

National Bank of Belgium, Boulevard de Berlaimont, 1950s. Source: hemels.brussels

## Introduction.

Contemporary society is governed by the regulation and flow of capital. The supply, perceived value and control of money determines, to a large extent, the conditions in which we live, and its accumulation underpins the perceived success of individuals, companies, cities, regions and nation states.

Capitalism enshrines this right of self-enrichment, at every scale. It does however place limits upon it. In order to regulate capitalist economies, complex financial systems have developed, which control finance and secure assets. Banks of many kinds provide liquidity and invest wealth. National Banks control the production and supply of money, regulate their commercial counterparts and, together with governments, define monetary policy and protect national interests. They are the lenders of last resort at times of crisis.

Modern industrialised economies measure their performance through growth, a desire for the sustained increase of national wealth which has underpinned the thinking of National Banks. A sustained increase in gross domestic product has been the mantra of prudent governance, fueled by work and production and regulated through finance, the control of interest rates and levels of inflation. However, we are arriving at the collective realisation that our obsession with enrichment has come at an enormous cost. The relentless extraction of profit has unbalanced the finite resources of the planet to the extent that

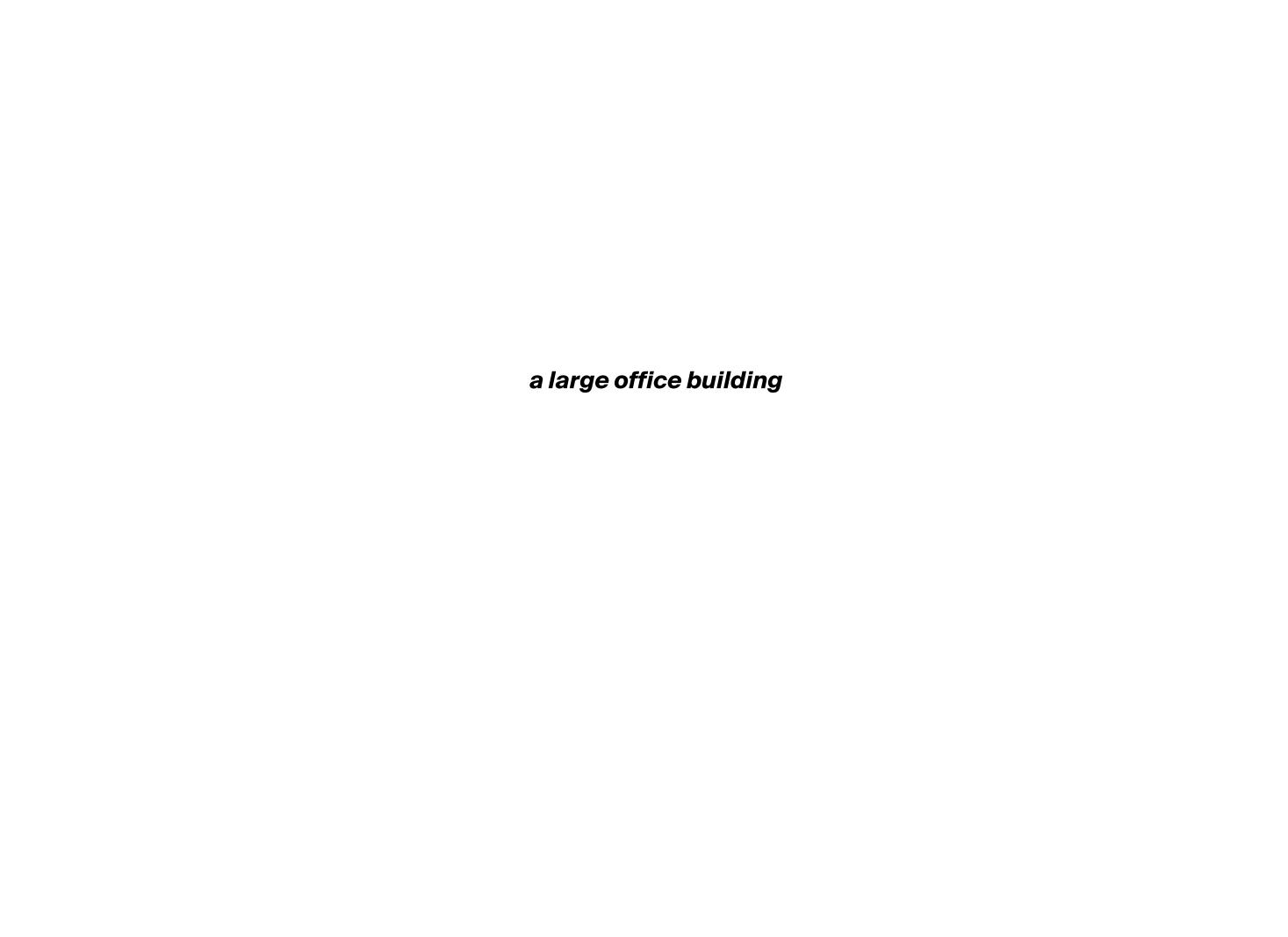
humanity now faces an existential threat. As we attempt to address the enormous challenges the future holds, we ask what might be the role of a future central bank?

Set in Brussels, the project will address the transformation of the National Bank of Belgium. This occupies a vast, triangular urban block of 91,000m2 that is situated at a critical moment between the upper and the lower parts of the city. This is made manifest in the 8m sectional shift across the site as it rises from the austere, 200m long, columnar façade that announces it to the Boulevard de Berlaimont.

From palatial beginnings, the present bank developed as a consolidated aggregation of buildings, planned by Marcel Van Goethem after the Second World War. Its current form is the result of a massive reconstruction project that transformed and rescaled this piece of city into an imposing, yet ultimately alienating urban environment. Built to its boundaries, the introverted nature of the complex reflects the historic need to secure Belgium's financial reserves within its walls. However, since its completion, there has been a fundamental shift in the requirements placed upon it. Industrial functions like the printing and storage of currency have been relocated out of the city, or overseas; finance is becoming increasingly digital; while Belgium's membership of the EU has led to much of the Bank's traditional role being subsumed into the European Central Bank (ECB), based in Frankfurt. In response the National Bank has decided to redefine itself physically.

# National Bank of Belgium





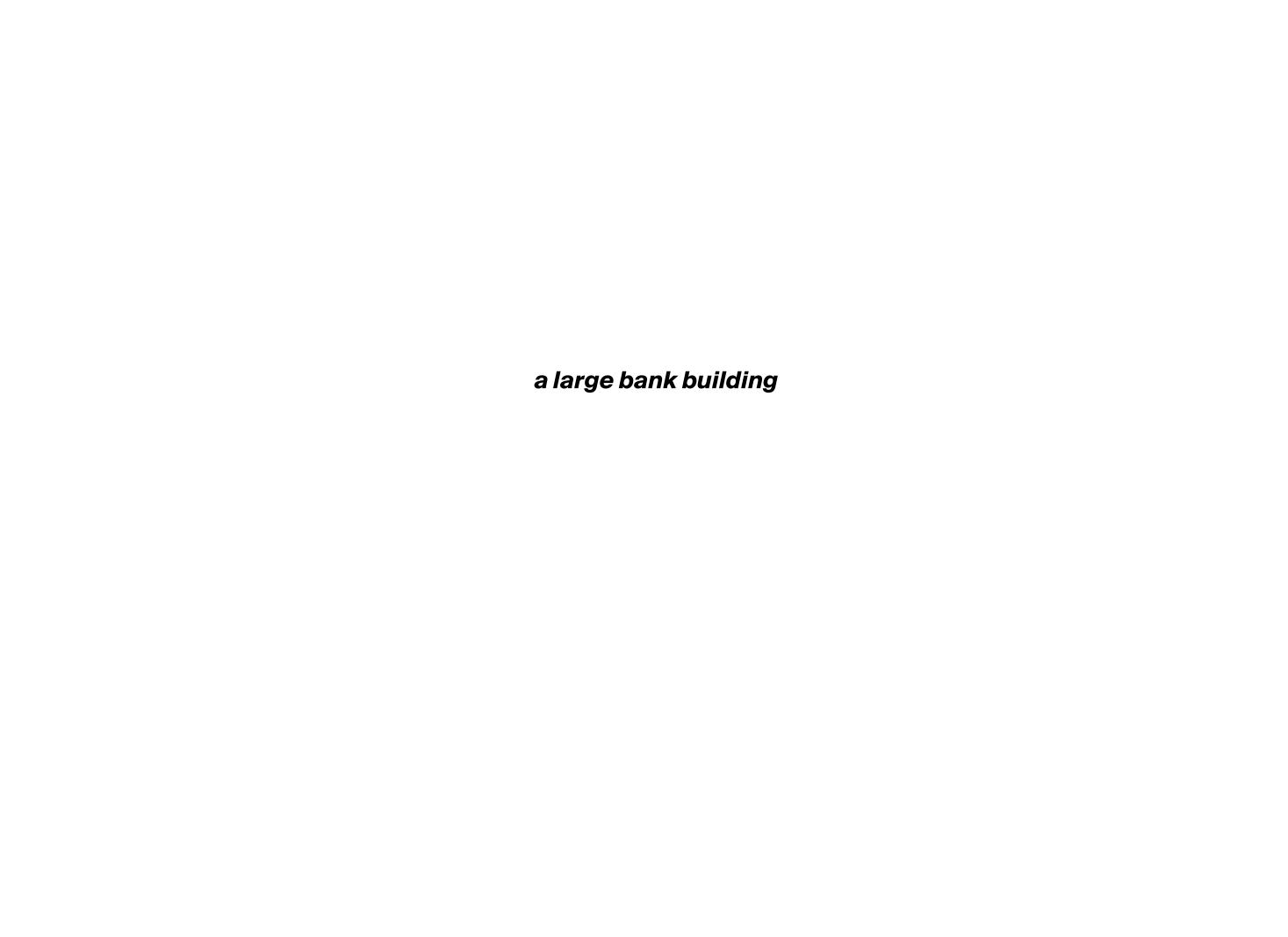
a large office building

1500 people working together

a large office building

1500 people working together

history of work



a large bank building money and banking a large bank building
money and banking
history of banking















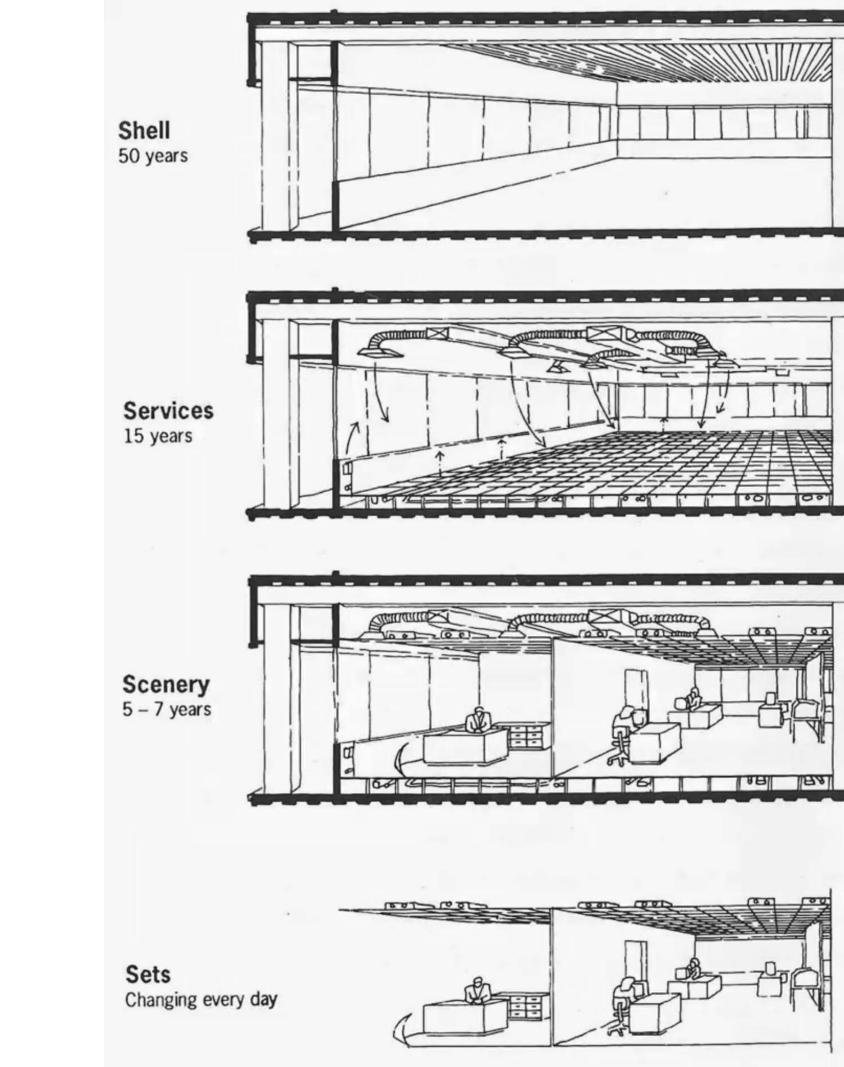


office precedents original photographs





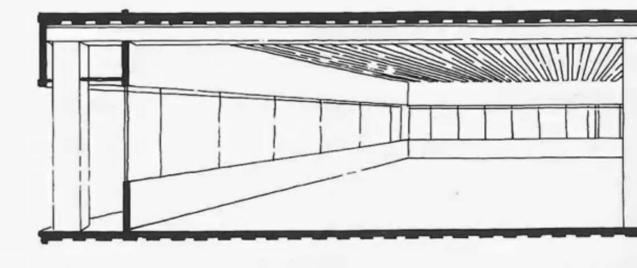




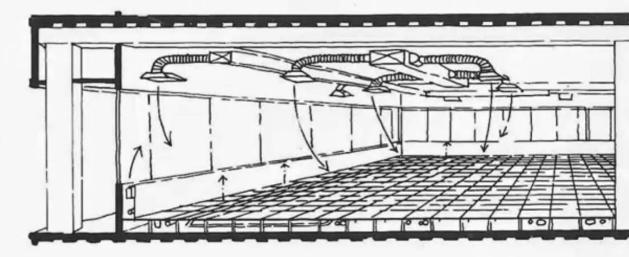
Shell, Services, Scenery and Sets in the office building DEGW, The Changing City. London: The Bulstrode Press, 1989



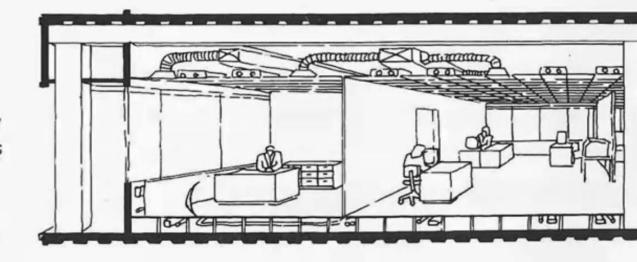
**Shell** 50 years



Services 15 years

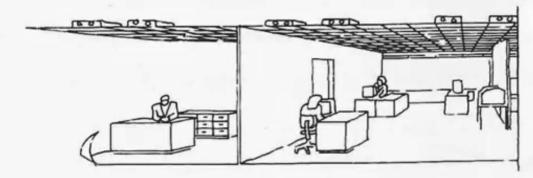


Scenery 5 – 7 years



Shell, Services, Scenery and Sets in the office building DEGW, The Changing City. London: The Bulstrode Press, 1989



































how can we internalise the ATM, or reintroduce the ATM to a public interior?



# 1:10 theatre Bas Leemans, Laurens de Munck

## dissection



# dissection reconfiguration



# dissection reconfiguration displacement



















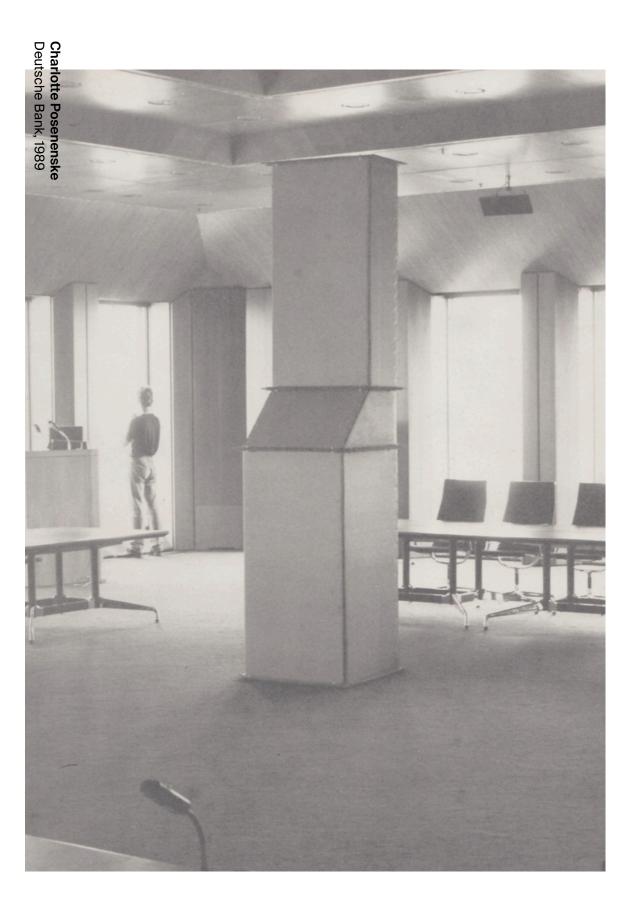




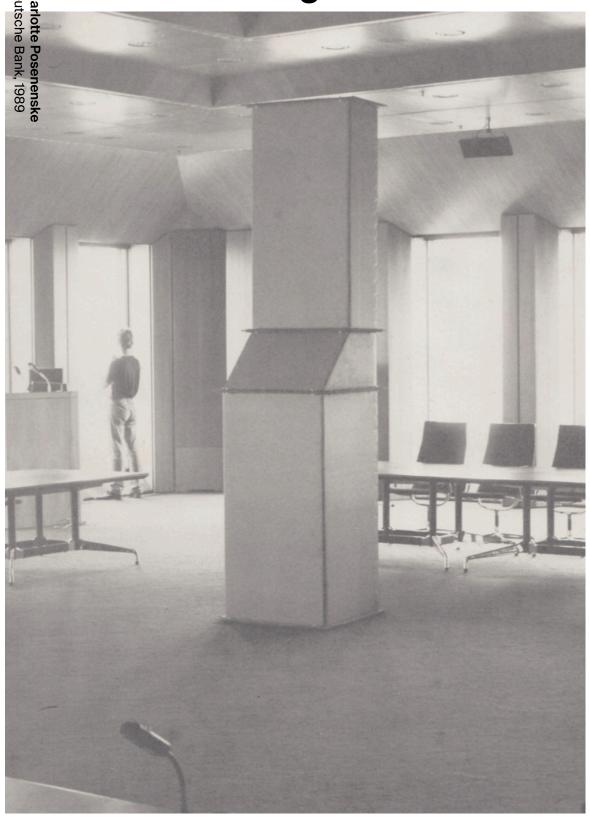






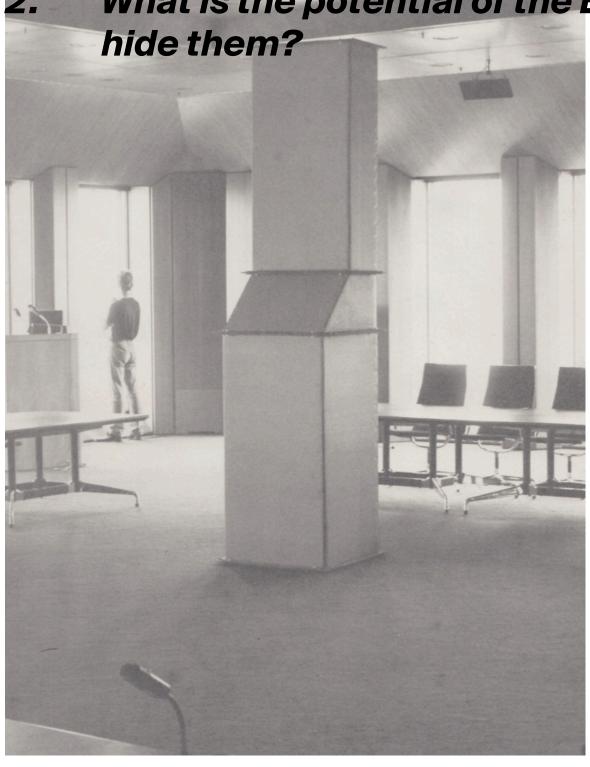


1. How can one reconfigure the interior fit-out elements of the National Bank of Belgium?



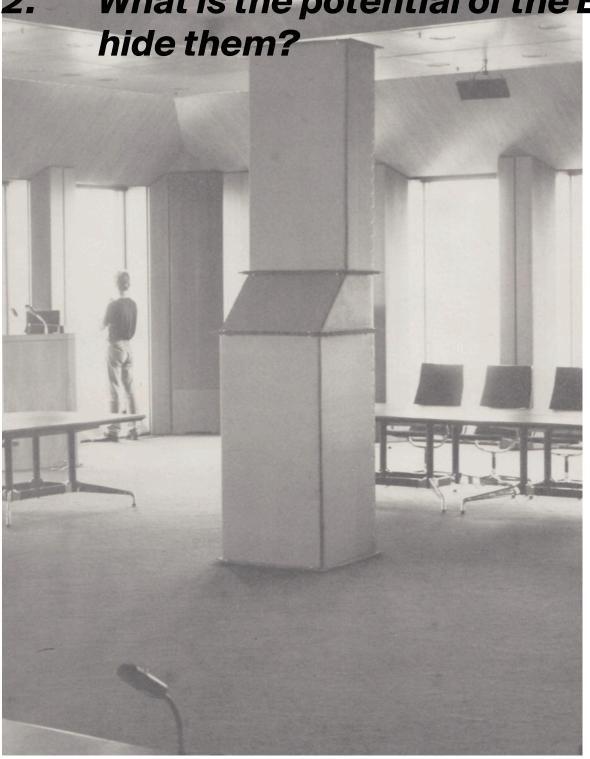
1. How can one reconfigure the interior fit-out elements of the National Bank of Belgium?

2. What is the potential of the Bank's technical services when one does not

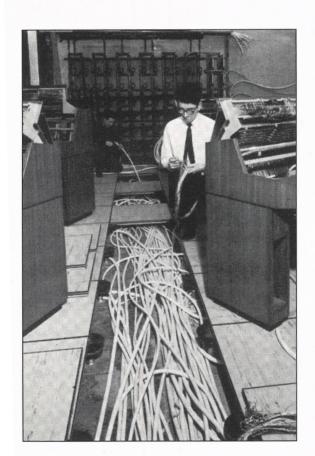


## 1. How can one reconfigure the interior fit-out elements of the National Bank of Belgium?

2. What is the potential of the Bank's technical services when one does not



150 TECHNOLOGICAL EVOLUTION OF CONTEMPORARY HIGH-RISE STRUCTURES



4.11 Layout of cables underneath a raised access floor, circa 1972.

compact network of electrical systems. Each of these options was sufficiently developed and available to planners in the early 1960s; all they needed to do was merge the redefined concept of mechanical space with the enlightened reexamination of Taylorism advocated by theoreticians and business leaders. The depth of the Inland Steel Building, 65 feet, matched the Quickborner Team's recommended minimum dimension for the office landscape, thus indicating how the leap to a 160-foot depth signified a readaptation of interior work systems (layout and furnishings) more specifically than it did a significant change in construction.<sup>7</sup>

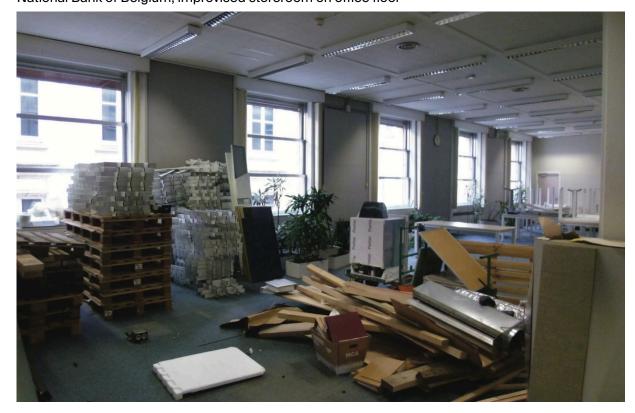
## FROM THE OFFICE LANDSCAPE TO THE AUTOMATED BUILDING (1970-2000)

The appearance of automated work systems at the beginning of the 1970s marked a turnaround in the principles governing the construction of office spaces. As a result of the need to incorporate wires under the floors, these systems prompted a new process of revising floor depth by incorporating raised floors for mechanical equipment. Energy equipment was also tested for adaptability, and, compared to other subsystems, its rapid obsolescence became obvious. The cores and floors housing centralized mechanical equipment were replaced by a more compartmentalized organization that questioned the existence not

only of moderated a

- 1. How can one reconfigure the interior fit-out elements of the National Bank of Belgium?
- 2. What is the potential of the Bank's technical services when one does not hide them?
- 3. What is the potential of working with the (obsolete) standardised interior elements of an existing bank building?

National Bank of Belgium, improvised storeroom on office floor



- 1. How can one reconfigure the interior fit-out elements of the National Bank of Belgium?
- 2. What is the potential of the Bank's technical services when one does not hide them?
- 3. What is the potential of working with the (obsolete) standardised interior elements of an existing bank building?





- 1. How can one reconfigure the interior fit-out elements of the National Bank of Belgium?
- 2. What is the potential of the Bank's technical services when one does not hide them?

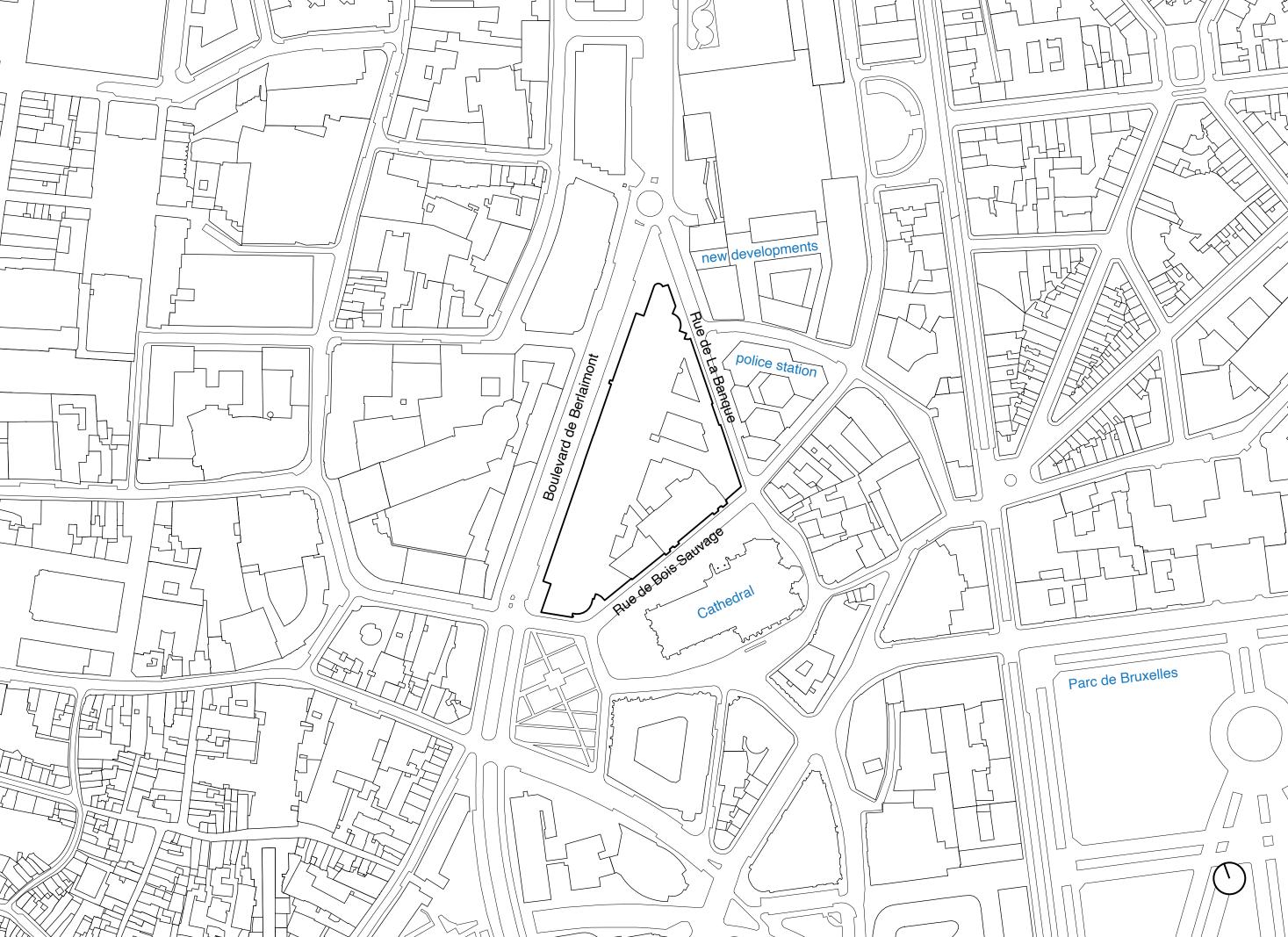
3. What is the potential of dworking with the (obsolete) standardised interior elements of an existing bank building?

4. How to incorporate an element of interactivity to this system of (technical) services?

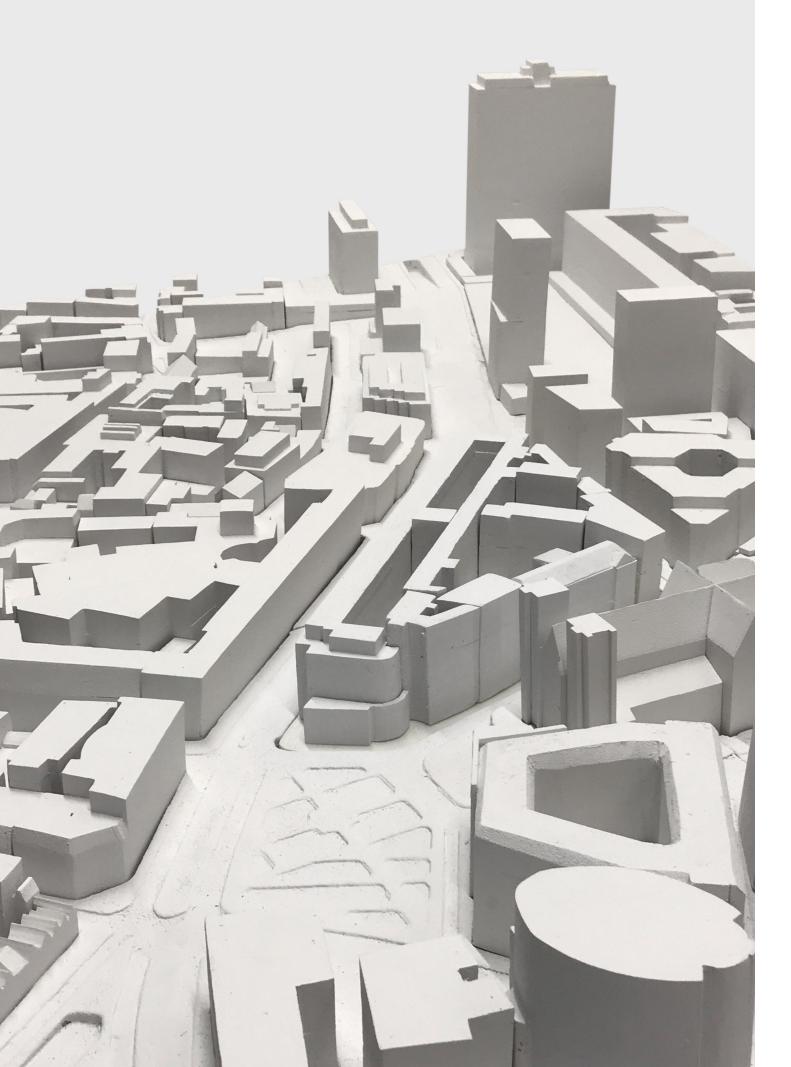
Goods between floc









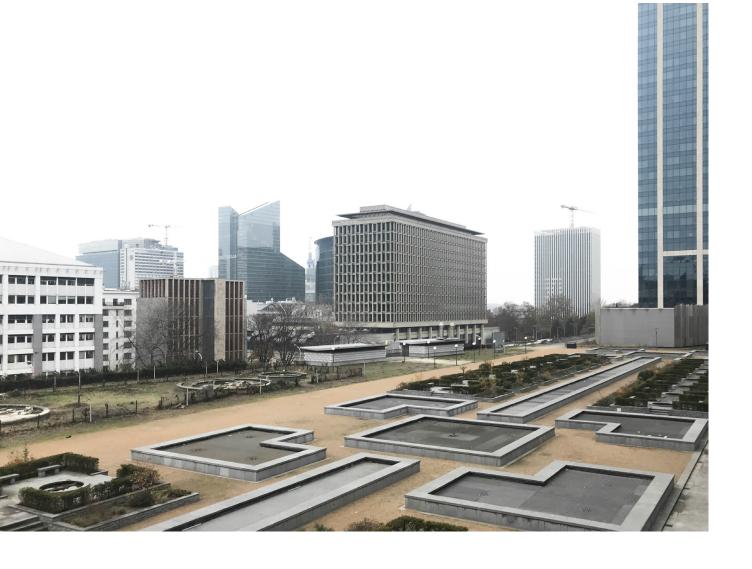


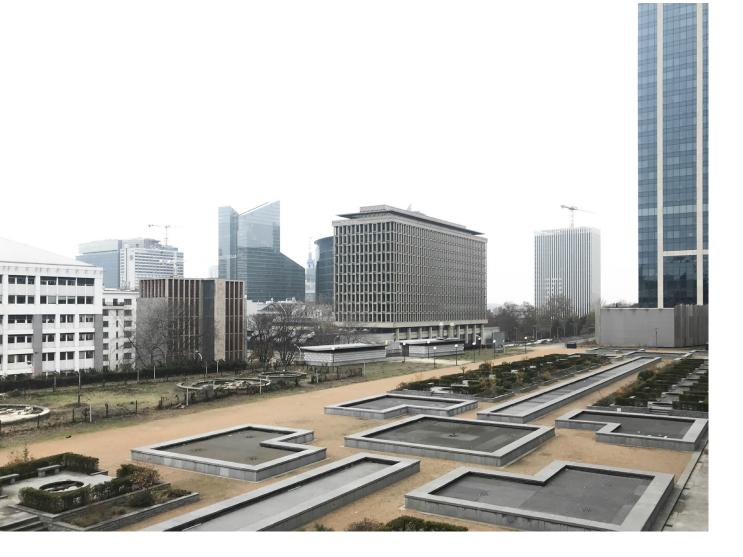
















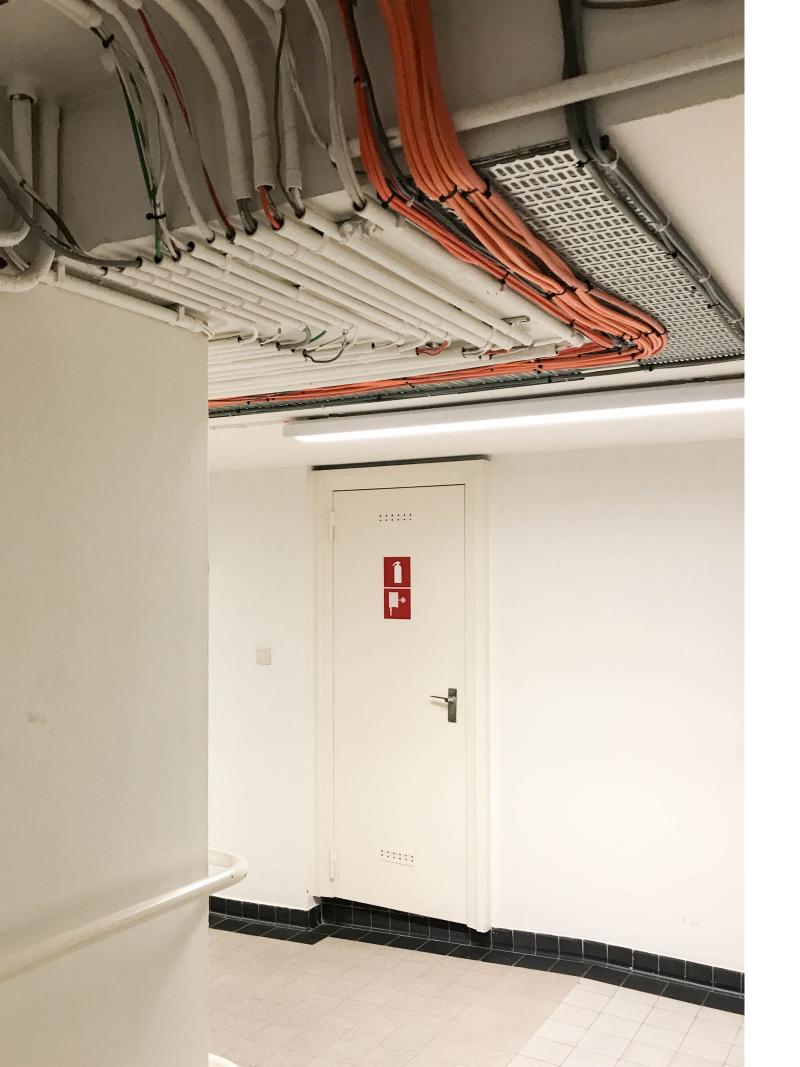


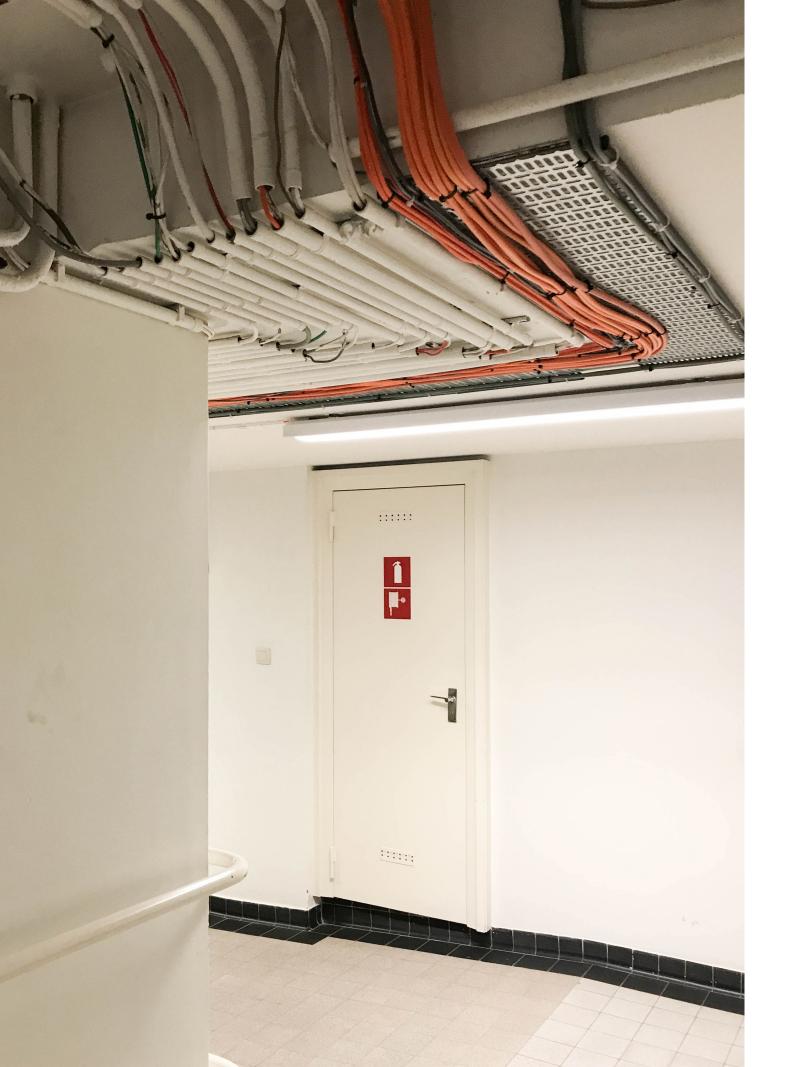








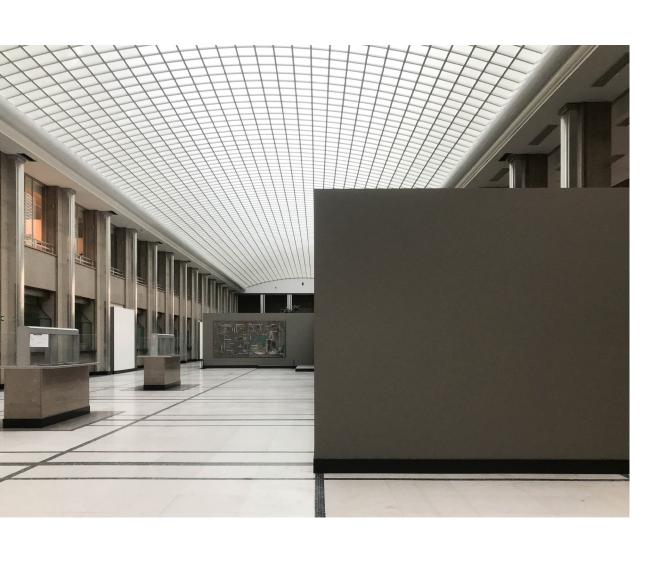




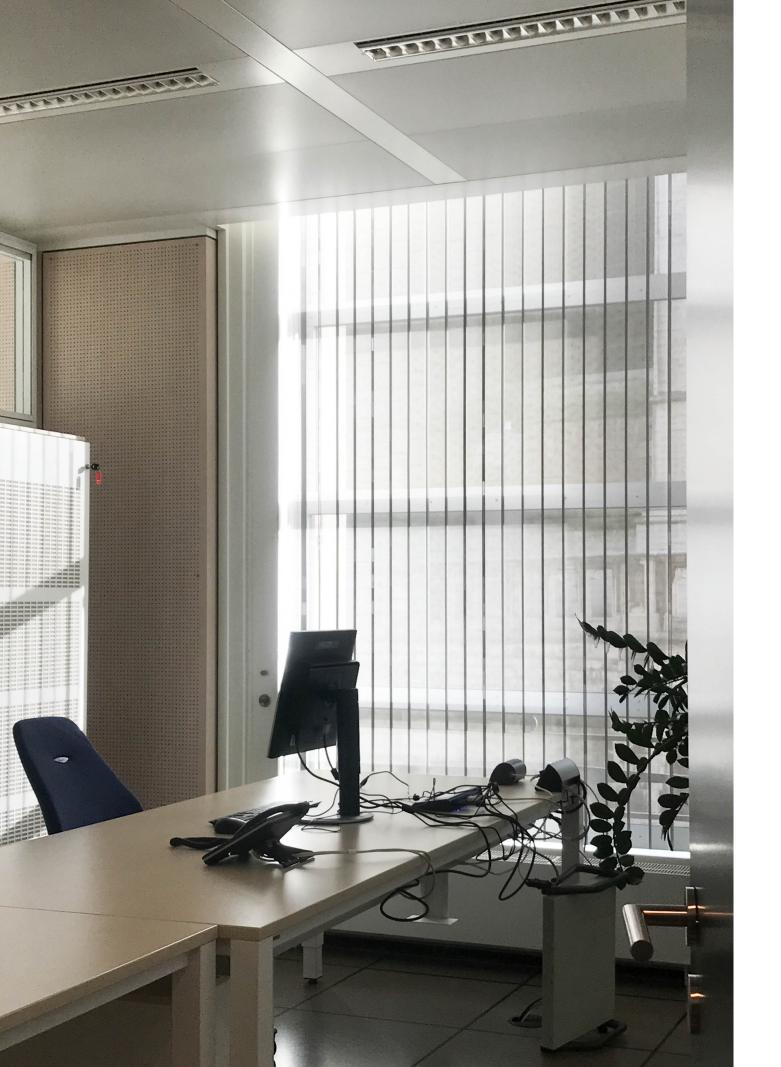


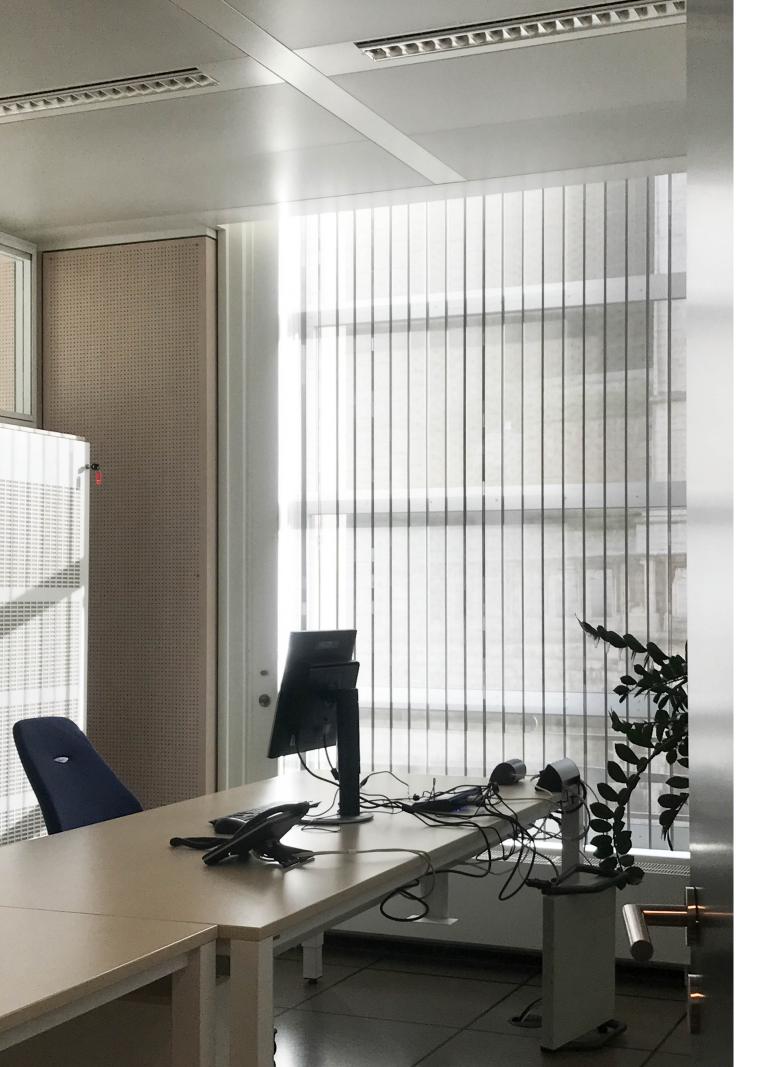


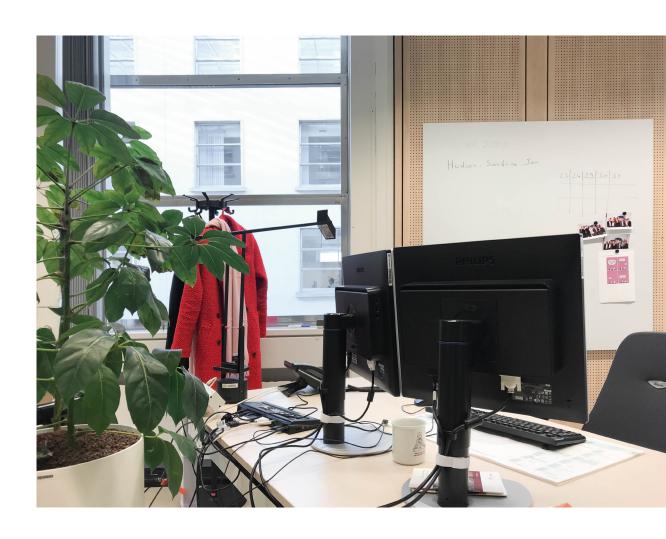






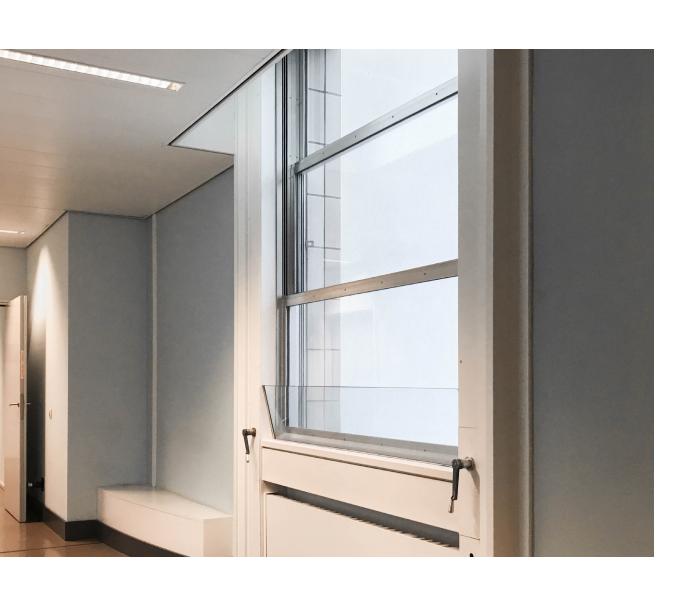










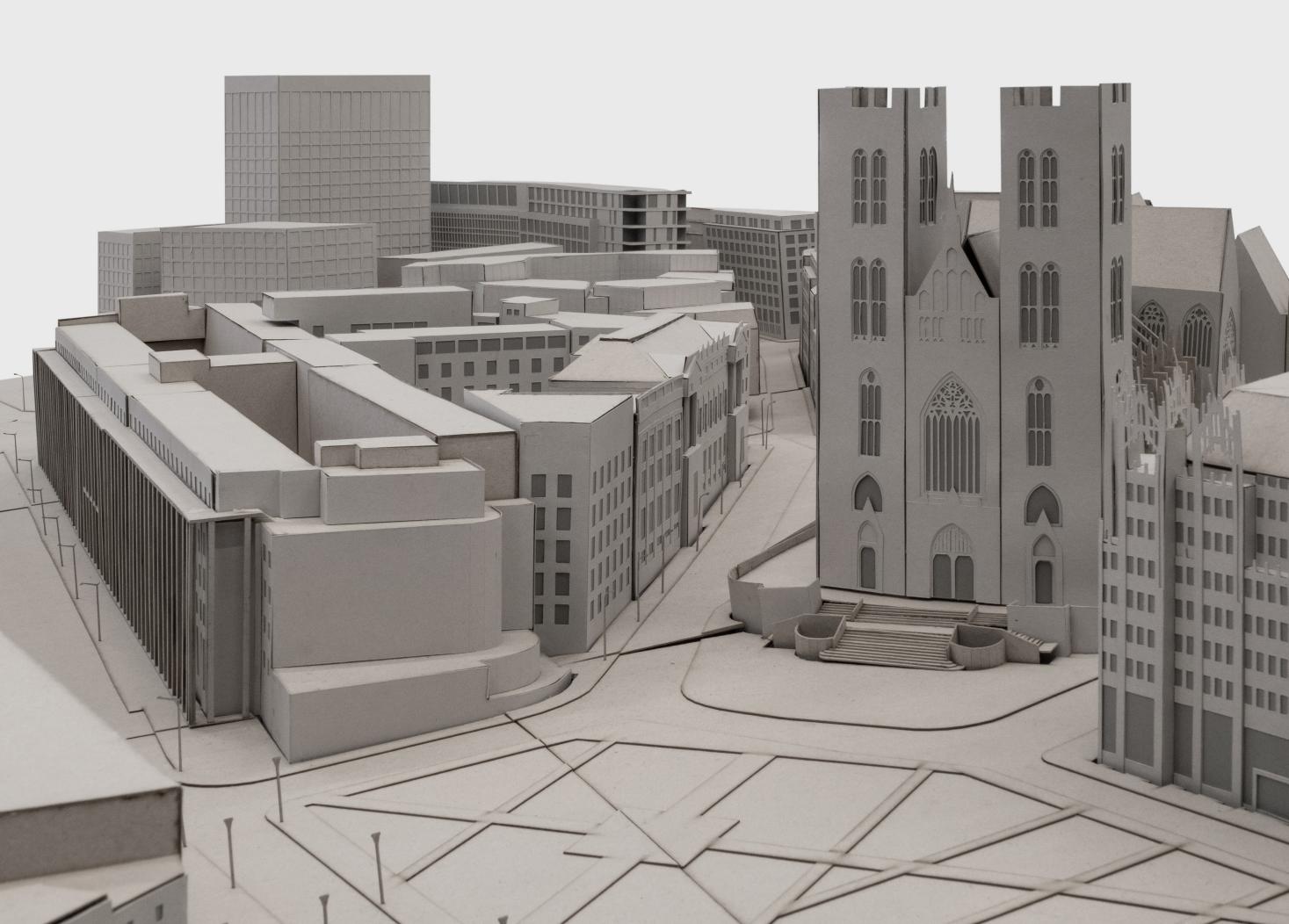




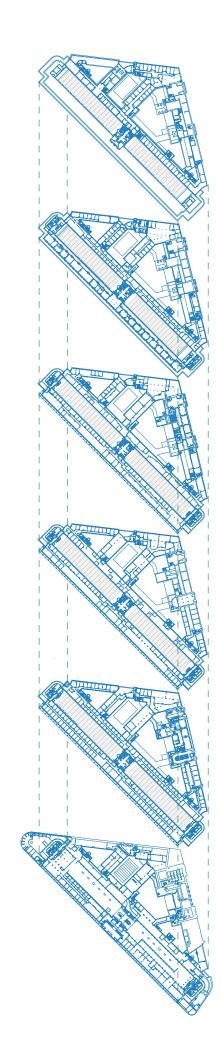


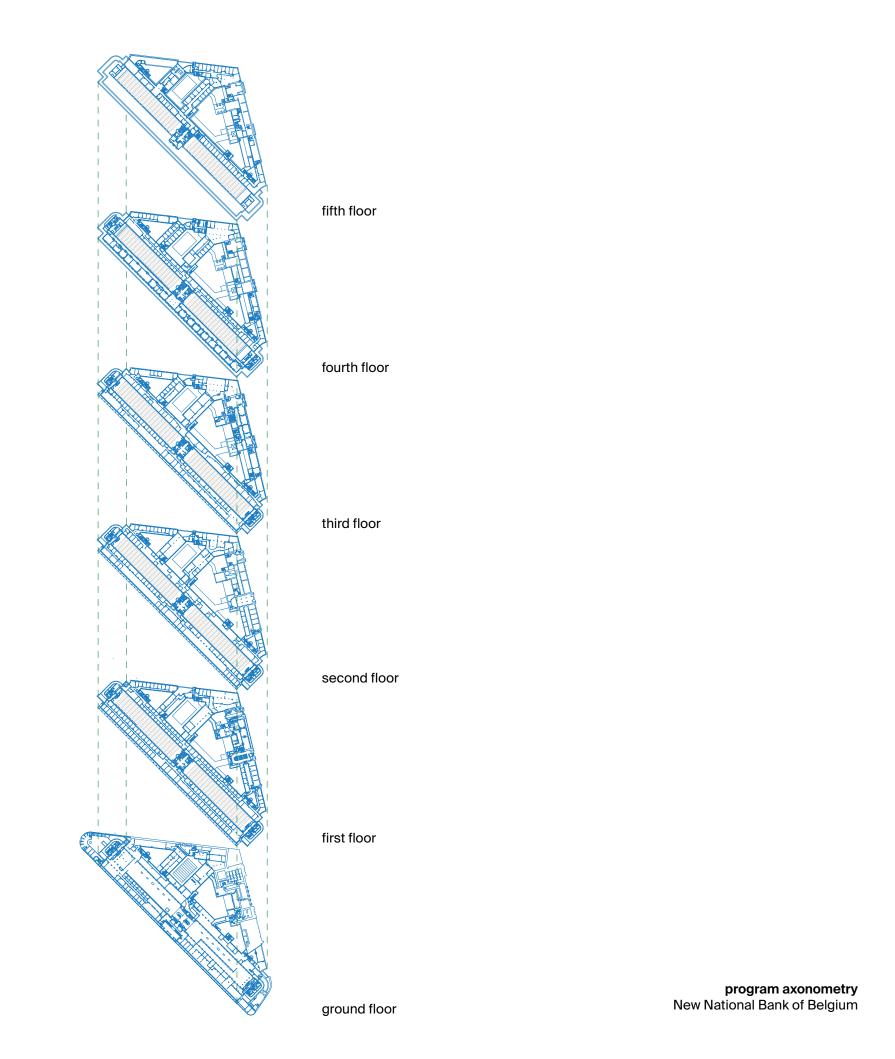


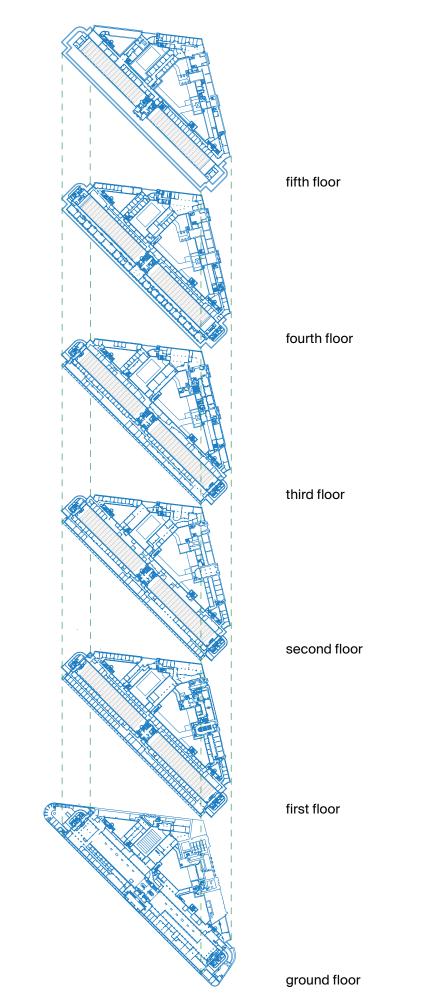




## New National Bank of Belgium

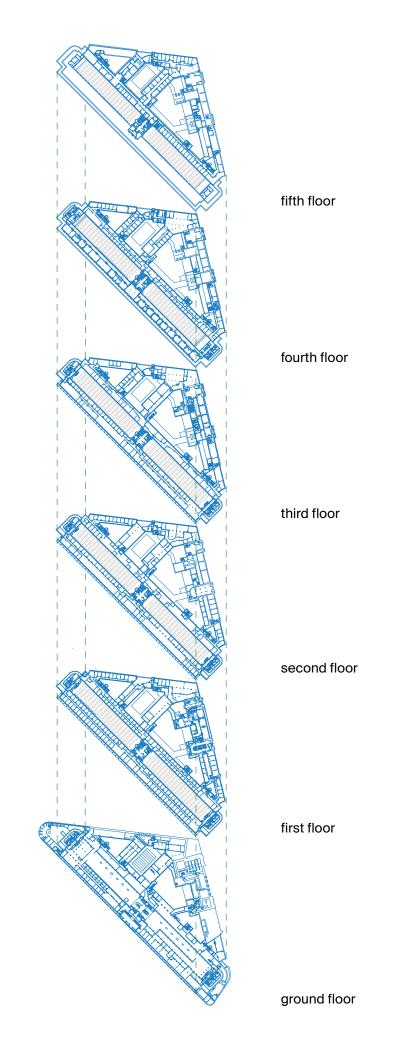






public entrance 1 on Boulevard de Berlaimont: lobby exhibition banking hall functional banking hall, deposit and withdraw public banking hall, pop-up café

bank offices



public entrance 2 on Rue de la Banque: pop-up café leading towards banking hall

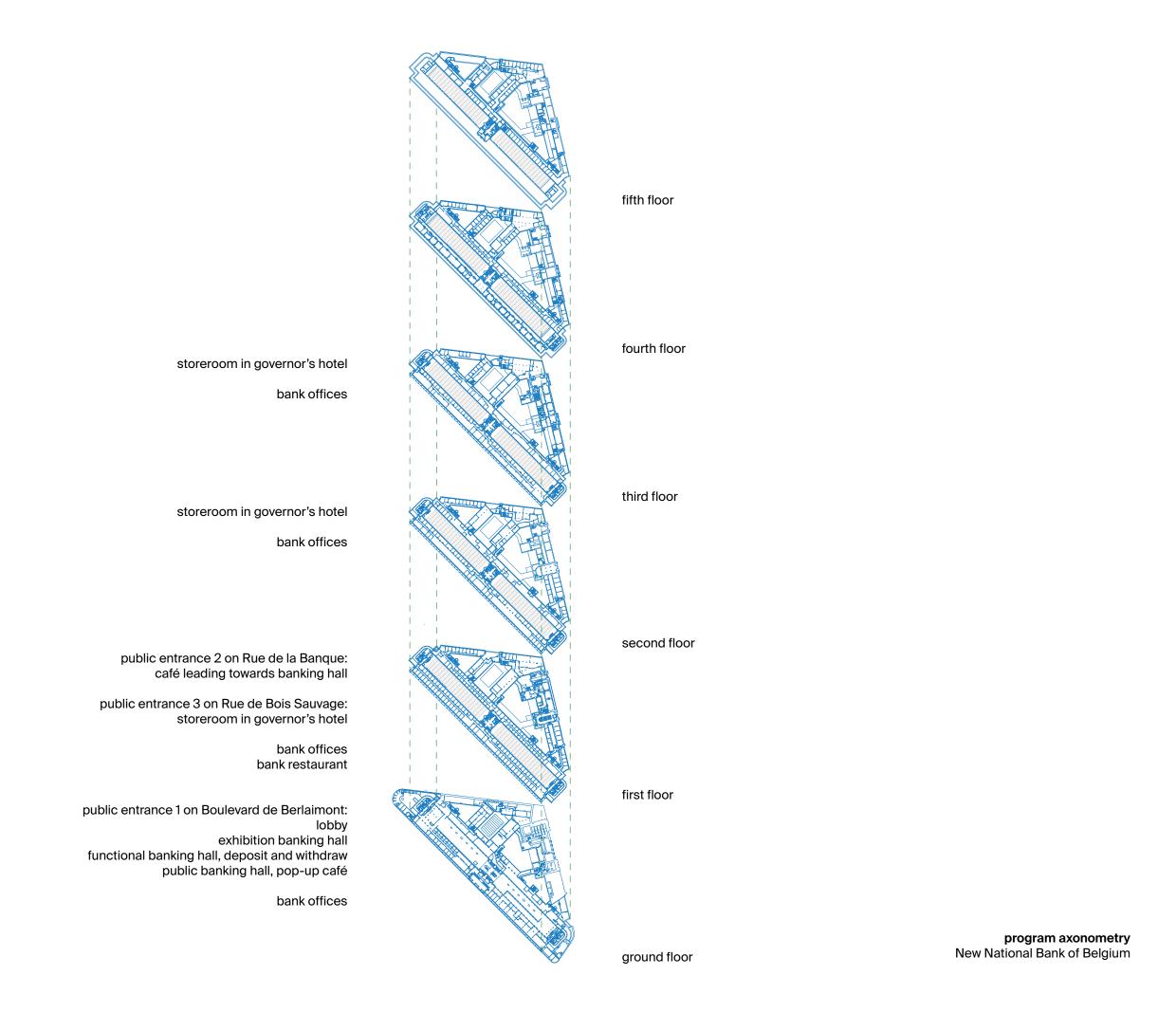
public entrance 3 on Rue de Bois Sauvage: storeroom in governor's hotel

> bank offices bank restaurant

public entrance 1 on Boulevard de Berlaimont: lobby exhibition banking hall functional banking hall, deposit and withdraw public banking hall, pop-up café

bank offices

**program axonometry** New National Bank of Belgium



executive bank offices		
bank offices		
executive bank offices	fifth floor	
bank offices		
storeroom in governor's hotel	fourth floor	
bank offices		
storeroom in governor's hotel	third floor	
bank offices		
public entrance 2 on Rue de la Banque: café leading towards banking hall public entrance 3 on Rue de Bois Sauvage: storeroom in governor's hotel	second floor	
bank offices bank restaurant		
public entrance 1 on Boulevard de Berlaimont: lobby exhibition banking hall functional banking hall, deposit and withdraw public banking hall, pop-up café bank offices	first floor	
	ground floor	program axonometry New National Bank of Belgium

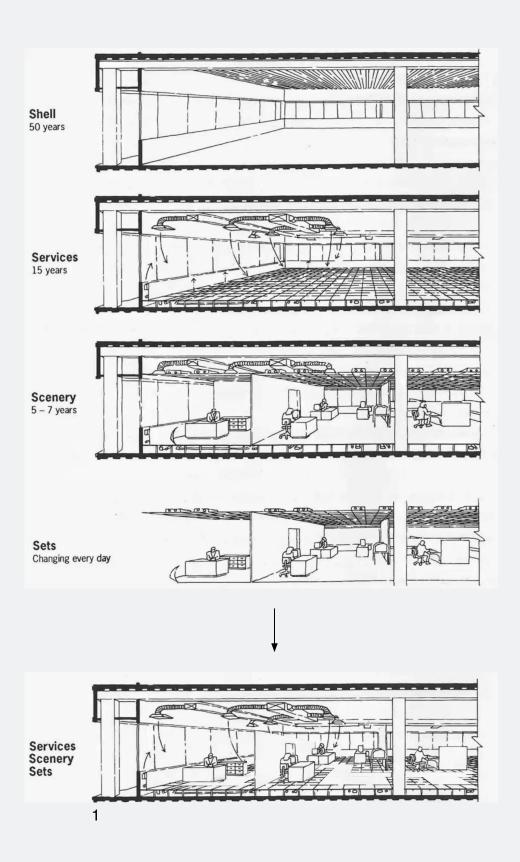
How far can the architect go with an existing building without demolishing any built volumes, rendering the structure of the bank a shell and combining its services, scenery and sets into a single layer?

Undressing the existing fabric to reveal the theatre of a typical office interior.

Undressing representative materials of the National Bank of Belgium to reinforce its loss of traditional secure functions.

Undressing the National Bank of Belgium to make- and open up space for its inhabitants and visitors.

#### undressing



<sup>1.</sup> Services, scenery and sets combined into a single layer, based on DEGW, 1989

What is needed in a room after the shell? What accommodates the space? How to reconfigure the hierarchy of these interior layers?

Through reconfiguration the interior hierarchy is renewed.

Through reconfiguration the existing interior fit-out elements change.

Through reconfiguration a more dynamic lay-out with intimate neeches is achieved.

## undressing reconfiguring



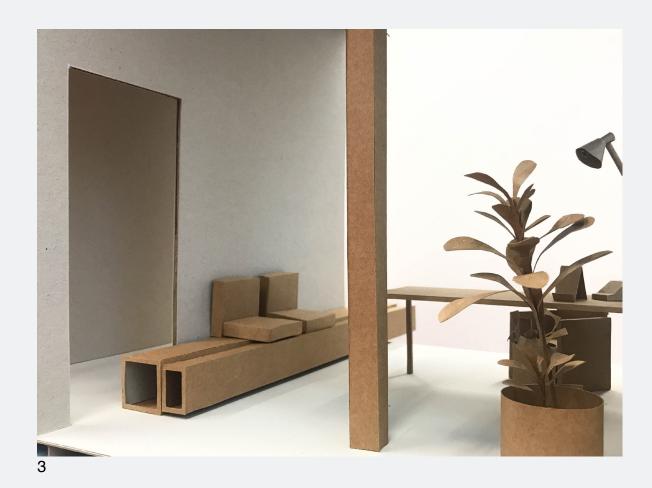
2. New National Bank of Belgium, removal and reconfiguration of existing interior layers, 1:50 How can existing- and new technical services be an active instrument in the interior of the New National Bank of Belgium?

What if the relationship between buildings and their services is fundamentally rethought?

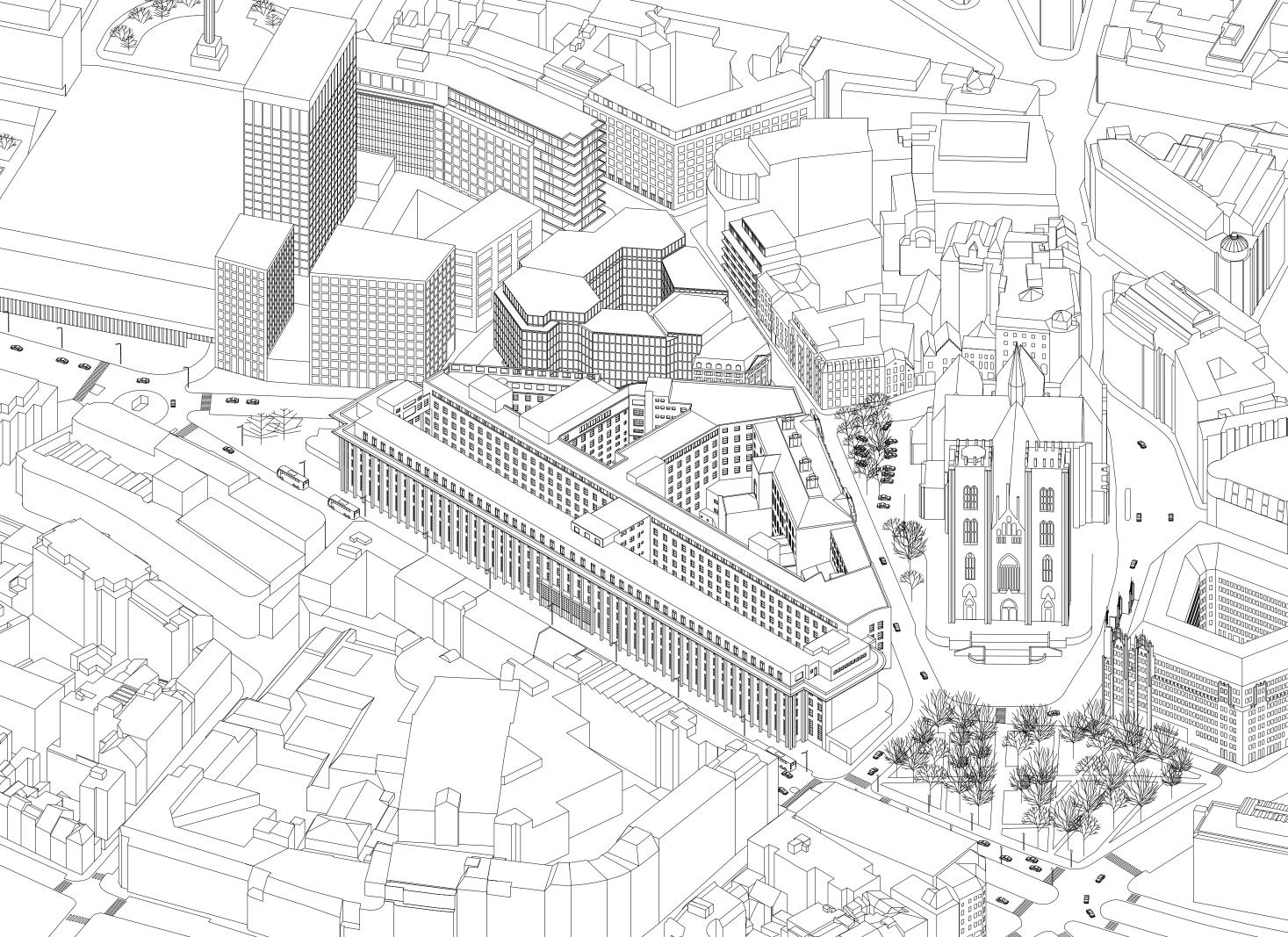
Through the displacement of technical elements in the interior of the office, a new work culture emerges.

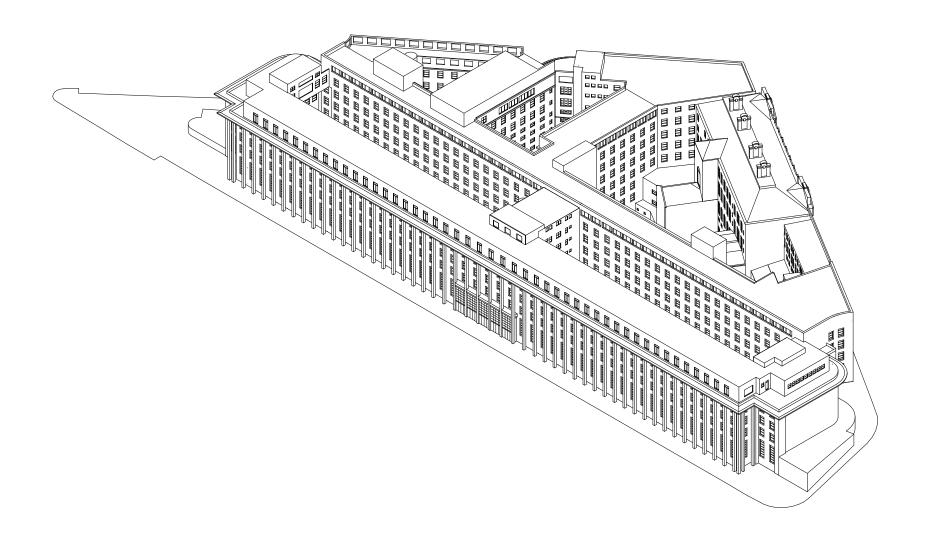
Ducts, lifts and services are becoming spacedefining elements in between which the work is happening.

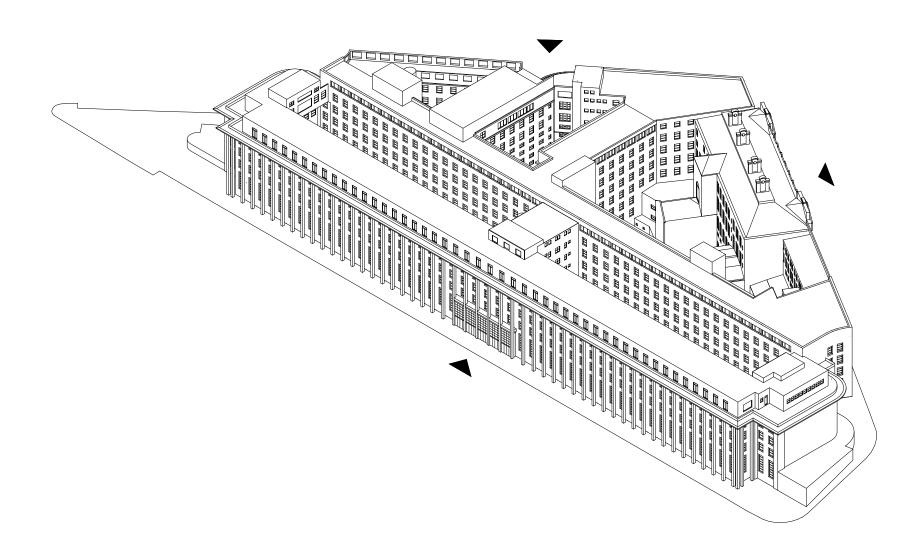
# undressing reconfiguring displacing

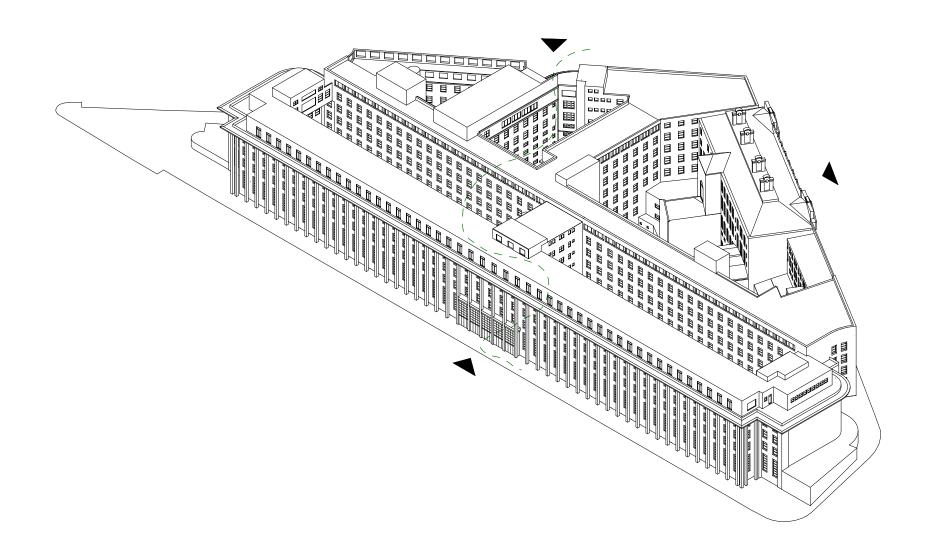


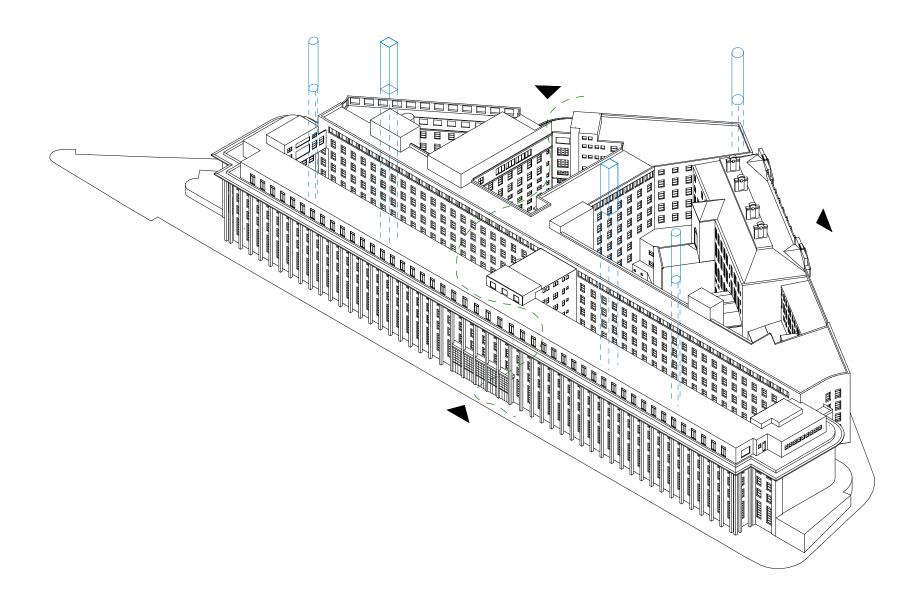
New National Bank of Belgium, removed ducts are displaced as an element for meeting

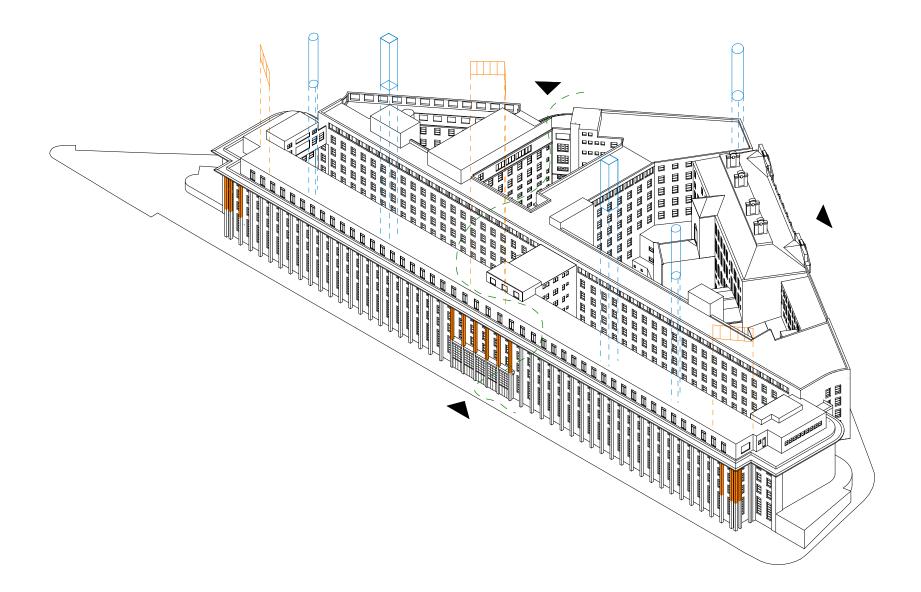


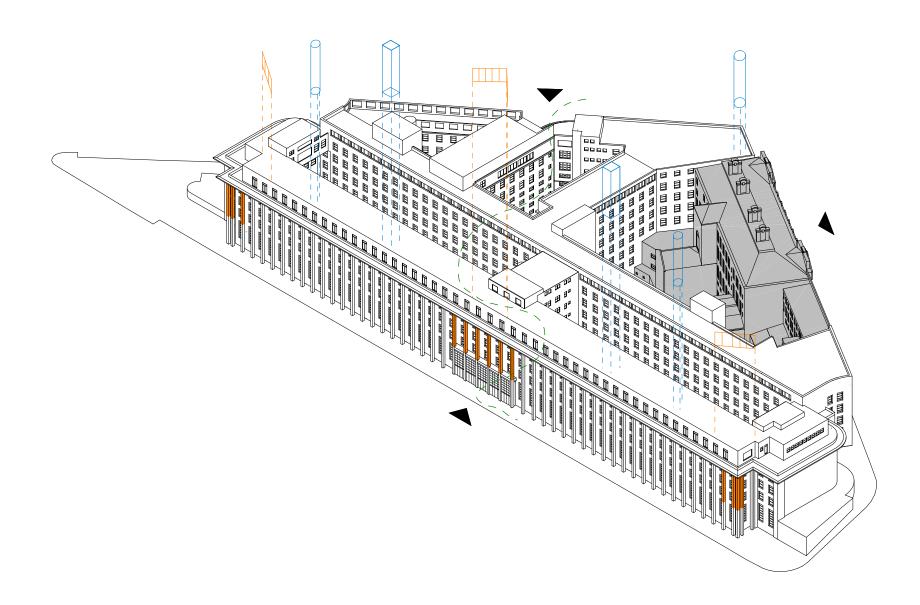


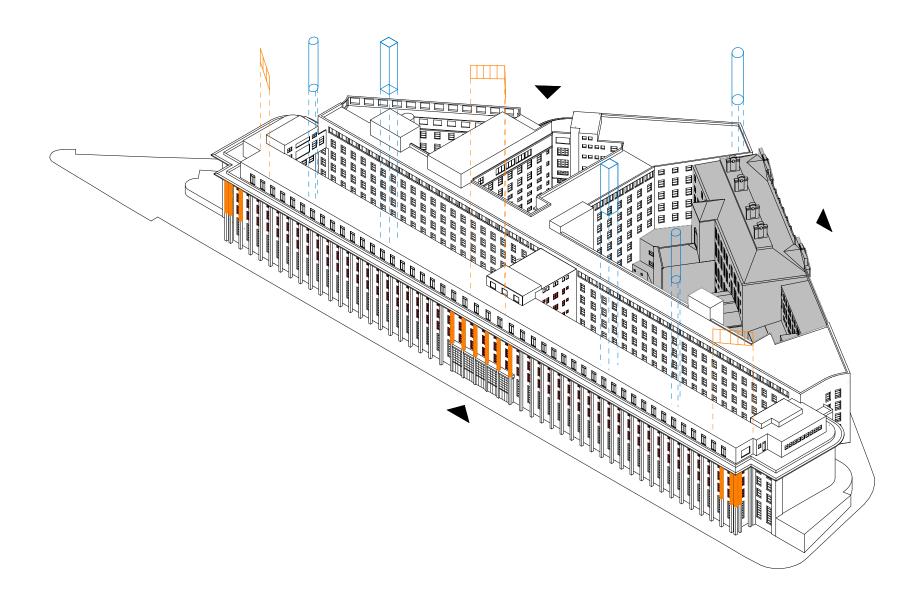


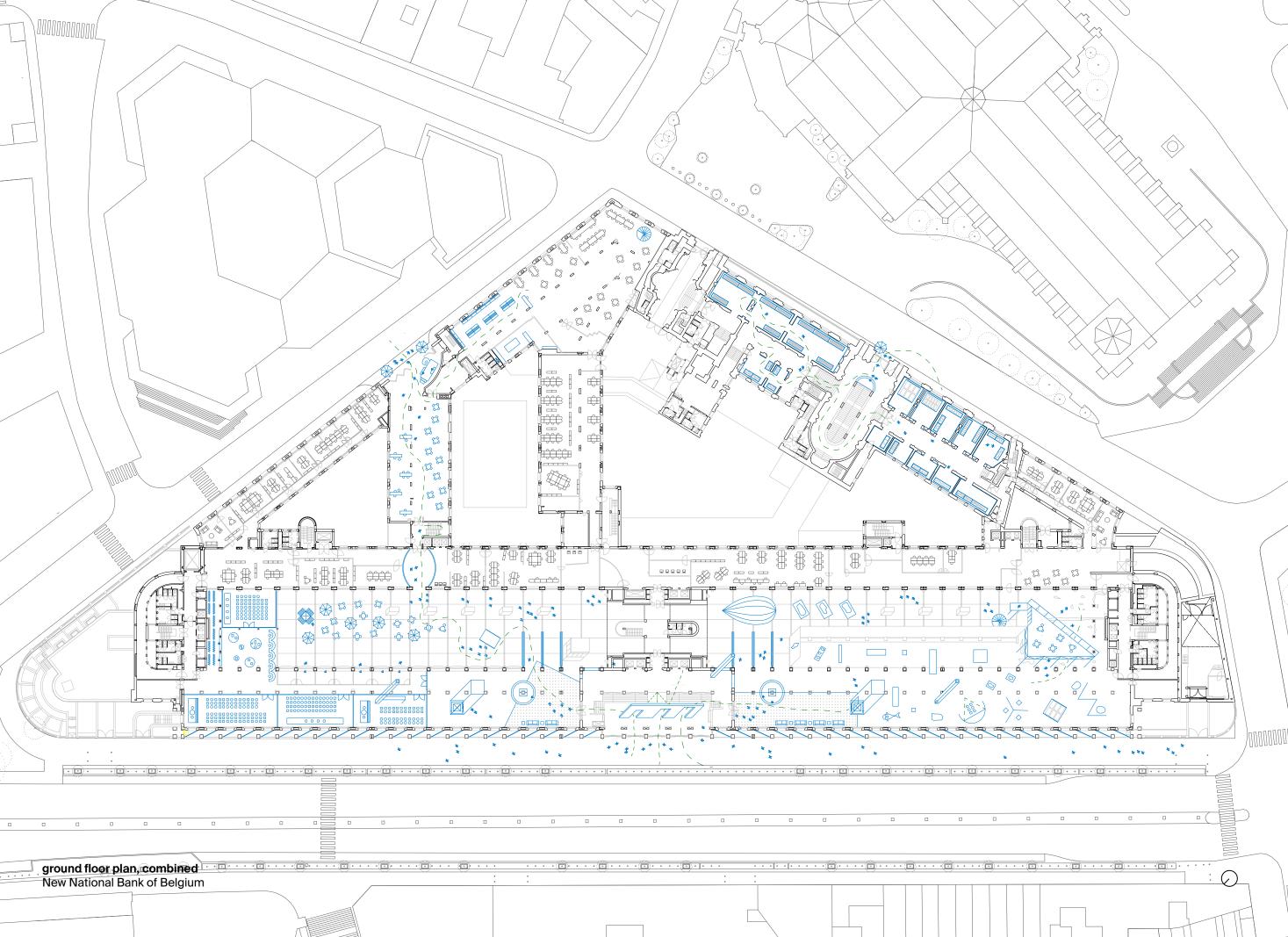


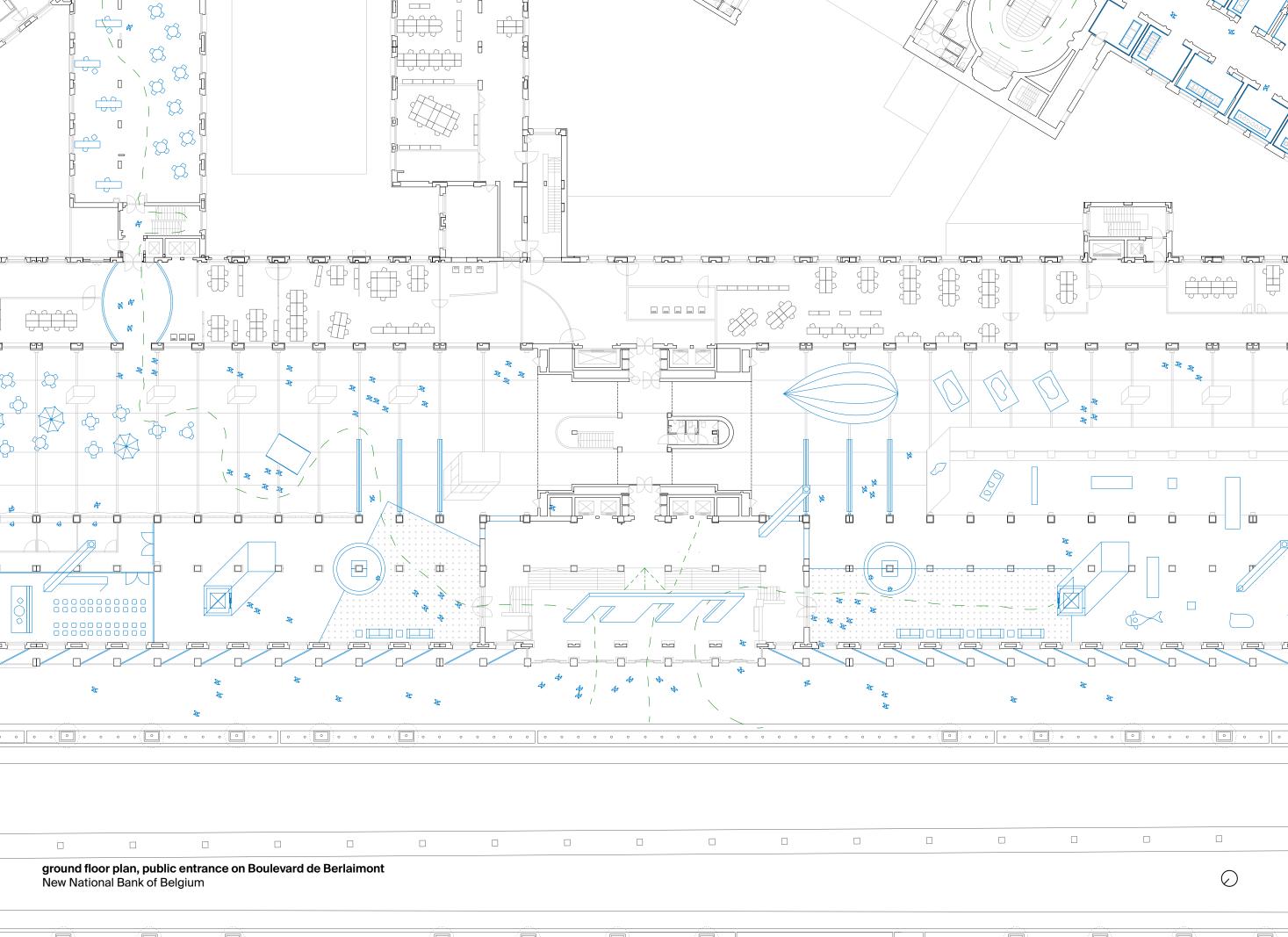


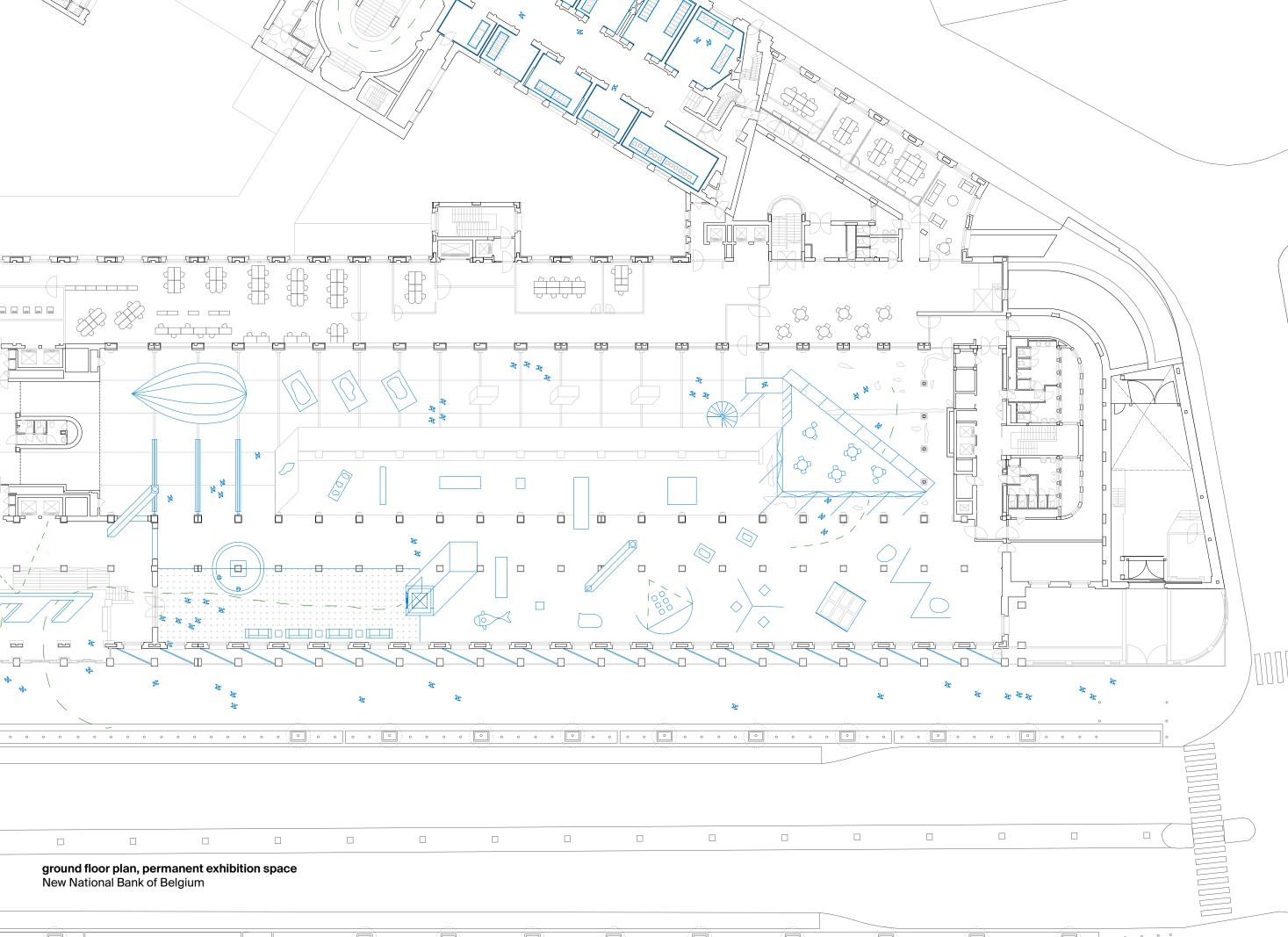


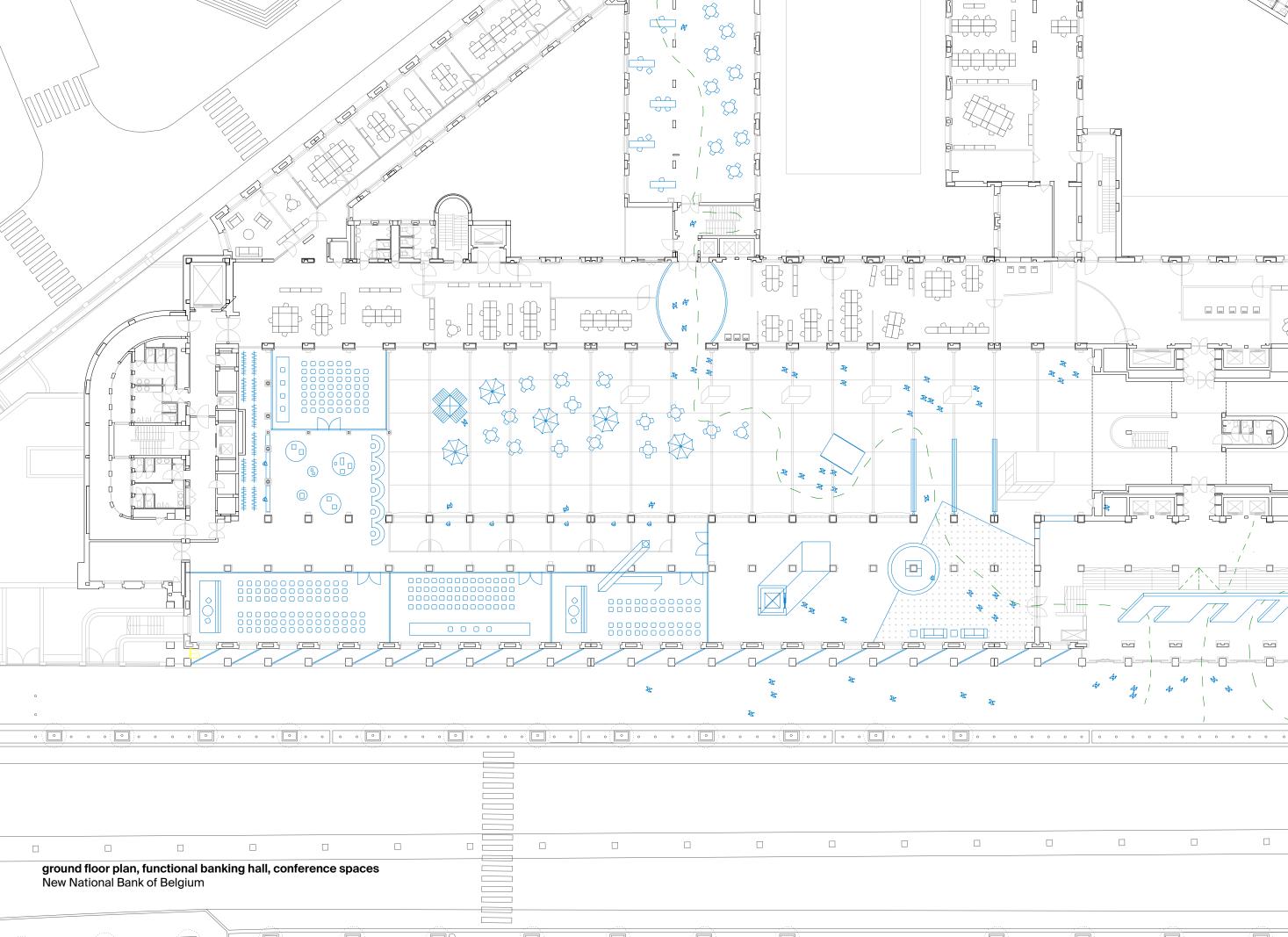


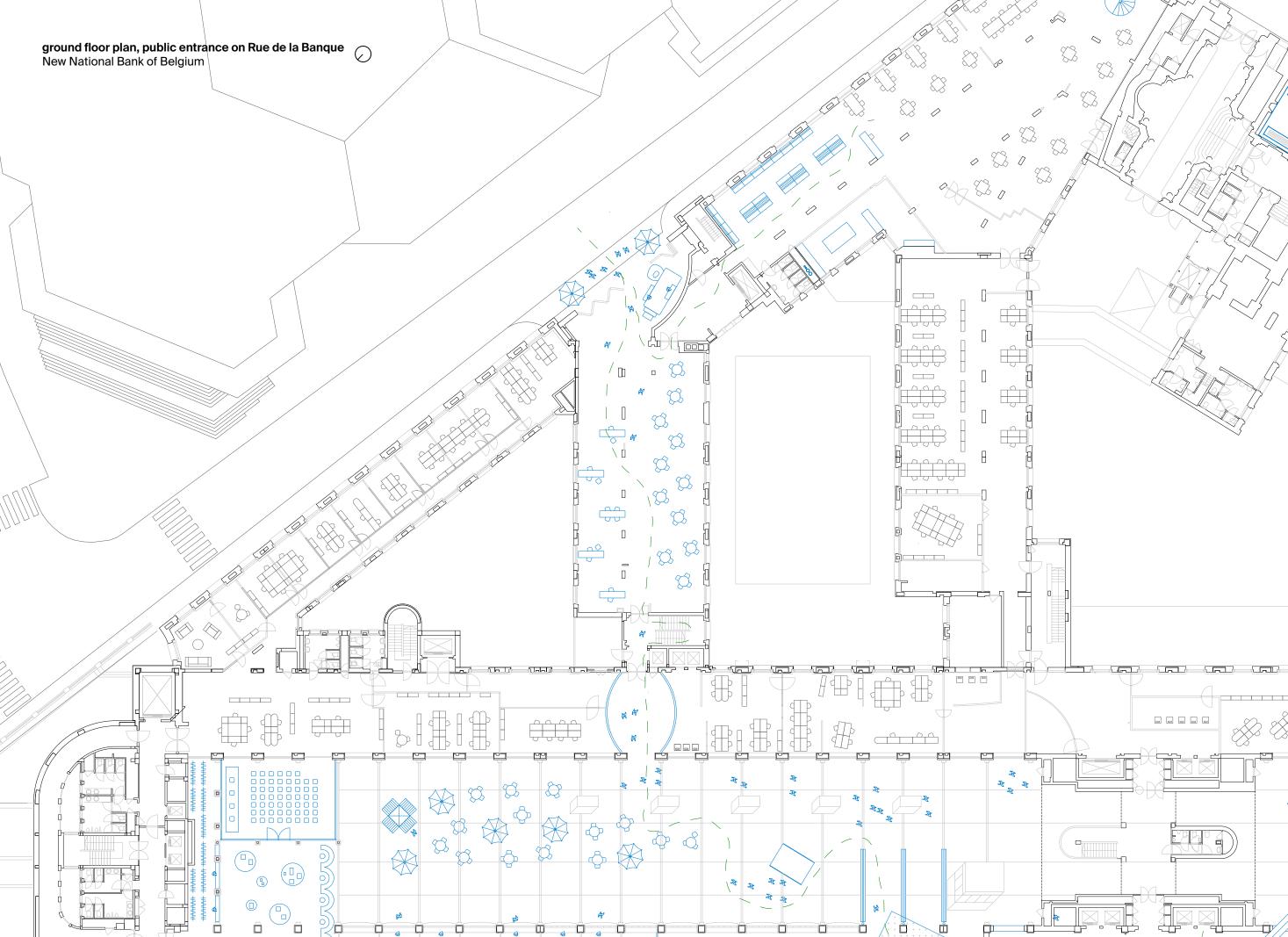


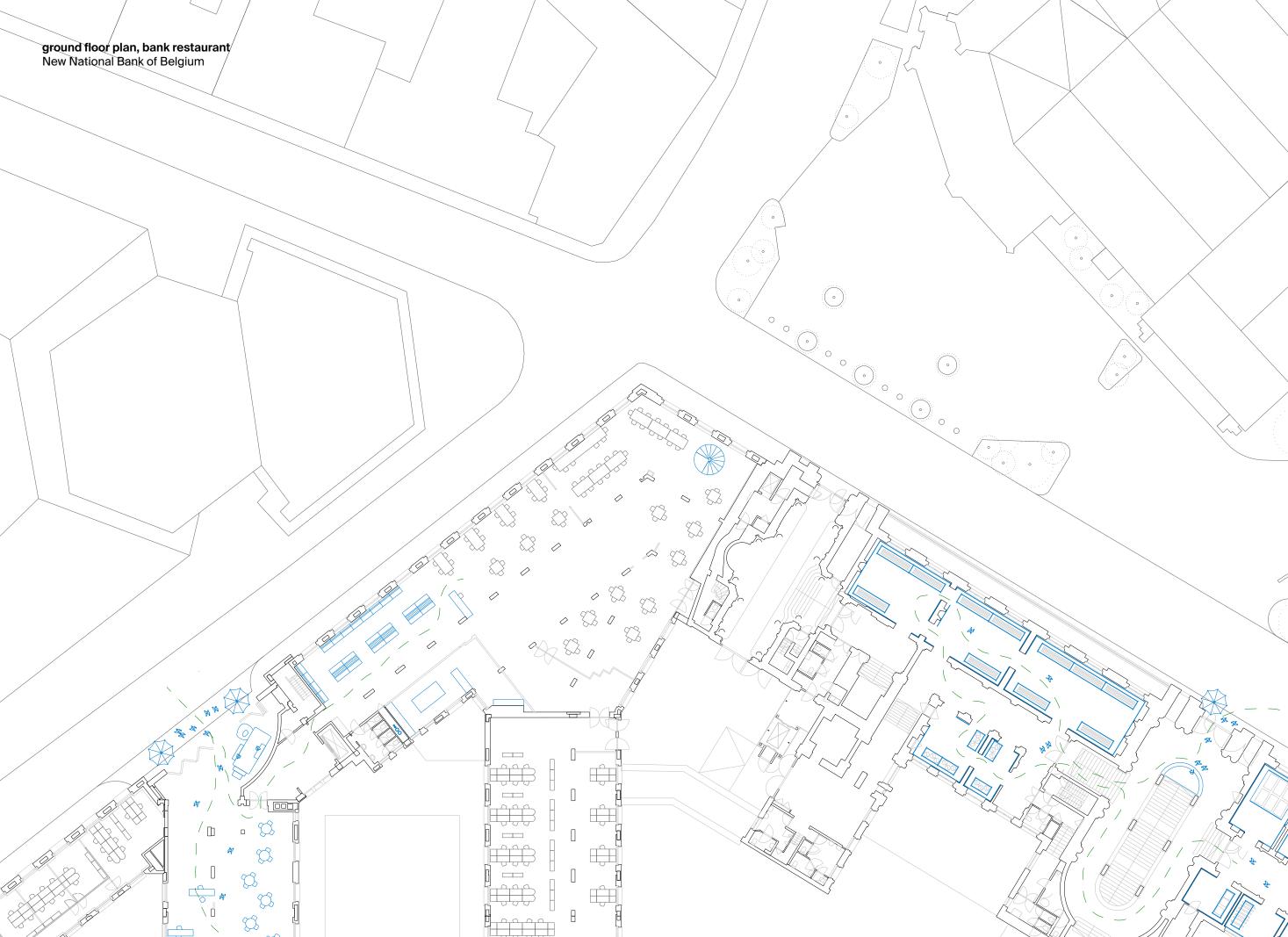




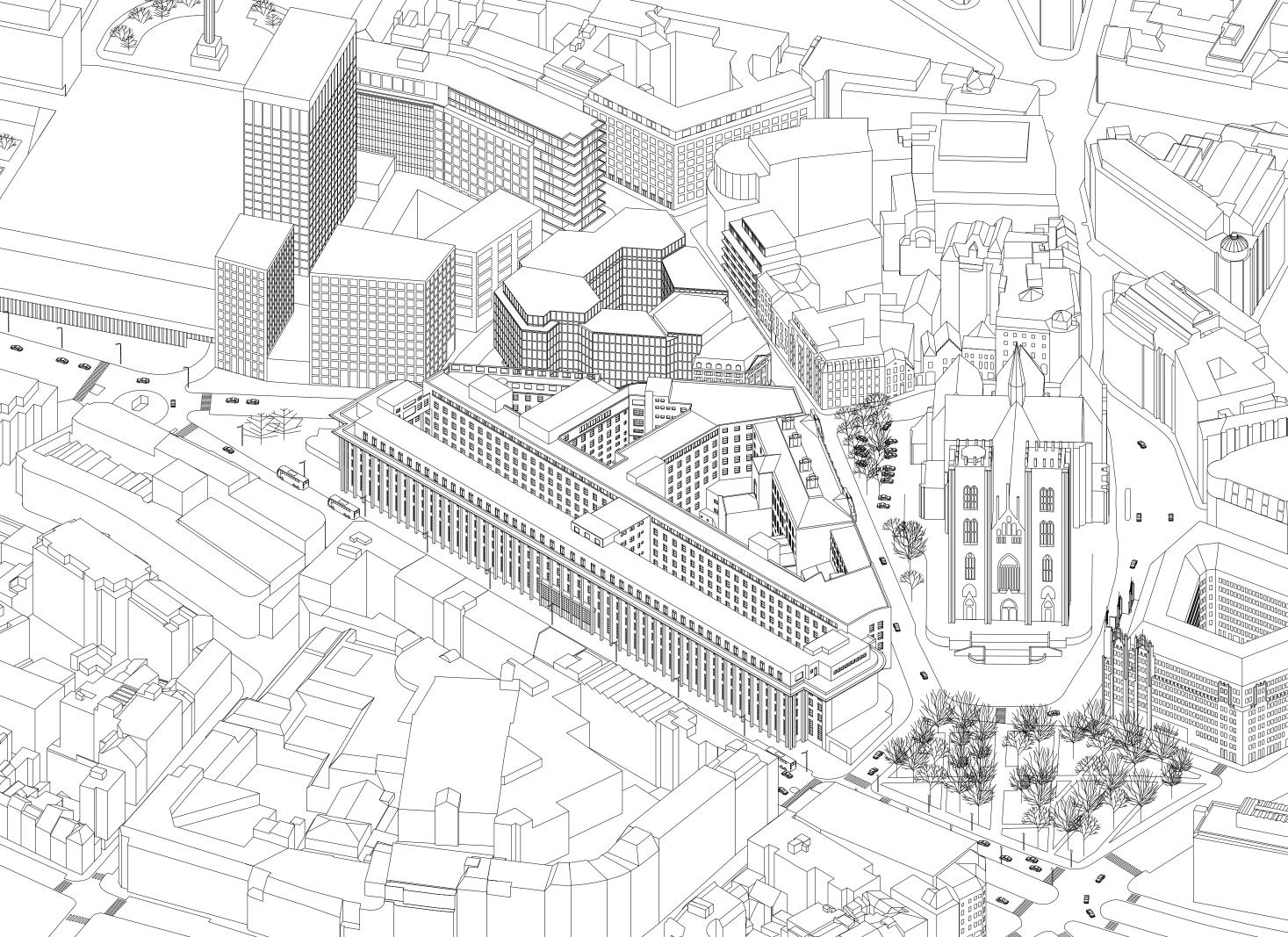


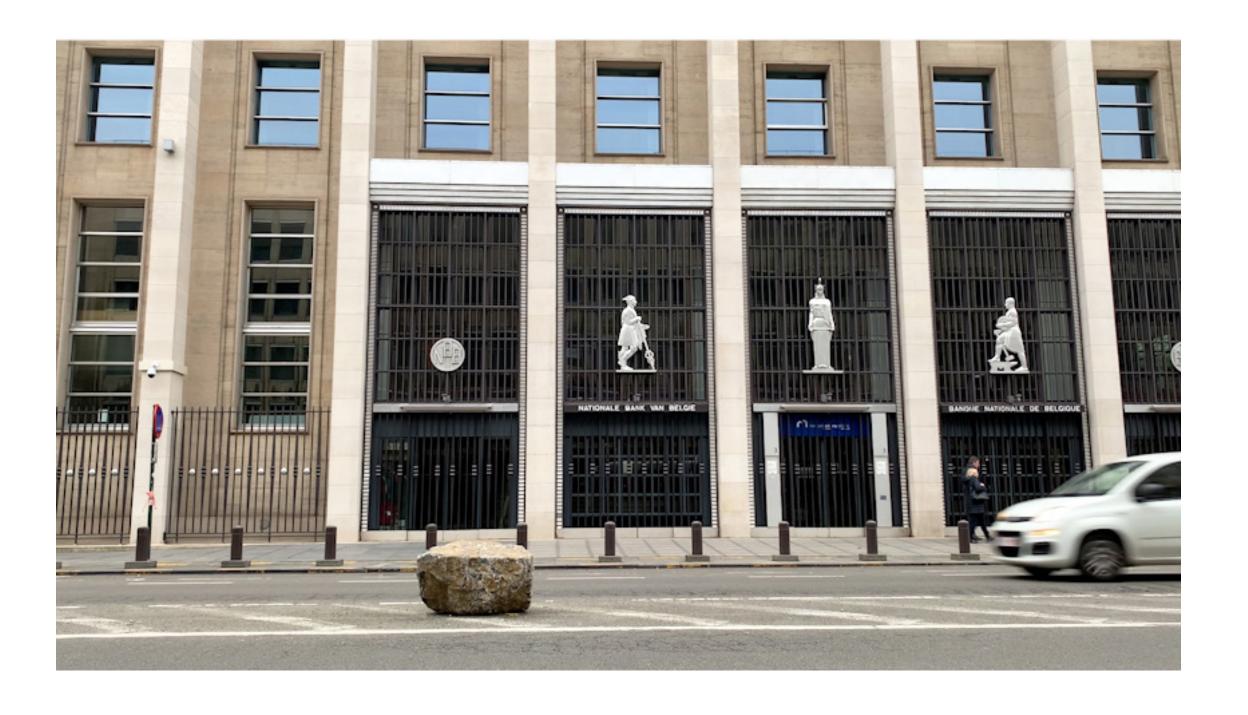




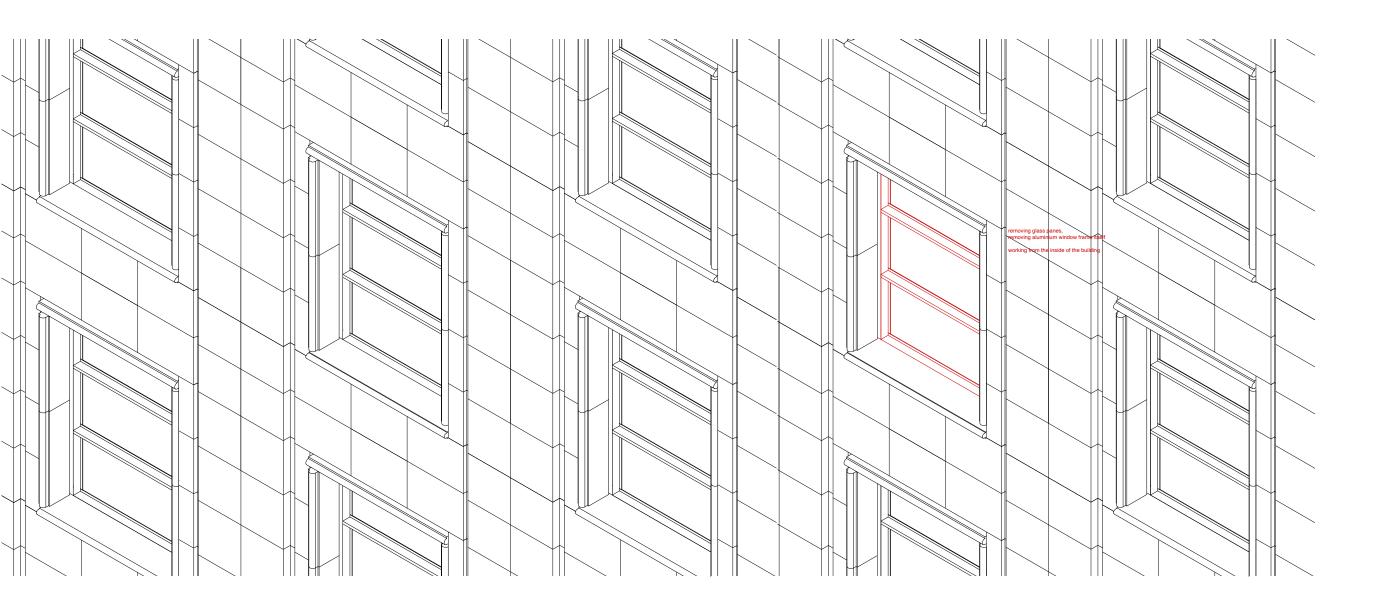




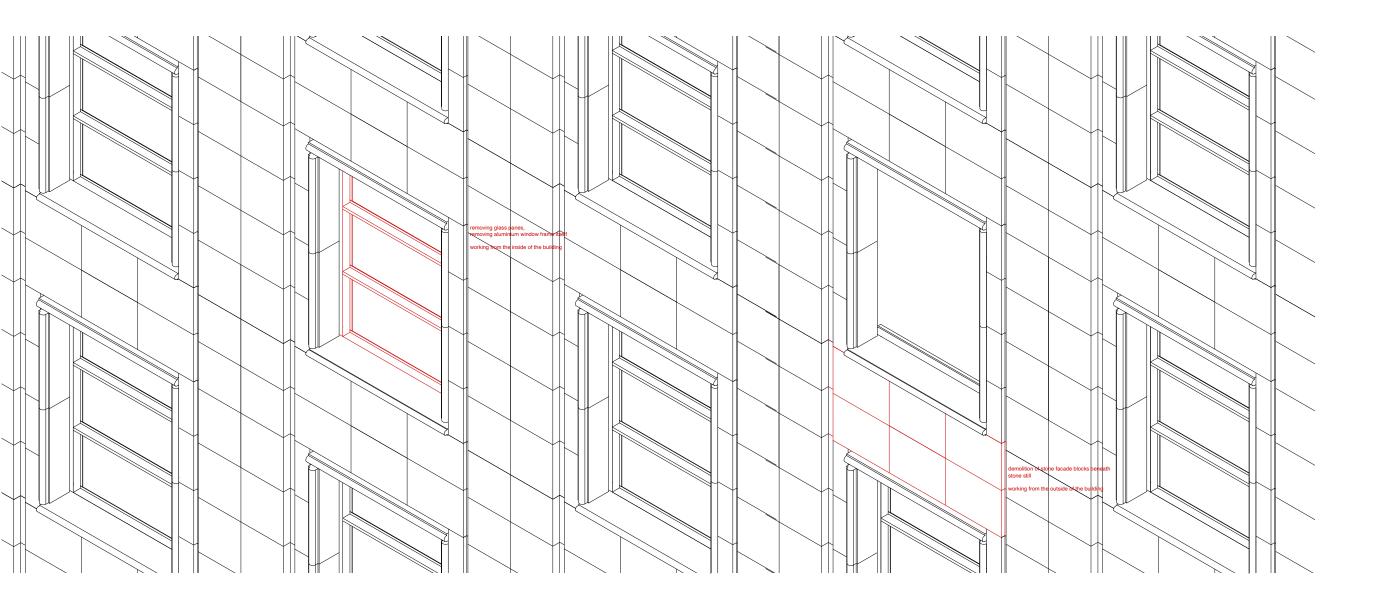




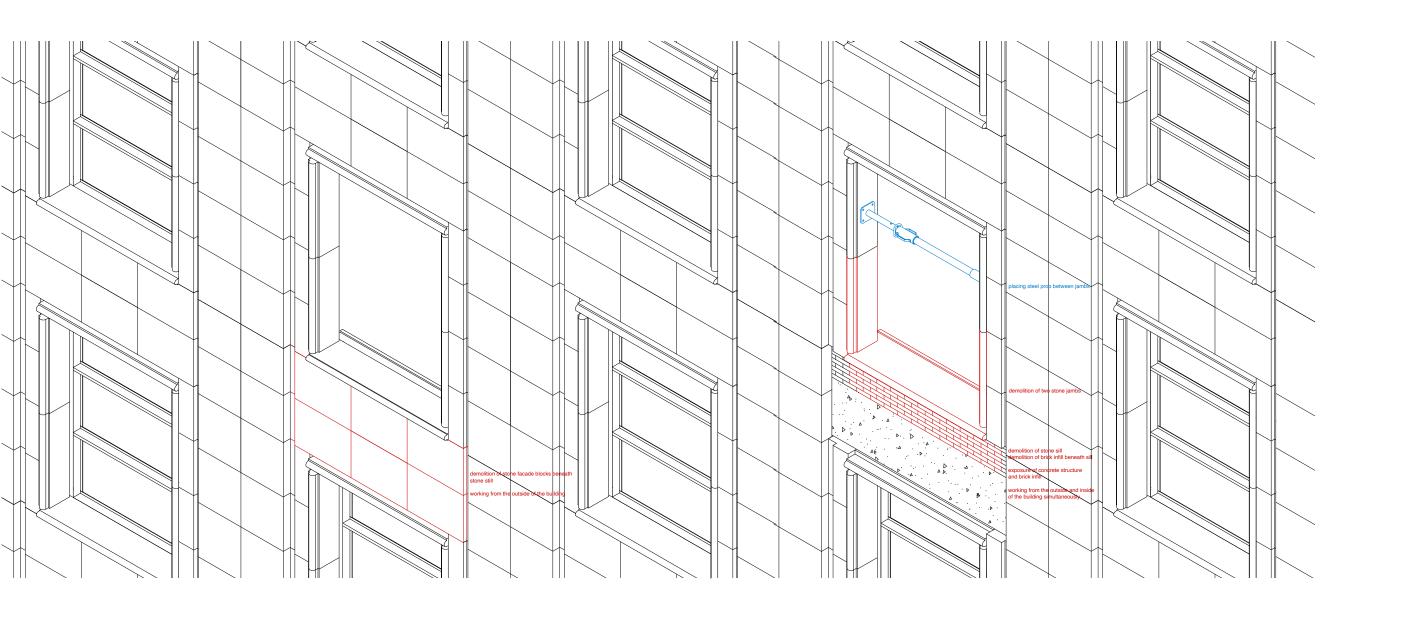






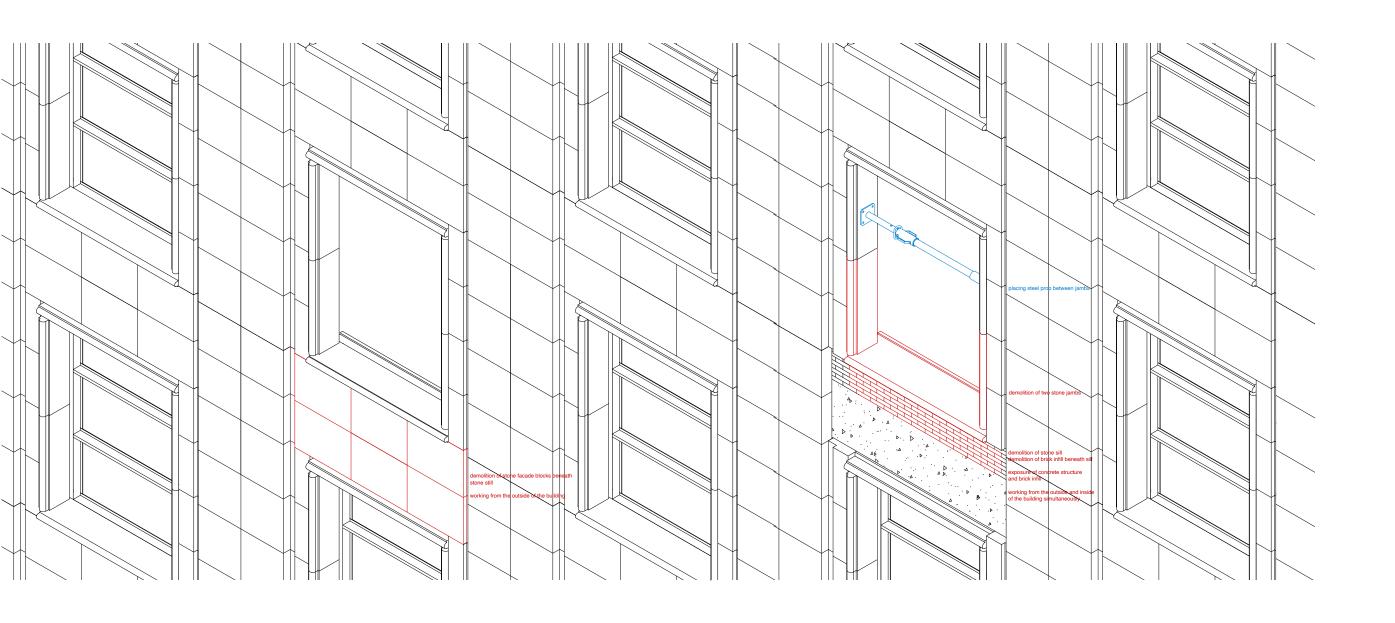




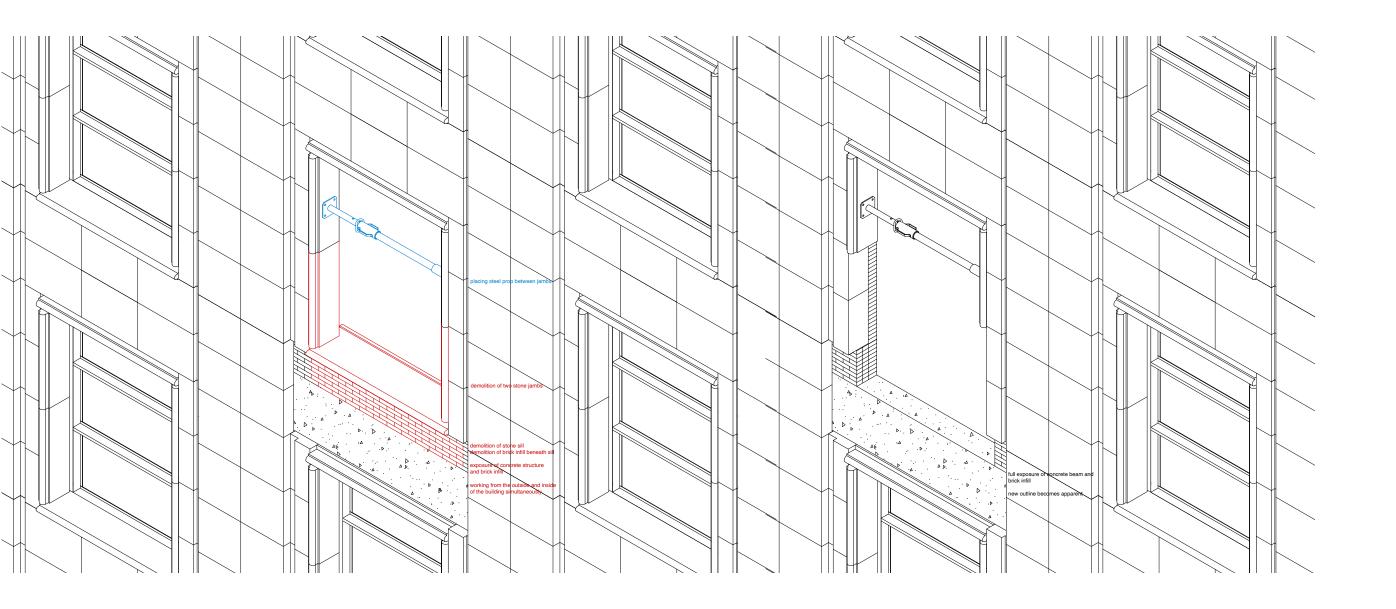




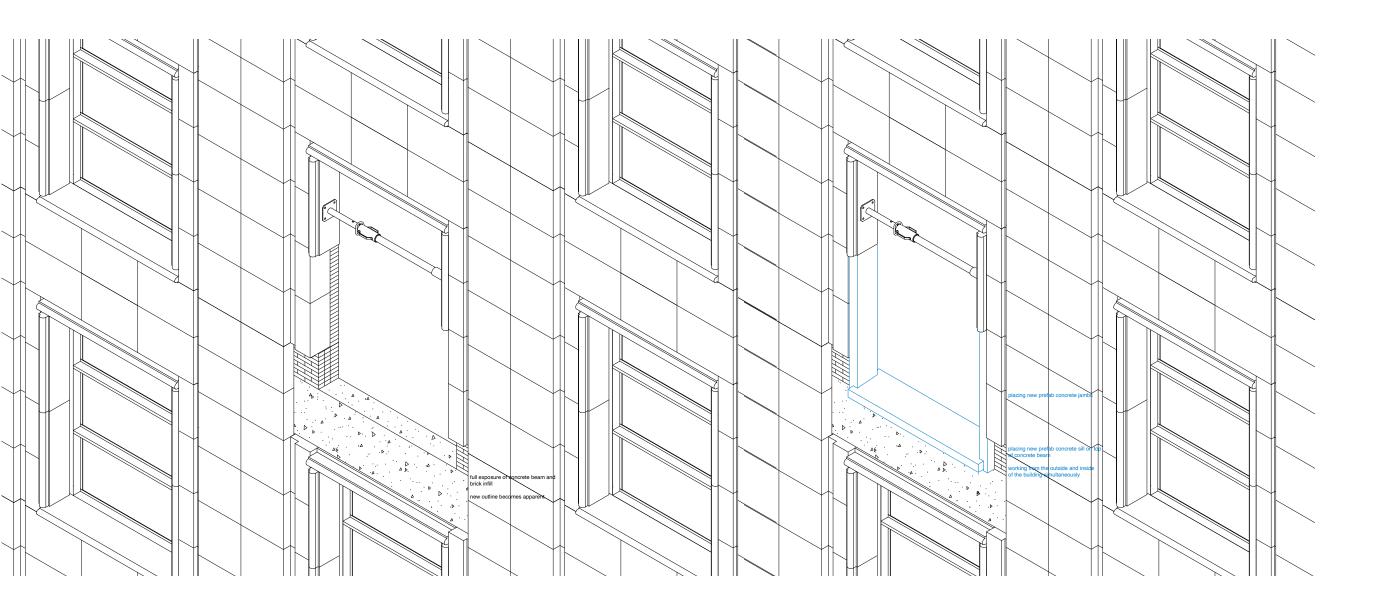
### undressing



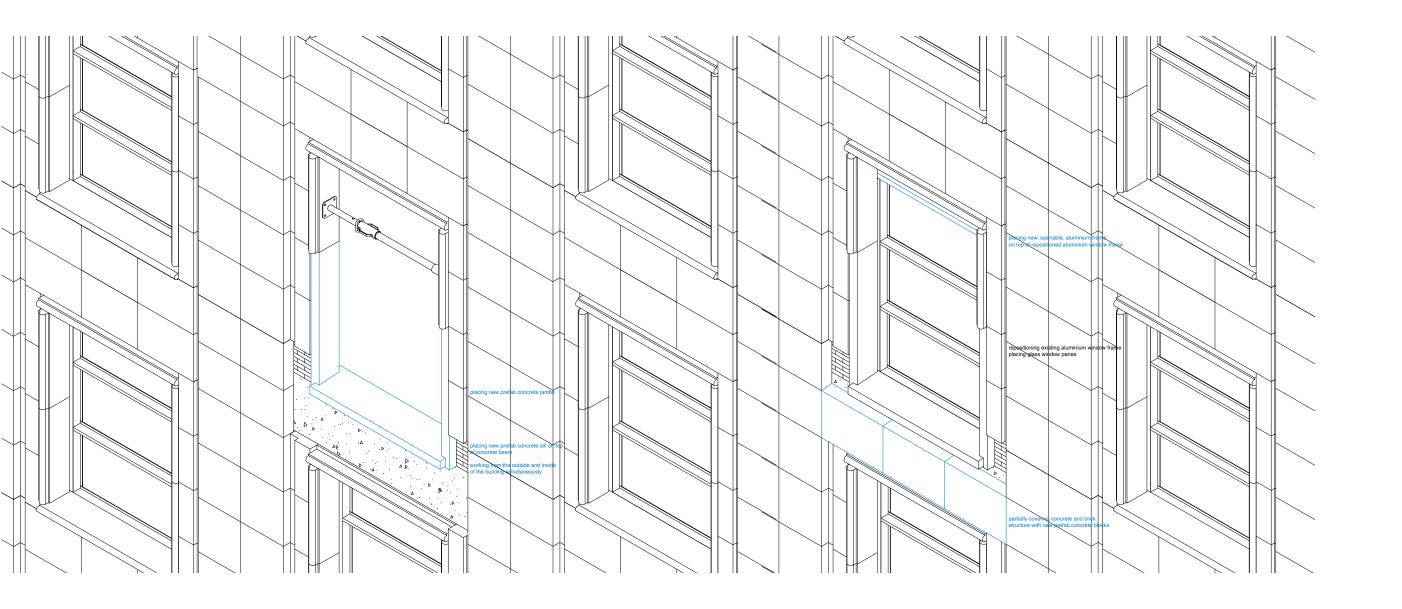






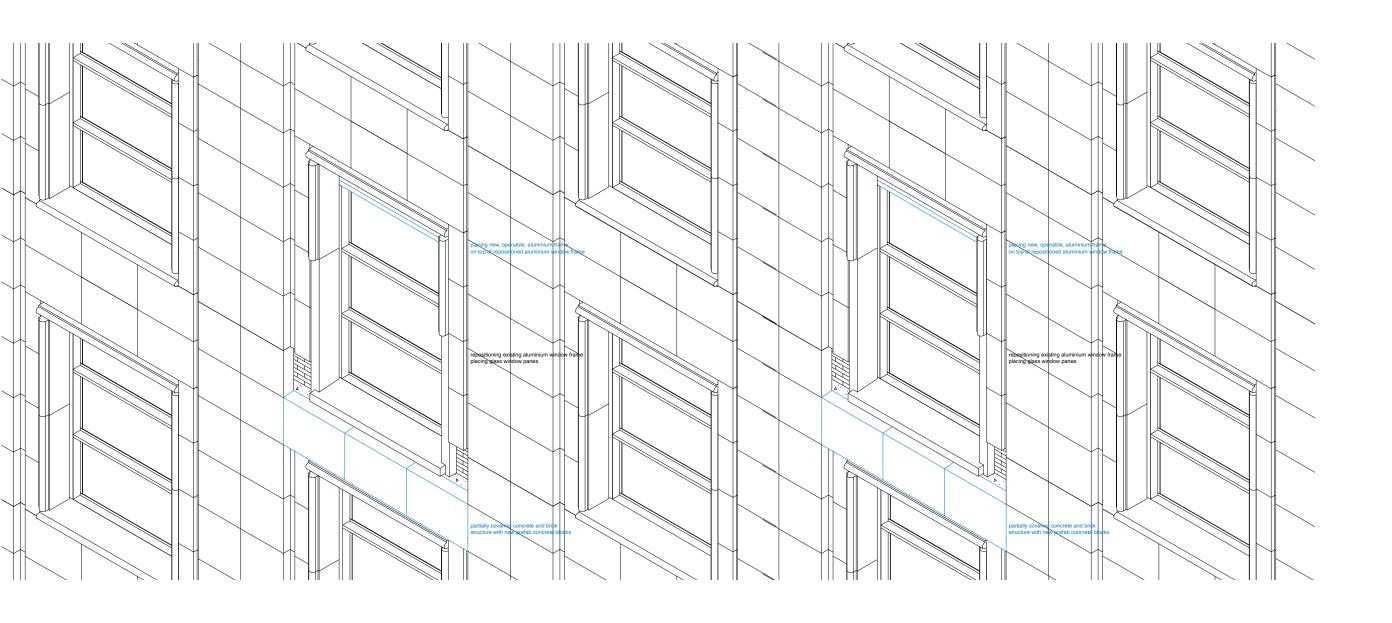




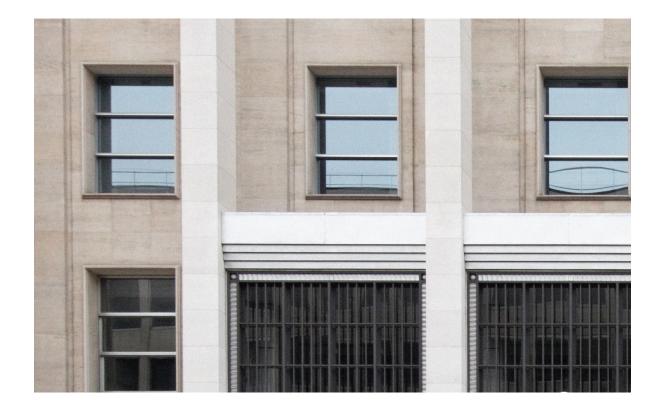


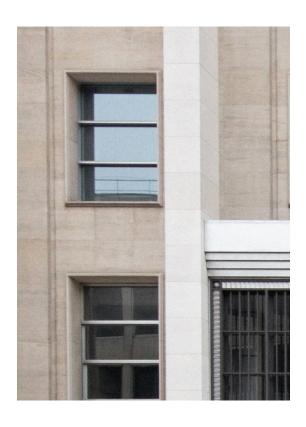


### displacing

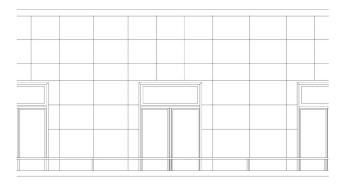


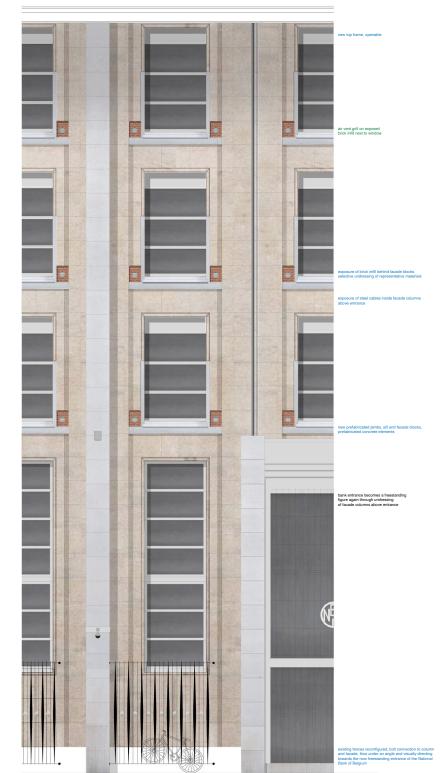


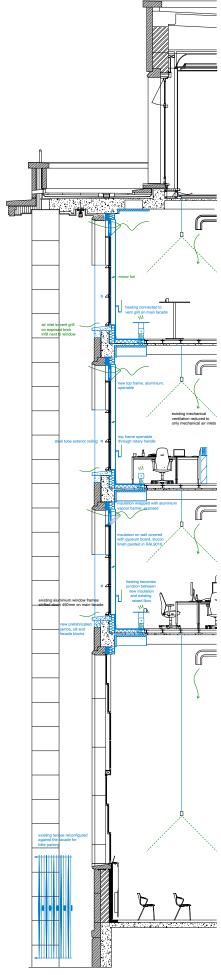




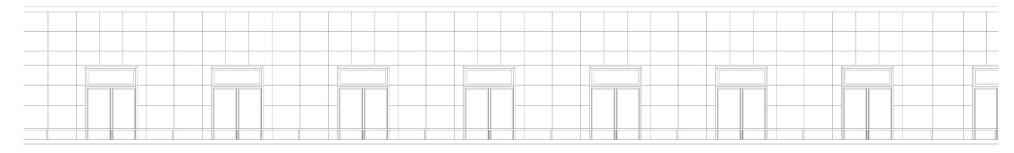






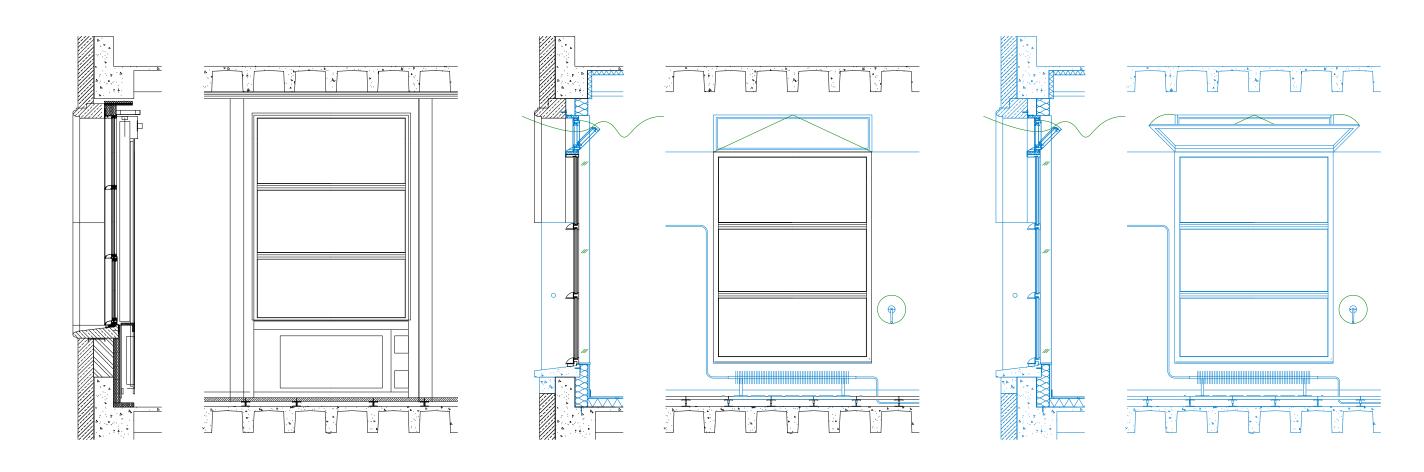








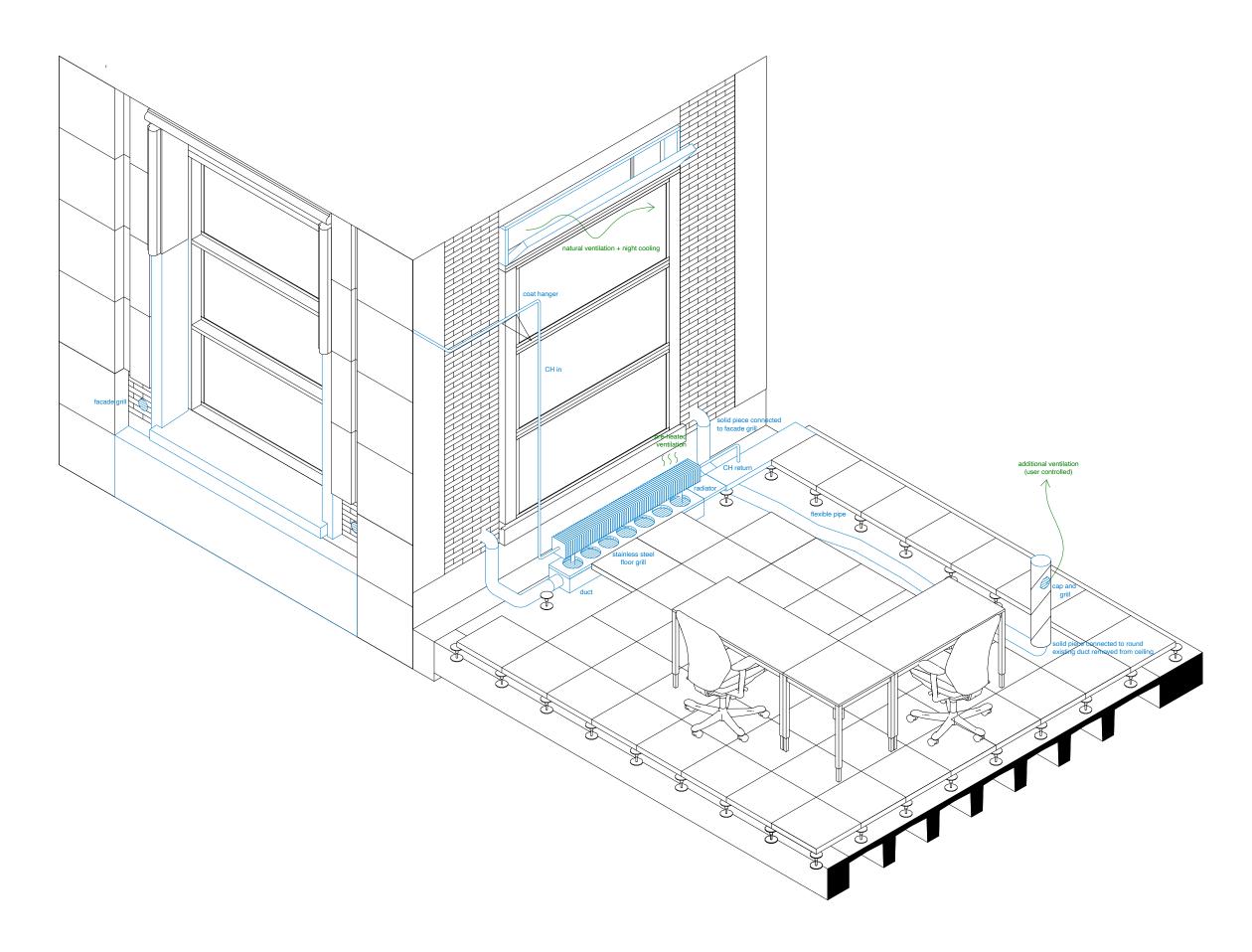




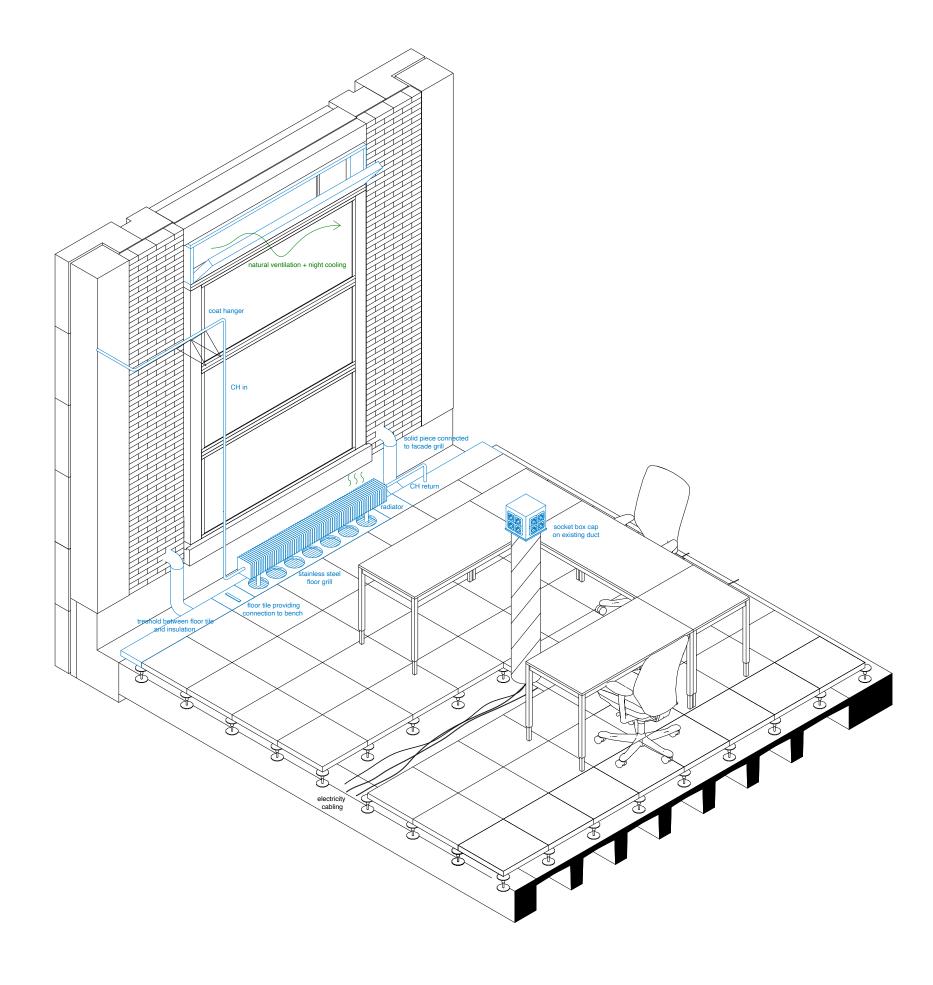




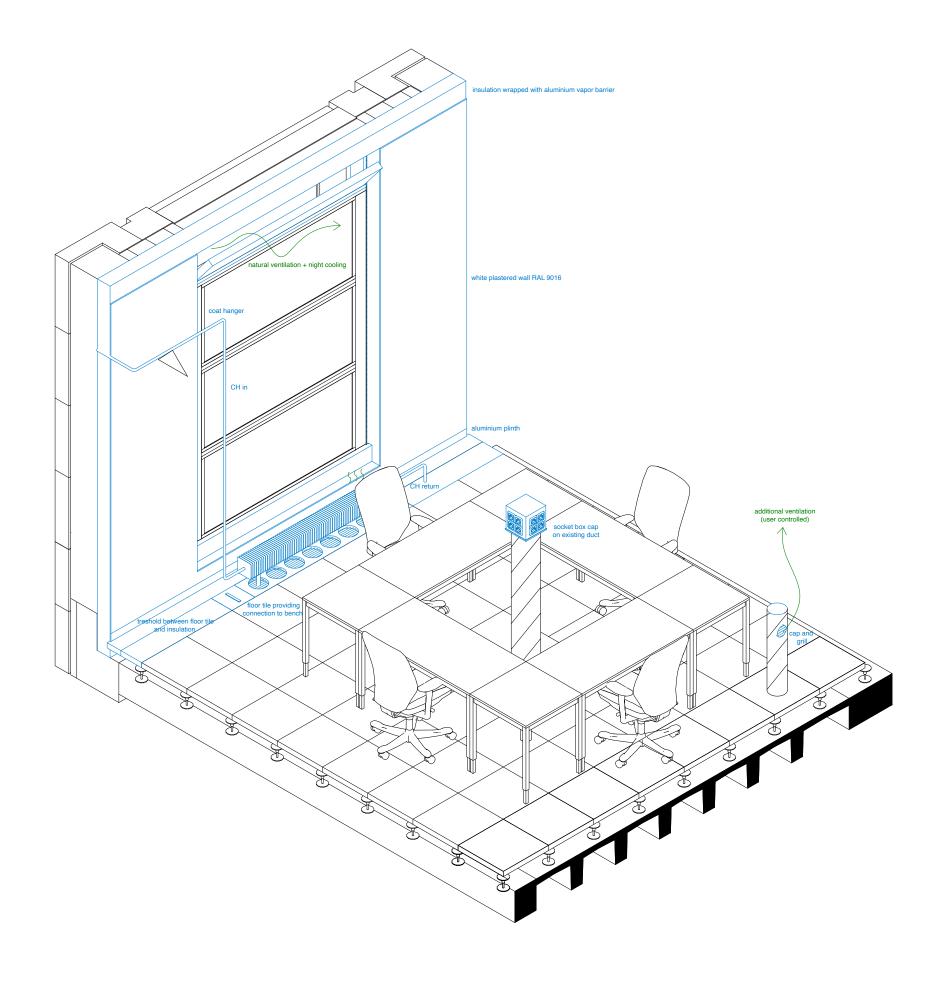






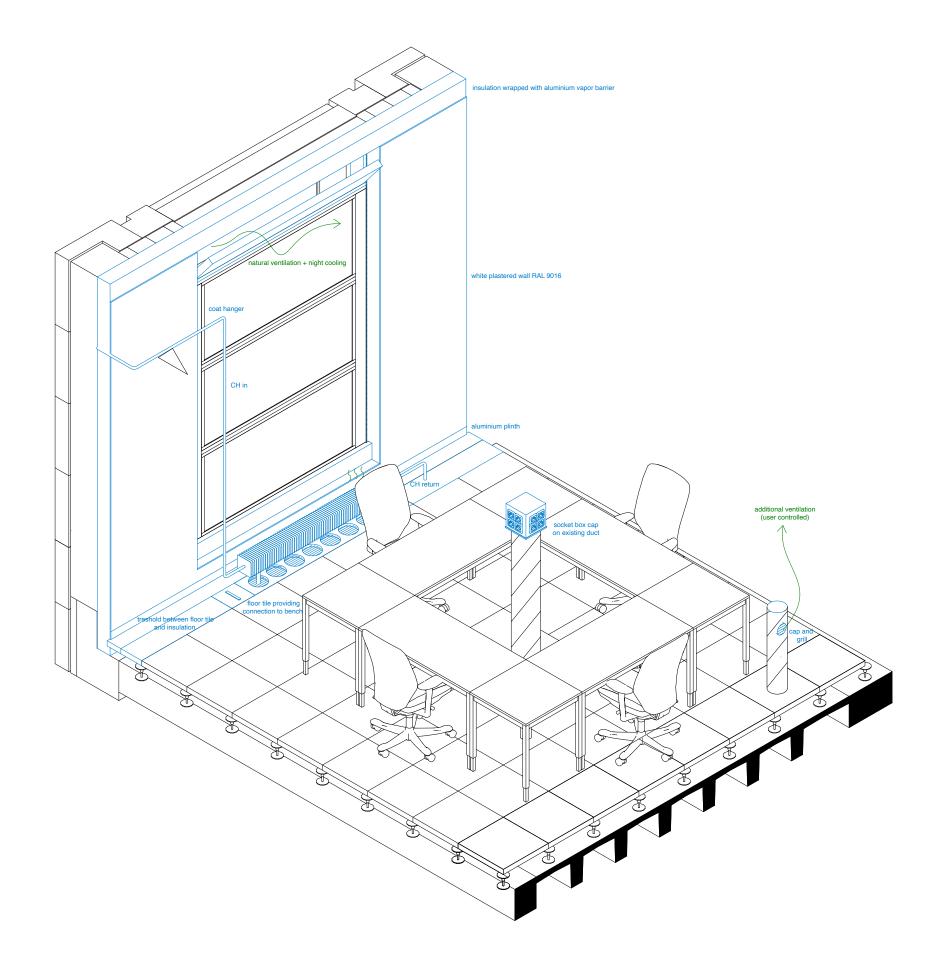














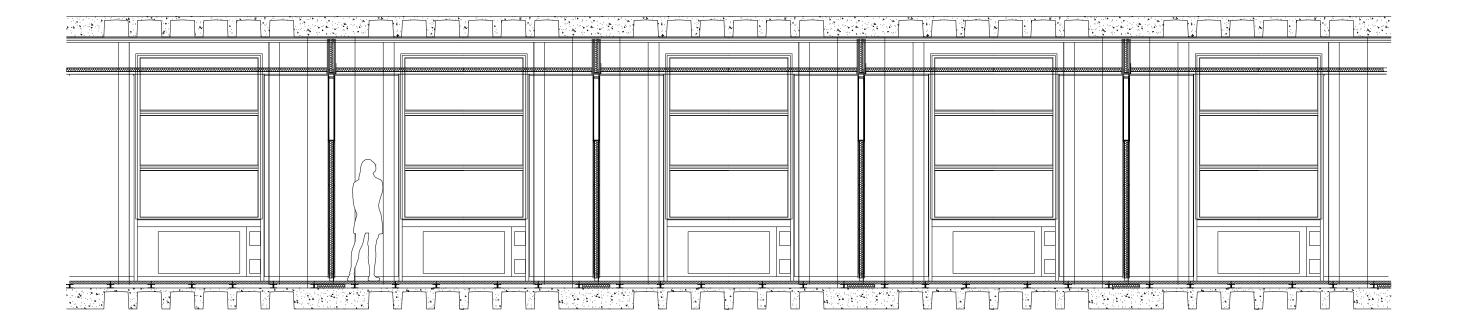


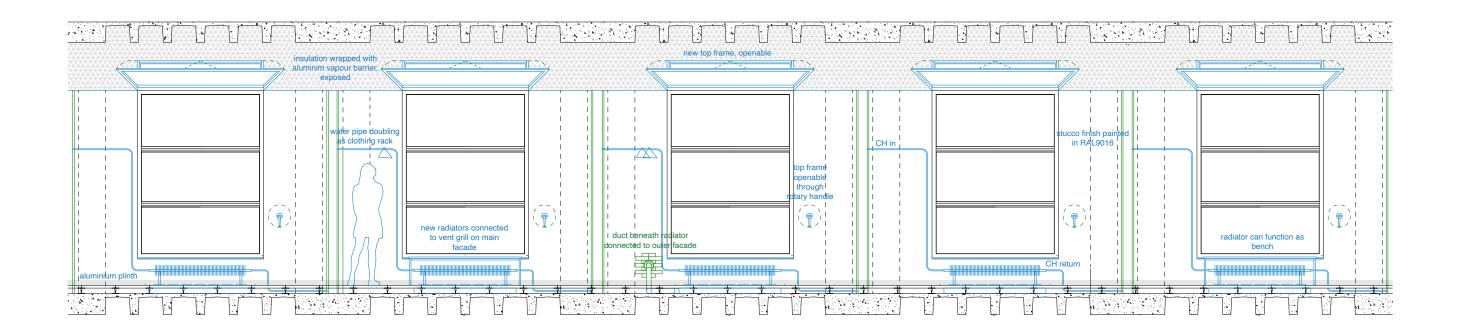
detail, 1:5 new duct in floor as junction between existing raised floor and new insulation mirror foil (pre-heated) air ventilation existing aluminium window frame exterior - interior wall new prefab concrete facade elemer existing cast in-situ concrete beam permeable foil
iCell insulation, Rd = 4,72
aluminium vapour barrier
gypsum board
stucco, painted in RAL 9016 — finned heating pipe 150x150 mm 225 190 aluminium plinth metalstud C-profile 150x35 mm steel U profile existing raised floor system D. **▷ ▷ ▷** Δδ top - bottom floor PIR insulation, cladded with aluminium vapour barrier (elevation) exposed aluminium vapour barrier

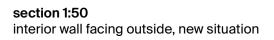
detail 1:5 ventilation grill inserted into exposed brick infill on facade new prefabricated concrete jamb brick infill exposed on facade high performance fire retardant ventilation grill (reacts at 140 degree celsius) (pre-heated) air ventilation - heating pipe, CH in finned heating pipe 150x150 mm Þ aluminium pipe plugged into rectangular duct for air inlet metalstud C-profile 150x35 mm Δ Δ Δ D

detail 1:5 ventilation grill inserted into exposed brick infill on facade new prefabricated concrete jamb brick infill exposed on facade high performance fire retardant ventilation grill (reacts at 140 degree celsius) (pre-heated) air ventilation - heating pipe, CH in finned heating pipe 150x150 mm Þ aluminium pipe plugged into rectangular duct for air inlet metalstud C-profile 150x35 mm D

detail, 1:5 connecting new openable frame to existing aluminium frame Δ Δ ν Ν Δ 250 exterior - interior wall top - bottom floor 470 mm 590 mm 330 mm L-profile connection foamglas permeable foil iCell insulation 100 mm 1 mm 150 mm 1 mm existing cast in-situ concrete beam PIR insulation, cladded with aluminium vapour barrier (elevation) exposed aluminium vapour barrier Lüftungsflügel Schüco AWS VV, opening angle 45 degrees existing aluminium window frame

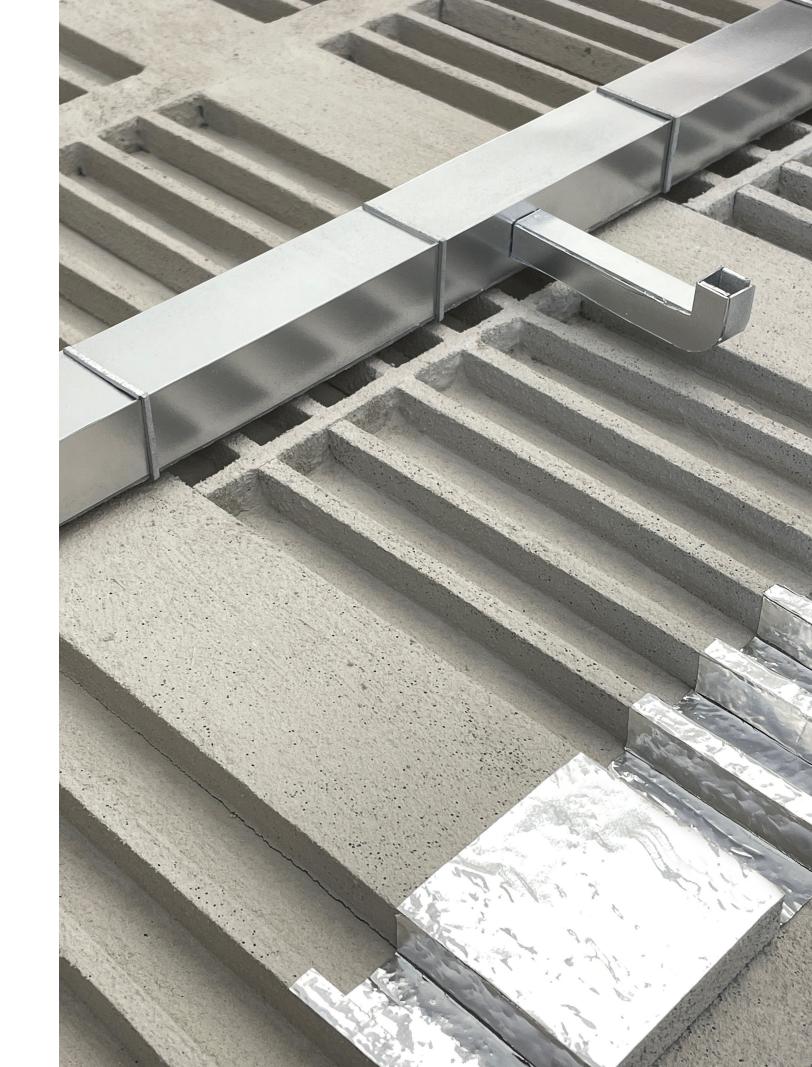


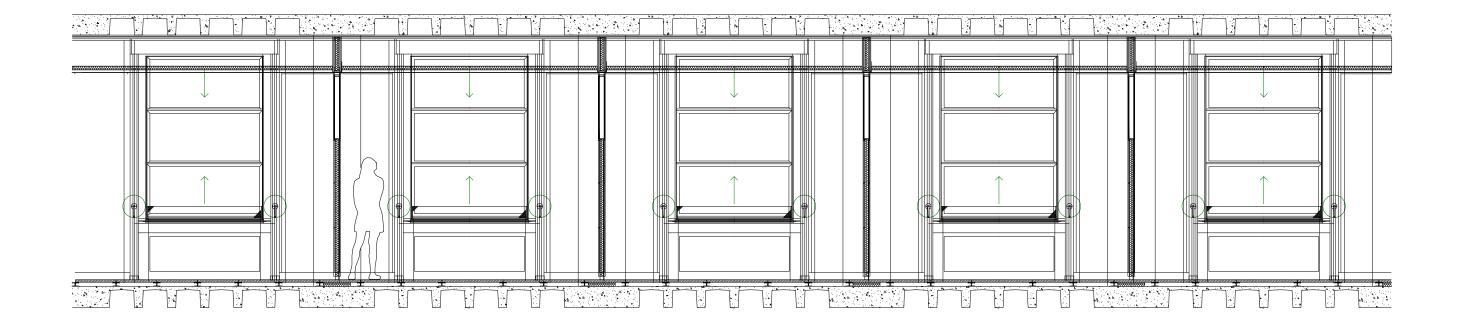




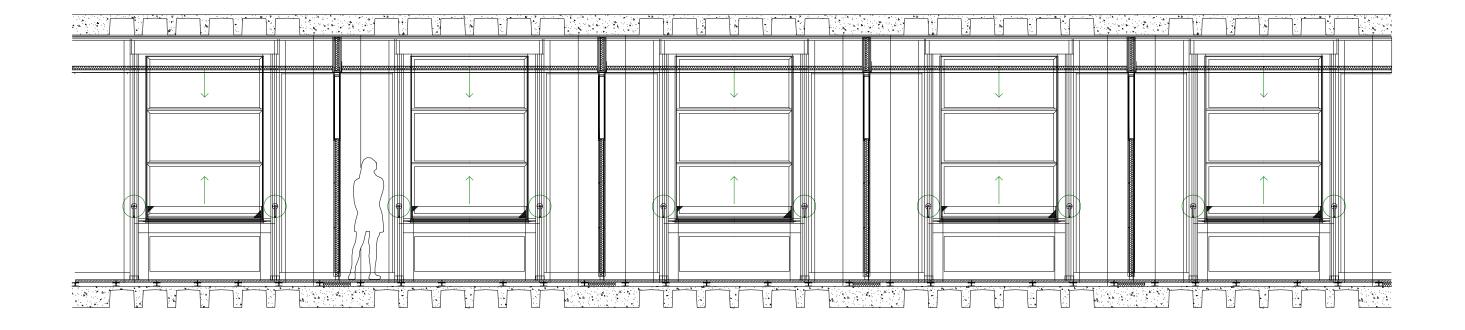


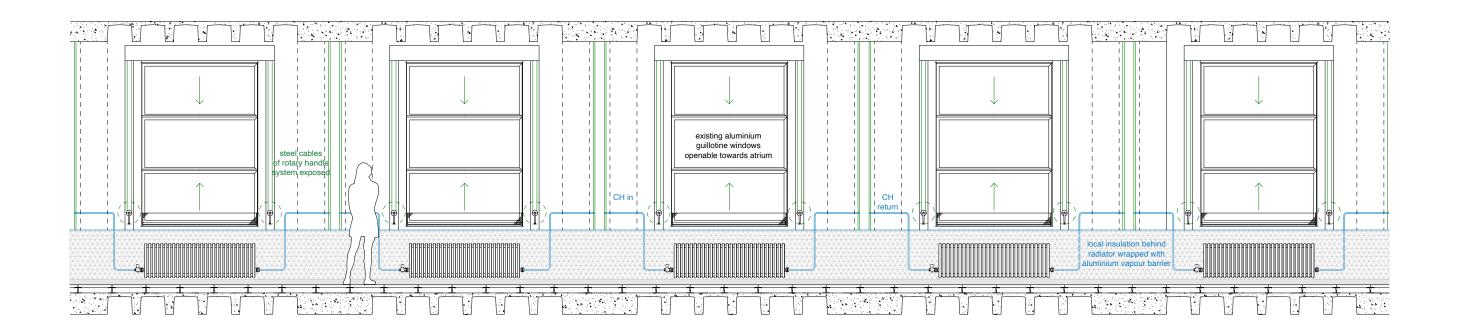


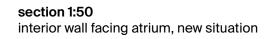






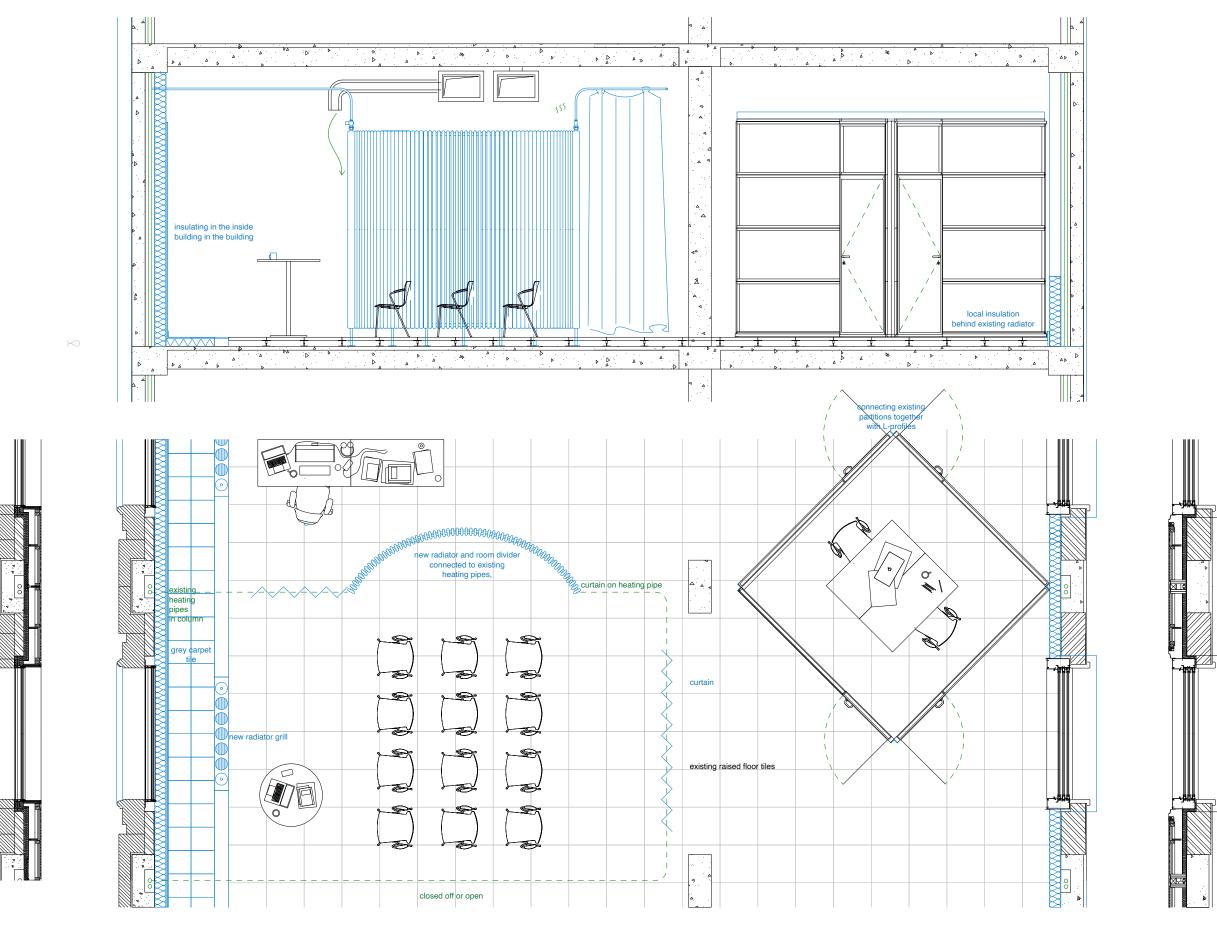






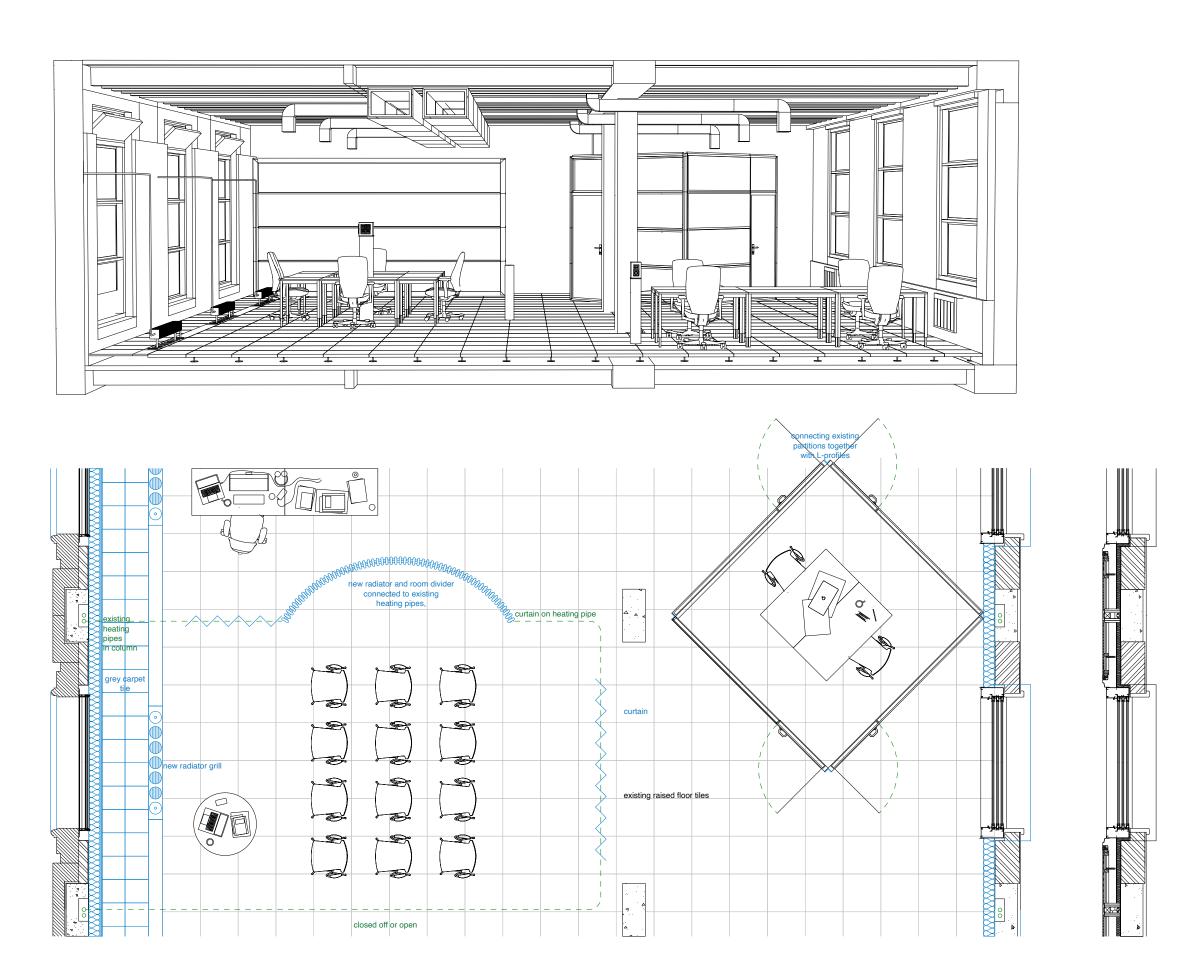






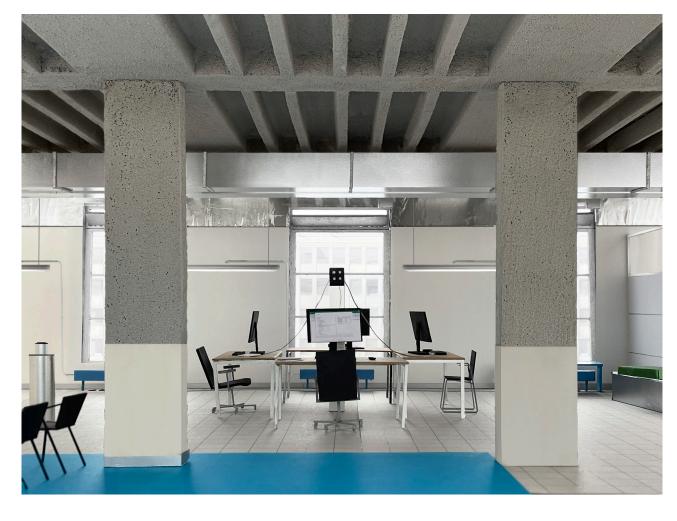


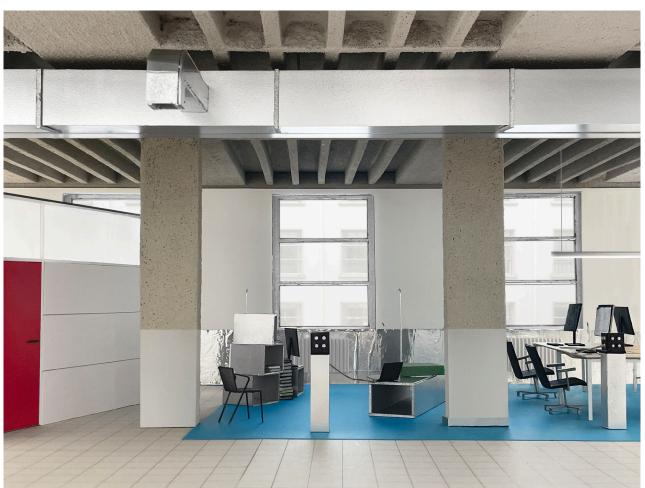
plan, section 1:50 office 1, workplace

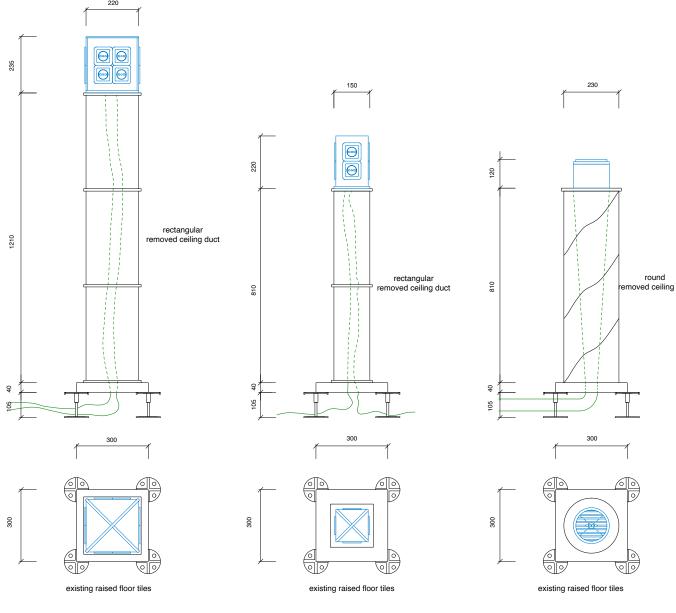


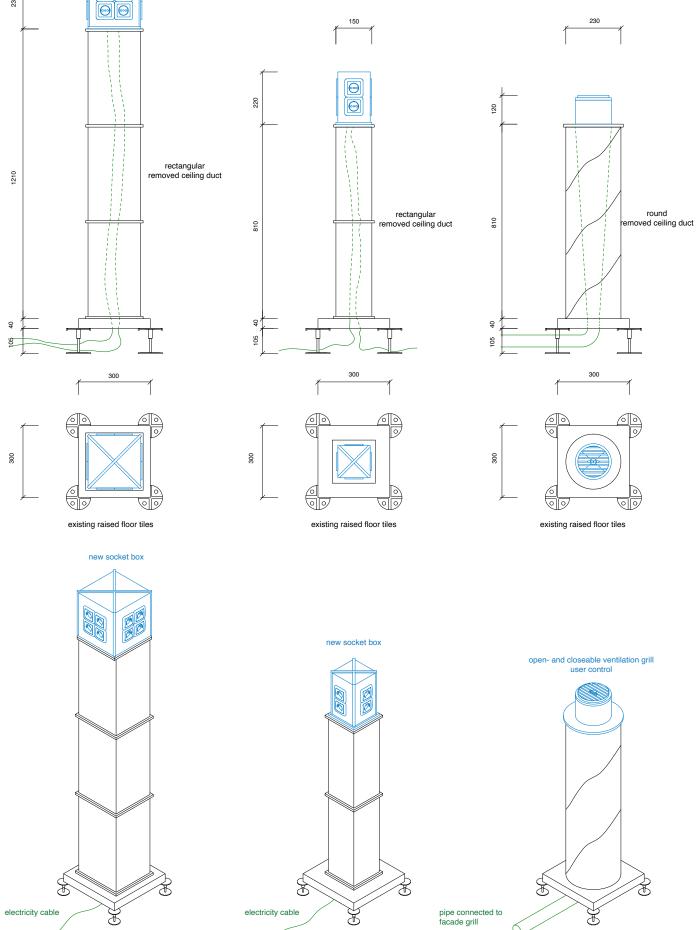


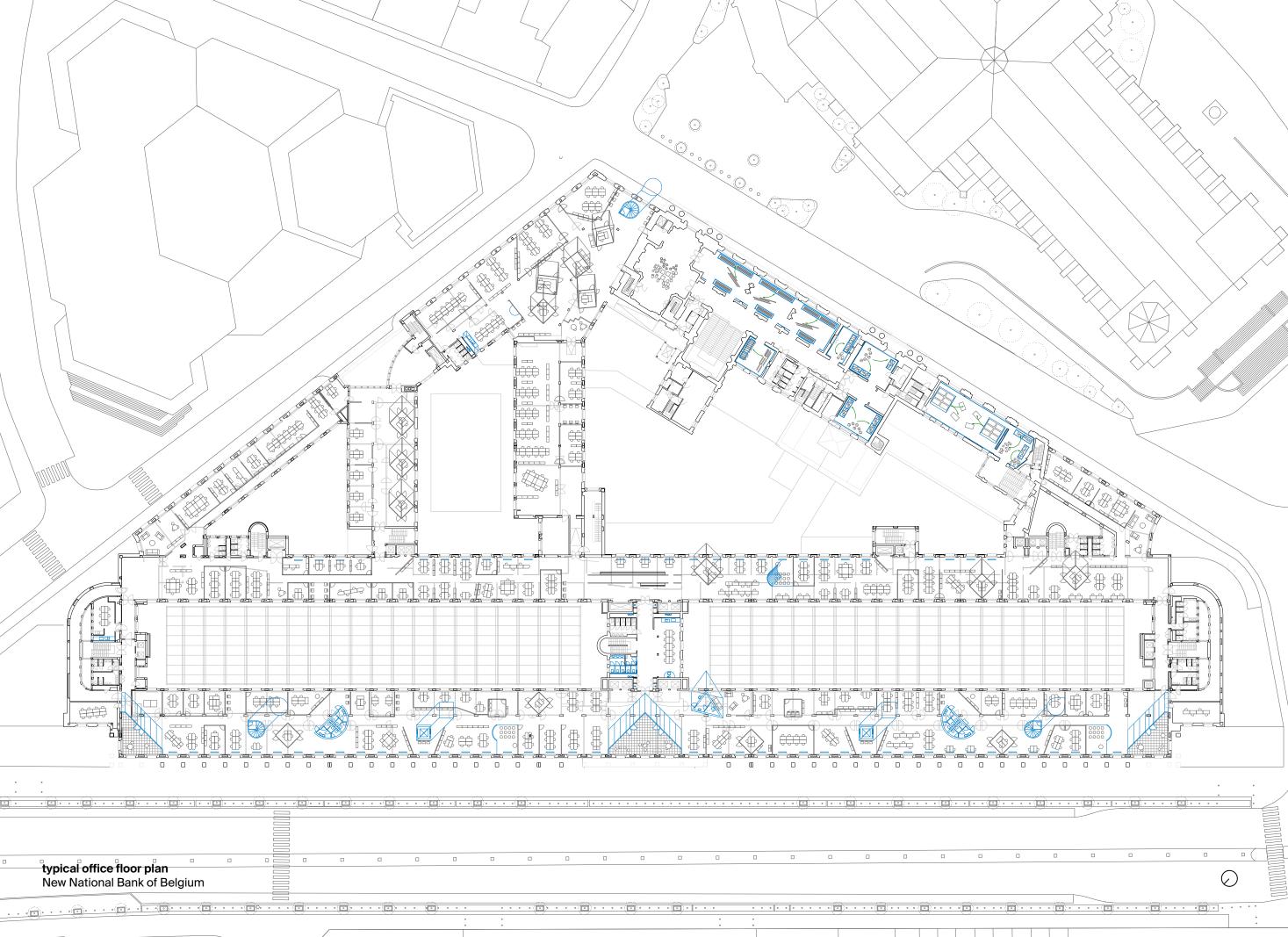
plan, perspective office 1, workplace

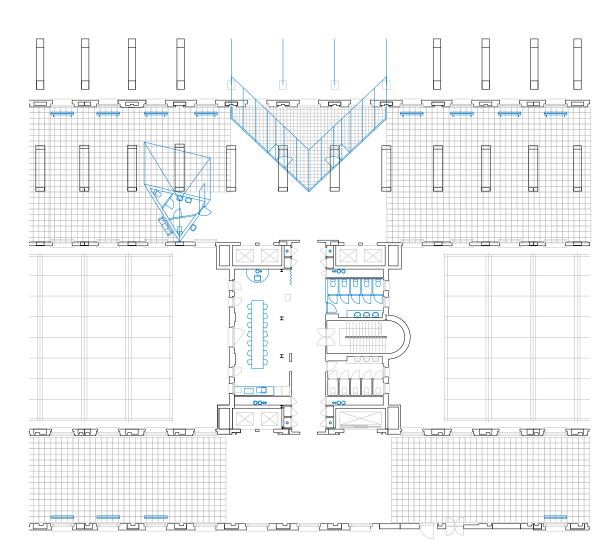


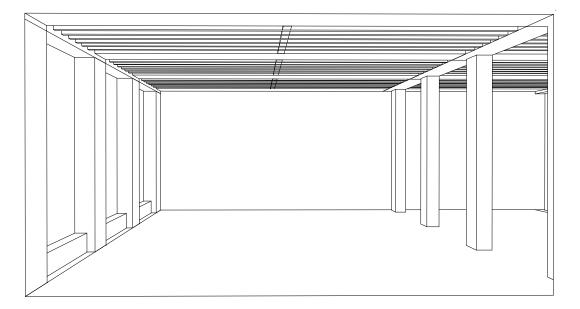


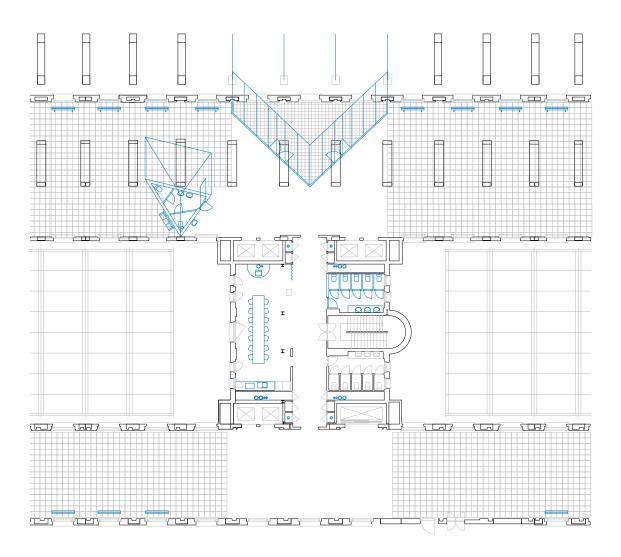


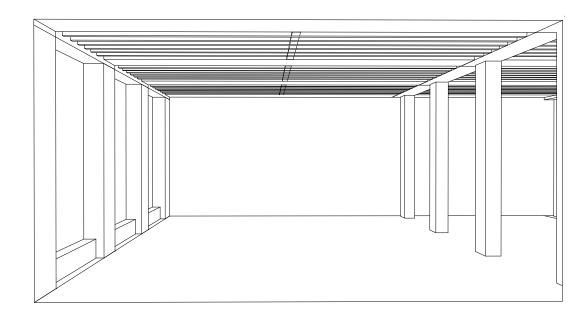


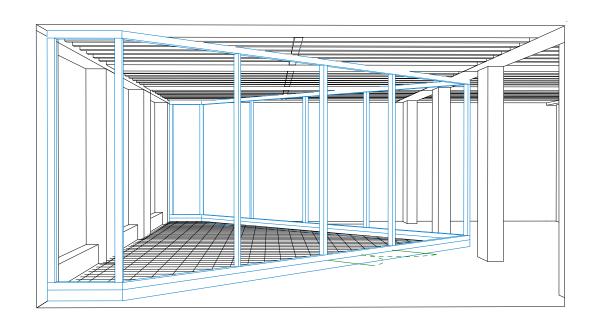


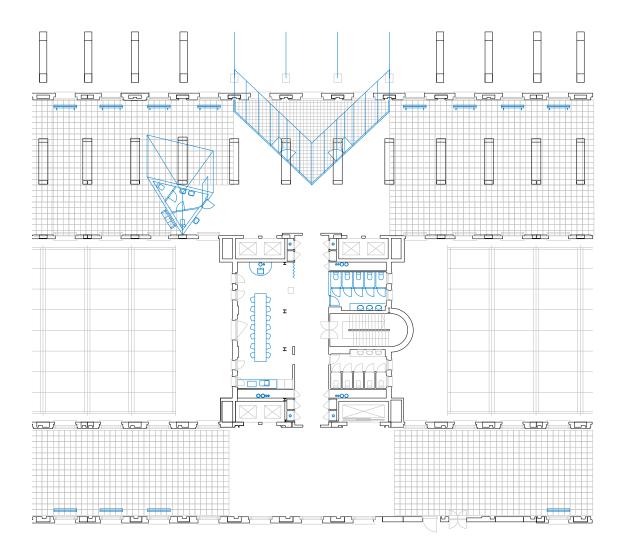










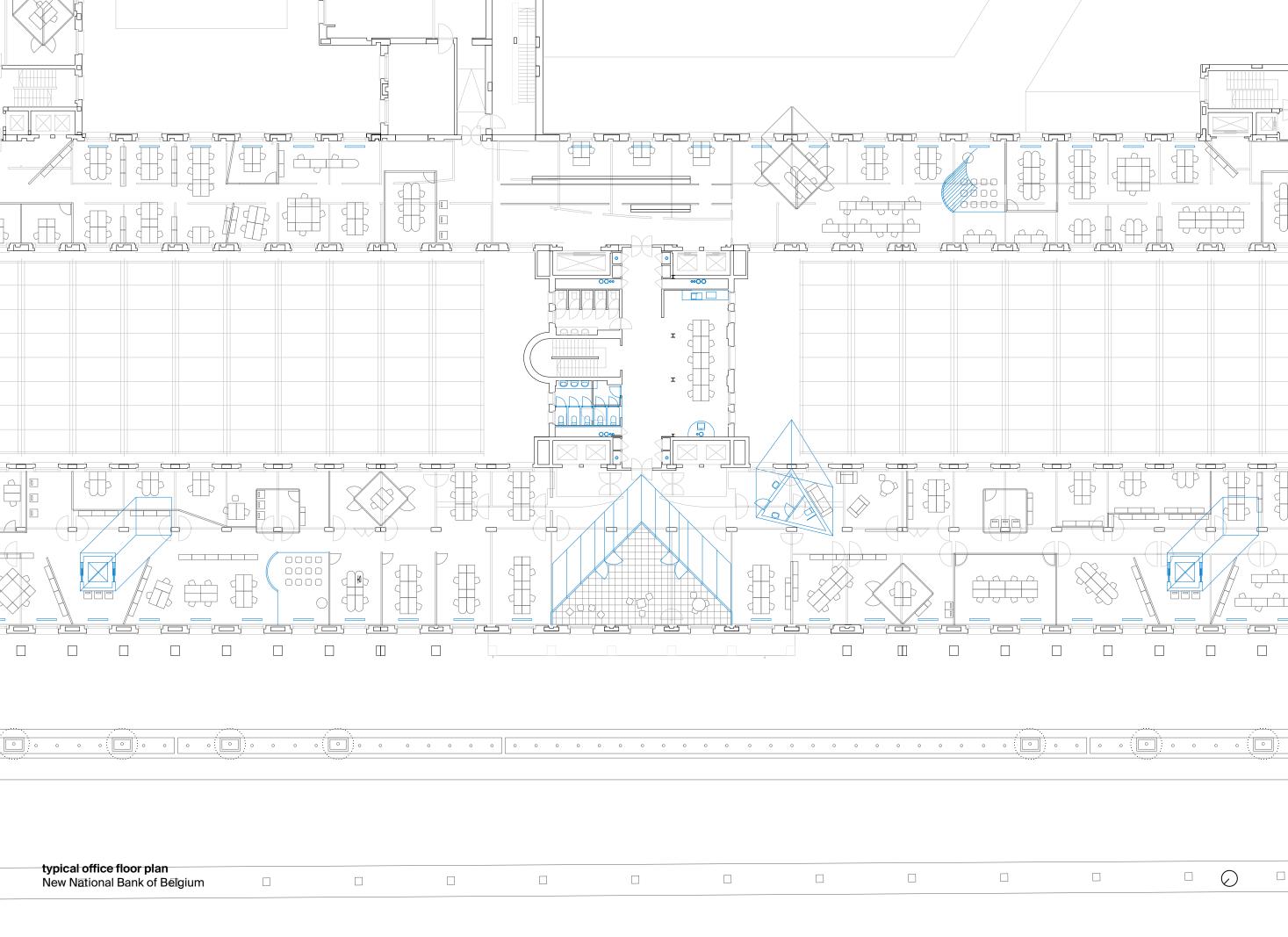


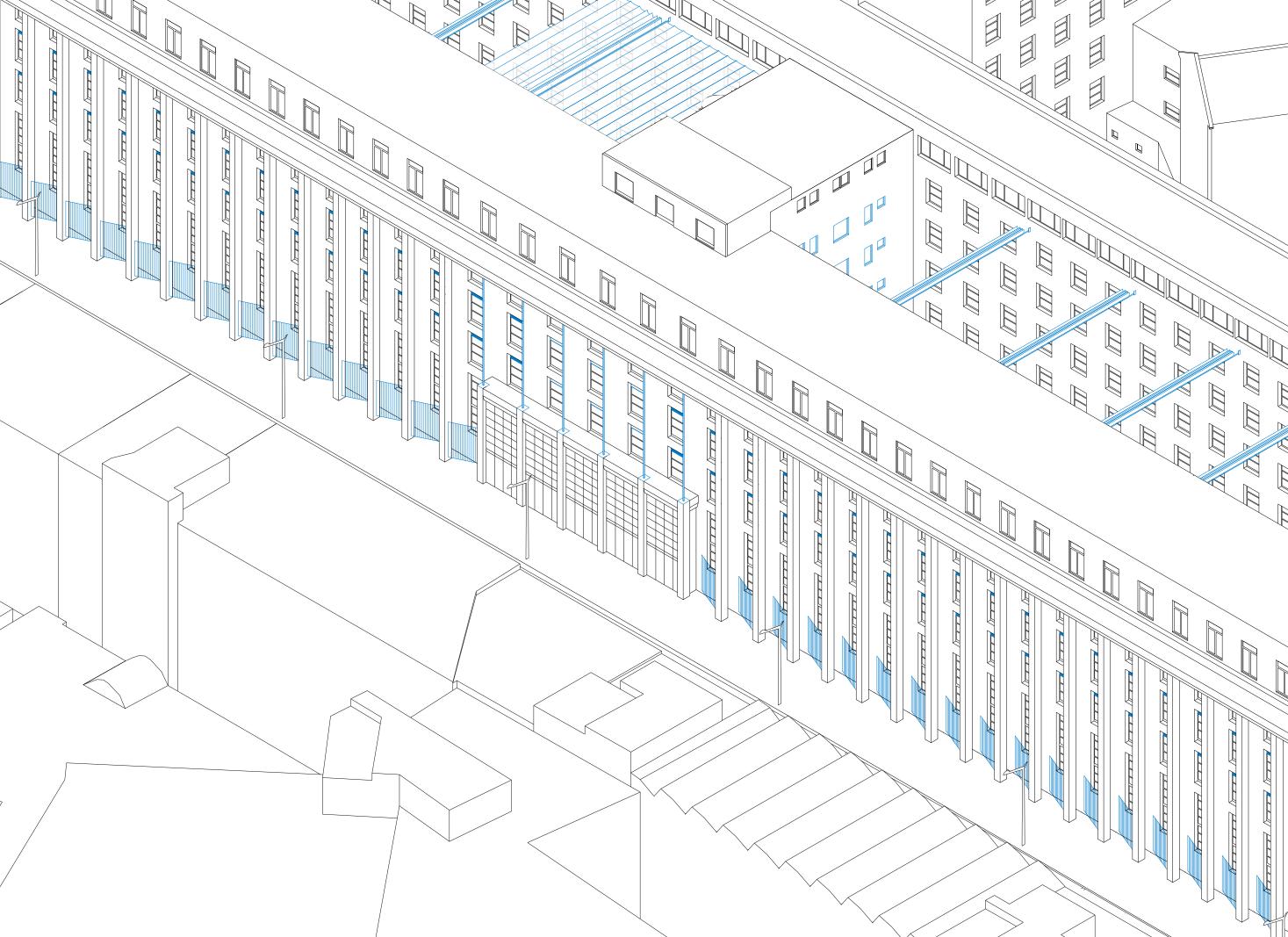


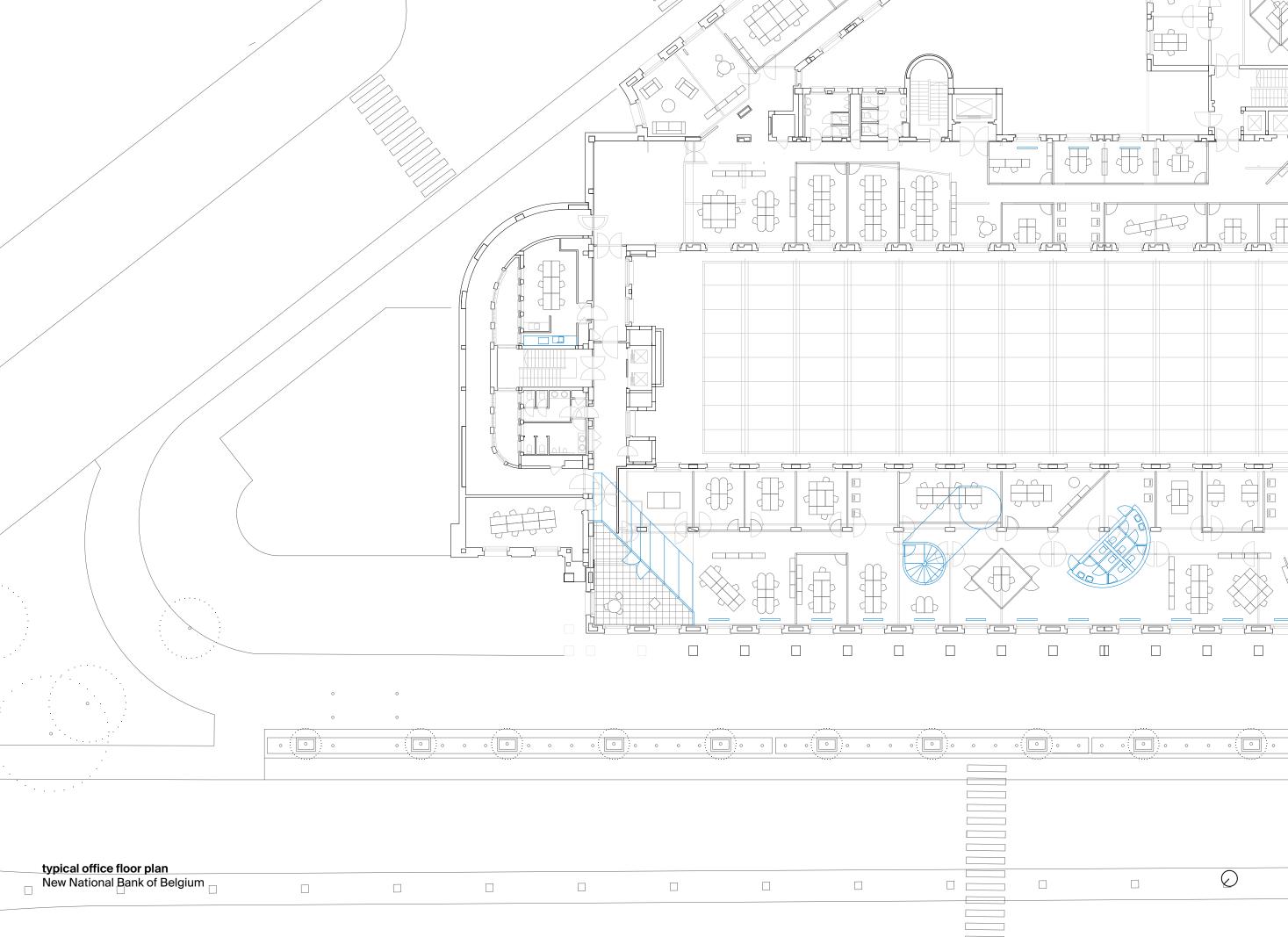


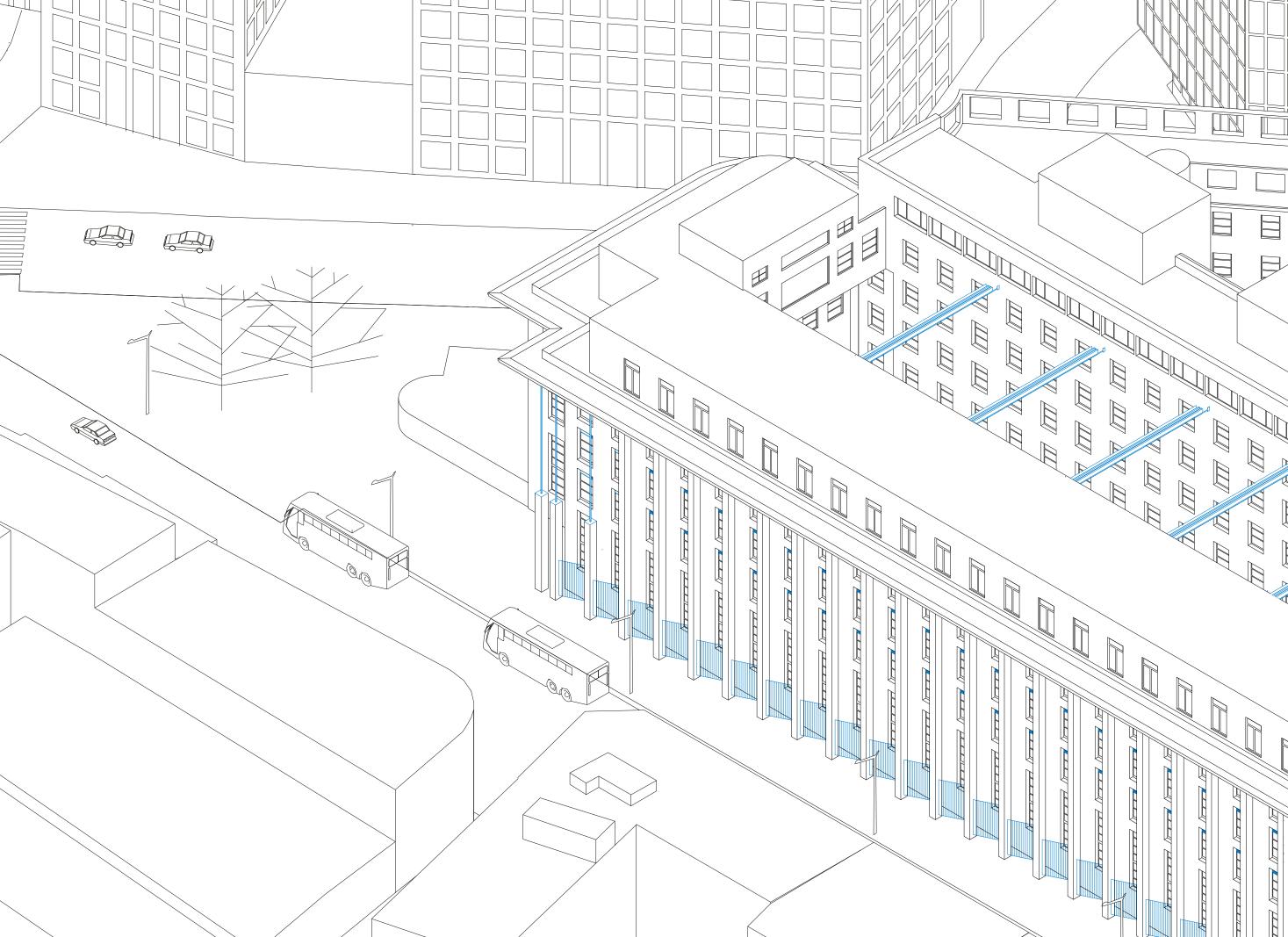


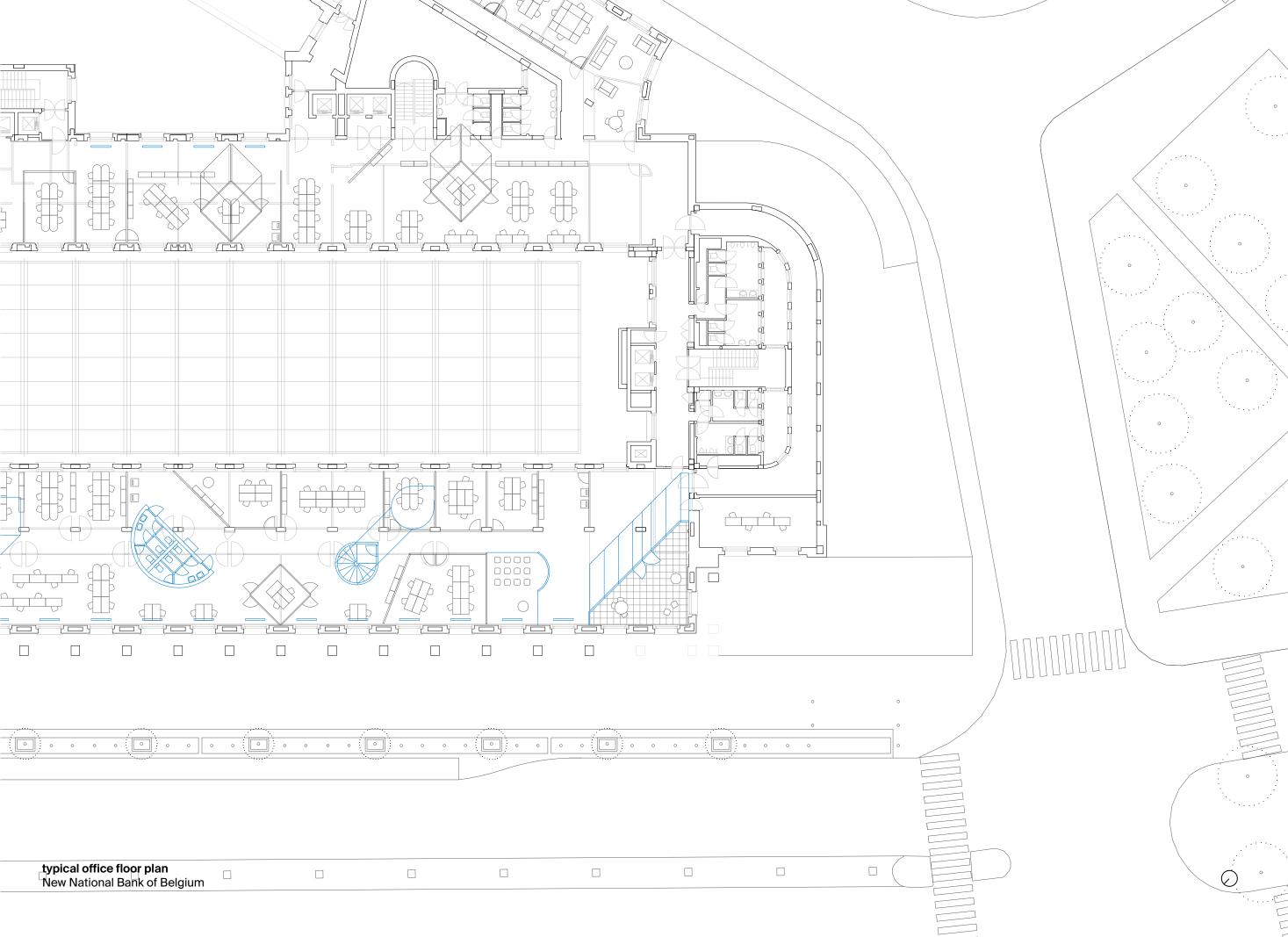


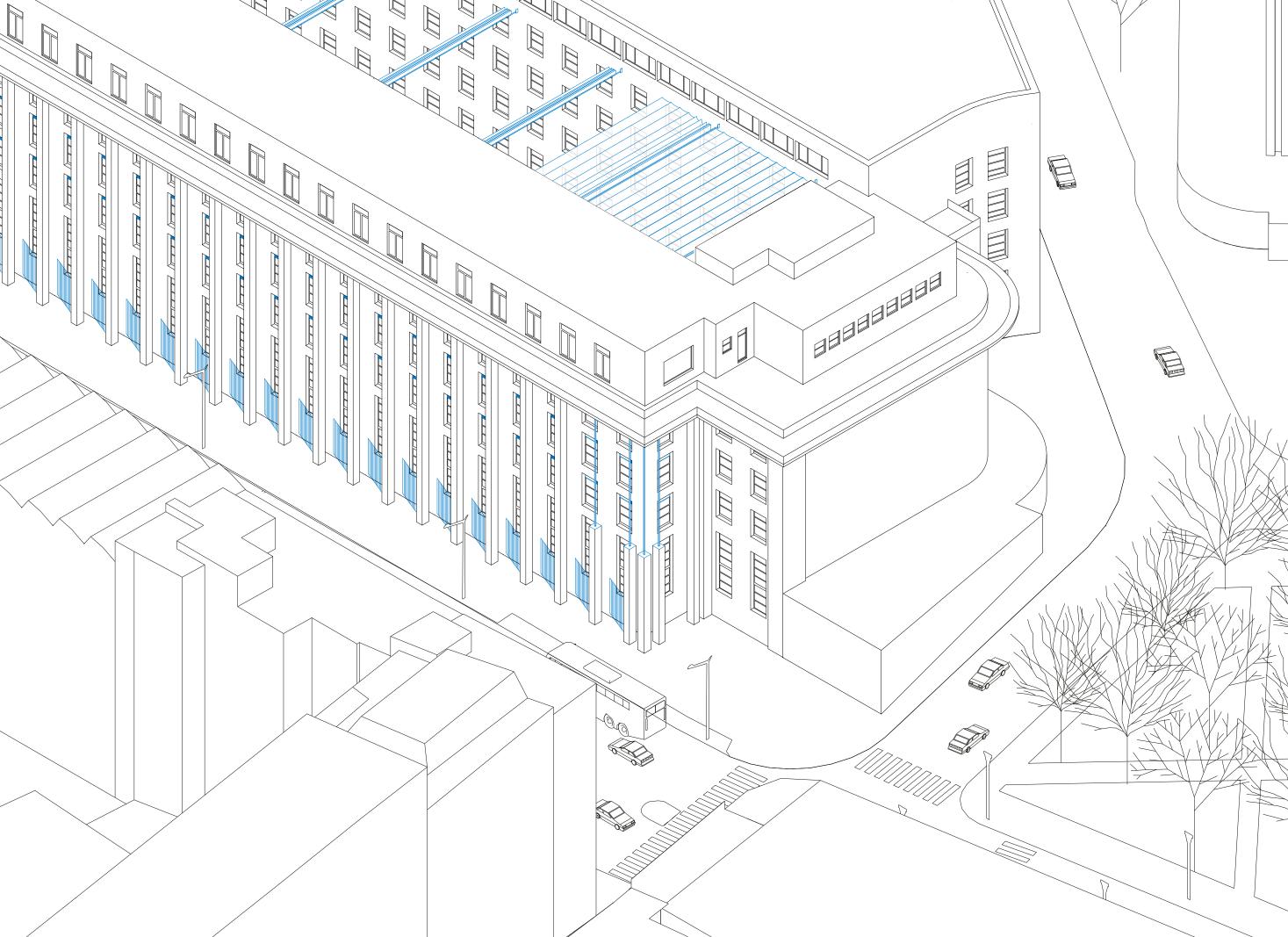


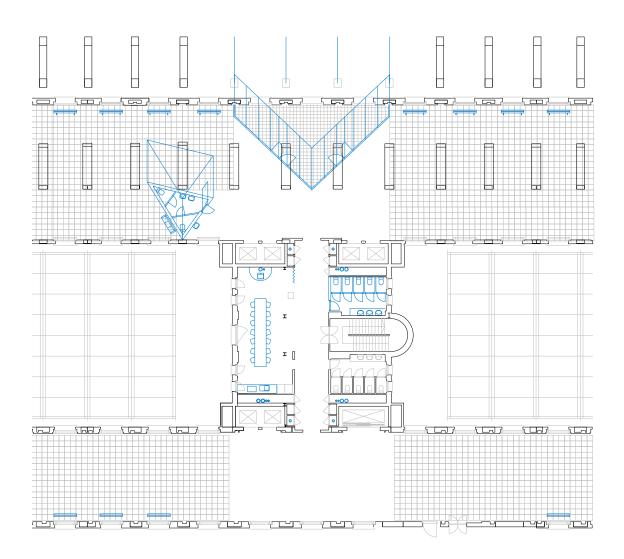




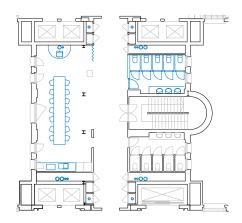






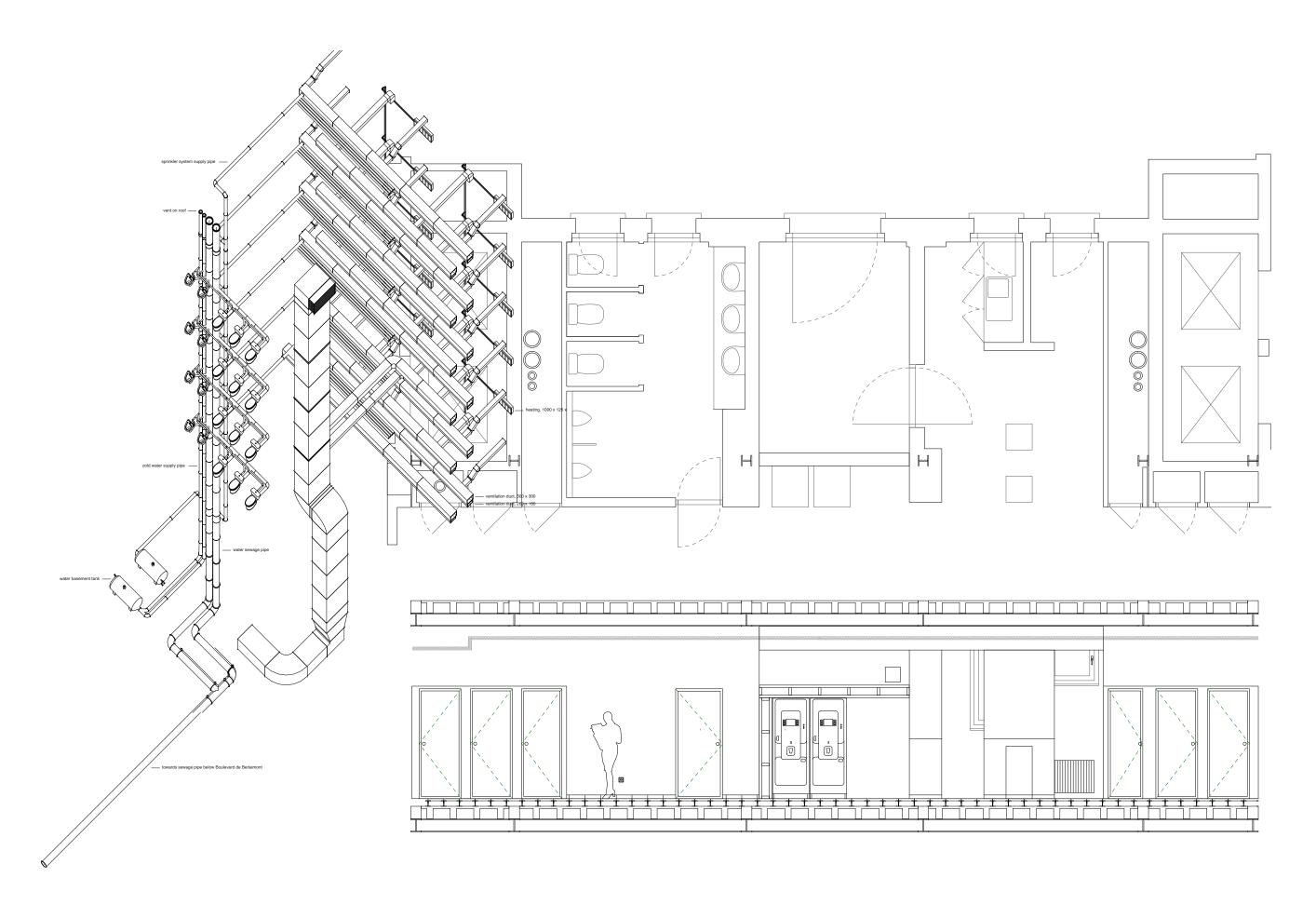




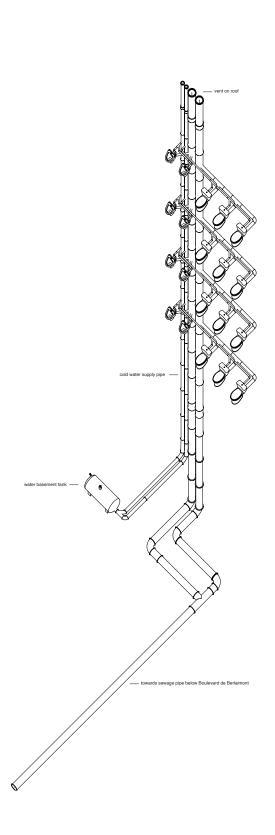


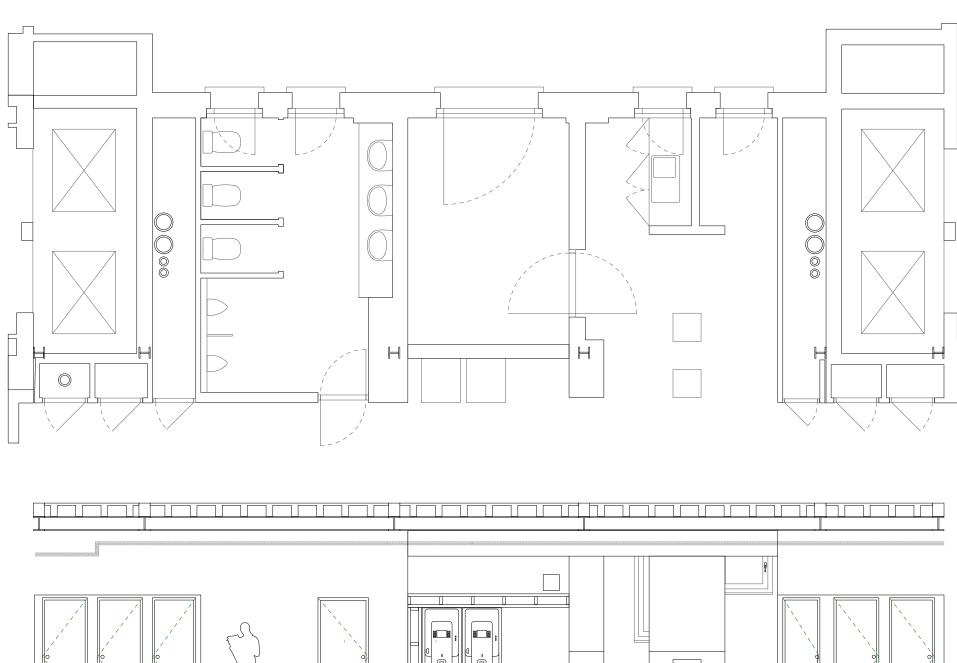




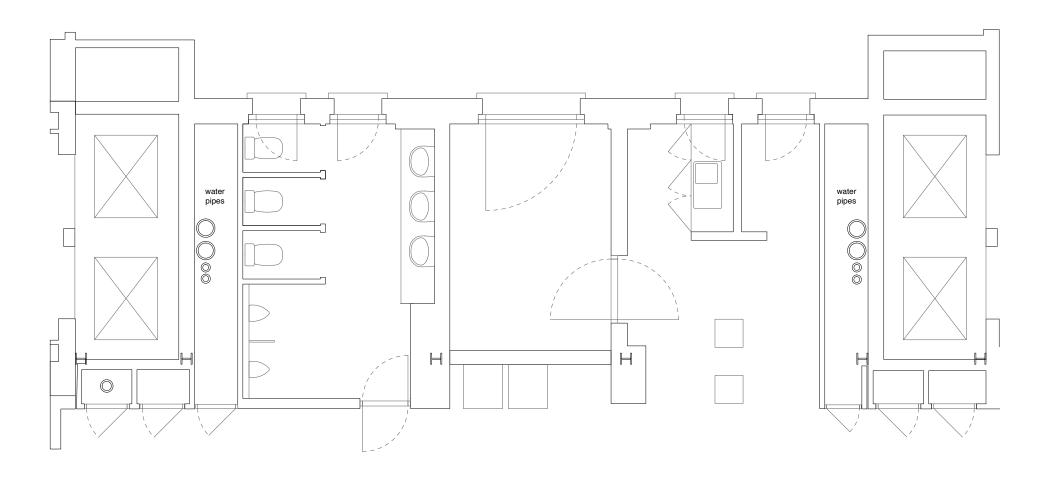


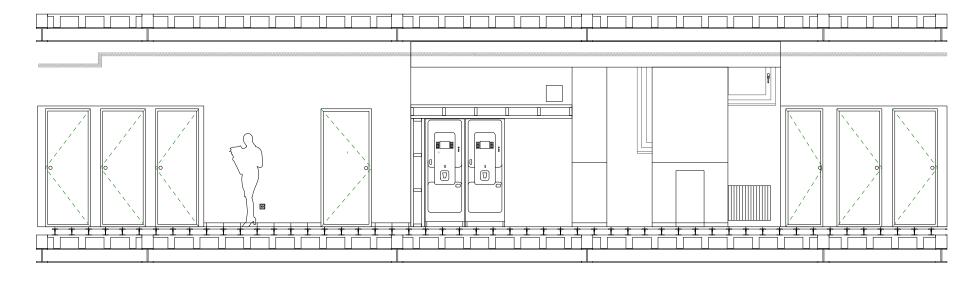




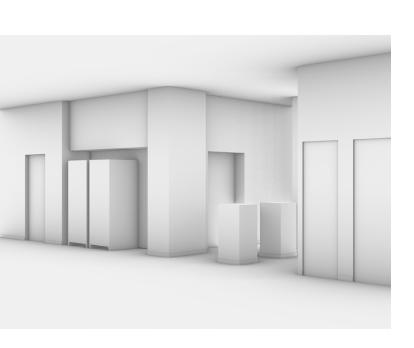


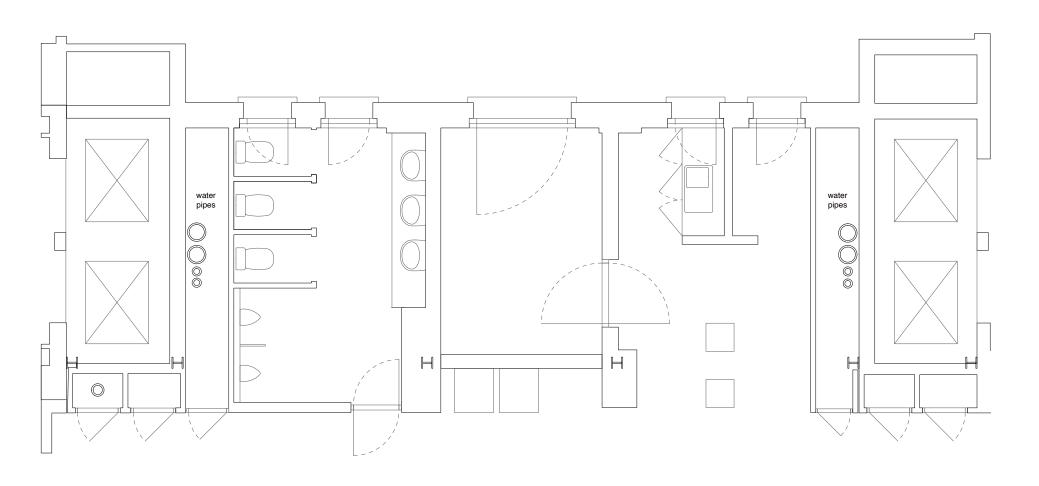


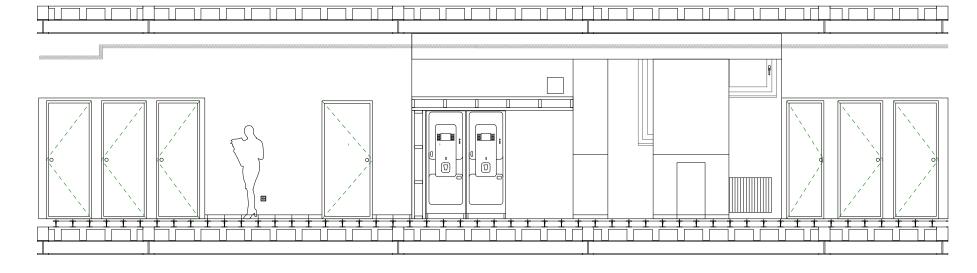




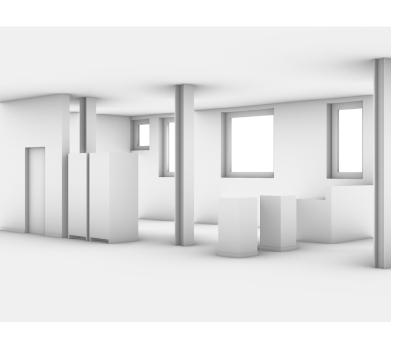


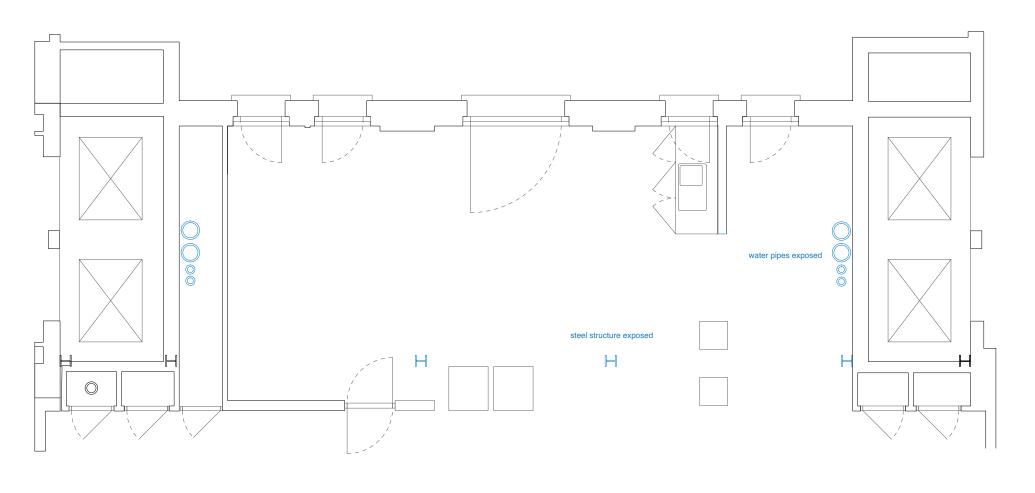


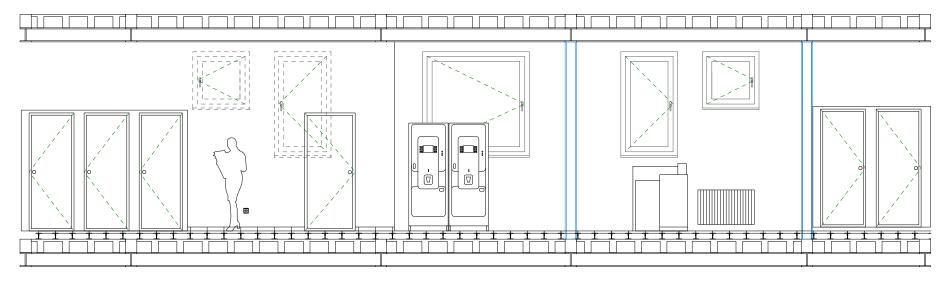






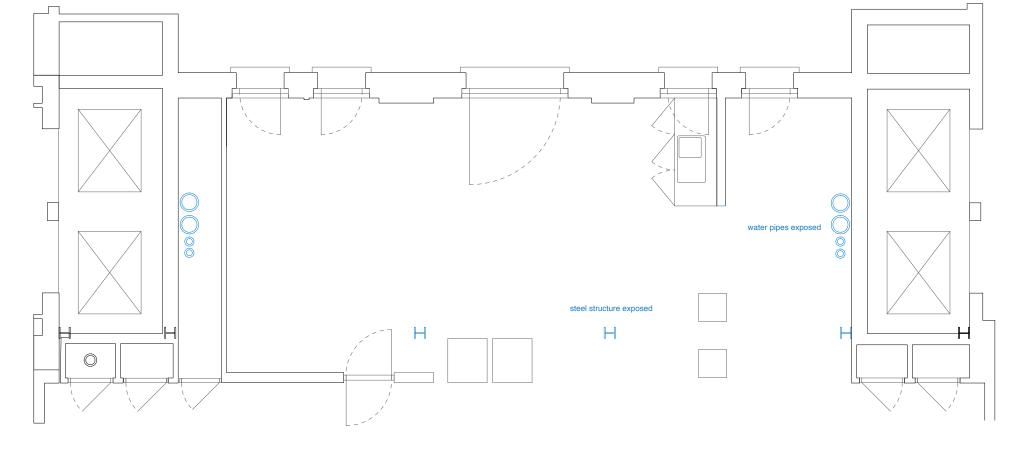


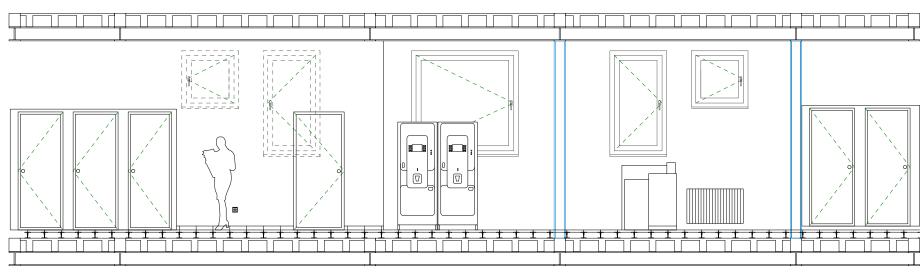


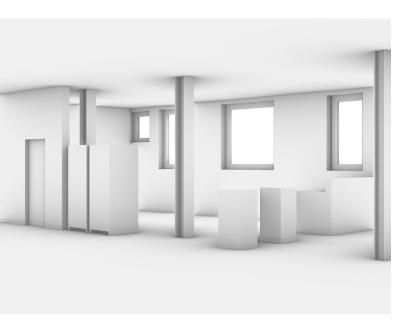




## undressing

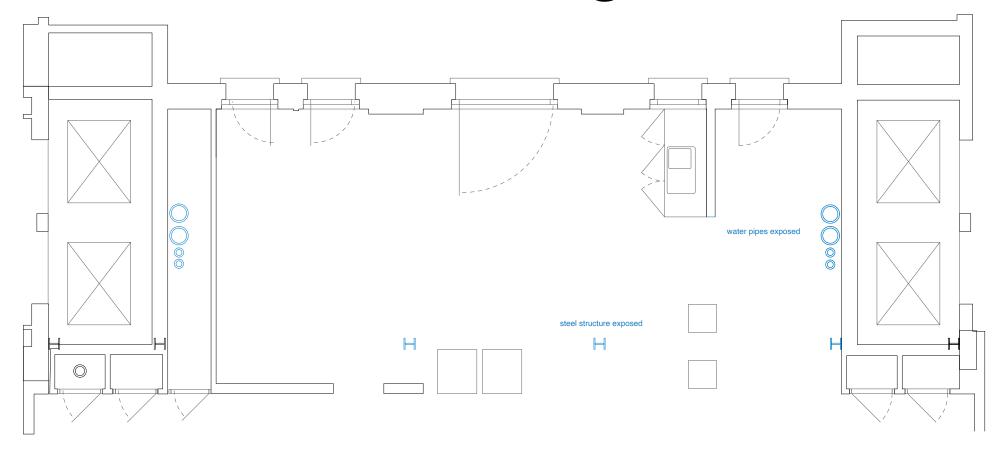


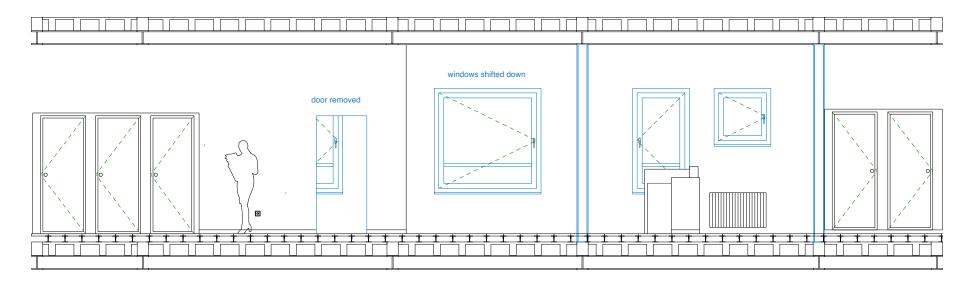




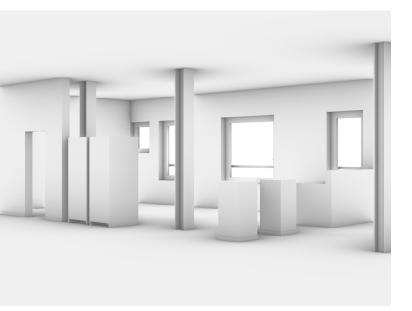


## undressing

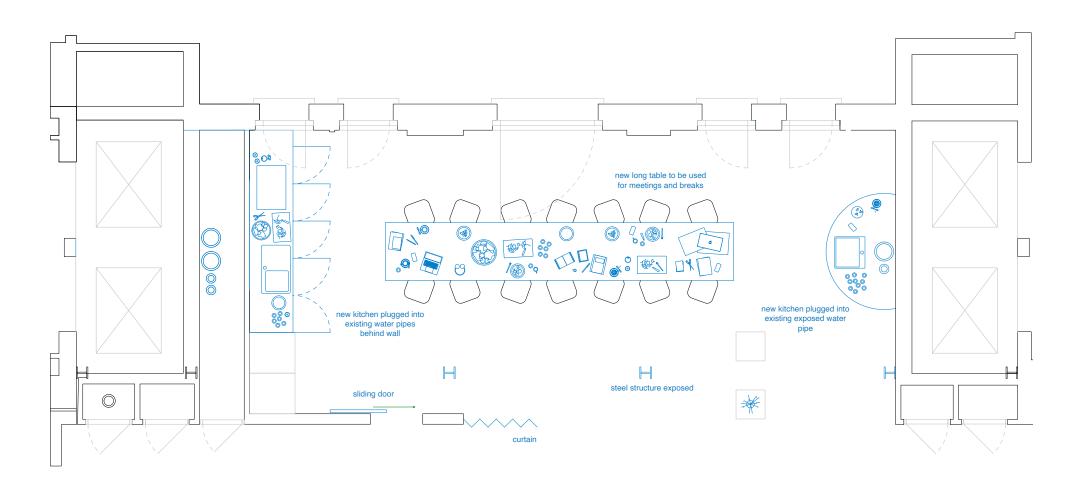


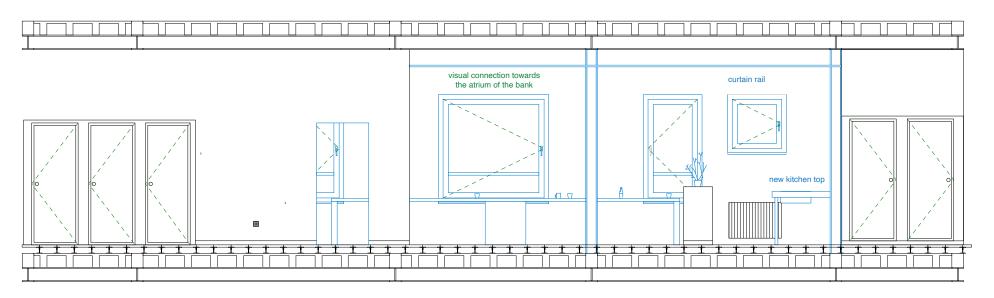






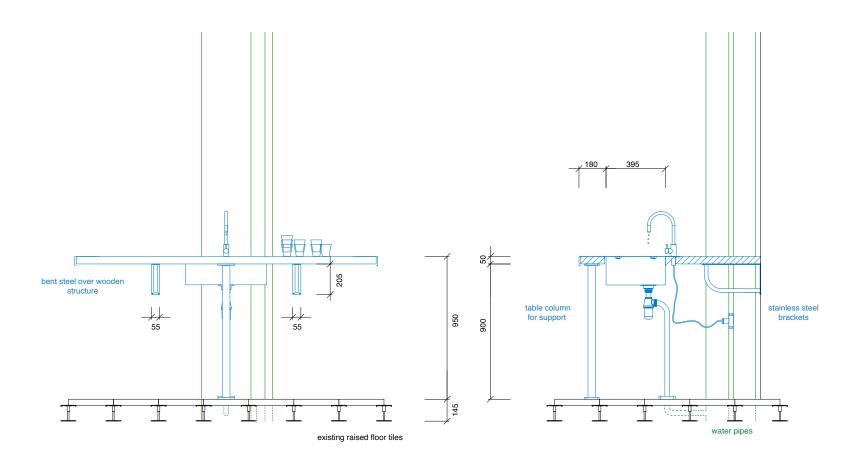


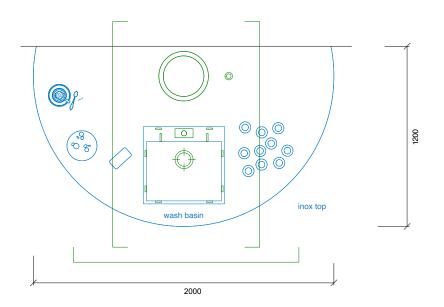








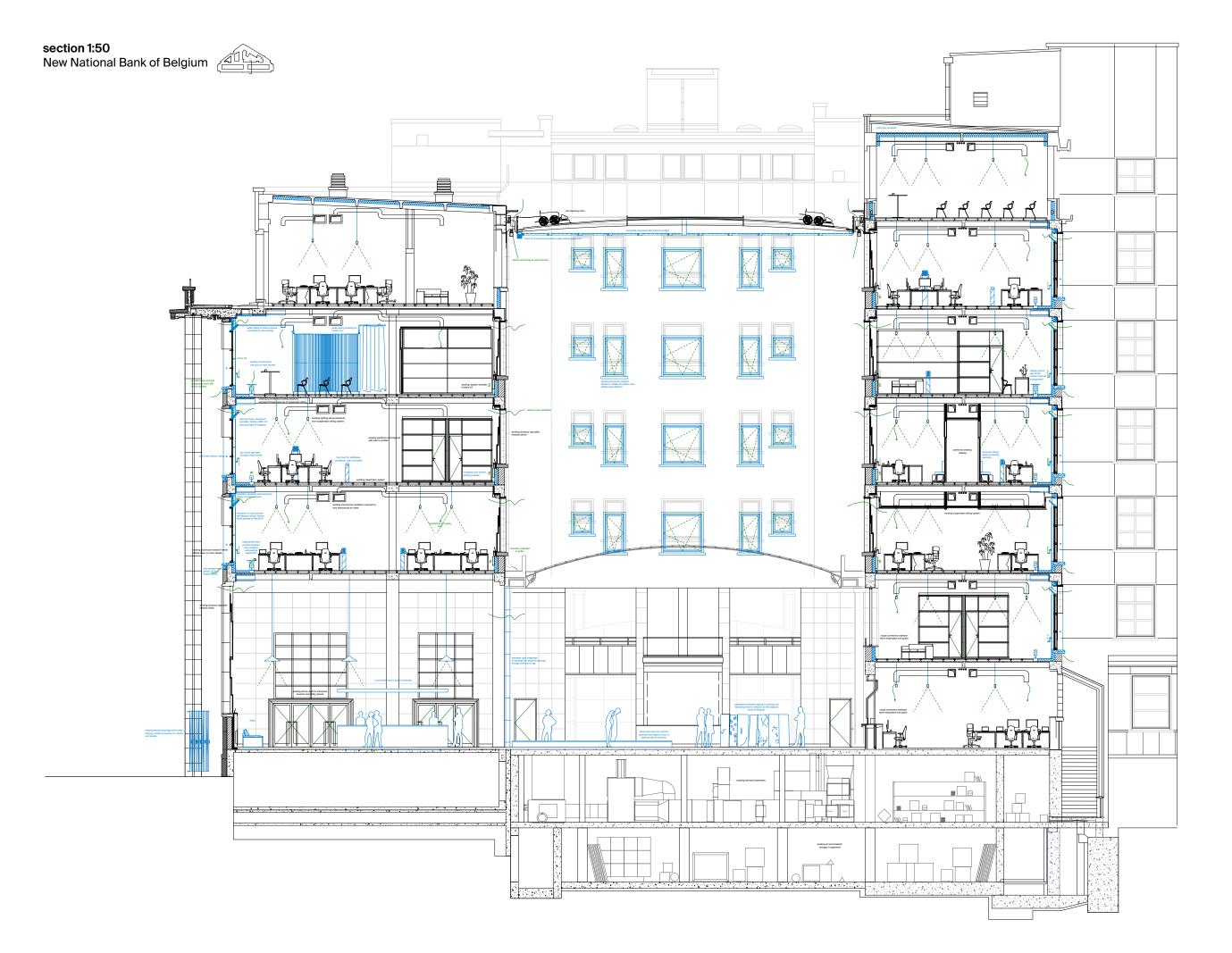


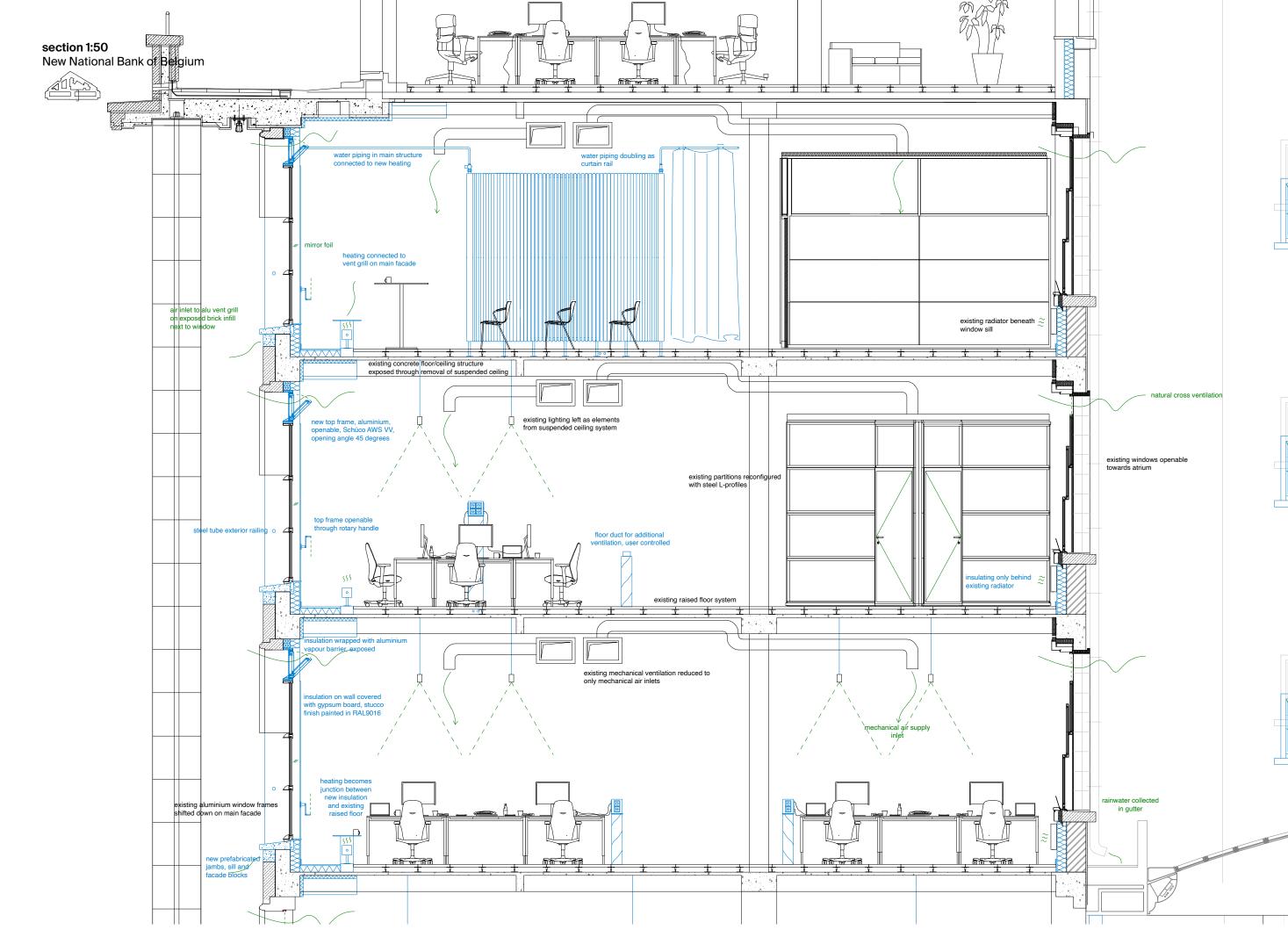


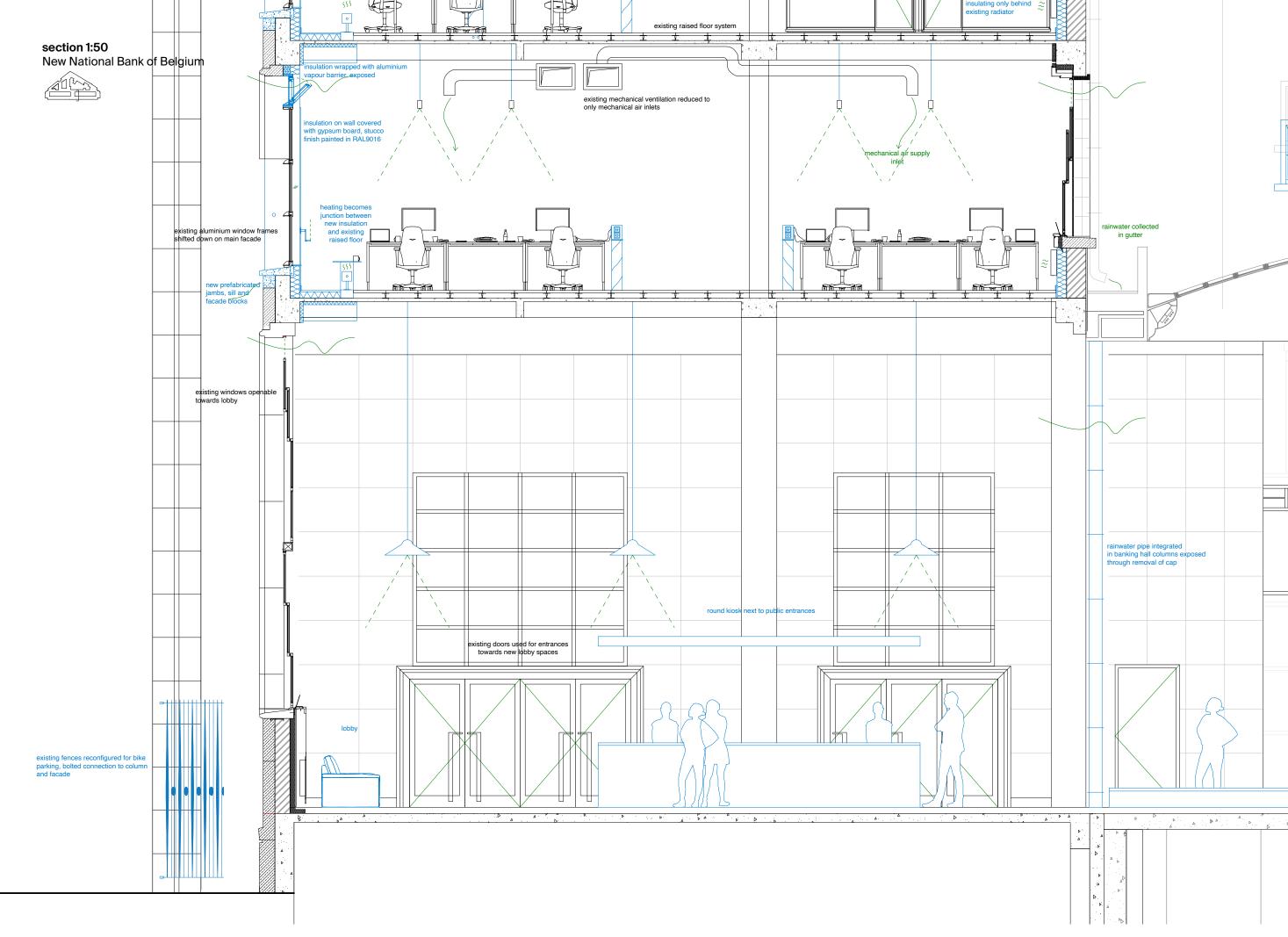


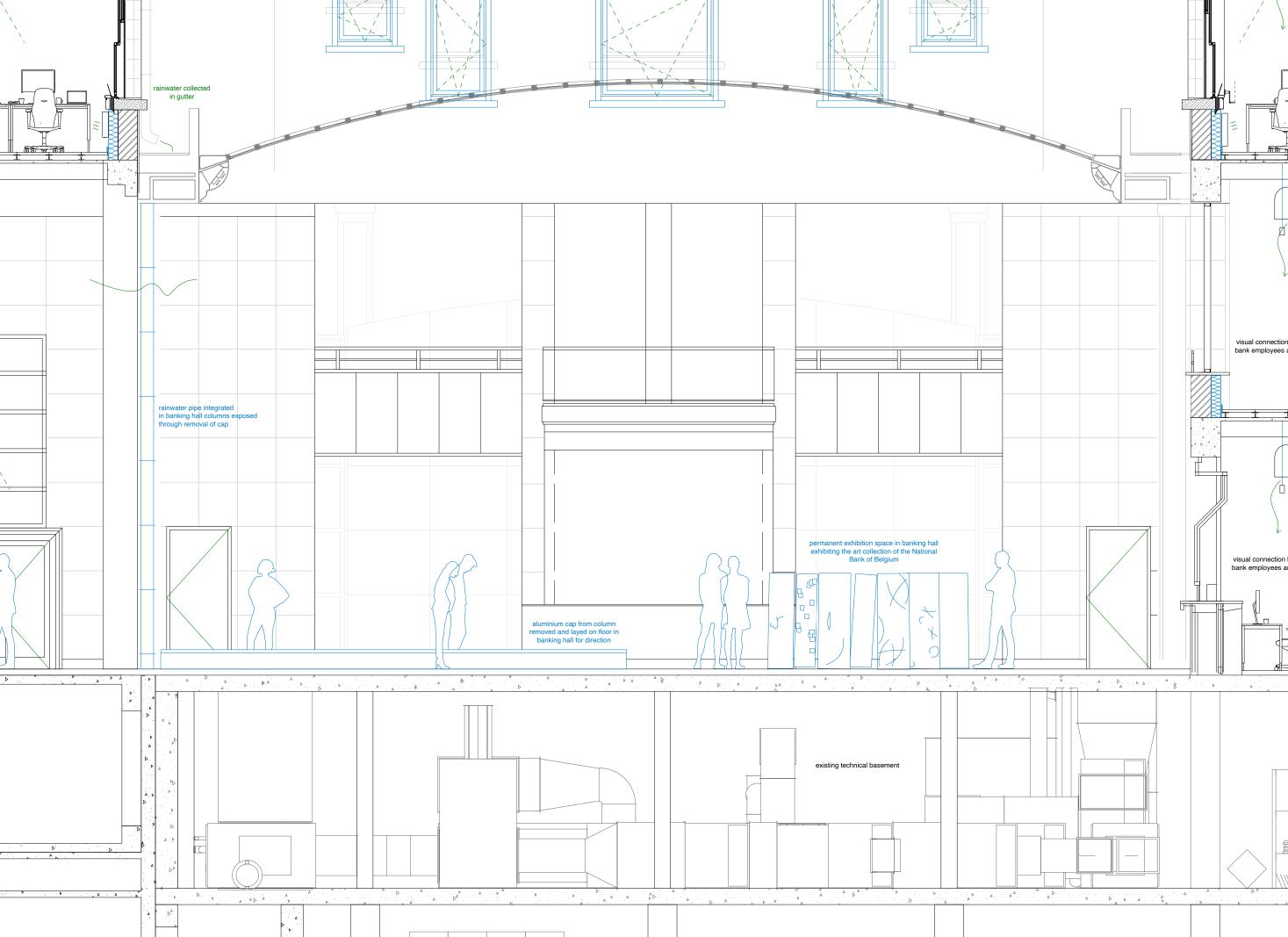






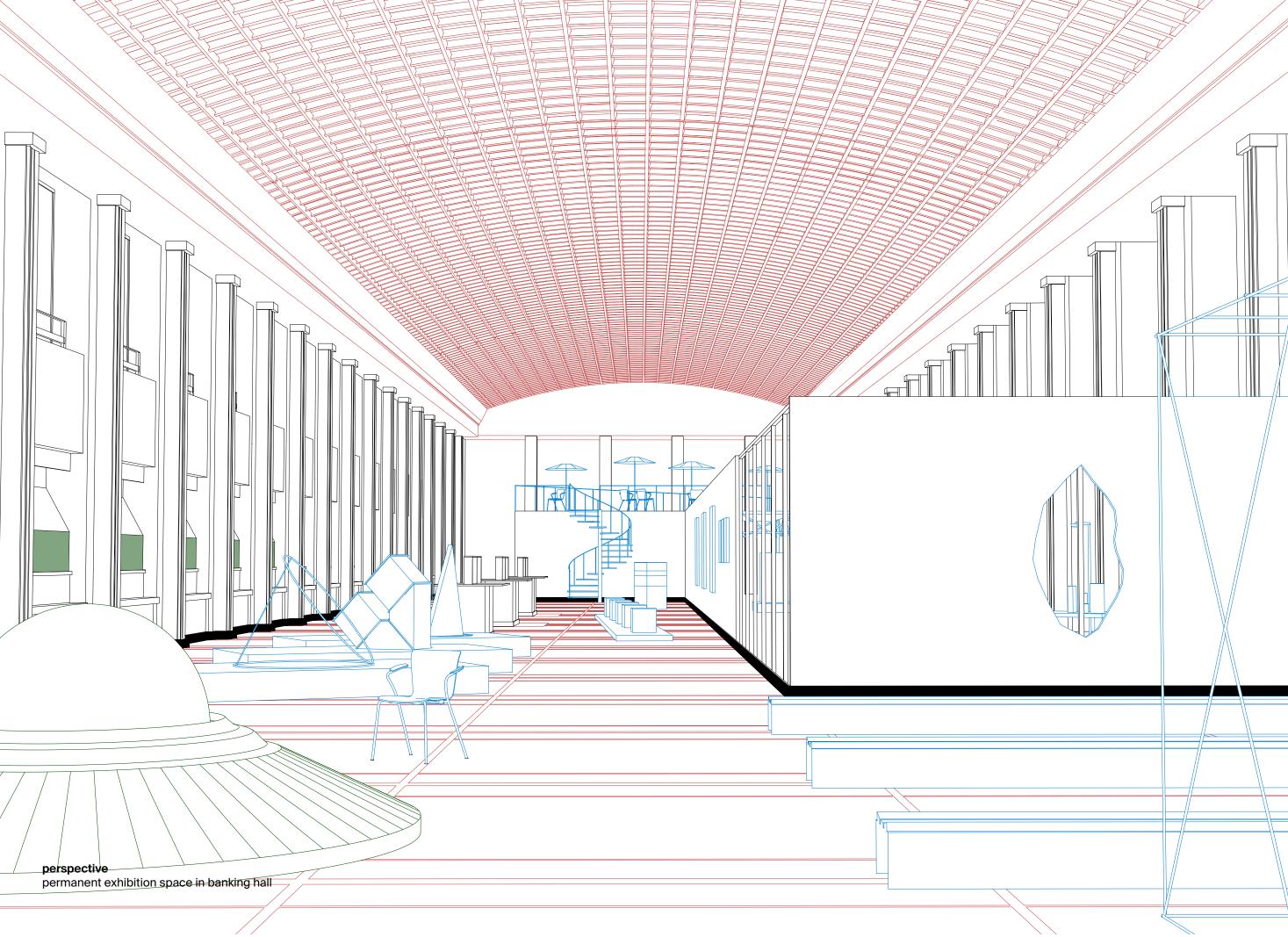


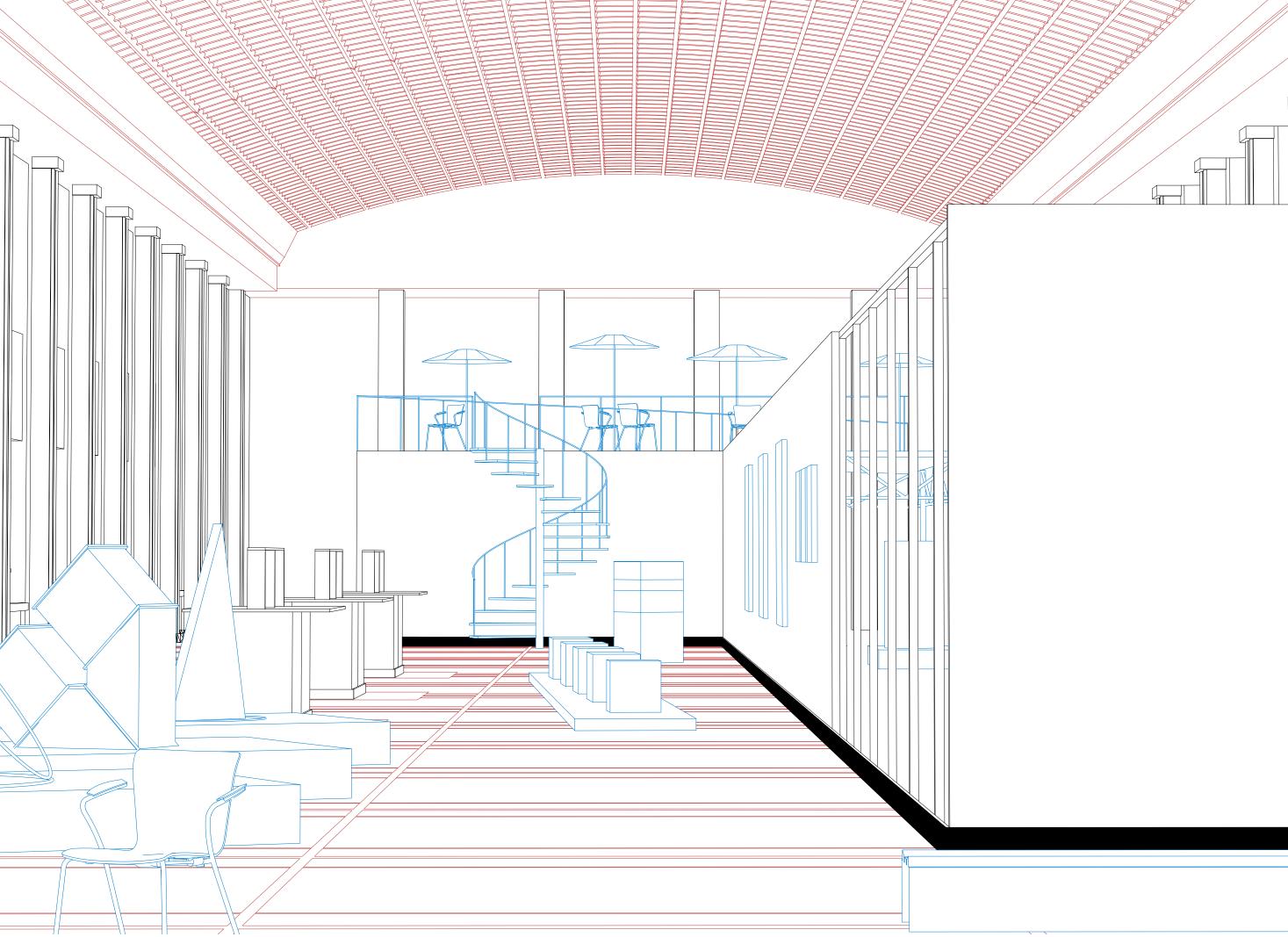


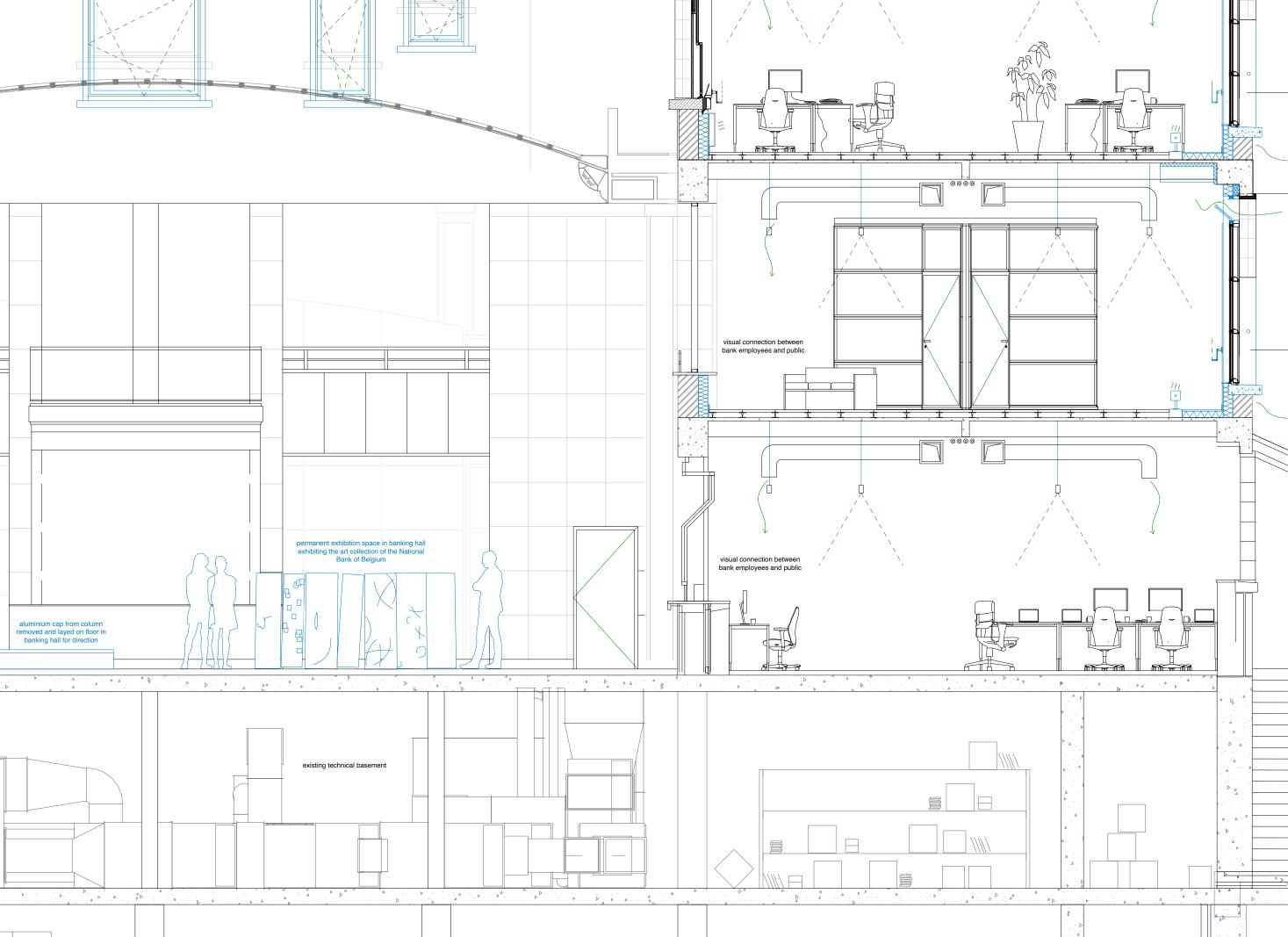


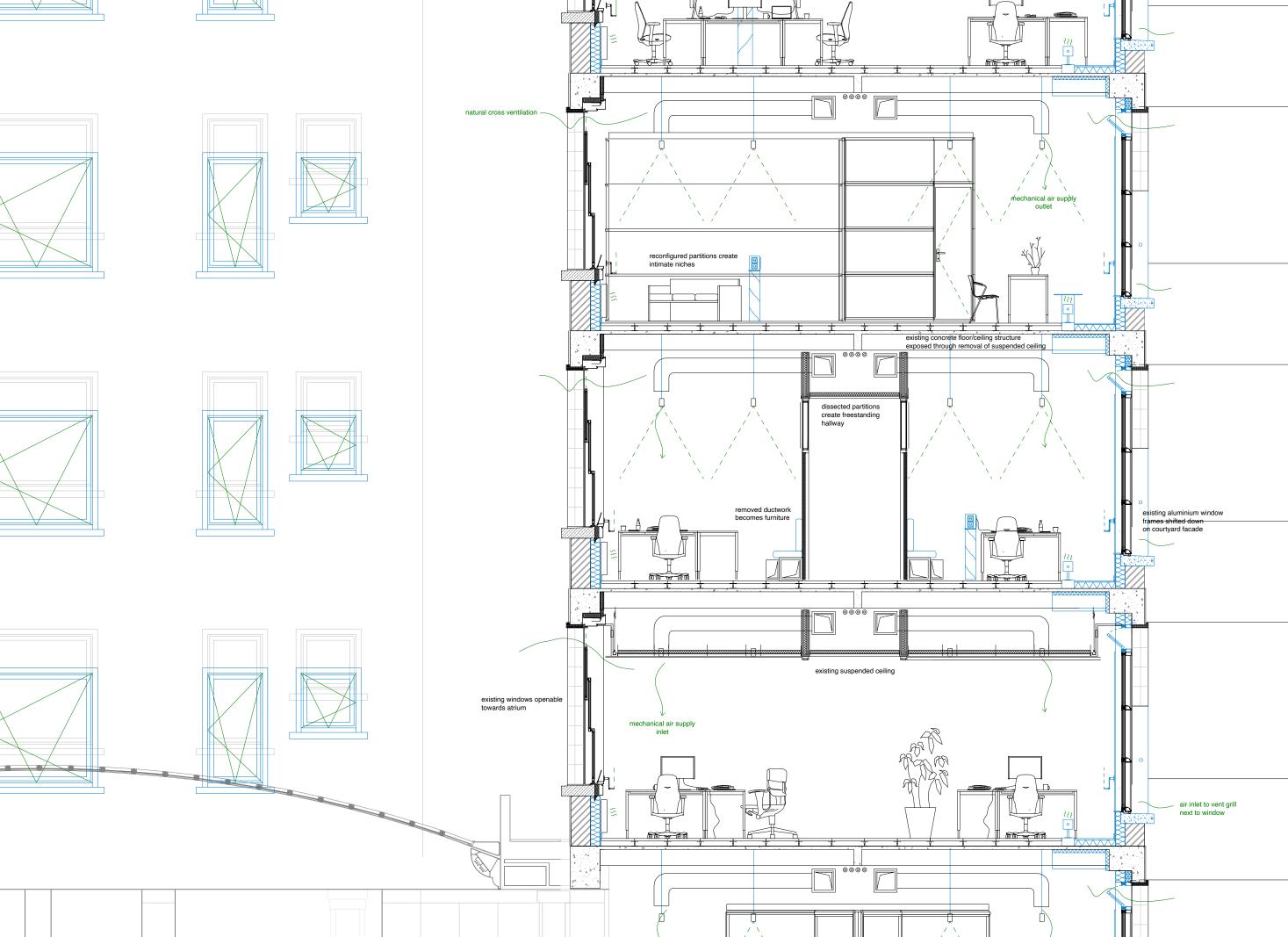






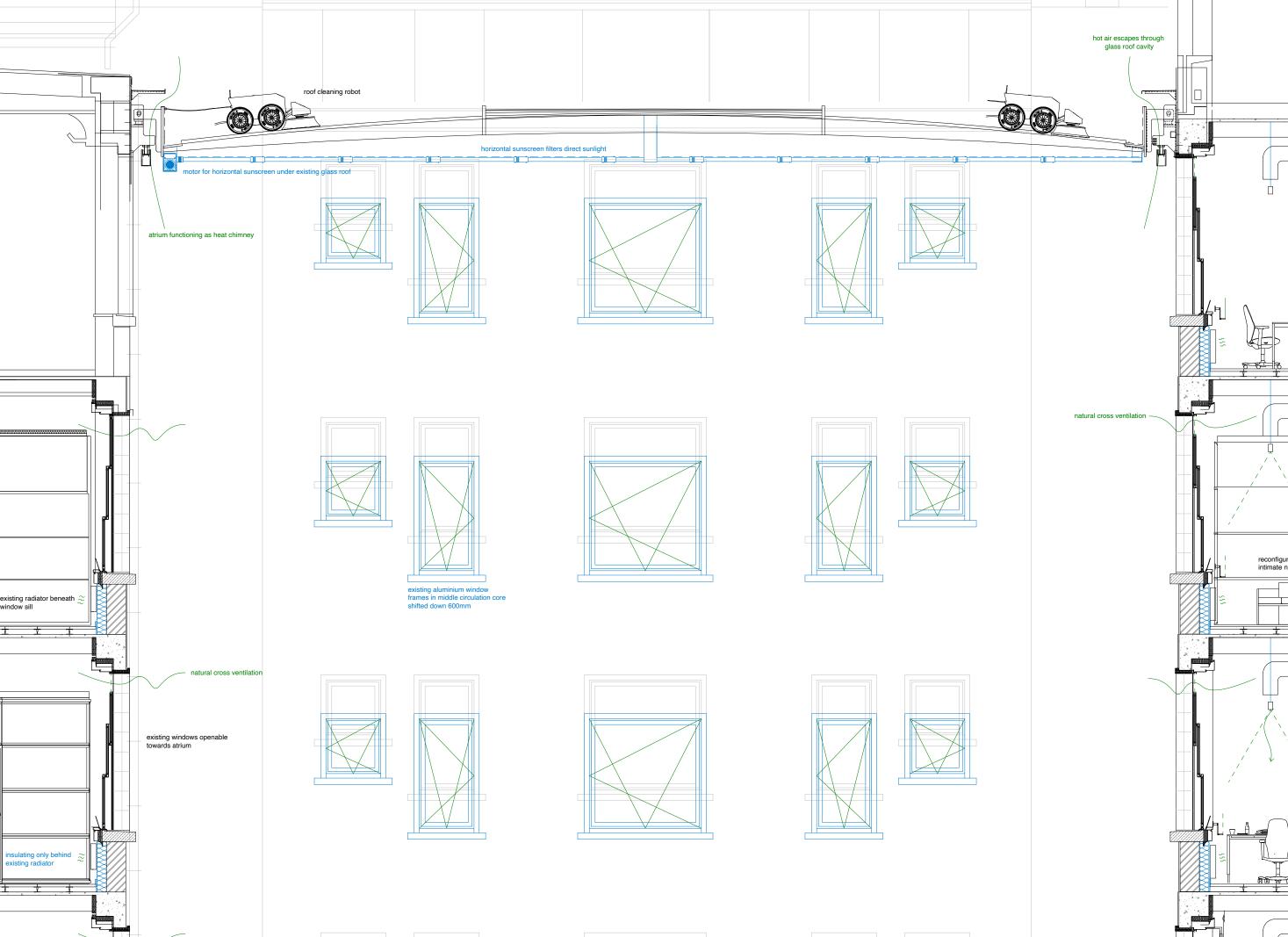


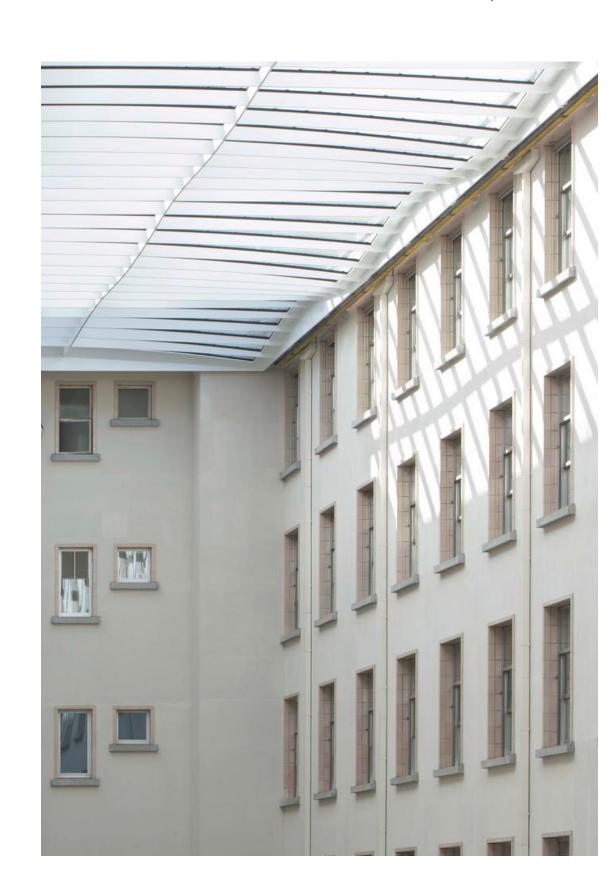




### reconfiguring







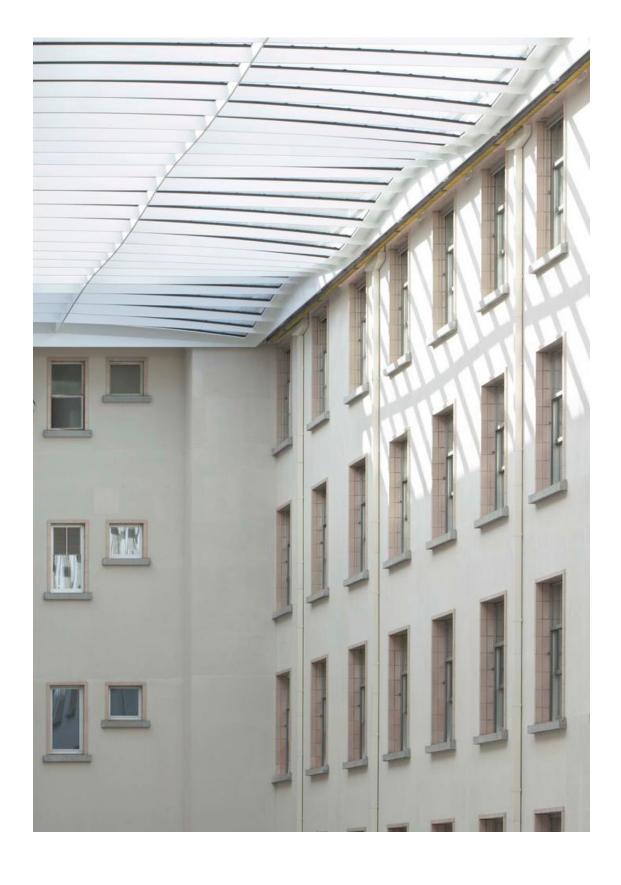
**photograph** interior atrium, collaboration Ron Barten



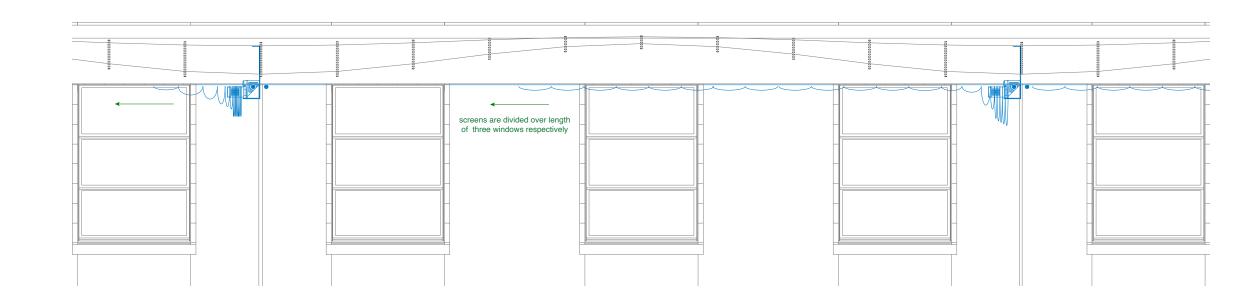


Alumat Zeeman screening systems for horticulture

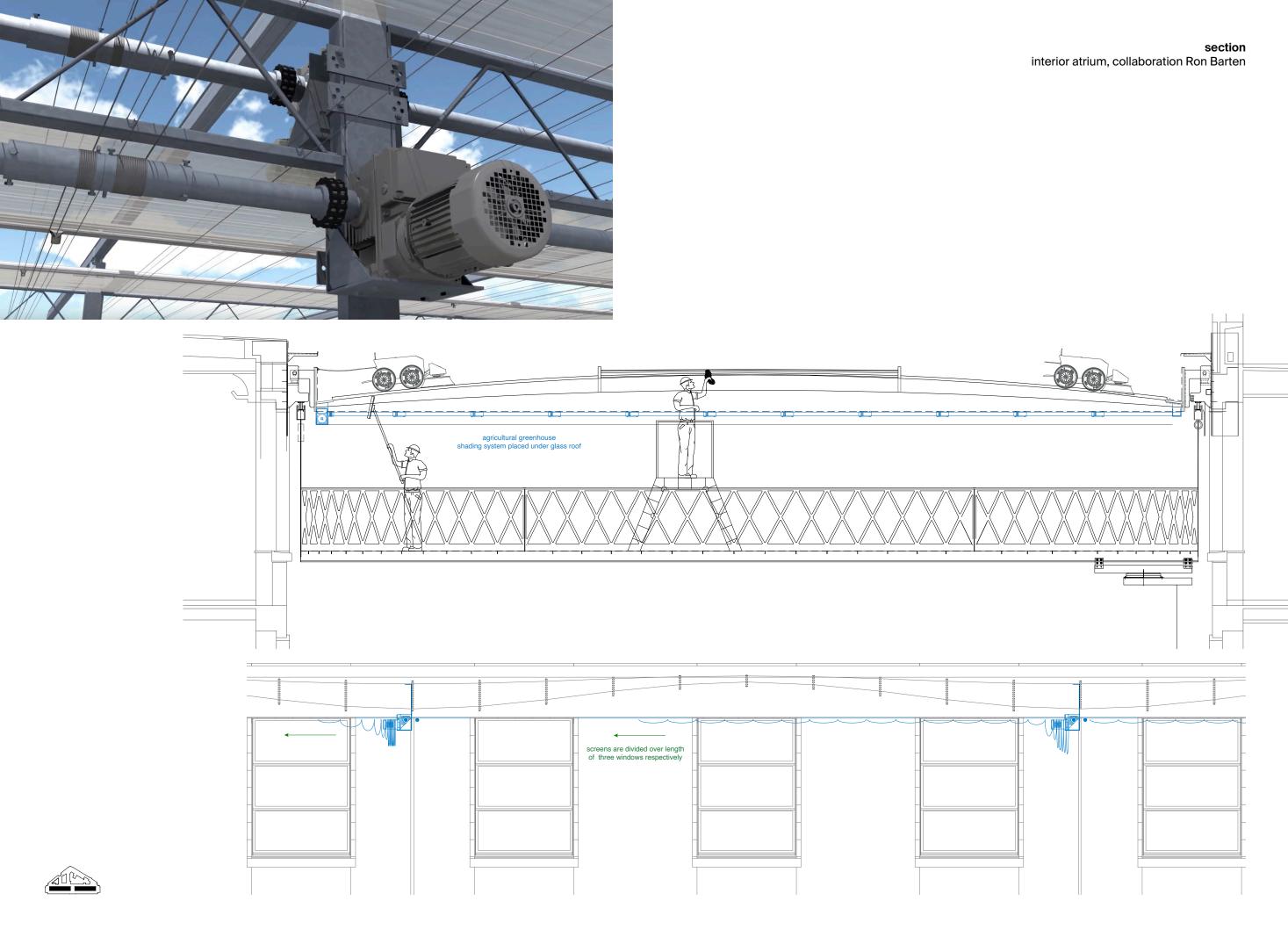
**photograph** interior atrium, collaboration Ron Barten

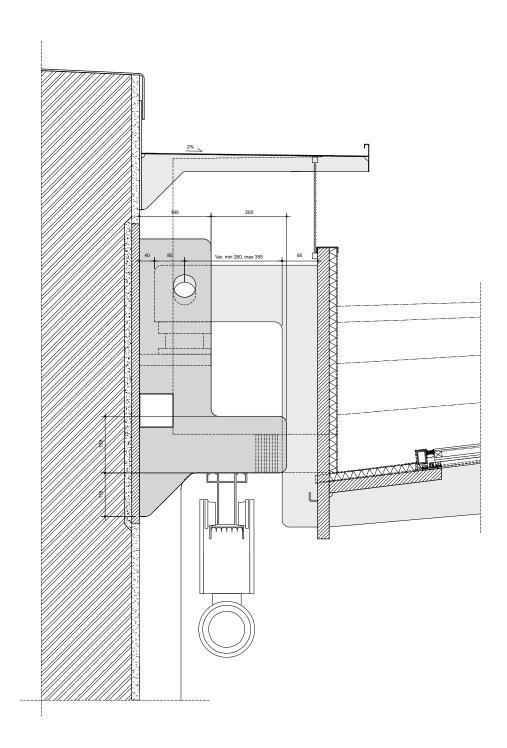




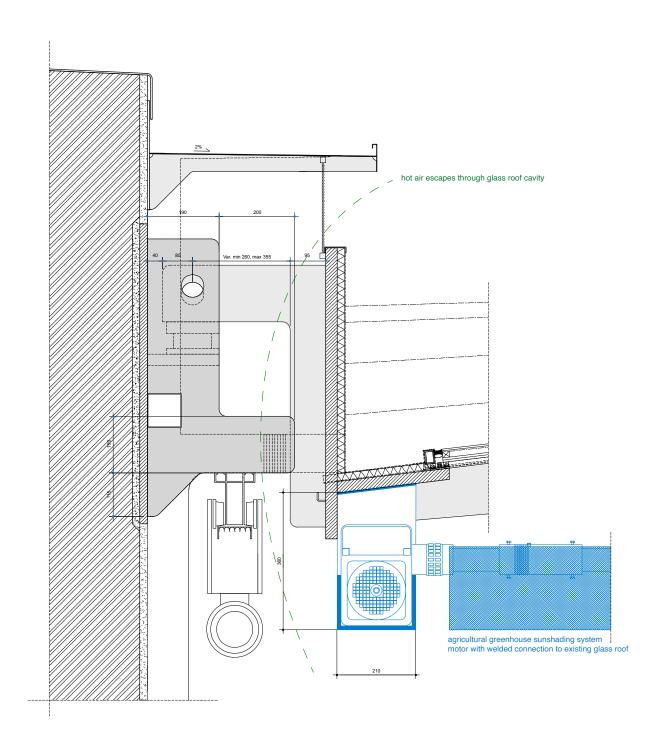


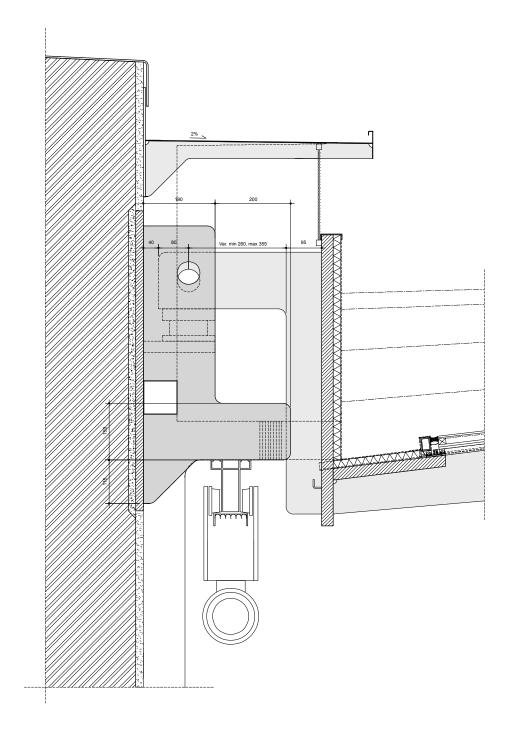












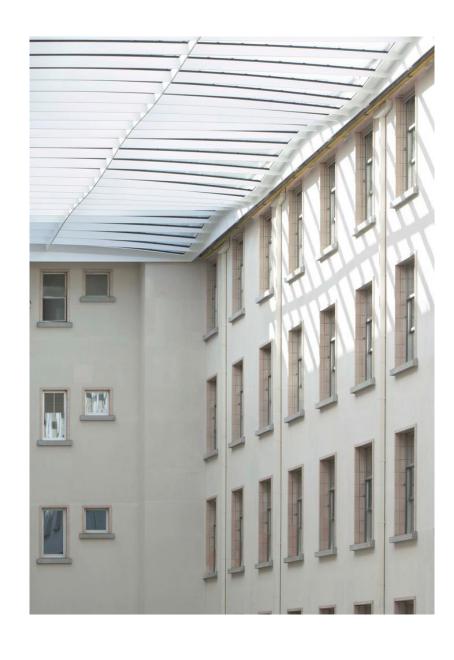


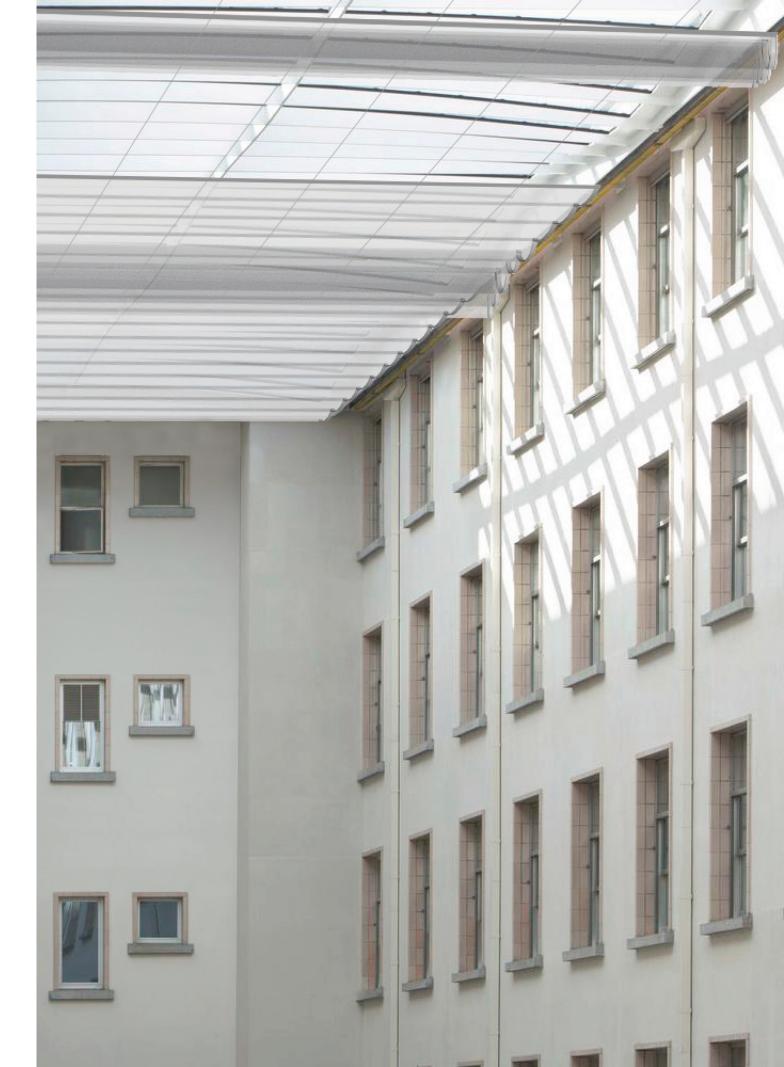




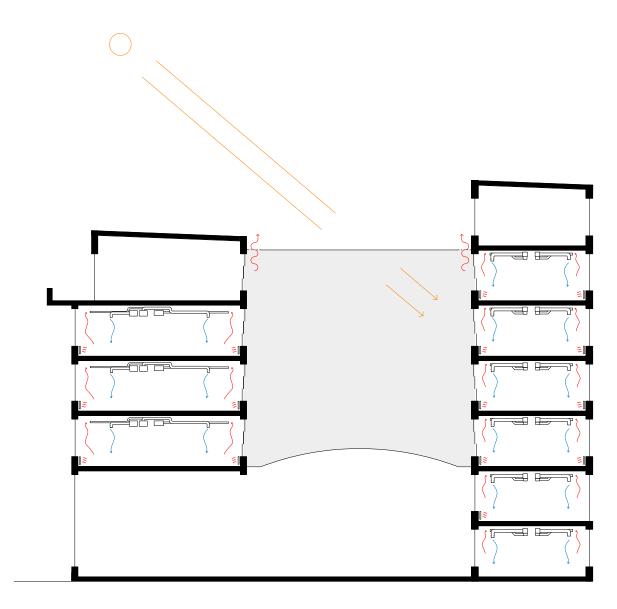
#### interior atrium

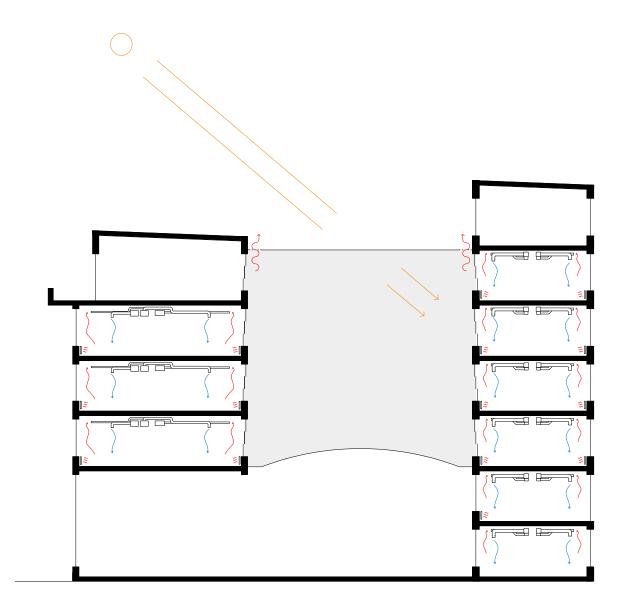
New National Bank of Belgium, collaboration Ron Barten

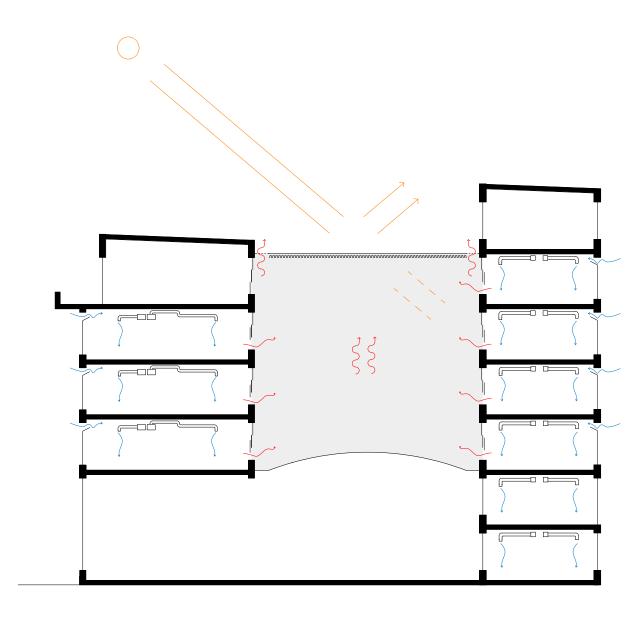


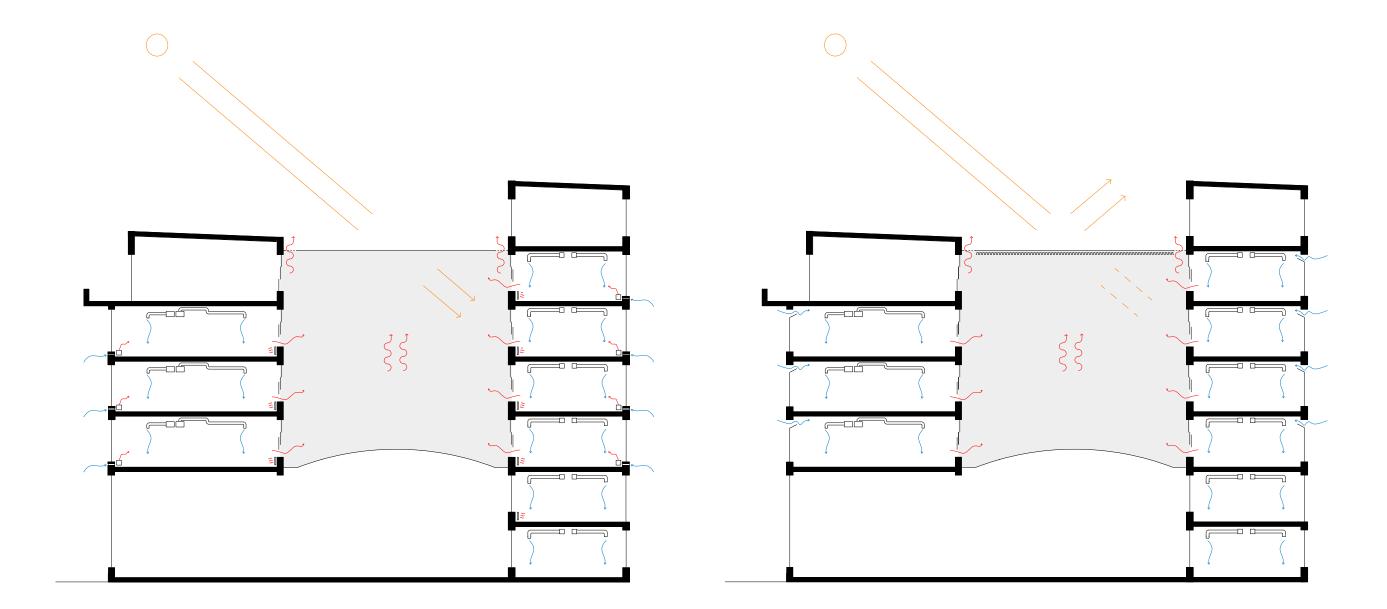


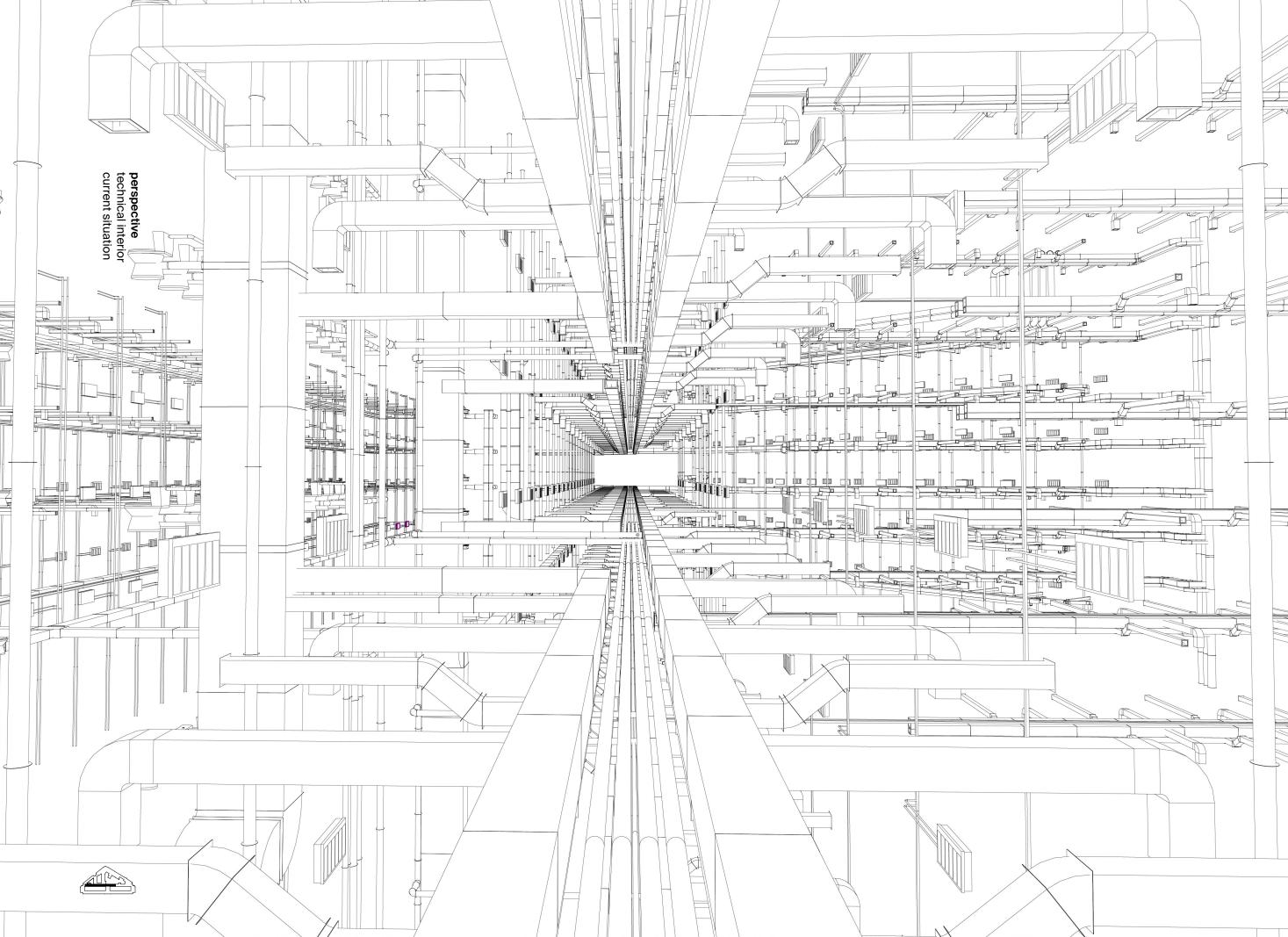


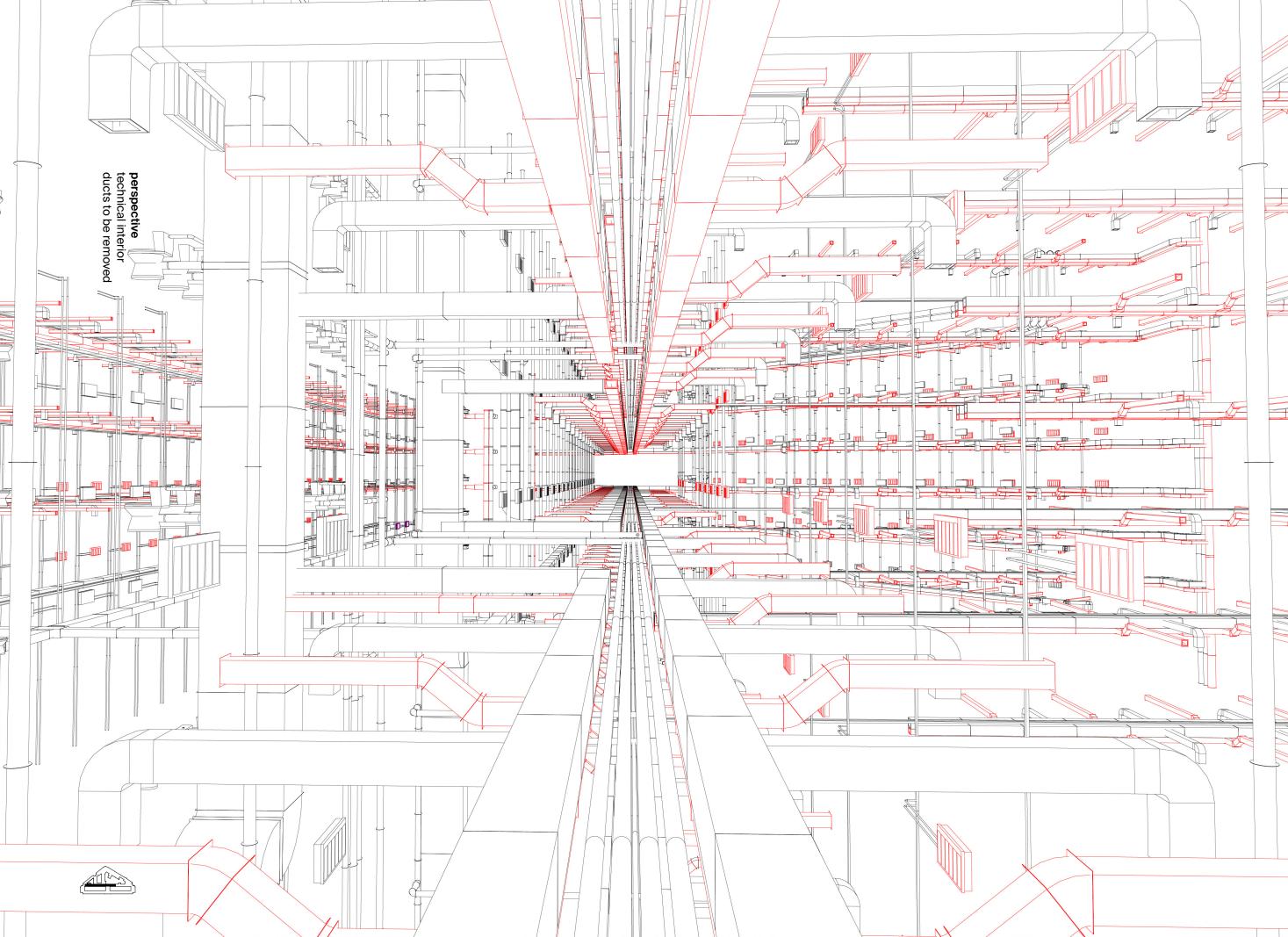


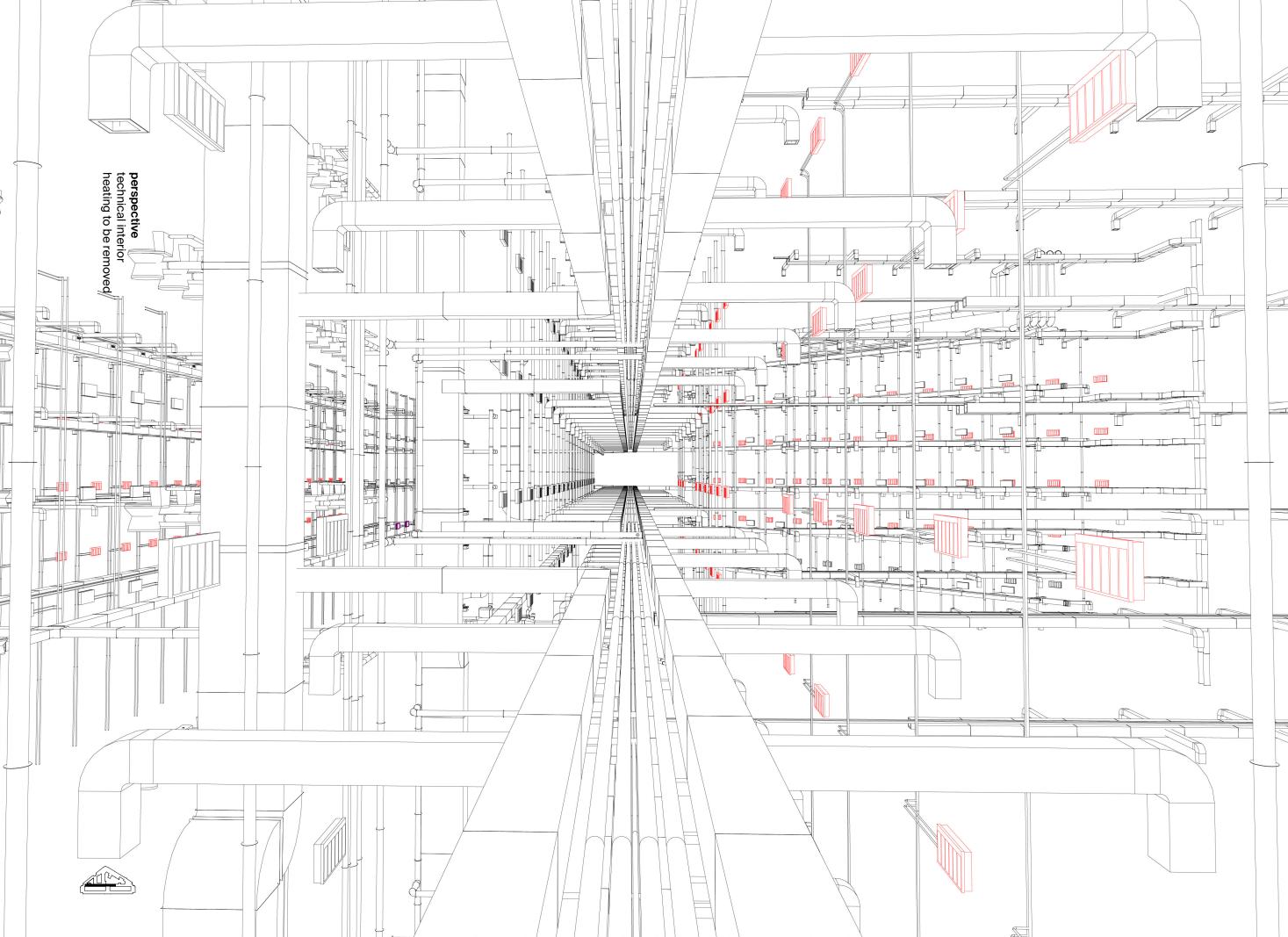


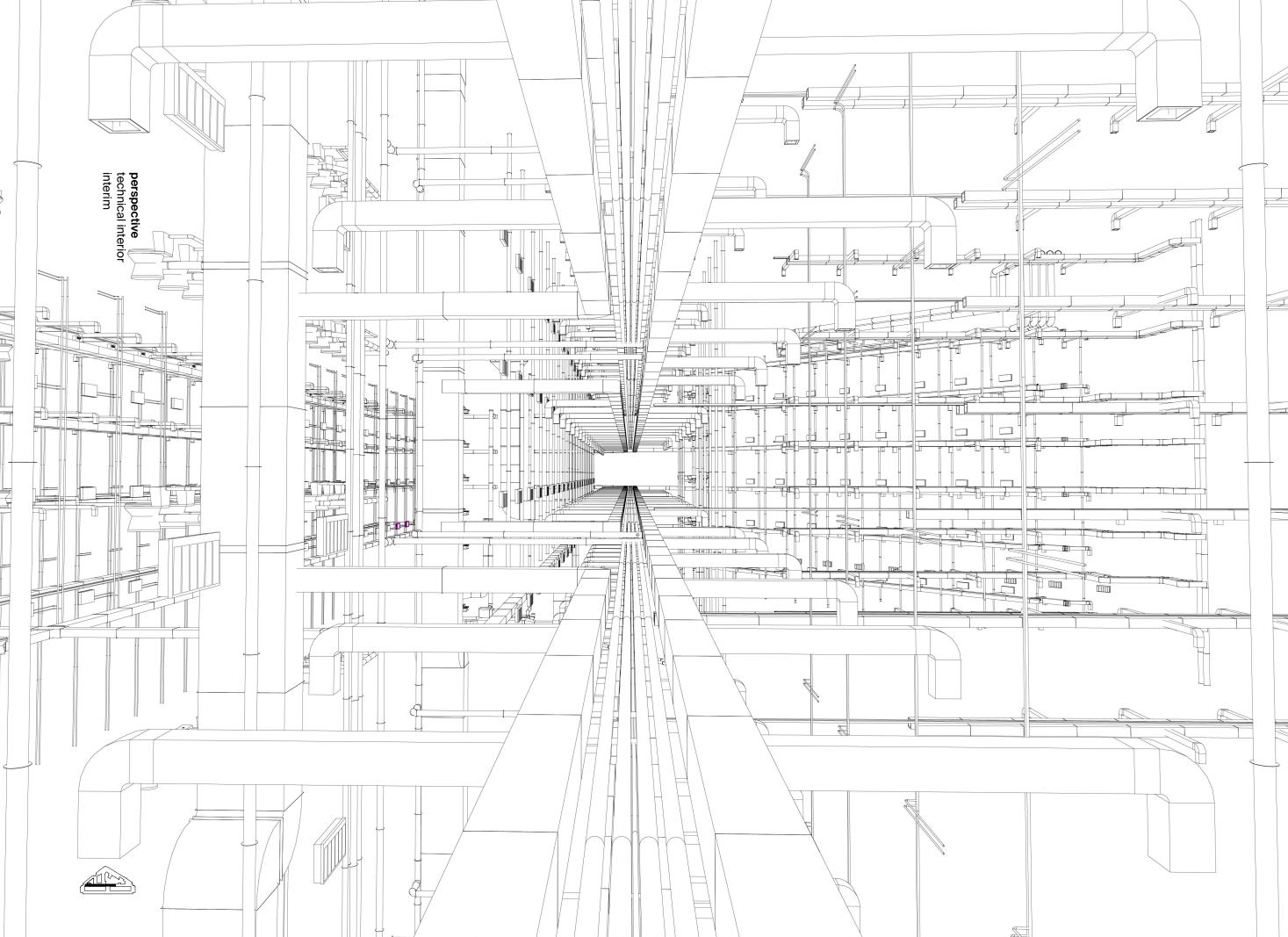


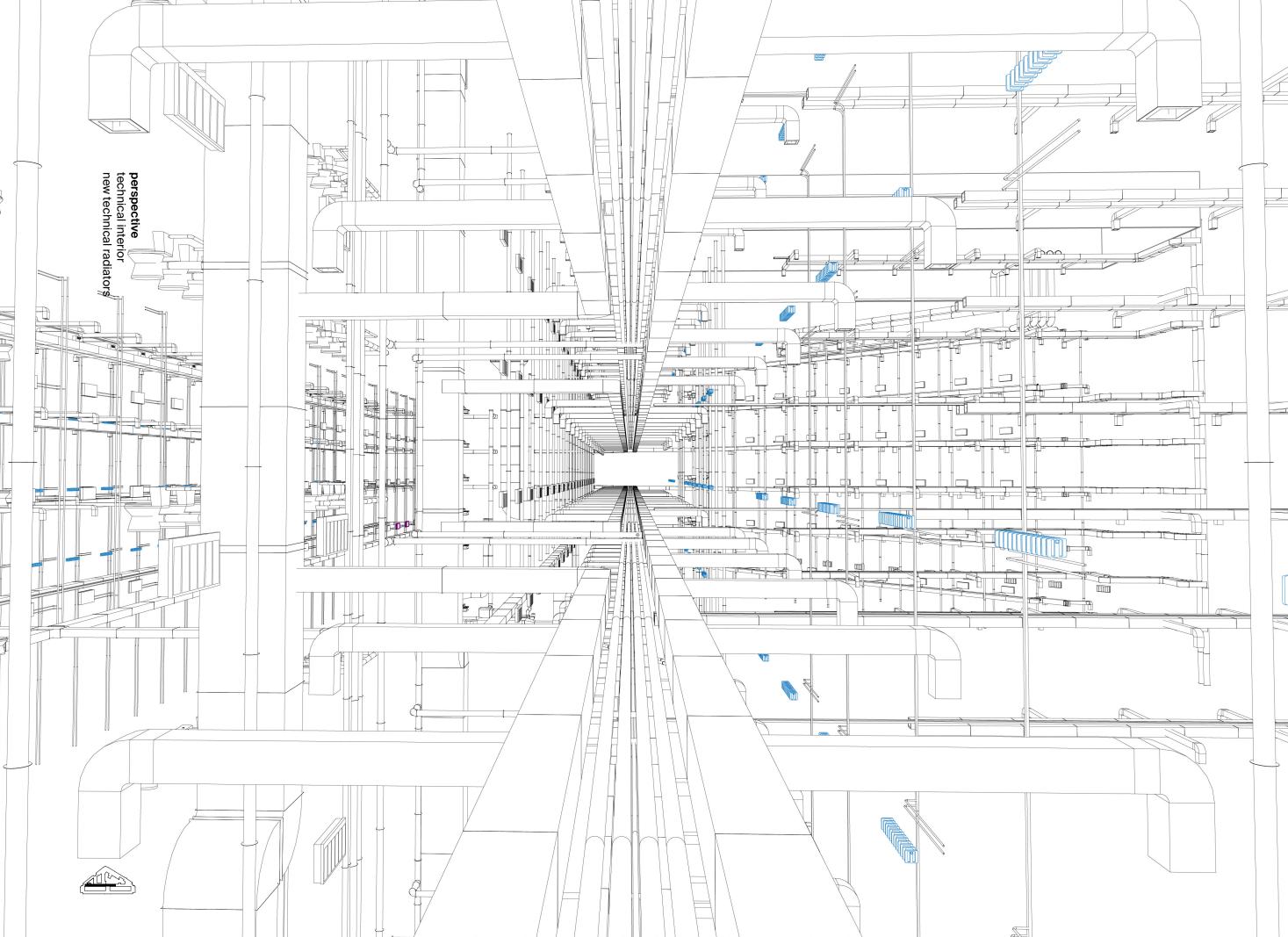


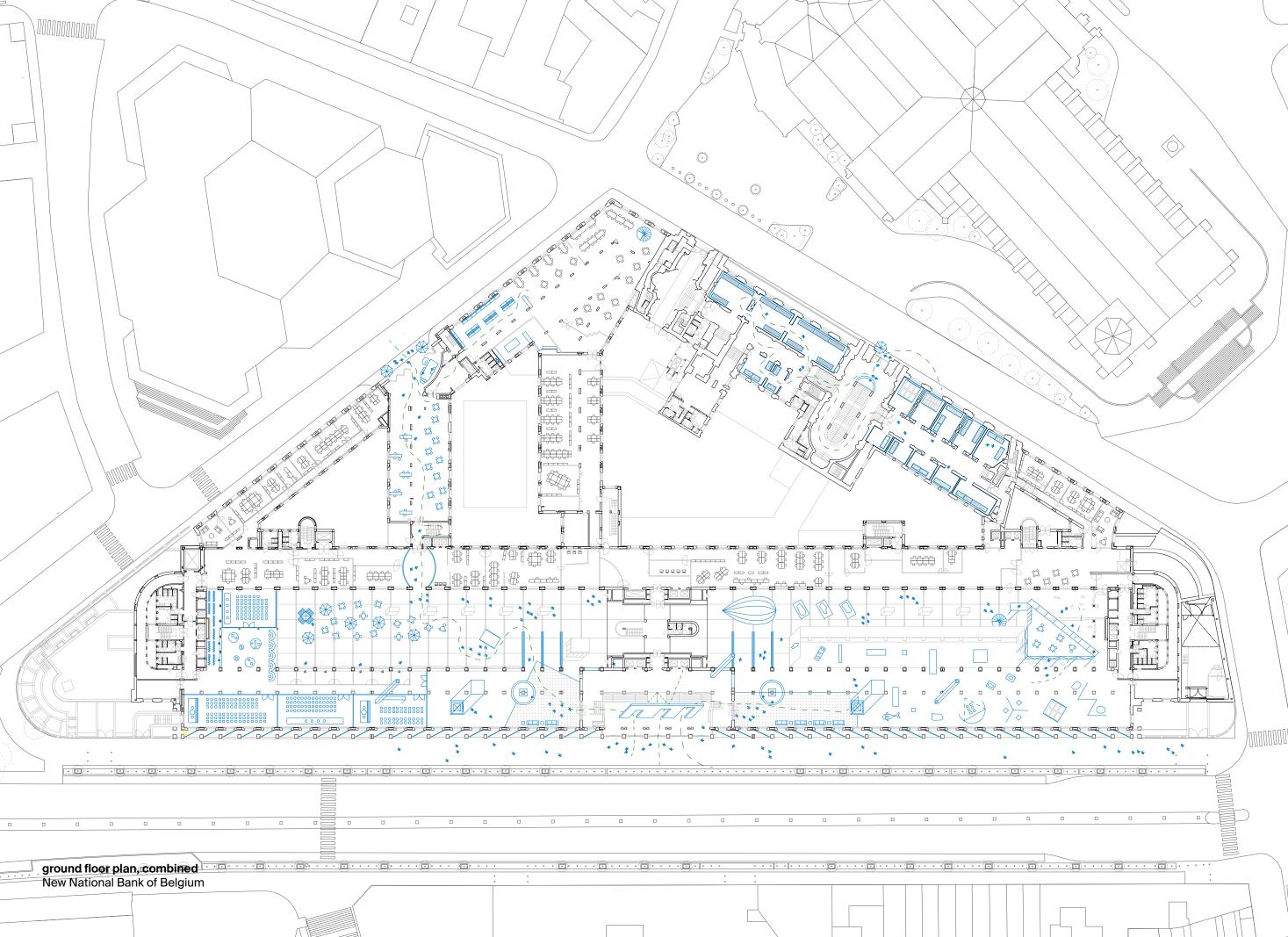


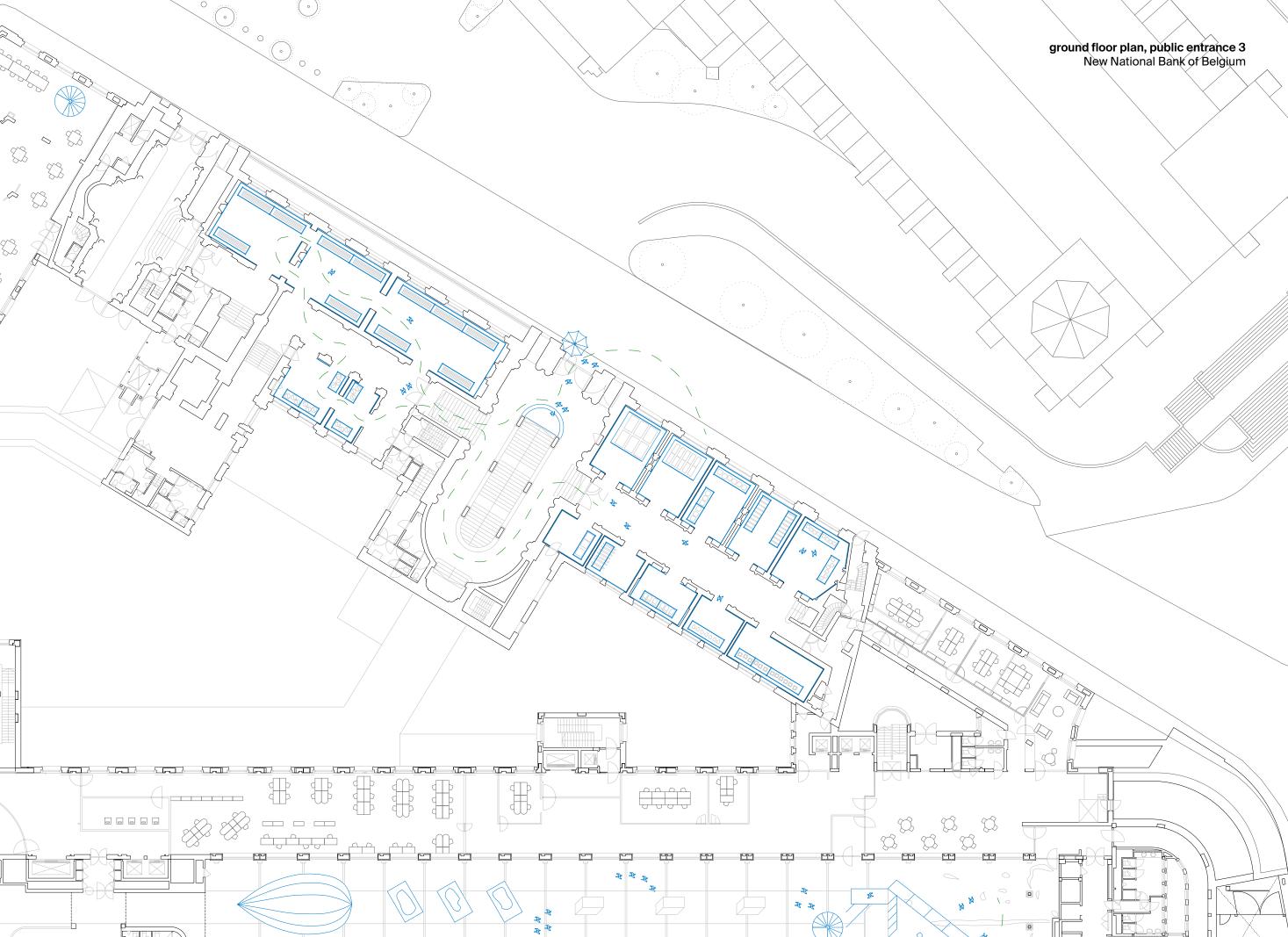






















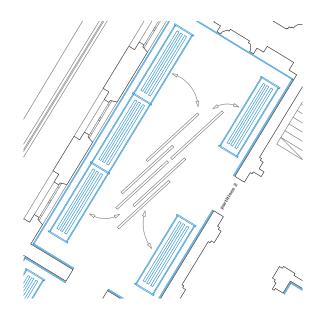
Topregal GmbH industrial shelving







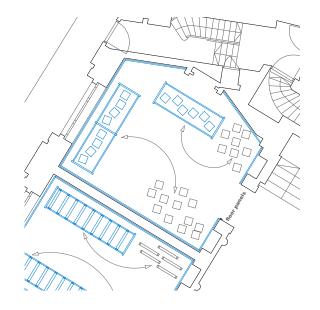
## partitions







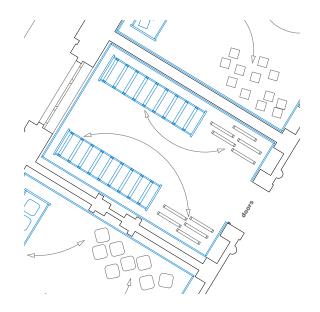
## floor panels







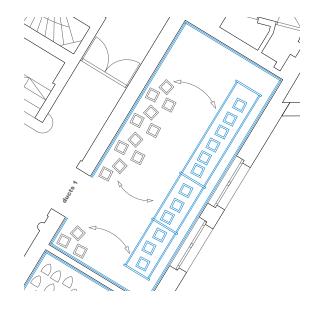
#### doors





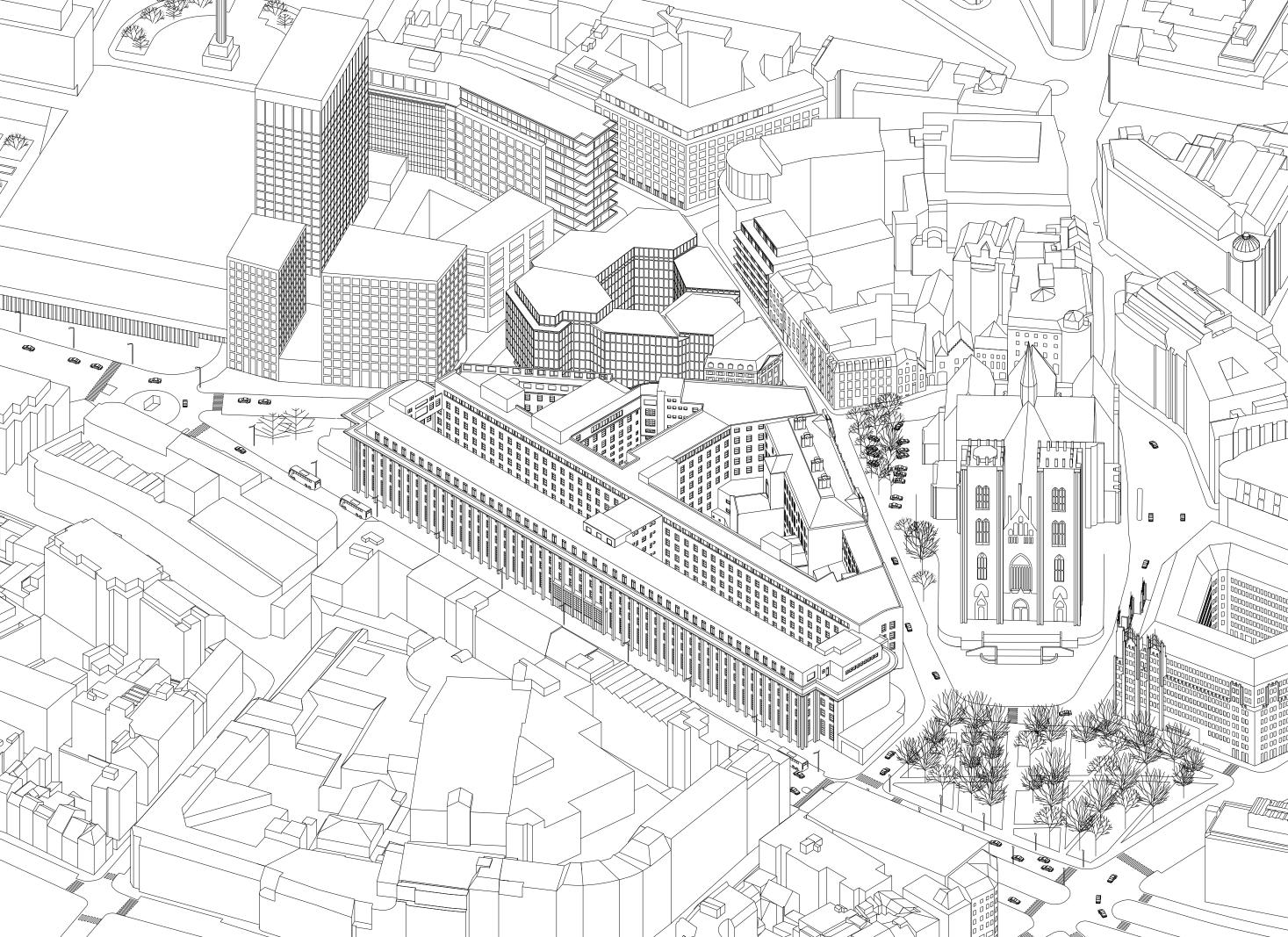


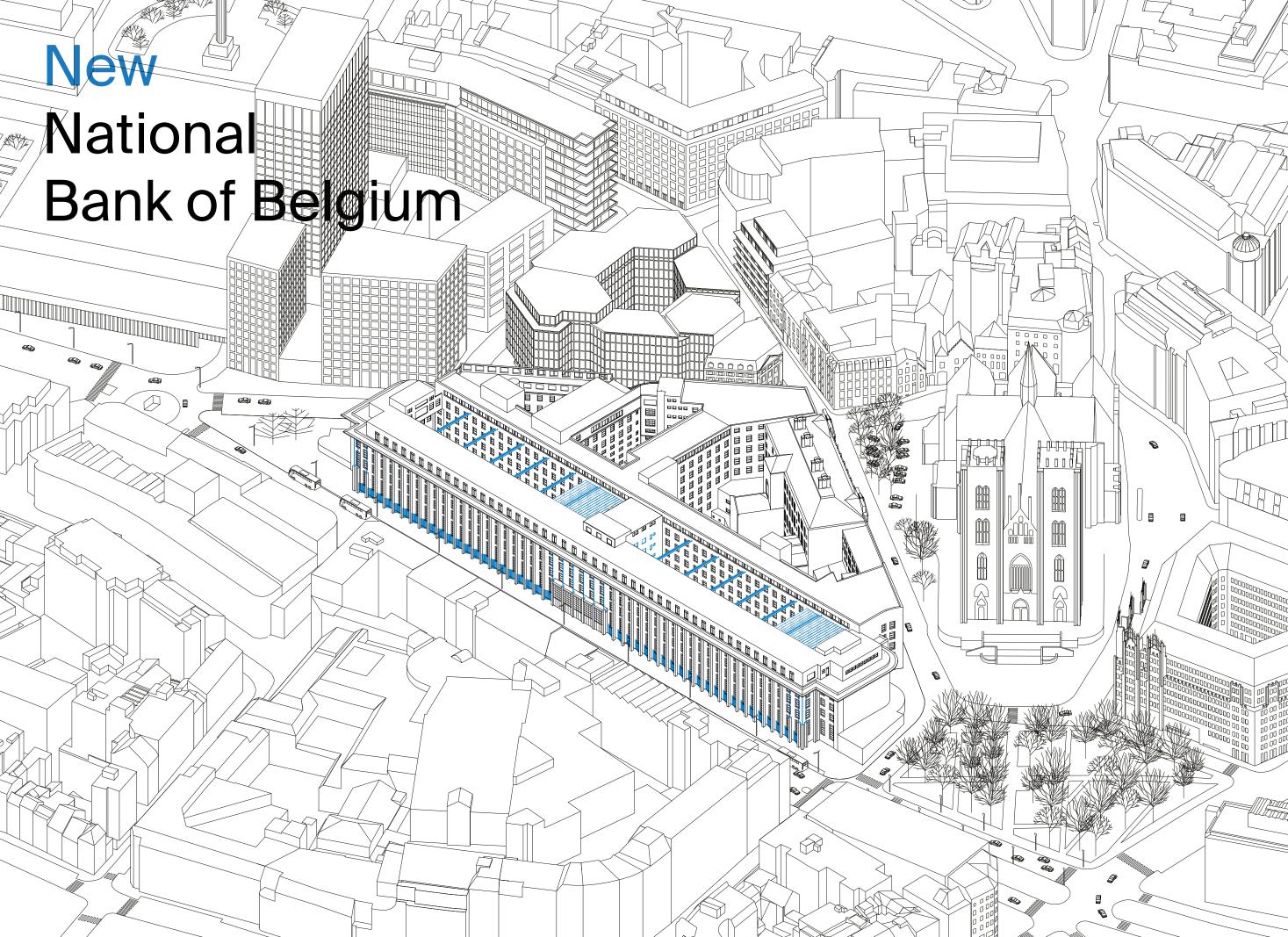
#### ducts











# thank you

special thanks to:

Mark Pimlott Matthijs Klooster Jurjen Zeinstra

Susanne Pietsch Daniel Rosbottom Sam de Vocht

Ron Barten Bas Leemans Pascal Henle