

# **RELINK: LEIDEN UNIVERSITY**

RISING ABOVE THE EXISTENT

Leiden University, Faculty of Humanities

## **DESIGN BOOKLET**



**IOANNIS MEXIS**

Chair of Heritage & Architecture  
Graduation Studio: Future of Structuralism

Faculty of Architecture and the Built Environment,  
Delft University of Technology





Project Summary	4.
Introduction to the Project	10.
Project Aims	18.
Programmatic Interventions- Precedent Analysis	34.
Architectural Interventions- Existing Building & Precedent Analysis	42.
Value Assessment	52.
Plan Analysis & Transformation Framework	62.
Form Study & Precedent Experimentation	76.
Intervention	82.
Building Technology	124.
Physical Model	178.
Reflection Paper	186.

## Project Summary

The Project is located in Leiden University's Humanities Campus (Leiden, Netherlands). Specifically, this project is about intervening on two Structuralist buildings named PN van Eyckhof and Matthias de Vrieshof designed by Joop van Stigt in 1982; the brief calls for their regeneration and adaptation in today's society, while focusing on one of the two clusters. Although the buildings do not fulfil the criteria to be considered as monuments they have a significant value due to the movement they represent, making their preservation an obligation for our generation's architects.

One of the project's biggest challenges and perhaps the most intriguing reason for choosing this project, is the chance to work on Structuralist buildings, a movement that has not been explored adequately from contemporary architects, creating a "gap" in the architectural context.

The first step of this project was to conduct an analysis on the movement of Structuralism, aiming to understanding the basic principles of the movement. This analysis was formed by studying in depth existing structuralist projects.

When dealing with historic structures, a thorough analysis of the existing situation is vital in order to fully understand the composition, and issues that might exist -specifically regarding human comfort, and most importantly the values it represents. Analysing the building on and off-site through drawings, observations, sketches, interviews with its users, and creating models, helped me to engage with the its spirit. This study began with the exploration on three different scales.

Starting from the larger (urban-city scale), moving to the medium (campus scale) and finally to the smaller scale (the buildings). Forming such a research and analysis, allowed me to fully understand the movement, the architect's work and specifically the buildings and aspects underlying them.

Through the general Structuralism analysis as well as the more specific analysis that followed, I realized that the inefficient use of space, in terms of internal arrangement and quality of space, as well as their sustainability issues, are some of the main aspects that have caused these buildings to become abandoned and therefore put their existence at risk. On the other hand this analysis has provided me with information which made me understand the importance of revitalization and preservation of such buildings, and intrigued me even more work on this rather 'undiscovered' movement.

Despite those issues, comparing structuralist buildings to other historic buildings, in terms of their age, they offer a higher intervention potential for architects. That is mainly due to some of Structuralism's main principles which are also reflected in the buildings; the ideas of expansion and flexibility, showing their architects ambitions to make buildings that can adapt to future needs.

Specifically, in my project, one of the things I will try to prove is that although challenging, there are ways for architects to revitalize these iconic buildings and re-adapt them into today's societies, allowing them to maintain and carry on their values for later generations.

Starting from the aforementioned larger and medium scale analyses, I made myself familiar with the context of my site, important in order to understand the relation of the existing buildings and their environment as well as their importance and presence in the society both in theoretical (history of the city in relation to the building, how the campus and the area around the site developed etc.) and visual terms (form, materiality etc.). The finding of this analysis would be the ones defining the starting points and the development of my design.

Carrying an analysis at the scale of the buildings, allowed me to understand the architect's original intentions and investigate which of these were actually realised. Through this analysis I found the architect's initial ambition of creating an open building that would be linked to its context, to be the most intriguing aspect. Specifically, the architect intended to design a building composed of smaller structures working as one unit, and would be connected with the university and Leiden; though these connections were never realised. Those bold differences between the architect's ambitions and the realized proposal were also the ones that defined my project's research question, "How can I re-link the cluster's buildings with each other, the university as a whole and with the wider context, Leiden and its inhabitants?". Although this is the main research question and aim of my proposal, other sub-questions, such as: "What are the values of this building, and how can I maintain and highlight them with my intervention?", "What direction are university buildings heading to nowadays?", "How can my intervention create the potential for revitalization not only of the university but the surrounding context as well?", will also allow me to formulate a more thorough end result.

My intervention's aim is to fulfil the architect's ambitions; achieving this aim could be done using two types of interventions, programmatic and architectural.

Starting with the Programmatic Interventions, as we are dealing with a University building, first step was to research the new ways of thought on the higher education system. Through my previous educational experience, as well as through a series of case studies, I saw an emerging common theme; the gradual embodiment of enterprises into the pro-gram of universities. Specifically, in many cases universities started incorporating incubators and entrepreneurship centres in their facilities in order to allow students to experiment and gain experiences related to their chosen professional direction. Studying existing examples of such functions, allowed me to make my programmatic interventions more concrete, as I was able to investigate, analyse and reflect on different cases understanding the pros and cons of each, and setting some main principles on my intervention that would make my design successful.

Keeping this universities' tendency in mind, as well as the will of Leiden university to stimulate student interaction with professionals, introducing a new function, the Entrepreneurial Hub to the University would be key for achieving the small (individual structures of each cluster), medium (rest of the university) and larger (city of Leiden) scale linking. Specifically the Entrepreneurial Hub will constitute of an entrepreneurship centre- incubator, providing networking events, workshops and industry placements (e.g. Editors, Translators, Language teachers, Journalists, Lecturers) mainly to students of the Humanities Campus. Regarding the small-scale linking, the central volume of the cluster is the linking point between the remaining of the six volumes, making it unique. Introducing the enterprise sector in this volume would function as a linking point between the surrounding volumes as it can be used by all students regardless their particular field of study. With this way, students will be able to gain professional knowledge guided by their tutors and mentors, experiencing different work positions in order to assist them in deciding their professional direction. Regarding the medium-scale linking, students from other faculties of the university could join the workshops or develop their ideas in the entrepreneurship centre. This addition to the university could become the university's new front image, showing its innovative character and strengthening its position in the educational market. Also, the student placement as part of their degree would also allow the university to make a profit allowing it to invest more on the development of the university. Further on the large-scale linking, this programmatic addition allow the university to develop new partnerships with off-campus companies and in general external parties. Finally, the people of Leiden could attend the workshops too and also student would provide them with services on specific professional positions, housed in the university. Through this addition one can understand the advantages that would be initiated for the university and also how the clusters volumes could be re-linked with each other, with the campus and with the city of Leiden too.

Concerning the Architectural Interventions, I started by studying the form and architectural qualities of the composition. Studying the existing building, one can see that the architect clearly distinguishes the heavy brick walls (forming a base) from the light timber and glass top. Investigating also other projects by van Stigt, one of his main design features was the sense of hierarchy; in this case it is expressed by the gradual stepping of the building, as well as by cantilevered roofs, showing the architects aim to highlight the buildings' presence. Nevertheless, it is my opinion that the sense of hierarchy was never fully realised in this design. Studying the building's structural capacity, I discovered that its concrete structure could support additional storeys. Both the structural integrity of the design as well as parts of the heavy structure units that are left without the light roof -as one could describe them "unfinished"- and the garden with the columns on the south end of the site, highlight the architect's consideration for future extension projects.

During the study of the historic composition, I had to maintain an objective point of view, in order to engage with the values of the building. Breaking it up into smaller components, I analysed it using diagrams, sketches, models and existing drawings. During this process I managed to fully understand the architect's work and his ambitions. By identifying the elements of high, medium and lower value, formed the guidelines and restrictions for my proposal, allowing me to better understand what and to what extent can I alter, and what are the existing values that I need to highlight.

As previously mentioned, one of my intervention's main aims is to fulfil all of the architect's ambitions. Thus, my proposal takes advantage of the architect's sense of hierarchy and the building's structural capacity. Replacing the buildings' top floors and simplifying their complicated façades and roof shape, in order to create a contemporary canvas for the existing brick façades, aiming to highlight them. This new extension will be a contemporary translation of what is already there, and maintaining the spirit of the architect's main design principles despite alternations.

More specifically, in order to augment the idea of linking I introduce a new roof, that will connect the individual volumes housed under. The flat shape of the roof following the outline of the existing cluster together with the coherent overhang throughout its elevation, is a contemporary translations and simplified version of van Stigt's design. The courtyards in between the volumes will be covered by a new glazed roof, creating a pleasant environment for the users. Through these two additions as well as by closing of the courtyards, the individual units of the cluster, will finally function as one unit, fulfilling the architect's ambitions.

In order to enhance the idea of linking in the middle volume (Entrepreneurial Hub), this time through architectural interventions, I transformed the central volume of the cluster into a small tower, by placing three new storeys on the existing brick volume, in order to highlight the idea of hierarchy, strengthening the cluster's and subsequently the university's presence in its context. The light and slender extension atop the existing heavy brick volume symbolises the rebirth and also represents the revitalization of the university.

Comparing the complicated architectural language of the existing façades with my top storey, tower and roof proposal, on first sight one could argue that there is no direct relation between the two. Looking the relation of the two entities in more detail there are characteristics which show the direct relation of the two and despite the gap of their architectural languages, the new extension fits well with the historic building. First of all, the form of the extension is directly elated to the outline of the volumes, having a 1.5 meters setback from the brick façades in order to enhance the distinction of the two, and also provide exterior spaces for the users. Secondly, the idea of the exposed concrete structure is also reflected in my proposal. The steel columns of my proposal are aligned with the existing mushroom shaped columns, providing a stronger connection between the old and the new. Apart from the aforementioned columns of my extension in between them, there are also small-

er T-shaped columns. These columns not only allow the better weight distribution on the existing structure but also due to their depth, they provide solar shading to the spaces located behind them, in order to prevent overheating during summer periods. Finally, dark colour of my intervention relates to the dark blue colour of the floors I replaced, enhancing the relation between the old and the new.

As mentioned before, one of the building's biggest issues was its poor energy efficiency, mainly due to thermal bridges. In order to address this, I enclosed the paths between the buildings and the courtyards with glazed panels, creating an indoor space that would also generate a comfortable environment for students. By this addition as well as making the courtyards the main circulation areas for all units of the building, and the use of two sculptural-tree shaped columns, my aim is to make the environment more pleasant for the users, and stimulate human interaction, addressing the architect's ambition which was never realised.

Finally, in order to emphasize the idea of linking the university to its context, the tower's exposed columns, can be covered with panels that will painted by student of the art department of the University, in order to display university activities or student ideas, making the building more extrovert creating façades that are highly interactive throughout the year.

Zooming out of the building it self, a series of interventions would take place too on the buildings' immediate context. A bridge-sitting deck would be added crossing the river between the Lipsius Building and the Library, providing exterior sitting spaces for students, as well as a new connection between the two sides of the river. Also, in order to create a more student friendly and pleasant environment-entrance, the front plaza which is currently used as a bike parking, will be revitalized too, providing spaces for student to sit and socialize while at the same time more nature elements will be added.

Reflecting back to the process of my graduation project, I have explored a new approach of intervening on structuralist buildings, influenced from an international context and through my prior education and work experience. In addition, I aim on presenting how a university with strong ties to the industry and society, can promote a well-rounded education.

Following the tendency of educational facilities to be associated with the professional environment from early stages, the introduction of enterprises to the university, would become an innovation for the university of Leiden, giving a new essence and spirit to it Leiden and engage it with the society of Leiden.

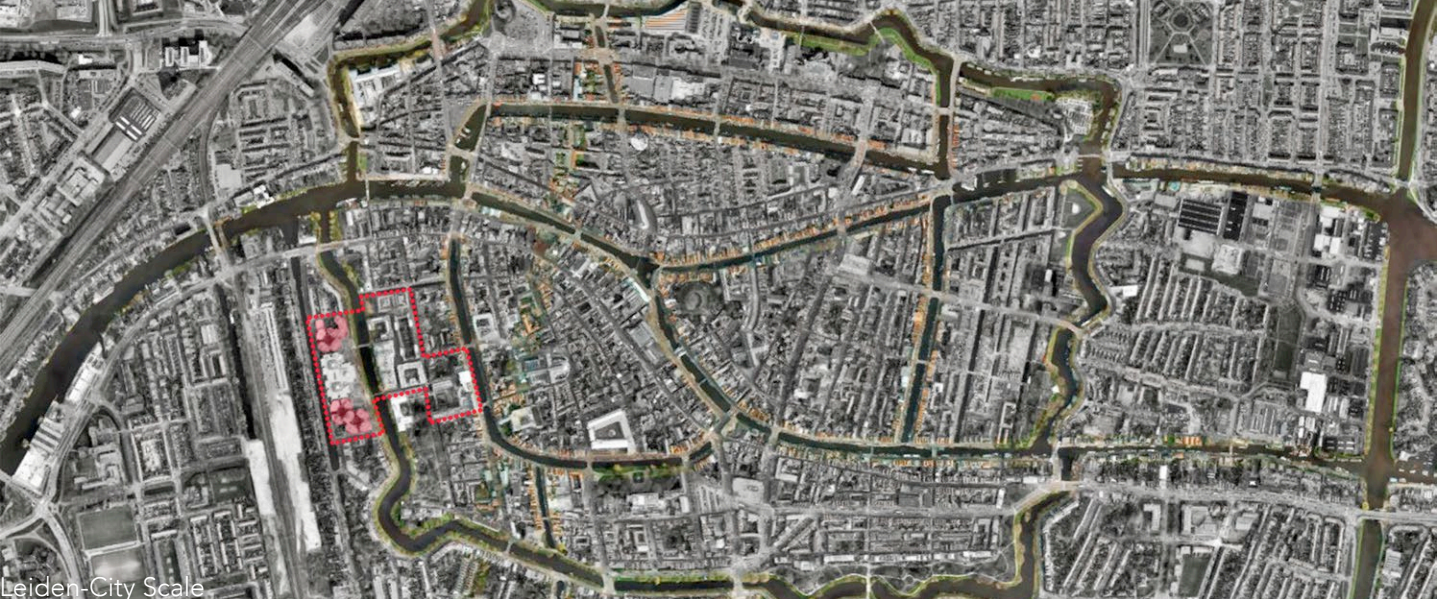
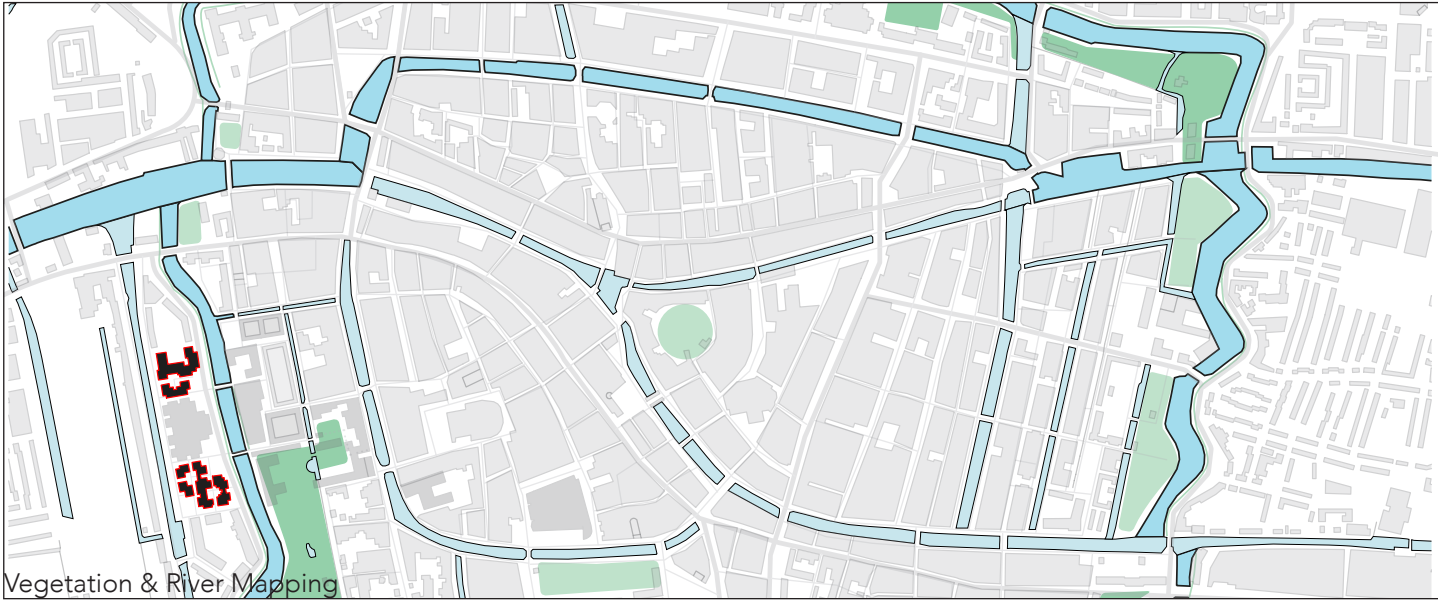
On the other hand, talking about the value of my proposal for specifically the Humanities faculty and its context, through my proposal my aim is to positively affect the development and regeneration of the university and its context though programmatic and architectural (form & image) alternations, strengthening the Humanities Buildings' position both in the university and the wider context.

That being said, throughout any decision I took during the design process, my aim was to always respect van Stigt's ambitions and values in his building and at the same time consider how users currently experience the building and what are their needs. Looking back at my proposal and reflecting to its quality both in programmatic and architectural language terms, I believe that my intention to respectfully adapt my proposal to the original design, and at the same time giving a new essence and revitalizing the historic composition and its context, has been achieved. Through my proposal, I have managed to show that despite being hard to intervene on such historic buildings due to all problems that underlie them, a deep preliminary study, together with concrete reasons for every decision an architect takes considering the values of the existing composition, can lead to innovative ideas and results, showing new ways to intervene on Structuralist monuments.

## Introduction to the Project



Site Location







Arsenaal Building



Lipsius Building



Johan Huizinga Building



PN van Eyckhof Building



Narrow pathways and the distinguishing columns



Reuvens Building



P.J. Veth Building



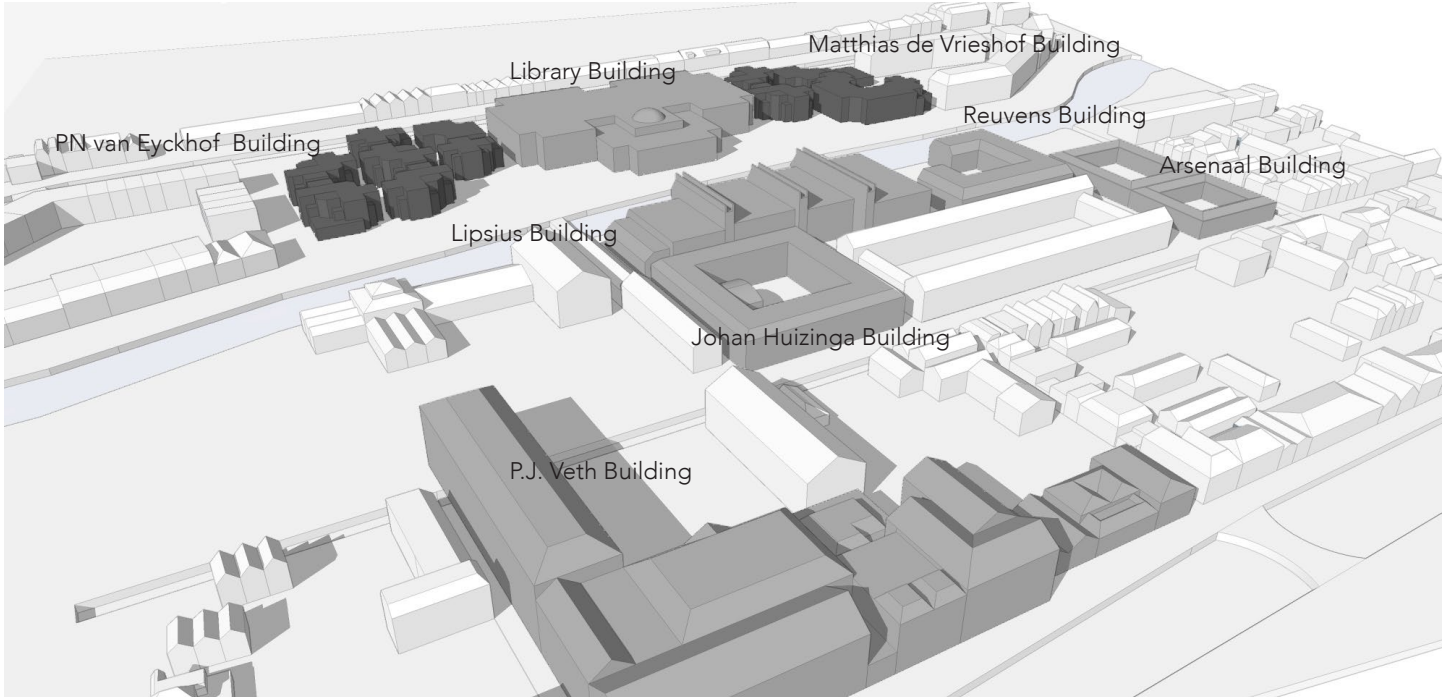
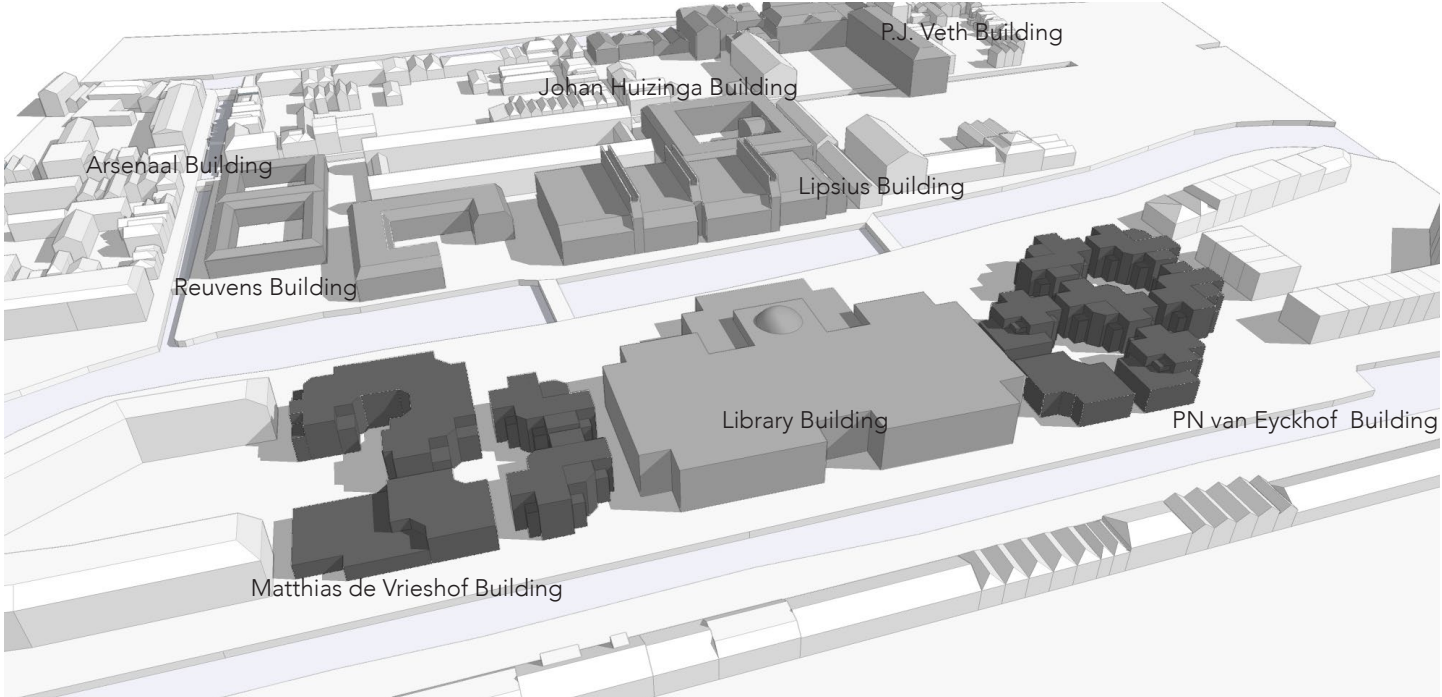
Library



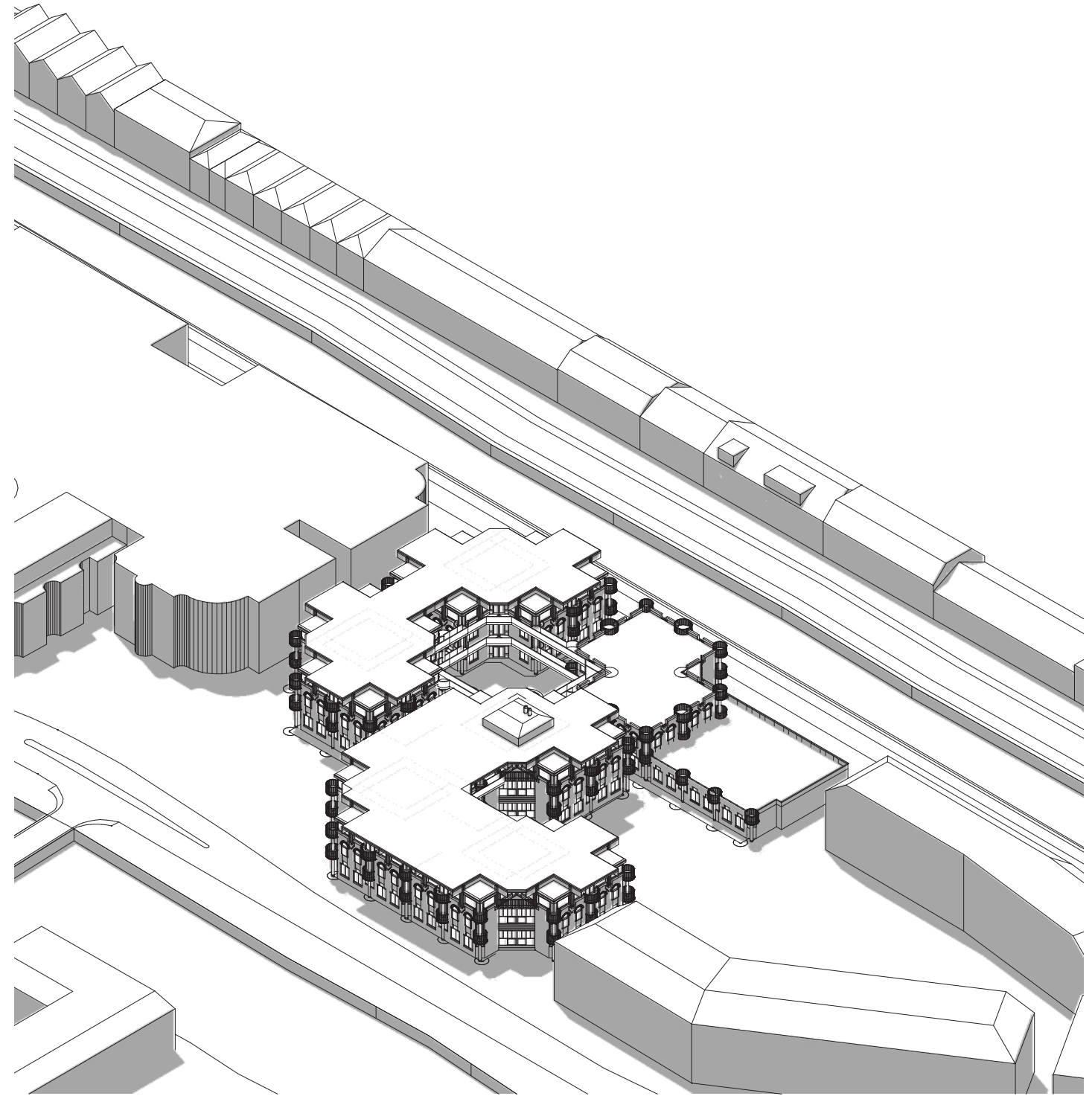
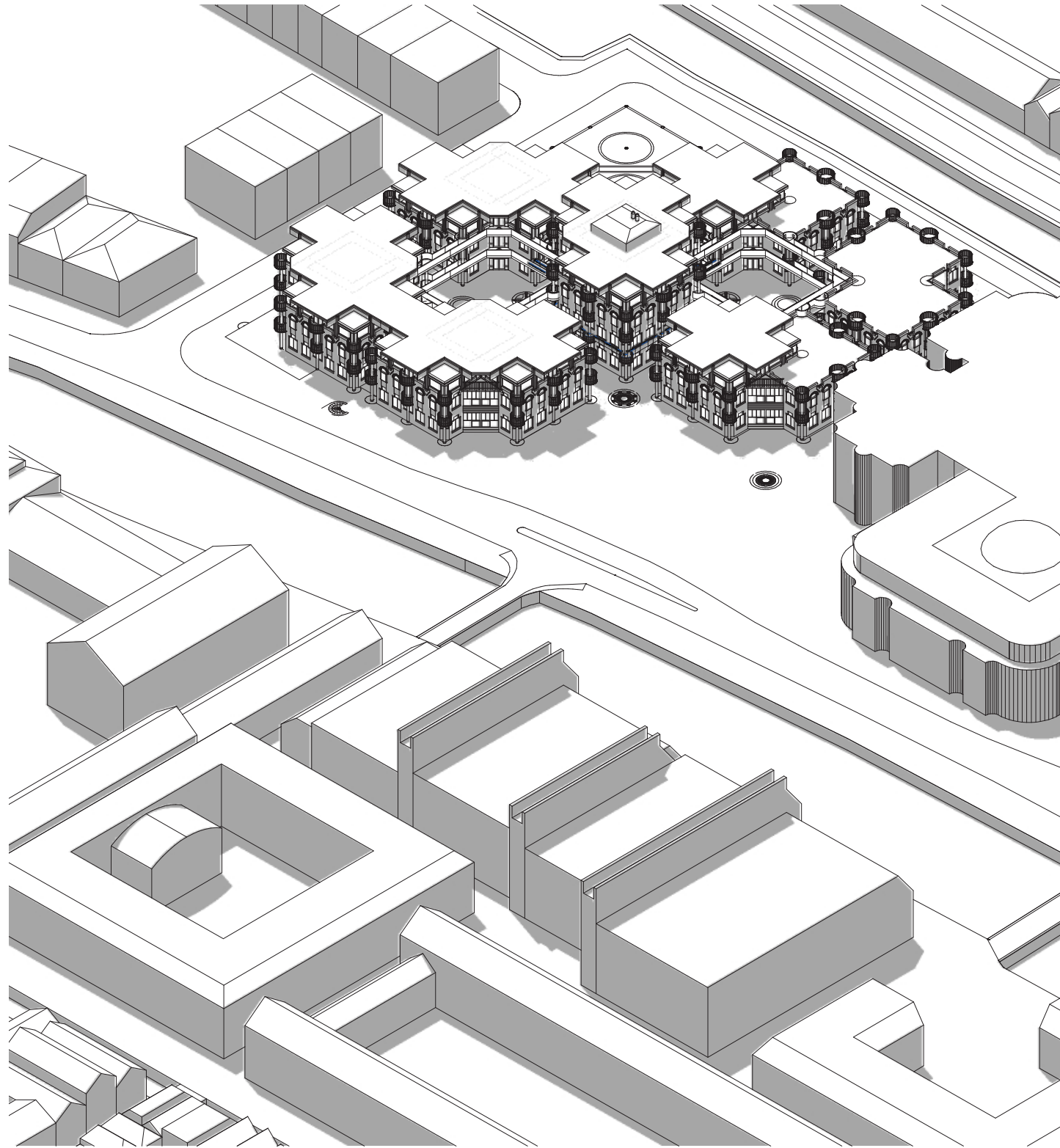
Pathways and cantilever roofs



Courtyards

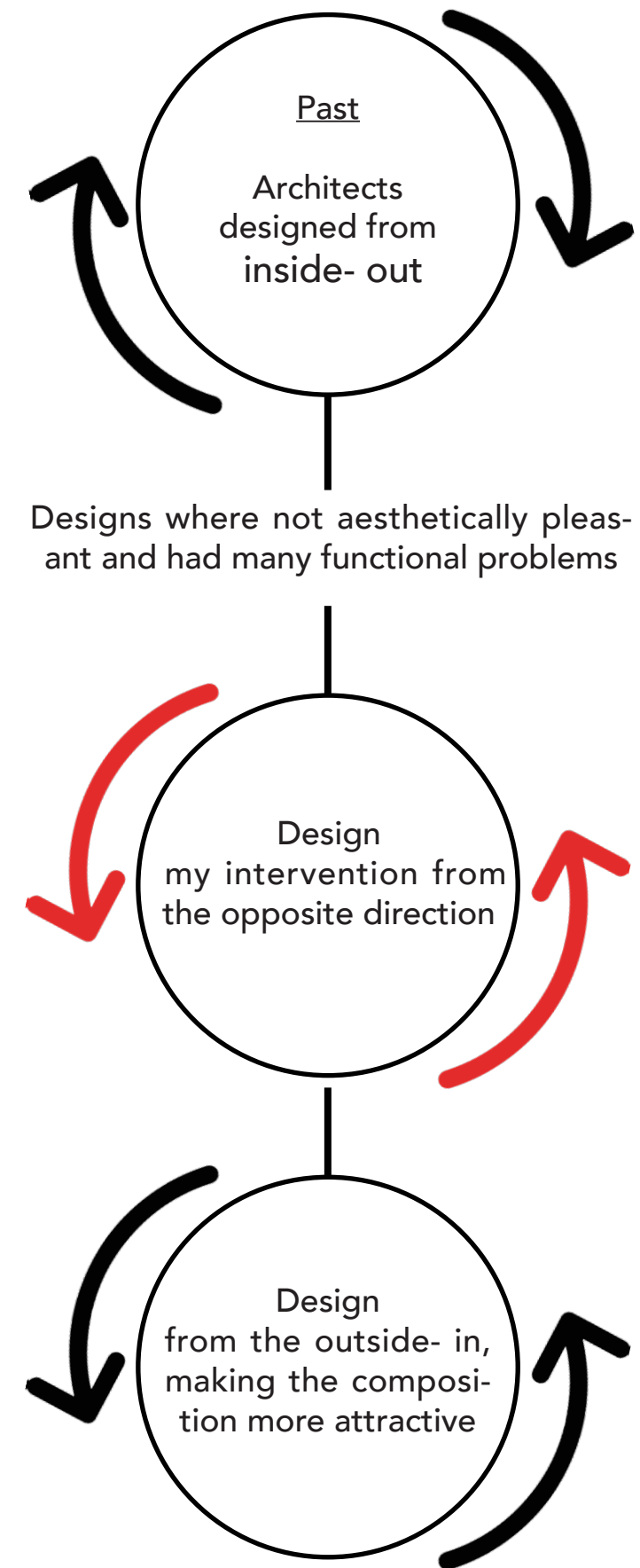
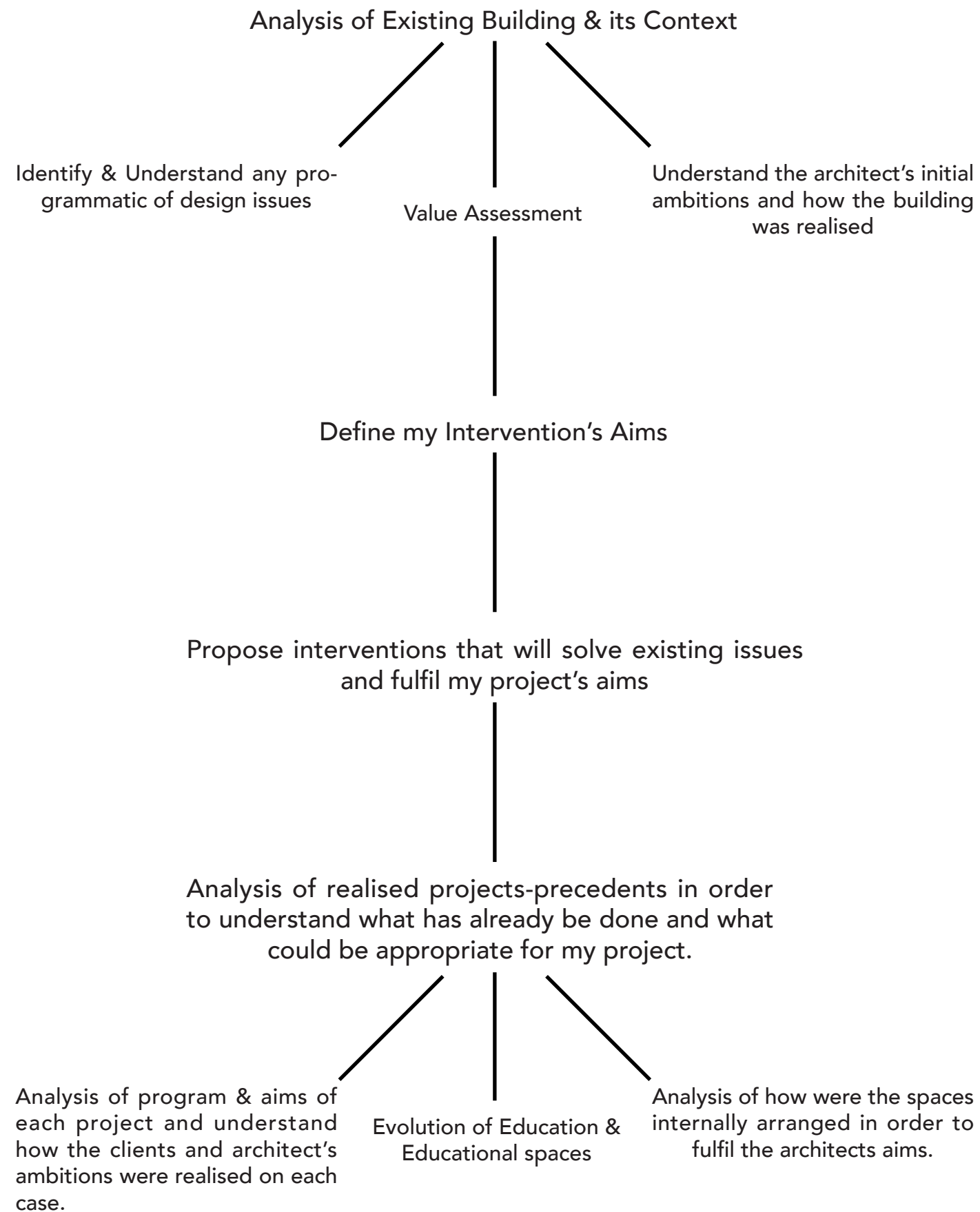


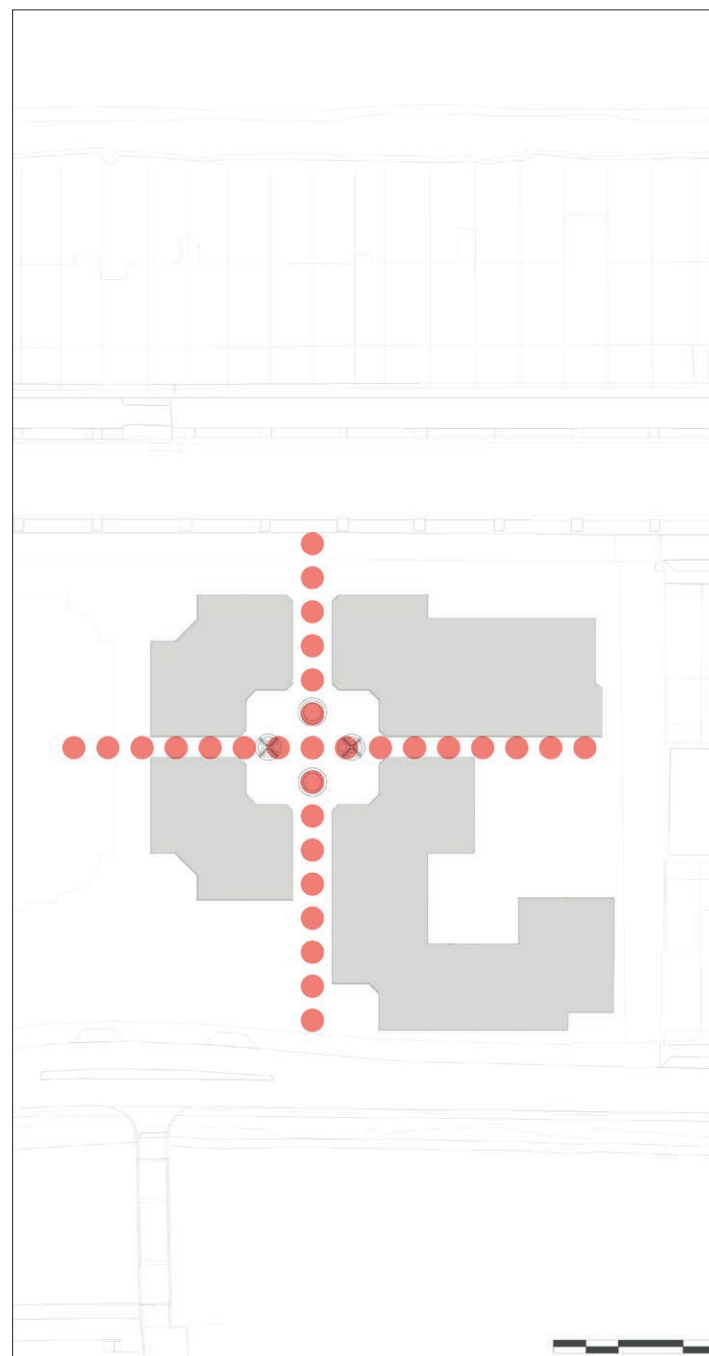
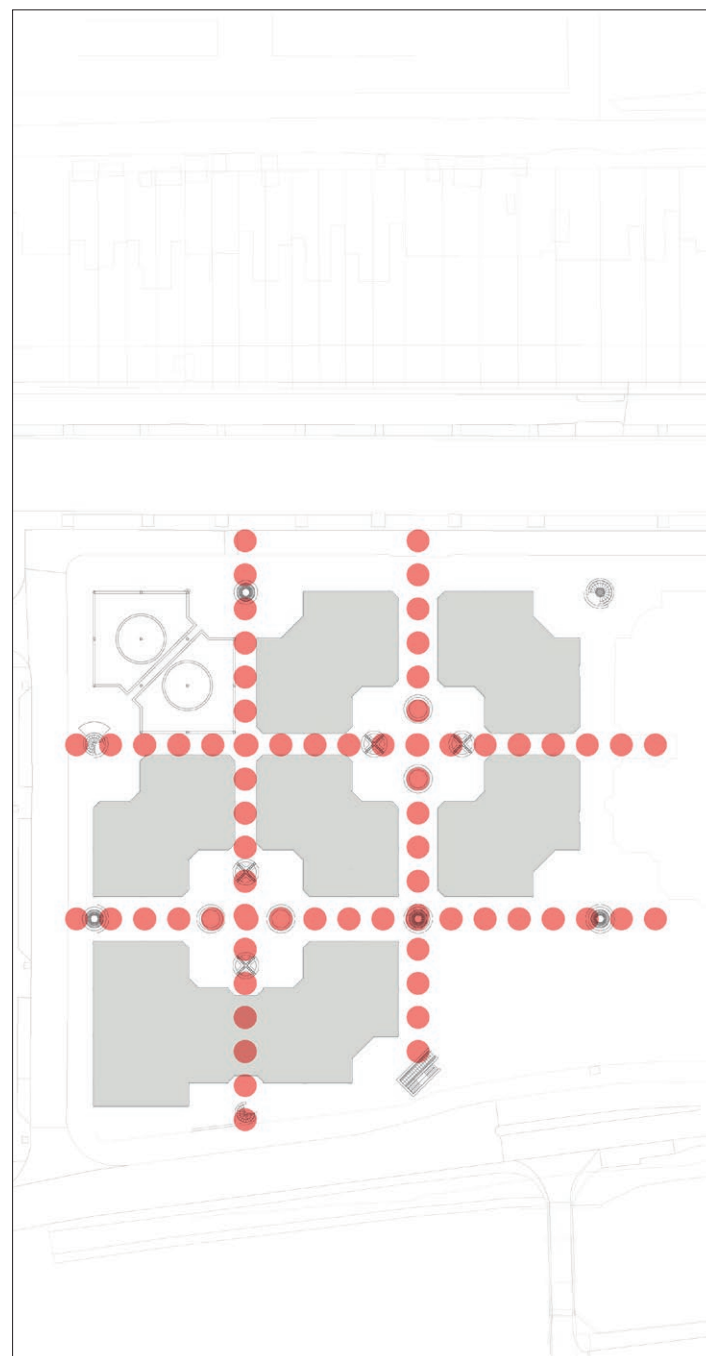






## Project Aims

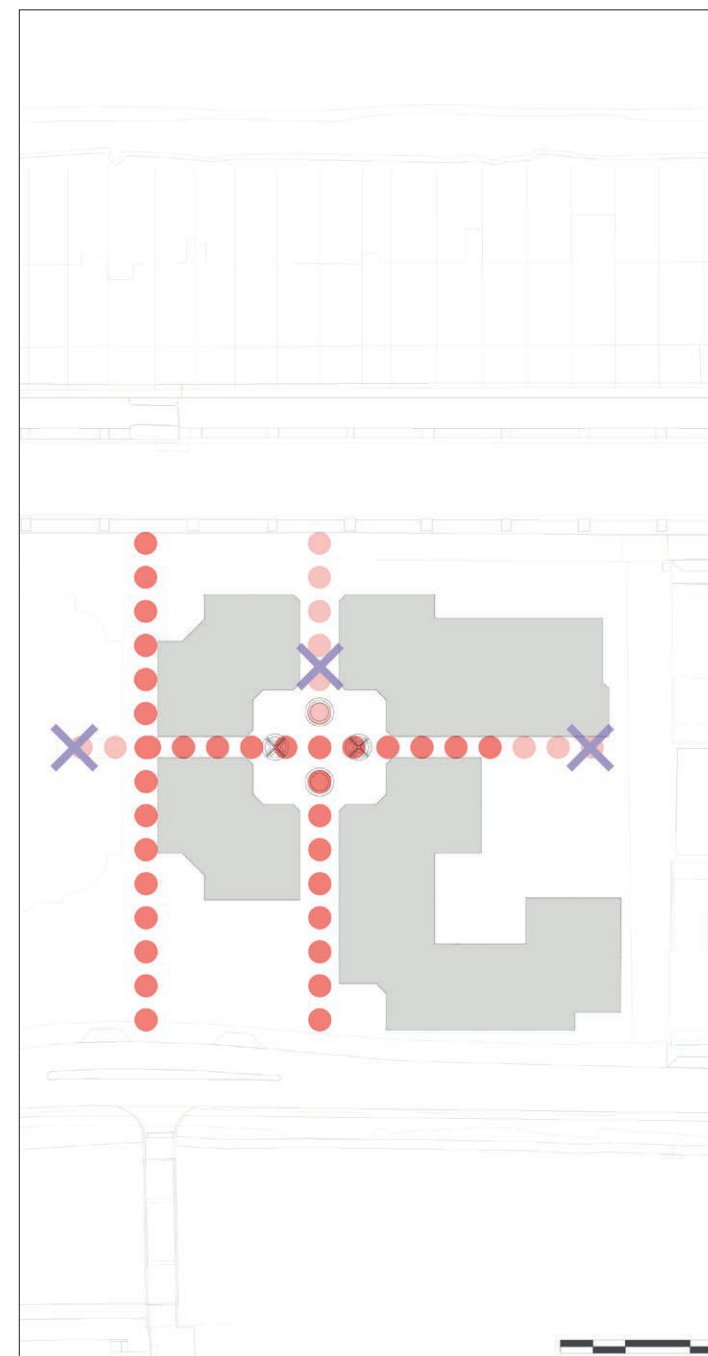
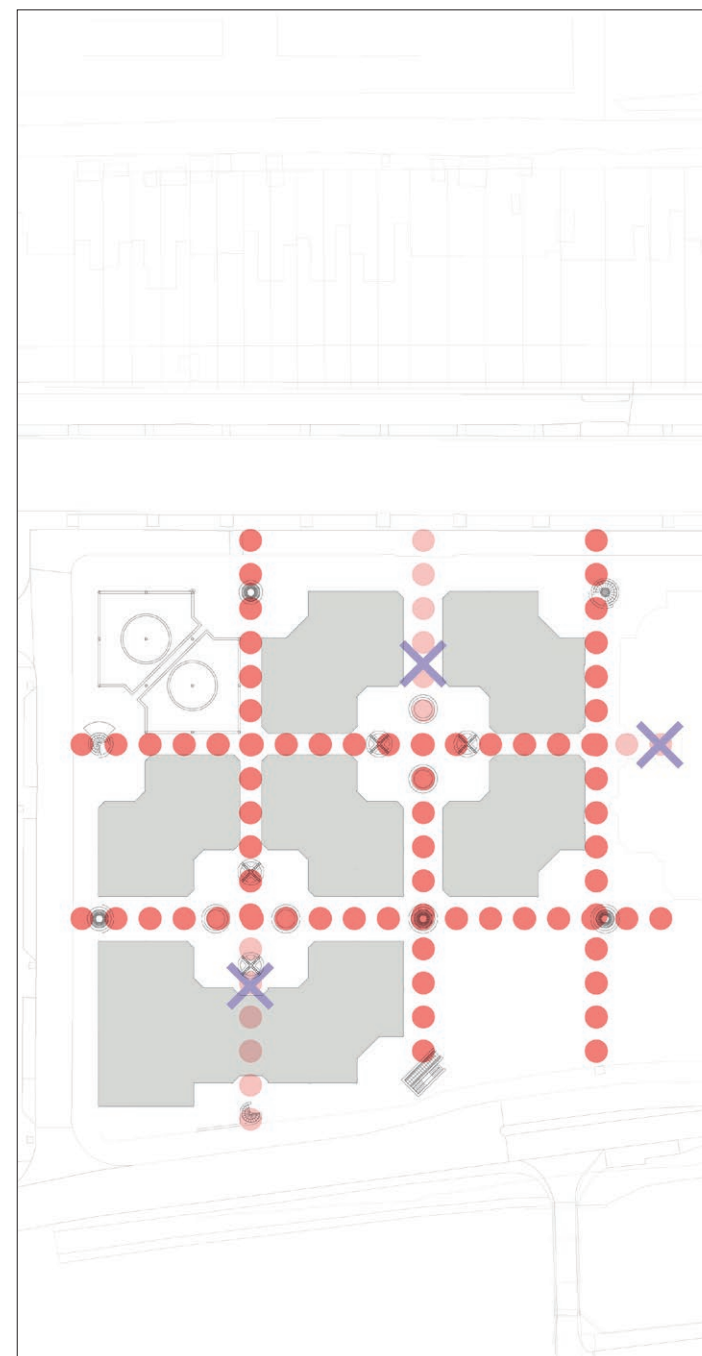




### Axes

Following the Structuralism movement, Joop van Stigt, the building's architect, his ambition was to create a building open to its context initiating public interaction.

The perpendicular axes open up and connect the cluster to its context, highlighting the social character of the building.



### Axes

Despite the architect's original ambitions, to open up the building to its context, highlighting the social aspect of Structuralism, the axes do not function as they were originally intended.

On the diagram above one can see the points where the axes lead to a dead end or do not even exist. In both right and left clusters, the vertical axes are blocked, either by the underground parking or by buildings. On the other hand the horizontal axes guide the public to the library, which side entrances are not in function, leading to dead ends.

That being said, one can understand that the axes do not serve any purpose for the general public, making them functional only for the building's users.



### Courtyards

Additionally to the axes, the courtyards in the centre of both clusters, enhance the Structuralism idea of socialization and human interaction.

In order to stimulate human interaction and create a more pleasant environment for the users, round sitting elements and vegetation was added in the courtyards.



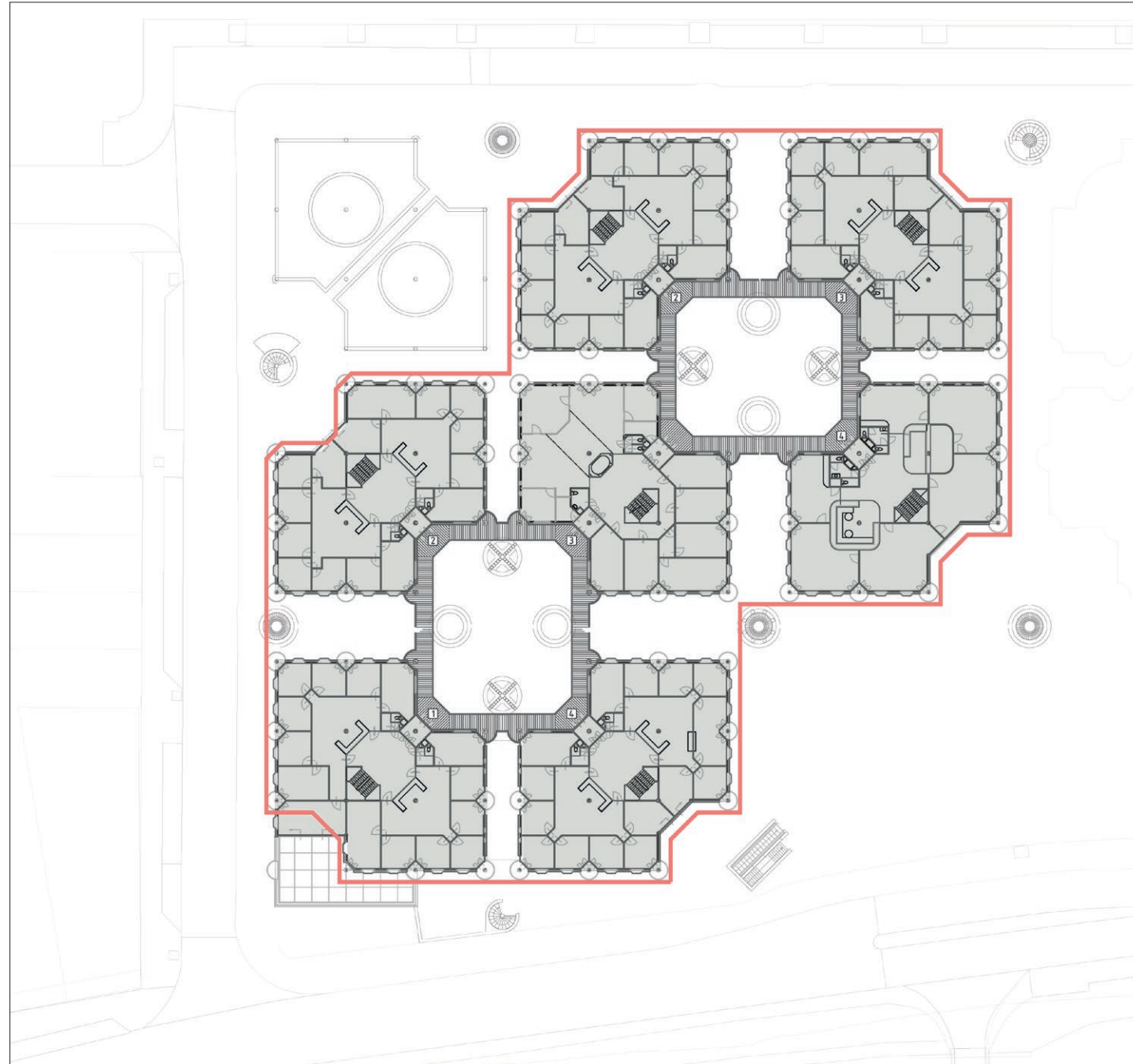
### Courtyards

Despite the architect's intention to make the courtyards an interaction space that people would use as a meeting place, the spaces do not function as they architect had planned.

Currently there is no vegetation in the decorative round elements and the sitting areas are even barely used. Observing how people use the space, it only served circulation purposes, providing access to the buildings surrounding the courtyards.

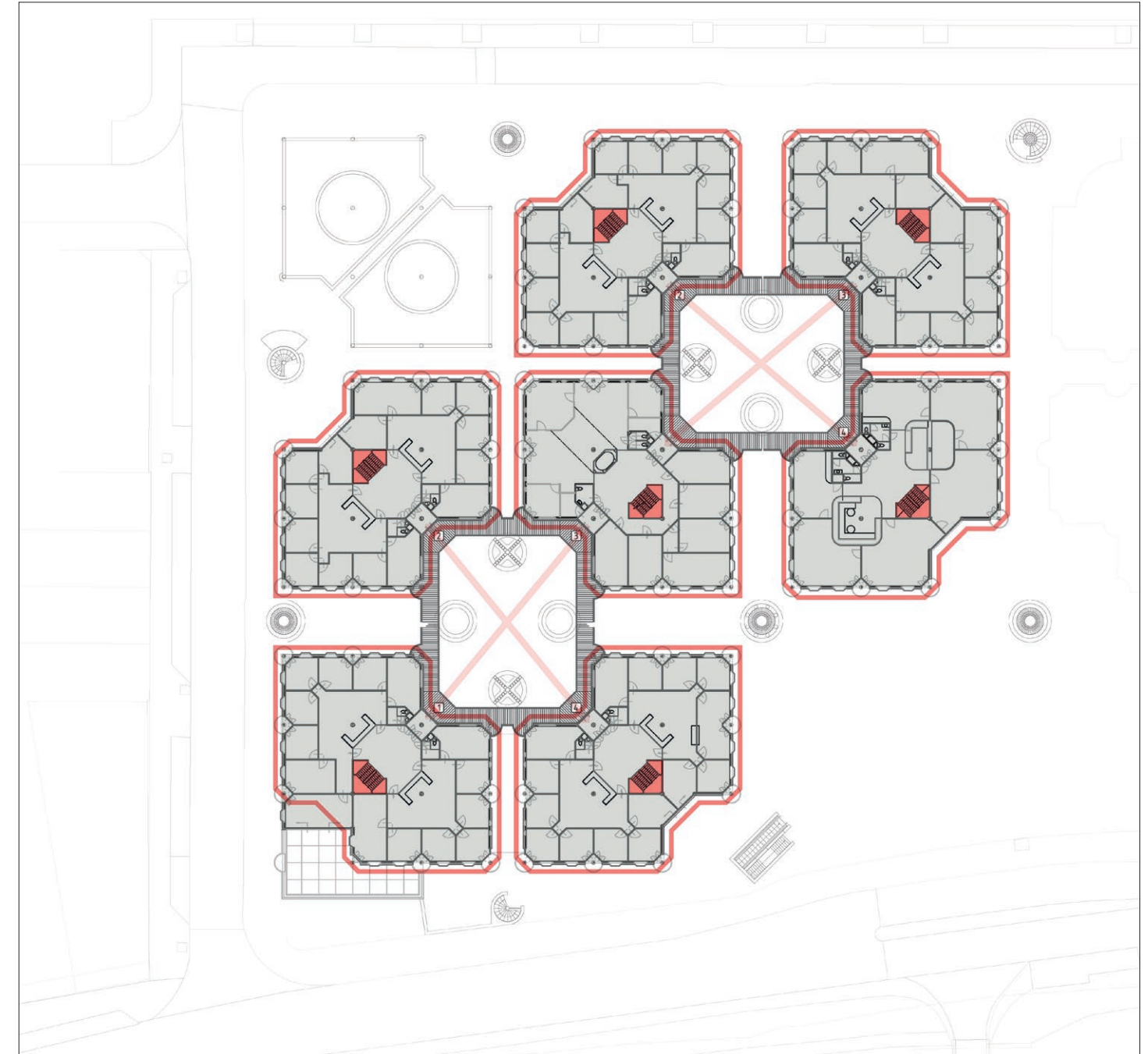
The hard wall materials of the space together with the dark and cold atmosphere do not create a pleasant area, in order to stimulate human interaction.





## Cluster

Looking at cluster's footprint, one can understand that this shape has been created by the overlapping of two squares. The overlapping (link) between the two squares the interactive (linking) idea of Structuralism, together with the axes which theoretically open up the building to its context and the courtyards are all elements which prove the architects original intention to create a cluster whose individual buildings (components) function all together as one unit.



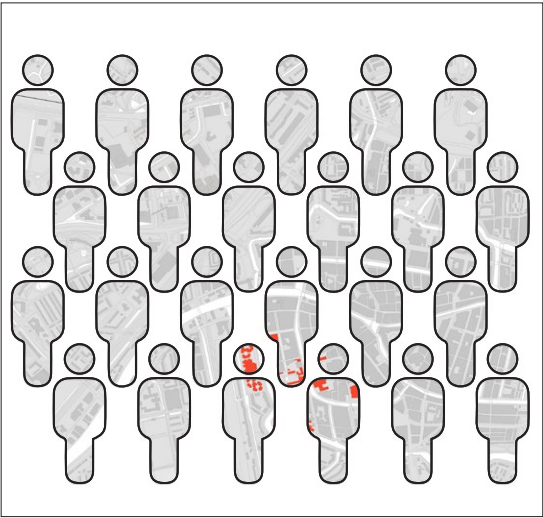
## Cluster

Once again, the architect's original ambition were never realised. In reality, each volume functions individually. Because of the main circulation areas (staircases) being in each building's core and the courtyards are not a pleasant environment for the users, to spend time, the idea of all building functioning as one, is lost.

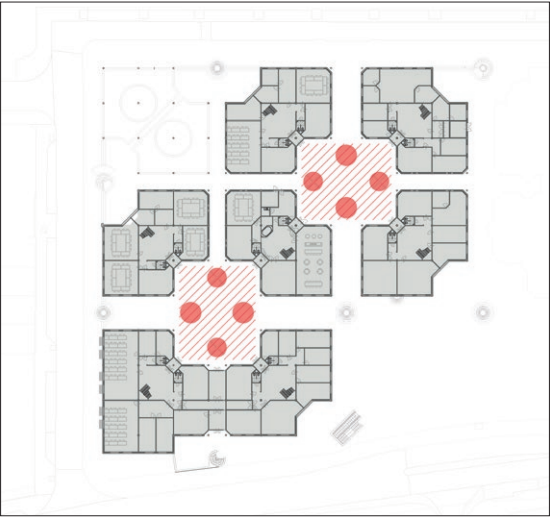
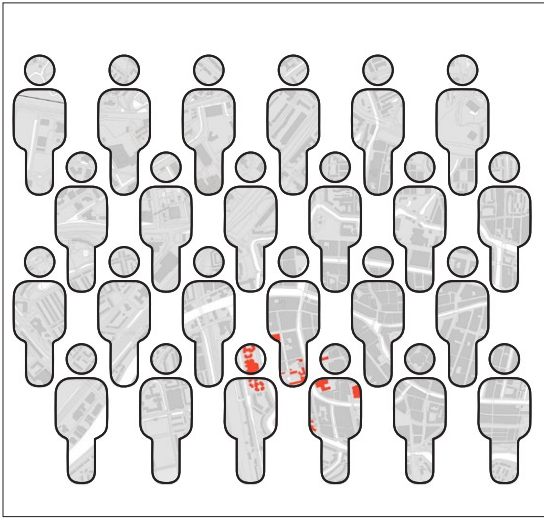
Being on site, and observing the way people experience and use the space, one can see that the way the functions are arranged in the buildings there is no real need for students to move from one building to another. This, together with the lack of an enjoyable exterior space that could stimulate student to use it, has isolated each of the buildings. This has resulted in losing the theoretical links between the volumes, that would make them function all together as a composition.



Disconnection between Leiden & the University



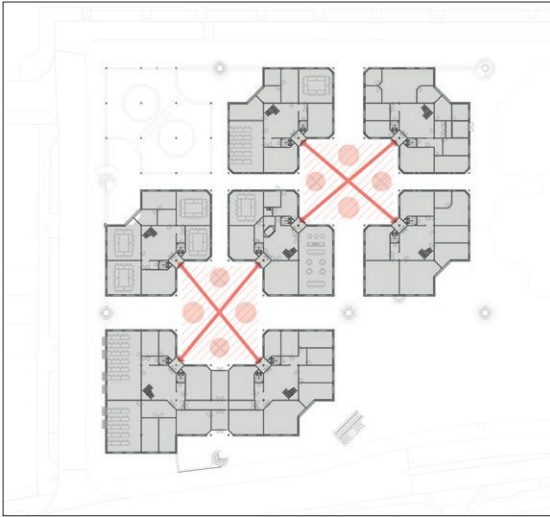
Reconnect the University with Leiden  
One of my project's aims is to connect the University to Leiden. This would require alterations in the building's form as well as program.



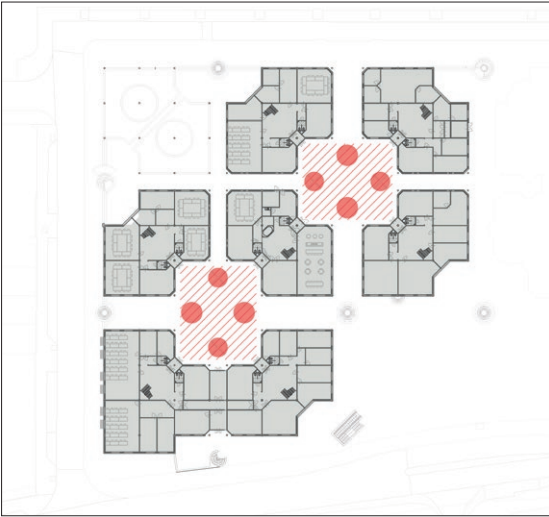
Unused Courtyards  
The courtyards were initially meant to stimulate student interaction and to be used as meeting- socializing areas.



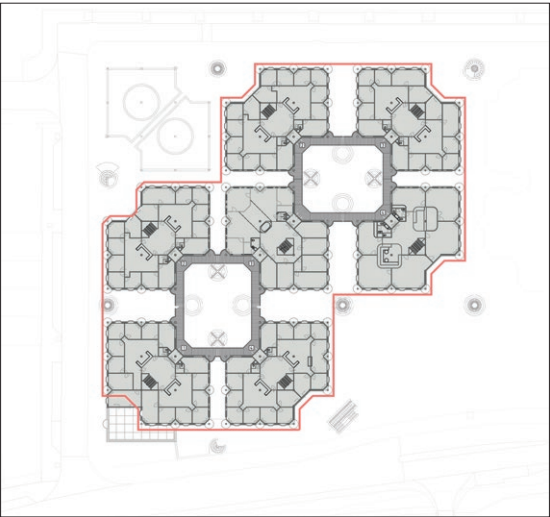
Currently the courtyards serve just the cluster's circulation needs.



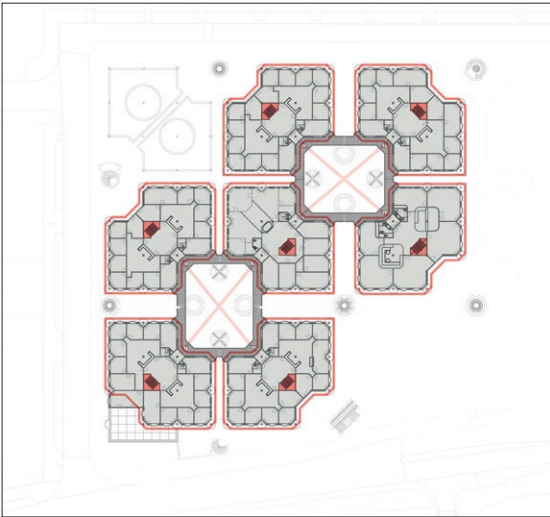
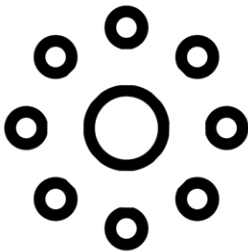
Lively & Functional Courtyards  
One of my project's aims it to make the courtyards function according to the architect's initials ambitions.



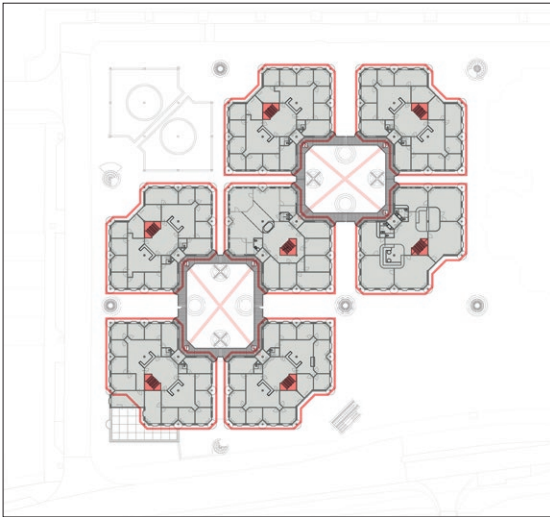
In order to achieve this, interventions on the courtyard need to take place, making the courtyards a more pleasant and functional space.



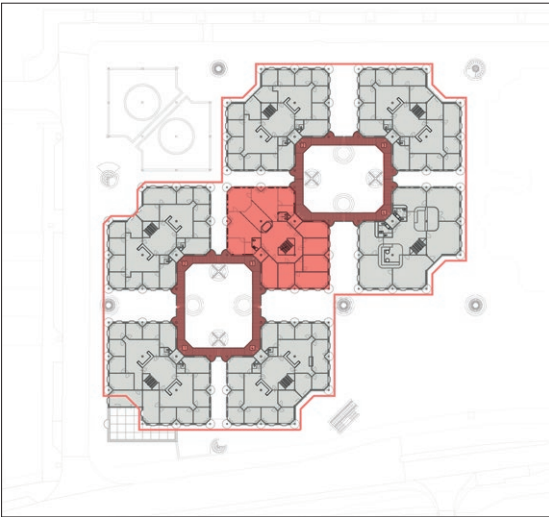
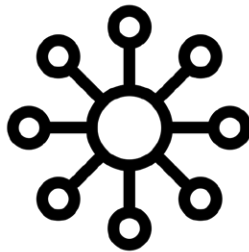
Seven Isolated Buildings  
The building's forming the clusters were designed in order to function all together, as a unit



Investigating the space in person, one can see that each volume functions completely isolated from the rest.

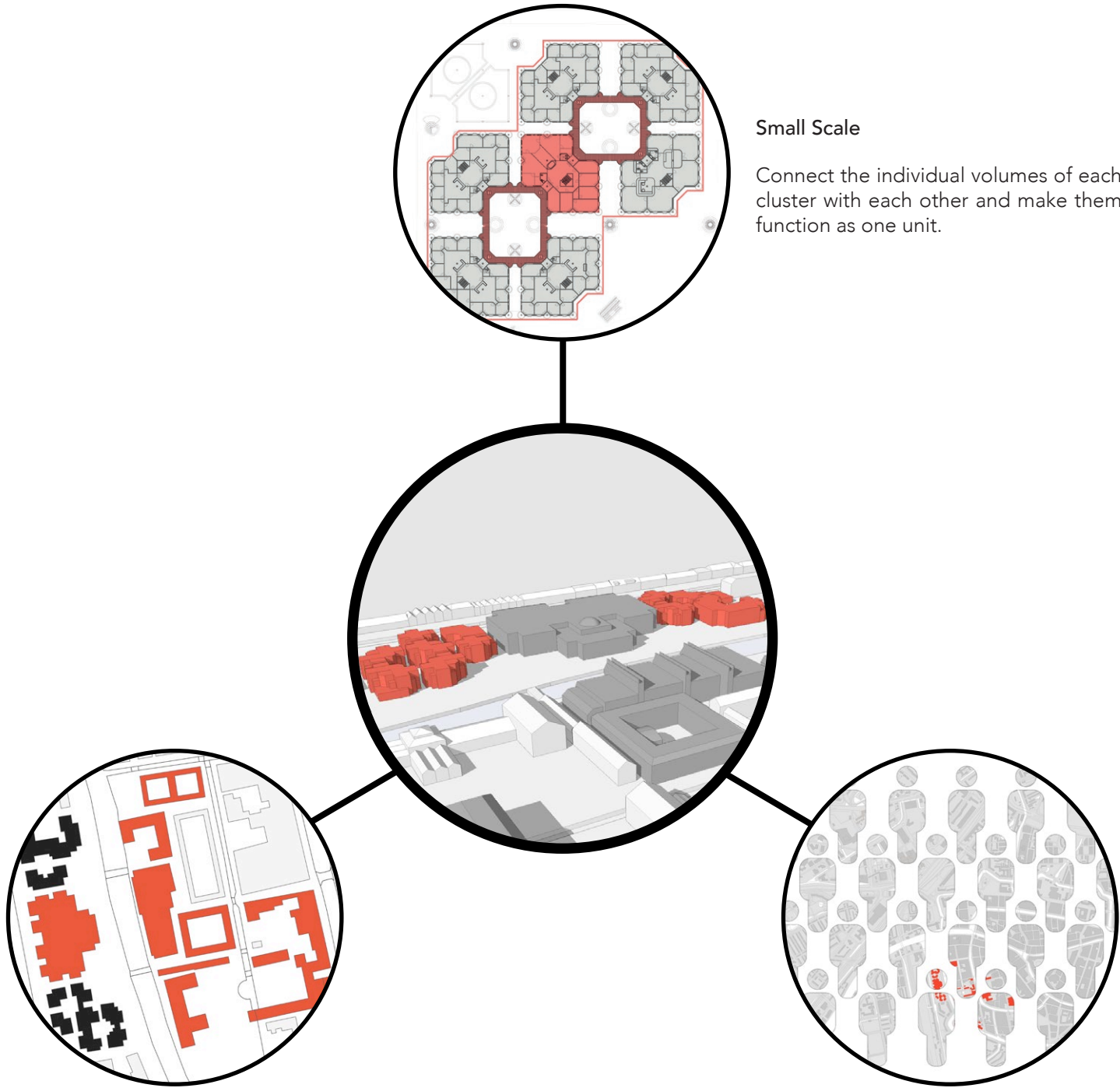


One Building  
Making the buildings function as one unit is one of the most significant aspects that I am aiming to achieve with my intervention



Using the middle volume and the bridges as a linking element between the cluster's two squares, my aim is to unite the building's isolated components.



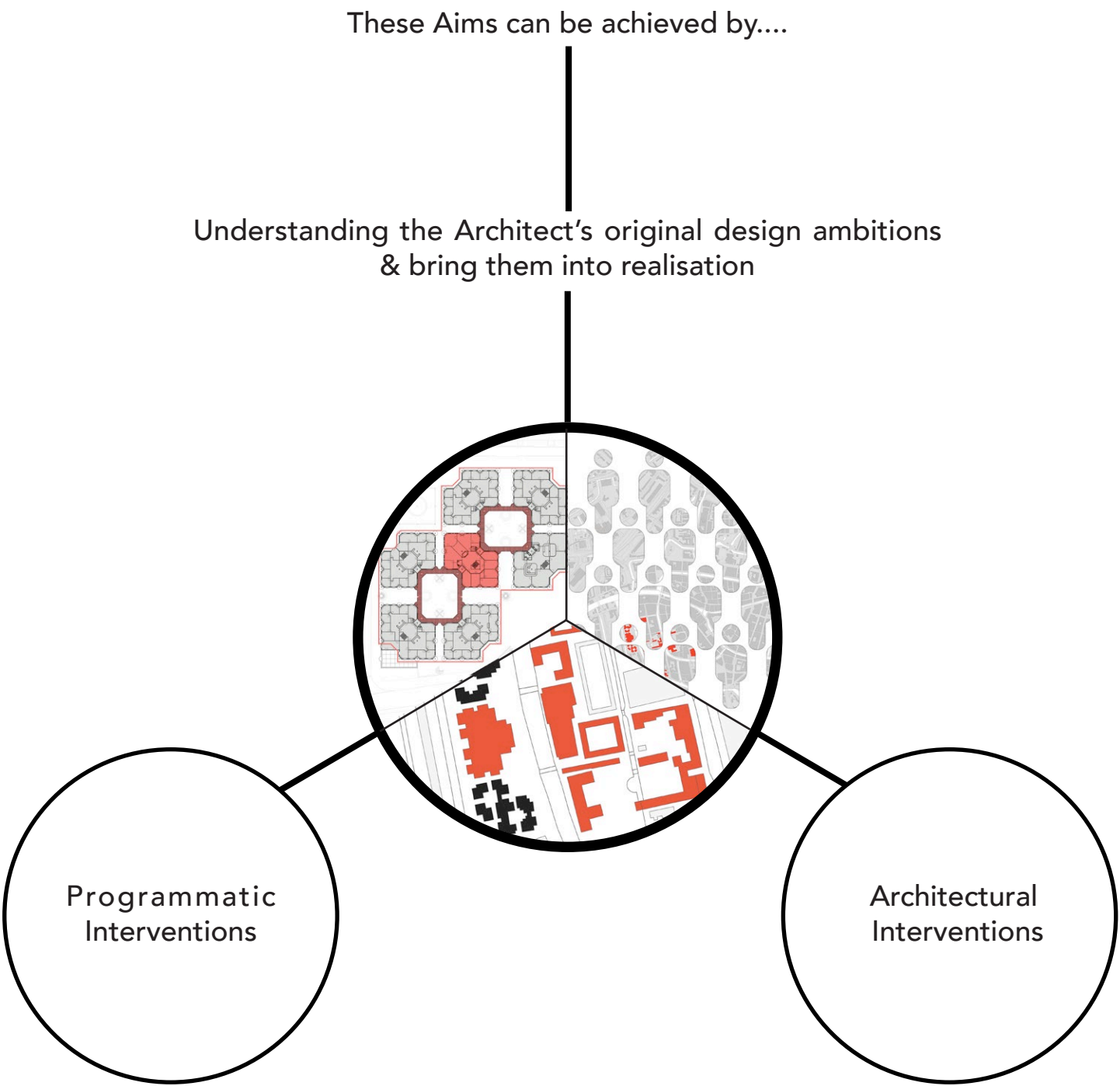


Medium Scale

Connect the PN van Eyckhof & Matthias de Vrieshof Buildings with the rest of Leiden's University's buildings.

Large Scale


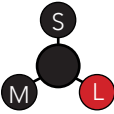

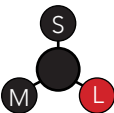
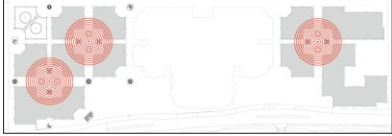
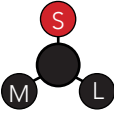
Connect the University with the society. Make it an integral part of Leiden.



Transformation Framework


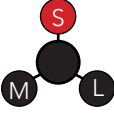
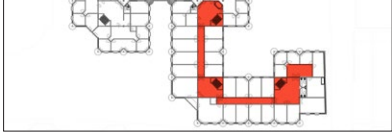
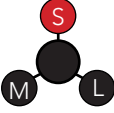
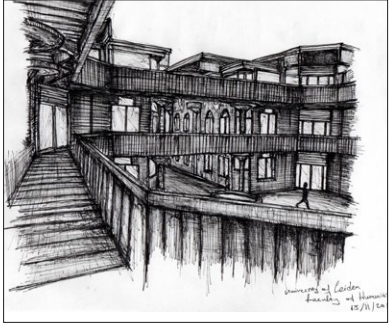
Historic & Cultural Value

Retain the architect's, initial design ideas, reinterpret them and bring into realisation his ambitions that were never materialized.

Aims	Actions	
 	-Maintain the building's relation with its context.	-Relate my proposal's scale to the surrounding buildings (Library, houses, University buildings across the river)
 	-Following the Structuralism Movement, van Stigt's ambition was to make his design open to the city, something that was never realised.	-Through programmatic and architectural interpretations this idea will be finally realised.
 	-Re-introduce the social character of Structuralism movement at the clusters' courtyards.	-By alternating the courtyards introducing new architectural elements, aiming to stimulate social interactions


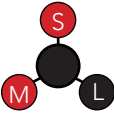

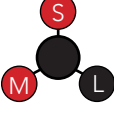
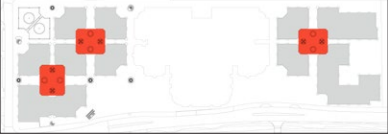
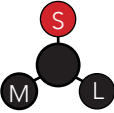

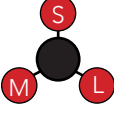

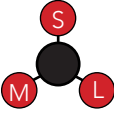
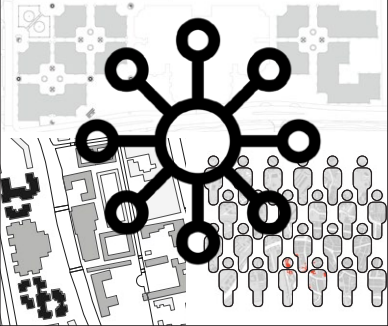
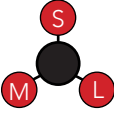
Buildings' Quality

Improve the Building's interior & exterior qualities, providing a pleasant environment for the users.

Issues	Actions	
 	-The buildings have many unofficial entrances, causing security issues. The lack of a main-clear entrance causes confusion to the users.	-Create Main-clear entrances, the rest of the entrances should be controlled-closed off.
 	-Long & dark corridors are used to connect the large amount of small rooms. The poor quality of the interior space also causes users' disorientation.	-Remove internal walls in order to: -Create more flexible and open spaces. -Allow the spaces to be better illuminated. -Make it easier for user to orientate themselves
	-Moderate quality of courtyards, as a result, they serve just circulation purposes.	-By the appropriate architectural alternations create a more pleasant environment for the users, aiming to stimulate human interactions
	-The dark spaces, the lack of natural ventilation and thermal bridges create a poor indoor climate creating an unpleasant environment for the users.	-Interior and exterior architectural interventions to create a better indoor climate for the users.

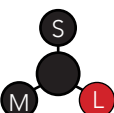
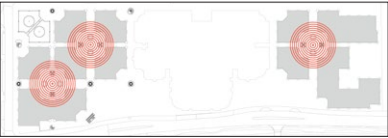
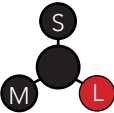
Program & Architectural Interventions

The programmatic and architectural interventions that need to take place in order to revitalize the university

Aims	Actions	
 	-A space that will feel like home, an international campus.	-Create more study spaces and a more pleasant and inspiring environment for the users.
 	-A liveable "city", an environment centred around collaborations, interconnecting and meeting people.	-Create more study spaces and a more pleasant and inspiring environment for the users.
 	-Need for a central point.	-By the appropriate architectural interventions make the courtyards the meeting points for each cluster.
 	- Improve and evolve the University's image	-Contribute in the process of transforming know-how & identify business opportunities.
 	-New front for the University.	-A visible architectural intervention that would revitalize the character and image of the building and therefore the campus.
 	-Link the University with the city & the rest of the University's departments and increase the department's activities awareness.	-Introduction of new programmatic functions that would attract the public. -Multi-purpose halls for special events, guests and networking events. -Workshops for university & community

Economic Aspect

How can my proposal affect the local economy

Aims	Actions	
 	-Strengthen Leiden University in the educational market. It is one of world's best universities in its sector, thus its campus should be of an equal status.	-Rising above the existing building context, using contemporary materials will make the building stand as a symbol of university's presence in the rapid evolving environment
 	Boost local economy.	-A bold intervention that would revitalize the university, and the area could potentially influence the area's regeneration.



## Programmatic Interventions Precedent Analysis

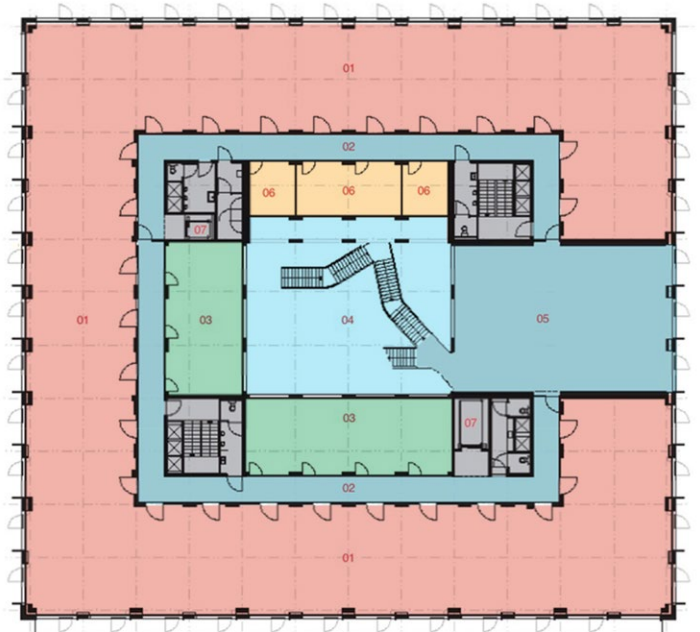
Precedent Analysis



PLUS ULTRA

Architect: Wiegerinck  
Function: Incubator- University of Wageningen  
Location: Wageningen, The Netherlands

- This building functions as an **incubator & multi-tenant building** for the University of Wageningen. **Start-up companies** as well as knowledge-intensive technological businesses in the agriculture and food sector will use the building for **research and open innovation**.
- Plus Ultra, means that there will always be uncharted territory to be discovered and exposed, **symbolizing the university's commitment to continuous innovation**.
- The design's aim is **synergy, cooperation, encounters and innovation** of building's users.



Floor Plan

- KEY
- |                         |                         |
|-------------------------|-------------------------|
| Circulation Space       | Meeting Rooms           |
| Office Spaces           | Public Spaces- eg. Cafe |
| Lecture Theatres        | Utility Spaces          |
| Teaching Spaces         | Other                   |
| Individual Study Spaces |                         |



ERASMUS UNIVERSITY ROTTERDAM- POLAK

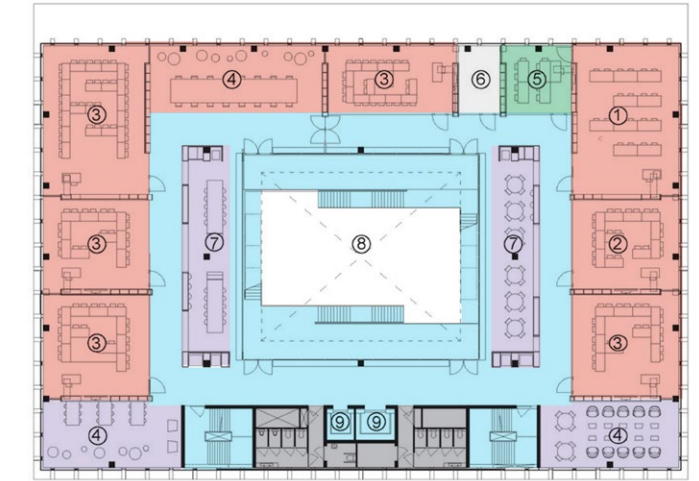
Architect: Paul de Ruiter Architects  
Function: University  
Location: Rotterdam, The Netherlands

- Multifunctional educational building.
- The interior of the building focuses completely on the **needs of different users**. On the ground floor there are spaces for retail.
- A calm and quite study environment for students who prefer to study individually or in small groups.

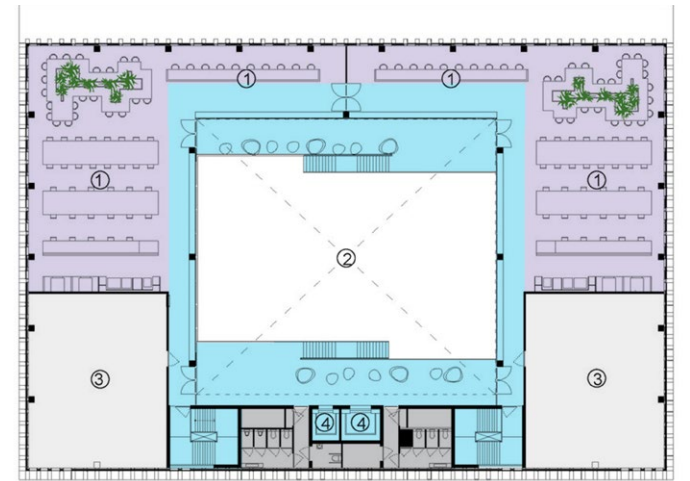


Ground Floor Plan

- KEY
- |                         |                         |
|-------------------------|-------------------------|
| Circulation Space       | Meeting Rooms           |
| Office Spaces           | Public Spaces- eg. Cafe |
| Lecture Theatres        | Utility Spaces          |
| Teaching Spaces         | Other                   |
| Individual Study Spaces |                         |



Third Floor Plan



Fifth Floor Plan



Precedent Analysis



NYU DEPARTMENT OF LINGUISTICS

Architect: 1100 Arcjhitect  
Function: University  
Location: New York, United Stated

- The aim of the intervention is to **improve the communication between the different divisions of the university's department**. Increase the **awareness** of the department's activities to other **university members** and the **society**.
- The plan is organised in a well defined and **flexible** space allowing **students to interact**.

KEY

	Circulation Space		Meeting Rooms
	Office Spaces		Communal Spaces
	Lecture Theatres		Utility Spaces
	Teaching Spaces		Other
	Individual Study Spaces		



First Floor Plan



Second Floor Plan



NEW CAMPUS FOR UNIVERSITY OF ARTS LONDON

Architect: Stanton Williams  
Function: University  
Location: London, United Kingdom

- Create a space that **can be transformed** by staff & students **depending on their needs**, where new interactions, interventions and experimentation can **enhance collaborations between multiple disciplines**, enhancing students' experience; stimulating creativity and collaborations.
- The design aim is to **maximize connections between the university's departments**.
- Create a new **"front image"** for the university.
- The intervention **rises above the level of the adjacent buildings**, using **contemporary materials** that stand out as a symbol of the college's presence in the rapidly evolving part of London.
- Internal street acting as a **dynamic arena for student life**, used for exhibitions, fashions shows & performances.



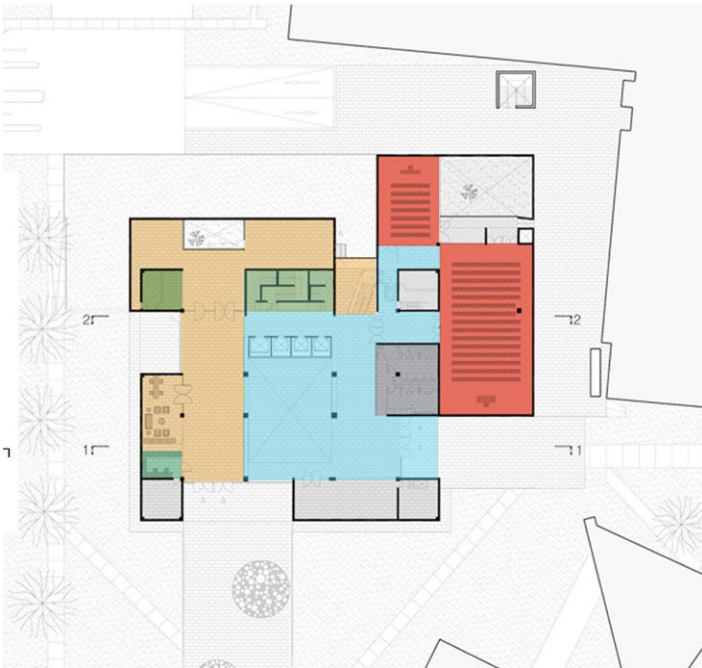
INNOVATION CENTRE UC

Architect: Alejandro Aravena  
Function: Innovation Centre  
Location: Chile

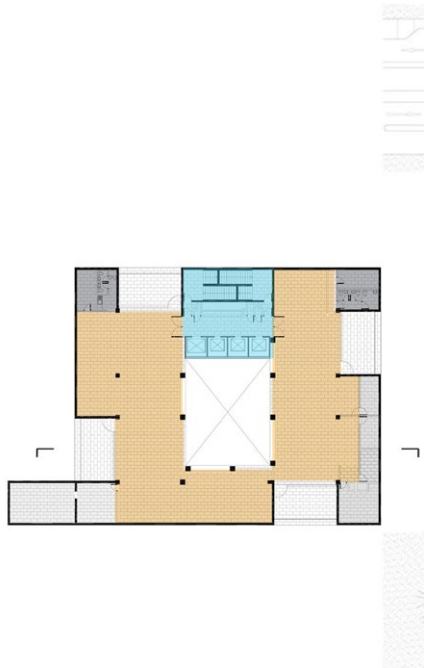
- Centre where companies, businesses and more in general, demand, could **converge with research and the state of the university knowledge creation**.
- The aim was to **contribute to the process of transferring know-how, identifying business opportunities**, adding value to existing resources or registering patents in order to **improve the country's competitiveness and consequently development**.
- In order to achieve this, **one to one interaction is formal and informal human interaction is vital**. Especially in the process of **creating knowledge, face to face contact is unbeatable**.
- Thus, the architects multiplied the spaces **where people can meet and collaborate**, from the elevators' lobby where benches are located to the transparent atrium whew people can see what others are doing.

KEY

	Circulation Space		Meeting Rooms
	Office Spaces		Communal Spaces
	Lecture Theatres		Utility Spaces
	Teaching Spaces		Other
	Individual Study Spaces		

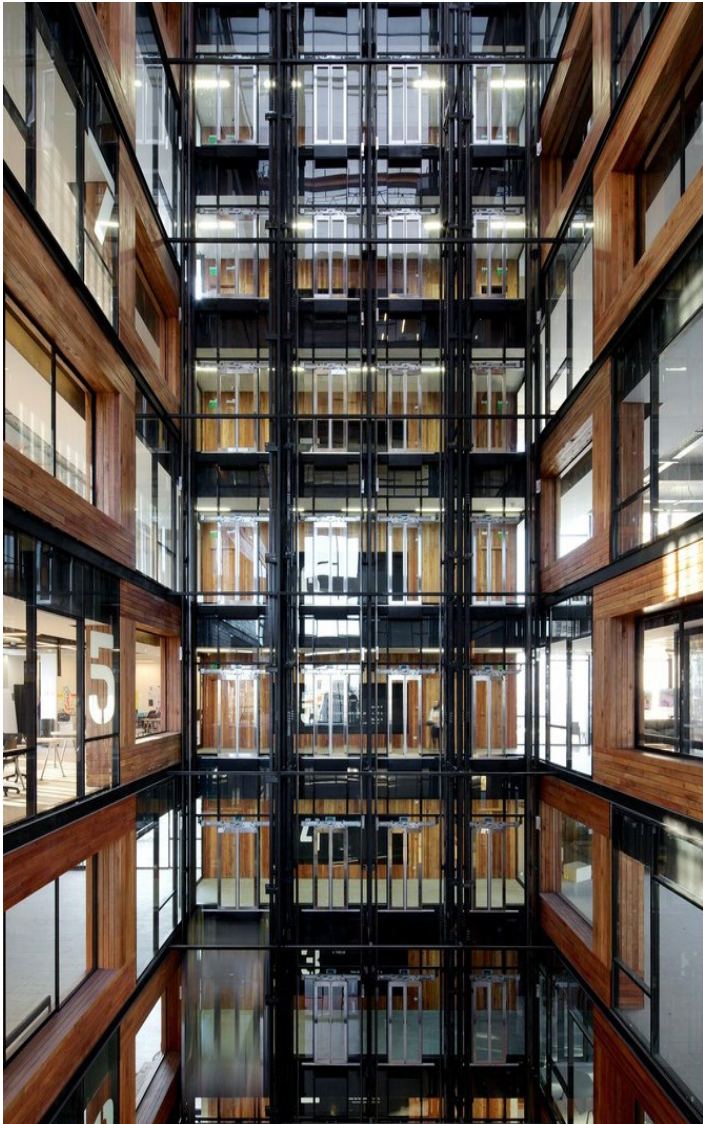


Third Floor Plan



Fifth Floor Plan





Innovation Centre UC

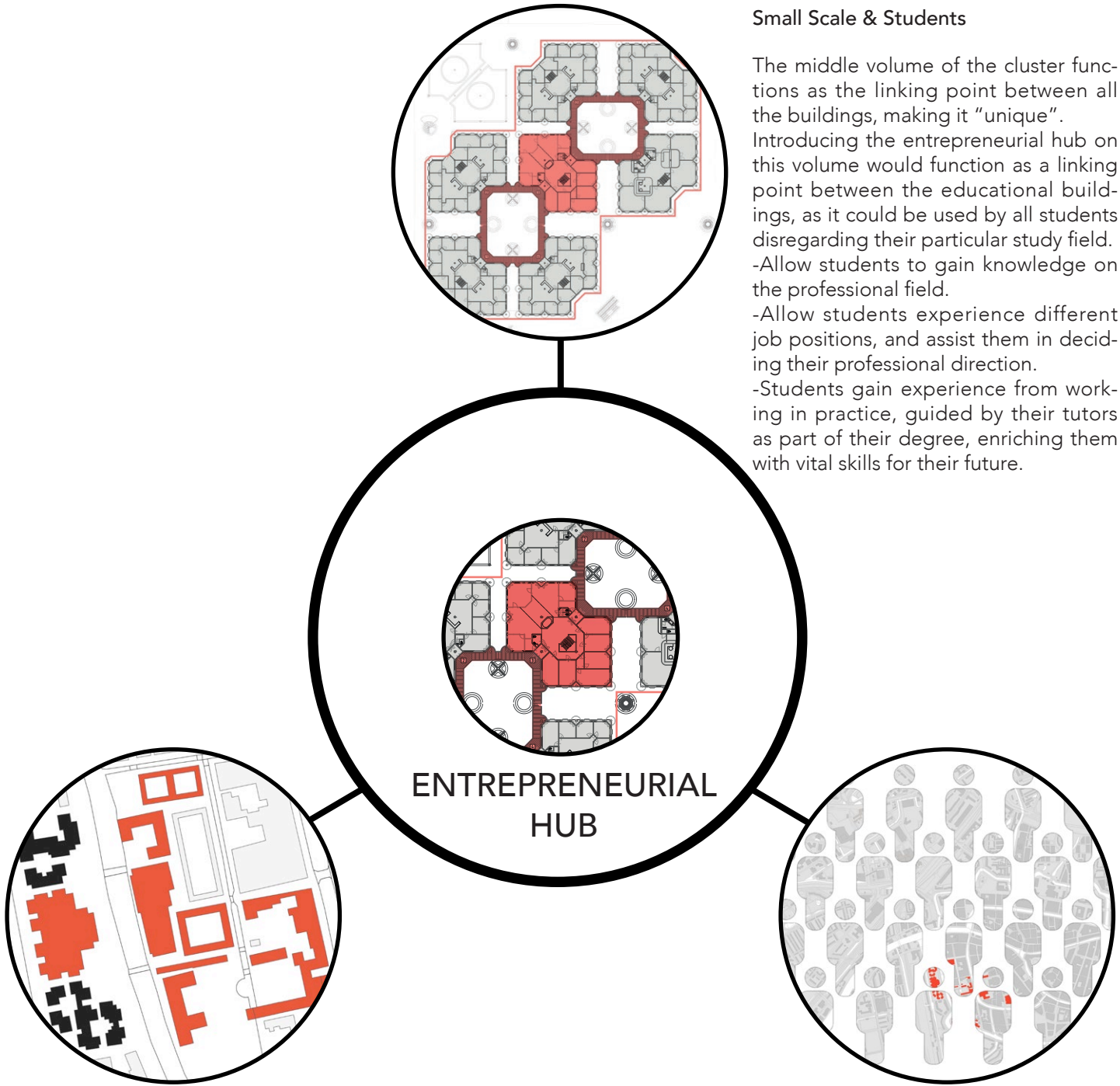
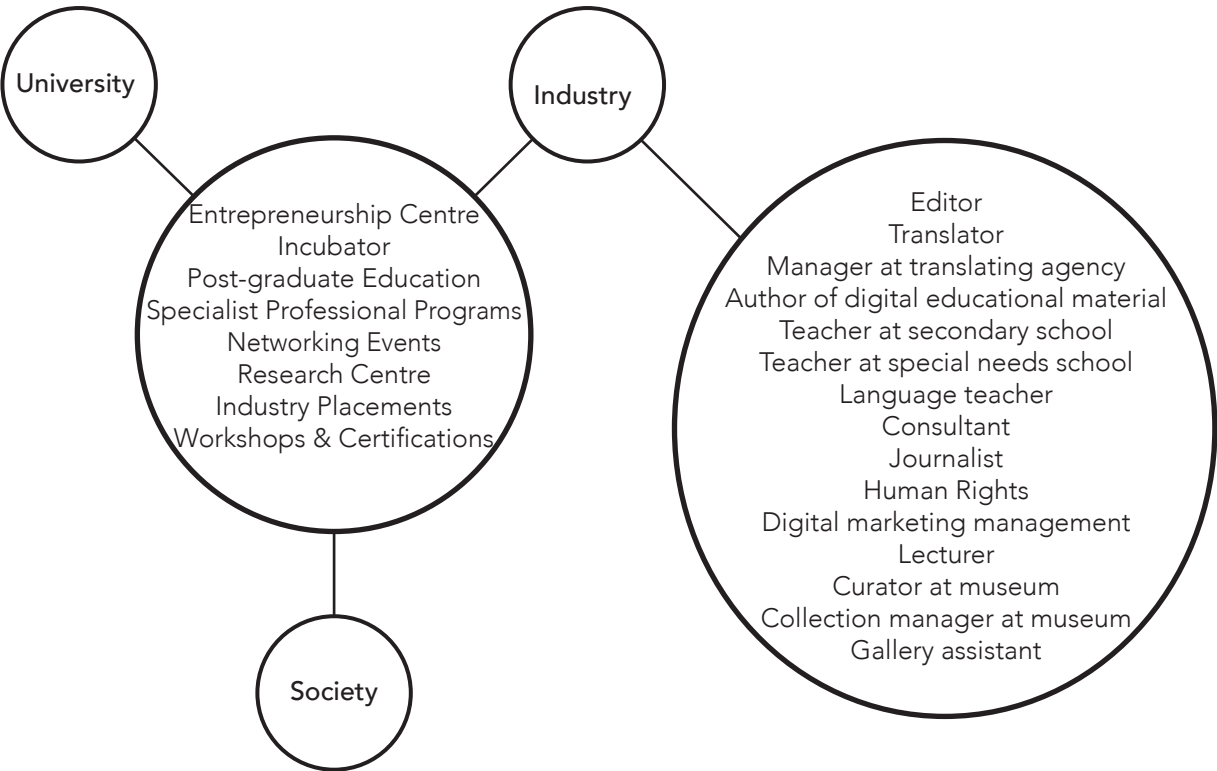
Based on an research that was held by the Ernst & Young Company, as well as the analysis of the precedents regarding the future of universities, what is clear is that Industrial sector is a function that many universities try to introduce into their program in order to survive and thrive into the rapidly evolving educational market.

Gradually, the relation between industry and higher education is deepening. This is already visible in many universities, through Career Day events, where professionals from multiple sectors visit universities to talk with students, guide them in the professional field and even provide them work opportunities.

Especially referring to higher degree research programs the collaboration with the professional-industrial sector has initiated the commercialisation of research programs, allowing students to engage with the professional industry from earlier stages.

Introducing this new function to the university environment would enable multidisciplinary approach to research & teaching. Multidisciplinary programs, by evolving partnerships with industry, design hubs & programs promoting innovation and entrepreneurship. Also, in such cases, universities can provide professional focused courses for all students and teaching programs and industry partnerships linked to the professions.

Apart from the university students who can benefit from such alternation to the university's program, university education can be also provided to those who haven't had it before in the form of educational workshops, linking the industry sector, with the university and Leiden's society.



Small Scale & Students

The middle volume of the cluster functions as the linking point between all the buildings, making it "unique". Introducing the entrepreneurial hub on this volume would function as a linking point between the educational buildings, as it could be used by all students disregarding their particular study field.

- Allow students to gain knowledge on the professional field.
- Allow students experience different job positions, and assist them in deciding their professional direction.
- Students gain experience from working in practice, guided by their tutors as part of their degree, enriching them with vital skills for their future.

Medium Scale

The addition of the entrepreneurial hub, were students can interact with professionals can draw the attention of students from different departments.

- This addition could become the university's new "front image", showing its innovative character and strengthening its position in the educational market.
- Students placement as part of their degree would also allow the university to make a profit allowing it to invest more on the development of the university.

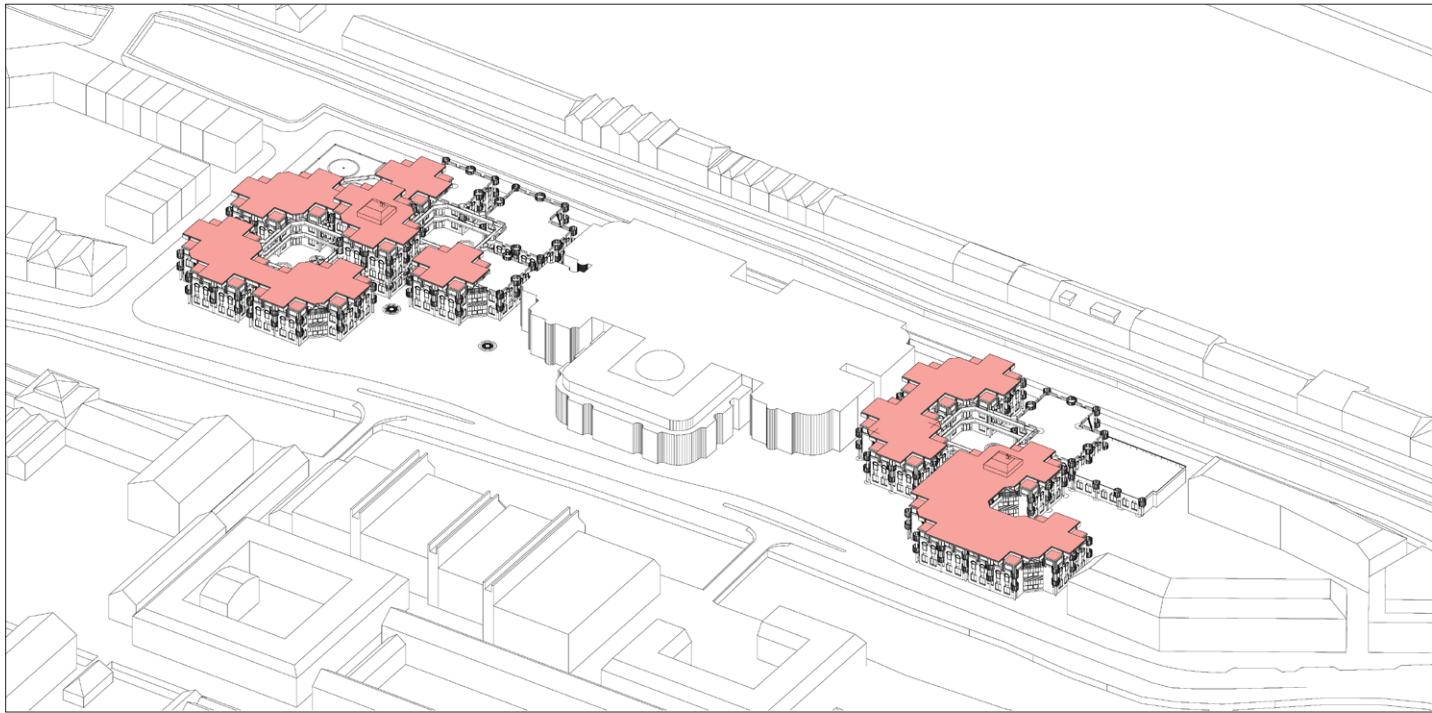
Large Scale

The addition of a new function in the university that would be open for interaction-partnerships with off-campus companies and the people of Leiden, would make the university open to the city and to external-non-related parties in general, linking the university with Leiden and the educational & business world.

- Students will also provide services to the general public on specific professional positions that will be held in the university.

Architectural Interventions  
Existing Building & Precedent Analysis





Heavy Base - Light Capital

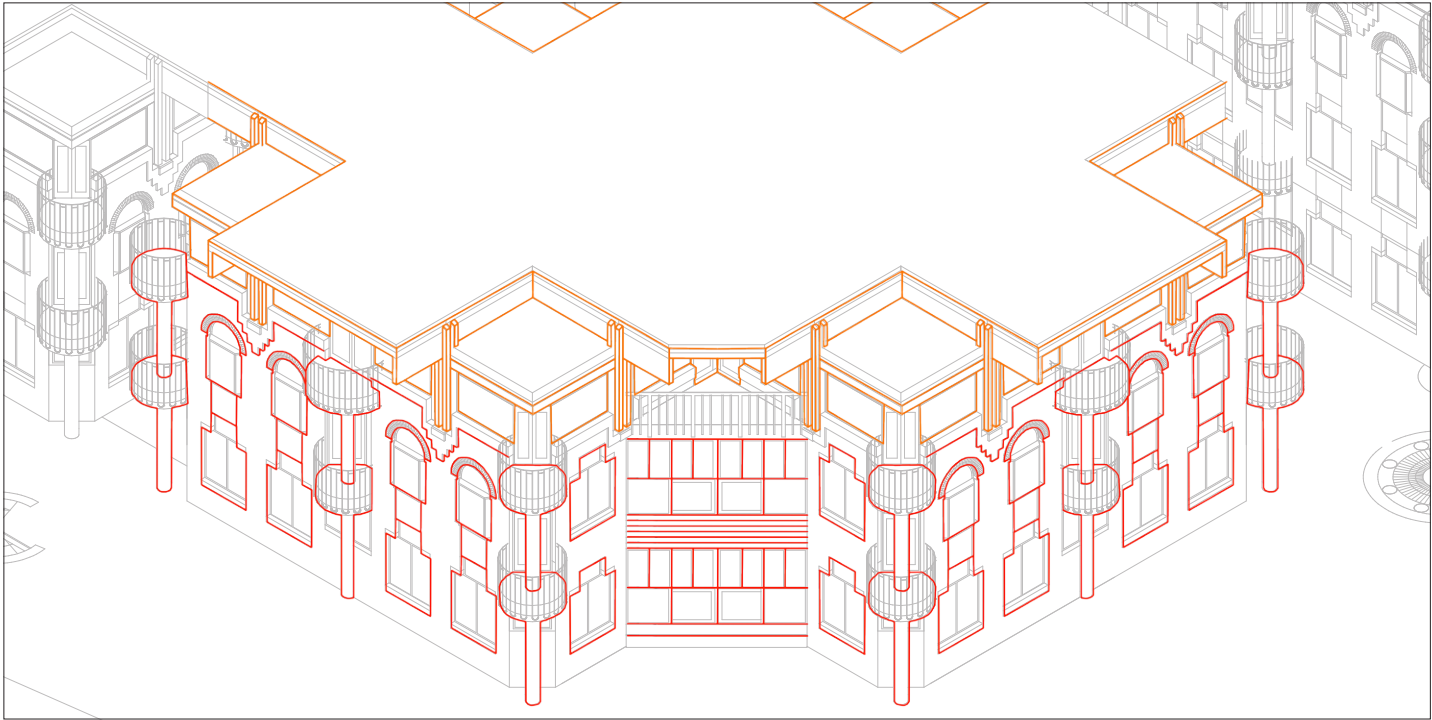
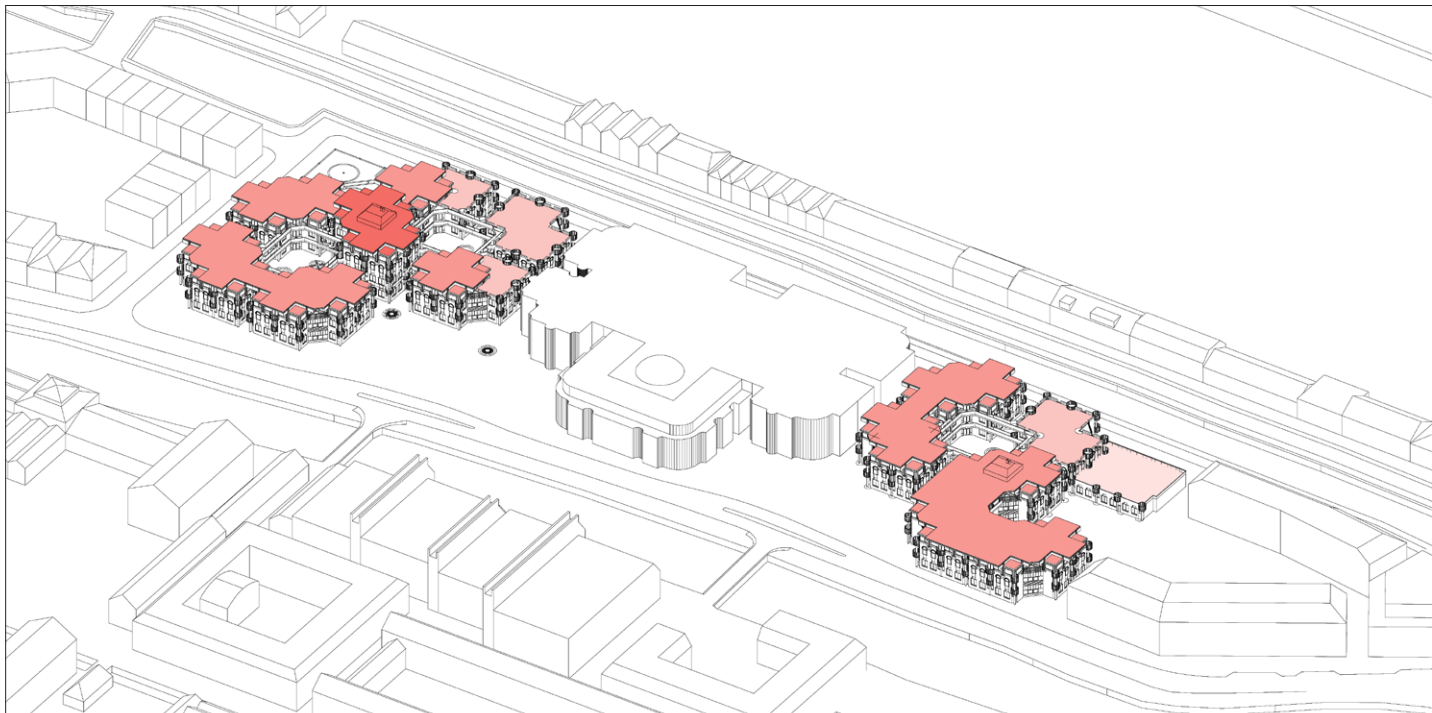
Investigating the form and materiality of Joop van Stigt's design one can clearly see the division between the heavy brick base and the light timber and glazed top floor (capital). In terms of materiality, the brick base fits well in its context, on the other hand the timber-glass capital contrast its setting in a respectful manner.

This contrast shows the architect's intention to consciously emphasize his design and make it stand out of its context and highlight his design.

Stepping up- Hierarchy

Looking at the architect's roof shape, one can identify 4 different roof levels. This stepping-up is mostly visible on the South (left) cluster.

The roof's stepping up cantilevering above the building's boundaries, together with the material contrast, show the architect's intention to show a sense of hierarchy in his project, still in a respectful manner. These design features also show the architect's will for his building to have a presence in the context, although not being too bold.



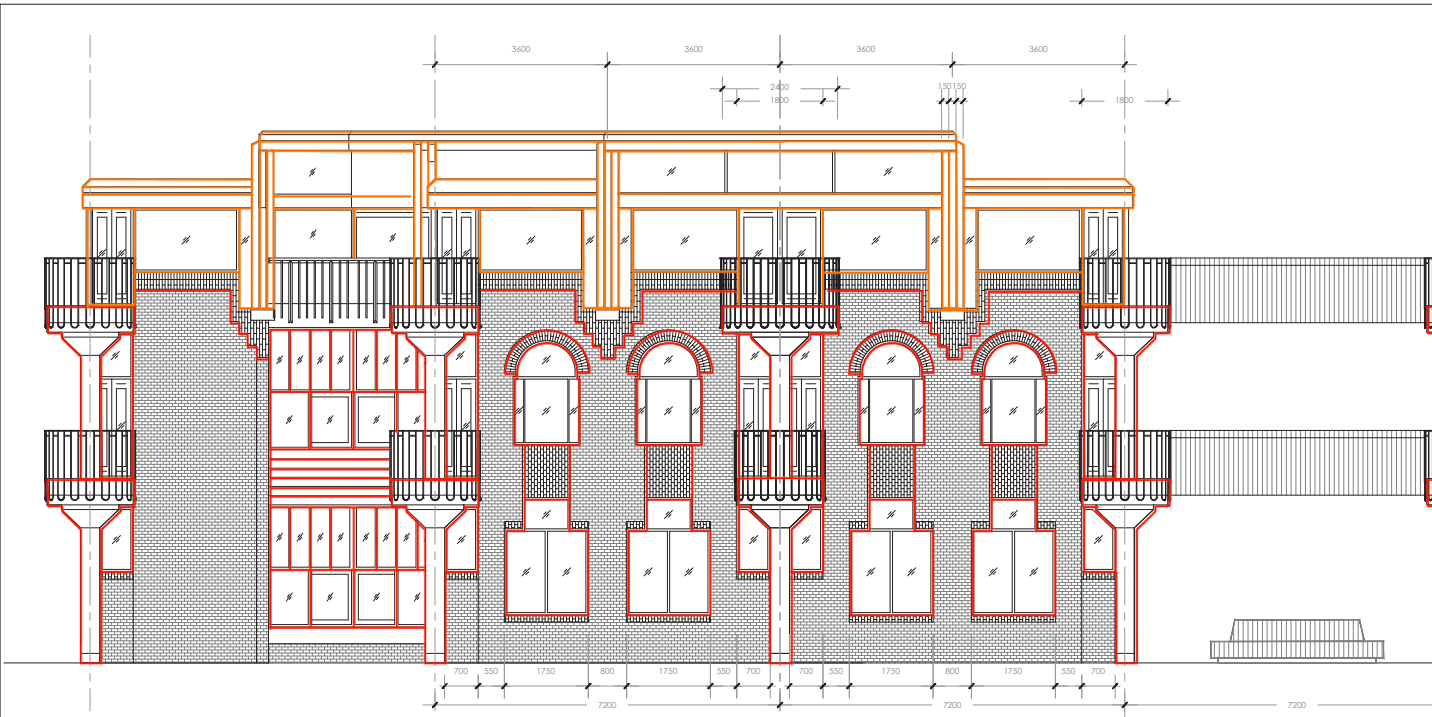
Facade Details- Overcomplicated

Looking at the building's form and facade details, one can identify many detailed & elaborated designs.

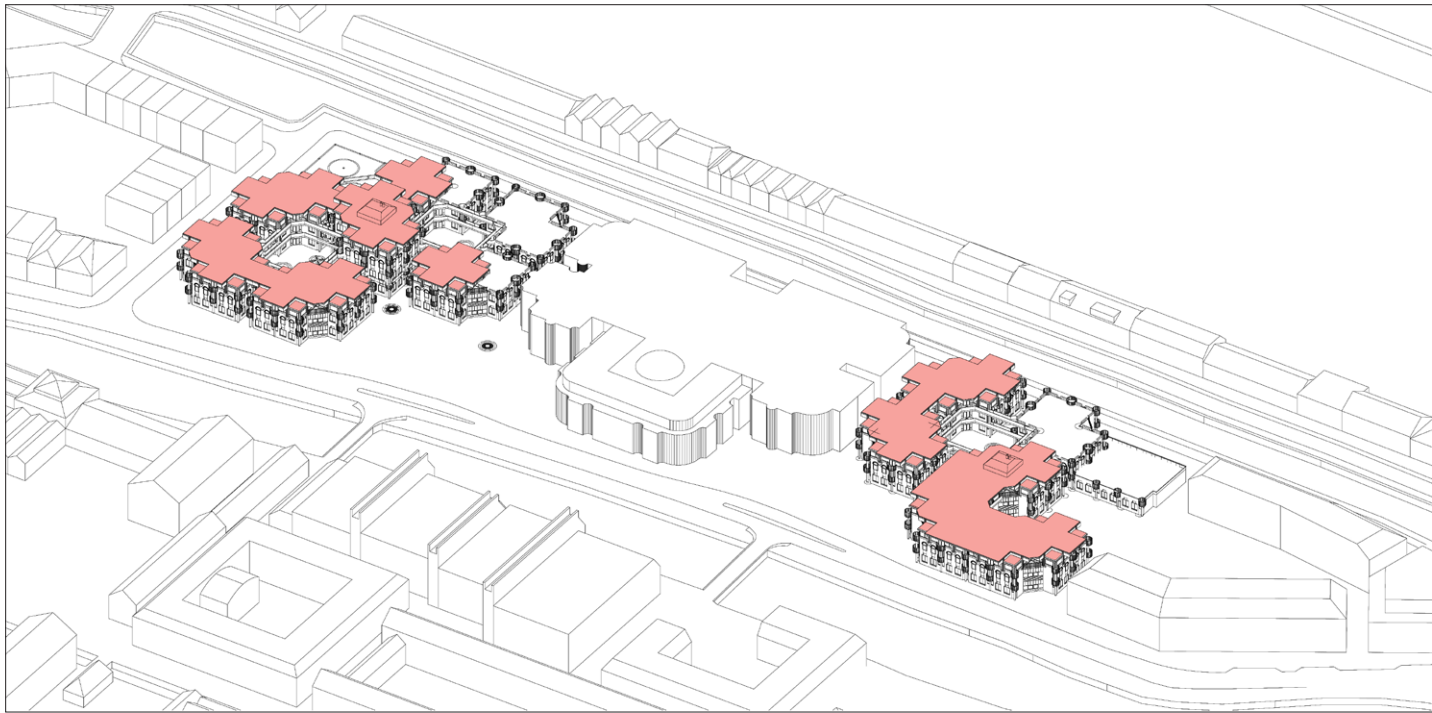
Whether looking at the heavy brick façades or the light timber roof, in both occasions the architect has used many ornaments and details making the façades look overcomplicated and heavily ornamented.

On the heavy brick walls different types of windows-opening, set-backs, brick cornices, round columns and balustrades make the facade look complex on its own.

In addition, the cantilevers, timber columns, detailed roof cornice and different types of windows on the light top floor makes the facade composition even more complicated.







Roof Design- Disconnected

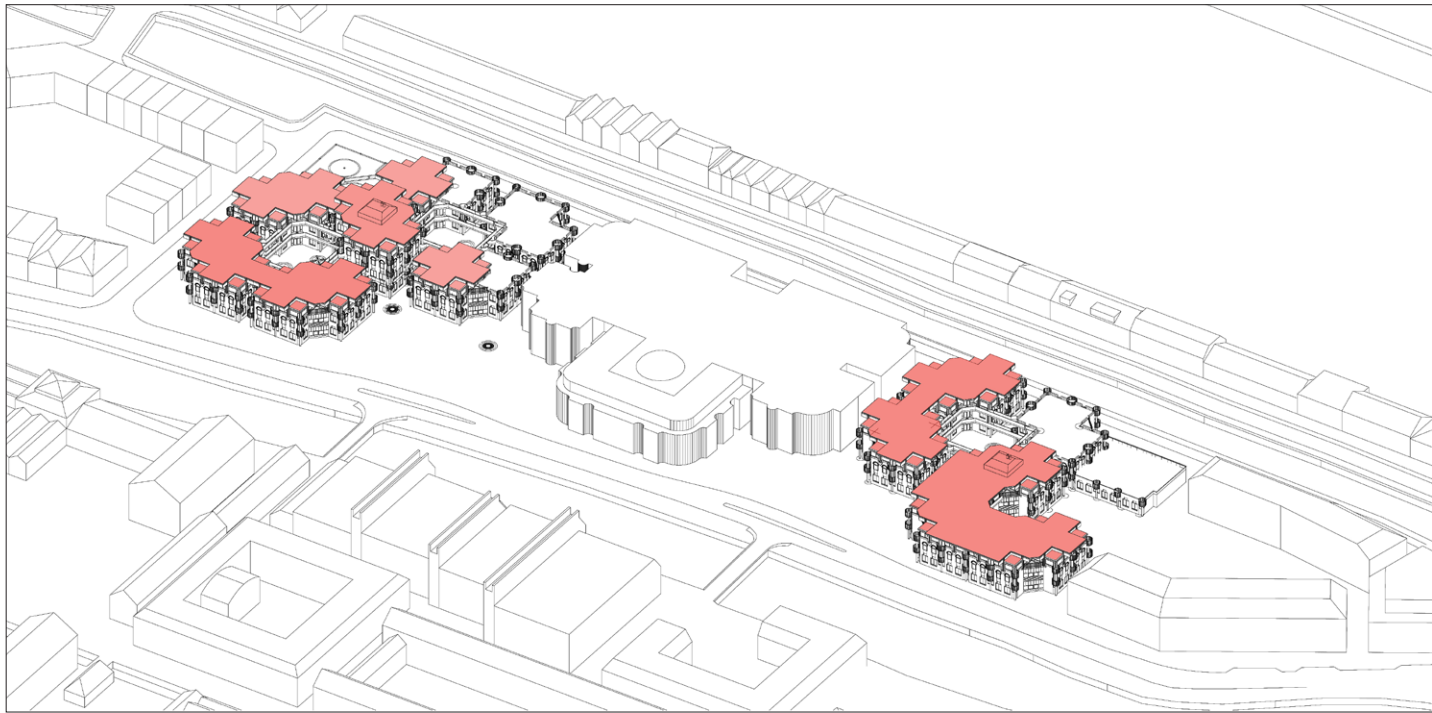
Through his design, the architect's aim is to reflect Structuralism's socialist ideas creating one building consisted of smaller units that would function as one.

Investigating the roof's shape, one can see that not all roofs are connected, weakening the architect's connection ambitions, as it makes the building harder to function as one.

Structural Stability- Extension Possibilities

One of Structuralism Movement's main design concepts is the idea of expansion as well as that buildings should be flexible and able to adapt to the user's needs.

These ideas are reflected on the architect's design. The building's existing concrete structure is designed in order to be able to carry 2 more storeys (one heavy and one light structure or even three light structure storeys). The architect's consideration for future extension projects is also reflected from the use of a light structure top storey which could be removed.



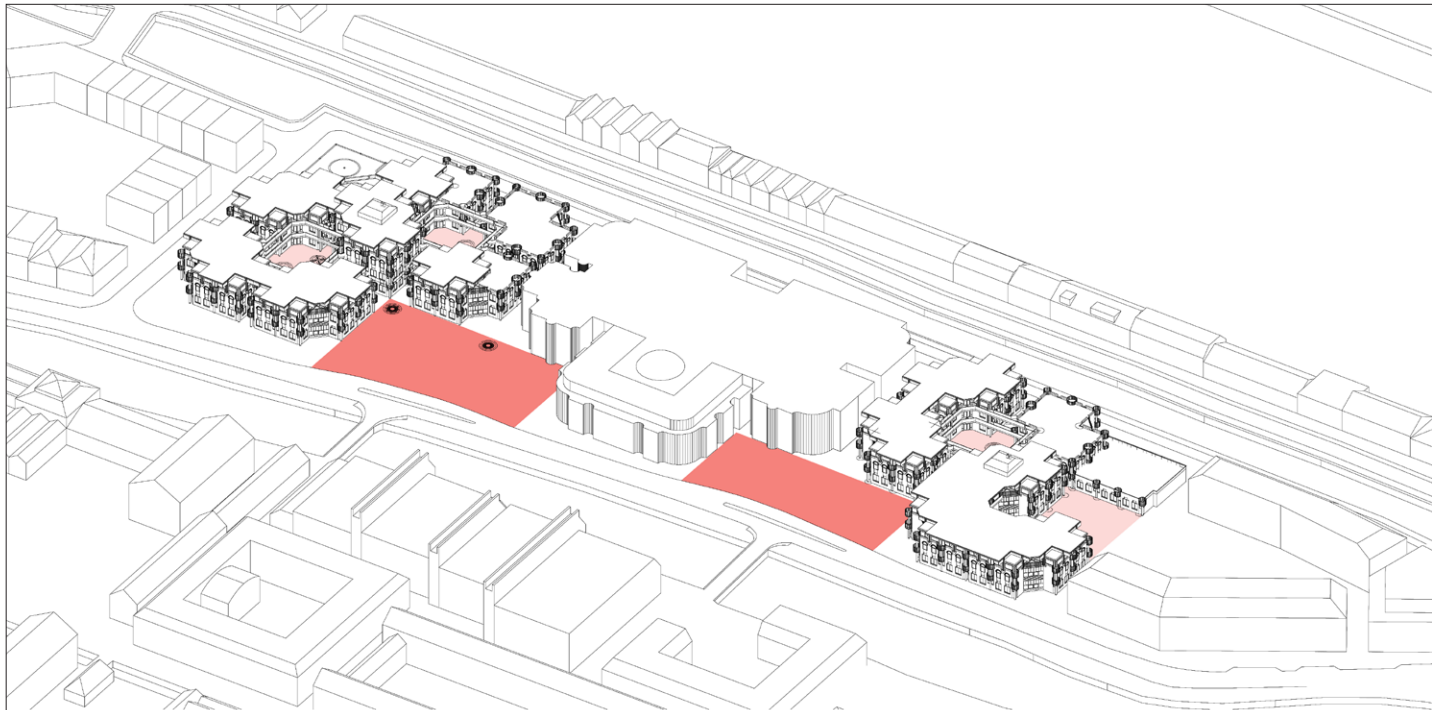
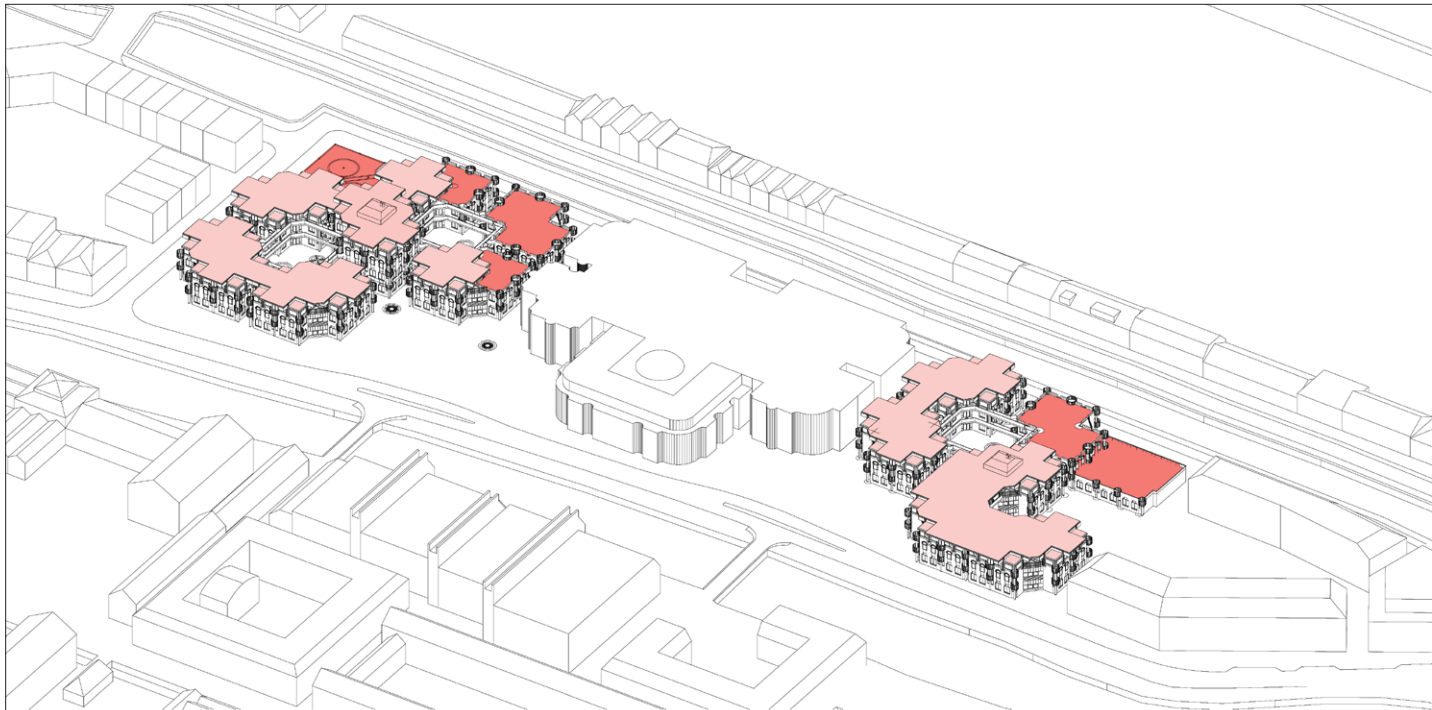
Connection Points Between Roof & Base

Looking at the building's form and especially the contrast between the heavy base with the light top storey, one can clearly see that there are hardly any points where the base with the top visually connect, creating a bold visual disconnection between the two volumes.

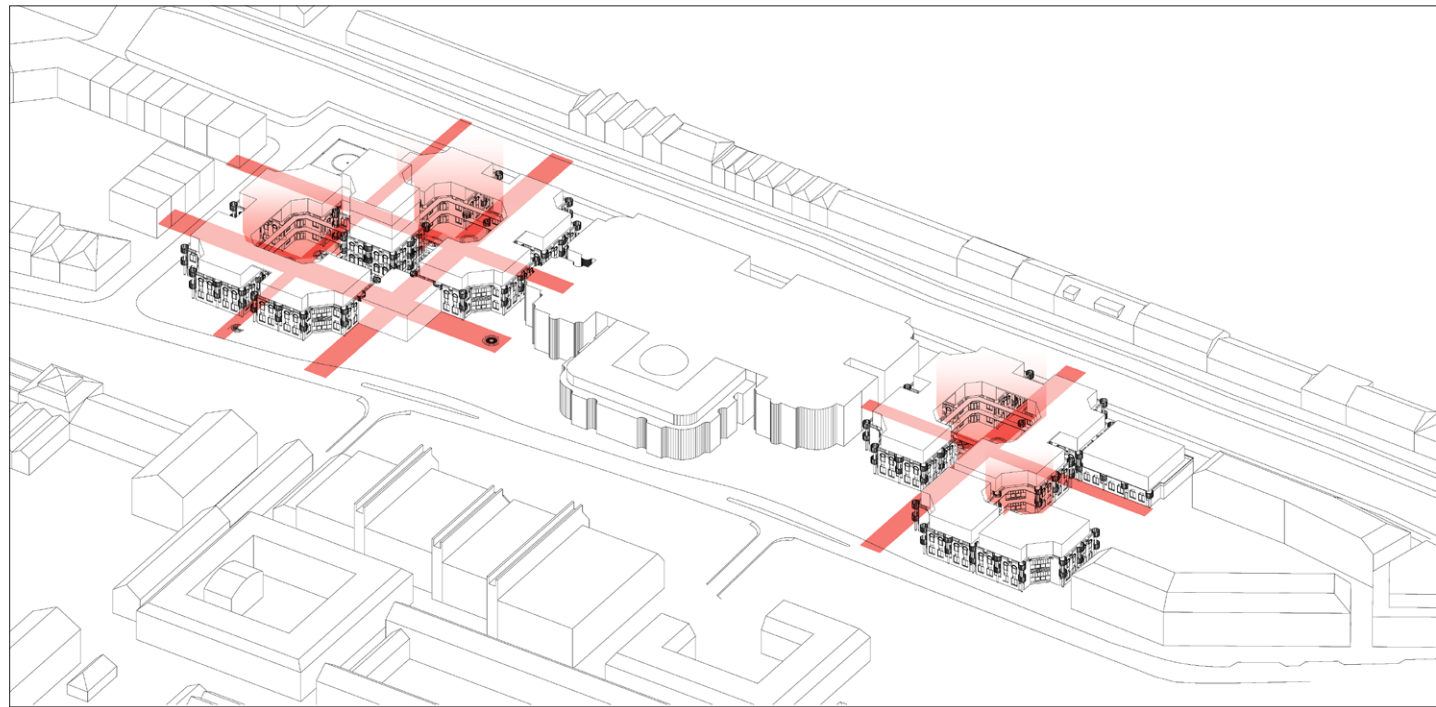
Public- Socializing Areas

As previously mentioned, social interaction is one of Structuralism's main aspects.

Looking at the diagram below one can clearly see that there are spaces provided by the architect aiming to stimulate human interaction. On the other hand, being there in person, the current quality of the spaces, and the absence of any sitting areas in the front squares, have resulted in empty spaces functioning as transition spaces and as bike parking, diminishing the architect's ambitions.







Axes & Courtyards

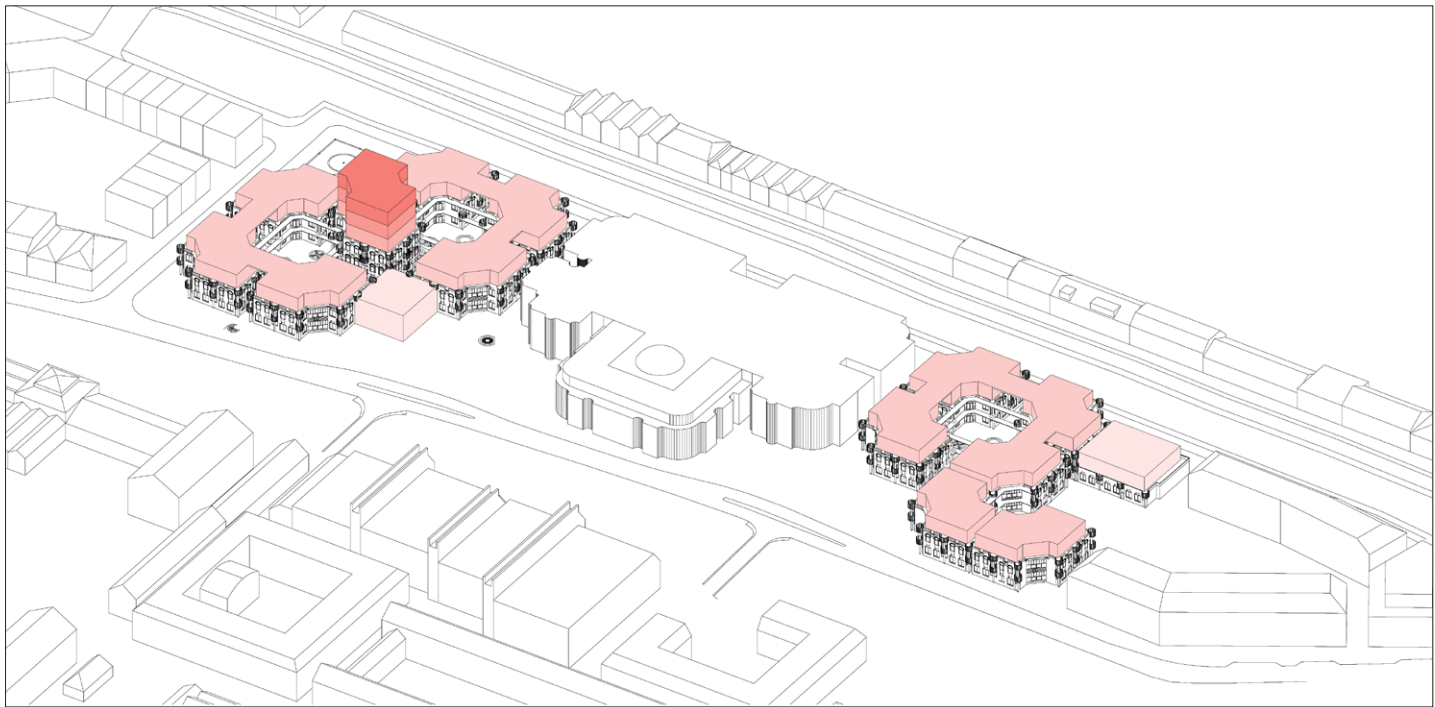
As we saw earlier, the axes and the courtyards are some of the architect's most significant design features, aiming to connect the building with its environment and create spaces that would function as socializing areas. Despite their significance they both do not function as they were intended to do.

Thus with my intervention I aim to re-connect the building to its immediate and wider context as well as maintain the courtyards and through my intervention make them functional again and create an environment that would stimulate social interactions.

Heavy Base- Light Top

Maintaining the architect's original idea of having a heavy brick base and a light capital, in my proposal I will conserve the original heavy brick façades and the concept of a light capital.

Aiming in highlighting the existing structure and the details on the façades, the intervention should be simple in order not to overshadow the existing composition.

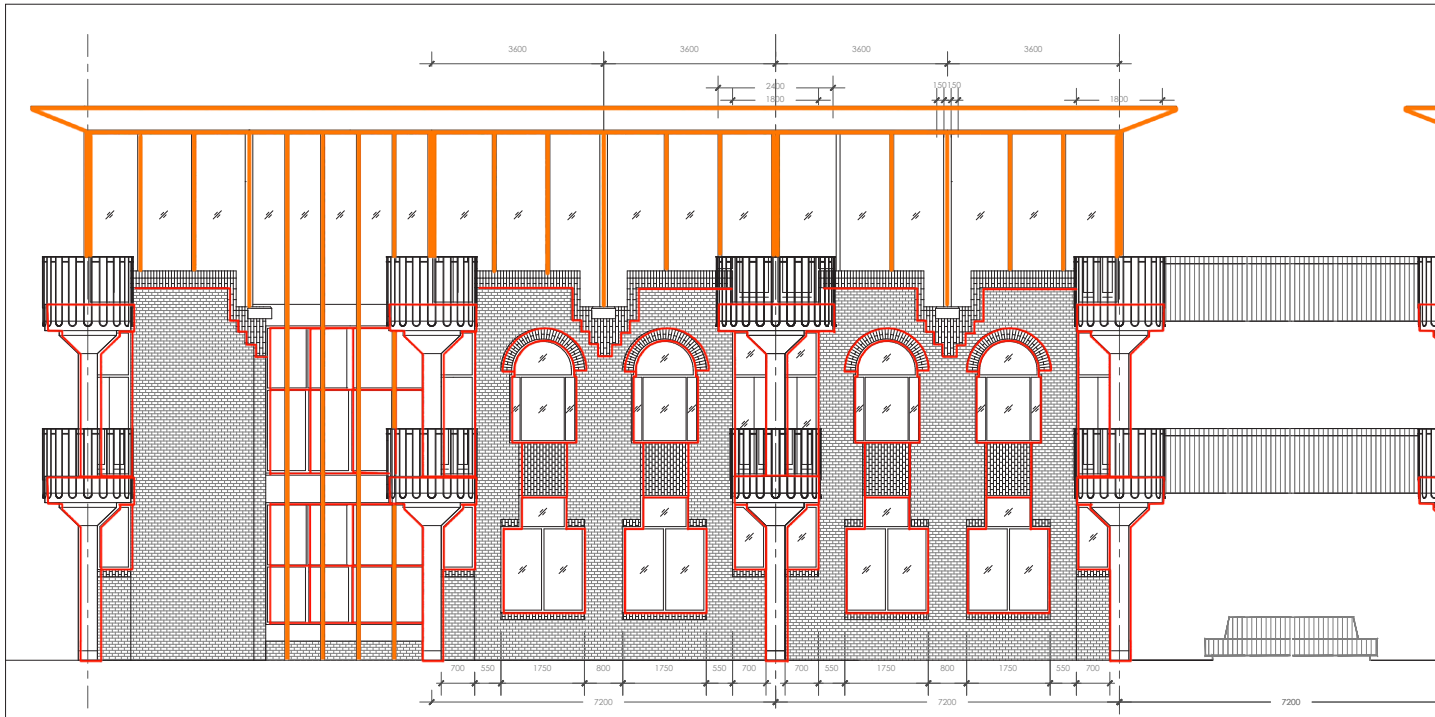
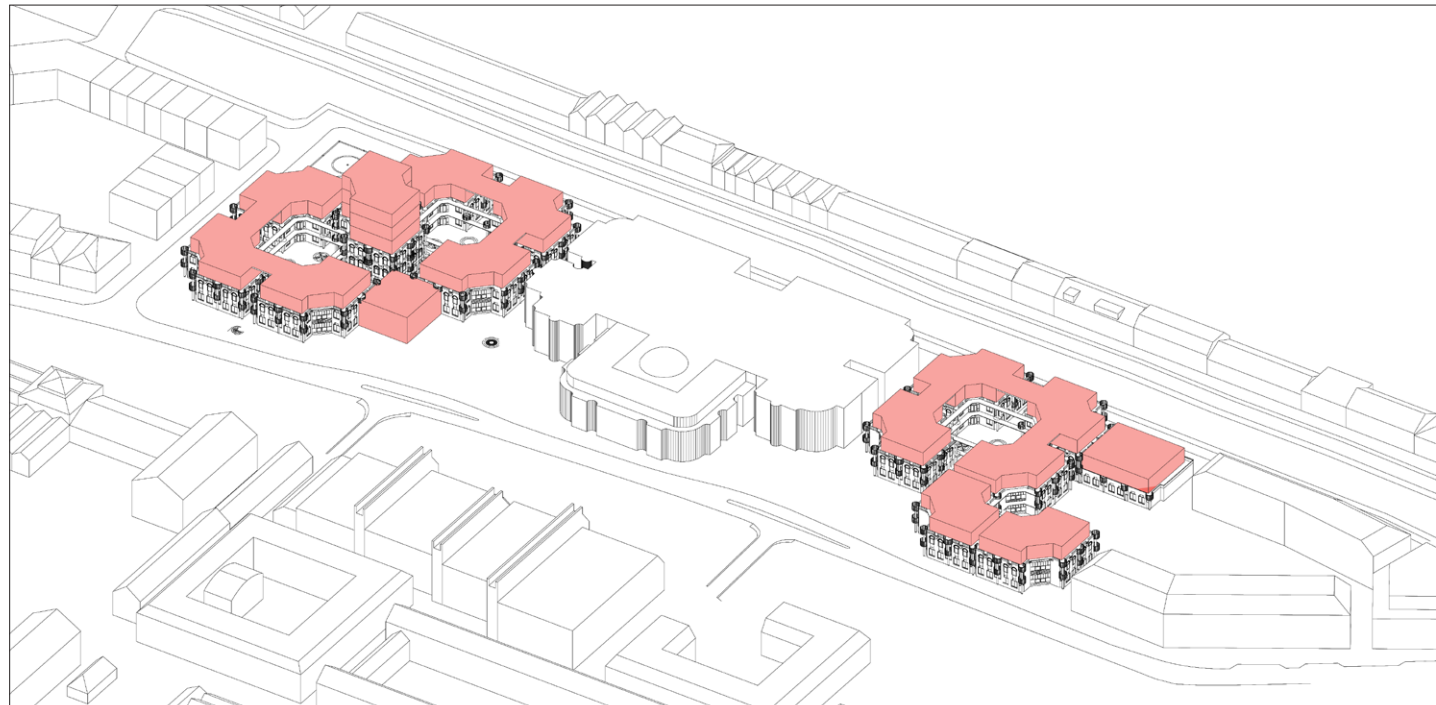


Stepping-Up - Hierarchy

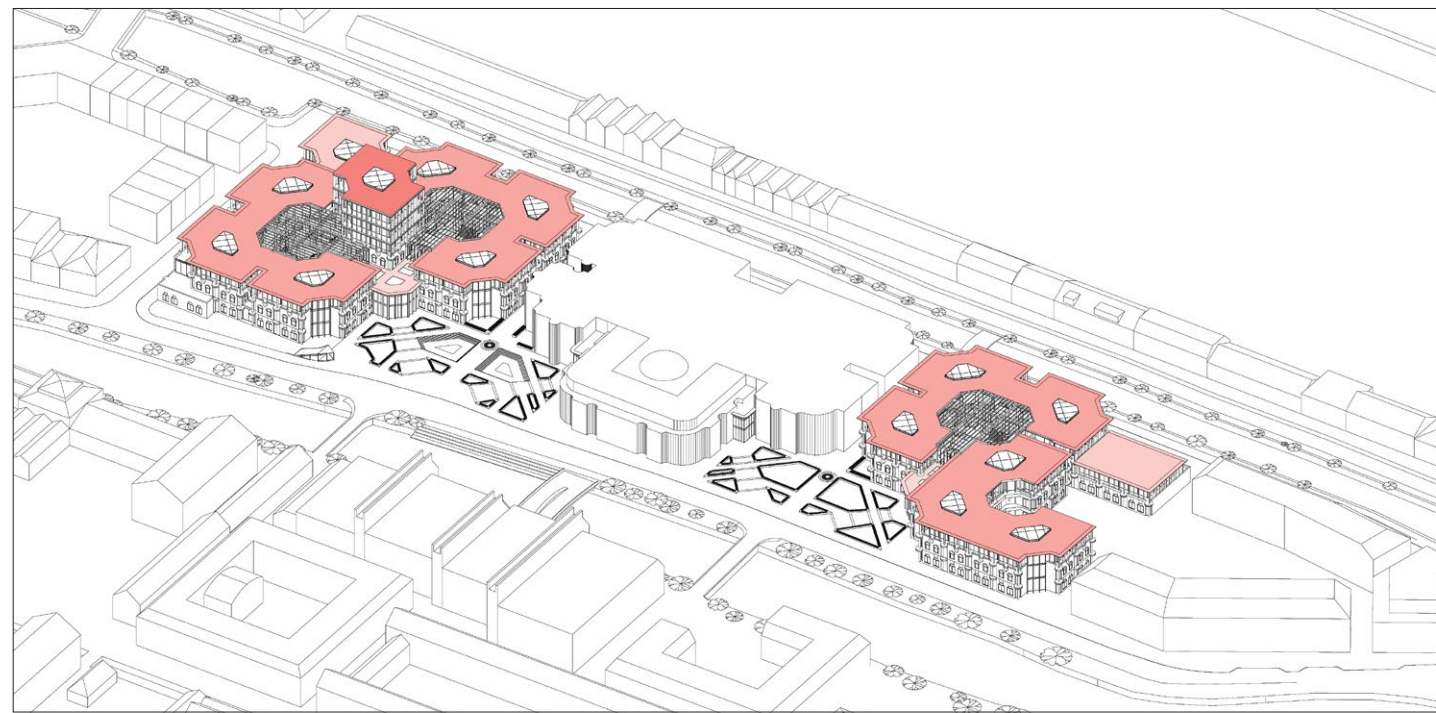
Engaging van Stigt's idea of the stepping-up volumes, and the concept of hierarchy and presence that he wanted to interpret in his design, my proposal's form should visualise this concept. In my opinion, the architect's proposal does not seem to fully accomplish the initial ambitions. Thus with my design I want to bring into reality the architect's original concept. This can be accomplished by making the stepping up and contrast between the brick walls and the intervention more visible but still on a respective manner.

Detailed Base- Simple Top

Studying the facade of the building and the relation between the brick base and the light top, one can identify many ornamentations and details that the architect has used. Though, because of the façades being too complicated, these details can be overlooked. Thus my aim with my intervention is to highlight the existing composition and detailed façades by simplify the façades using simple contemporary materials, without any ornamentations. With this way the historic structure will be revitalized and celebrated by the dialogue between history and present.





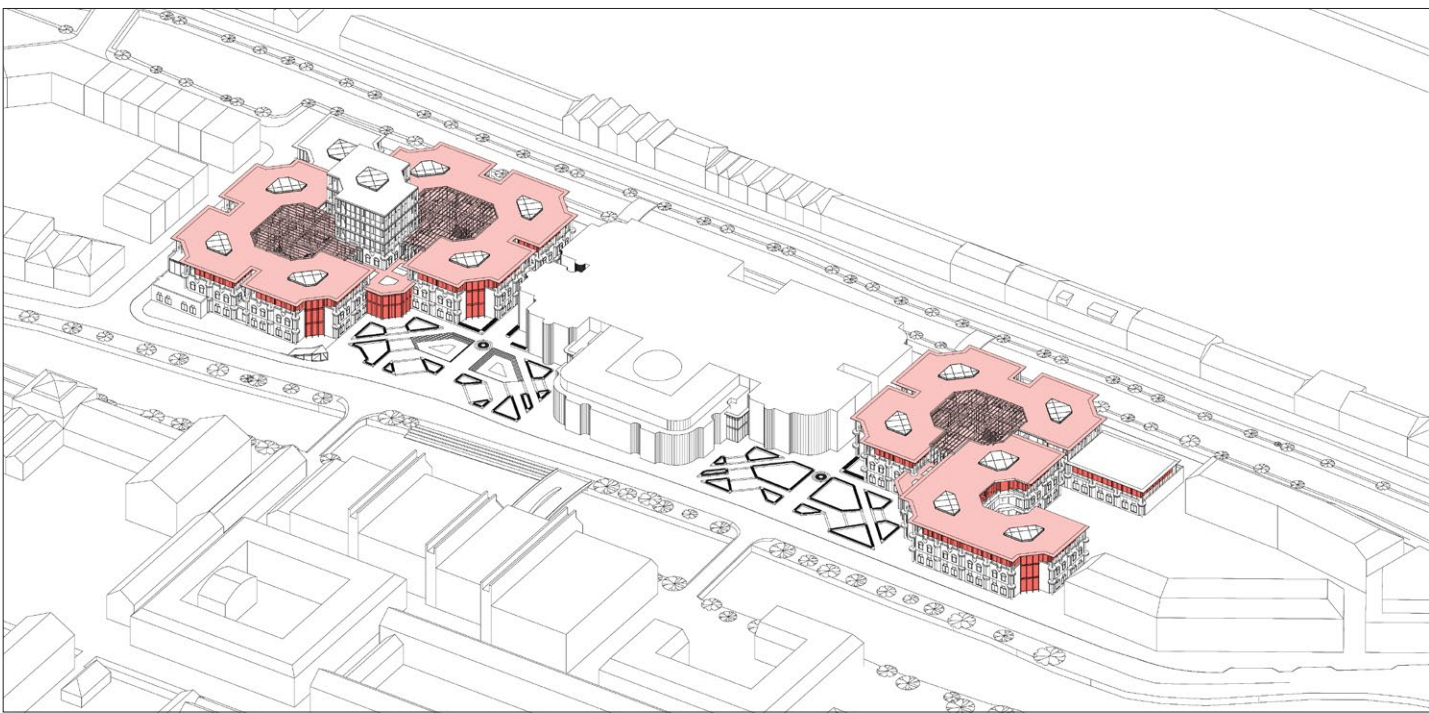


Roof Design- Disconnected

Considering the architect's aim to create units that function as one building, by introducing a new roof, of a similar shape to the original one, and this time connecting the individual roofs, would create stronger links between the volumes, allowing the building to function as one unit.

Structural Stability- Extension Possibilities

The architect's original consideration for future extension project, allow the addition of extra storeys and volumes on top and at the back of the existing building.



Connection Points Between Roof & Base

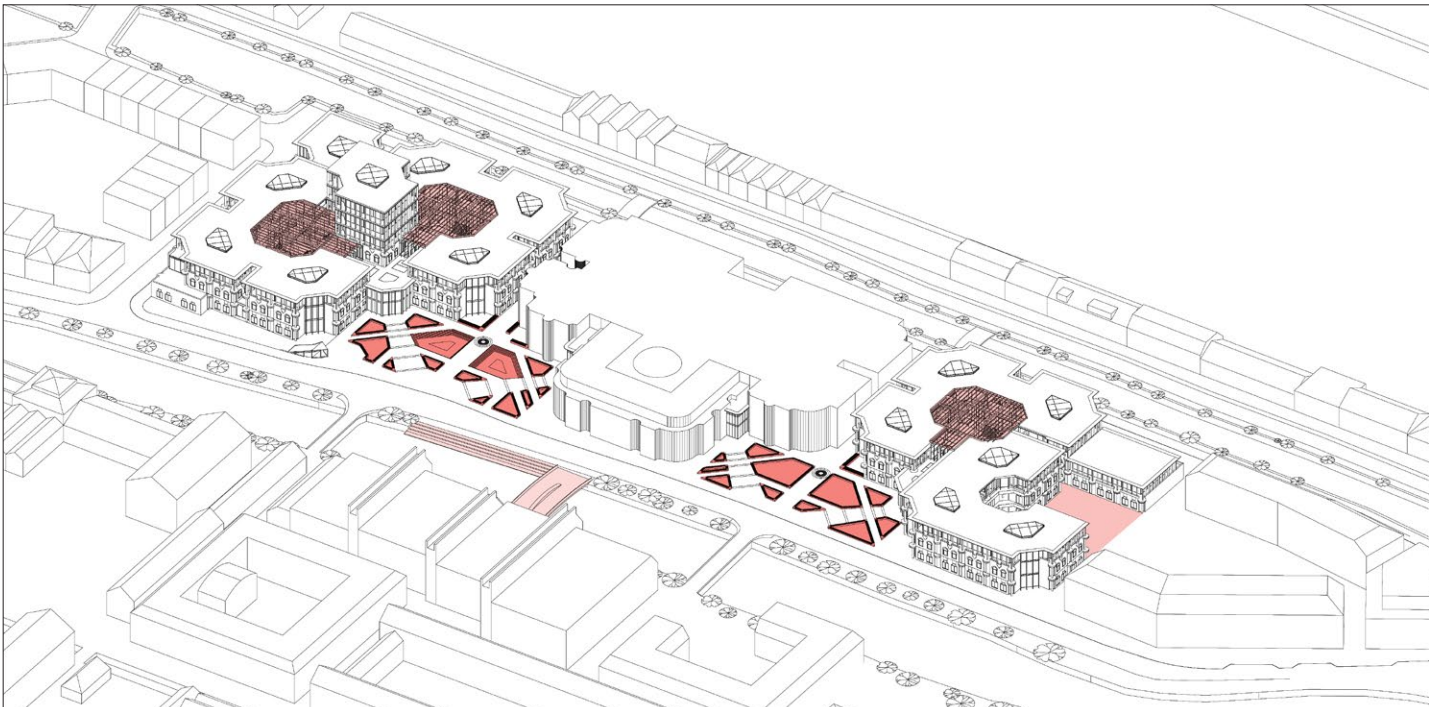
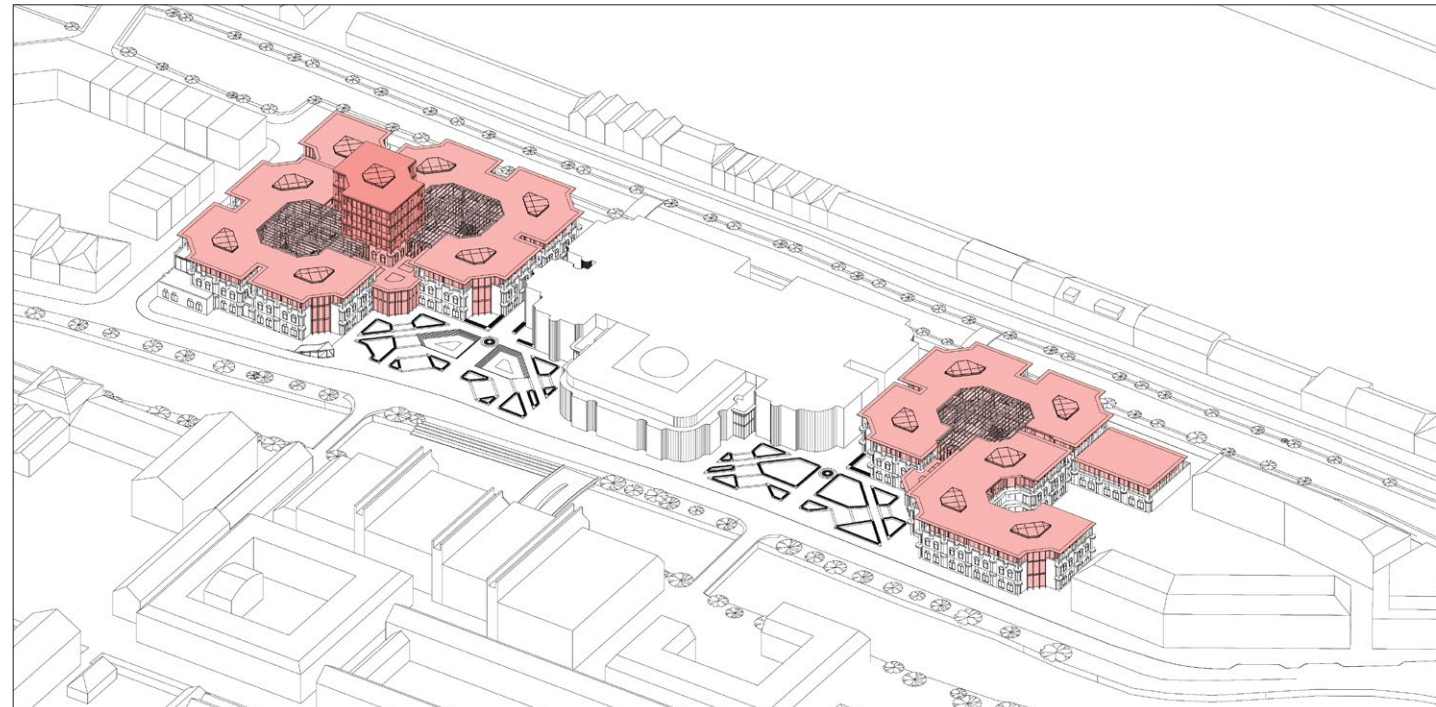
Although initially the heavy base and the light top storeys do not have many connection points, through my design my aim is to create stronger connection points between the two volumes and at the same time maintain the materiality and form contrast.

The combination of contrast with visual and symbolical connections, would highlight the existing buildings and at the same time make its presence stronger.

Public- Socializing Areas

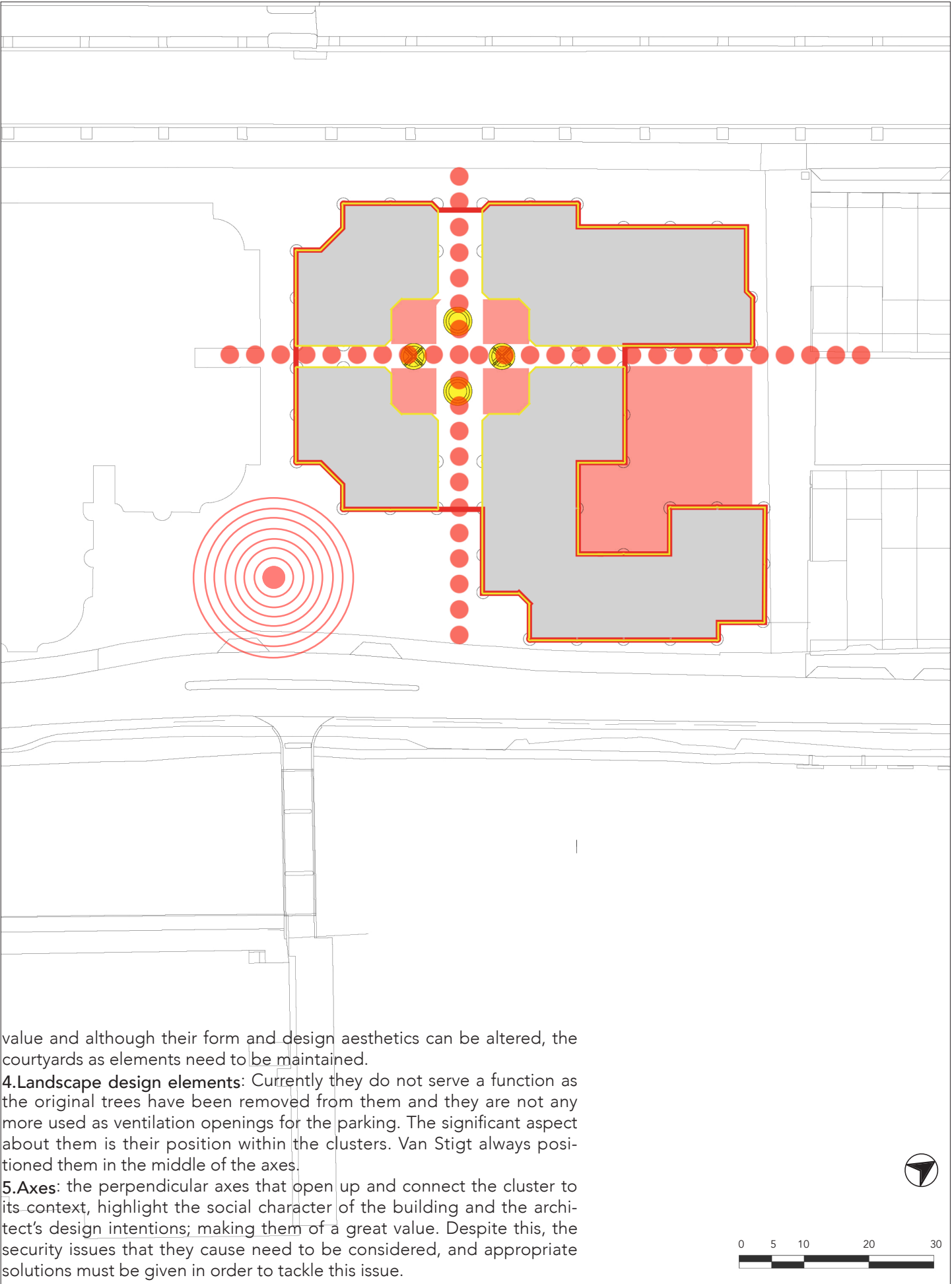
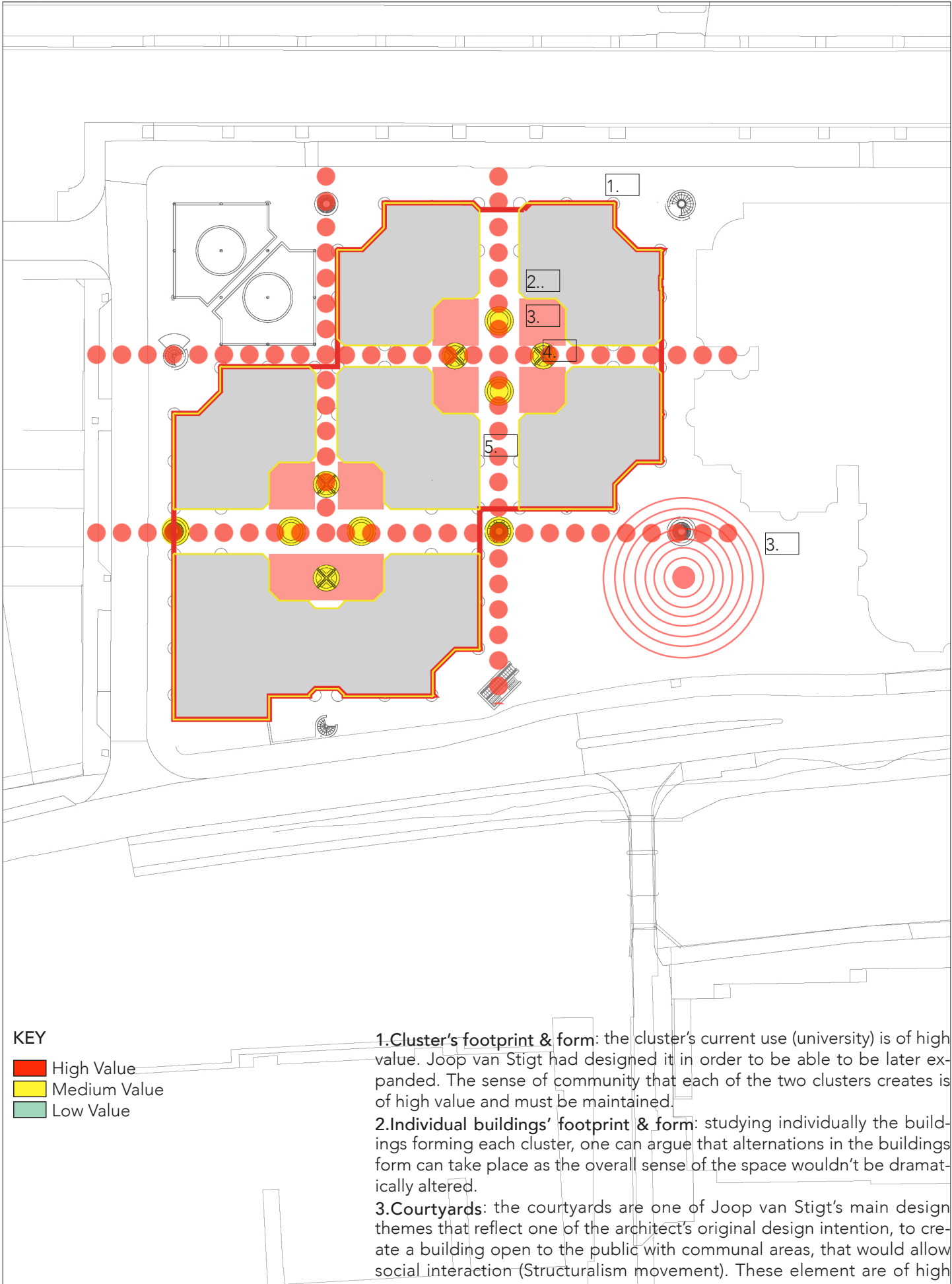
As the architect's ambition to create public spaces for the building's users, was never realised, my aim is to redesign those spaces and adapt them to current needs in order for the initial aims to finally be realised.

Closing of the courtyards, redesigning them as well as the front squares and finally introducing a bridge-deck for students to be able to sit are some key interventions that would create spaces with the potential to stimulate user's interaction.

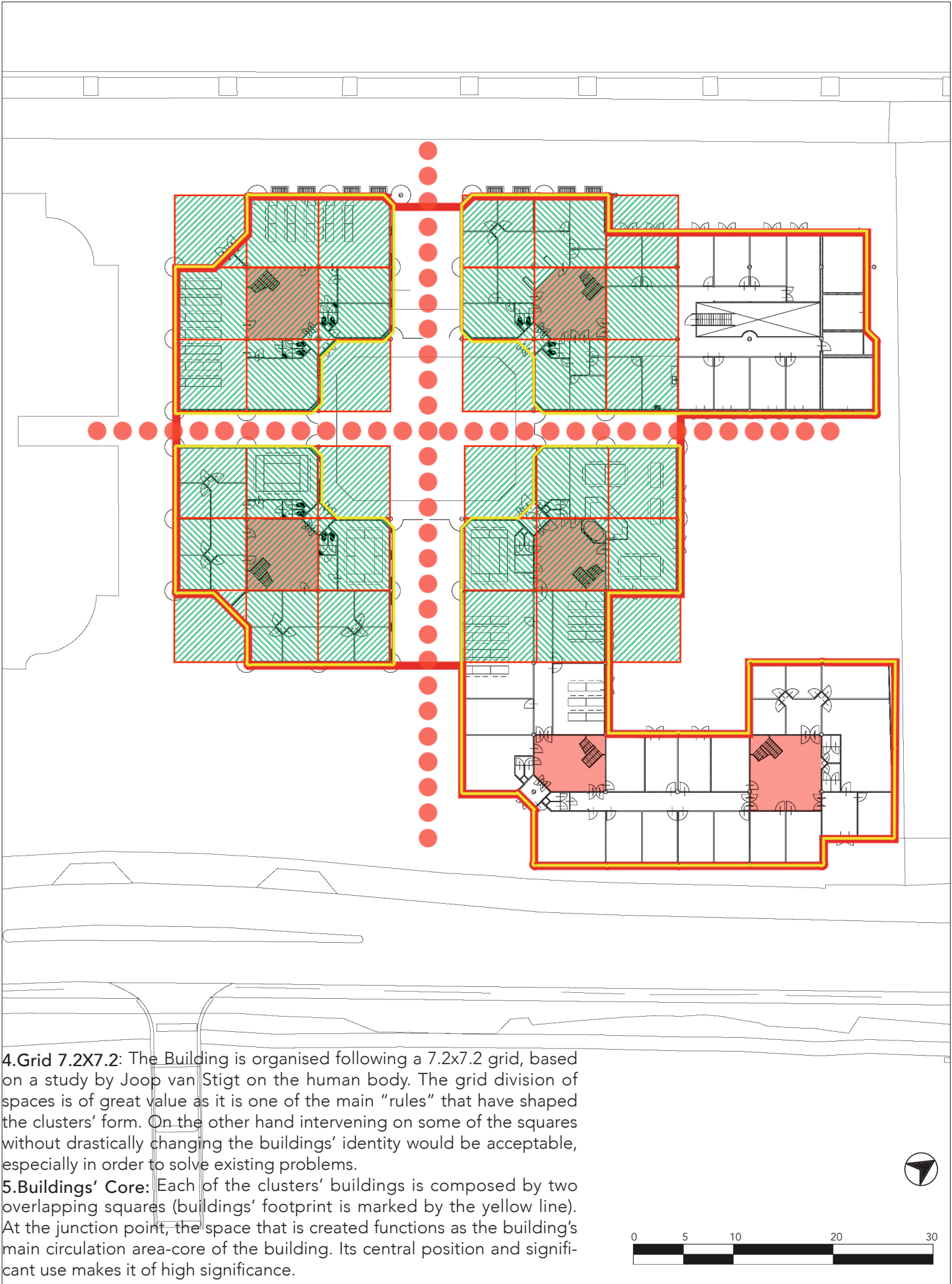
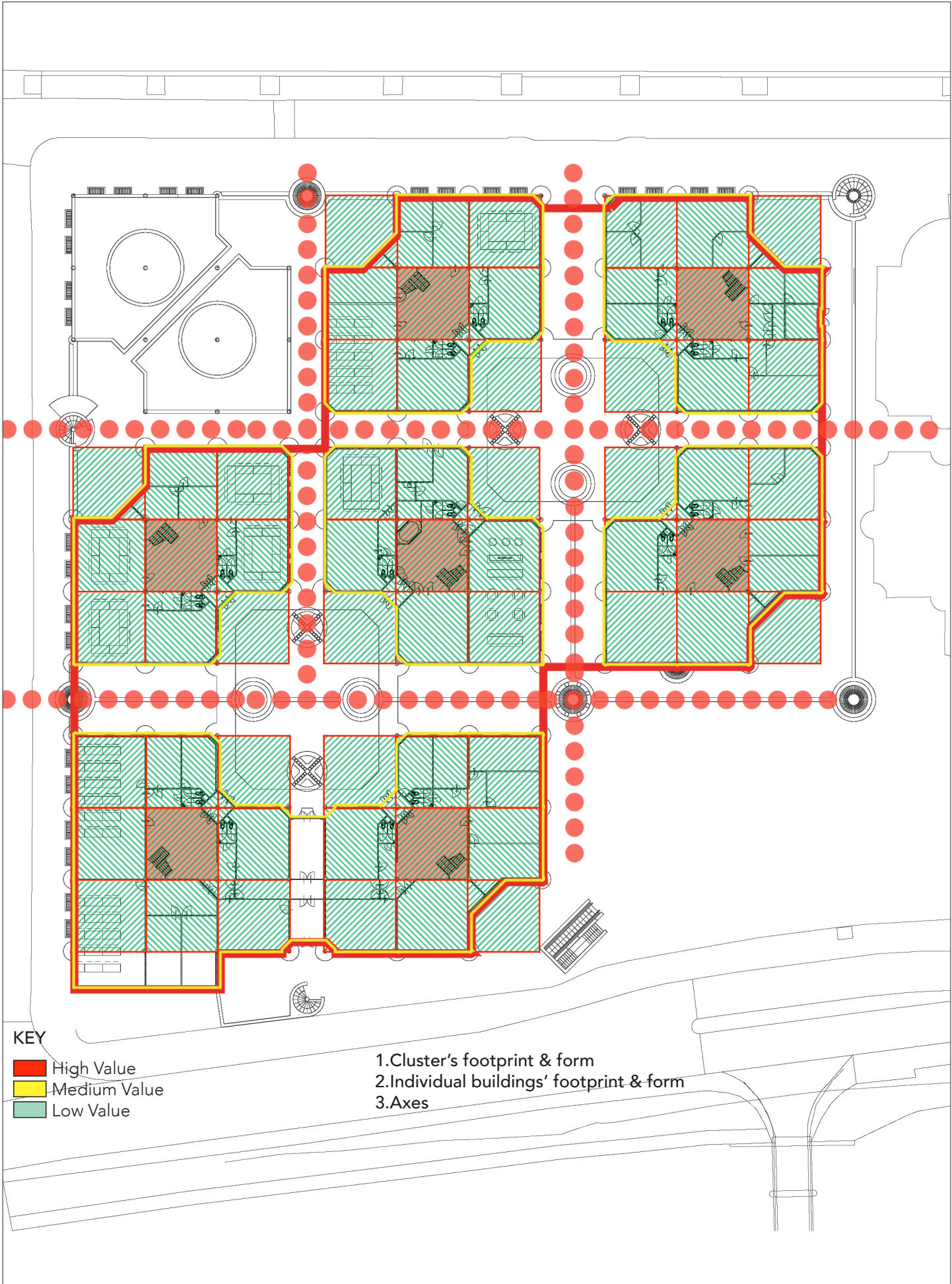


## Value Assessment

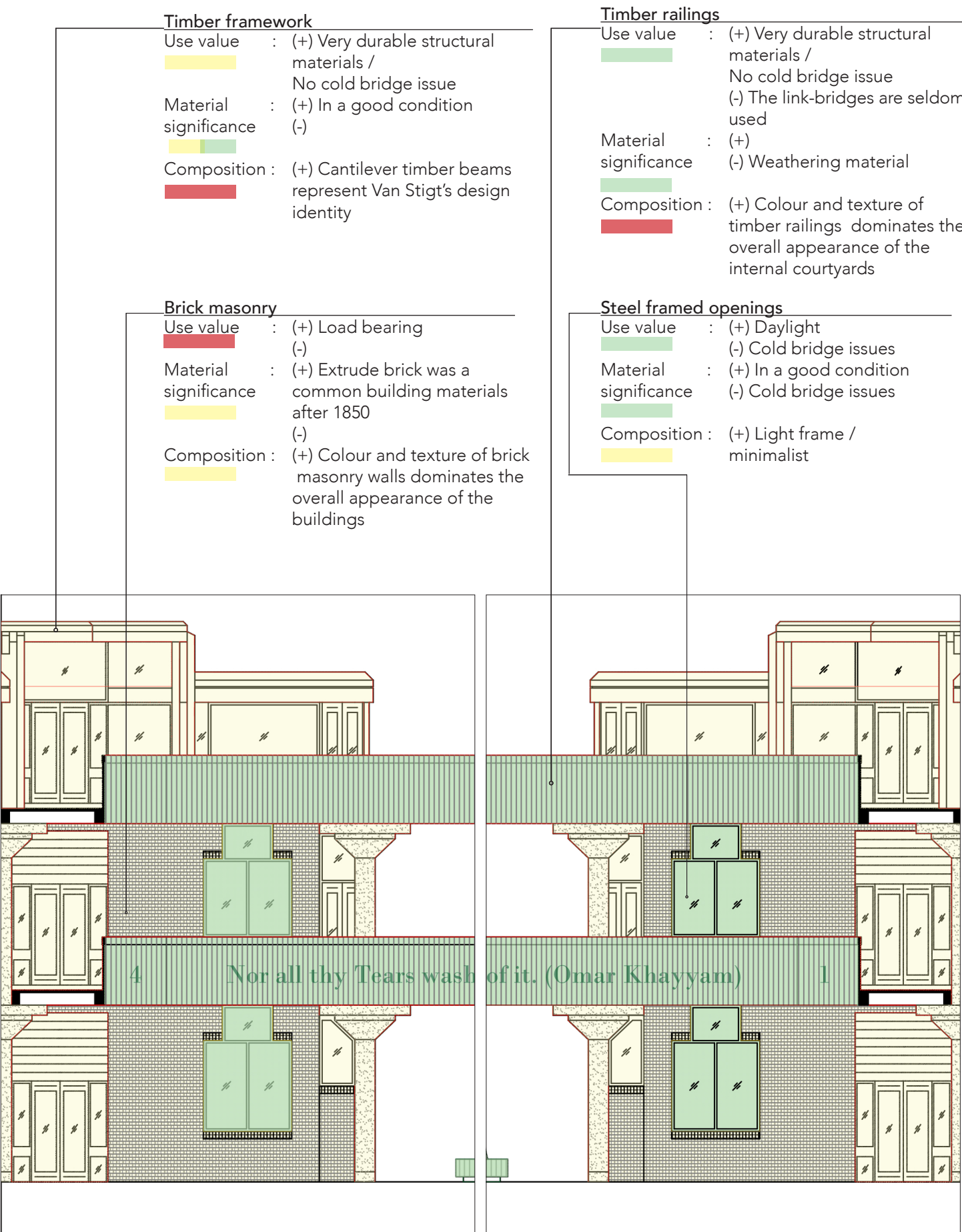
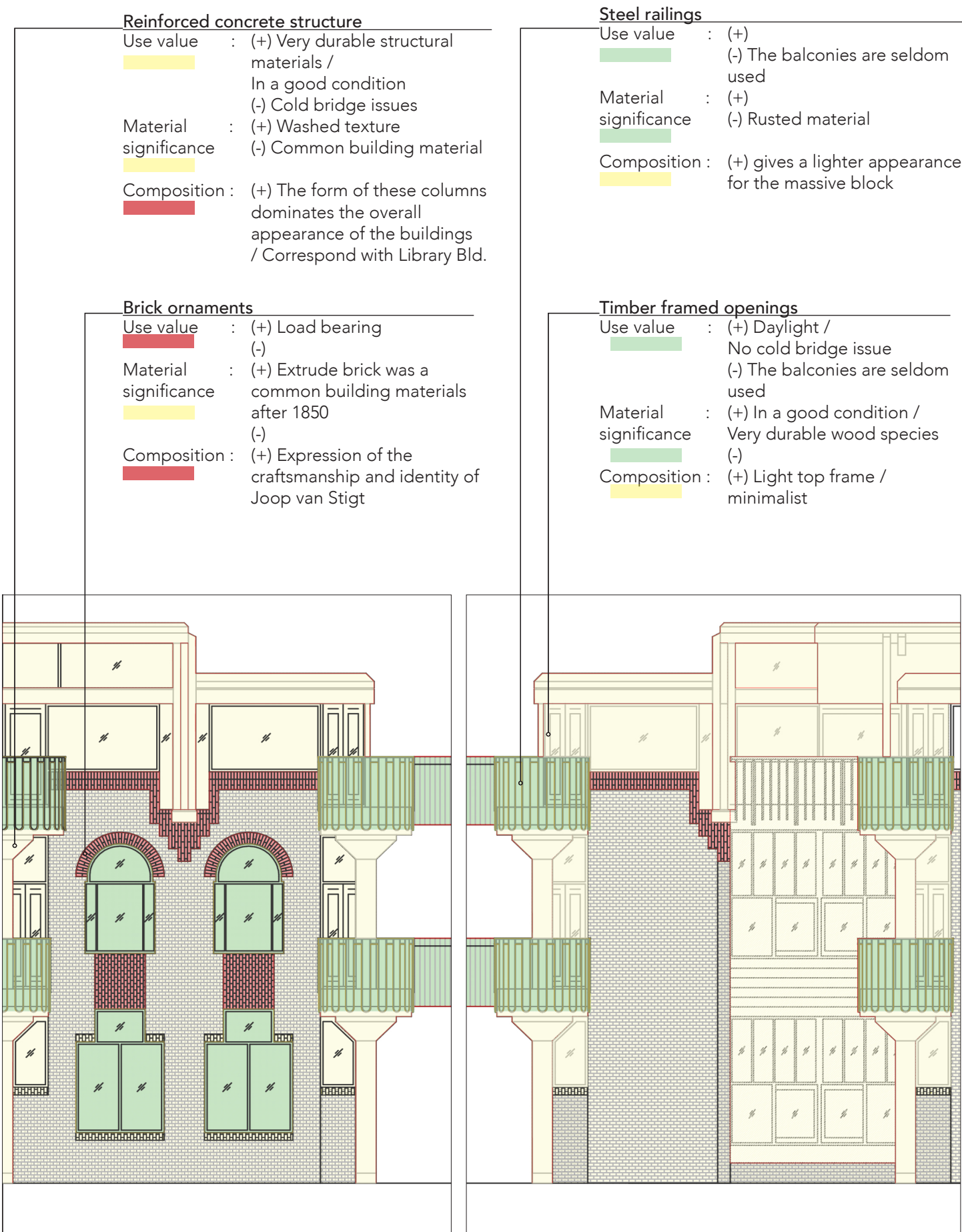


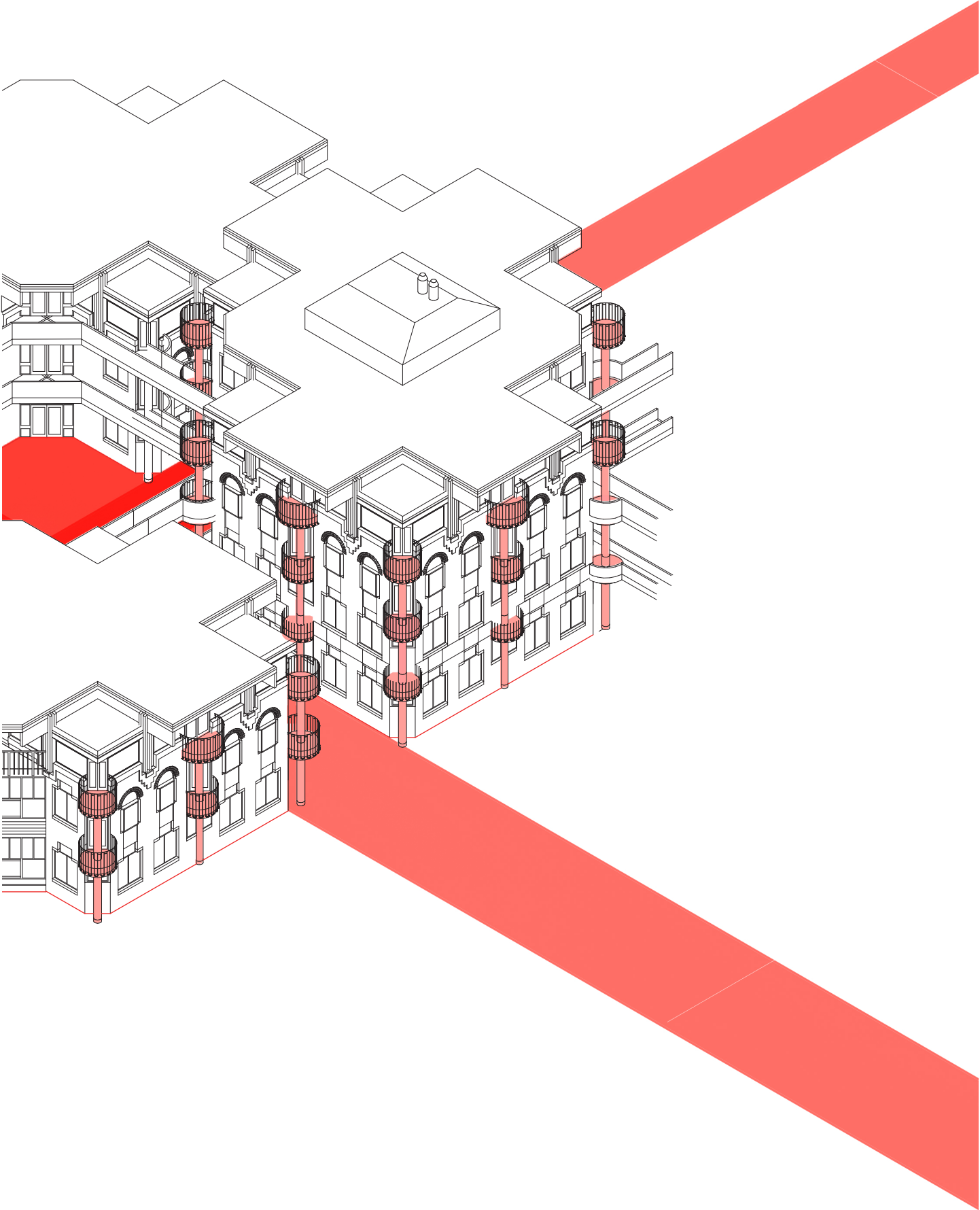






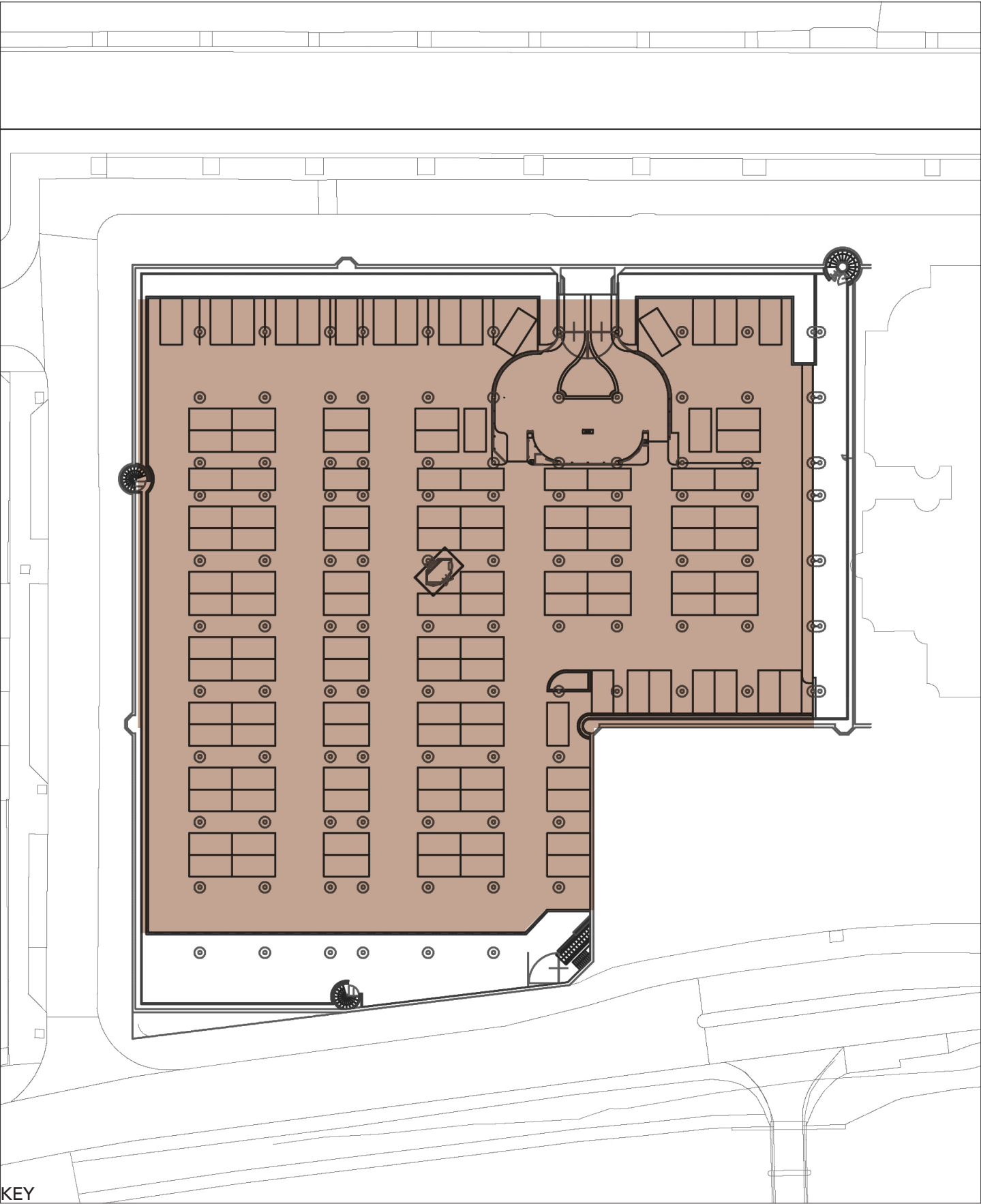






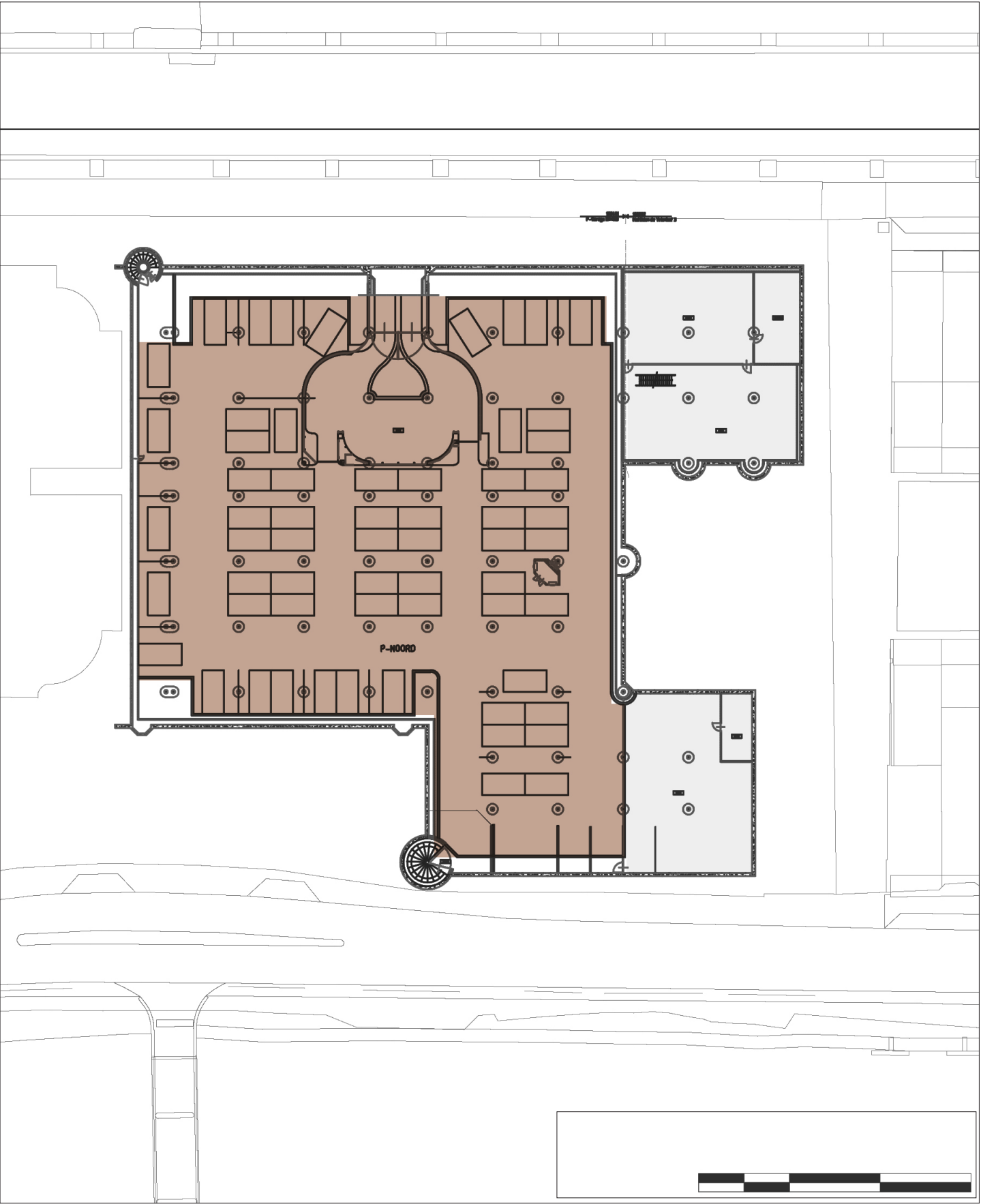
## Plan Analysis & Transformation Framework



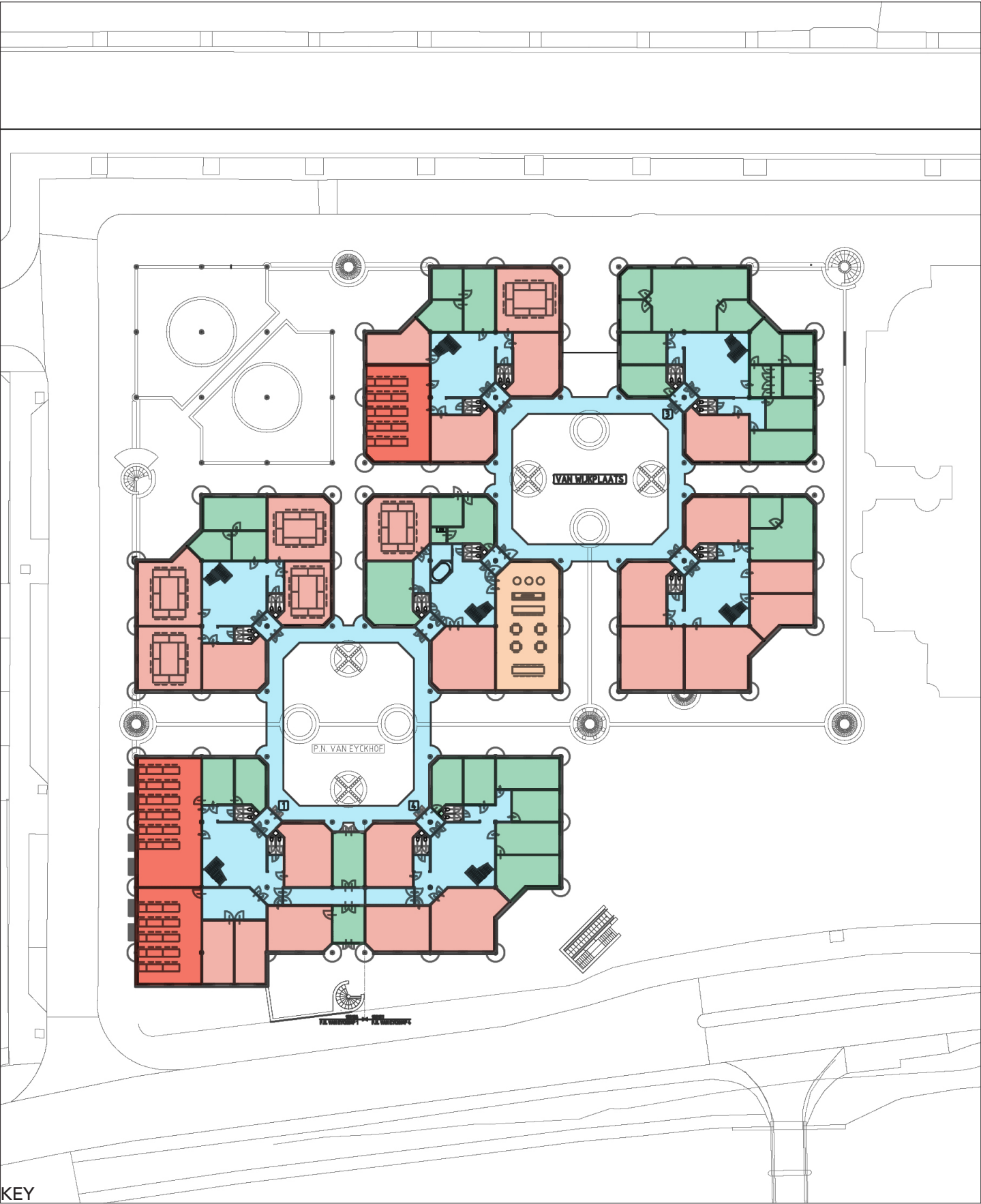


KEY

- |                         |                         |
|-------------------------|-------------------------|
| Circulation Space       | Meeting Rooms           |
| Office Spaces           | Public Spaces- eg. Cafe |
| Lecture Theatres        | Parking Space           |
| Teaching Spaces         | Other                   |
| Individual Study Spaces |                         |

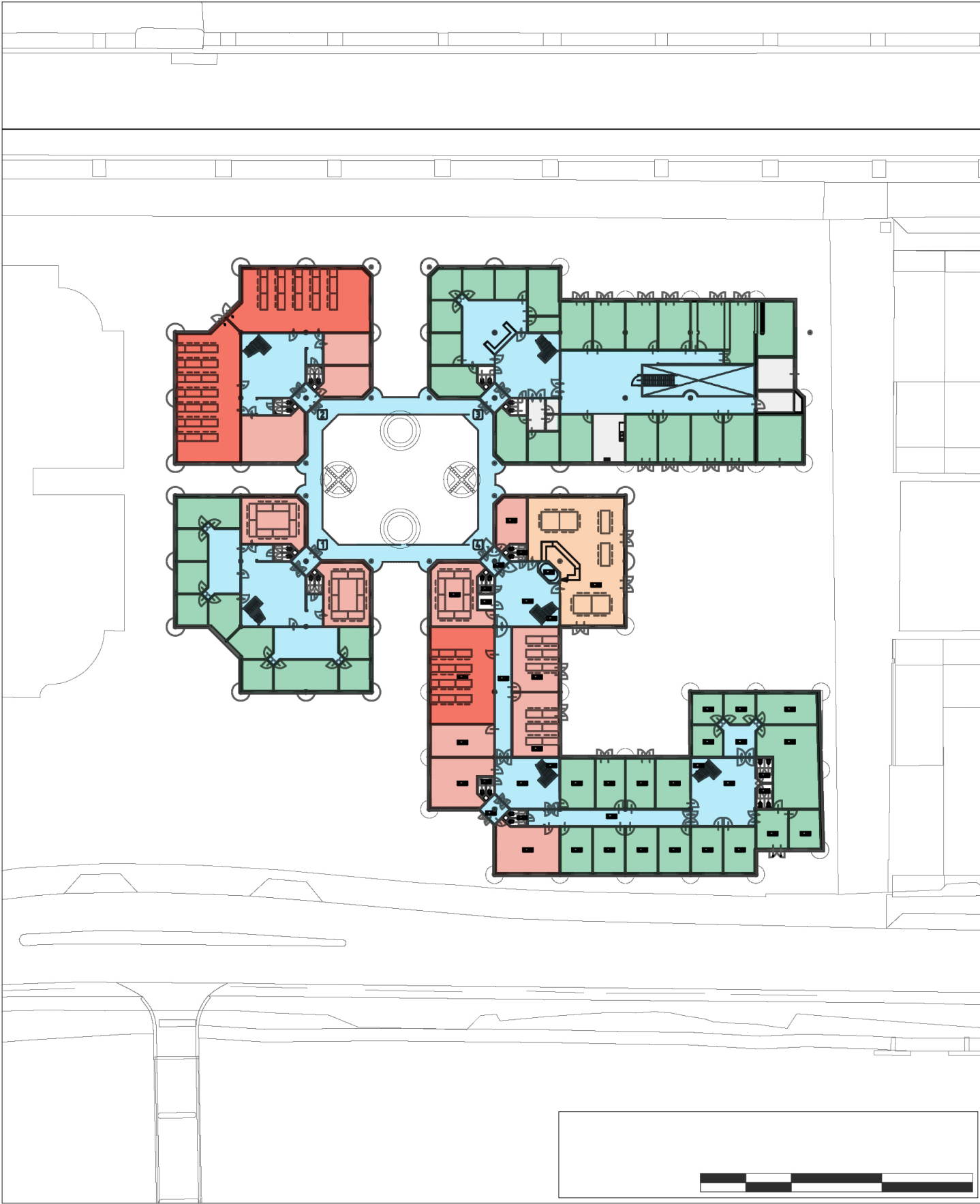


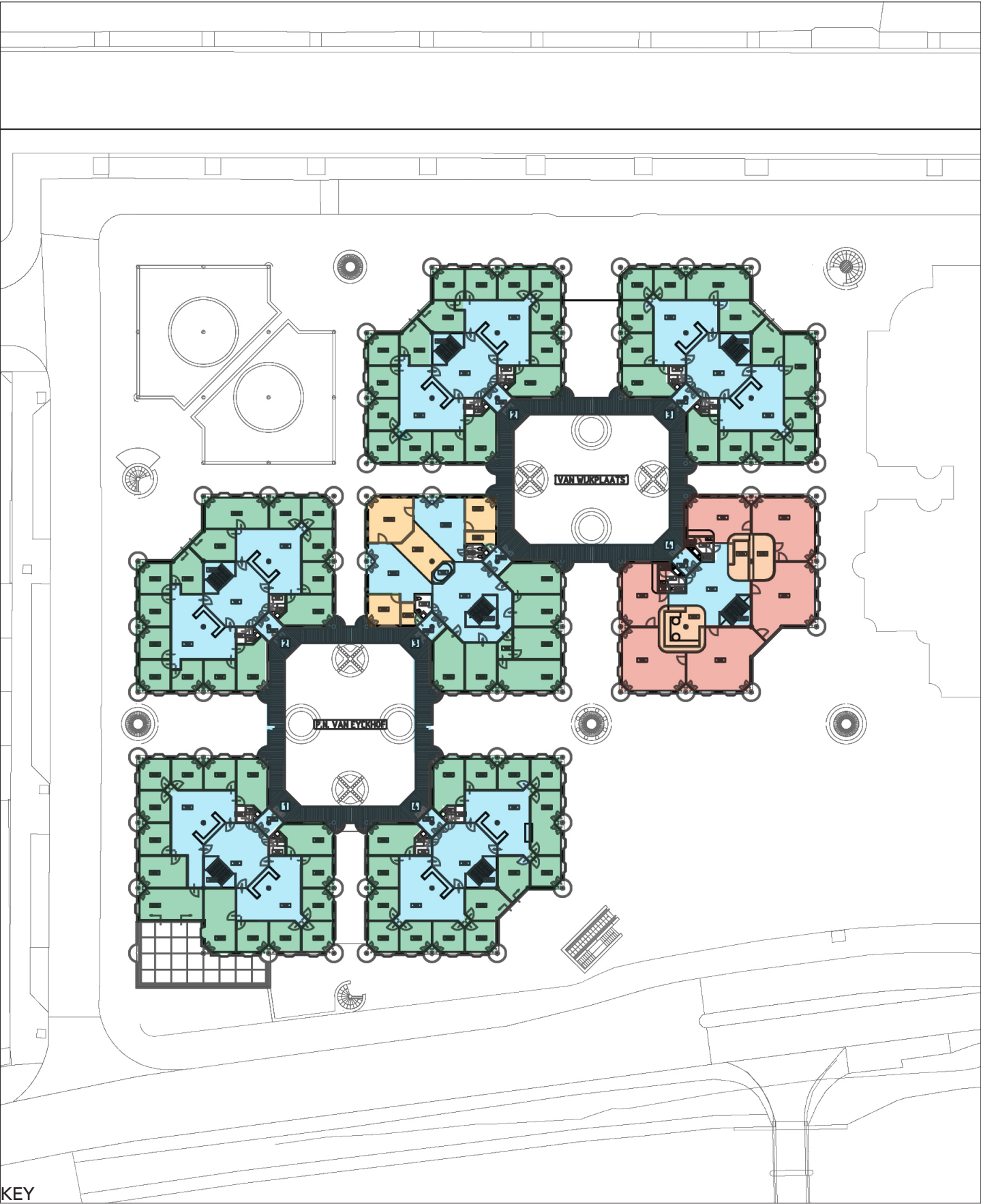




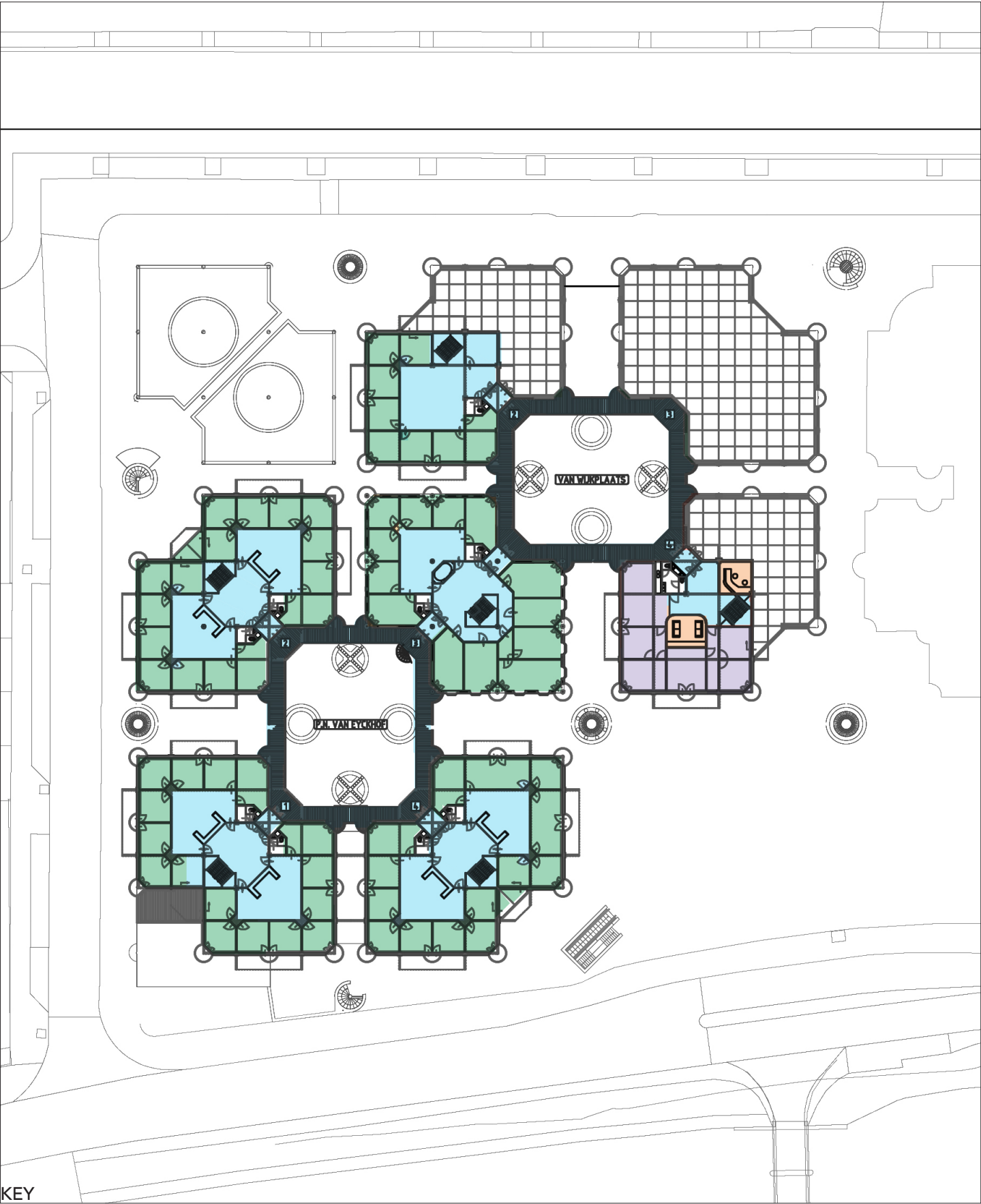
KEY

- |                         |                         |
|-------------------------|-------------------------|
| Circulation Space       | Meeting Rooms           |
| Office Spaces           | Public Spaces- eg. Cafe |
| Lecture Theatres        | Parking Space           |
| Teaching Spaces         | Other                   |
| Individual Study Spaces |                         |



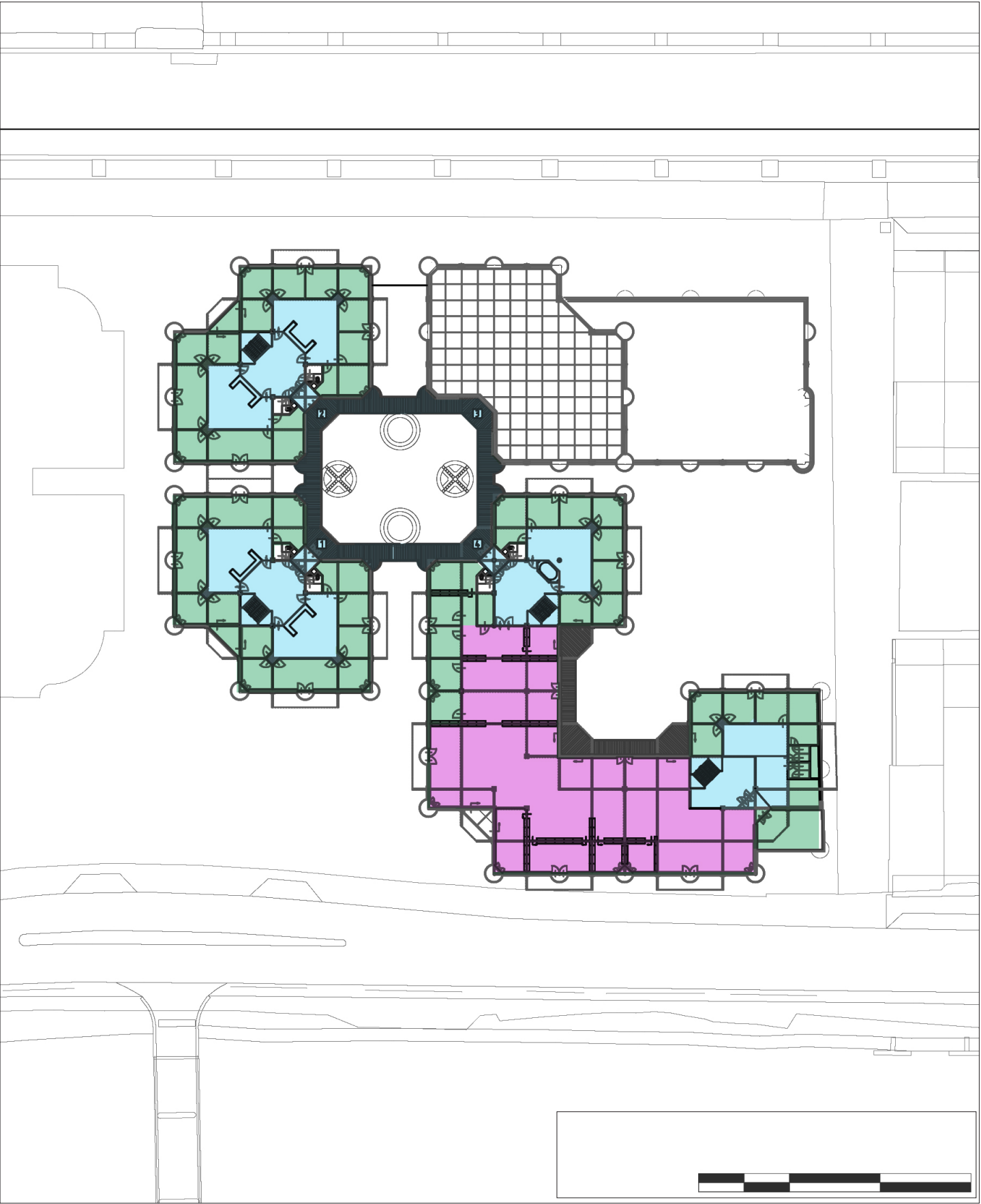






KEY

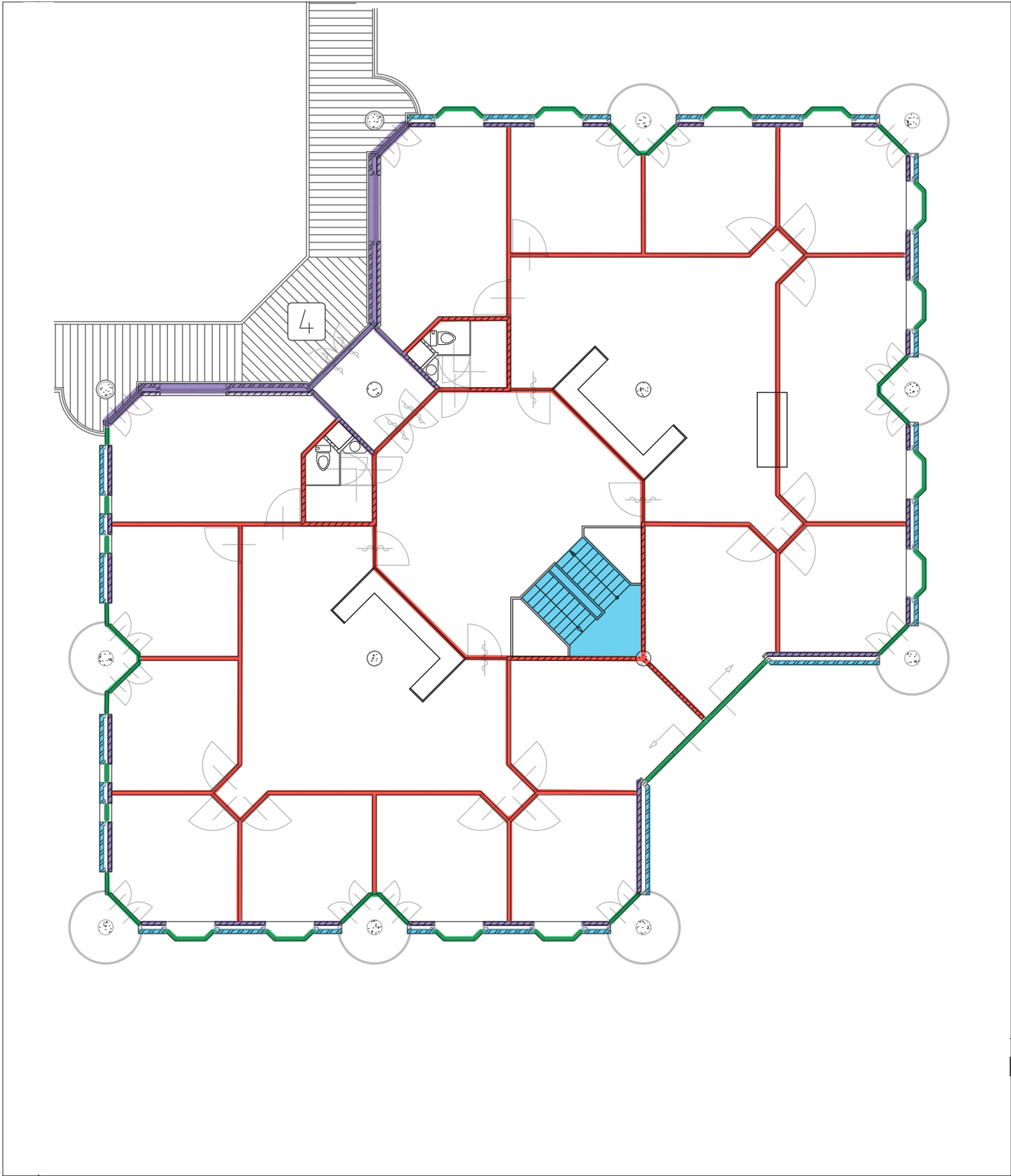
- |                         |                         |
|-------------------------|-------------------------|
| Circulation Space       | Meeting Rooms           |
| Office Spaces           | Public Spaces- eg. Cafe |
| Lecture Theatres        | Parking Space           |
| Teaching Spaces         | Other                   |
| Individual Study Spaces |                         |



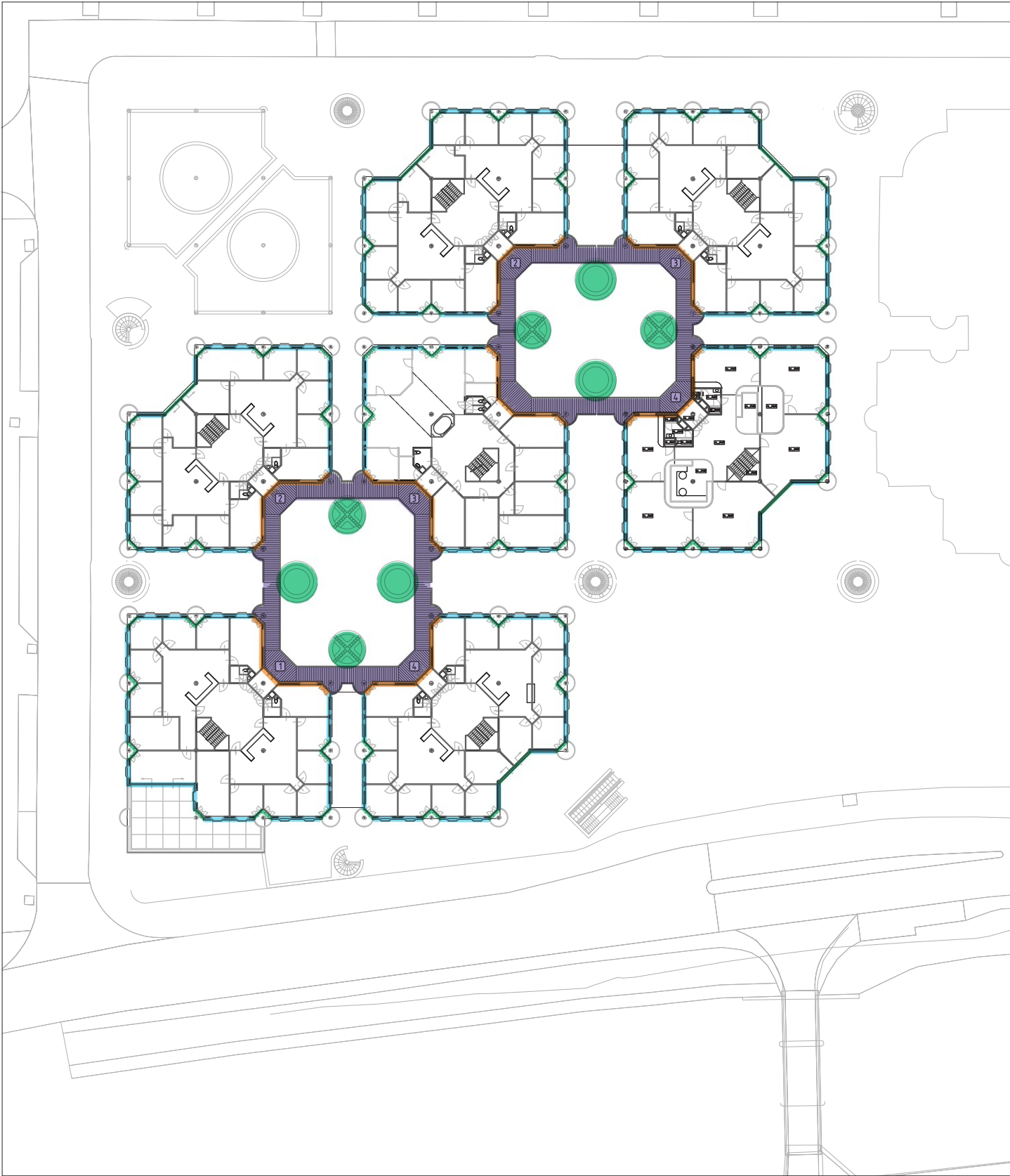
Total Sq. meters (15.500 sq.m.)

Lecture Theatres & Teaching Spaces: 1100 sq.m. 6.8%  
Office Spaces: 9.700 sq.m. 58%  
Library: 870 sq.m. 5.6%

Meeting Room: 400 sq.m. 2.5%  
Public Spaces: 600 sq.m. 4%  
Circulation Space: 3.200 sq.m. 19.6%  
Utility Spaces: 450 sq.m. 2.9%  
Other: 400 sq.m. 2.6%

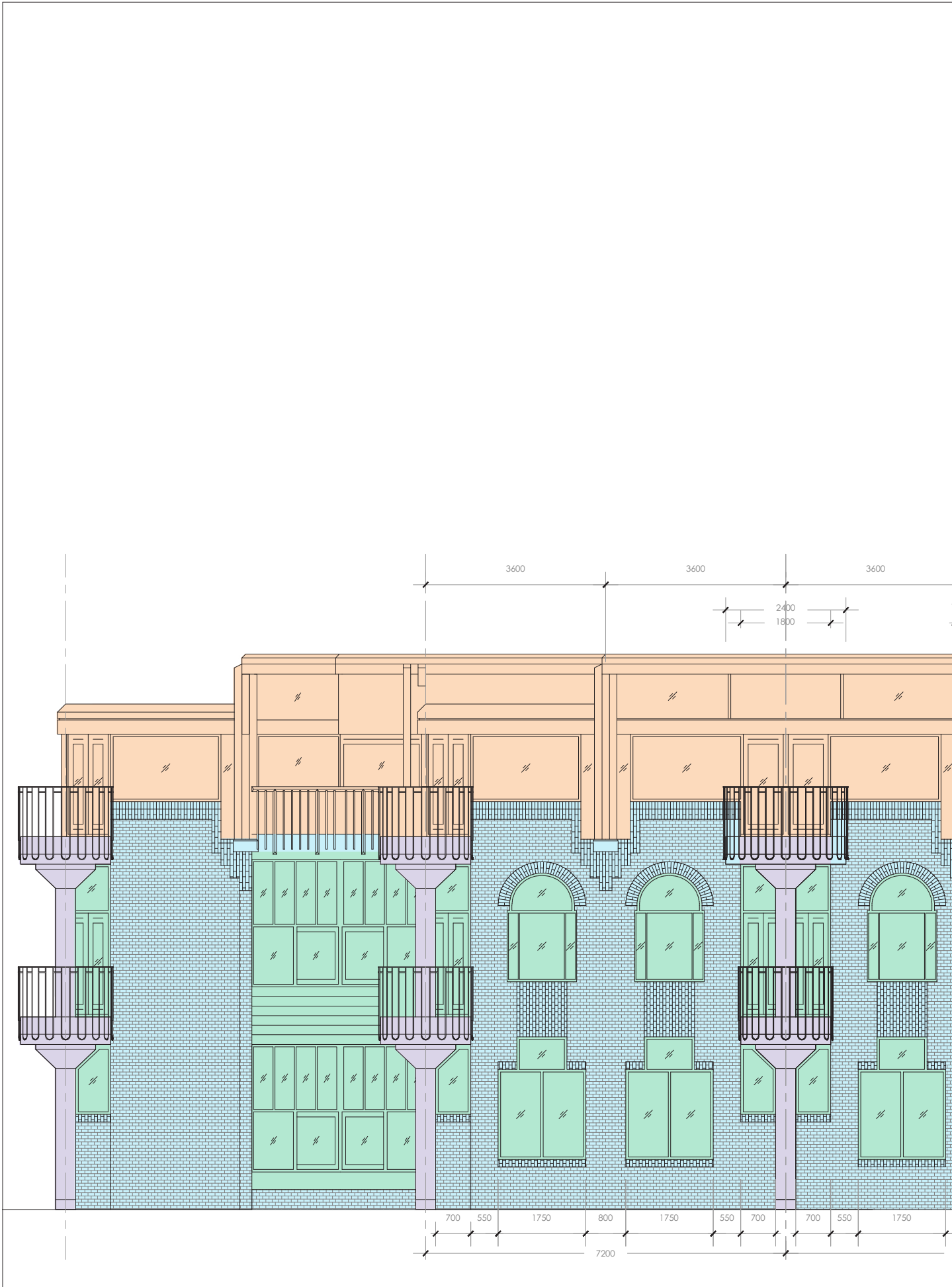


- KEY
- Preserve
  - Replace Materials
  - Demolish
  - Renovate- Change materials-finishes
  - Possibility for removal and alternation

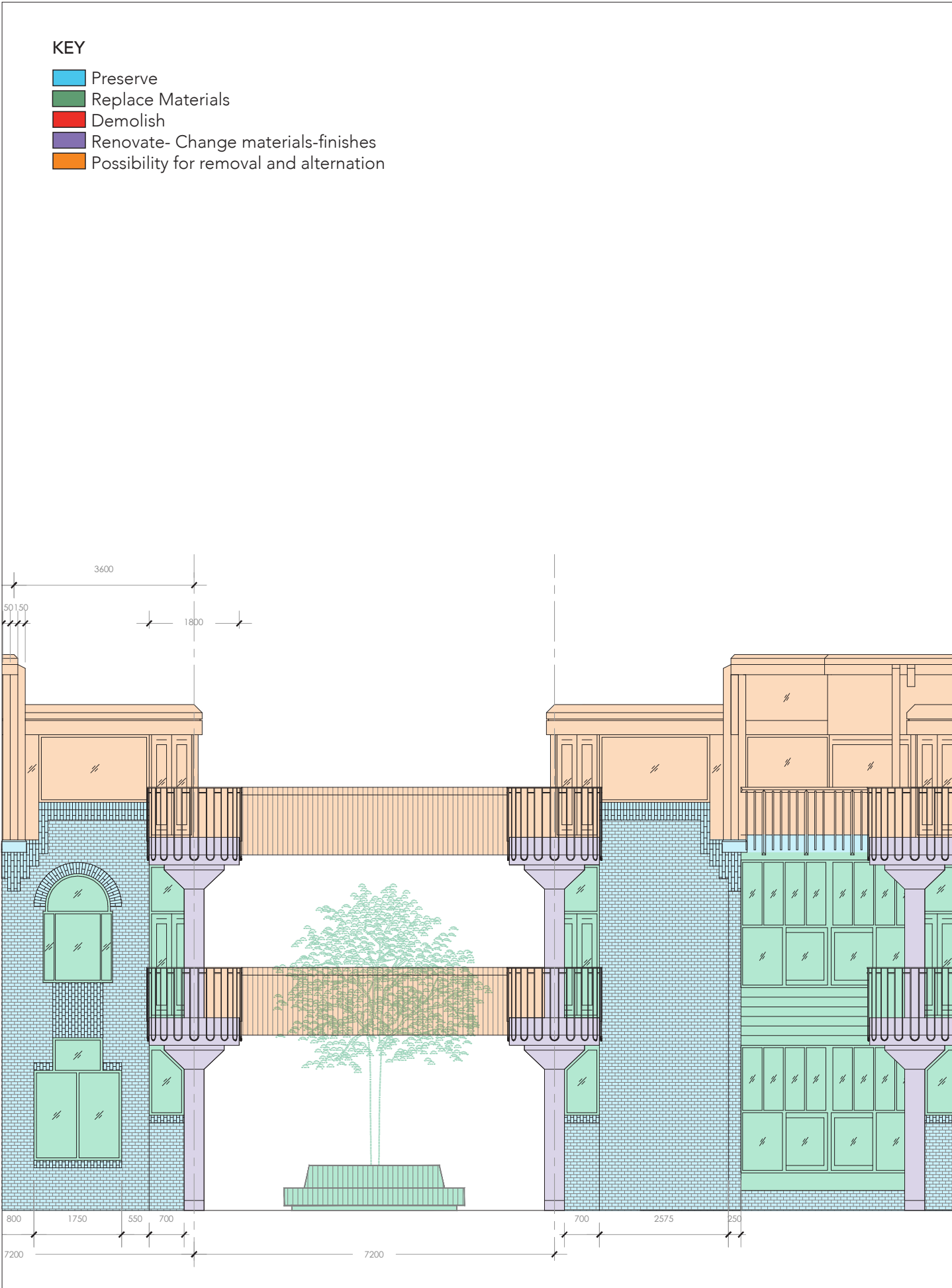


- KEY
- Preserve
  - Replace Materials
  - Demolish
  - Renovate- Change materials-finishes
  - Possibility for removal and alternation





73.



74.

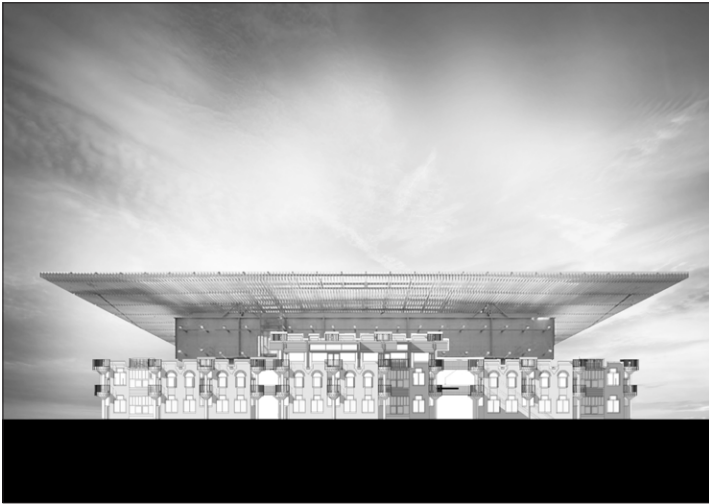
## Form Study & Precedent Experimentation



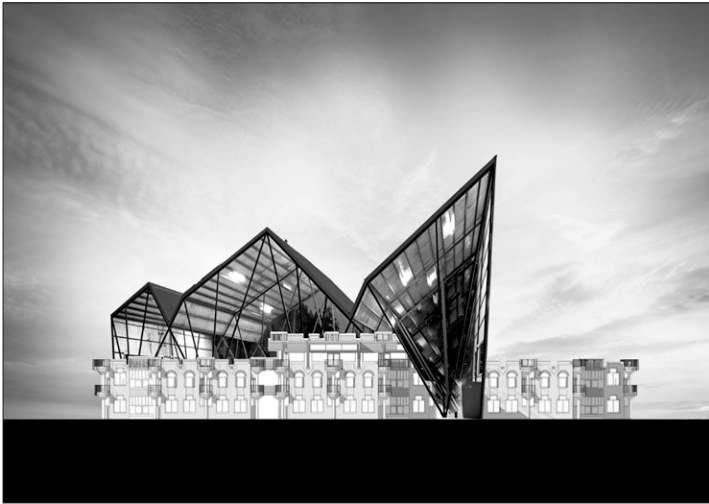
Precedent Study - Form Finding



Administration Building of North Shanghai Gas Company



Angeli Art Museum



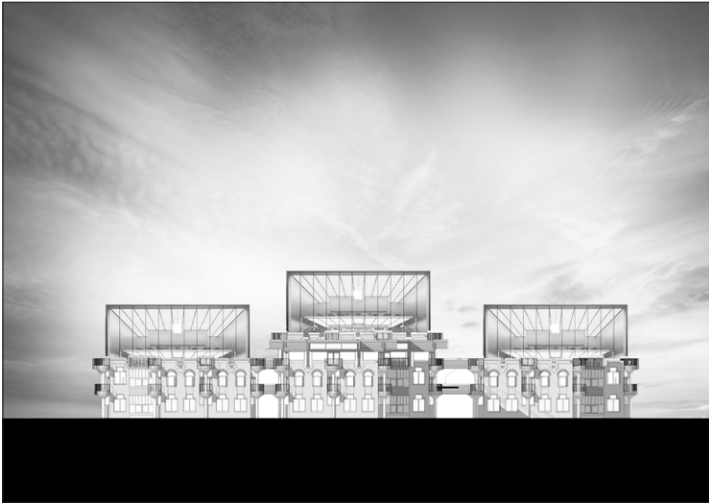
Chonnabot Community School Canteen



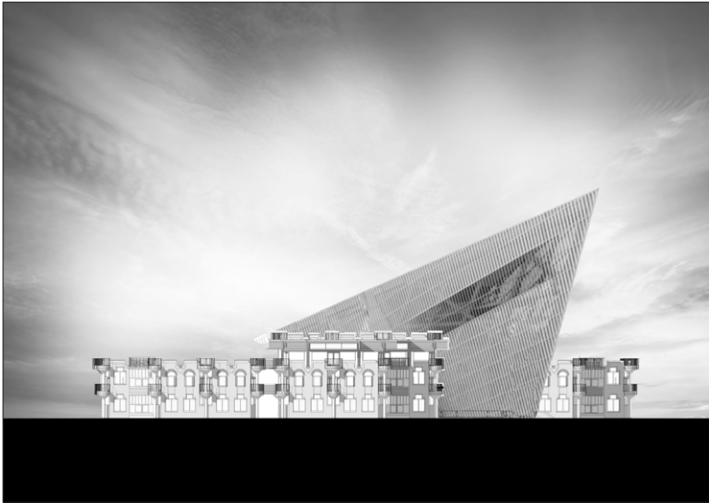
Cite du Vin



Antwerp Port House



Apple Store Asia



Dresden Military Museum



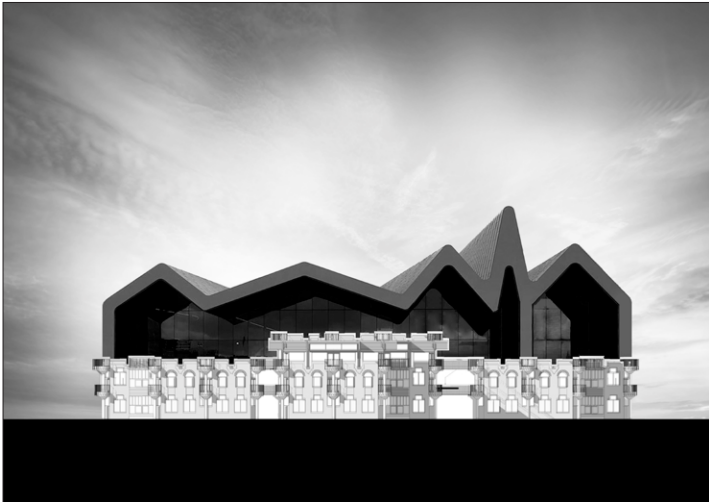
El Philharmonie



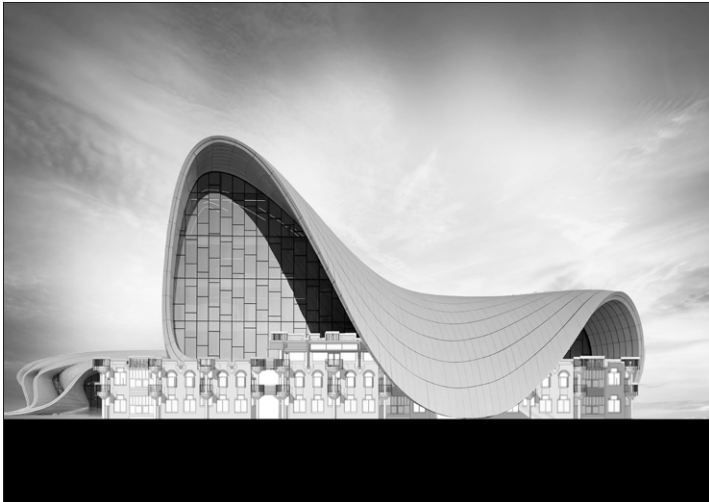
Bilbao Helsinki Winning Proposal  
77.



Canadian War Museum

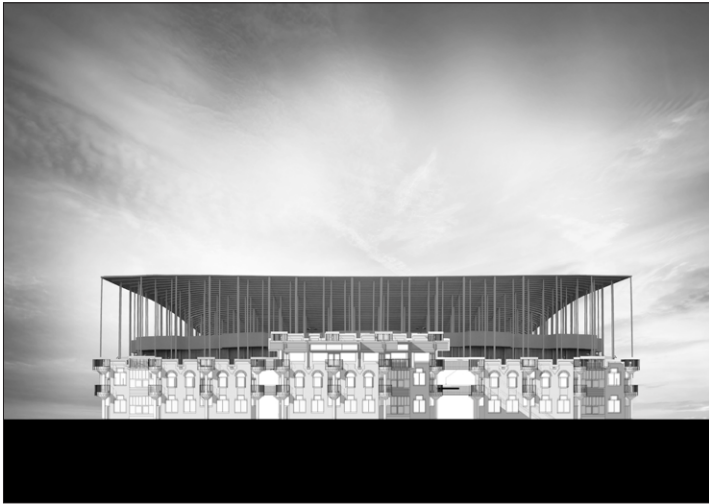


Glasgow Riverside Museum of Transport

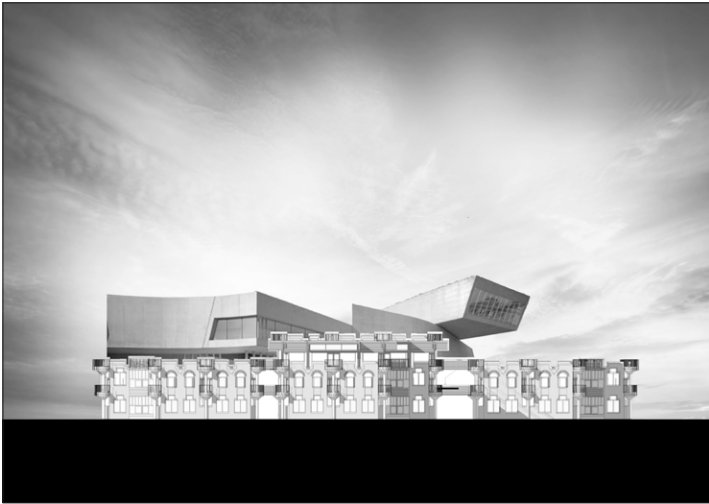


Heydar Aliyev Centre

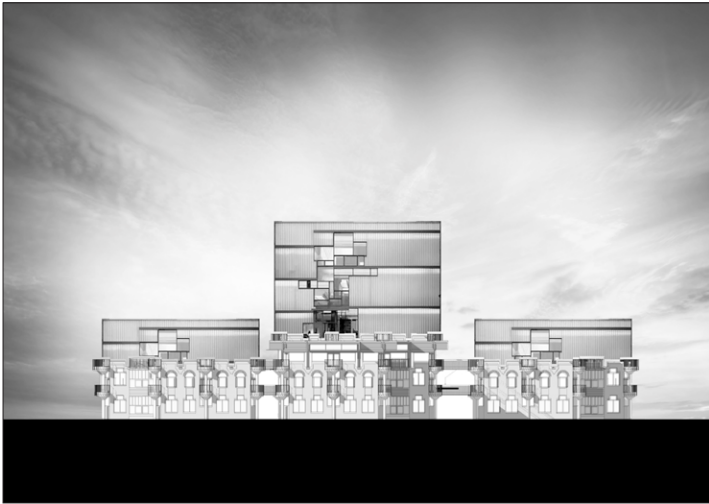
Precedent Study - Form Finding



Matmut Stadium Bordeaux



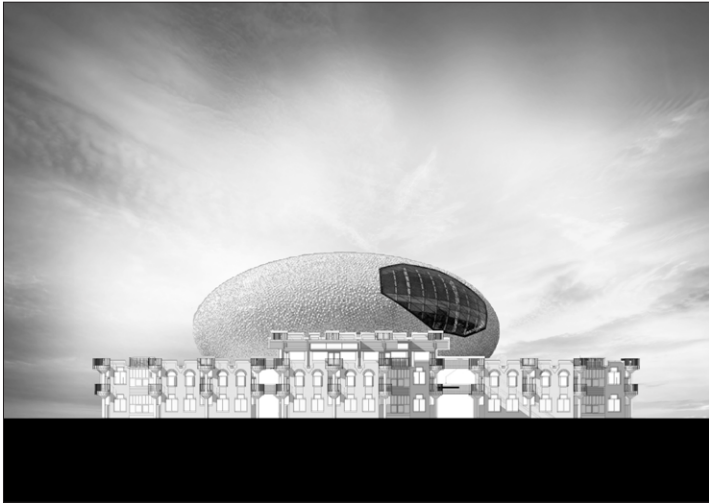
Maxxi Museum



Seona Reid



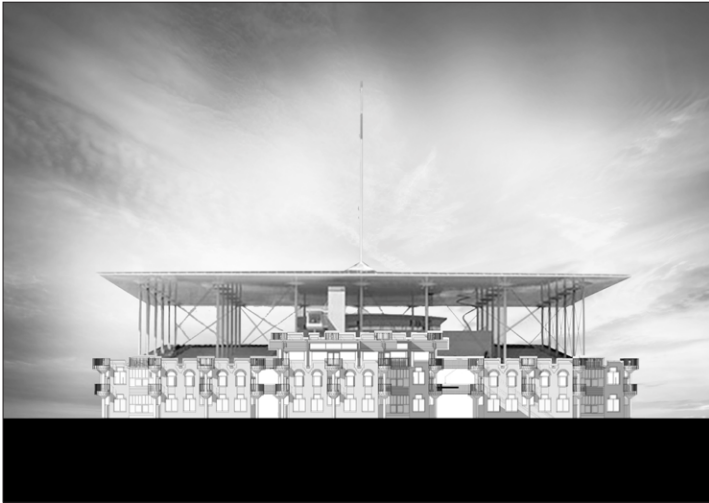
The Shard



Museum de Fundatie



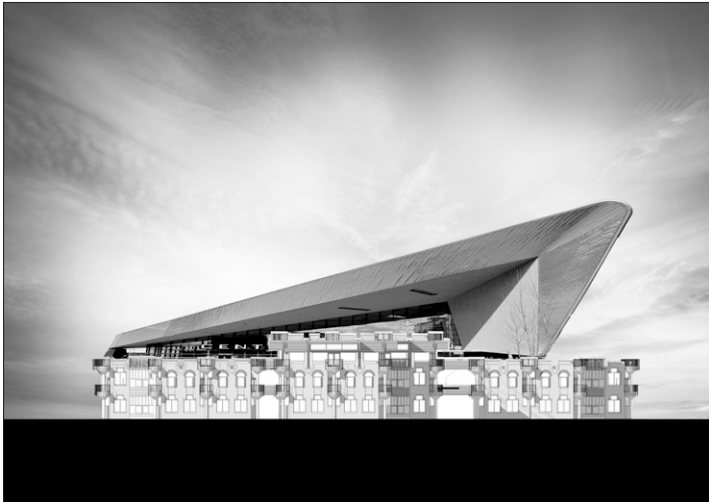
Open University Amsterdam



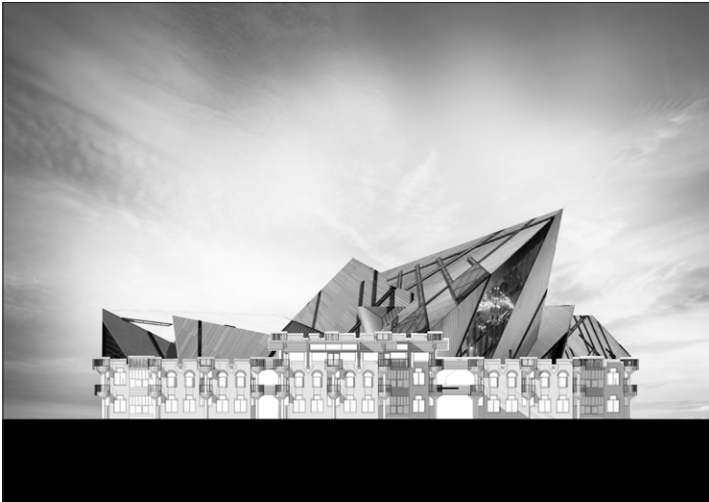
Stavros Niarchos Foundation Cultural Centre



Stedelijk Museum



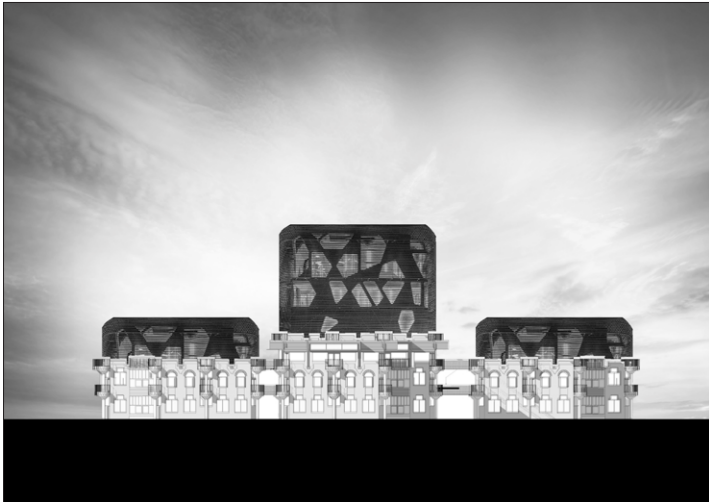
Rotterdam Central Station



Royal Ontario Museum



Tate Modern

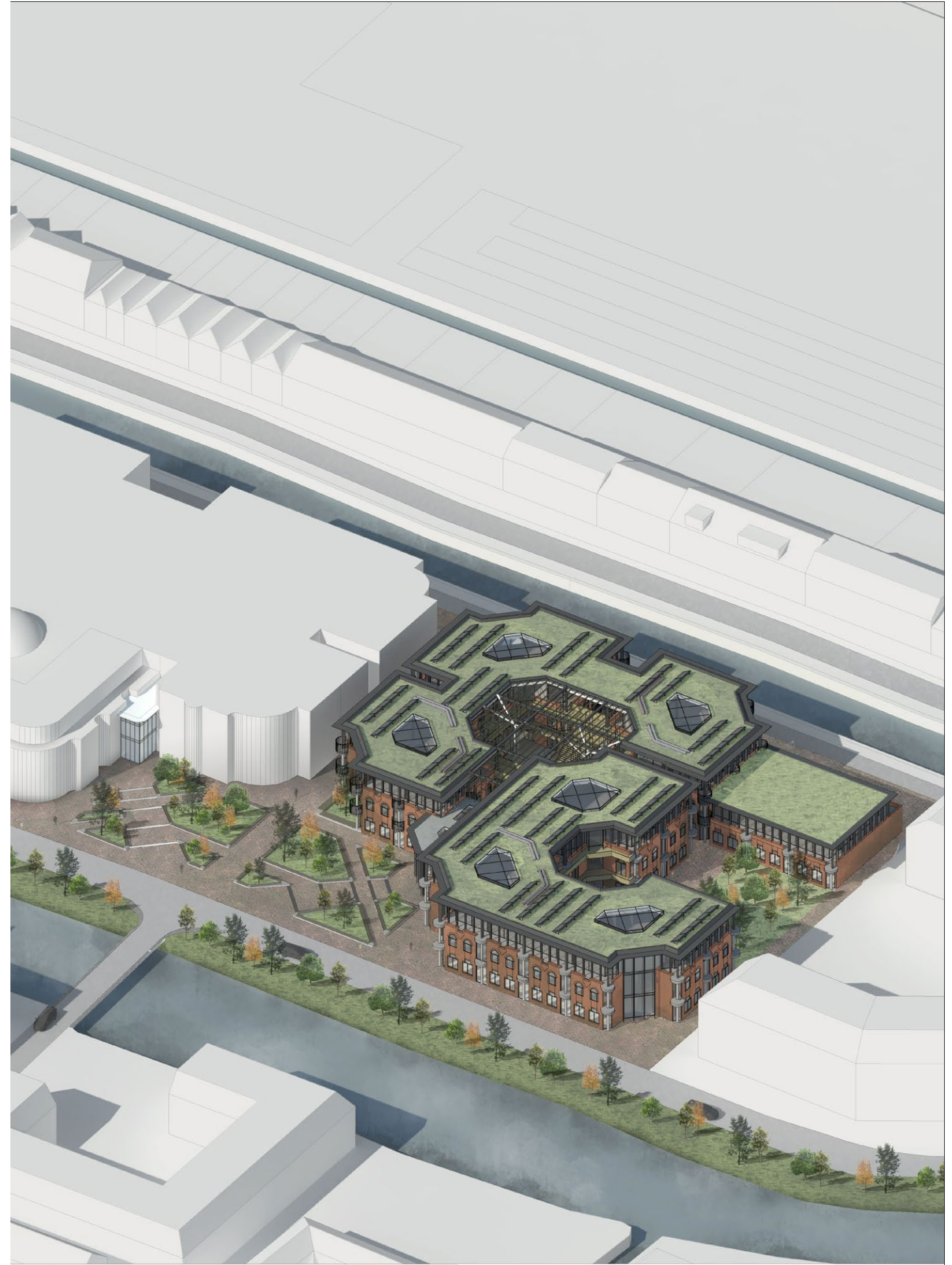


Villanueva Congress Centre

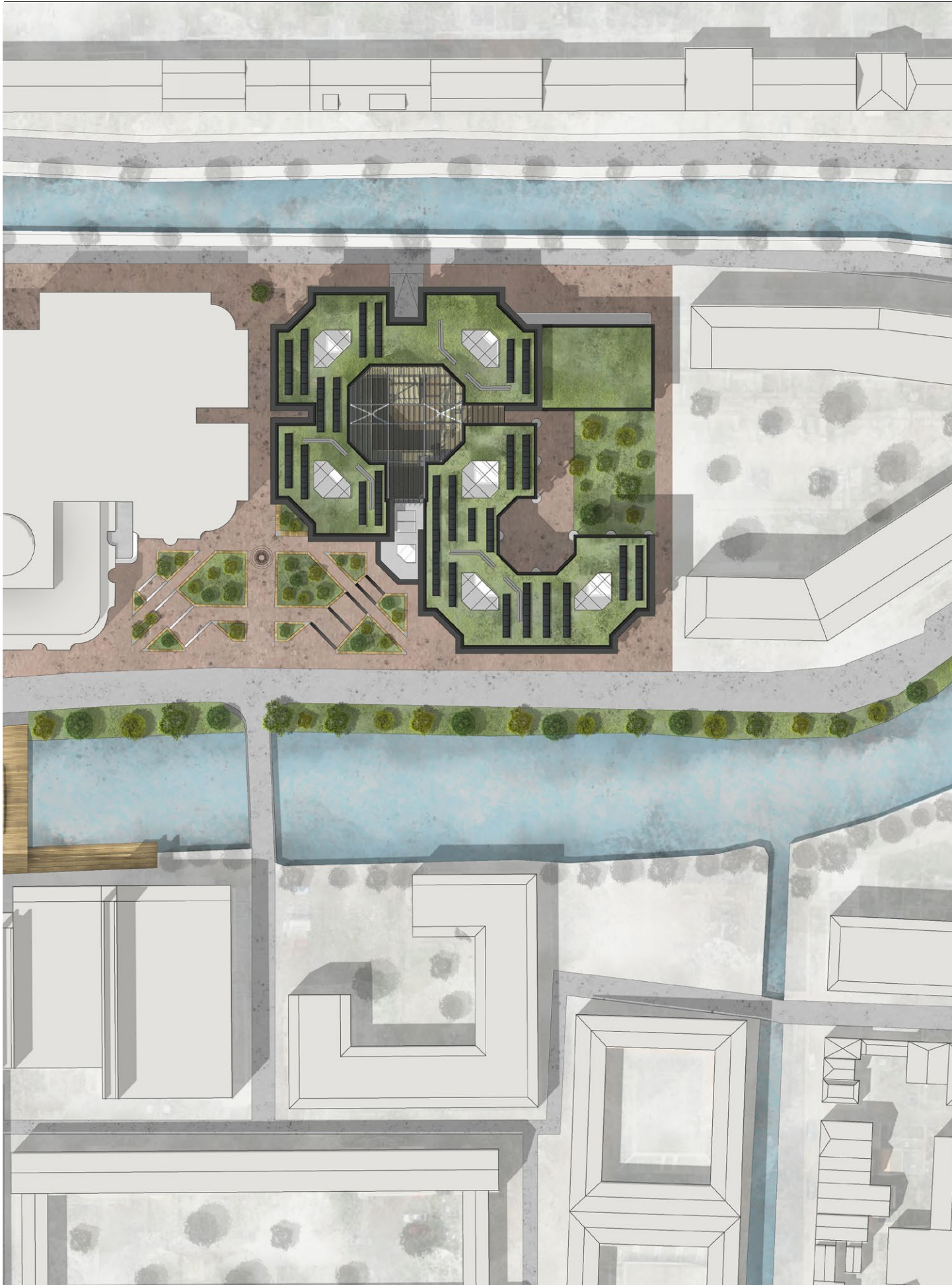


## Intervention

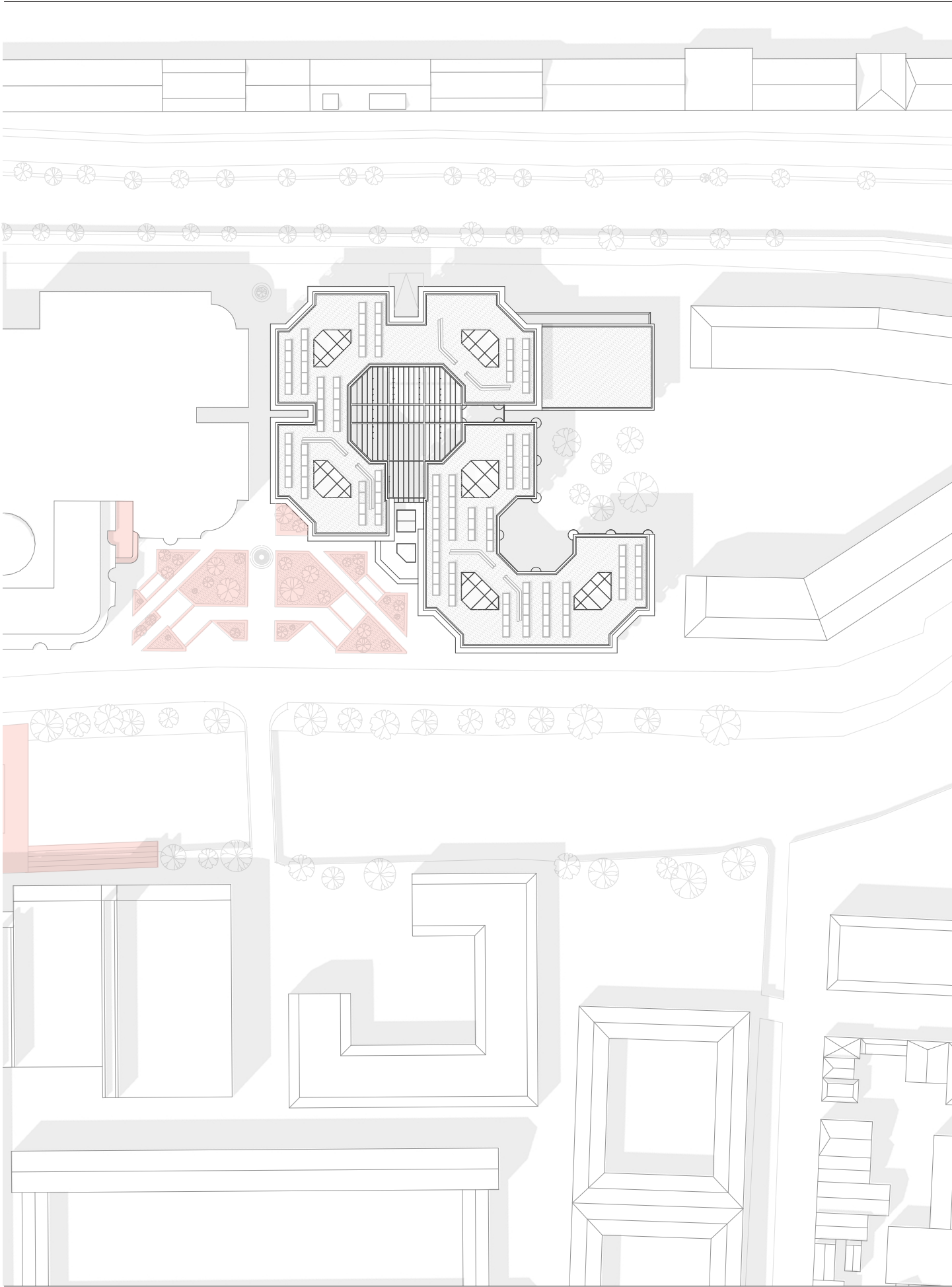
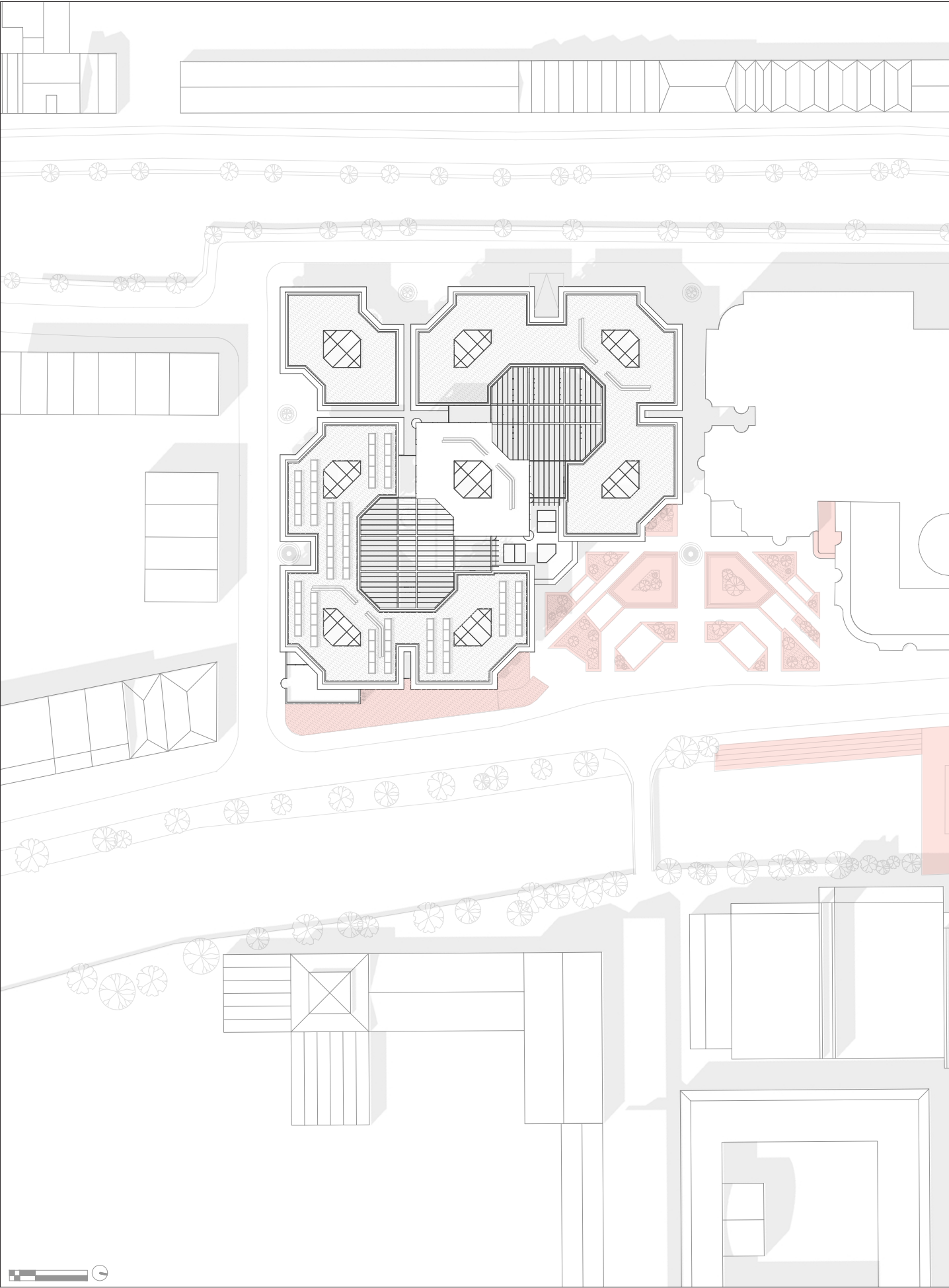






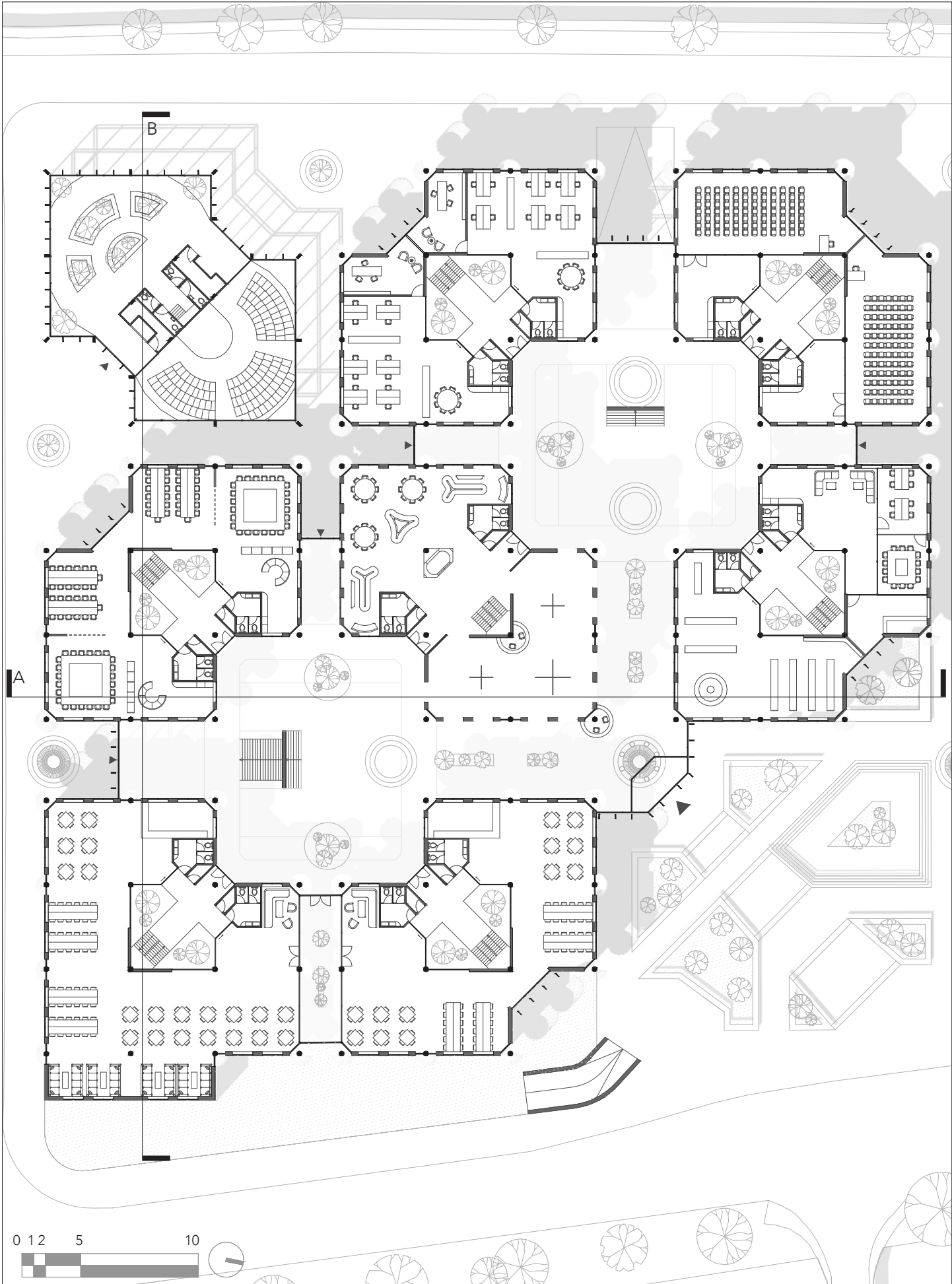




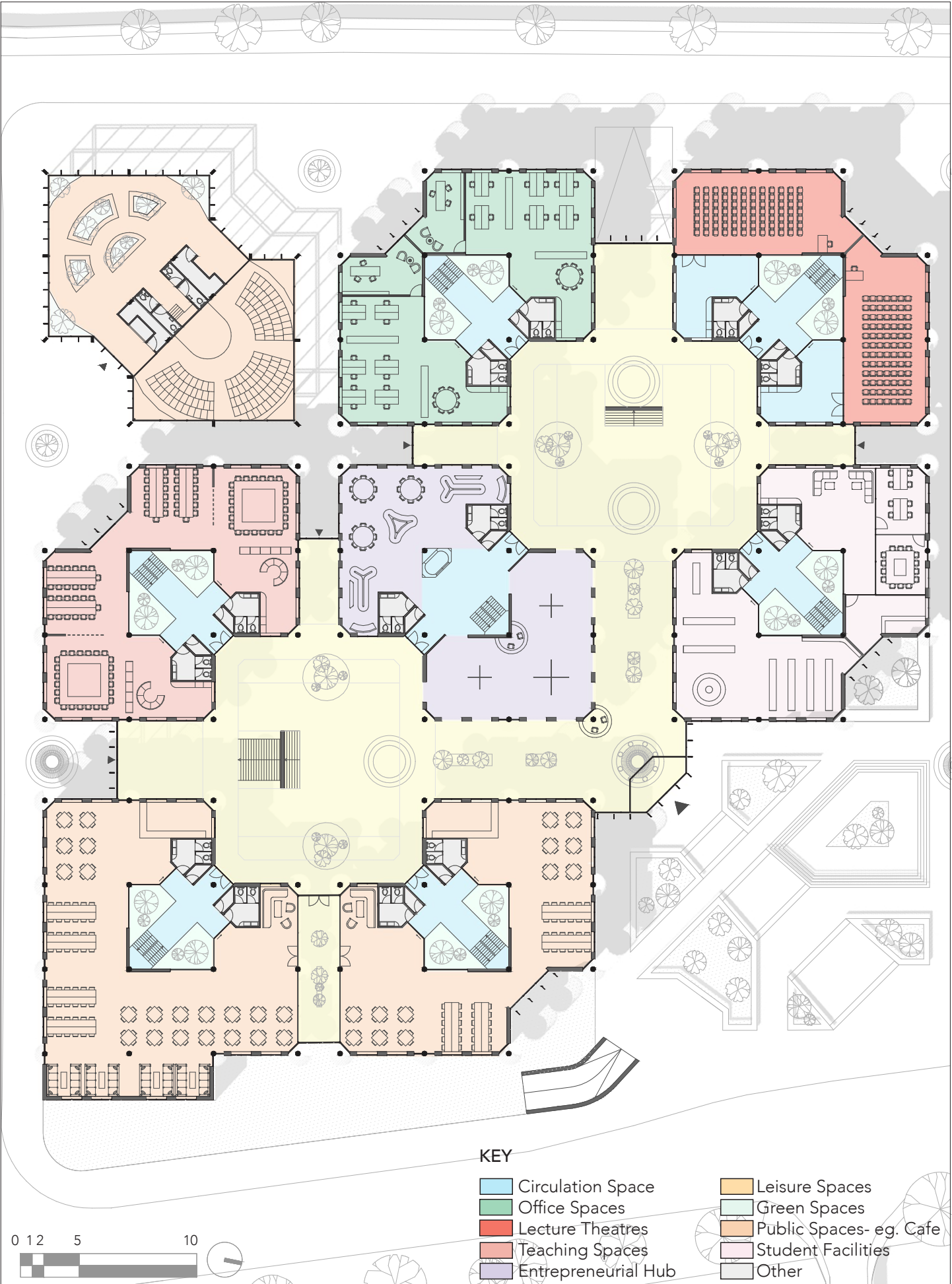




Ground Floor Plan

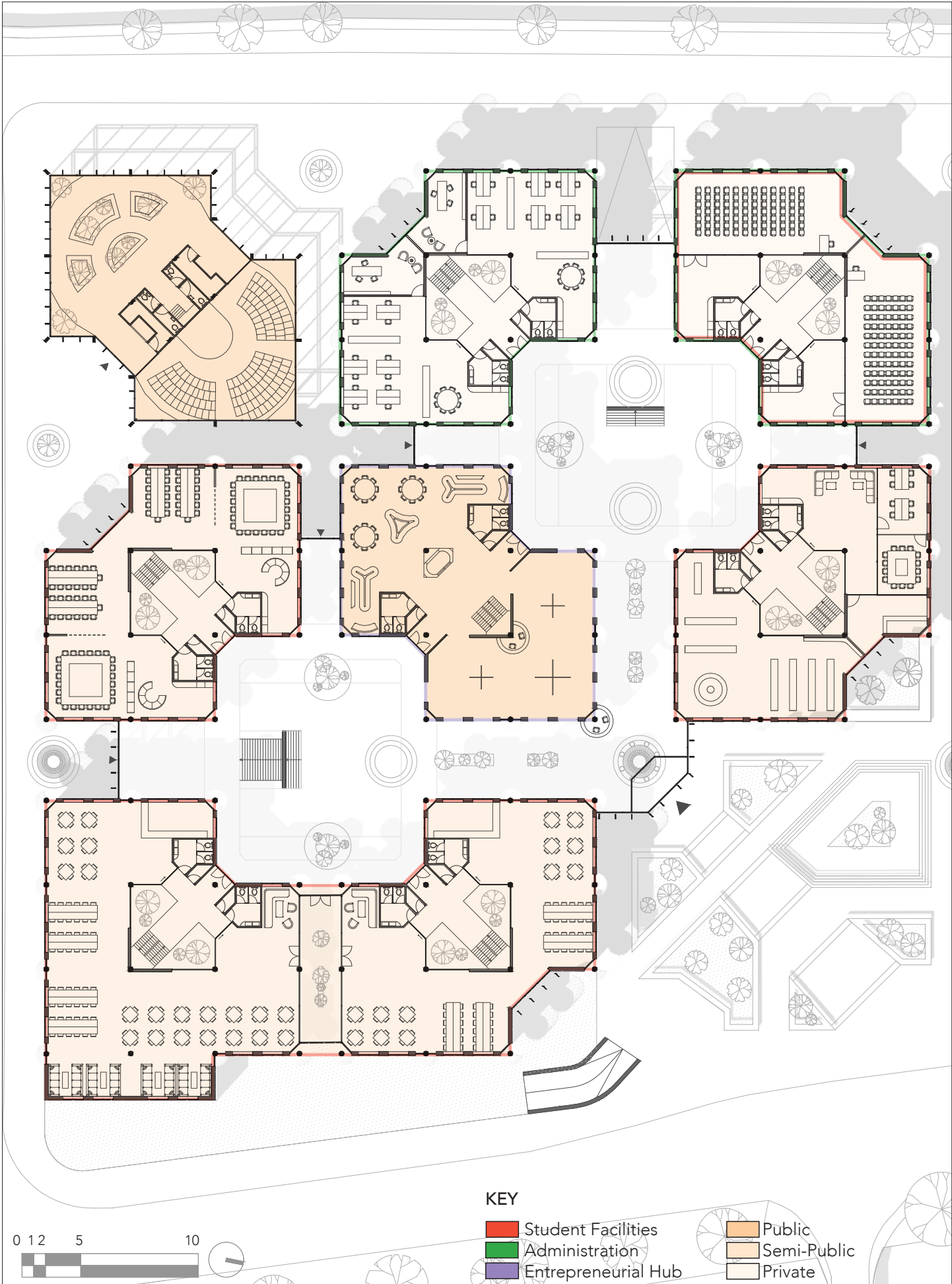


Ground Floor Plan - Analysis

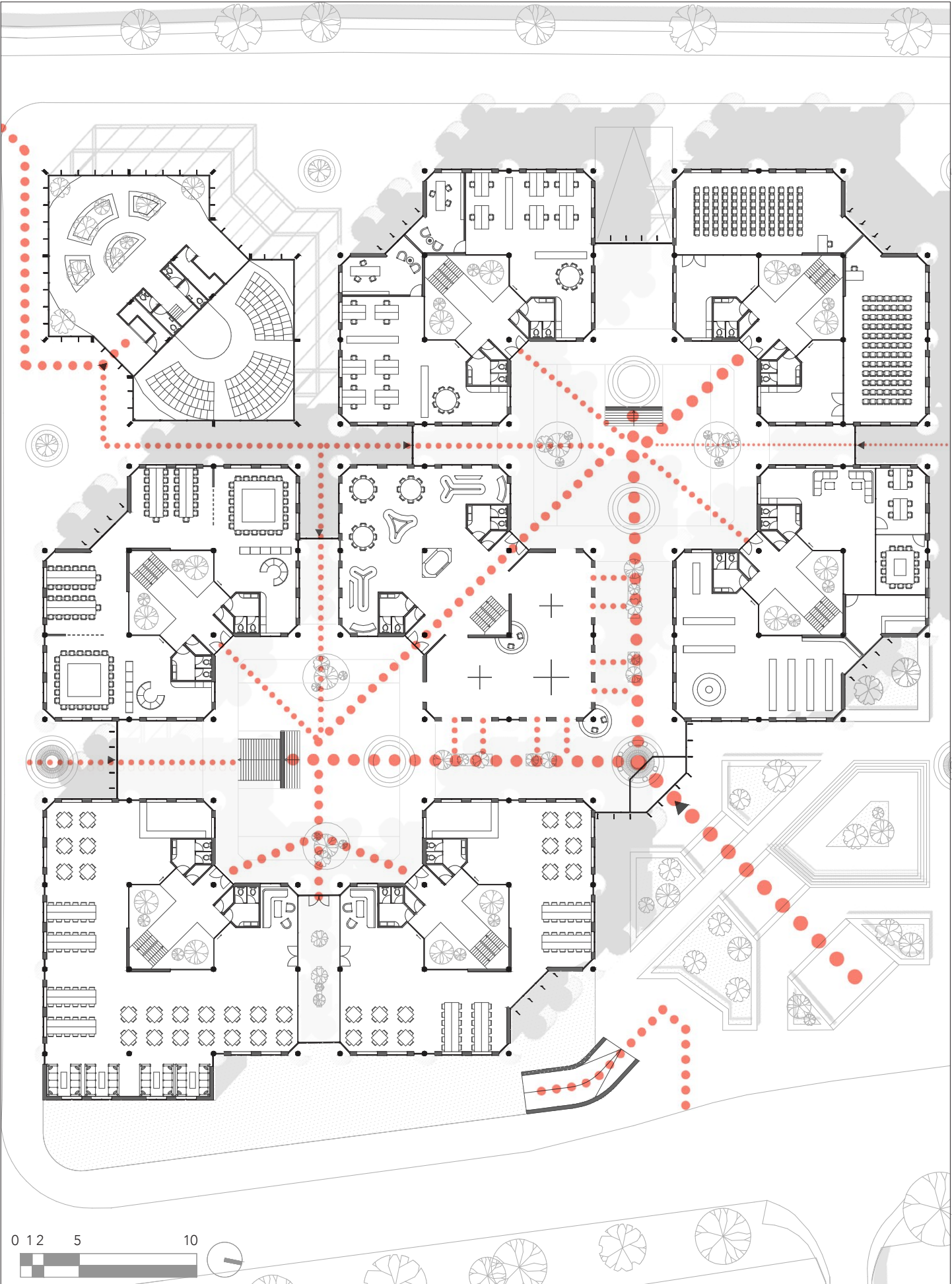




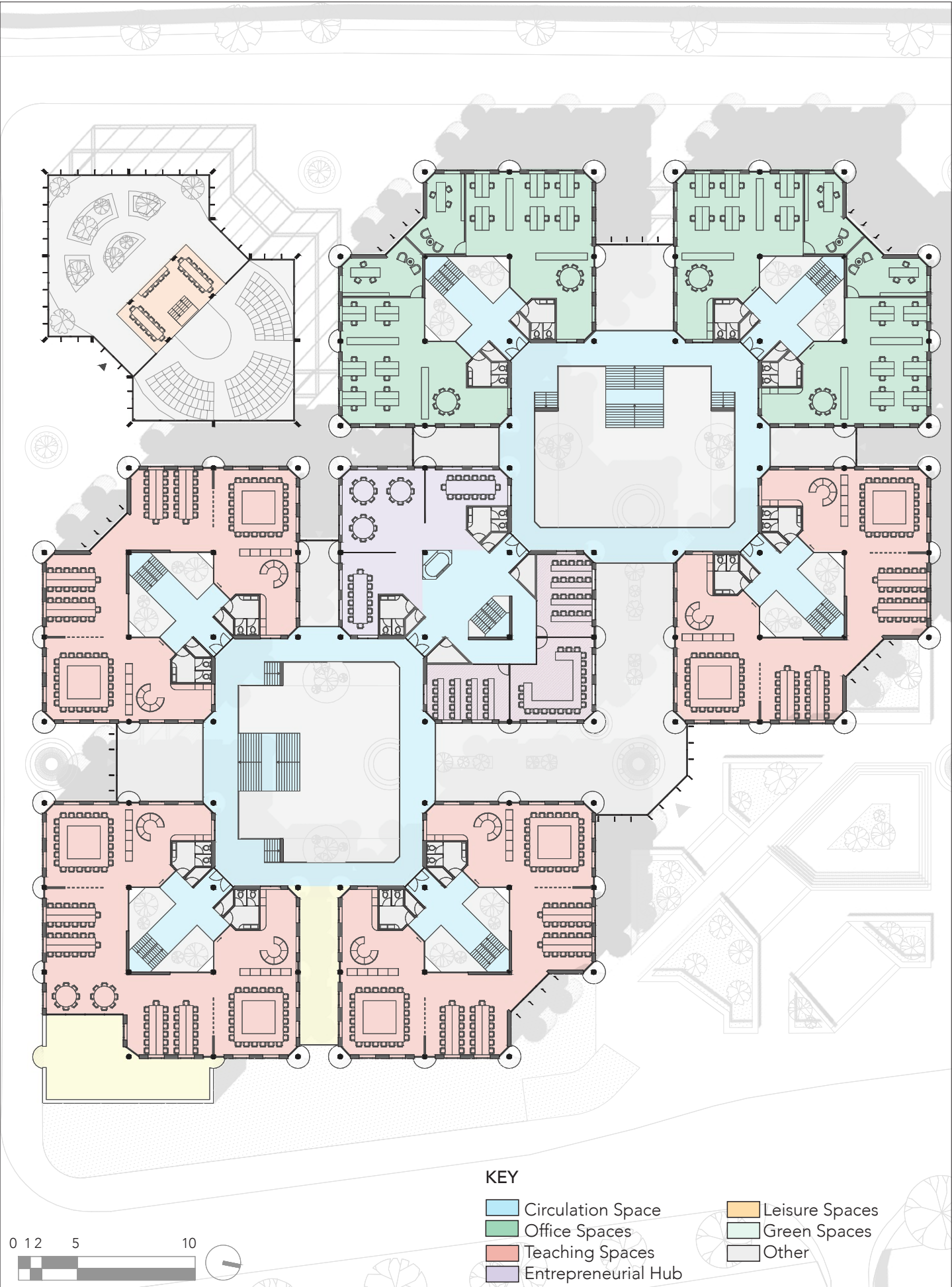
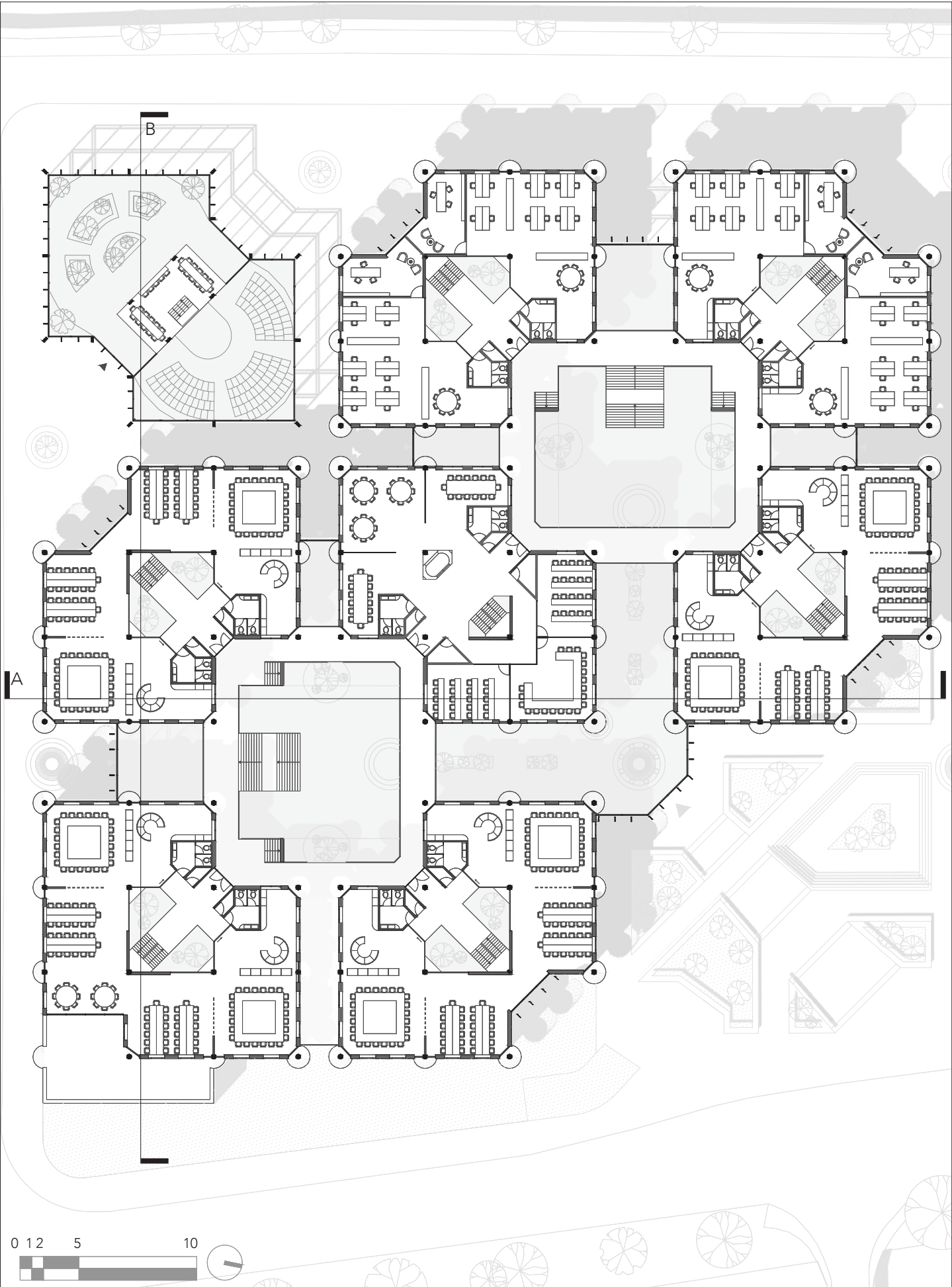
Ground Floor Plan - Zoning



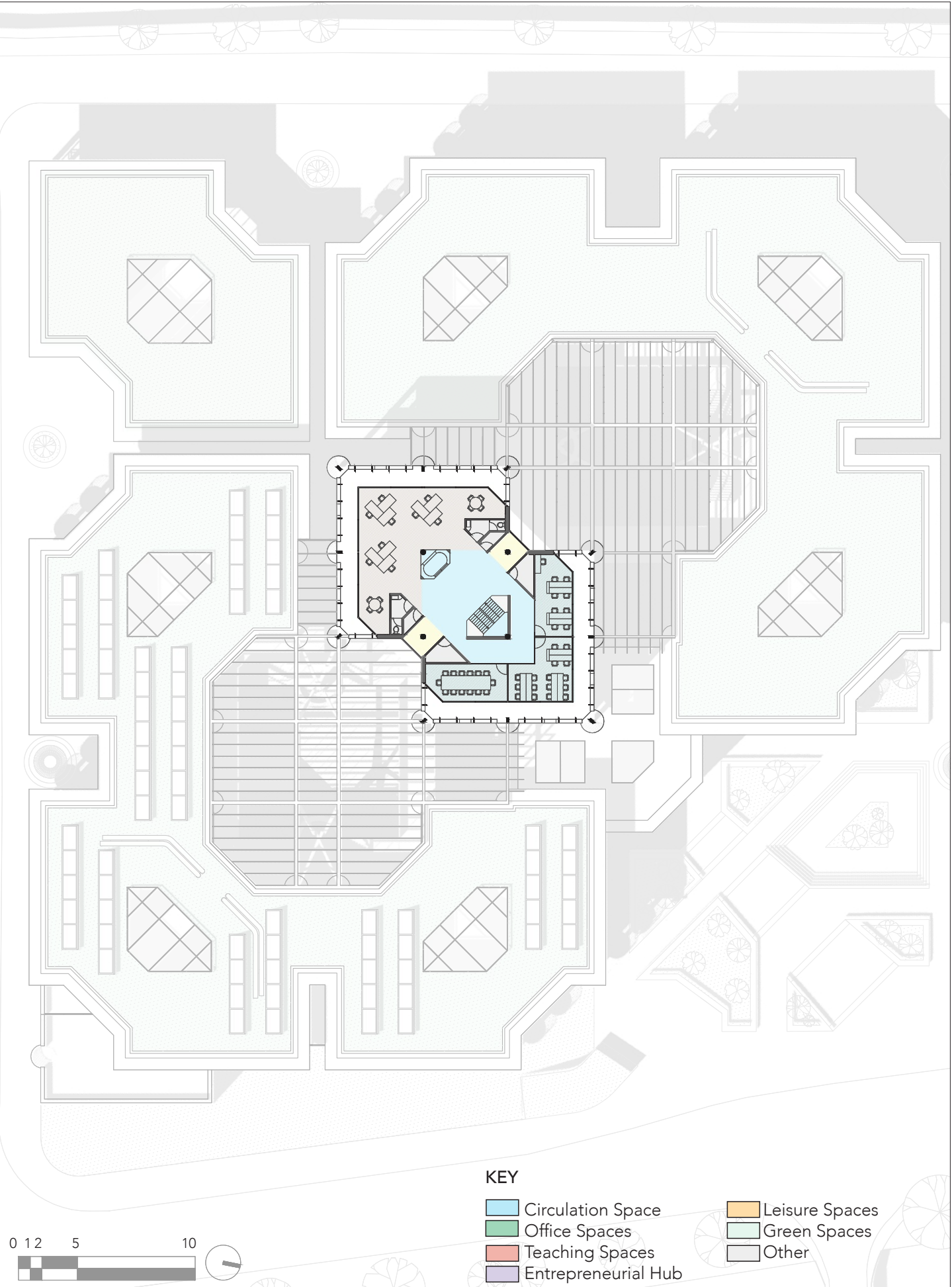
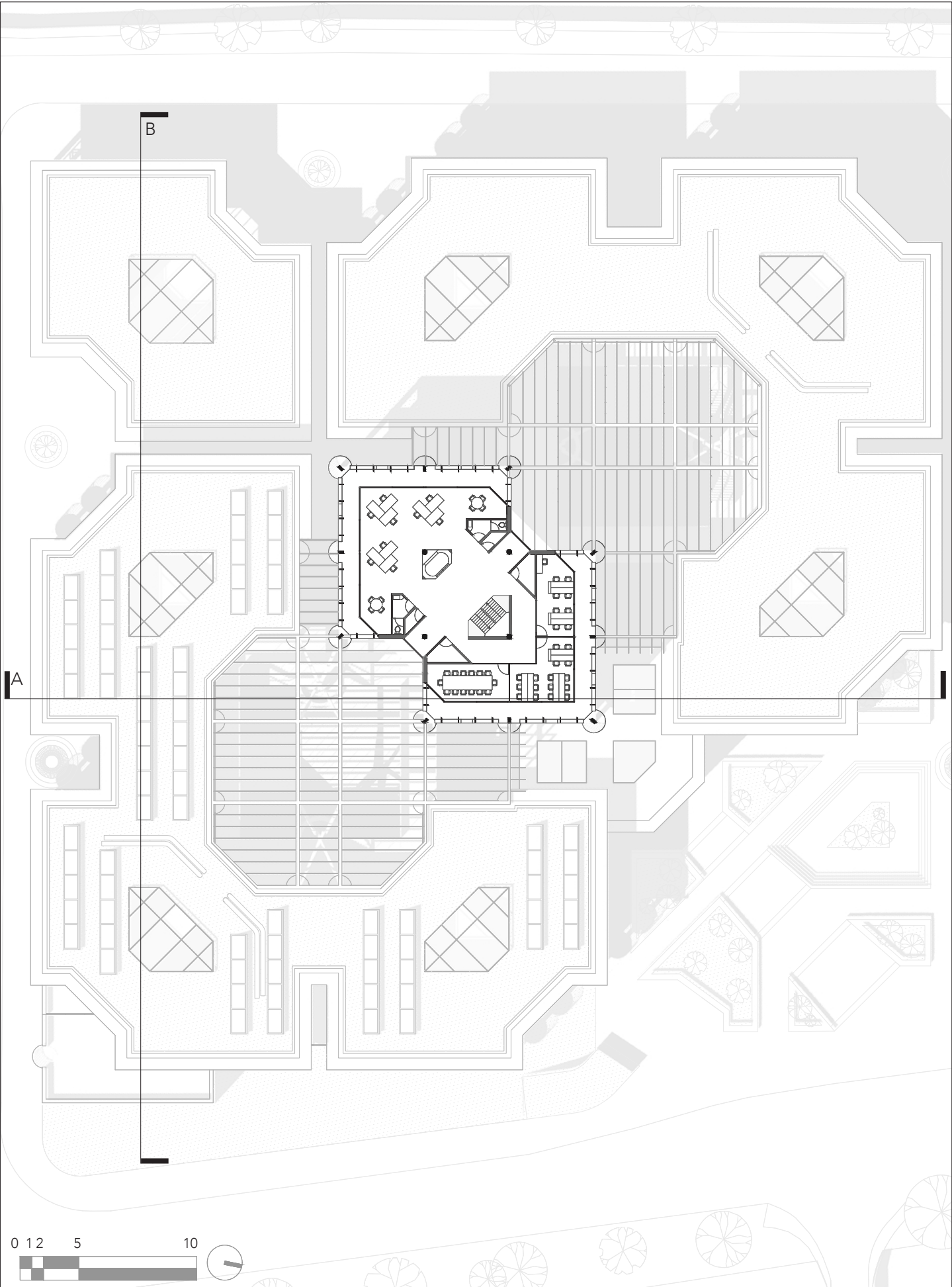
Ground Floor Plan - Circulation Diagram



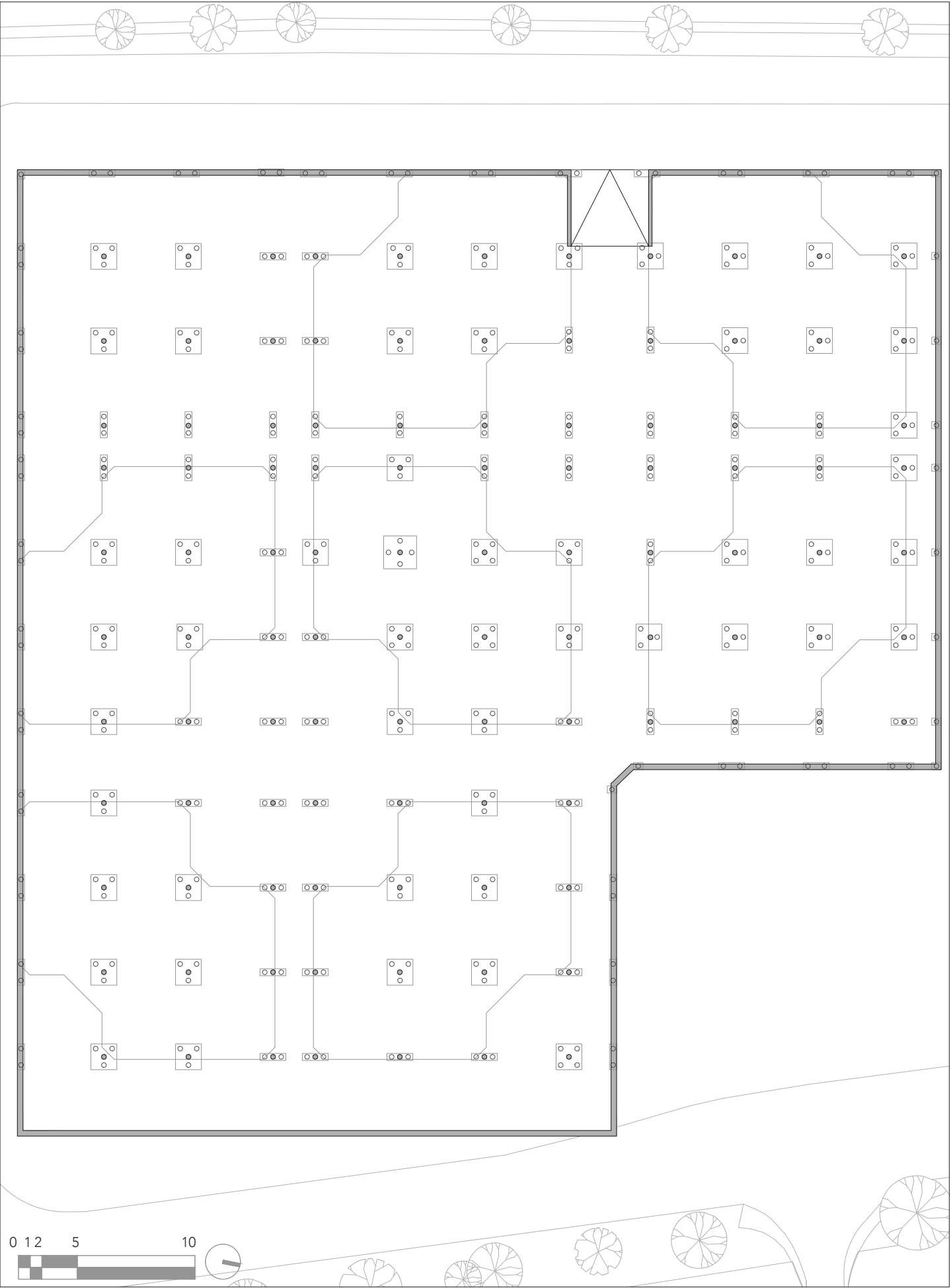
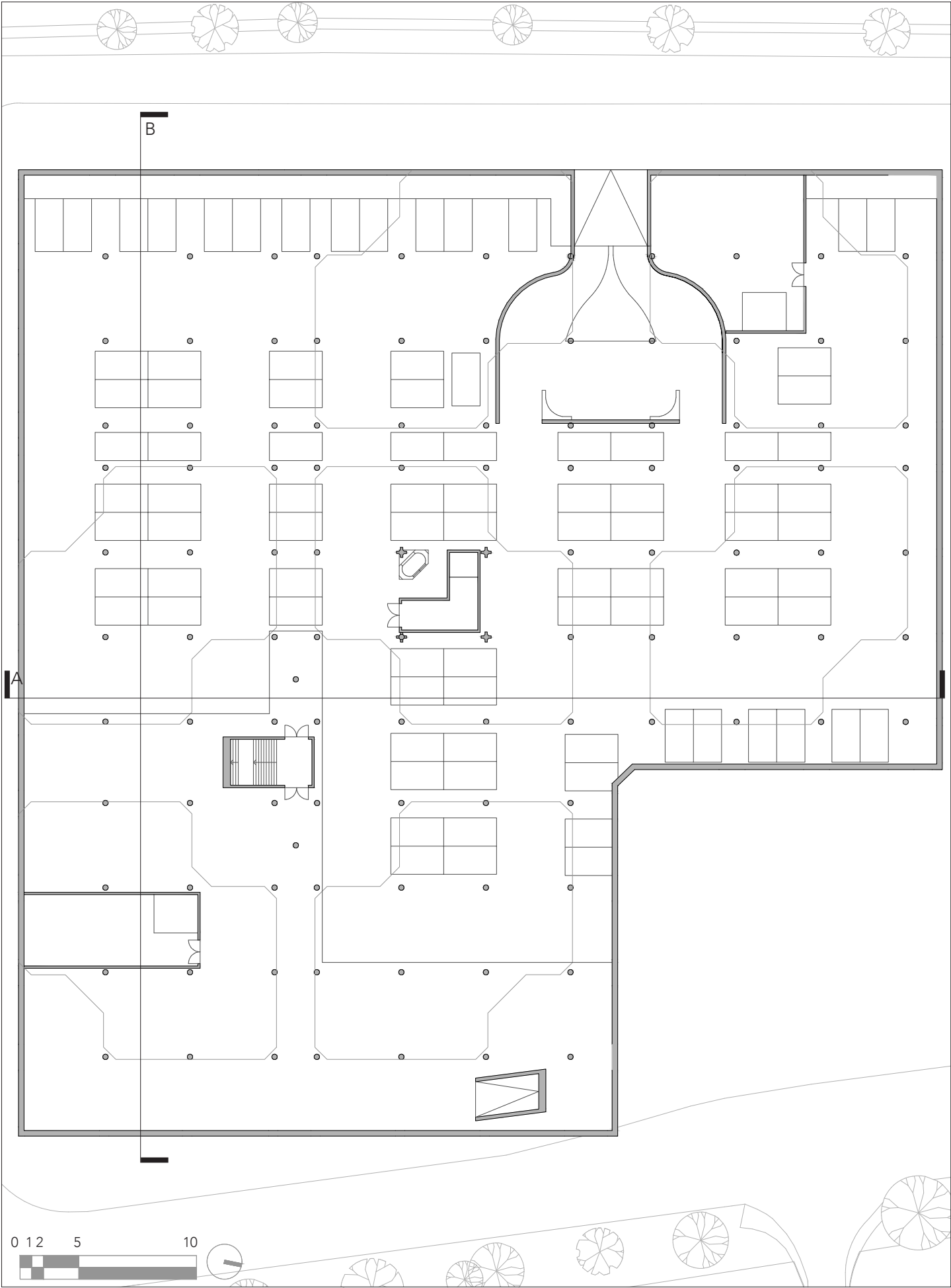




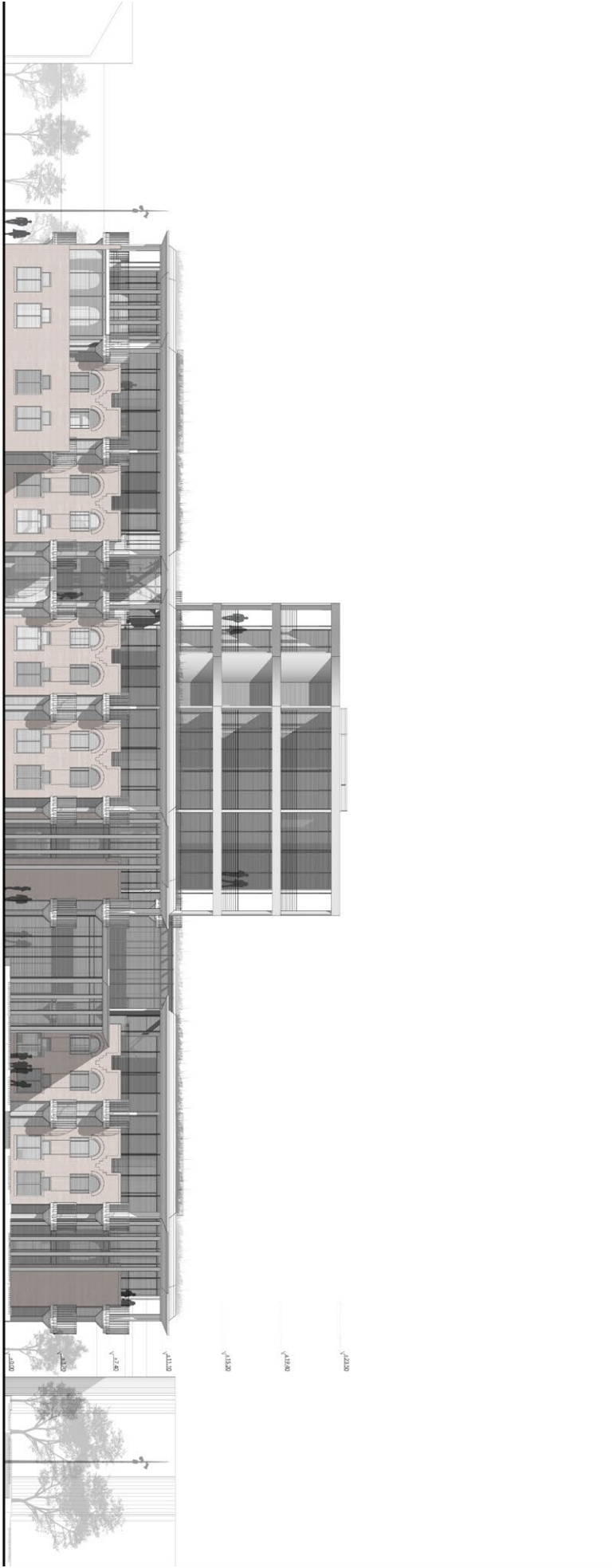








East Elevation

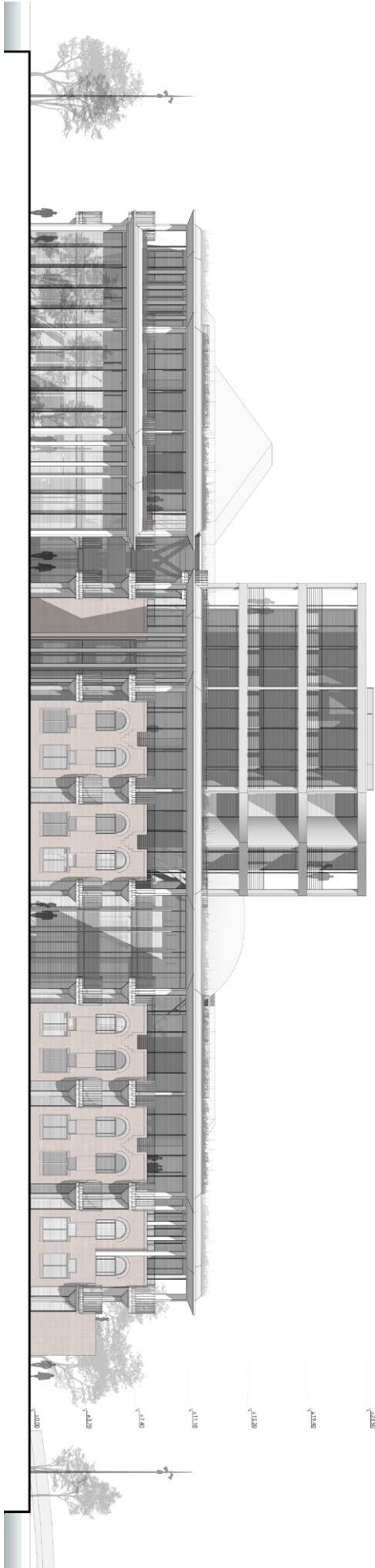


Section A





South Elevation



Section B















Existing View



Exterior Perspective











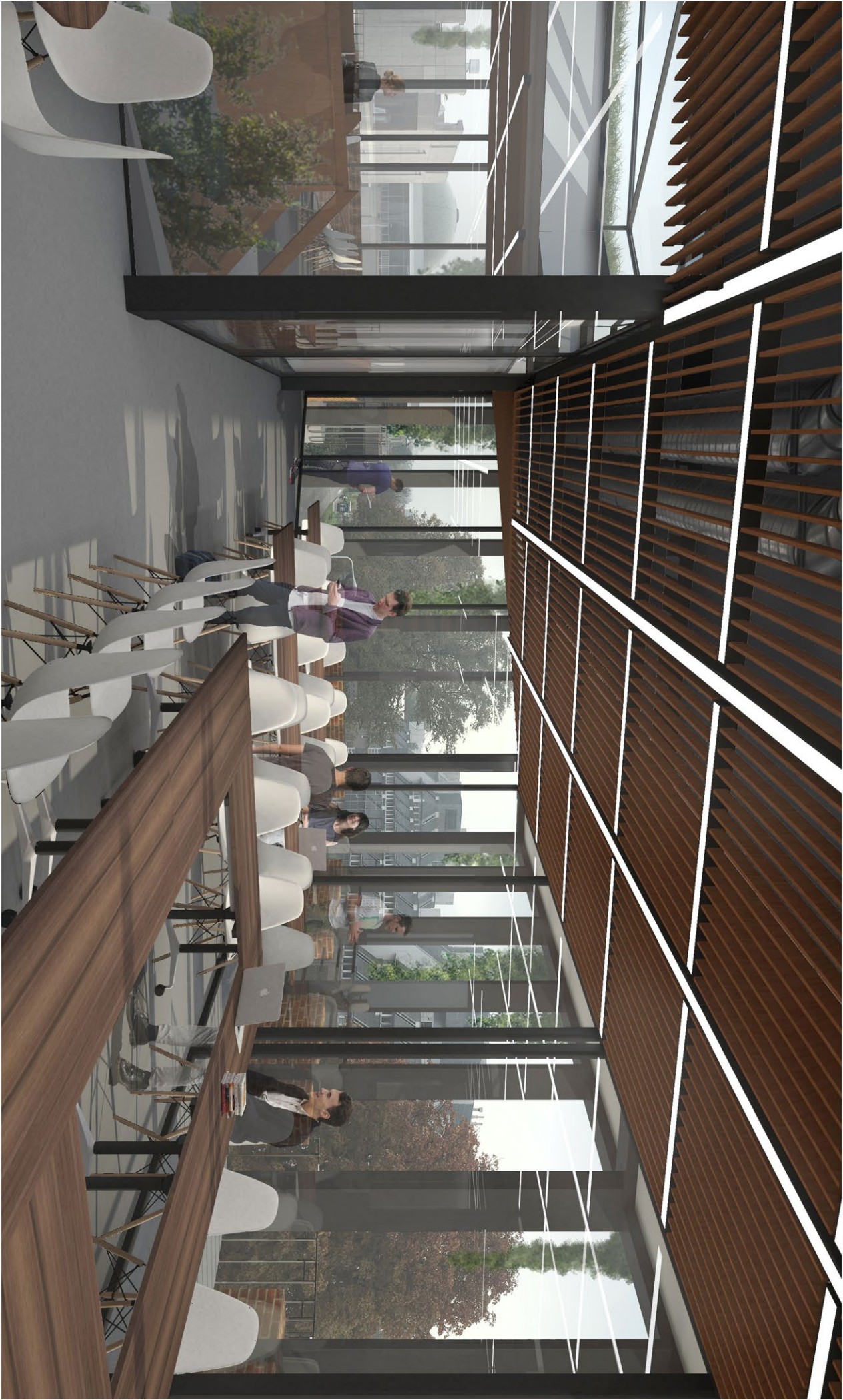














Existing View



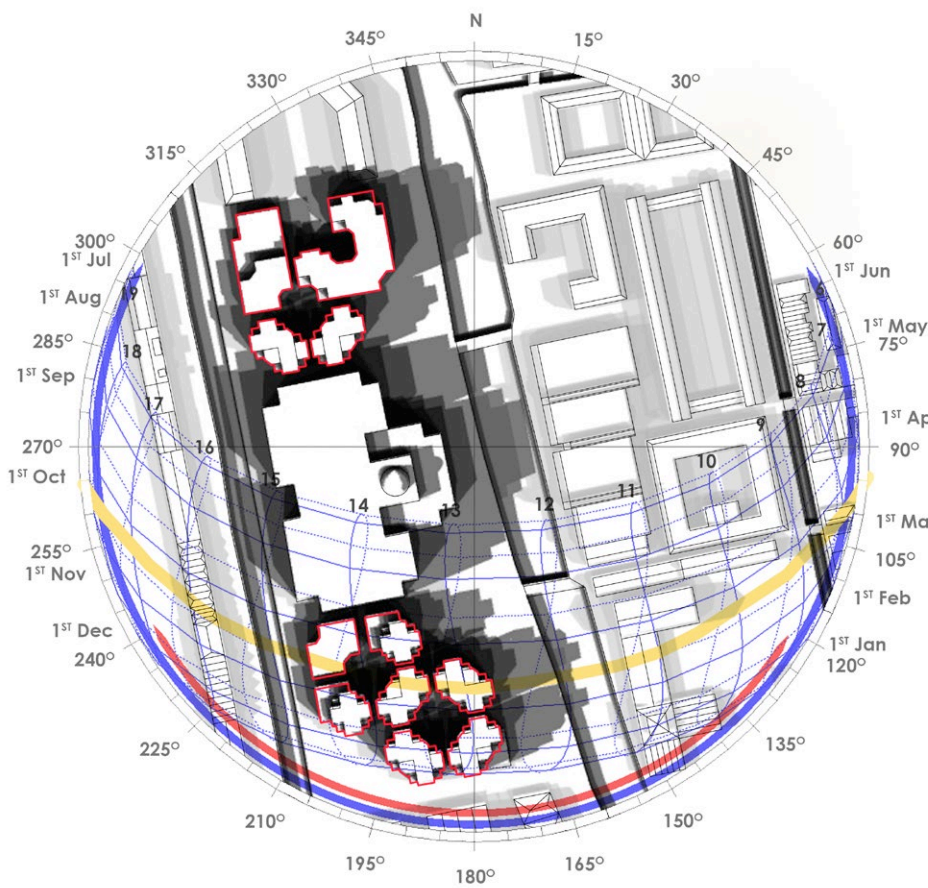
Perspective View





## Building Technology



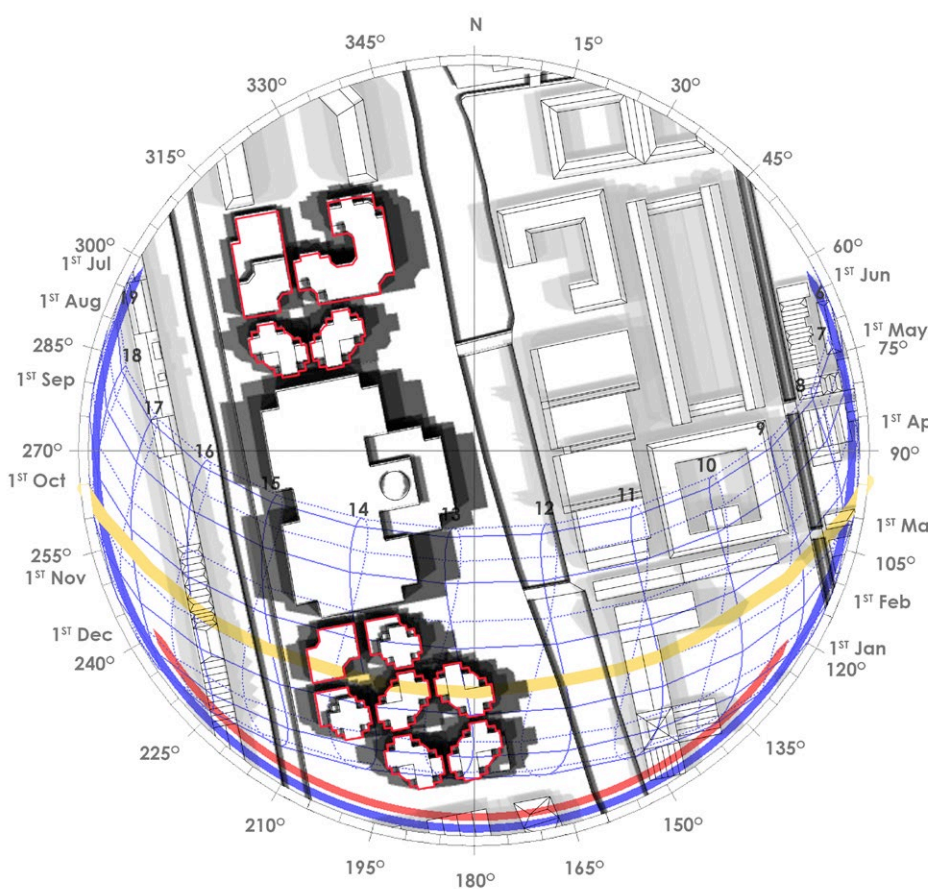


21 March

Observing the shadow analysis during this specific period, one can notice that due to the sun's position, both clusters do not overshadow the neighbour buildings.

This shows us that for this specific period, there building's potential of adding one more storey, wouldn't interrupt its context in terms of solar gain.

Looking at the shadows in the courtyards, and in between the buildings one can notice that the spaces are relatively dark. This problem should be considered during the design process of our intervention.



21 June

Observing the shadow analysis during this specific period, one can notice that the clusters' shadows do not interrupt at all the context; as, during this period the sun is at its highest position of the year.

The shadow analysis diagram "confirm" that an extra storey on top of the existing building would be possible without having a negative effect on its setting.

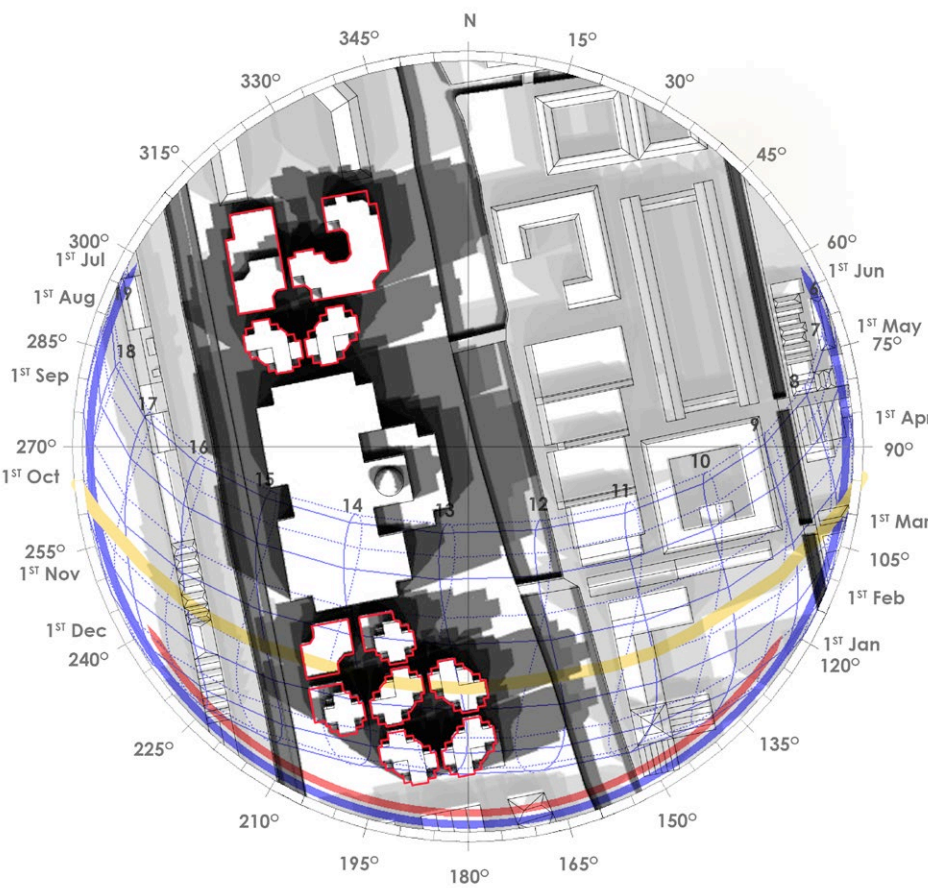
Compared to the previous period and to the next ones (see next diagrams), the solar gains in the courtyards and in the spaces in between the buildings, receive the maximum amount of solar gains, creating a pleasant exterior environment. Though, one must consider whether the courtyard facing windows need solar protection to prevent overheating.

21 September

Observing the shadow analysis during this specific period, one can notice that the clusters' shadows interrupt slightly just the side part of the building's on the north. Taking a look at these building's façades, we found out there are no openings at all.

Still this would allow the addition of an extra storey on top of the existing structure.

As in the first period, the light quality in between the buildings is poor.

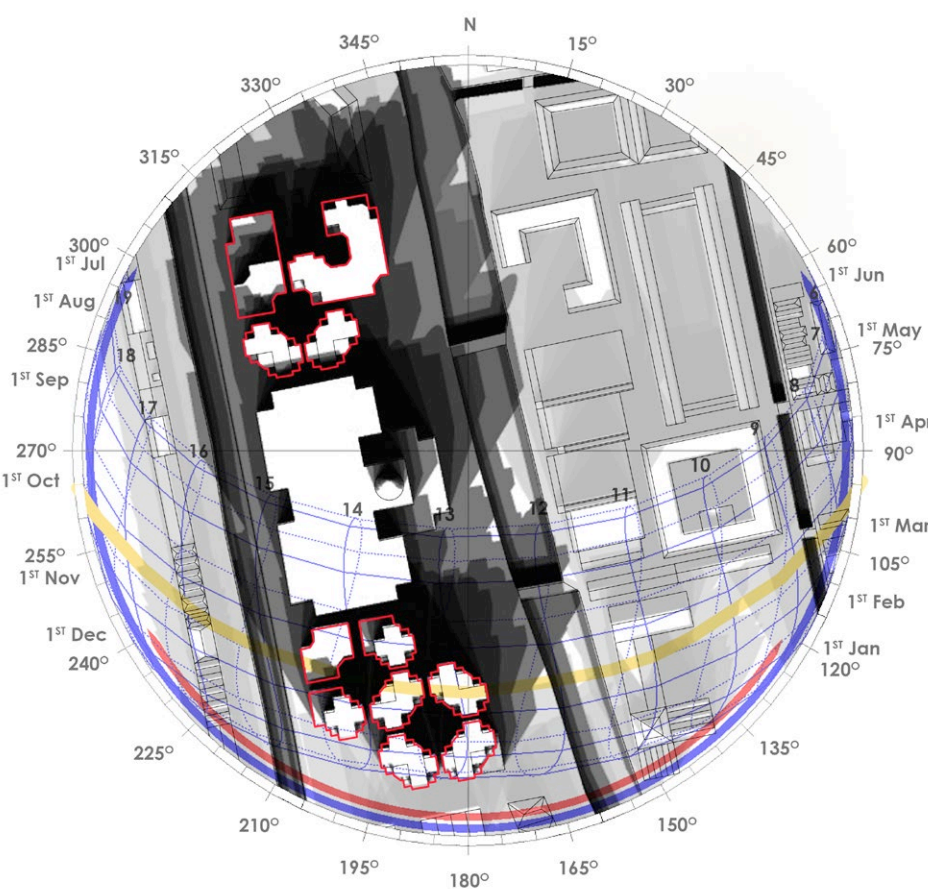


21 December

Observing the shadow analysis during this specific period, one can immediately notice a big difference in between this period and the previous once.

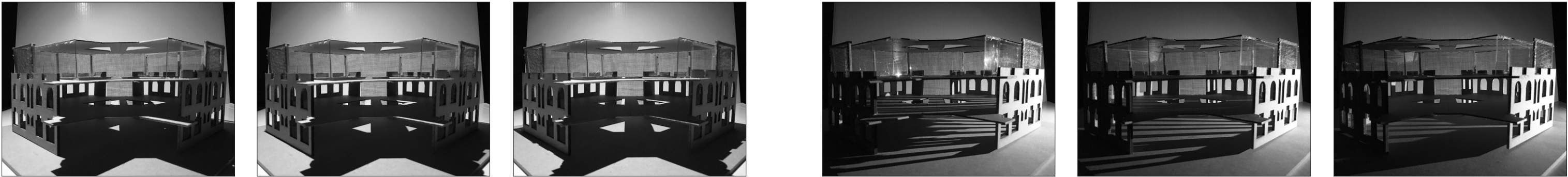
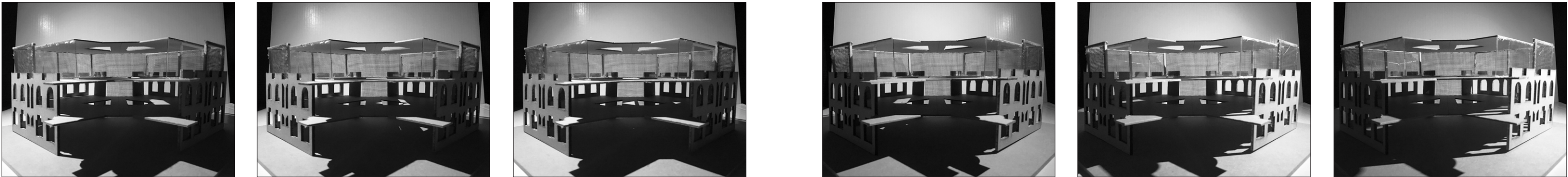
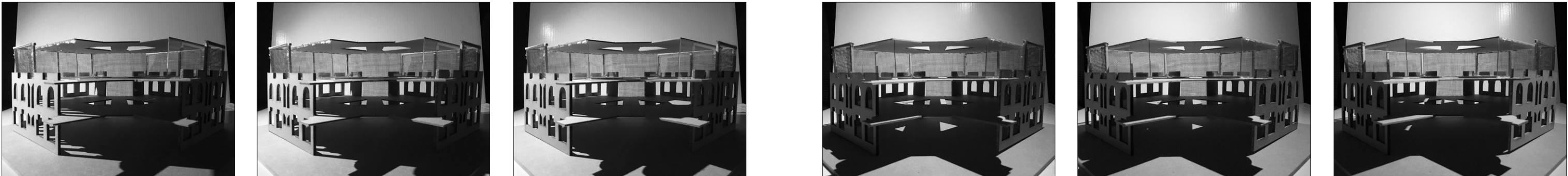
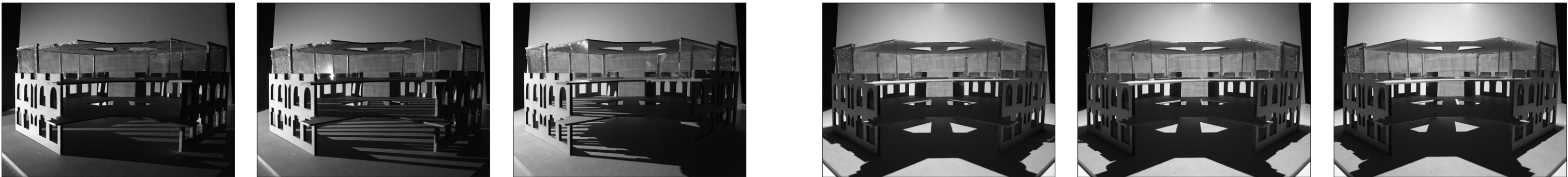
Talking about the relation between the clusters and the buildings on the north, the clusters overshadow part of the adjacent buildings courtyards. This shows us that an addition of an extra storey could be possible, if the appropriate calculations and considerations are taking into account in order not to reduce the context's solar gains during this period.

The in-between spaces especially on the east side of the clusters are overshadowed, compared to previous periods. The courtyards as well receive even less sunlight, something that needs to be highly considered for our later interventions.





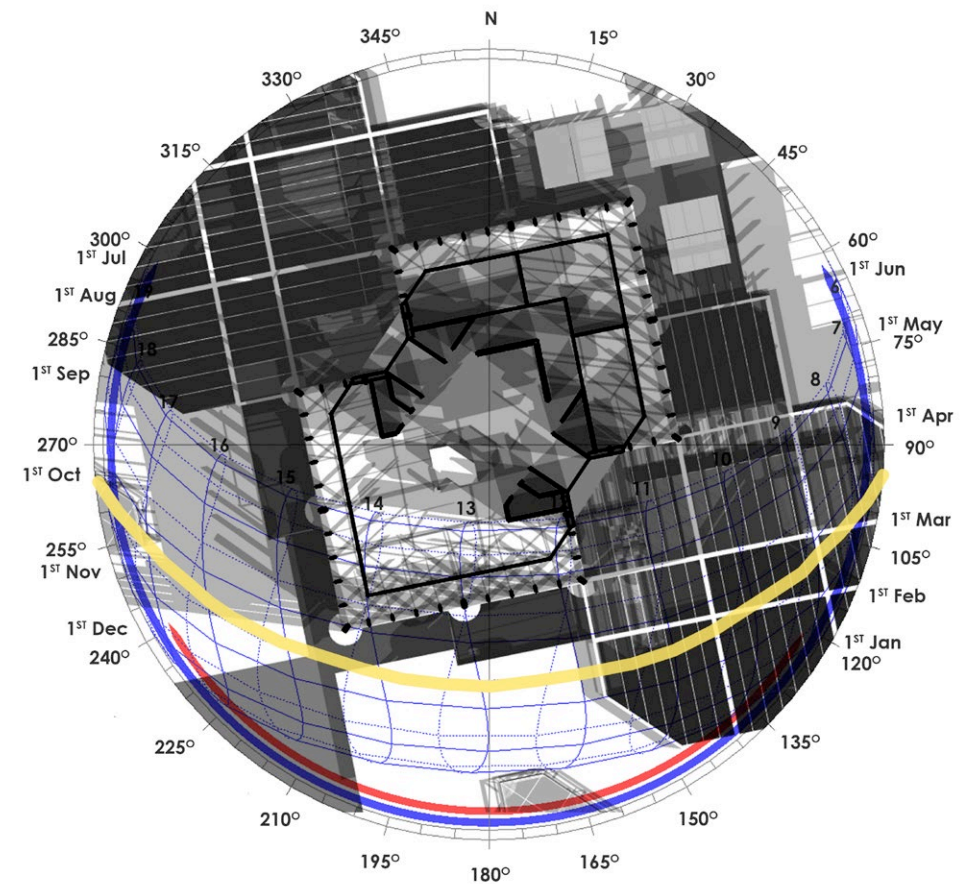
Void Study - Shadow Analysis



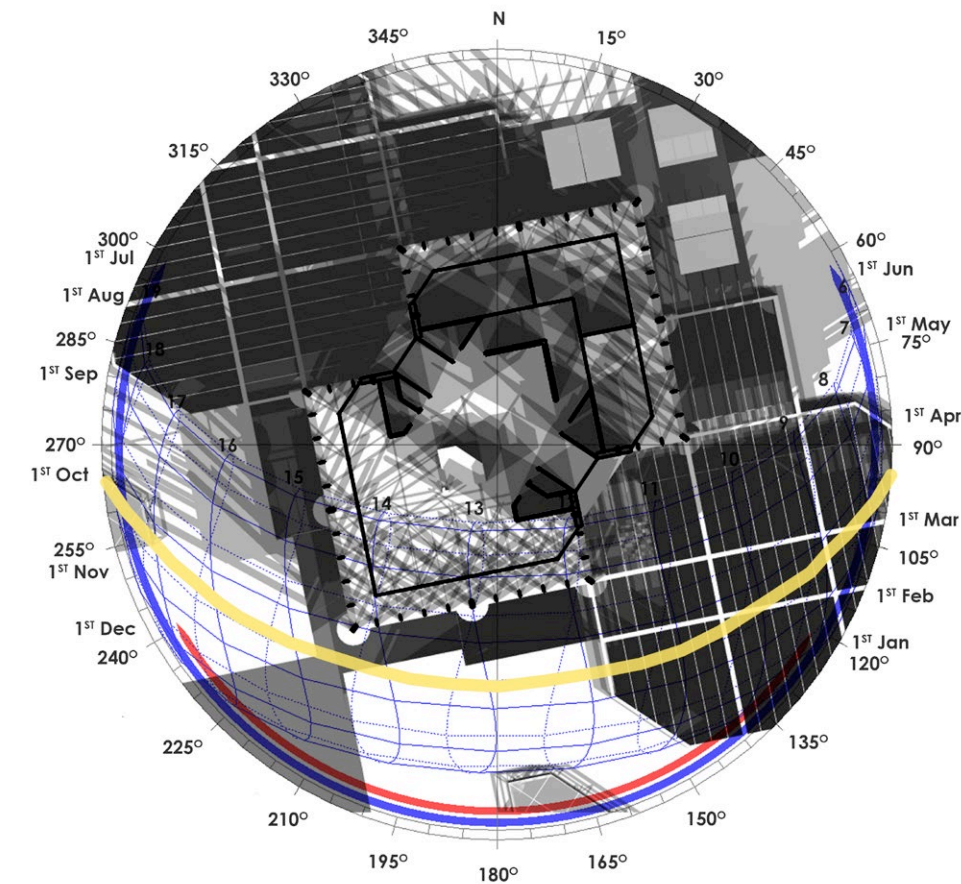


Shadow Study & Solar Analysis

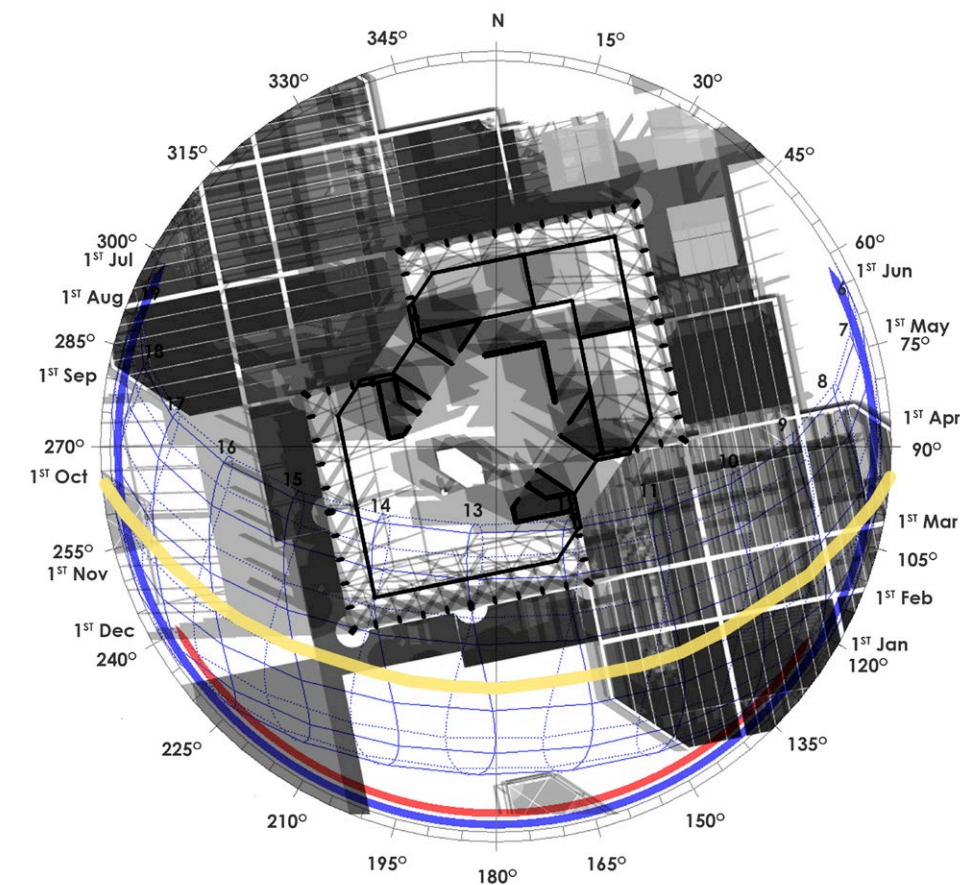
21 March



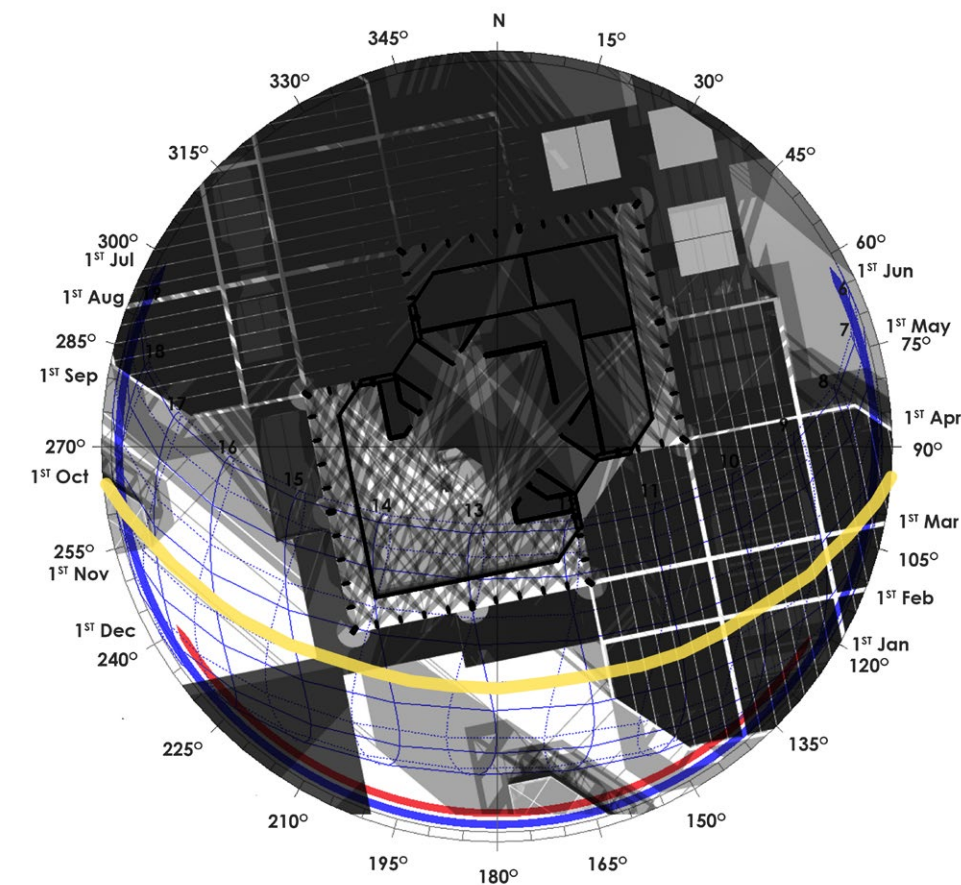
21 September



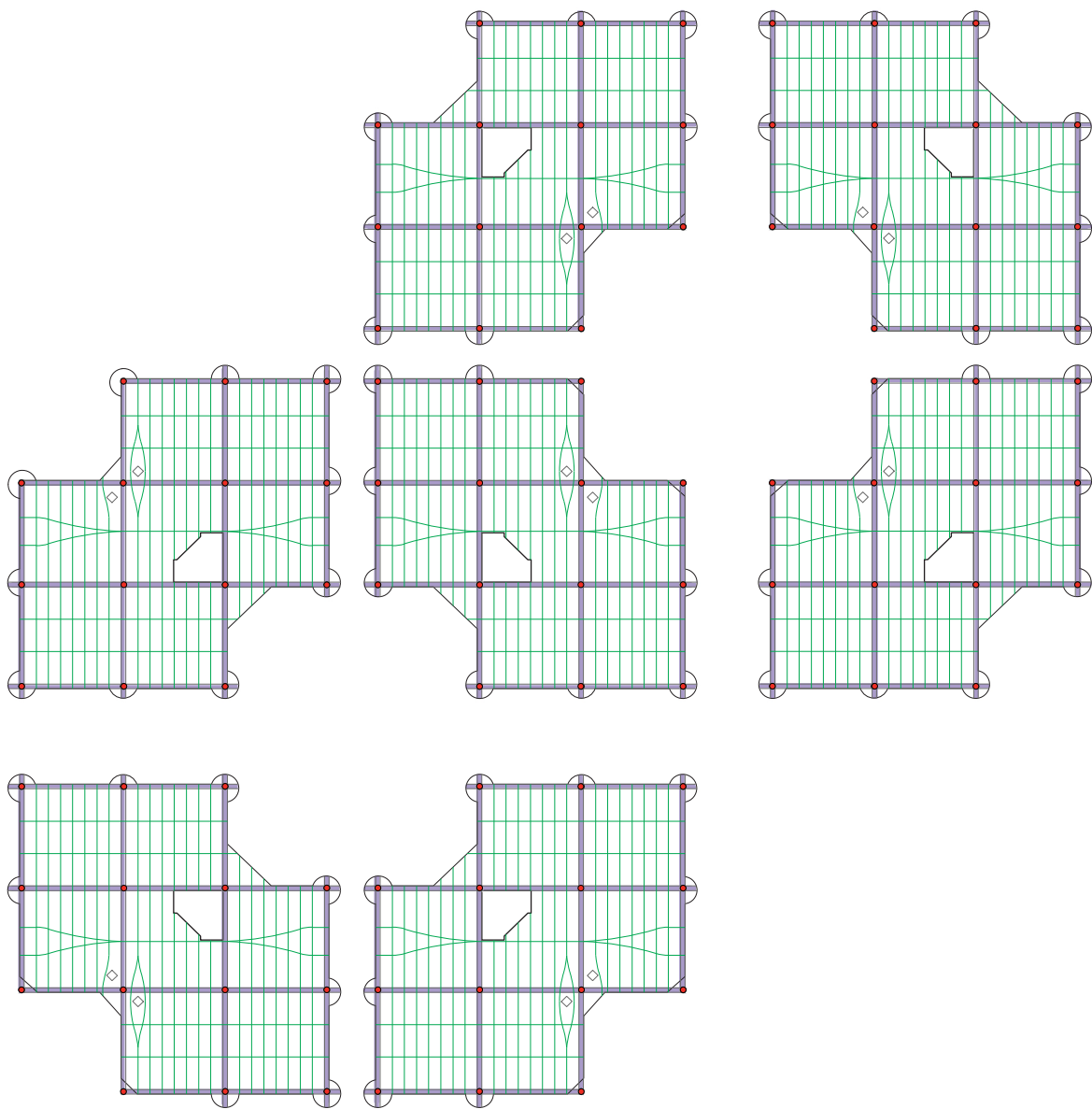
21 June



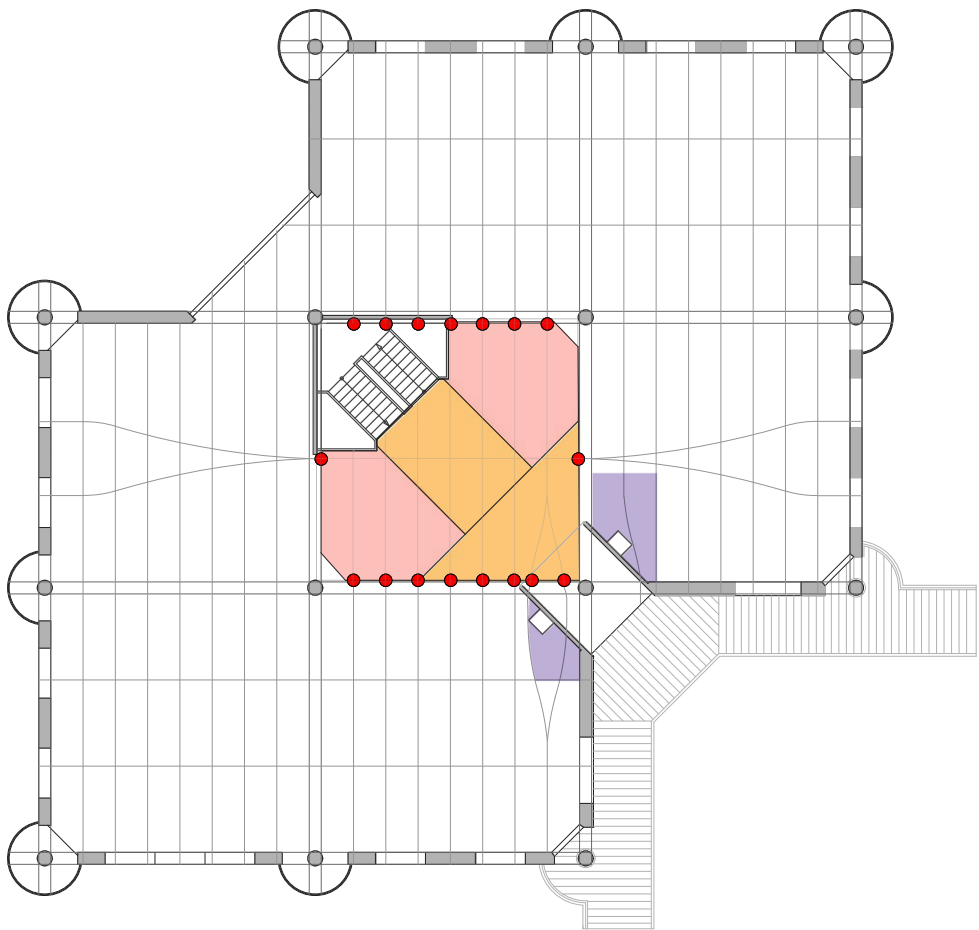
21 December







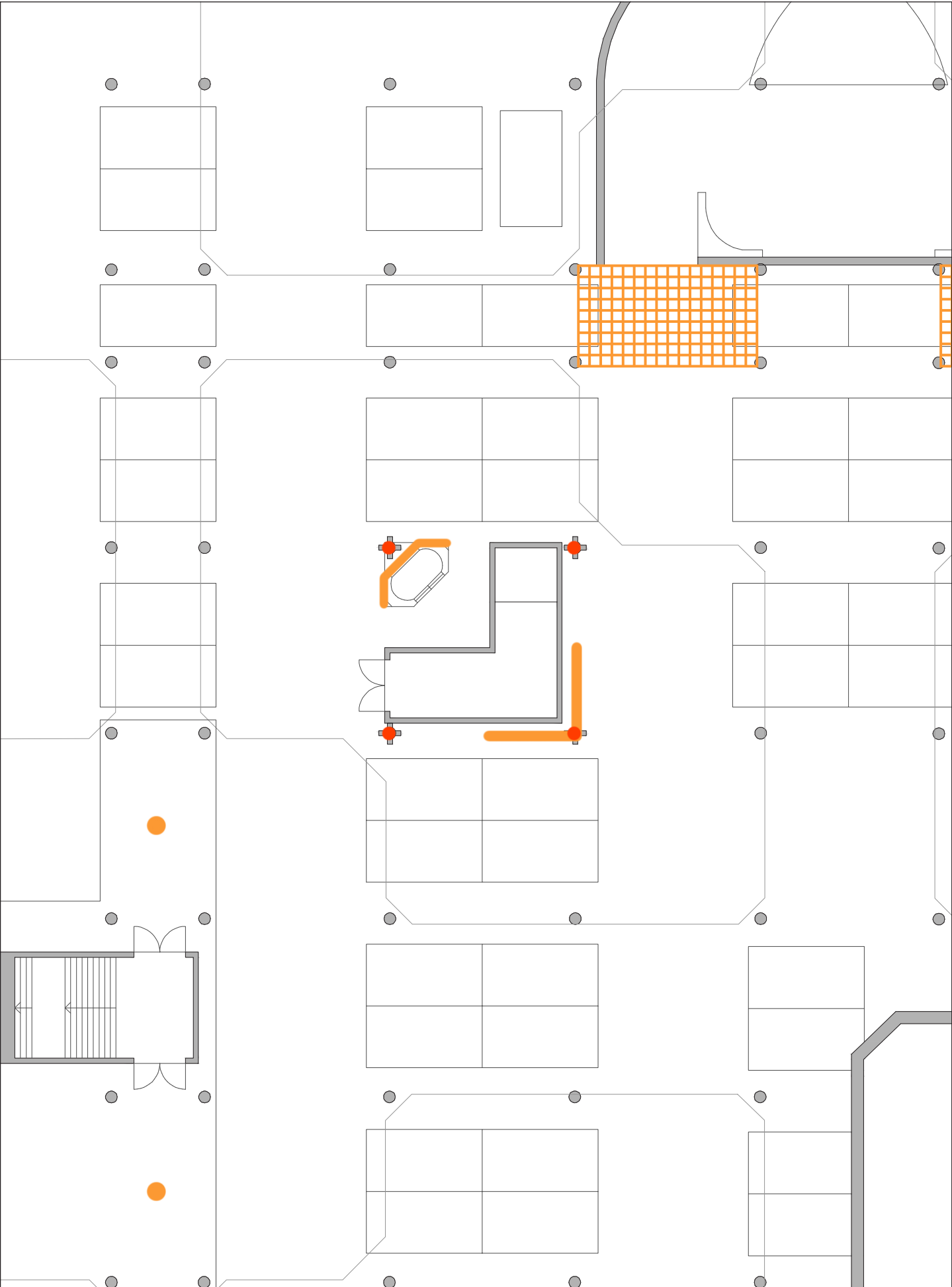
- KEY
- Primary Structure- Columns
  - Primary Structure- Steel reinforcement
  - Secondary Structure- Steel reinforcement



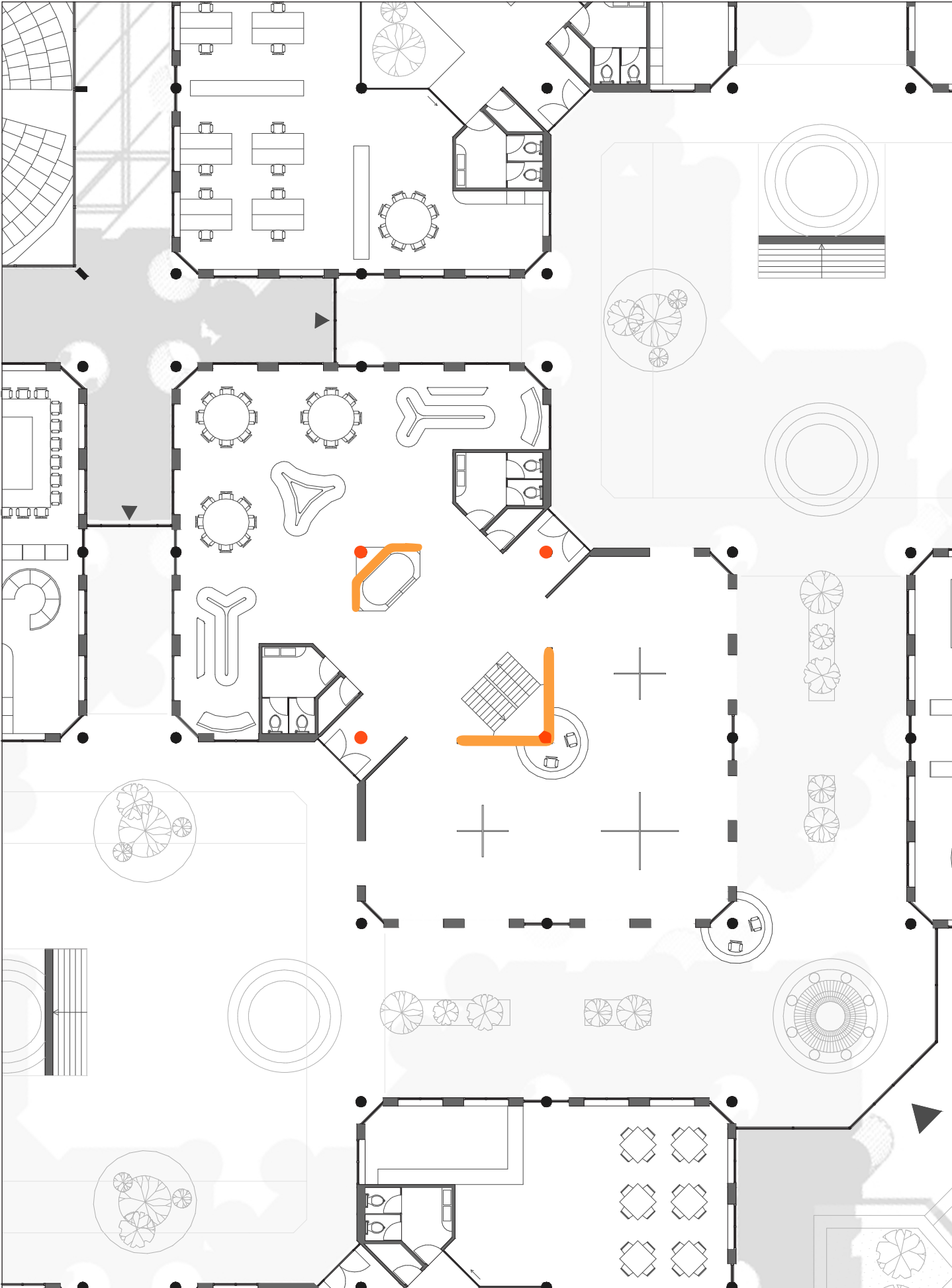
- KEY
- Fix in place the pre-stressed cables
  - Remove floor slab
  - Replace floor
  - Possible positions for new services voids. (Steel cables should remain intact)



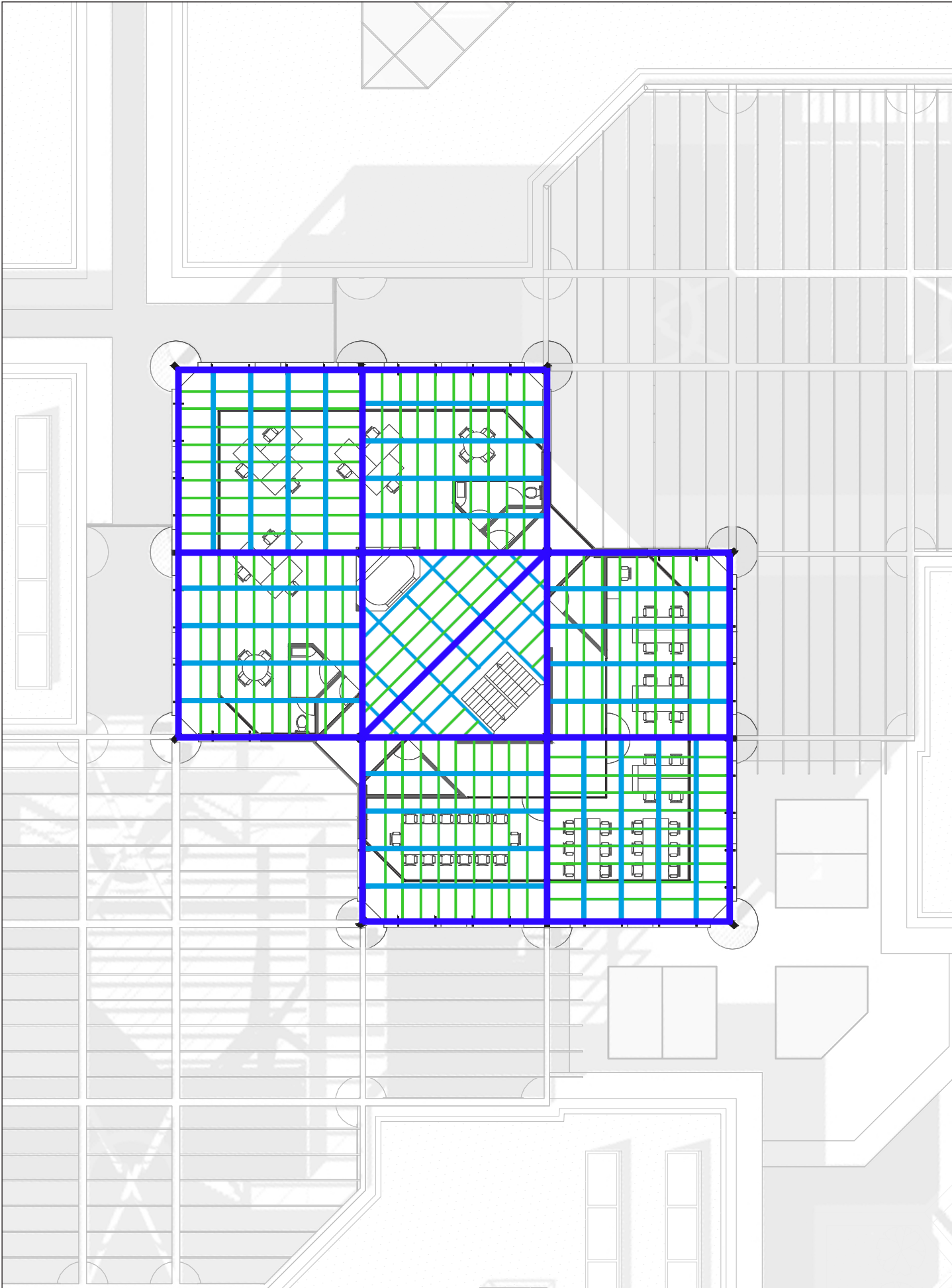
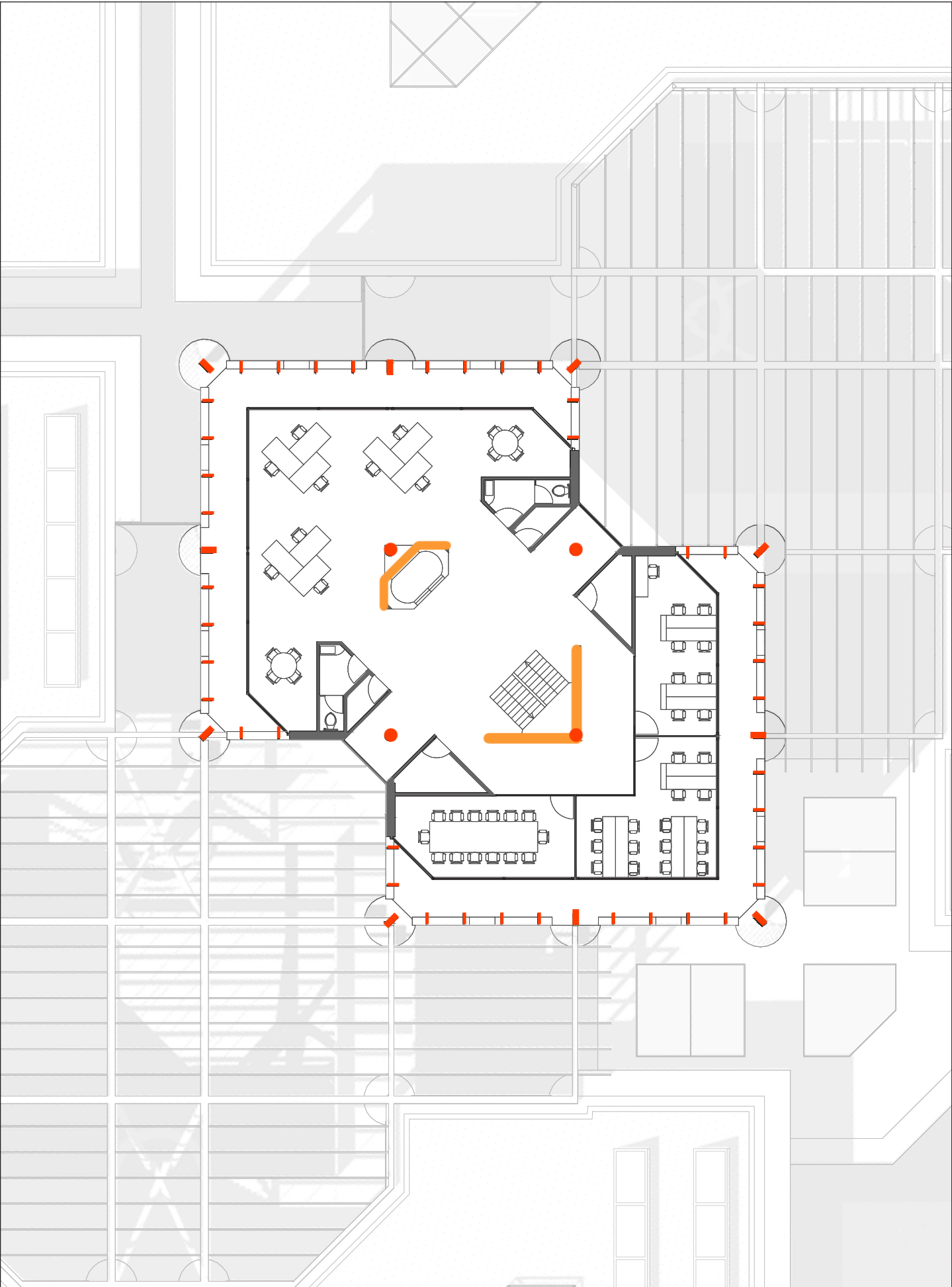
Existing Structure - Basement Reinforcement



Existing Structure - Ground-floor Reinforcement

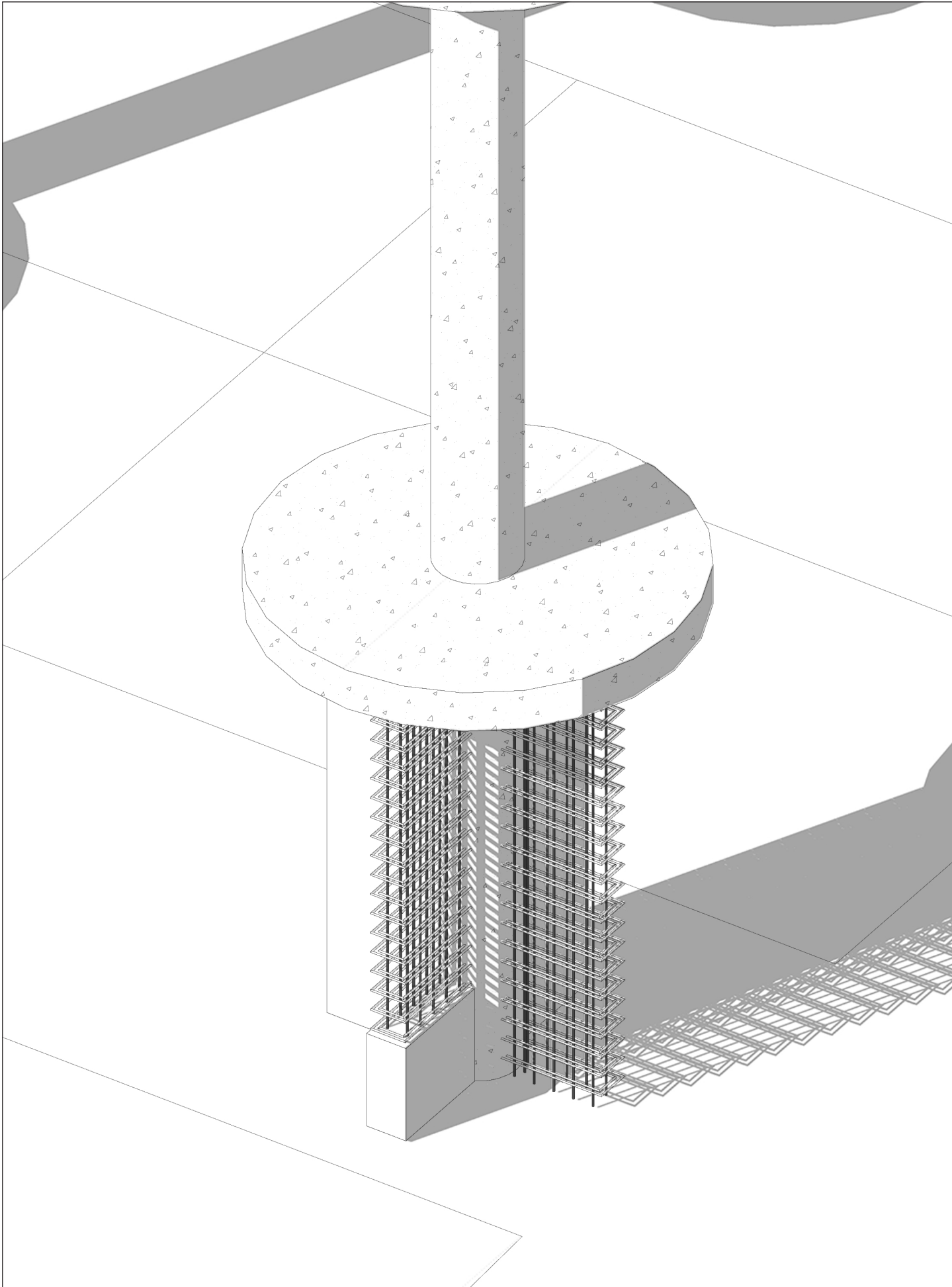




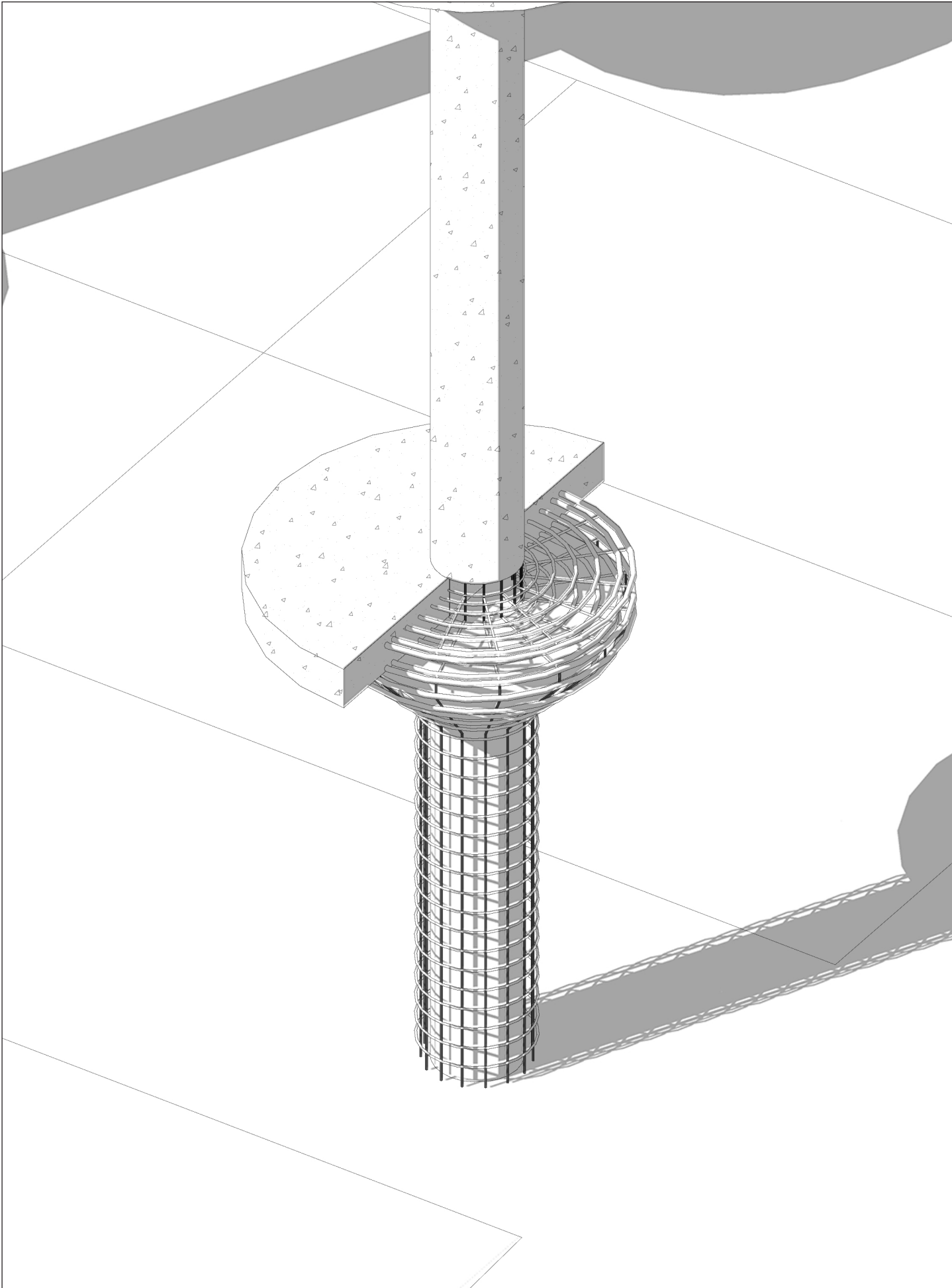




Column Reinforcement on Basement

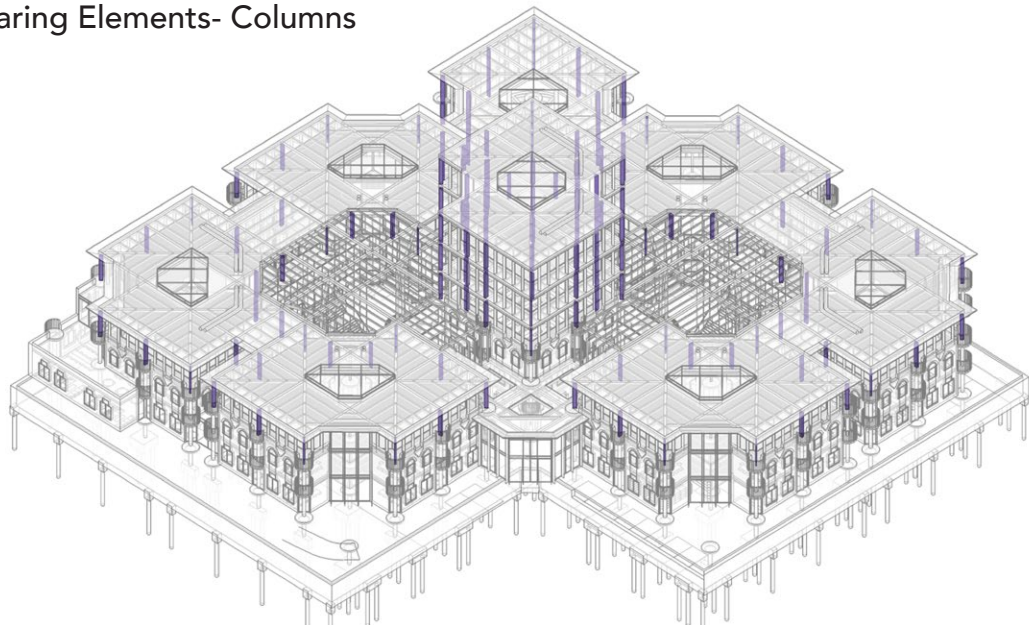


Column Reinforcement on Overground Levels

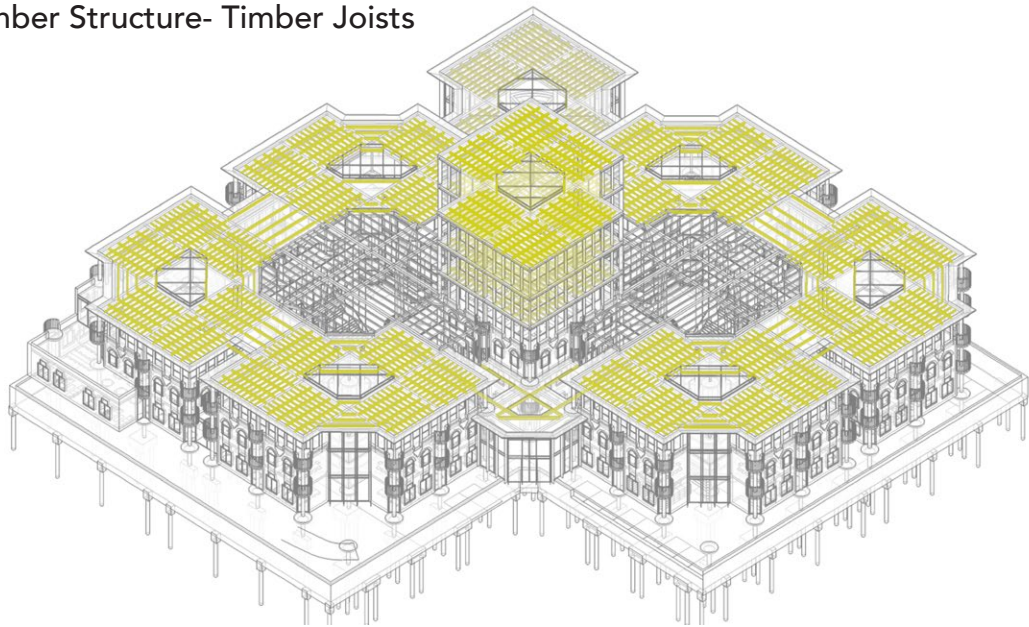




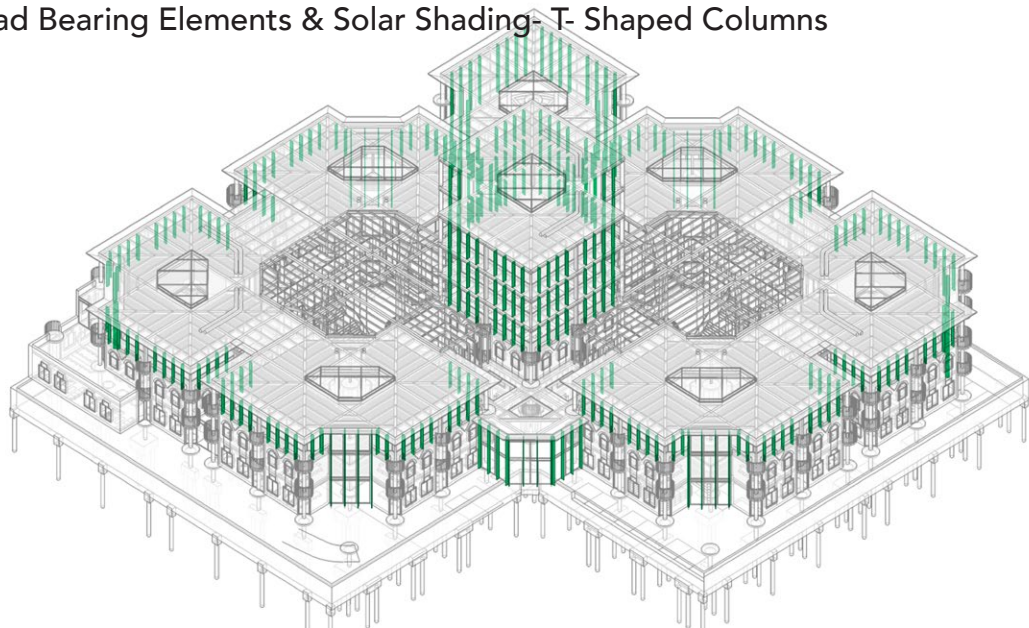
Main Load Bearing Elements- Columns



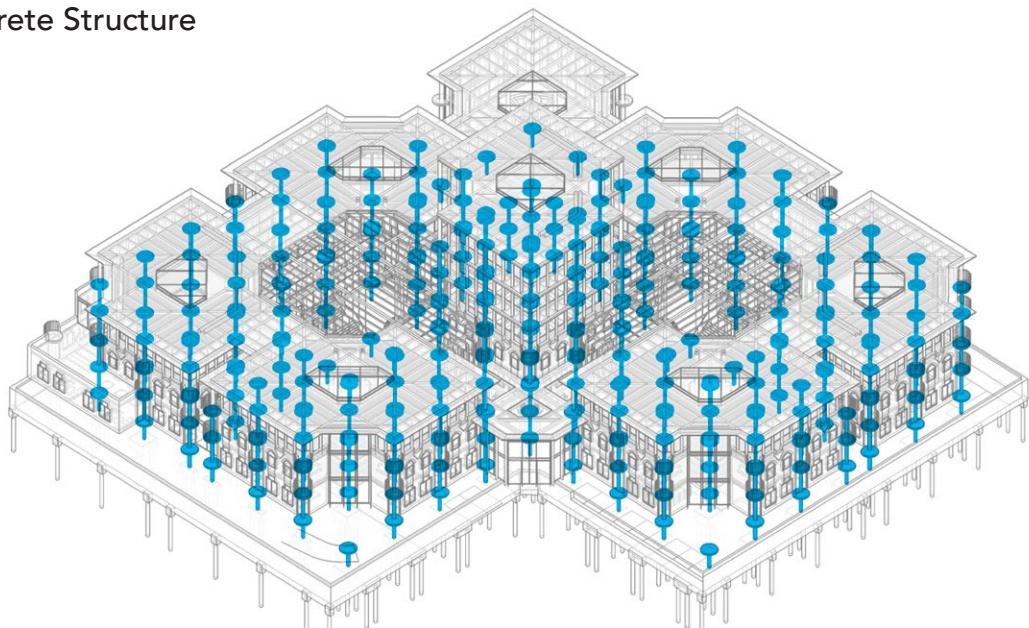
Secondary Timber Structure- Timber Joists



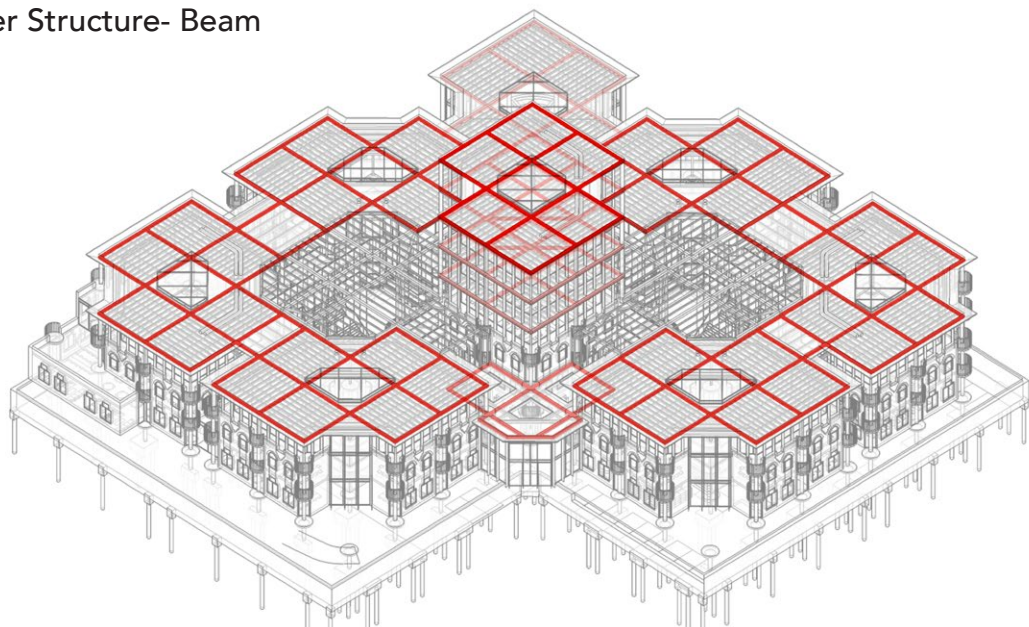
Secondary Load Bearing Elements & Solar Shading- T-Shaped Columns



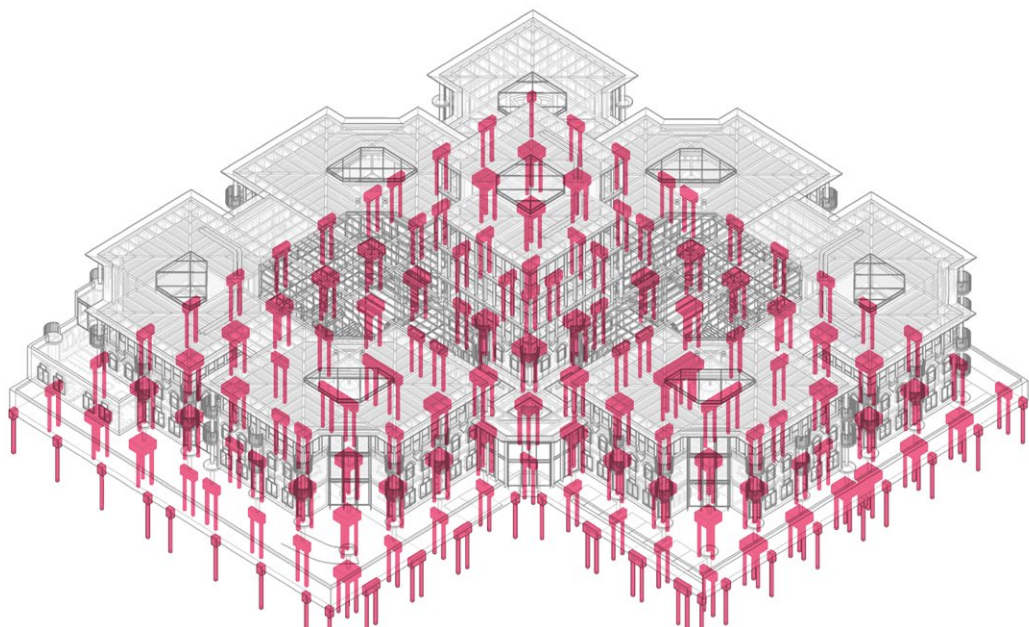
Existing Concrete Structure



Primary Timber Structure- Beam

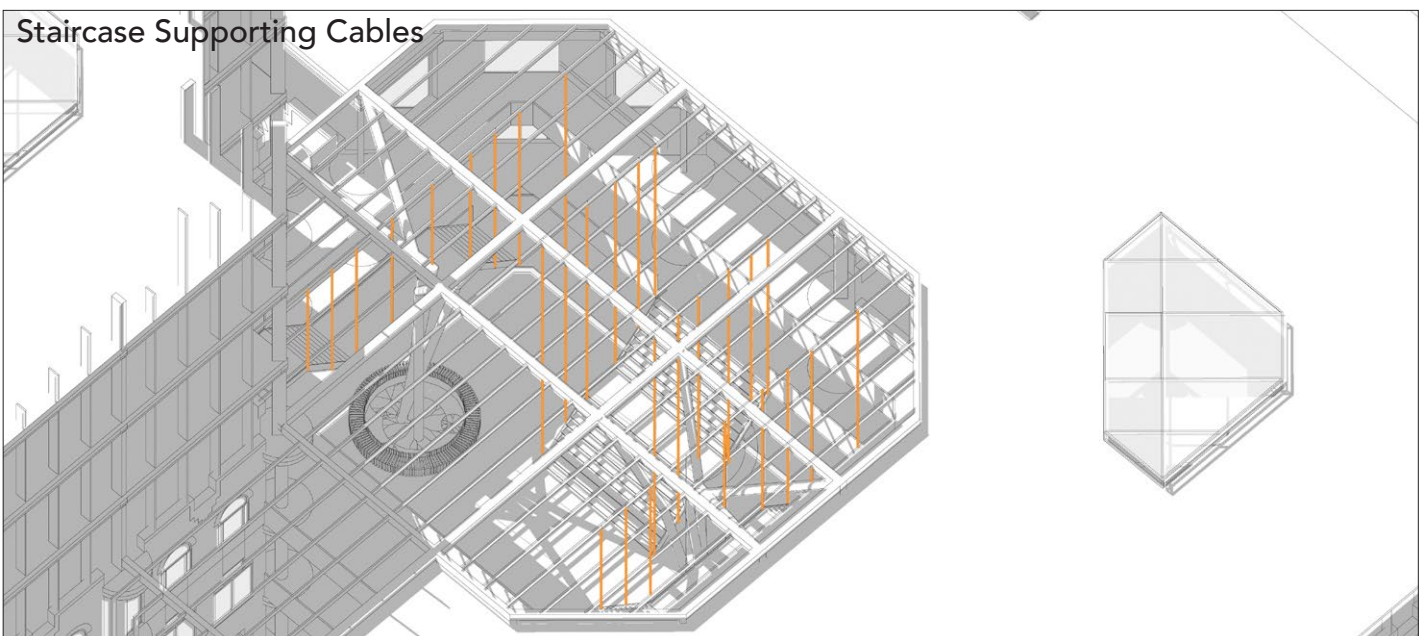
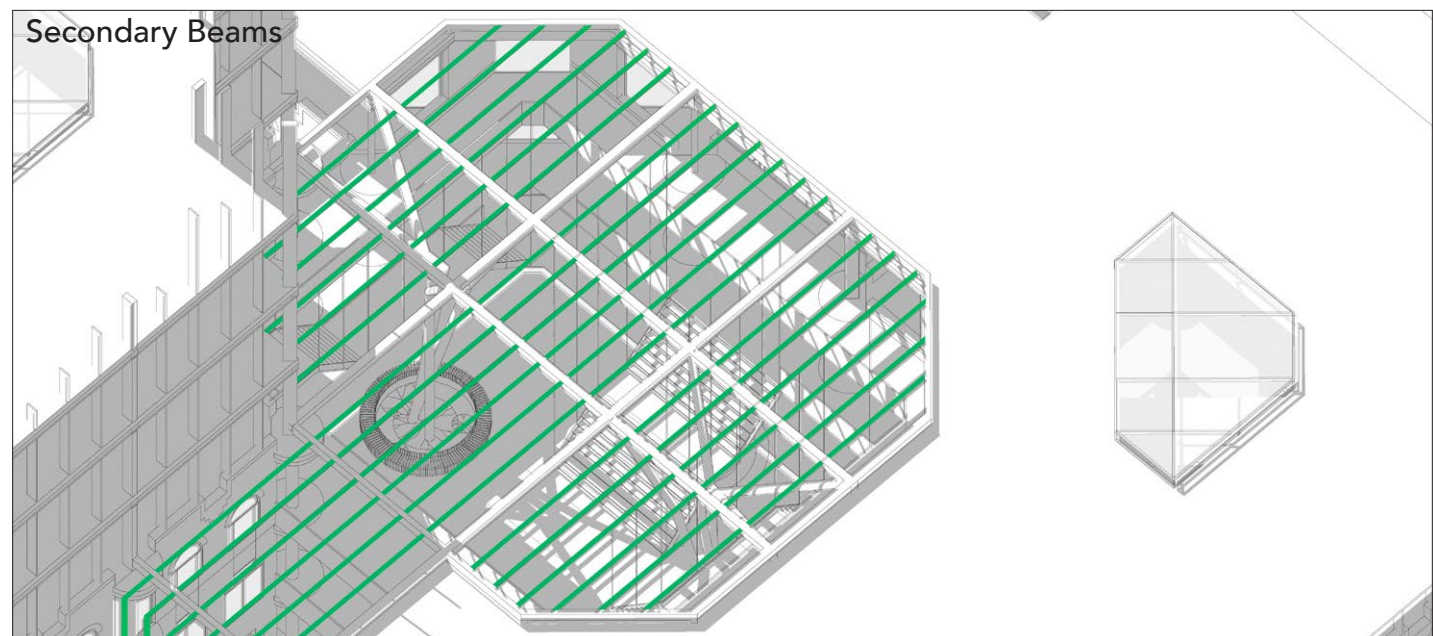
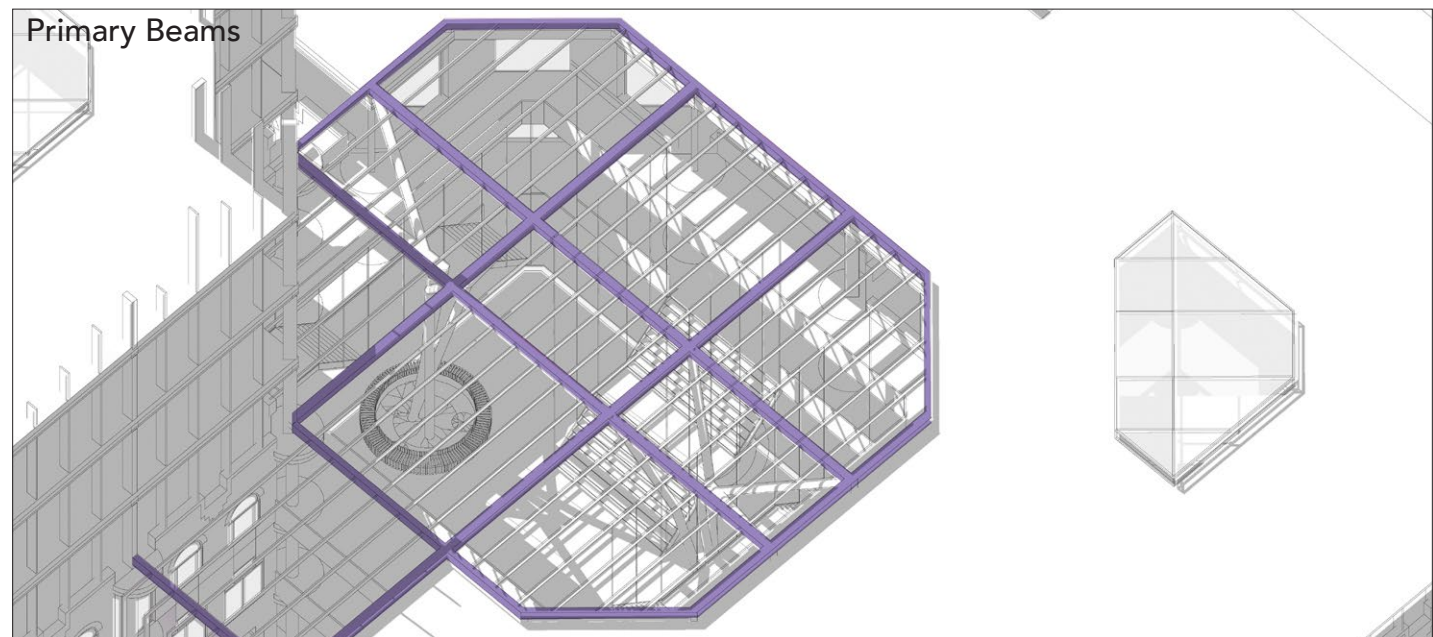
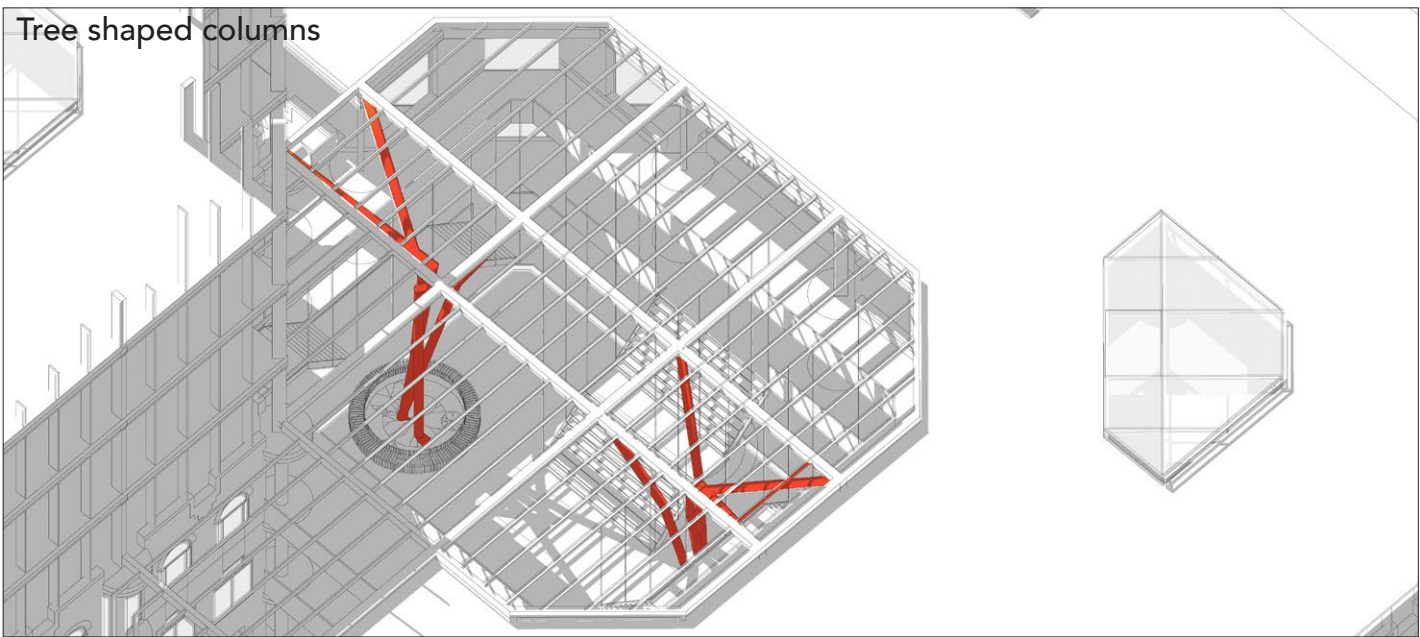
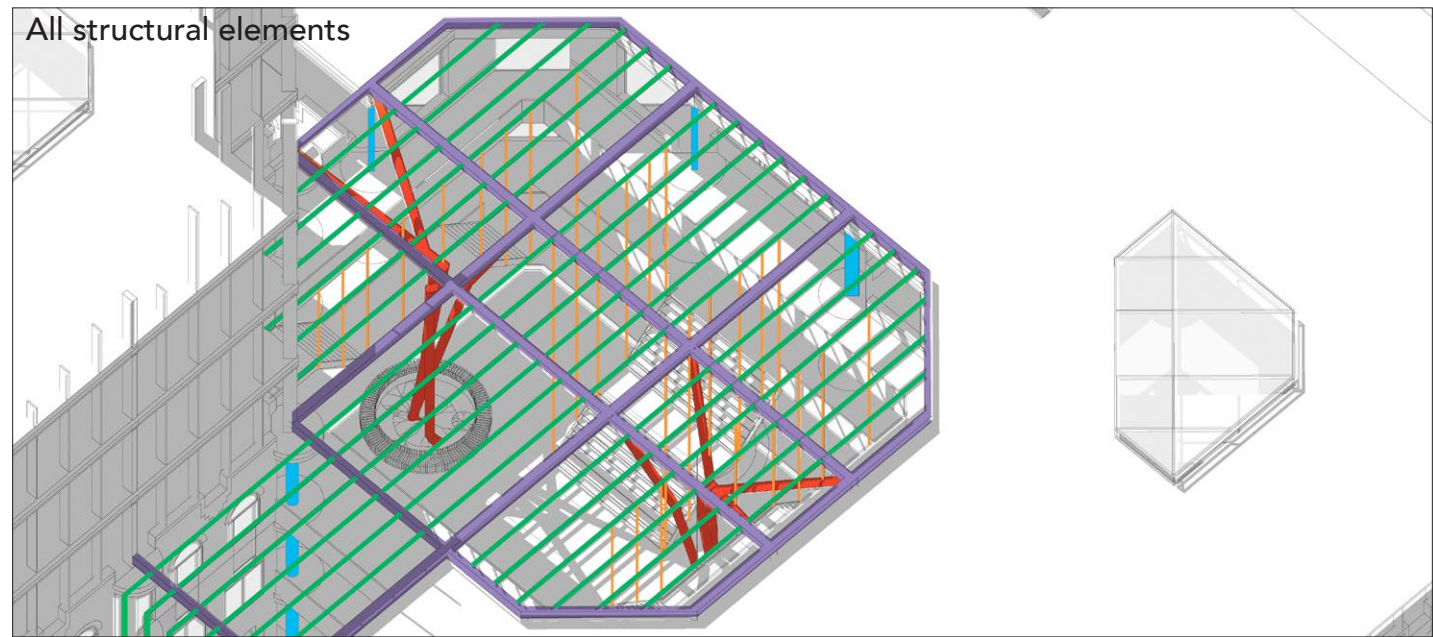


Foundations





Structural Axonometric- Courtyard



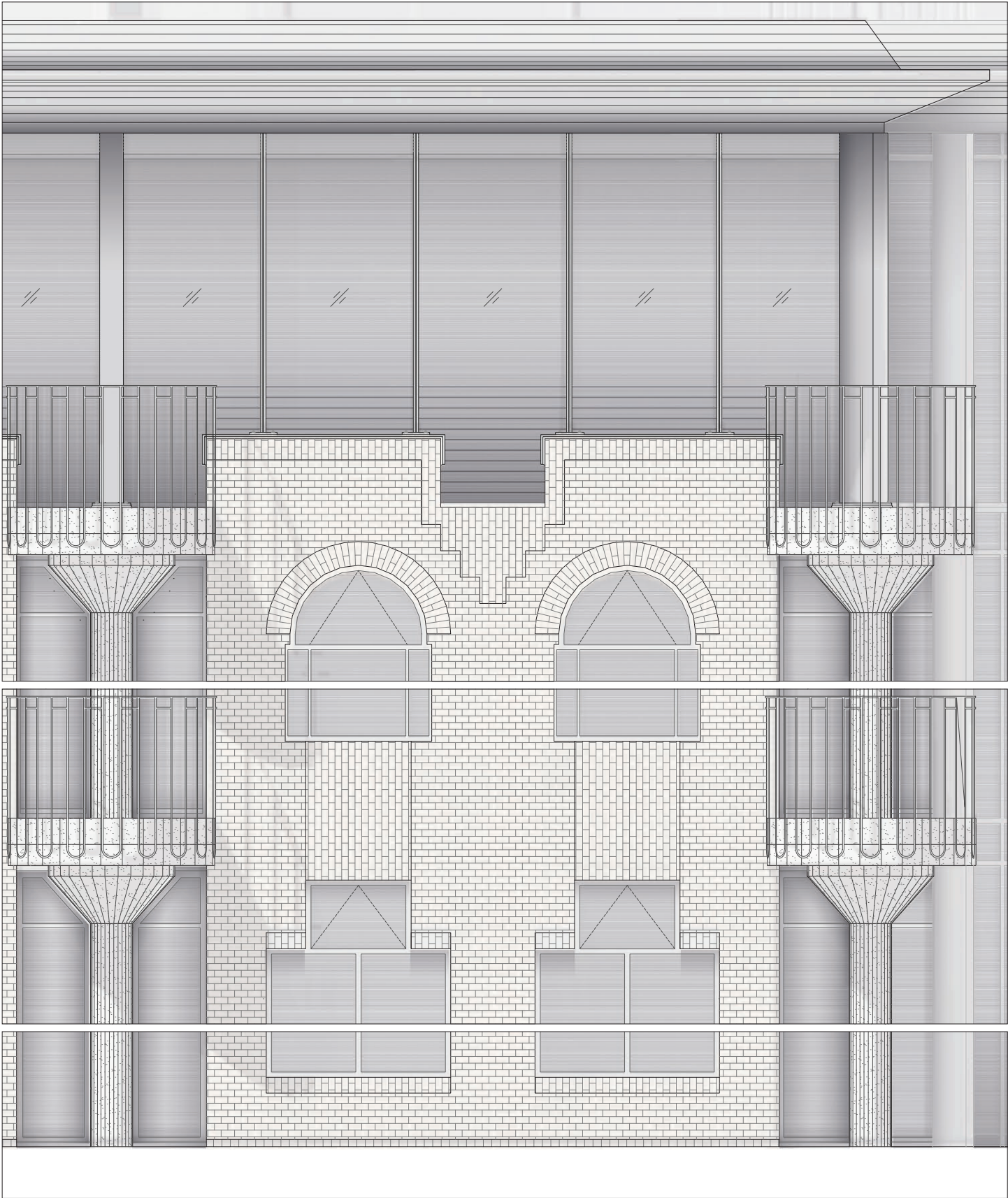


Details - Section, 1:50

- 1. 300mm Lightweight Soil  
16mm Geotextile  
Drainage Panel  
Waterproof Membrane  
180mm Insulation  
Vapour Barrier  
18mm Plywood  
450 x 300mm Accoya Timber Beam  
30mm Insulation  
400mm Gap bet. Roof & Suspended Ceiling  
Suspended Timber Ceiling, reusing the timber from the existing ceiling
- 2. 4mm Steel Sheet  
Frame of Steel Omega Profiles 20mm  
40mm Insulation (Rain noise absorption)  
Steel Plate with T-Shaped Edges
- 3. Air Inlets
- 4. 80mm Cast in-situ Concrete  
Waterproof Membrane  
100mm Insulation  
Vapour Barrier  
250mm Existing Concrete Floor Slab  
100mm Insulation  
400mm Gap bet. Roof & Suspended Ceiling  
Suspended Timber Ceiling, reusing the timber from the existing ceiling
- 5. 105mm Red Brick  
65mm Cavity  
65mm Insulation (Existing)  
105mm Concrete Blocks  
Waterproof Membrane  
100mm Insulation  
Vapour Barrier  
Plasterboard

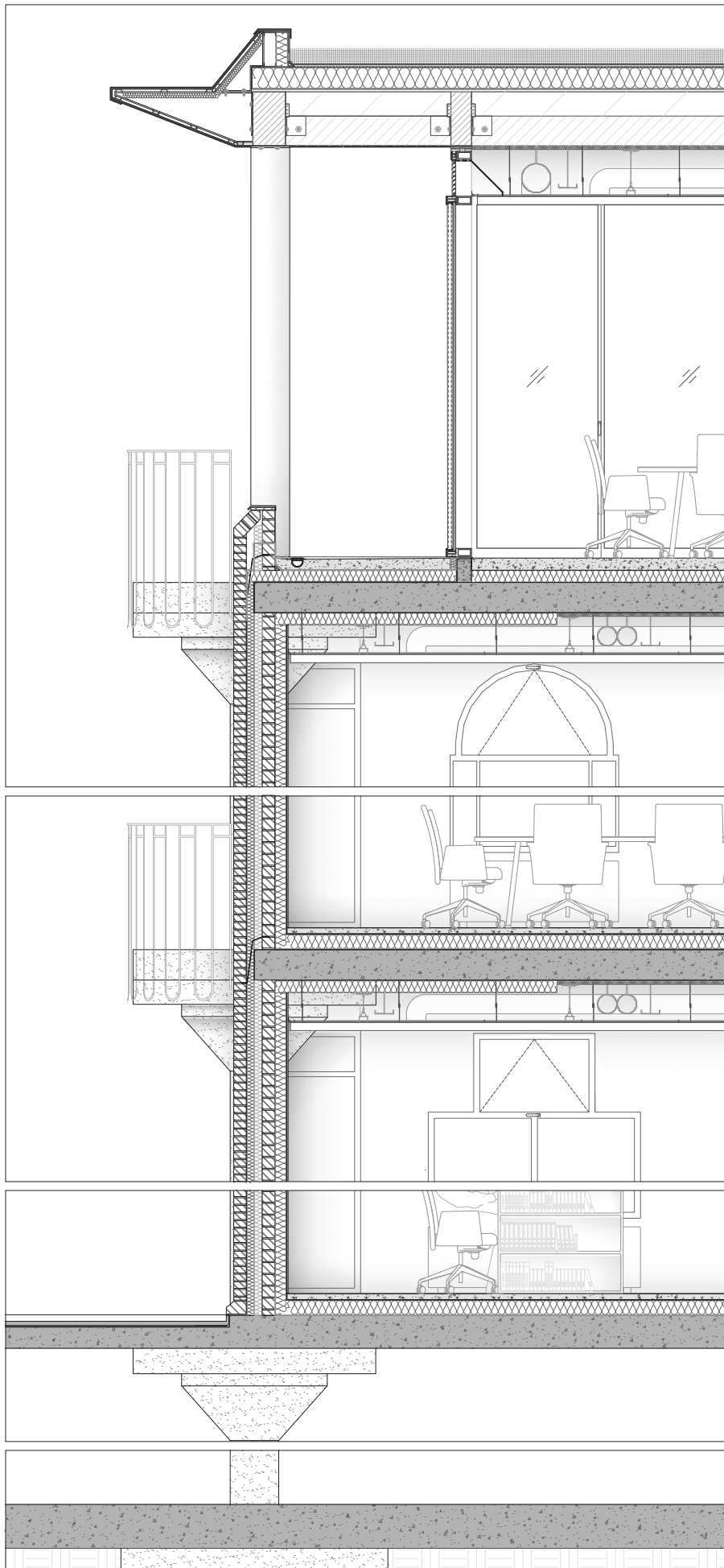


Details - Elevation, 1:50

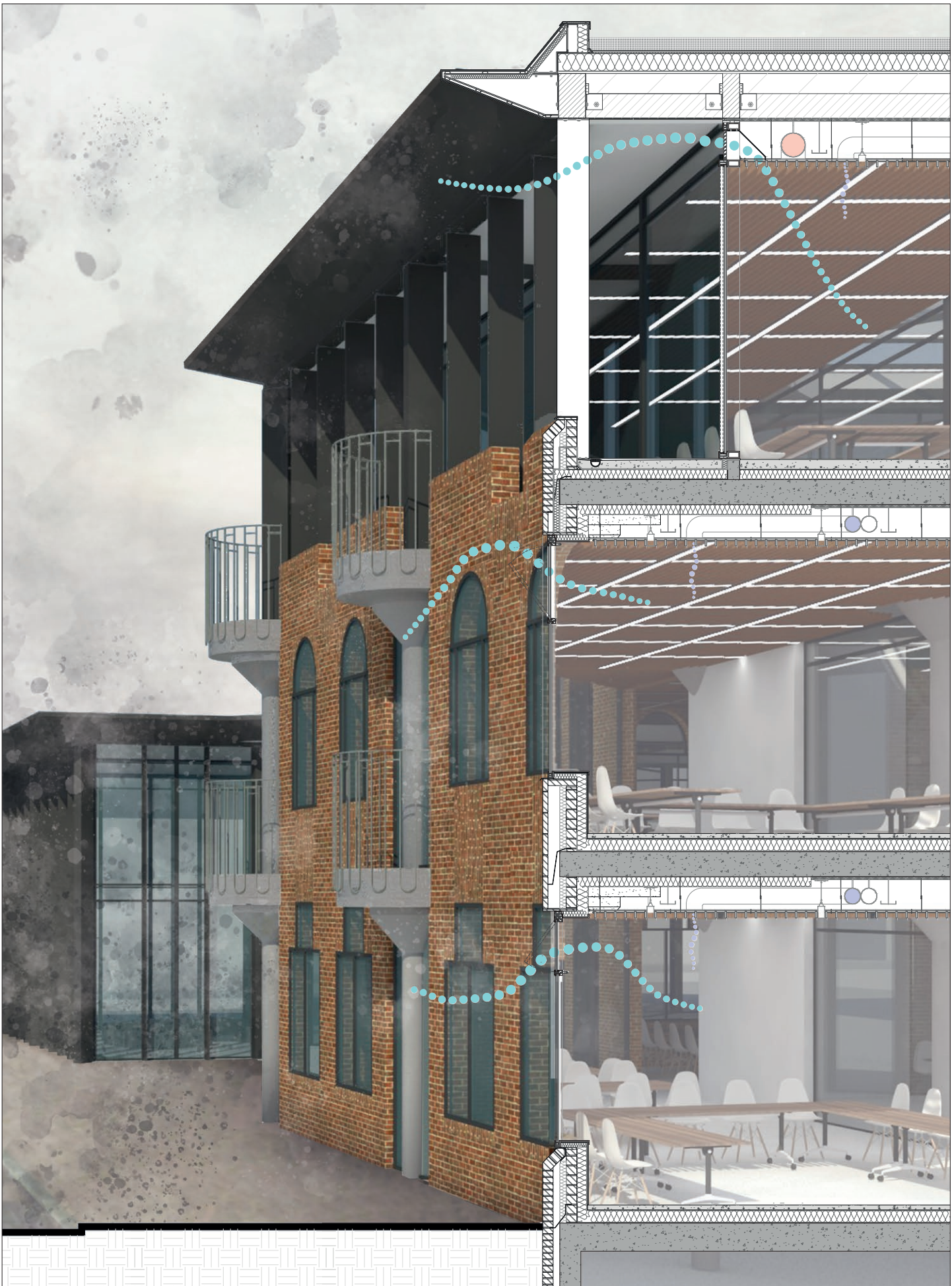




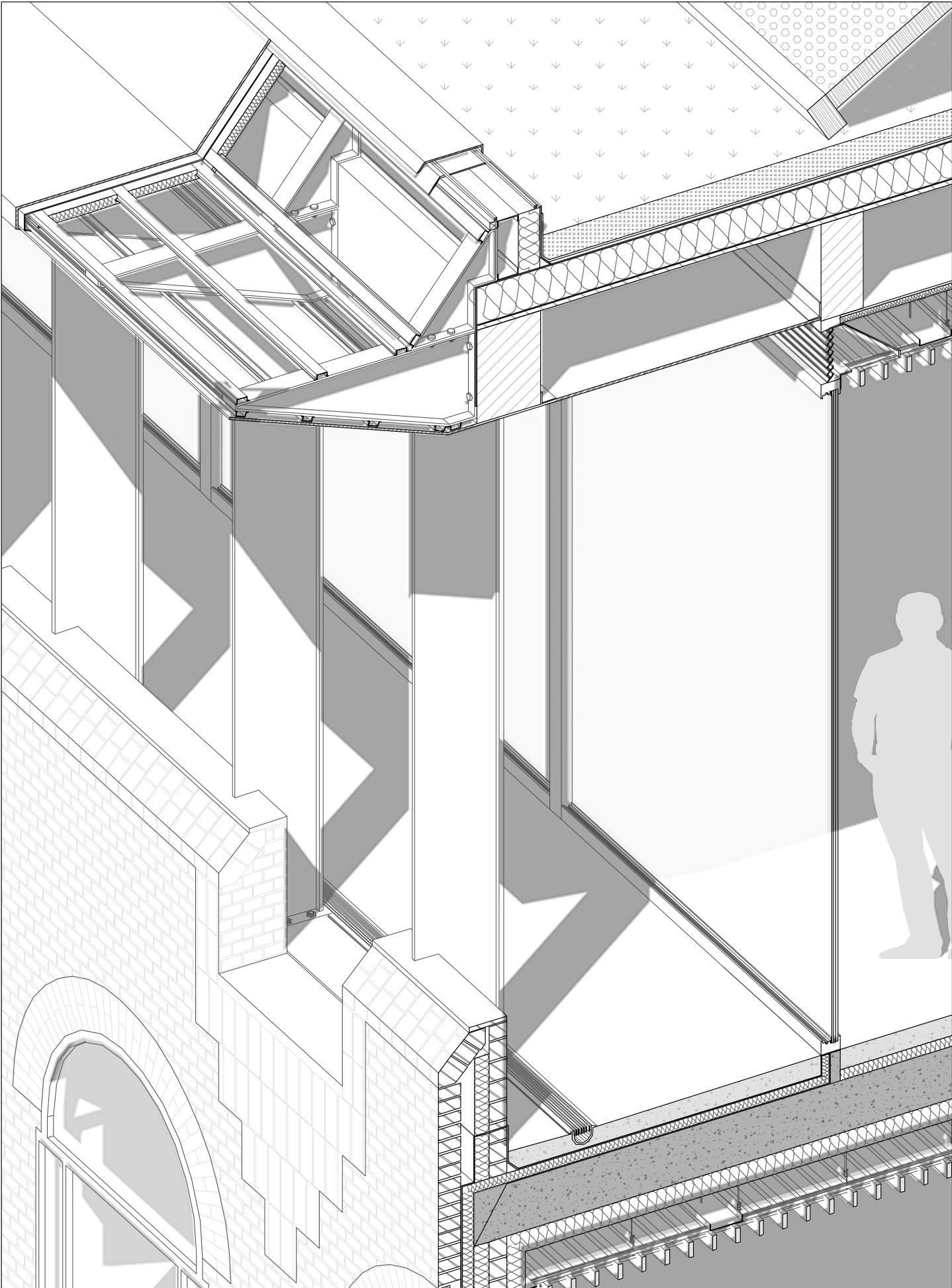
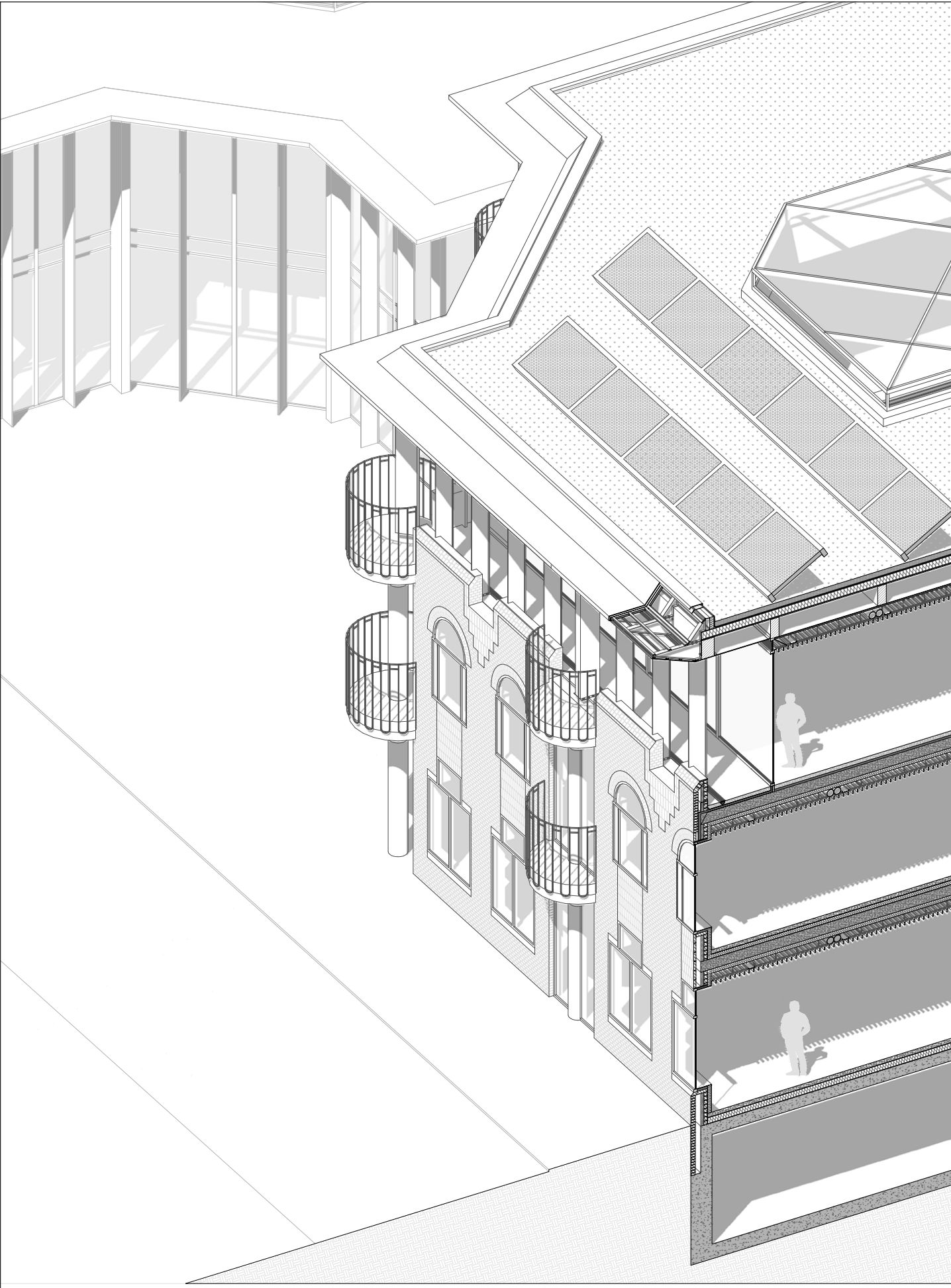
Details - Interior Elevation, 1:50



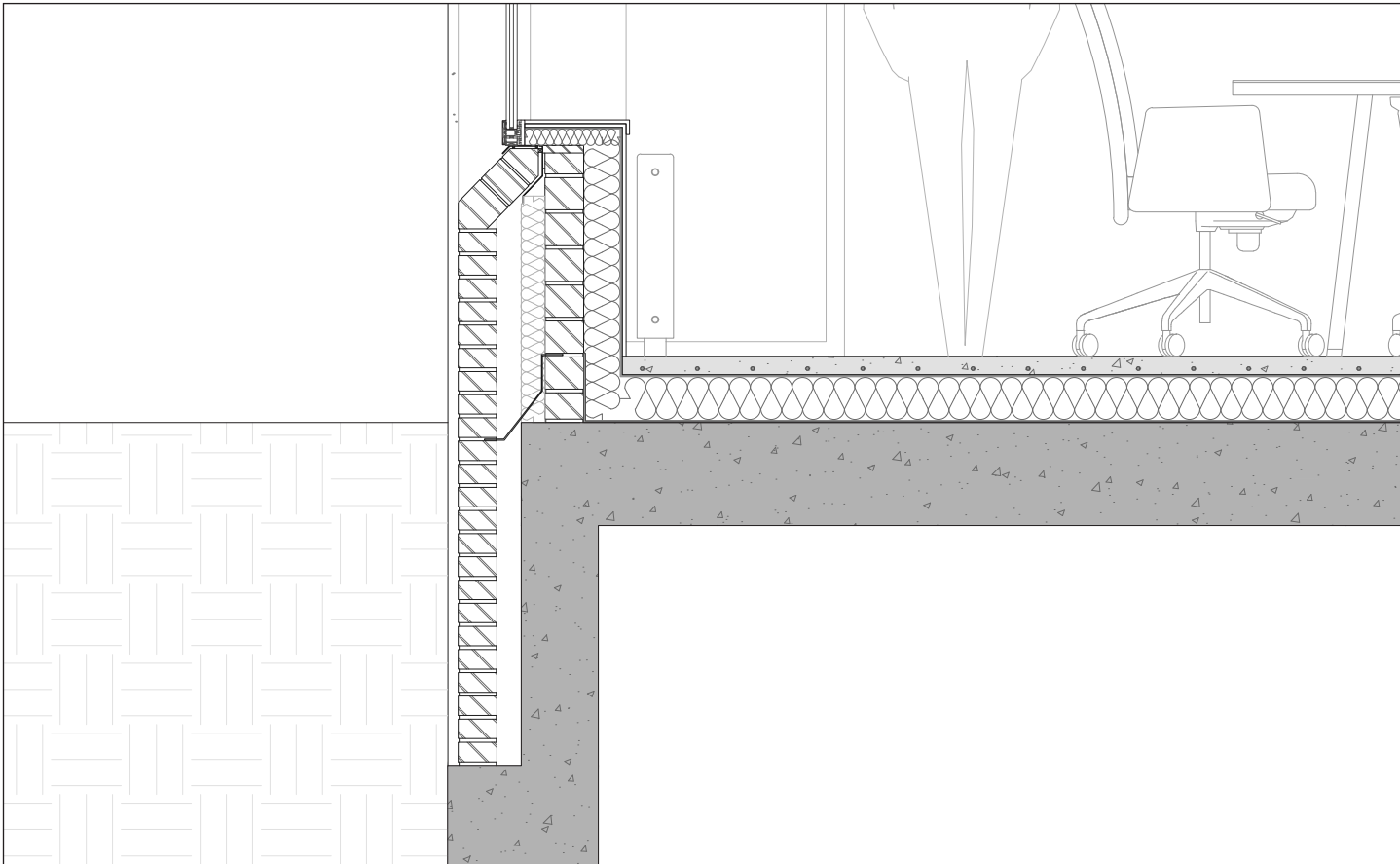
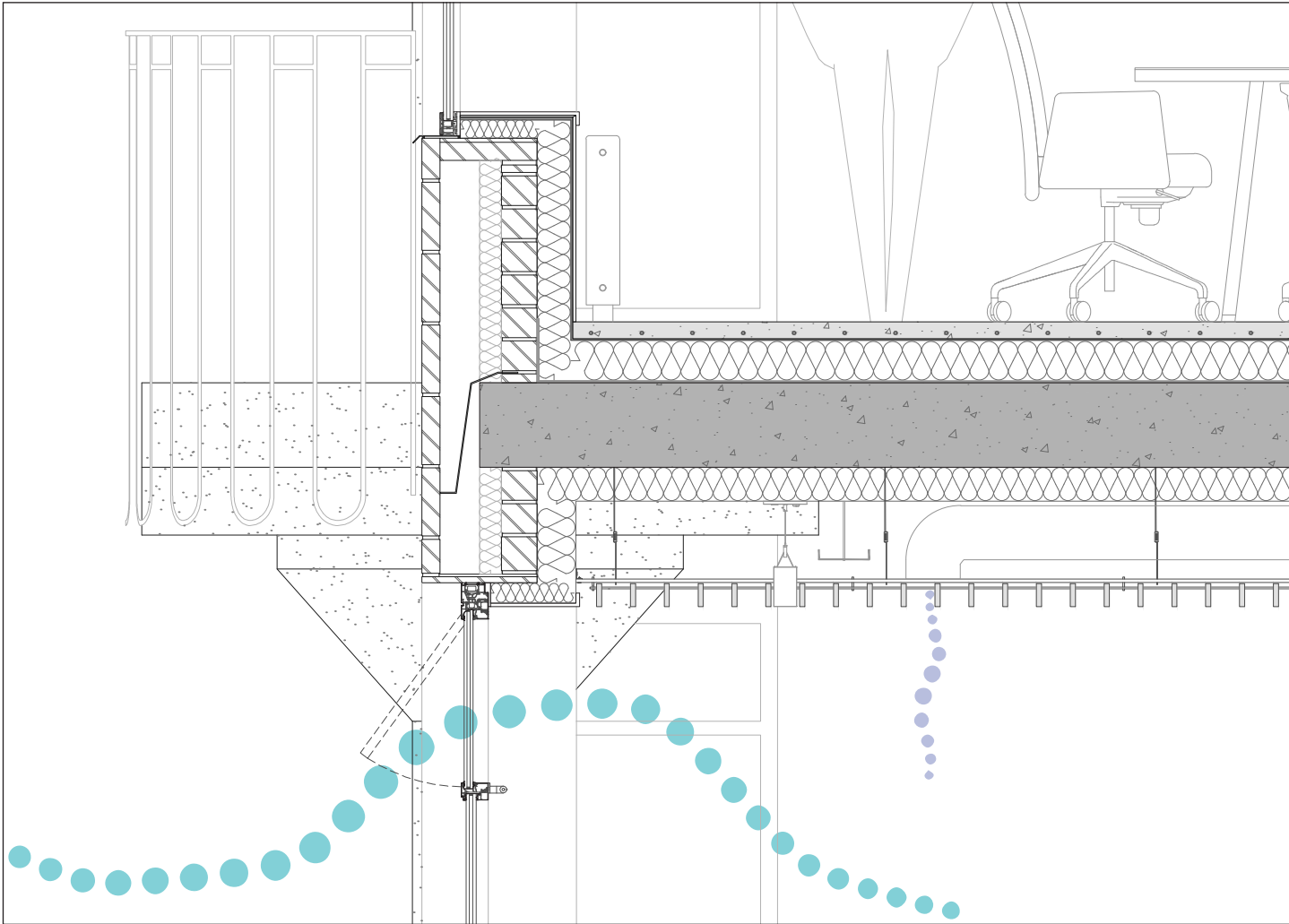
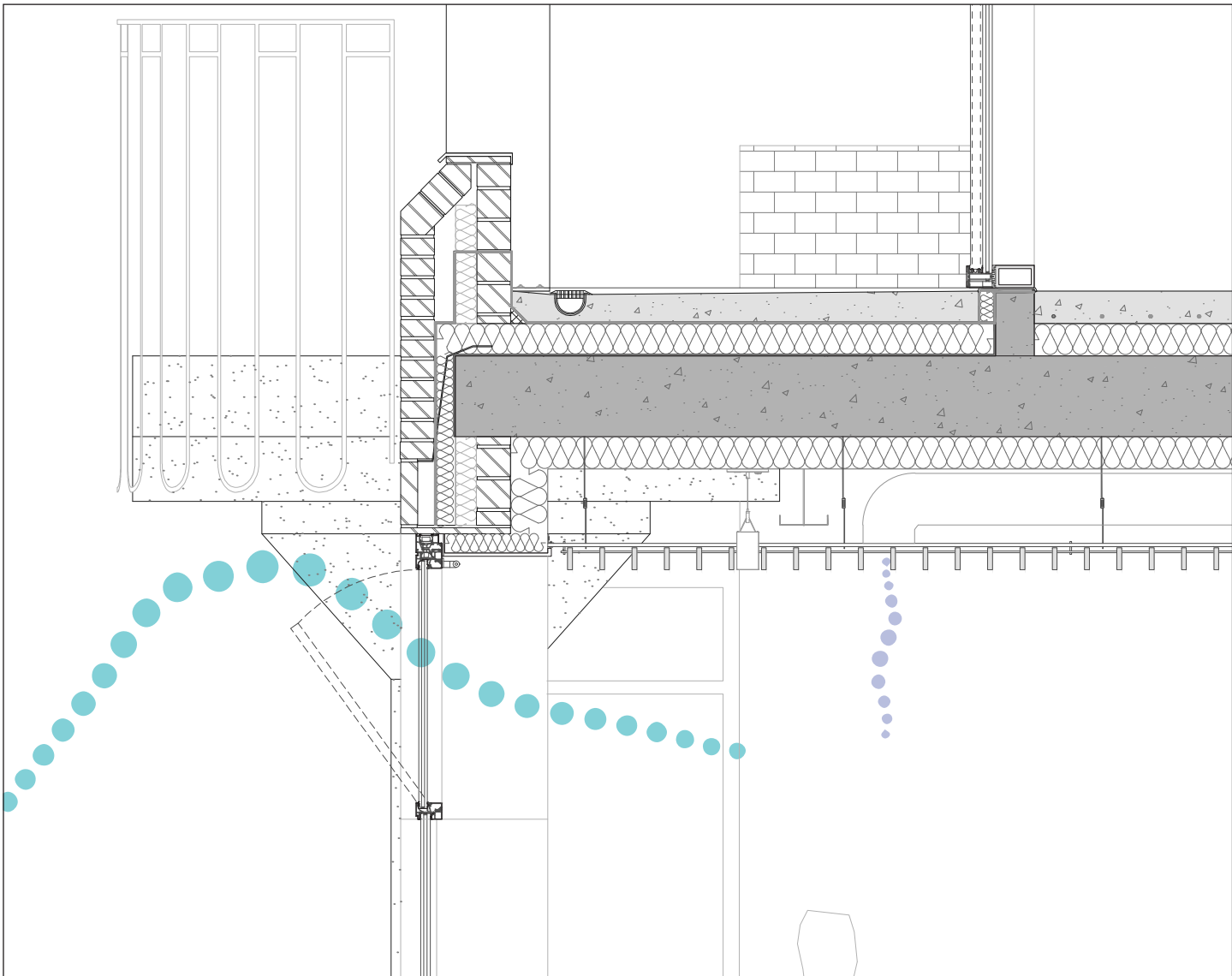
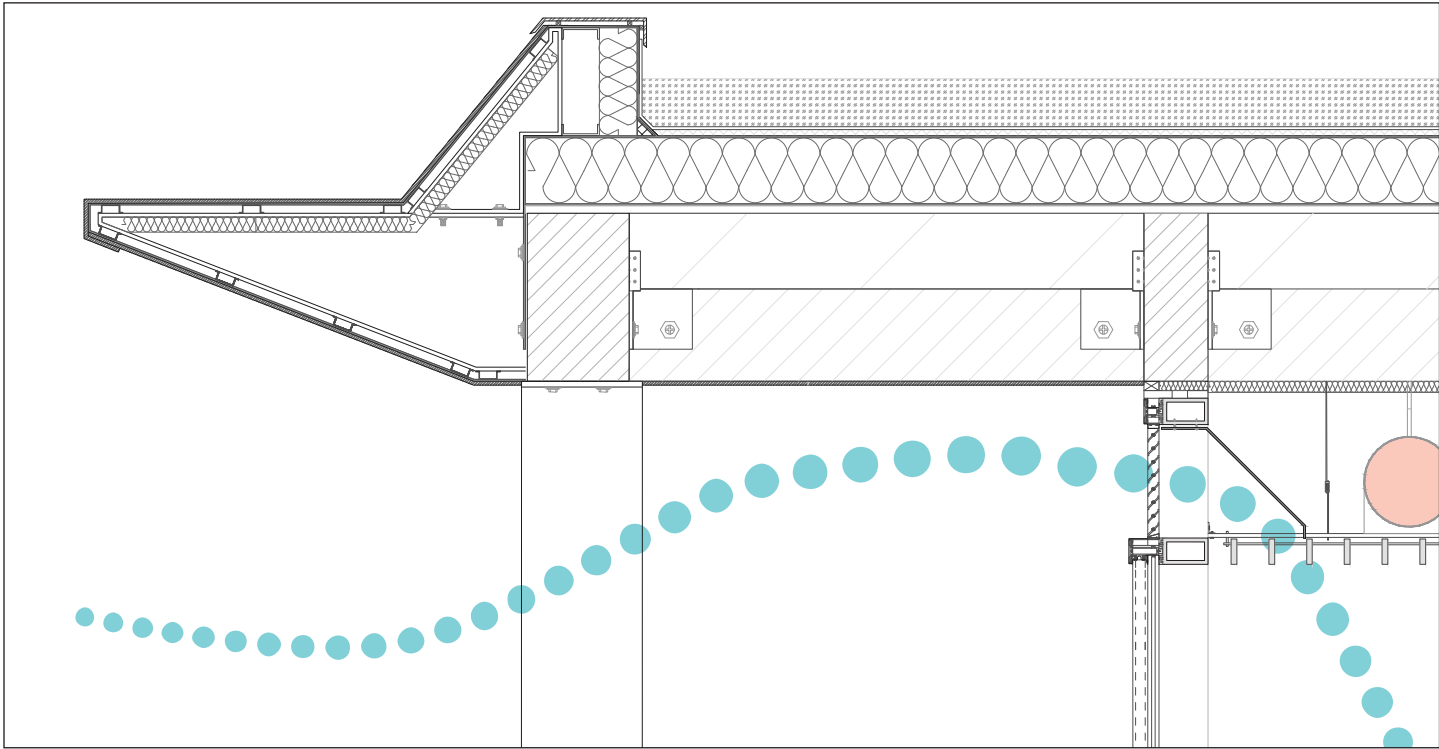
Details - Sectional Perspective, 1:50



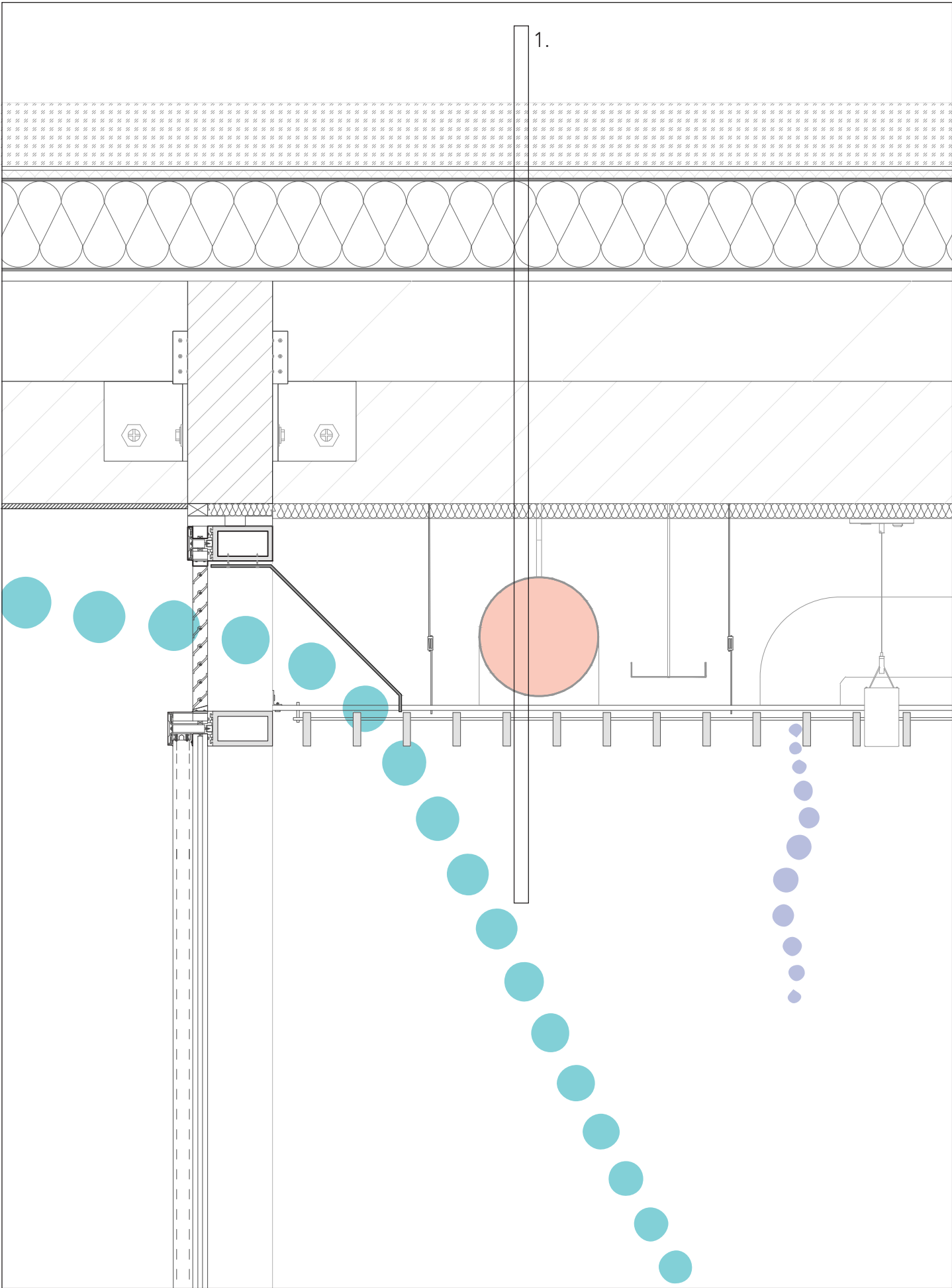
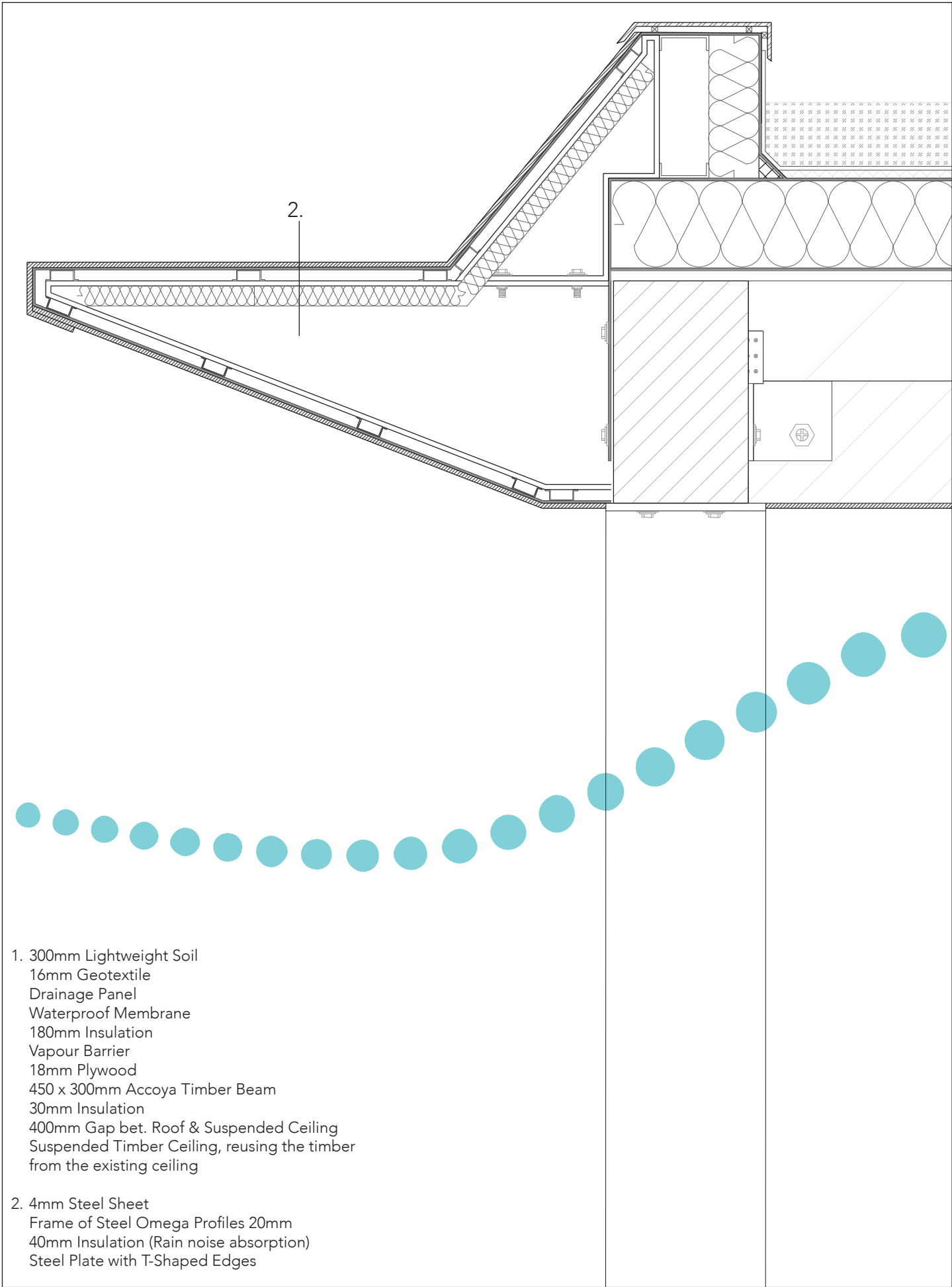




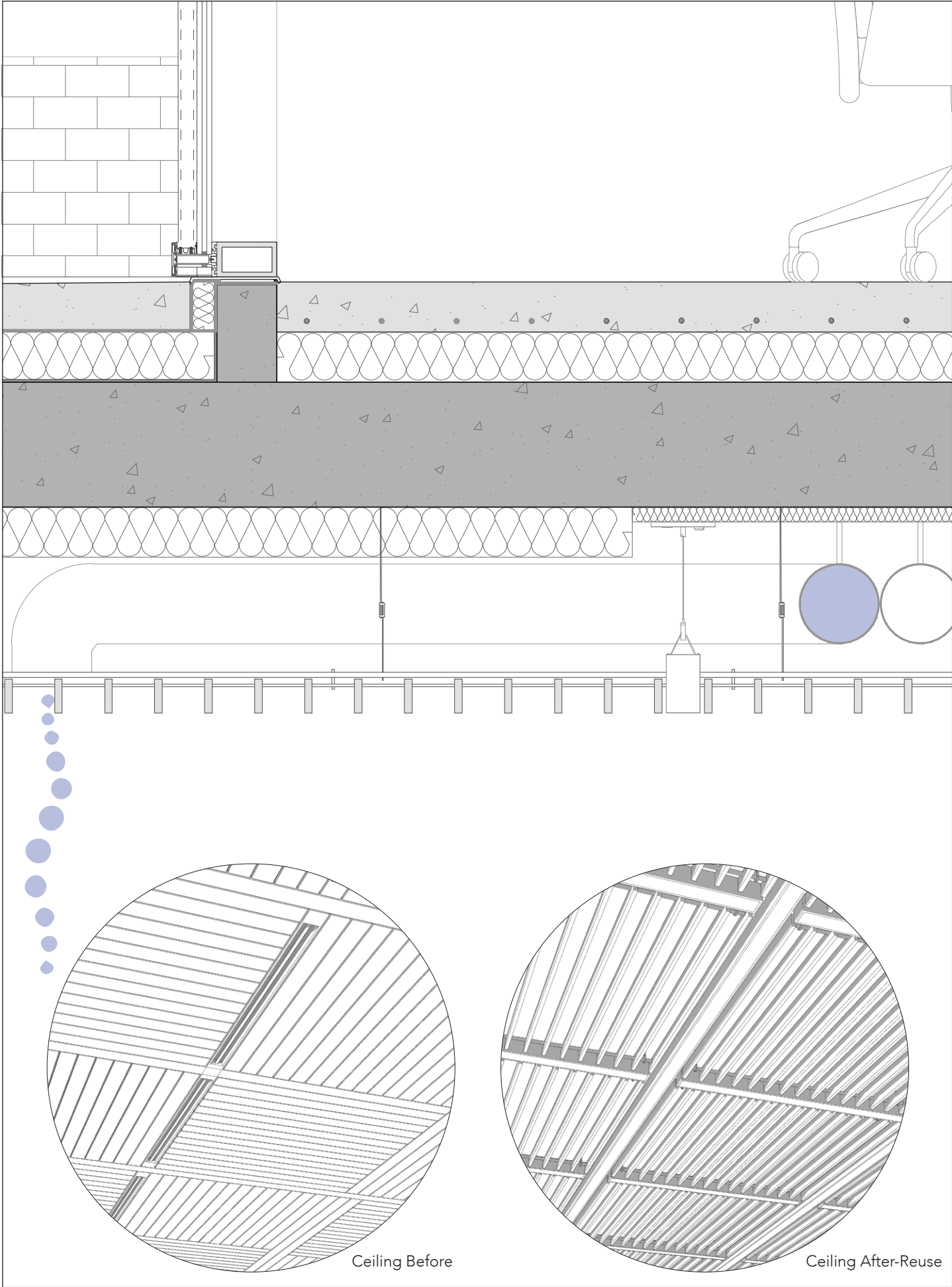
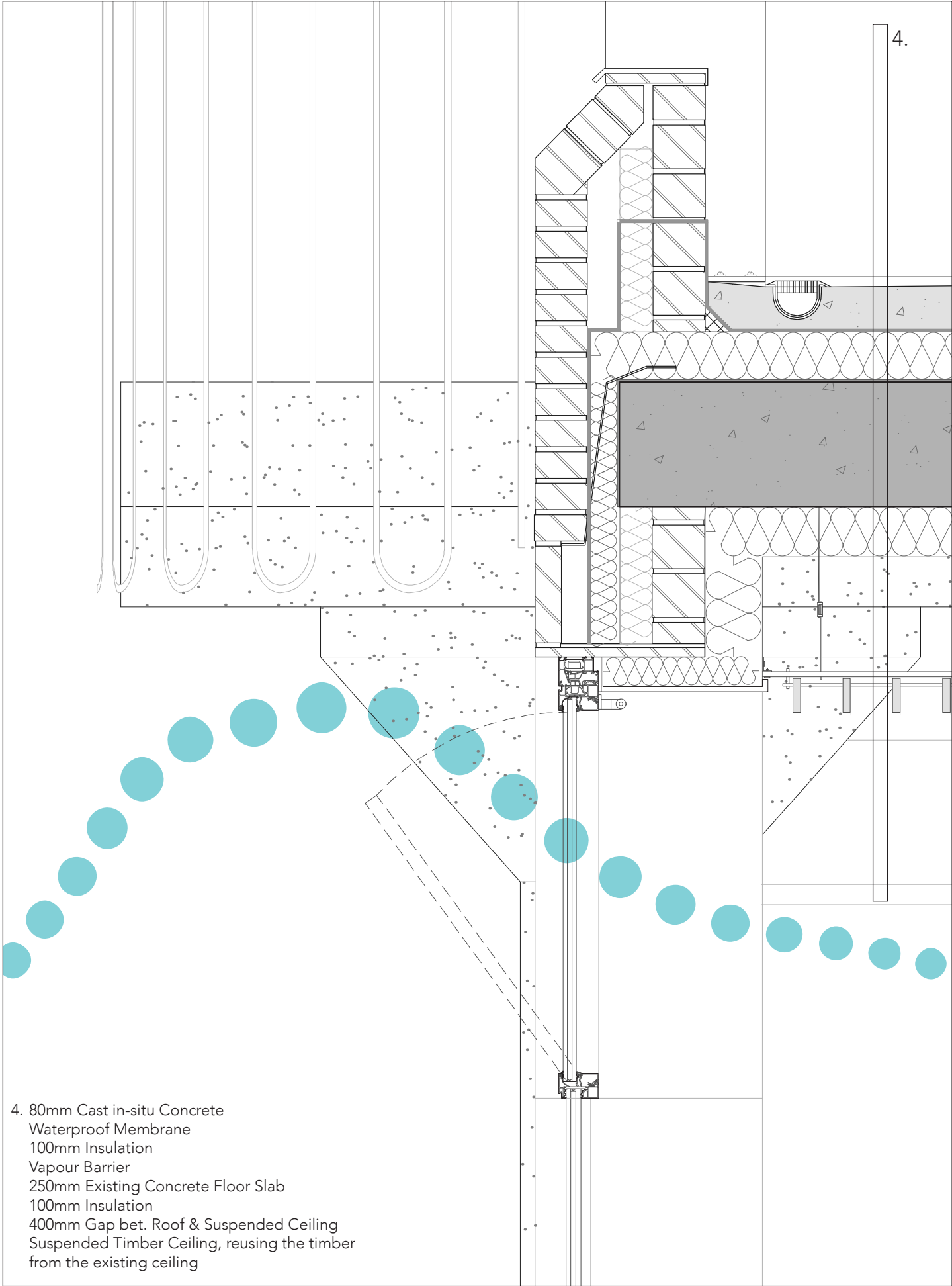




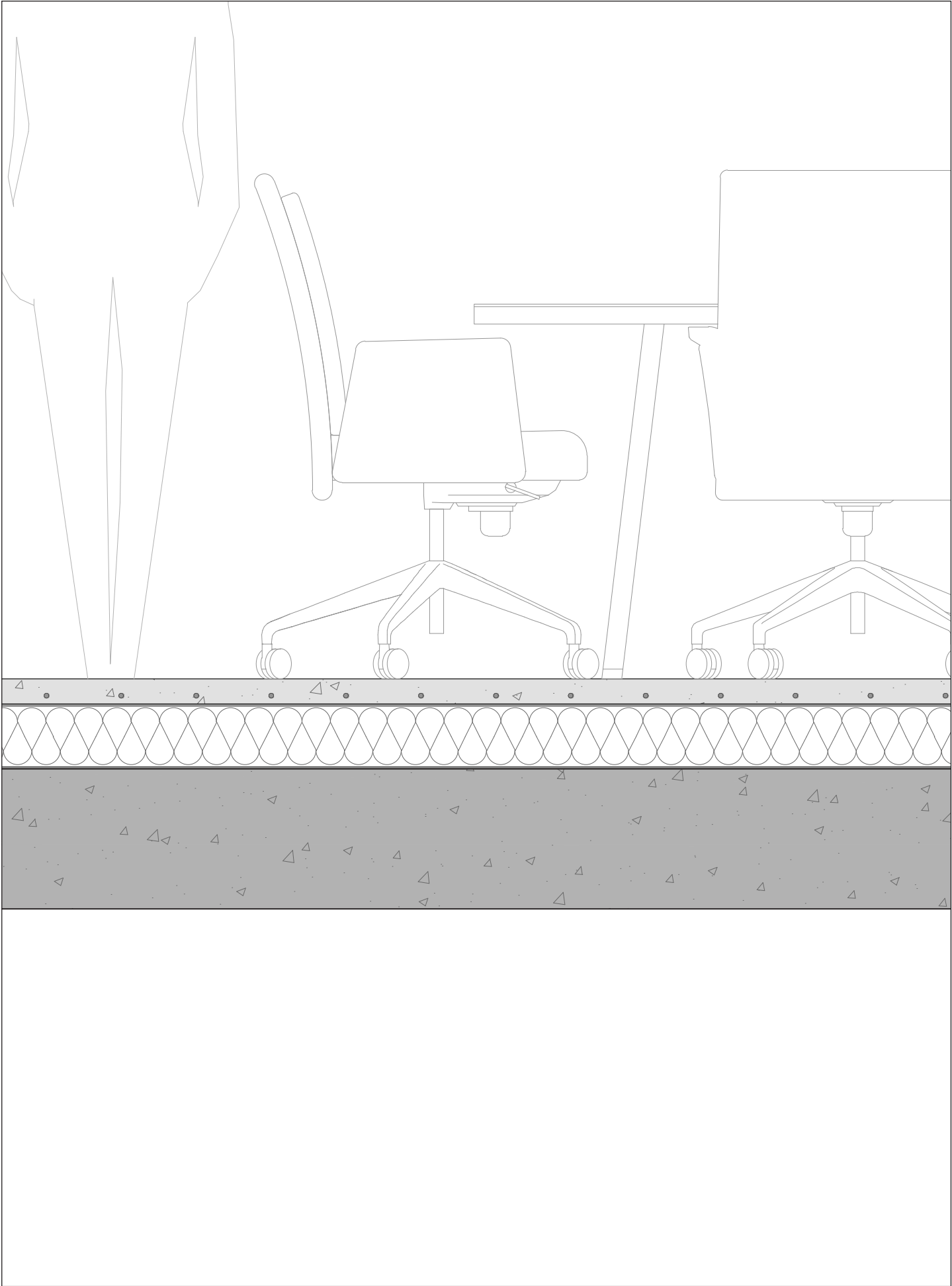
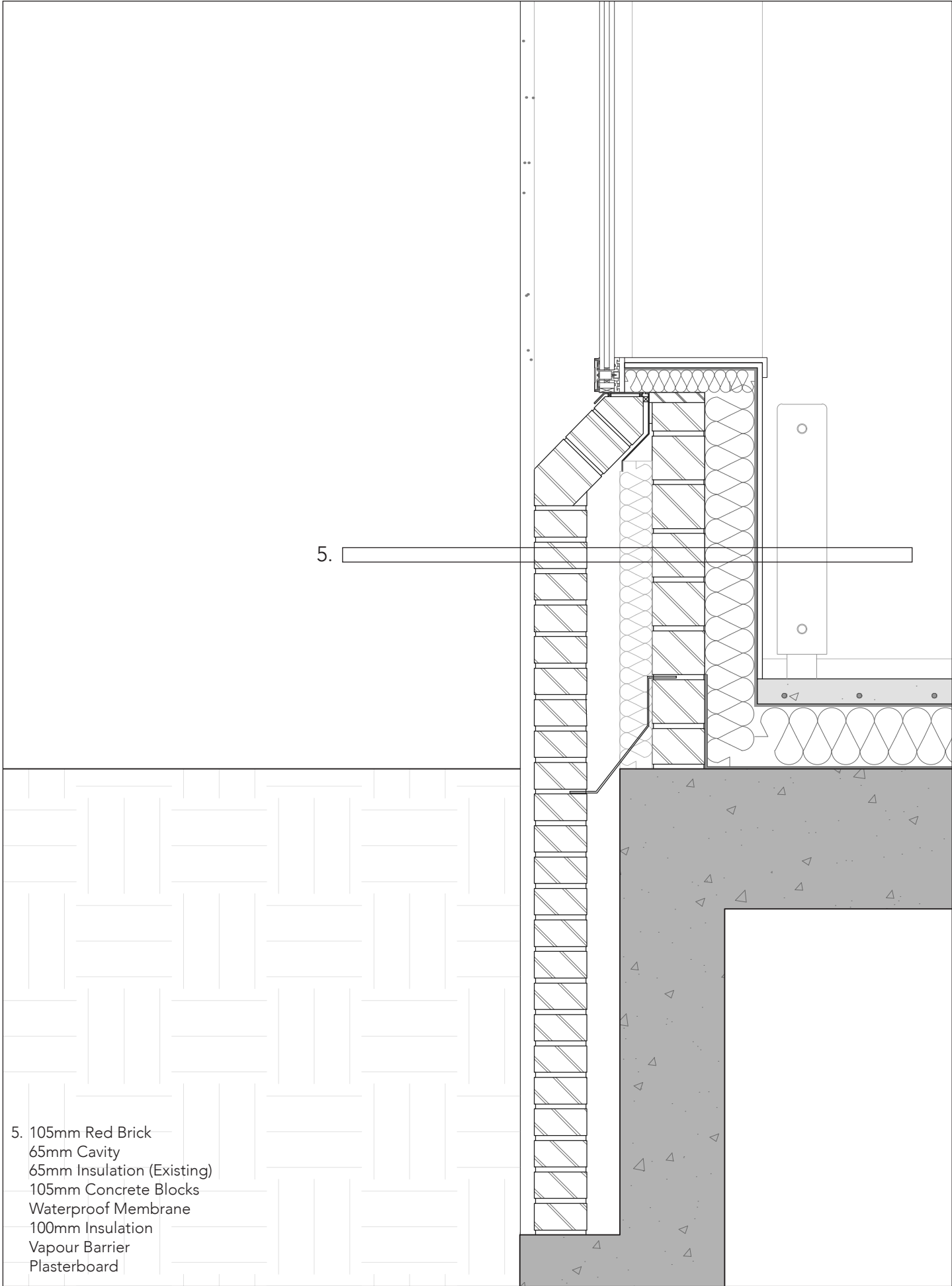




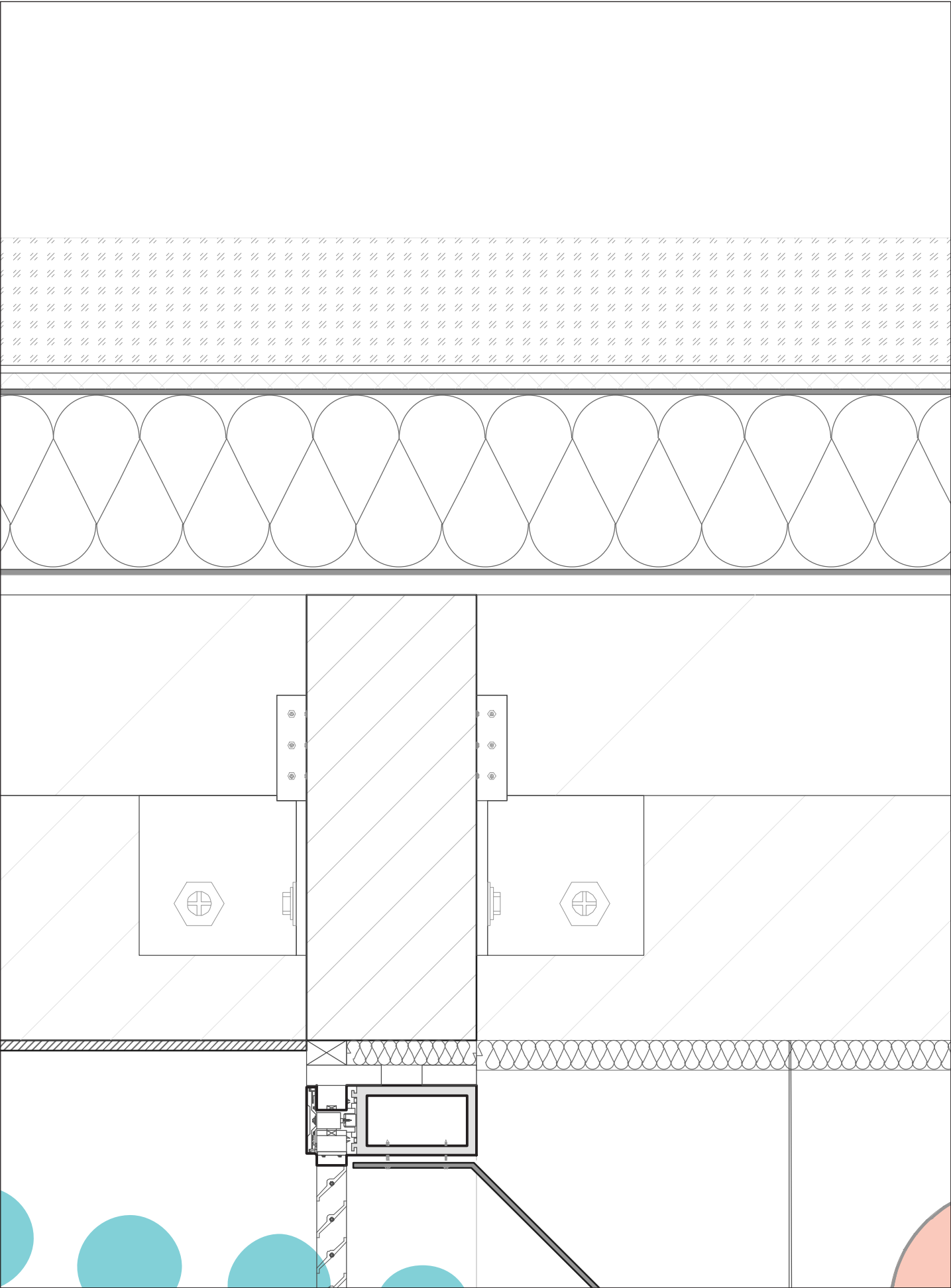
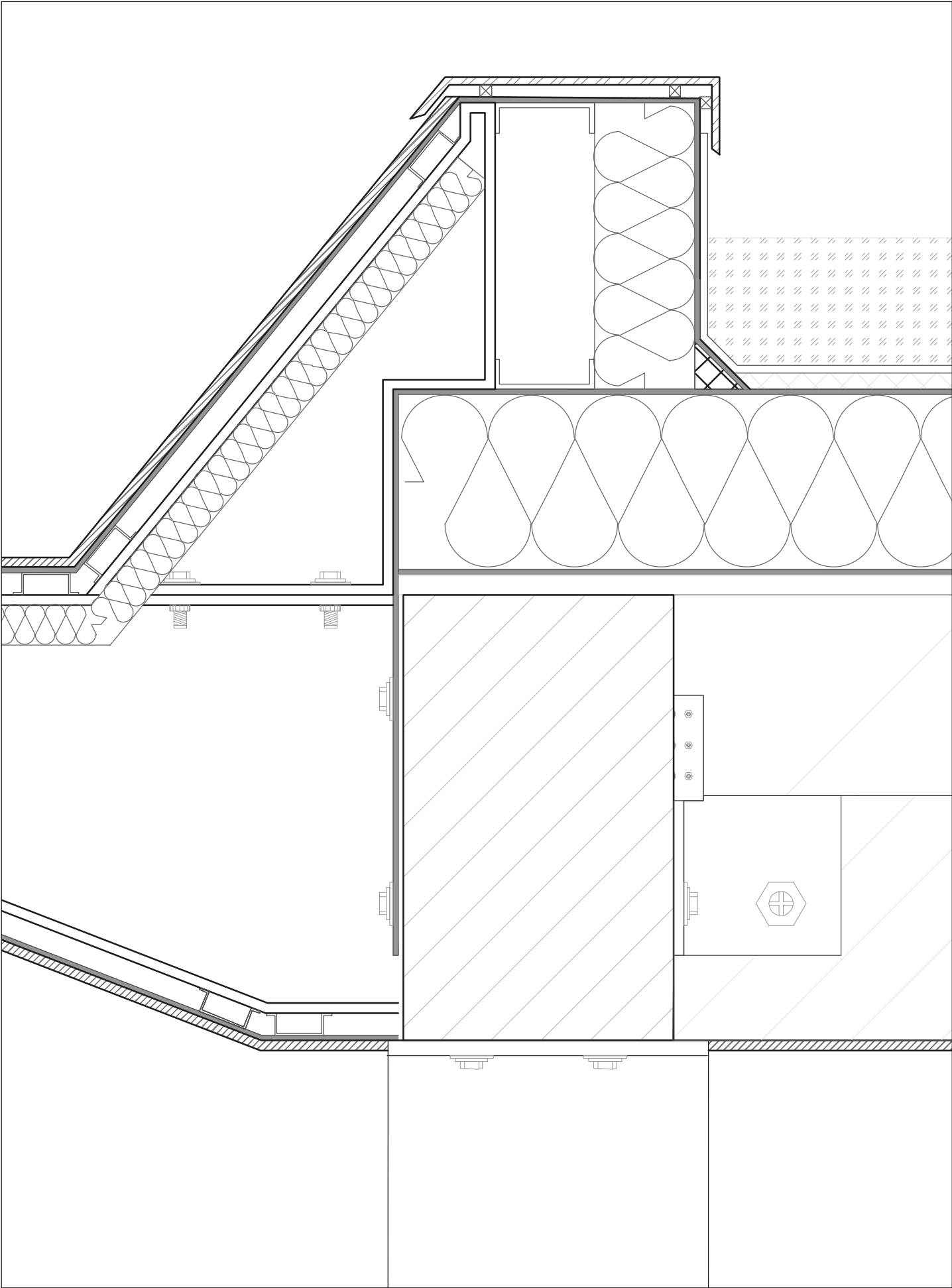




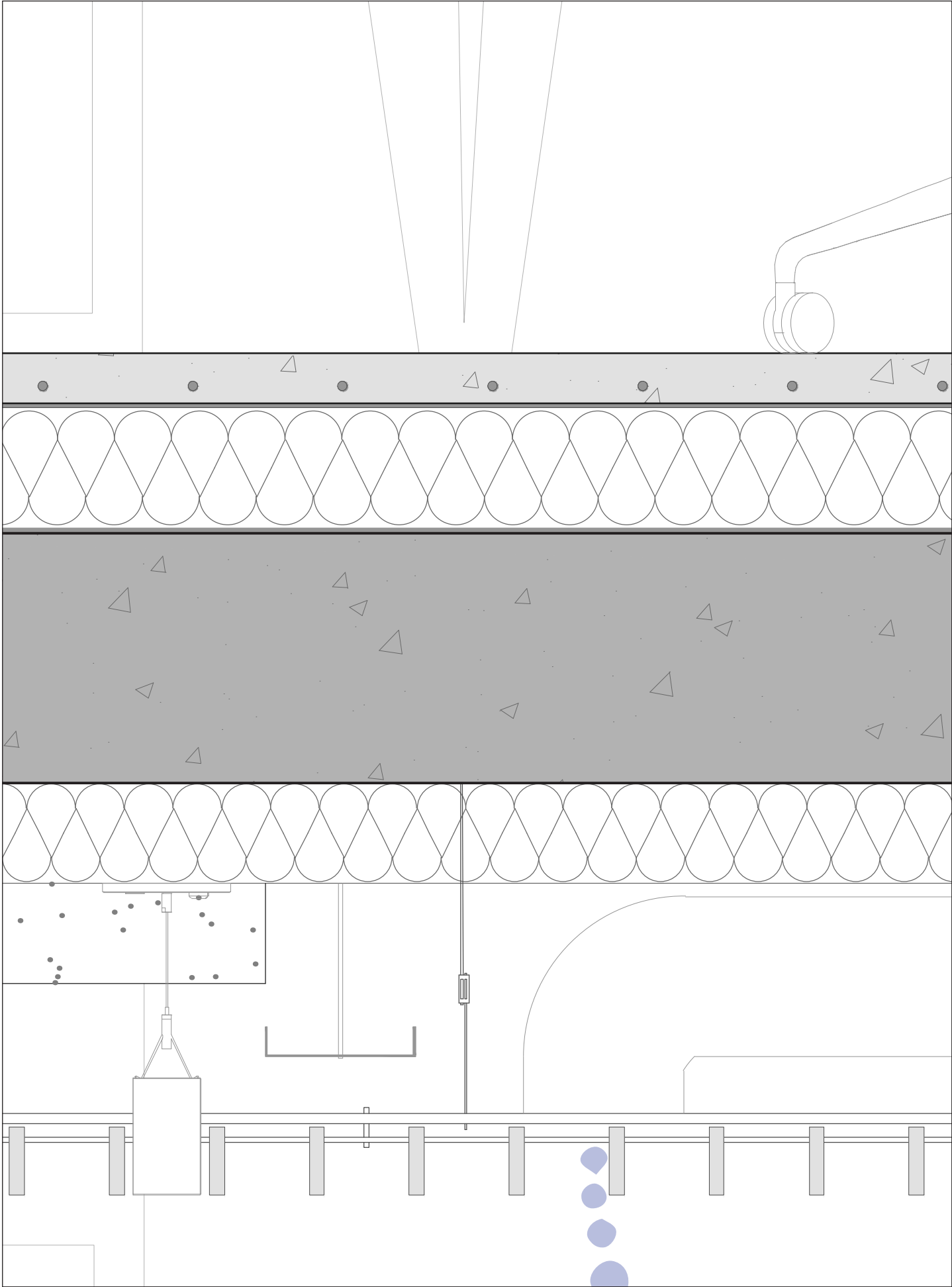
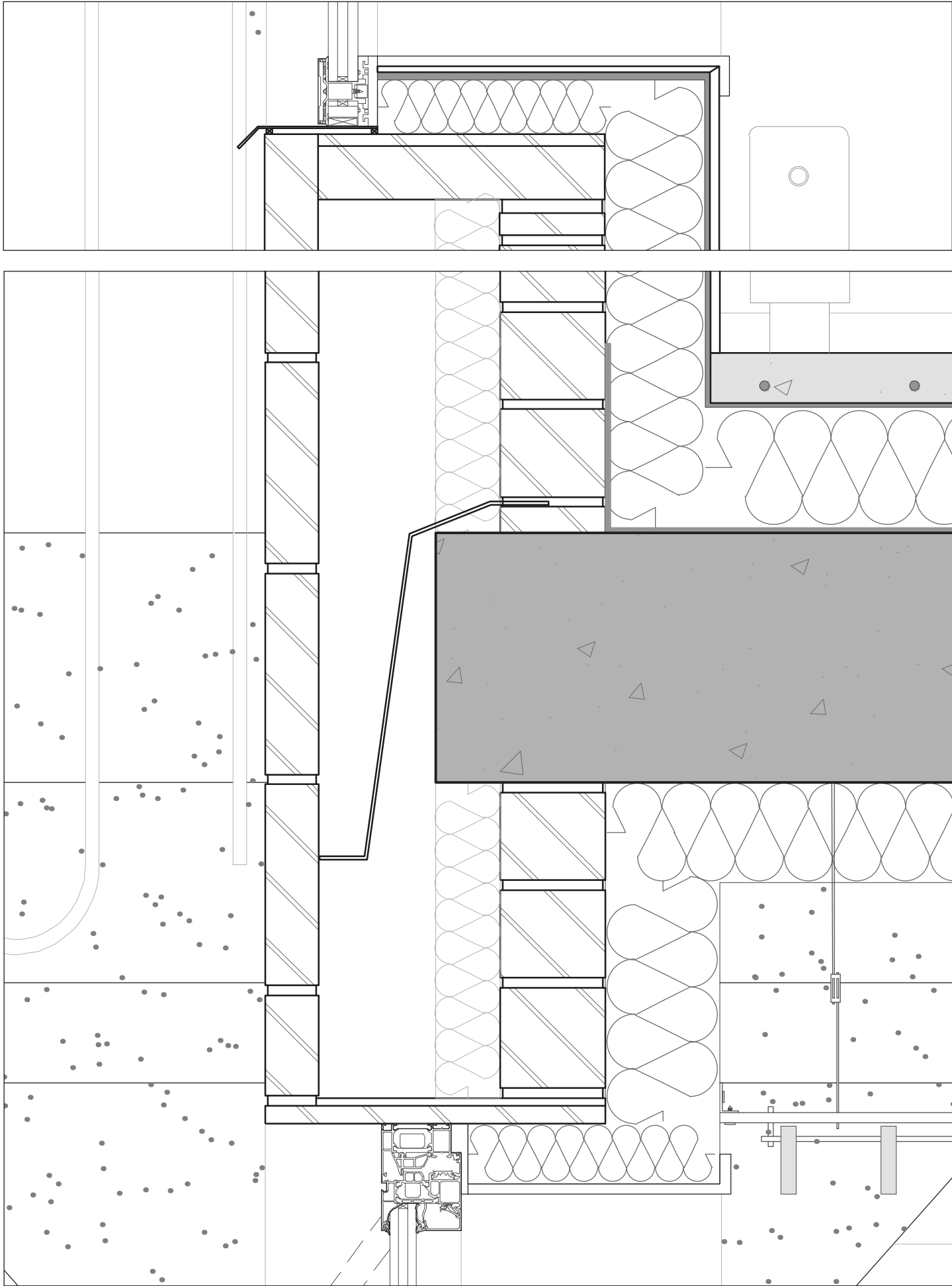




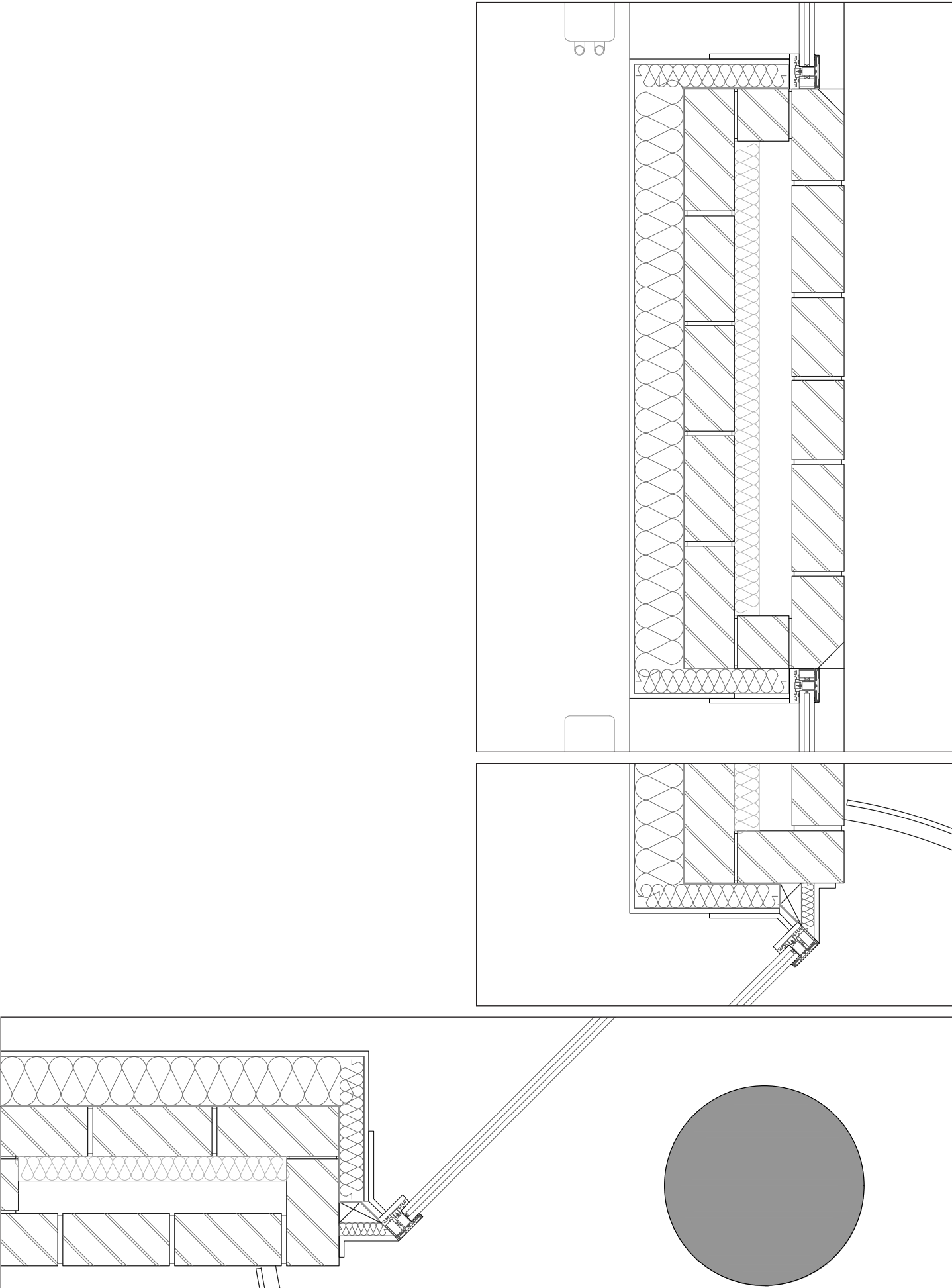
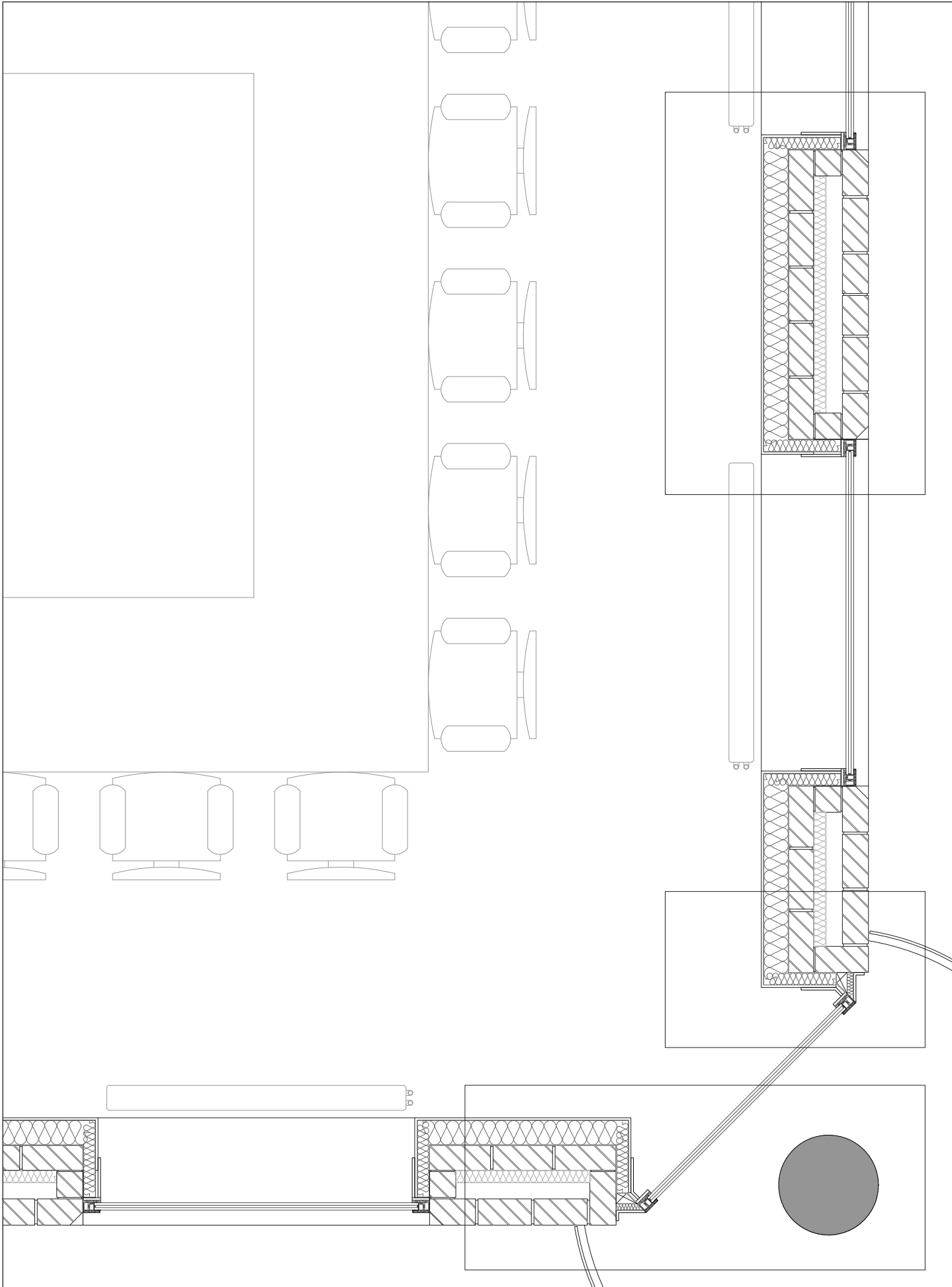




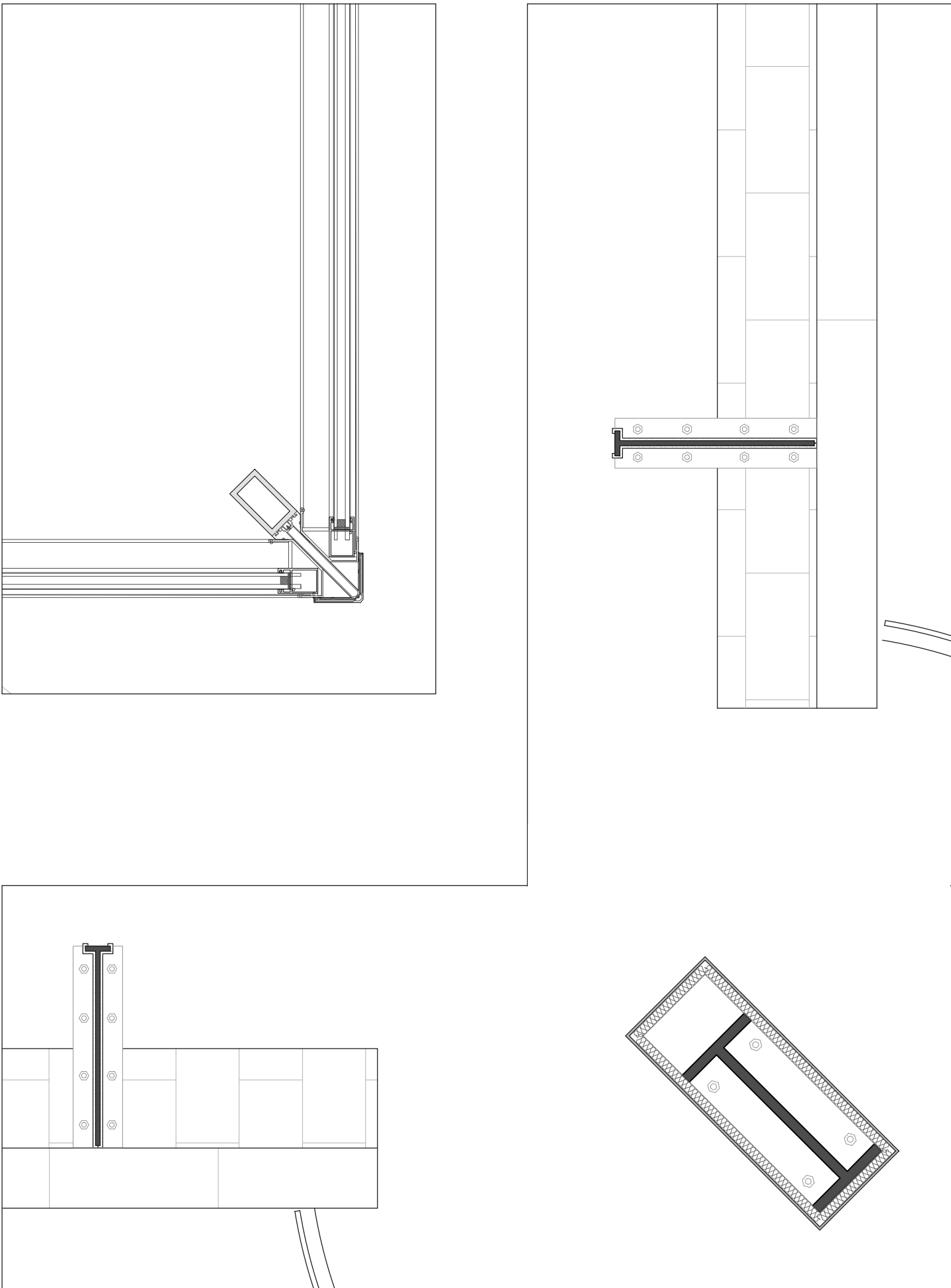
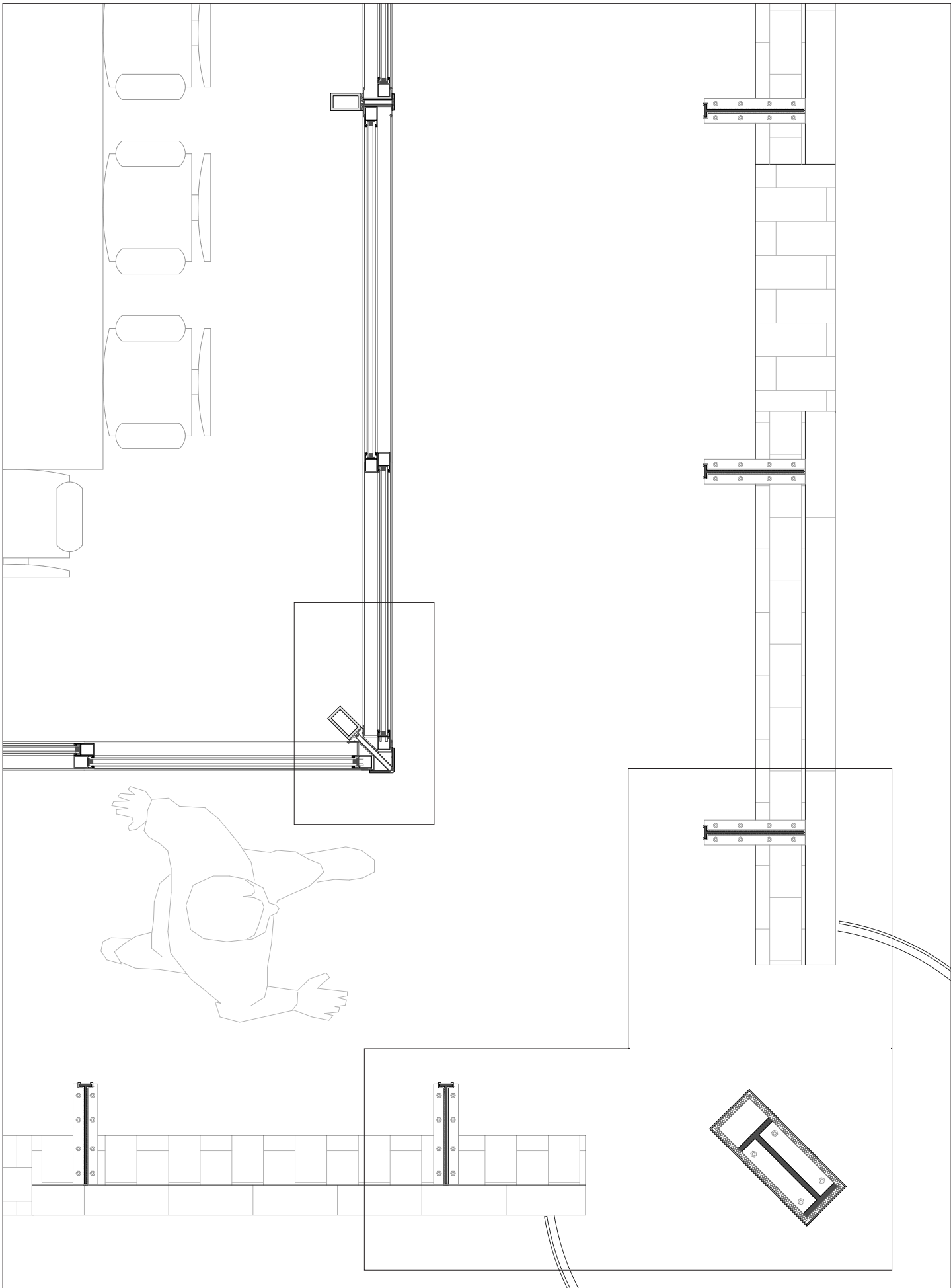




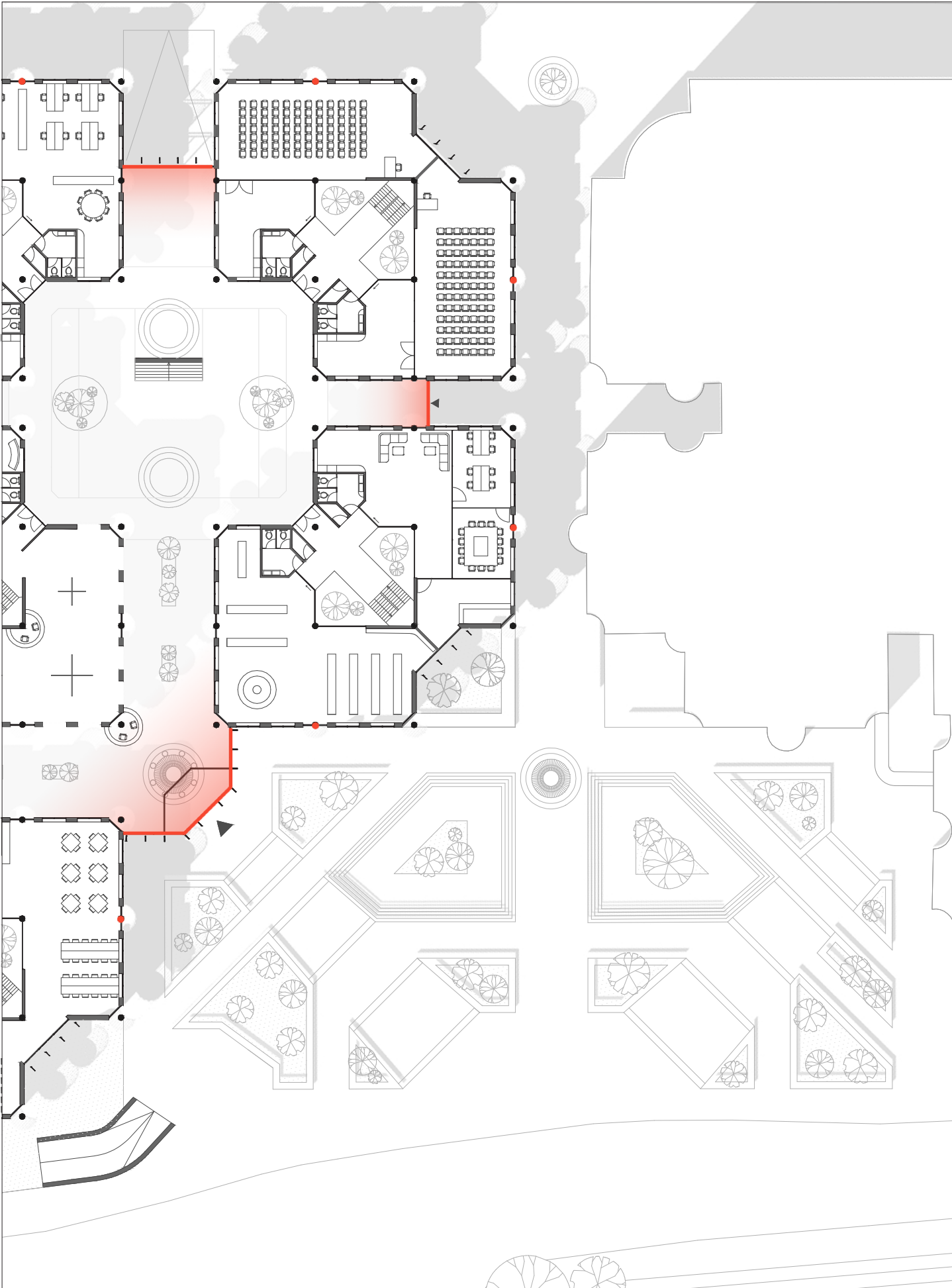








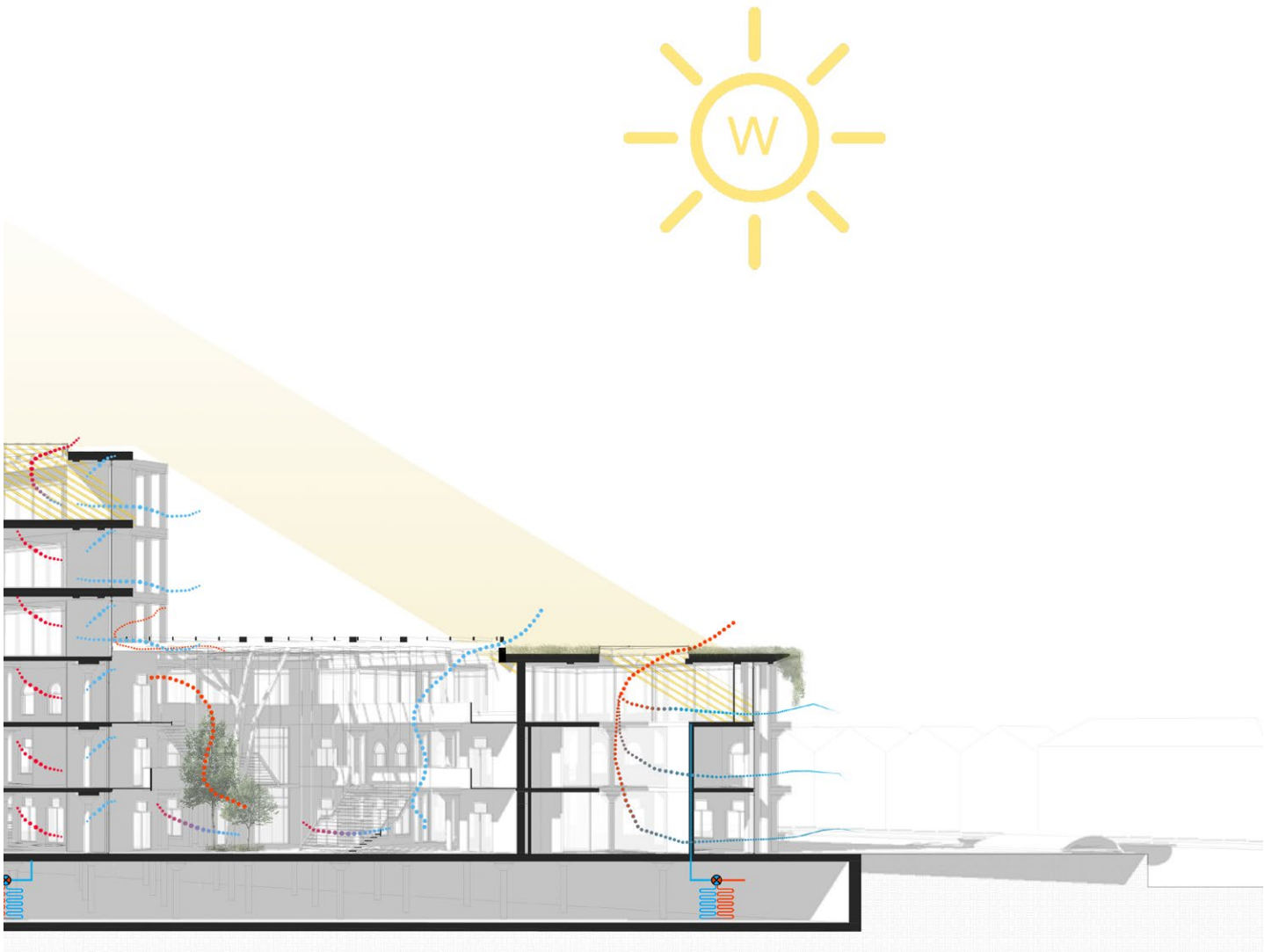
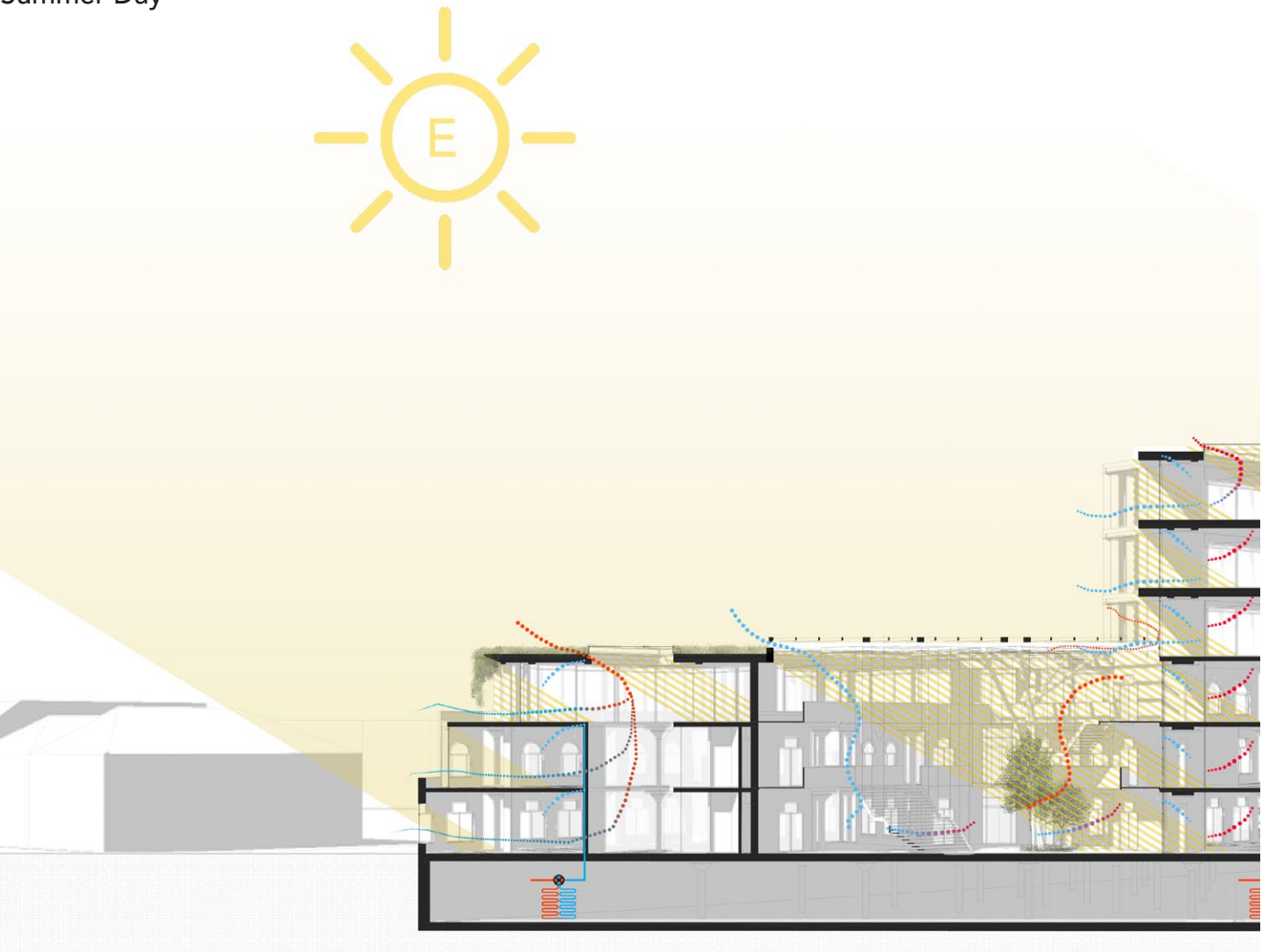




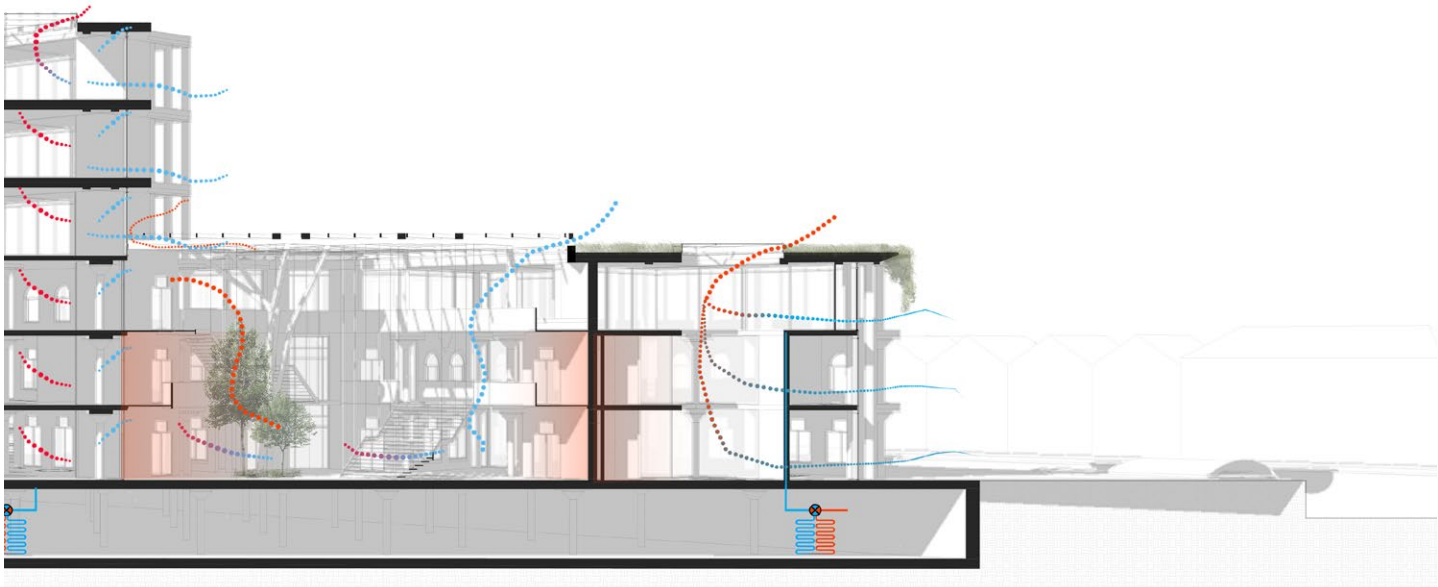
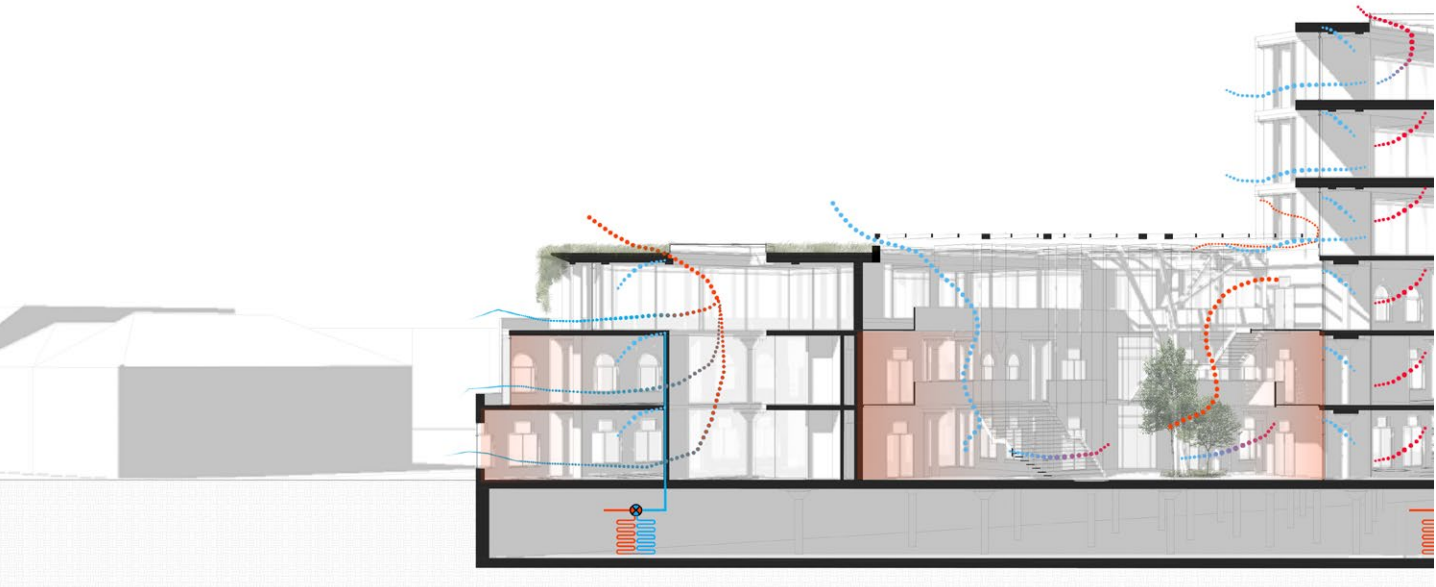


Environmental Strategies Diagram

Summer Day



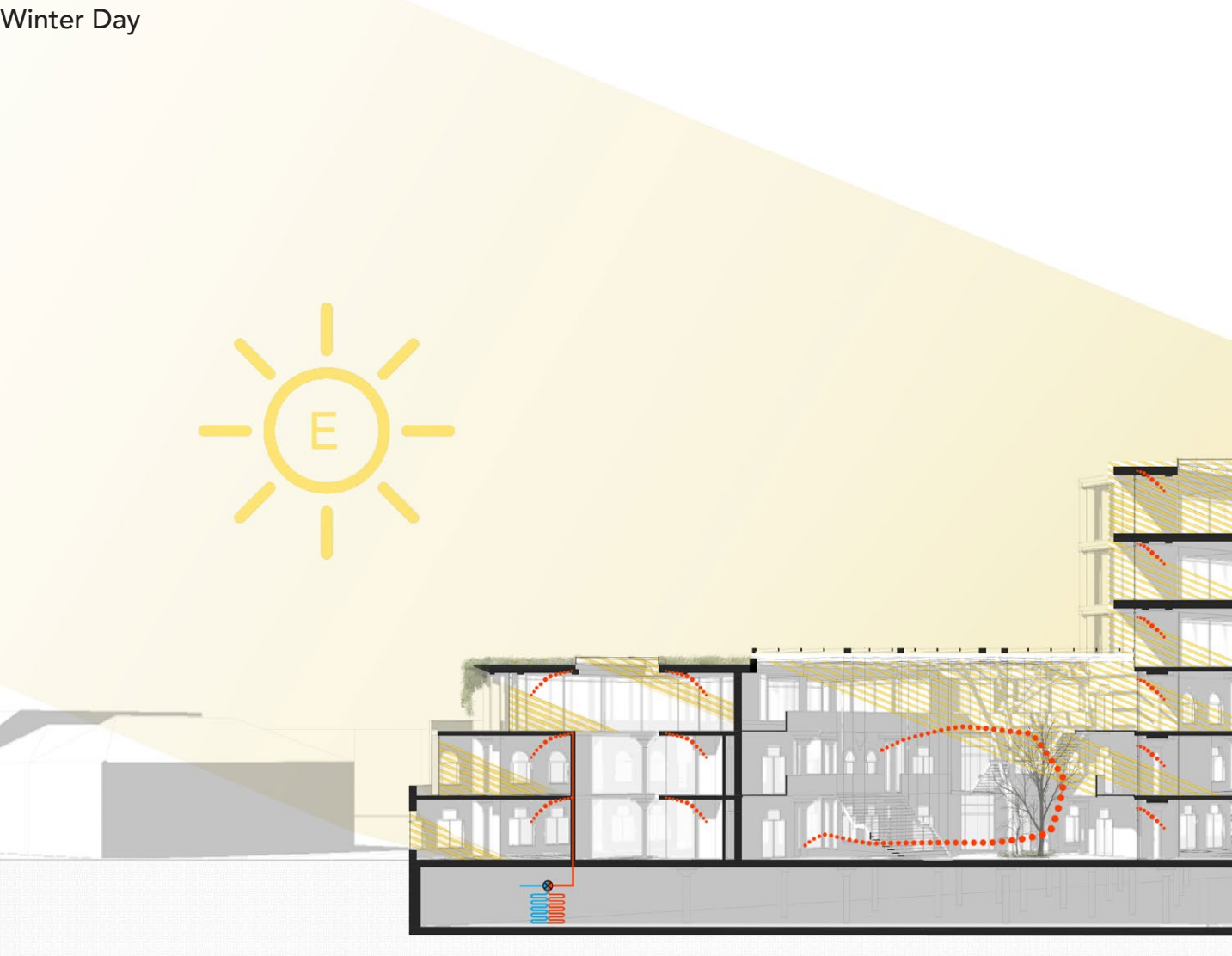
Summer Night



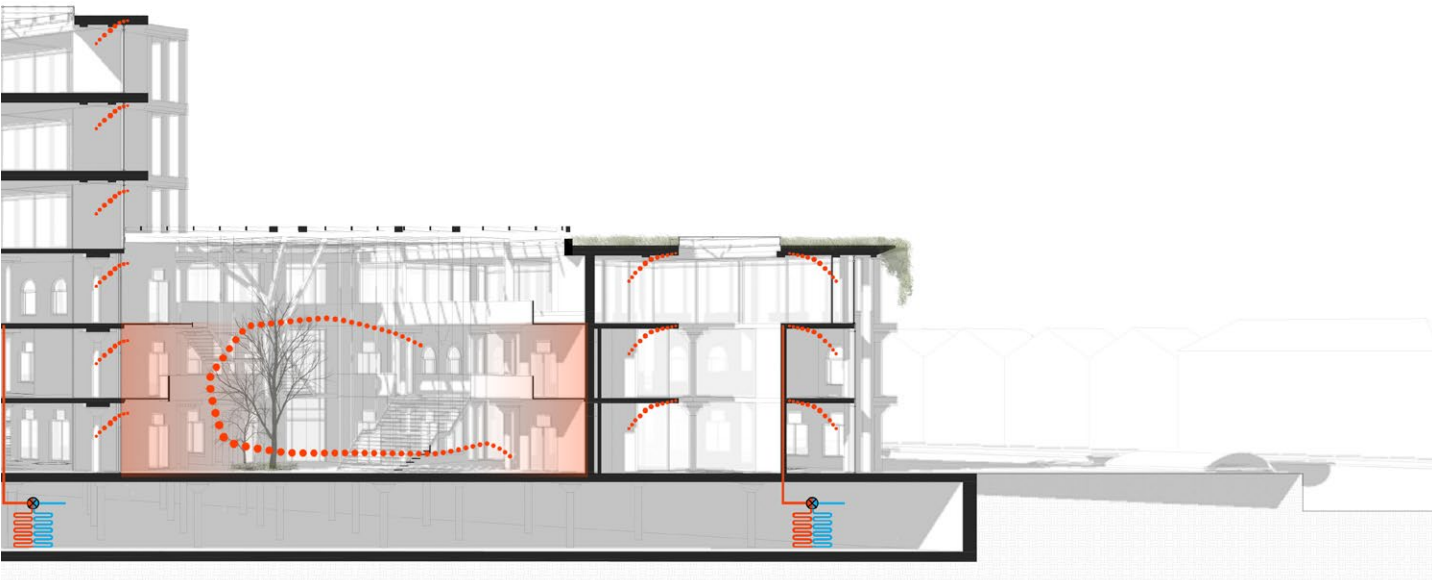
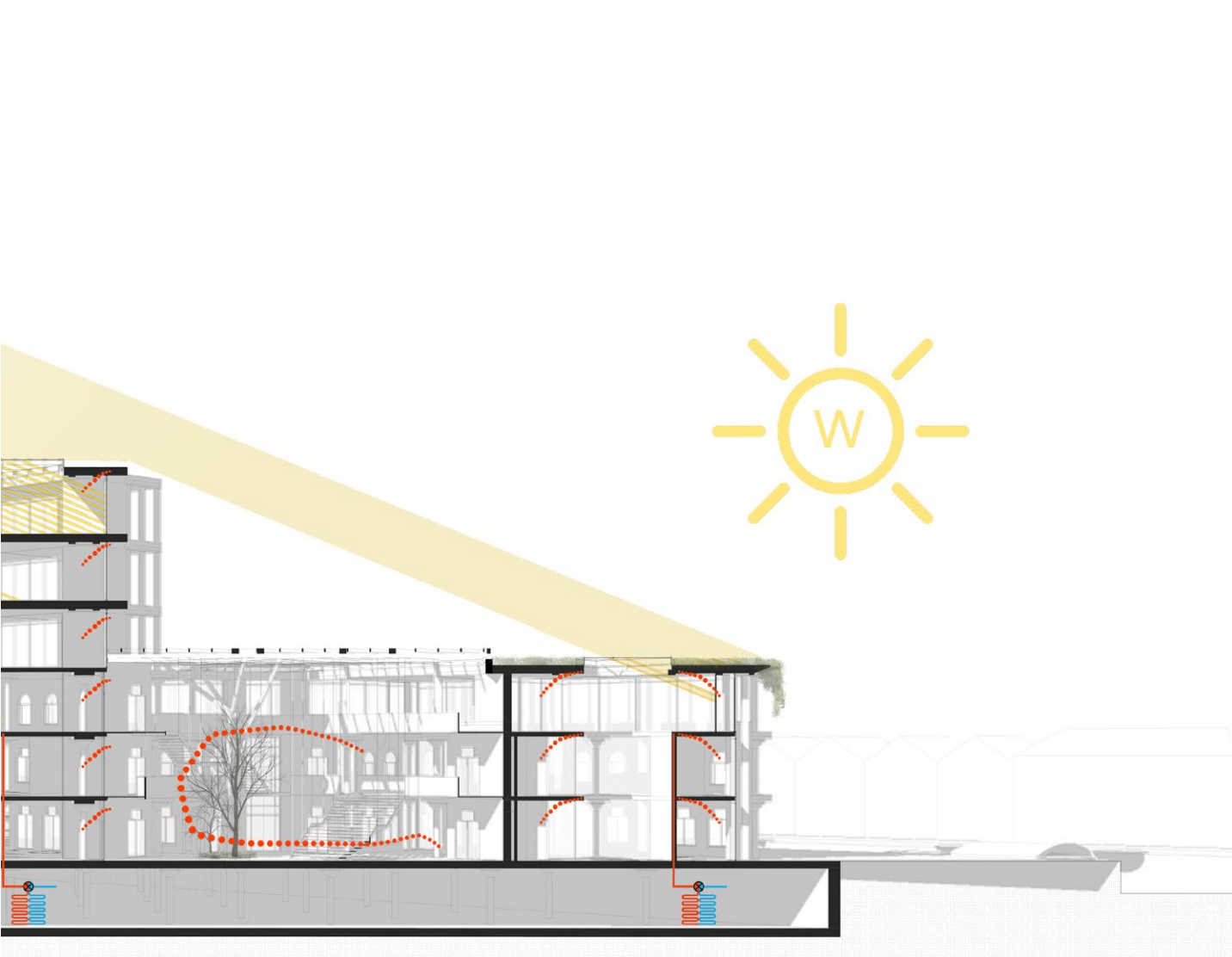


Environmental Strategies Diagram

Winter Day



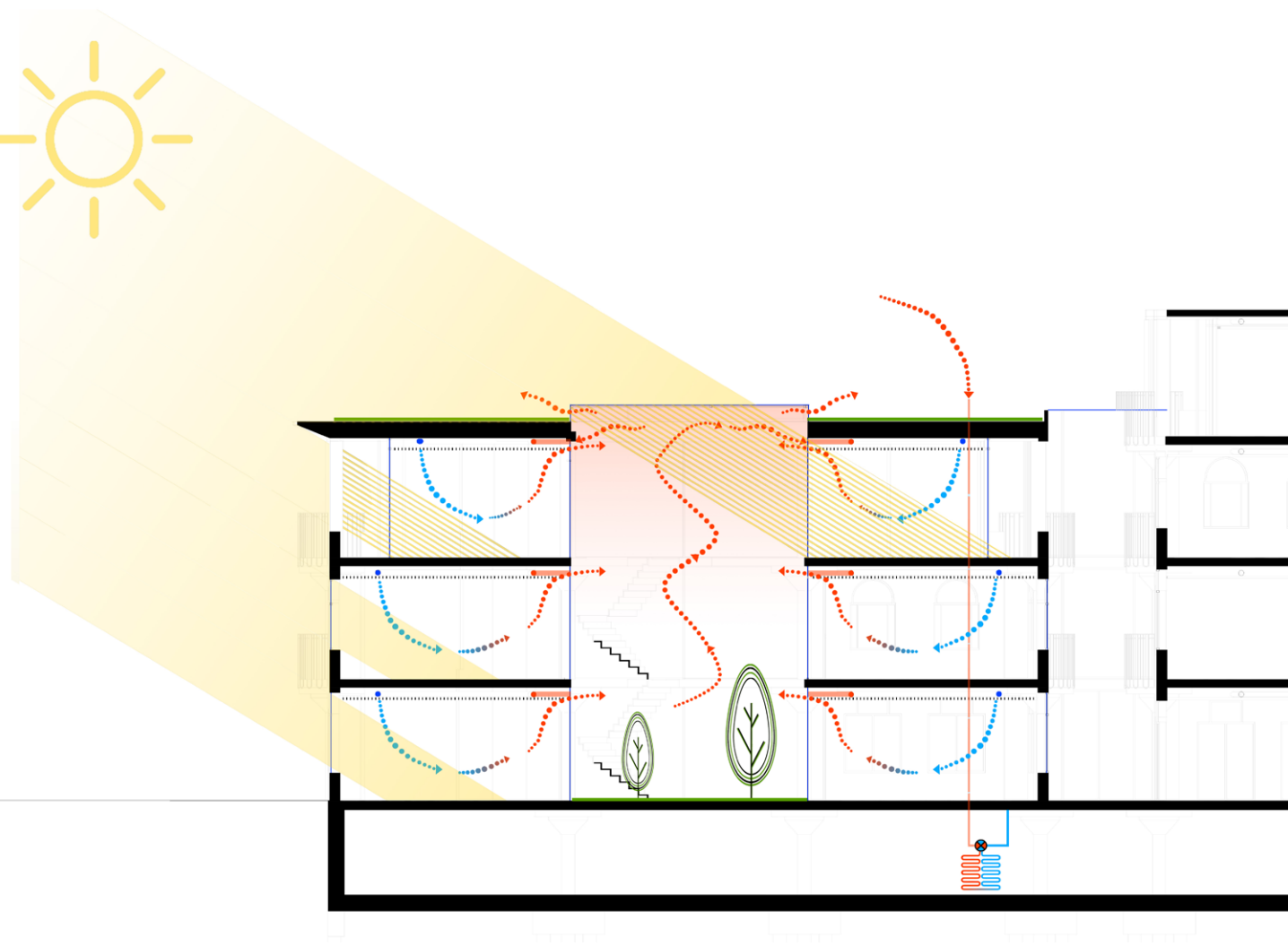
Winter Night



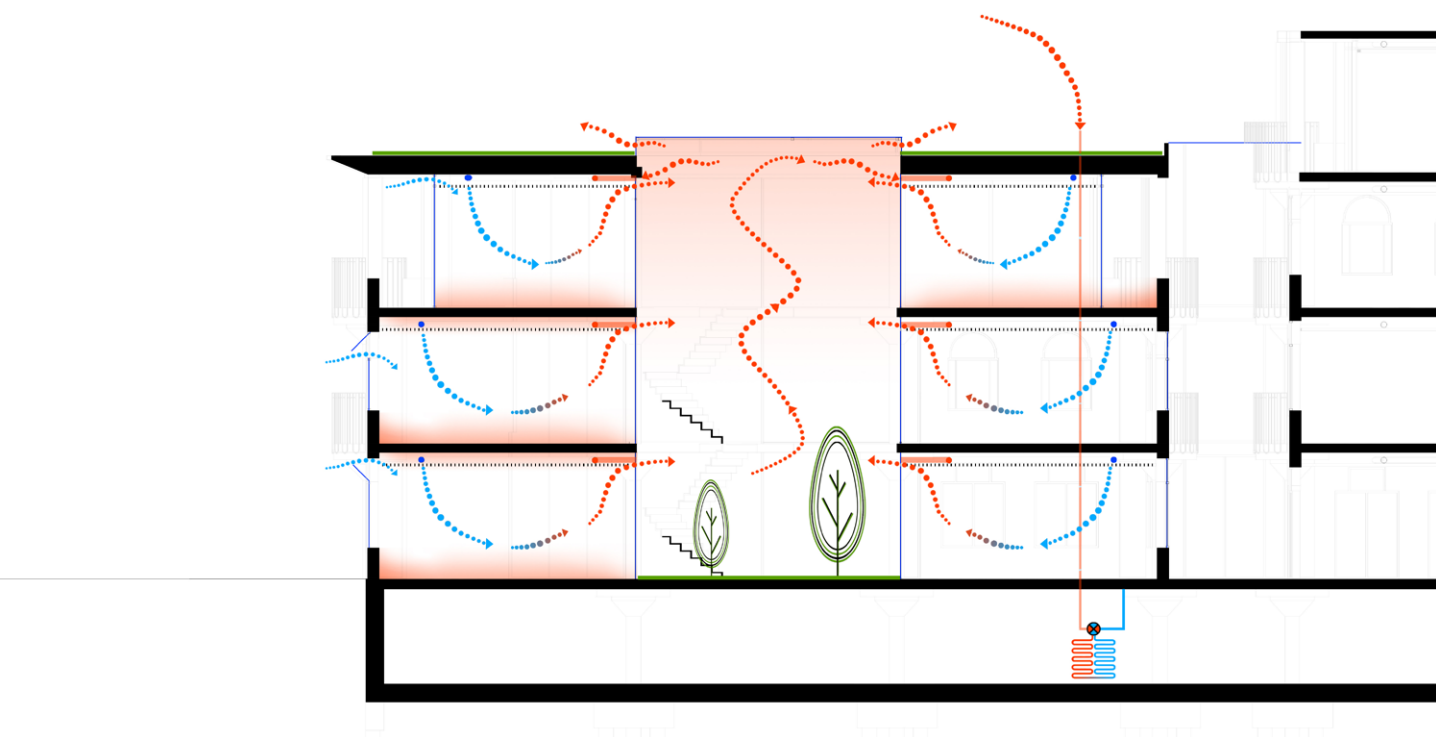


Environmental Strategies Diagram

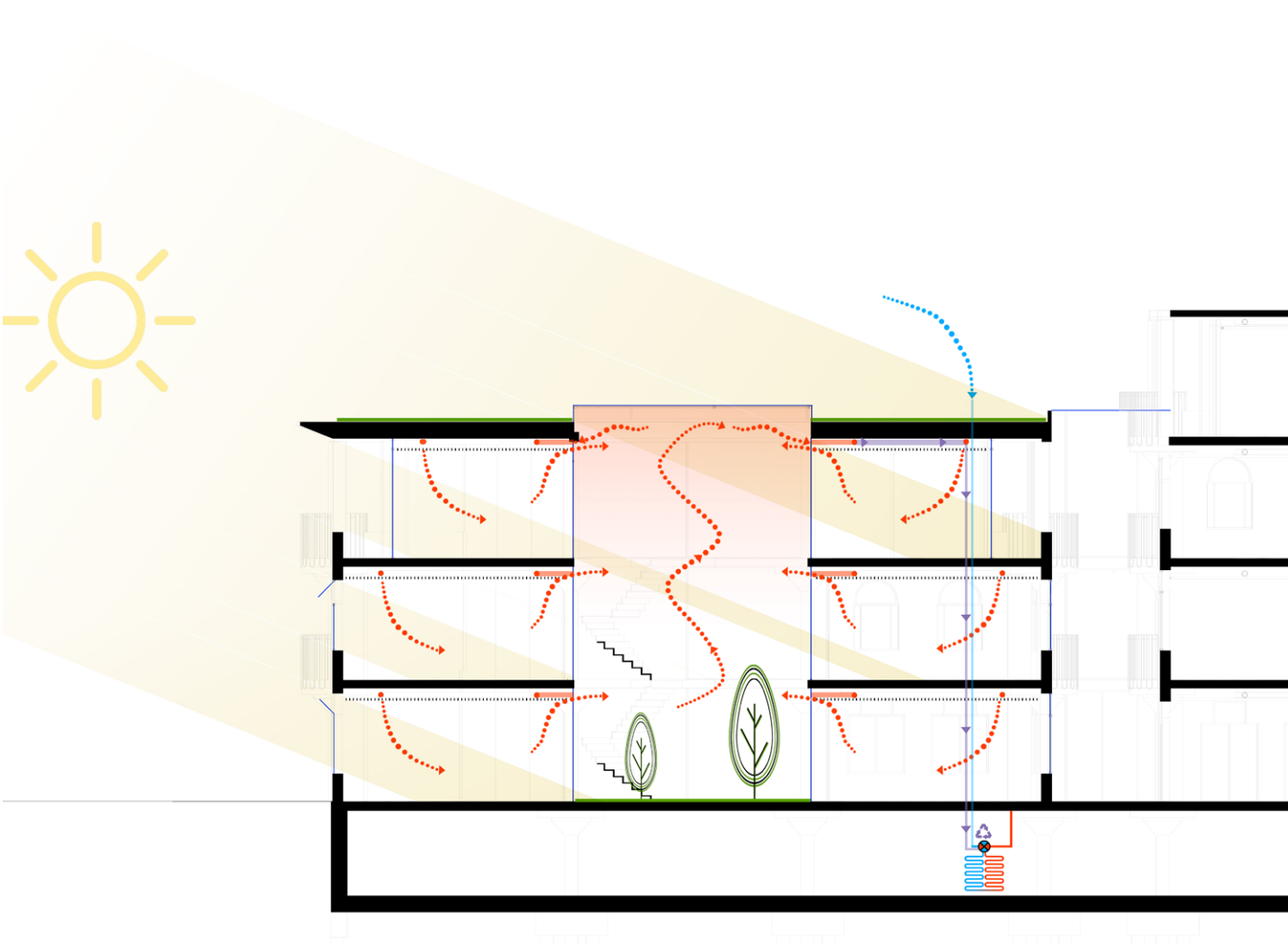
Summer Day



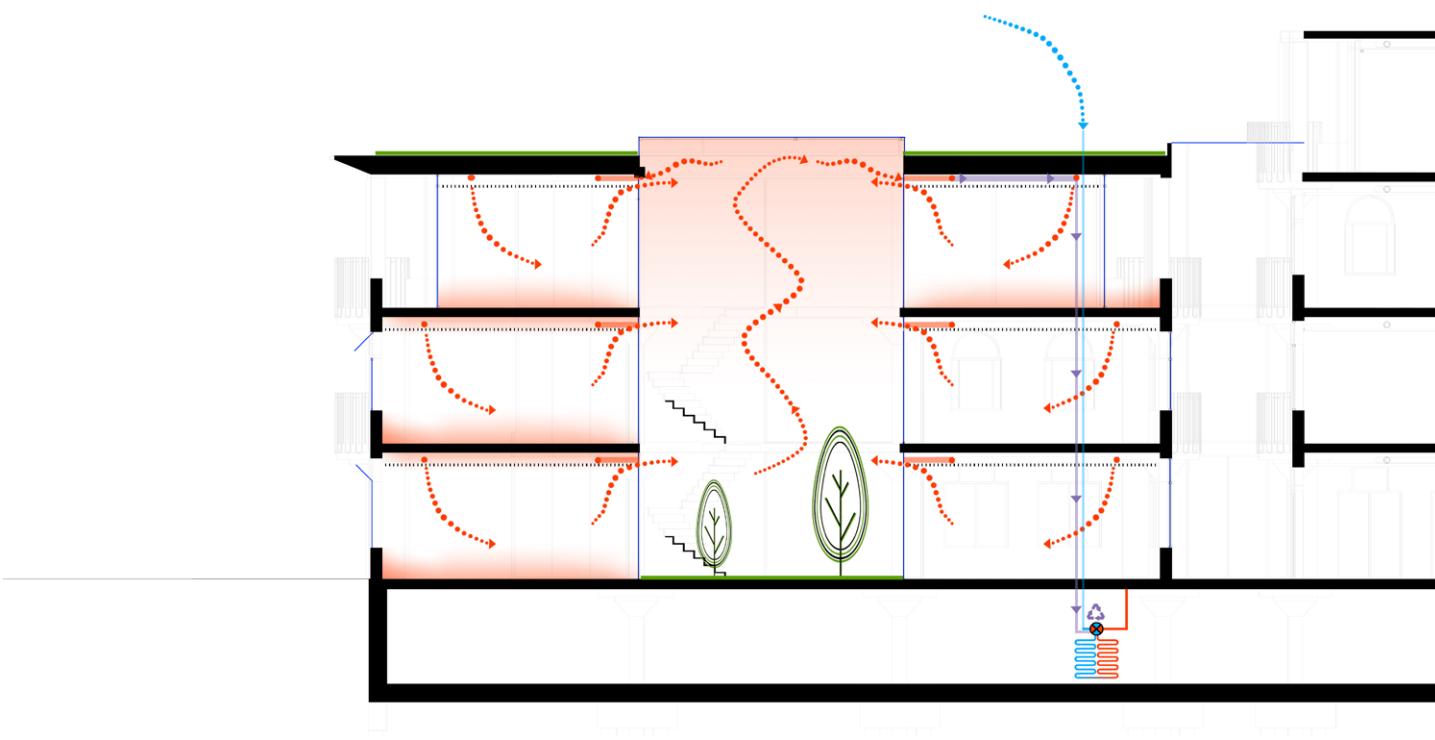
Summer Night



Winter Day



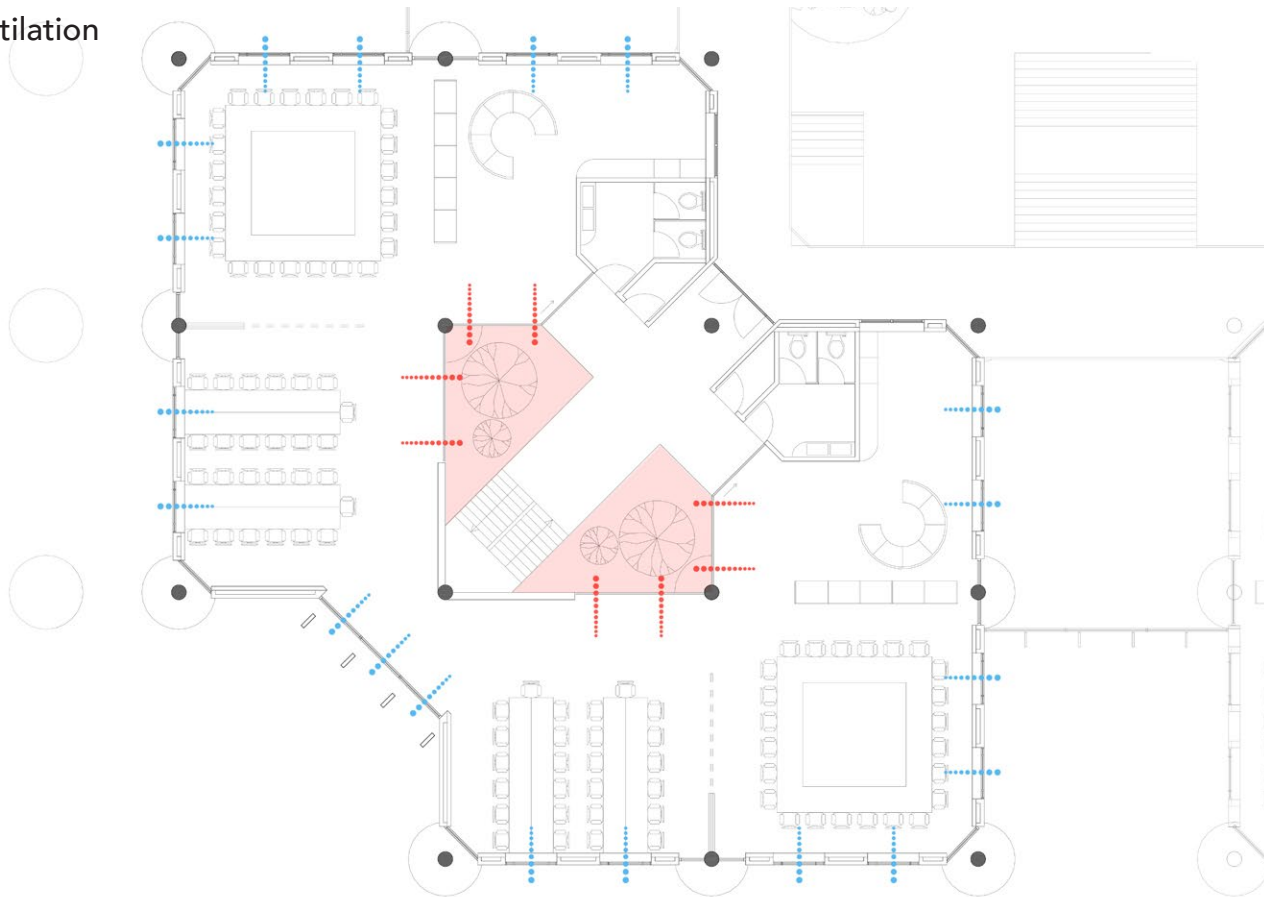
Winter Night



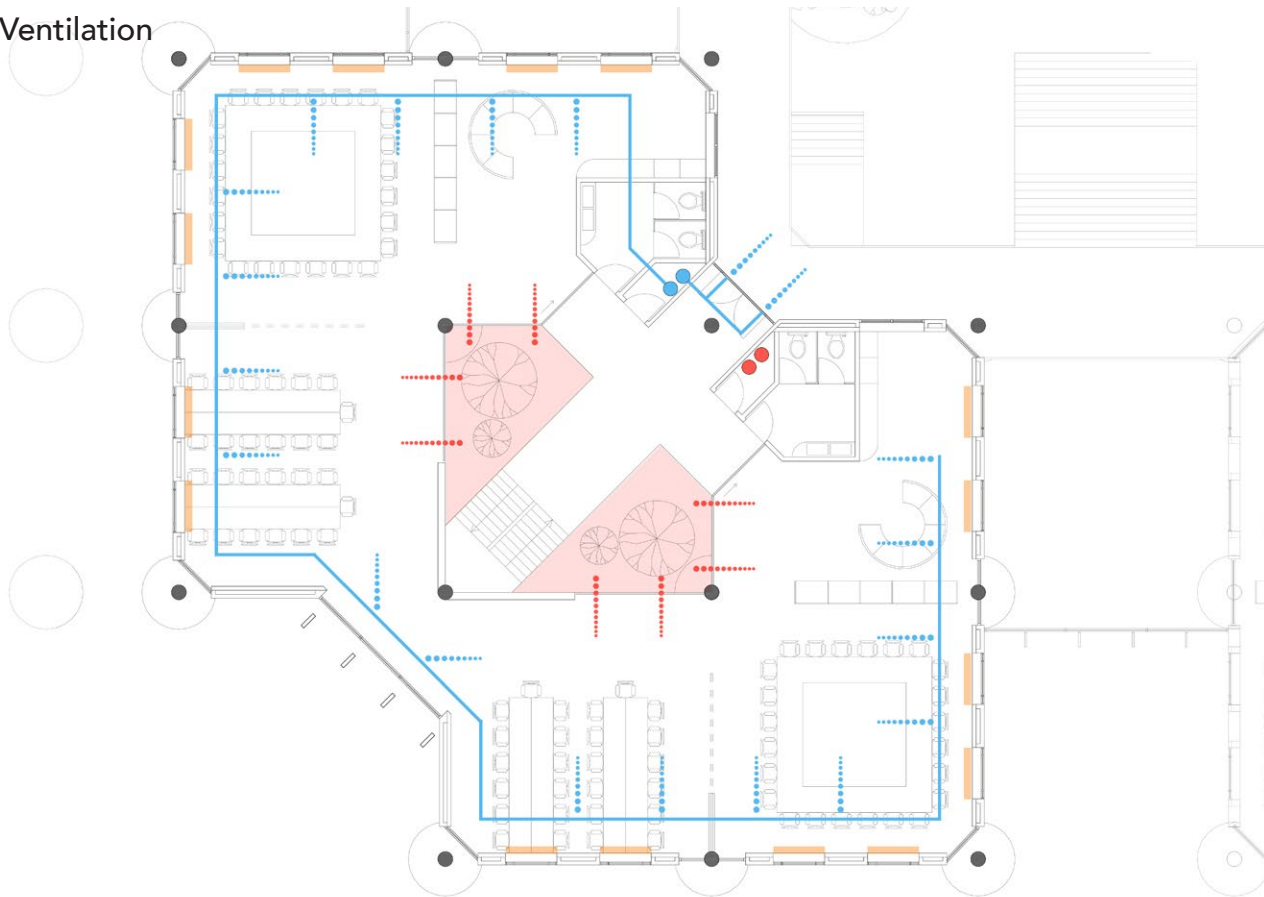


Ventilation Diagram - Existing Buildings' Plan

Natural Ventilation

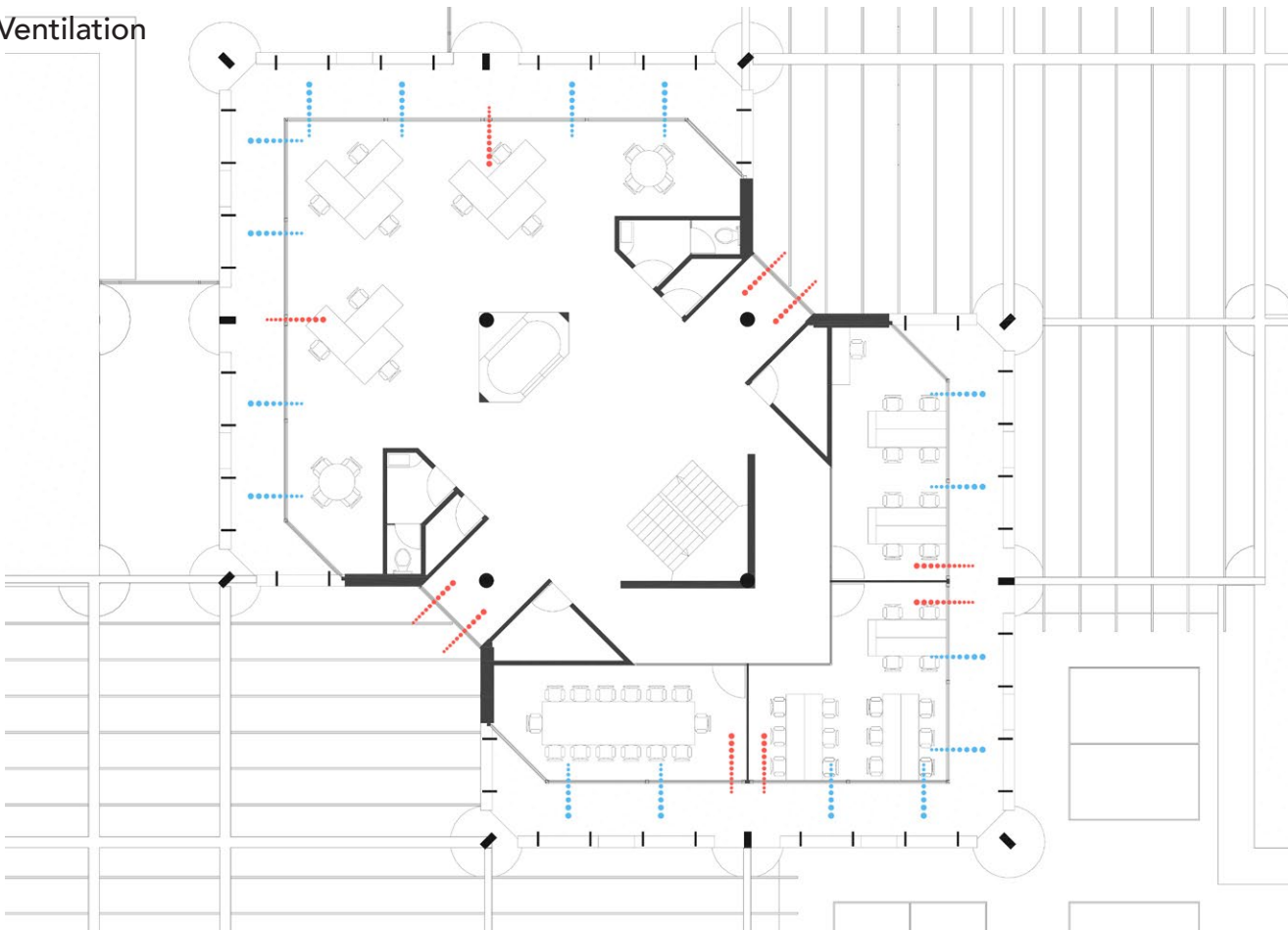


Mechanical Ventilation

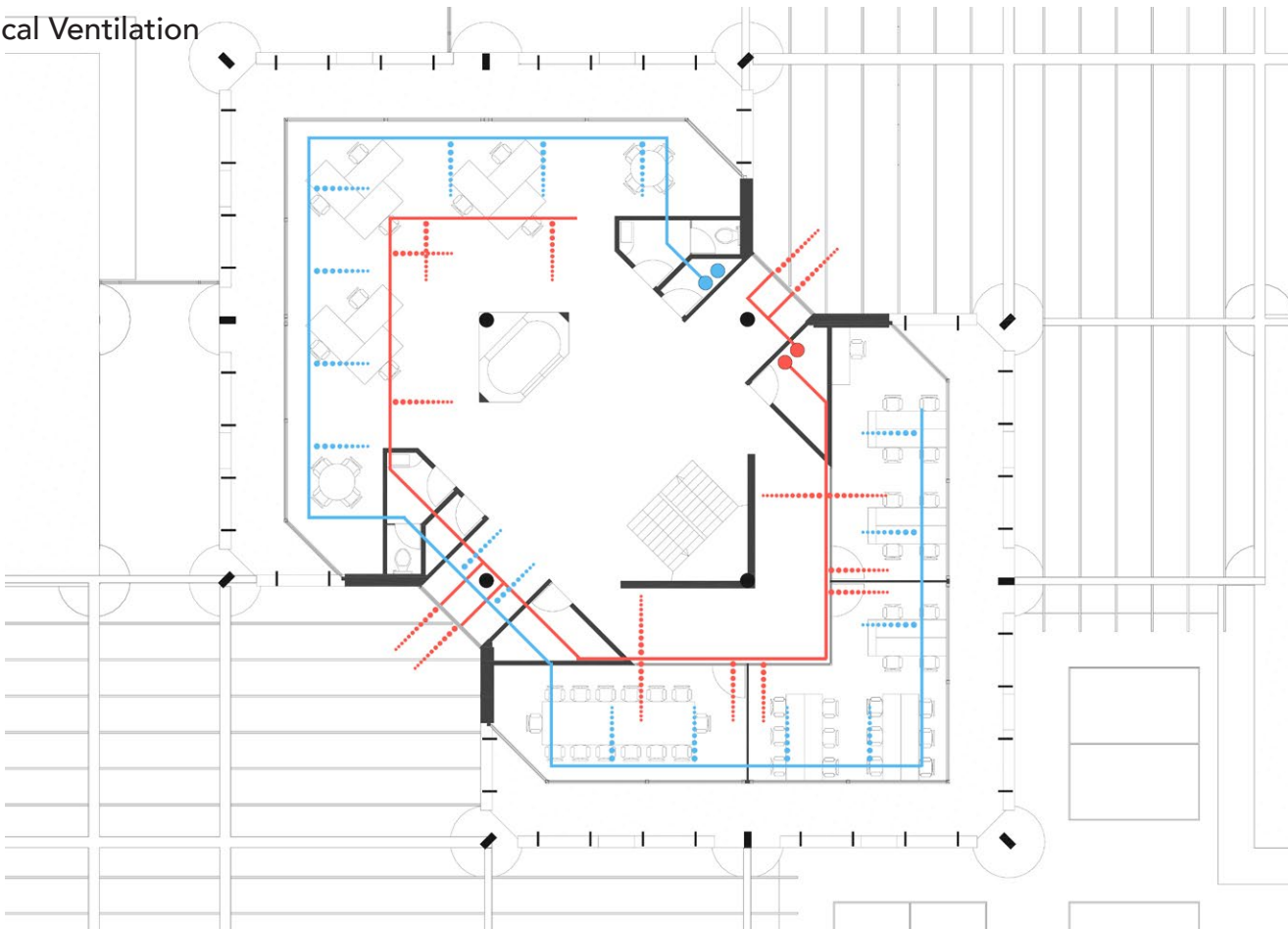


Ventilation Diagram - Extensions' Plan

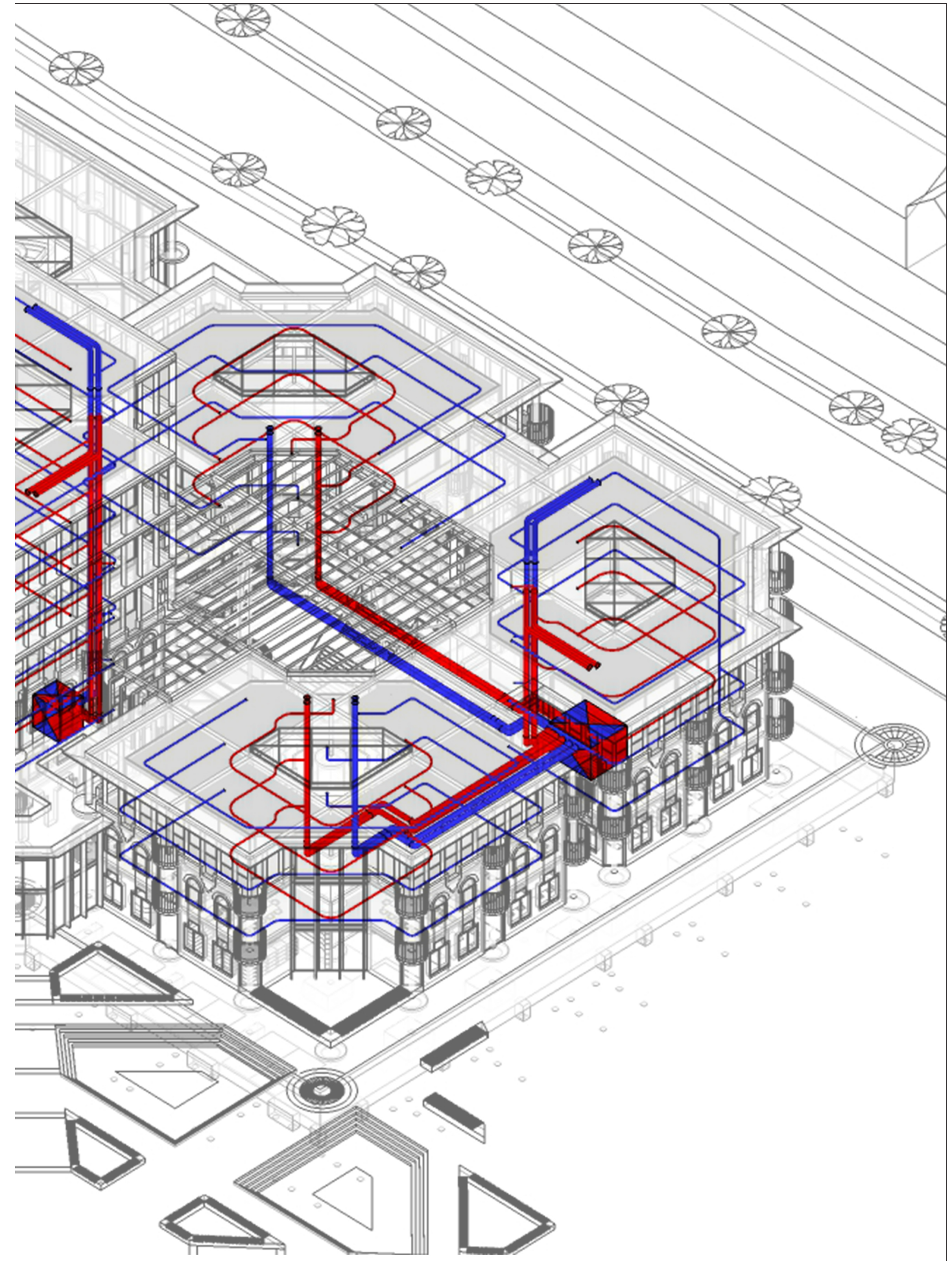
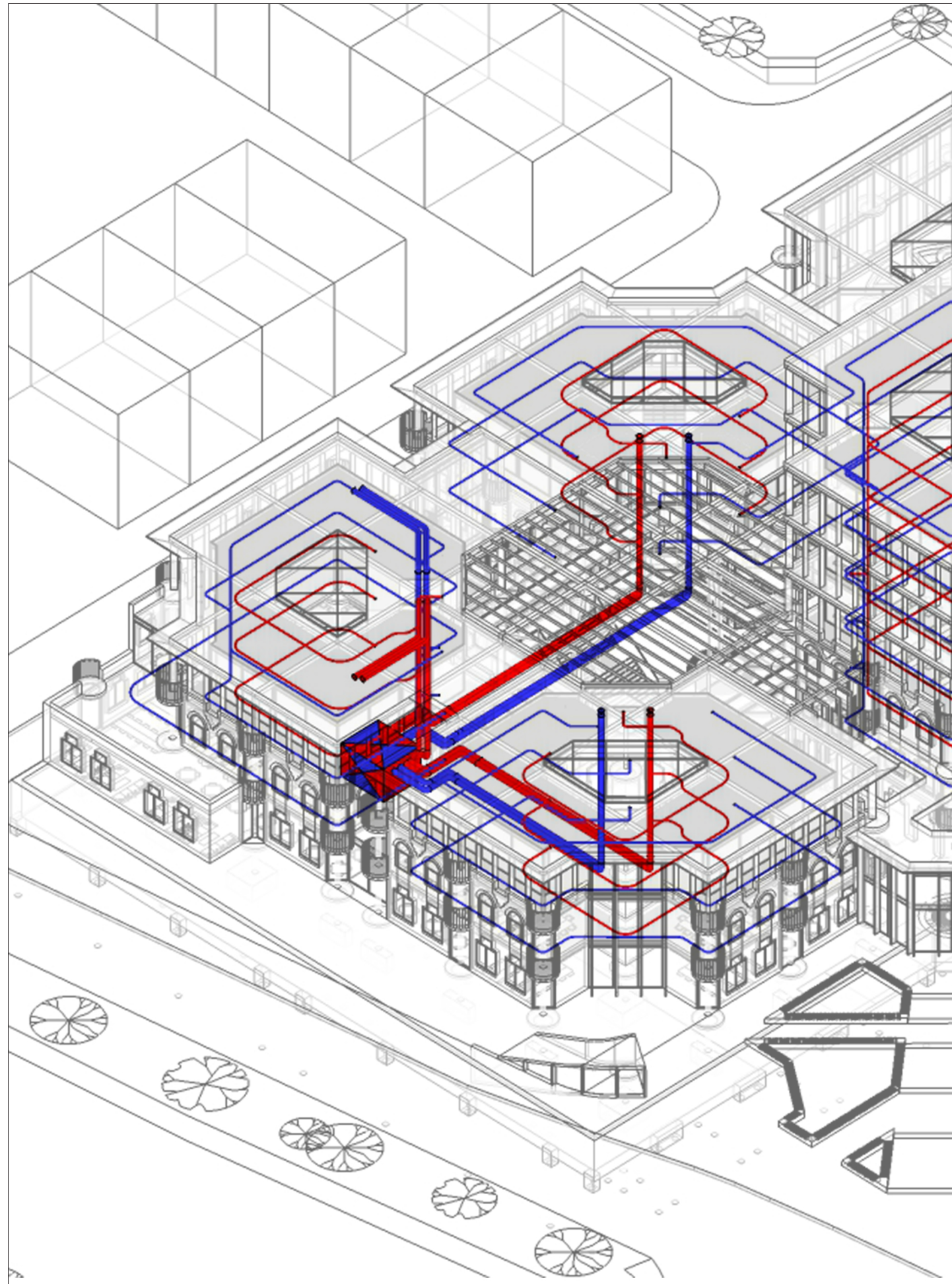
Natural Ventilation



Mechanical Ventilation



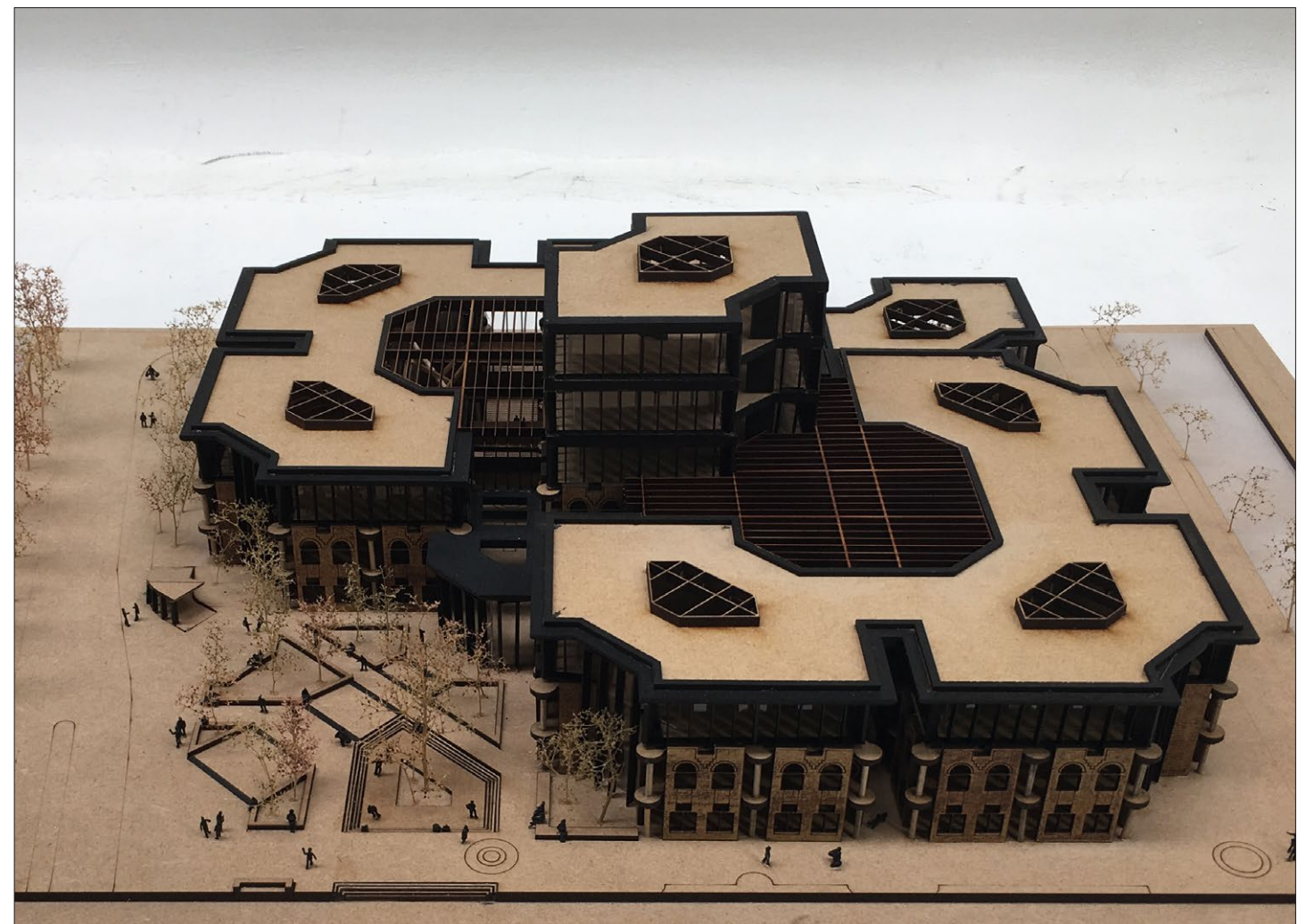
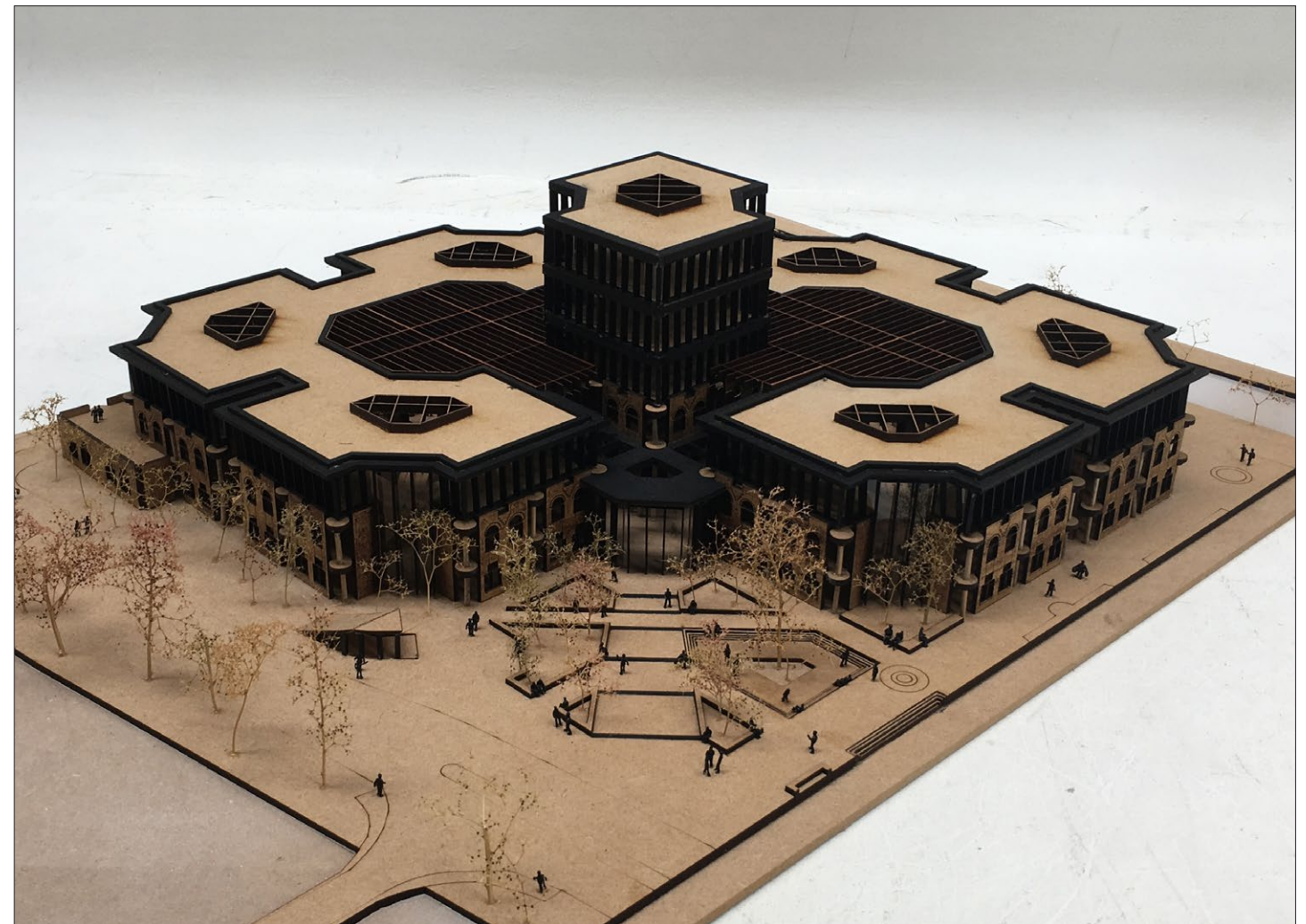






## Physical Model

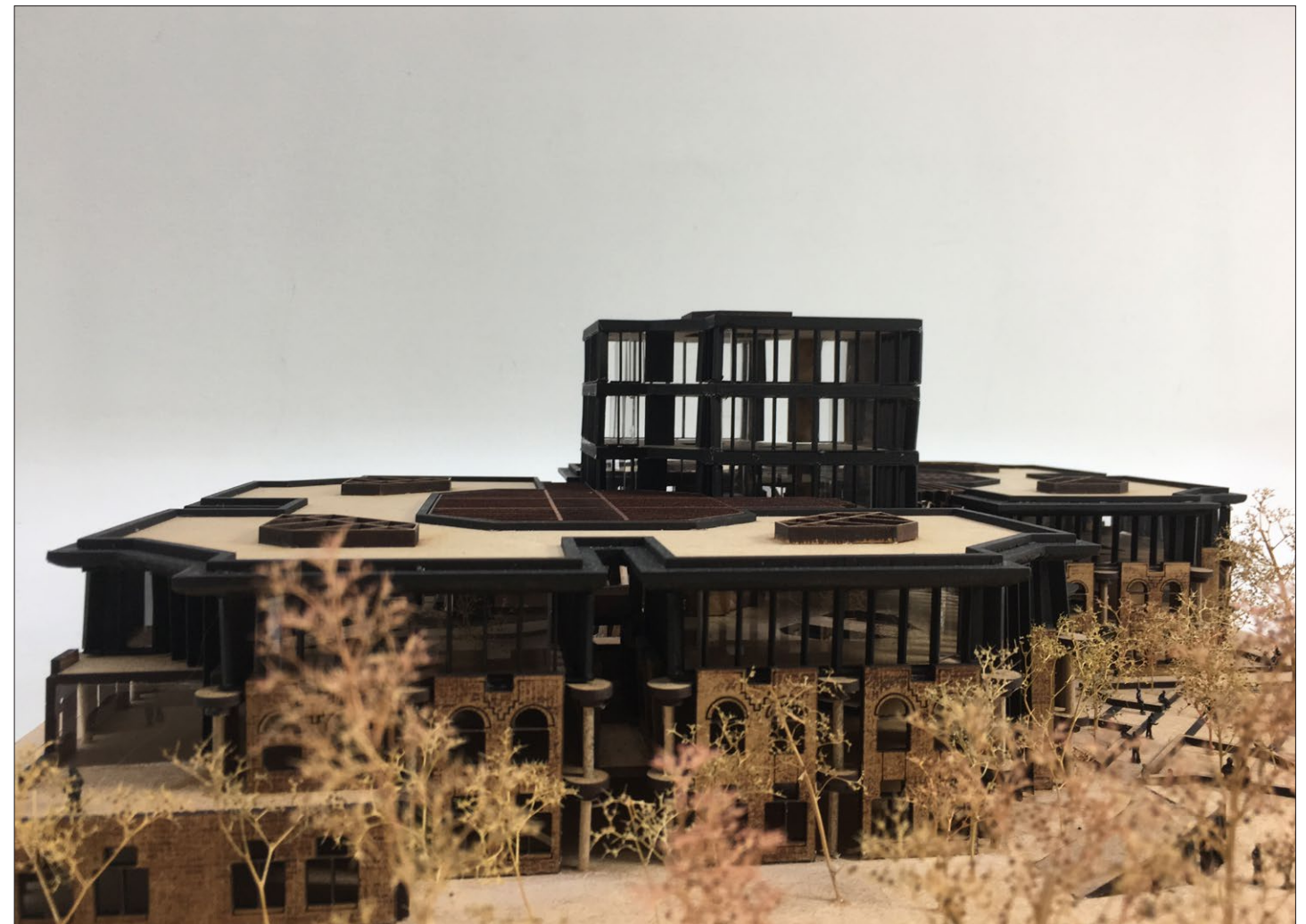














## Reflection Paper



This project presents a realistic approach of how Structuralist Buildings can be adapted to contemporary societies and the evolution of higher educational institutions. When dealing with existing compositions, studying them prior to any design decisions is key to understand the main principles underlying them. Analysing the PN van Eyckhof and Matthias de Vrieshof Buildings in Leiden (Humanities Faculty) by Joop van Stigt, was a key starting point for my project. Expansion, adaptability and linking were the key aspects that guided and moulded both my research and design.

In order to achieve a holistic result in my project, following a combination of research methods was required; enabling me to investigate the historic building from different perspectives providing me with more broad knowledge about it, the movement it represents, and its environment. Through building archaeological research method (applying both qualitative and quantitative techniques) as well as case studies on existing projects allowed me to objectively understand the building, the layers of time and its full potential in order to take advantage of with my intervention. When dealing with existing structures, an objective view is vital in order to fully understand the composition's values, protect them and highlight them.

Through the findings of the research methods I followed, I was fascinated by Structuralism's and Joop van Stigt's principle of "Linking". Nevertheless, in this project this ambition was never realised. Thus my project's main research question is: How can I re-link the cluster's buildings with each other, the university as a whole and with the wider context, Leiden and its inhabitants? Although this is my main research question and aim of my proposal, other sub-questions will allow me to formulate a more thorough end result: What are the values of this building, and how can I maintain and highlight them with my intervention? What direction are university buildings heading to nowadays? How can my intervention create the potential for revitalization not only of the university but the surrounding context as well?

One of the project's biggest challenges and perhaps the most intriguing reason for choosing this studio, is the chance to work on the field of Structuralism, a movement that has not been explored adequately from contemporary architects, creating a "gap" in the architectural context. Historic compositions are carriers of values, memories and form the identity of a cities they are located. Such buildings make nowadays cities unique, during the globalization era that we undergo, where cities gradually start to look alike, losing their character. Thus, one can understand the importance of historic compositions in today's societies and the need for architects to understand the dangers of intervening on them. Through my project, I will explore a new approach of intervening on Structuralist buildings, influenced from an international context and my prior educational and work experience. However, how will the research methods and steps I followed, allow me to successfully intervene on historic buildings? A question which does not only apply to this project, but to every intervention project. Despite the similarities one can find in the starting points (research & analysis) of such projects, disregarding the architects, the end results always vary depending on the needs of each building.

Talking specifically about the graduation studio, Structuralist architects designed buildings in the 1960s which are now considered as young monuments. Nowadays most of these structures are abandoned or constitute a rather unpleasant environment for their users, putting their existence at risk.

As a starting point the goal of my approach is to identify the values underlying Structuralist buildings, and specifically the values and needs of Joop van Stigt's designs in Leiden's Humanities campus. Based on the results of the analysis, I will design an intervention that would revitalize the historic structure and adapt it to its context and our contemporary era.

In the first phase of the Studio, we started by visiting and studying some Structuralist icons, a significant study in order to understand the movement's main principles and values. From this analysis it was clear that some certain problems were present to every building that have created a poor environment for their users, causing their gradual abandonment. Providing solutions for such problems is also another goal of my approach.

From the icon's analysis the ideas of Expansion and Linking were some of the main principles that intrigued me from this movement. In van Stigt's Faculty of Humanities design, these ideas can be found in multiple cases; such as the lightweight top storeys that can be replaced, the building's structural capacity that can support two extra storeys, and the columns on the back garden of the site, characteristics showing the architect's consideration of making a building that could be altered in the future in order to adapt to users' needs. Although the idea of expansion was reflected in the design, the architect's ambition to create an open university linked to its context was never fulfilled.

Dealing with heritage related projects, is a complex subject affected by multiple parameters. Compared to designing on an empty plot, the approach an architect needs to have in heritage related projects is different, as the responsibilities are much greater. Historic buildings carry values which need to be identified, preserved, respected and celebrated when intervening on them. Though, risks always underlie such projects, as a non-successful alternation can cause irreversible results to the monument. Therefore it is the architect's obligation to initially study the existing composition in depth so as to fully engage with it and identify the needs of both the building and its. Compared to other Heritage & Architecture studios, the "Future of Structuralism" studio is different due to its focus, which is buildings that are not old enough to be considered as monuments in the mainstream sense of the word, and thus are considered young monuments.

That being said, the method a heritage architect needs to follow must be very precise and well defined from the very beginning, in order to set solid foundations for the project's following stages. Studying ways architects have dealt with intervention-revitalization projects, I was influenced from the strategy used by Herzog & de Meuron in their intervention to Tate Modern, "This is a kind of Aikido strategy where you use your enemy's strategy for your own purposes. Instead of fighting it you take all the energy and shape it in an unexpected new way". Which shows the importance of studying the historic environment in order to achieve a successful adaptive reuse of the existing, using elements from the past and giving them life in the present for the benefit of the new. Their method was mainly focused on the visible parts of the building (form, materials). On the other hand, another architect's approach that has inspired me is Daniel Libeskind's, where studying the history of the building and its context, provides him with deep knowledge allowing him to create symbolic references between the historic context and his radical interventions (Jewish Museum in Berlin, Dresden Military Museum). The juxtaposing strategies used by these architects, the first ones using the form of the building as a starting point and the second one using its history, inspired my approach on how I could study the historic composition and on which aspects should I focus on. This shows us how different research methods architects use in such projects, can result in successful relationship between the old and the new.

The method I used, closely follows the Heritage & Architecture studio's approach which, as said before is based on the Building Archaeological Research Method. Though, this approach is focused just on the way one can study and analyse the existing environment. In order influence and solidify my design decisions and to derive to a successful result I expanded my research method on studying the direction educational institutes are taking as well as a series of case studies on intervention projects. Analytically the process I followed is:



- I started off with the Building Archaeology Method. By studying the building prior to the visit, I gained knowledge regarding the architect, the building and its location. Afterwards, a site visit, provided me with more detailed information about the composition and its values. Using also the findings of a research performed by the university, regarding the users' experience in the building, I was able to understand even better the problems that exist, qualities that users appreciate and the needs of the university (client). During the off and on-site research, I made drawings, diagrams and models that allowed me to engage with the composition. Throughout this whole phase I tried to maintain an objective perspective as I did not want to affect the results of the research by any underlying design decision that might have emerged.

- Secondly, I focused on the program of the building and of my proposal. Studying the evolution of university facilities at an international level, I understood that the co-existence of enterprises and universities is a rising phenomenon. Studying this upcoming "movement", I understood that would strengthen Leiden University's position in the highly competitive educational market.

- In order to understand how the introduction of a new function to the university could lead to a successful result, I performed case studies on realised projects. This allowed me to identify the parameters and characteristics I should take into account when working on my proposal, acting as guidelines for my design.

Overall the aim of my intervention both in programmatic and architectural terms was to respect and highlight the historic building; while at the same time improving any problems the building might have, always considering the users' experiences and needs. Following these steps would allow me to achieve a successful dialogue between the old and the new and at the same time derive to a reasonable, beneficial and successful approach for the future development plans of the university.

The principle of expansion (extension), one of Structuralism's main principles, indirectly stimulates experimentation by contemporary architects giving them the freedom to intervene and extend those young monuments. Despite this, there are only a few precedents of such projects. Working with a rather "undiscovered" architectural movement intrigued me to experiment in different ways on what could be done with those structures.

During both the research and design phase, after taking any decisions I evaluated them in order to find concrete reasoning behind every action. Talking about my approach, using ideas and characteristics from realised projects has allowed me to get a better understanding about the reality and feasibility of my proposal. Though, using reference projects and ideas that have been successful in other cases, do not always guarantee same results. Every project is unique and especially when dealing with existing compositions more parameters are added making this process even more complicated. Due to my position, what I can do, is present my ideas and possibilities for this project the best way possible and support them with valid arguments. During my P3 presentation, I received positive feedback for almost every intervention decision I proposed, showing me that the basic principles and ideas of my scheme could be feasible. On the other hand, when it comes to real life, other factors are also included into the judgement of each proposal. In order to test prior to construction whether the project would be successful or not, an analysis by project managers, developers and other professionals would be required. Considering the results of this analysis and depending on the needs, feasibility, benefit and budget, the client is the one who would decide which of the ideas can be interpreted. Then, after the project is realised, only time can tell whether the intervention was successful or not.

My position as an architecture student has allowed me to utilise the possibilities offered by the existing building, proposing alternations on multiple aspects of the current situation, including the program, façades, interior spaces, vertical extension volumes and the landscaping.

In addition to the above compositional goals, the scheme also aims to have an impact on the wider context. Entrepreneurial functions are programmatically incorporated in a designated space, becoming self-contained entities, an approach which has emerged lately internationally but has not yet been widely implemented in the Netherlands. By presenting a rather daring but, at the same time, respectful and well considered architectural and programmatic intervention, I could influence other intervention projects. Given the current building this influence could be focused especially on Structuralist buildings and ideally on the development project of van Stigt's clusters, planned by the Leiden University. On a scale larger than the one of this specific project, my proposal has managed to show that, despite the issues underlying such building, there is still a lot of potential in them, giving space for architectural experimentation, showing that there are ways to actually preserve these young monuments from abandonment and, inevitably, extinction.







This booklet was compiled by Ioannis Mexis in June 2018, in Delft, Netherlands. It contains an overview of the author's proposal for the Leiden University, Faculty of Humanities, PN van Eyckhof & Matthias de Vrieshof Buildings

Chair of Heritage & Architecture  
Graduation Studio: Future of Structuralism  
Faculty of Architecture and the Built Environment  
Delft University of Technology