Graduation Report

The Framework for Education

Unification, Revitalisation, A Framework, The Educational Centre &
Embodiment of Experimental Nature and Process - For The Public

Public Building Graduation Studio 2023-24
Bart Ramakers 5506948

Delft University of Technology

Faculty of Architecture and The Build Environment

Graduation Report for Master Of Science in Architecture, Urbanism, Landscape Design and Building Technology

Architecture Track

Public Building Graduation Studio

The Vertical Campus - A Public Hub of the Future in The Hague

AR3AP100

2023-2024

To all who have guided, mentored, and taught me the diverse and fascinating aspects of this profession,
I am immensely grateful for all the joyous moments that I hold dearly in my memories. This acknowledgment is dedicated to you,
as well as to the hard work and dedication that have shaped my journey.

Mentors

First mentor (Project Design(Ir. Paul Kuitenbrouwer
Second mentor (Theory & Delineation) Ir. Gosia Golabek
Third mentor (Technical Building Design) Dr. Piero
Fourth mentor (Leader of PB Group) Prof. Ir. Nathalie de Vries

Autor

Bart Raphael Franciscus Ramakers
5506948

Index

06 - 19 **Graduation Plan**

20 - 23 **Introduction & Capacity Plan**

24- 63 **Project Framework**

50 - 69 **Context**

60 - 67 **Design Strategies**

68 - 155 **Final Design Proposal**

157 - 165 **Final Reflection**

166 - 167 **Acknowledgements**

Graduation Plan

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Name	Bart Ramakers	
Student Number	5506948	

Studio	Public Building Graduation Studio	
Name / Theme	The Vertical Campus - A Public Hub of the Future in The Hague	
Main Mentor	Paul Kuitenbrouwer	Project Design (PD)
Second Mentor	Piero Medici	Technical Building Design (TBD)
Third Mentor	Gosia Gołąbek	Theory & Delineation (TD)
Location	The Hague, 52° 4' 53.6772'' N	

Argumentation for the studio:

The studio it's main objectives of researching the role of a public building in it's context, how this can successfully contribute to and be a catalyst to it's direct context, and the research into a fitting relationship between public, semi-public, commercial-, and private domains is personally considered as societal relevant but even more so, of importance. The investigation of new spatial qualities for multi-functional buildings that have the role of knowledge production seems relevant in our current and future demographic build-up. I am strongly motivated to the contribution of the (re)development of the meaning of public building and space, and eager in exploration of hybrids as architectural typology.

Graduation Project / Title of Graduation Project:

The Framework for Education
A Unified City Block as Hybrid Framework for Education

Problem Statements

There is an increase of enrolled student, yet a decrease in public funding per student. The current campus-city relationship does not meet the requirements vital to knowledge creation and innovation. The limited number of recourses results in the need to joined forces and interchangeability. Spatial qualities do not meet the heterogeneous character of users. The expansion of and relocation of university campuses results in the exploration of future scenarios for vertical hybrid (higher) educational buildings and their overarching systems.

Research question

How to design a hybrid educational system and its corresponding environment that is contextually and programmatically responsive?

Resulting design assignment

This main research question results in a set of design ambitions which are ought to be translated into the design of a future university building. The design assignment is therefore the translation of determined ambitions into the design of the future university campus.

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Method description

The goals are to design a public forum for education, culture and politics in the city of The Hague. Where interchangeability and adaptability should facilitate changes over time. Furthermore, spatial qualities should foster a level of interactivity between the users of the building. These ambitions should be clearly visible in the final design of the building.

The aforementioned ambitions function as design strategies, that will guide the designer in making decisions. The strategy for obtaining a certain degree of adaptability will be in regards to the open framework, or structure, which should facilitate later changes. To simultaneously meet sustainability ambitions this open framework or primary structure should aim to minimize the embedded carbon as much as possible. Secondly interactivity in tall educational buildings is investigated. Here the strategy of diagonal connections and visible connections across multiple floors will be applied. To understand how this strategy can be translated into the building design case studies will be investigated. The level of hybridity is aimed to be achieved through a complementary and playful arrangement of given function-mix.The determination of the strategies, combined with previously conducted research into the program, involved users and constraints of the site result in the design brief of this graduation proposal.

Through research-by-design design explorations re-inform (or not) the pre-determined strategies and is itaretively translated into an elaborated design proposal. During the (initial) design process (theoretical) literature studies are conducted whcih serve as backbone for other design decisions being made. Solving technical challenges is in parrallel resolved and is integrated in the development of the final design proposal.

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

The graduation project addresses the topics of the studio. Investigating hybrid structures, social condensers and adaptive prototypes. Furthermore, investigating multiplicity through research-by-design, with the aim to make buildings less singular in function, more productive, more transformative and more resilient. This therefore

seems represented in the master programme, the MSc and the corresponding Master Track Architecture.

2. What is the relevance of your graduation work in the larger social, professional

and scientific framework.

The topic of this graduation plan and its aforementioned challenges, not only benefits the educational institutes but extend beyond this. The challenges of "doing more with less" is affecting our entire society, and our societal transition from the industrialized era to a knowledge-based society makes this topic a truly relevant one. More interaction leads to a greater potential for collaboration and the cultivation of ideas. Which is beneficial to a knowledge-based society. It is furthermore argued that the city-campus relationship is one of the most discussed topics of the future of educational institutes. Investigating interaction not only has benefits in the stimulation of knowledge creation. It furthermore investigates improving the efficiency in the use of space, improving cross-pollination between disciplines, and diminishing the gap between educational institutes and industries. Rethinking spatial qualities and corresponding spatial typologies to achieve hybrid environments is relevant due to the more heterogeneous character of users from educational institutes as well as users from industries. Hybridizing spaces opens itself up to future adaption and improving the interchangeability of spaces. Lastly the overarching goal, the stimulation of social interaction, is considered relevant since the cities it facilitates and the spaces in which it occurs should give joy, fulfilment, feelings of achievements, memories, and lasting relationships.

Literature and general practical references

den Heijer, A. (2011). Campus wordt duurzame kennisstad: Het delen van ruimte als positieve keuze. Hoger Onderwijs Management, mei, 8–10.

den Heijer, A. C. (2021). Trends voor de campus van de toekomst: Van traditioneel naar netwerk en virtueel, maar ook terug. In S. Arbeek, B. Breems, & C. Pieterse (Eds.), Samen werken aan de leeromgeving van morgen (pp. 511–515). Schooldomein B.V.

Den Heijer, A. C., & Curvelo Magdaniel, F. T. J. (2018). Campus–City Relations: Past, Present, and Future. In P. Meusburger, M. Heffernan, & L. Suarsana (Eds.), Geographies of the University (Vol. 12, pp. 439–459). Springer International Publishing. https://doi.org/10.1007/978-3-319-75593-9_13

Fernández Per, A., Mozas, J., & Arpa, J. (2011). This is Hybrid: An analysis of mixed-use buildings by a+t research group. A+T Architecture Publ.

Hättasch, M. (2016). Form After Urbanism: The Potential of Grossform. The Plan Journal, 59–79. https://doi.org/10.15274/TPJ-2016-10006

Heijer, A. C. den. (2011). Managing the university campus: Information to support real estate decisions (2. ed). Eburon Academic Publishers.

Miser, H. J., & Quade, E. S. (Eds.). (1988). Handbook of systems analysis: Craft issues and procedural choices (Rev. for v. 2). North-Holland.

Ninnemann, K., Liedtke, B., Den Heijer, A., Gothe, K., Loidl-Reisch, C., Nenonen, S., Nestler, J., Tieva, Å., & Wallenborg, C. (2020). Hybrid environments for universities. Waxmann Verlag GmbH. https://doi.org/10.31244/9783830991793

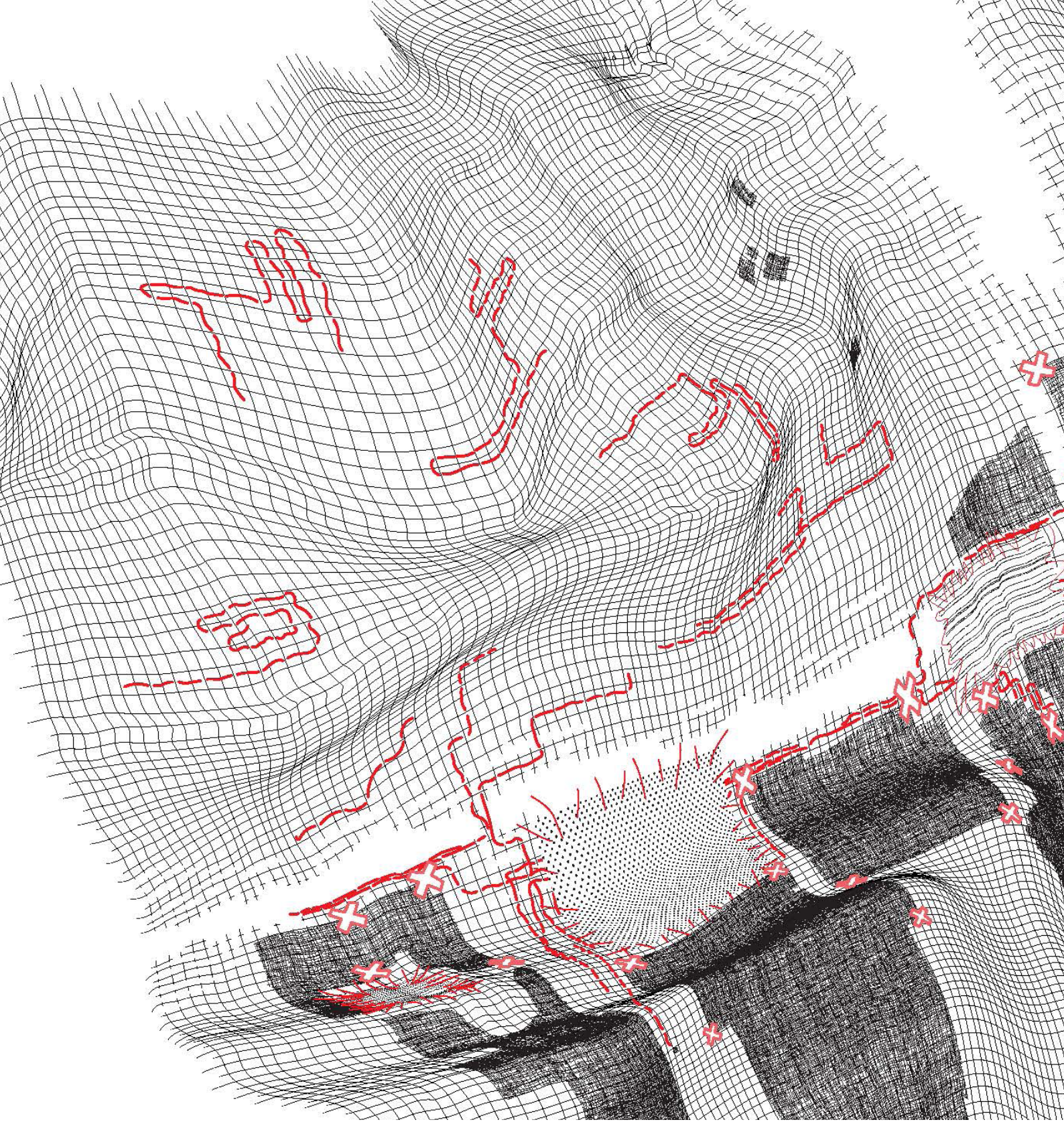
OverHolland. (2017). OverHolland, OverHolland 18/19. 65MB. https://doi.org/10.7480/OVERHOLLAND.2017.18/19

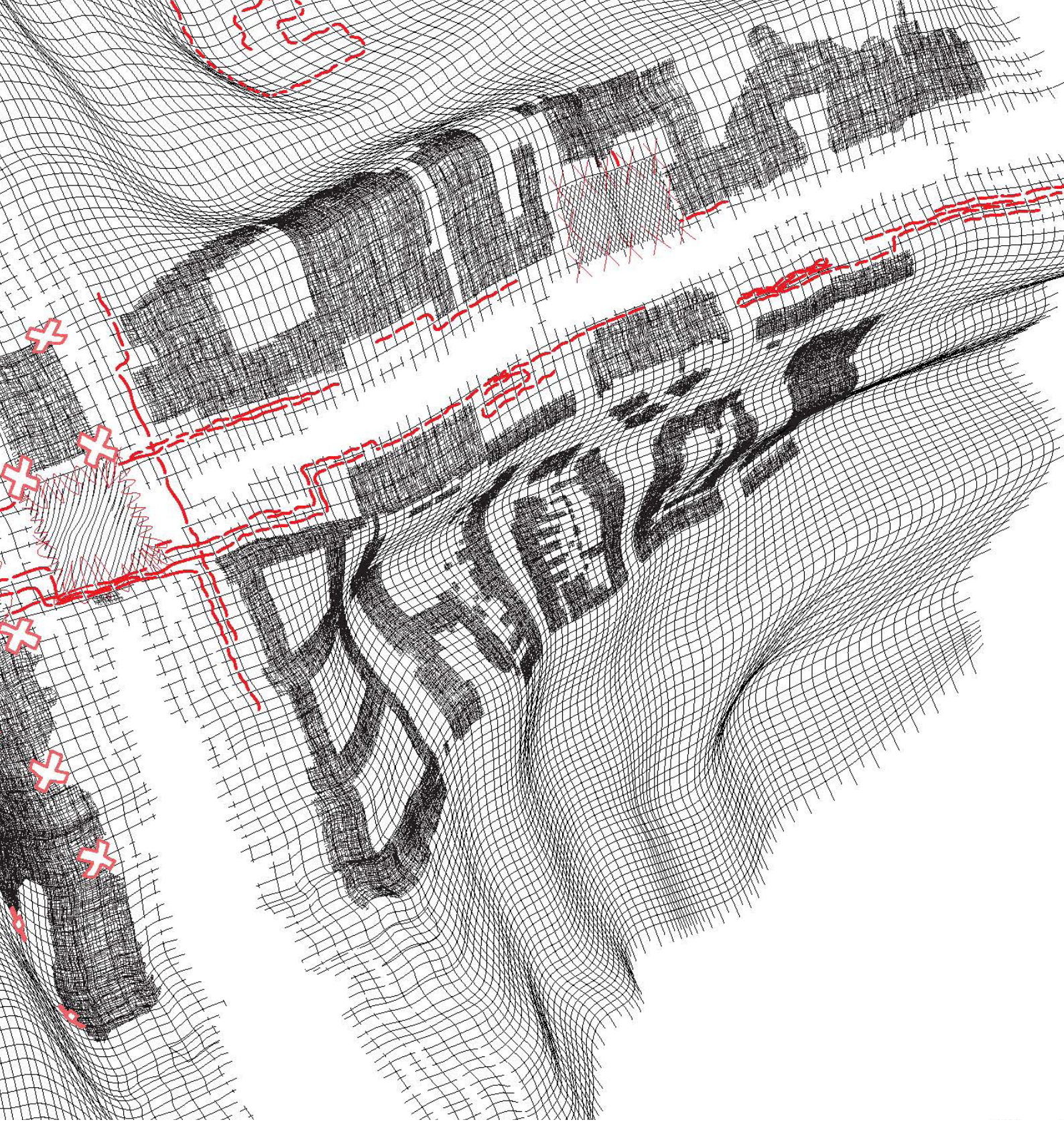
Rusman, F. (2021, May 6). Aantal nieuwe studenten op universiteiten zal komend jaar opnieuw toenemen. NRC. https://www.nrc.nl/nieuws/2021/05/06/aanmeldingen-aantal-nieuwe-studenten-opuniversiteiten-zal-komend-jaar-opnieuw-toenemen-a4042743

Ungers, O. M., Mühlthaler, E., & Technische Universität Berlin (Eds.). (2007). Großformen im Wohnungsbau: Erscheint im Kontext der Wanderausstellung Lernen von O. M. Ungers, Institut Architektur der Technischen Universität Berlin, 27. Oktober bis 9. Dezember 2006 sowie Ausstellung und Symposium CASA Veretigo der Technischen Universität Eindhoven (NL), 24. April bis 16. Mai 2007 (Erw., rev. dt.-engl. Ausg). Univ.-Verl. der TU.

Valks, B., Vande Putte, H., Arkesteijn, M., & den Heijer, A. (2019). Smart campus tools voor campusbeheer: Slim sturen op ruimtegebruik. Real Estate Research Quarterly, Januari.

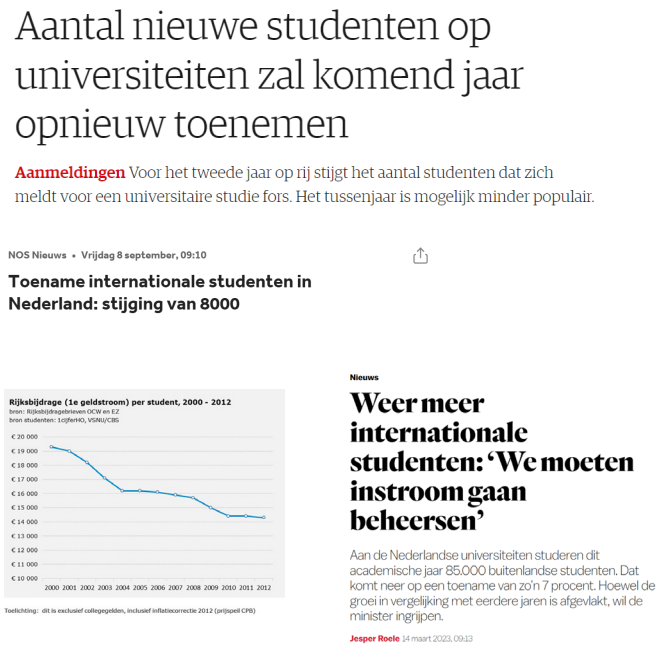
van Dooren, E., Boshuizen, E., van Merriënboer, J., Asselbergs, T., & van Dorst, M. (2014). Making explicit in design education: Generic elements in the design process. International Journal of Technology and Design Education, 24(1), 53–71. https://doi.org/10.1007/s10798-013-9246-8





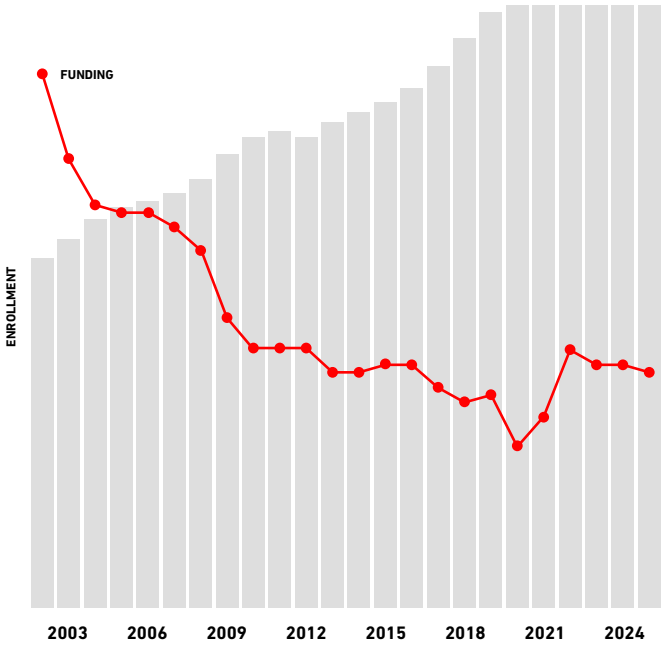
Limited Resources & Shifts in Demographics

Universities are confronted with a large increase of enrolled students, whilst the public involvement and funding per students got heavily reduced (A. den Heijer, 2011). Since 2000 there are 68% more students enrolled in universities, whilst the public funding per student is reduced by 25% (Rusman, 2021). This present-day situation implies that universities must achieve more with relatively fewer resources (Valks et al., 2019). With the current demographic situation, life-long learning, a global education market and the shift from the industrialized era to a knowledge-based society, expectations and needs on what learning environments should offer and look like have changed (Ninnemann et al., 2020).



Future Campus-City Relationship

Research in regional studies show that having firms and people with complementary intellectual backgrounds in close geographical proximity is vital to knowledge creation and innovation (Den Heijer & Curvelo Magdaniel, 2018). So therefore, the more one facilitates social interaction, the greater the potential becomes for collaboration and the cultivation of ideas. City municipalities and universities have common objectives in a knowledge-based society (Den Heijer & Curvelo Magdaniel, 2018). The origins of the Dutch university campuses, their corresponding model, and their relationship/integration with their respective cities does not facilitate the level of integration demanded for a internationally competing knowledge-based society it operates in.



Nieuws

Kamer roept minister op toename internationale studenten af te remmen

De Tweede Kamer vraagt minister Robbert Dijkgraaf (Wetenschap) meer te doen om de toestroom van internationale studenten te beperken. Meerdere moties die hiertoe oproepen krijgen steun van een meerderheid.

NOS Nieuws • Donderdag 4 november 2021, 11:25 •
Aangepast donderdag 4 november 2021, 12:27

Universiteiten onder druk door recordaantal studenten

Bekostiging per student in het hbo en wo gaat dalen

Nieuws | de redactie

ACHTERGROND

Uitpuilende collegezalen en ellenlange wachtlijsten: universiteiten willen niet meer groeien

Onderwijs Het aantal studenten verdubbelde de afgelopen twintig jaar van 170.000 in 2001 naar 340.000 nu.

Patricia Veldhuis, Frederiek Weeda • 4 september 2022 • Leestijd 5 minuten

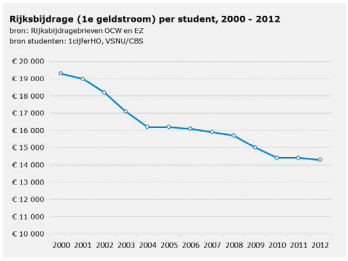
Luisteren | Leeslijst

Een kwart van alle 340.000 universiteitsstudenten komt nu uit het buitenland

Woningnood Ook dit jaar hebben meer buitenlandse studenten zich ingeschreven dan vorig jaar, al lijkt de toename iets afgezwakt. Universiteiten klagen al jaren over het teveel aan internationale studenten.

Flóri Hofman • 10 november 2022 • Leestijd 1 minuut

Luisteren | Leeslijst



Toelichting: dit is exclusief collegegelden, inclusief inflatiecorrectie 2012 (prijspeil CPB)

Buildings of the city of Leiden, blue marked are university buildings

Buildings of the city of Delft, blue marked are university buildings

Buildings of the city of Wageningen, blue marked are university buildings

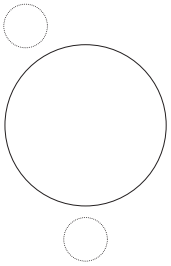
Buildings of the city of The Hague, blue marked are university buildings

THE BEGINNING

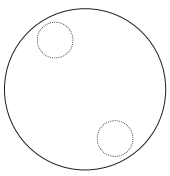
FIRST AUTONOMOUS CAMPUSES

FURTHER EXPANSIONS

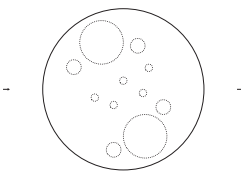
RE-INTEGRATION IN THE CITY



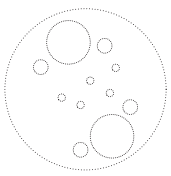
CAMPUS OUTSIDE OF THE CITY



CAMPUS AT THE BORDER OF THE CITY



CAMPUS INTEGRATED IN THE CITY



THE CITY AS THE CAMPUS

CAMPUS
CITY

The City of Peace and Justice - The Hague

Capacity Plan

The Adminstrative City

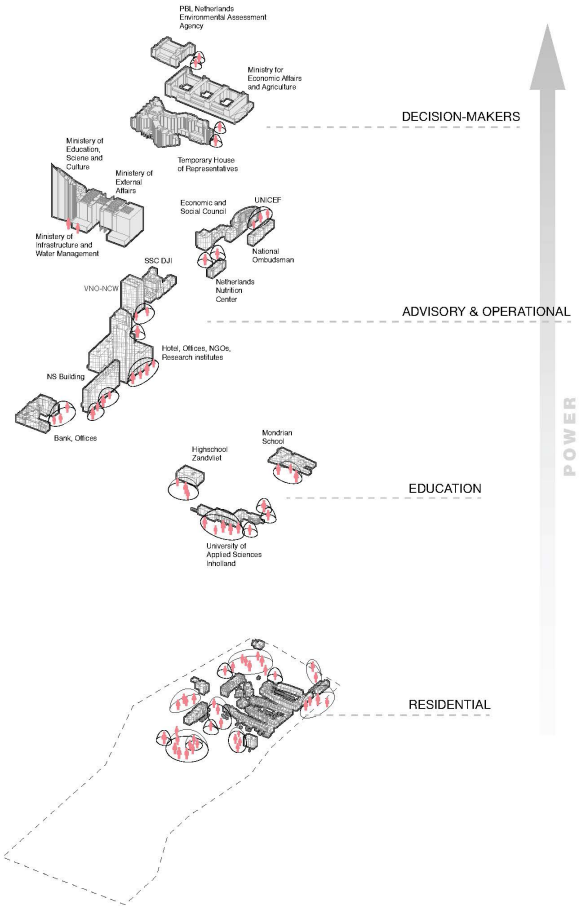
National and Transnational Institutes

- The main executive body of The Netherlands, The Cabinet, is based in the historic centre of The Hague;
- All 12 Ministries - which are the most influential part of the executive of the Government of The Netherlands - are based in The Hague. They are all located within a radius of 1km from The Cabinet;
- Many advisory bodies, governmental & non-governmental are located in The Hague;
- Internationally The Hague is host of The International Court of Justice & The International Criminal Court;
- The Hague is the host of over 400 international organizations, including European agencies such as Europol, many non governmental institutes;
- The Hague is the host of almost all international ambassies located in The Netherlands.

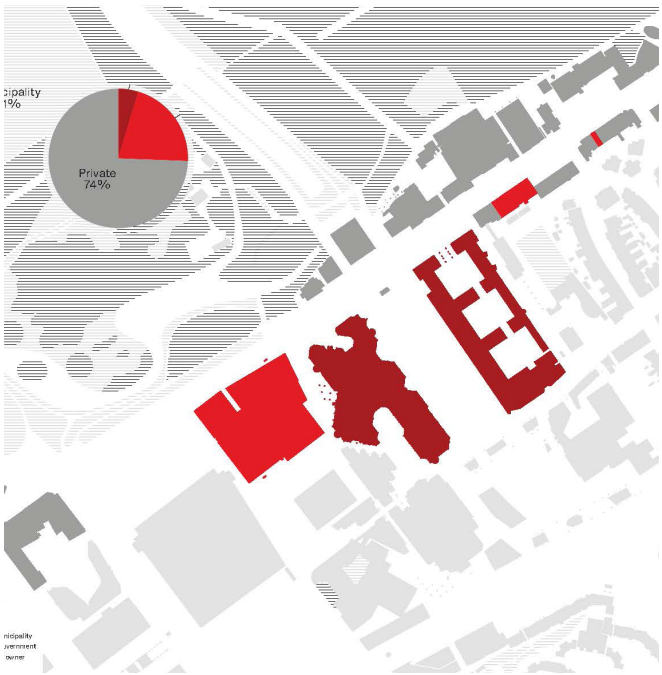
CITY OF NATIONAL AND INTERNATIONAL ADMINISTRATIVE INSTITUTES

Isolated Power-Clusters

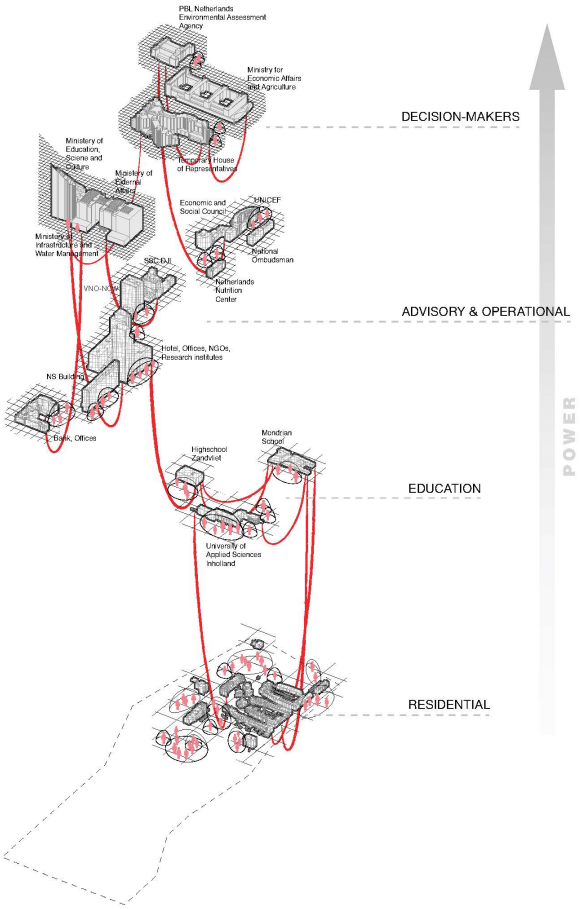
The project district is characterized as an area of knowledge production. The domination of governmental institutions simultaneously means restrictions for the public. Heavily guarded entrances, steel gates, and army personel is seen constantly in this area. Ensuring safety for all who is associated with the ministries and other governmental institutions. However, this bears challenges to the city as a whole, but more specifically to the investigated region itself. The multiple layers of power are isolated, not accessible to the general public, whereas multiple spaces have been identified allowing for freedome of appropriation.

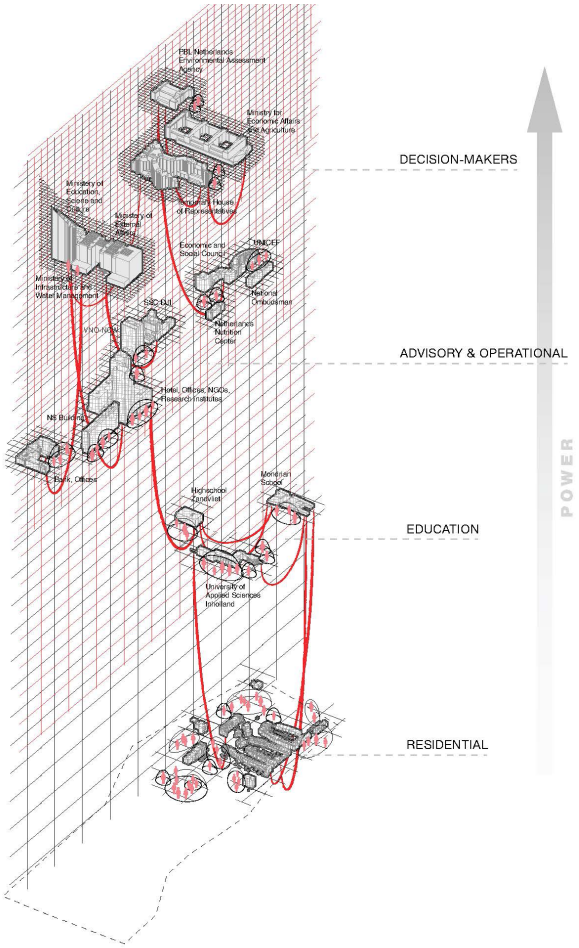


GOVERNMENTAL INSTITUTIONS



OWNERSHIP OF LAND





Identified strategies for the horizontal brief

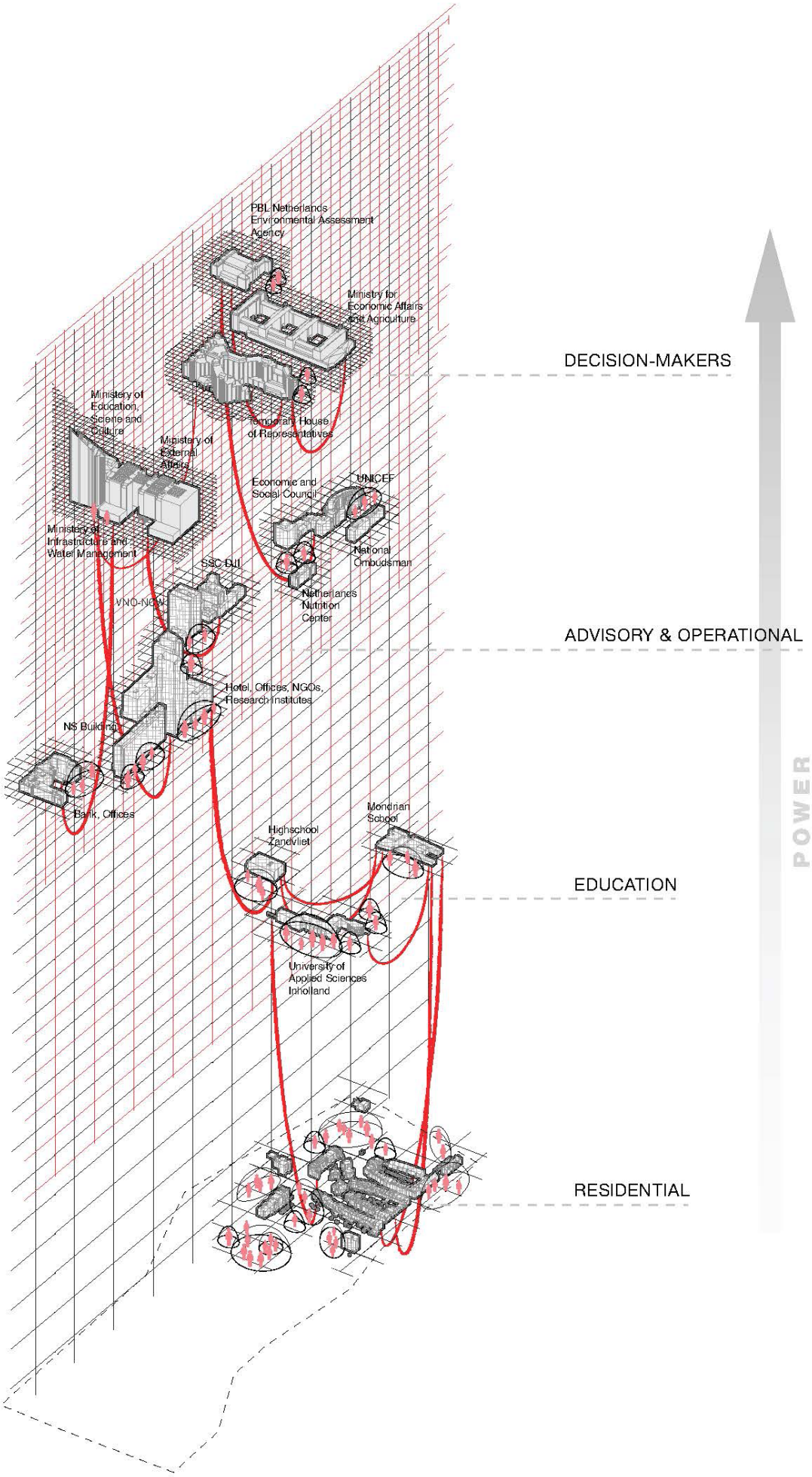
Capacity Plan

... TO INTERACT AND EXCHANGE WITH OTHER USERS IN THE CITY

... TO GENERATE AND SHARE KNOWLEDGE BETWEEN DIFFERENT LAYERS OF POWER DYNAMICS

... TO STAY AND APPROPRIATE FREELY

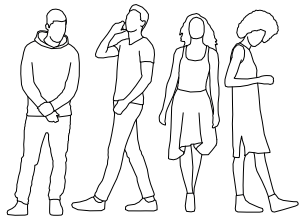
... TO ADD A THREE-DIMENSIONAL EXPANSION TO THE PUBLICLY ACCESSIBLE SPHERE


PBL Netherlands Environmental Assessment Agency
Ministry for Economic Affairs and Agriculture
DECISION-MAKERS
Ministery of Education, Scienc and Culture
Ministery of External Affairs
Temporary House of Representatives
Economic and Social Council
UNICEF
Ministery of Infrastructure and Water Management
National Ombudsman
SSC-DJI
Netherlands Nutrition Center
VNO-NCW
ADVISORY & OPERATIONAL
Hotel, Offices, NGOs, Research Institutes
NS Building
Bank, Offices
Mondrian School
Highschool Zandvliet
EDUCATION
University of Applied Sciences Inholland
RESIDENTIAL
POWER

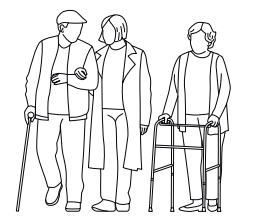
Identified stakeholders

Capacity Plan

Students



Senior Citizens



Employees

Students

Name:	Sarah, Bianca, Margherita, Irene, Joren
Age:	23-25
Occupation:	Student
Nationality:	American, French, Dutch, South-African, Italian
Education:	Psychology, Diplomacy & International Relations, Bio-Pharmaceutical Sciences
Location:	The Hague

Senior locals

Name:	Harm/Nellie/Marije
Age:	55-66
Occupation:	Volunteer
Nationality:	Dutch
Education:	/
Location:	The Hague, Haagse Bos

Employees

Name:	Gerard, Ayhan, James, Peder, Brian
Age:	32-59
Occupation:	Park Host, Risk Advisor, Engineer, Consultant, Logistics Analytics at NATO, ICT at Landal Greenparks
Nationality:	Surinamese- Dutch, Dutch, Turkish, British, Hungarian, Dutch
Location:	The Hague

Pain Points

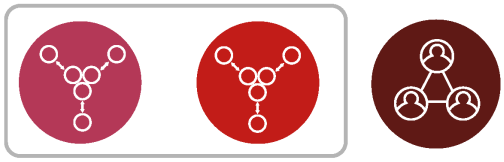
Students | Senior citizens | Employees

Financial Situation

Isolation

Gain Points

Students | Senior citizens | Employees

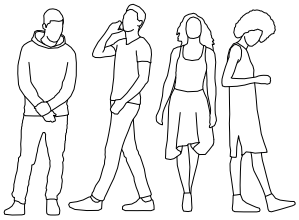


Retreat Versus Collaboration

Connection to City & Nature

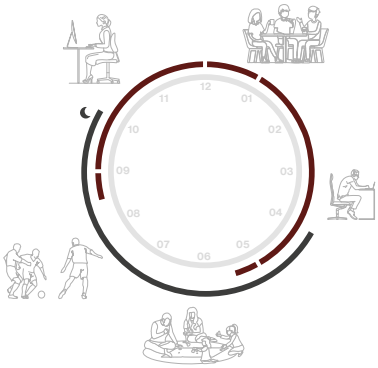
Although user groups strive for interaction, they have difficulties getting out of their "bubble".

Students

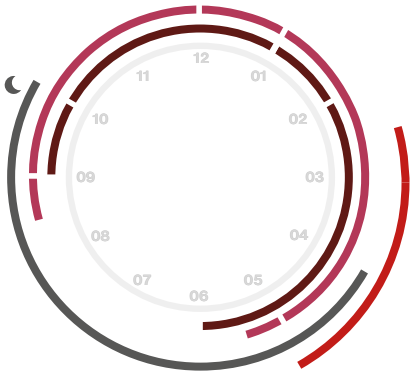


Senior Citizens

Employees



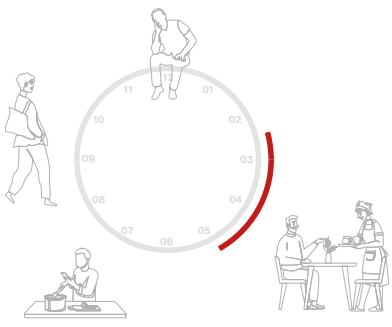
Combined User Group Routine



Student Routine

Workers Routine

Eldery Routine

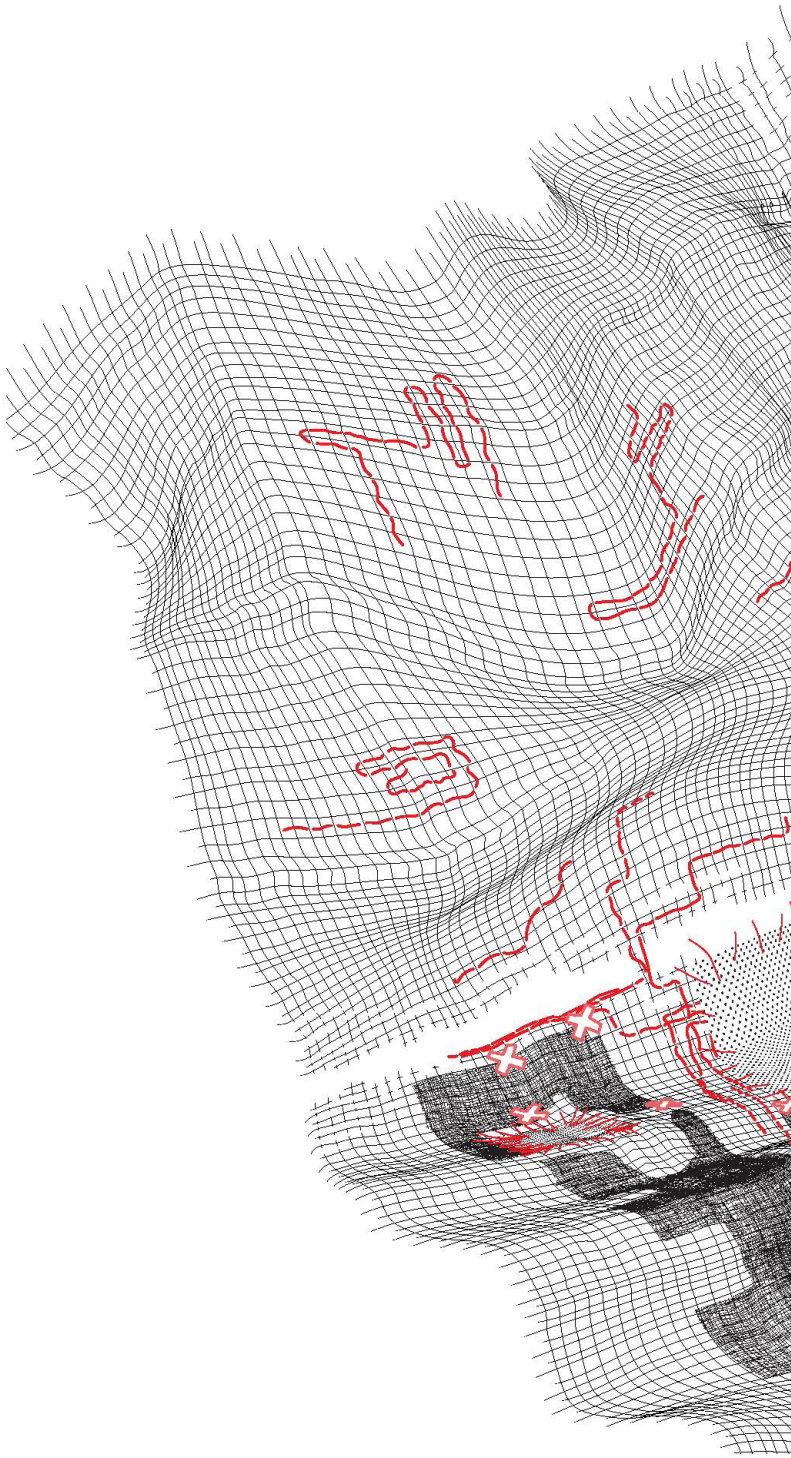


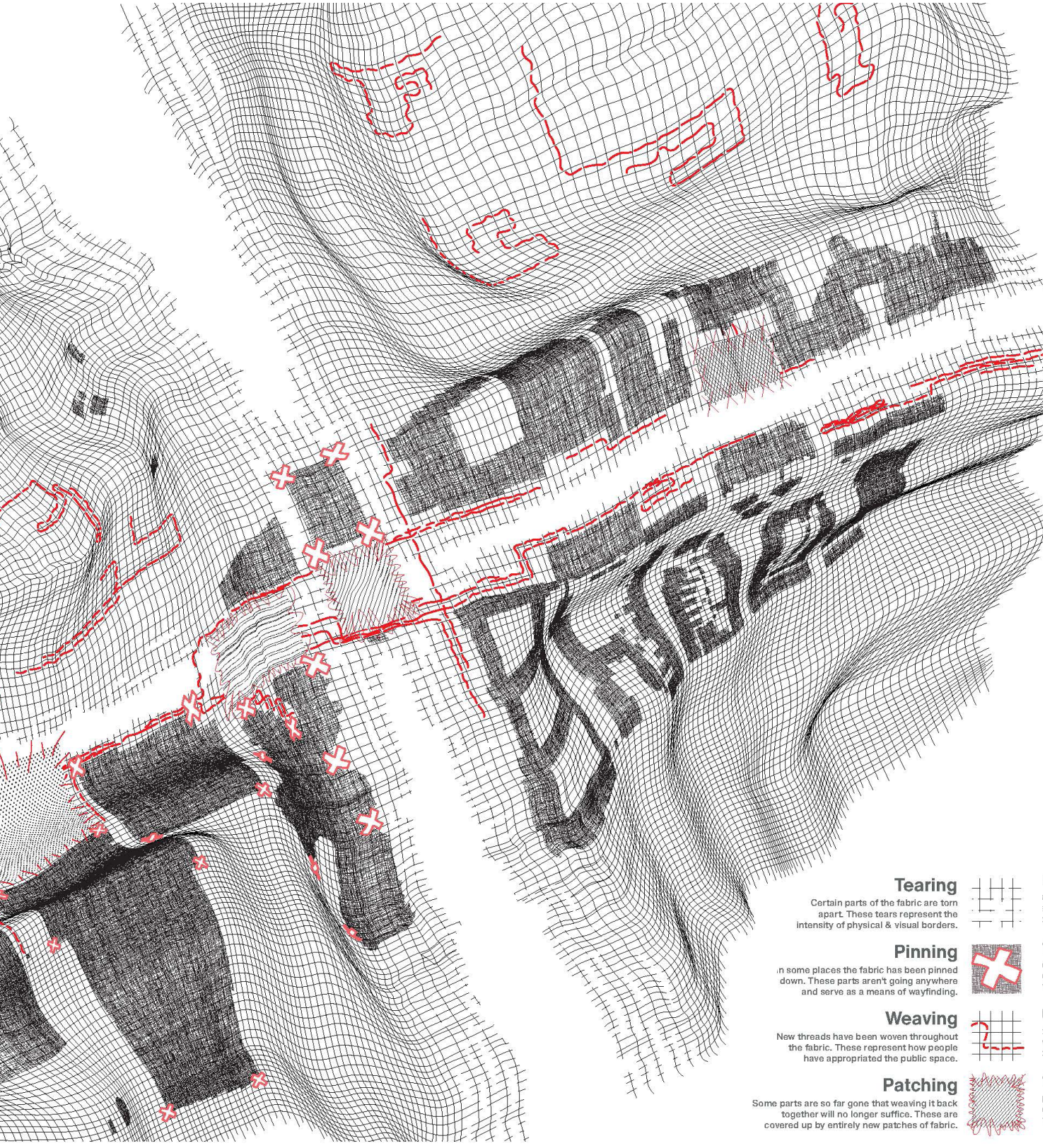
the urban fabric & transformations of weaving

For the understanding of our site area a phychrogeographical map is made. The image on the rigth shows the map. Here the urban fabric, a term occasionally used to describe the physical urban environment (elements, materials, forms, scales, density and networks), as well as its psychological (socio-cultural, ecological, managerial and economic) structures. However, this term is translated in a literal manner, taking a flat cloth, with it's threats being exposed, as our starting point. Transformations to the cloth are methaphores for describing observations made to the site. Doing so as if one would alternate a cloth. Tears represent hard physical and visual borders, segmenting a uniform continuous and functioning fabric. Pins represent fixed, unmovable patches, locking the fabric and identifying objects serving as wayfinding elements. New weaves in the fabric represent people appropriating public space. And lastly, pachtes, new patches to the fabric, represent disfunctional, broken regions in the fabric, the patches are methaphoric for regions requiring a improved alternations.

WEAVING THE URBAN FABRIC

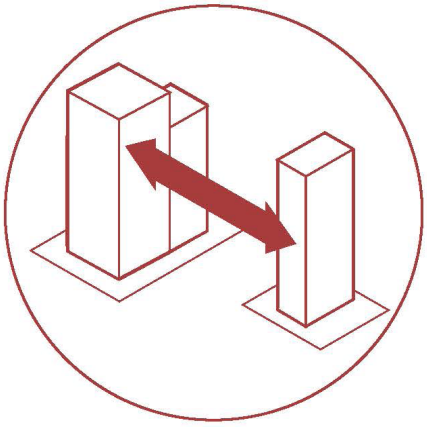
Psychogeographic Map of the Green Border



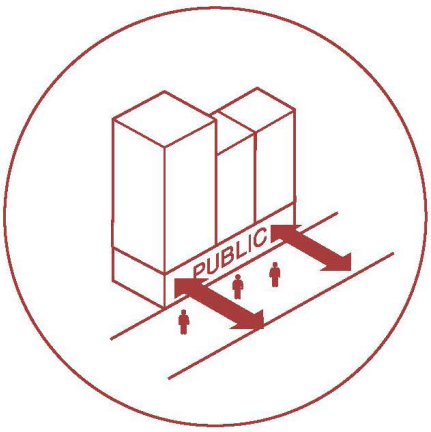

Tearing
Certain parts of the fabric are torn apart. These tears represent the intensity of physical & visual borders.
Pinning
In some places the fabric has been pinned down. These parts aren't going anywhere and serve as a means of wayfinding.
Weaving
New threads have been woven throughout the fabric. These represent how people have appropriated the public space.
Patching
Some parts are so far gone that weaving it back together will no longer suffice. These are covered up by entirely new patches of fabric.

Determined strategies for horizontal brief

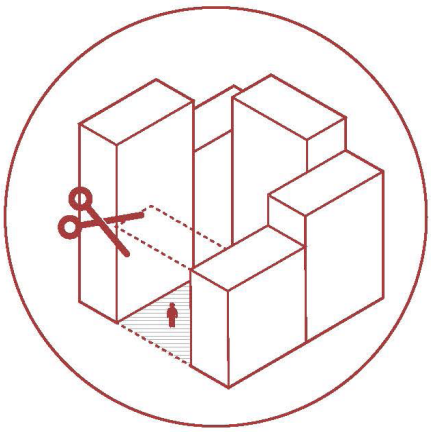
Capacity Plan



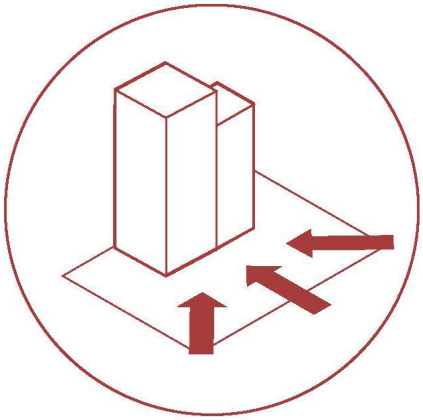
1. OPEN UP AND CONNECT EXISTING POWER CLUSTERS



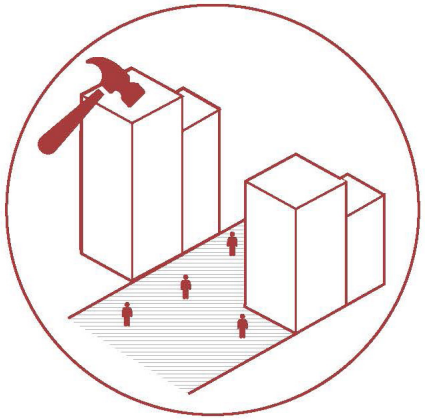
2. ACTIVE PLINTH FOR PUBLIC



3. NEW URBAN COURTYARDS



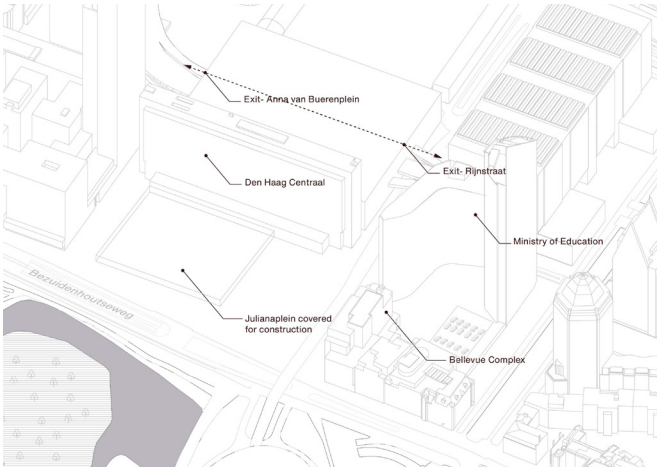
4. ENHANCE ACCESSIBILITY AND ESTABLISH NEW AXES



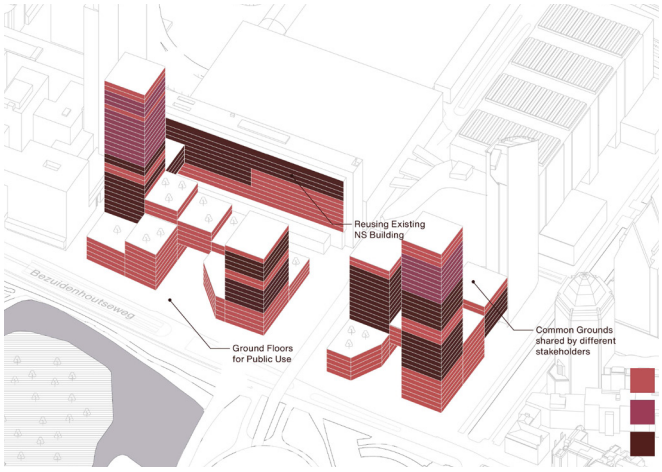
5. CREATE SPACES IN-BETWEEN SPACES

a common ground for the open city

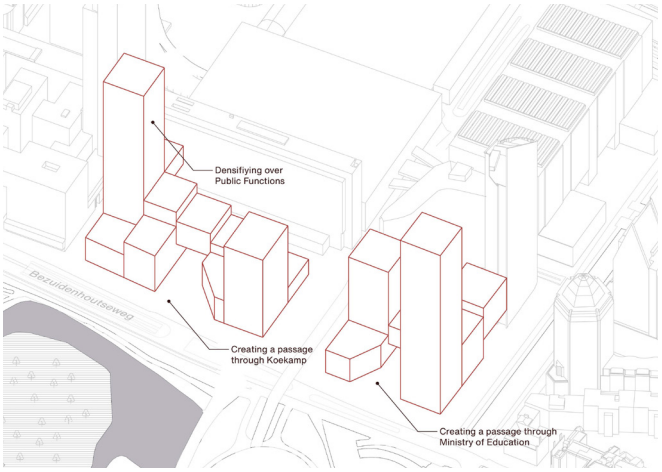
Many significant institutional, governmental and international "power clusters" are located throughout the Green Border along the axis of Bezuidenhoutseweg. They generate knowledge and make decisions that have **a crucial impact on the future of the city and its citizens. Our goal is to break up these power clusters and make them accessible to the general public** to bring the people who are affected by these decisions closer to where the decisions are made. Thereby our visions stands for **an open and transparent city** in which the public has the opportunity to actively participate in the decision-making process and influence the solutions which are developed to tacle the current and future challenges



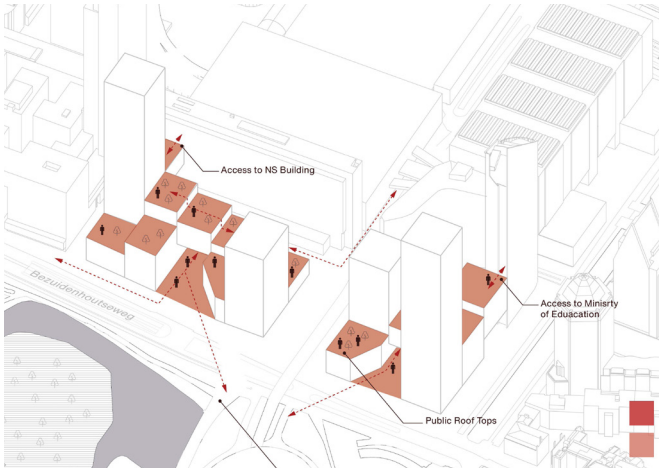
1. CURRENT SITUATION



2. PROGRAMME



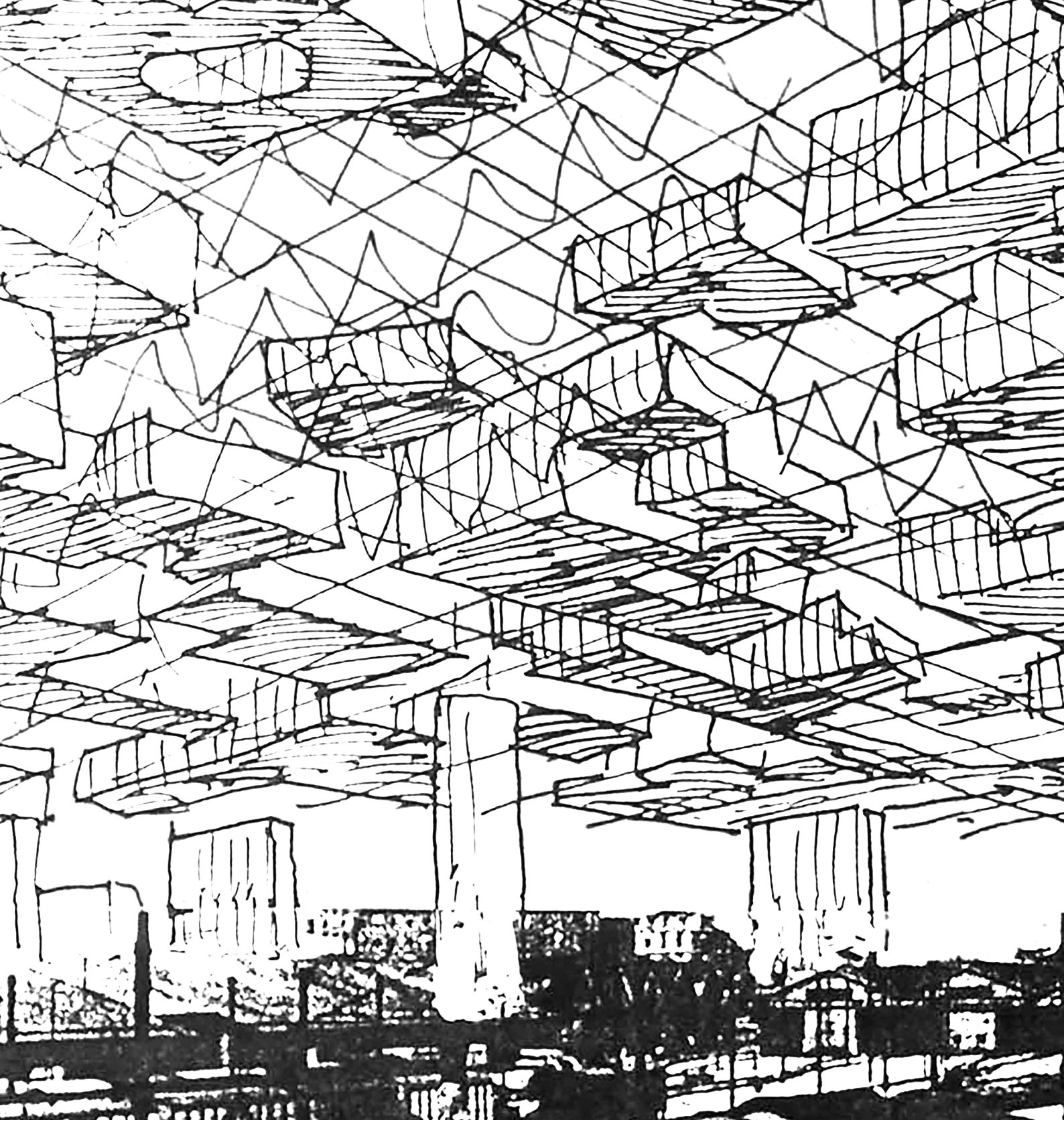
3. DENSIFICATION



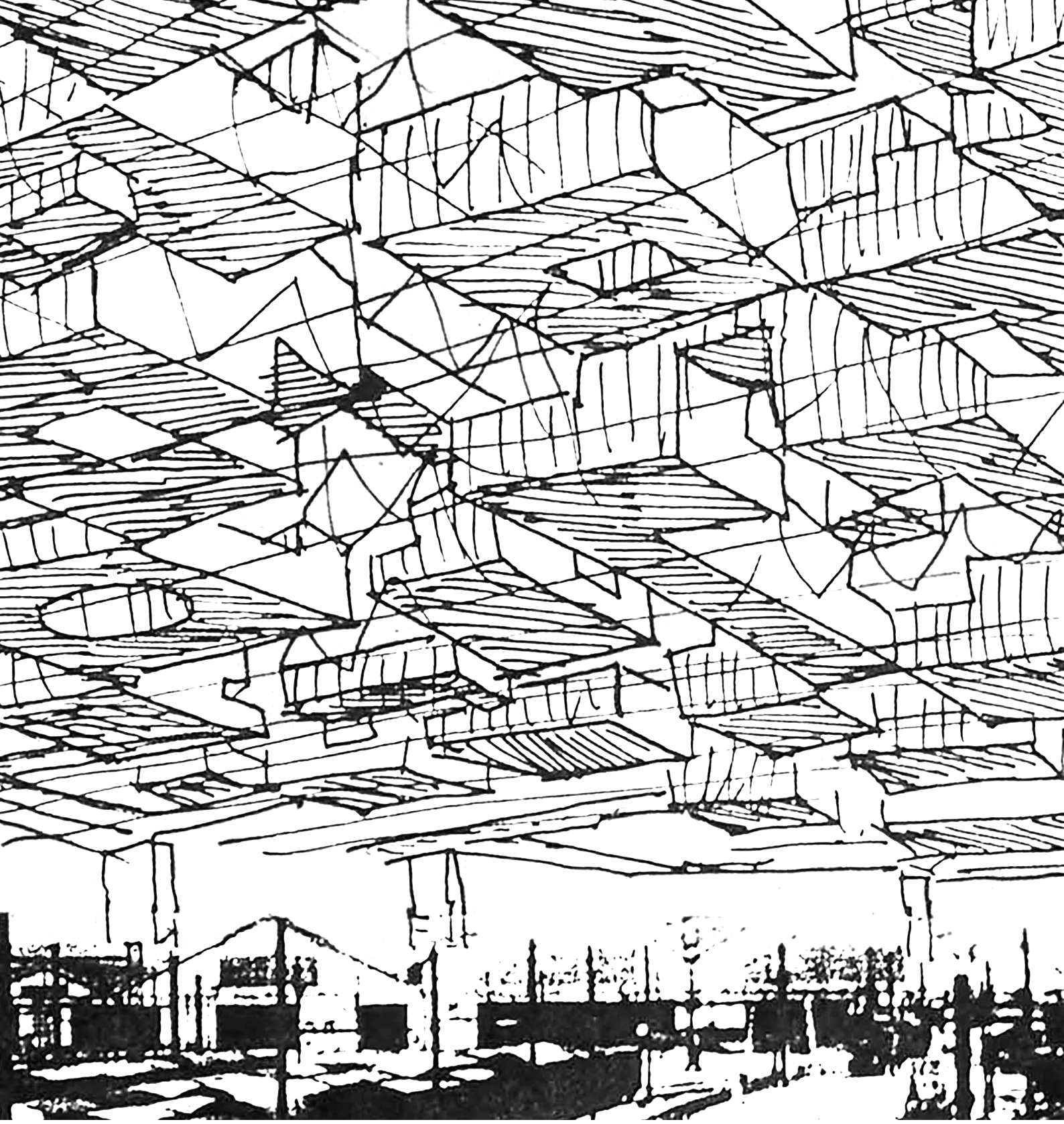
4. CIRCULATION

Proposed solutions for KJ & Bellevue

The capacity plan covers a larger part of the Central Business District of The Hague. The above drawings indicate part of a larger proposal. Only this region is indicated since the project it's location is here, which will be covered in more depth lateron. The five mentioned ambitions, seen on the left page, are translated in a high-level urban plan. For this plan there are two sites: Koningin Julianaplein and the Bellevue. For both existing buildings are removed, new denistifcation occured, the plinth and direct connection to the urban public realm is remained, new urban courtyards have been introduced, improved axes are introduced and lastly spaces in-between spaces are introduced.



Project Framework



References

Marshall Building, LSE - Grafton - Educational - London[1]

Social Condensing Elements:

Superstructure, Gradient of Spans, Openness / Closeness, Four Programmatic Worlds as Thematics Stacked Vertically

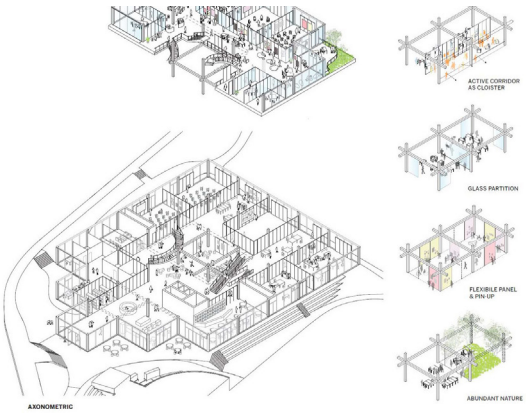
Figure 20 - Seattle Central Library / OMA

Figure 21 - Seattle Central Library / OMA

Seatle Central Library - OMA - Public Library - Seatle[4]

Social Condensing Elements:

Voids as Open spaces, and Closed Blocks, Flexible and Rigid, Public and Private



The Square - Sou Fujimoto - Learning Centre - Gallen, Swiss[7]

Social Condensing Elements:

Terracing Learningspaces, Unprogrammed Workshop Spaces, Atrium

1.'The Marshall Building'. n.d. Accessed 24 June 2024. https://www.ideastatica.com/nl/case-studies/the-marshall-building-londen-uk.

2. MVRDV University of Toronto's Scarborough Campus Addition - 11'. n.d. ArchDaily. Accessed 24 June 2024. https://www.archdaily.com/1009371/mvrdv-and-diamond-schmitt-collaborate-on-university-of-torontos-scarborough-campus-addition/654a037308e44469475eb209-mvrdv-and-diamond-schmitt-collaborate-on-university-of-torontos-scarborough-campus-addition-image.

3. 'Ku-Be-Mvrdv-Architecture-Community-Centre-Denmark_dezeen_extended-Concept-Diagram.Gif (2364×1335)'. n.d. Accessed 24 June 2024. https://static.dezeen.com/uploads/2016/09/ku-be-mvrdv-architecture-community-centre-denmark_dezeen_extended-concept-diagram.gif.

3. 'Civic_Architects_-_LocHal_Tilburg_-_GIF_-_20.Jpg (1000×1000)'. n.d. Accessed 24 June 2024. https://images.adsttc.com/media/images/5c86/c1ca/slideshow/Civic_Architects_-_LocHal_Tilburg_-_GIF_-_20.jpg?

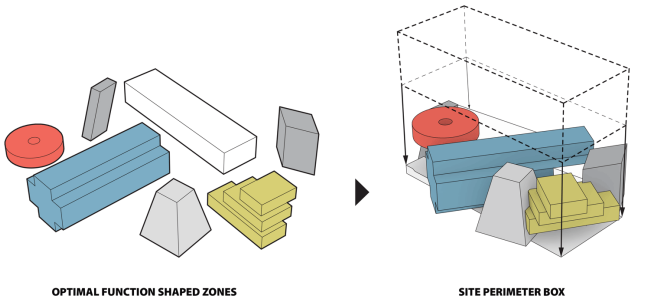
3. '887383014_spl-Program-Diagram-i-Rex.Jpg (1100×725)'. n.d. Accessed 24 June 2024. https://ad009cdnb.archdaily.net/wp-content/uploads/2009/01/887383014_spl-program-diagram-i-rex.jpg.

3. 'Kingston_University_London_Courtyard_Section_2_©Grafton_Architects.Jpg (1333×1000)'. n.d. Accessed 24 June 2024. https://images.adsttc.com/media/

4. 'Sou Fujimoto Piles Up Glass Boxes for a Flexible Learning Space in Switzerland | Architectural Record'. n.d. Accessed 24 June 2024. https://www.architecturalrecord.com/articles/15909-sou-fujimoto-piles-up-glass-boxes-for-a-flexible-learning-space-in-switzerland.

4. 'Exploded Axo.Jpg (1200×1490)'. n.d. Accessed 24 June 2024. https://mvrdv.com/media/uploads/Exploded%20Axo.jpg?width=1200.

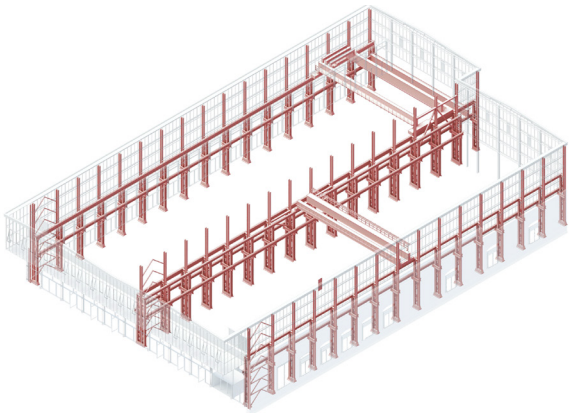
4.'DnB-NOR-Headquarters-by-MVRDV-2.Gif (450×300)'. n.d. Accessed 24 June 2024. https://static.dezeen.com/uploads/2009/09/DnB-NOR-headquarters-by-MVRDV-2.gif.



KU.BE - MVRDV - Educational - Frederiksberg (Denmark)[2]

Social Condensing Elements:

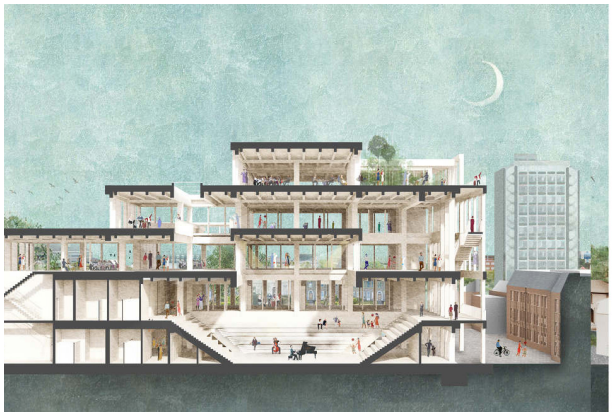
Voids for un-pogrammed circulation, Landscape topography on ground level, Visual connections between levels



LocHal Library - Mecanoo - Public Library - Tilburg[3]

Social Condensing Elements:

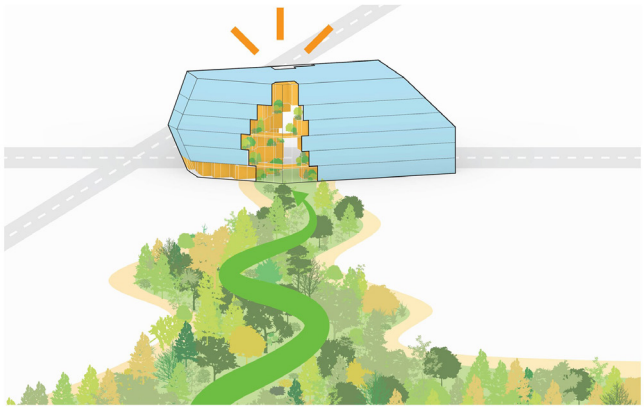
Tribuna Circulation in horizontal open void



Kingston University Town - Grafton - Educational - London[5]

Social Condensing Elements:

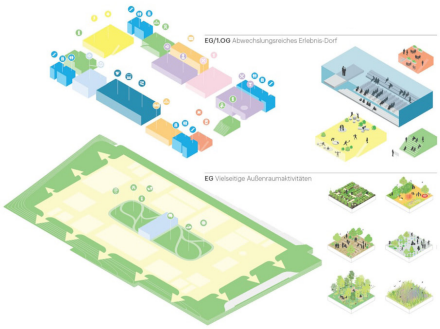
Learning Landscape, Programmatic Duality, Amphitheatre Courtyard,



Scarborough University - MVRDV - Educational - Toronto[6]

Social Condensing Elements:

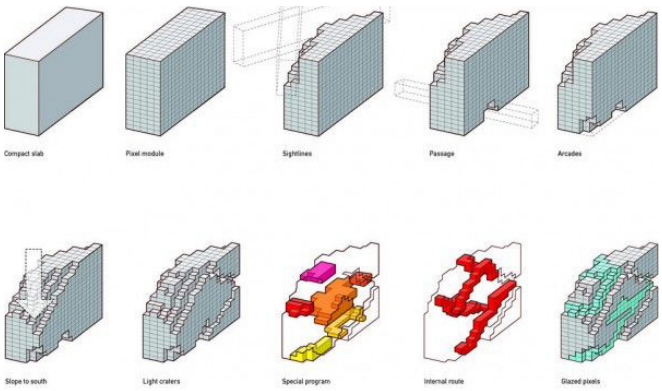
Atrium, Reinforcement of Pedestrian Spine, Contrasting



GIZ Campus - MVRDV - Educational - Frankfurt[8]

Social Condensing Elements:

Open-Plan Ground Floor, "Village" of Functions, Terraced "Valleys"



DnB House - MVRDV - Mixed-Use - Oslo[9]

Social Condensing Elements:

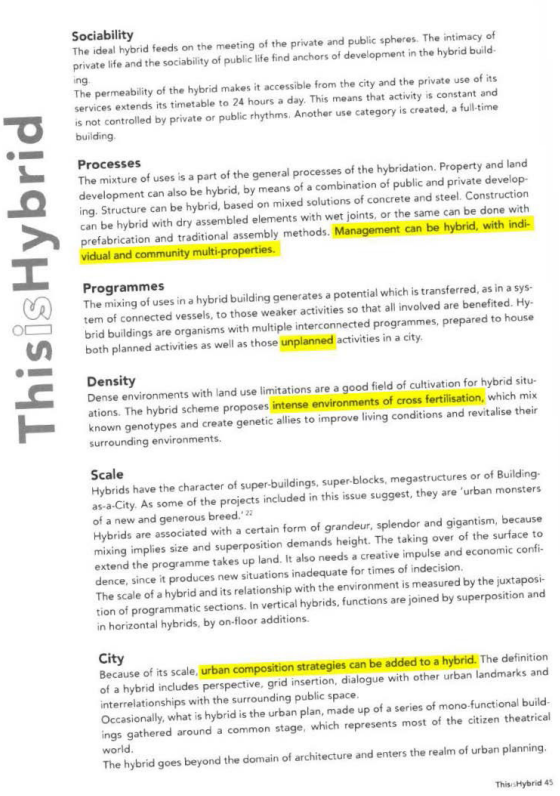
Heart, Open Route, Connecting Communal and Facility Spaces, Transparancy, Pixelation for Unique and Genric, Specifying Generic Through Pixelation

This is Hybrid

The concept of hybridization originates from genetics and refers to the cross breeding of different species (Fernández Per et al., 2011).

The hybrid building at full scale did not appear until the nineteenth century. Structural steel and the invention of the elevation in the middle of that century revolutionized construction and enabled vertical structures and signaled the rise of the skyscraper. The inability to fill the new towers with a single use led to the combination of programs and through this the emergence of hybrid buildings (Fernández Per et al., 2011).

Many current and recent buildings deal with hybridization and some form of programmatic 'chemistry'. These however rely heavily on retrospective classification and less on design tactics. Instead of grouping as


This is Hybrid

Sociability
The ideal hybrid feeds on the meeting of the private and public spheres. The intimacy of private life and the sociability of public life find anchors of development in the hybrid building.
The permeability of the hybrid makes it accessible from the city and the private use of its services extends its timetable to 24 hours a day. This means that activity is constant and is not controlled by private or public rhythms. Another use category is created, a full-time building.

Processes
The mixture of uses is a part of the general processes of the hybridation. Property and land development can also be hybrid, by means of a combination of public and private developing. Structure can be hybrid, based on mixed solutions of concrete and steel. Construction can be hybrid with dry assembled elements with wet joints, or the same can be done with prefabrication and traditional assembly methods. Management can be hybrid, with individual and community multi-properties.

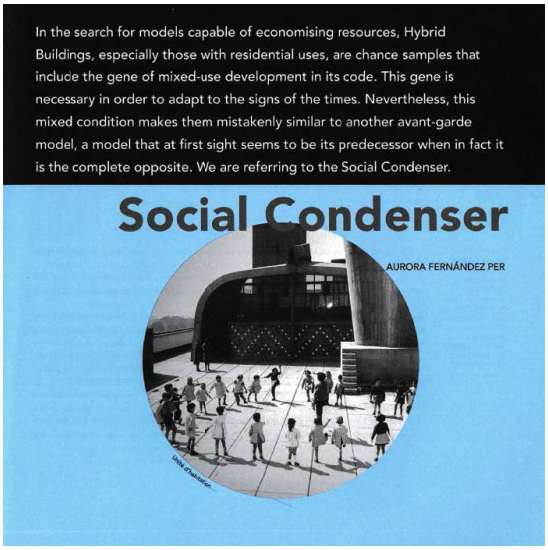
Programmes
The mixing of uses in a hybrid building generates a potential which is transferred, as in a system of connected vessels, to those weaker activities so that all involved are benefited. Hybrid buildings are organisms with multiple interconnected programmes, prepared to house both planned activities as well as those unplanned activities in a city.

Density
Dense environments with land use limitations are a good field of cultivation for hybrid situations. The hybrid scheme proposes intense environments of cross fertilisation, which mix known genotypes and create genetic allies to improve living conditions and revitalise their surrounding environments.

Scale
Hybrids have the character of super-buildings, super-blocks, megastructures or of Building-as-a-City. As some of the projects included in this issue suggest, they are 'urban monsters of a new and generous breed.' [22]
Hybrids are associated with a certain form of *grandeur*, splendor and gigantism, because mixing implies size and superposition demands height. The taking over of the surface to extend the programme takes up land. It also needs a creative impulse and economic confidence, since it produces new situations inadequate for times of indecision.
The scale of a hybrid and its relationship with the environment is measured by the juxtaposition of programmatic sections. In vertical hybrids, functions are joined by superposition and in horizontal hybrids, by on-floor additions.

City
Because of its scale, urban composition strategies can be added to a hybrid. The definition of a hybrid includes perspective, grid insertion, dialogue with other urban landmarks and interrelationships with the surrounding public space.
Occasionally, what is hybrid is the urban plan, made up of a series of mono-functional buildings gathered around a common stage, which represents most of the citizen theatrical world.
The hybrid goes beyond the domain of architecture and enters the realm of urban planning.

This is Hybrid 45



1. Fernández Per, Aurora, Javier Mozas, and Javier Arpa. 2011. This Is Hybrid: An Analysis of Mixed-Use Buildings by A+t Research Group. A+t In Common Series. Vitoria-Gasteiz: A+T Architecture Publ.

1. Fernández Per, Aurora, Javier Mozas, and Javier Arpa. 2011. This Is Hybrid: An Analysis of Mixed-Use Buildings by A+t Research Group. A+t In Common Series. Vitoria-Gasteiz: A+T Architecture Publ.

1. Fernández Per, Aurora, Javier Mozas, and Javier Arpa. 2011. This Is Hybrid: An Analysis of Mixed-Use Buildings by A+t Research Group. A+t In Common Series. Vitoria-Gasteiz: A+T Architecture Publ.

2. Ninnemann, Katja, Bettina Liedtke, Alexandra Den Heijer, Kerstin Gothe, Cordula Loidl-Reisch, Suvi Nenonen, Jonathan Nestler, Åse Tieva, and Christian Wallenborg. 2020. Hybrid Environments for Universities. Waxmann Verlag GmbH. https://doi.org/10.31244/9783830991793.

Hyrbids versus Social Condensers

A differentiation between the social condenser and a hybrid building is explicitly noted. Whereas the social condenser aims to self-sufficiency and thus isolation from the conventional city. A hybrid building seems a more succesful model since it may 'revilaise its surroundings and improve living conditions through its multi-properties'.

DIFFERENCES

HYBRID VS SOCIAL CONDENSER

1.	Diversity of uses, including residential Diversidad de usos, incluido el residencial	Residential buildings with a service programme associated to the dwellings Edificios residenciales con un programa de servicios asociado a las viviendas
2.	Different initiatives Diferentes iniciativas	Public initiative Iniciativa pública
3.	Insertion adapted to the urban fabric Inserción adaptada a la trama urbana	Isolated location in the urban fabric Situación aislada en la trama urbana
4.	Public uses Utilización pública	Exclusive use of the service programme by residents Utilización exclusiva del programa de servicios por parte de los residentes

1. Fernández Per, Aurora, Javier Mozas, and Javier Arpa. 2011. This Is Hybrid: An Analysis of Mixed-Use Buildings by A+t Research Group. A+t In Common Series. Vitoria-Gasteiz: A+T Architecture Publ.

2. Ninnemann, Katja, Bettina Liedtke, Alexandra Den Heijer, Kerstin Gothe, Cordula Loidl-Reisch, Suvi Nenonen, Jonathan Nestler, Åse Tieva, and Christian Wallenborg. 2020. Hybrid Environments for Universities. Waxmann Verlag GmbH. https://doi.org/10.31244/9783830991793.

1. Fernández Per, Aurora, Javier Mozas, and Javier Arpa. 2011. This Is Hybrid: An Analysis of Mixed-Use Buildings by A+t Research Group. A+t In Common Series. Vitoria-Gasteiz: A+T Architecture Publ.

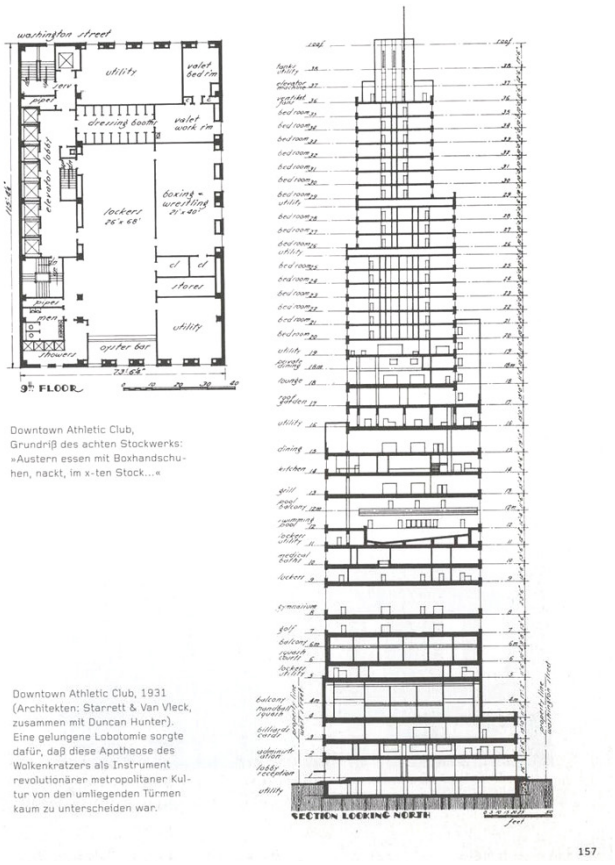
2. Ninnemann, Katja, Bettina Liedtke, Alexandra Den Heijer, Kerstin Gothe, Cordula Loidl-Reisch, Suvi Nenonen, Jonathan Nestler, Åse Tieva, and Christian Wallenborg. 2020. Hybrid Environments for Universities. Waxmann Verlag GmbH. https://doi.org/10.31244/9783830991793.

Density & Expression of Power in The Hague

Mixed-use containers emerge in relationship to city density[X]. Multi-purpose buildings are desirable conditions for avoidance of urban congestion, refering to Raymond Hood's realisation. Hoods states that communities and their activities are confined within certain areas whose traffic does not need to travel distant streets in order to collect supplies and orders.

The Downtown Athletic Club[X], by Duncan Hunter (1931) is an widely awknowledged exemplar: a machine to generate and intensify desirable forms of human intercourse.[X]

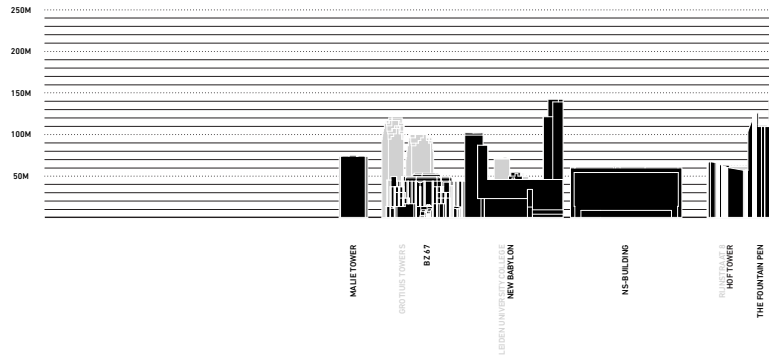
In the case for the city of The Hague, many of it's condensers do facilitate forms of human intercourse,



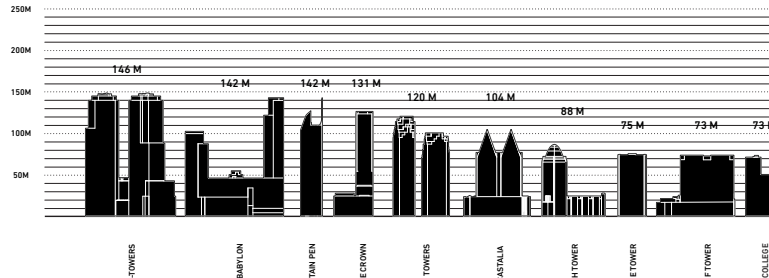
Downtown Athletic Club,
Grundriß des achten Stockwerks:
»Austern essen mit Boxhandschuhen, nackt, im x-ten Stock…«

Downtown Athletic Club, 1931
(Architekten: Starrett & Van Vleck, zusammen mit Duncan Hunter).
Eine gelungene Lobotomie sorgte dafür, daß diese Apotheose des Wolkenkratzers als Instrument revolutionärer metropolitaner Kultur von den umliegenden Türmen kaum zu unterscheiden war.

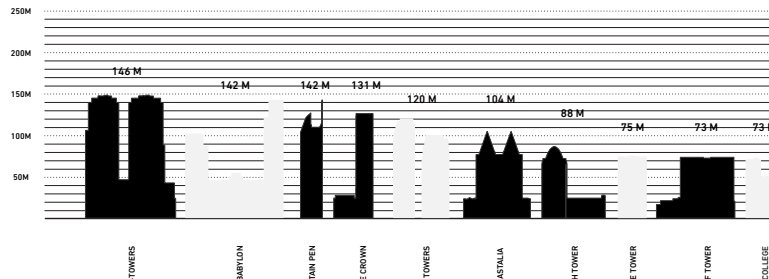
157



SKYLINE OF THE HAGUE - LOOKING SOUTHWEST



TALLEST BUILDINGS OF THE HAGUE - SORTED BY THEIR HEIGHTS

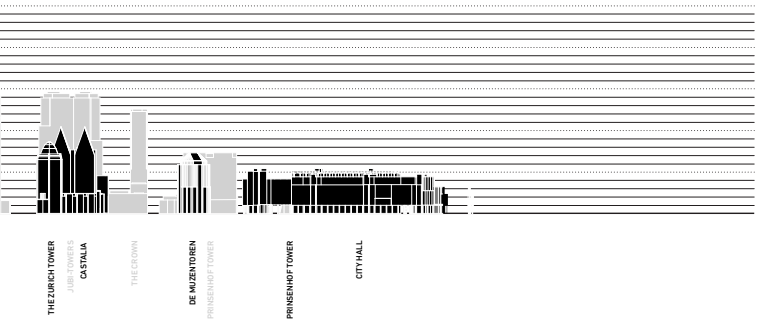


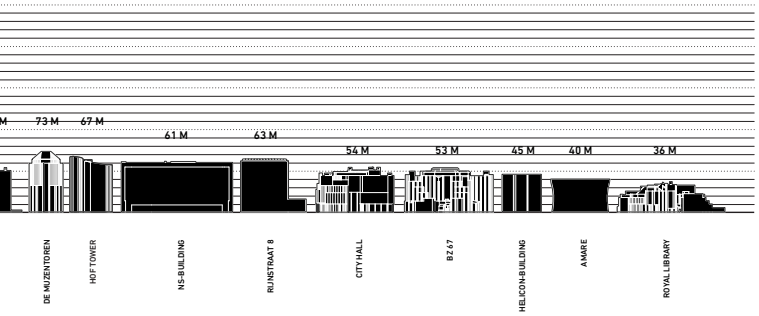
TALLEST BUILDINGS OF THE HAGUE - SUBDIVIDED BY PUBLIC OWNERSHIP OF STATE GOVERNMENT

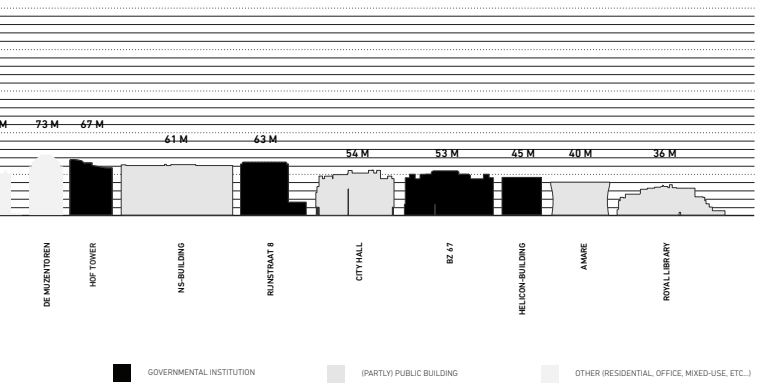
Heights extracted from CityJSON 3D City model - Municipality of The Hague

1. Fernández Per, Aurora, Javier Mozas, and Javier Arpa. 2011. This Is Hybrid: An Analysis of Mixed-Use Buildings by A+t Research Group. A+t In Common Series. Vitoria-Gasteiz: A+T Architecture Publ.

2. Agency, Wise Creative. n.d. 'Downtown Athletic Club: History, Architecture, and Facts'. Buildings DB. Accessed 18 June 2024. https://buildingsdb.com/NY/new-york/downtown-athletic-club/.

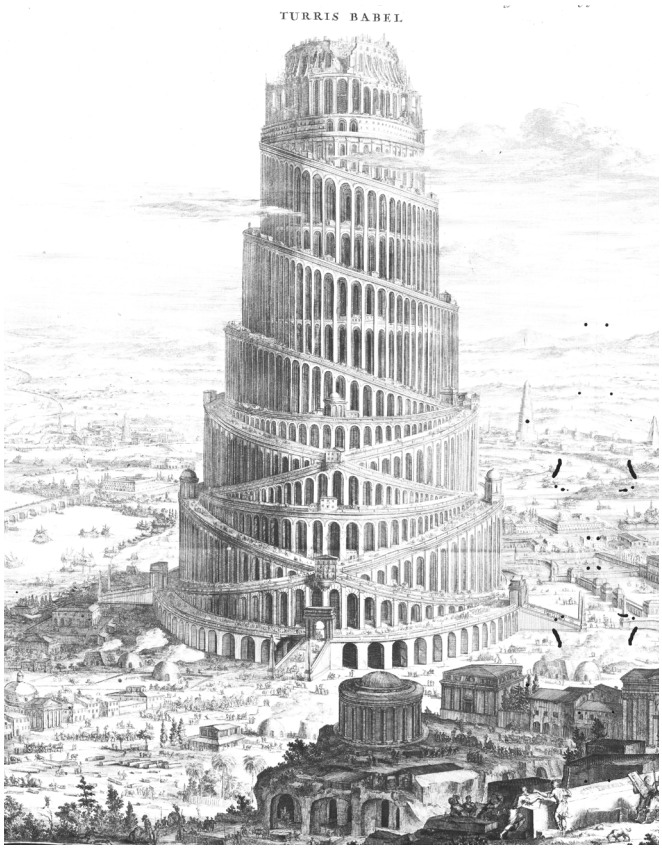






Ownership, Verticality, Symbolism, Power

The City cente of The Hague is dominated by national and transnational govermental institutions. The verticality of the city expresses more than merely tall office buildings. Verticality here expresses a strong confidence in the future[X]. These entities can be considered as symbols of power, enblems representing our efforts in making the world a better place. Verticality here transcends the functionalist approach that it's a technological result. However, verticality has since the existence of man stood for an optimistic believe in the future, a strong confidence in the future[X]. The skyline of the hague,



1. Van Leeuwen Thomas A. 1990. Skyward Trend of Thought: The Metaphysics of the American Skyscraper. Place of publication not identified: Mit Press.

2. 'Athanasius Kircher's Turris Babel'. n.d. On Verticality. Accessed 23 February 2024. https://www.onverticality.com/blog/turris-babel.

On Education

In the last 24 years the average person went from 3.1 hours of screen-time to 9.4 hours of screen-time per day (Lorenz, 2020). Although our digital tools provide unparalleled convenience, recently many papers are published in understanding the psychosocial effect of screen-time. In some cases strong correlations are found, however, causalities are still missing.

Here some personal theories that are believed are causes:

1. Between 2000 and 2024 depression increased with 143.75%, almost 2.5 times as much in 2024 compared to 2020.

It’s not that life sucks, it’s that there’s a dopamine inequality between the physical and digital world, you could say (Mendoza España, 2023).

1. Between 2000 and 2024 burn-out increased with, 140%, almost 2.5 times as much in 2024 compared to 2020.

Our appraised digital tools should easy our work, why is this increase happening then? It’s not that we work more, it’s that we cannot handle cognitive load.

1. Between 2000 and 2024 social isolation increased with 82%, almost 2 times as much in 2024 compared to 2020.

How is it that whilst we live in a world never connected as much as now social isolation seems increasing? Our countless ours spend digitally is far inferior compared to our physical social interactions. The term Asynchronous Interactions seems to express this phenomenon well - the missing of non-verbal (visual or non-visual) and direct (without delay) communication.

So even though our digital tools have been main drivers for mass education, place independent learning, and stimulated individualism. We don’t understand how good screen-time for us is. But what we do see is that people start to become aware about our “amazing” digital worlds (Lorenz, 2020).

And all this influences how open and closed spatial activities will evolve, and furthermore involves our understanding what ratio’s of solid, liquid, and gas are likely to be demanded.

1. Lorenz, A. 2020. ‘Is Technology Making Us Miserable?’ Text. 12 October 2020. https://www.trusttech.cam.ac.uk/perspectives/technology-humanity-society-democracy/technology-making-us-miserable.

2. ‘What Makes Technology Good or Bad for Us?’ n.d. Greater Good. Accessed 18 June 2024. https://greatergood.berkeley.edu/article/item/what_makes_technology_good_or_bad_for_us.

3. ‘Hit Makers: How to Succeed in an Age of Distraction Hit Makers: How to Succeed in an Age of Distraction , by Derek Thompson. New York: Penguin Books, 2018. Paperback: ISBN 978 1 101 98033

4. Haidt, Jonathan. 2024. The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness. London: Allen Lane, an imprint of Penguin Books.

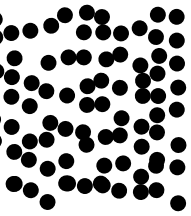
DRIVING FORCES

DIGITALISATION, MASS ONLINE EDUCATION

DRIVING FORCES

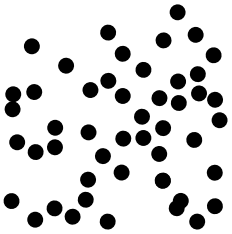
HEALTH, WELLBEING, LESS

LIQUID



SHIFTING PHASES

GAS



WHATS NEXT?

SPACE TYPE

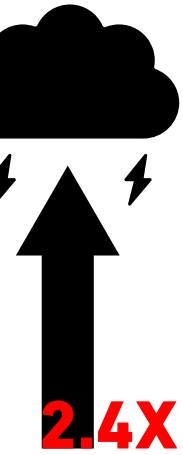
NETWORK

NTERACTIVE, SHARED

SPACE TYPE

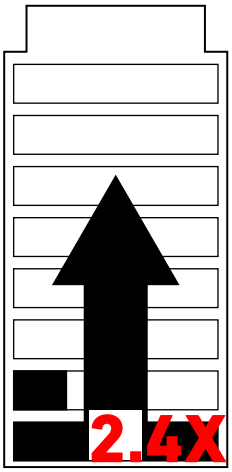
VIRTUAL

PLACE INDEPENDENT, INDIVIDUAL, OPEN ACCESS



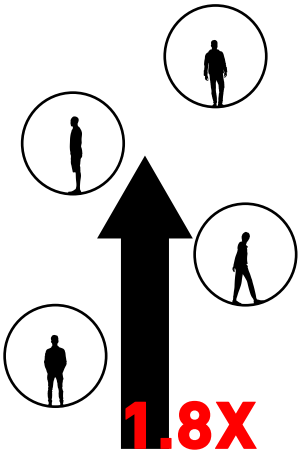
CAUSALITY

CORRELATE



CAUSALITY

CORRELATE



DEPRESSION

CAUSED BY

PAMINE INEQUALITY

THEORY 2

BURN-OUT

CAUSED BY

CONGITIVE LOAD

THEORY 3

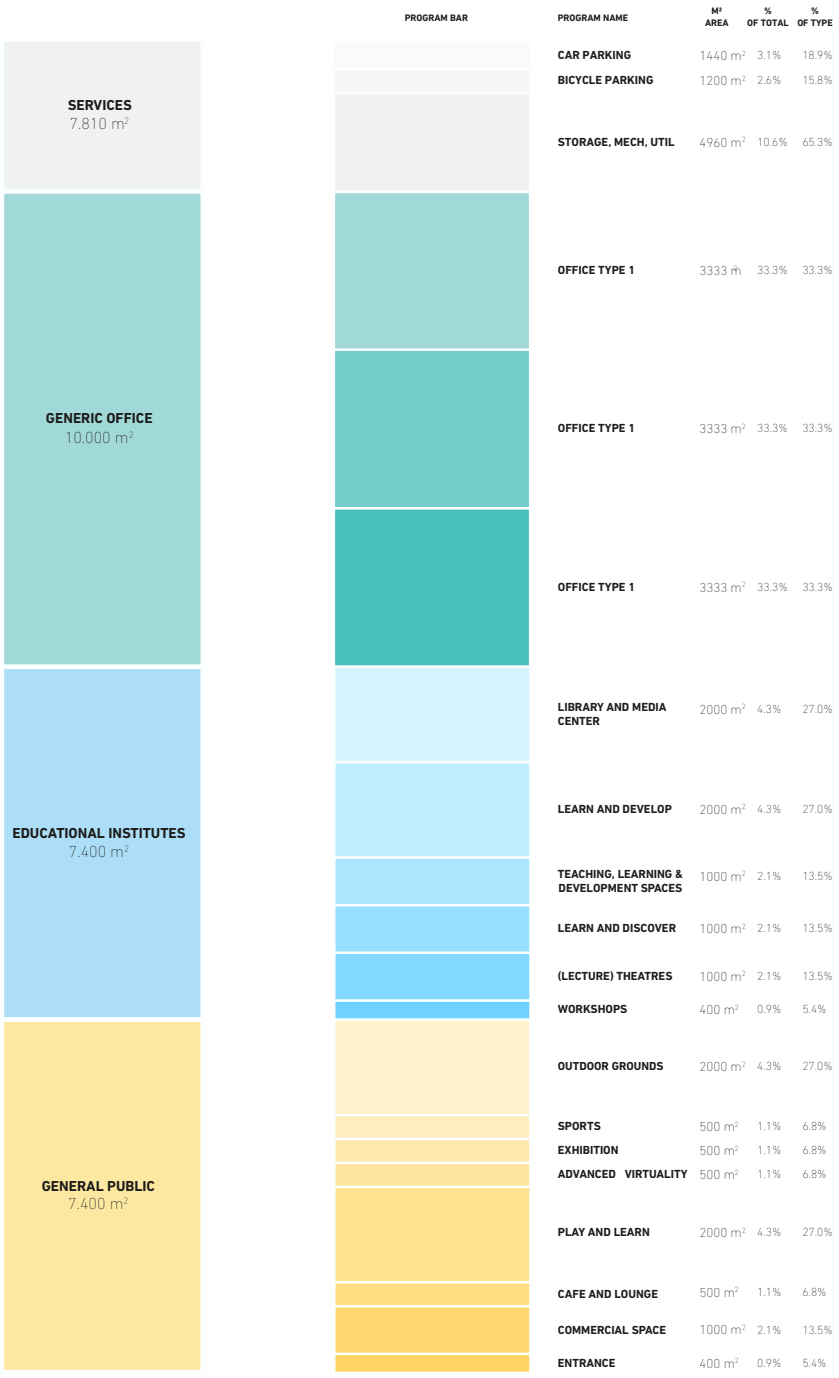
ISOLATION

CAUSED BY

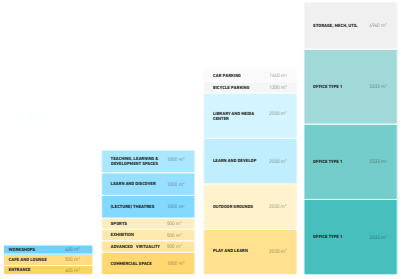
SOCIAL ASYNCONACY

THEORY 4

Progam Breakdown and Various Ways of Sorting

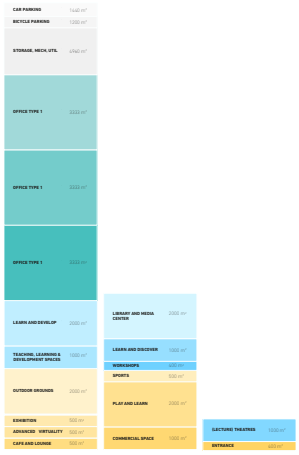


PROGRAM BAR	PROGRAM NAME	M² AREA	% OF TOTAL	% OF TYPE
	CAR PARKING	1440 m²	3.1%	18.9%
	BICYCLE PARKING	1200 m²	2.6%	15.8%
	STORAGE, MECH, UTIL	4960 m²	10.6%	65.3%
	OFFICE TYPE 1	3333 m²	33.3%	33.3%
	OFFICE TYPE 1	3333 m²	33.3%	33.3%
	OFFICE TYPE 1	3333 m²	33.3%	33.3%
	LIBRARY AND MEDIA CENTER	2000 m²	4.3%	27.0%
	LEARN AND DEVELOP	2000 m²	4.3%	27.0%
	TEACHING, LEARNING & DEVELOPMENT SPACES	1000 m²	2.1%	13.5%
	LEARN AND DISCOVER	1000 m²	2.1%	13.5%
	(LECTURE) THEATRES	1000 m²	2.1%	13.5%
	WORKSHOPS	400 m²	0.9%	5.4%
	OUTDOOR GROUNDS	2000 m²	4.3%	27.0%
	SPORTS	500 m²	1.1%	6.8%
	EXHIBITION	500 m²	1.1%	6.8%
	ADVANCED VIRTUALITY	500 m²	1.1%	6.8%
	PLAY AND LEARN	2000 m²	4.3%	27.0%
	CAFE AND LOUNGE	500 m²	1.1%	6.8%
	COMMERCIAL SPACE	1000 m²	2.1%	13.5%
	ENTRANCE	400 m²	0.9%	5.4%



S <500 m2 | M 500-1000 m2 | L 1000-2000 m2 | XL >2000 m2

ON SIZE

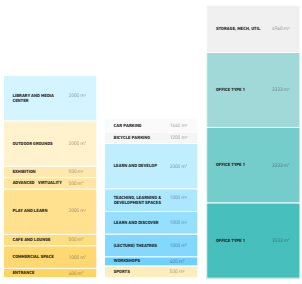


1 | 2 | 3

ON # LEVELS

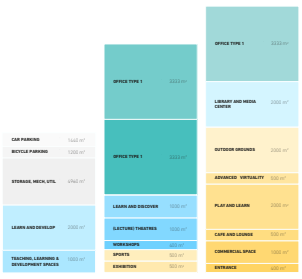
Y | N

ON PLINTH OR NOT



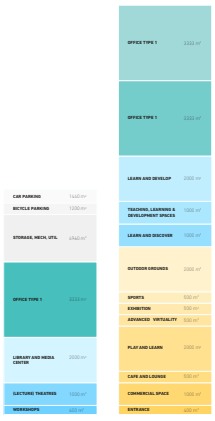
PUBLIC | SEMI PUBLIC | PRIVATE

ON PUBLICNESS



SOLID | LIQUID | GAS

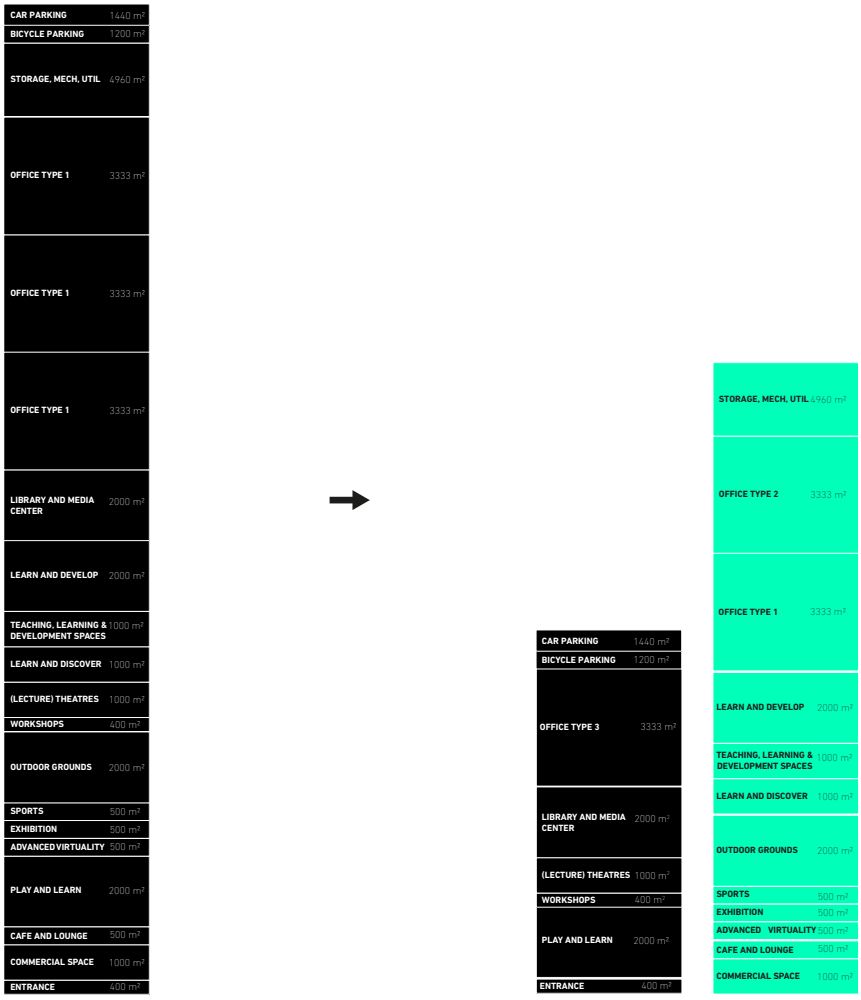
ON ACTIVITY LEVEL



STABLE | UNSTABLE

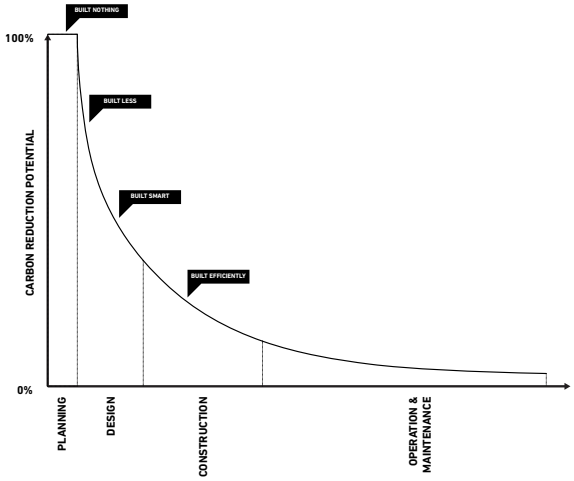
STABLE / UNSTABLE

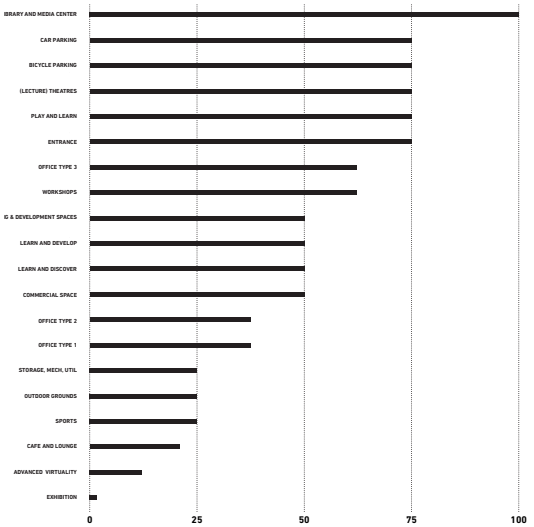
Life Expectancy as Organisational Principle



GIVEN PROGRAM

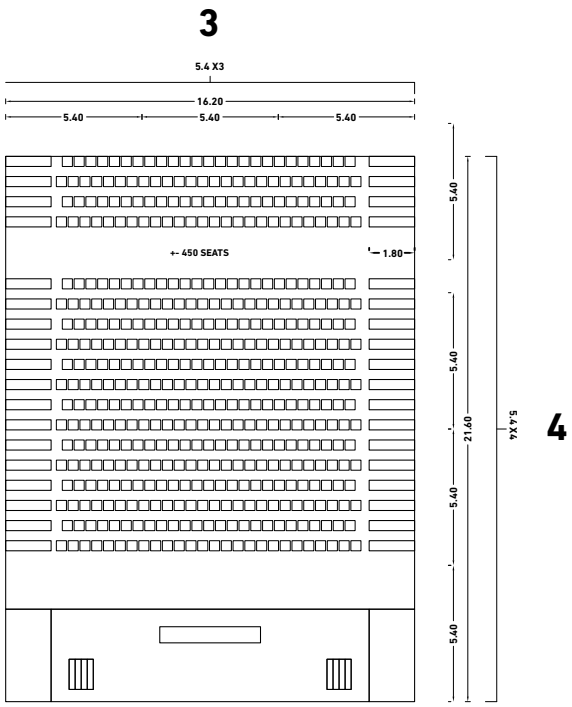
LONG LIFE EXPECTANCY / SHORT LIFE EXPENTANCY


BUILT NOTHING
100%
BUILT LESS
CARBON REDUCTION POTENTIAL
BUILT SMART
BUILT EFFICIENTLY
0%
PLANNING
DESIGN
CONSTRUCTION
OPERATION &
MAINTENANCE


IBRARY AND MEDIA CENTER
CAR PARKING
BICYCLE PARKING
(LECTURE) THEATRES
PLAY AND LEARN
ENTRANCE
OFFICE TYPE 3
WORKSHOPS
IG & DEVELOPMENT SPACES
LEARN AND DEVELOP
LEARN AND DISCOVER
COMMERCIAL SPACE
OFFICE TYPE 2
OFFICE TYPE 1
STORAGE, MECH, UTIL
OUTDOOR GROUNDS
SPORTS
CAFE AND LOUNGE
ADVANCED VIRTUALITY
EXHIBITION
0
25
50
75
100

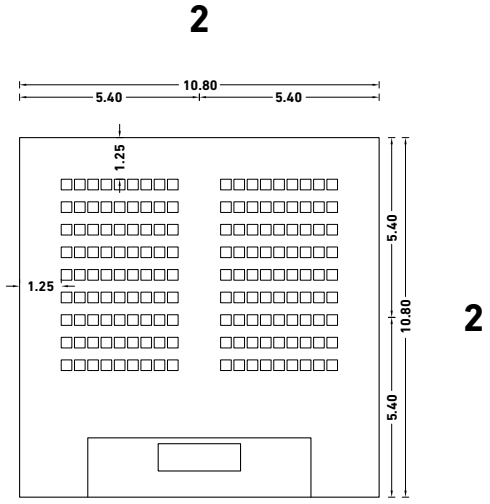
Configurations of Lasting Programmatic Elements

Lecture Theatres



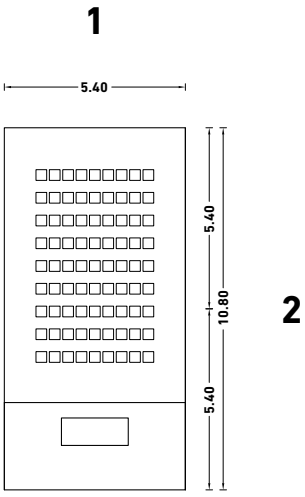
LARGE THEATRE

One large theatre, seating 400+ people, possibly dividable into two smaller theatres



MEDIUM THEATRE

Two medium theatres, each seating 120-150 people

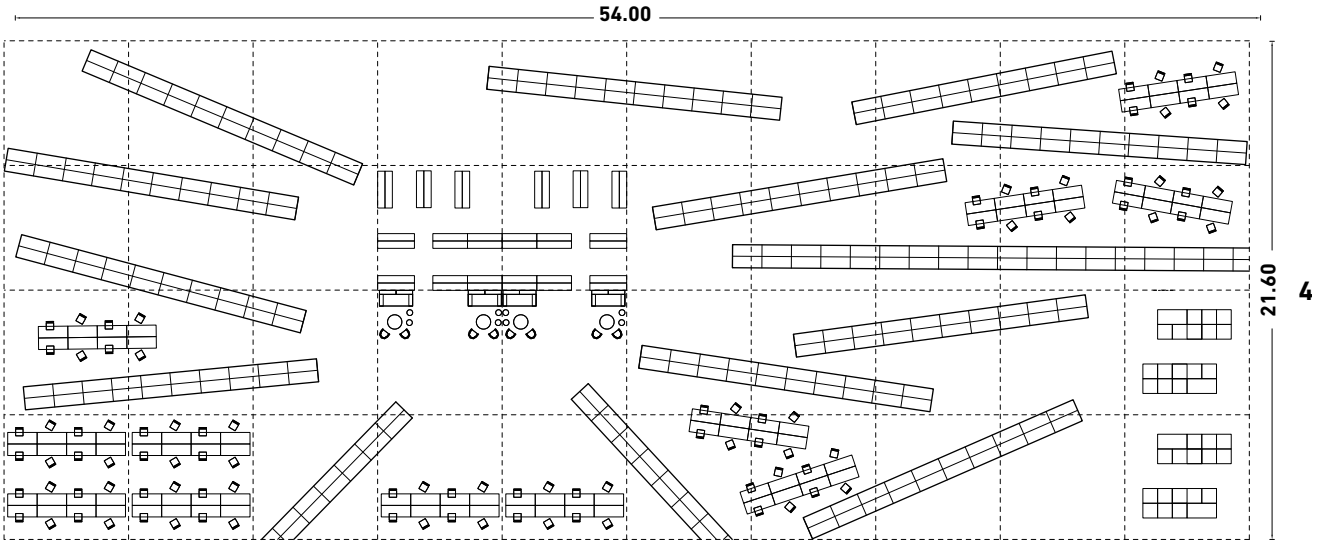


SMALL THEATRE

Two small theatres, each seating 50-60 people.

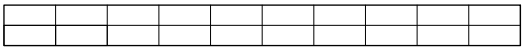
+- 2X

10

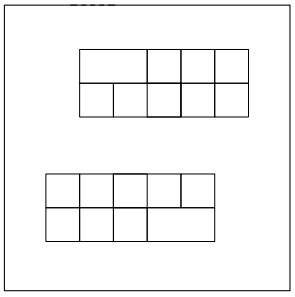


OPEN (VOID) LIBRARY & MEDIA CENTRE

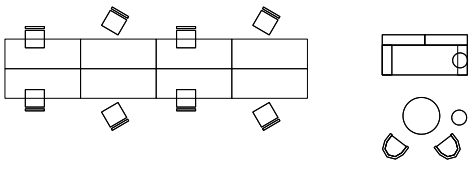
STORAGE OF COLLECTION



FACILITIES



IN BETWEEN WORKING SPACES



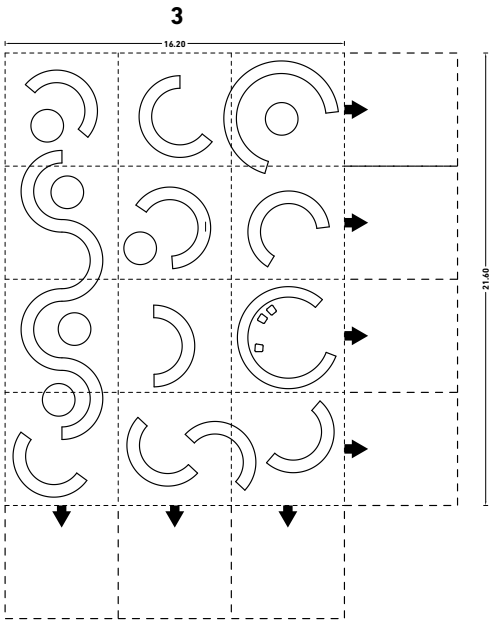
LIBRARY & MEDIA CENTRE (EXPLORE)

A range of spaces for individual and group study, enabling access to physical and electronic resources, as well as facilities for photocopying and printing, storage and display of books, art, and digital collections.

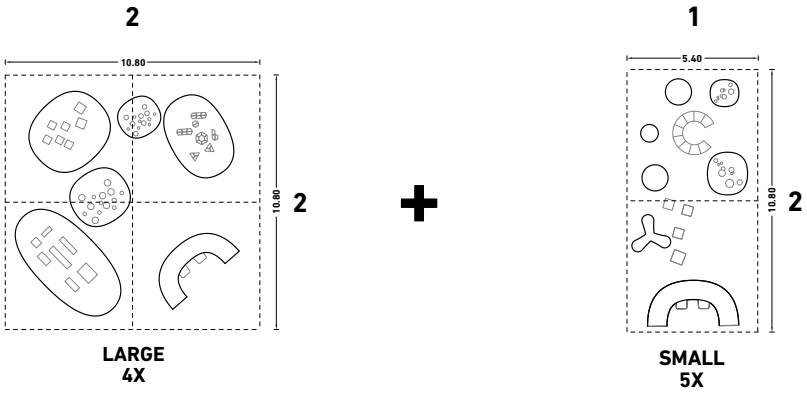
Configurations of Lasting Programmatic Elements

Play & Learn

OPEN PLAYGROUND
3X (SIZE)

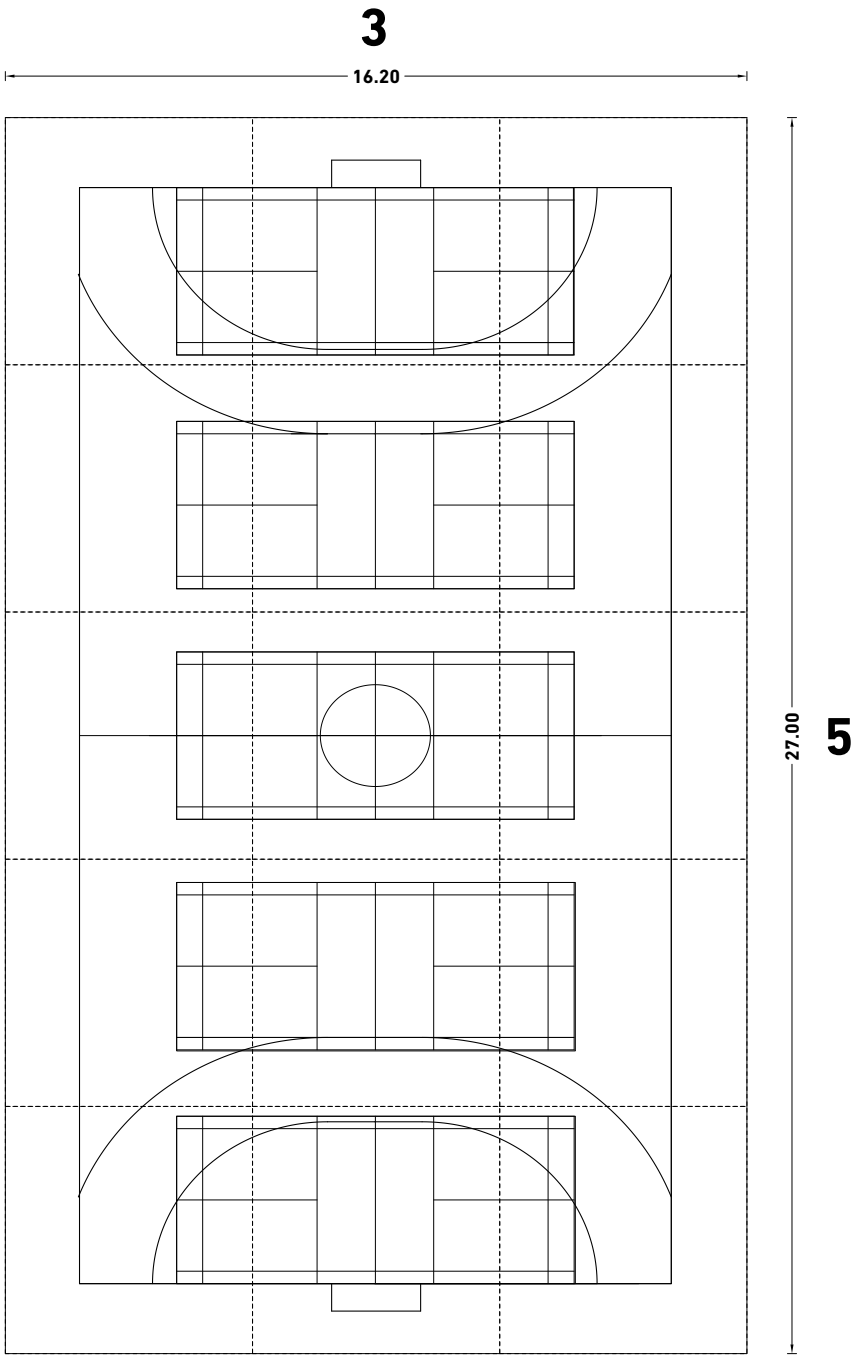


ELEMENTARY TEACHING FUNCTIONS



PLAY & LEARN (EXPRESS)

Supervised/ safe play areas for the youngest, combined with day care center and (elementary) learning functions for approximately 200 students and 15 staff.



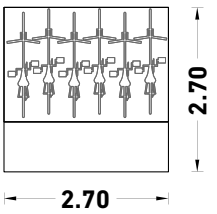
SPORTS (EXCERSICE)

One sports hall (height 7m) with sufficient changing rooms, lockers, and shower facilities. Additional multifunctional spaces for fitness, yoga, dance etc.

Configurations of Lasting Programmatic Elements

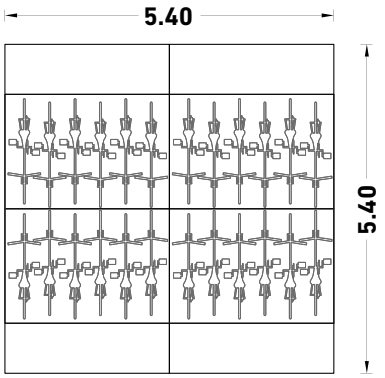
(Bike) Partking

1/4



10 BIKE CLUSTER

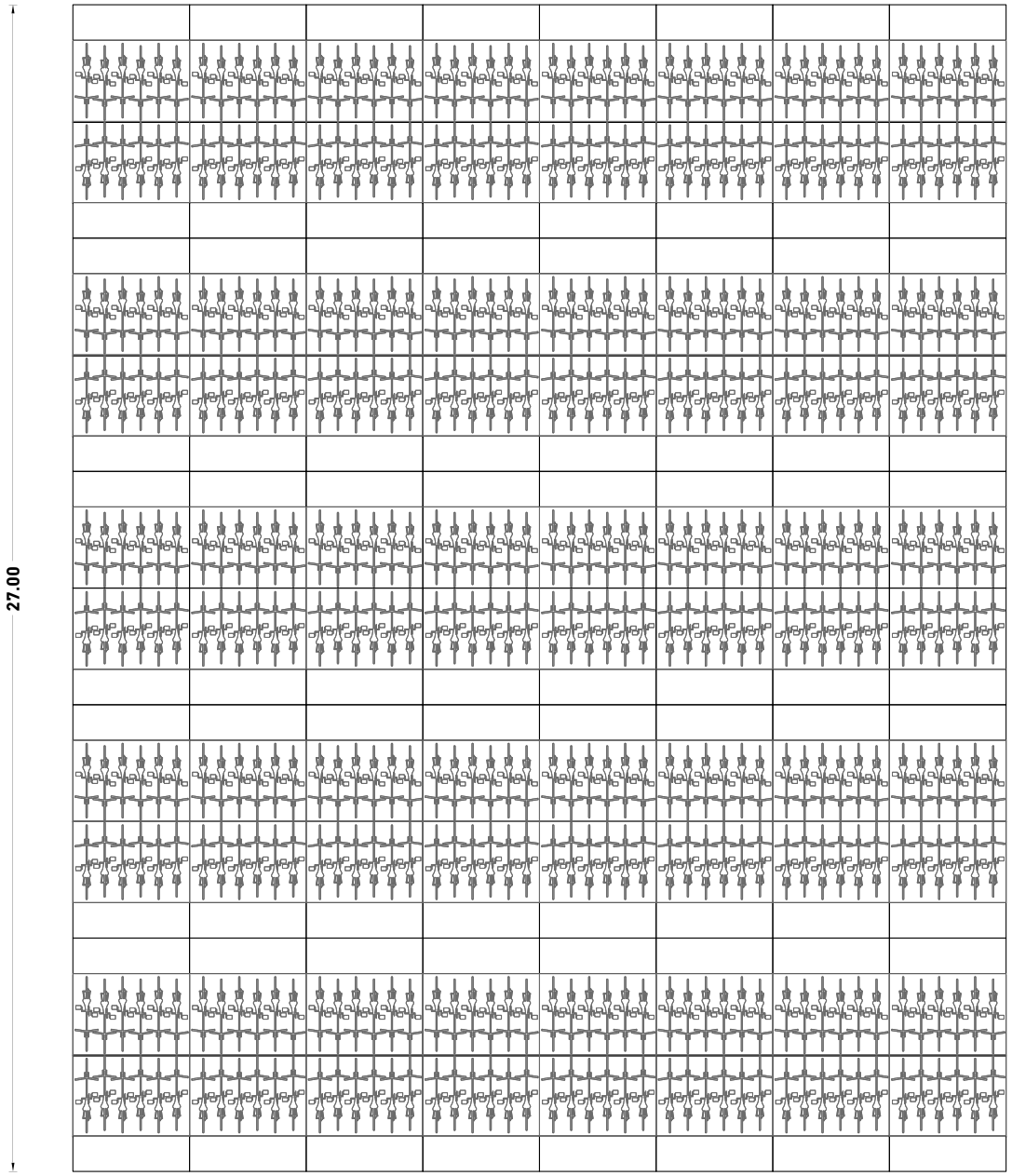
1



40 BIKE CLUSTER

ADDITIONAL MULTI-FUNCTIONAL SPACES

4



SPORTS (EXCERSICE)

One sports hall (height 7m) with sufficient changing rooms, lockers, and shower facilities. Additional multifunctional spaces for fitness, yoga, dance etc.

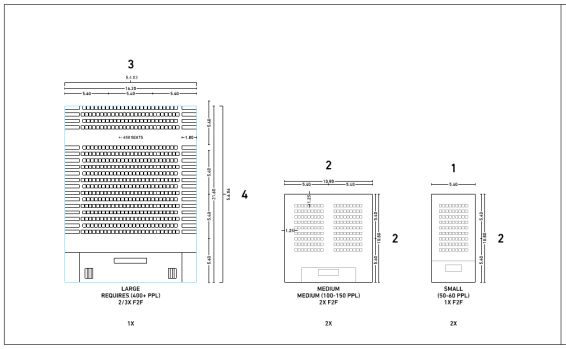
Programmatic Overview

Overview of "Lasting / Stable" Programmatic Elements

LECTURE HALLS

REQUIREMENTS (2000M2):

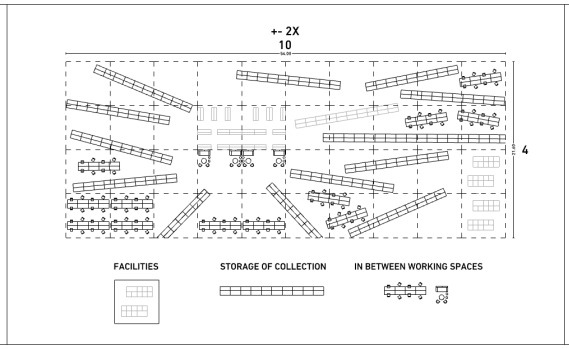
The building will include (lecture) theatres as follows: One large theatre, seating 400+ people, possibly dividable into two smaller theatres, Two medium theatres, each seating 120-150 people, and Two small theatres, each seating 50-60 people.
This will also include foyer / breakout spaces large enough for the same number of people to gather and wait for the next lecture/event, which could have a dual function as an exhibition or casual seating space.



LIBRARY & MEDIA CENTRE (EXPLORE)

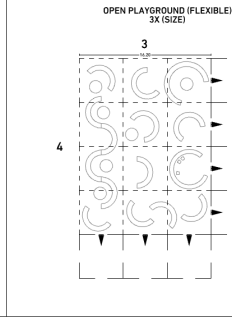
REQUIREMENTS (2000M2):

A range of spaces for individual and group study, enabling access to physical and electronic resources, as well as facilities for photocopying and printing, storage and display of books, art, and digital collections.

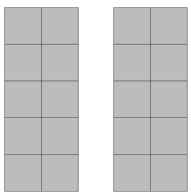


PLAY &

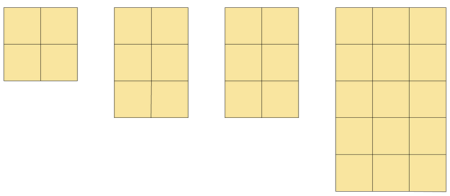
Supervised/ safe play center and (element



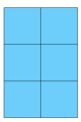
(BIKE) PARKING



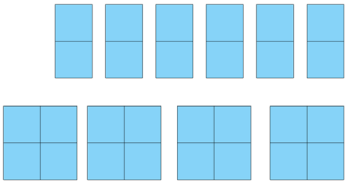
SPORTS (EXCERSICE)



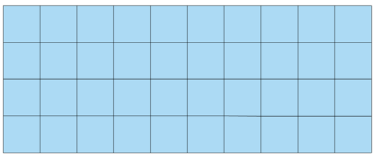
WORKSHOP



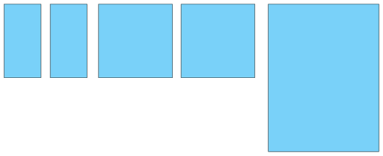
PLAY & LEARN (EXPRESS)



LIBRARY & MEDIA CENTRE (EXPLORE)



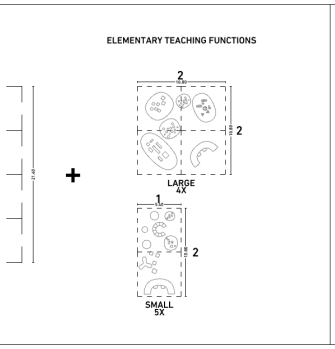
LECTURE HALLS



TRANSLATION OF CONFIGURATION TO SCHEMATIC GRID-BASED VOLUMETRICS

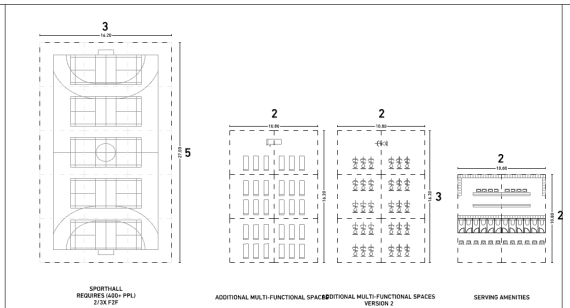
LEARN (EXPRESS)

EQUIREMENTS (2000M2):
areas for the youngest, combined with day care
ary) learning functions for approximately 200
students and 15 staff.



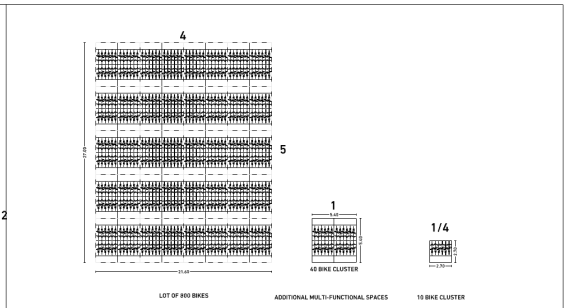
SPORTS (EXCERSICE)

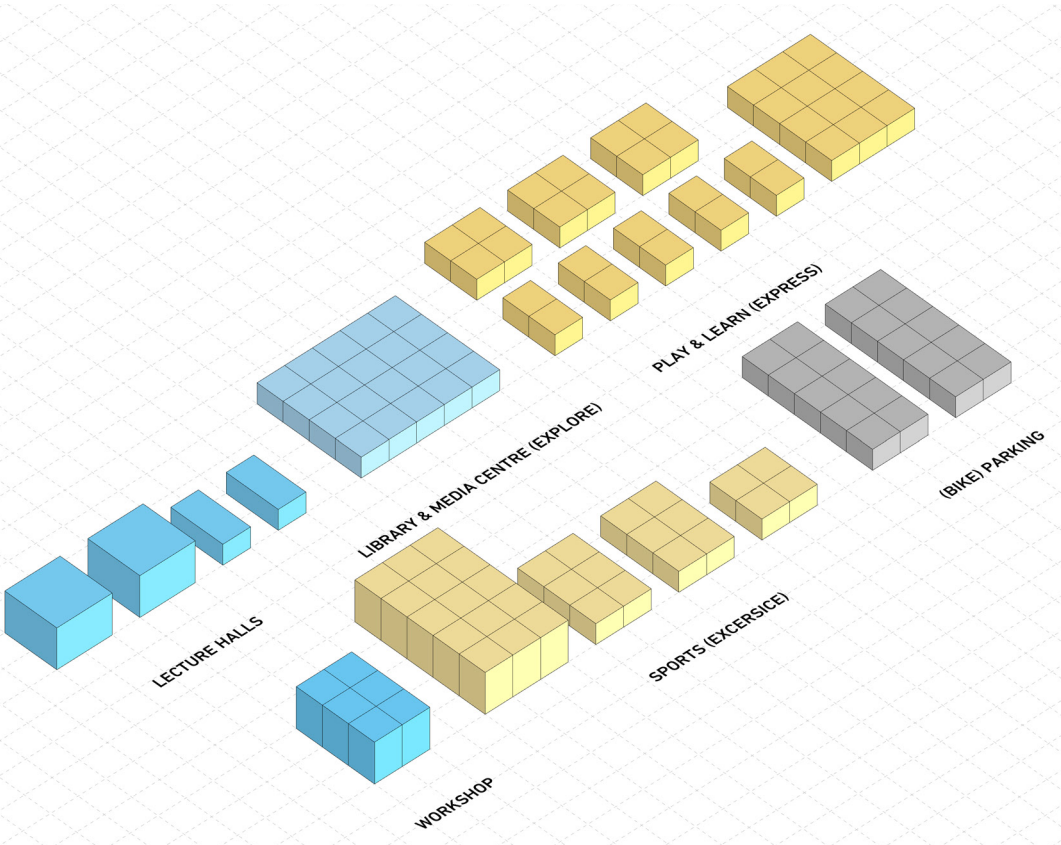
REQUIREMENTS (500 M2):
One sports hall (height 7m) with sufficient changing rooms, lockers,
and shower facilities. Additional multifunctional spaces for fitness,
yoga, dance etc.



(BIKE) PARKING

REQUIREMENTS:
for 800 bicycles (2 per 100 sqm)

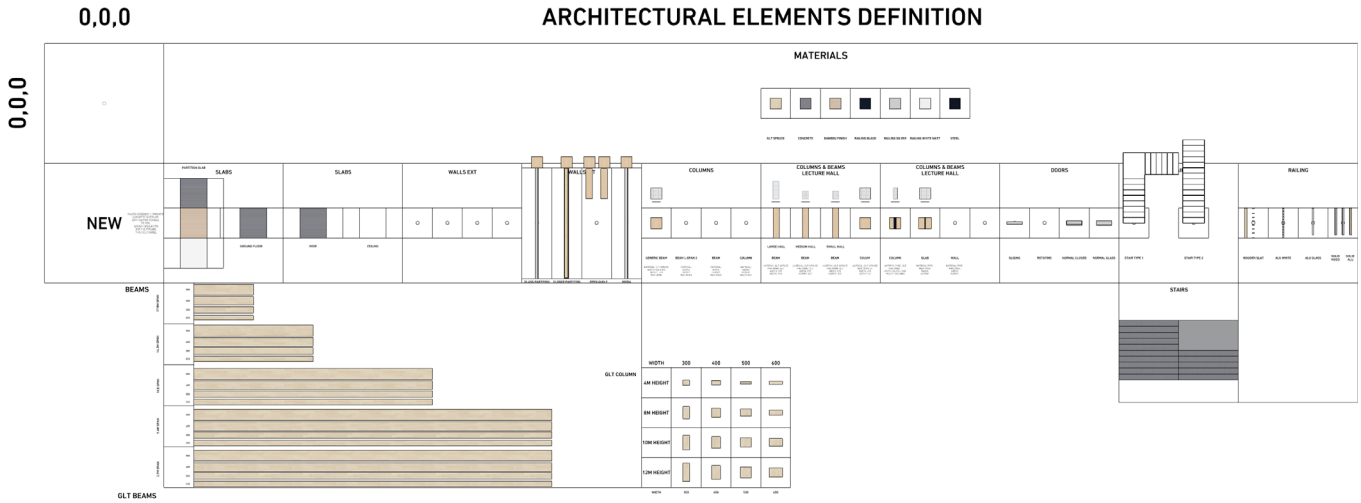


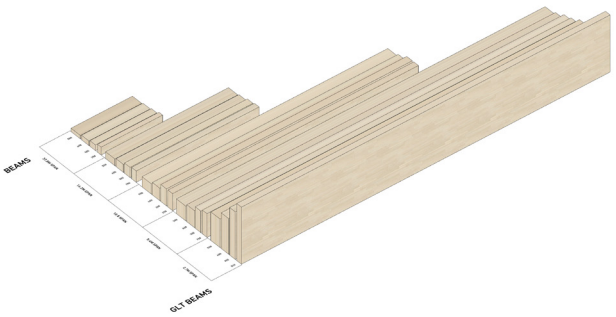


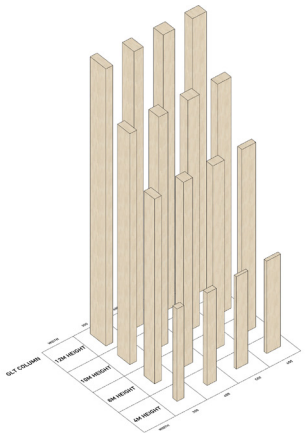
TRANSLATION OF CONFIGURATION TO SCHEMATIC GRID-BASED VOLUMETRICS

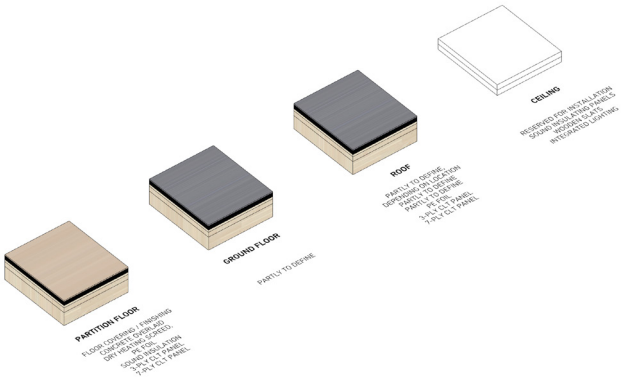
Internal Documentation of Architectural Elements

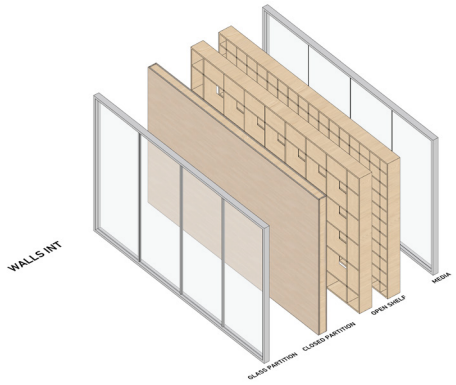
Structural Modifications and Structural Model

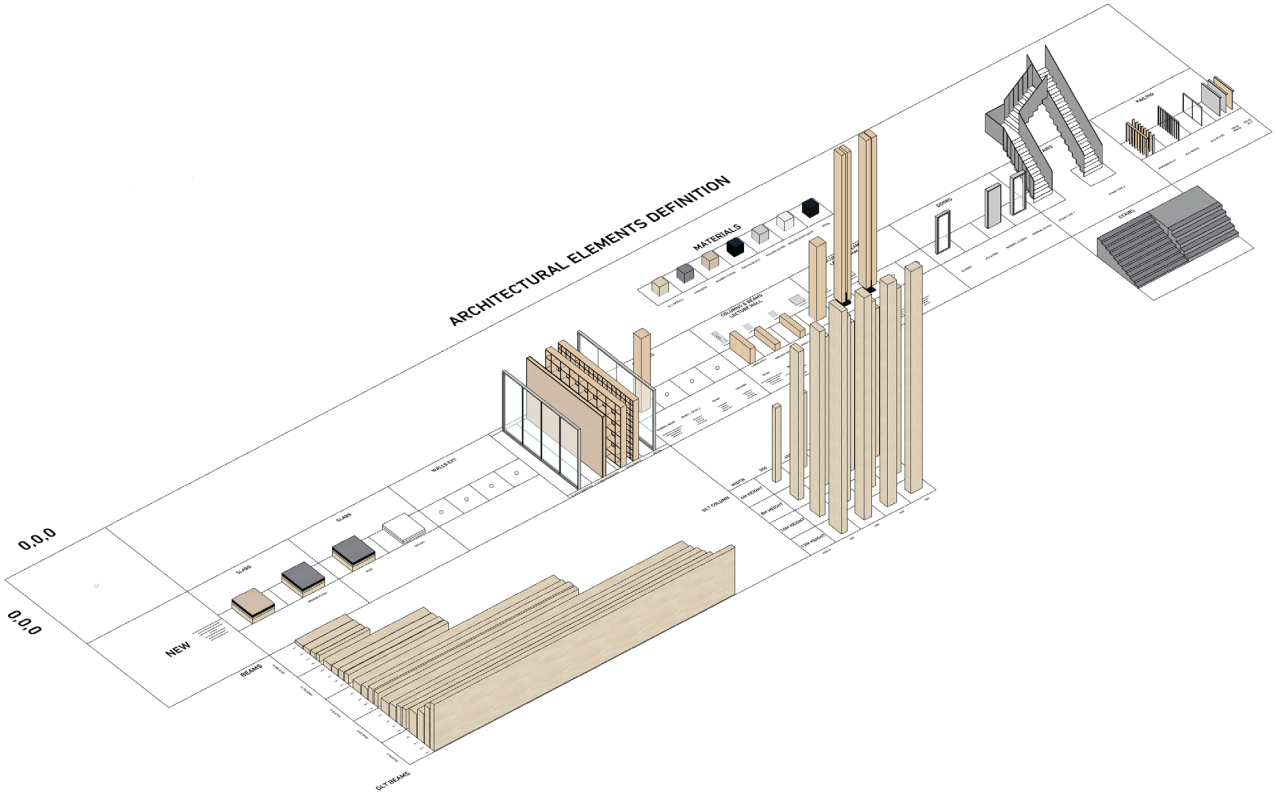


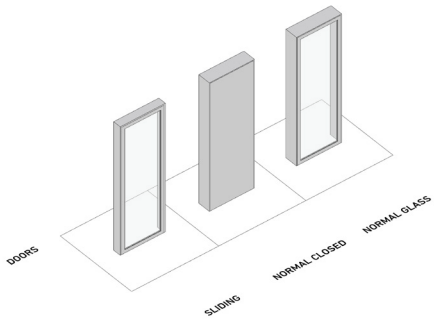


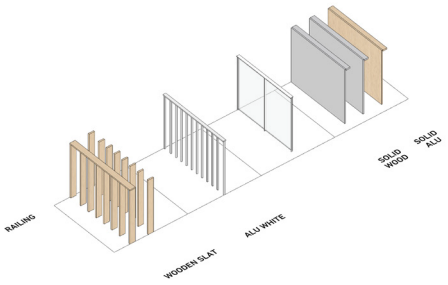


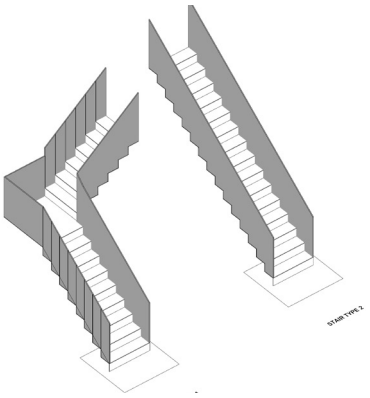


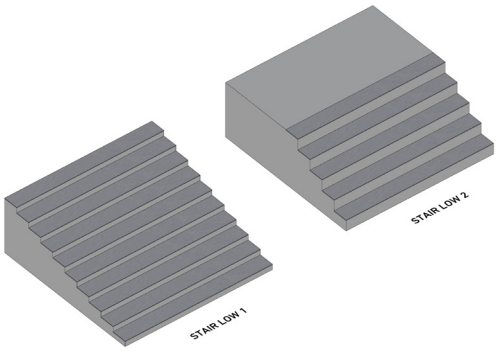



ARCHITECTURAL ELEMENTS DEFINITION
MATERIALS
0,0,0
0,0,0
NEW
BEAMS
GLAZING
WALLS EXT
GLT BEAMS
DOORS
RAILING
STAIRS


DOORS
SLIDING
NORMAL CLOSED
NORMAL GLASS


RAILING
WOODEN SLAT
ALU WHITE
SOLID WOOD
SOLID ALU

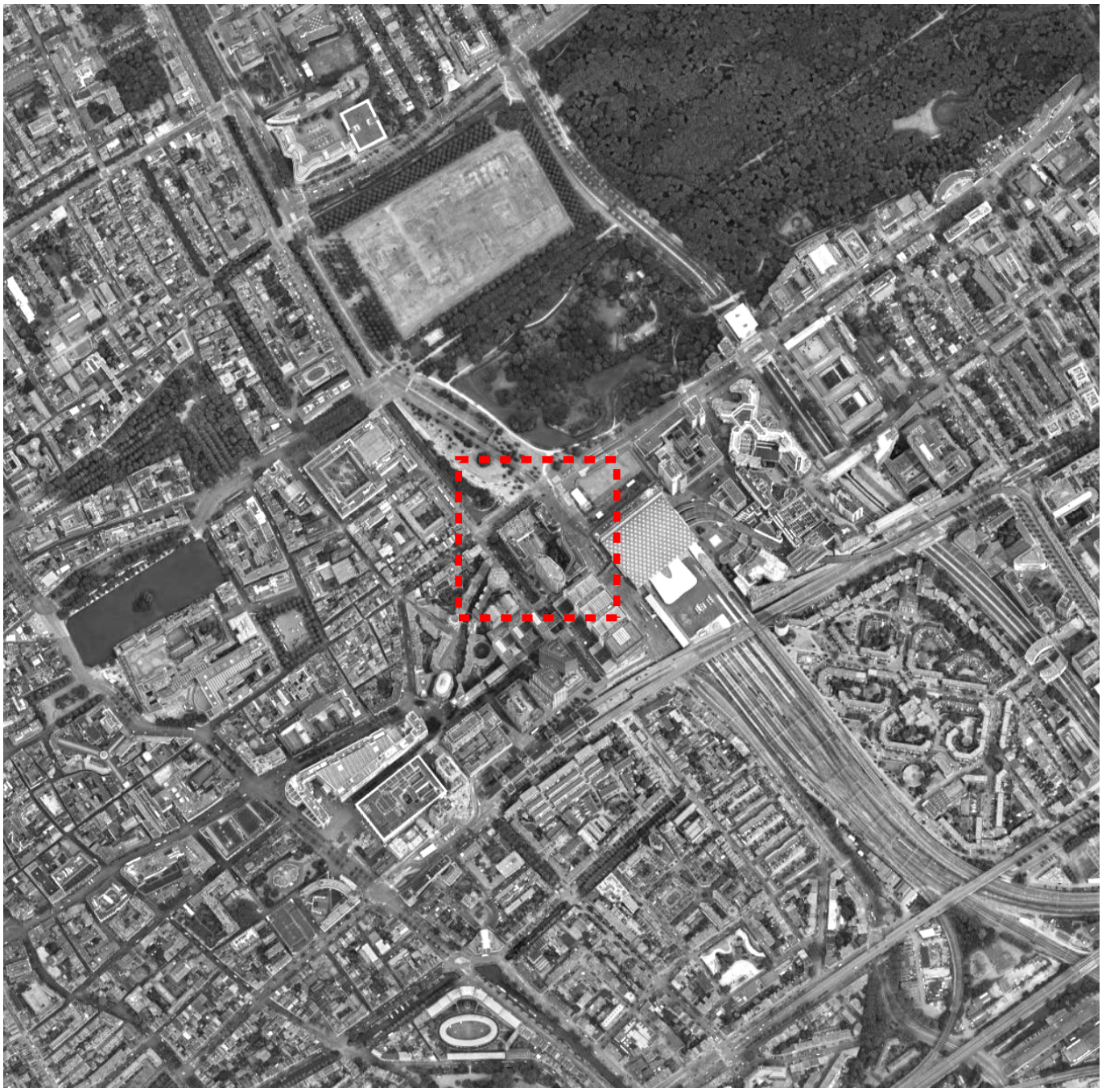

STAIR TYPE 2


STAIR LOW 1
STAIR LOW 2

Context

The Hague

Context



Site

Context

Staedion
Staedion

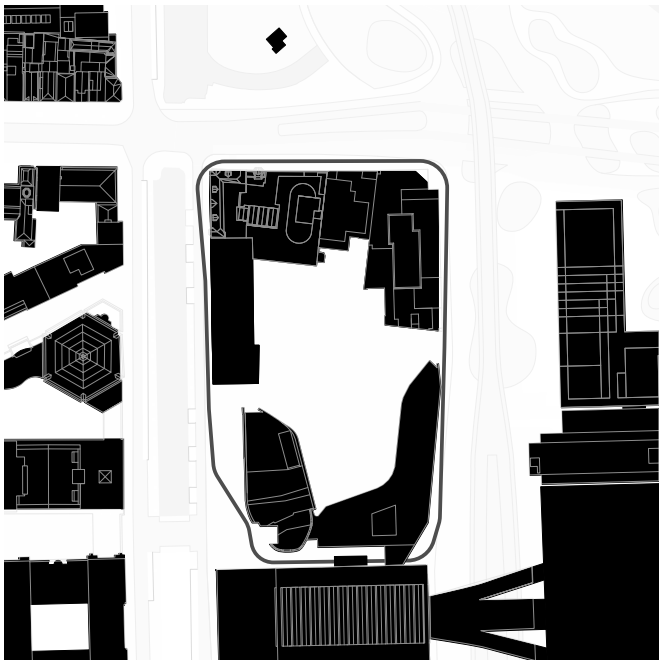
ABN AMRO

Staedion
Staedion
SPAR

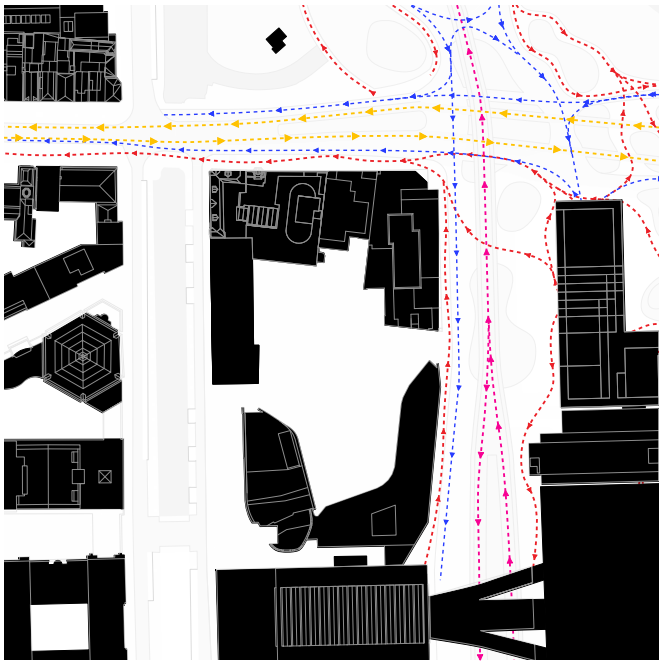
Identified Flows

Context

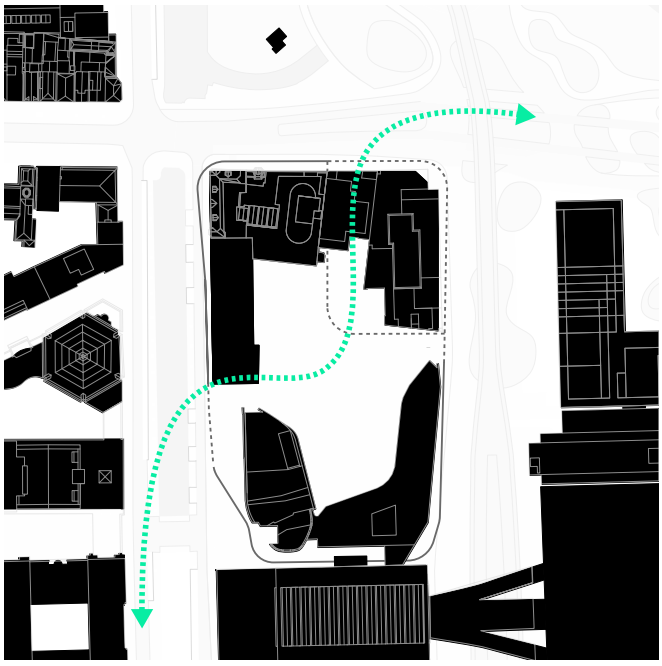
1. SITE



2. PERIMITER OF BLOCK



3. EXISTING FLOWS

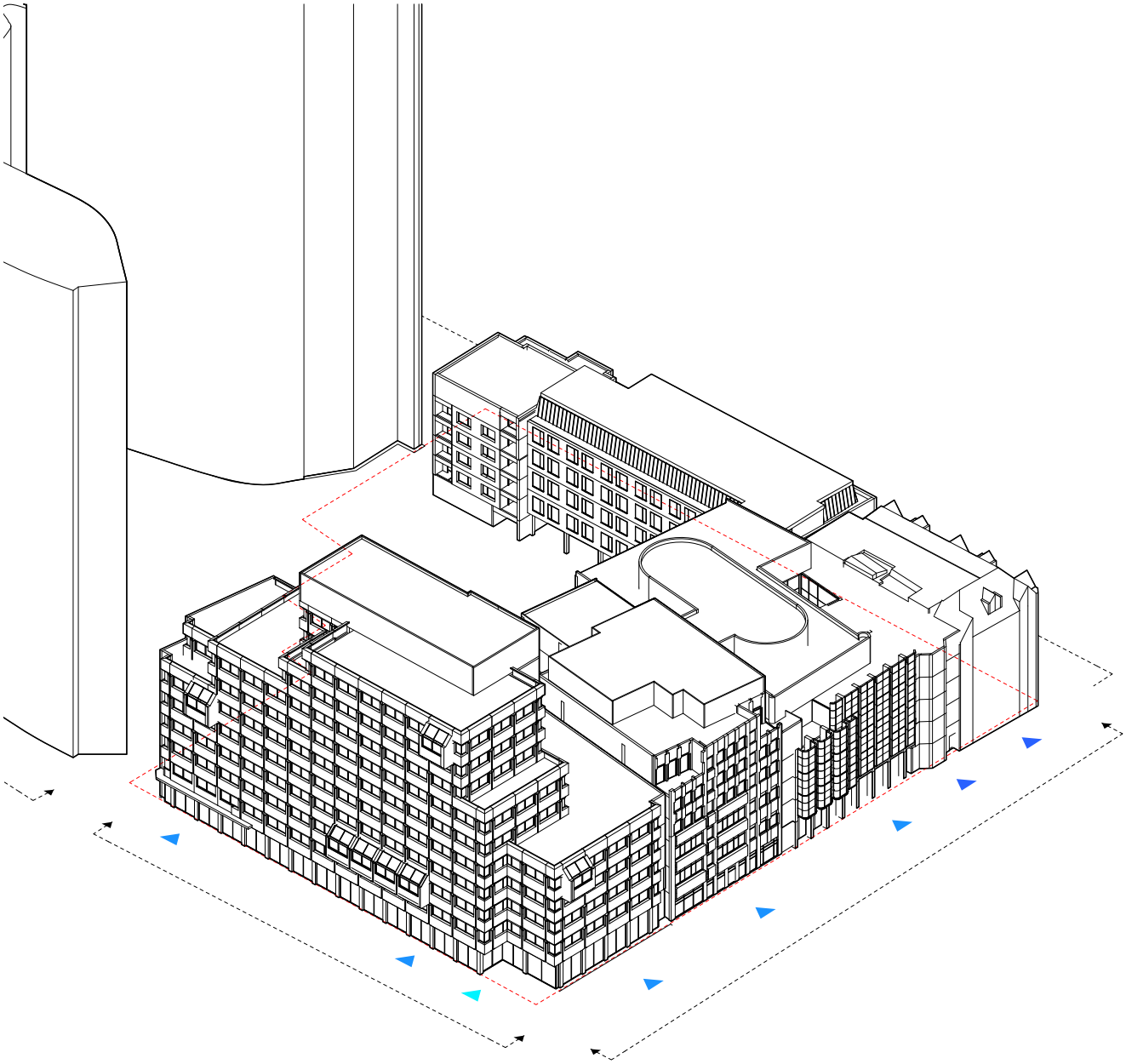


4. ACTIVATION OF UNDER-UTILIZED URBAN REALM

0 15 30 60

Ensemble of the Site

Context



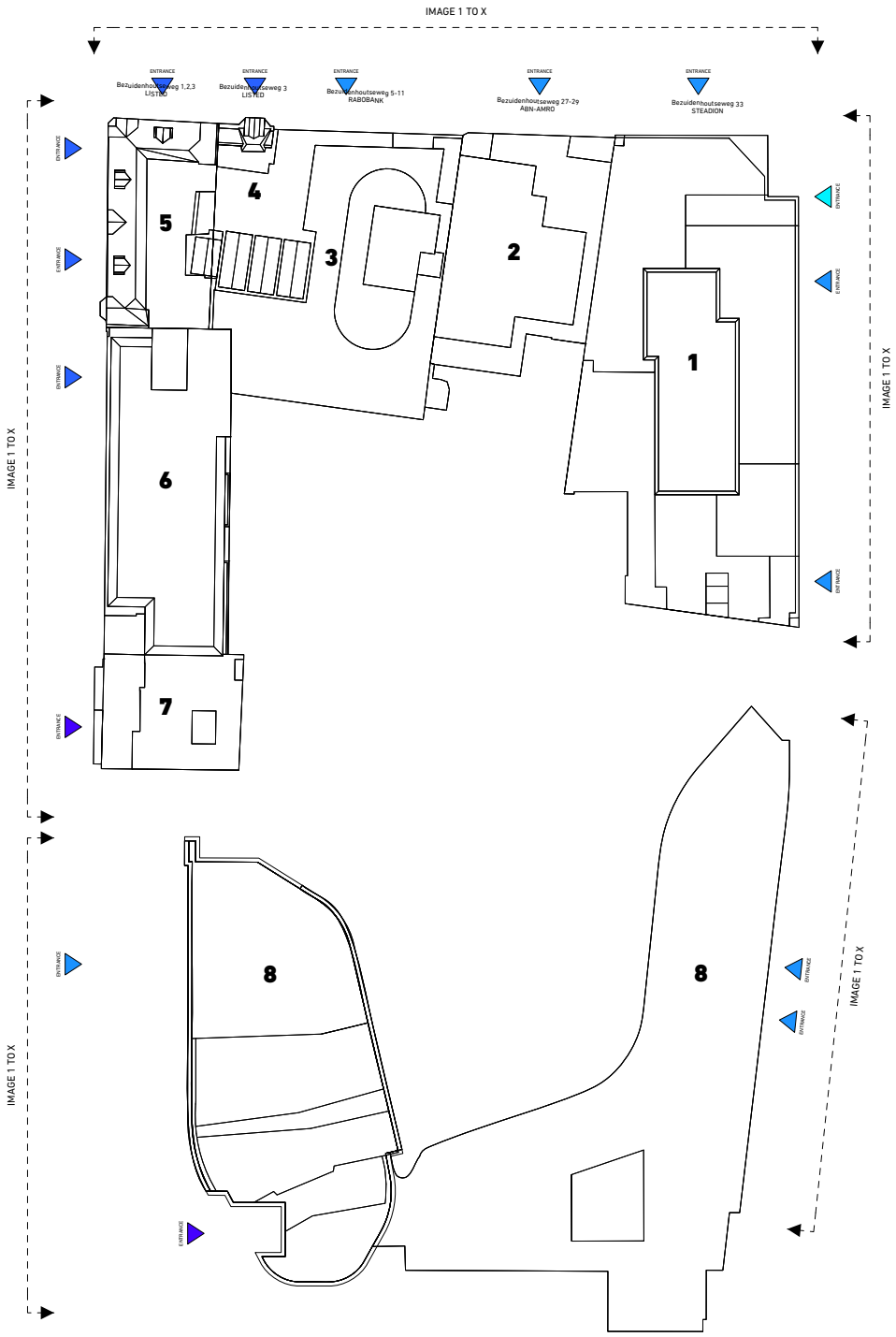
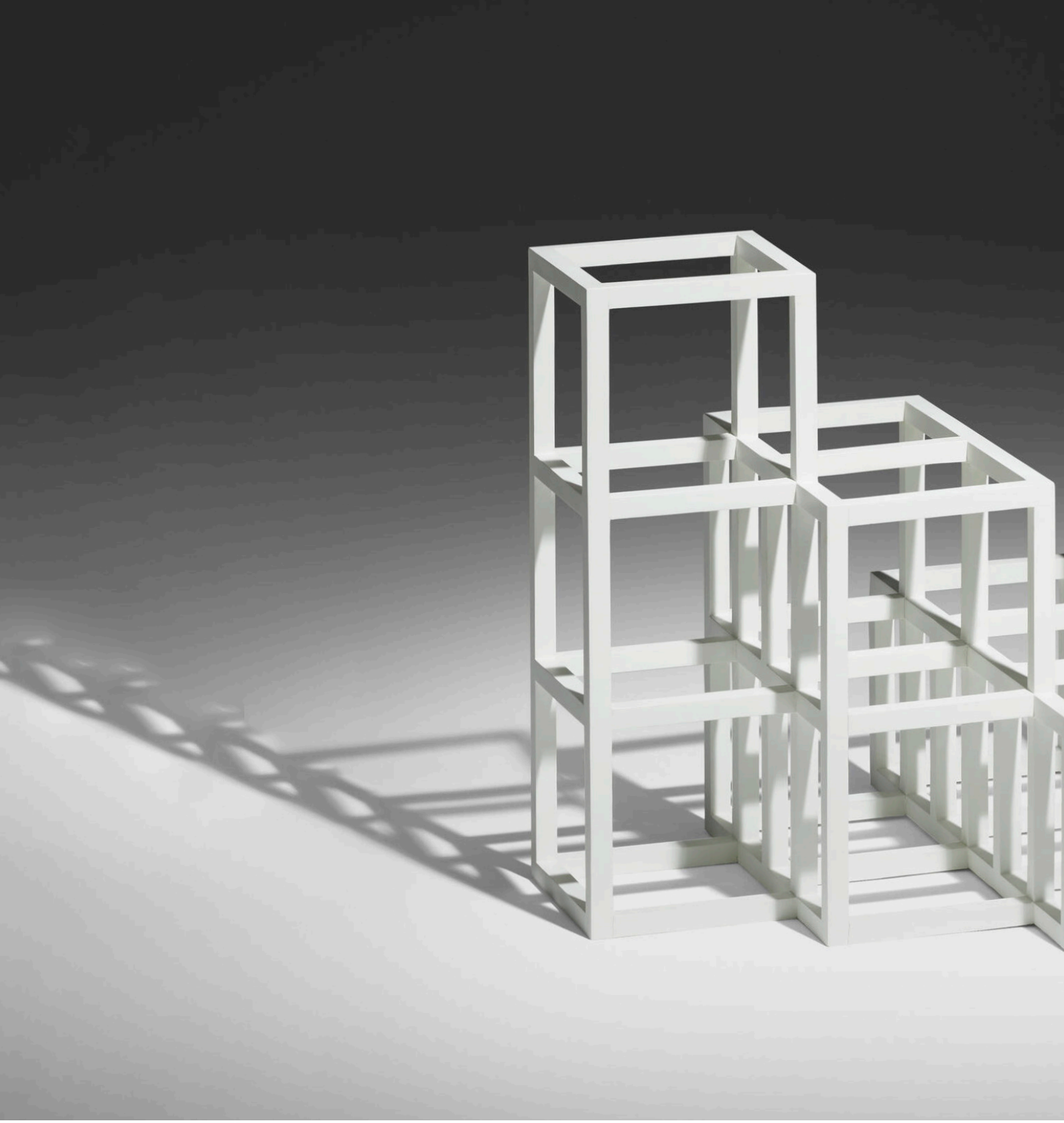


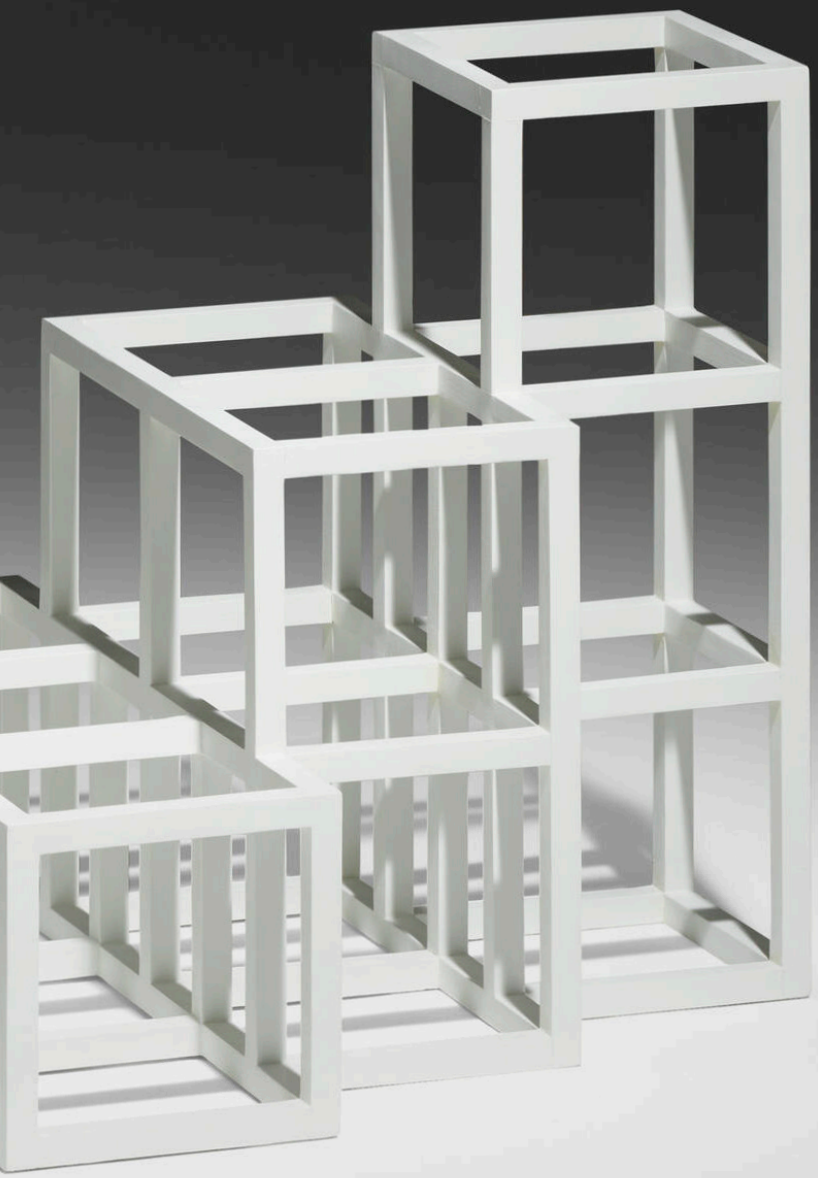
IMAGE 1 TO X
ENTRANCE
Bezuidenhoutseweg 1,2,3
LISTED
ENTRANCE
Bezuidenhoutseweg 3
LISTED
ENTRANCE
Bezuidenhoutseweg 5-11
RABOBANK
ENTRANCE
Bezuidenhoutseweg 27-29
ABN-AMRO
ENTRANCE
Bezuidenhoutseweg 33
STEADION
IMAGE 1 TO X
IMAGE 1 TO X
IMAGE 1 TO X
IMAGE 1 TO X
1
2
3
4
5
6
7
8
8
PROGRAM
MINISTRY
OFFICE
RETAIL
RESIDENTIAL
OTHER
PUBLICLY ACCESSIBLE
PUBLIC
SEMI PUBLIC
SEMI PRIVATE
PRIVATE
ACCESSIBILITY TYPES
ENTRANCE
FACADE ELEVATION IMAGERY
ENTITIES ON BLOCK
1 Bezuidenhoutseweg 33 - STEADION
2 Bezuidenhoutseweg 27-29 - ABN-AMRO
3 Bezuidenhoutseweg 5-11 - RABOBANK
4 Bezuidenhoutseweg 3 - LISTED
5 Bezuidenhoutseweg 1,2,3 - LISTED
6 Oranjebuitensingel
7 Oranjebuitensingel
8 Hoftoren -Ministry of Education, Culture and Science



Project Ambitions / Design Strategies

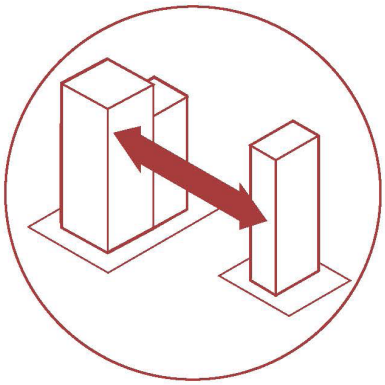
"The idea becomes the machine that makes the art"

Sol Lewitt

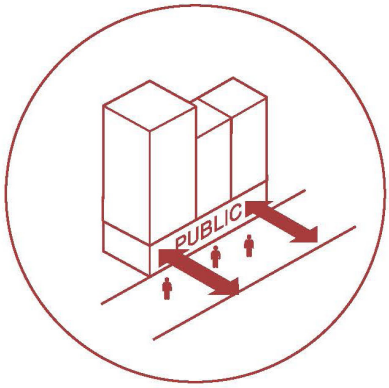


Sol Lewitt Structure

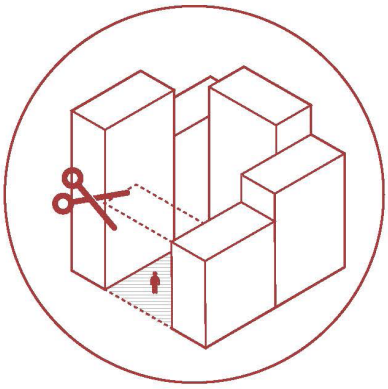
Contextural Strategies



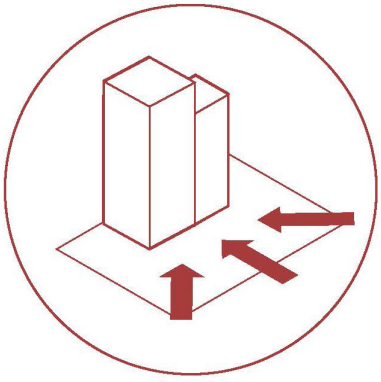
1. OPEN UP AND CONNECT EXISTING POWER CLUSTERS



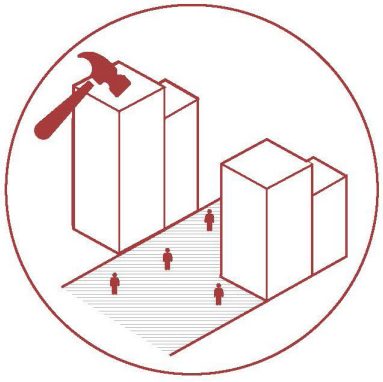
2. ACTIVE PLINTH FOR PUBLIC



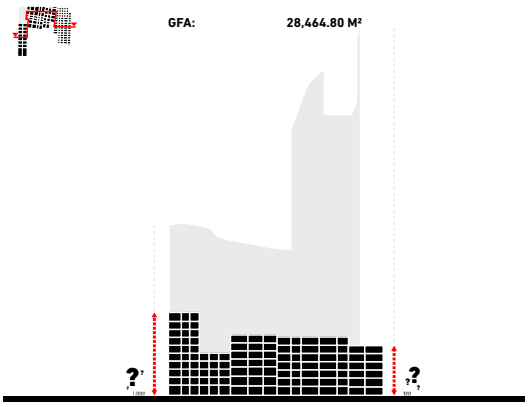
3. NEW URBAN COURTYARDS



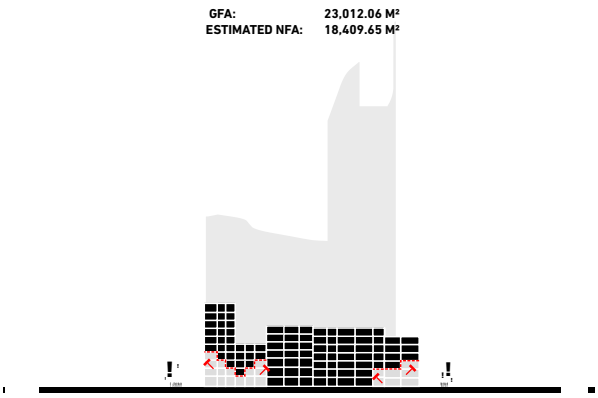
4. ENHANCE ACCESSIBILITY AND ESTABLISH NEW AXES



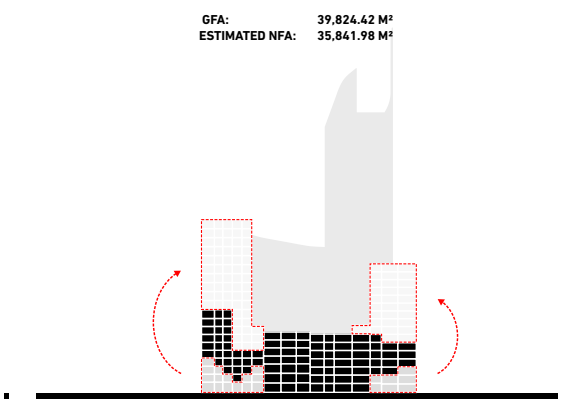
5. CREATE SPACES IN-BETWEEN SPACES



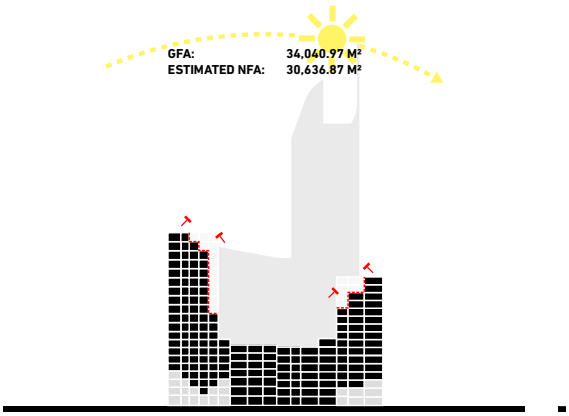
VERTICAL BORDER AT FUTURE CITY CATE



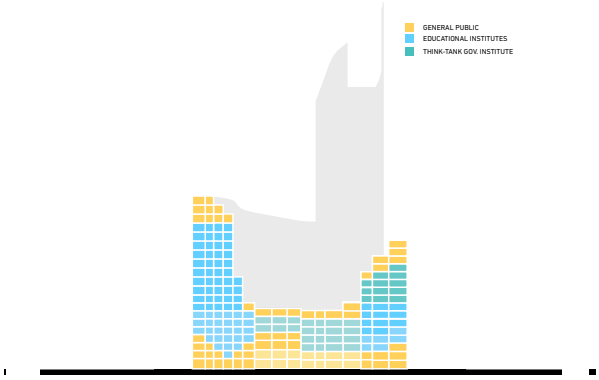
CARVING OUT CAVE AS GATE TO INNER COURTYARD



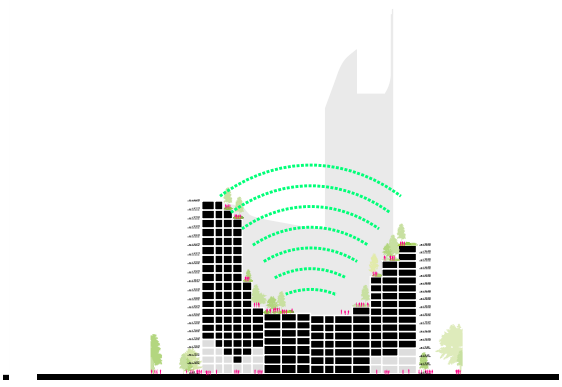
RELOCATION OF LOST FLOOR FLOOR AREA + NEW PROGRAM



ADAPTING INNER FACING FACADES
SOLAR ORIENTATION, VISUAL CONNECTIVITY

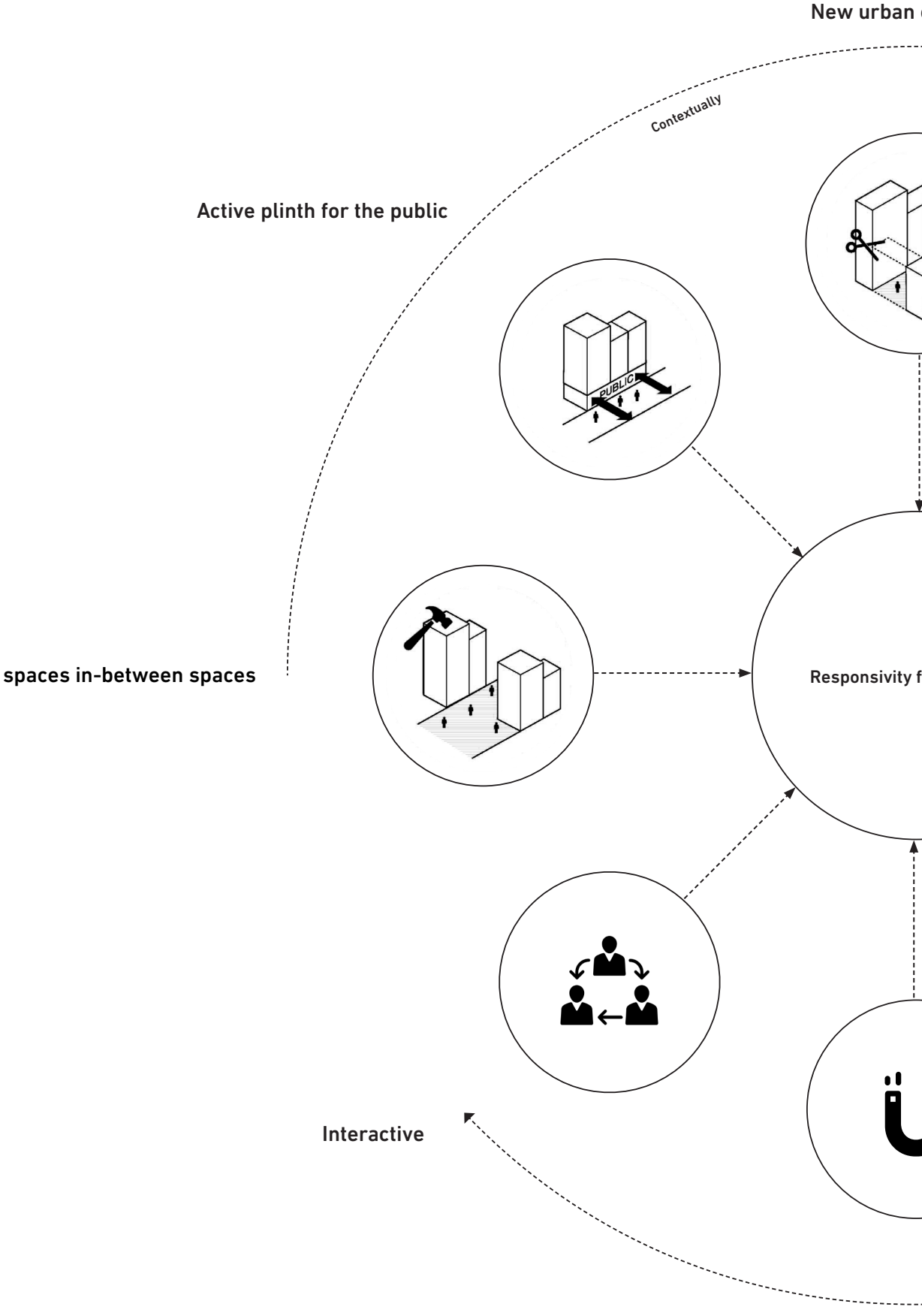


HIGH-LEVEL PROGRAMMATIC ORGANISATION
AS REFLECTION OF URBAN CONTEXT

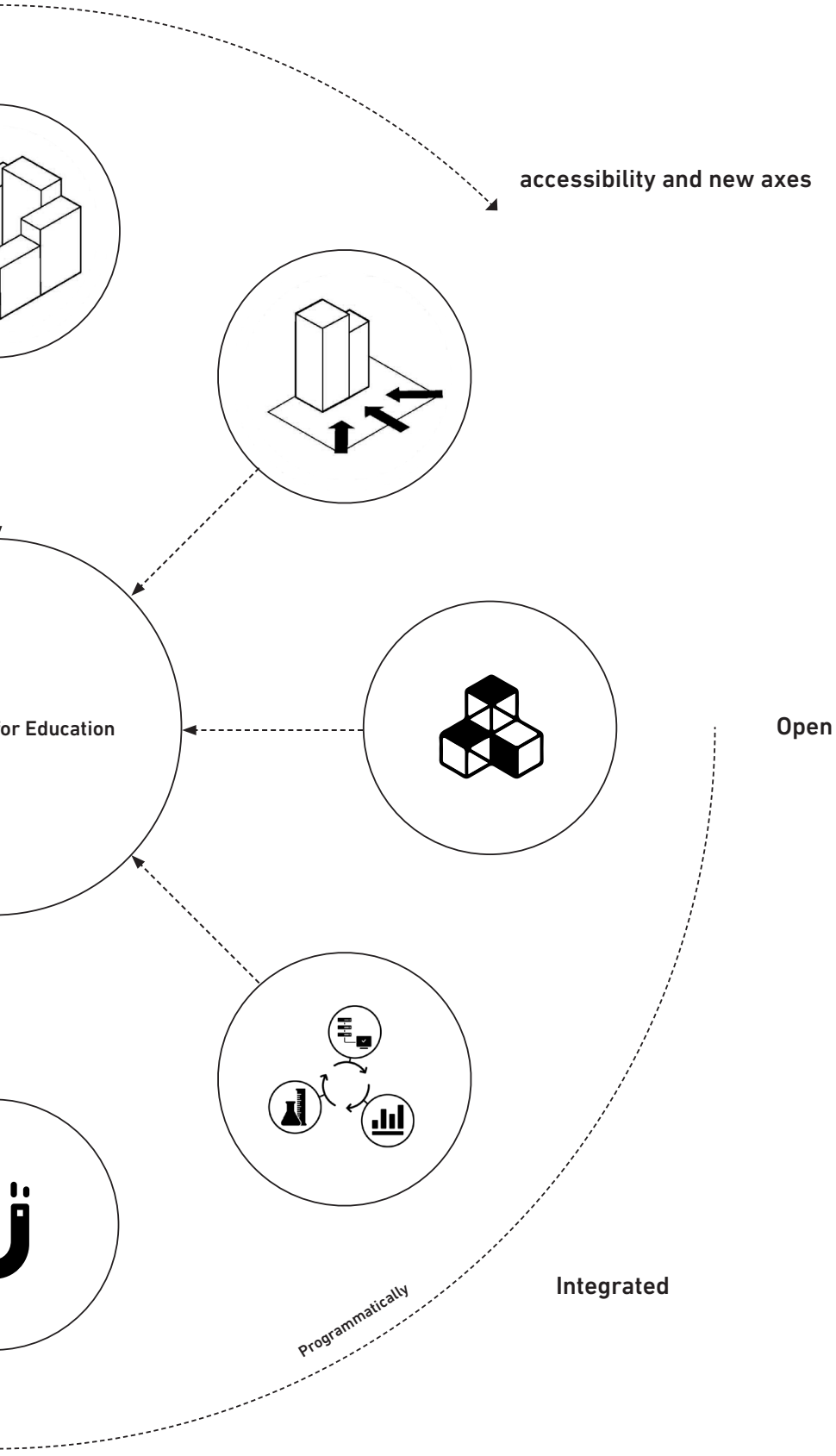


BREAKING UP POWER CLUSTERS WHILST ACTIVATING UNDER-UTILIZED URBAN REALM
MODERN INTERPRETATION OF HISTORIC CAMPUS TYPOLOGY

Overview of defined project strategies



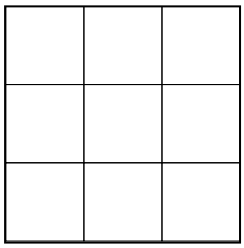
courtyards



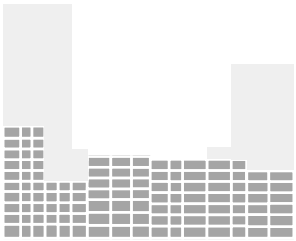
ctive

Skin

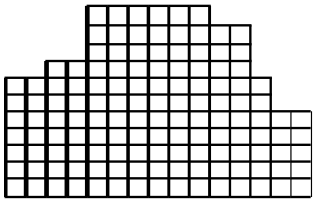
Facade Ideation



ANTI ICON



CONTEXTUAL AWARENESS

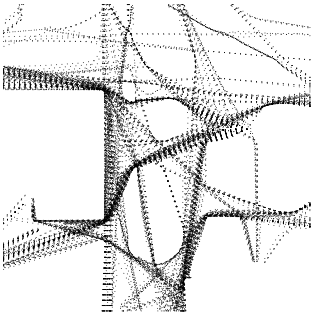


GRADIENT SKIN

MODULE-BASED

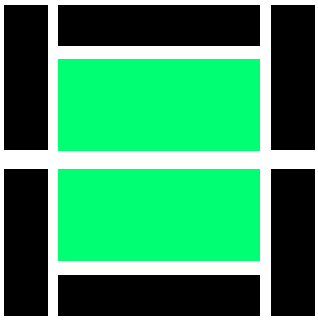
INFECTION OF DESIGN LANGUAGE

FOR ALLIGNMENT WITH CONTEXT, THE DESIGN LANGUAGE OF DELVA THEIR LANDSCAPE PROPOSAL AT KONINING JULIANAPLEIN IS INFECTING THE NEIRGBY



FORM FOLLOWS PEOPLE
PEDESTRIAN FLOW AS FORM SHAPER

LANDSCAPE IS ADJUSTED TO ROUTE OF PEOPLE, CONNECTING THE ENTITIES OF THE BLOCK AND MAINTAINING A SERVING PURPOSE

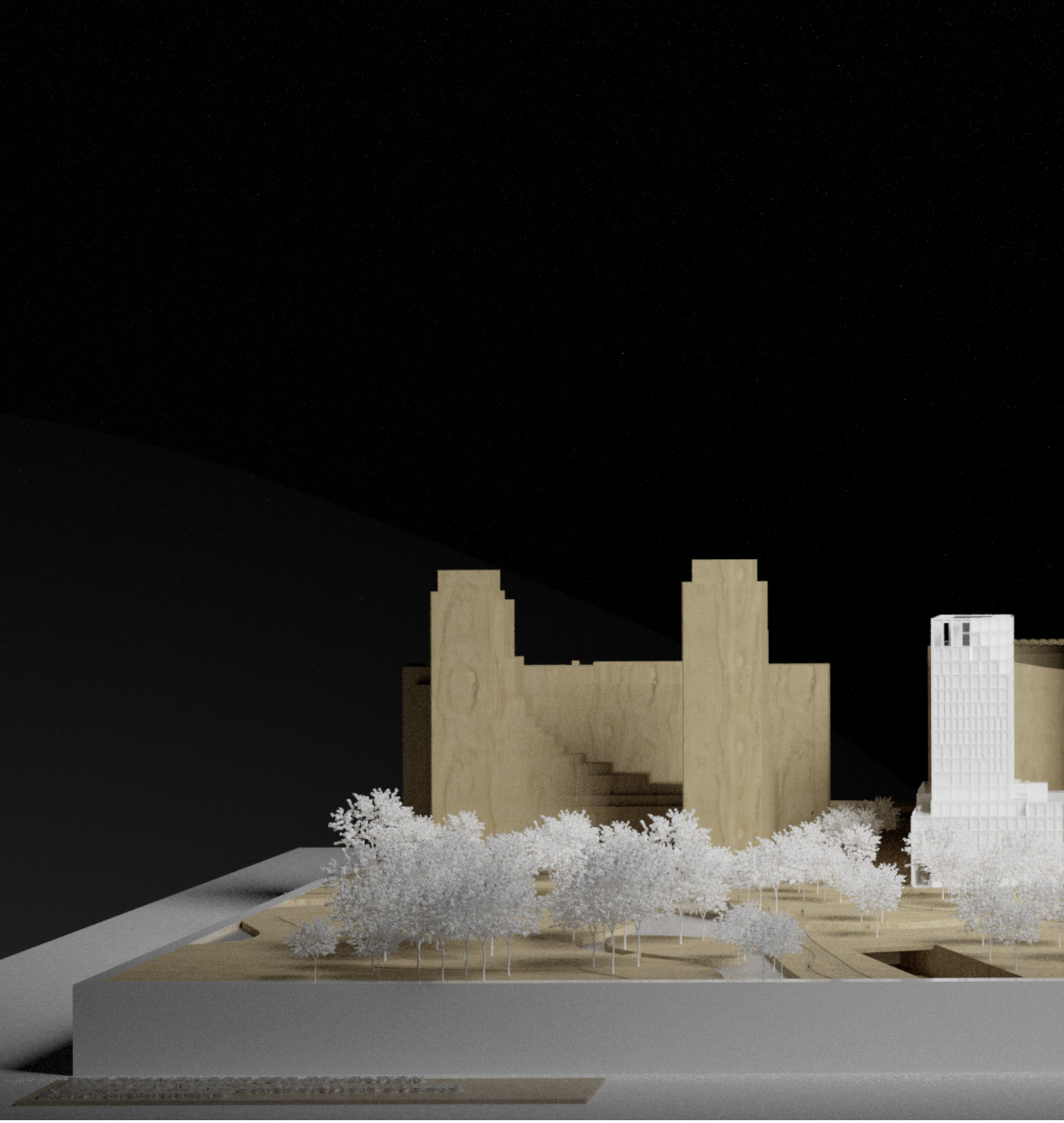


PUBLIC AGORA
RE-INTERPRETATION OF TRADITIONAL CAMPUS COURTYARDS

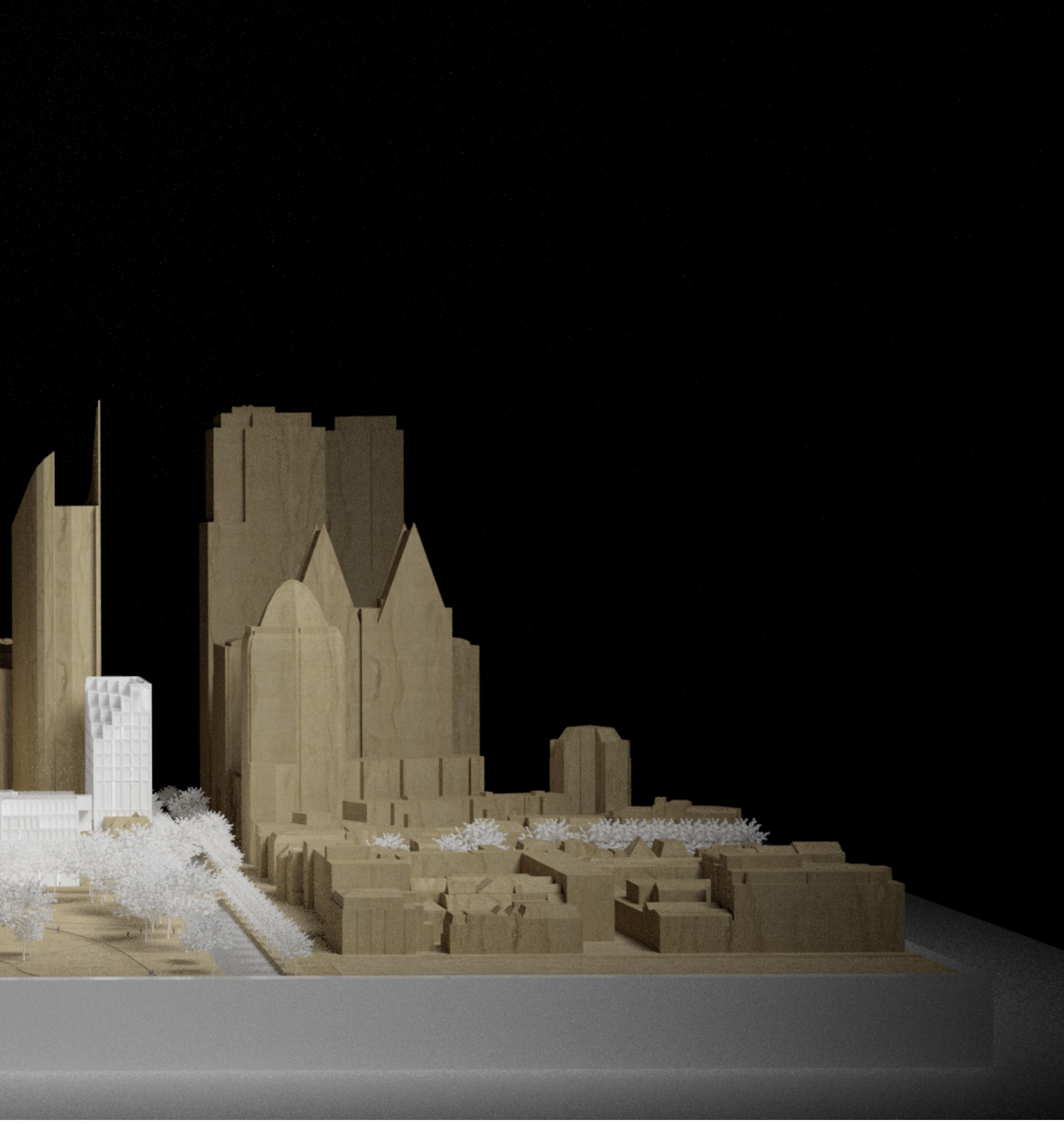
MAIN ACITIVITIES ARE CATERED AS RE-INTERPRETATION OF TRADITION-AL CAMPUS COURTYARDS. A PUBLIC AGORA AS COMMUNAL SPACE, EXTENDING INDOOR BOUDNARIES AND MAGNETICALLY ATTRACTING SURROUNDING INSTITUTUIONS

ALL YEAR GREEN
SELECTED SPECIES FOR YEAR-ROUND GREENER

NOT ONLY GREEN DURING SPRING AND SUMMER. THE INNER GARDEN FUNCTIONS AS A YEAR-ROUND HANGING GARDENS OF BABYLON. CURATION OF YEAR-ROUND SPECIES ALLOW FOR A CONTINUOUS EXPERIENCE

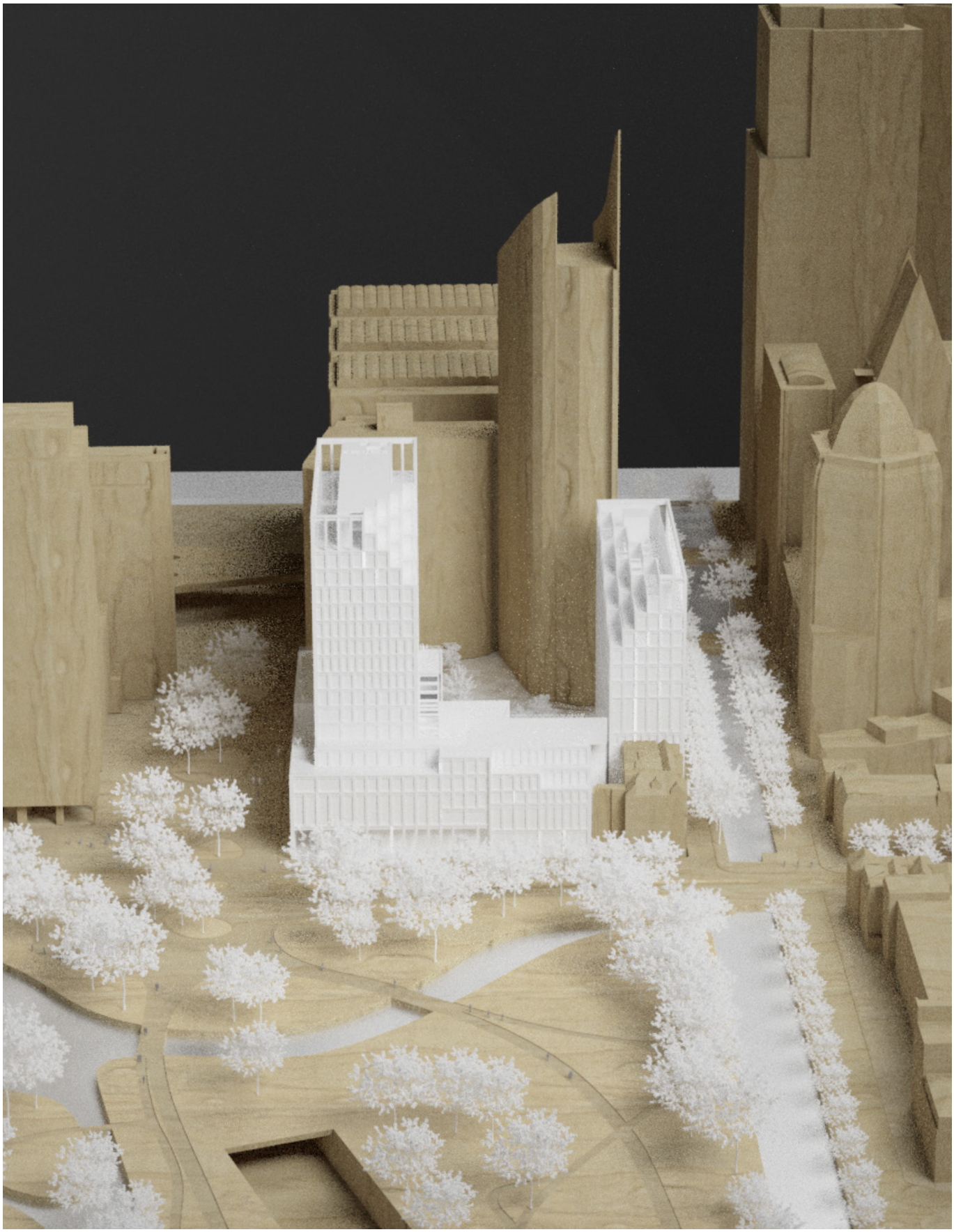


Final Design Proposal



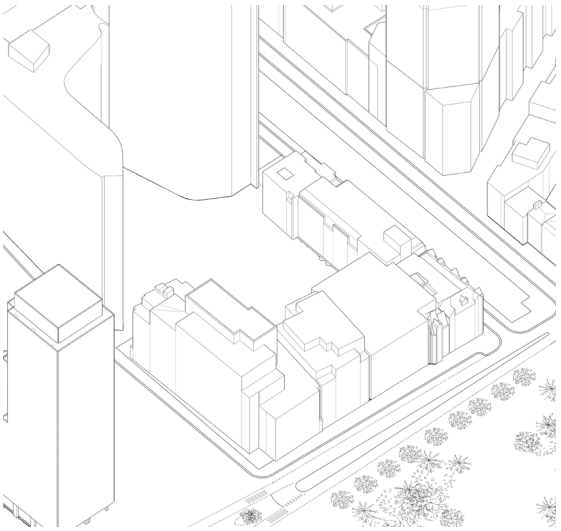
Physical Model Image

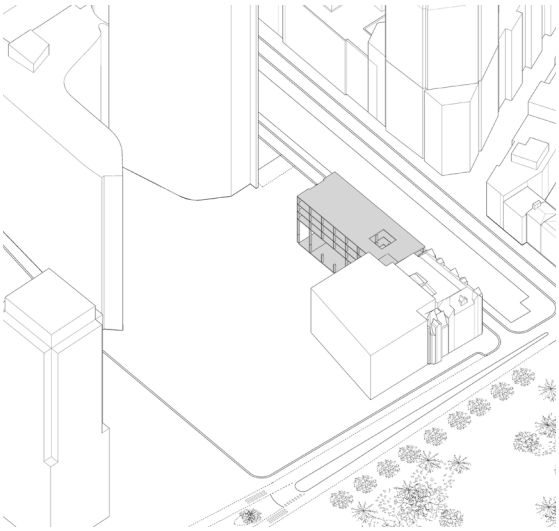
Context [City / Neighbourhood]

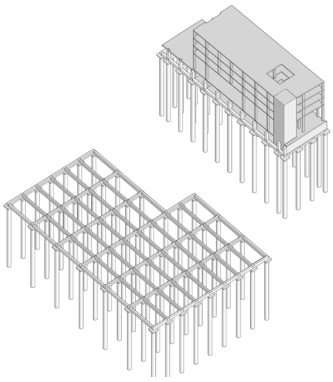


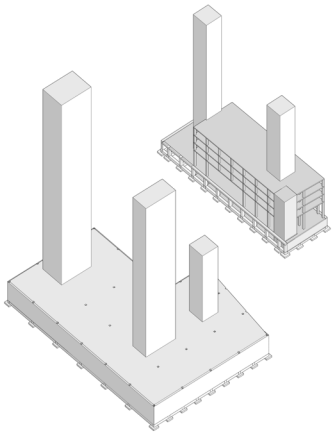
Contextual Embedment Diagrams

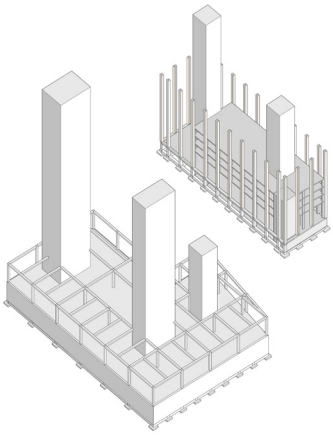
Context [City / Neighbourhood]

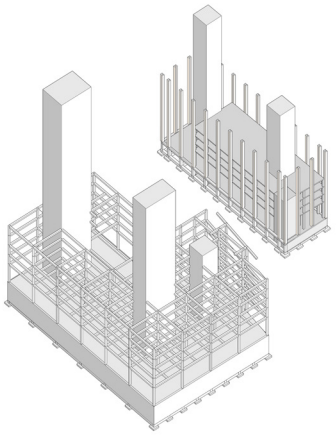






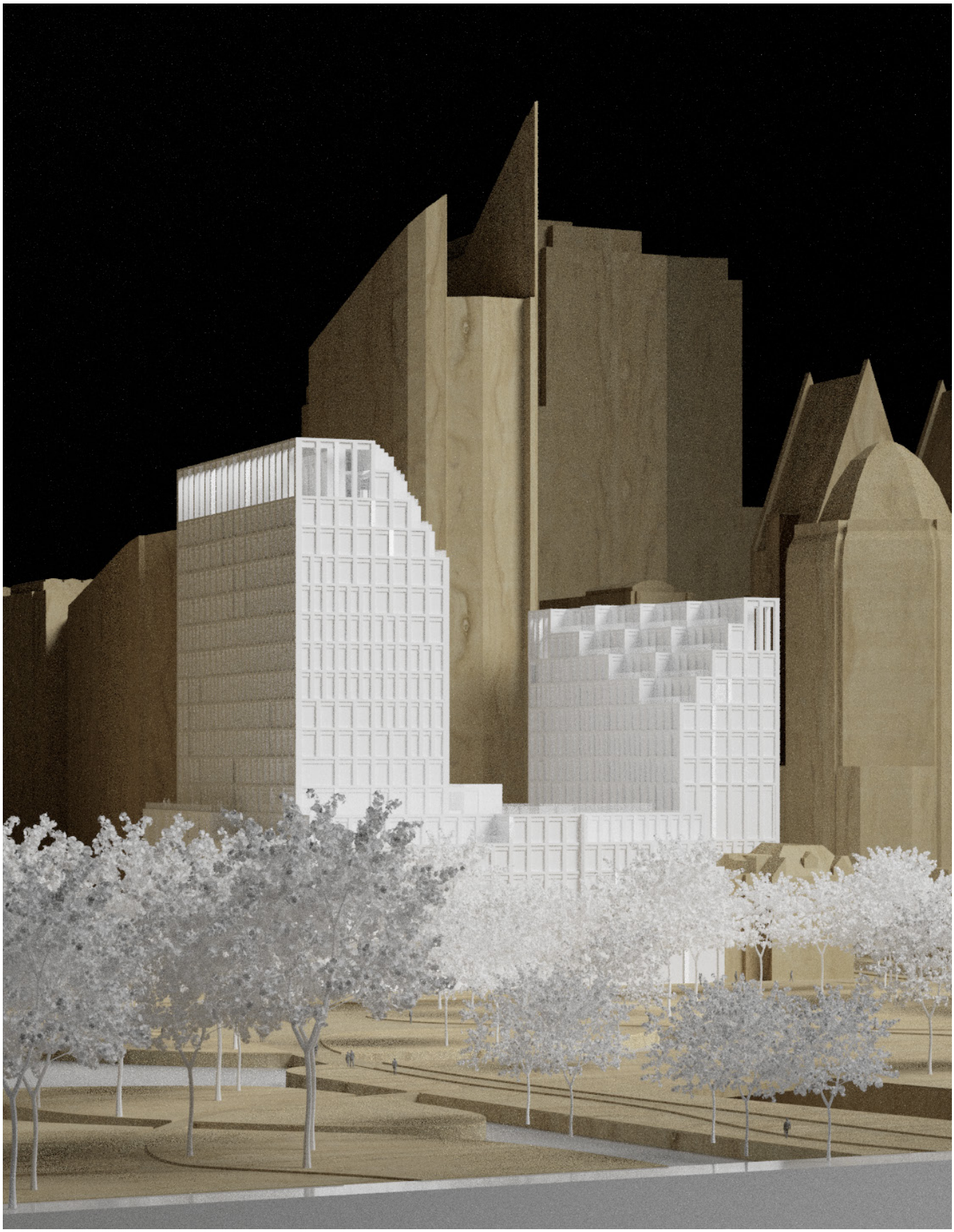






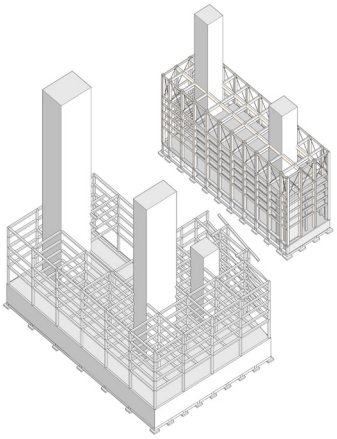
Physical Model Image

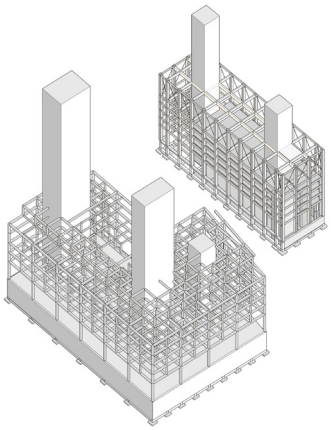
Context [City / Neighbourhood]

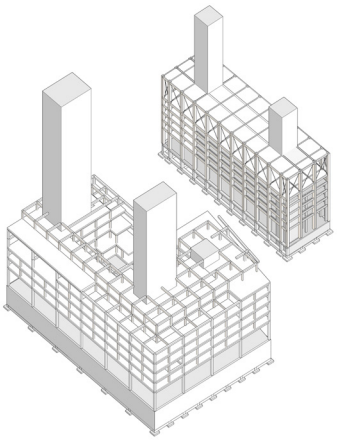


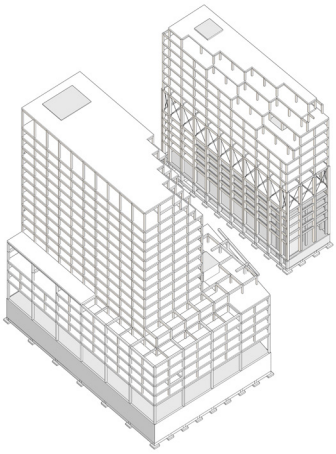
Contextual Embedment Diagrams

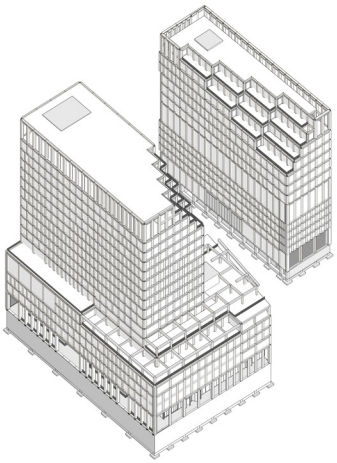
Context [City / Neighbourhood]

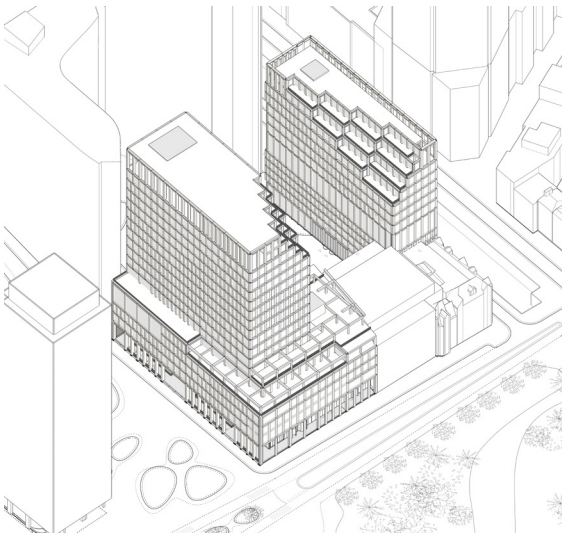






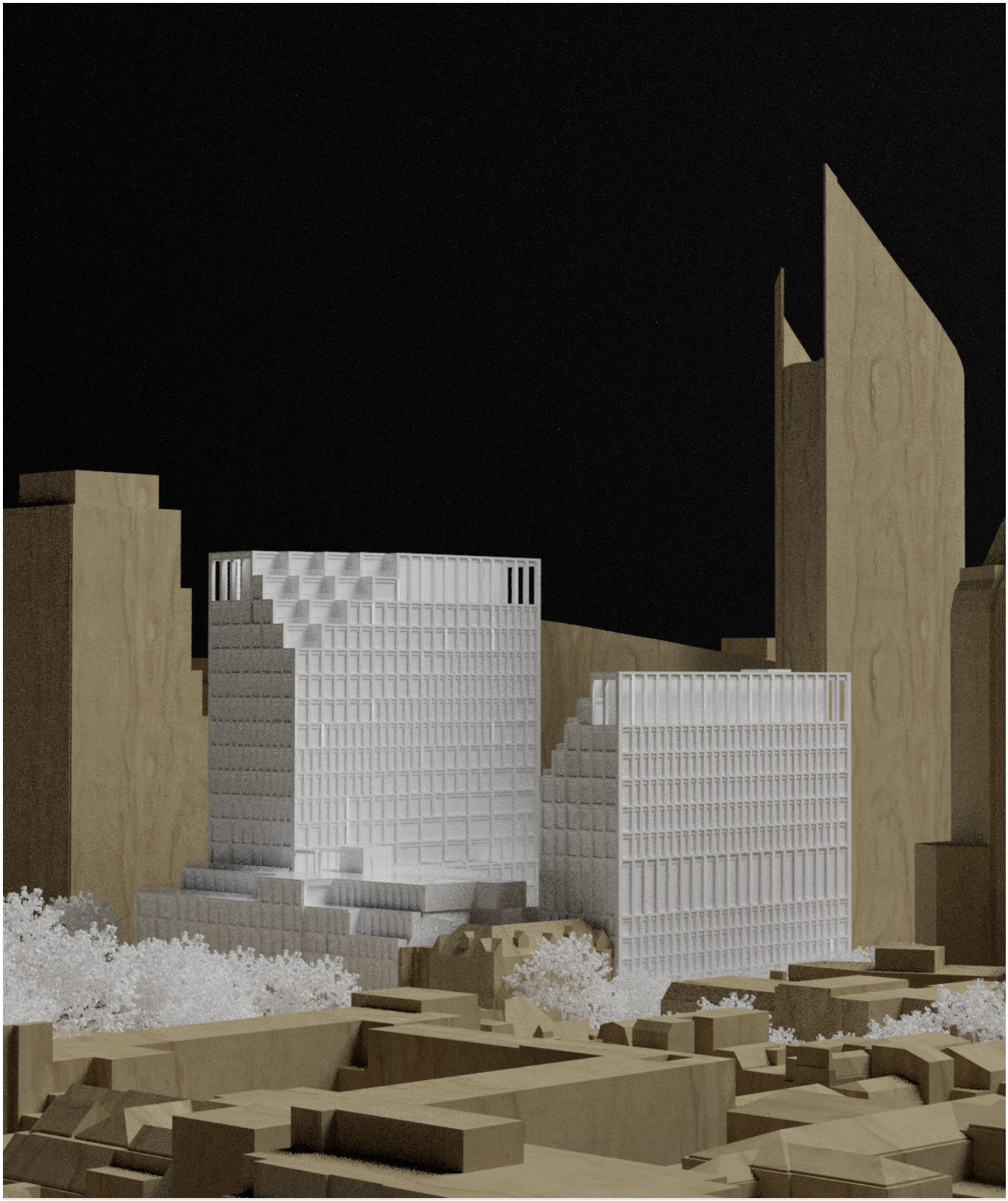






Physical Model Image

Context [City / Neighbourhood]

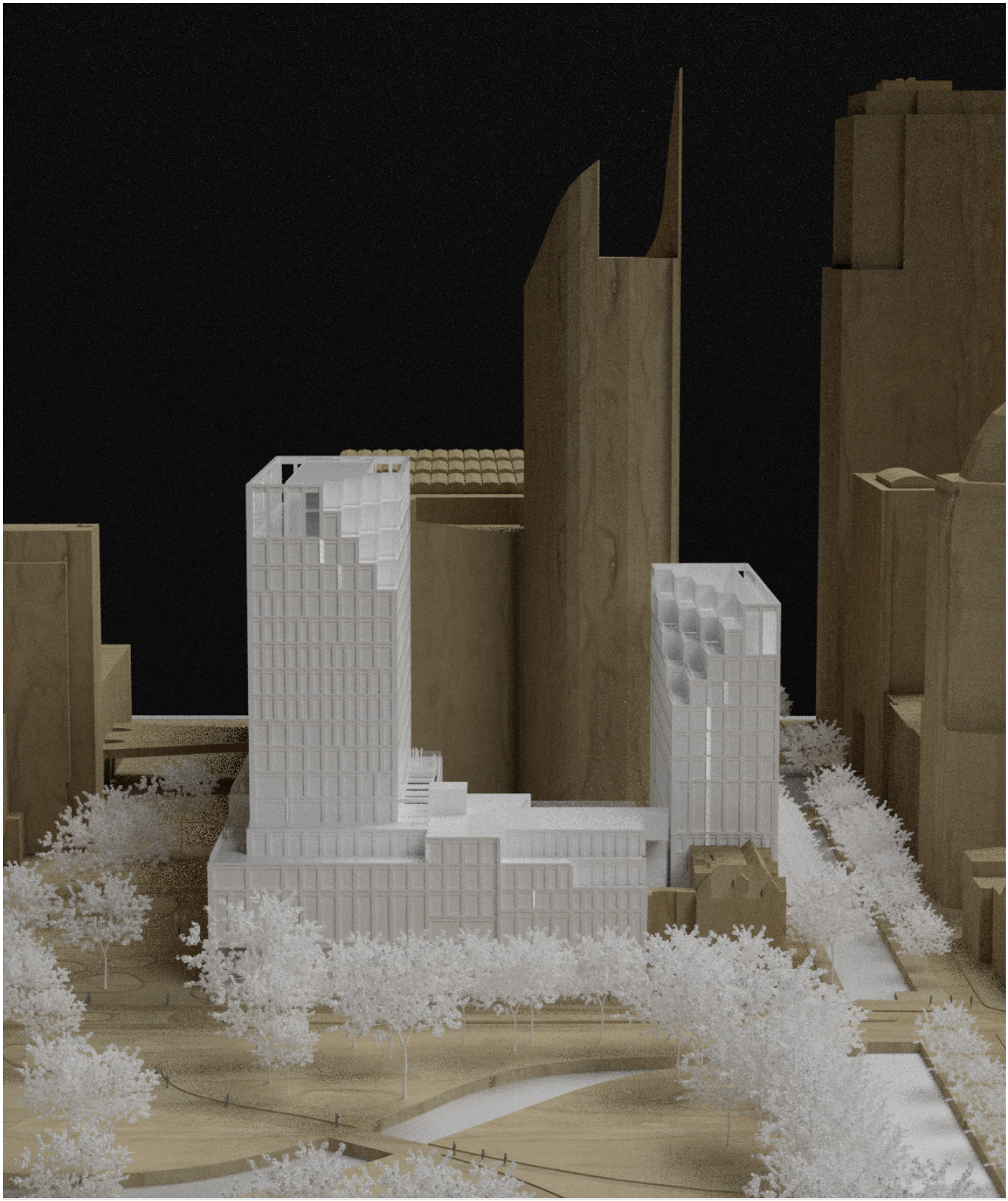


Site-Plan

Context [City / Neighbourhood]

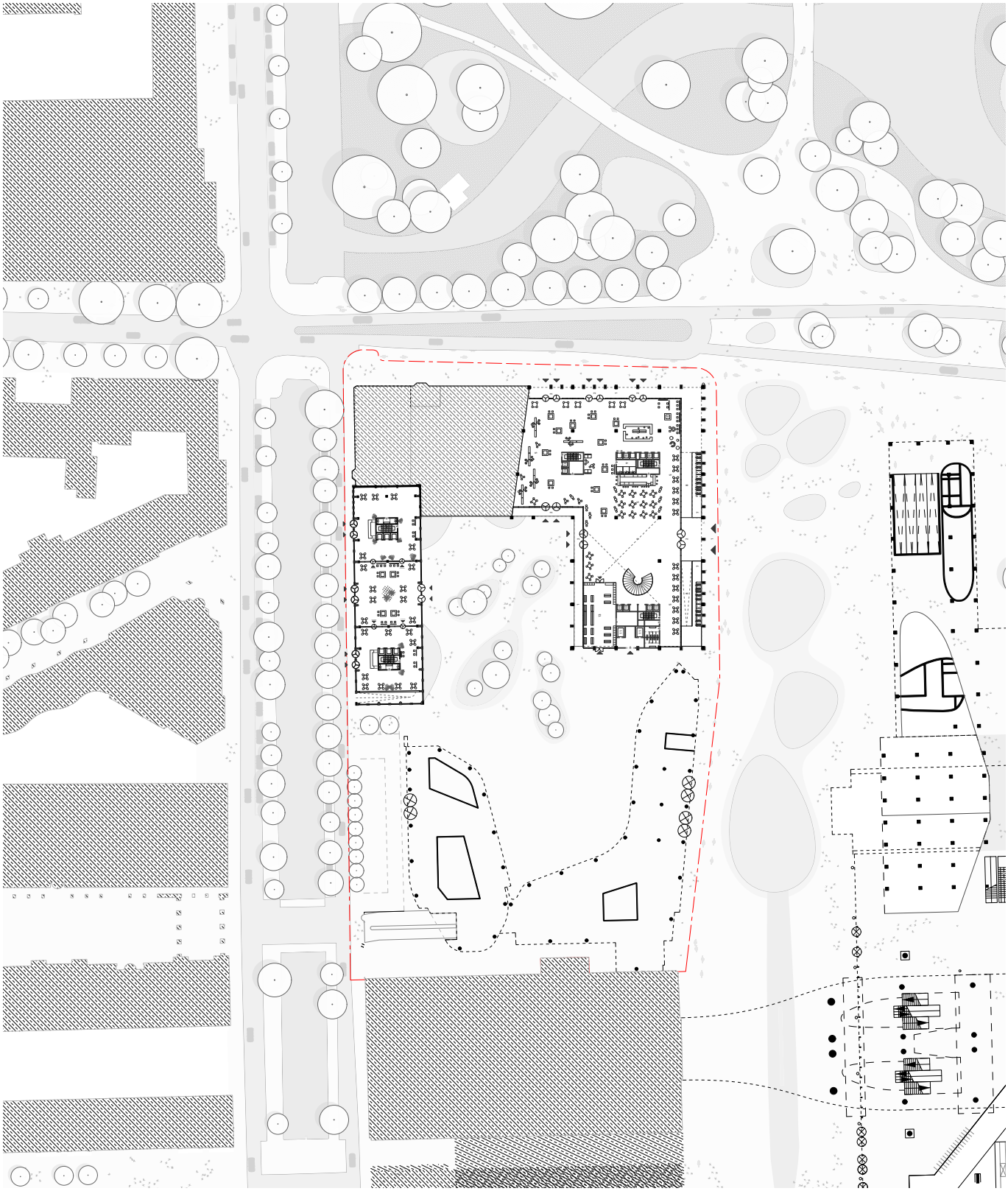
Physical Model Image

Context [City / Neighbourhood]



Nolli-Plan

Context [City / Neighbourhood]



Physical Model Image

Context [City / Neighbourhood]

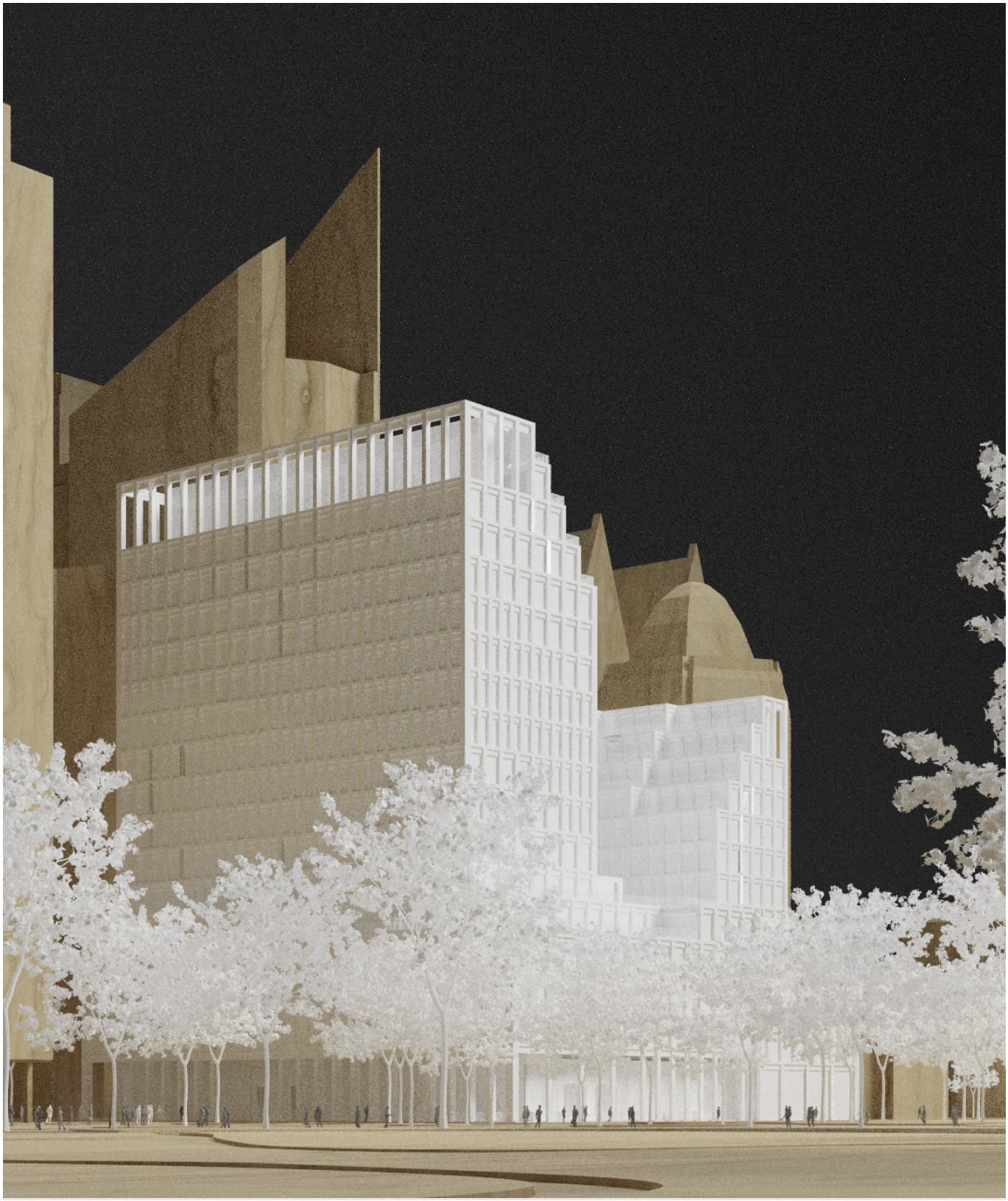
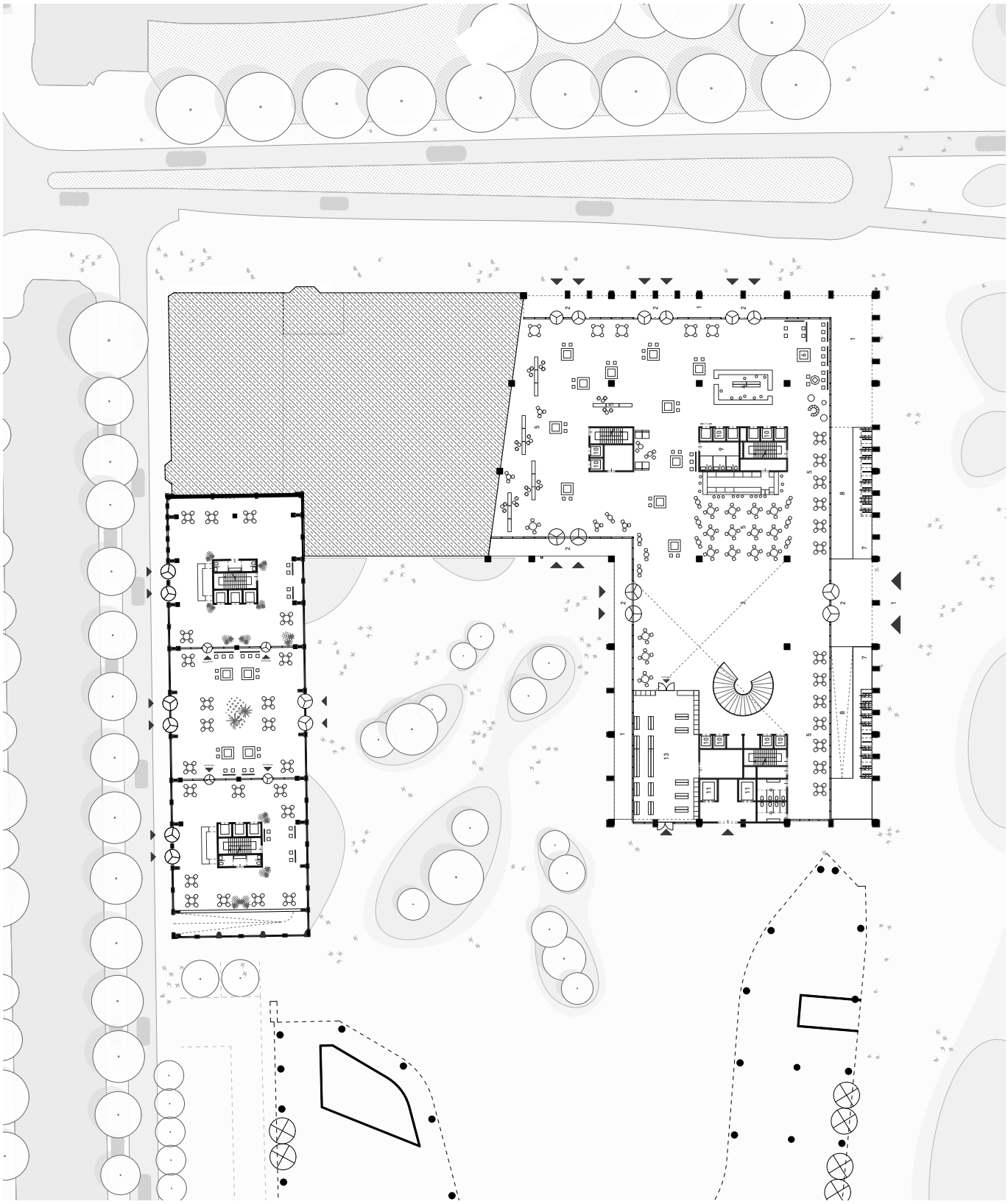


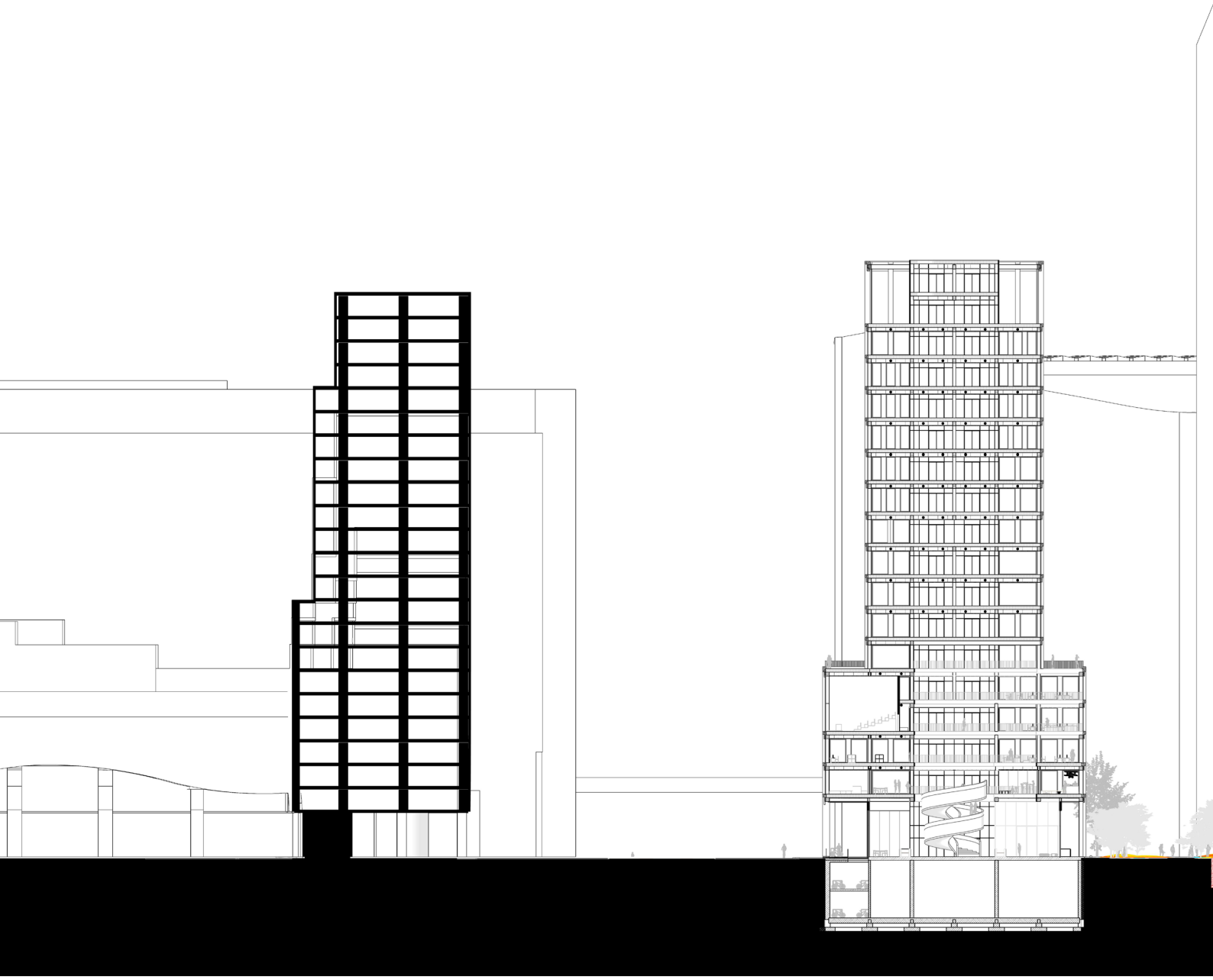
Figure Ground

Context [City / Neighbourhood]



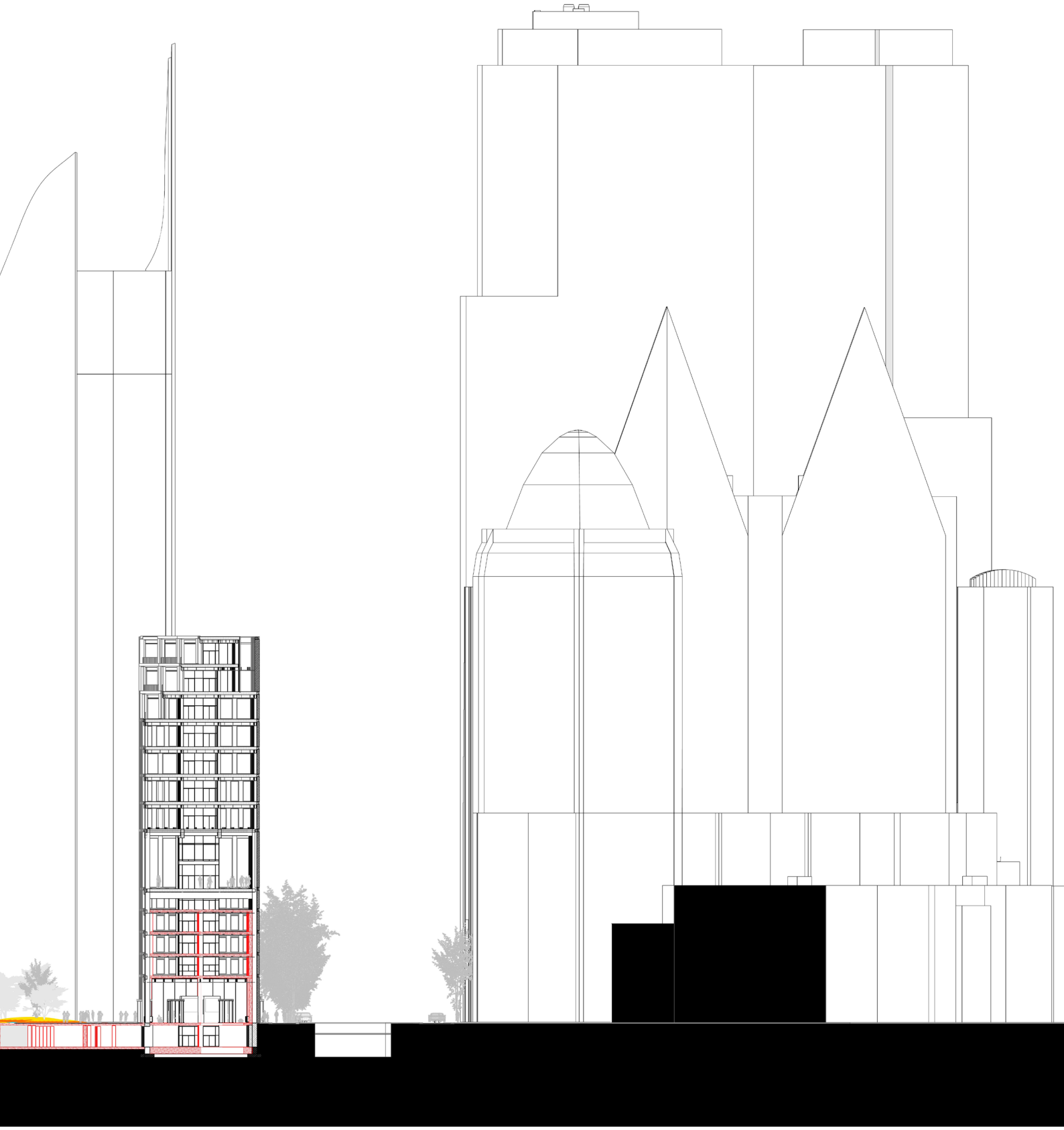
Urban Section

Context [City / Neighbourhood]



Urban Section

Context [City / Neighbourhood]



Exterior Impressions

Context [City / Neighbourhood]

Entrance towards The Hague throught Koningin Juliana Plein and Fafacing the main entrance

Exterior Impressions

Context [City / Neighbourhood]

View of main entrance, seen from Koningin Julianaplein

View of main entrance, seen from Koningin Julianaplein

Exterior Impressions

Context [City / Neighbourhood]

View from inner courtyard looking from The Ministry of Education, Culture and Science

Exterior Impressions

Context [City / Neighbourhood]

View from inner courtyard looking from T2

Exterior Impressions

Context [City / Neighbourhood]

View from Zwartepad, looking at the entrance of Tower 2 at Oranjebuitensingel

Exterior Impressions

Context [City / Neighbourhood]

View from Zwarteweg, looking at the entrance of Tower 2 at Oranjebuitensingel

View from Zwarteweg

Exterior Impressions

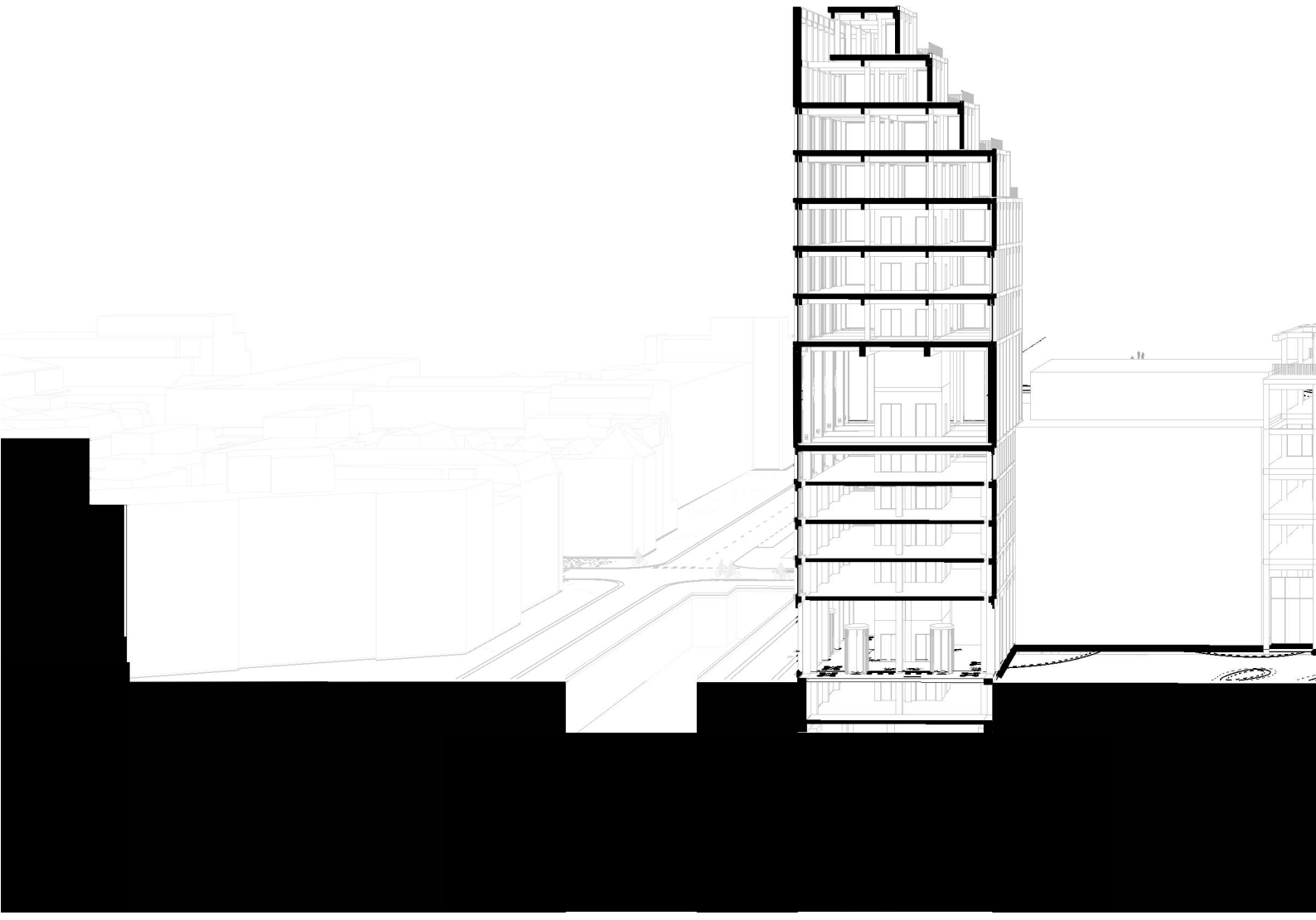
Context [City / Neighbourhood]

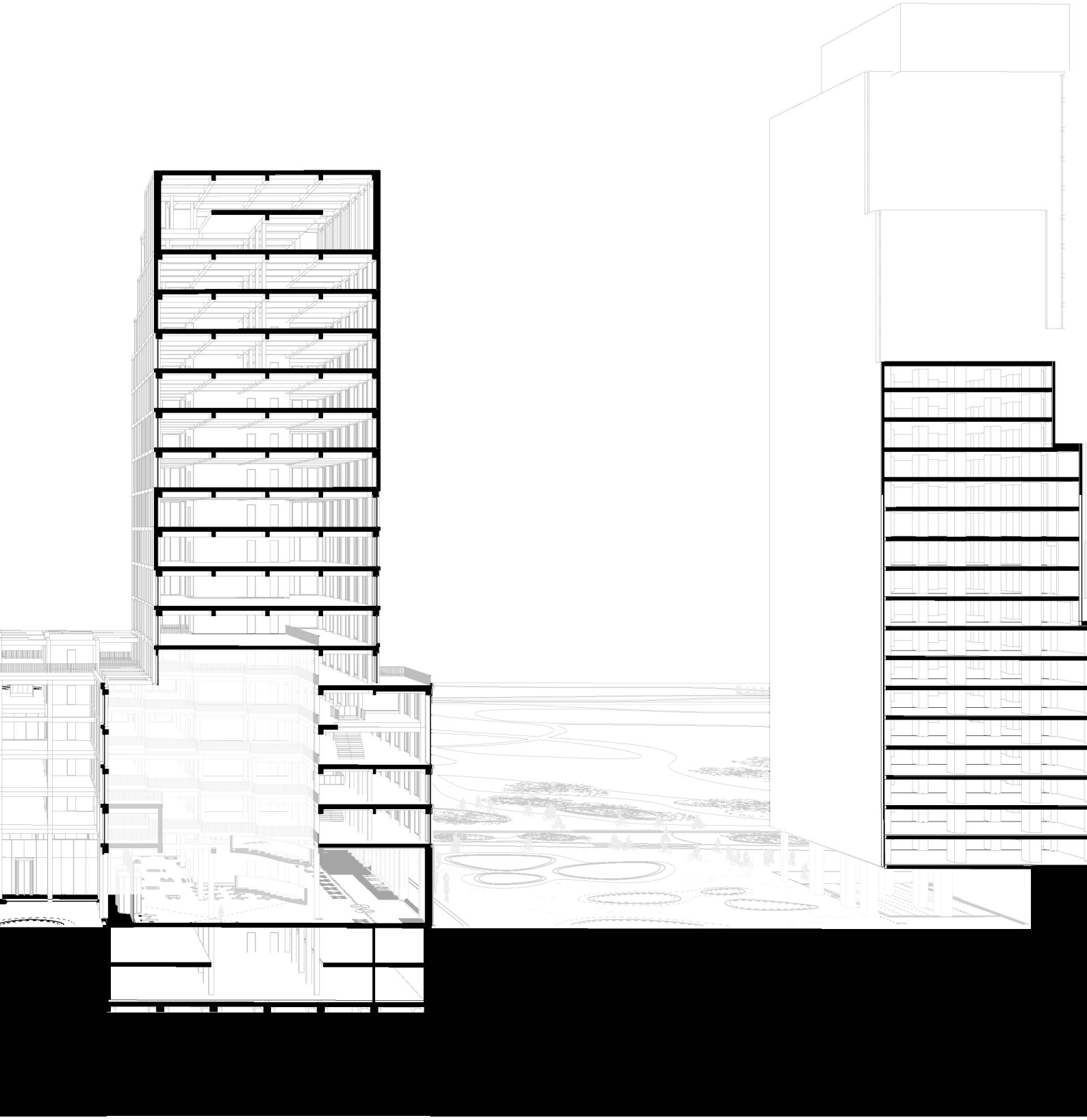
View from inner courtyard looking from The Ministry of Education, Culture and Science

View from Zwarteweg during Evening

Organisation of Ensemble

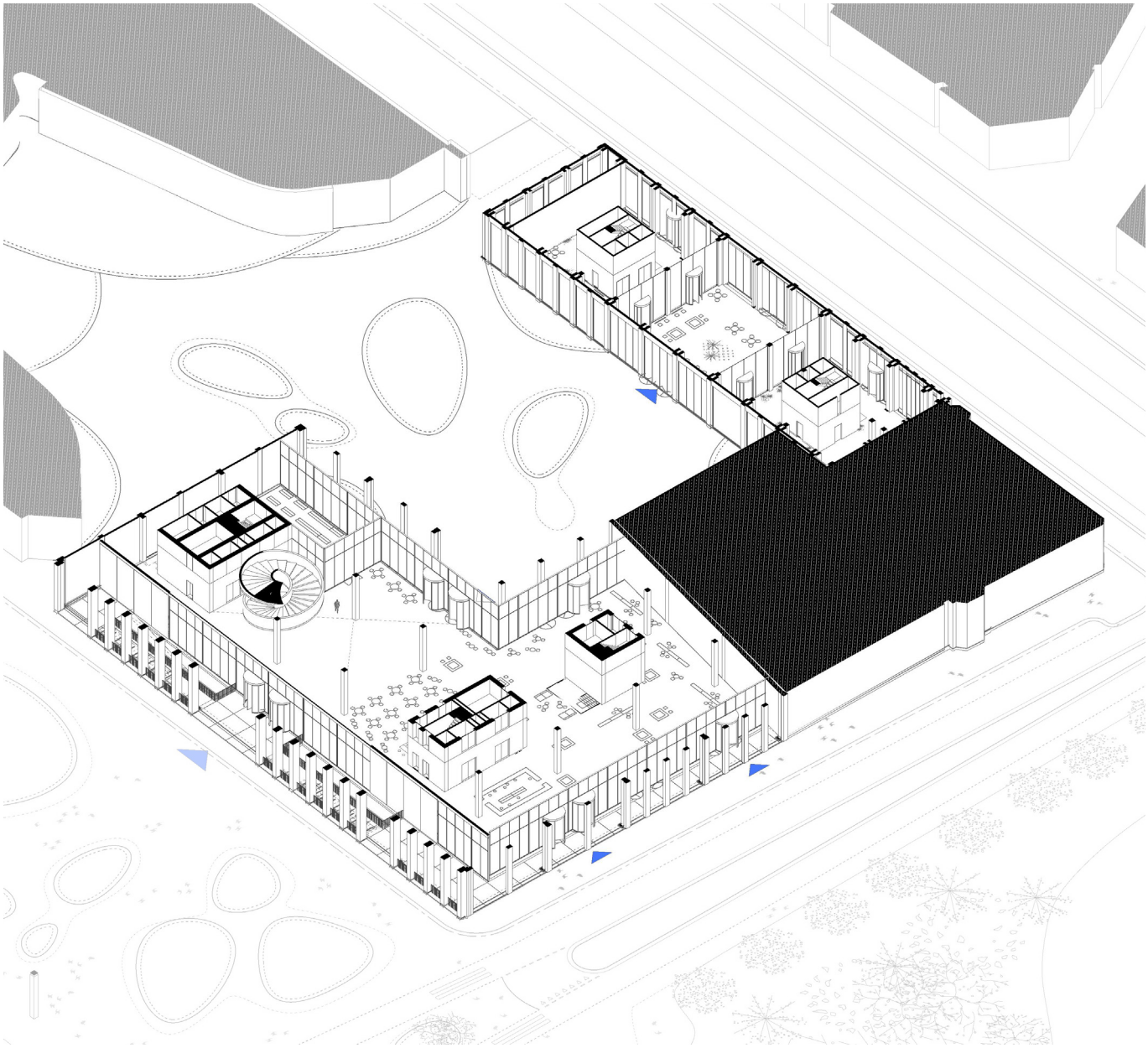
Building(s) / Ensemble

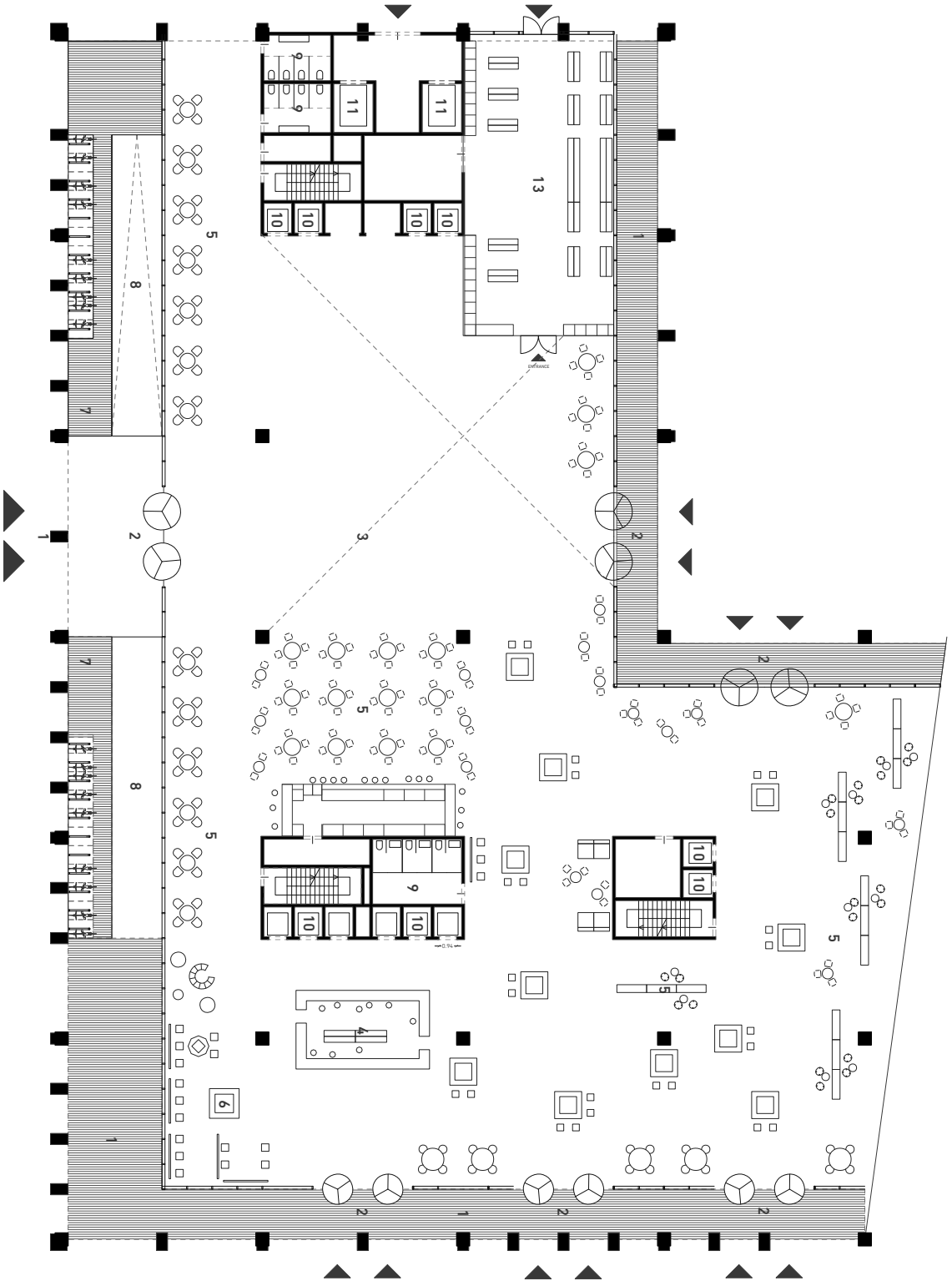




Axonometric

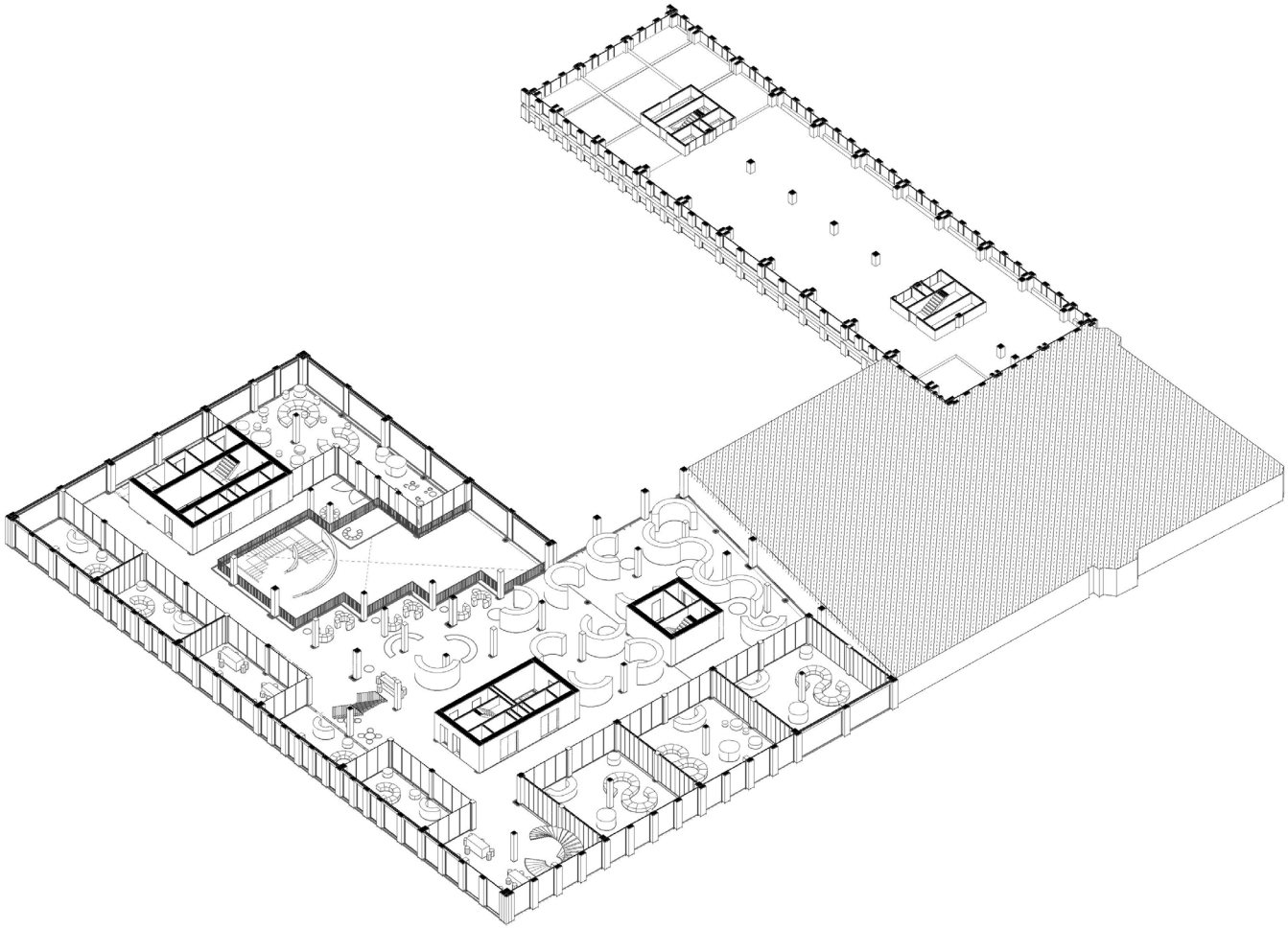
Building(s) / Ensemble

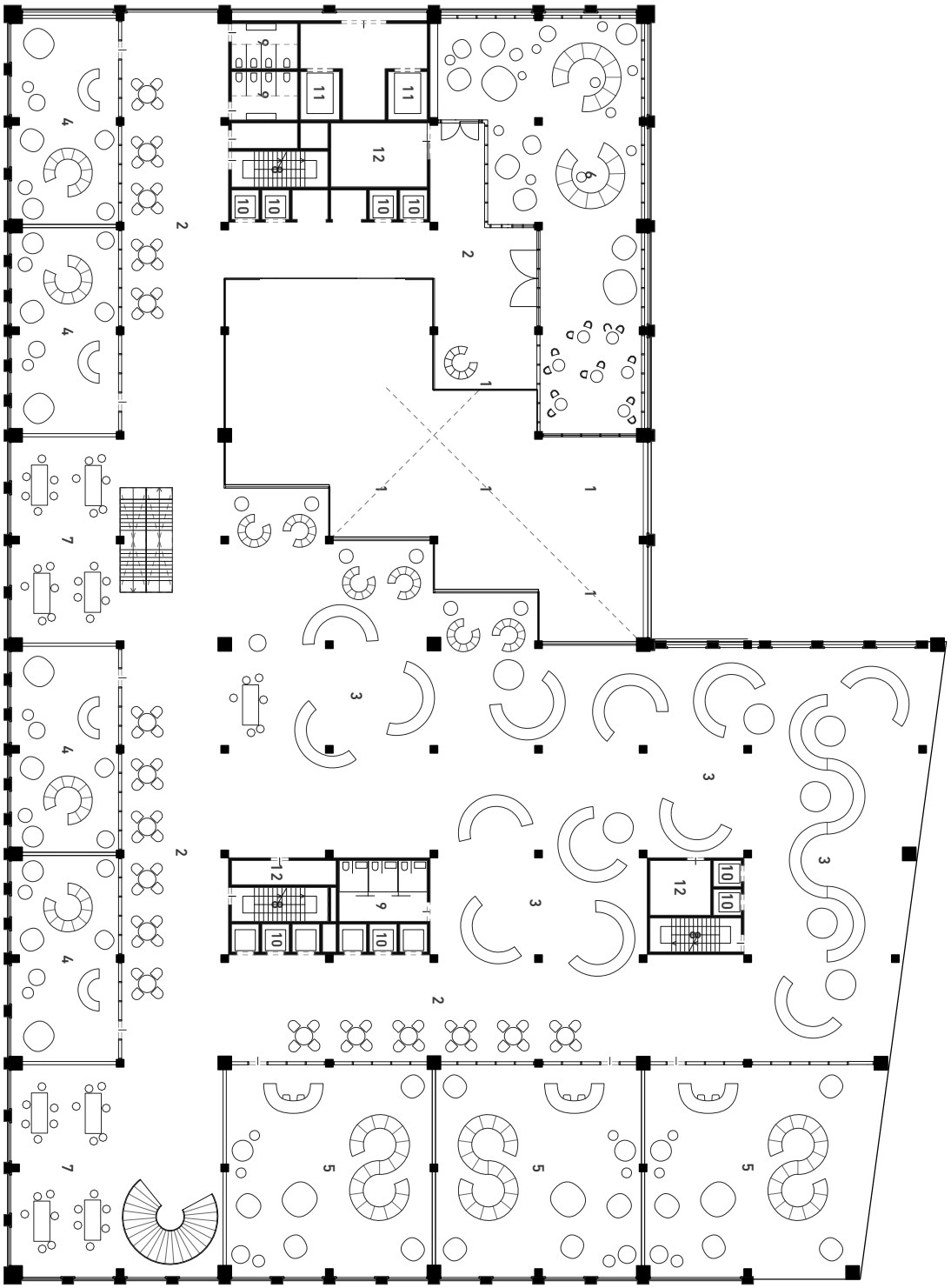



ENTRANCE

Axonometric

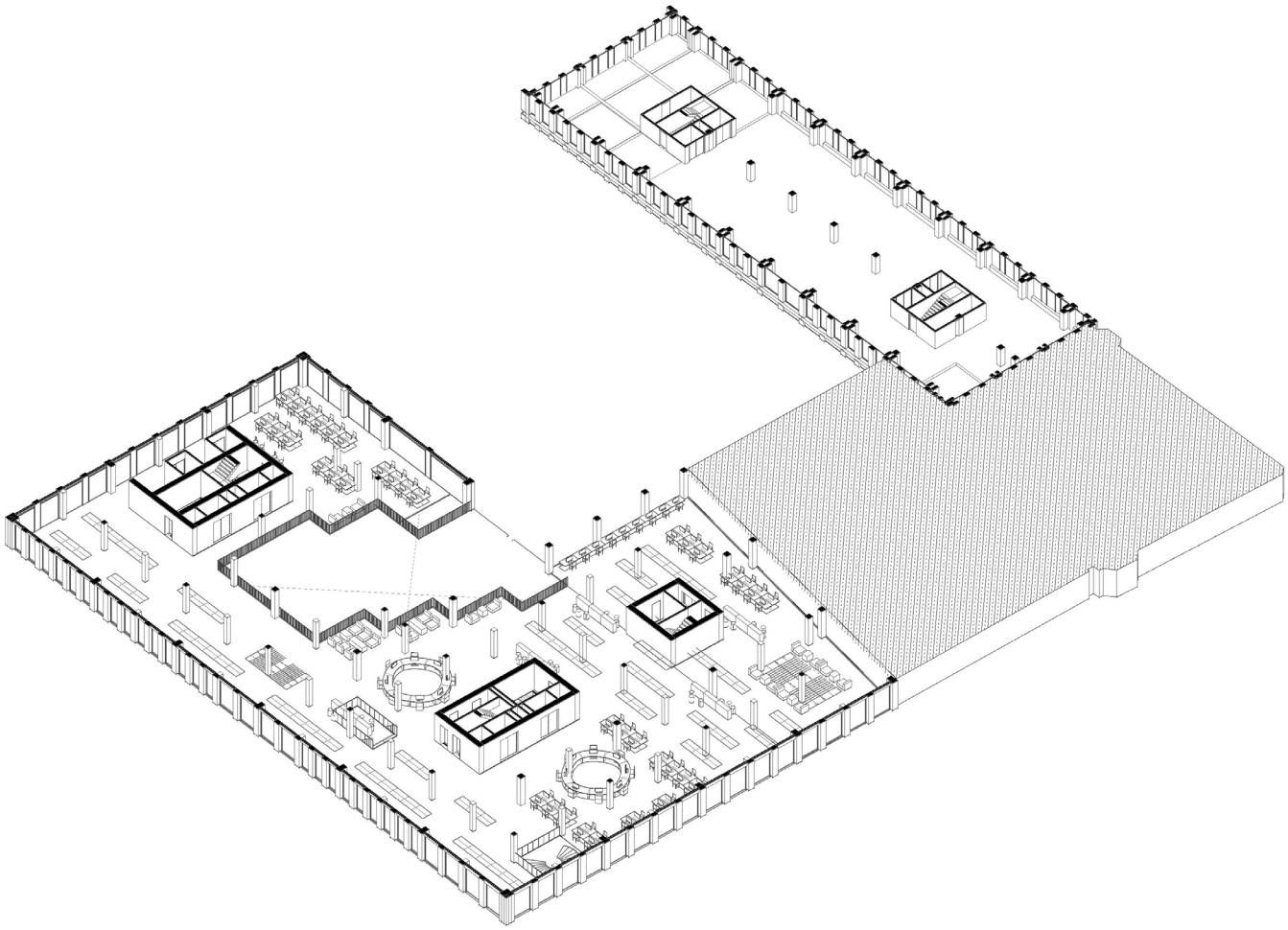
Building(s) / Ensemble

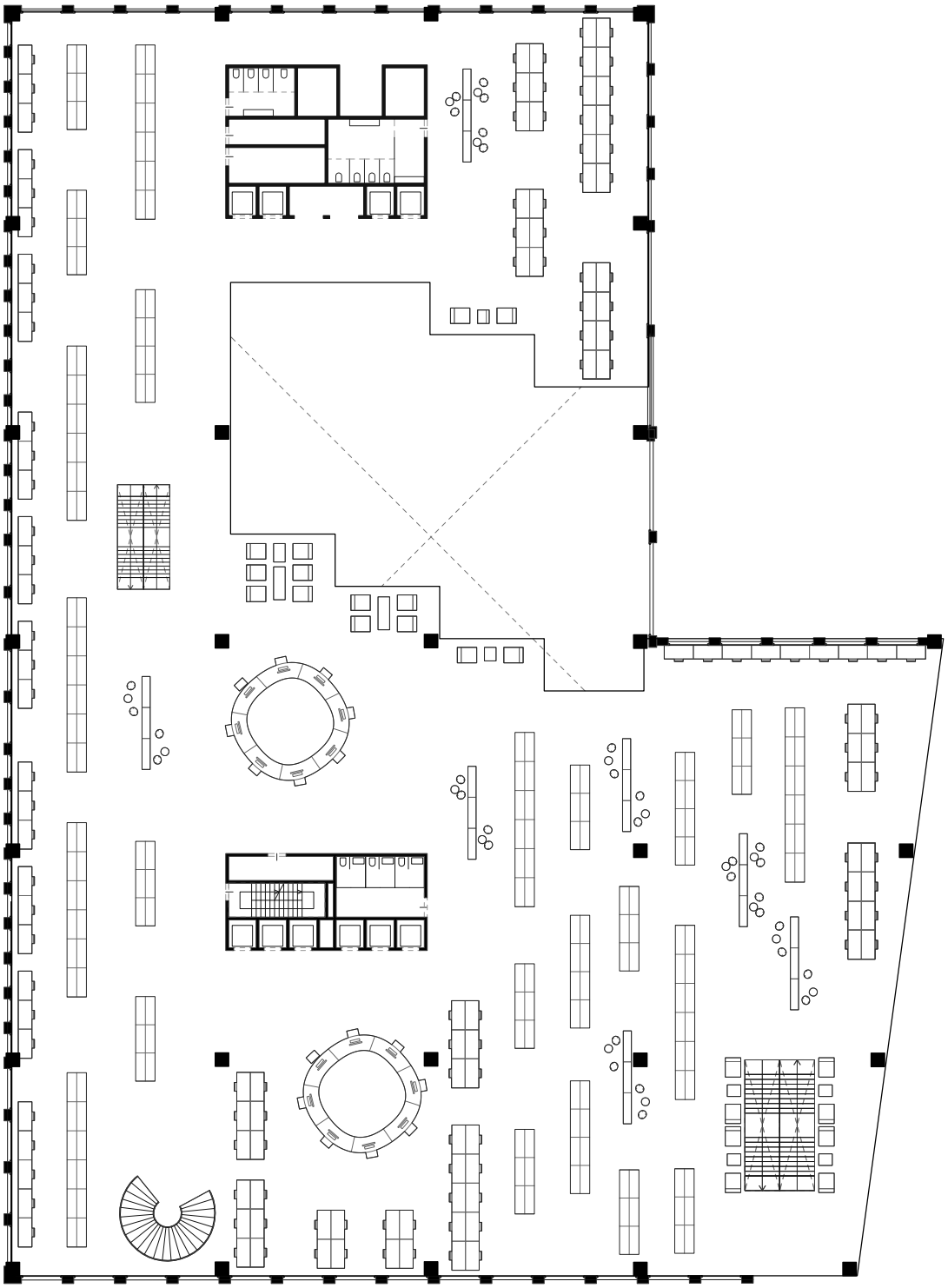




Axonometric

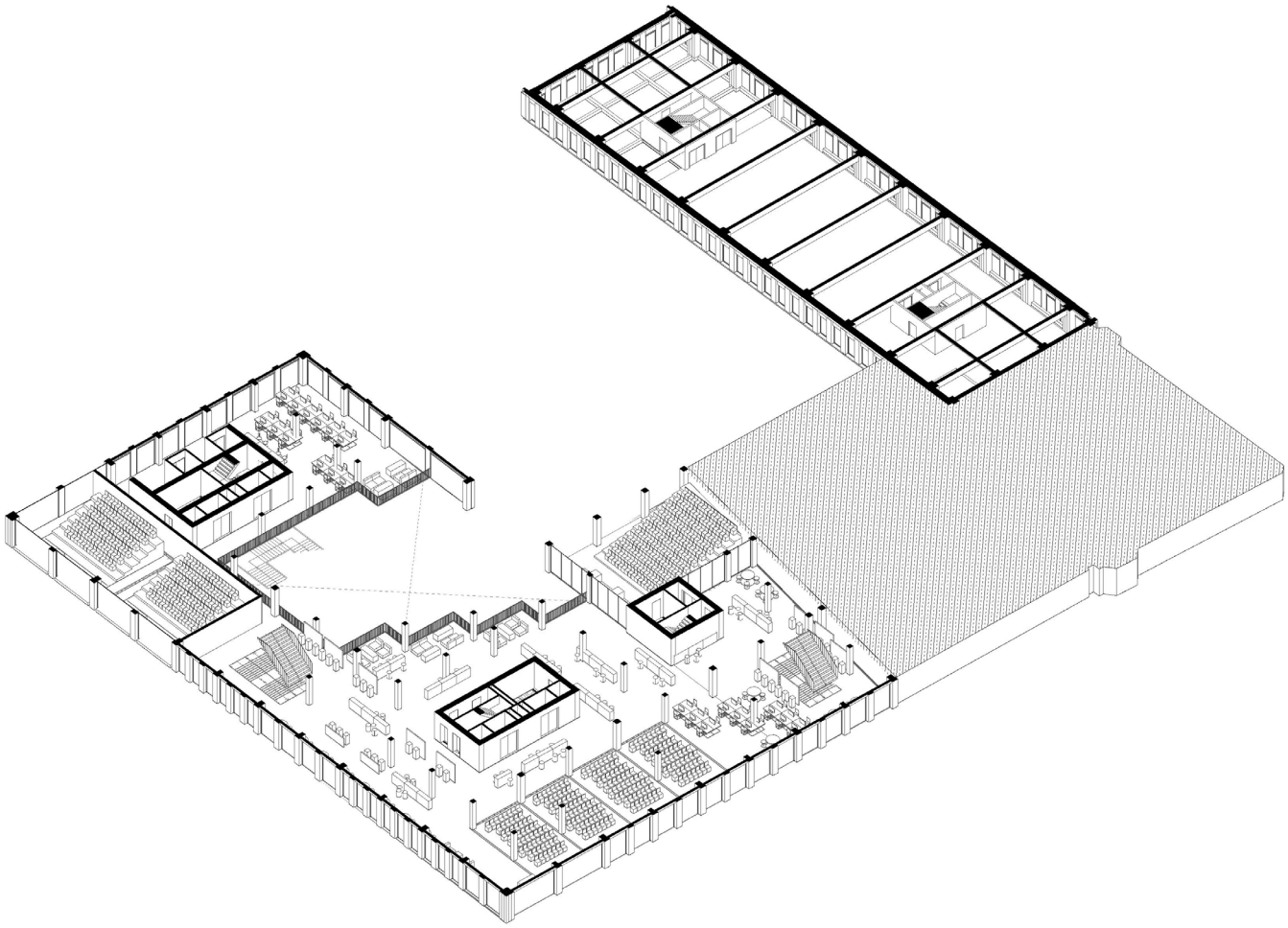
Building(s) / Ensemble

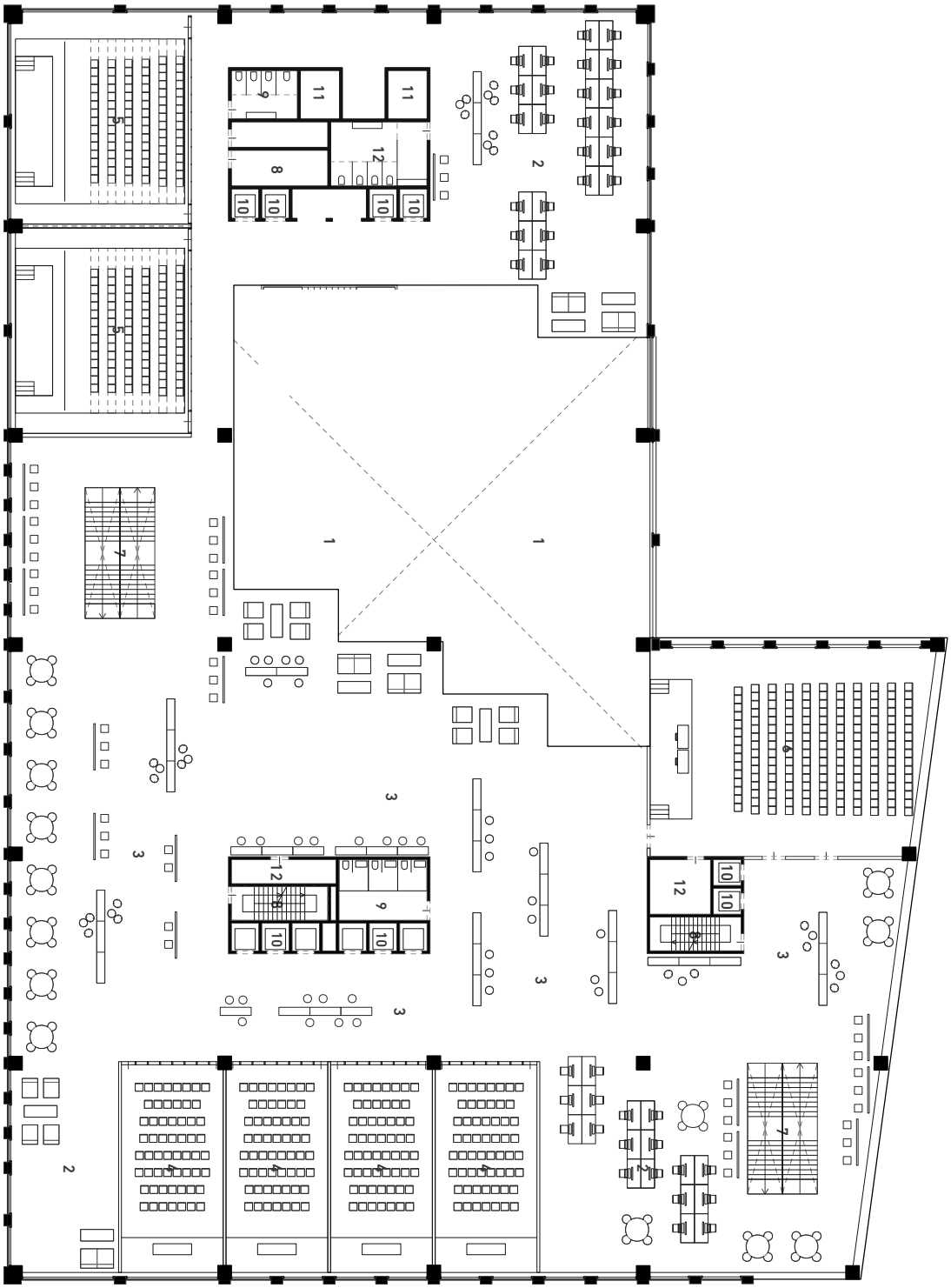




Axonometric

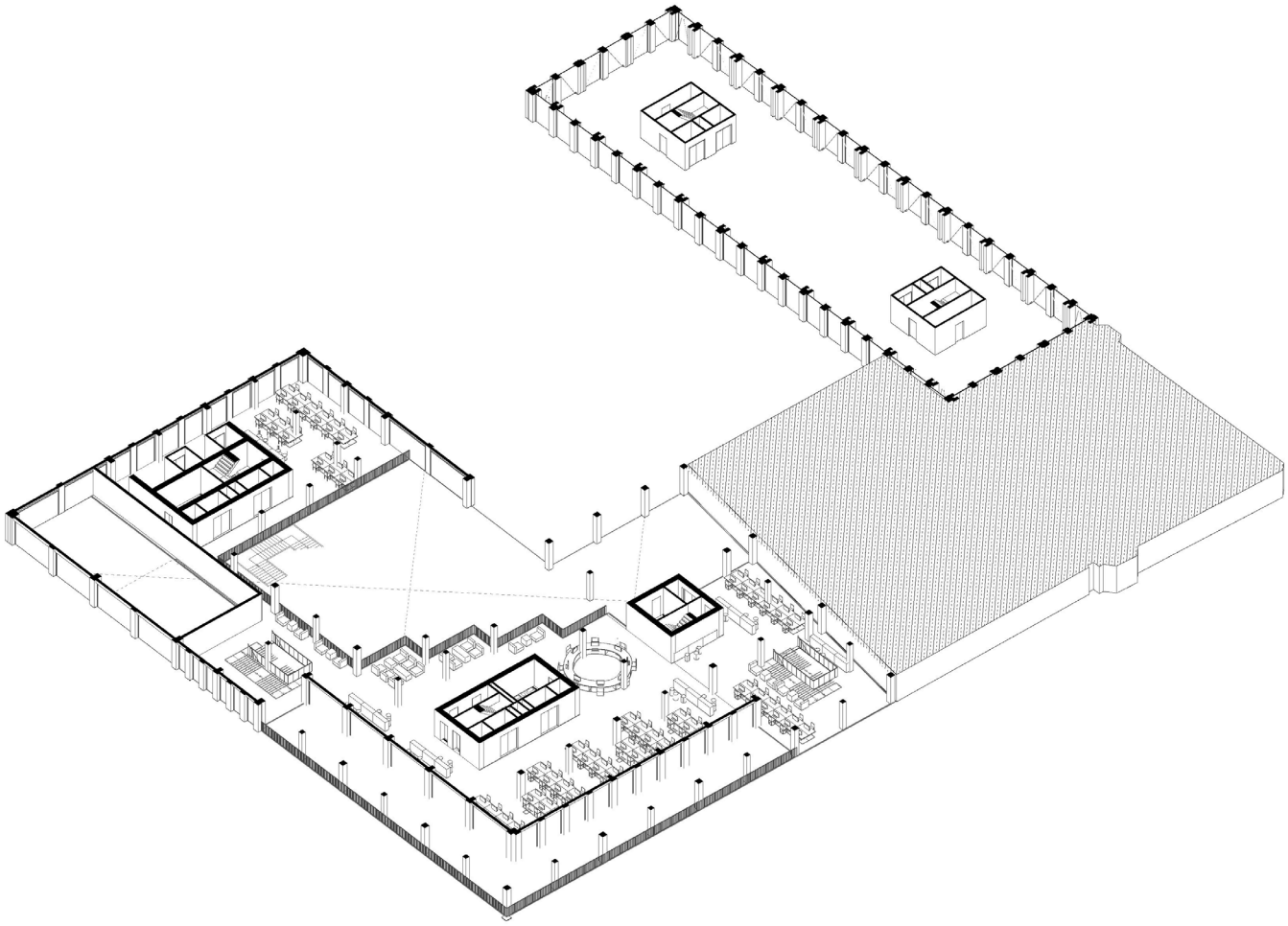
Building(s) / Ensemble





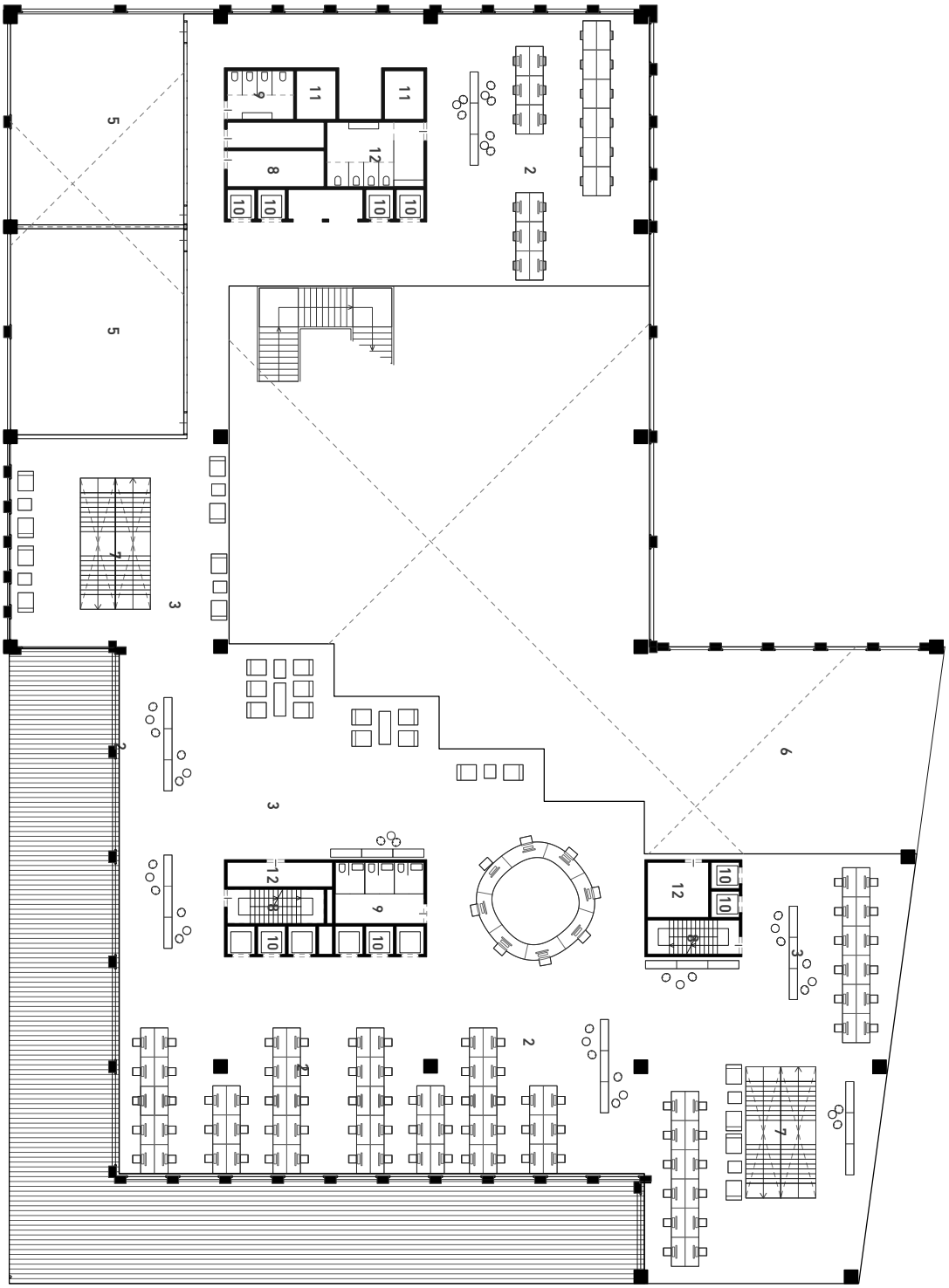
Axonometric

Building(s) / Ensemble



Floor Plans - F5

Building(s) / Ensemble



Interior Impressions - Main Hall

Building(s) / Ensemble

The great hall, seen from the cafe

The great hall, looking towards the workshop

Looking towards the atrium, seen from the great hall

Interior Impressions - Play & Lean

Building(s) / Ensemble

Education for the yougest, supervised learning and day-care centre

Interior Impressions - Atrium & Play & Lean

Building(s) / Ensemble

The atrium, looking towards the cay-care centre

Interior Impressions -Library & Media Centre

Building(s) / Ensemble

Library and media centre, access to (digital) content and reading / study spaces

Interior Impressions -Library & Media Centre

Building(s) / Ensemble

Library and media centre, looking towards to courtyard

Interior Impressions -A Lecture Hall

Building(s) / Ensemble

The lecture hall

Interior Impressions - The Passage

Building(s) / Ensemble

The passage, exhibition space for young taletns

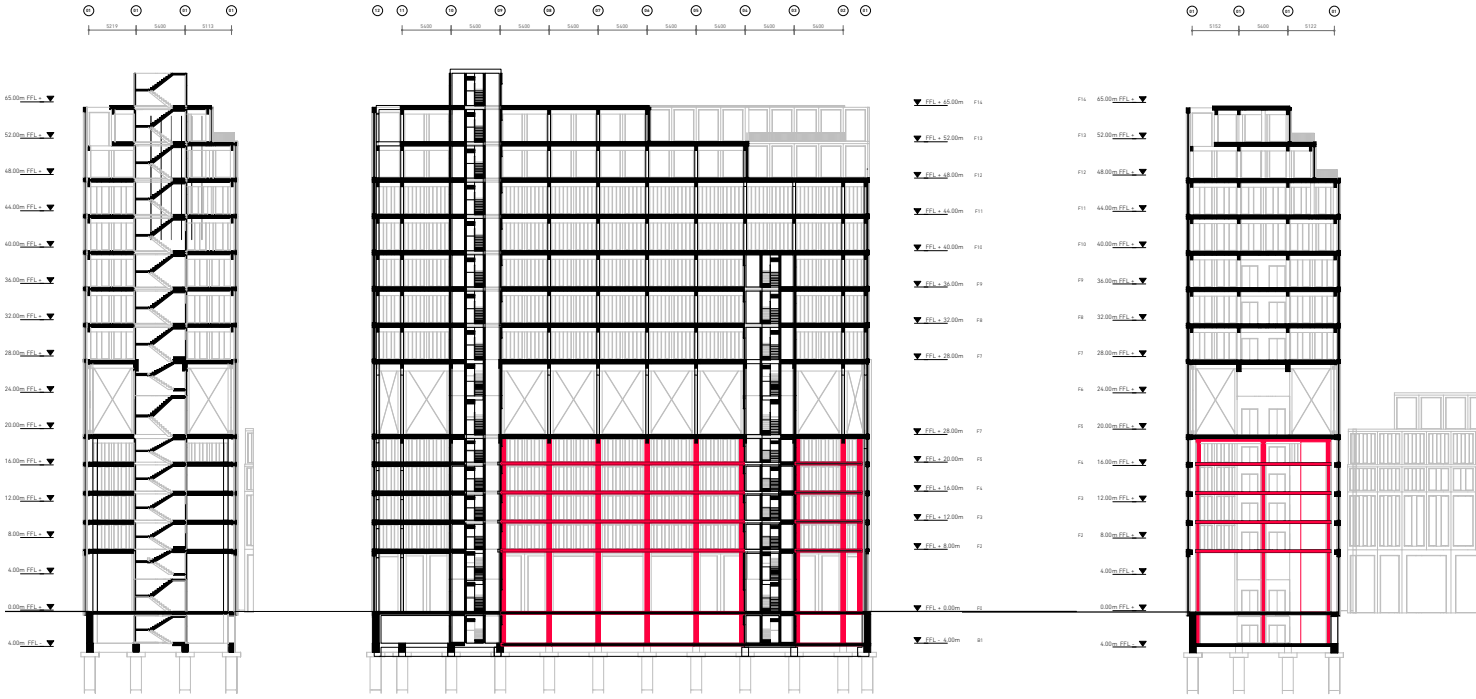
Interior Impressions - The Multi-Functional Event Hall

Building(s) / Ensemble

The multi-functional event hall,

Building Sections

Building(s) / Ensemble



Transverse section - A2.2-A2.2'

Longitudinal section - B2.1-B2.1'

Transverse section - A2.1-A2.1'

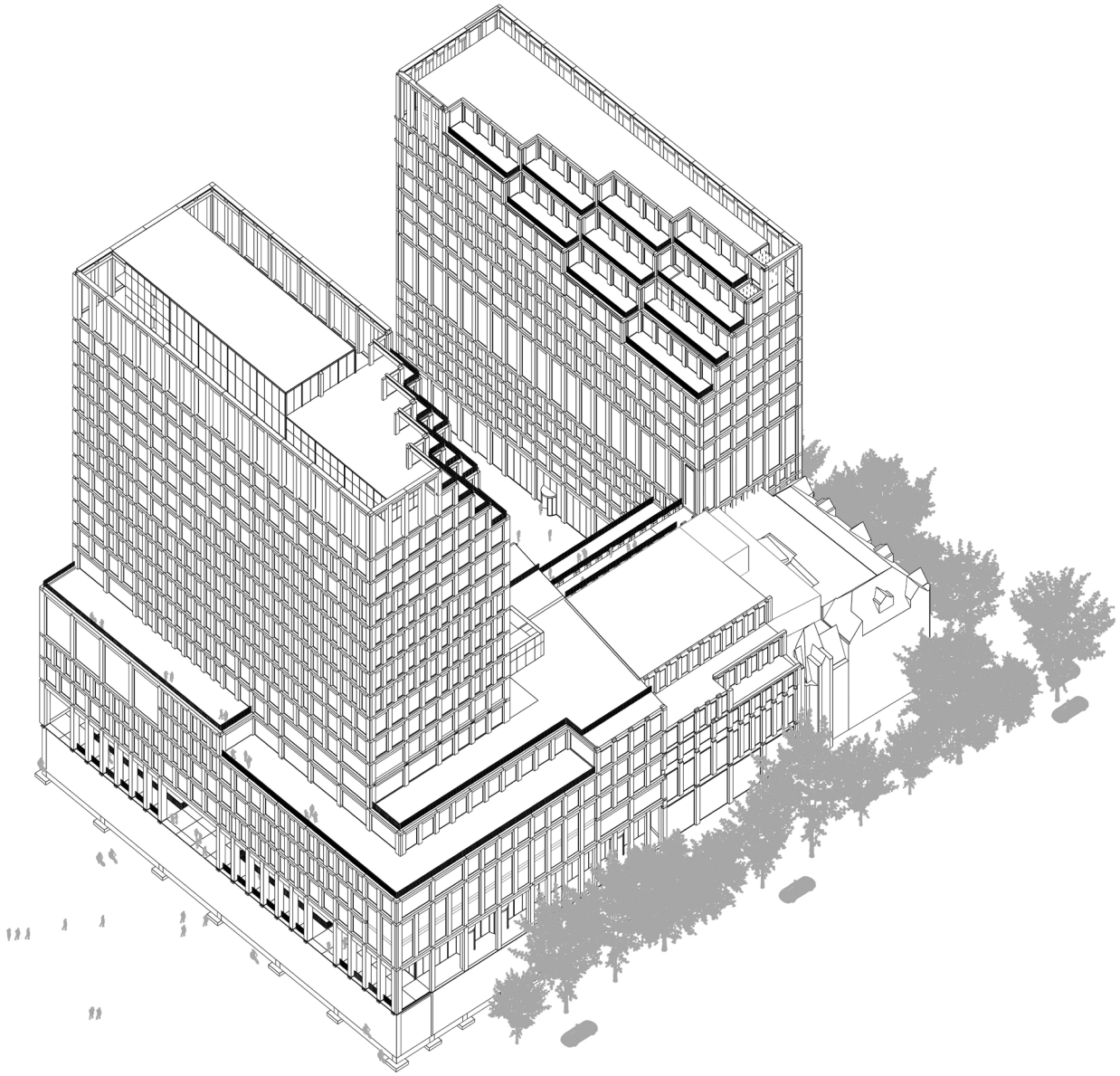
Transverse section - A1.1-

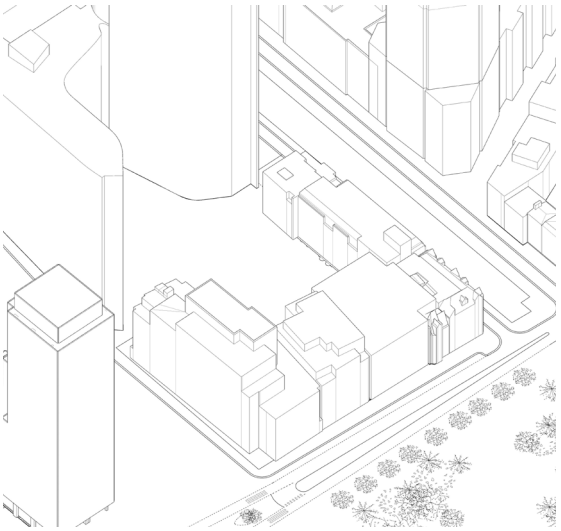
A1.1'

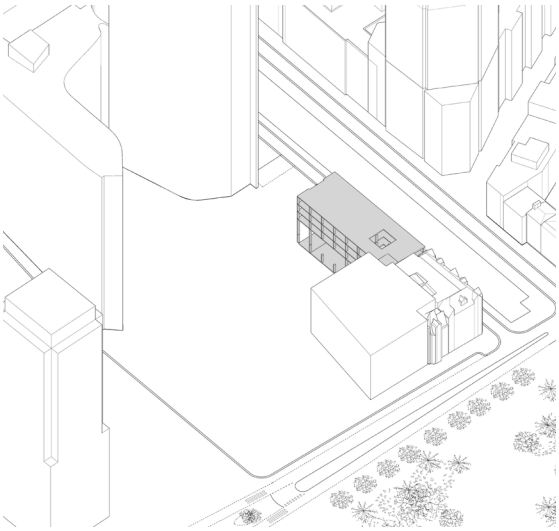
Longitudinal section - B1.1-B1.1'

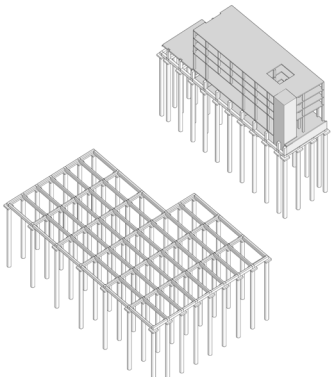
Building Sections

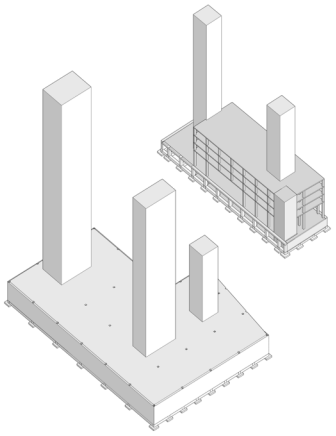
Building(s) / Ensemble

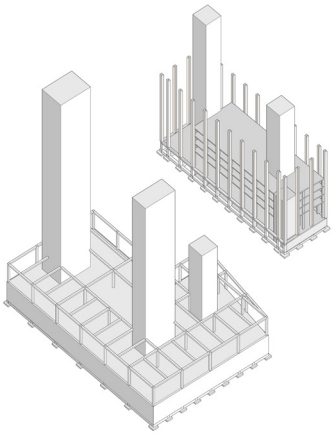


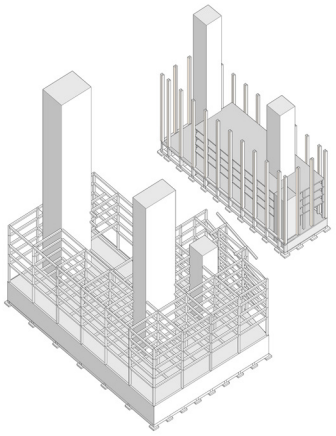






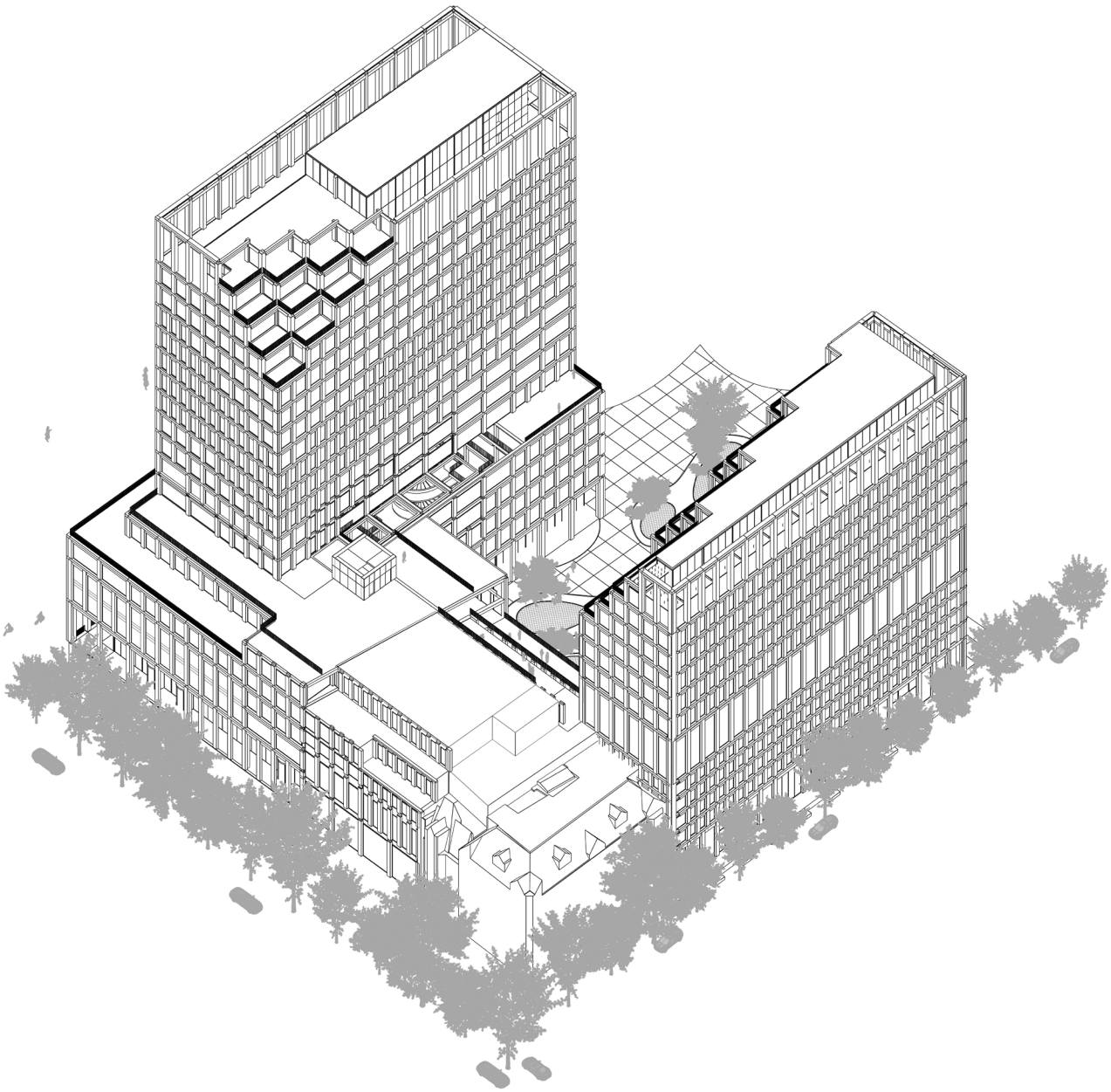


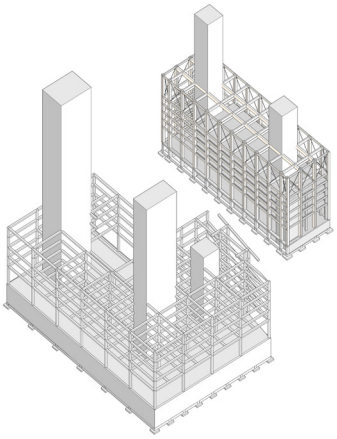


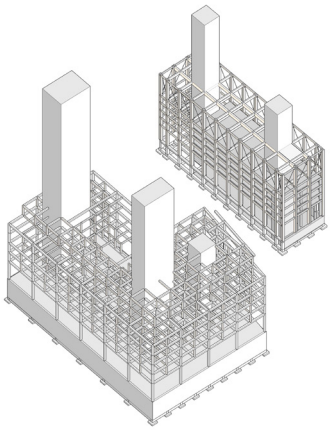


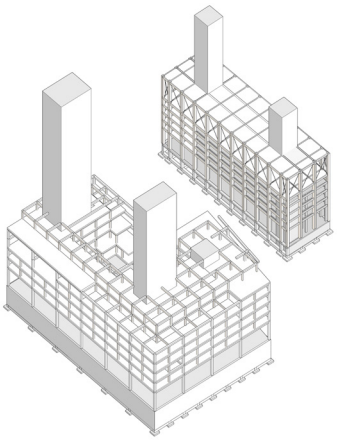
Building Sections

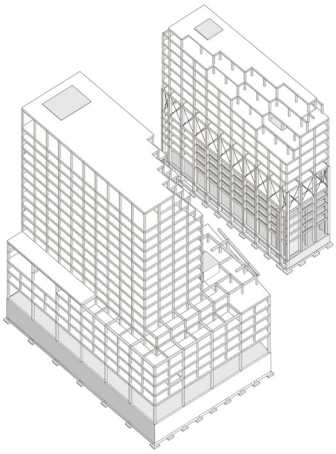
Building(s) / Ensemble

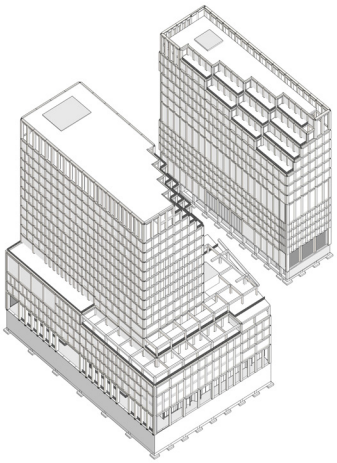


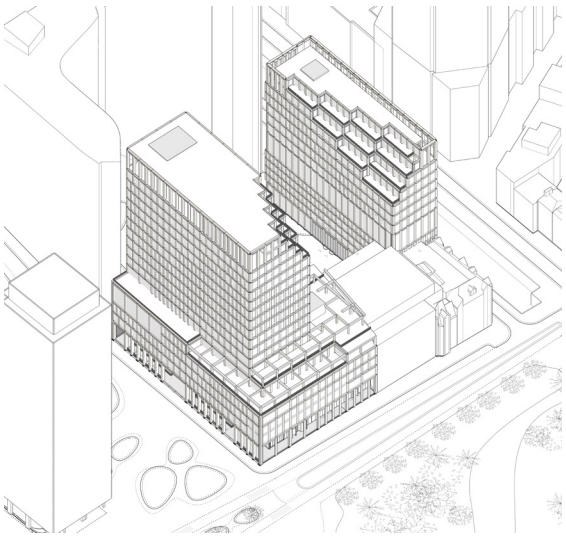






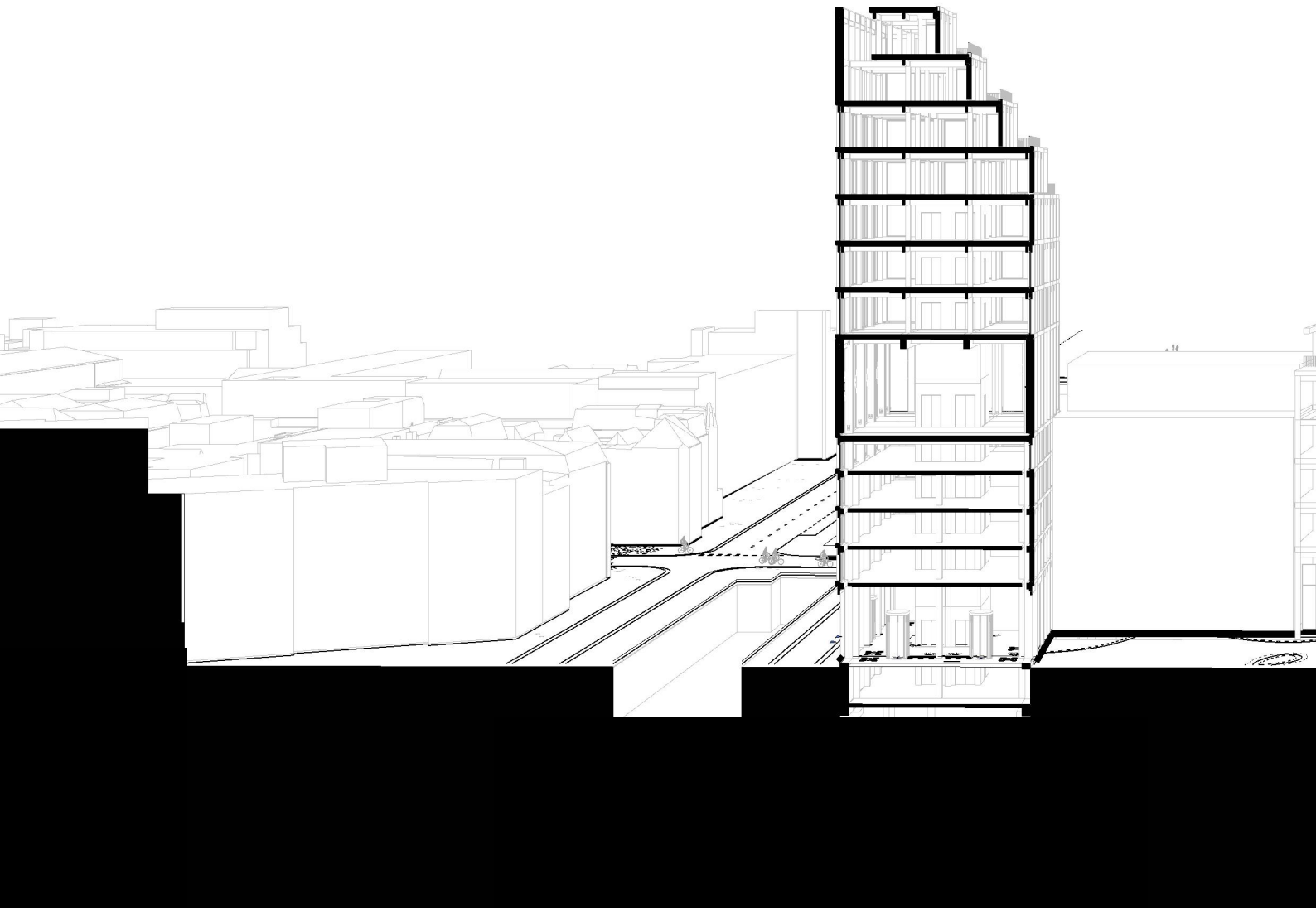






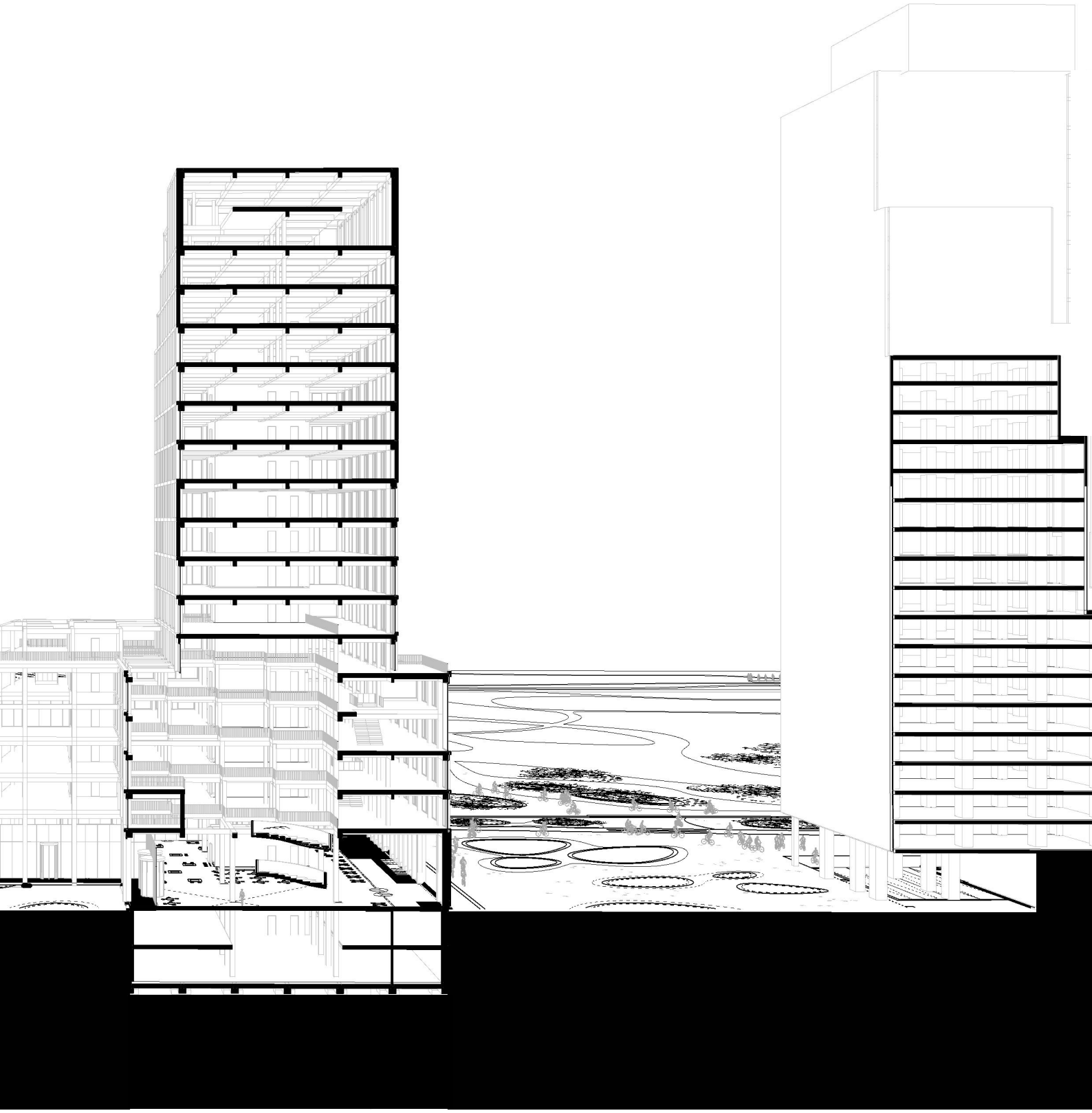
Building Sections

Building(s) / Ensemble



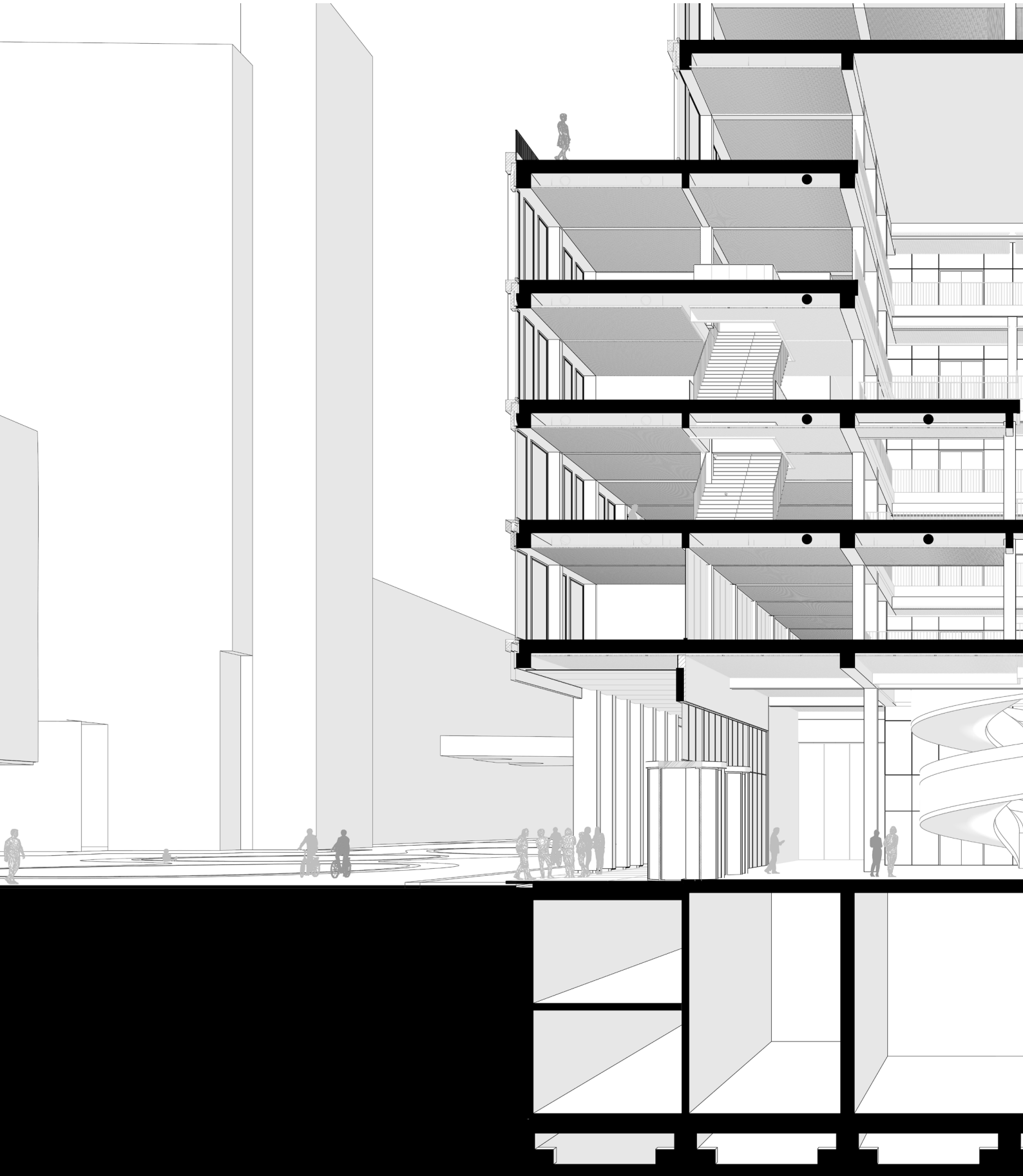
Building Section

Building(s) / Ensemble



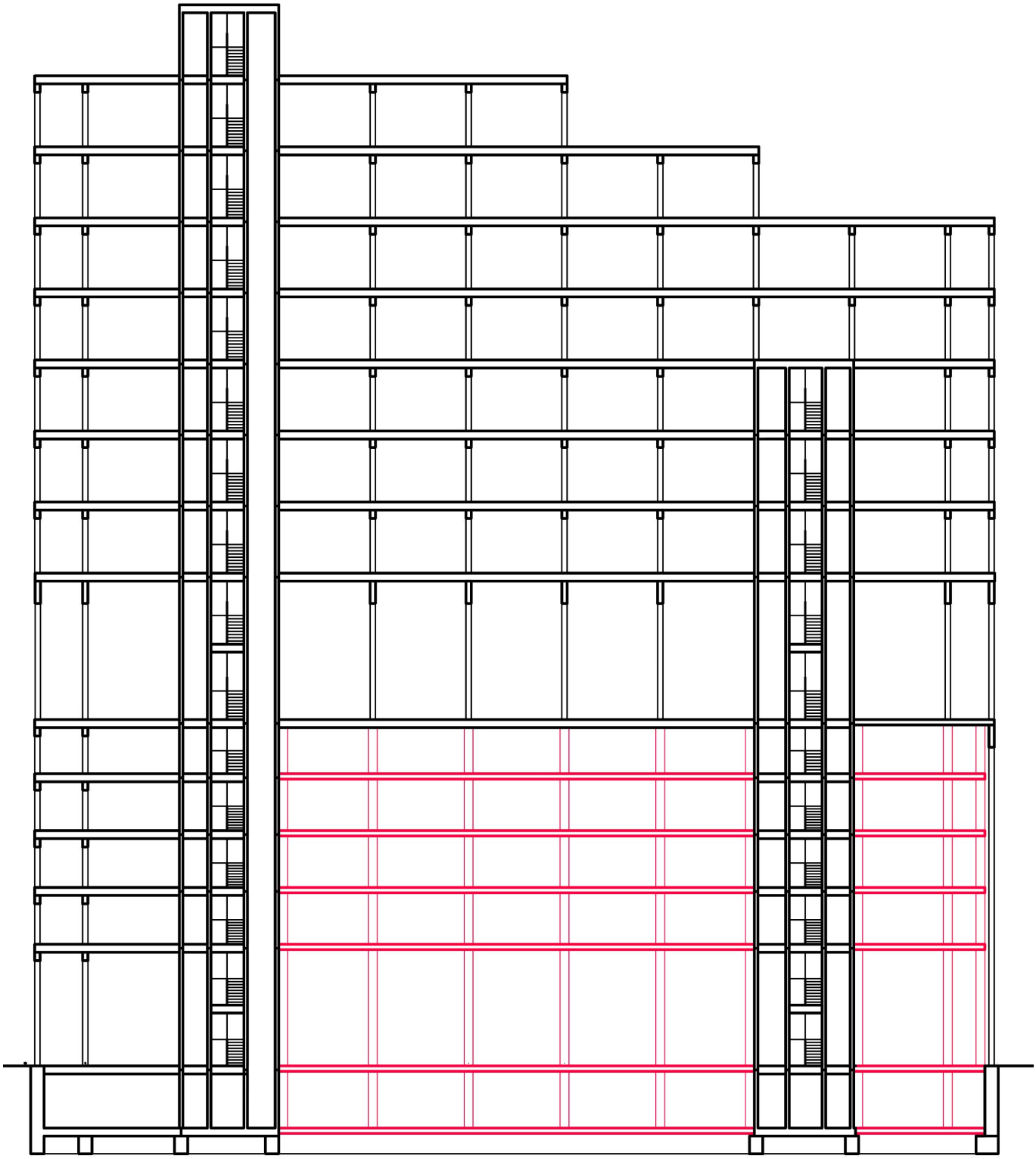
Building Sections

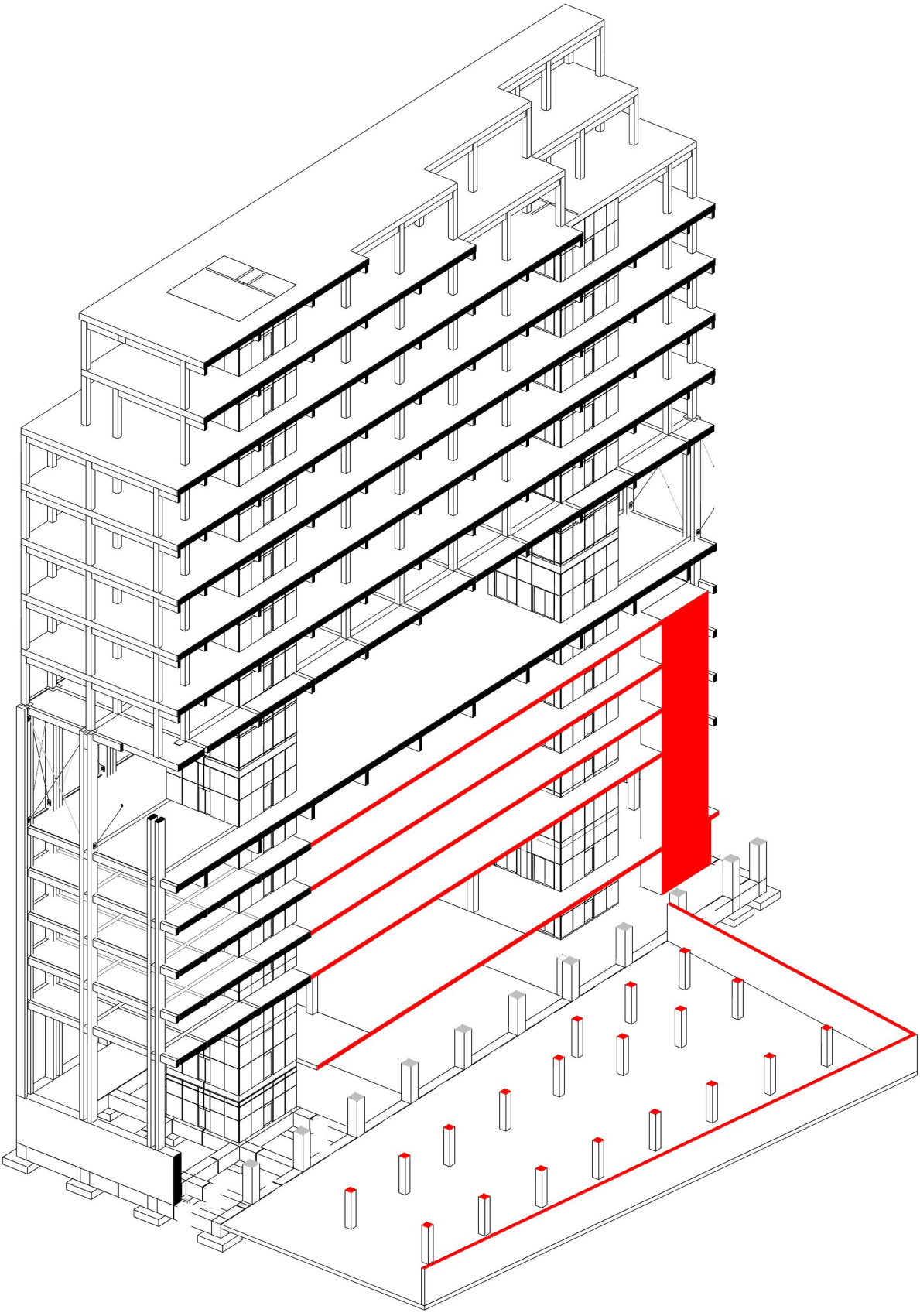
Building(s) / Ensemble

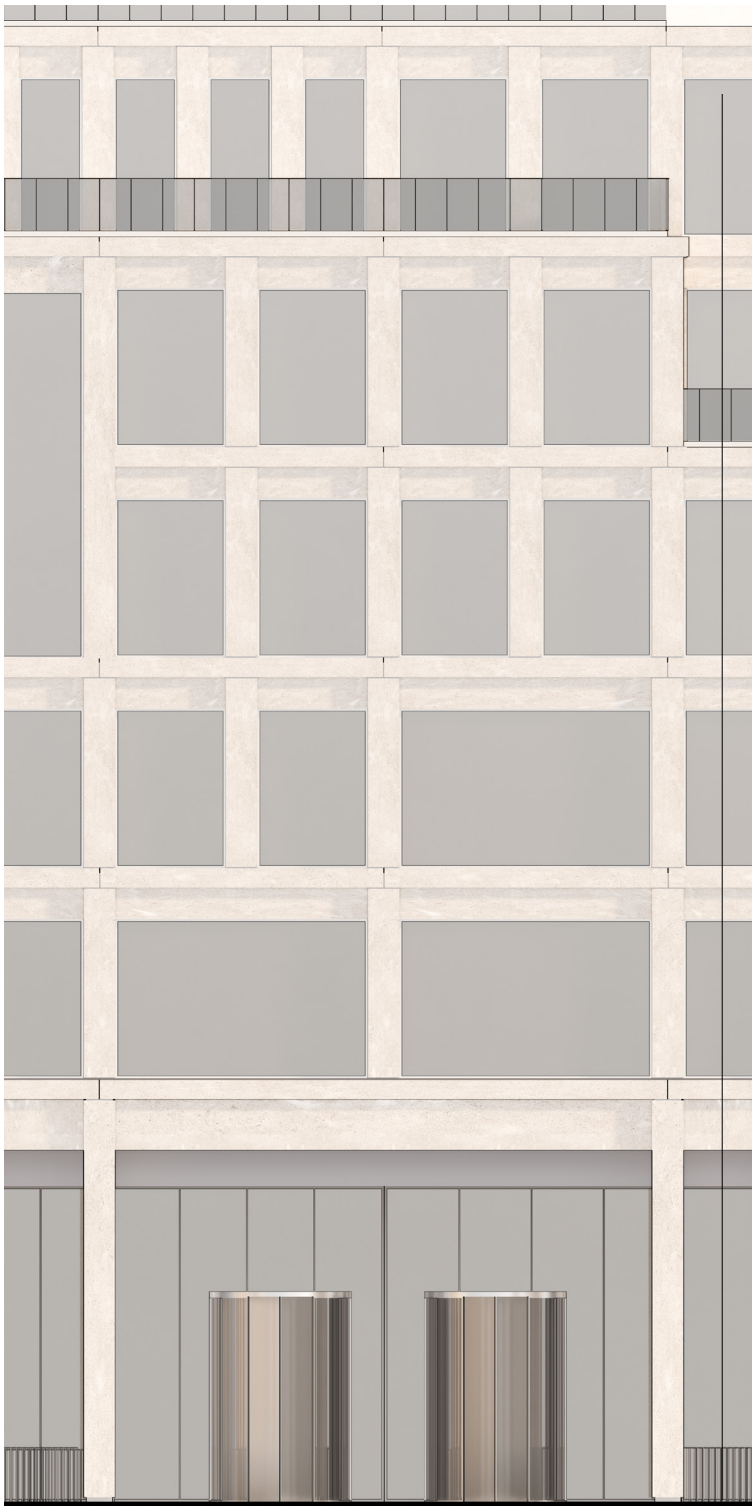


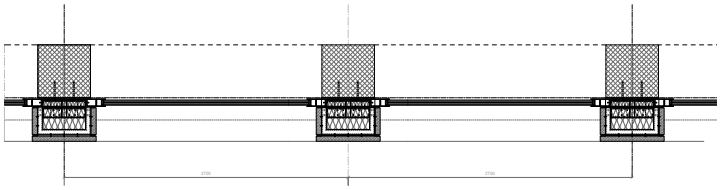
Building Sections

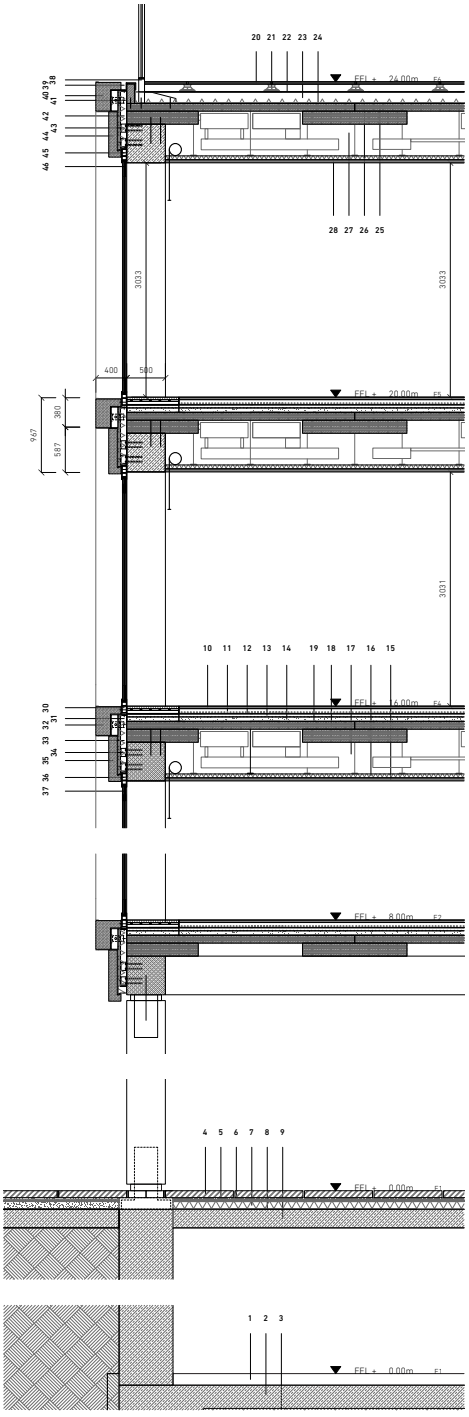
Building(s) / Ensemble











NORTH-EAST FACADE FRAGMENT 1:20

Sub Structure Slab
1. Natural stone pavel, shell limestone t=90mm
2. Paving Support pads with permeable top panel layer
3. PE Foil

Exterior Ground Floor
4. Natural stone pvver, shell limestone t=90 mm
5. Pea gravel
6. Combined building protection and drainage mat
7. Two-ply polymer bitumen membrane
8. Foam glass insulation
9. 240mm Prefab. Reinf. Concrete Slab

Storey Slab (Timber)
10. Finishing layer differing per space; limestone, polished concrete, white epoxy, parquet
11. Screed with underfloor heating / cooling
12. PE Foil
13. Mineral Wool

Terracing Slab
20. 30mm Shell-Limestone Slab
21. Paving support pads with top panel
22. PE Foil
23. Mineral wool to fall
24. Two-Ply polymer bitumen membrane
25. 3-Ply Cross Laminated Timber, C24
26. 5-Ply Cross, Laminated Timber, C24
27. Installtion Cavity
28. Sound Insulation 50mm
29. Silver Fir Battens 30/40 mm

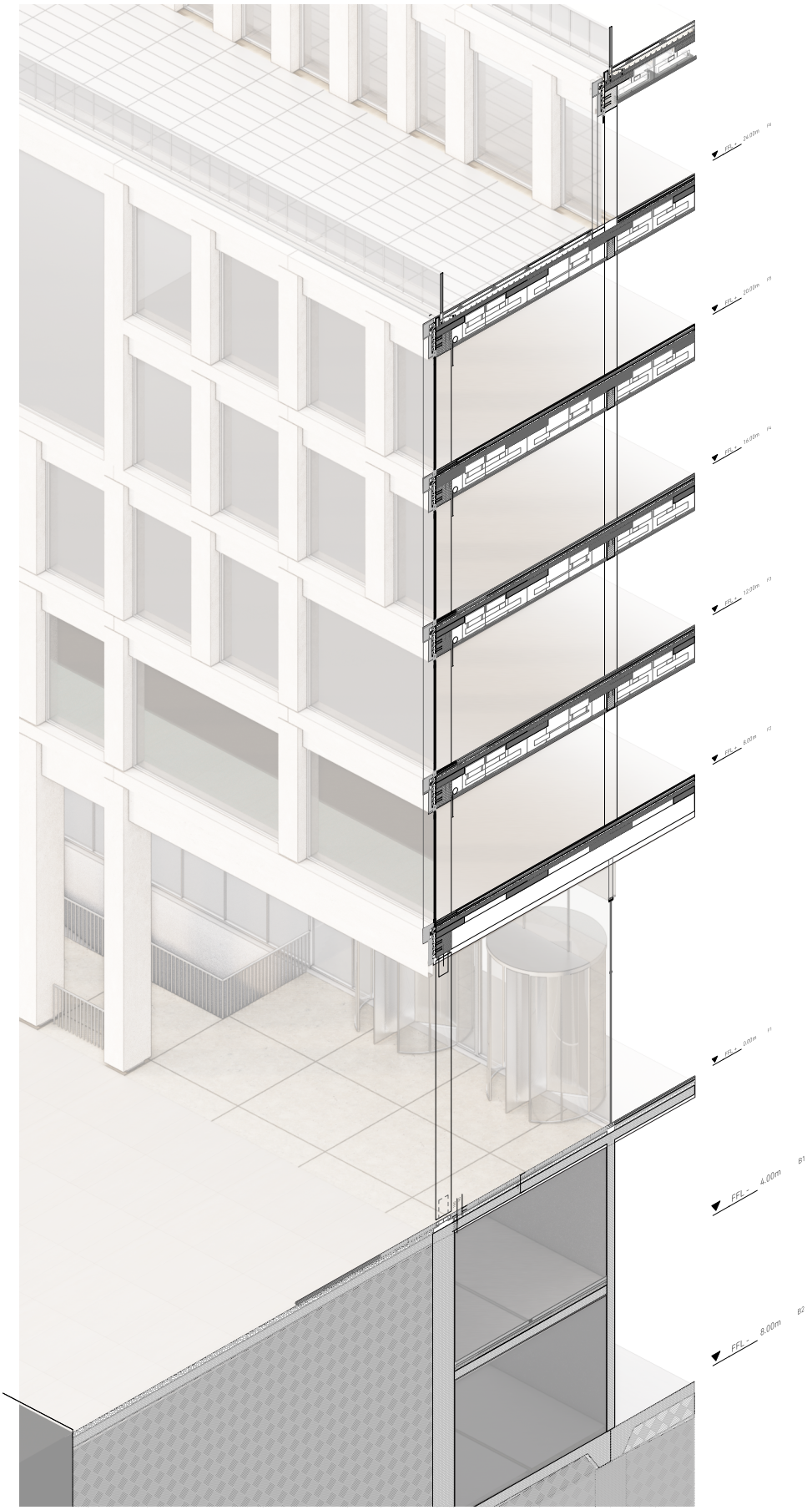
Storey Slab (Timber)
14. Bonded Chipping infill 60mm, Elastomer-bitumen emergency sealing
15. Ceiling lining: Silver Fir Batterns 30/40mm
16. Sound Insulation 50mm
17. Instation Cavity
18. 5-Ply Cross Laminated Timber, C24
19. 3-Ply Cross Laminated Timber, C24

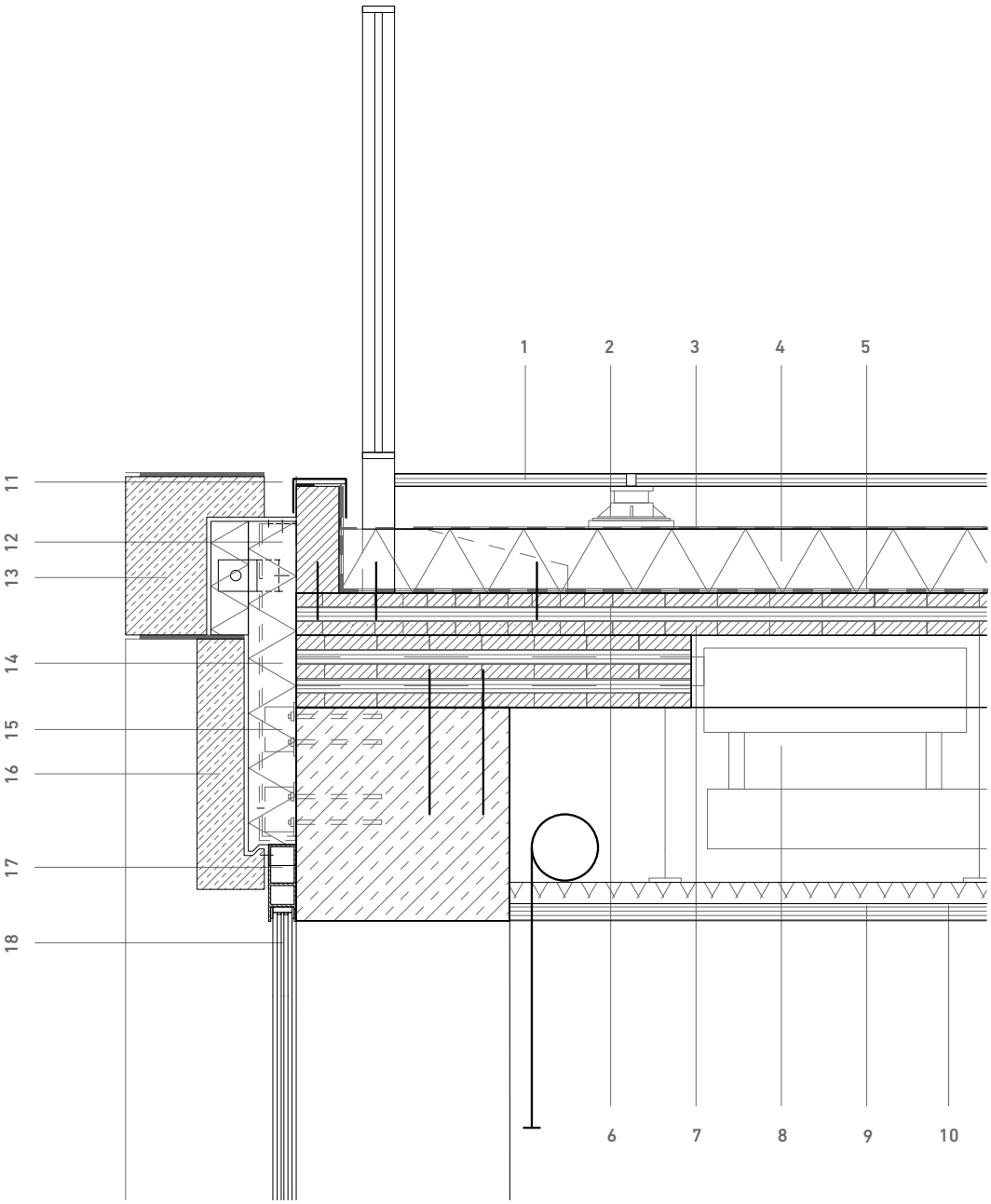
Envelope
30. 90mm aluminium framing
31. Mineral wool 100mm
32. hell limestone sill panel
33. Mineral wool 100mm
34. Insulated steel joint profile
35. Shell limestone sill panel
36. 90mm aluminium framing
37. 3-layered low-e low-u glass

Envelope Outdoor Terrace
38. 90mm aluminium framing
39. Rainwater gutter
40. Shell limestone sill panel
41. Insulated steel joint profile
42. Mineral wool 100mm
43. Insulated steel joint profile
44. Shell limestone sill panel
45. 90mm aluminium framing
46. 3-layered low-e low-u glasst

Technical detailling - facade outdoor terrace slab - 1:10

Building(s) Parts





Envelope Outdoor Terrace

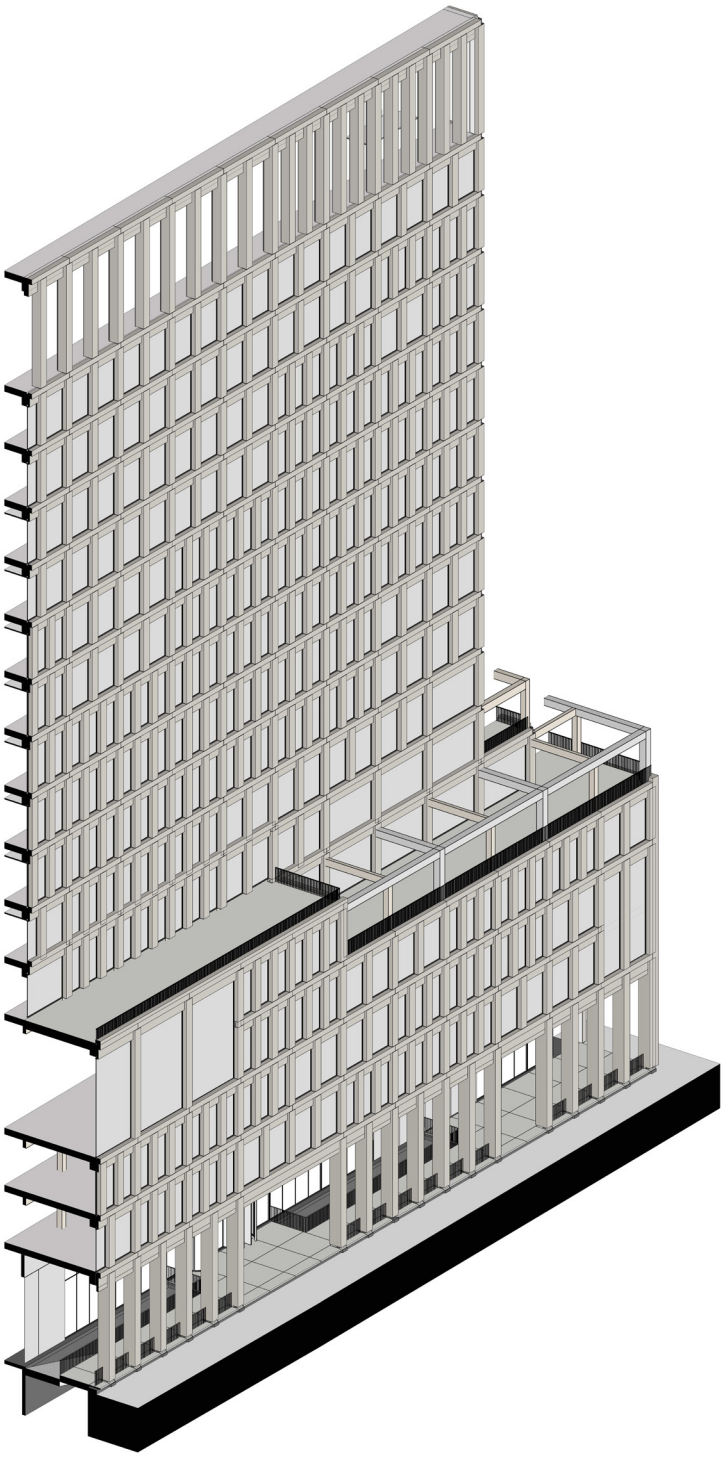
11. 90mm aluminium framing
12. Rainwater gutter
13. Shell limestone sill panel
14. Insulated steel joint profile
15. Mineral wool 100mm
16. Insulated steel joint profile
17. Shell limestone sill panel
18. 90mm aluminium framing
19. 3-layered low-e low-u glasst

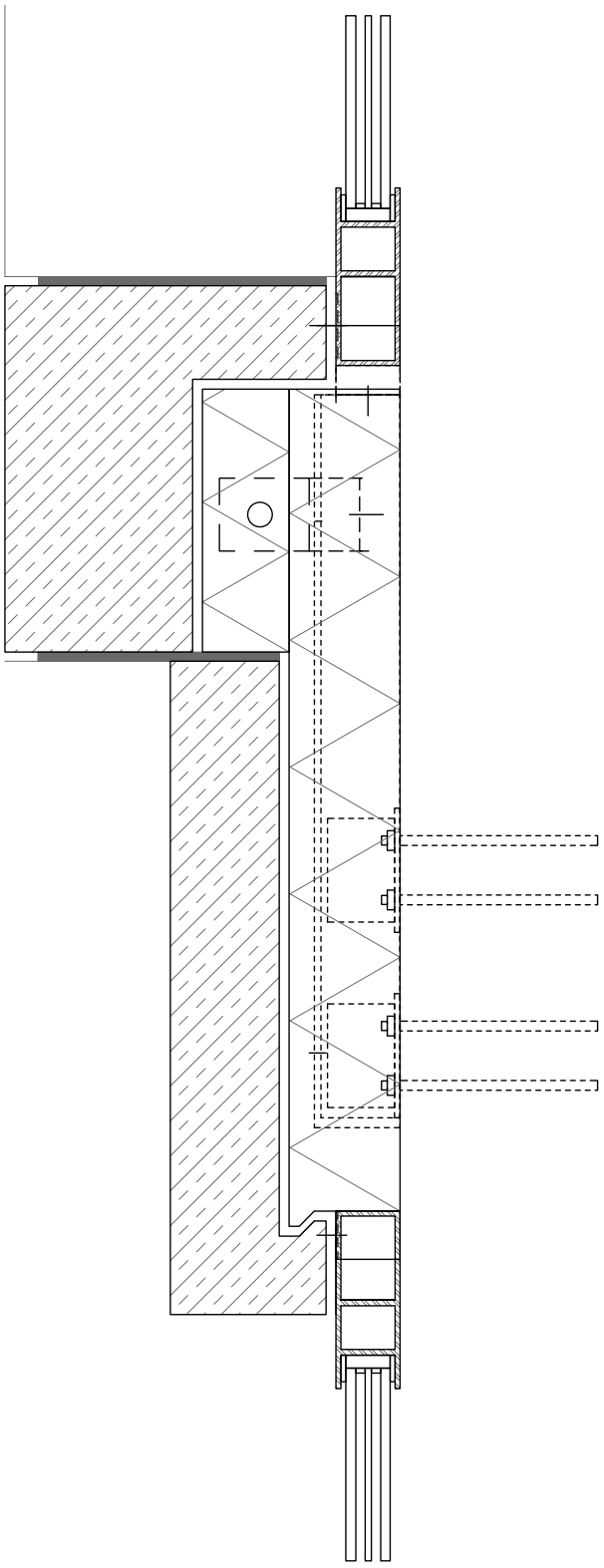
Terracing Slab

1. 30mm Shell-Limestone Slab
2. Paving support pads with top panel
3. PE Foil
4. Mineral wool to fall
5. Two-Ply polymer bitumen membrane
6. 3-Ply Cross Laminated Timber, C24
7. 5-Ply Cross, Laminated Timber, C24
8. Instalaltion Cavity
9. Sound Insulation 50mm
10. Silver Fir Battens 30/40 mm

Technical detailling - Fragment

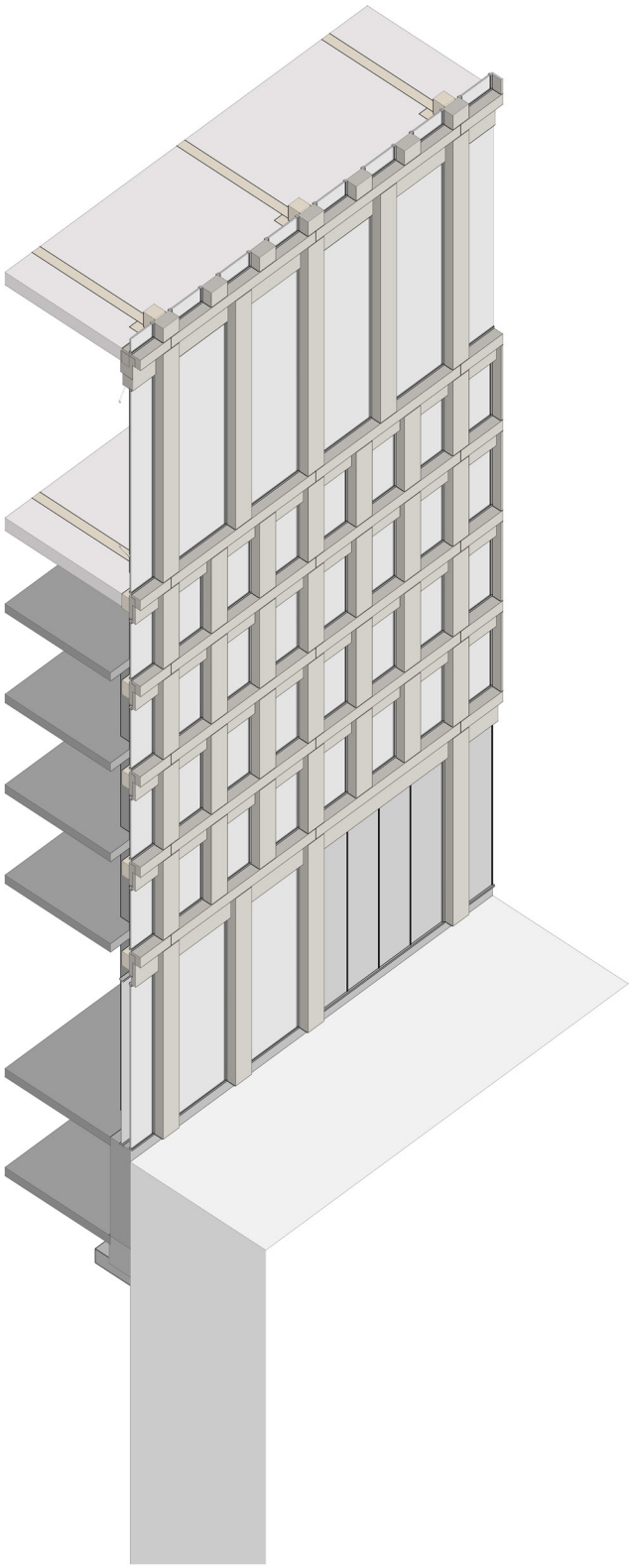
Building(s) Parts

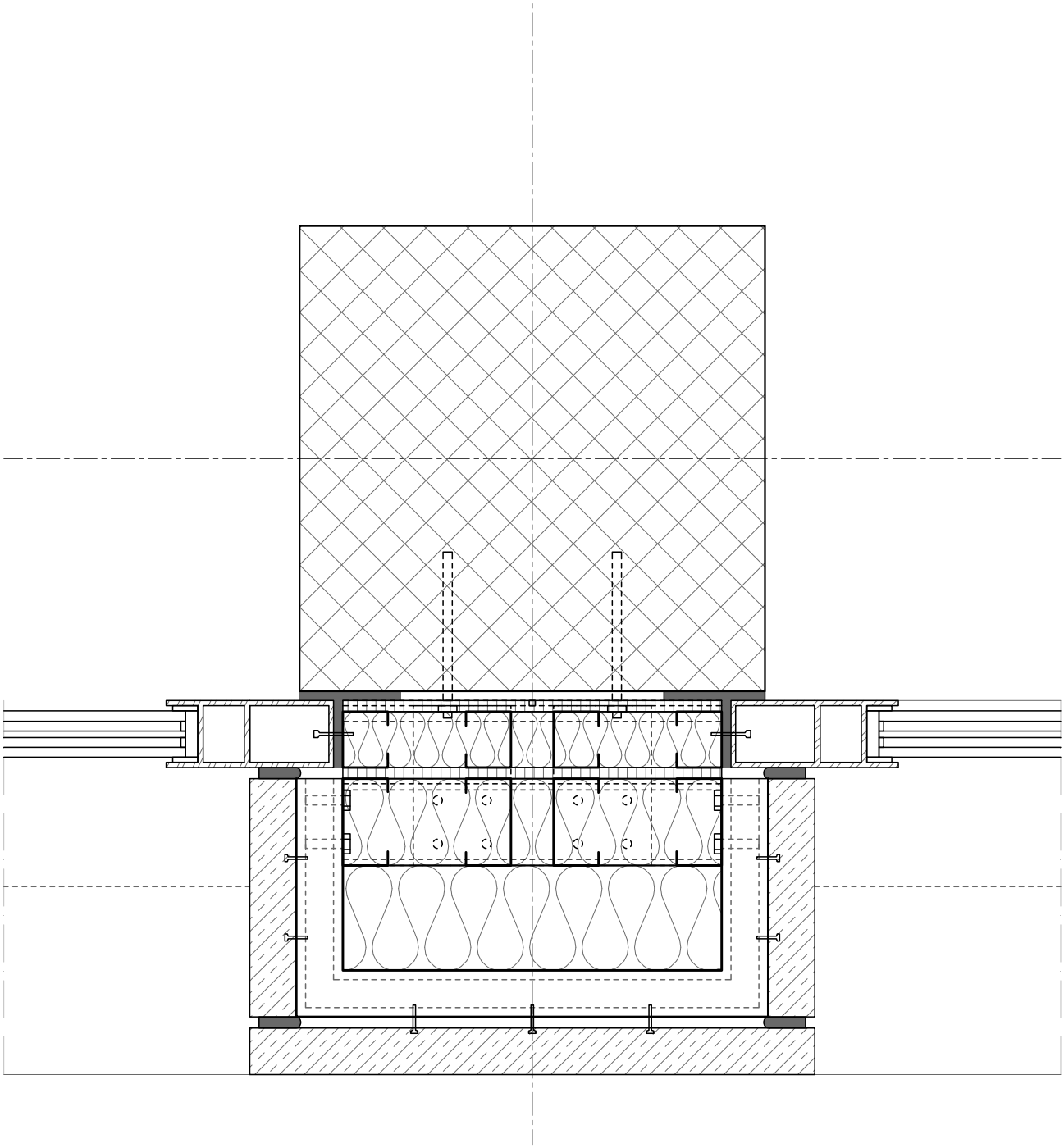




Technical detailling - Fragment

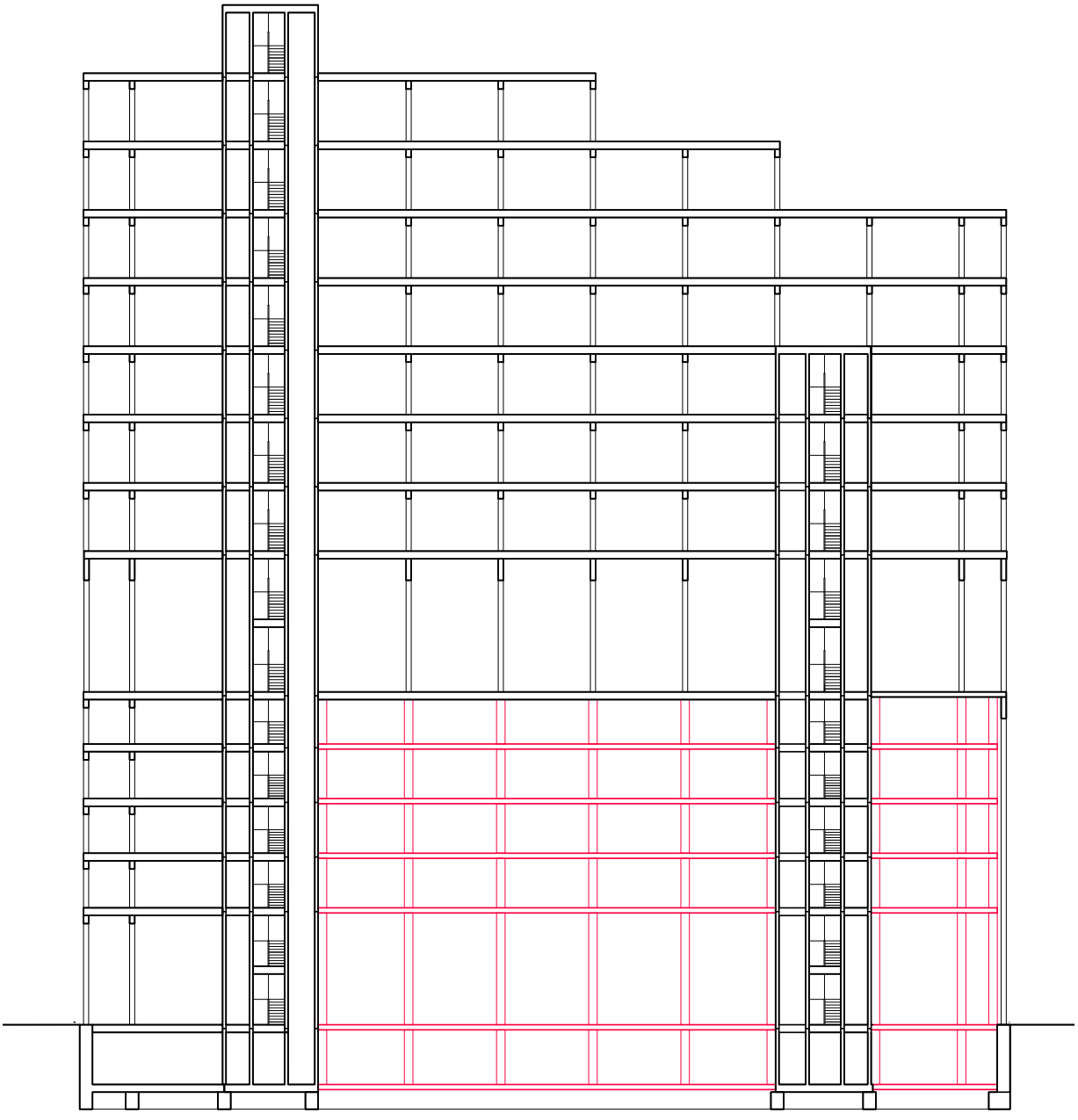
Building(s) Parts

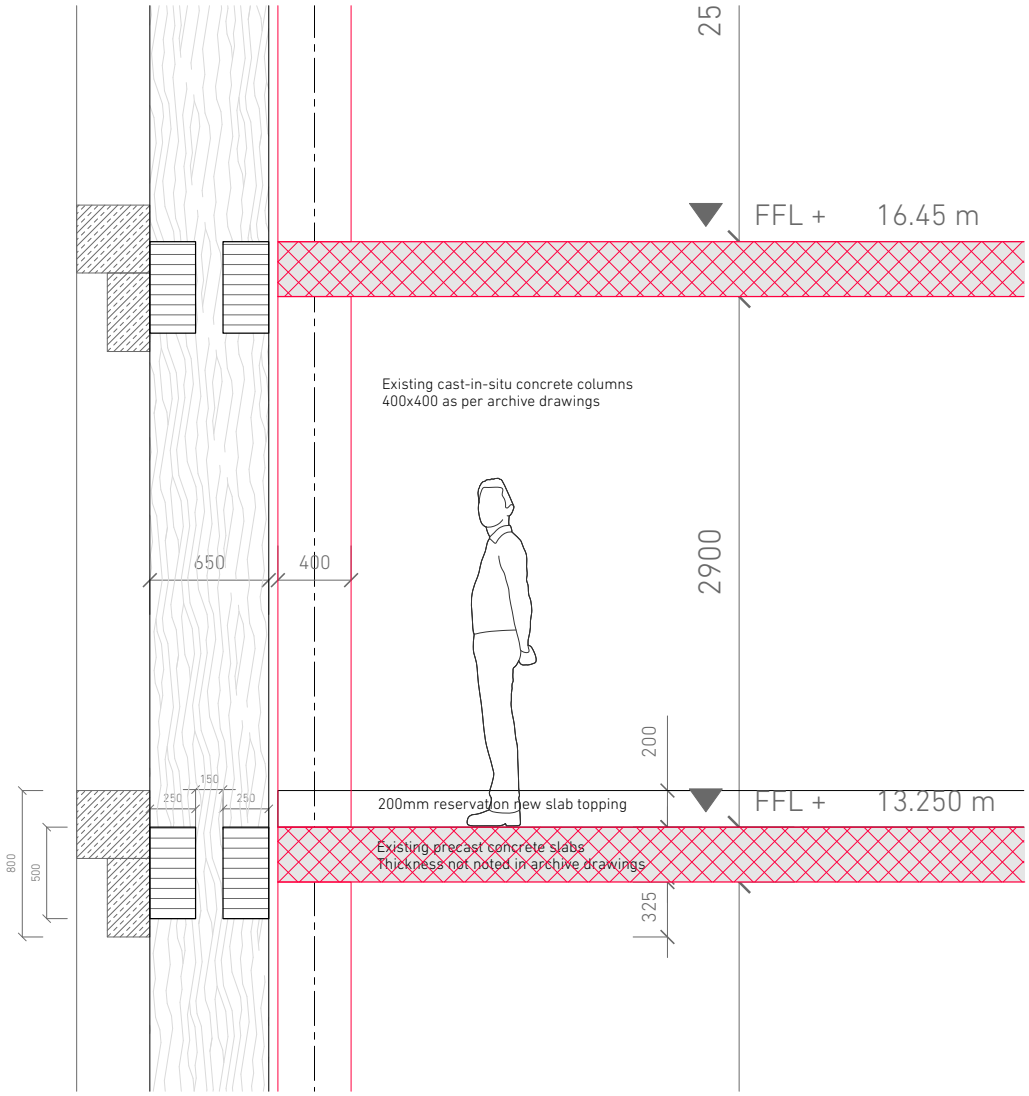


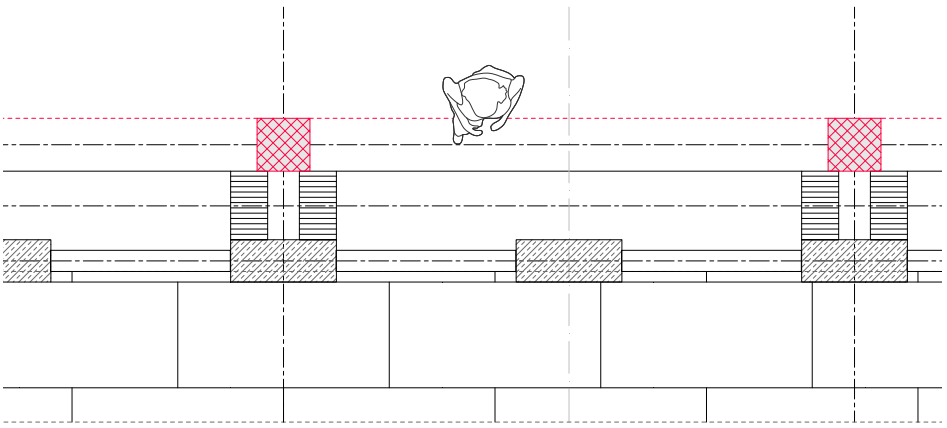


Technical detailling - Old-New

Building(s) Parts

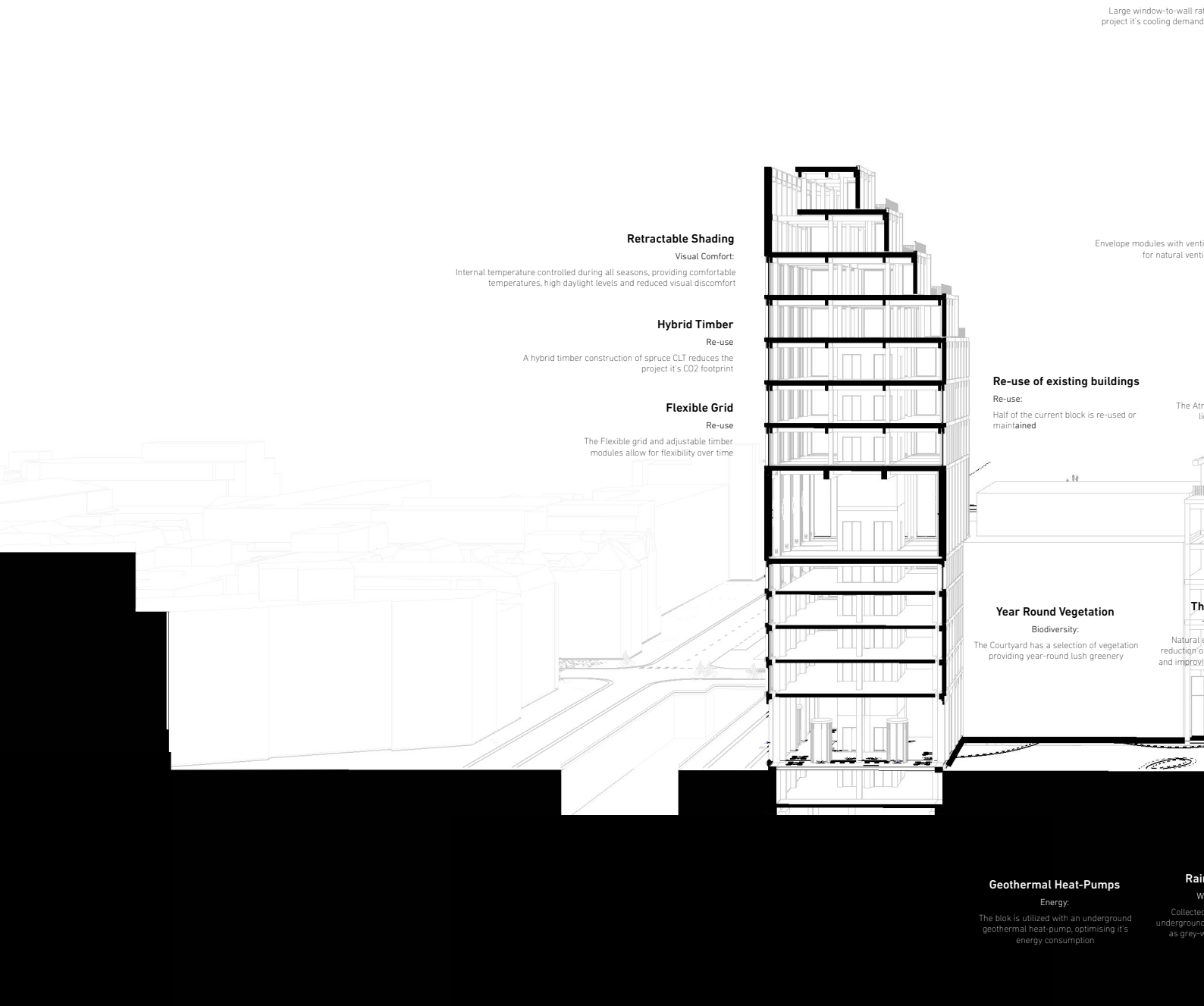


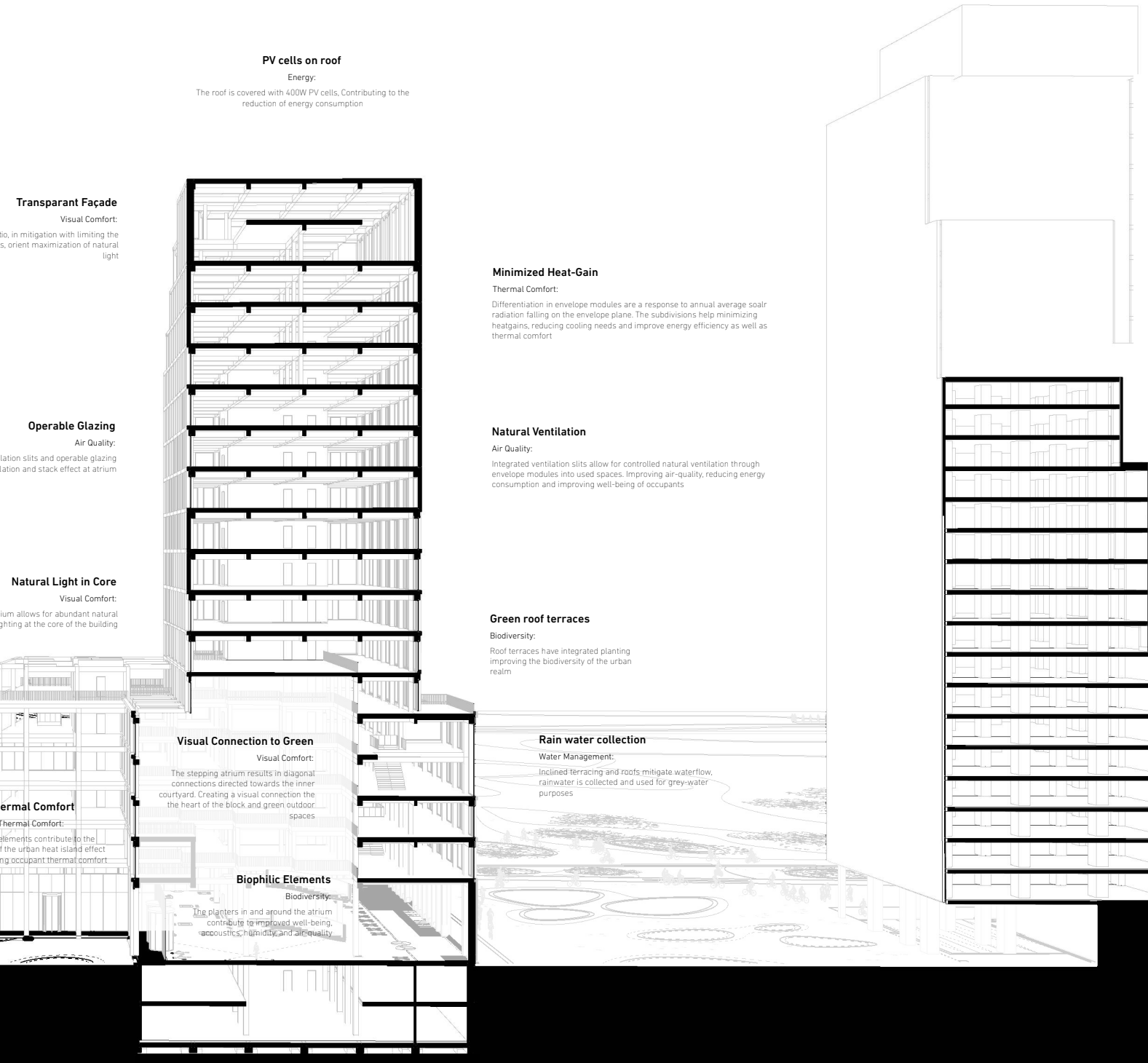

25
FFL + 16.45 m
Existing cast-in-situ concrete columns
400x400 as per archive drawings
650
400
2900
200
150
250
250
800
500
200mm reservation new slab topping
FFL + 13.250 m
Existing precast concrete slabs
Thickness not noted in archive drawings
325



Technical Building Design - Climate Concept

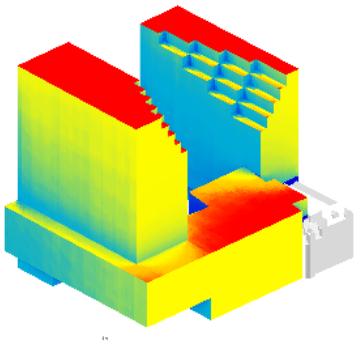
Building(s) Parts

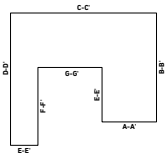


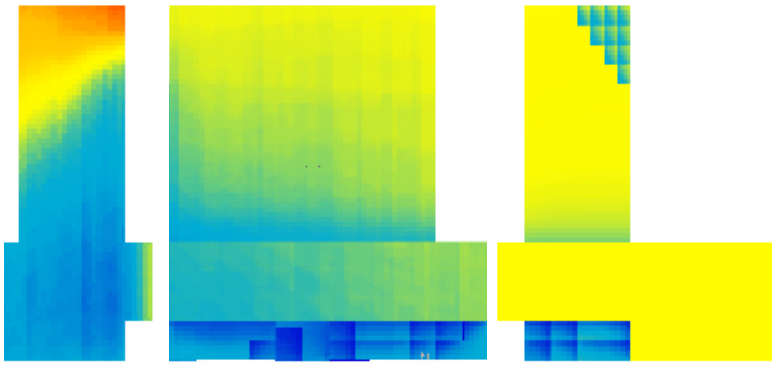

PV cells on roof
Energy:
The roof is covered with 400W PV cells, Contributing to the reduction of energy consumption
Transparant Façade
Visual Comfort:
tio, in mitigation with limiting the
s, orient maximization of natural
light
Minimized Heat-Gain
Thermal Comfort:
Differentiation in envelope modules are a response to annual average soalr radiation falling on the envelope plane. The subdivisions help minimizing heatgains, reducing cooling needs and improve energy efficiency as well as thermal comfort
Operable Glazing
Air Quality:
lation slits and operable glazing
lation and stack effect at atrium
Natural Ventilation
Air Quality:
Integrated ventilation slits allow for controlled natural ventilation through envelope modules into used spaces. Improving air-quality, reducing energy consumption and improving well-being of occupants
Natural Light in Core
Visual Comfort:
ium allows for abundant natural
ghting at the core of the building
Green roof terraces
Biodiversity:
Roof terraces have integrated planting improving the biodiversity of the urban realm
Visual Connection to Green
Visual Comfort:
The stepping atrium results in diagonal connections directed towards the inner courtyard. Creating a visual connection the the heart of the block and green outdoor spaces
Rain water collection
Water Management:
Inclined terracing and roofs mitigate waterflow, rainwater is collected and used for grey-water purposes
ermal Comfort
Thermal Comfort:
lements contribute to the
f the urban heat island effect
ng occupant thermal comfort
Biophilic Elements
Biodiversity:
The planters in and around the atrium contribute to improved well-being, accoustics, humidity and air-quality
n water storage
ater Management:
d rainwater is stored in an
watertank, rainwater is seen
water and used for specific
facilities

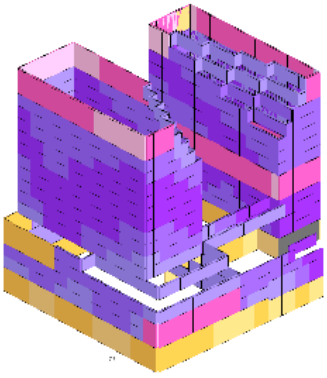
Envelope Design - Solar Radiation, Rationalisation, Module Distribution

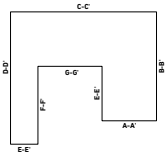
Building(s) Parts

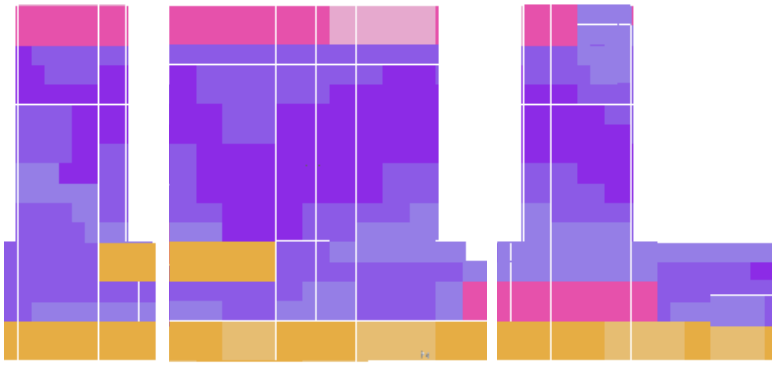


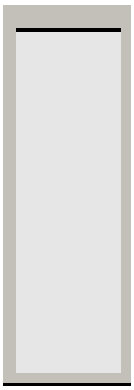


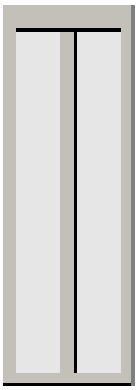


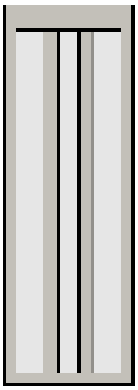


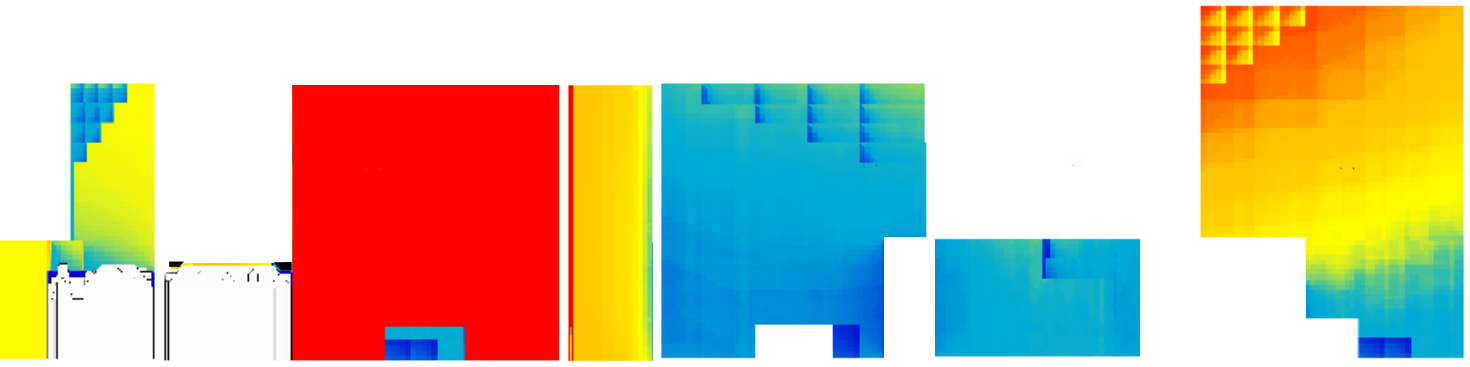


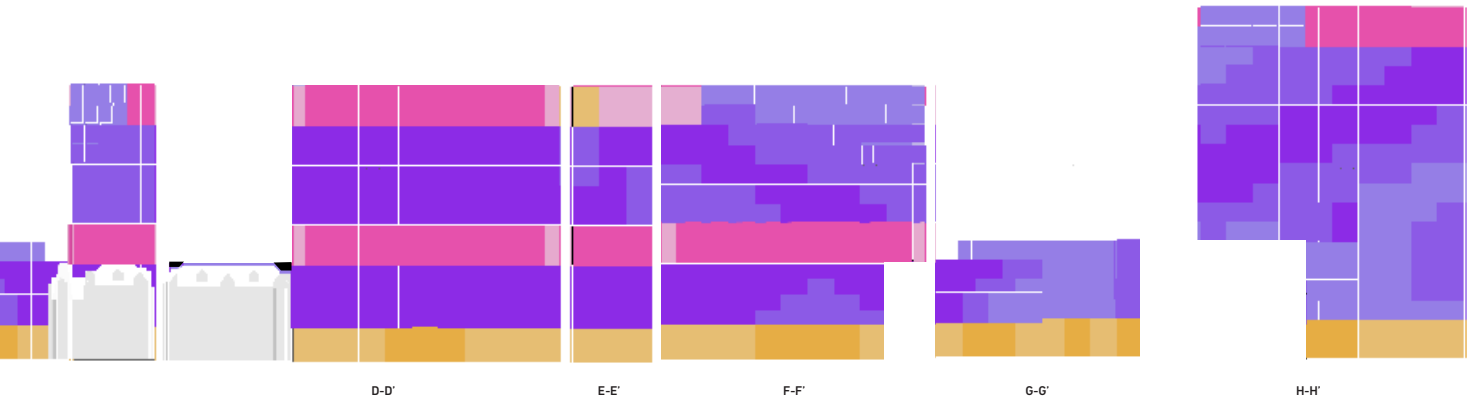


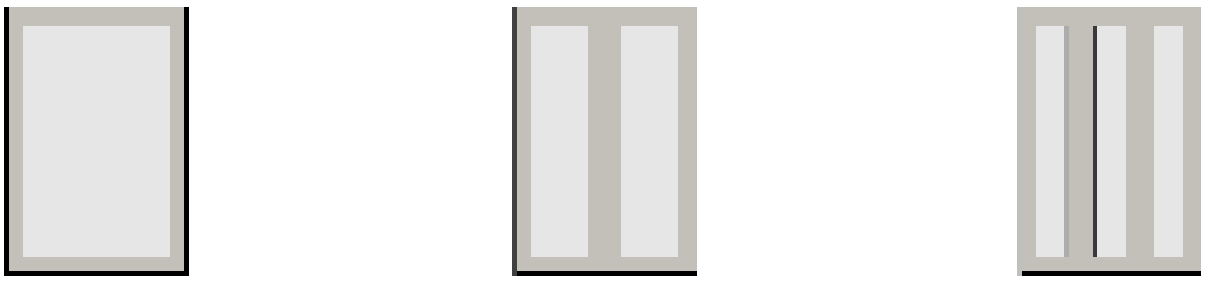






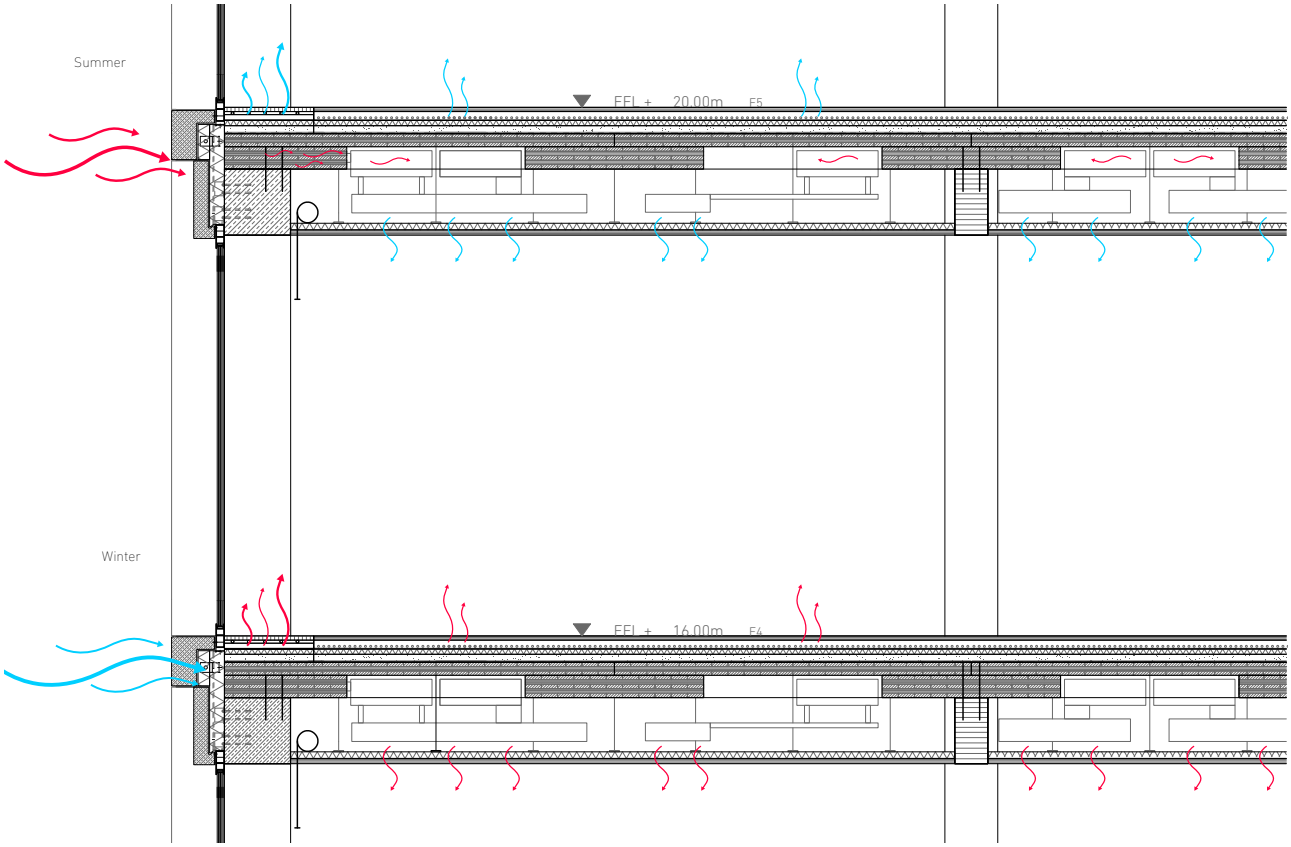

D-D'
E-E'
F-F'
G-G'
H-H'


D-D'
E-E'
F-F'
G-G'
H-H'



Technical detailling - Climactic Diagram

Building(s) Parts


Summer
FFL + 20.00m F5
Winter
FFL + 16.00m F4

P4 - Reflection

The Framework for Education

Unification, Revitalisation, A Framework, The Educational Centre & Embodiment of Experimental Nature and Process - For The Public

Public Building Graduation Studio 2023-24
Bart Ramakers 5506948

INTRODUCTION

What is your project?

A large increase of enrolled students, reduction in public involvement and funding, dated building stock and limited integration corresponding cities are pressing challenges Dutch universities are facing. Furthermore, are the characteristic of students and their corresponding ways of working evolving. All whilst the educational institutes in our growing knowledge-based society are transcending their traditional objectives. New solutions need to be sought for these challenges

Research-based approach and extensive literature studies have lead to the final project as:

"The Framework for Education"

Unification, Revitalisation, A Framework, The Educational Centre & Embodiment of Experimental Nature and Process - For The Public

The project locates itself in the administrative city of The Netherlands, The Hague. Centrally situated and being surrounded by the ministerial institutes, the central station that functions a future city gate, and the old historic centre. The project depicts a hybrid framework for education. Symbolically educational institutes are considered exemplars in addressing (trans)national societal challenges. This exemplary function is a directing incentive for the embodiment of advancements in the architectural device.

As a forward-thinking emblem within the city, the project positions itself symbolically as well as physically in expressing our societal believes in a better future, reflecting not only overarching ideologies of the City of The Hague but for a nation and transnationally: In making the world a better place

The project it's formalisation is largely a result of critical contextual and programmatic analysis. It's central positioning and proposed urban routing reinforces the connection between the project and the city. The Central Framework for Education links the future city gate – which is the extension of the central station - with multiple city-scale facilities. The Framework for Education is a unified city block of partly revitalised entities and activates under-utilised urban realm. The main entrance as forecourt enhances under-utilized urban space and exchanges the current situation, which is an impenetrable concrete fortress, with a portal towards a project that supports learning, fosters interaction, and actively promotes publicly accessible activities. Simultaneously extending the outdoor public space into the interior, enhancing the direct connection and fluid circulation throughout the project. This extension is continued through the revitalisation of the city block it's inner courtyard. The concrete car-park is exchanged with an inner garden that functions as social heart for the block, as well as new axis for the city. The project proposes an educational system for the future. With the symbolic meaning of educational institutes as exemplars, becoming future-proof considered as contributing towards solution, instead of a problems. Architecturally this is formalised in adaptability. The Hybrid Framework for Education steers towards a low-embodied environment. Realised through a structural framework of mass timber and concrete elements – columns and beams – creating the physical framework for the educational system, it's interior spaces and their adaptable capabilities.

The framework theoretically becomes the machine that facilitates a programmatic infill in a certain moment of time. Thus simultaneously providing the ability to grow and adapt to whatever an educational system might become in the future.

The hybrid framework reinforces the experimental nature of education and encourages creativity though it's unfinished appearance – being a continuous "work in progress". This aligns to the project it's contextual positioning, influenced by readings from R. Sennet that "the public realm is a continuous process".

The project it's responsiveness extends beyond context. In order to create a learning environment that is energetically efficient, as well emphasising comfort, natural light and ventilation, the envelope is directly responding to energetic needs. It's diagonal pattern going upwards simultaneously expresses achievements and seeks to inspire users that aim to grow.

The elevated plinth and first levels of the so-called urban layer offers a gradient of space types that are held together thought binding spaces. The arrangement of these binding spaces facilitates a cohesive flow, result in key sight lines and offer the level of dynamics prone to a hybrid typology that this project is.

The great hall, The Atrium, The Inner Courtyard and The passage serve as binding elements allowing a high flow of visitors inside the building, as it simultaneously presents itself new urban axes being a public continuation of the soon to be city gate.

The binding spaces are surrounded by various educational spaces, ordered by age-groups as well as it's life expectancy. These levels include a play-and-learn, library and media centre, lecture halls, workshop spaces, exhibition spaces, sporting facilities, and additional landing-spaces.

Individualism and separation are avoided, and cross-pollination and collaboration stimulated. The proposed infill to the hybrid framework presents a complementing function-mix that both facilitates machine-like efficiency as well as spontaneous social encounters.

The key to its success lies not in what is built and pre-determined, but what is kept open, for change,

DESIGN REFLECTIONS

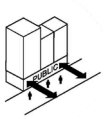
Did you manage to fulfil your initial design ambitions?

My initial design ambitions we set early in the design process. Were based on outcomes of the groupwork assignment "The Horizontal Brief" and the research we were given time to for writing our graduation plan.

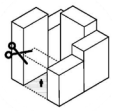
The Initial design ambitions were defined as followed:

CONTEXTUALLY

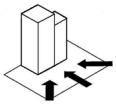
IN-BETWEEN-SPACES



PUBLIC ACTIVE PLINTH



NEW URBAN COURTYARDS



ACCESSIBILITY & NEW AXES

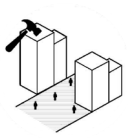
PROGRAMMATICALLY

INTEGRATED

INTERACT

OPEN

ATTRACTIVE



IN-BETWEEN-SPACES

HOW:

Activation of urban voids and borders

IN DESIGN:

The main entrance as forecourt enhances under-utilized urban space and exchanges the current situation, which is an impenetrable concrete fortress, with a portal towards a project that extresses learning for the public.

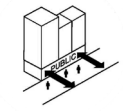
INTEGRATED

HOW:

Embedment in context, facilitation of variety of insititutes. characterizing the project as cross-boundary, multi-disciplinary, collaborative.

IN DESIGN:

Educational space types, variety of acitivites, variety of active-passive space types, hybrid



PUBLIC ACTIVE PLINTH

HOW:

Direct connections, circulation, strategic function-mix

IN DESIGN:

The outdoor public space is extended into the interior, the main hall offers a variety of facilities introducing the project it's offerings whilst enhancing the direct connection and fluid circulation throughout the project.

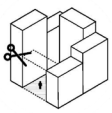
INTERACT

HOW:

Multi-Institutional character of design, publicly accessible plinth, Distinctive multifunctional & accessible elements, diagonal, collaborative spaces

IN DESIGN:

Open double-height publicly accessible plinth, Internal routing, thematic spaces and educational space types.



NEW URBAN COURTYARDS

HOW:

Revitalisation and Activation of Existing

IN DESIGN:

In-between spaces goes from exterior, to interior back to exterior. It's fluid cirulation is continued through the revitalisation of the city block it's inner courtyard. The existing situation, a concrete car-park, is exchanged with an inner garden that functions as social heart for the block, as it simultaneously offers a new axis for the city.

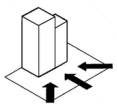
OPEN

HOW:

Variety of publicly accessible functions and spaces, flexible inner layout, shareable active and inactive spaces

IN DESIGN:

Hybrid Framework as system for adaptability over time. Allowing for the evolution of educational systems corresponding spatial formalisation.



ACCESSIBILITY & NEW AXES

HOW:

Unification of the city-block & revitalisation of it's inner courtyard

IN DESIGN:

The fluid circulation can continue from the inner garder towards a passage, the ground floor entrance of Tower 2. Through unification of the block, and inclusion of T2 an entirely new axis for the city occurs. With the courtyard as social heart for the block, this new axis links Koning Julianaplein a main gate into the city, all the way to Oranjebuitensingel and it's neighby city centre.

ATTRACTIVE

HOW:

Gradient in publicly accessible learning groups (age), Embeddment in context, publicly accessible plinth, Distinctive multifunctional & accessible elements, diagonal, collaborative spaces

IN DESIGN:

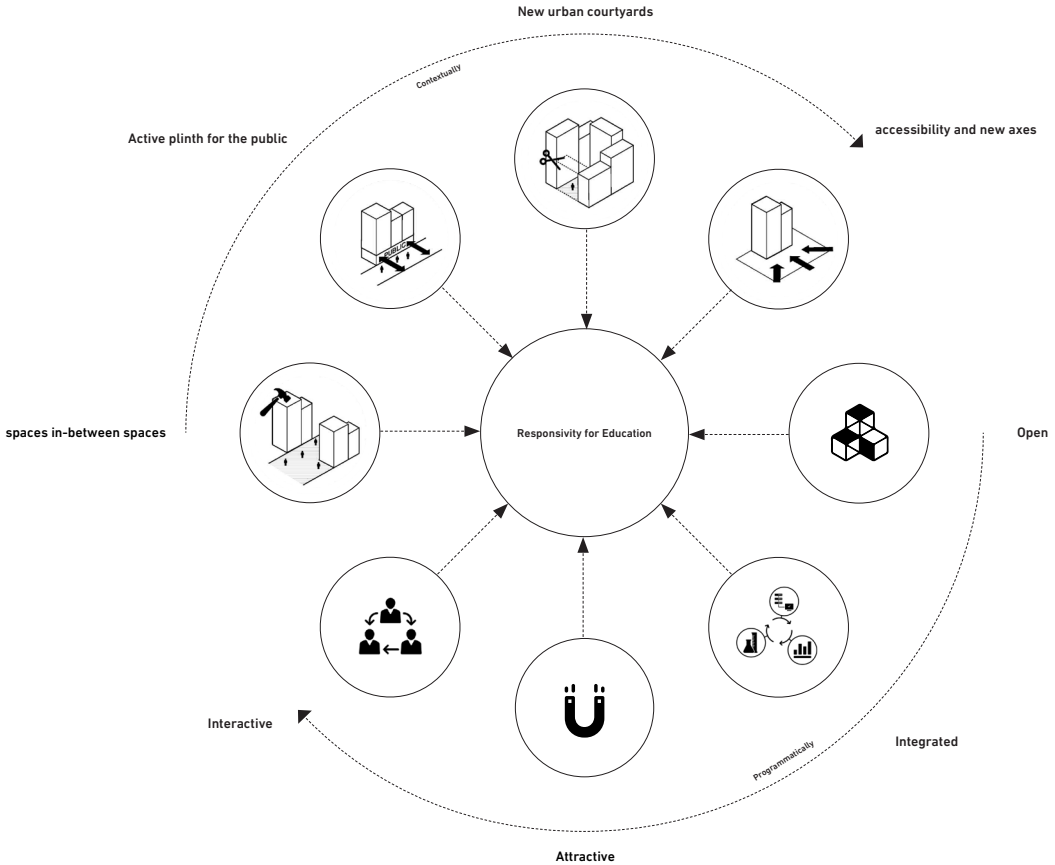
Open double-height publicly accessible plinth, Internal routing, thematic spaces and educational space types.

In what way does it answer your research question?

The main research question has been in ongoing revision throughout the last year. Through re-examination, the intermediate presentations, a gradual 'deepening' of the overall understanding, ambitions and intentions occurred. Initially the project focussed mainly it's efforts in the facilitation of interaction between user-groups and the clarification of a clear role a campus should have within the city. Subsequently this evolved into a more holistic and ideological positioning, whereas the importance of already existent institutes were rightfully exposed. This, combined with the context the project is in, brought the importance of contextual and programmatic responsiveness to light. Resulting in the revised positioning of the project. Although resived, the final research question and resulting project stays remarkably true to P1 research findings and initial project ambitions. The project found it's way back. This eventually lead to the research question as it defined as follows:

How to design a hybrid educational system and its corresponding environment that is contextually and programmatically responsive?

The project aims to answer the design question. The left pages describes how the project answers to the design ambitions. In essence the projects answers the research question contextually through unification - by unifying the city block and activating under-utilized urban realm. Programmatical responsiveness is formalised through the hybrid framework, and adaptable programmatic organisation, opening up adaptability, to grow and adapt to future needs, reinforcing the experimental nature of educational systems. Expressing that the urban realm as well as the educational centre is a process.



DESIGN REFLECTIONS

How would you evaluate your design process?

Public Building Graduation studio houses strong motives research-by-design as methodology. The studio provided students with a syllabus in which the design task, context, brief. Furthermore, the four periods were globally structured, presentation dates were set, and the design phases were more or less relatable in accordance to the order of the periods. Intermediary presentations, research themes, and especially the type of drawings / products were specified. A large part of the year therefore was predetermined.

Personally, I could not always identify myself at all times with the studio it's strong research-by-design methods. I would consider myself to be more research based, analytical and rational towards the design approach of the design problem. The personal design process initially intended was not always acknowledged or in-line with the required deliverables. Resulting in a discrepancy with personally set tasks and schedule and studio objectives.

At times I perceived an exaggerated need of production, clearly visible by the extensive list of requirements provided for each P. Personally this resulted in entering a certain production mode without understanding thoroughly what the design proposal should include. This uninformed decision-making and not perceiving to have enough time design has brought light to confusion and uncertainty. Simultaneously, the type of work I intended to do was at times not acknowledged or perceived to be of importance, forcing me to steer away from my intended methods.

Over the course of the graduation studio the project has been subject to extensive changes three times. The first proposal (at P2) got changed after responding to feedback that was in opposing direction. At that moment I experienced quite a bit of unclarity and perceived time-limitations, catalysing rushed decision-making, less clarity of direction and less tracking of initial design intentions / ambitions. During this moment I was not quite open-minded for feedback. Especially after certain design decisions I noticed being stuck and not having resources to change. The second proposal got changed after my first P4 presentation. I did not want to continue with the direction the project was headed, and saw the no-go as moment to re-evaluate, revise and adjust. In hindsight I am glad to have taken another design direction. Time-limitations did again result in a constant sense of unorganised rush, however being less apparent/limiting due to recuperation of work. Using correct, explicit terminology and being consistent as well as maintaining a logical narrative was challenging to obtain. Most of the efforts went into doing design and drafting up the required products for the elaboration of the project, that was hard to obtain within the remaining time-frame. Although having a technical educational background, the technical building design got included slightly to late. Lastly, prioritisation of types of work was also challenging in the context of time-limitations.

Nevertheless, the final design proposal of the project does align best to the initial contextual research conducted during P1, as well as initially set design intentions / strategies. Simultaneously, the proposal seems to align well with personal aspirations and how I wished to position myself over the course of the graduation studio.

The feedback sessions and personal adjustments towards studio requirements have contributed to further development on a variety of personal as well as professional aspects. Within the previously described context, intuitively doing was difficult at first, but eventually contributed to less rigidity and fixation. Leading to a more personally balanced attitude between ratio, analytical, research-based approach and the intuitive process backed by theory and literature. Arguably perceiving this as valuable, eventually, no project is identical, and thus doing, understanding and explaining in an identical manner seems rigid. Throughout the graduation studio I have been able to gain insights and understandings that I believe have contributed to the development of a way of thinking as well as a way of doing which are highly valuable for continuation of a professional career.

All the guidance received over the course of the graduation studio is extremely appreciated and a dedicated section for acknowledgement can be found at the end of the graduation report

How would you evaluate your personal attitude during the design process?

My personal attitude over the course of the past year is not what I am used of myself. In this section a moment to reflect on self.

The graduation studio has been a moment to which multiple years have been worked towards. Although initially being a motivator, it also brought pressure. It was perceived as the moment to perform. Simultaneously a certain level of expectations, from peers, tutors, mentors was experienced. In hindsight absolutely unnecessary and this lack of trust in self and confidence was not needed.

At an early stage of the design studio misalignments in ideas and general direction resulted in tension within our group. Experienced judgemental behaviour and disapprovals of ideas were at times unpleasant. These experiences were brought to the periods thereafter. Reduced confidence, ineffective decision-making, reduced motivation, and postposing working on tasks at hand were experienced. Overall, a joyous, humorous, lightweight attitude I like to see myself with and am often associated with was missing.

A negative and highly critical attitude to self and others has not been beneficial for studio dynamics as well as personal growth and achieving ambitioned qualities for the project. During feedback sessions a closed off attitude could result in times for not listening well to received feedback, or not implementing feedback into the design. Lack of confidence, or trust in self and/or others did not contribute to free, intuitive, joyous design explorations and involvement of peers and tutors. Holding myself accountable for these attitudes I am eagerly looking towards moments to set another tone.

In continuation of the last manner, we stand at the threshold of another year, it's vital to embrace the perspective that each challenge faced and every lesson learned paves the way toward a brighter and more empowered future. The past year's trials, have undeniably enriched my reservoir of resilience and provokes renewed sense of self-awareness. Recognizing and reflecting on the moments where faltered does not bind to a narrative of disappointment; rather, it equips with a profound understanding of how to mold these experiences into stepping stones for success.

Looking ahead, there is a readiness to reclaim the joyous and humorous spirit that is acknowledged in my character. With renewed confidence, this optimistic and proactive stance is set to enhance interactions with peers and mentors while invigorating creative processes.

Continual evolution and adaptation open the way to meet challenges and opportunities with a spirit of enthusiasm and discovery. With a clear and open mind, there is eagerness to fulfil set expectations. The goal is not only to cultivate a better version of oneself but also to contribute positively to the dynamic and inspiring community that surrounds.

AS PER GRADUATION MANUAL

Graduation topic, studio topic, your master track, and your master program

The theme of the project "The City Block as Hybrid Framework for Education'" is very much in line with the original ambitions and intentions of the graduation studio. It seeks to answer the key questions as to how themes of multiplicity, hybridity are to be embedded for a "Vertical Campus" an mixed-use educational building in the highly dense urban context of The Hague. The project seeks to deliver a position at which an hybrid hub of the future ought to be contextually and programmatically responsive. The project touches upon multiple scales, as it investigated on national, regional, urban, building and building detail scale a wide variety of aspects. Furthermore, seeking to reply to determined societal challenges and significantly contributing socially, culturally, politically, and environmentally. The Hybrid Framework intends to reflect societal advancements and multi-institutional collaboration in a forward-thinking manner. Here the projects serve as the facilitator in the transcendence of existing objectives, boundaries, and borders. By investigating in what ways this -in nature hybrid, multi-functional entity- can be arranged so that pre-determined design ambitions are achieved is considered as inherently true to the studio it's main themes. Aligning therefore simultaneously to the that of the master track and master programme.

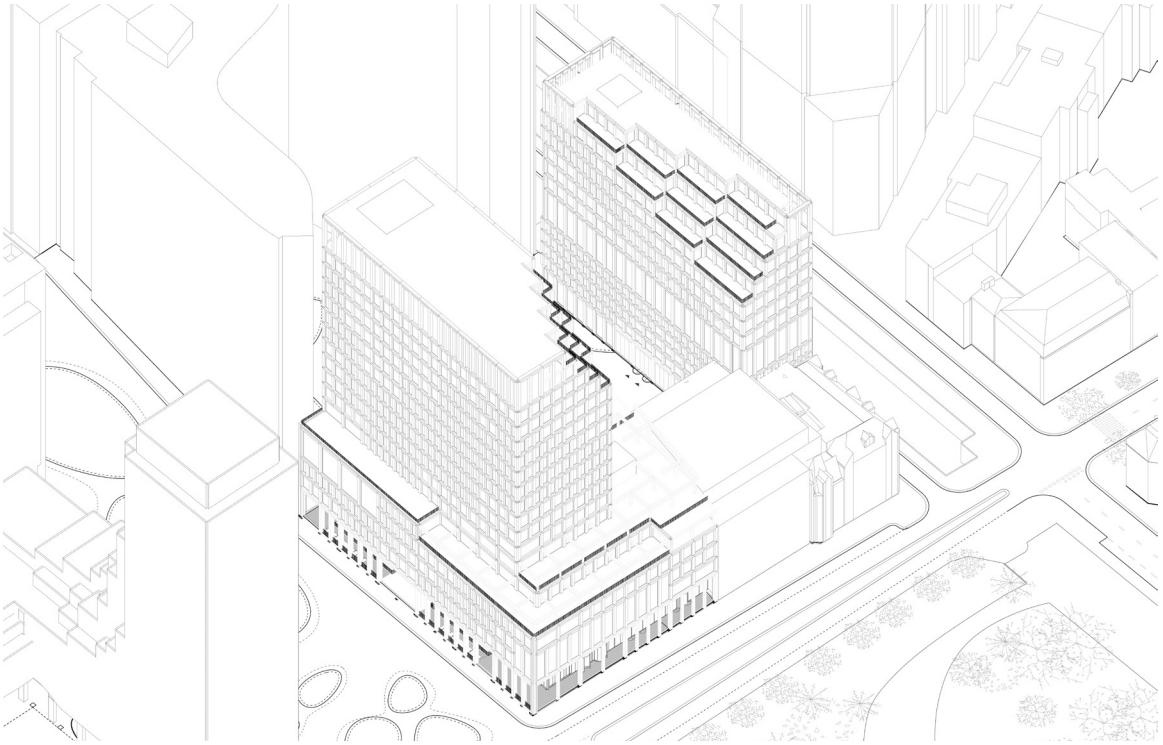
What is the relevance of your graduation work in the larger social, professional, and scientific framework?

The determined challenges for educational institutes, the city of The Hague, and eventually the multi-institutional character of the project includes many aspects that are societally, professionally, and scientifically relevant.

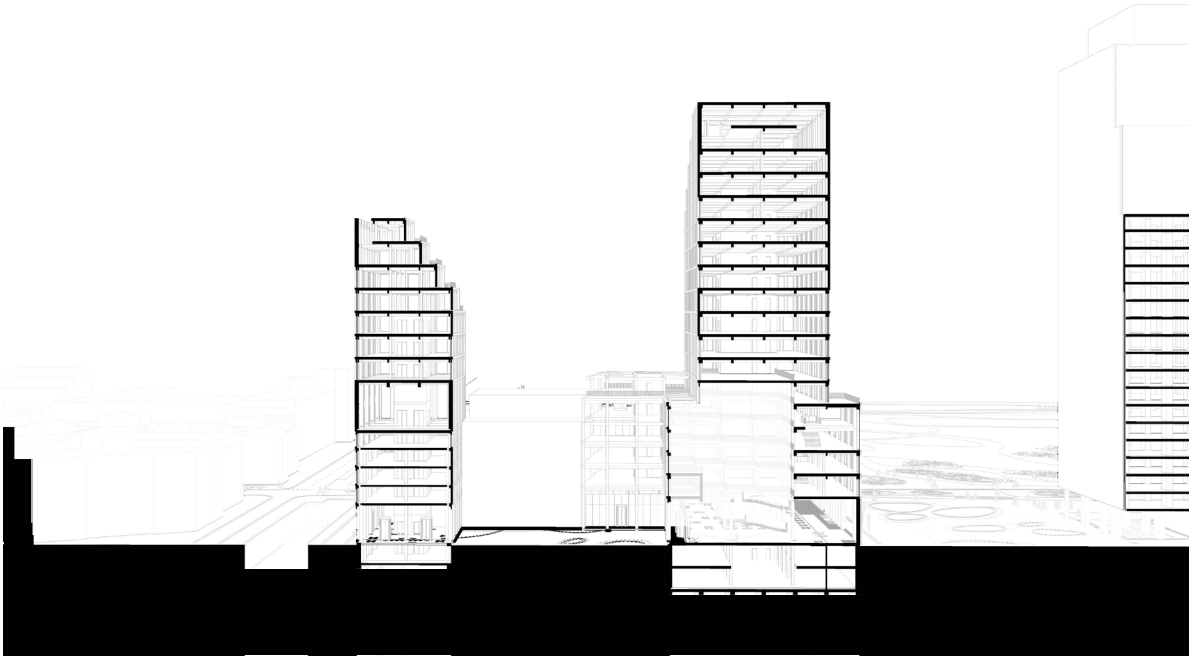
The project seeks to answer pre-determined challenges that have been considered of relevance, especially since the overarching topic of education was pre-determined and out of the student it's control. A vertically oriented campus has been considered of utmost relevance, especially in the context of The Hague. That therefore all aspects that fall underneath this relevant topic should be considered of relevance. In the specific case of the project it topics include the city-campus relationship, involved communities, interchangeability and hybridity of the function mix, stimulation of social interaction, facilitation of the heterogeneous character of users, intensification of the use of space, adaptability over time.

In the specific case of the project the way at which multiple institutions can be housed together, what level of hybridity can be achieved within a steep, highly vertically oriented manner, how this embeds in the direct urban context, what users are involved, how their activities are projected, what functions are arranged in what way, through what means adaptability can be achieved, what most effective is in terms of sustainability for vertically oriented structures, what a healthy climate should include.

The project re-investigates the hybrid building as typology and it's serving characteristics for the public can be considered of relevance in the current and personally considered future societal configuration.



Axonometric of project



Perspective section indicating established urban axis - new urban courtyard - active public plinth

Acknowledgements

Date Written: 09-10-2024

The project which is covered in this graduation report is part of a larger architectural pursuit. A pursuit which would not have this fruitful and enjoyable without the support of the many people in my life. Their consistent encouragement, intellectual insight, and constructive feedback have been instrumental in shaping this project as well as myself personally, professionally and academically.

I therefore would like to express my deepest gratitude to the people who have mentored, guided me over the course of this studio. Their constant support and critical evaluation in the research, drawing, and continuously revising the design has been truly invaluable.

First and foremost, I would like to express my utmost recognition to Ir. Paul Kuitenbrouwer, whose positive attitude and extensive guidance were of utmost essence throughout the course of this graduation project. His insightful feedback, continuous steering and optimistic playful mocking encouragements have been invaluable and greatly influenced the quality of the project.

Equally I would like to express my heartfelt gratitude towards Ir. Gosia Golabek. Her sincere support and continuous constructive steering, criticism, and engagement have been a constant source of inspiration, motivation and helped greatly in clarification and sense of direction.

Towards Dr. Piero di Medici, my deepest appreciation for technical insights, shared knowledge, steering and keeping me on track of the priorities withing TBD.

Towards Prof. Ir. Nathalie de Vries, whose unprecedented experience and spot-on criticism were profoundly helpful in re-evaluating personal positioning as well as improved definition of design, narrative and means to clearly communicate and present to others. The time made available is greatly appreciated.

In addition, I would like to share words of appreciation towards Ir. Ferry Adema, the delegate of the Board of Examiners. His clear and direct moderation and kind preparation has been very much appreciated, simultaneously improving my understanding what the faculty stands for and aims to express (which I can align with quite well).

Last but not least, my utmost gratitude for the support from my nearest ones, my family, friends and a special mention towards Marina. Her unwavering patience, belief, support, positive words played a significant role in persevering during difficult moments. Their support has been an invaluable source of motivation.

Finally, I am deeply grateful to my parents for their unprecedented support and encouragement. Their sacrifices and unwavering belief have been a cornerstone of my all my pursuits.

Without you all this journey would not have been possible.

If you made it to this page:

Thank you kindly for taking the time and showing interest. Again a heartfelt thanks to all who guided, steered, and provided valuable insights. It's to those that made this possible.

Graduation Report

The Framework for Education

Public Building Graduation Studio 2023-24
Bart Ramakers 5506948

Graduation Report

The Framework for Education

Public Building Graduation Studio 2023-24
Bart Ramakers 5506948