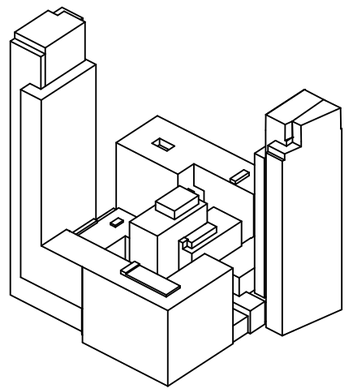
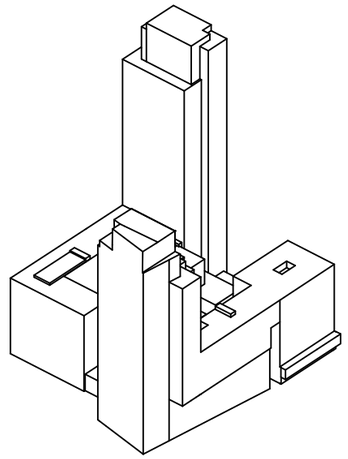
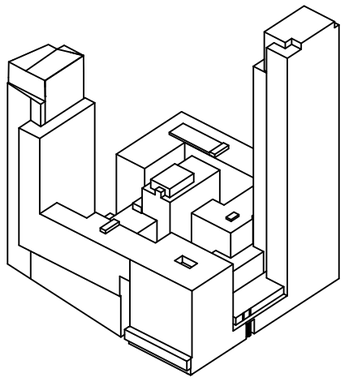
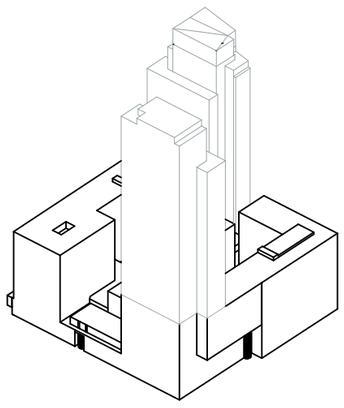
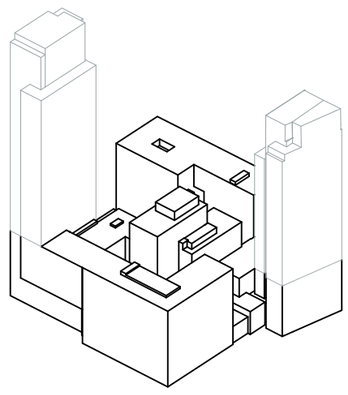
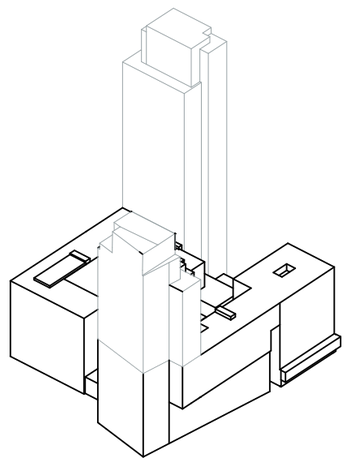
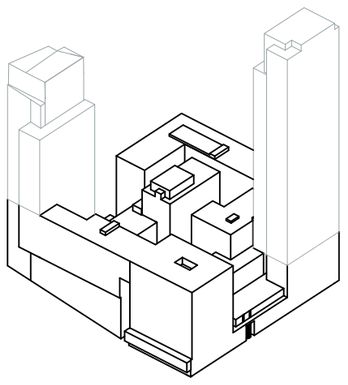
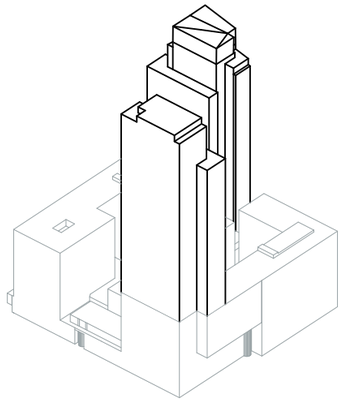
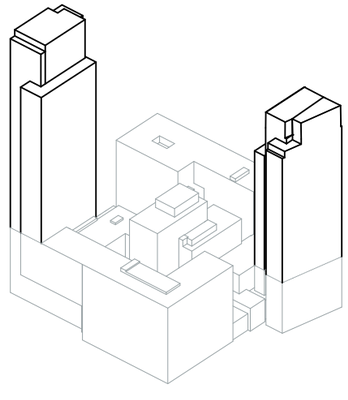
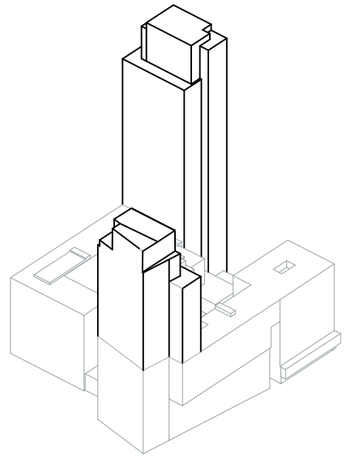
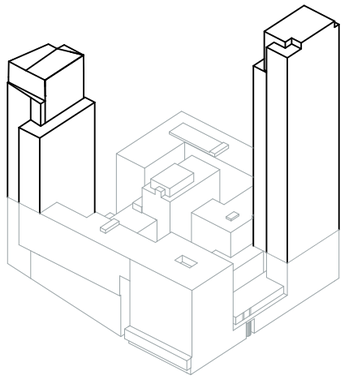




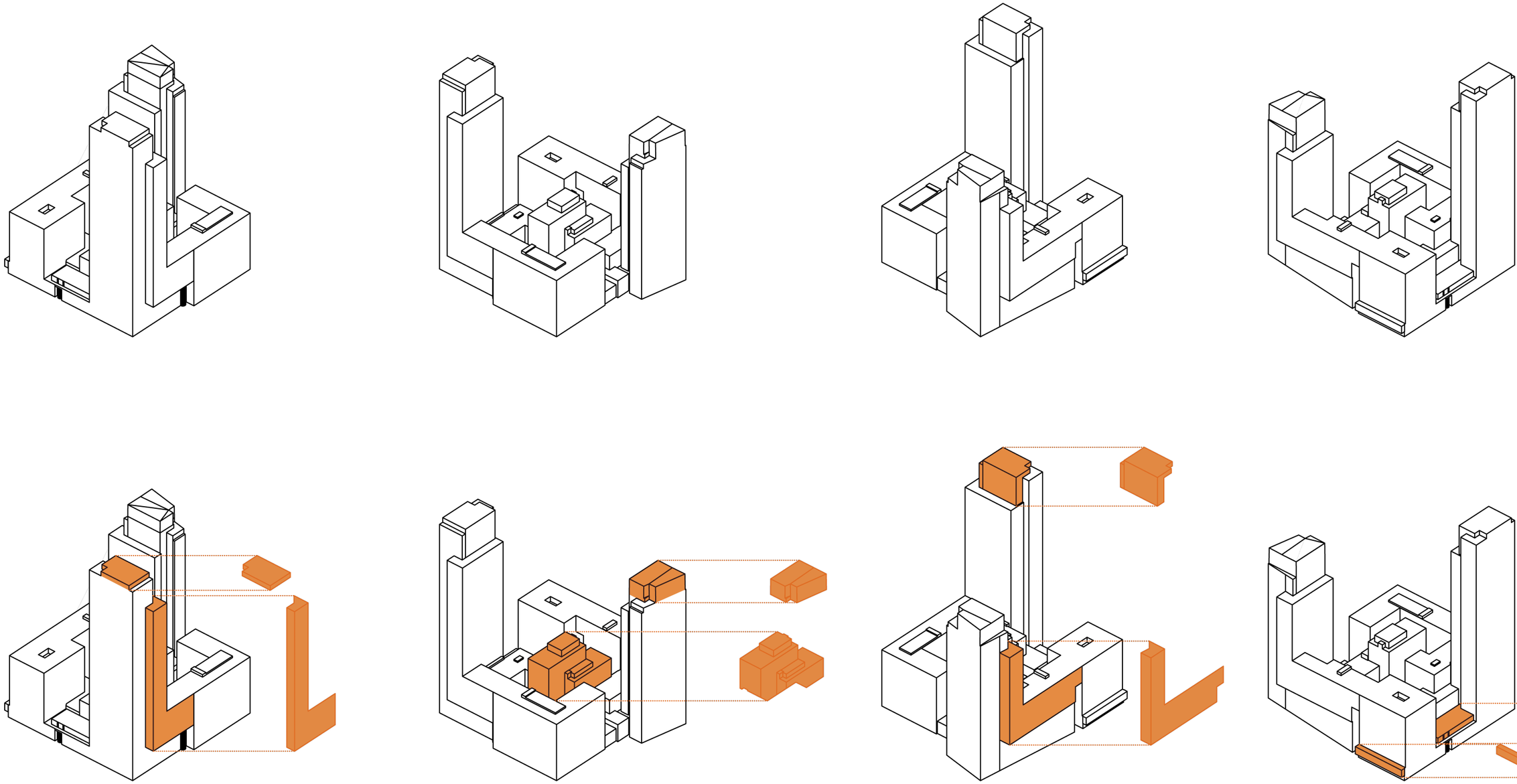






3. Architectural Design | Shape of the new volume - Analysing New Babylon

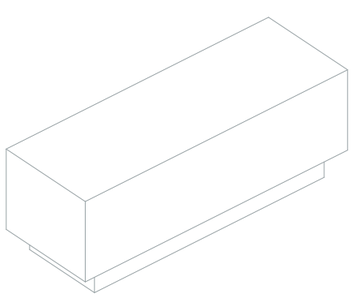


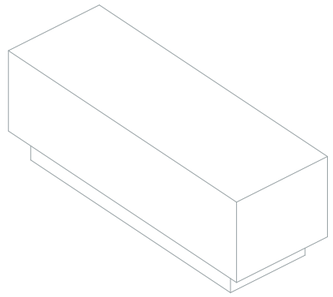
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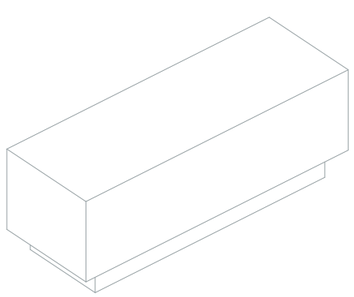
3. Architectural Design | Shape of the new volume - Massing

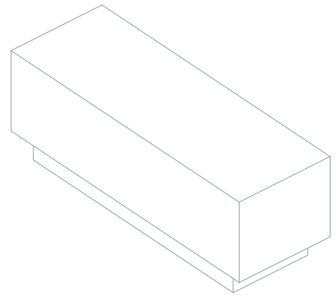


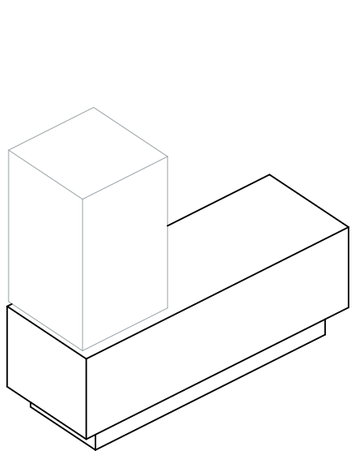
3. Architectural Design | Shape of the new volume - Massing

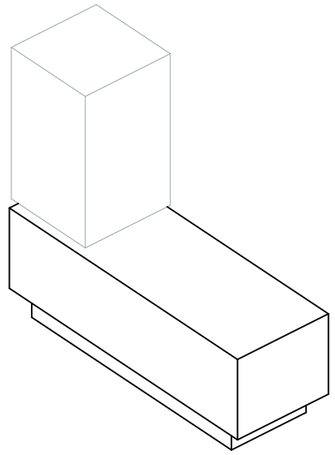


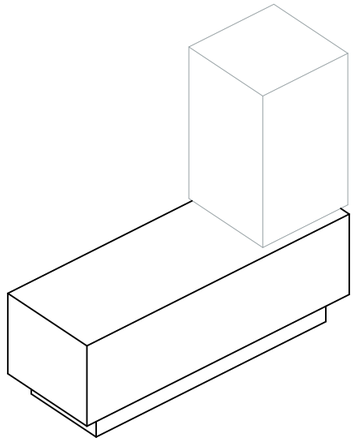


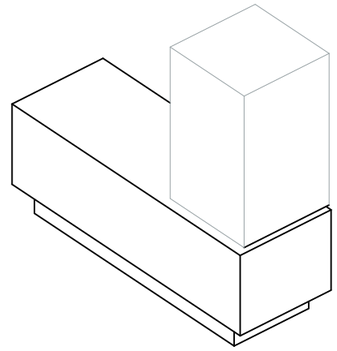




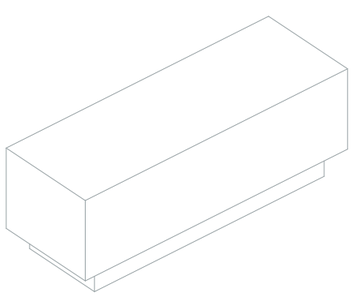
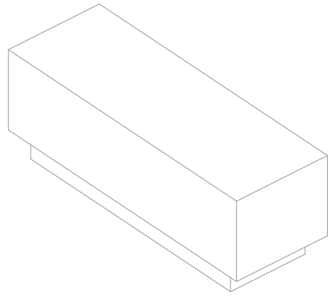
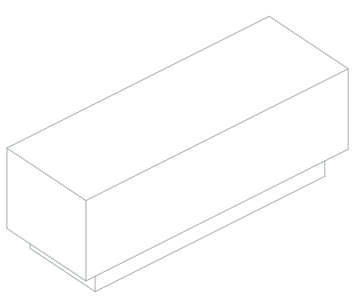
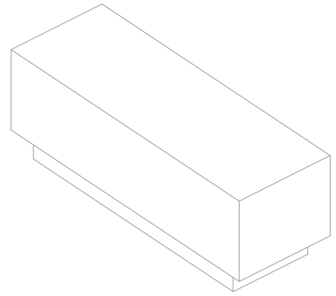
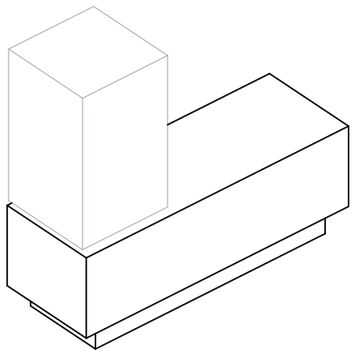
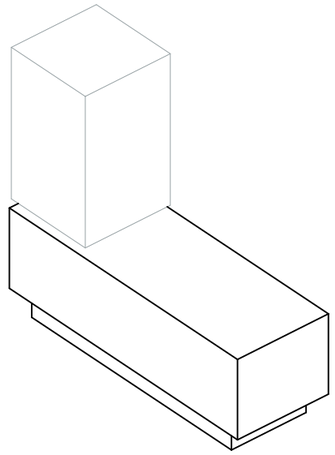
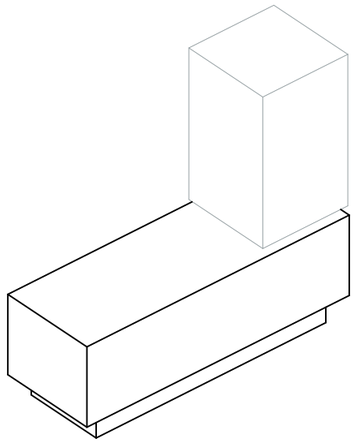
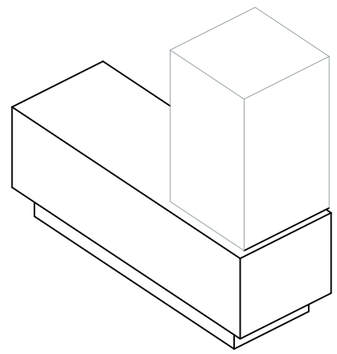
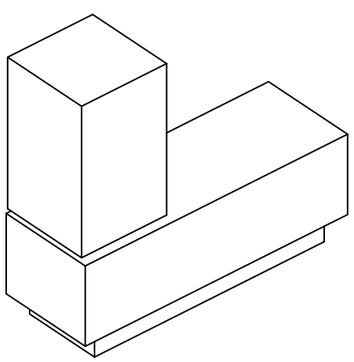
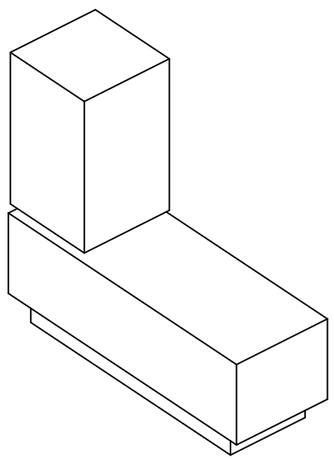
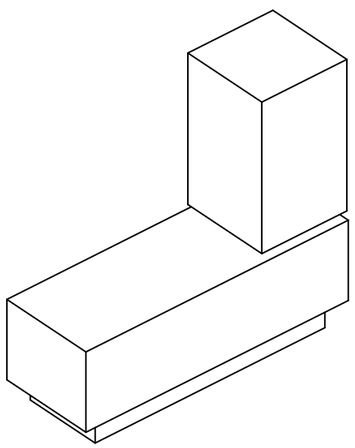
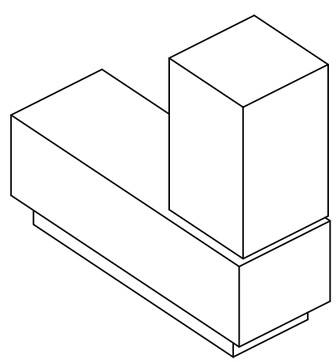




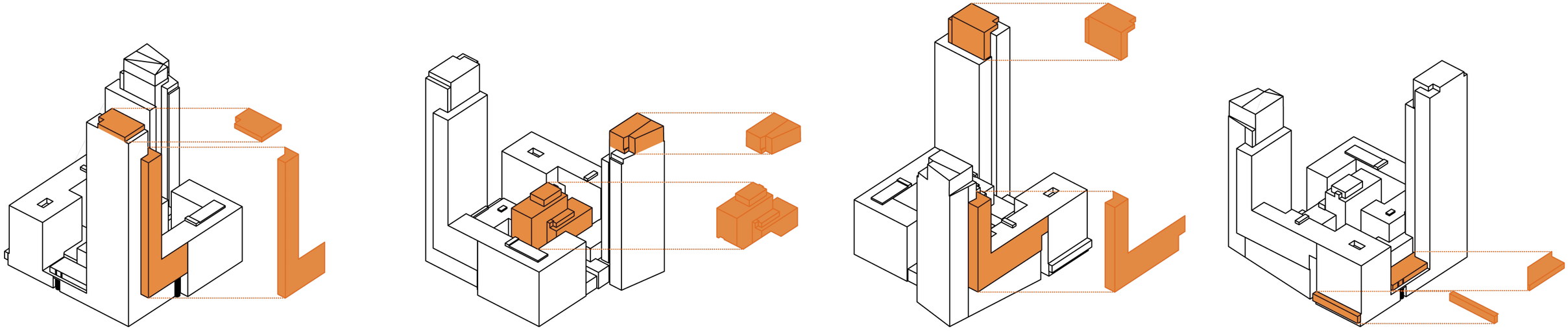




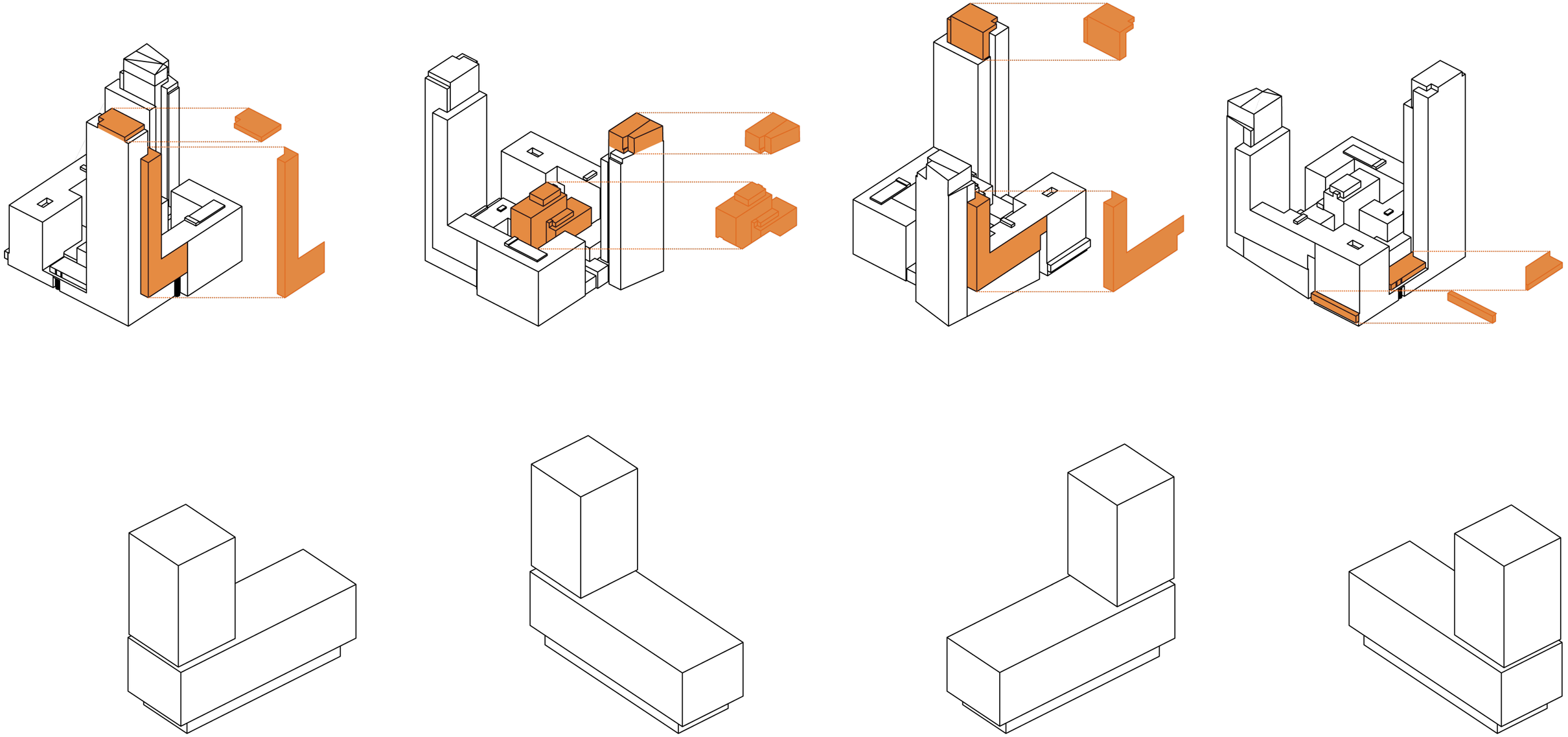
3. Architectural Design | Shape of the new volume - Massing

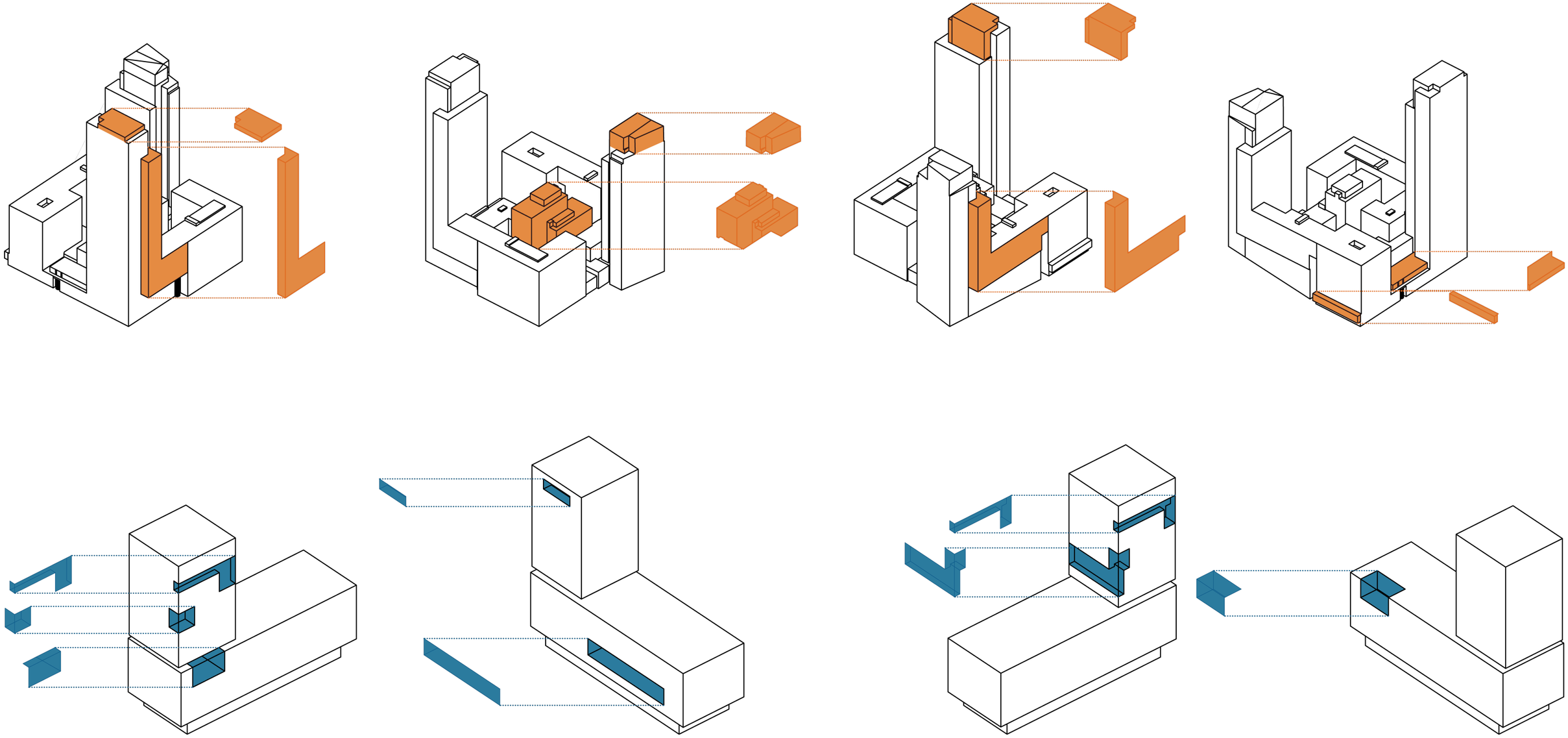
3. Architectural Design | Shape of the new volume - Balance of fragments



3. Architectural Design | Shape of the new volume - Balance of fragments

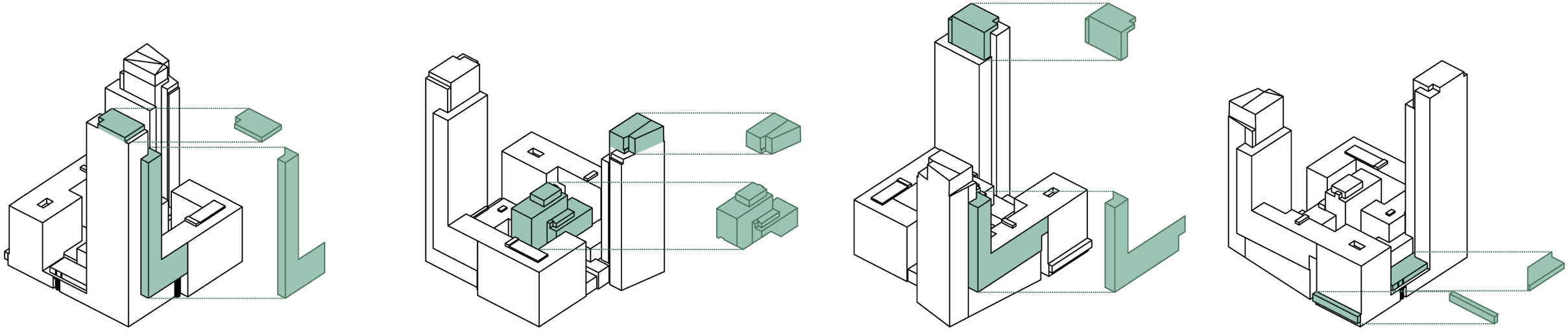


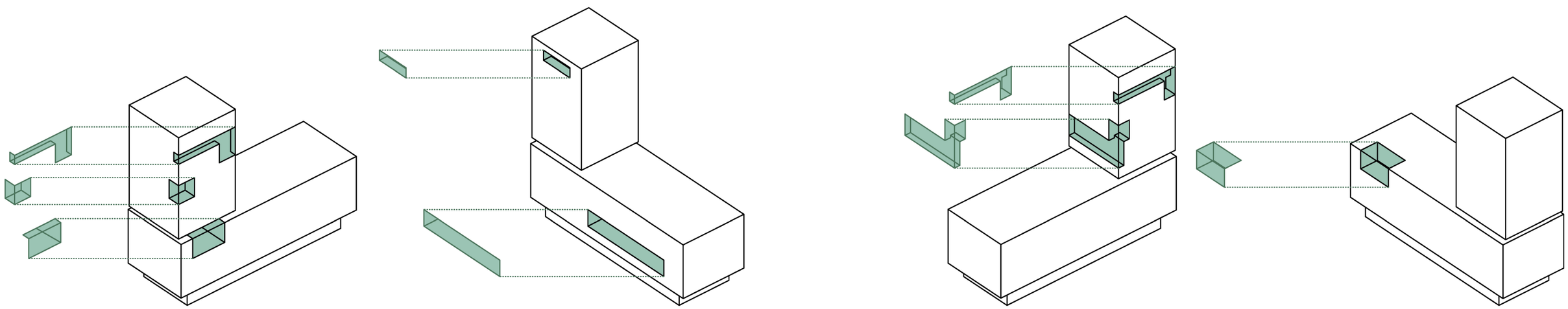
3. Architectural Design | Shape of the new volume - Balance of fragments



Classification: Version

3. Architectural Design | Shape of the new volume - Balance of fragments



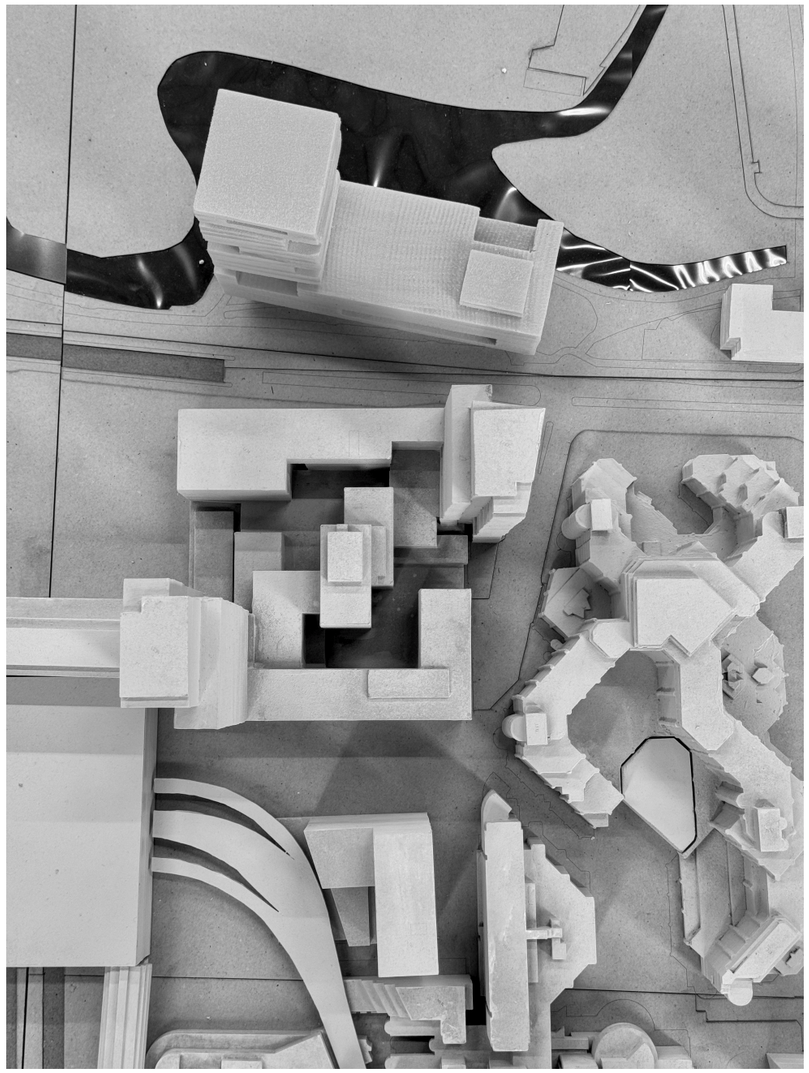


3. Architectural Design | Shape of the new volume - Maquette



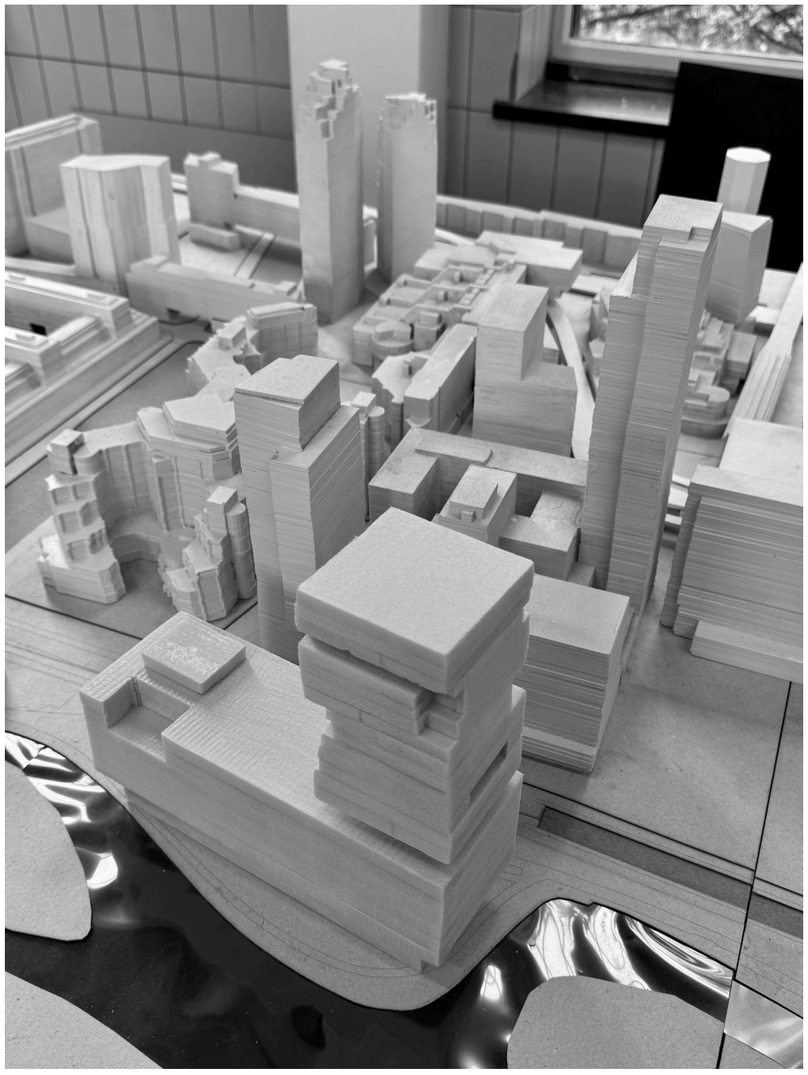
3. Architectural Design | Shape of the new volume

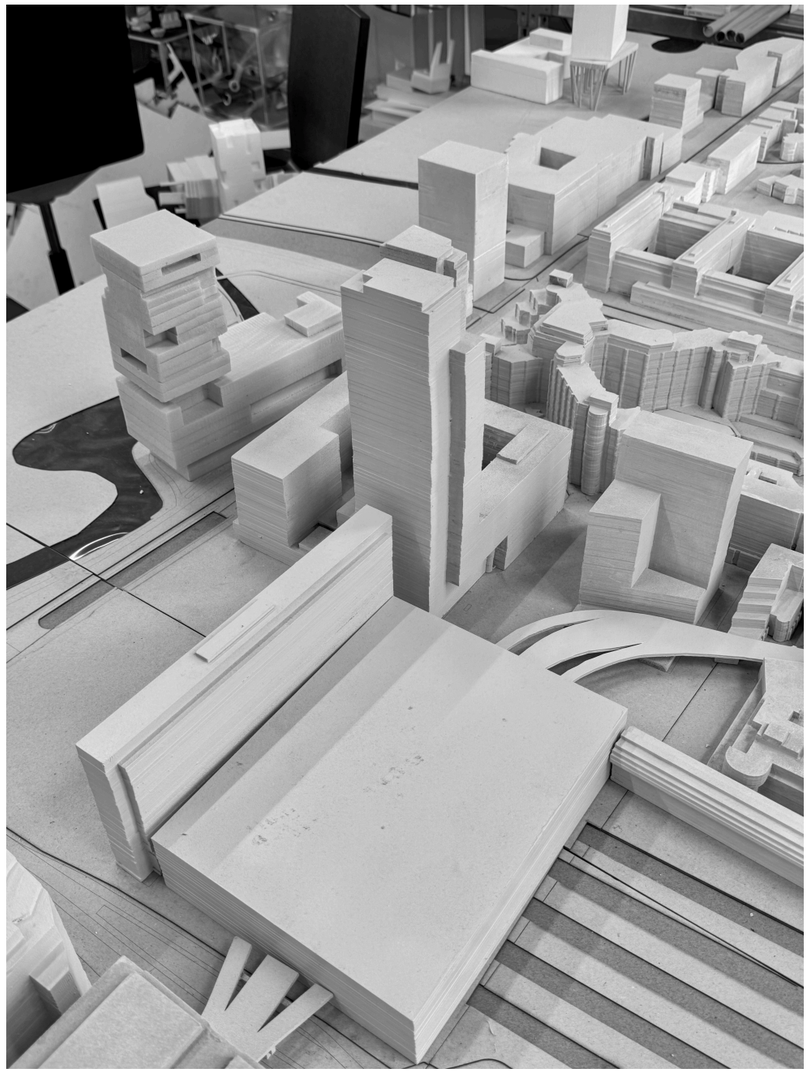


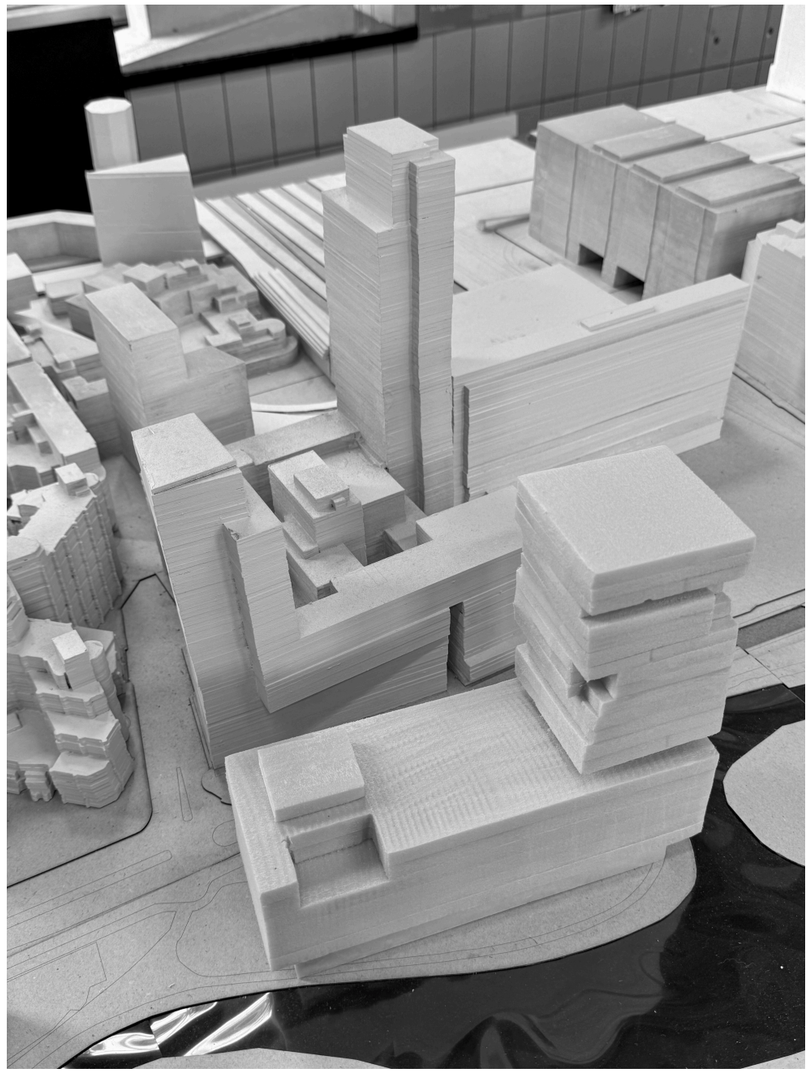




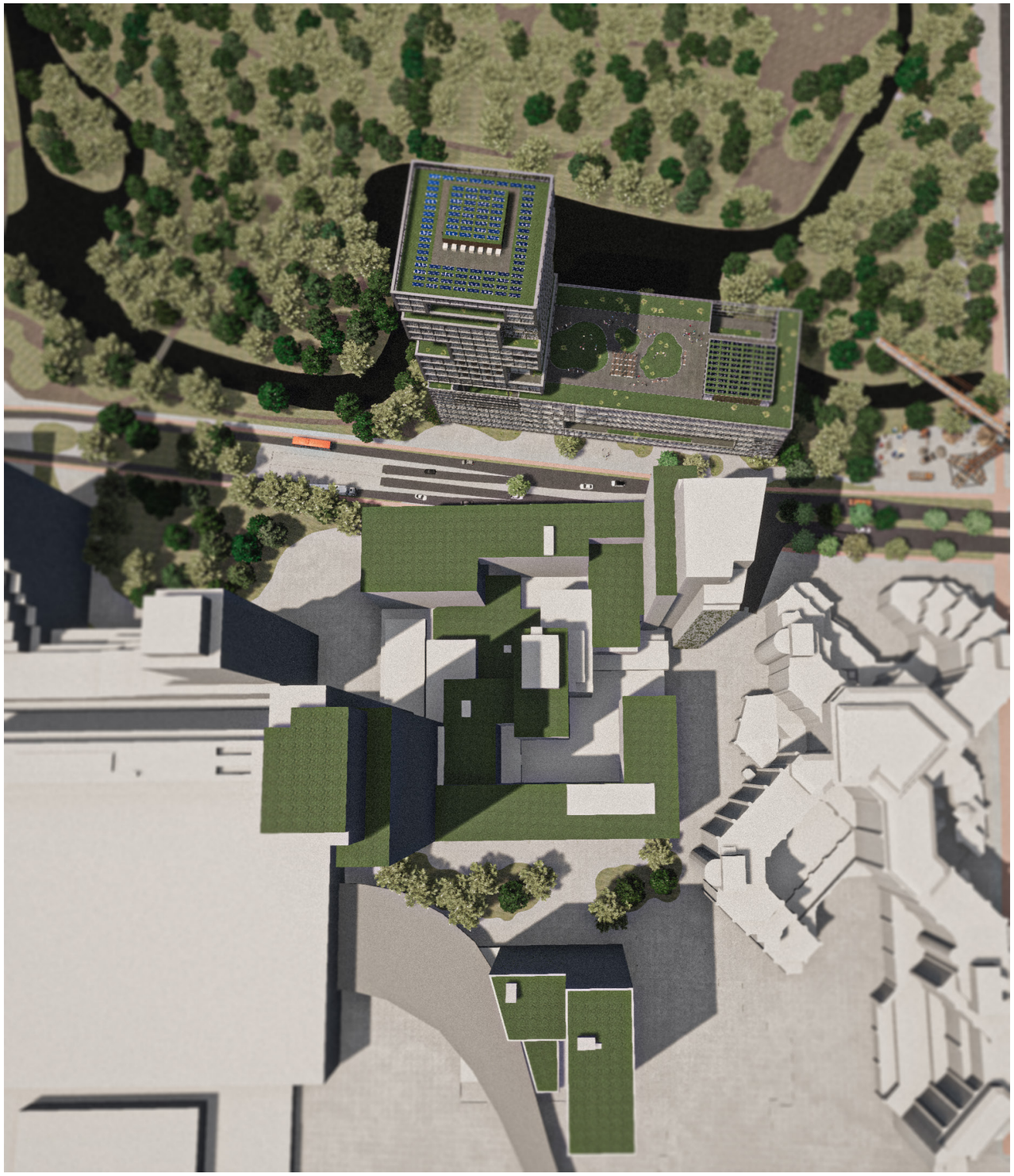
3. Architectural Design | Shape of the new volume



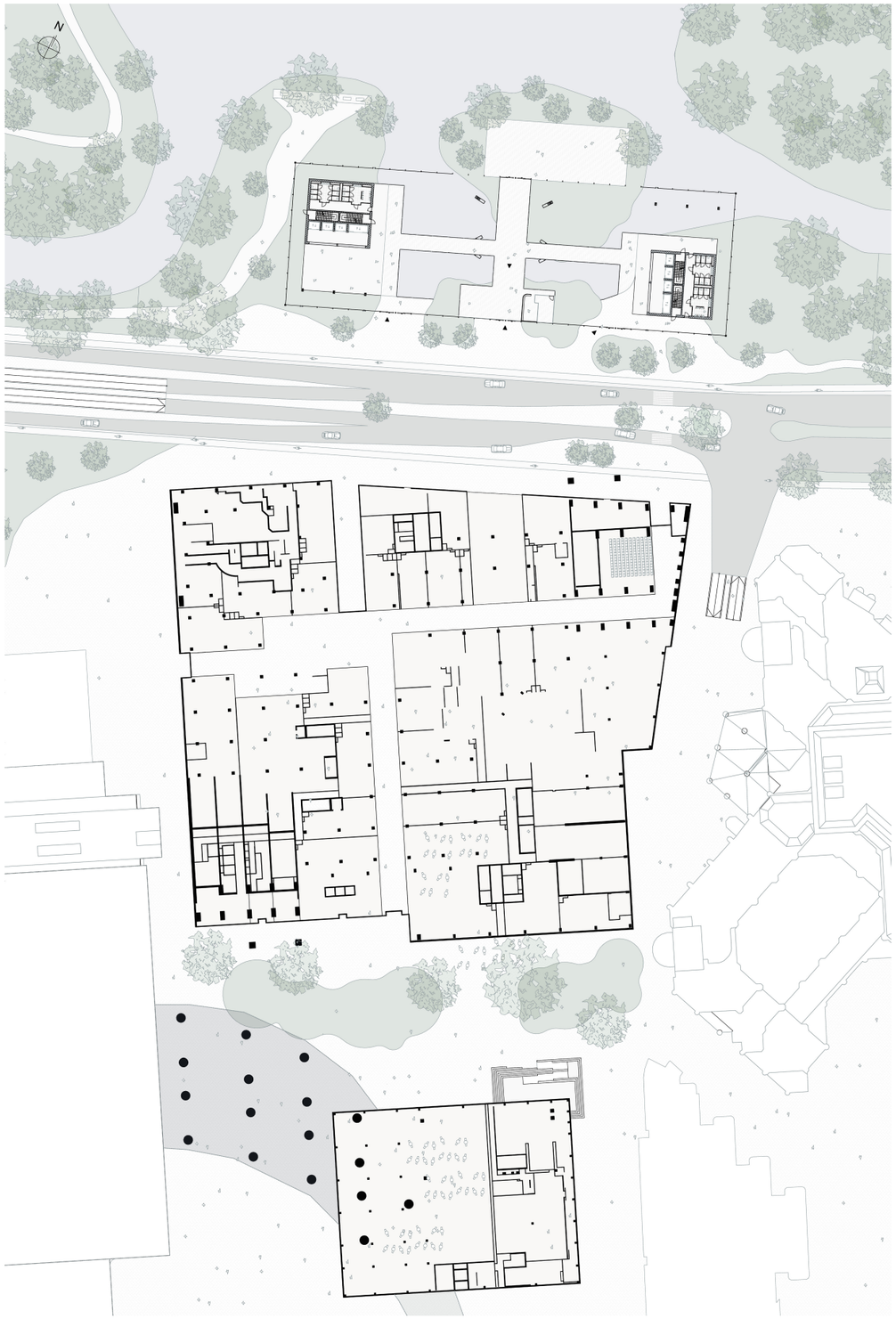




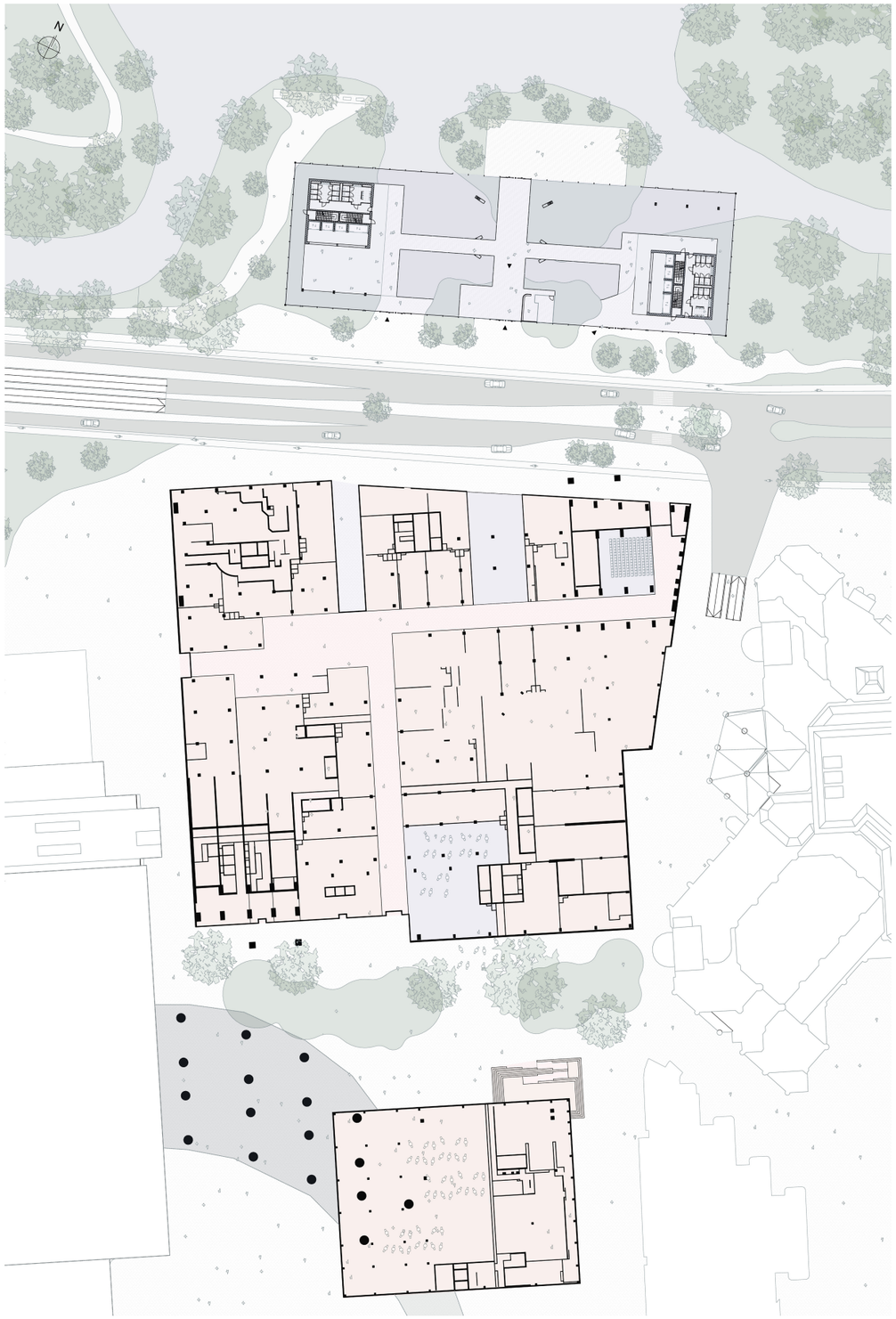
3. Architectural Design | Urban Impression



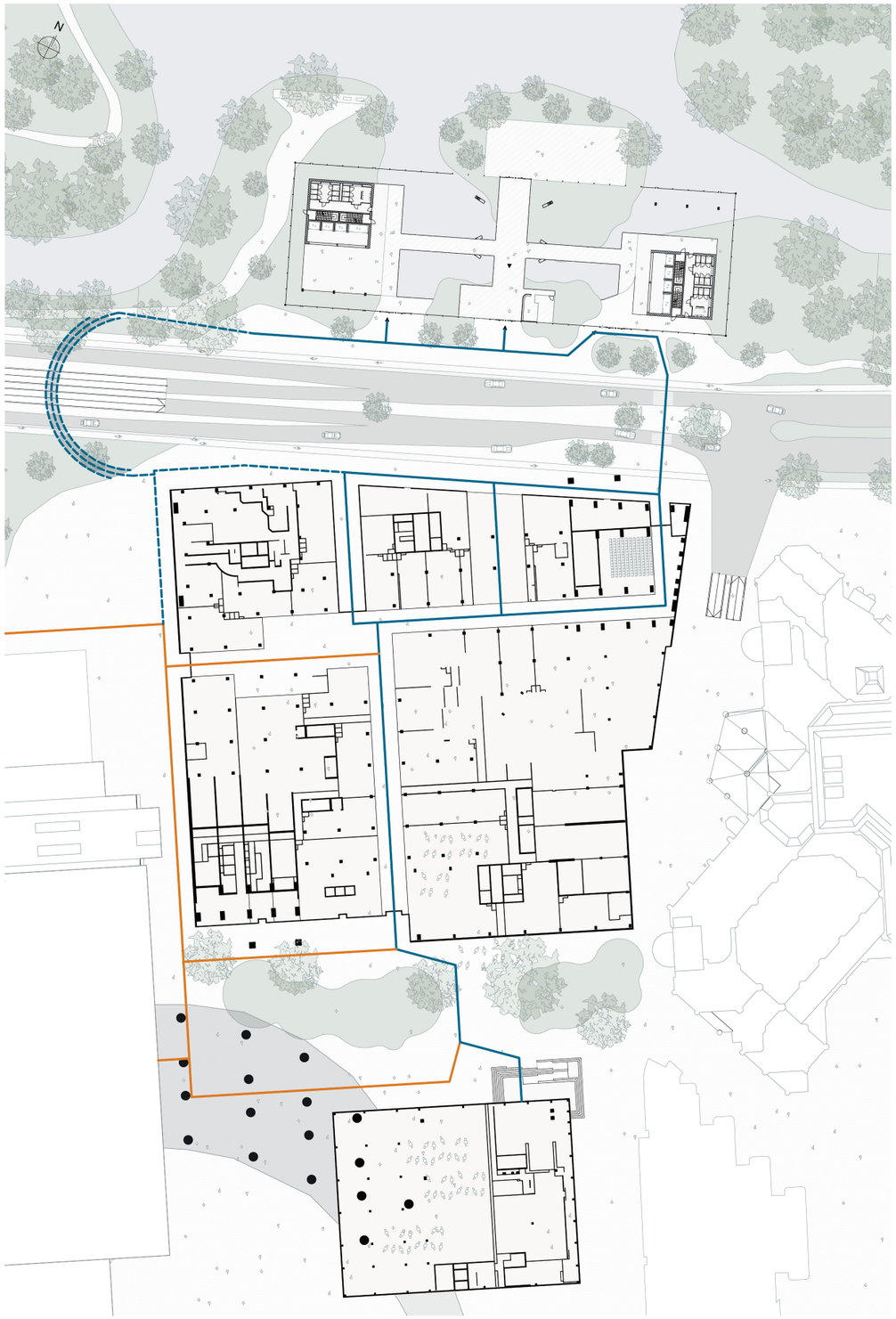
3. Architectural Design | Urban Floor plan



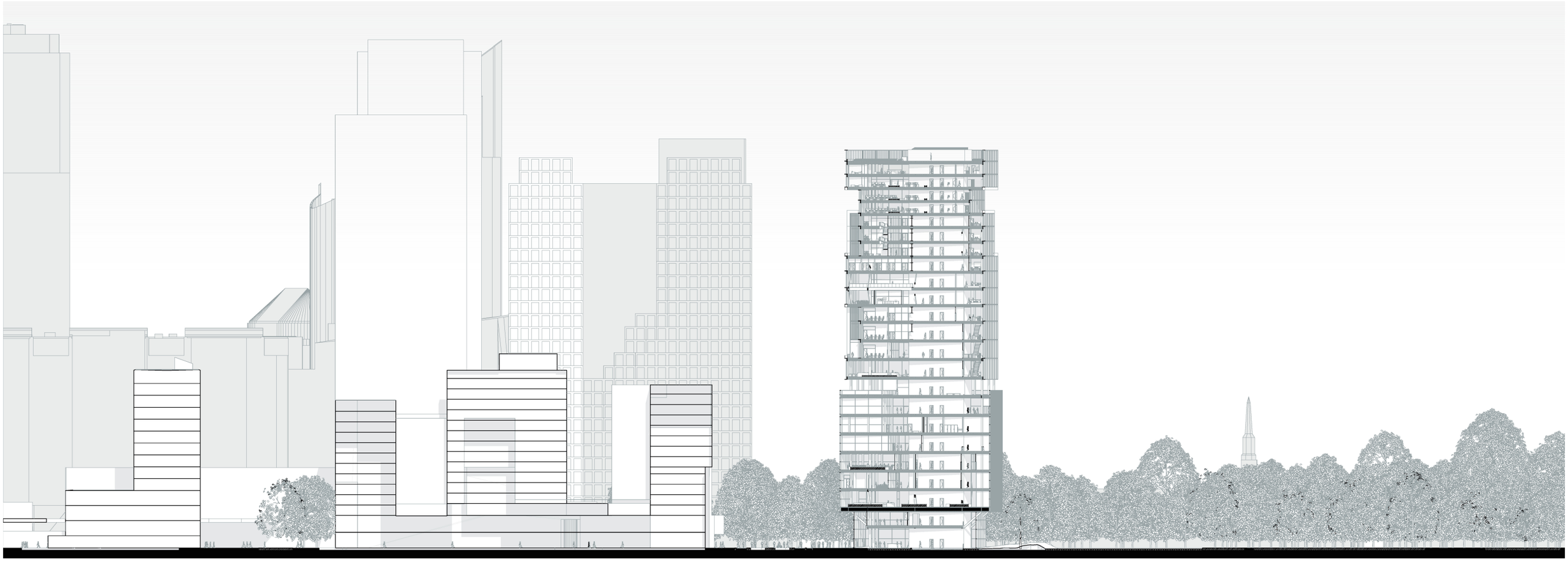
3. Architectural Design | Urban Floor plan - Existing & New



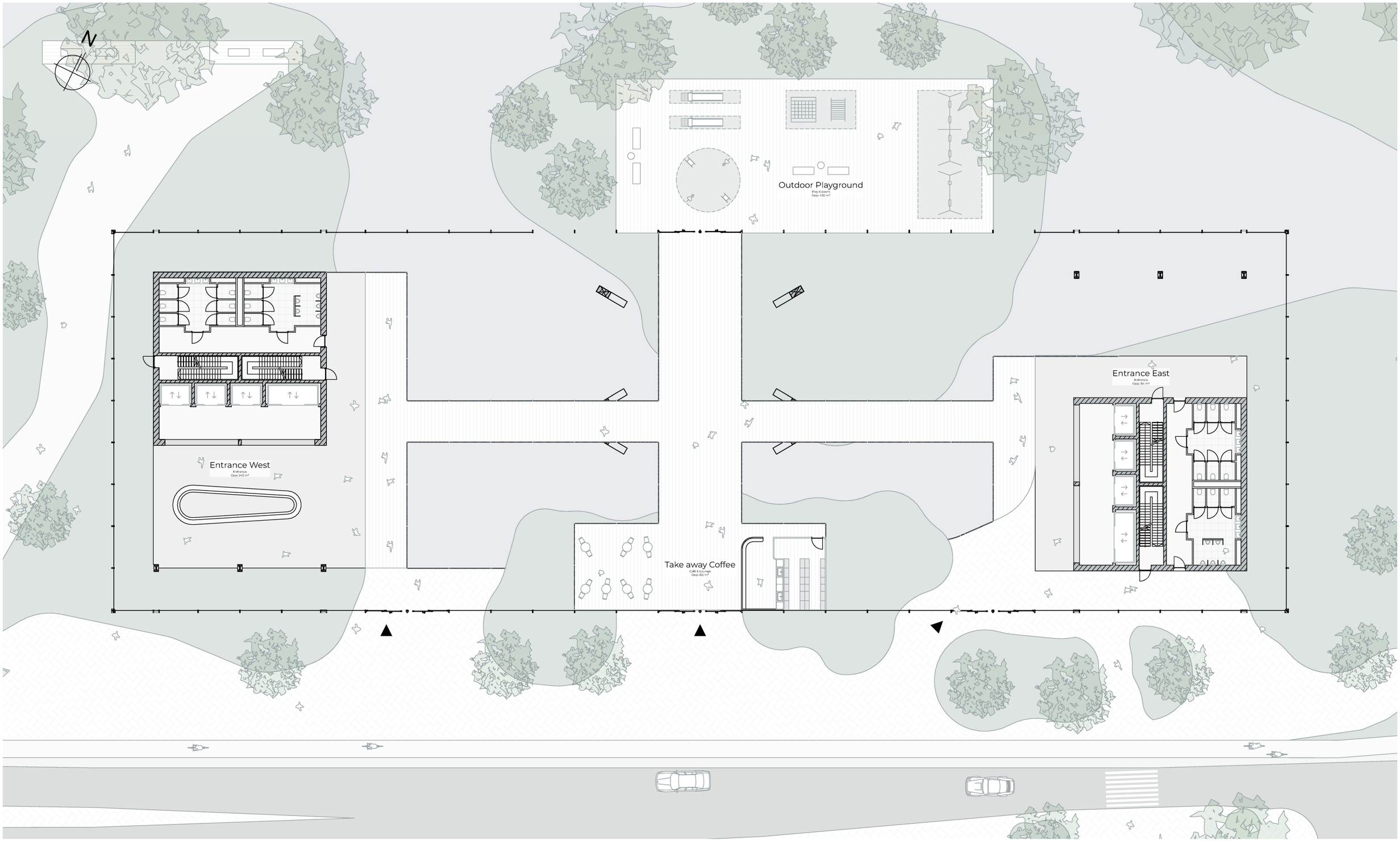
3. Architectural Design | Urban Floor plan - Routing

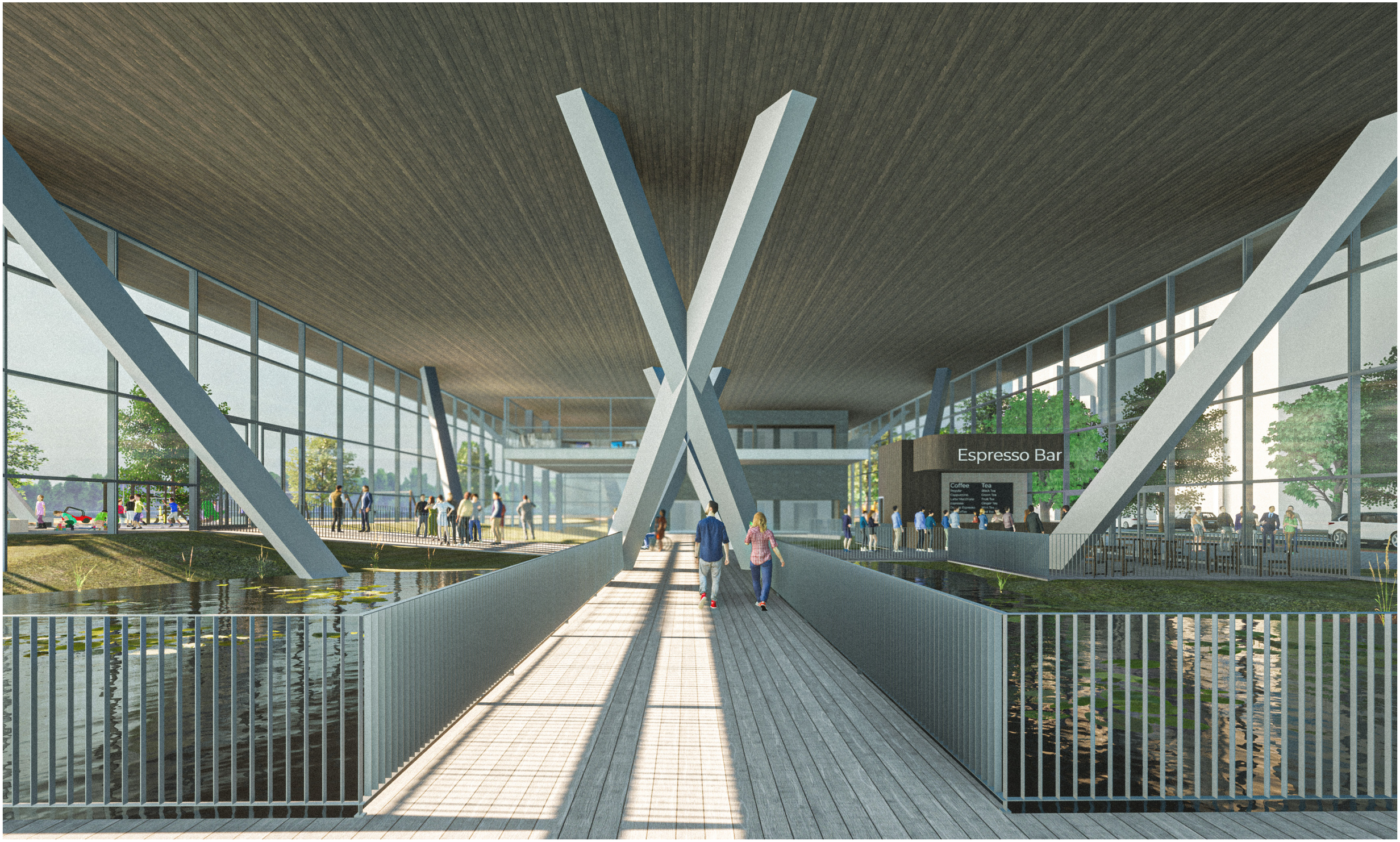


3. Architectural Design | Urban Section

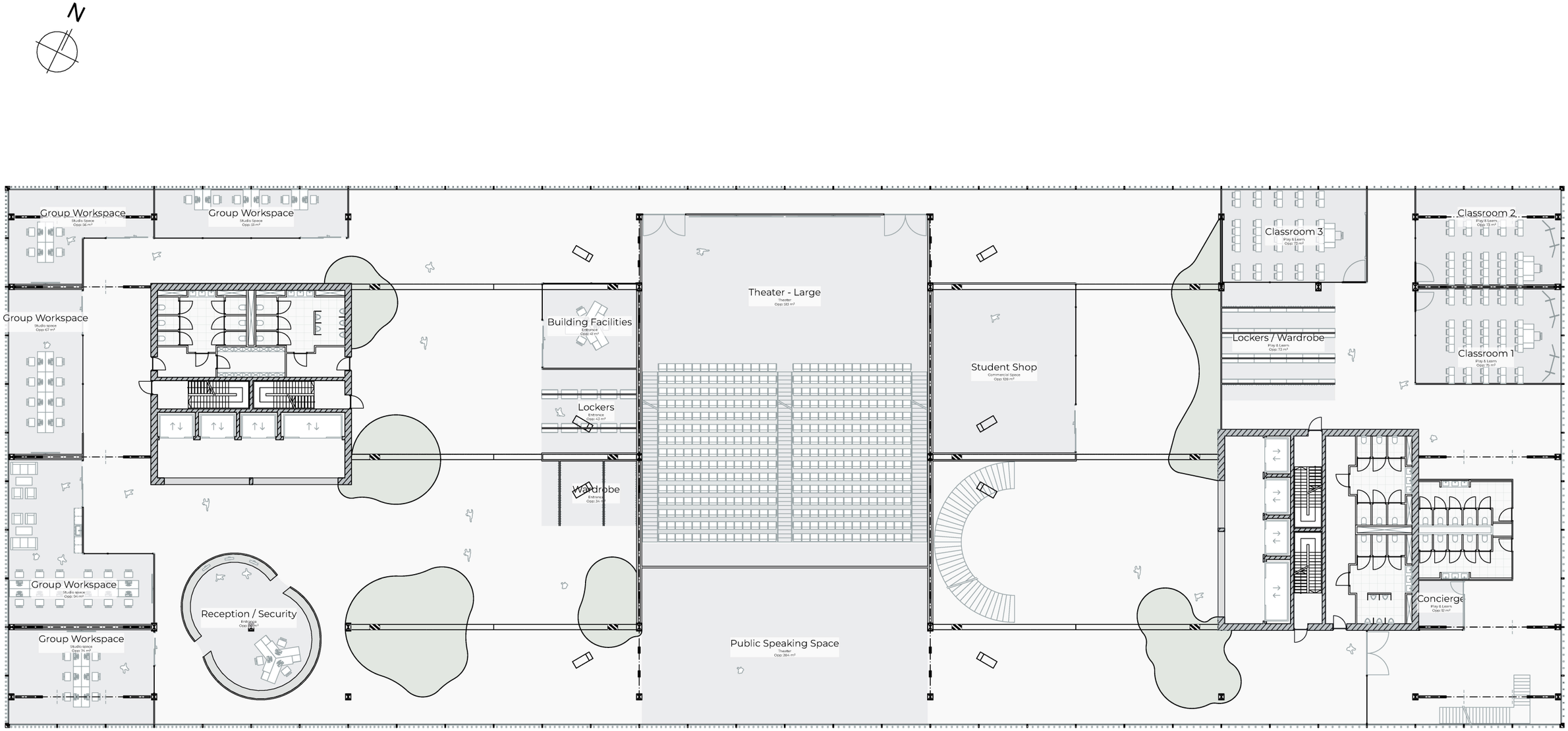


3. Architectural Design | Floor Plan - Ground Floor



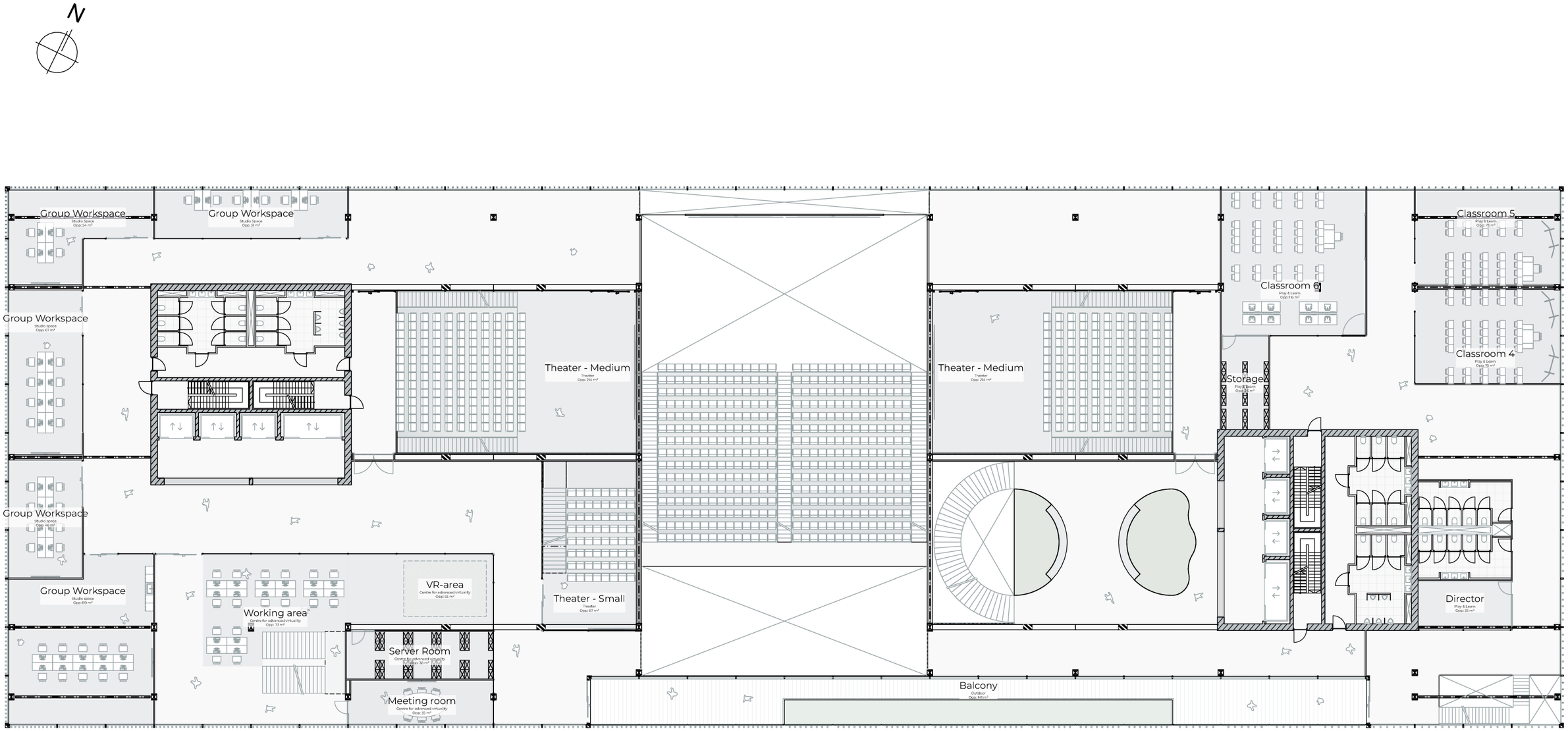

Espresso Bar
Coffee
Tea

3. Architectural Design | Floor Plan - 2nd Floor





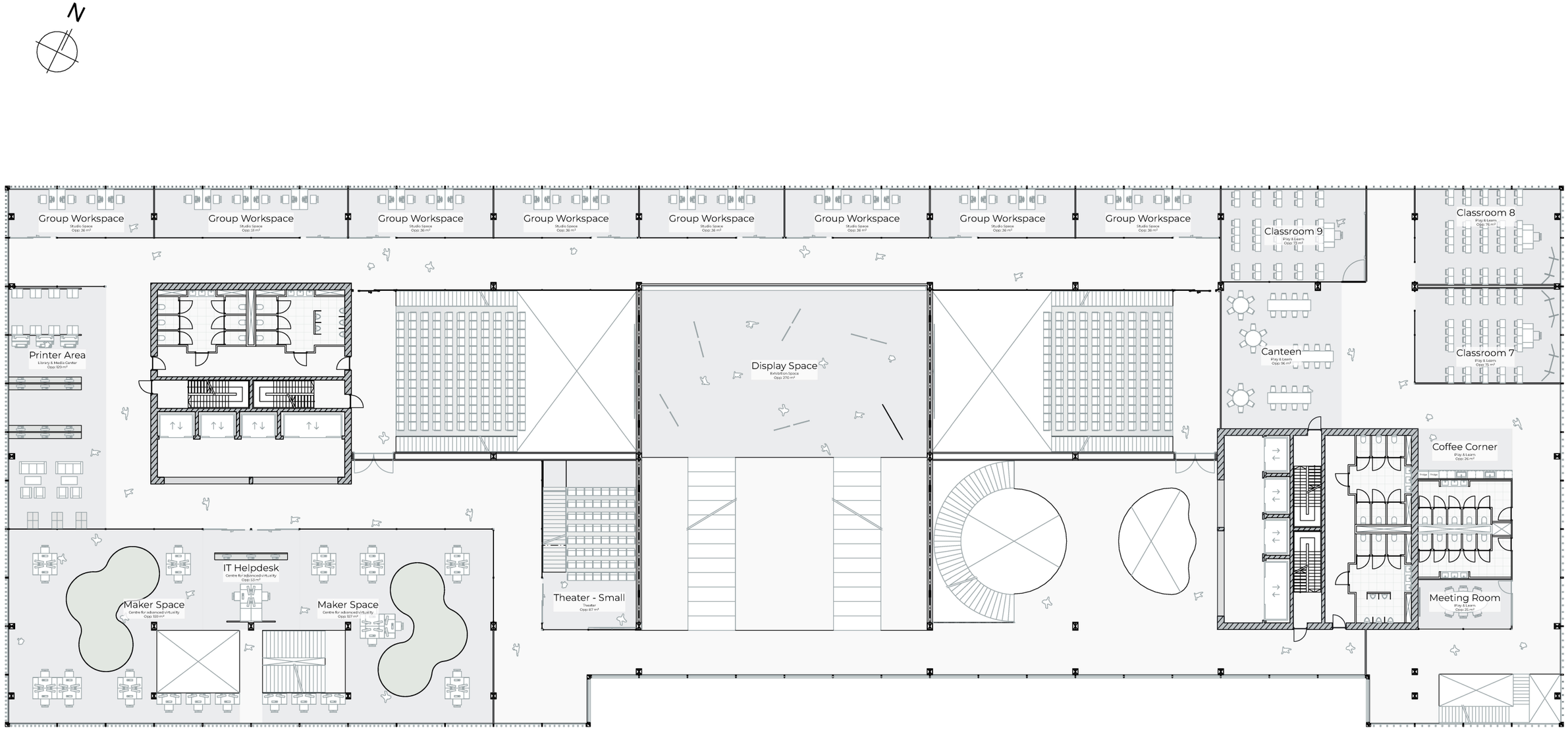
3. Architectural Design | Floor Plan - 3rd Floor



3. Architectural Design | Hallways that function as public meeting points



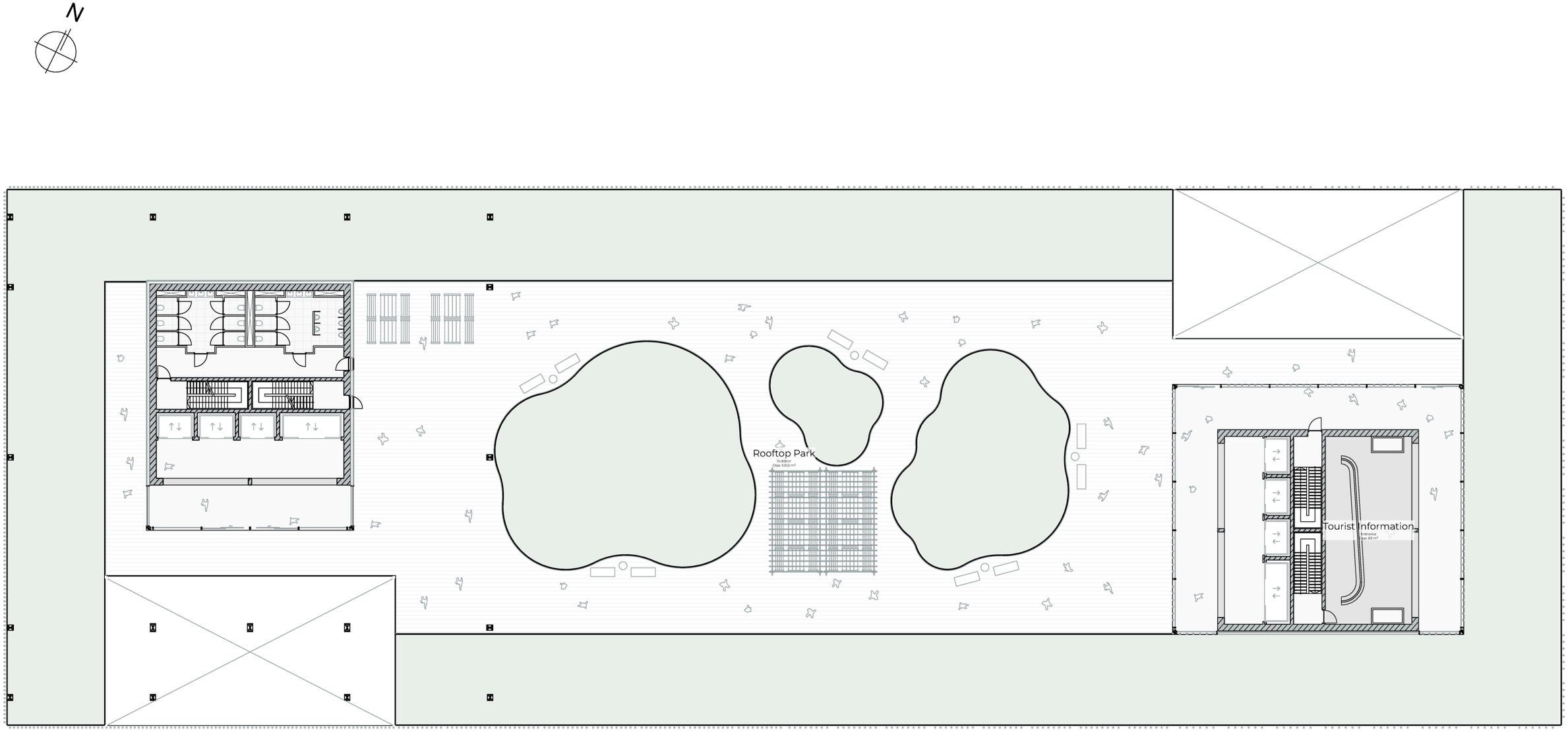
3. Architectural Design | Floor Plan - 4th Floor



3. Architectural Design | Exhibition space used for public activities



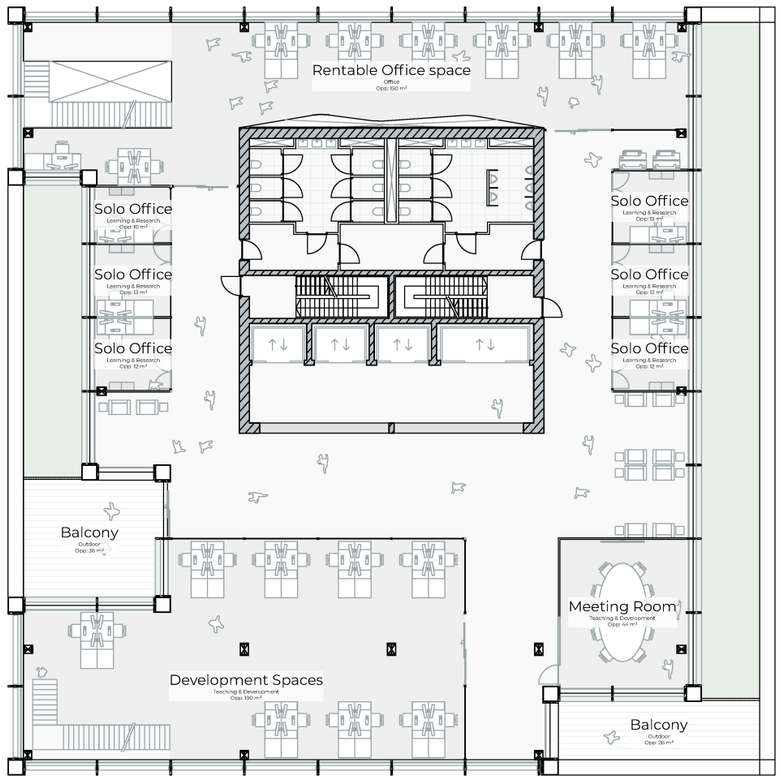
3. Architectural Design | Floor Plan - 8th Floor



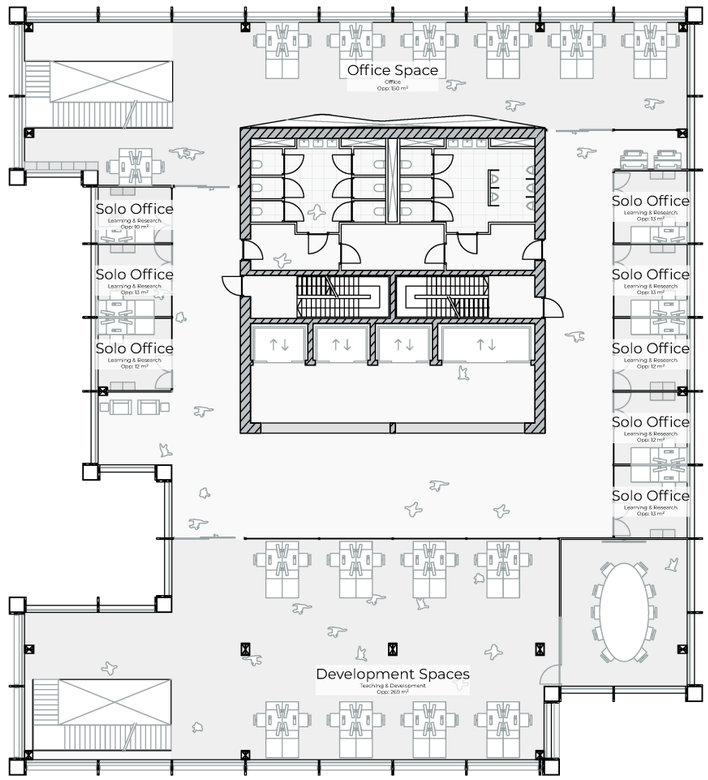
3. Architectural Design | View from the rooftop park towards the tower



3. Architectural Design | Floor Plan - 10th Floor & 11th Floor



10th Floor

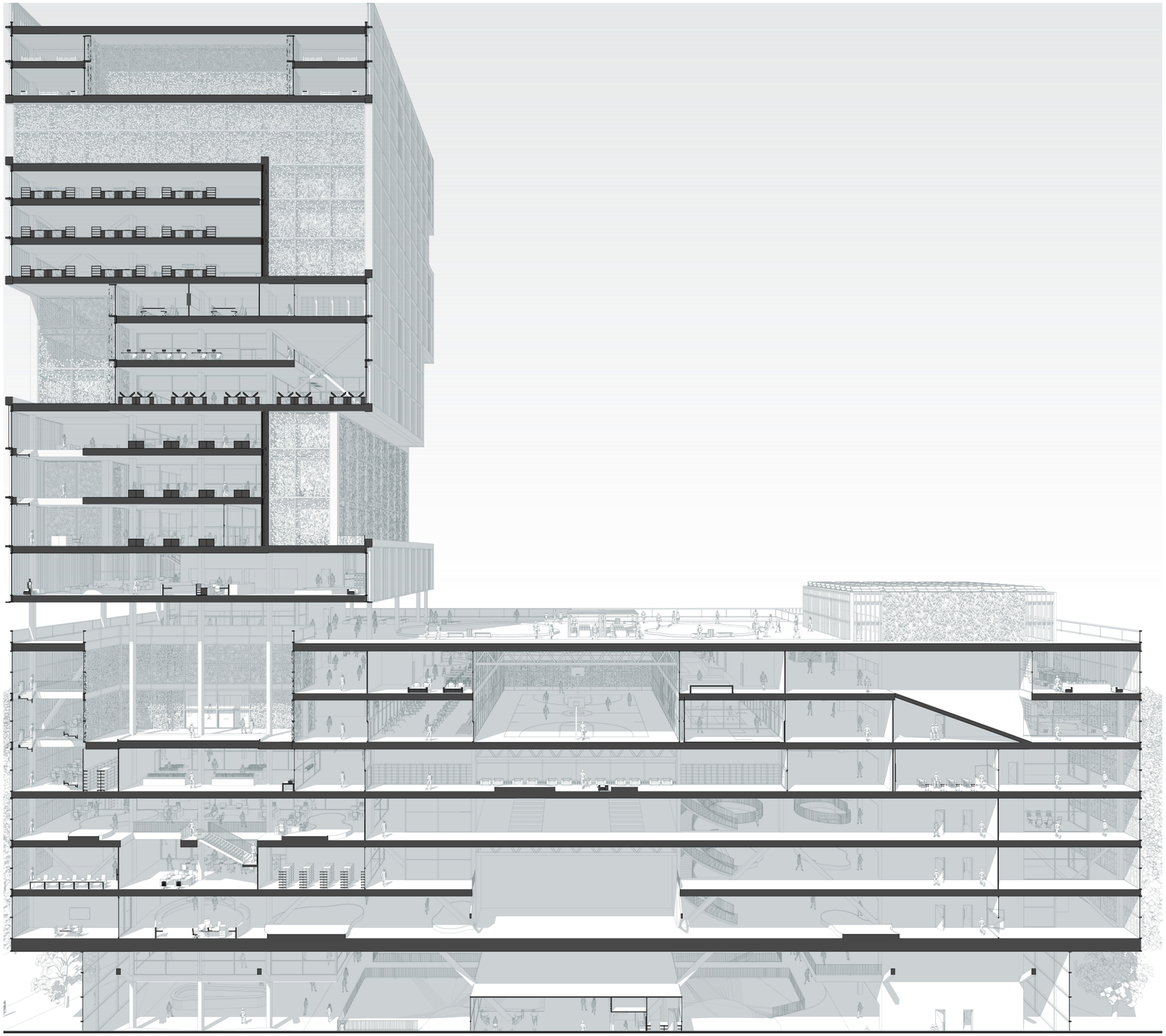


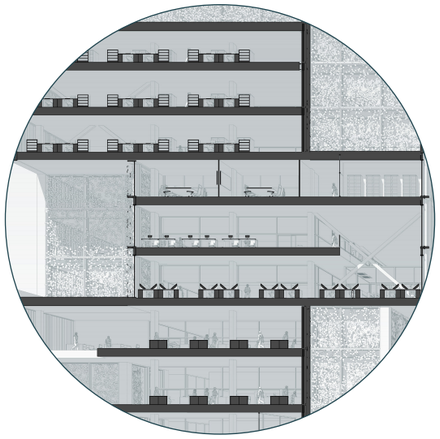
11th Floor

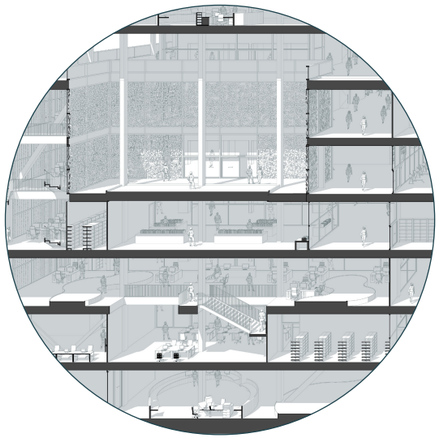
3. Architectural Design | Hybridity between the different building materials

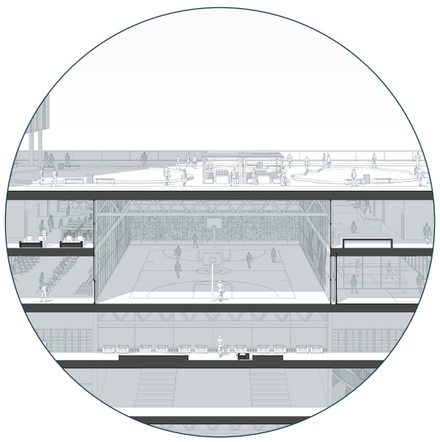


3. Architectural Design | Perspective section - Lengthwise

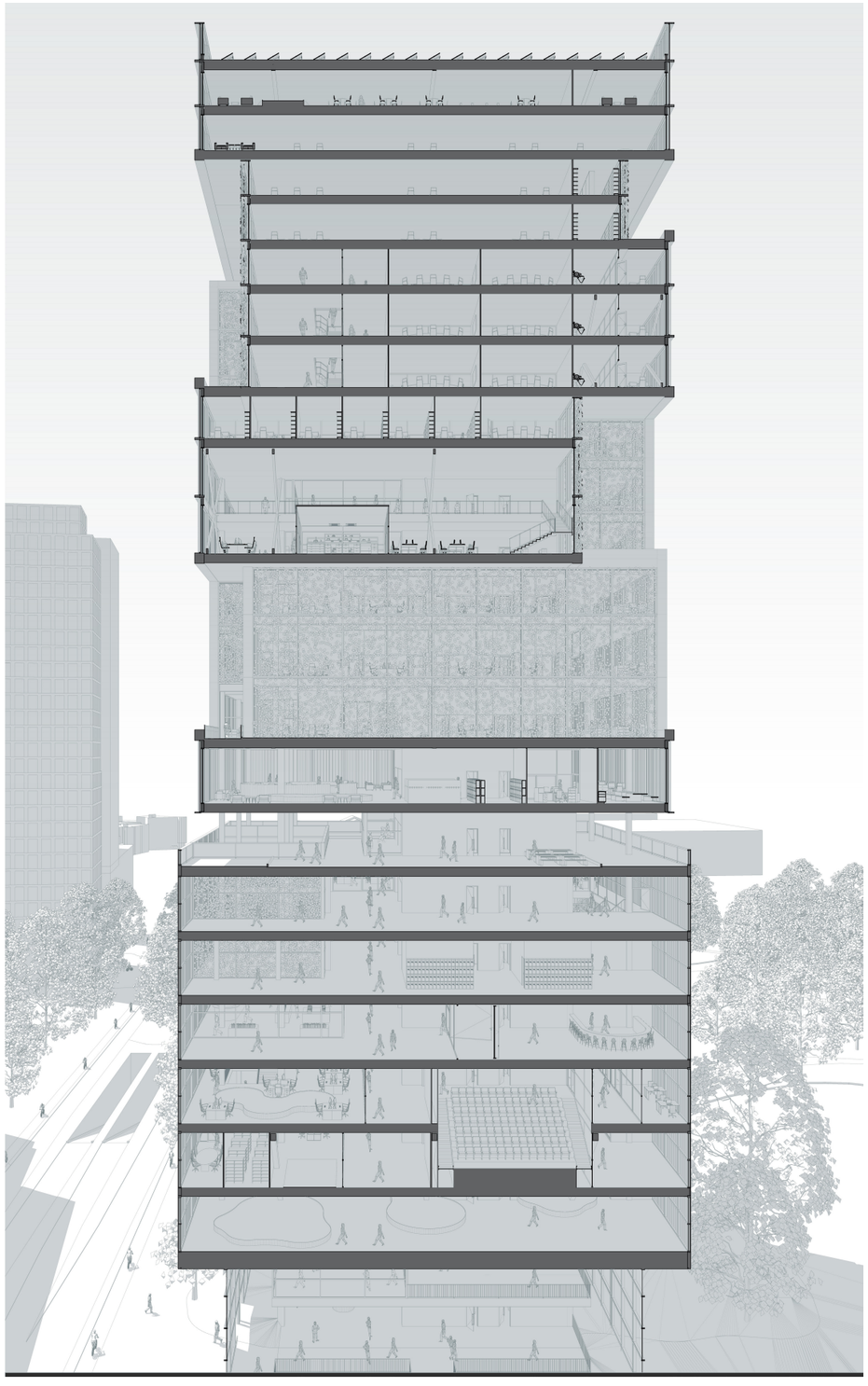


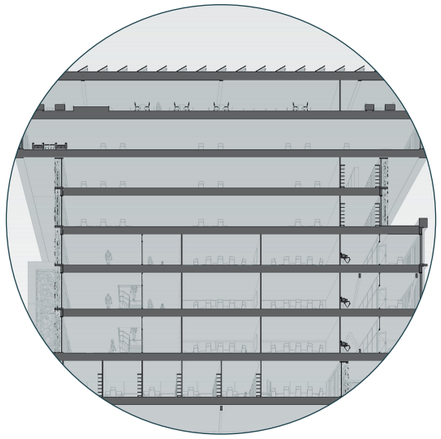


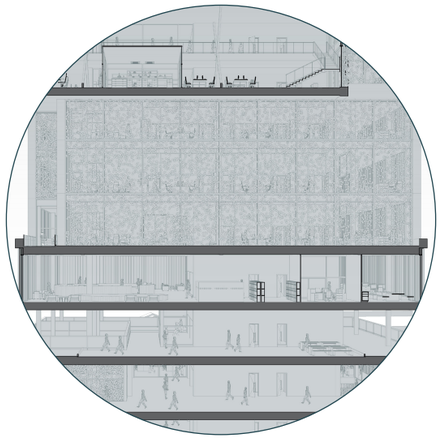


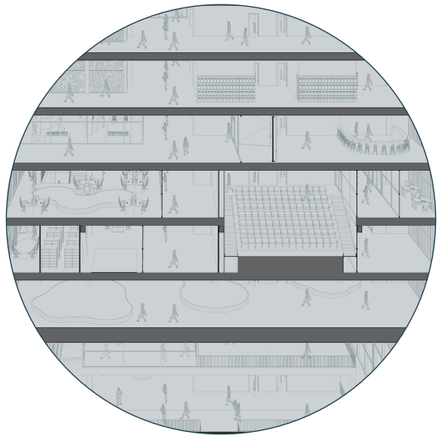


3. Architectural Design | Perspective section - Widthwise







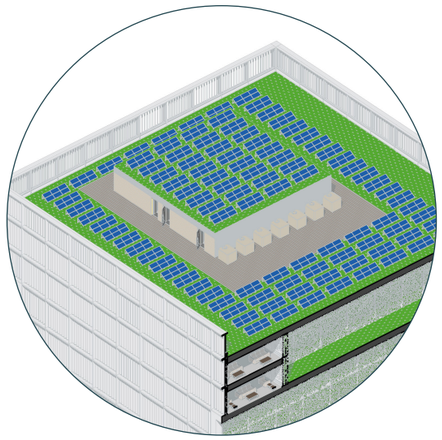


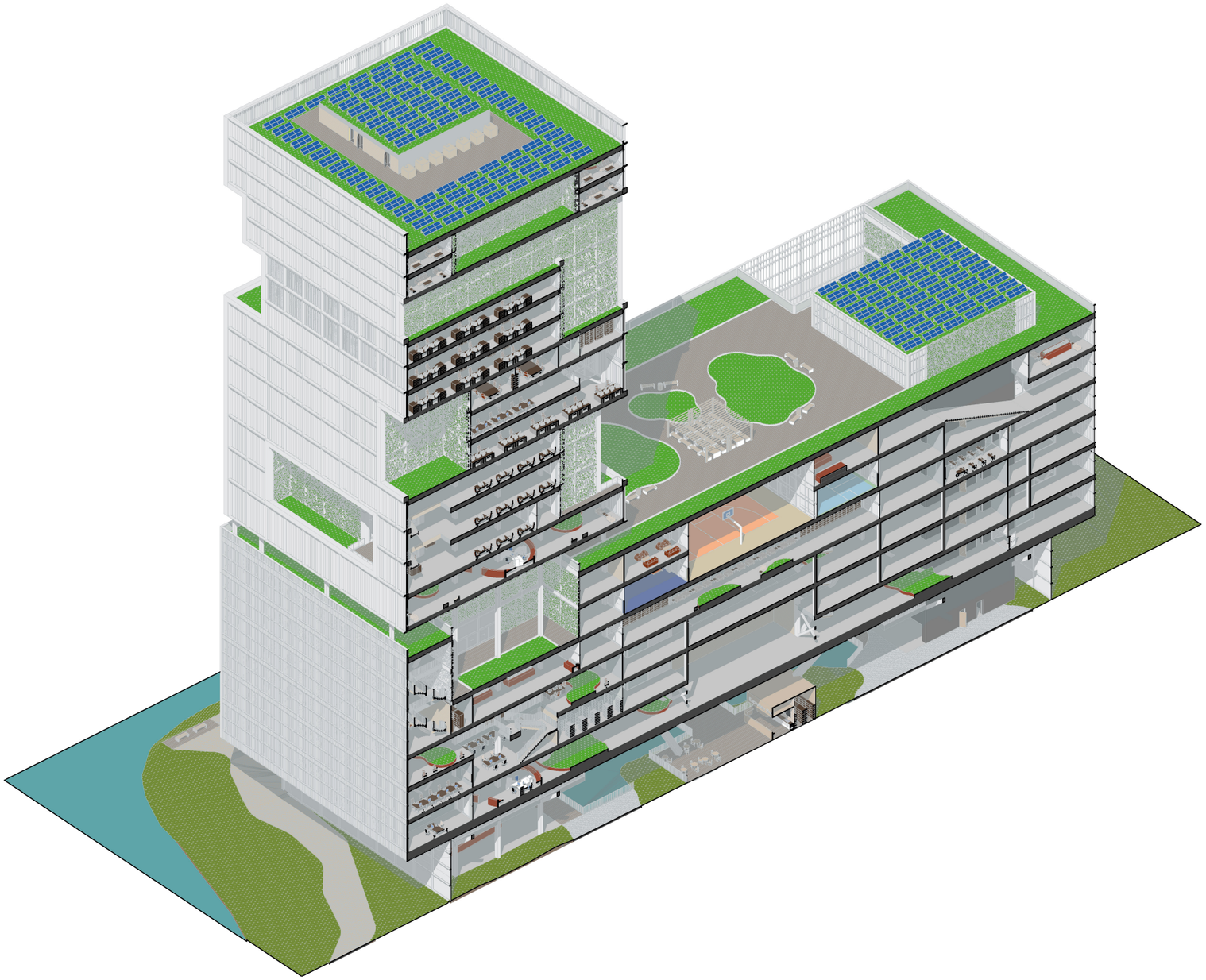
3. Architectural Design | Elevation - Looking towards the east

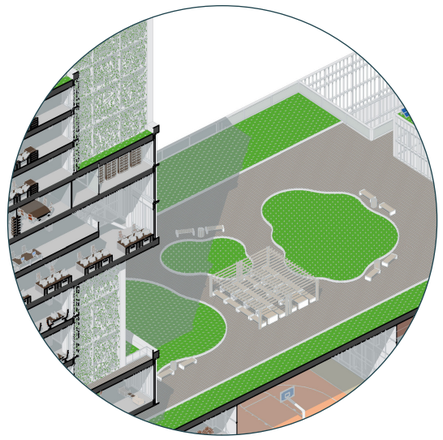


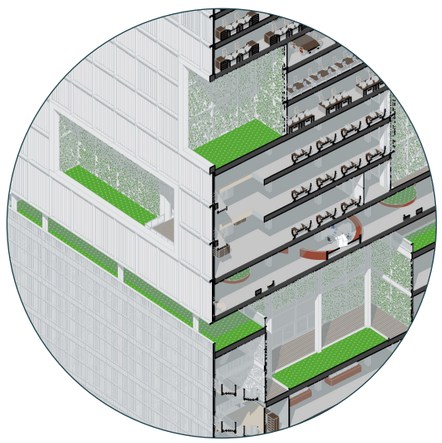
3. Architectural Design | Elevation Impression - Looking towards the south

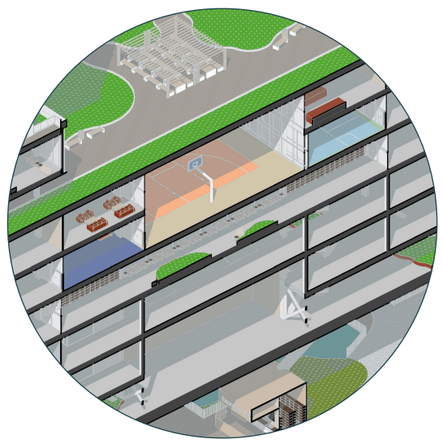




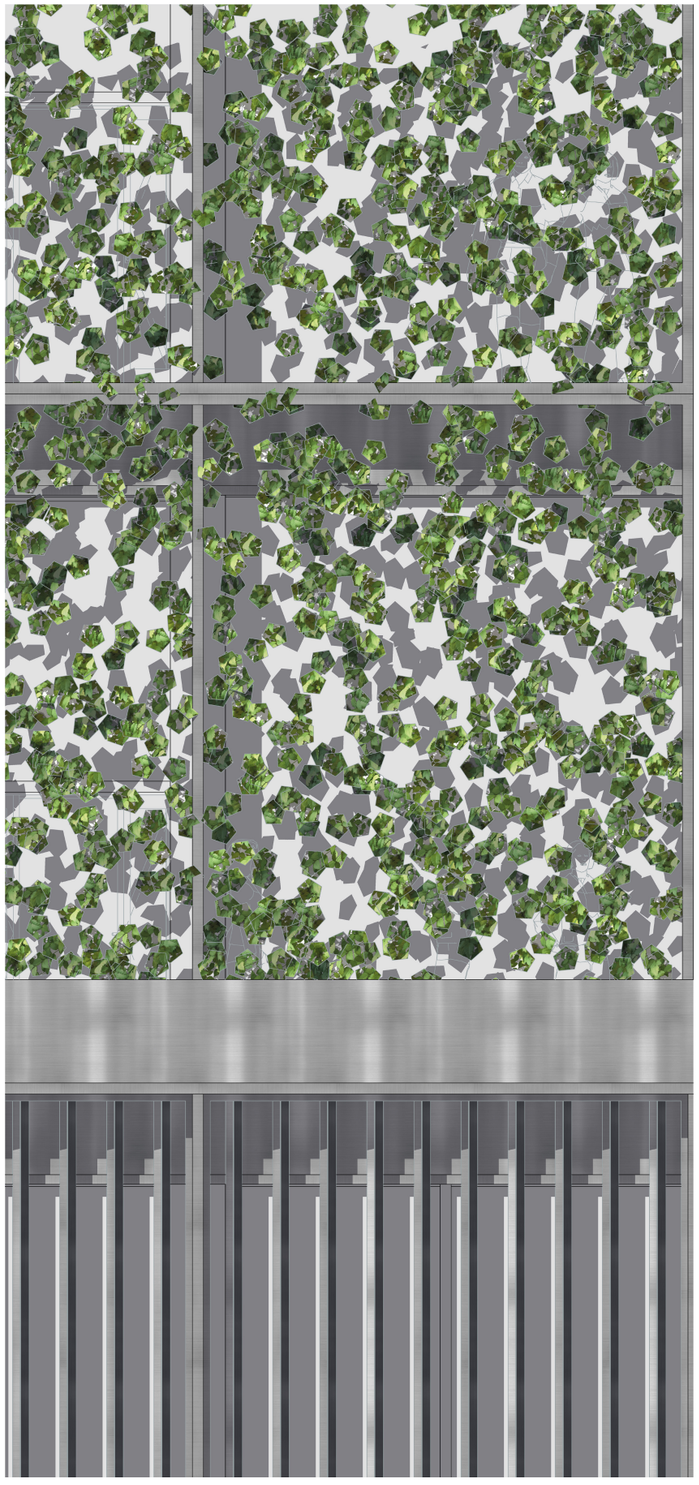






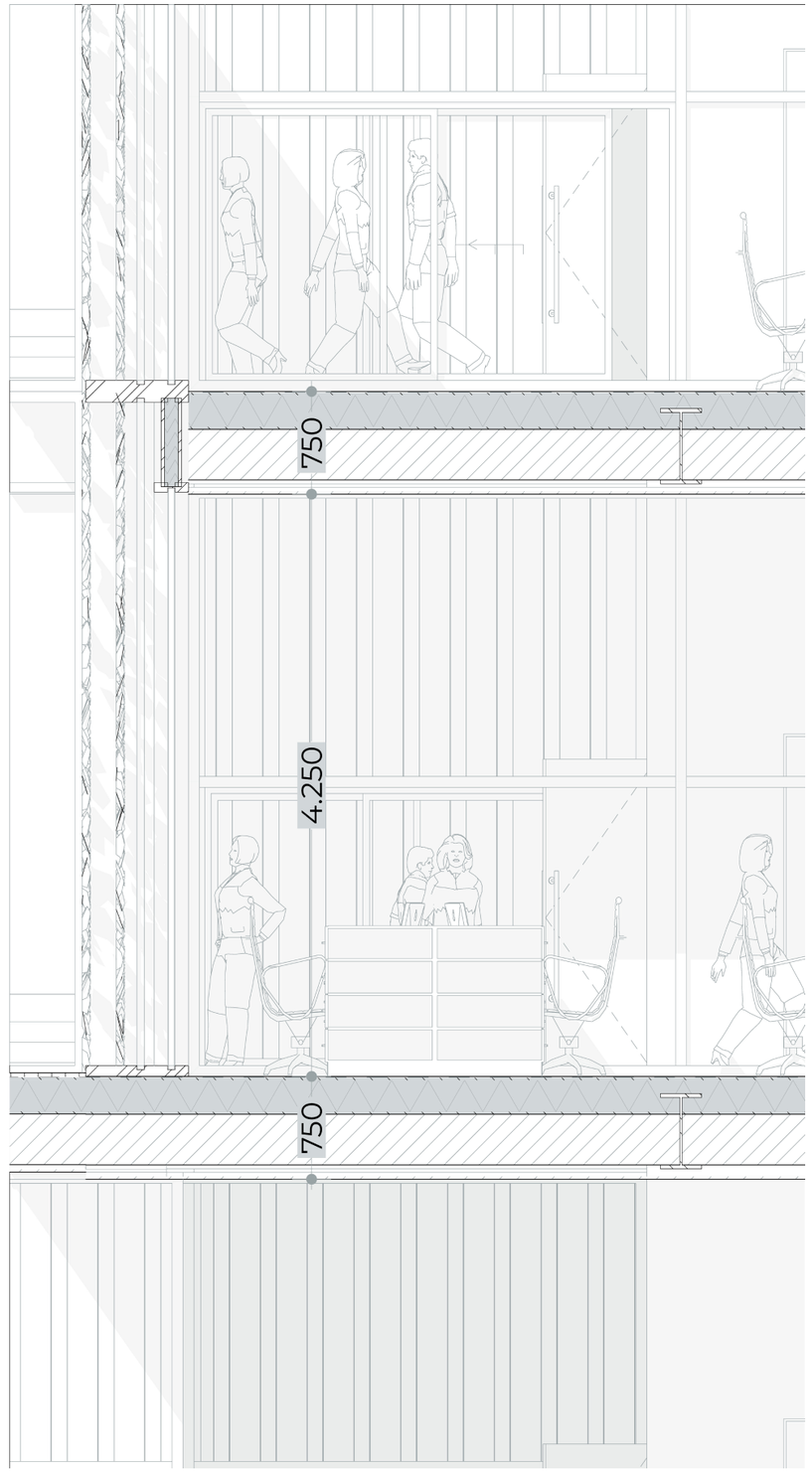


4. Technical Design | Fragment elevation & section

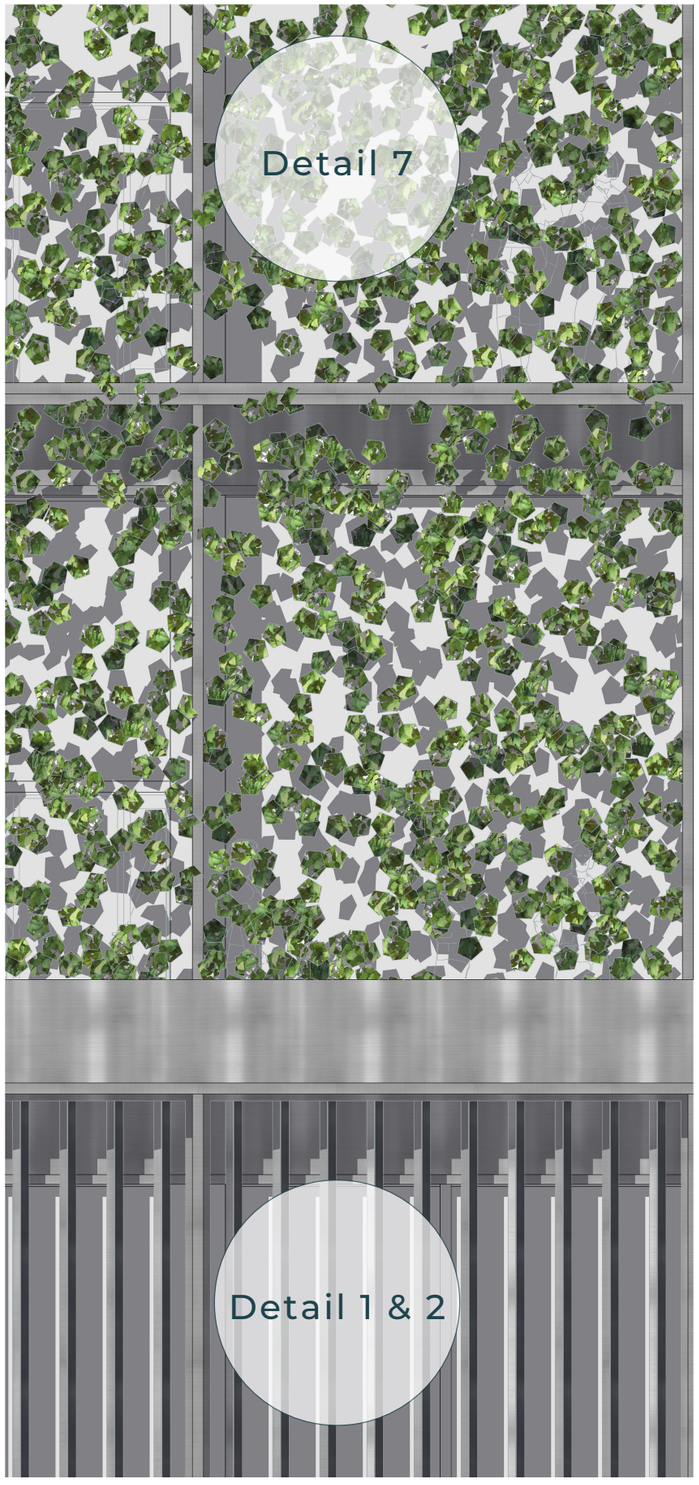


+56.000
11th Floor

+51.000
10th Floor

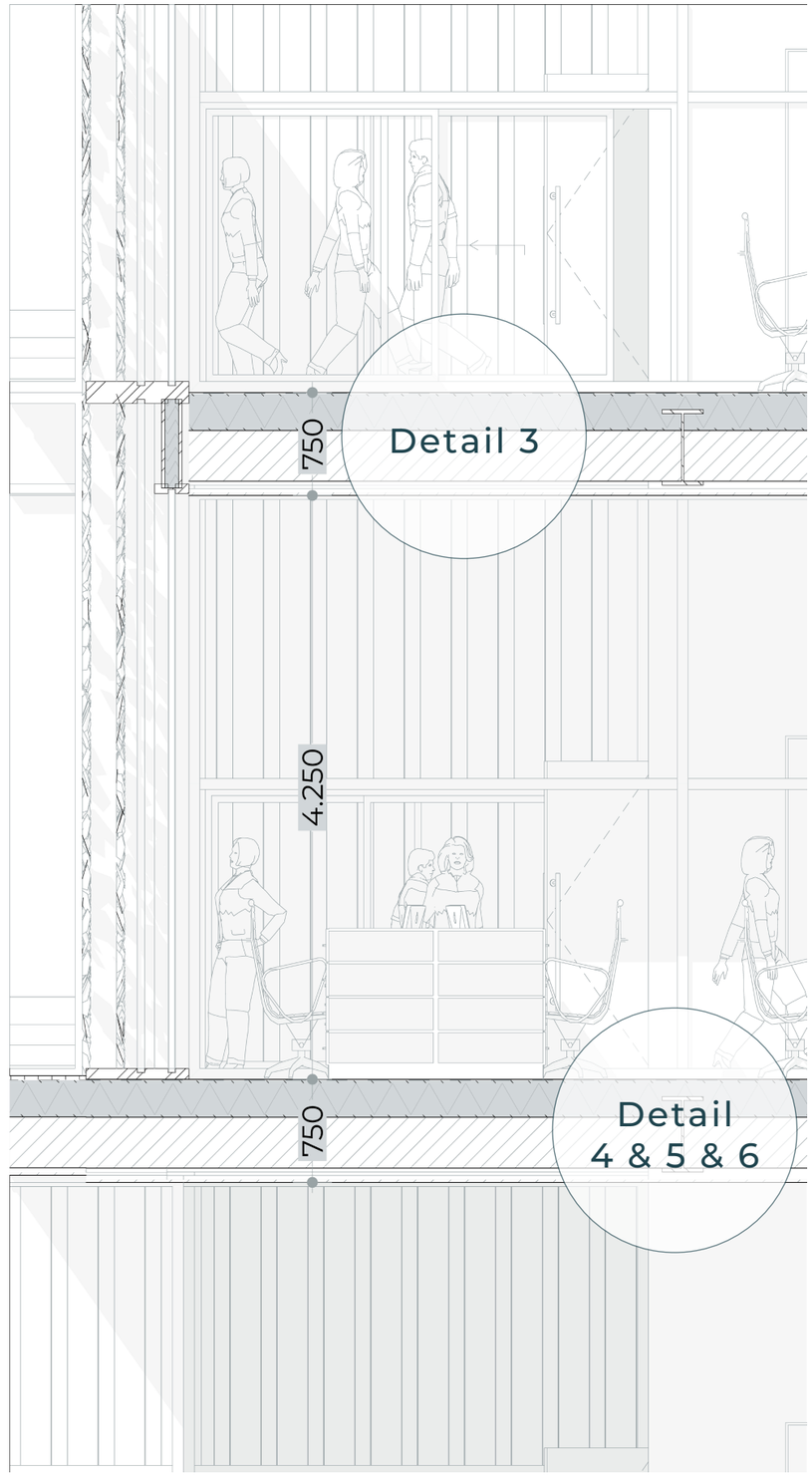


4. Technical Design | Fragment elevation & section

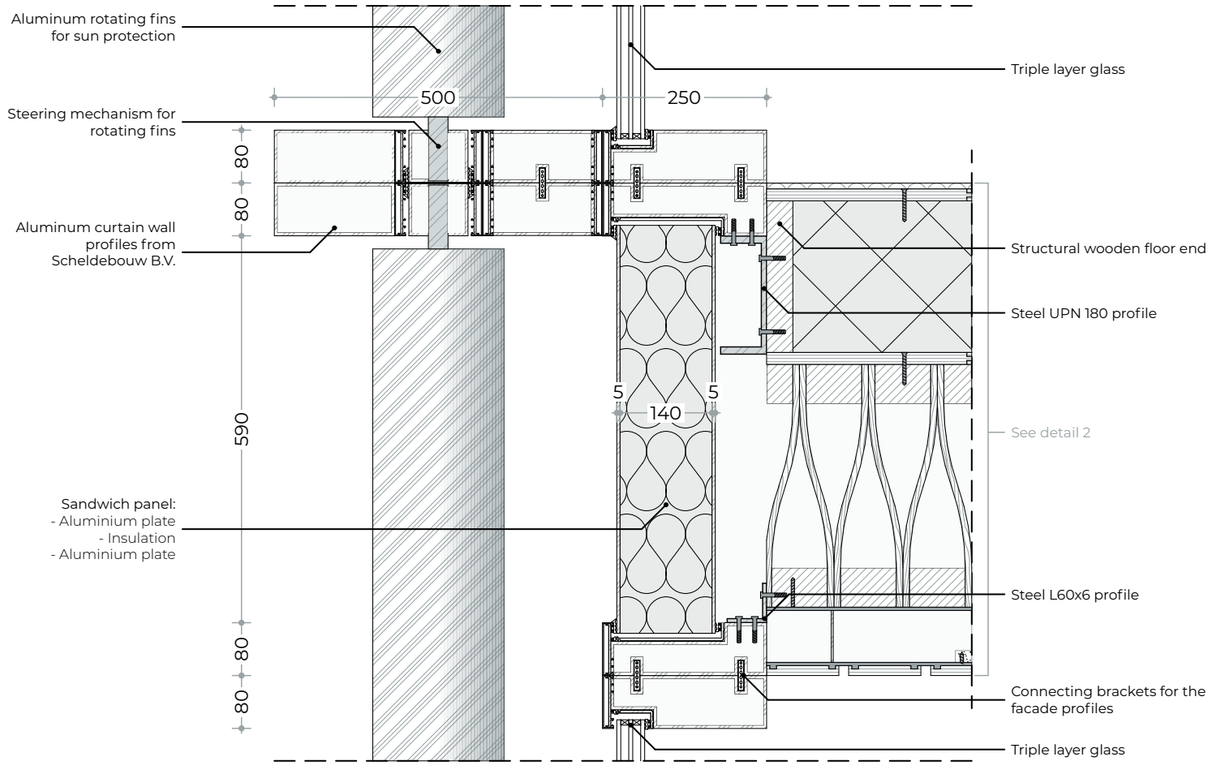


+56.000
11th Floor

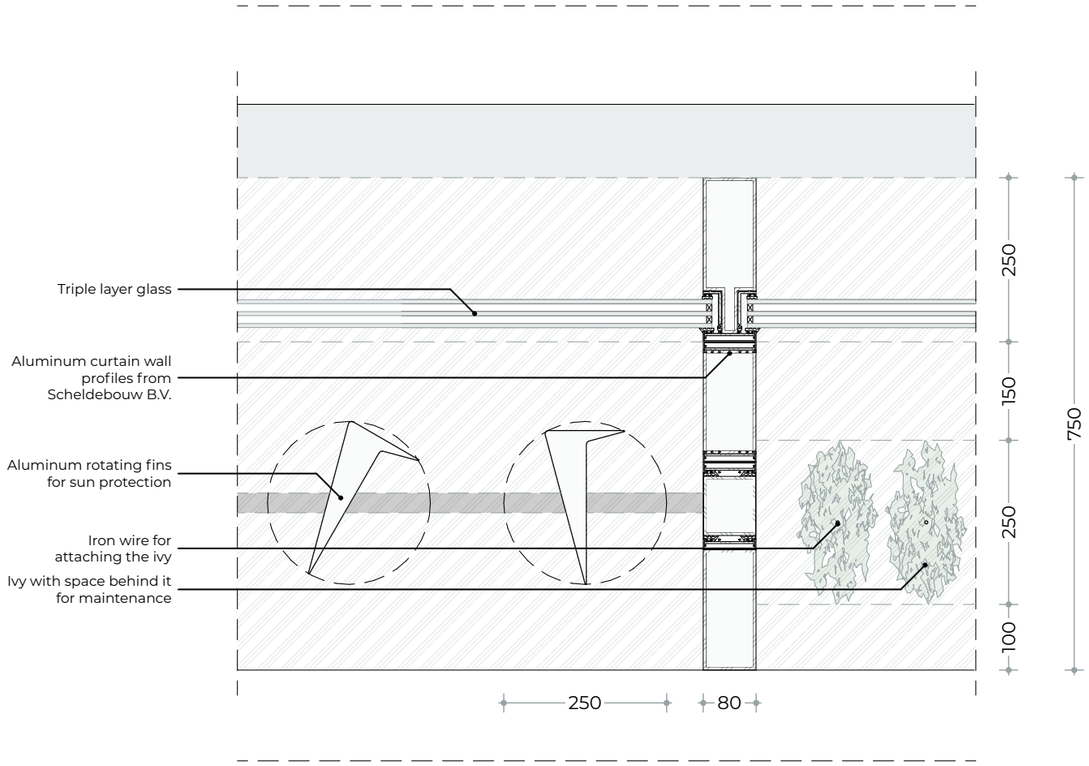
+51.000
10th Floor



4. Technical Design | Detail 1 & 2

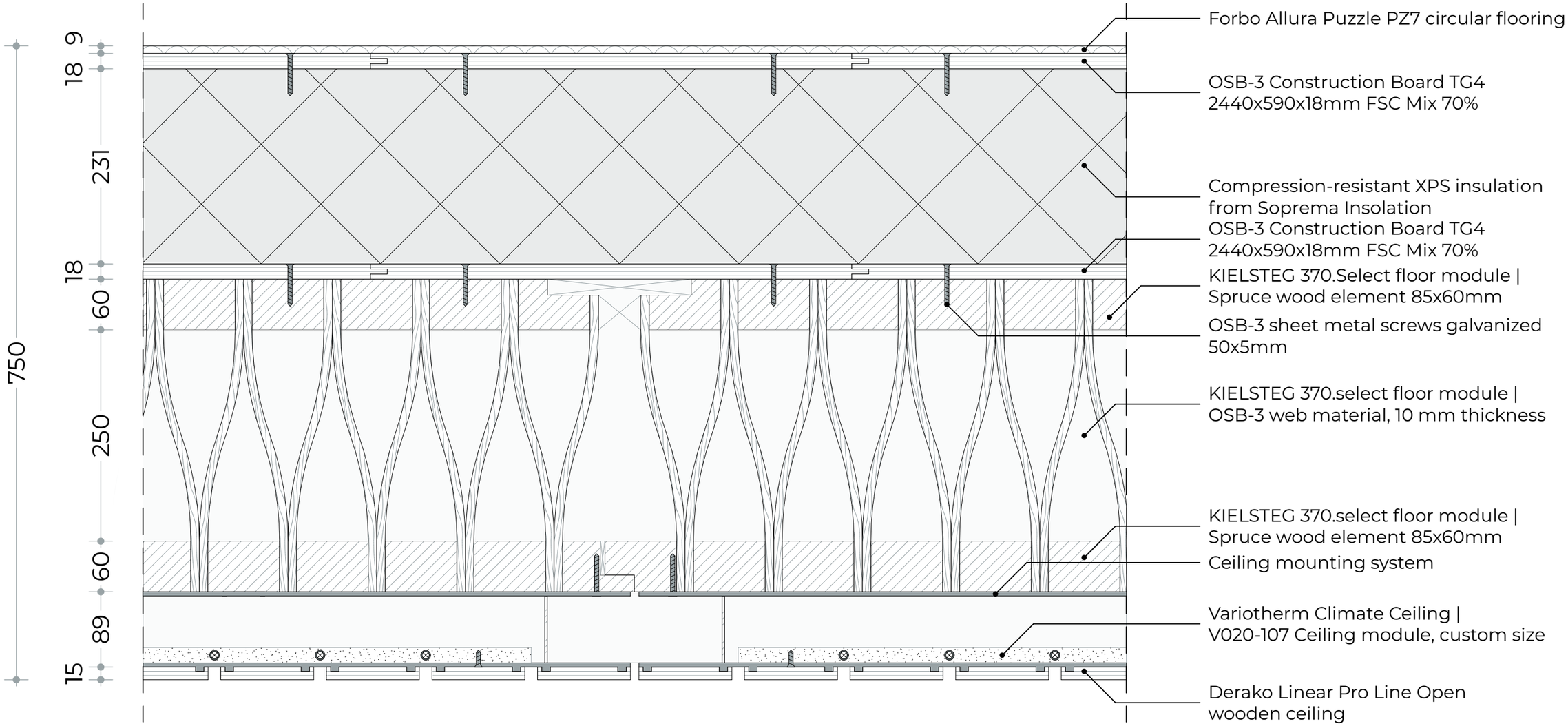


Façade detail - Vertical | 1 : 10



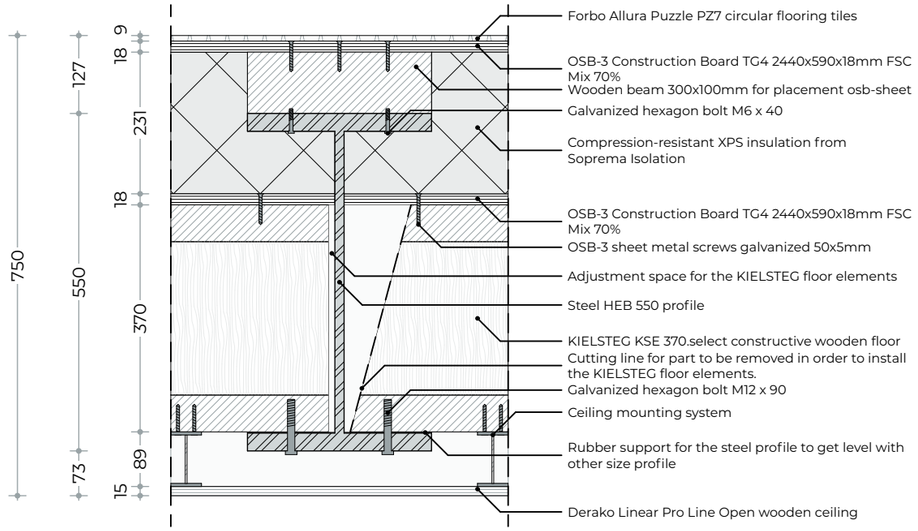
Façade detail - Horizontal | 1 : 10

4. Technical Design | Detail 3

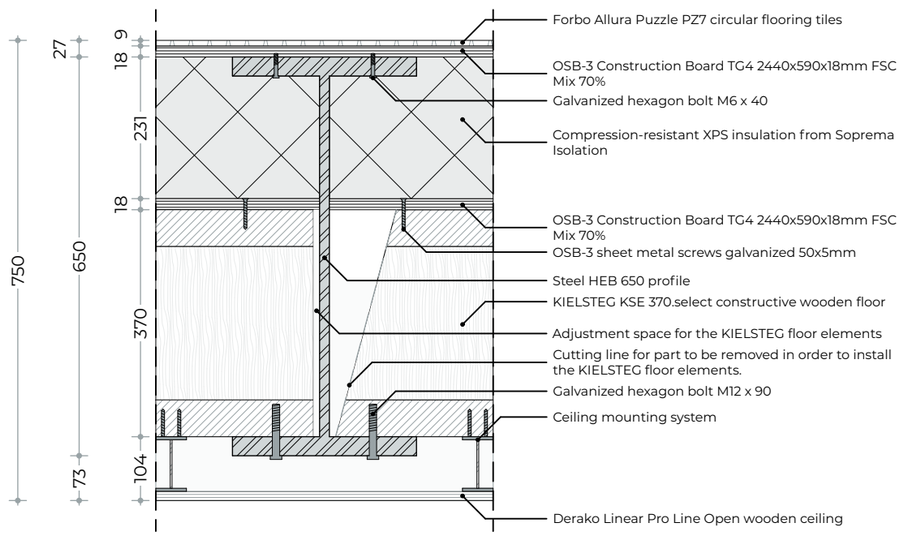


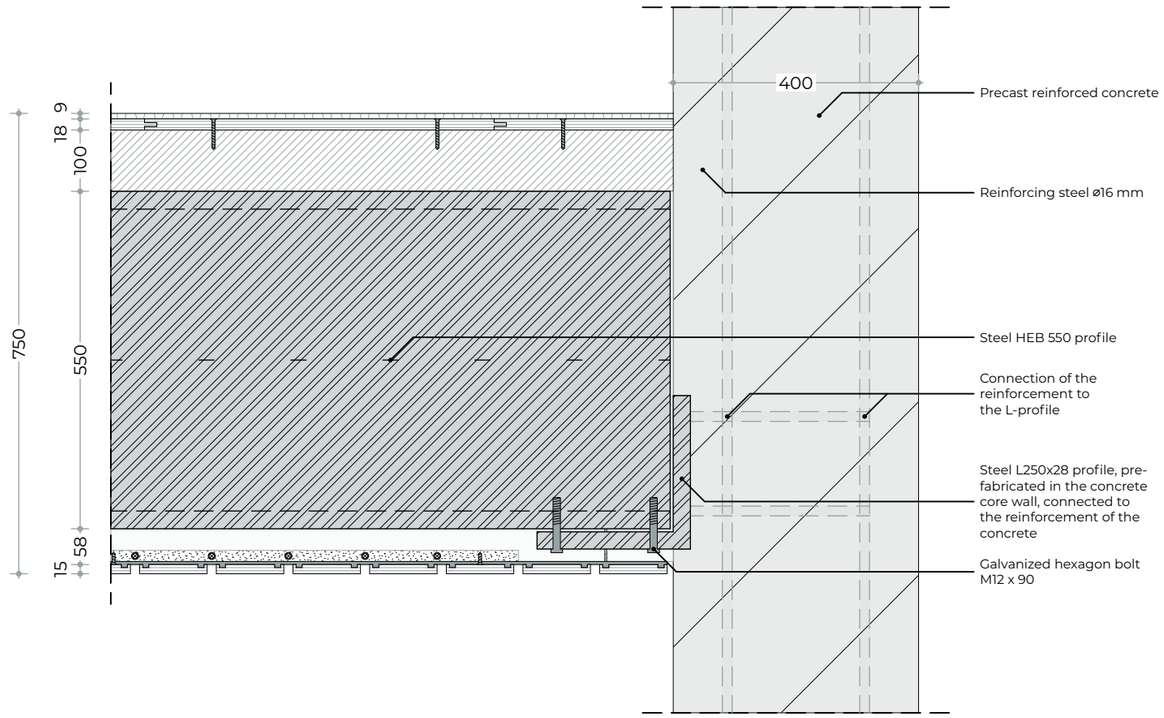
Floor detail | 1 : 5

4. Technical Design | Detail 4, 5 & 6



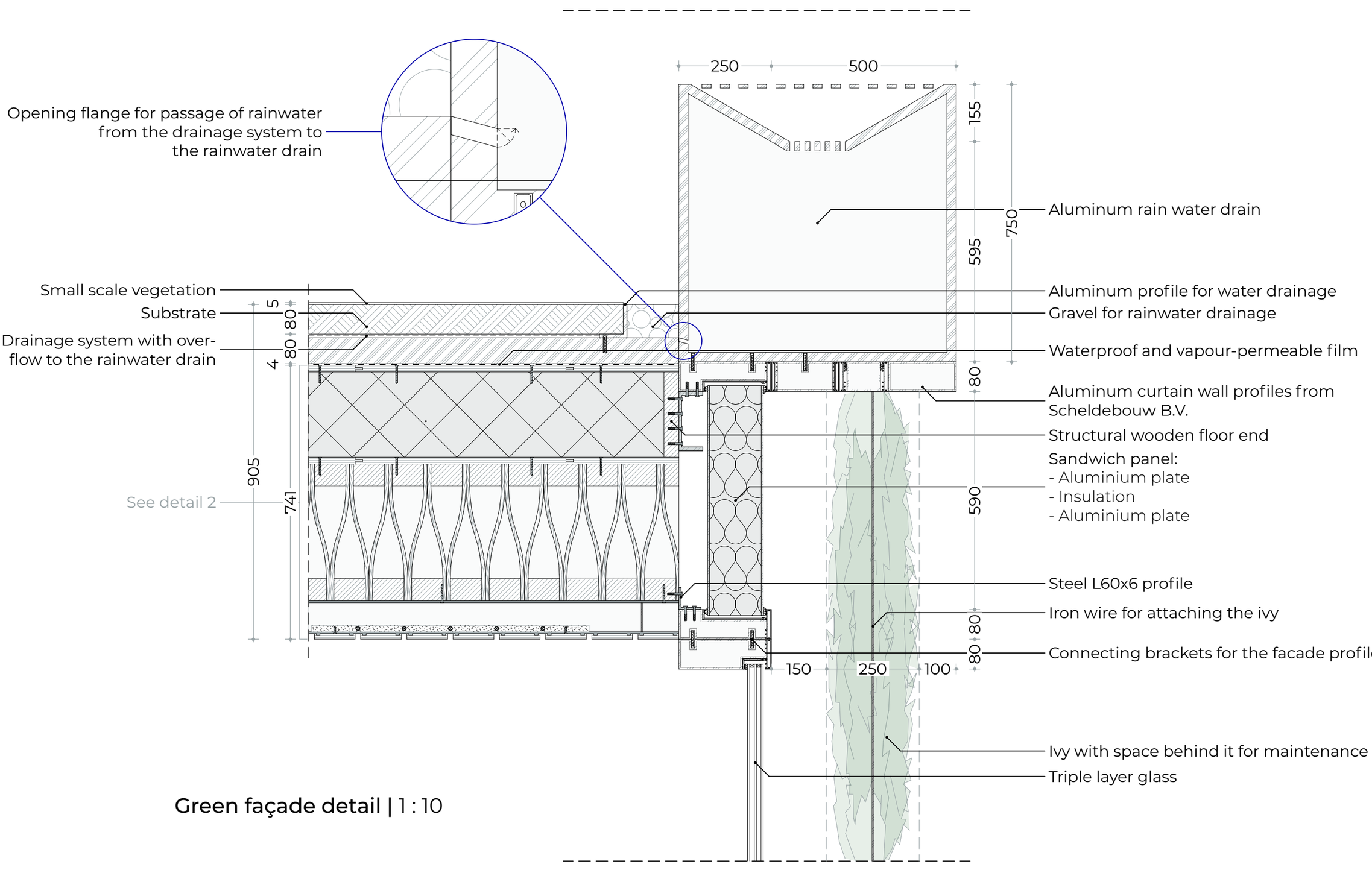
Floor construction detail | 1 : 10





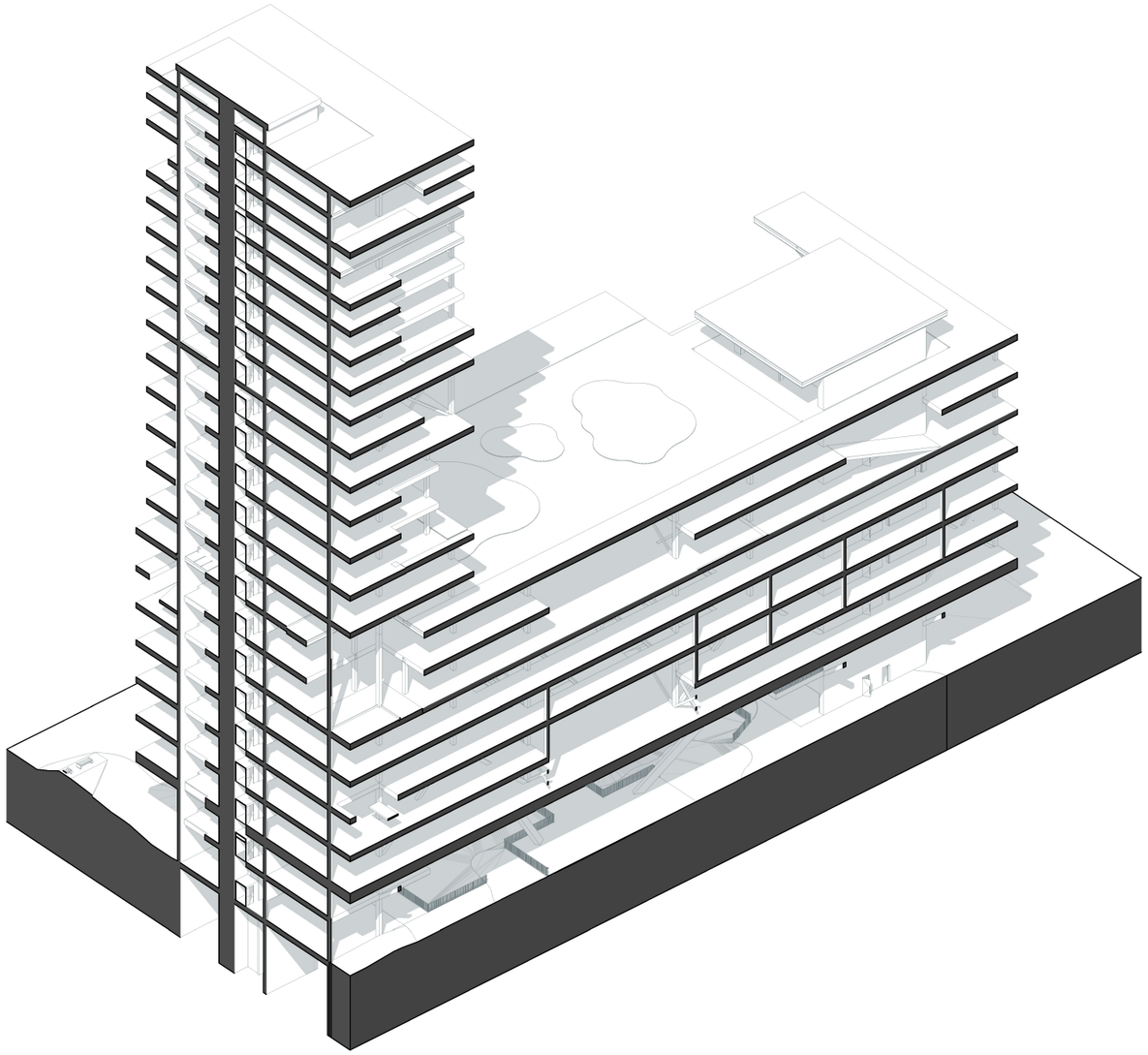
Floor connection to core detail | 1 : 10

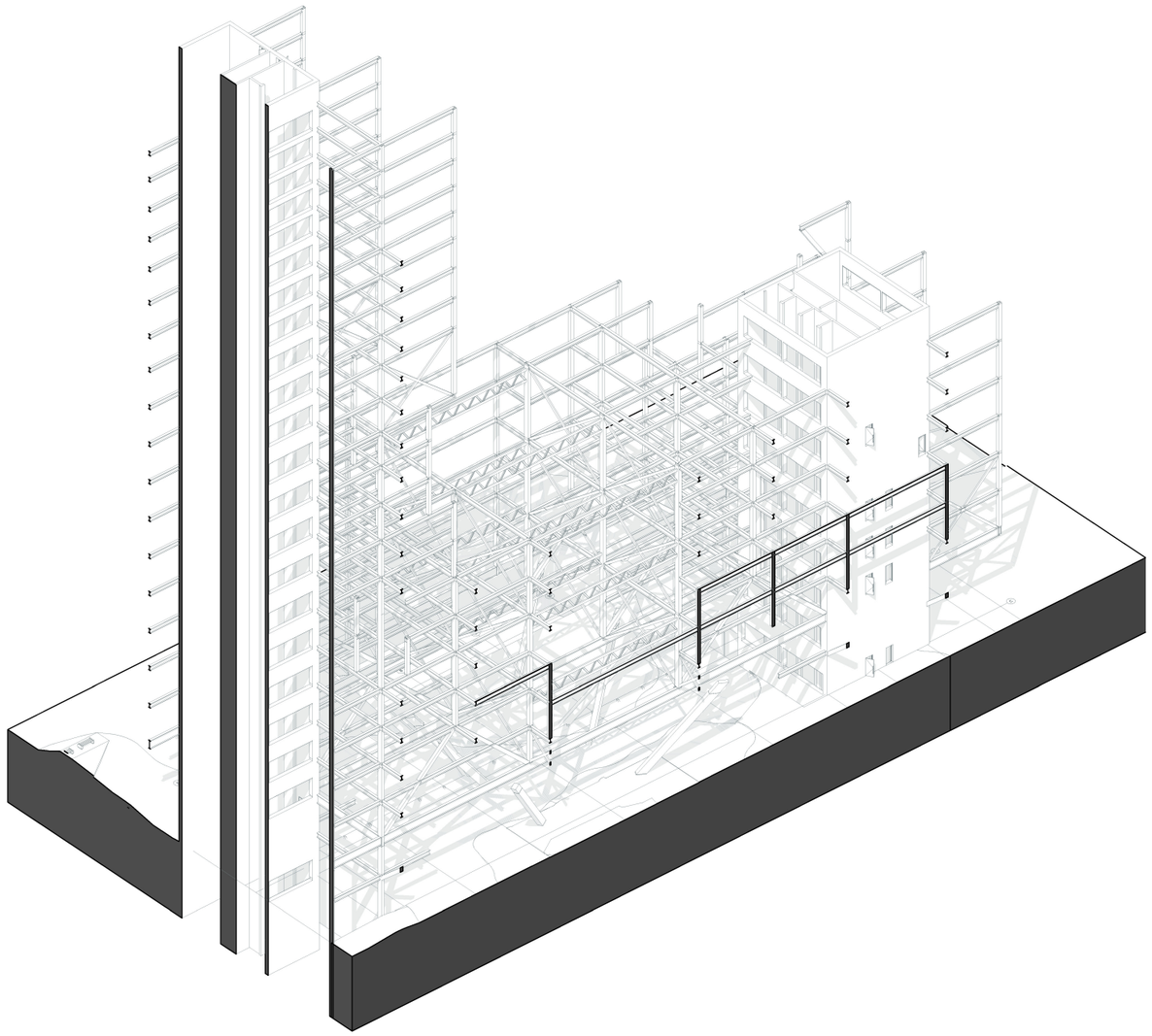
4. Technical Design | Detail 7



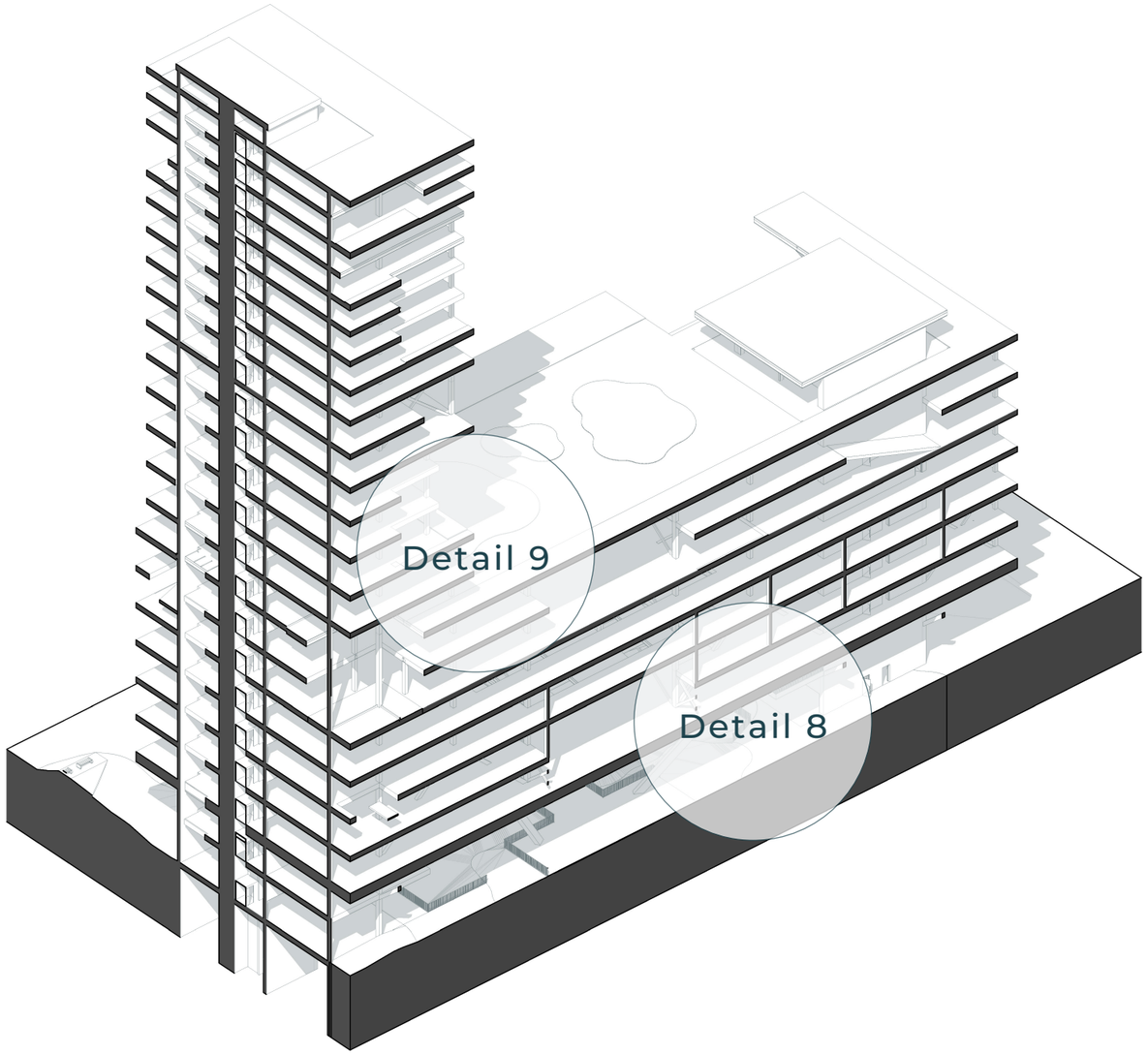
Green façade detail | 1 : 10

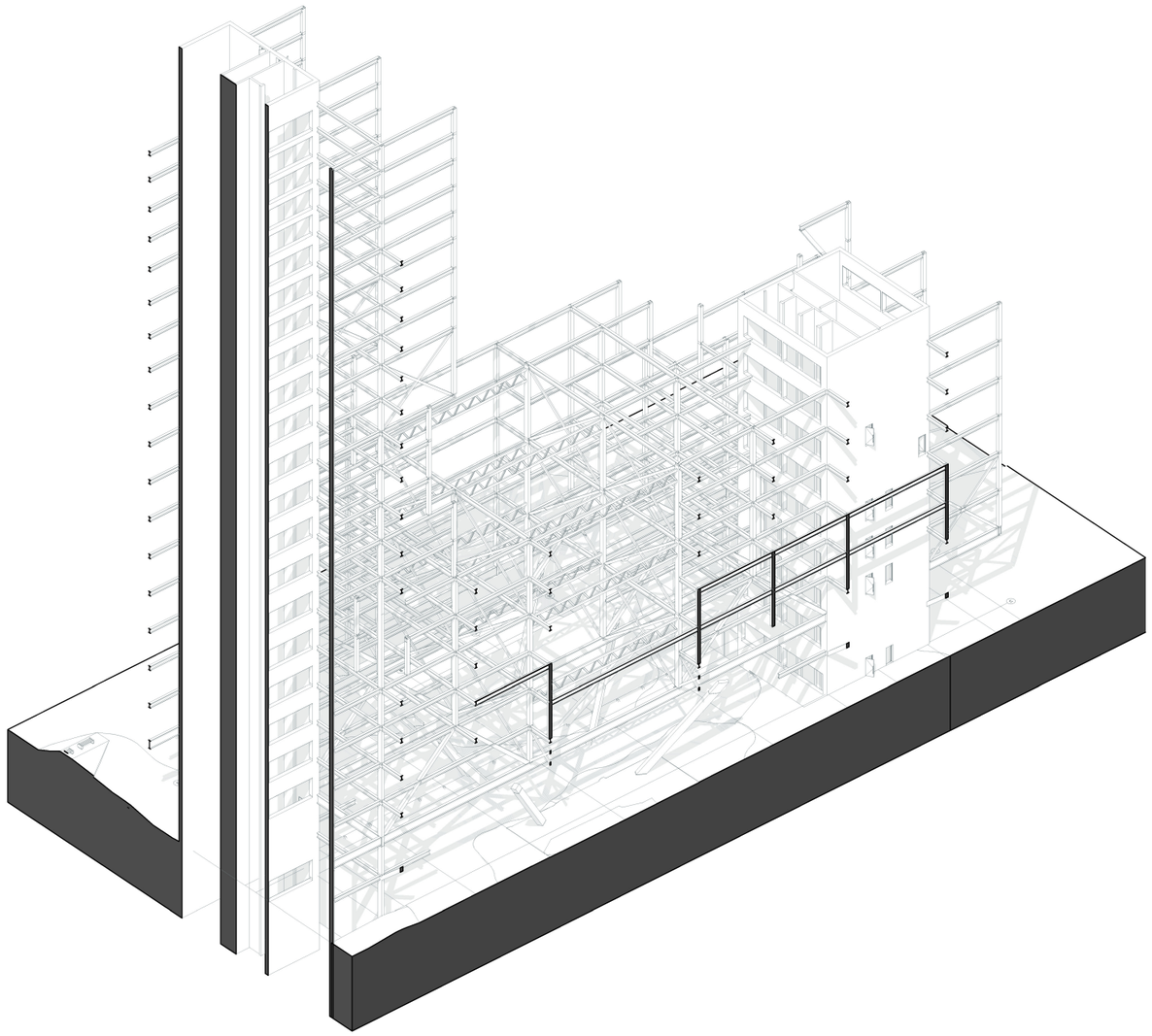
4. Technical Design | Axonometric section of the structure



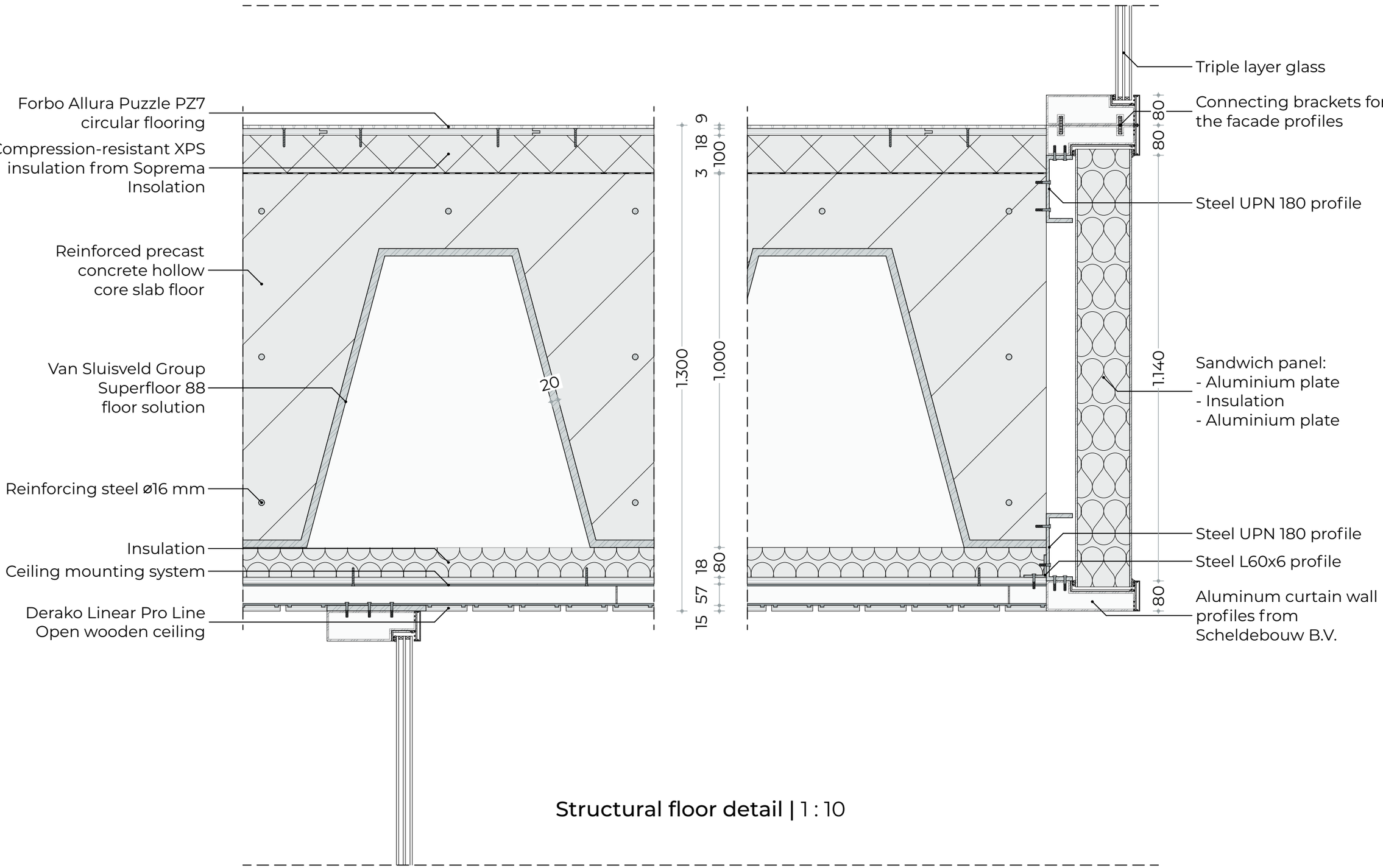


4. Technical Design | Axonometric section of the structure



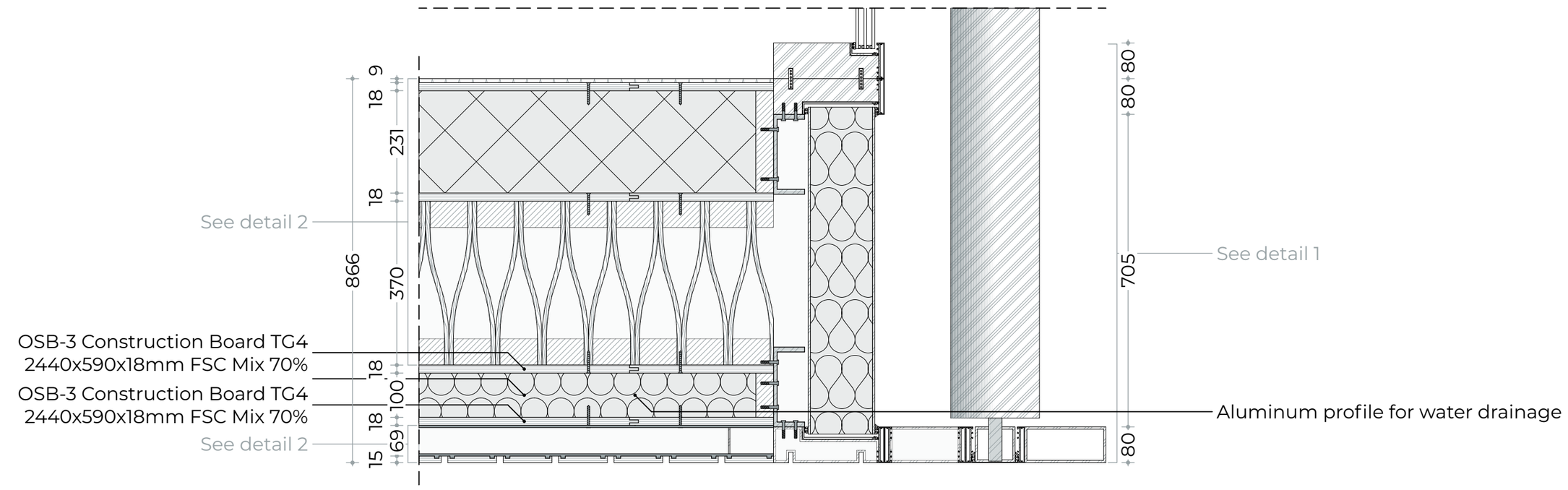


4. Technical Design | Detail 8

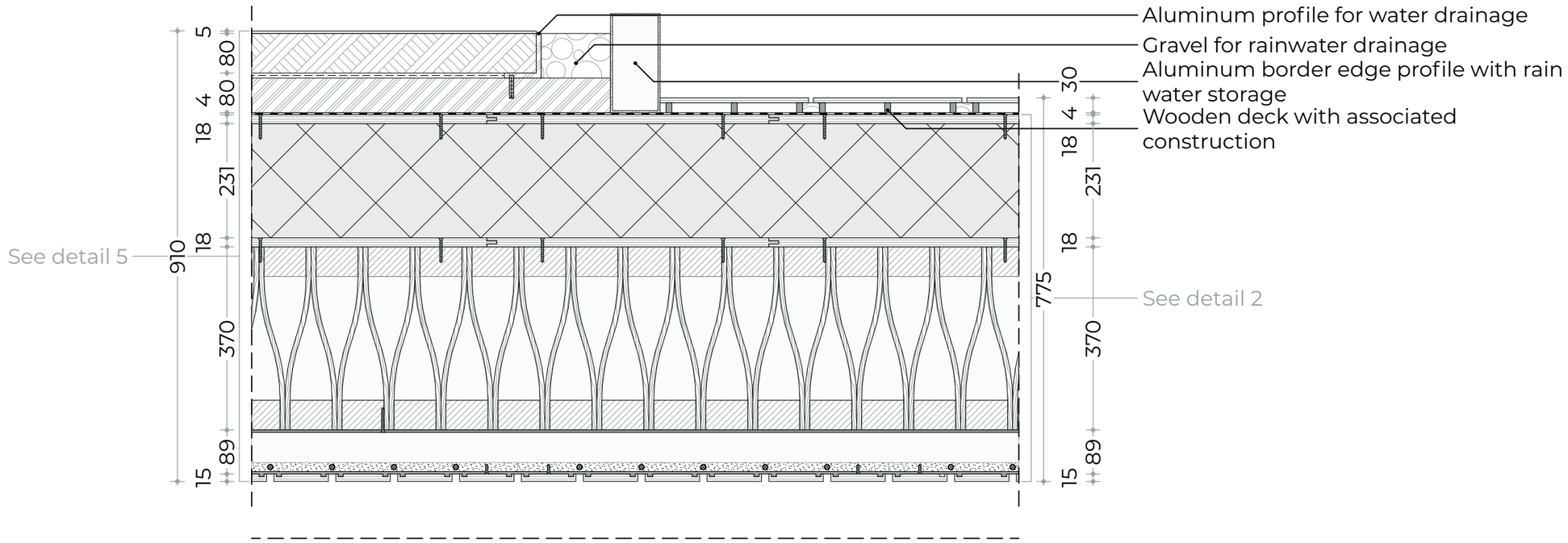


Structural floor detail | 1 : 10

4. Technical Design | Detail 9



Green roof detail | 1 : 10



5. Conclusion | Overview

- Education can be improved by applying a hybrid learning environment.

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- The newly designed building offers a hybrid program that benefits the proposed hybrid learning environment.

5. Conclusion | Overview

- Education can be improved by applying a hybrid learning environment.

- By adding a new volume, the problem of vacancy in New Babylon has been addressed and Campus Haagsche Park has been created.

- The newly designed building offers a hybrid program that benefits the proposed hybrid learning environment.

- The use of a modular, hybrid construction together with innovative design solutions guarantees sustainability and circularity in the design.


THE END

The Vertical Campus | Building Design Overview

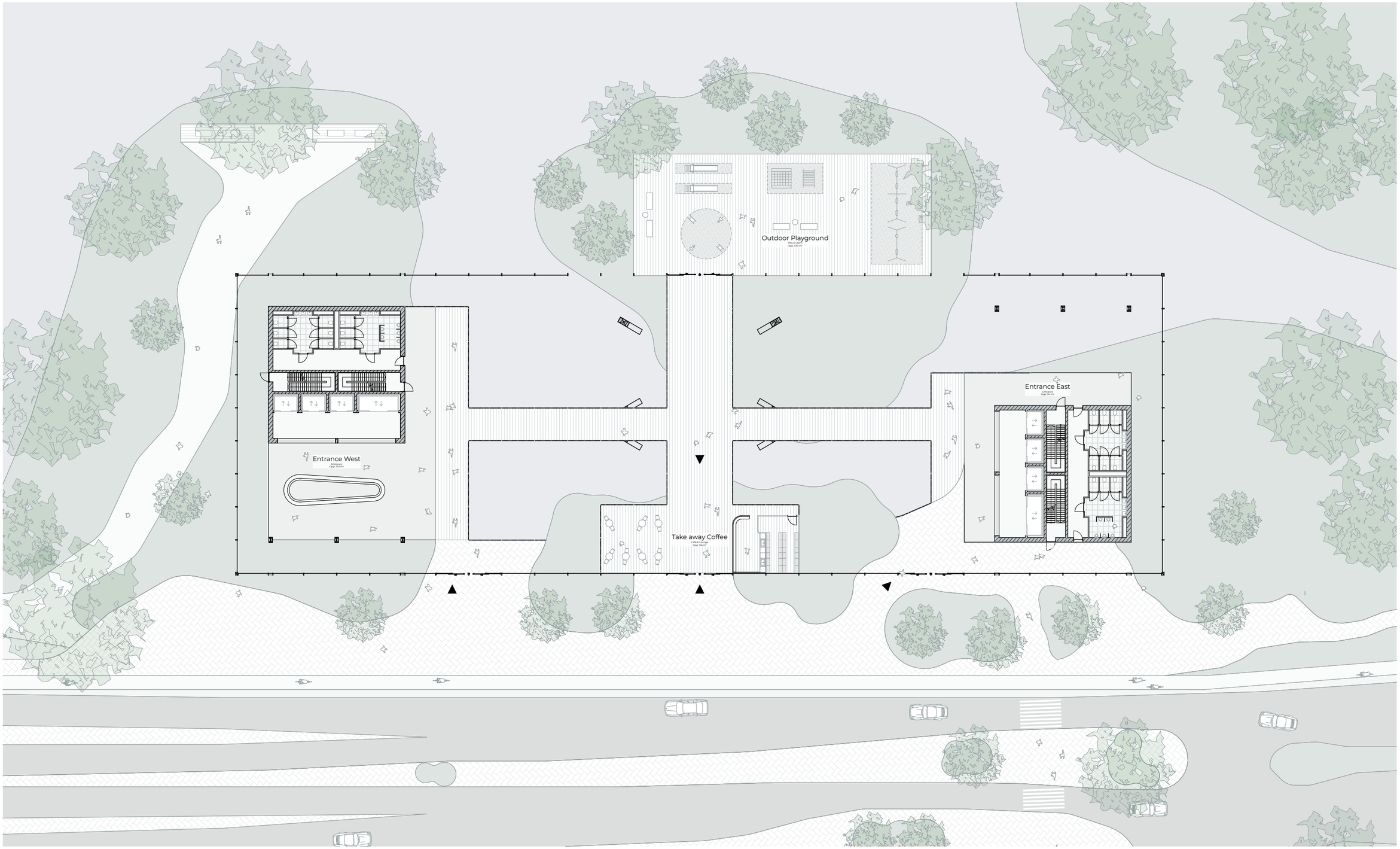
AR3AP100 Public Building Design | 20 - 6 - 2024

Tristan Hazeleger | 5658608

MSc Architecture, Urbanism and Building Sciences | TU Delft

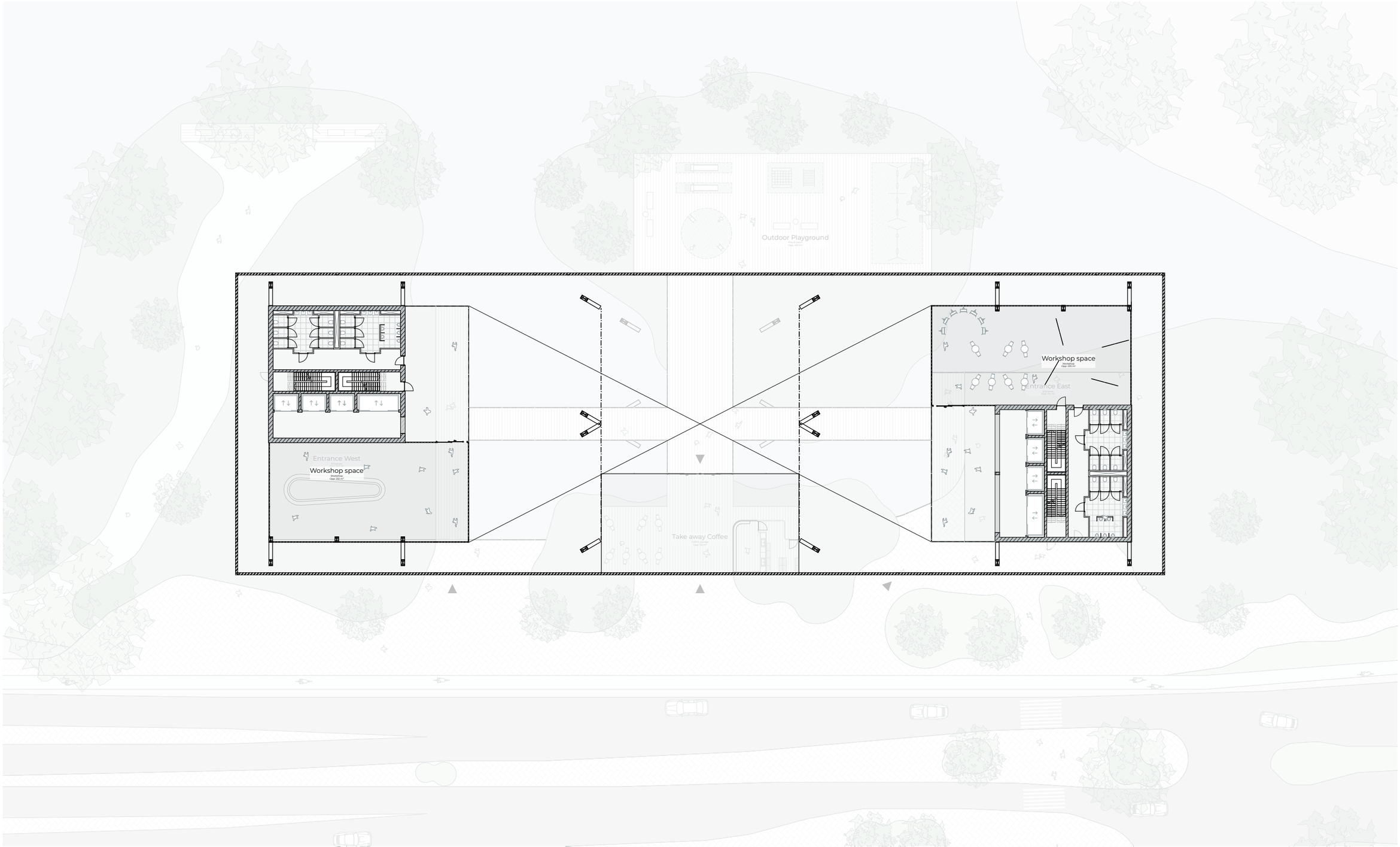
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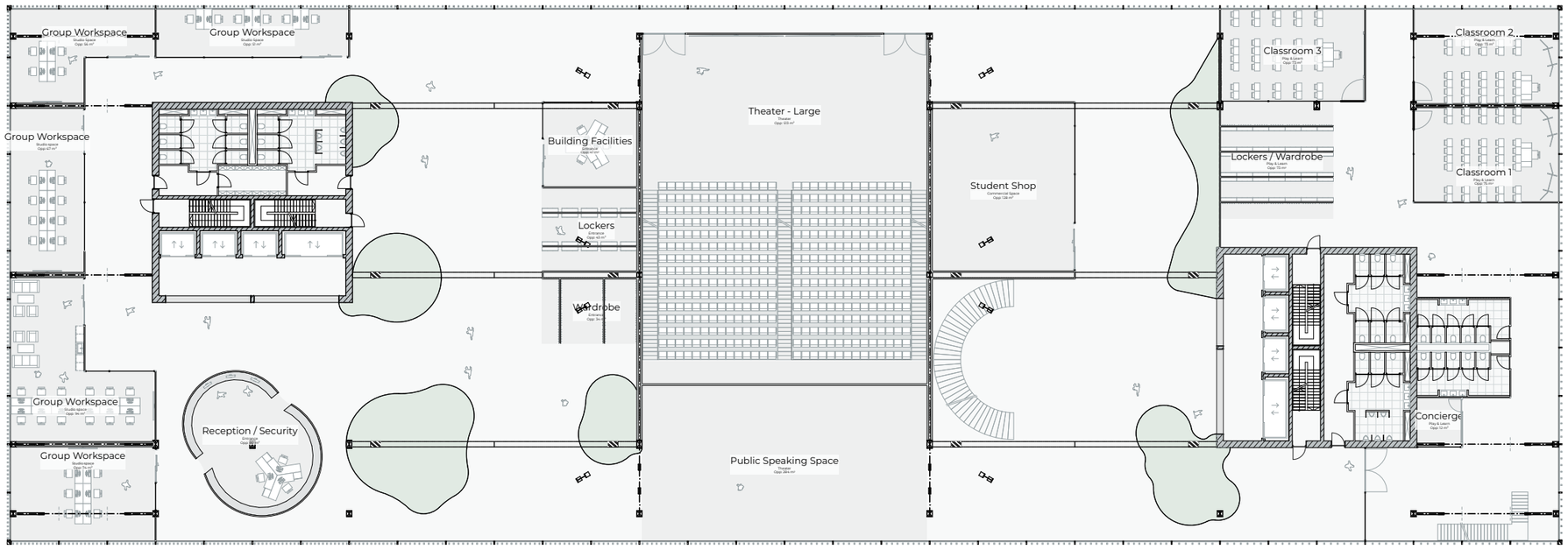
Ground Floor | 1:400

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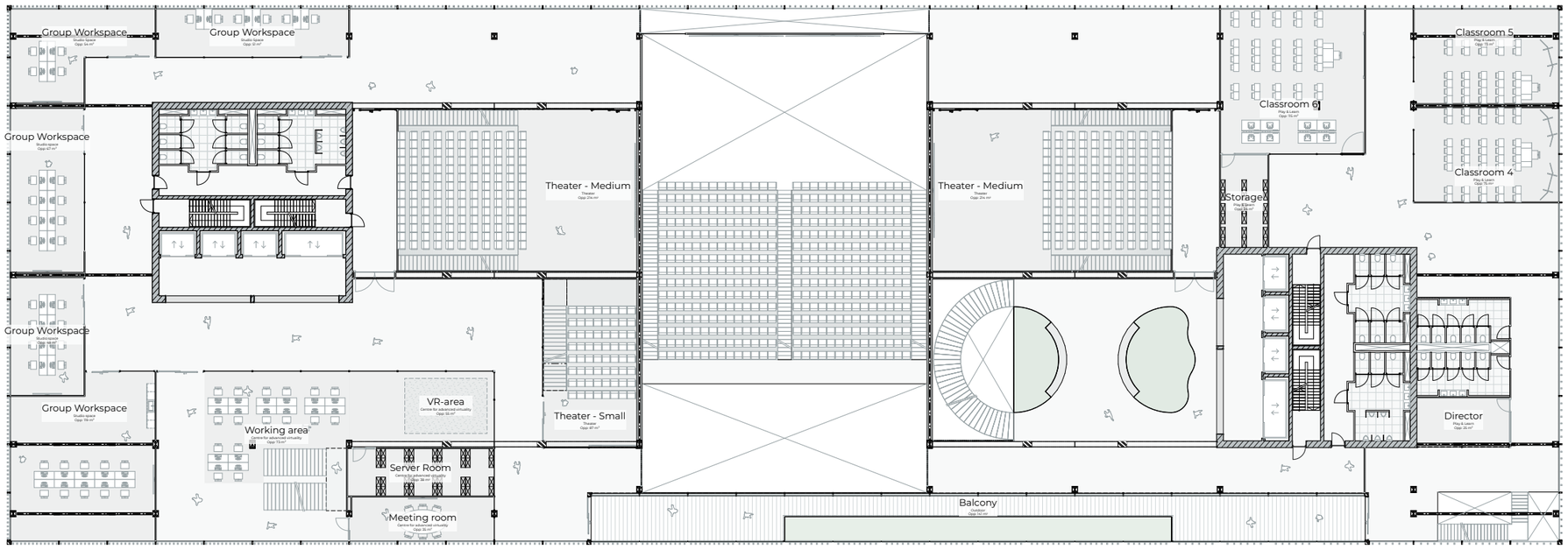
1st Floor | 1:400

AR3AP100 Public Building Design



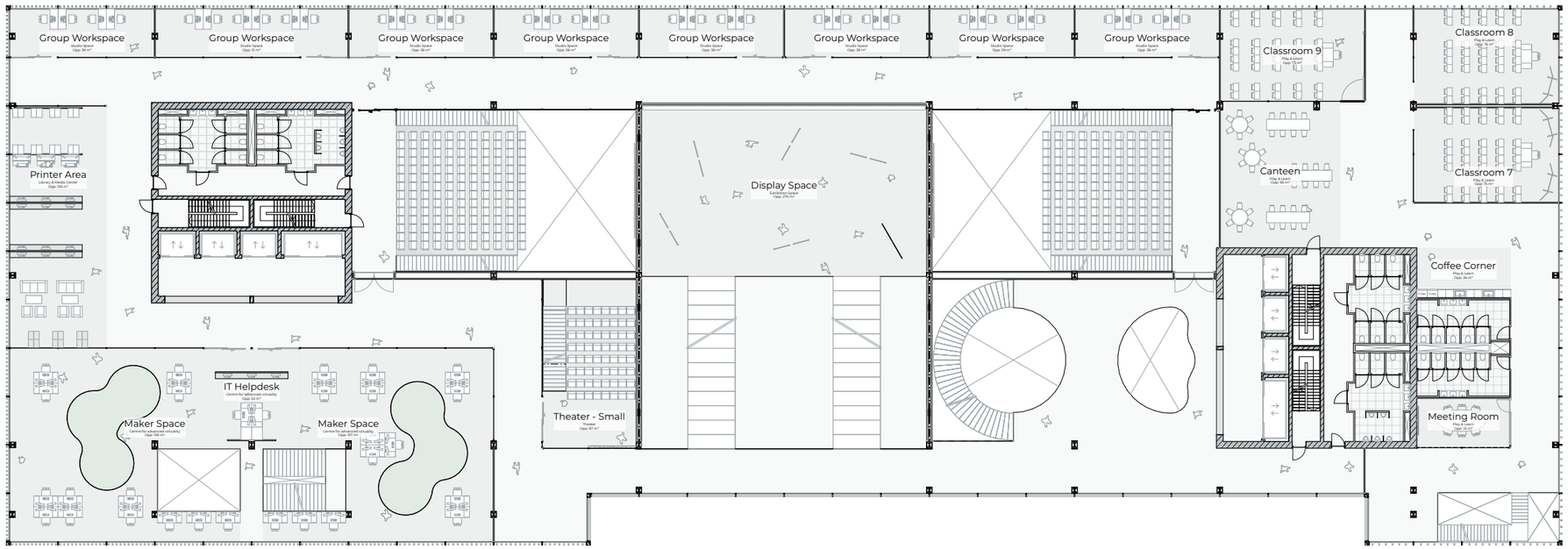
2nd Floor | 1:400

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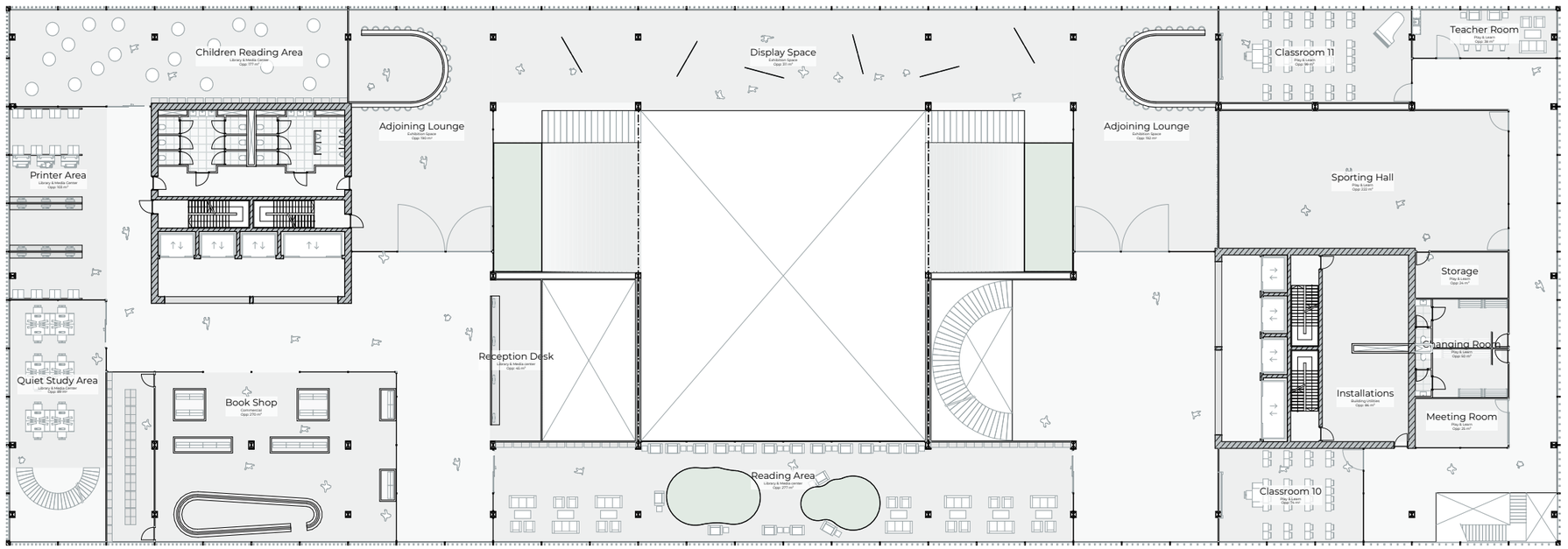
3rd Floor | 1:400

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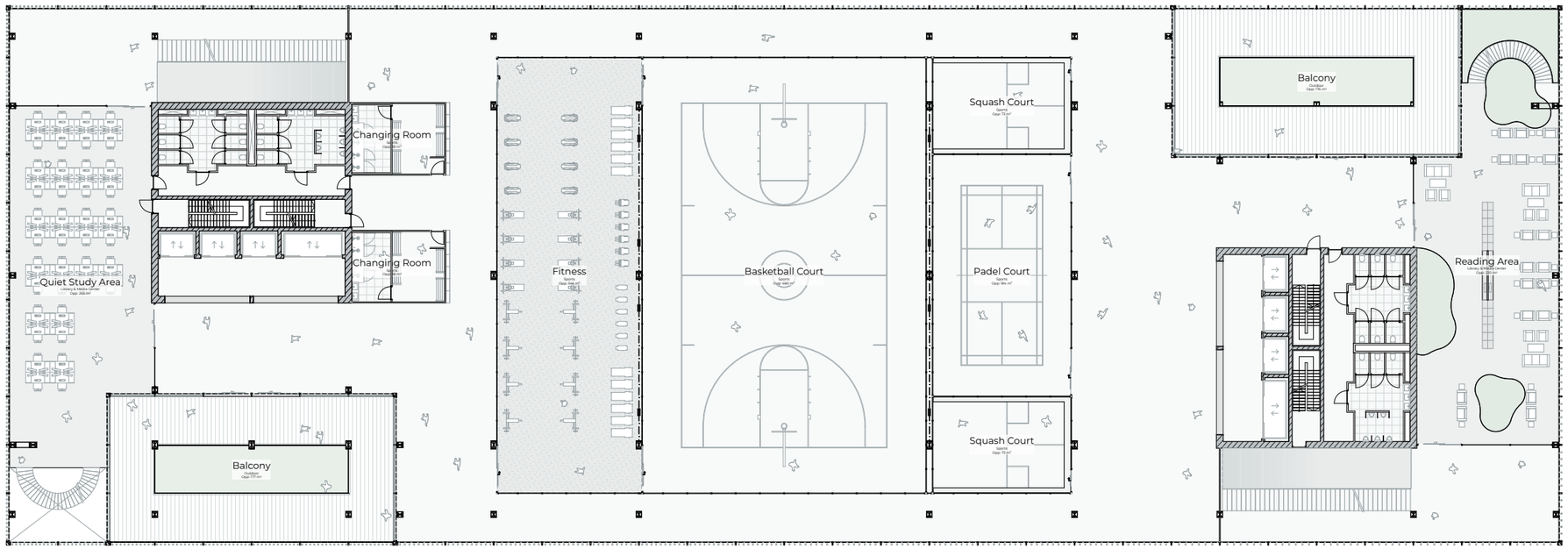
4th Floor | 1:400

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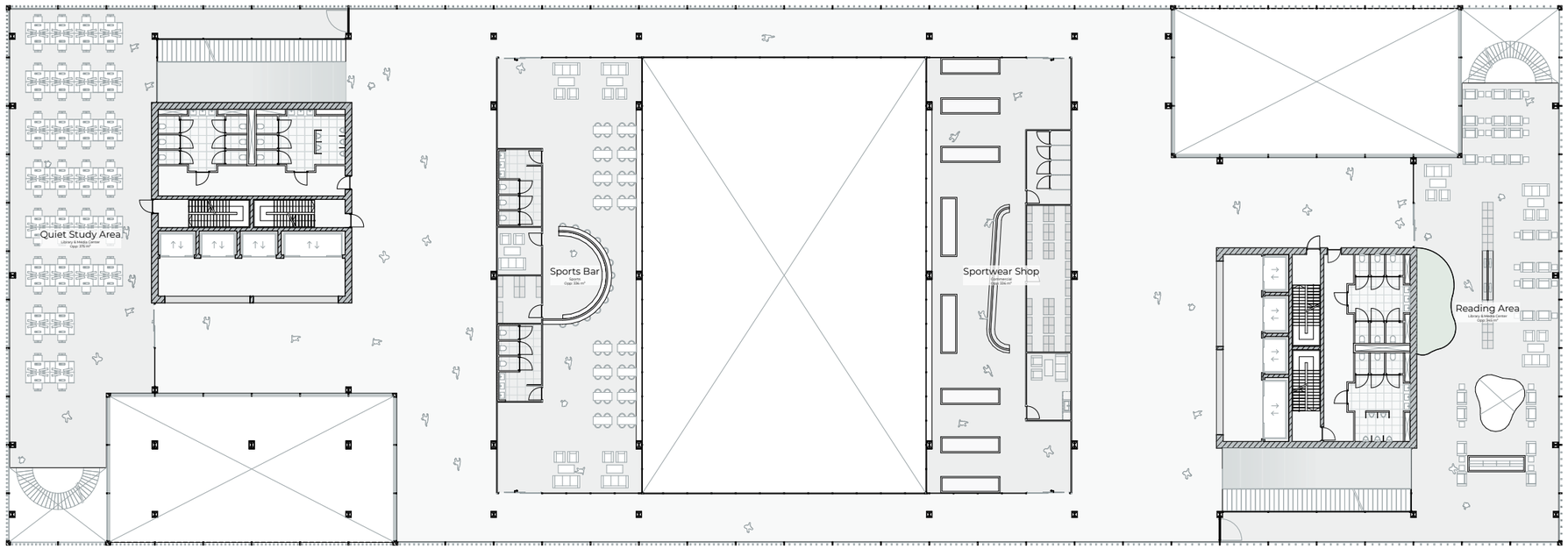
5th Floor | 1:400

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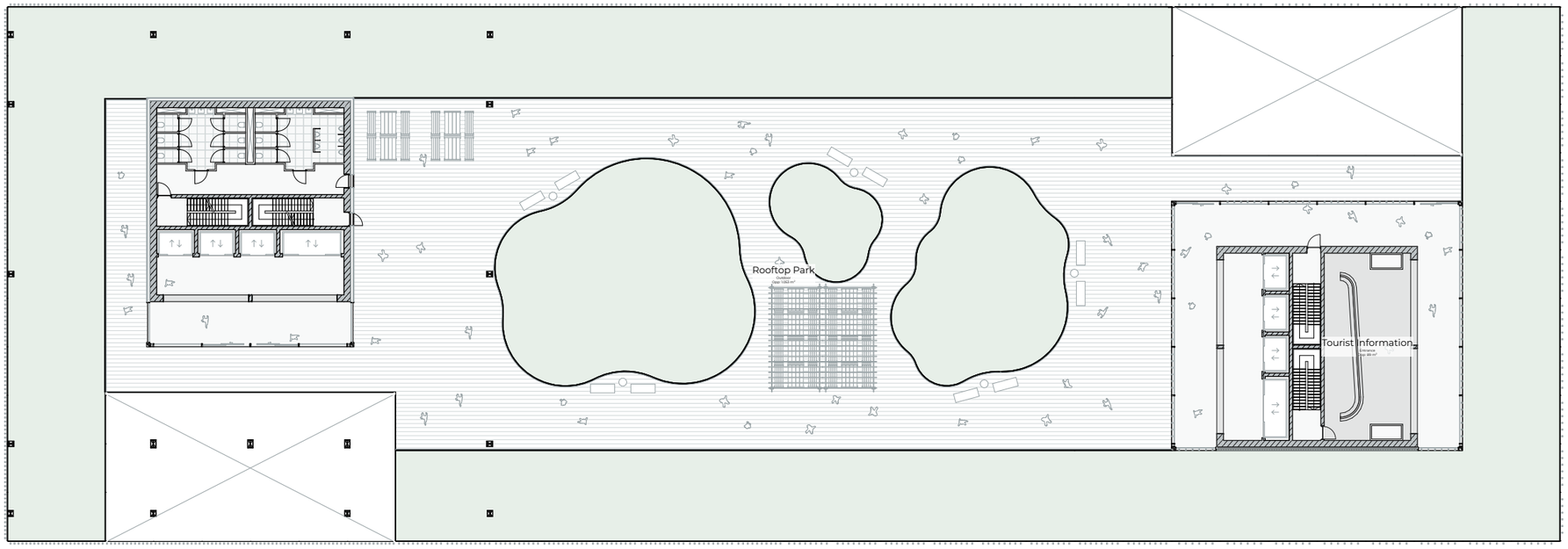
6th Floor | 1:400

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7th Floor | 1:400

AR3AP100 Public Building Design

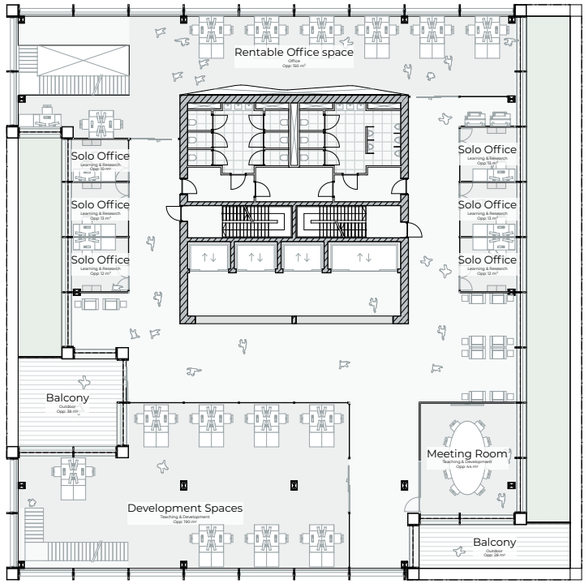


8th Floor | 1:400

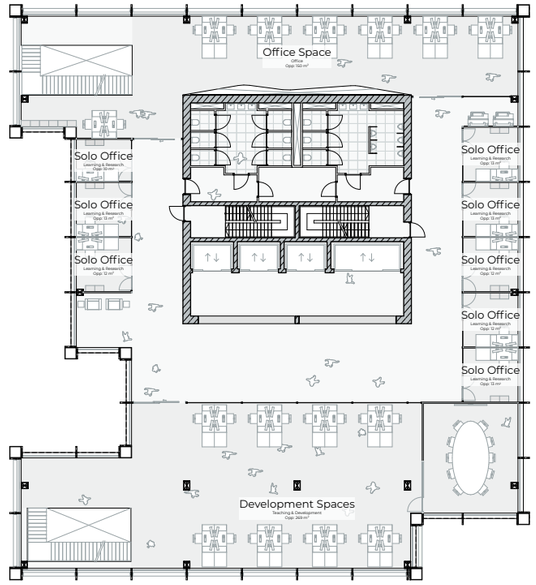


9th Floor | 1:400

AR3AP100 Public Building Design

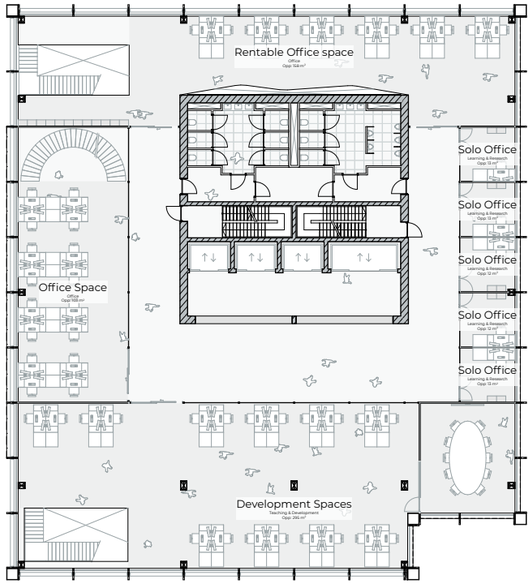


10th Floor

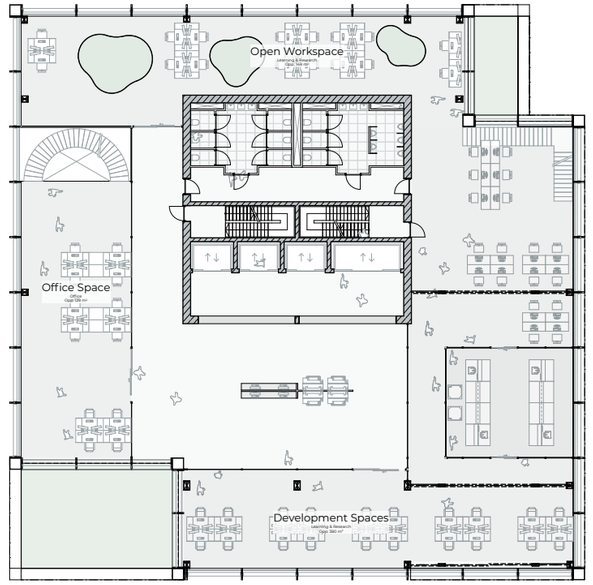


11th Floor

10th Floor & 11th Floor | 1:400



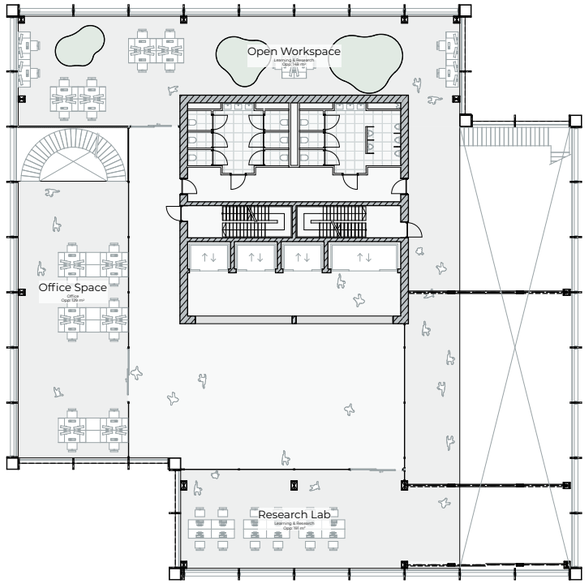
12th Floor



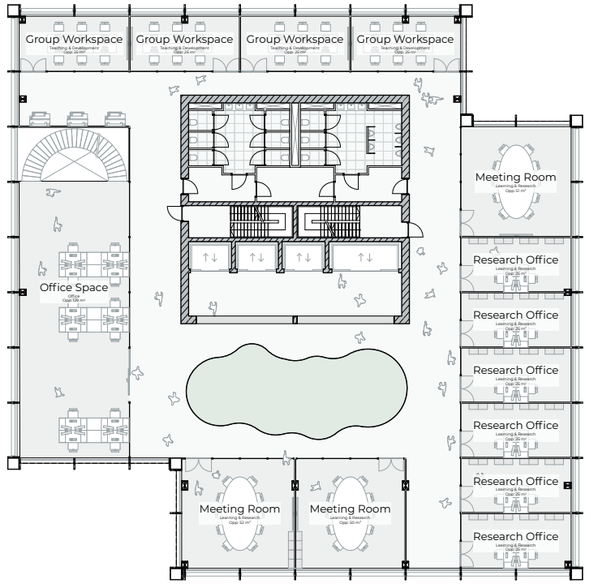
13th Floor

12th Floor & 13th Floor | 1:400

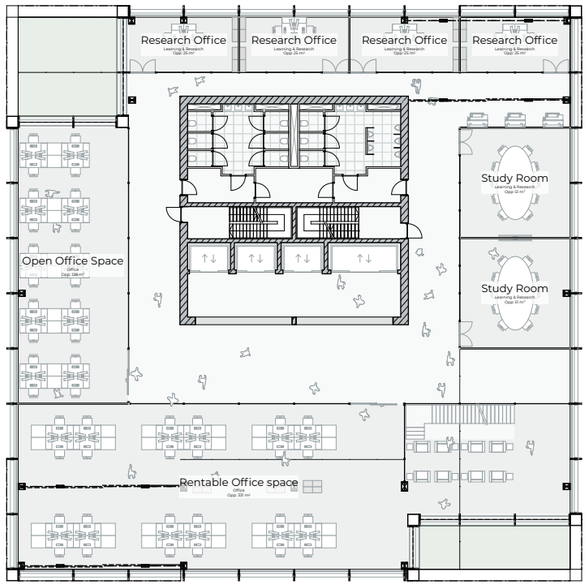
AR3AP100 Public Building Design



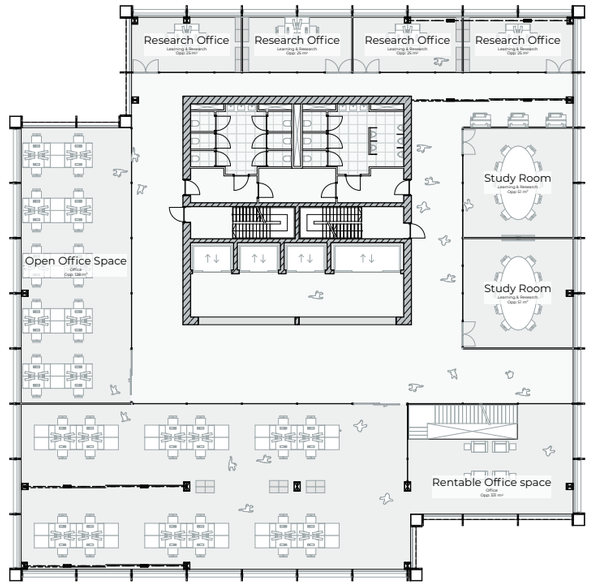
14th Floor



15th Floor



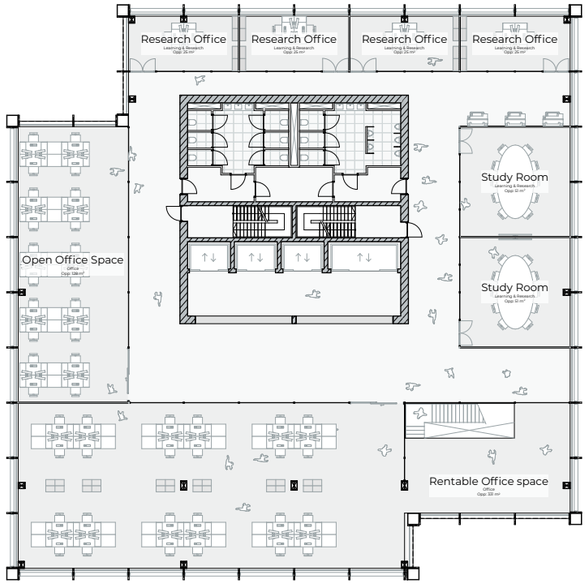
16th Floor



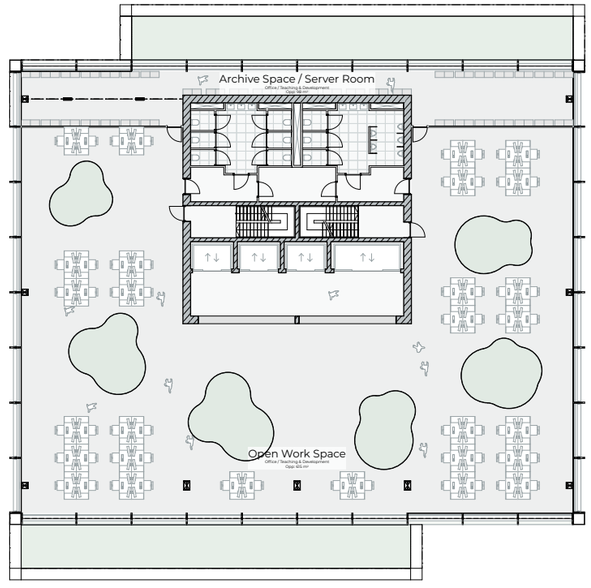
17th Floor

16th Floor & 17th Floor | 1:400

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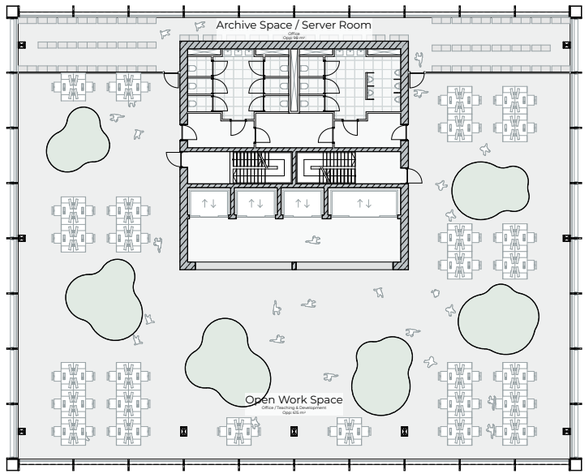
18th Floor



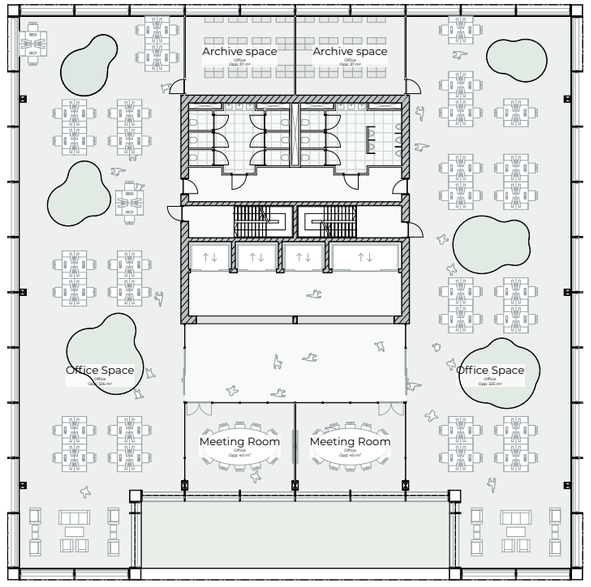
19th Floor

18th Floor & 19th Floor | 1:400

AR3AP100 Public Building Design

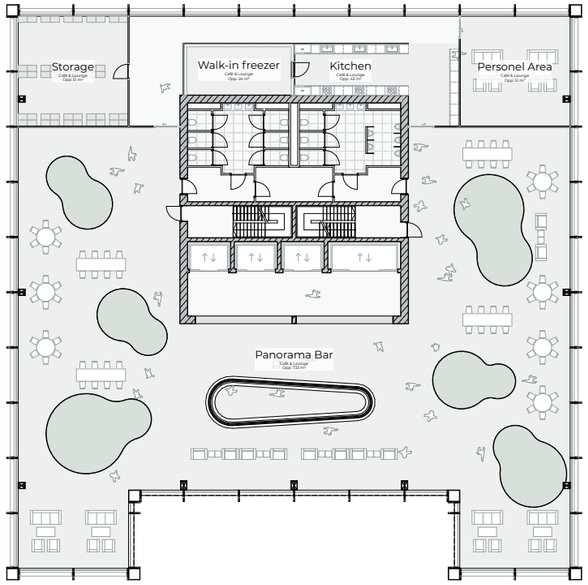


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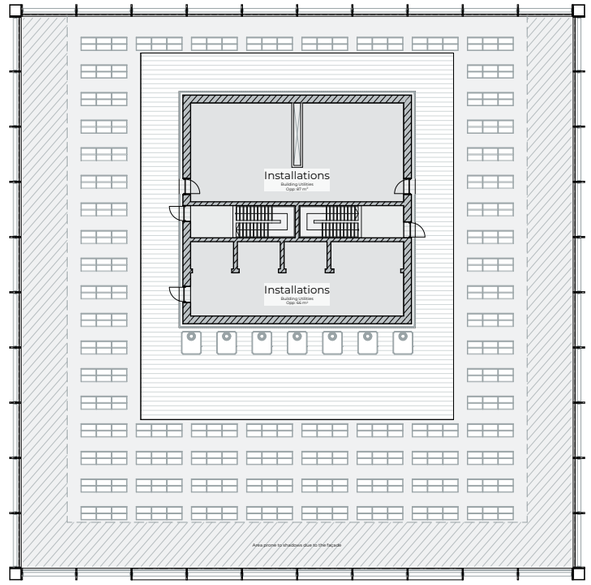


21st Floor

20th Floor & 21st Floor | 1:400

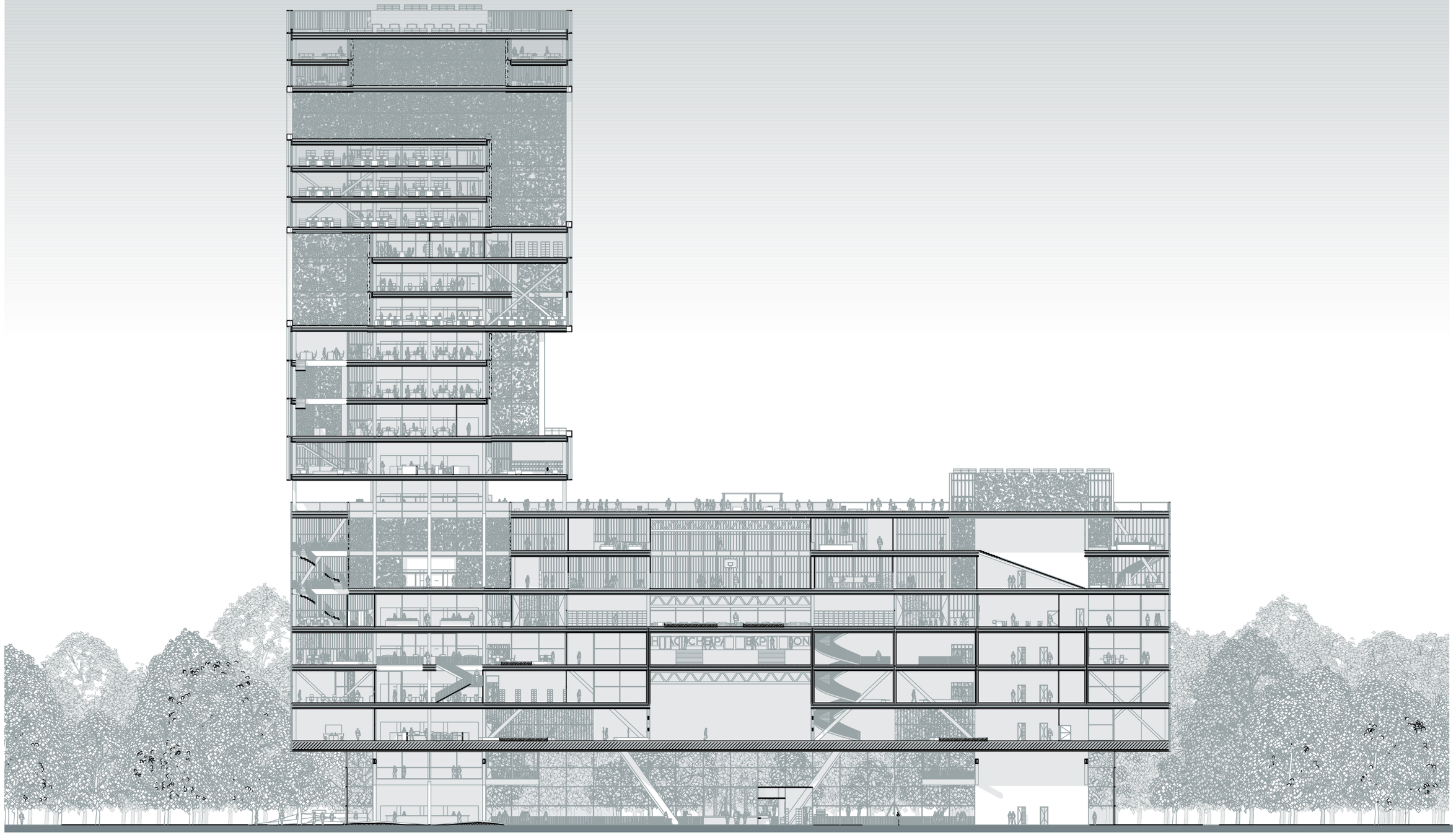


22nd Floor

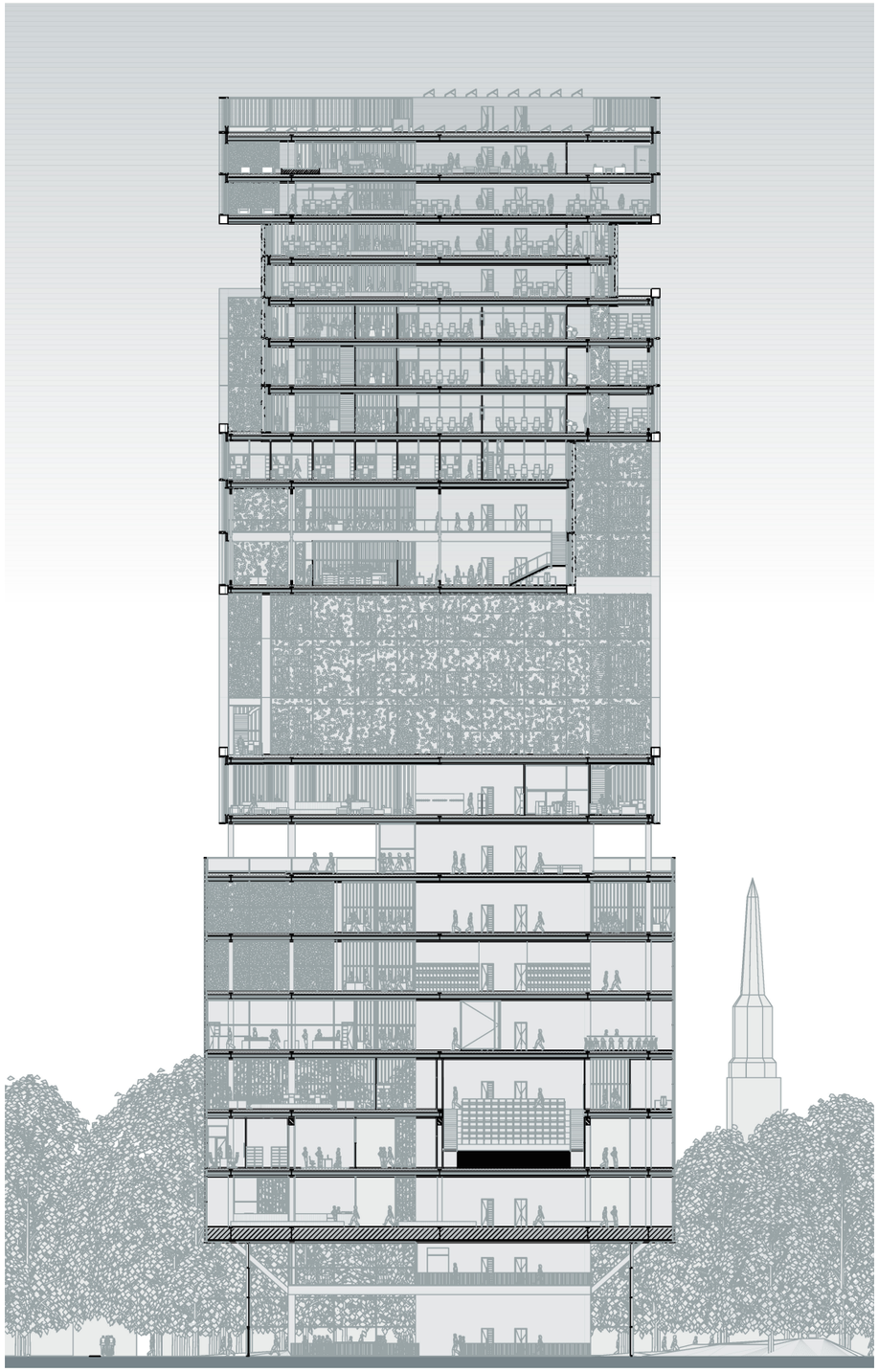


23rd Floor

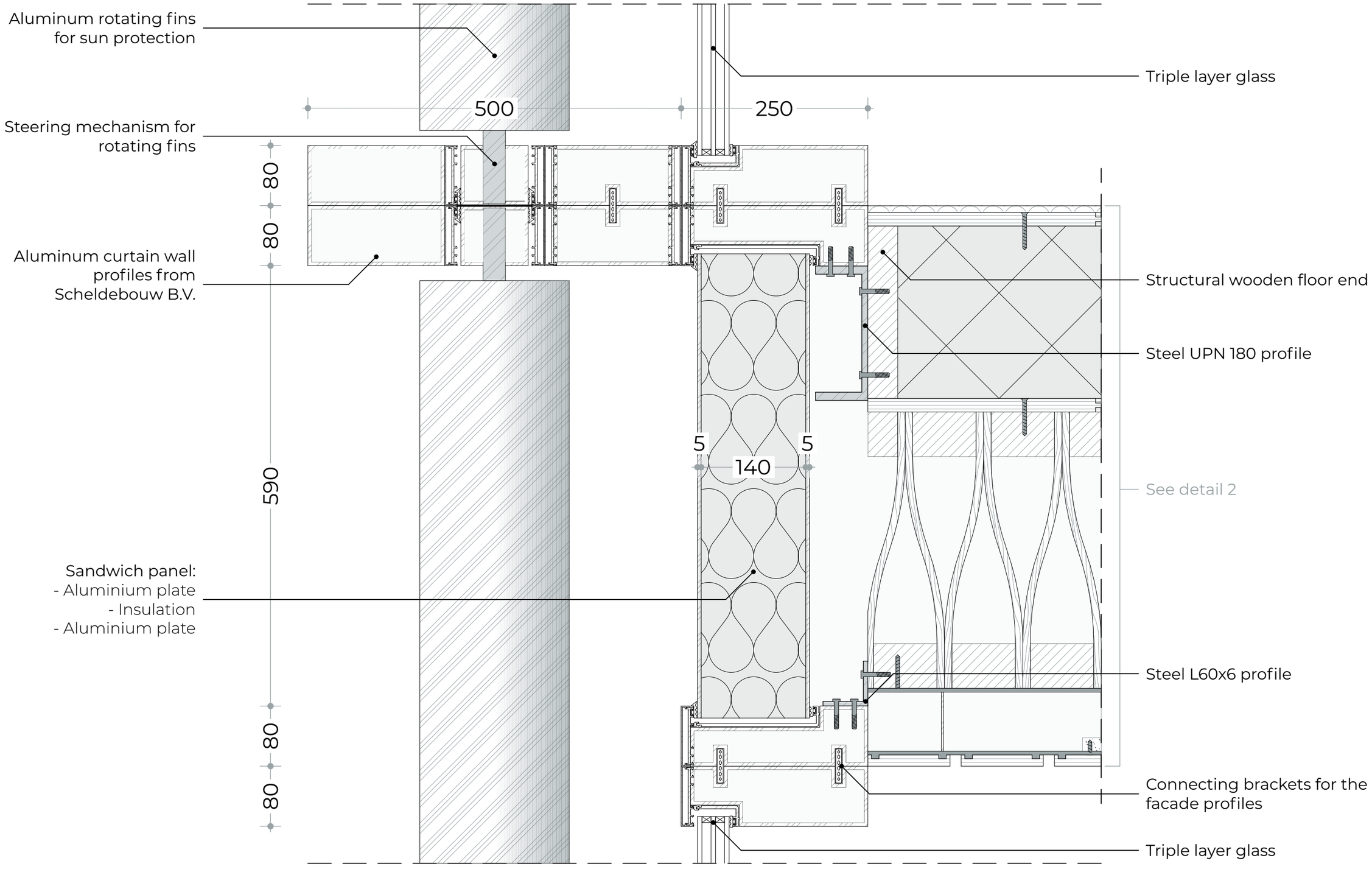
22nd Floor & 23rd Floor | 1:400



Section Lengthwise | 1:500

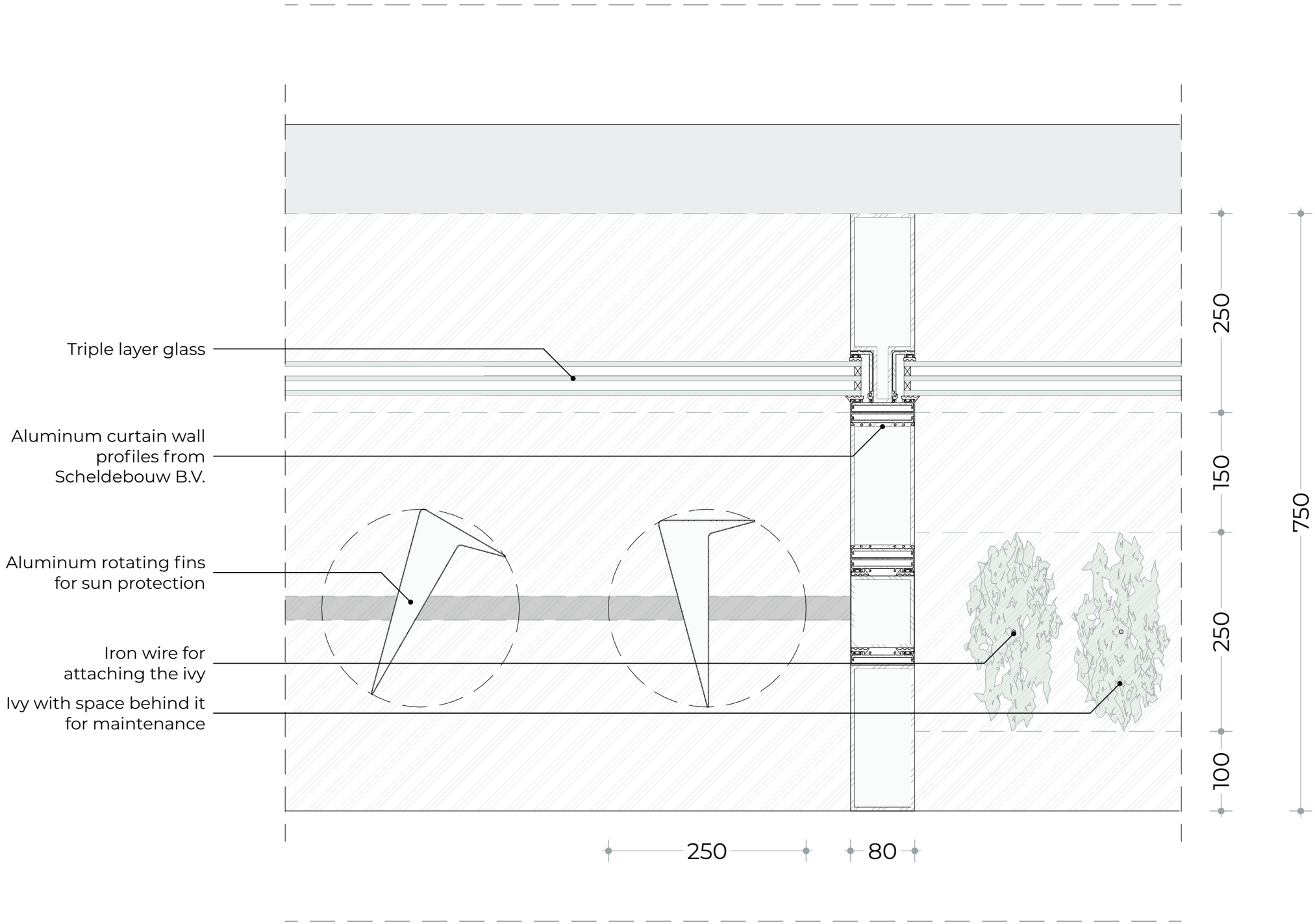


Section Widthwise | 1:500



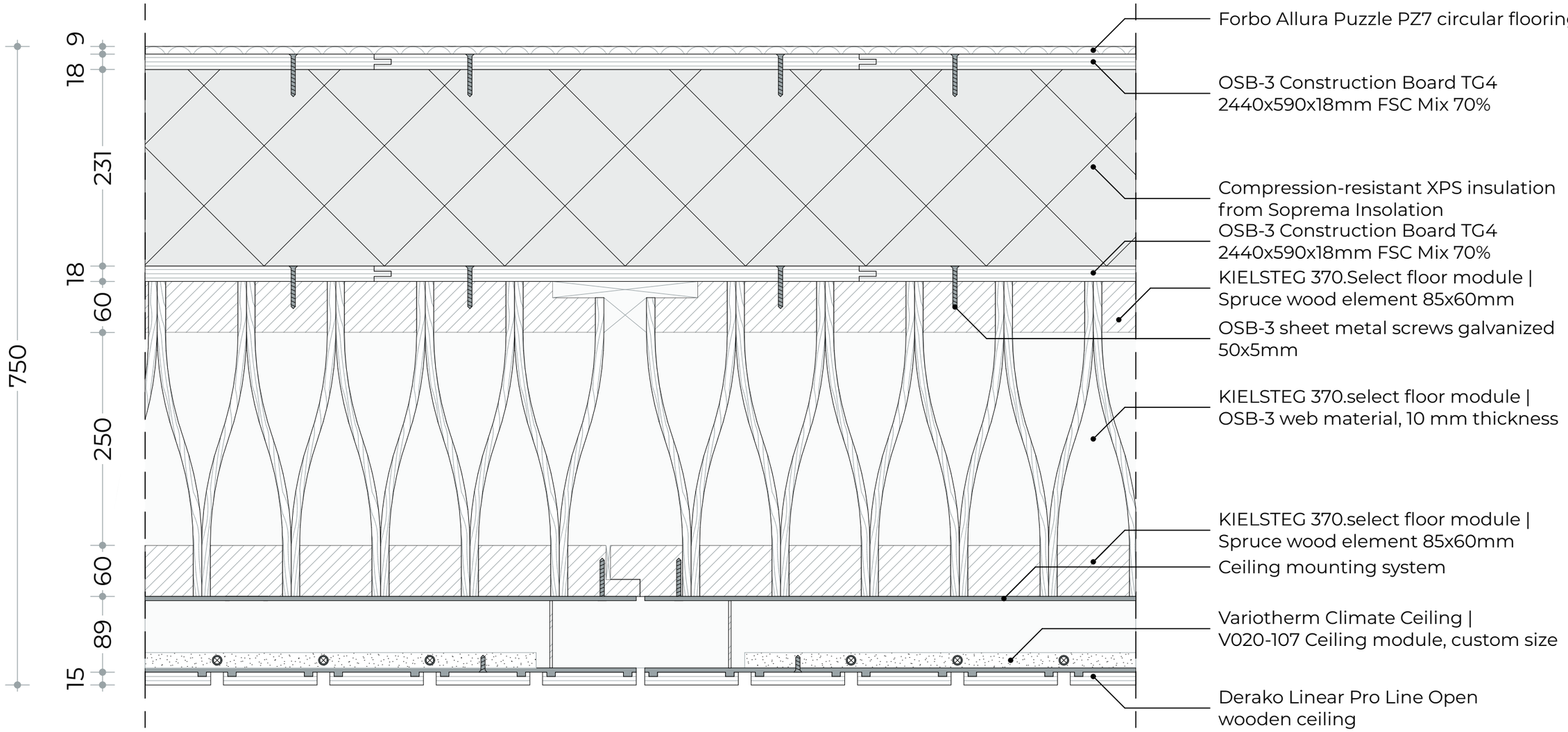
Detail 1 - Façade Vertical | 1:5

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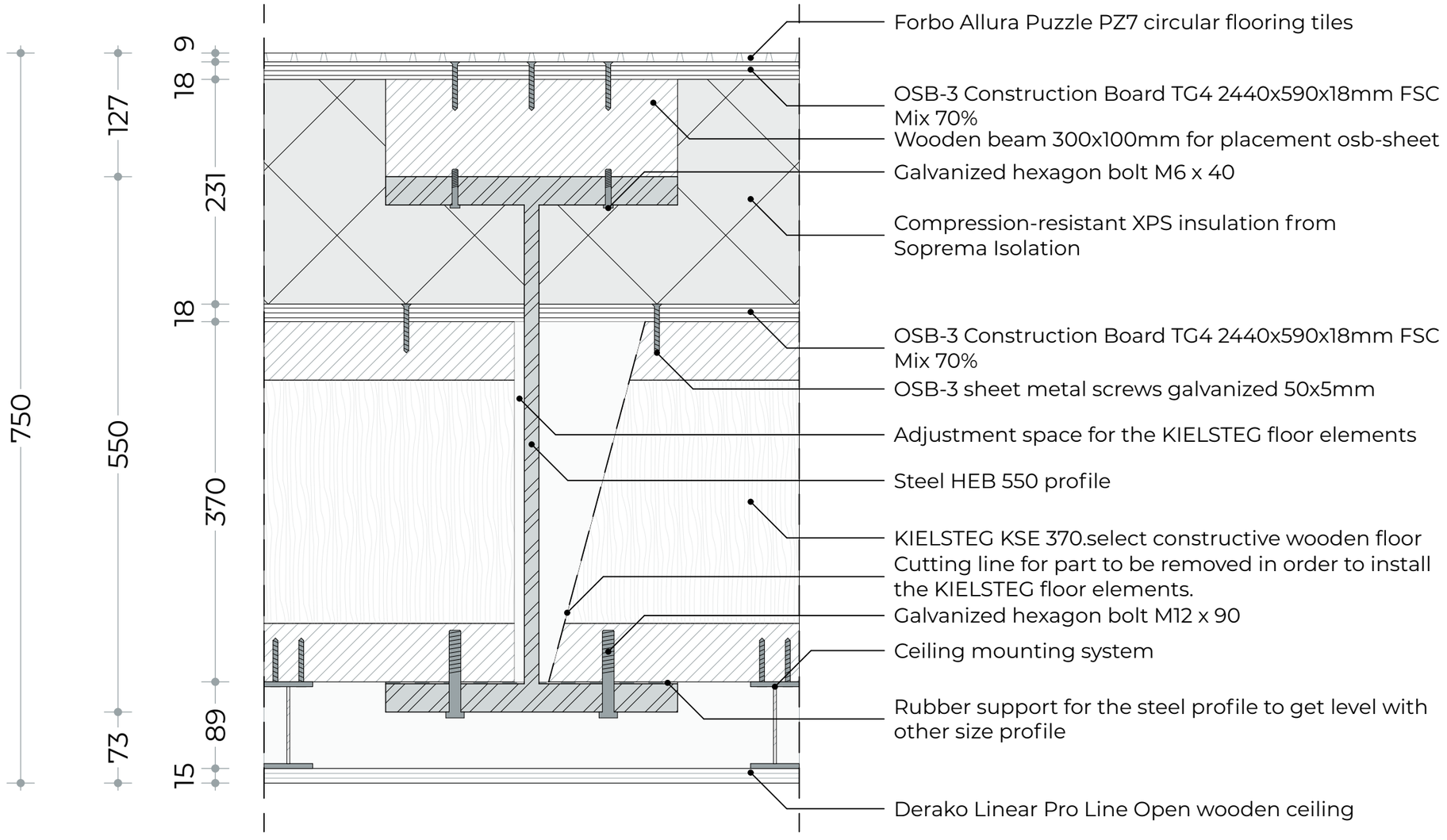
Detail 2 - Façade Horizontal | 1:5

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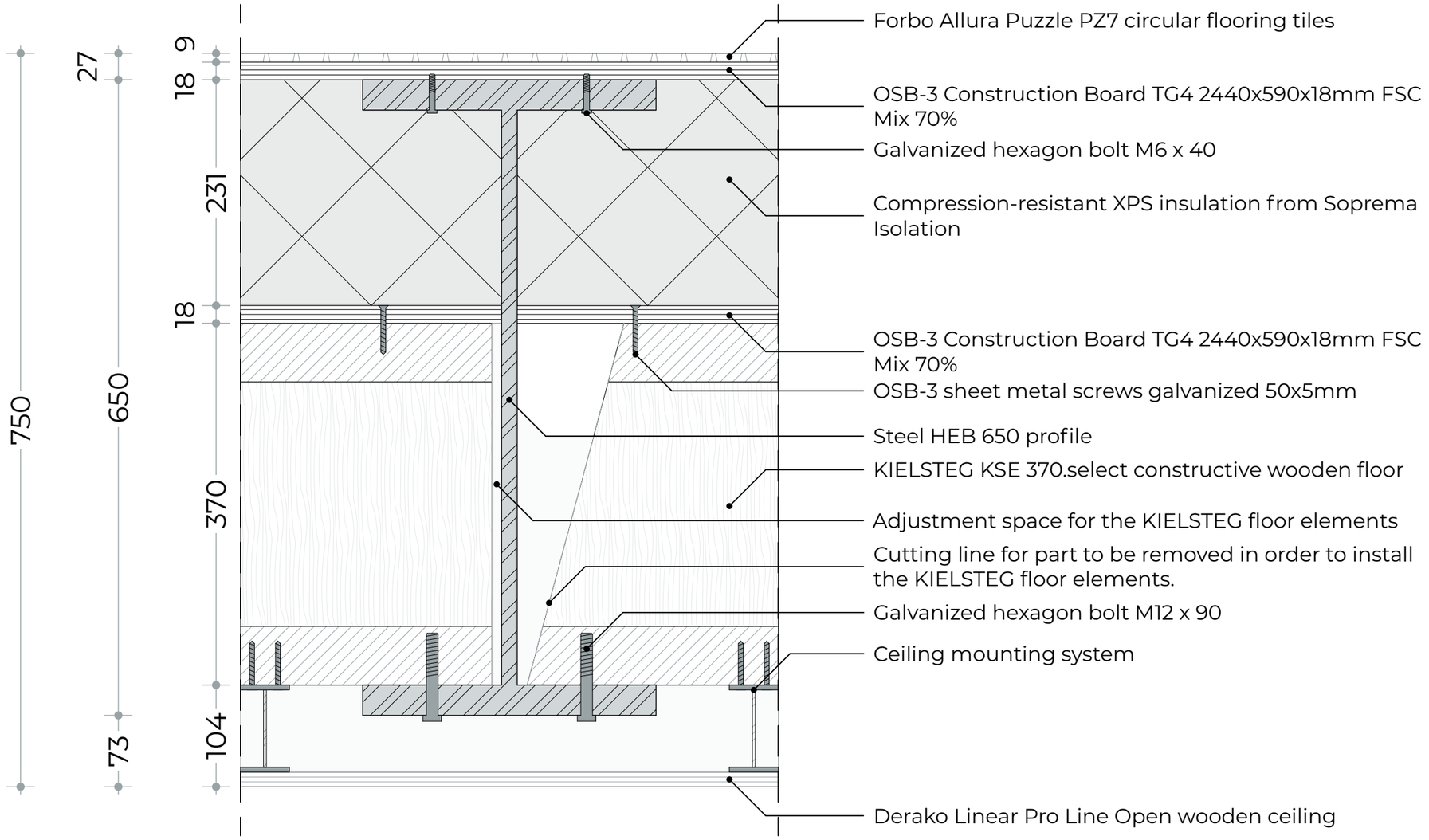


Detail 3 - KIELSTEG Floor | 1:5

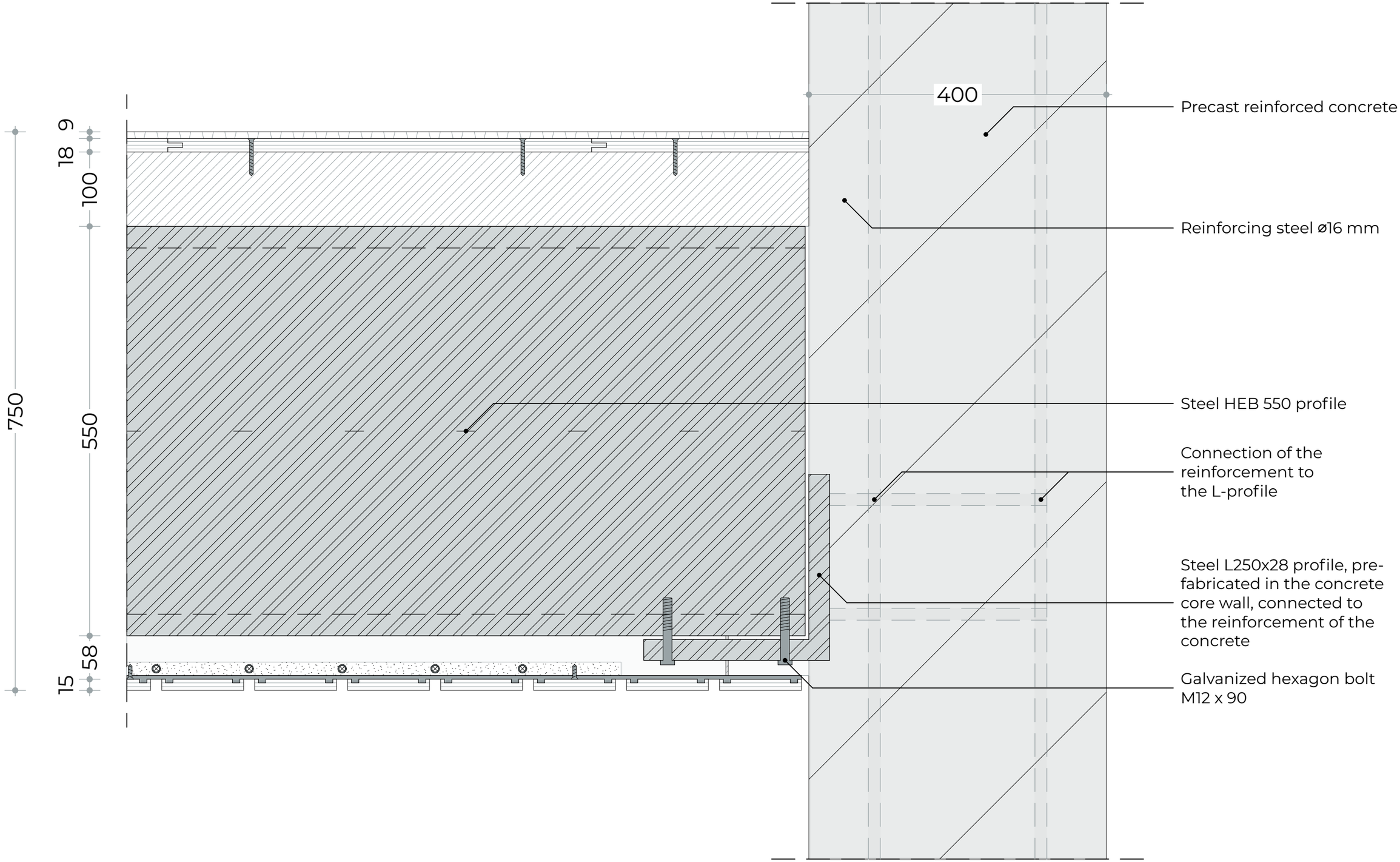
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Detail 4 - Floor with HEB 550 profile | 1:5

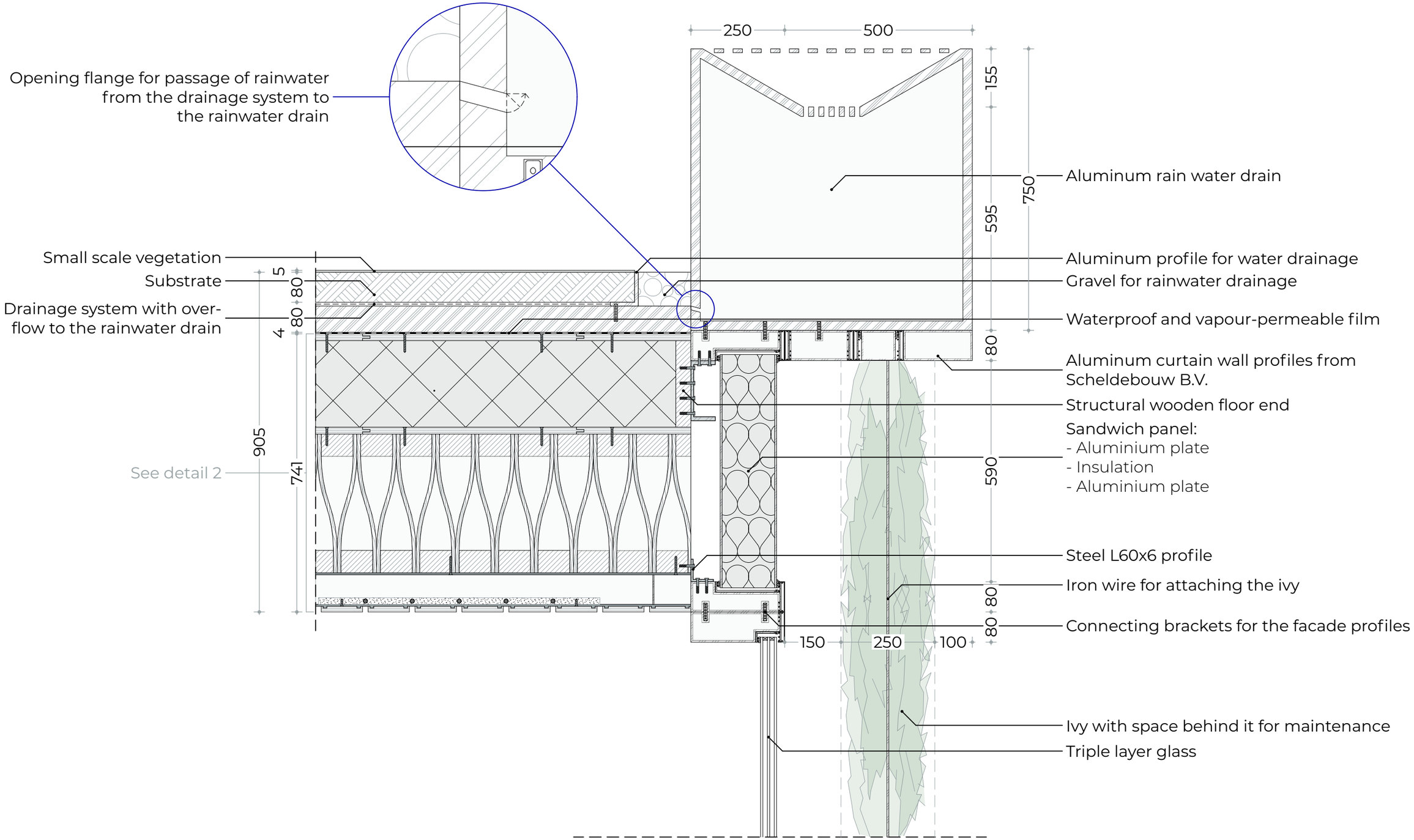


Detail 5 - Floor with HEB 650 profile | 1:5



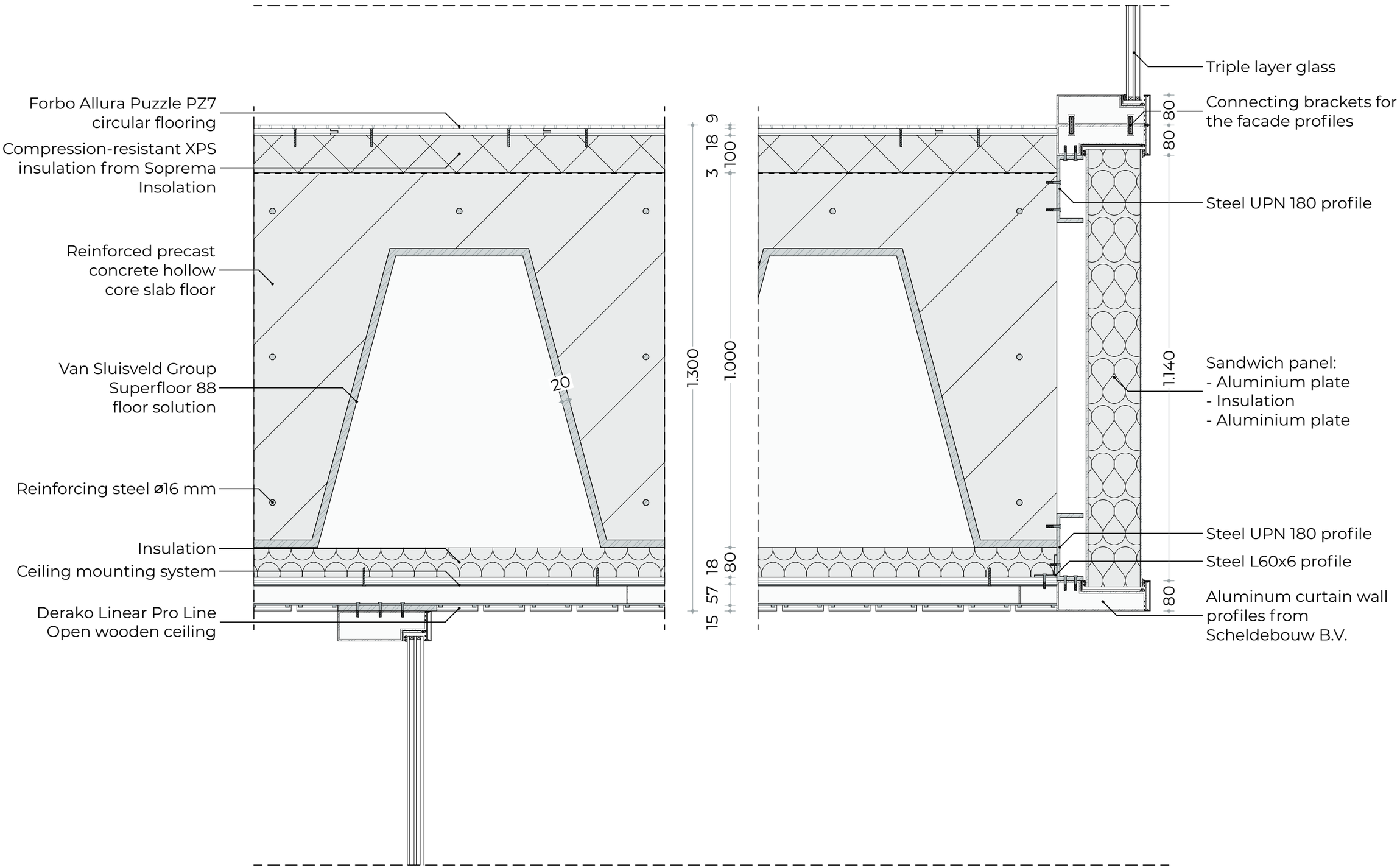
Detail 6 - Core connection | 1:5

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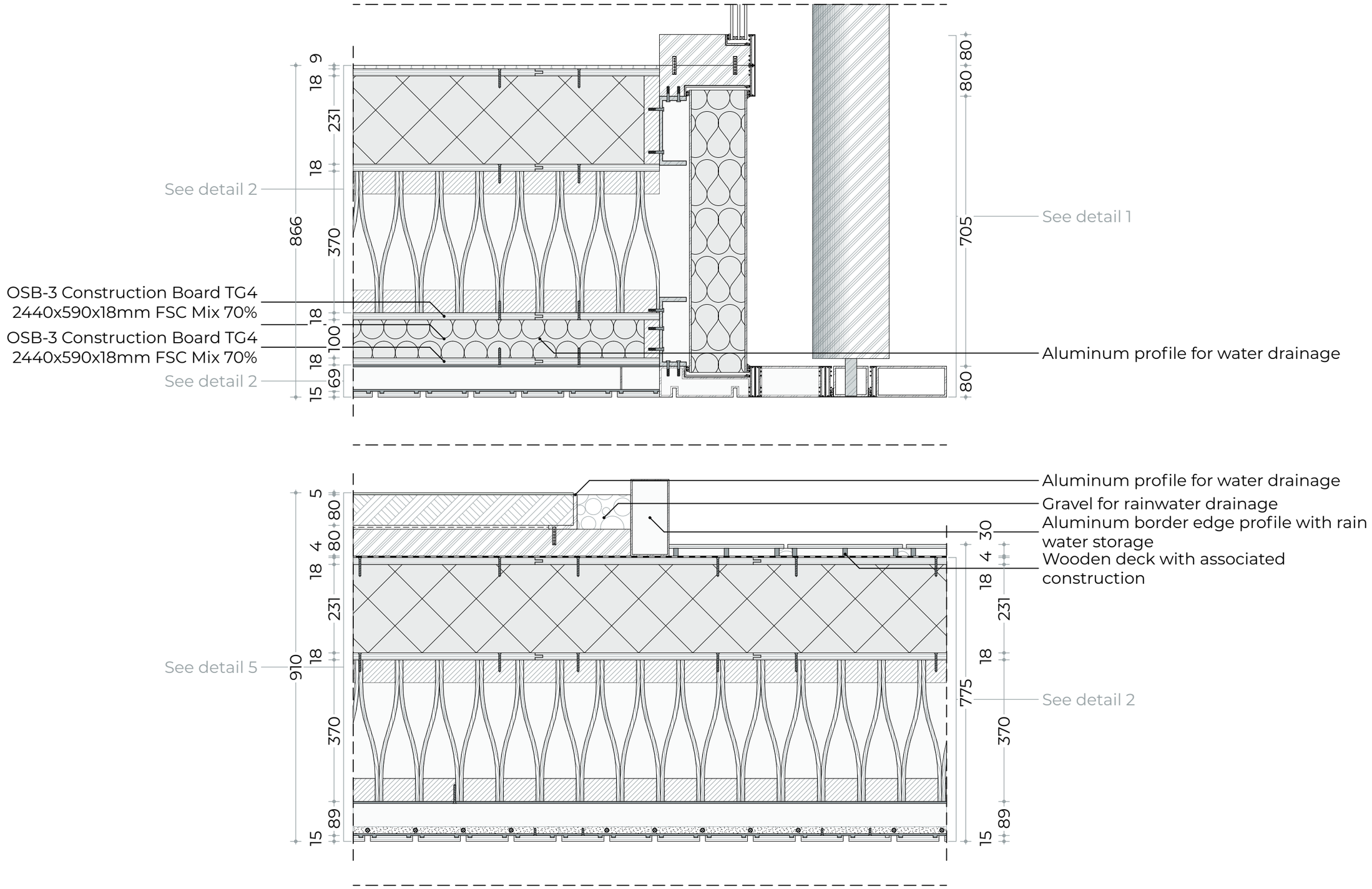
Detail 7 - Green Façade | 1:10

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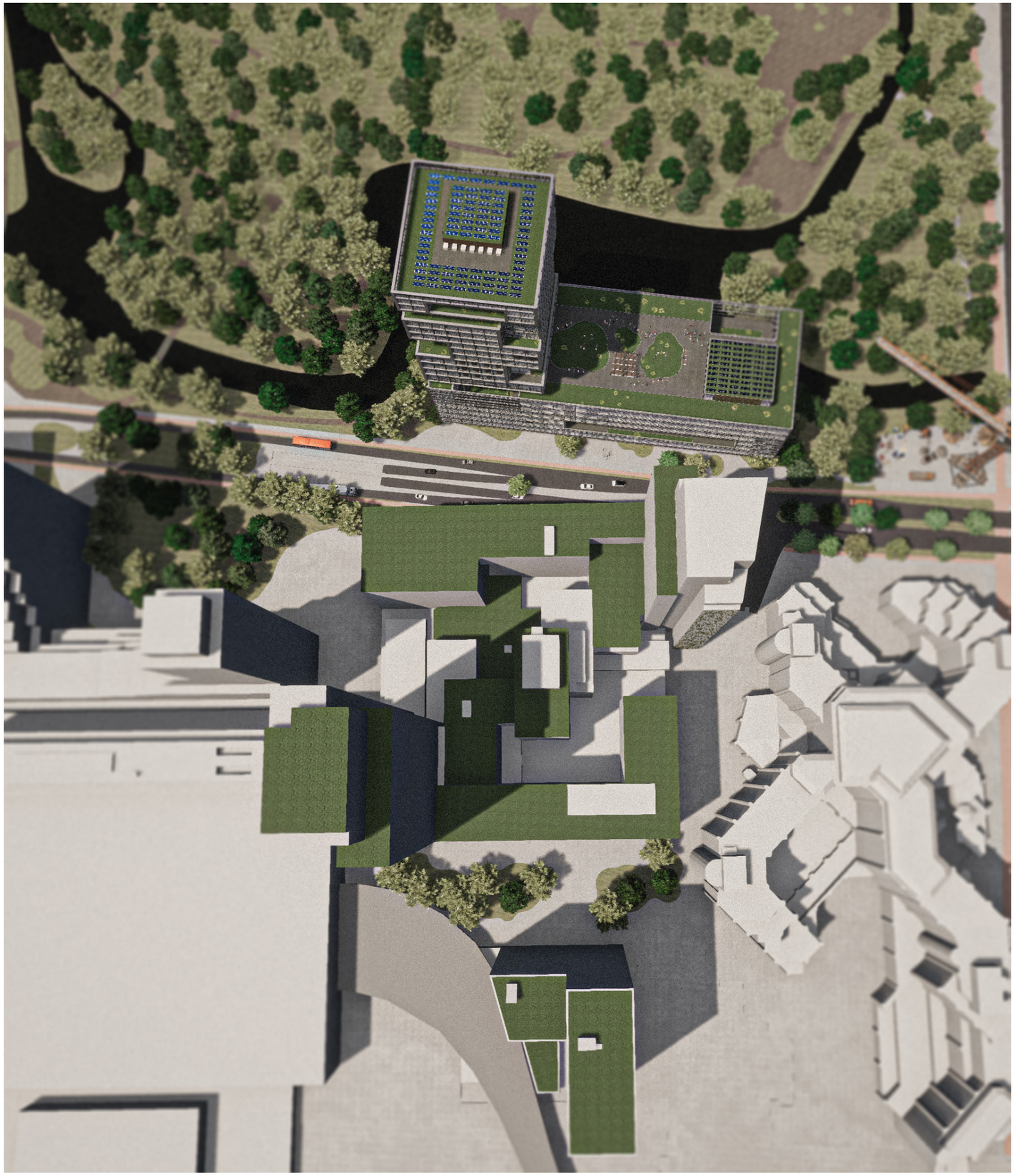
Detail 8 - Overhang | 1:10

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Detail 9 - Green Roof | 1:10

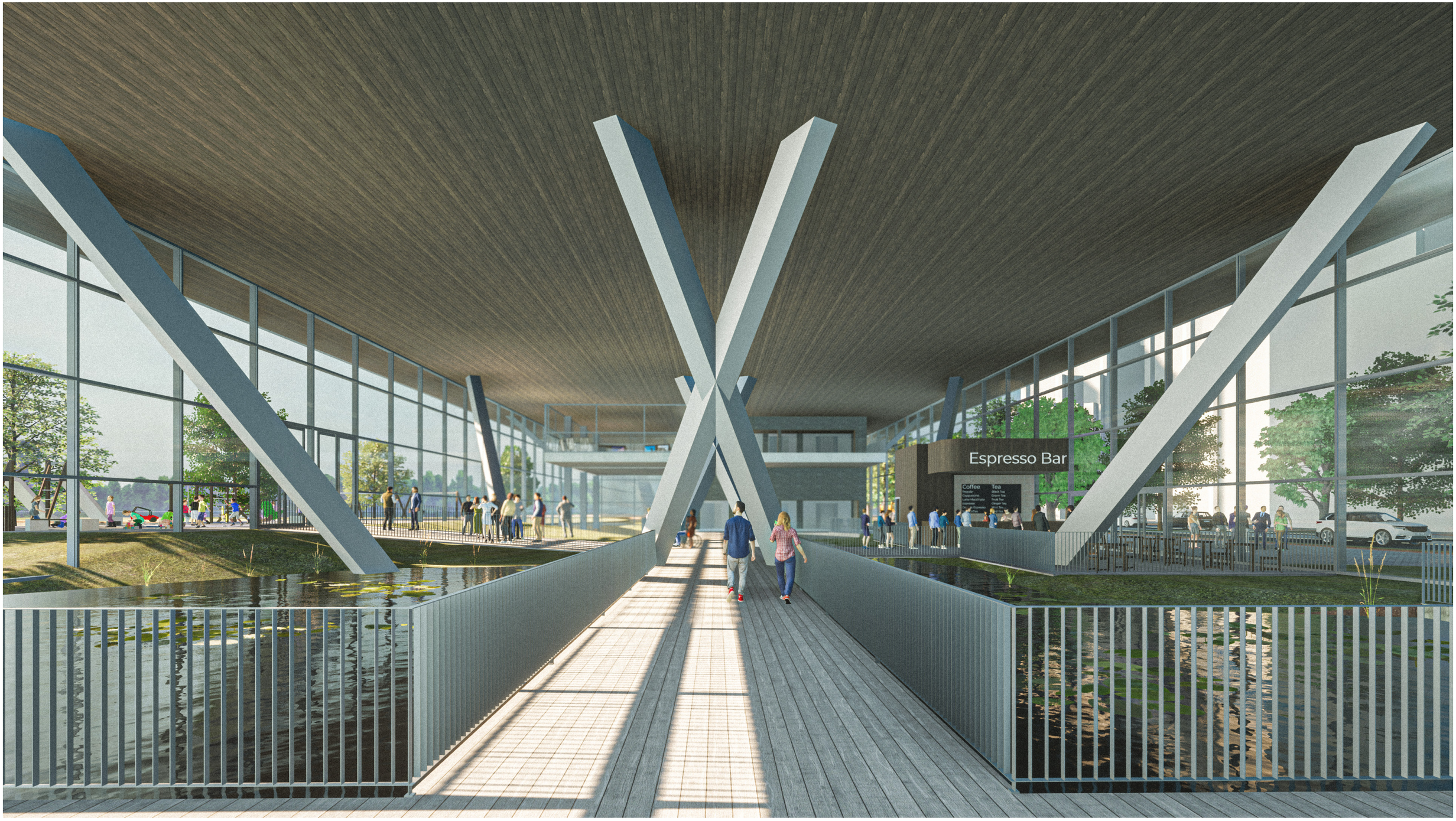
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Espresso Bar
Coffee
Tea







