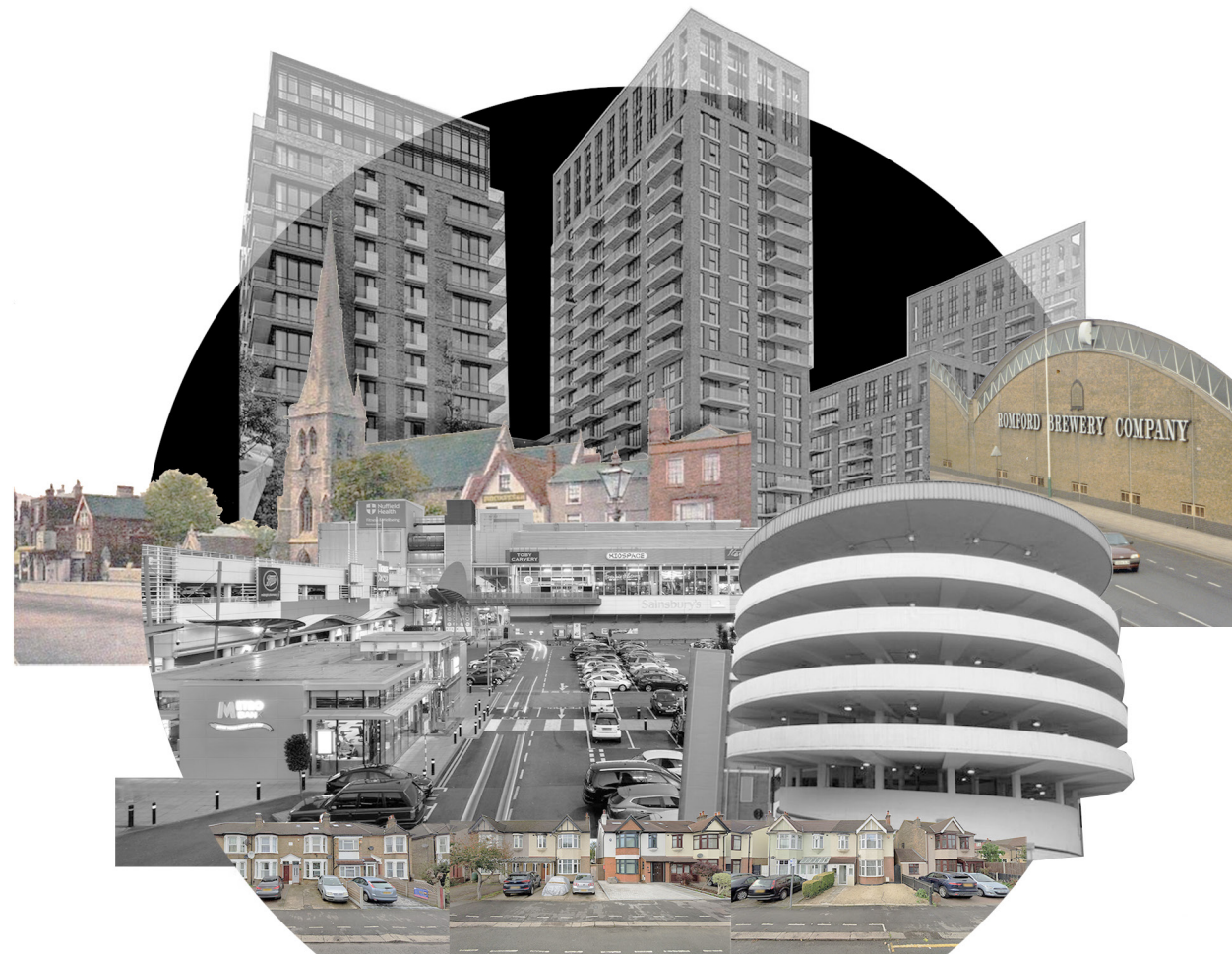


# **ABSORBING SPLINTERS**

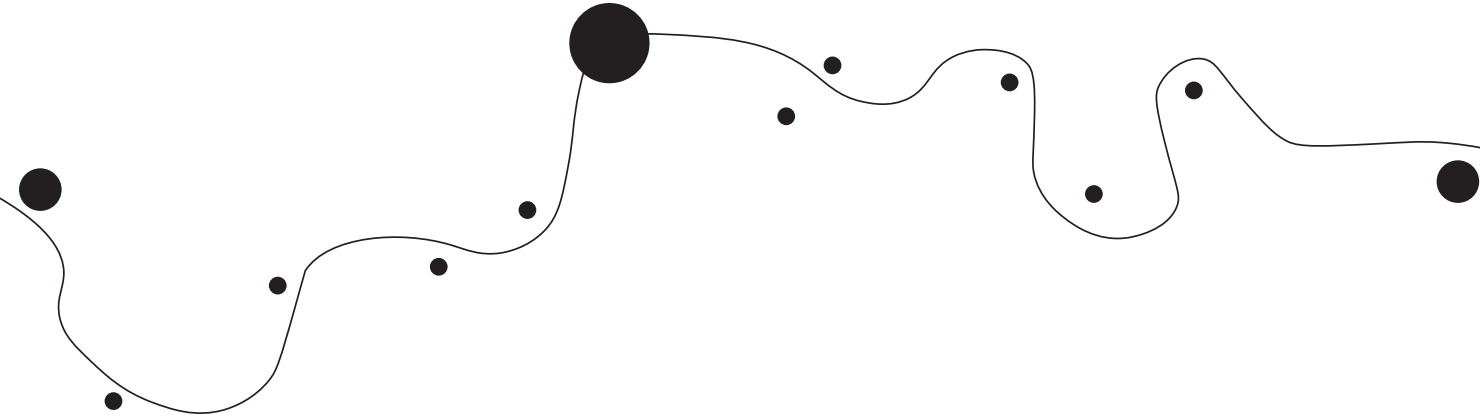
Revalorising identities within the ever-growing fragmented urban landscape of London.



- 1. FASCINATION**
- 2. PROBLEM STATEMENT**
- 3. FINDING A LOCATION**
- 4. RESEARCH**
- 5. MASTERPLAN**
- 6. STATION AREA**
- 7. PROJECT**

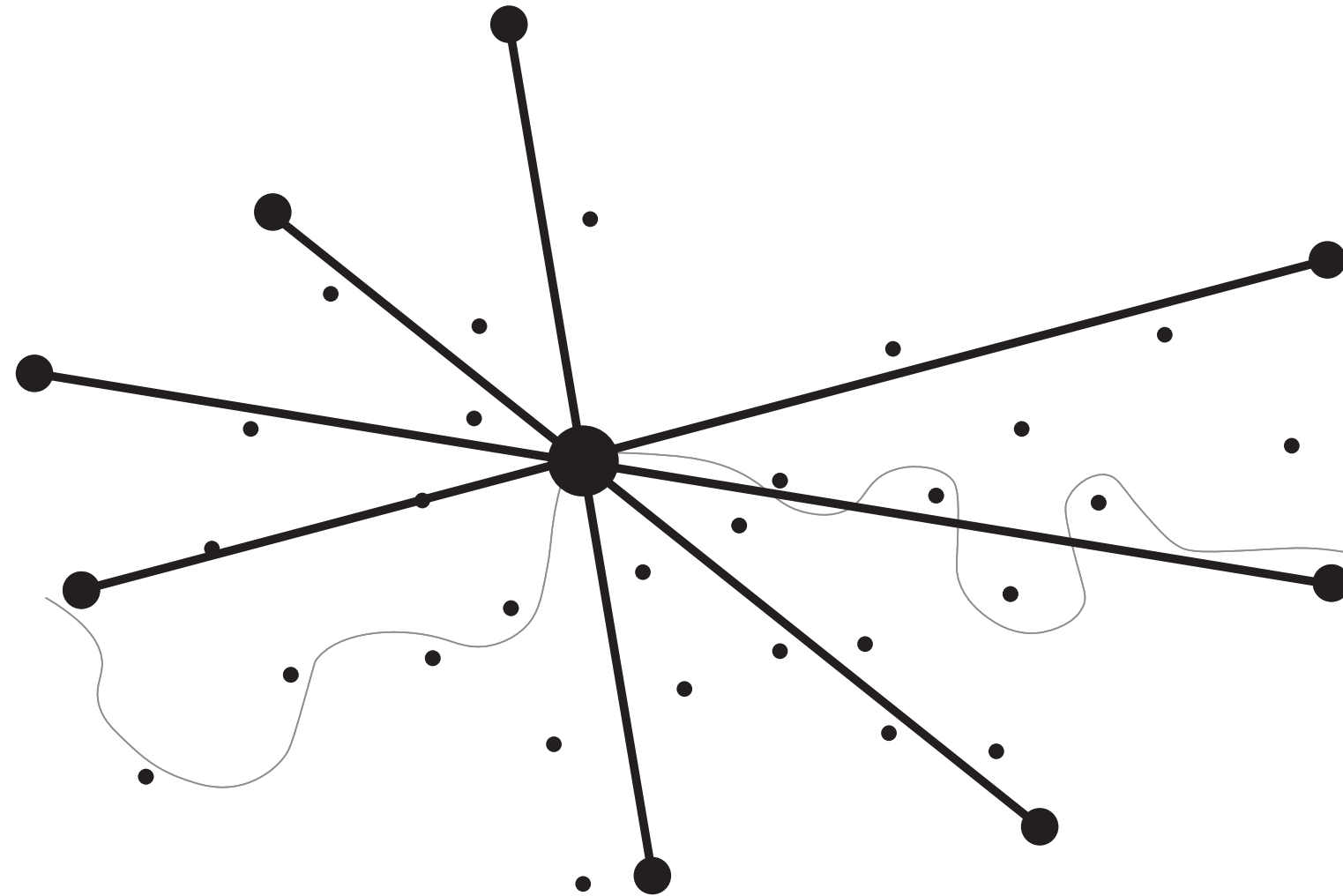


*Lack of legibility in the centre of Romford*



*then | activity around the Thames*

# INFRASTRUCTURE AS THE NEW THAMES



*now | activity around infrastructure*



Ilford | Crossrail developments



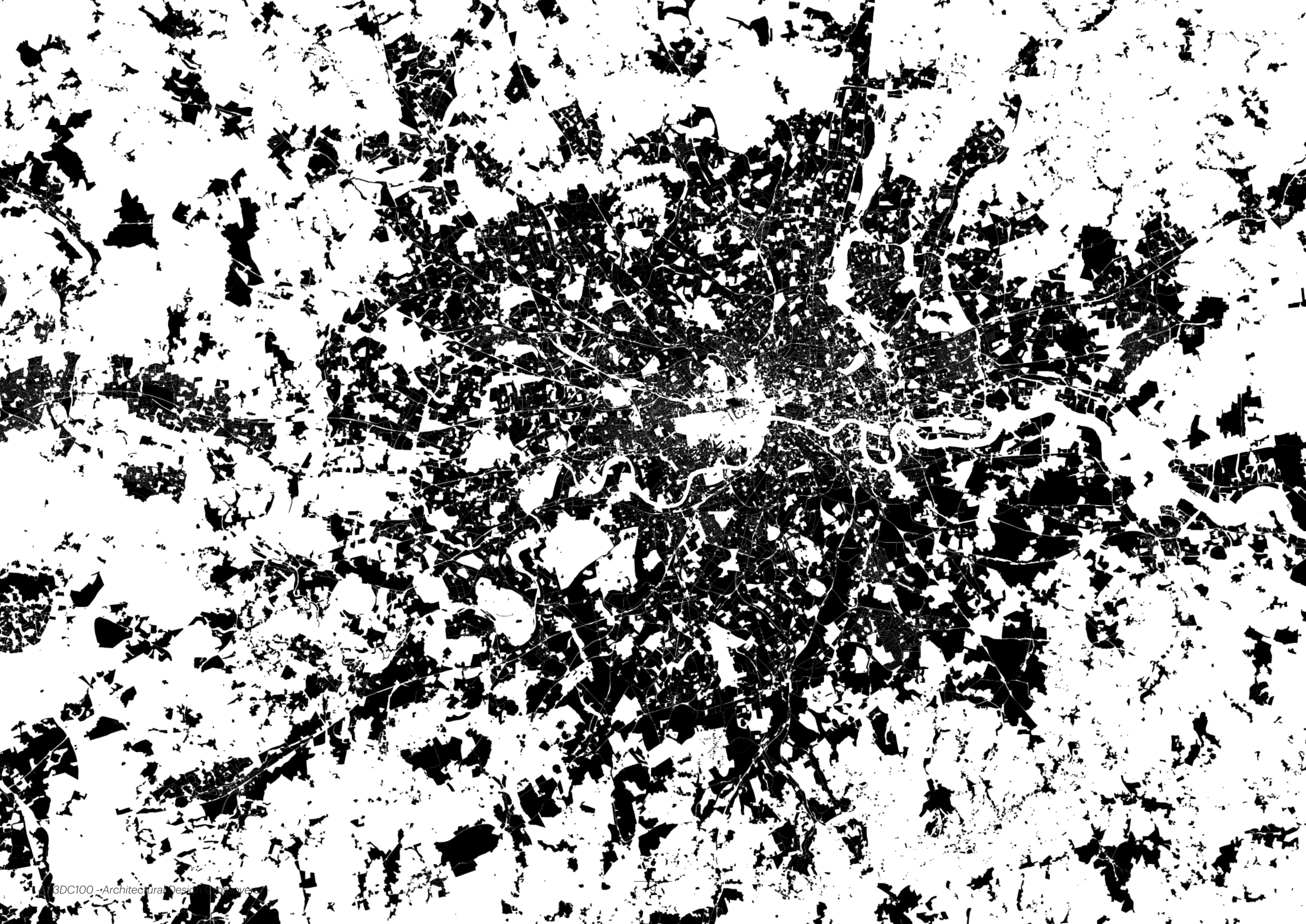
Woolwich | Crossrail developments



- 1. FASCINATION**
- 2. PROBLEM STATEMENT**
- 2. RESEARCH**
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- 4. STATION AREA**
- 5. PROJECT**

*The post-industrial city has become an area of fragmented suburbanization. The modernist ideology has invaded towns along infrastructural nodes and took away most of their identities resulting in generic areas which have become illegible and where the sense of place is lost.*







# THE ELIZABETH LINE

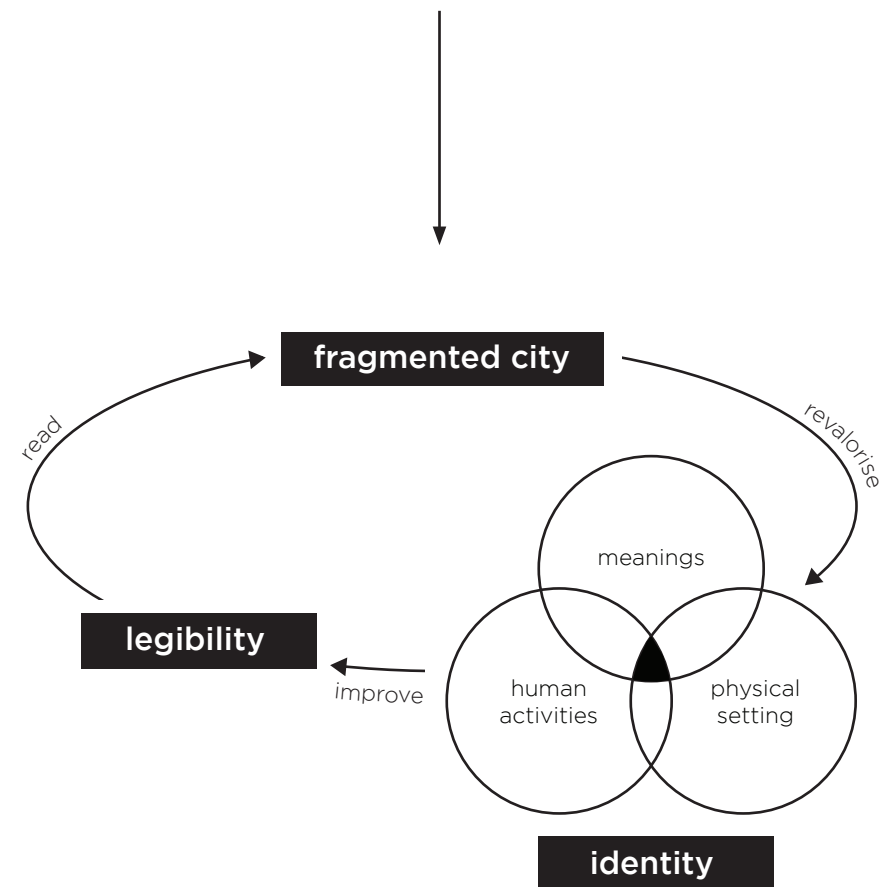


housing price | growth near station compared to growth in surrounding area since may 2012, excluding Inner London

source: Benham and Reeves (may 2022)

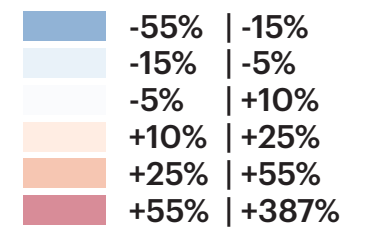
## RESEARCH QUESTION

*How can architecture contribute to overcome the fragmented urban landscape along the Elizabeth Line in Outer London, countering the loss of legibility by drawing on the revalorisation of its identity?*



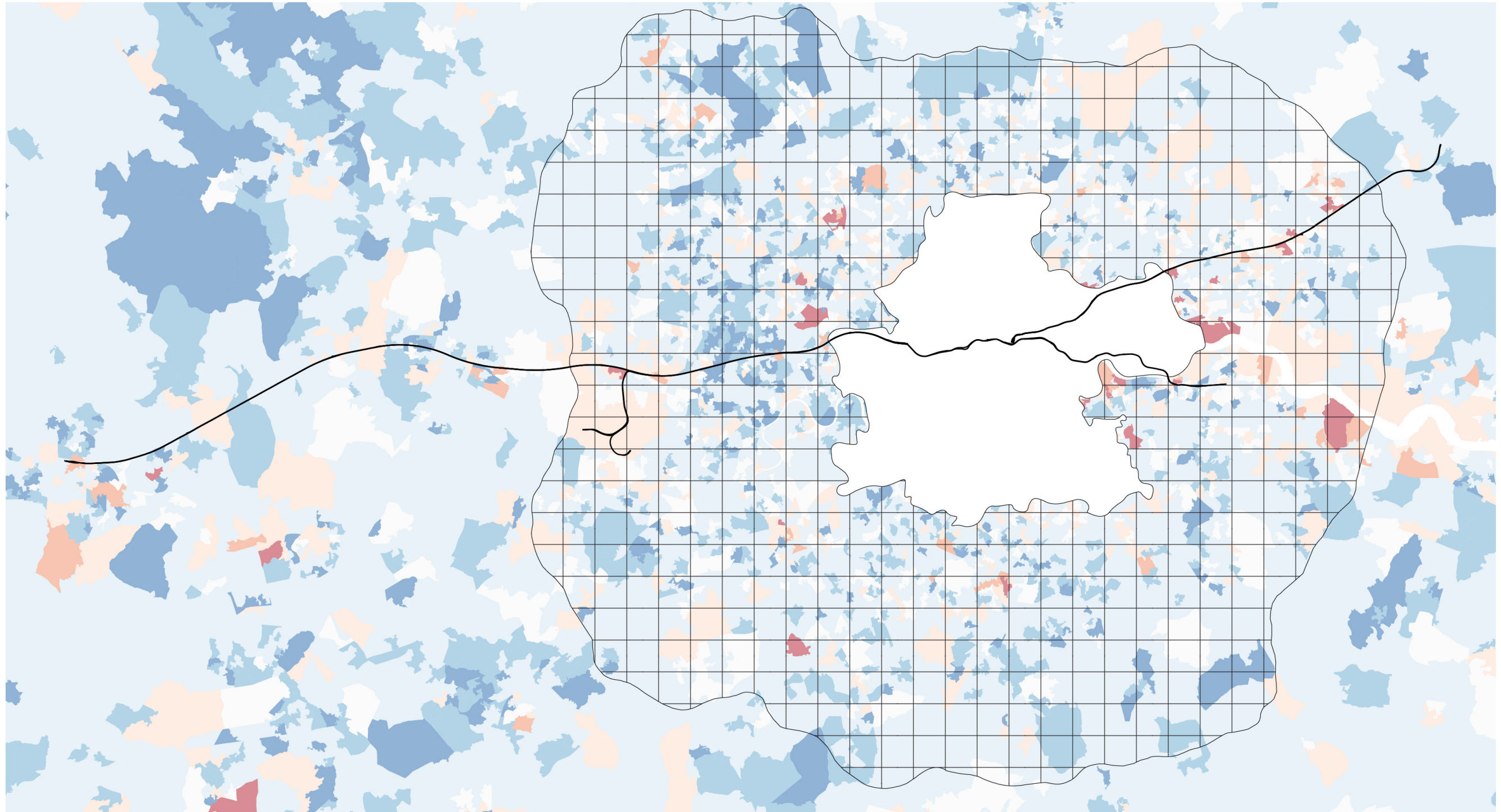
- 1. FASCINATION**
- 2. PROBLEM STATEMENT**
- 3. FINDING A LOCATION**
- 4. RESEARCH**
- 5. MASTERPLAN**
- 6. STATION AREA**
- 7. PROJECT**





# WHERE DO PEOPLE MOVE TO?

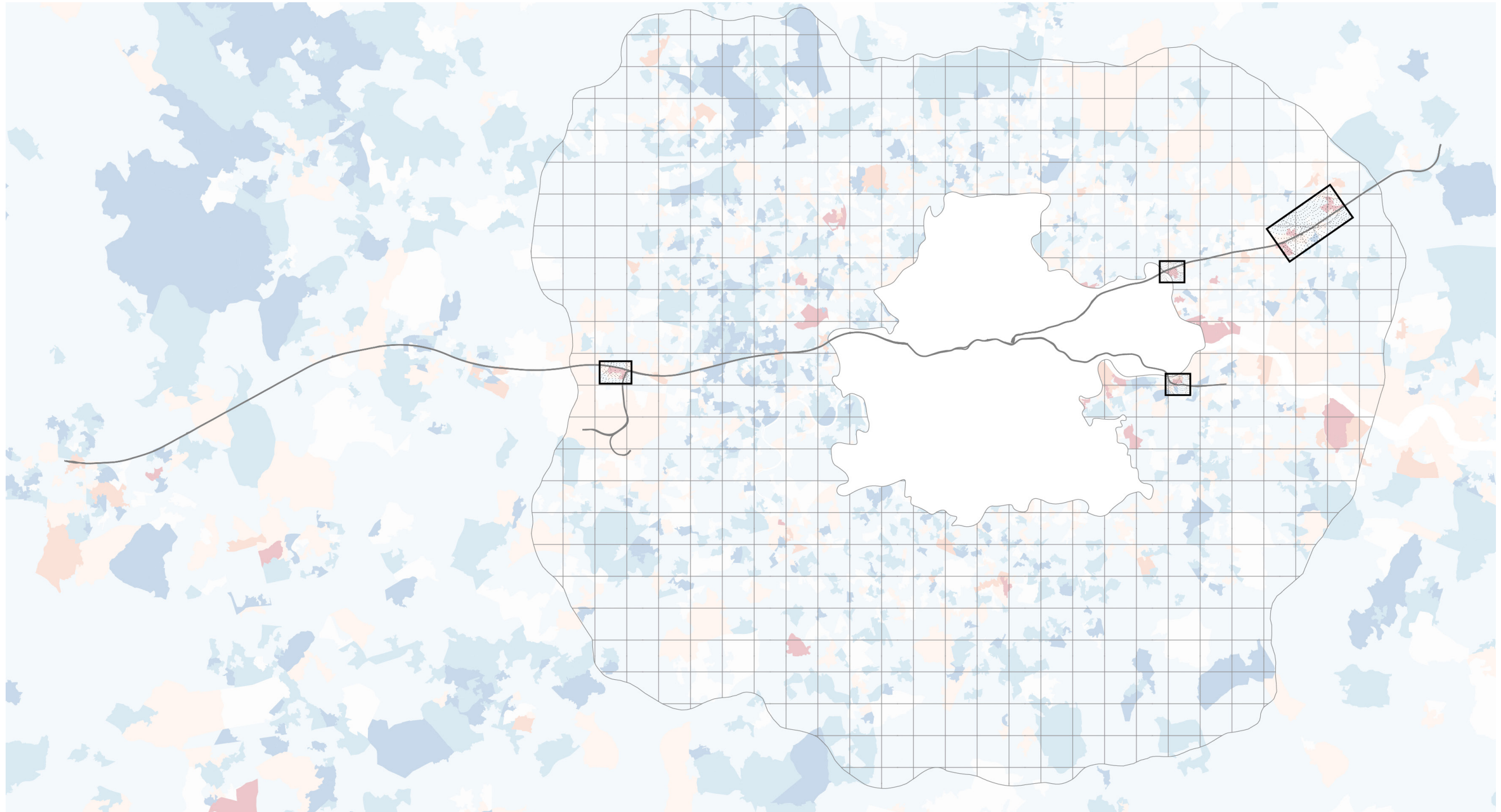
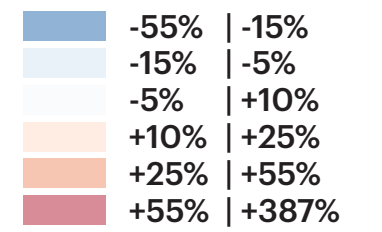
suburbs and commuter towns along the Elizabeth Line



population change 2012-2020

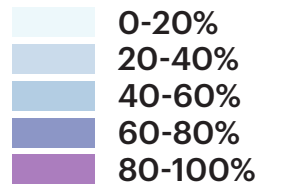
source: Office for National Statistics (ONS)



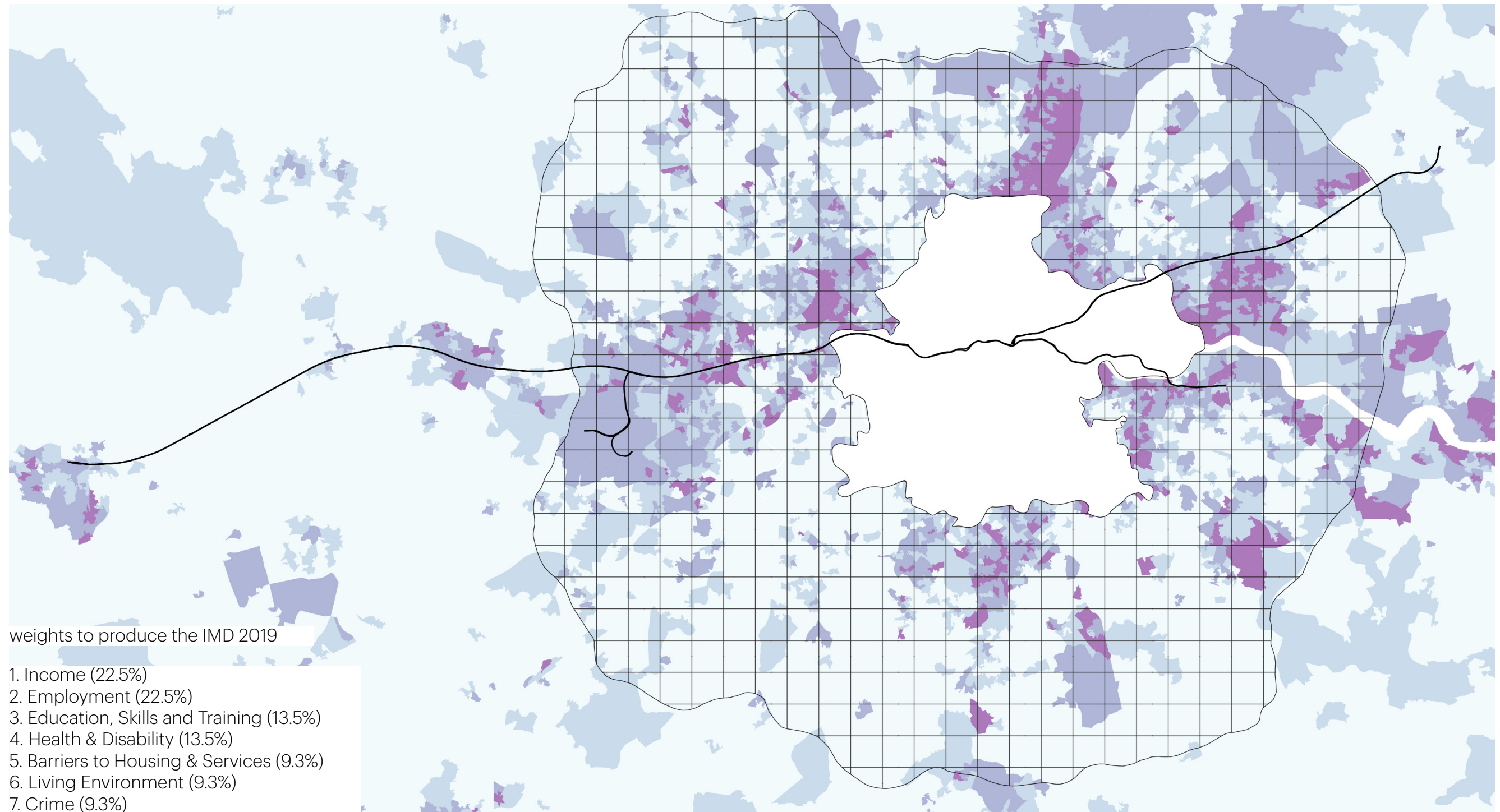


population change 2012-2020

source: Office for National Statistics (ONS)



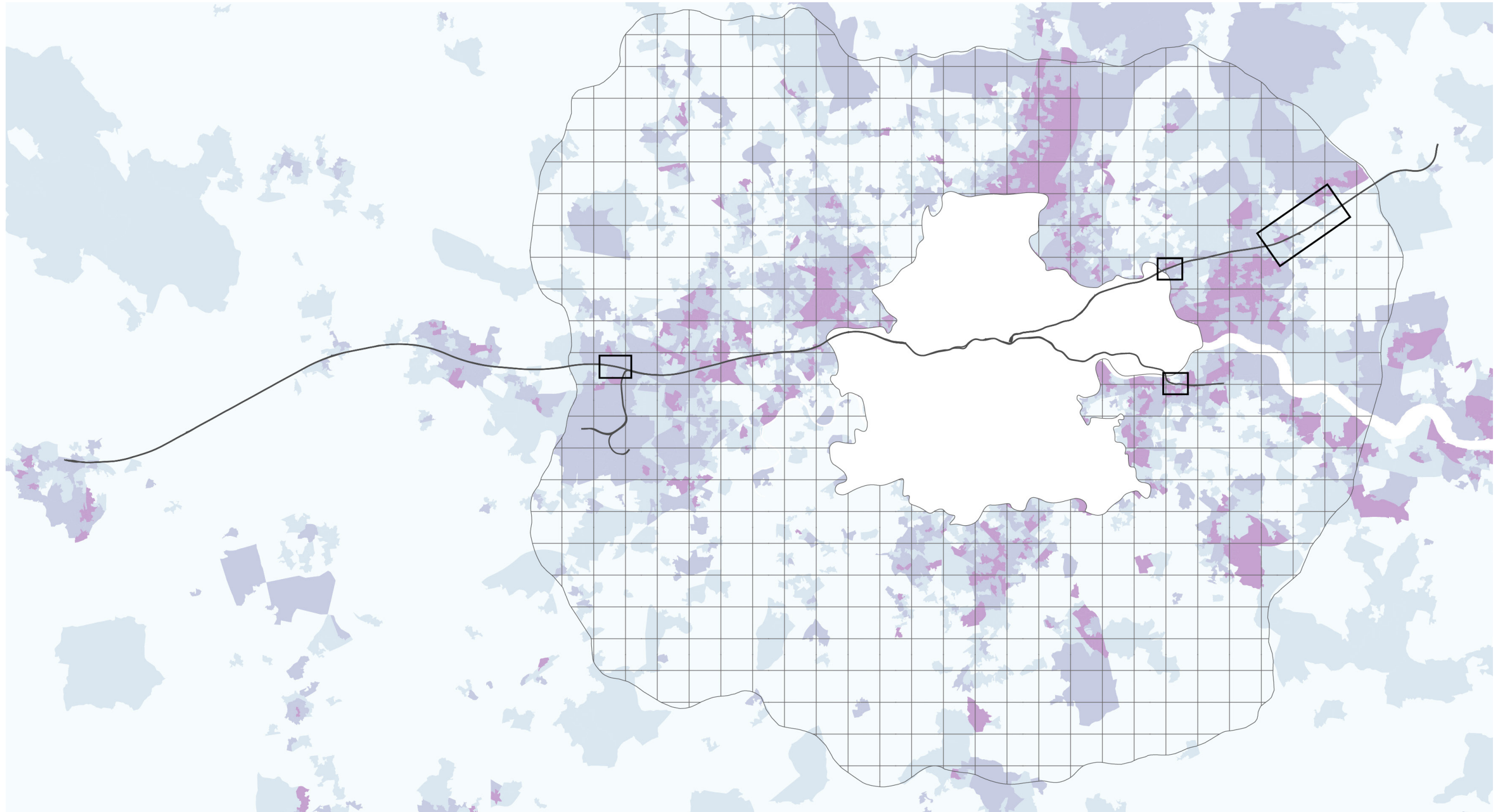
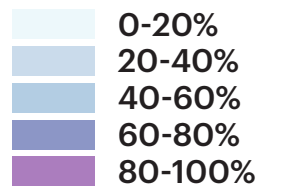
## WHICH STATION AREAS ARE MOST DEPRIVED?



Index of Multiple Deprivation (IMD) 2019

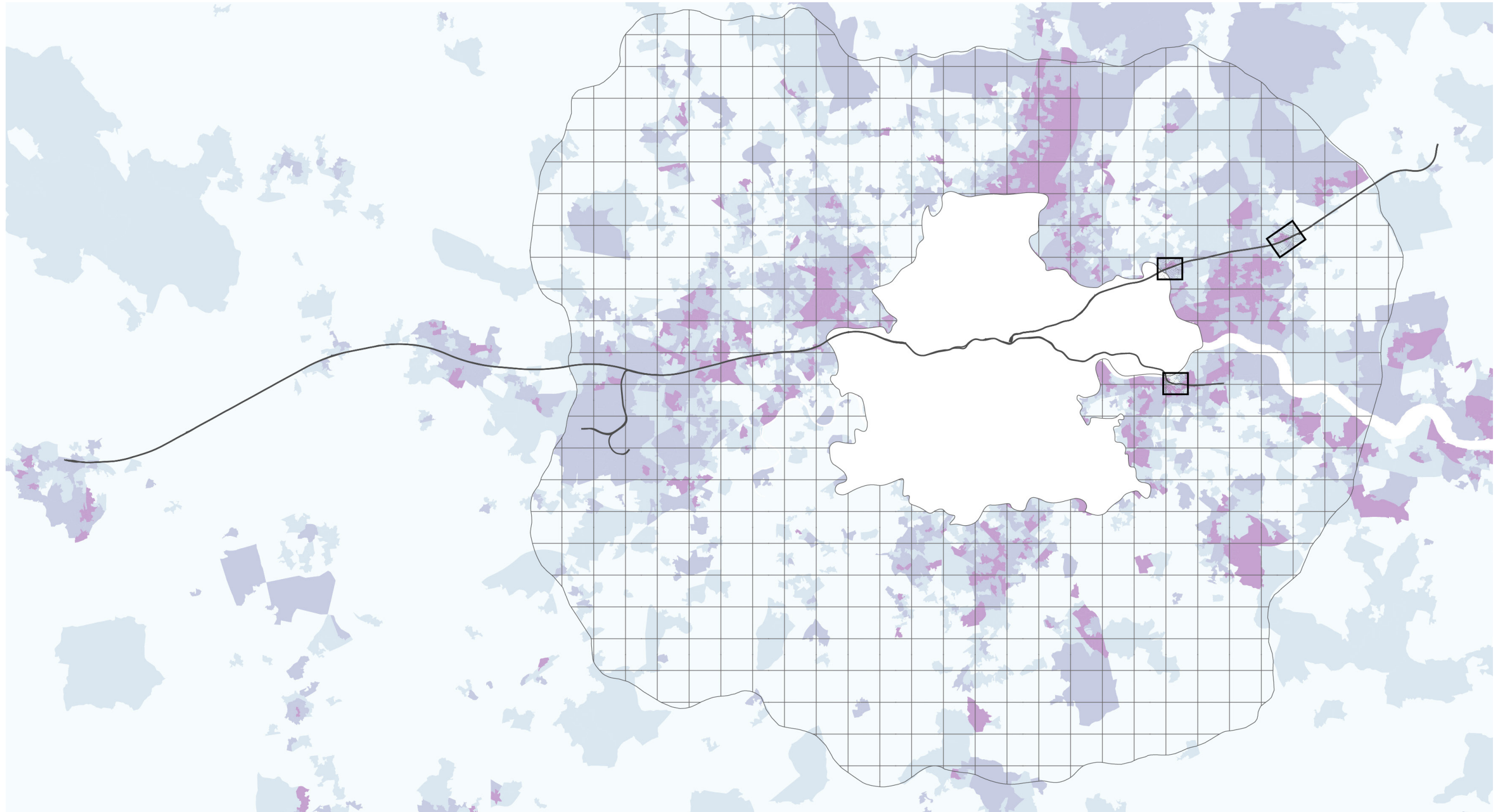
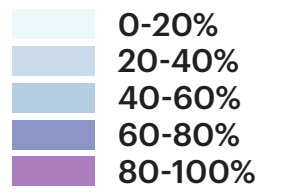
source: Ministry of Housing, Communities & Local Government





*Index of Multiple Deprivation (IMD) 2019*

*source: Ministry of Housing, Communities & Local Government*



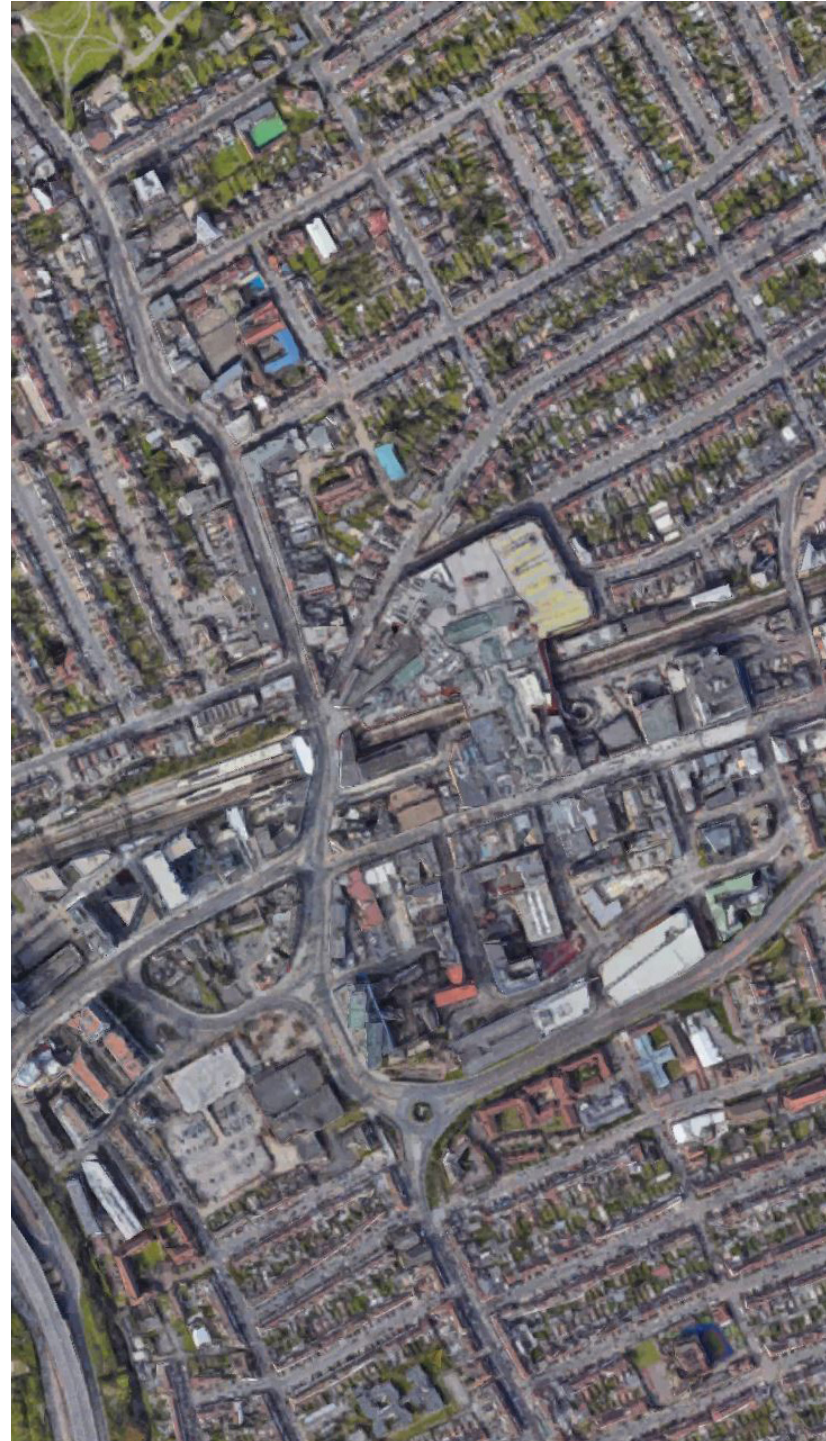
*Index of Multiple Deprivation (IMD) 2019*

*source: Ministry of Housing, Communities & Local Government*

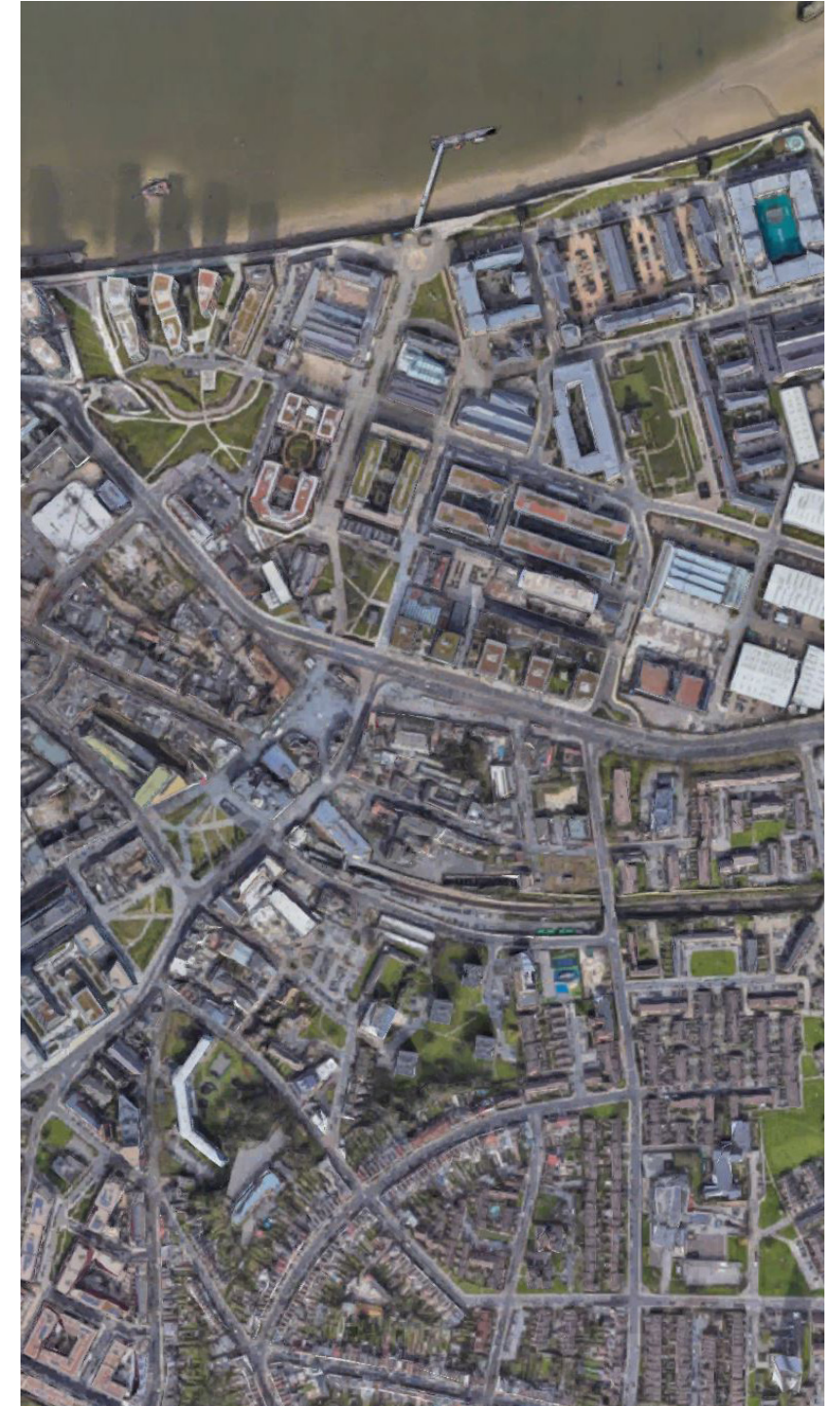




*Romford*



*Ilford*



*Woolwich*





*Romford*



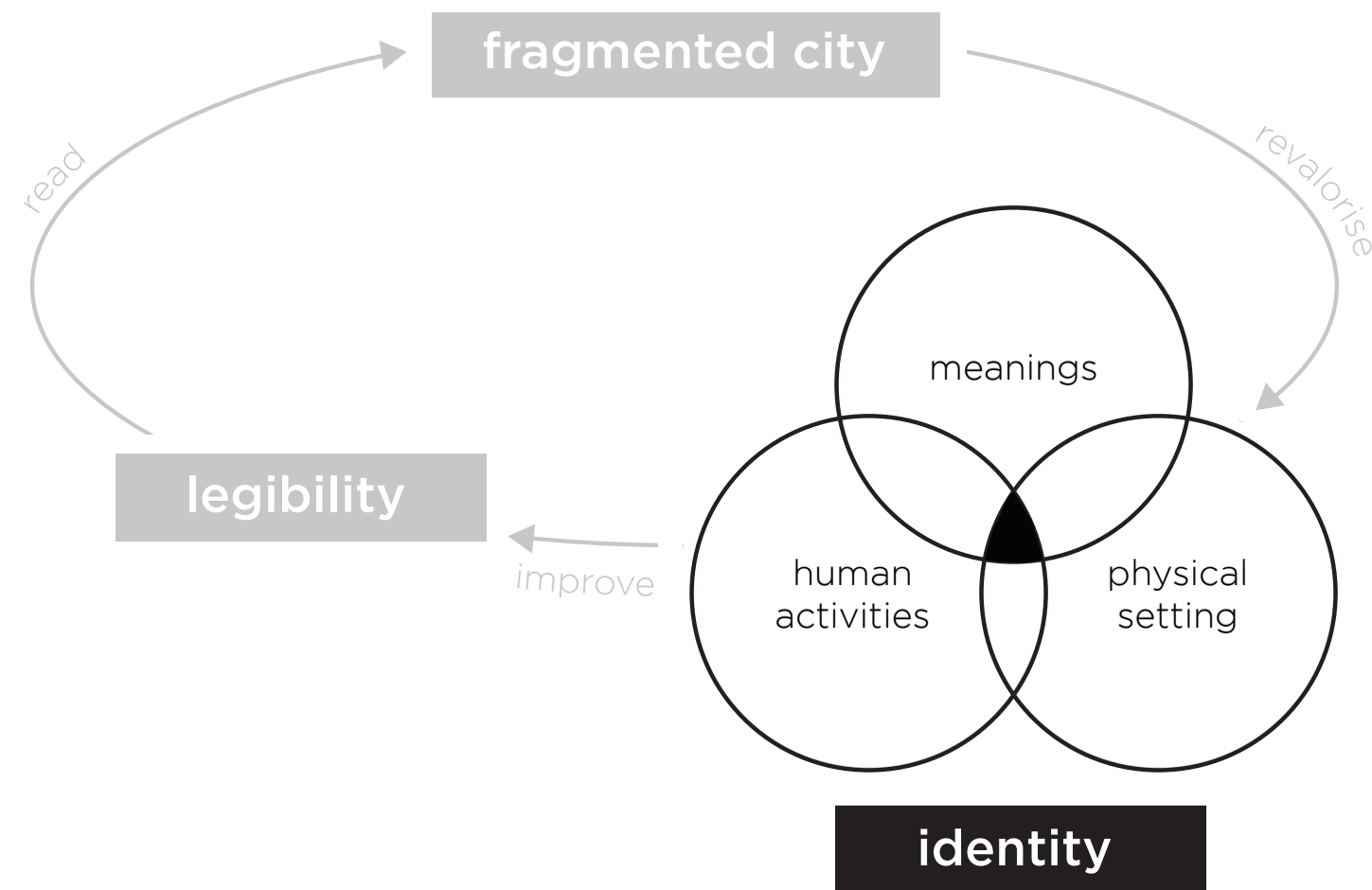
*Ilford*



*Woolwich*

- 1. FASCINATION**
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## WHAT IS LEFT OF ROMFORD'S IDENTITY?





## PHYSICAL SETTING



Romford Brewery was founded in 1708  
River Rom completely open  
Market Place significant





Exponential growth of the Brewery and River Rom put underground





*Suburban expansions*





Romford as metropolitan centre  
 Vast modernization since the 60s;  
 5 shopping malls and numerous car parks  
 ring road to avoid traffic congestions





*The Brewery in 1920*

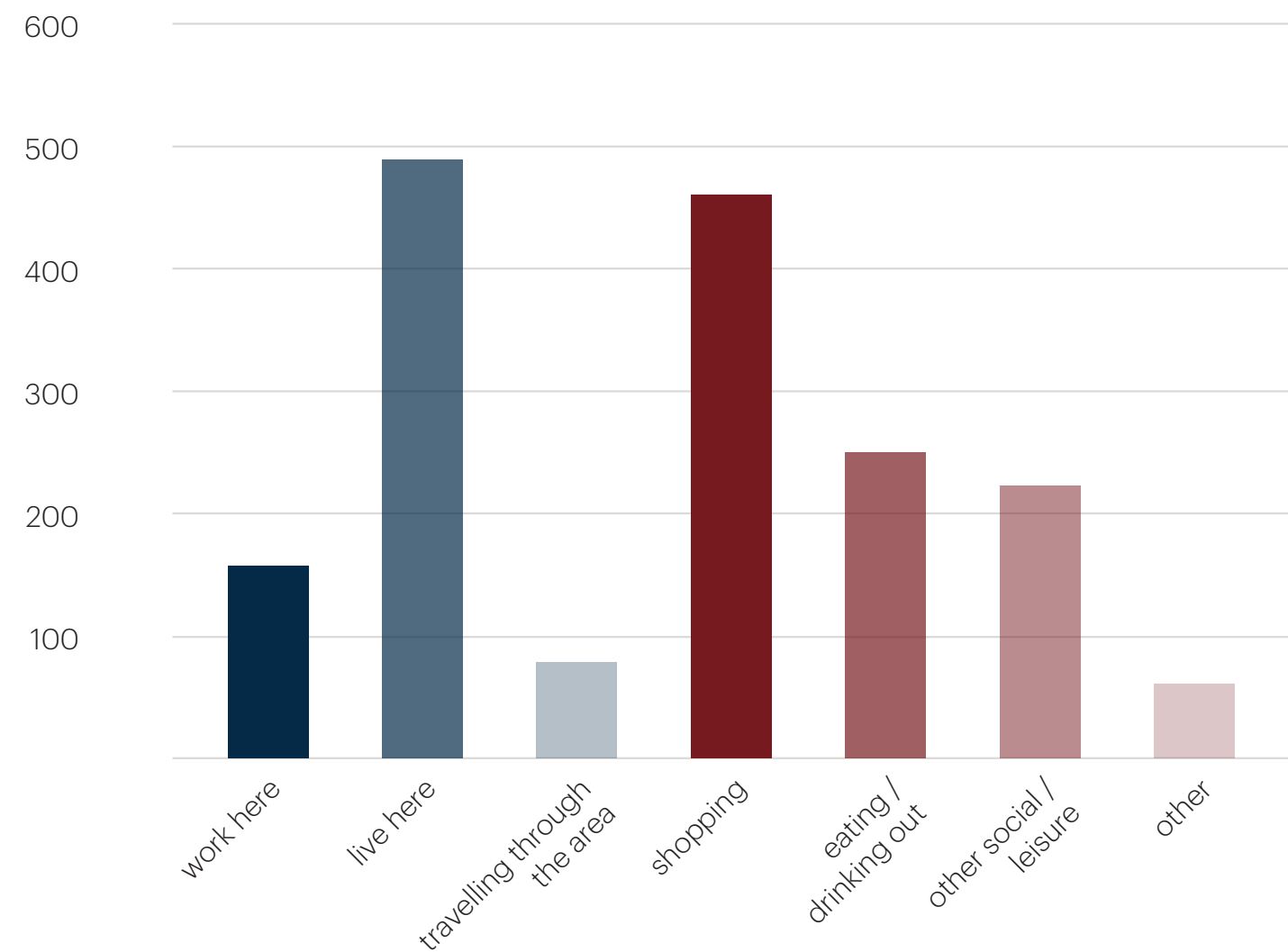




*The Brewery in 2023*

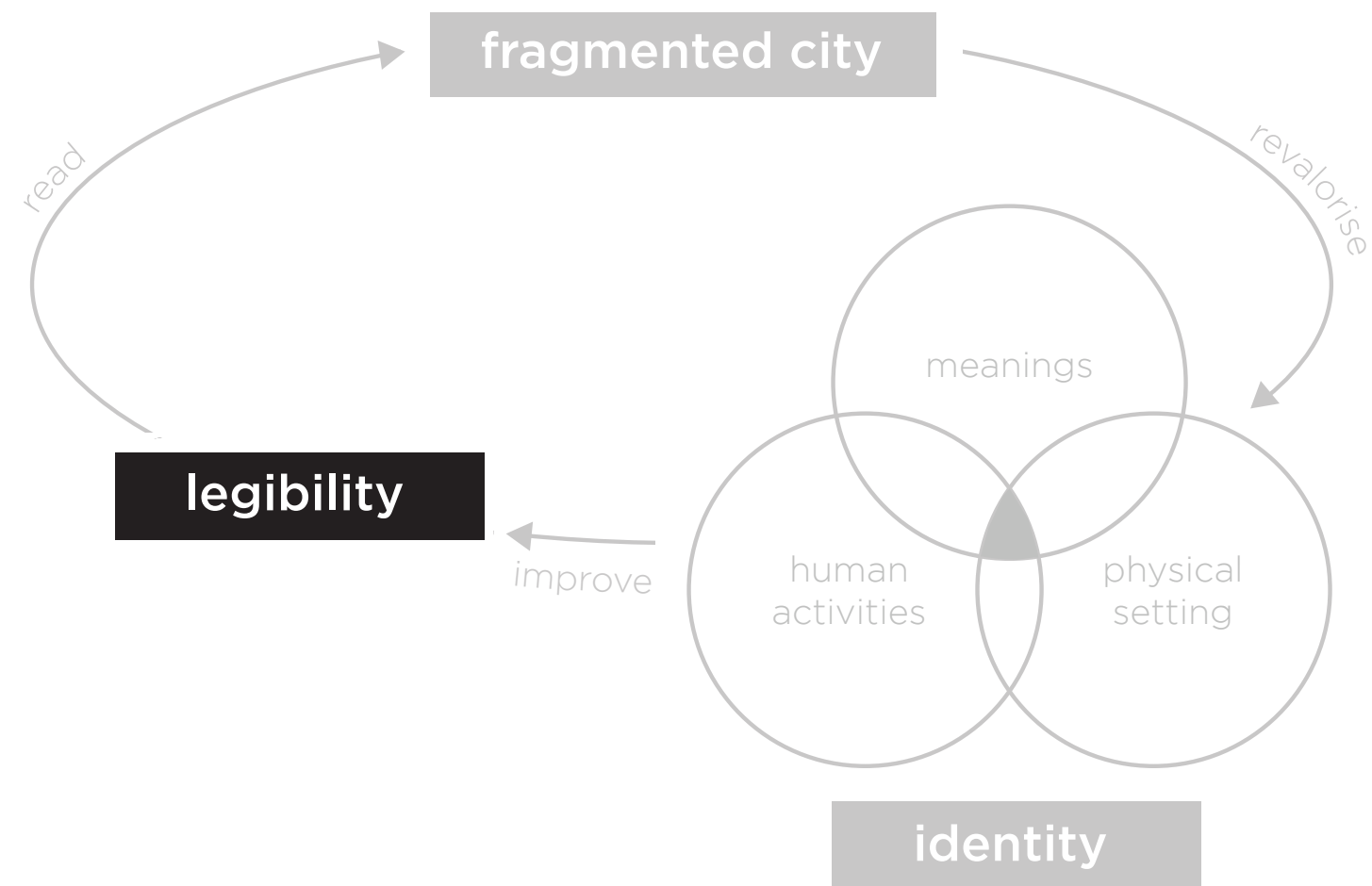
# HUMAN ACTIVITIES

## Main reasons for visiting Romford



source: questionnaire among 1209 participants executed by the London borough of Havering in 2019

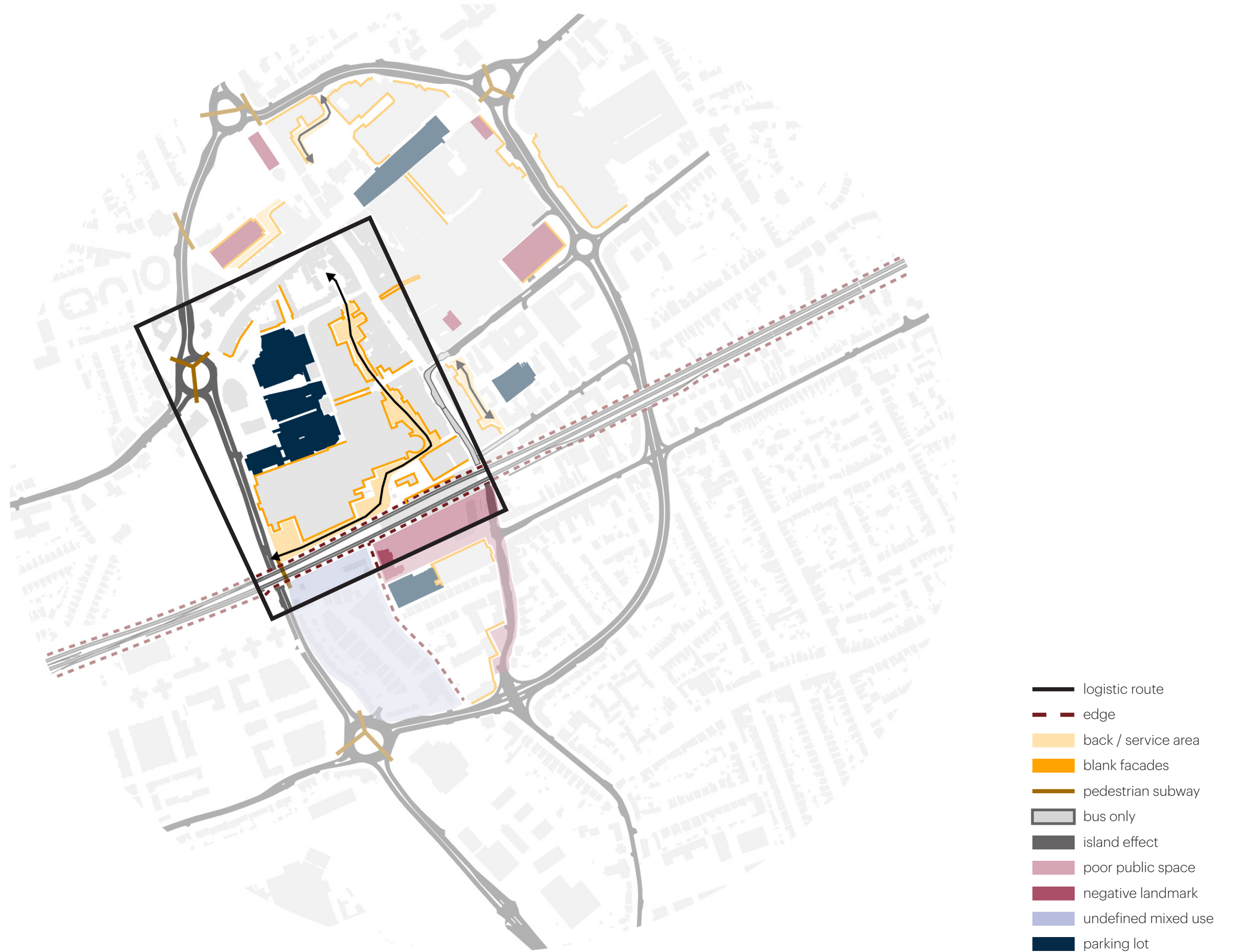
## HOW TO READ ROMFORD TOWN?











Antagonist





*back side and rail barrier*



*service zone*



*blank facade*



*excessive parking space*





*Paths*







*Districts*



# REVISITING THE SHOPPING MALL | paper conclusions

A research on how The Brewery in Romford can be revitalised for the contemporary needs of the 21st century.



*Shopping centres have originally been designed to function as a European city centre, something which American suburbs did not have.*

source: Revisiting the shopping mall | Research Paper





*Original shopping centres had both social and commercial functions.*

source: Revisiting the shopping mall | Research Paper



*Because of its success, developers erased social functions to maximize profits.*

source: Revisiting the shopping mall | Research Paper





*A lot of monofunctional shopping centres nowadays are big, dead boxes.*

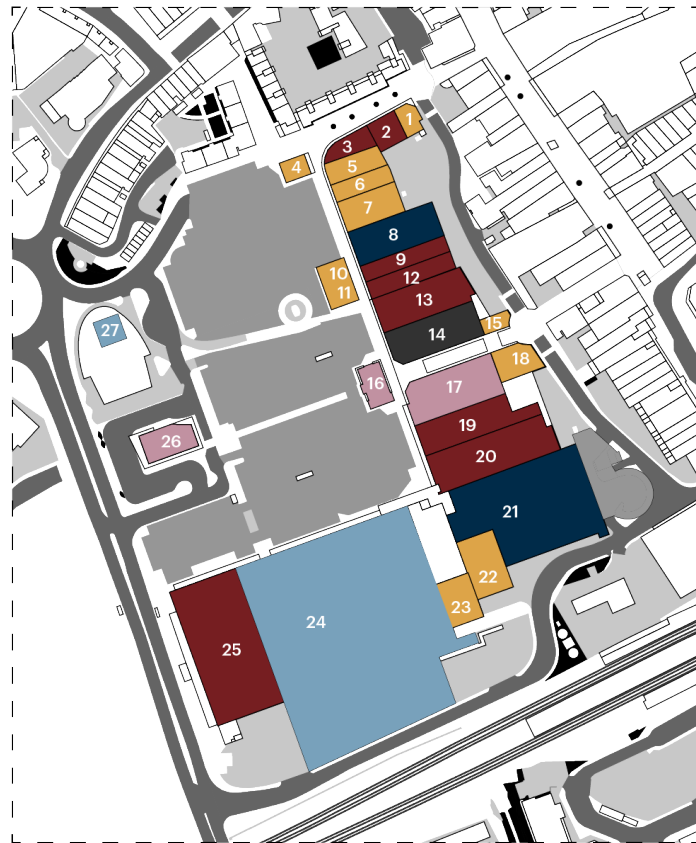
source: Revisiting the shopping mall | Research Paper



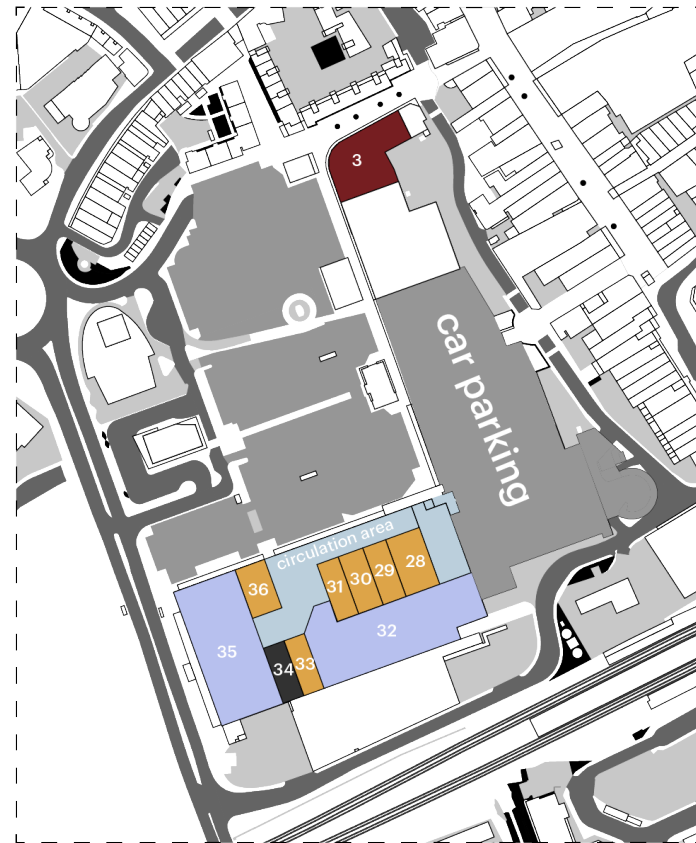
*In order to revitalize shopping centres, we must again focus on social interactions as they were originally invented.*

source: Revisiting the shopping mall | Research Paper

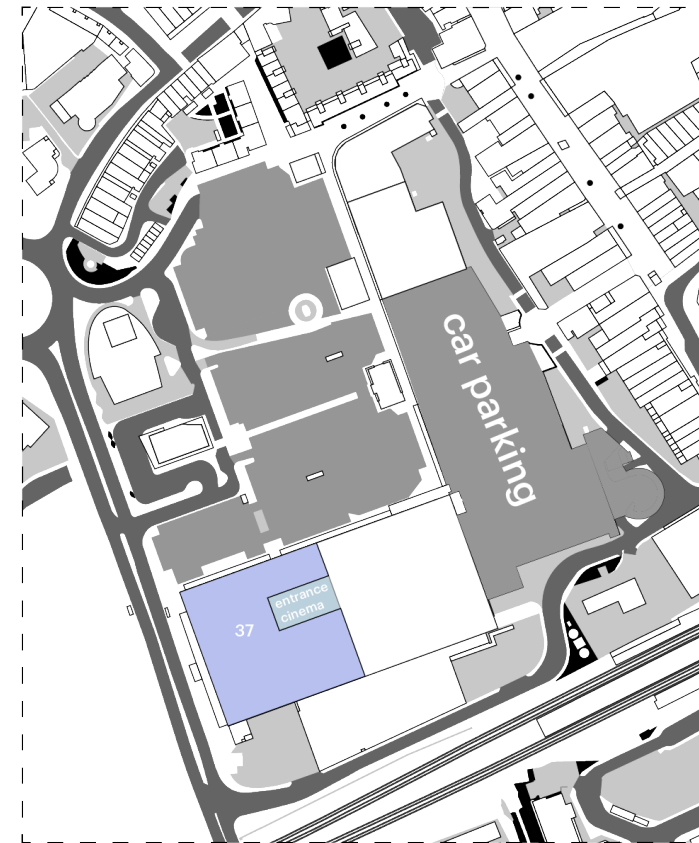




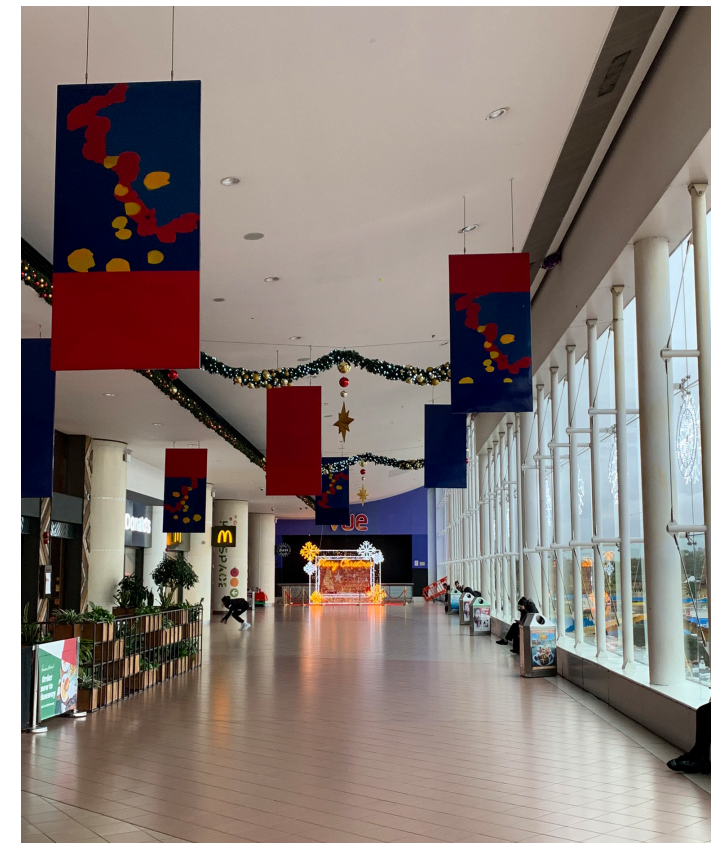
ground floor



1st floor



2nd floor



1st floor

*an unfortunate mix of functions on the first  
and second floor*

<span style="display:inline-block; width:15px; height:15px; background-color:grey;"></span> vacant	<span style="display:inline-block; width:15px; height:15px; background-color:lightblue;"></span> circulation space
<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span> food/drinks	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span> supermarket
<span style="display:inline-block; width:15px; height:15px; background-color:pink;"></span> service	<span style="display:inline-block; width:15px; height:15px; background-color:darkblue;"></span> health
<span style="display:inline-block; width:15px; height:15px; background-color:darkred;"></span> retail	<span style="display:inline-block; width:15px; height:15px; background-color:lightblue;"></span> leisure

source: Revisiting the shopping mall | Research Paper



*excessive amount of parking space in front of the stores*



*exposed back and service area*

source: Revisiting the shopping mall | Research Paper



# WHAT HAS BEEN PLANNED?

Neglecting the town's centre





**70**  
**8 stories**

**up to  
16 stories**

**1380**

**to be  
determined**

**670**

**up to  
14 stories**

**1000**

**up to  
12 stories**

**450**

**to be  
determined**

**up to  
12 stories**

**1000**  
**1650**



**TOTAL OF 6220**



- 1. FASCINATION**
- 2. PROBLEM STATEMENT**
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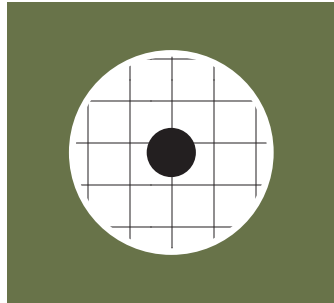


**GOAL**

**FROM CONSUMER BACK TO CITIZEN**



# FROM CONSUMER BACK TO CITIZEN



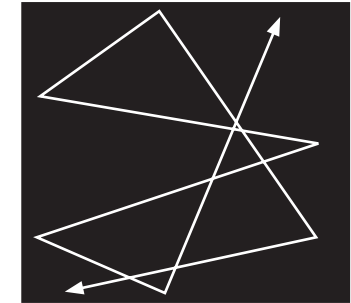
*from enclave*



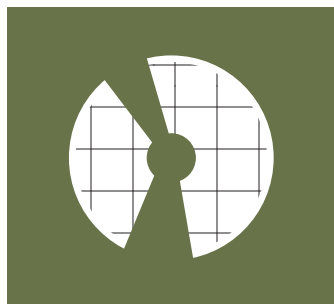
*from car*



*from monofunctional*



*from inside*



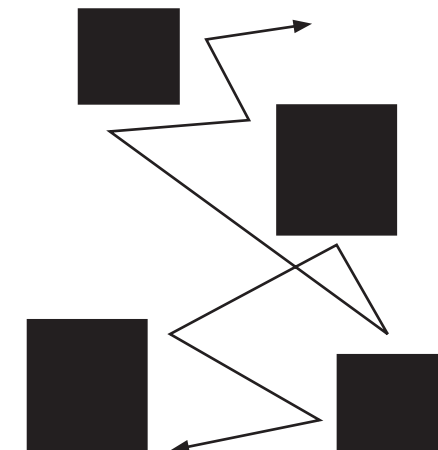
*to green connection*



*to pedestrian focused*



*to mixed program*



*to outside experience*

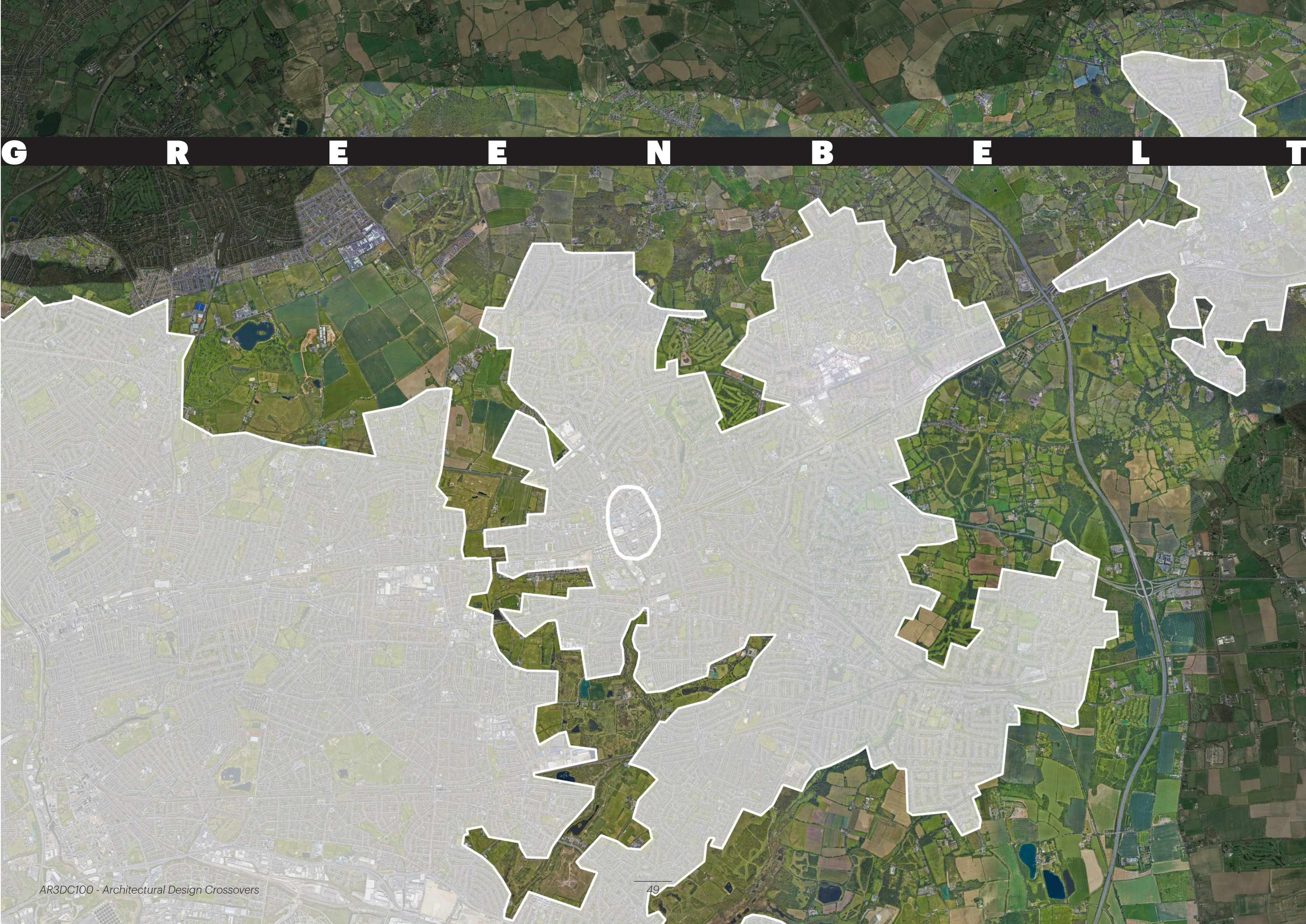


# G R E E N B E L T





# G R E E N B E L T





# R I V E R - R O O M





# R I V E R - R O O M



# G R E E N - S P I N E

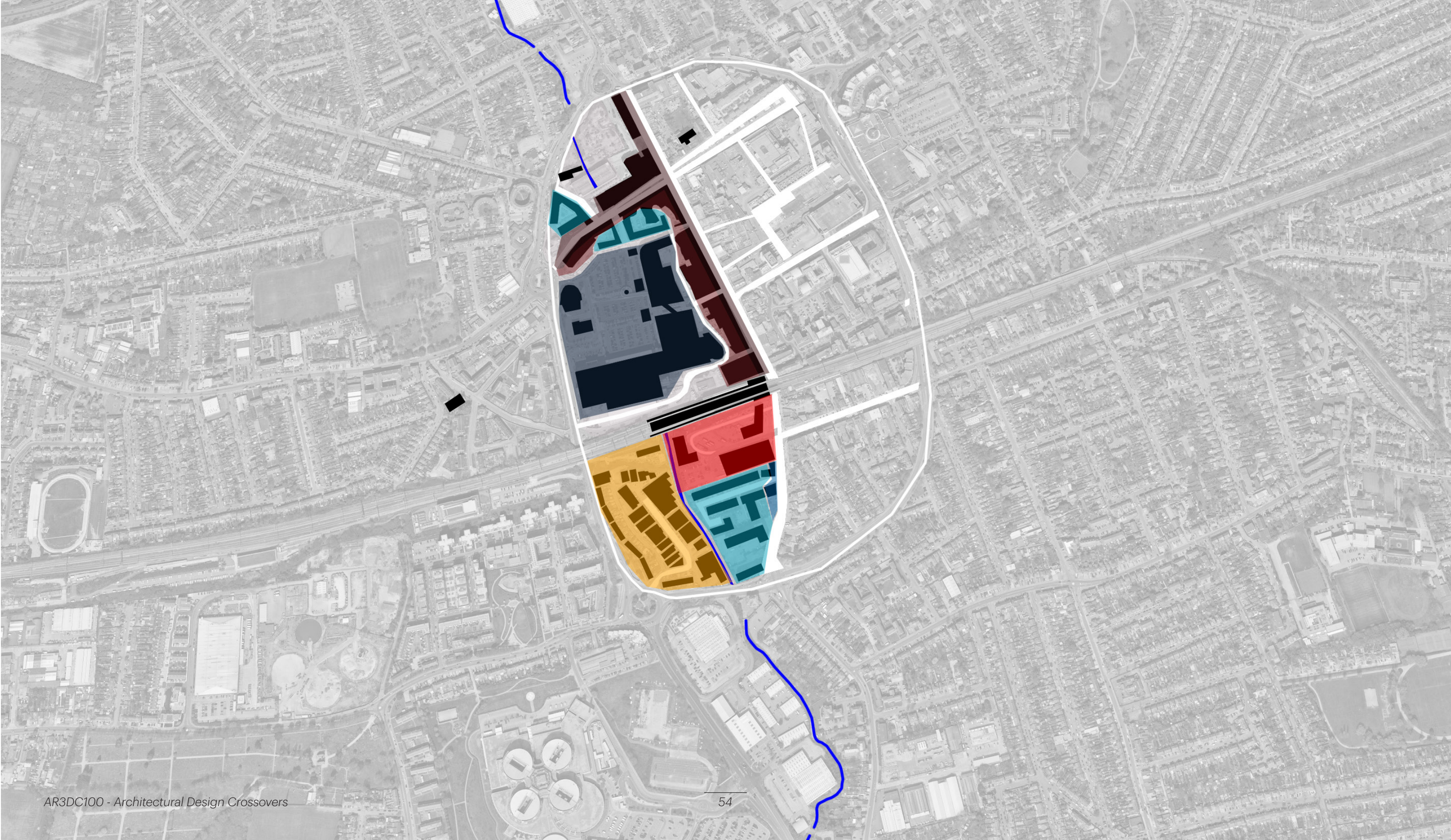


# C U R R E N T





# F R A G M E N T E D









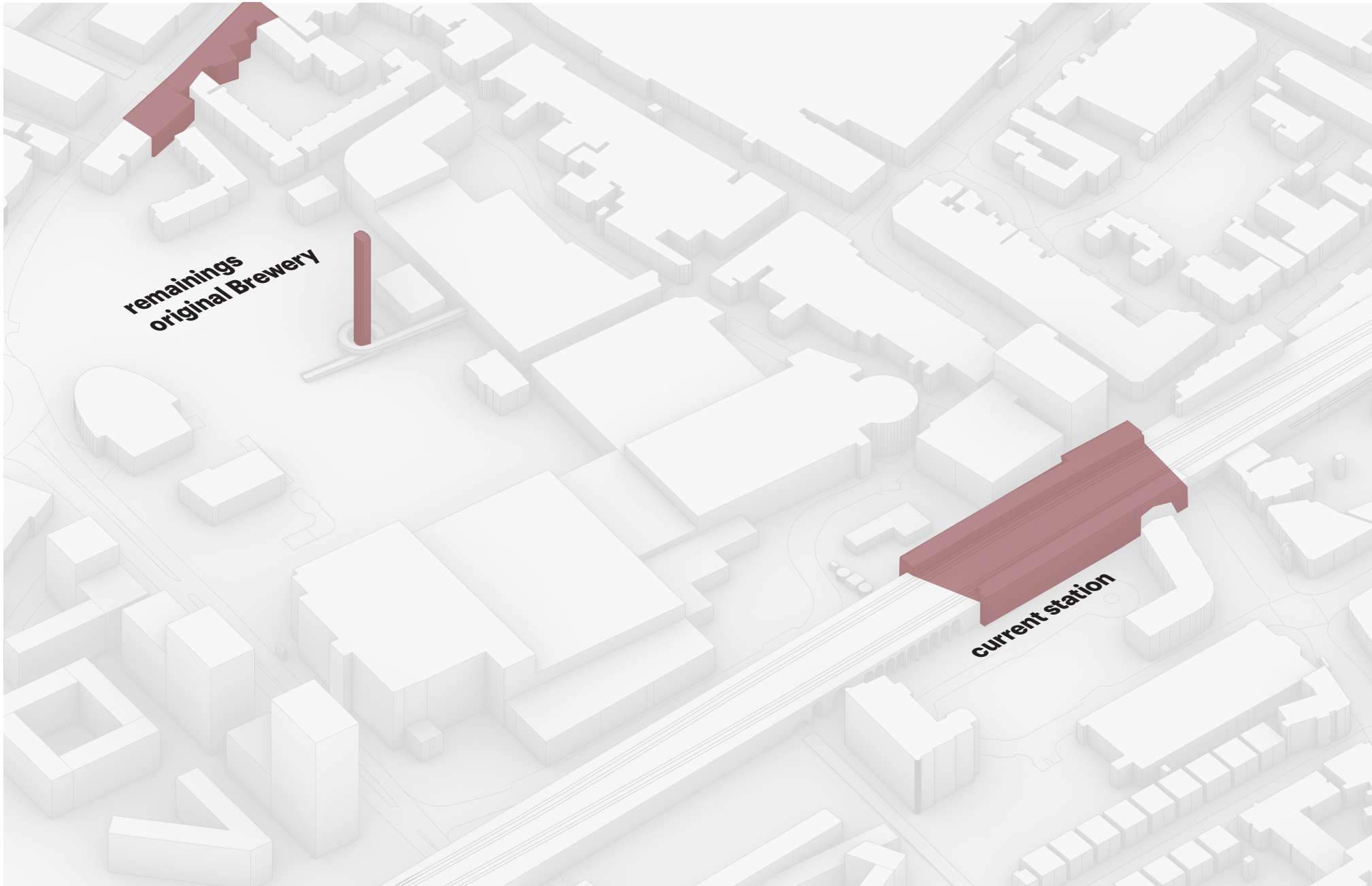
# R E T A I L O R E D





R E T A I L O R E D

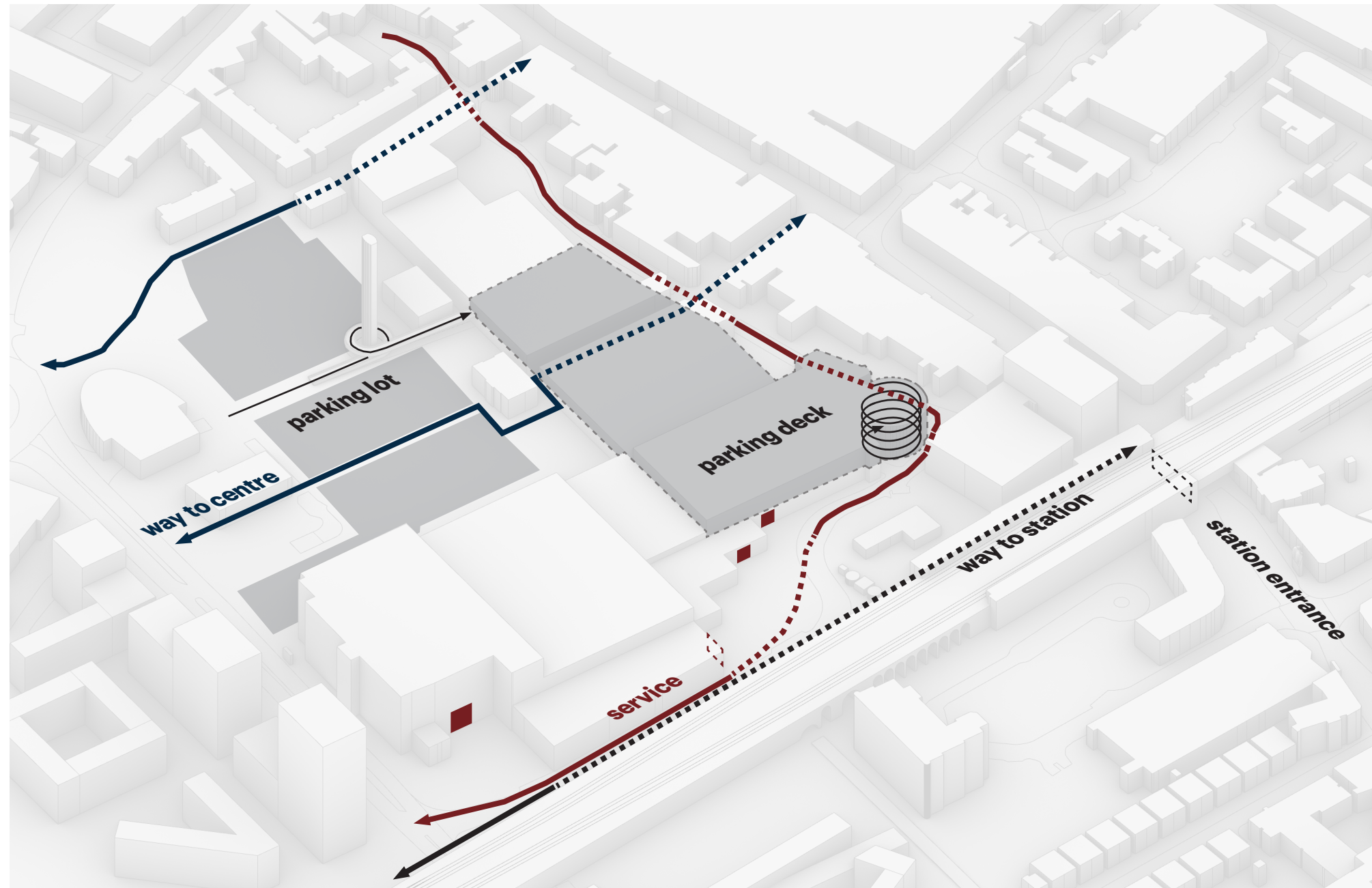
*existing anchor points*





# RETAIL ORDER

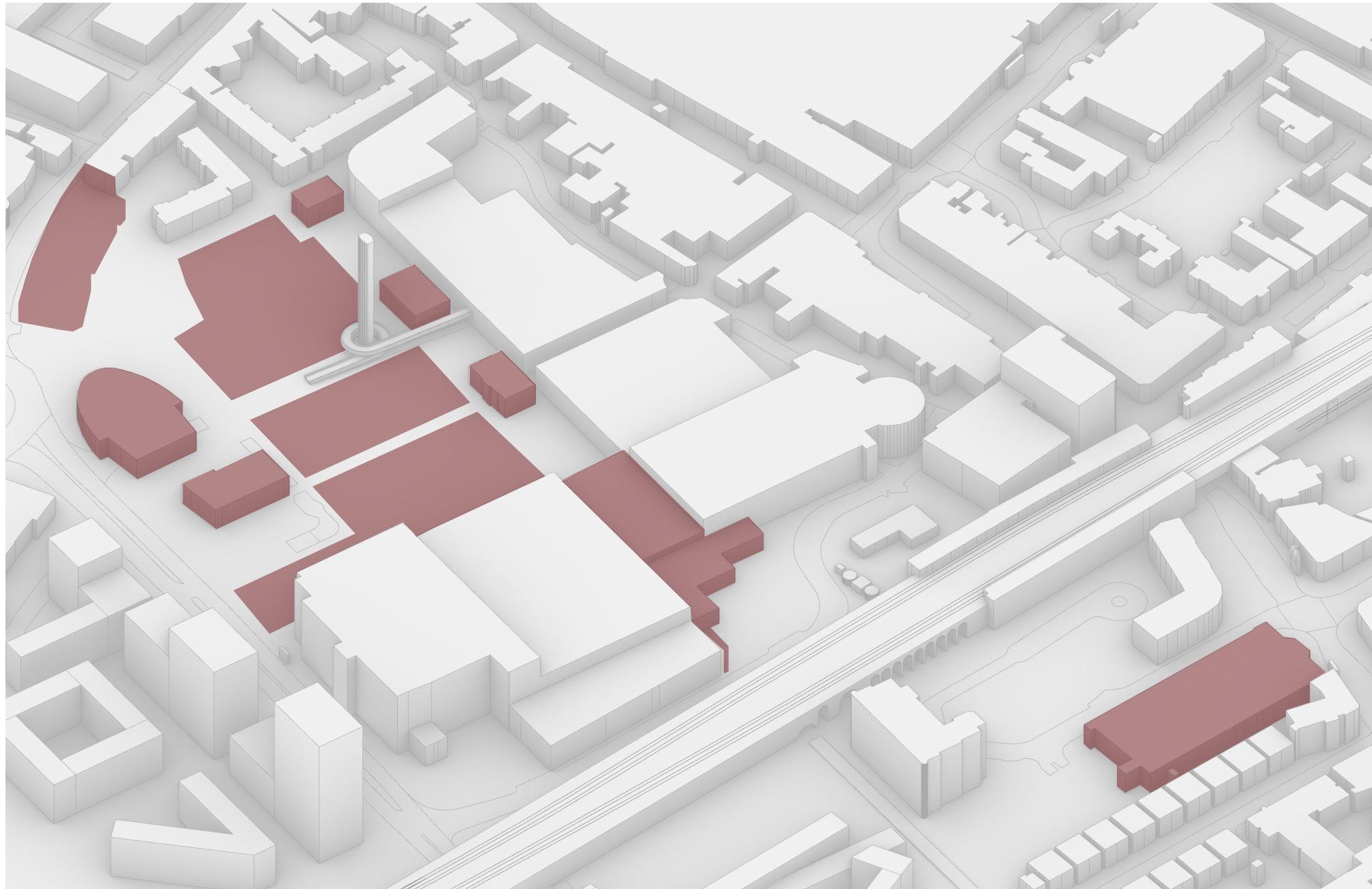
current routing





# R E T A I L O R E D

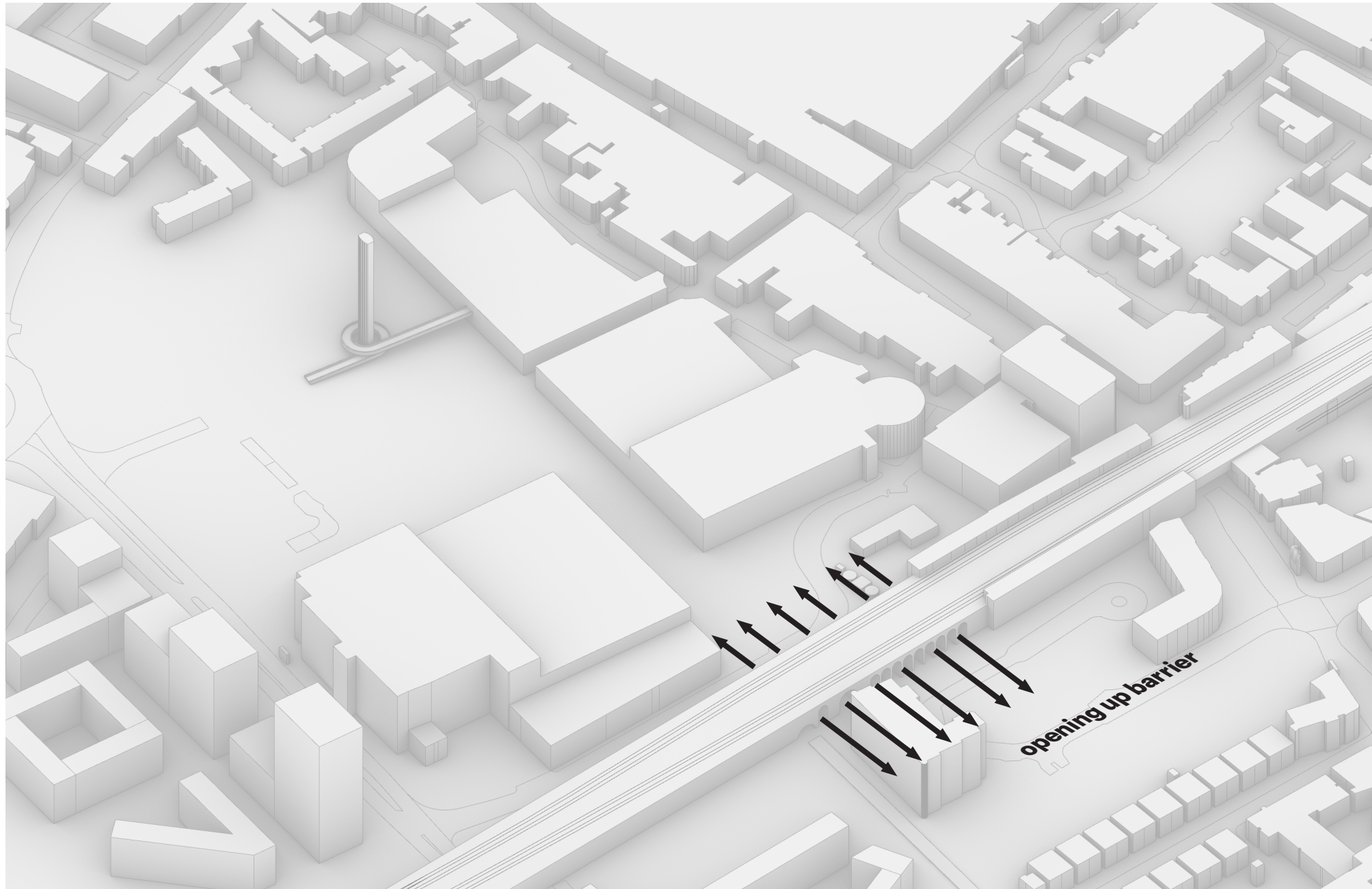
*to demolish*





# R E T A I L O R E D

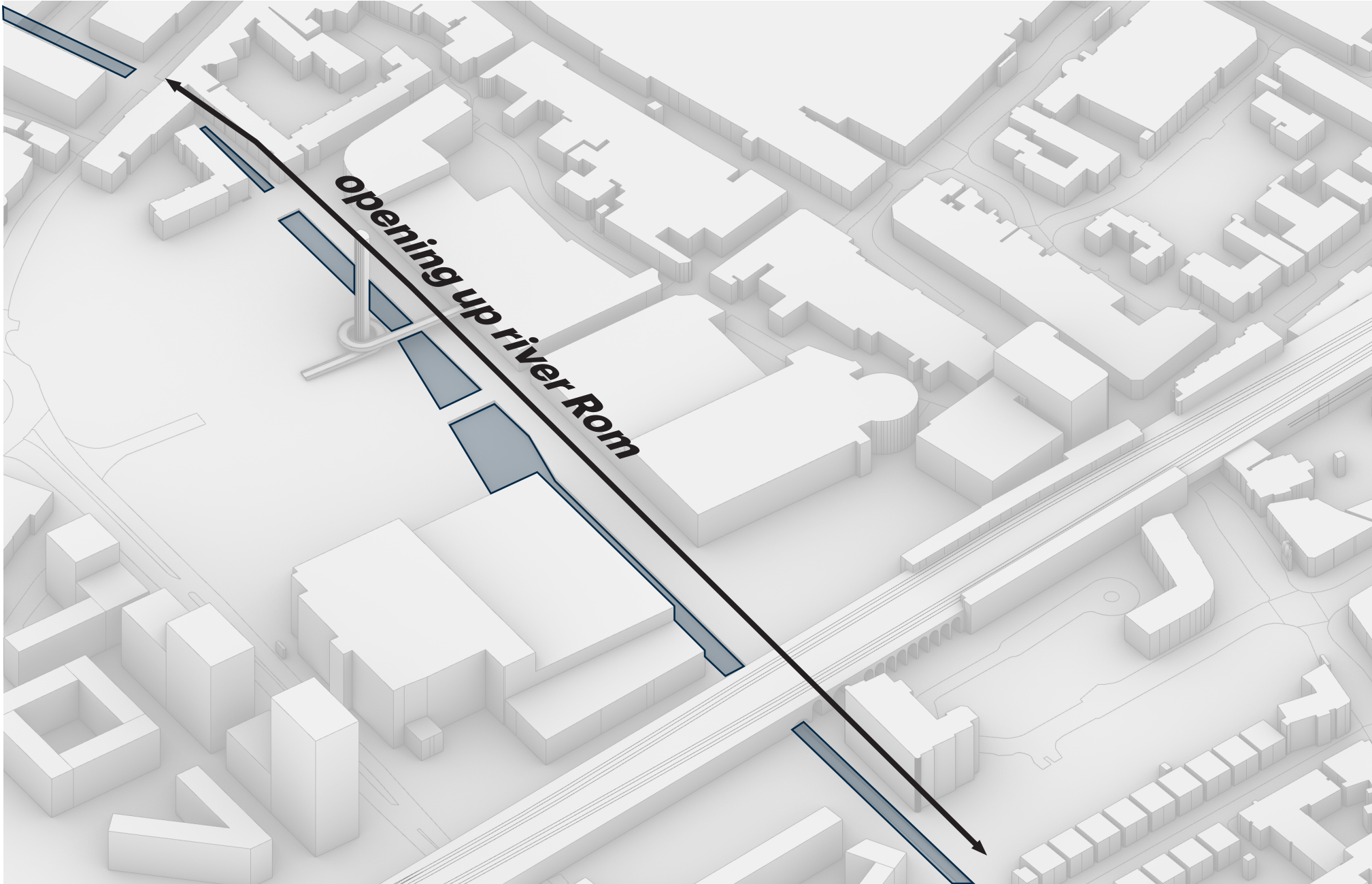
*opening up station barrier*





R E T A I L O R E D

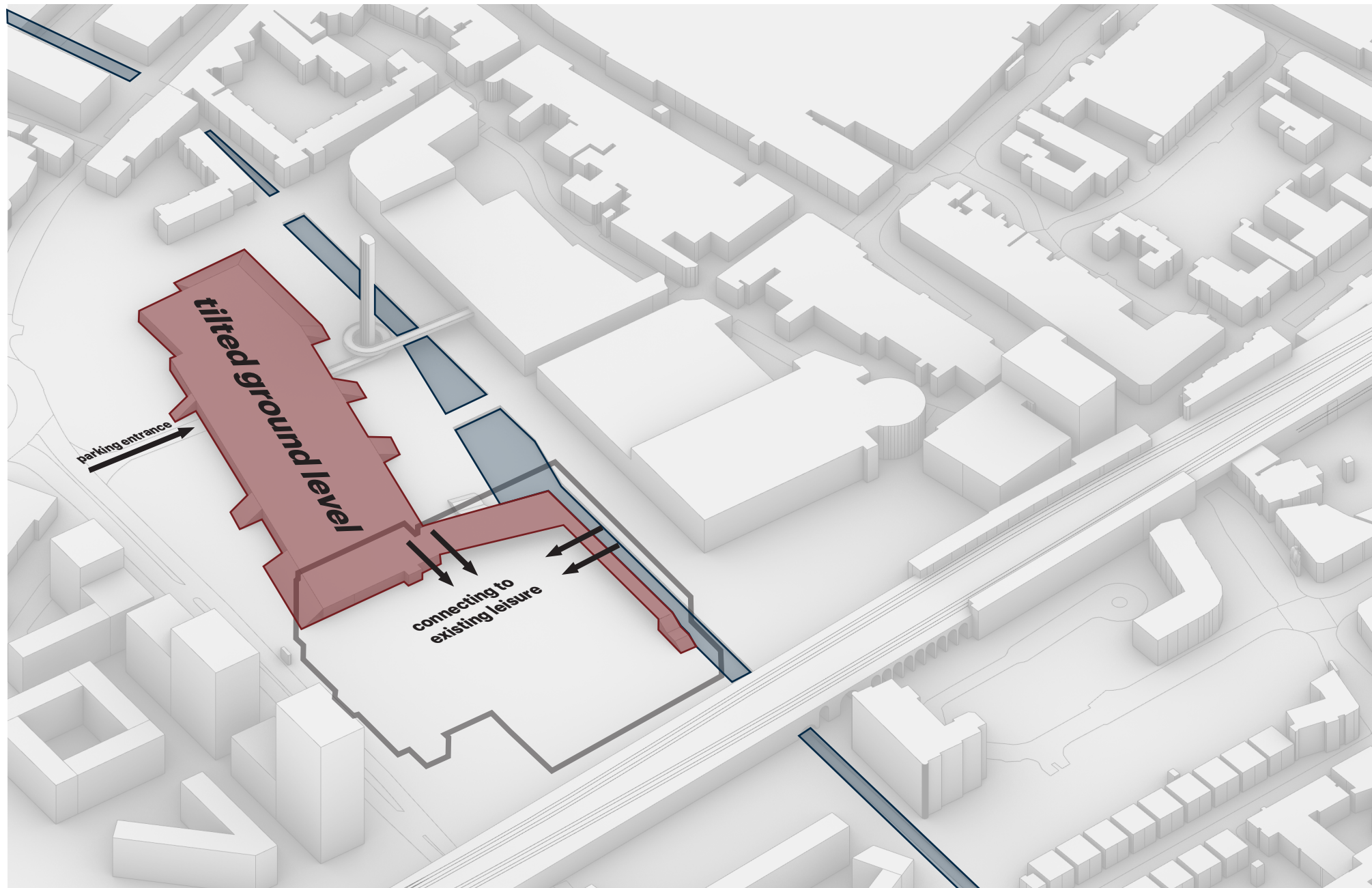
*opening up river Rom*





# R E T A I L O R E D

*framing the spine*



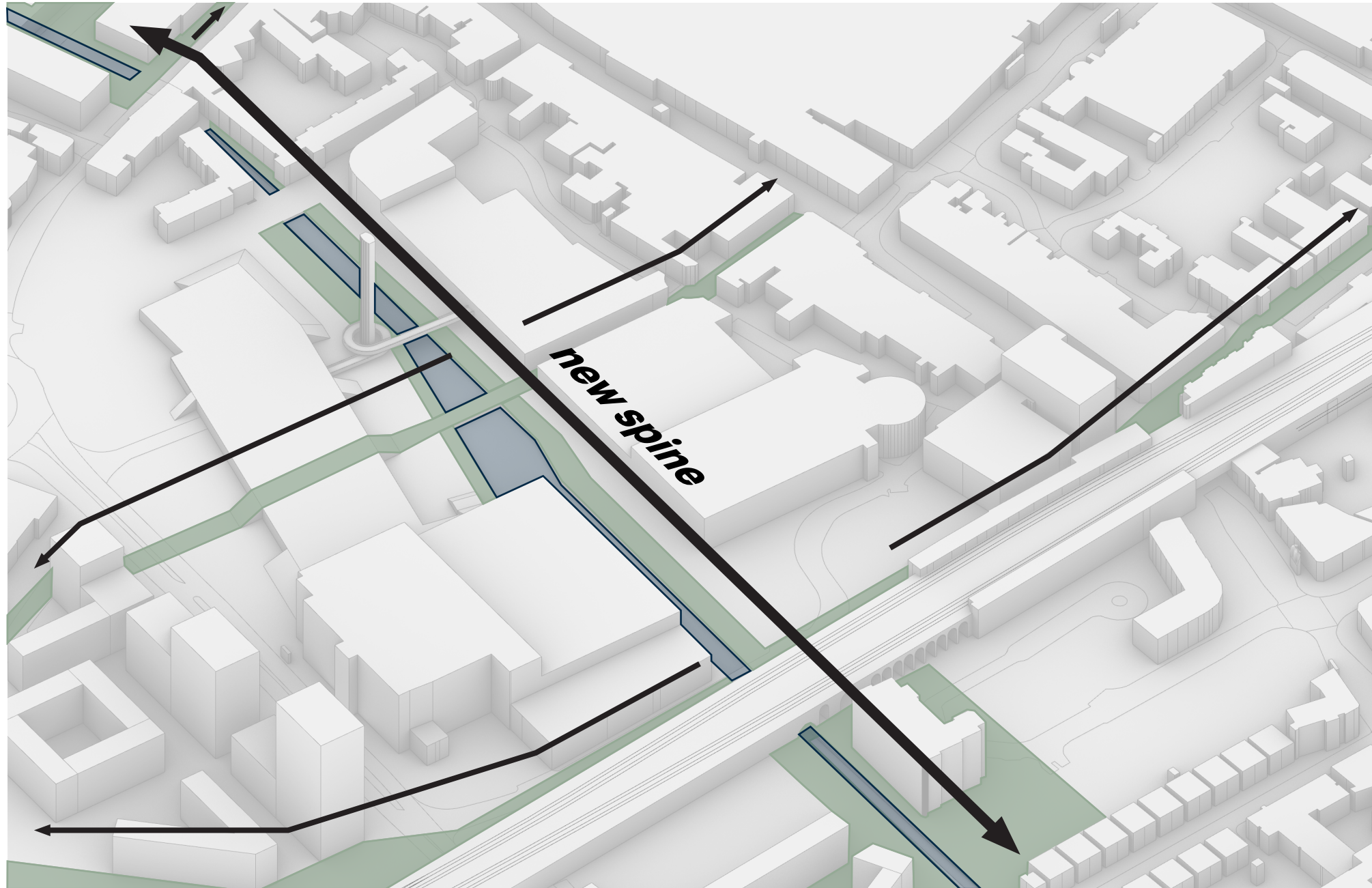
*reference: Almere city centre*



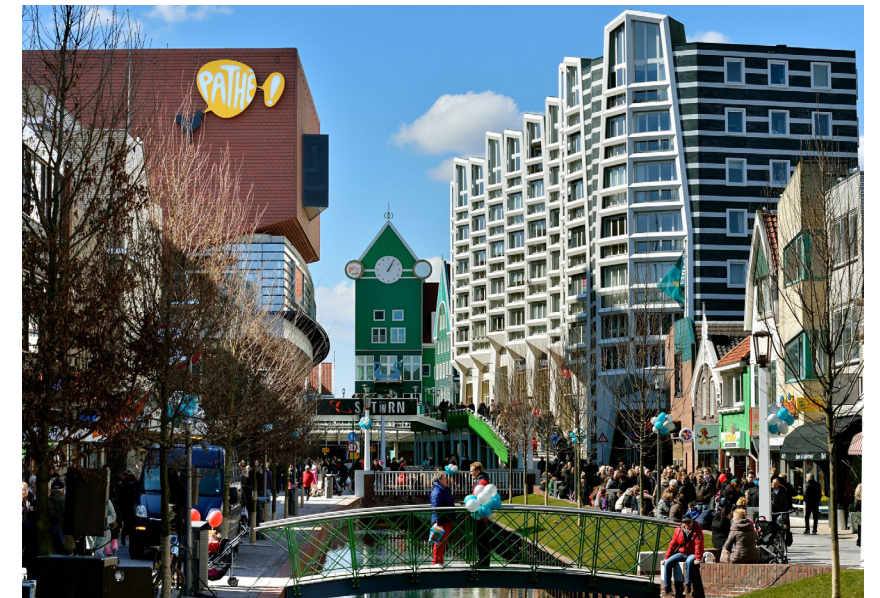


# R E T A I L O R E D

*connecting green spine*



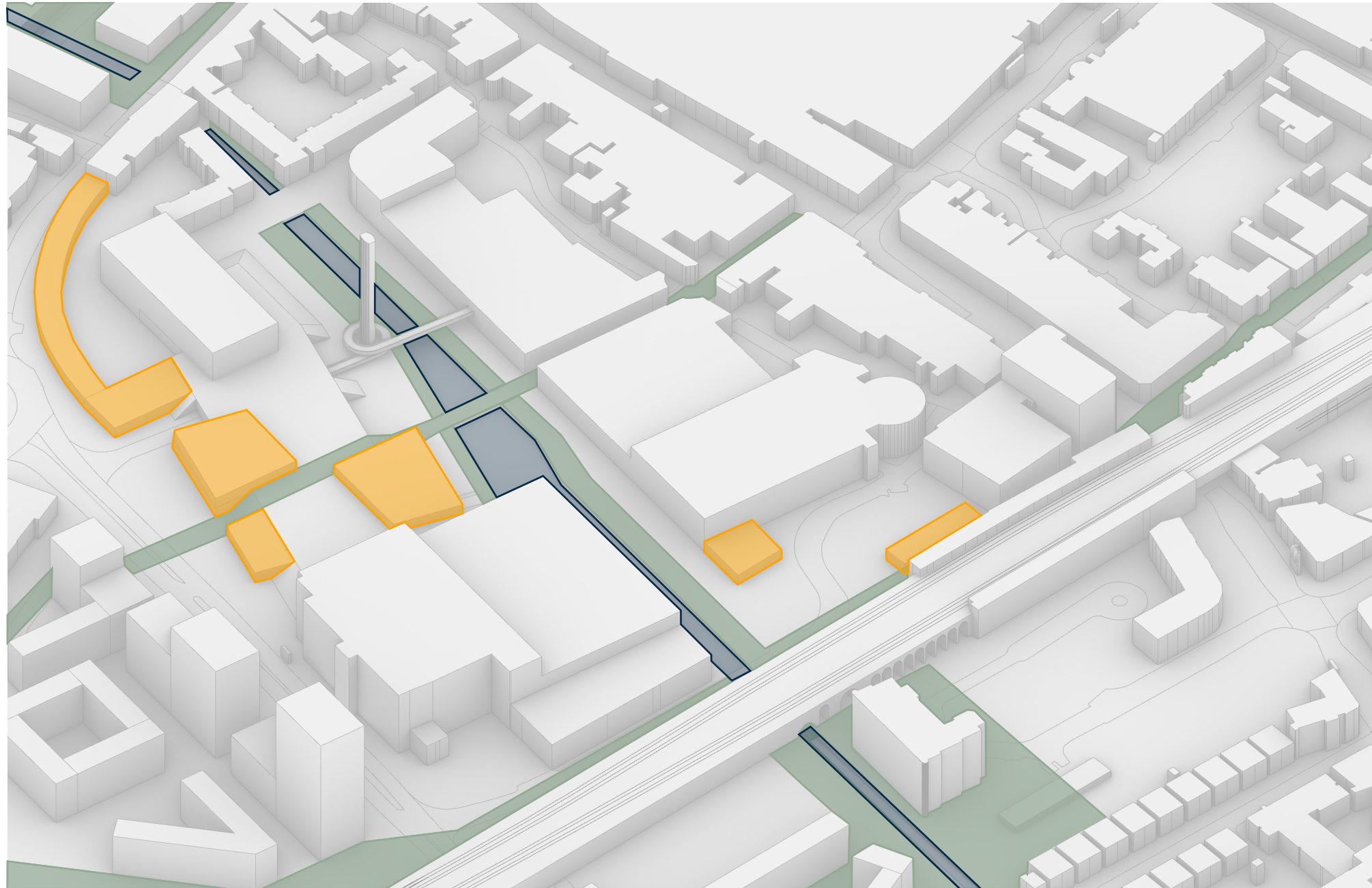
*reference: Zaandam city centre*





# R E T A I L O R E D

*adding retail*



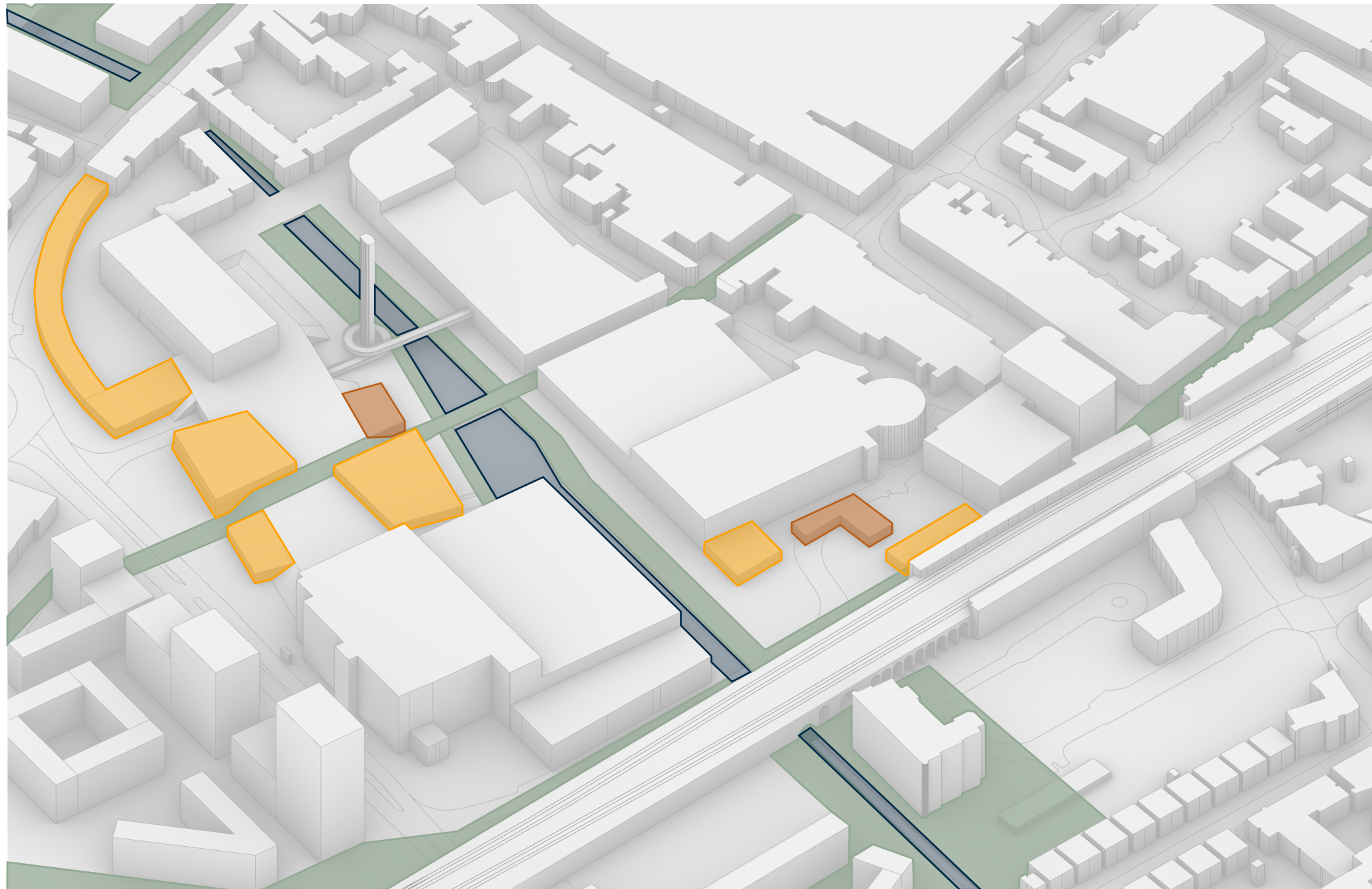
+ 6000 m2

source: Romford Town Centre Development Framework (2015)



# R E T A I L O R E D

*adding restaurants*



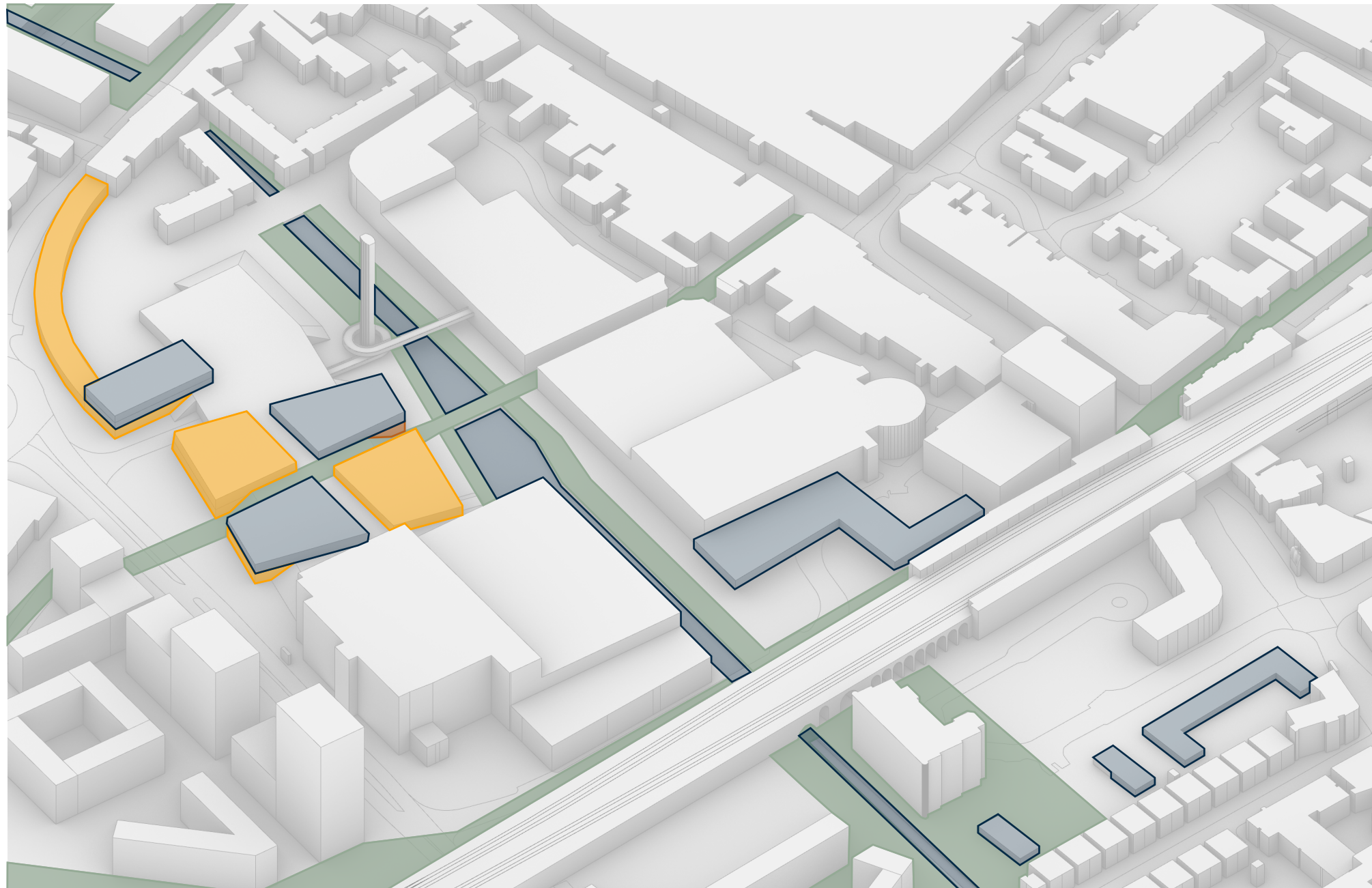
+ 1700 m<sup>2</sup>

source: Romford Town Centre Development Framework (2015)



# R E T A I L O R E D

*adding offices*



+ 7500 m2

source: Romford Town Centre Development Framework (2015)



# R E T A I L O R E D

*adding day-care*



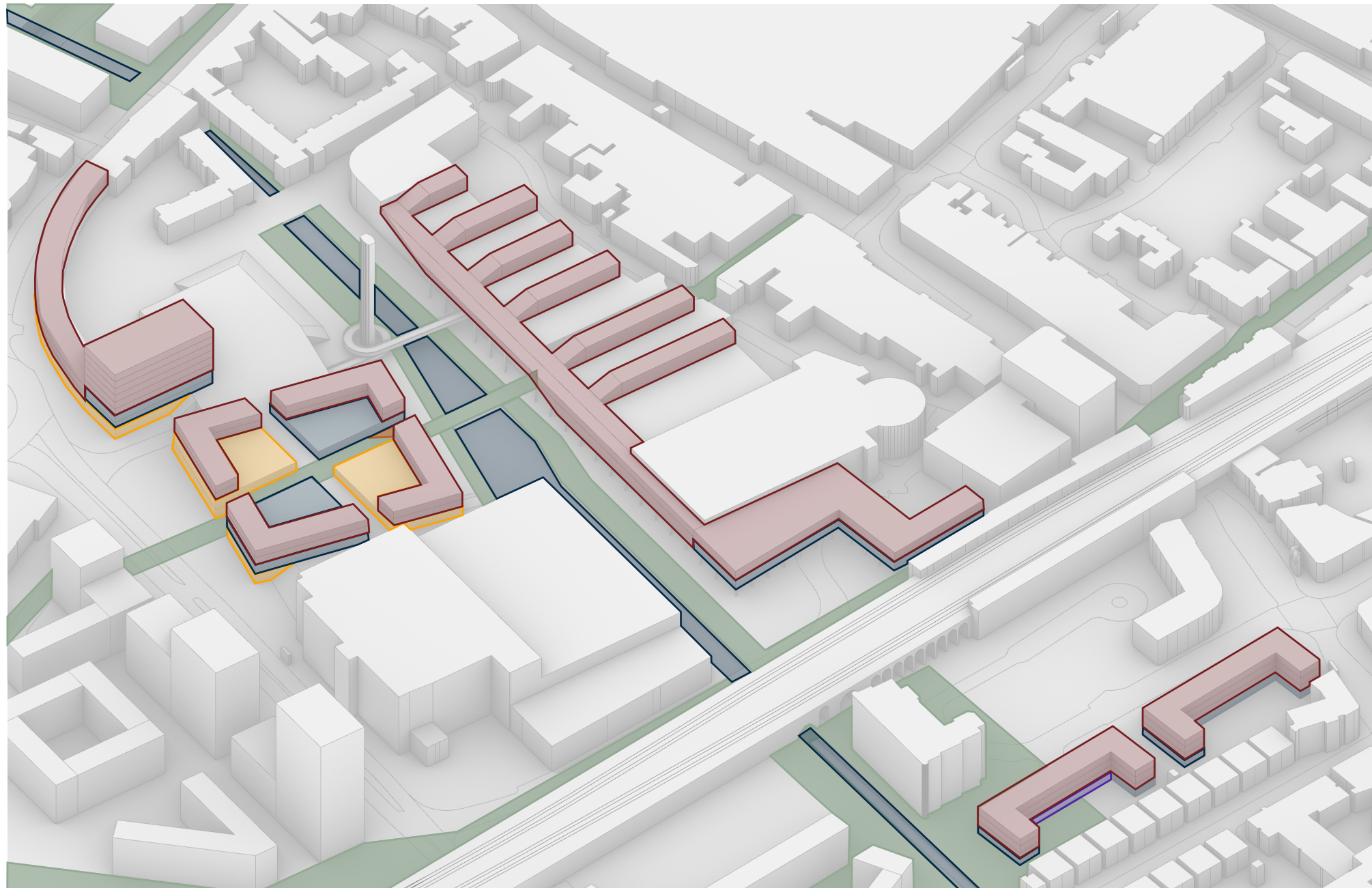
+ 500 m<sup>2</sup>

source: Romford Town Centre Development Framework (2015)



# R E T A I L O R E D

*adding housing*



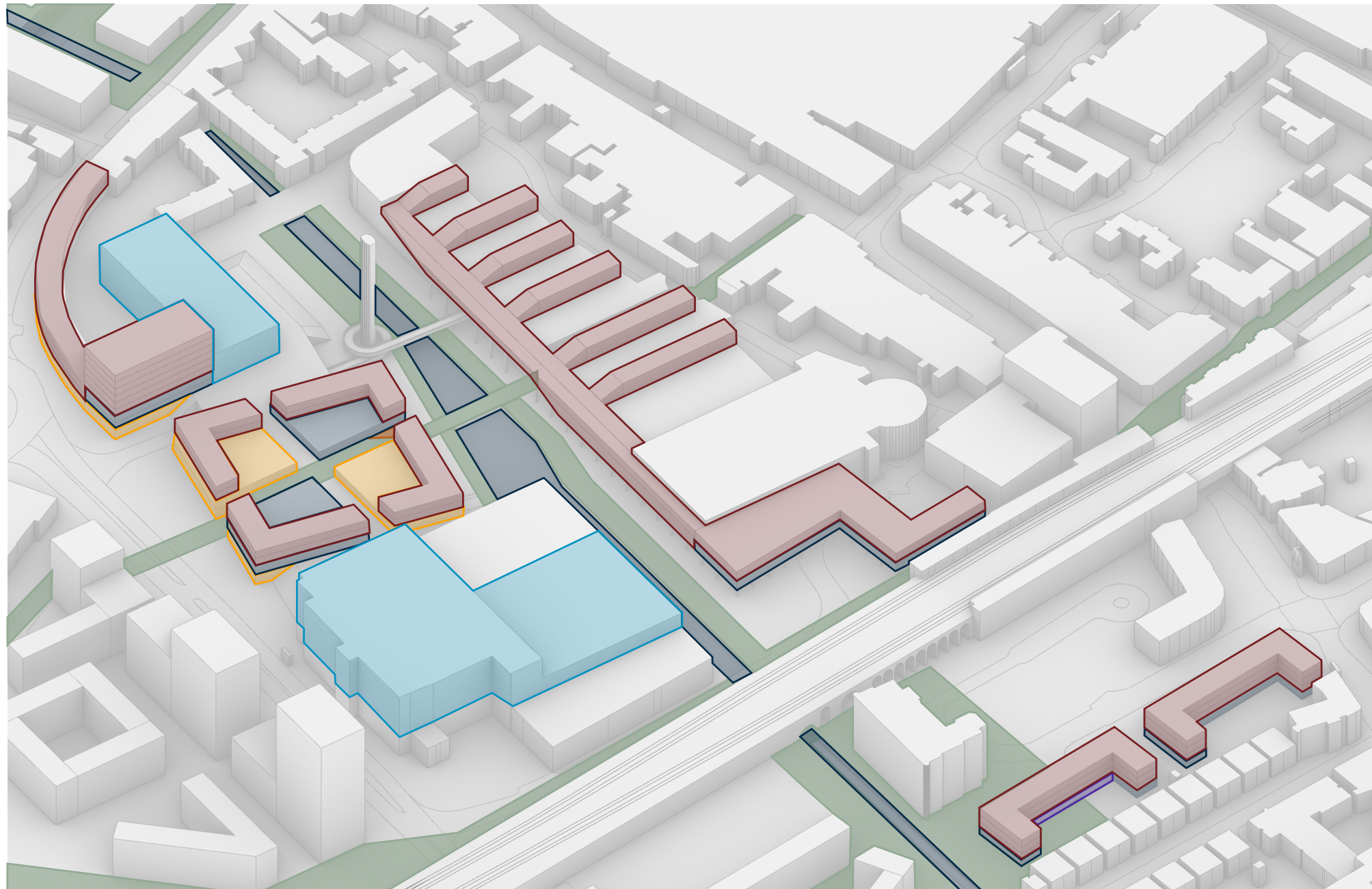
*+ 670 units*

source: Romford Town Centre Development Framework (2015)



# R E T A I L O R E D

*adding + renovating leisure*



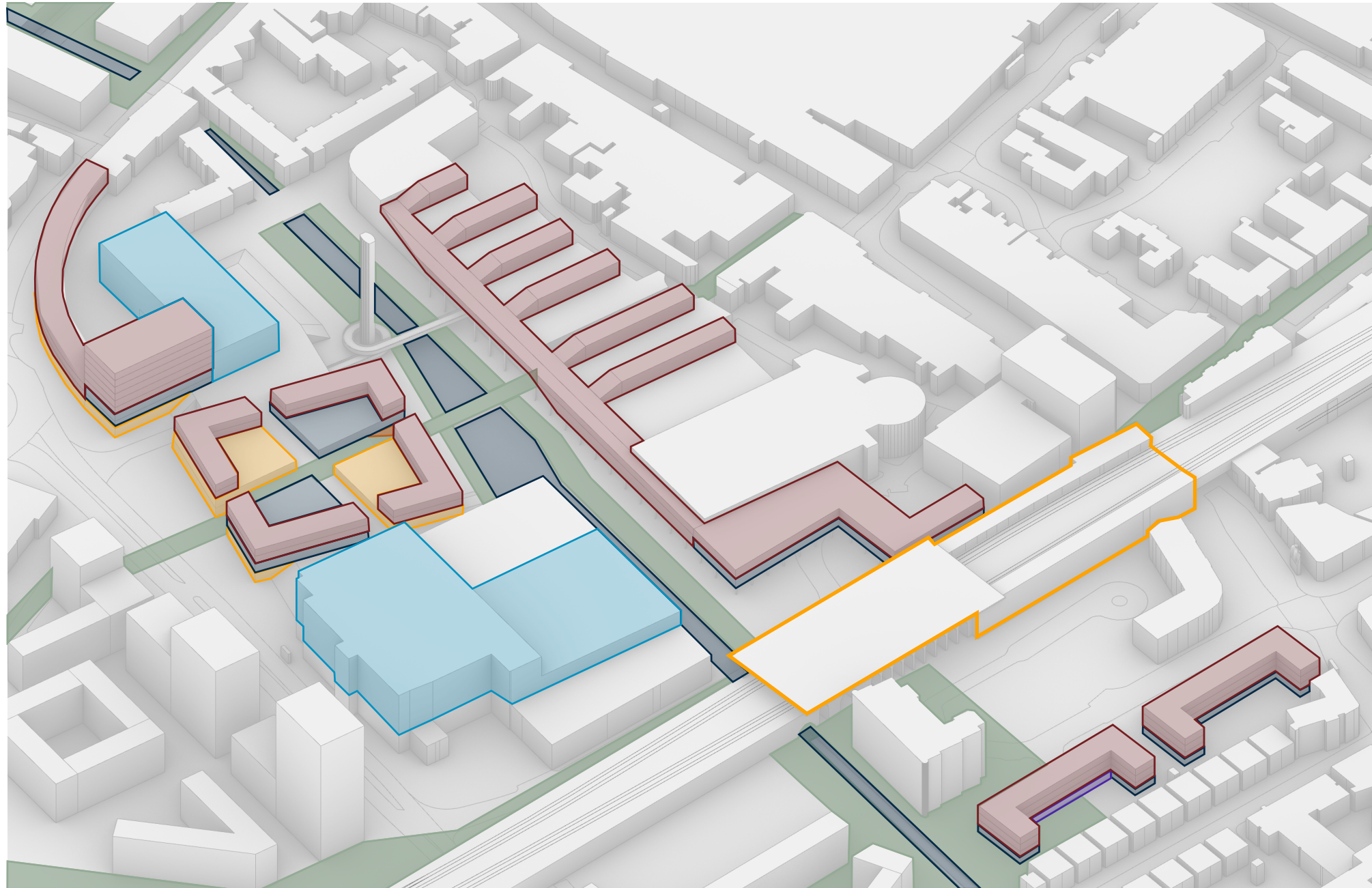
+ 4000 m2

source: Romford Town Centre Development Framework (2015)



# R E T A I L O R E D

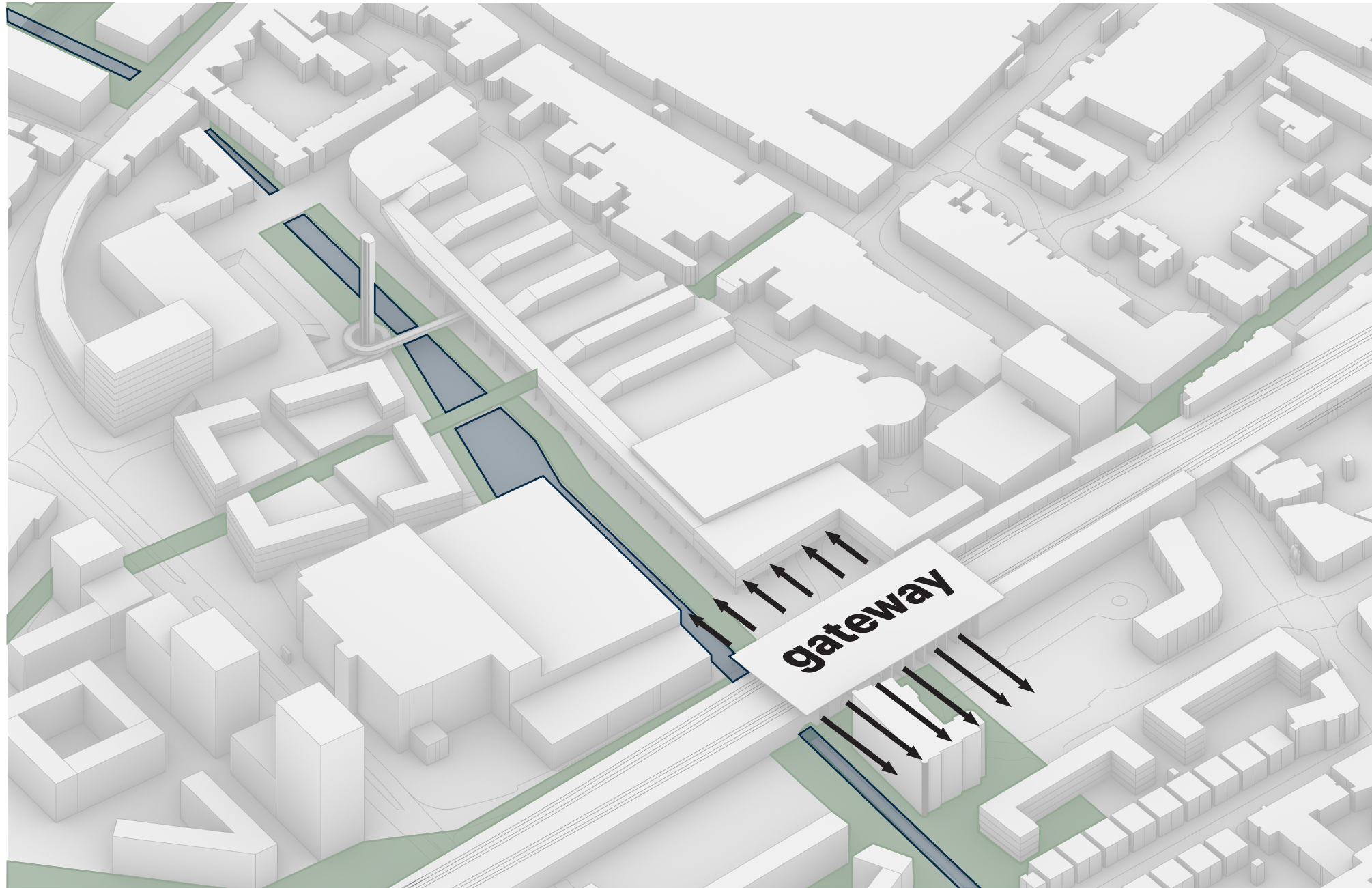
*transforming the station*





# R E T A I L O R E D

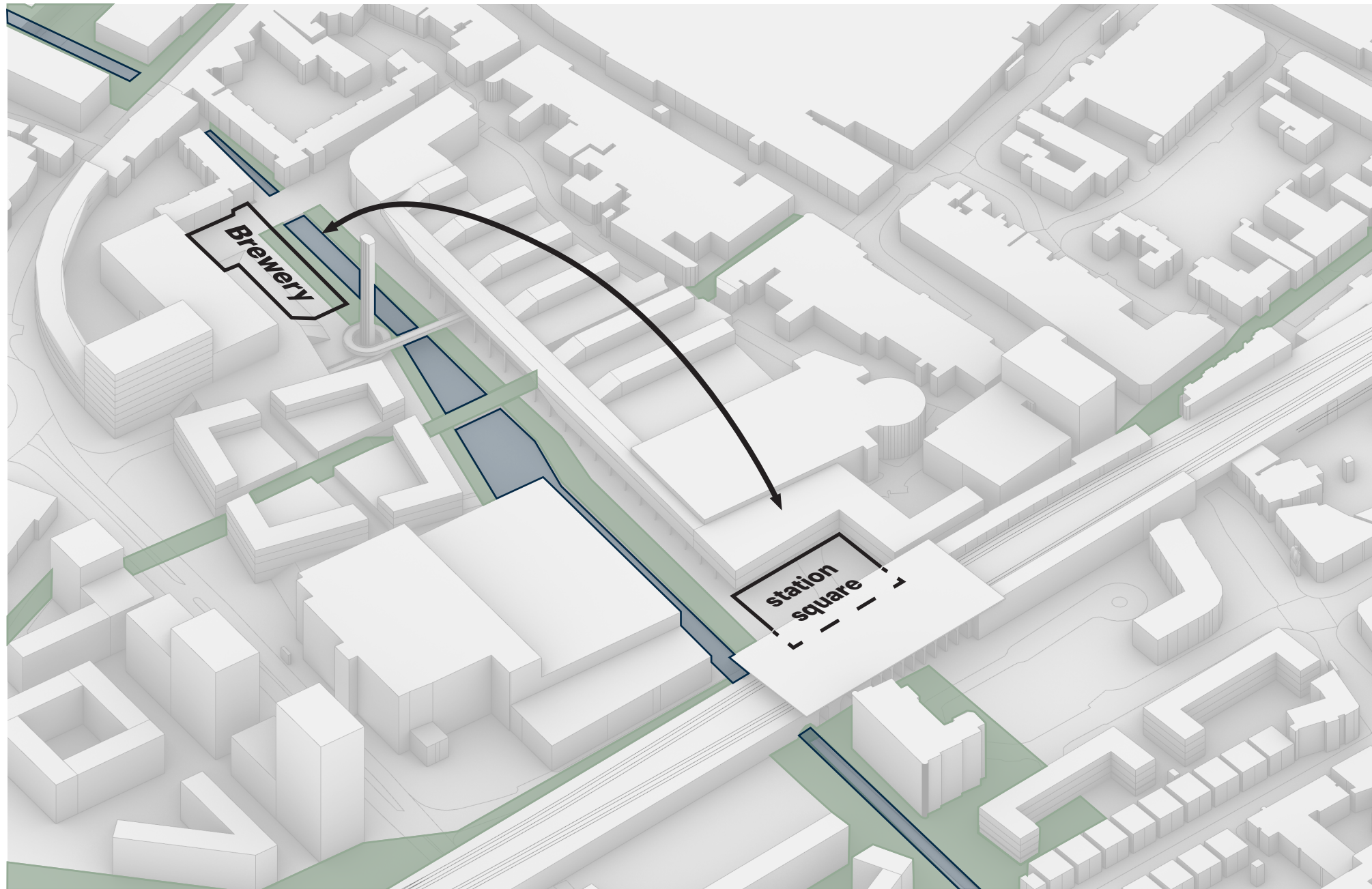
*gateway to masterplan*





# R E T A I L O R E D

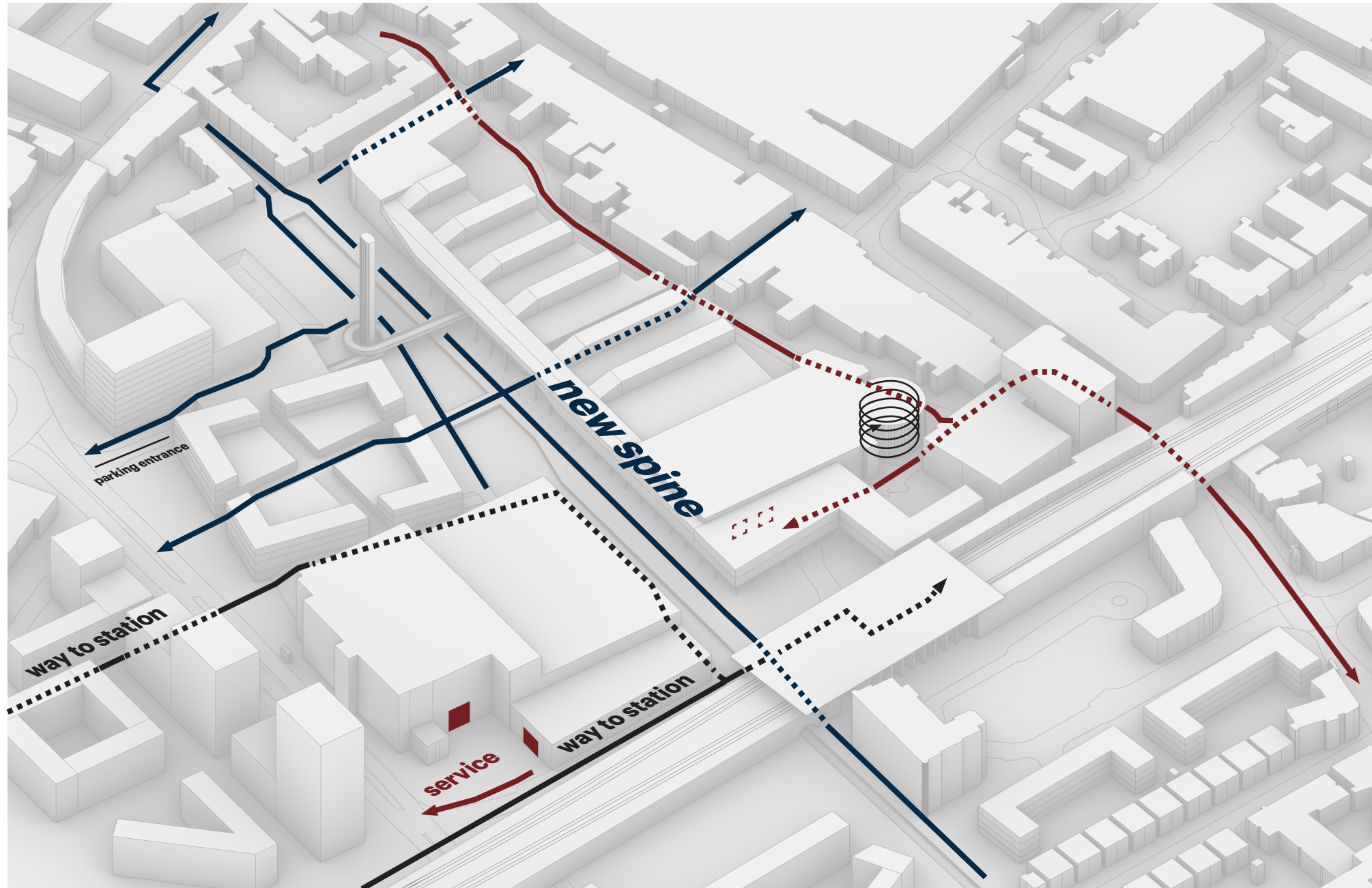
*new public squares*





# R E T A I L O R E D

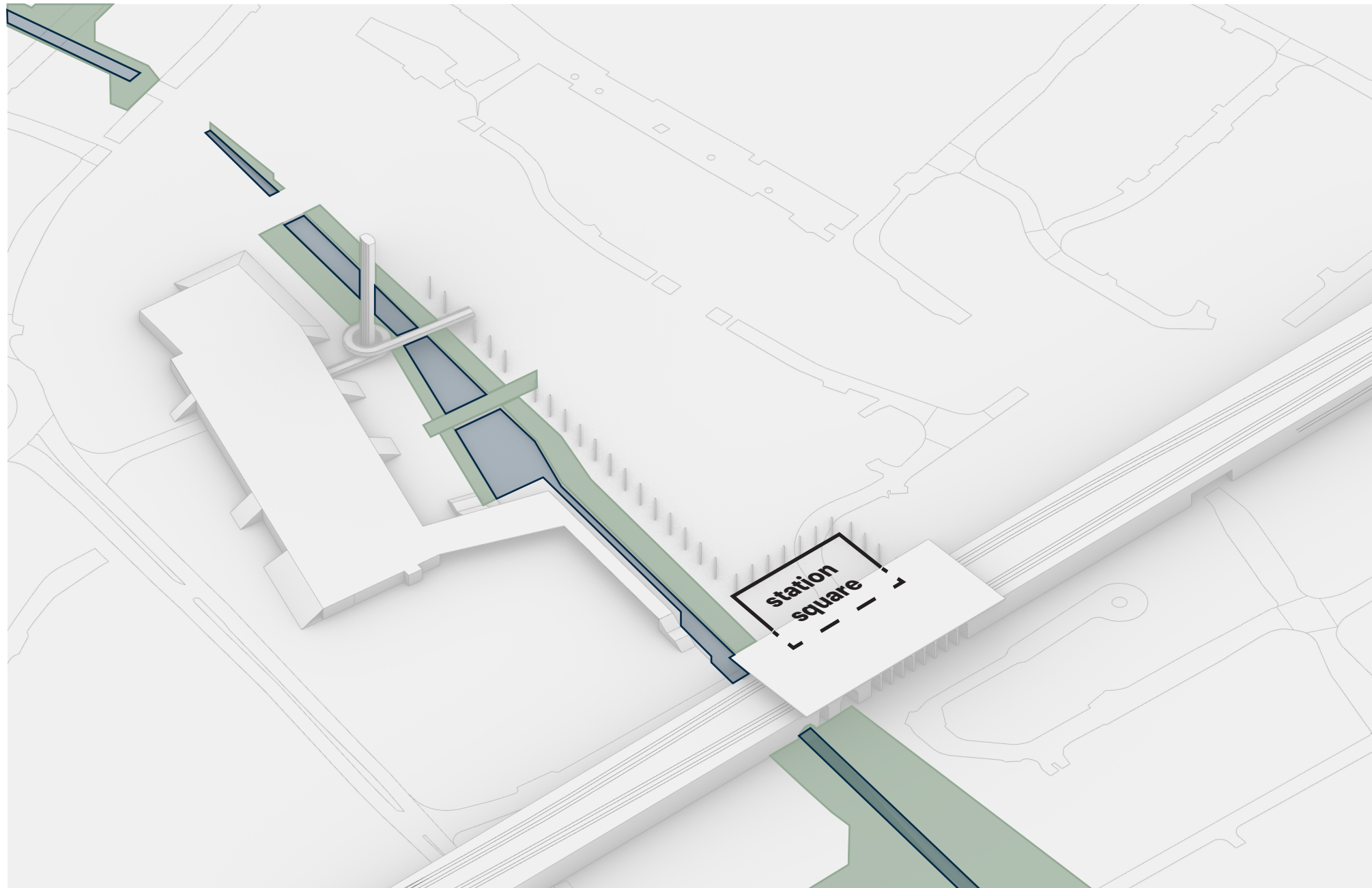
*new routing*





# R E T A I L O R E D

*guiding elements towards station square*

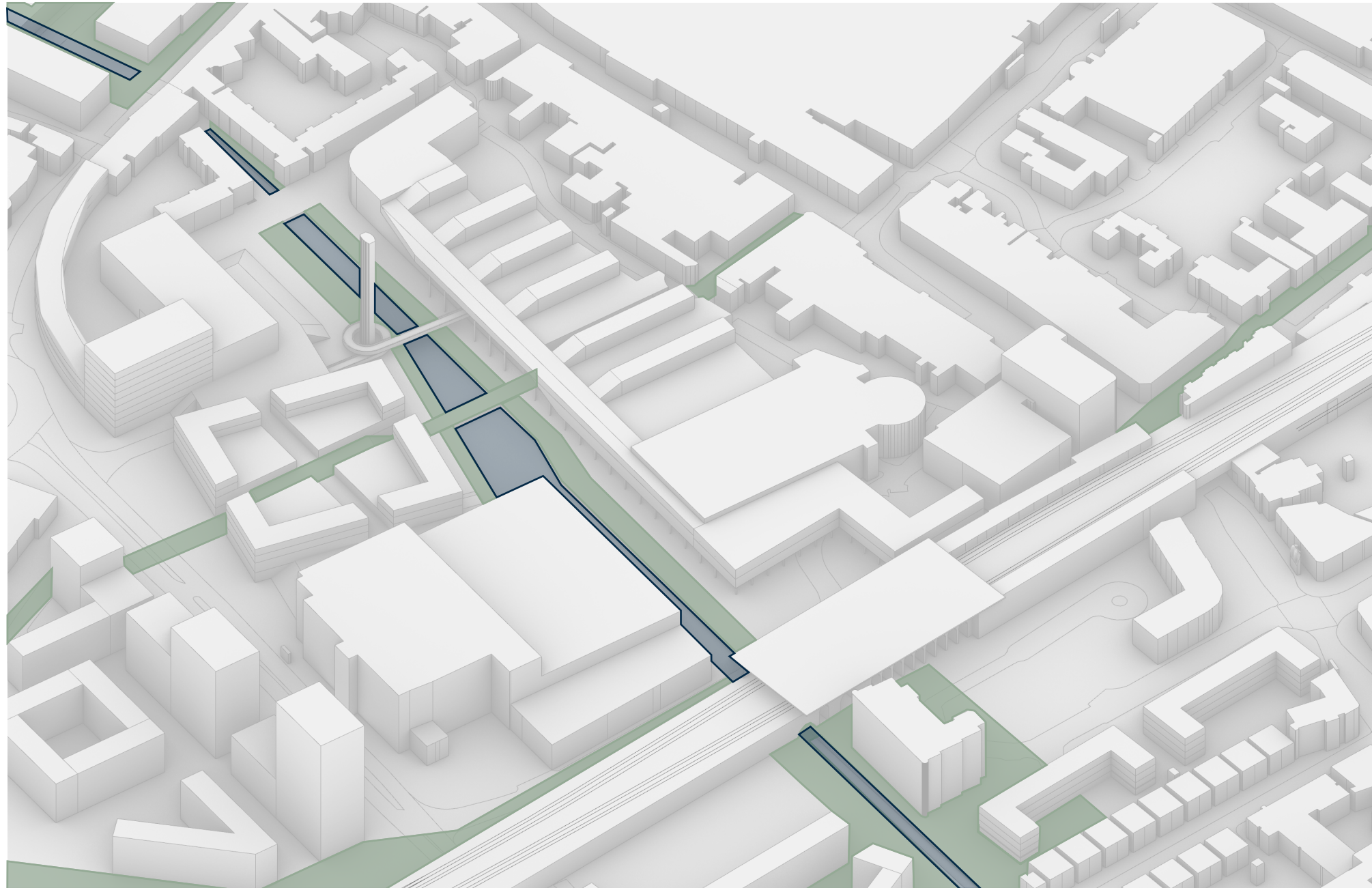


columns  
tilted ground level  
green spine  
station landmark



# R E T A I L O R E D

*masterplan*



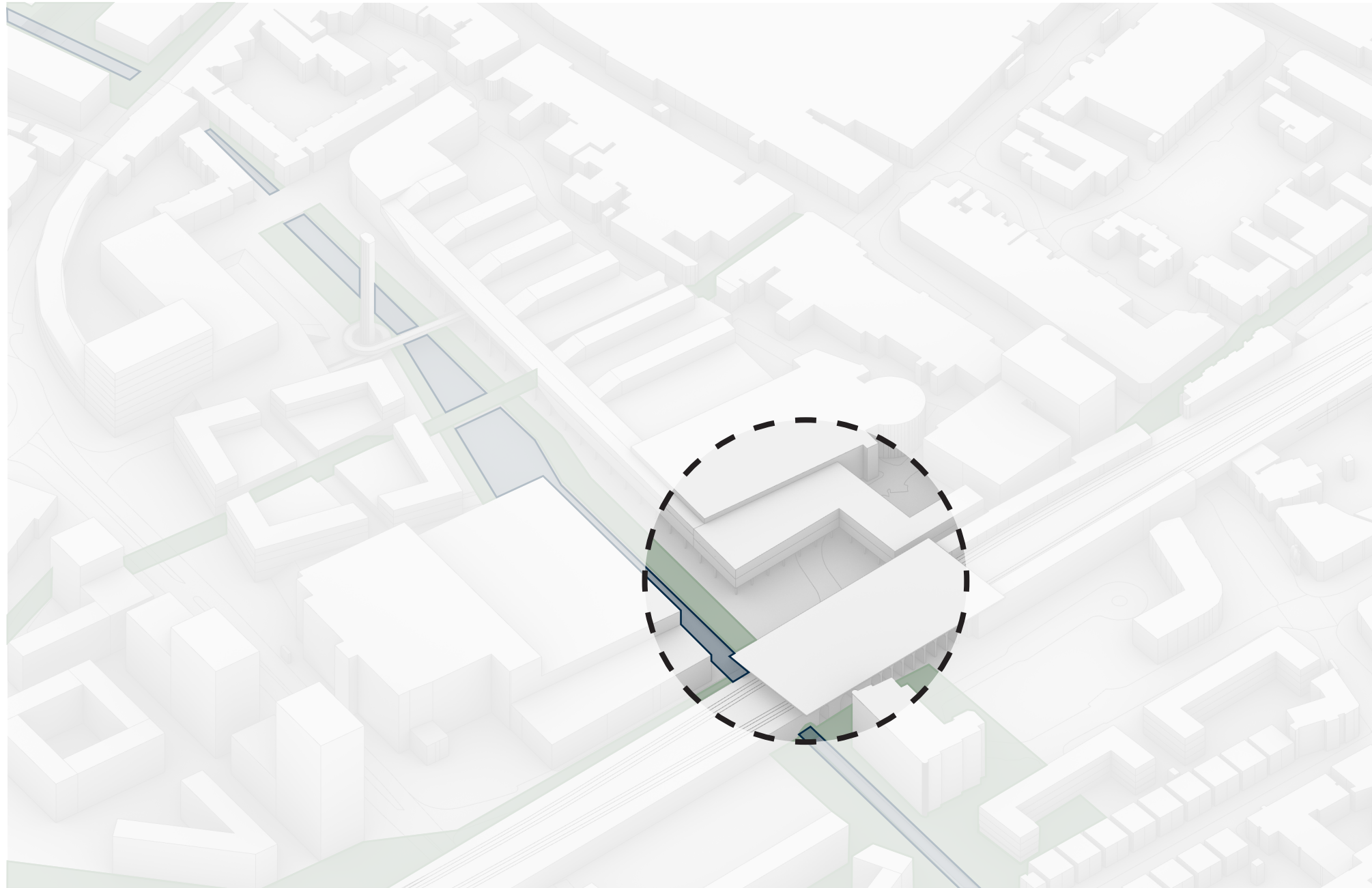


- 1. FASCINATION**
- 2. PROBLEM STATEMENT**
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- 5. MASTERPLAN**
- 6. STATION SQUARE**
- 7. PROJECT**



# ROMFORD STATION SQUARE

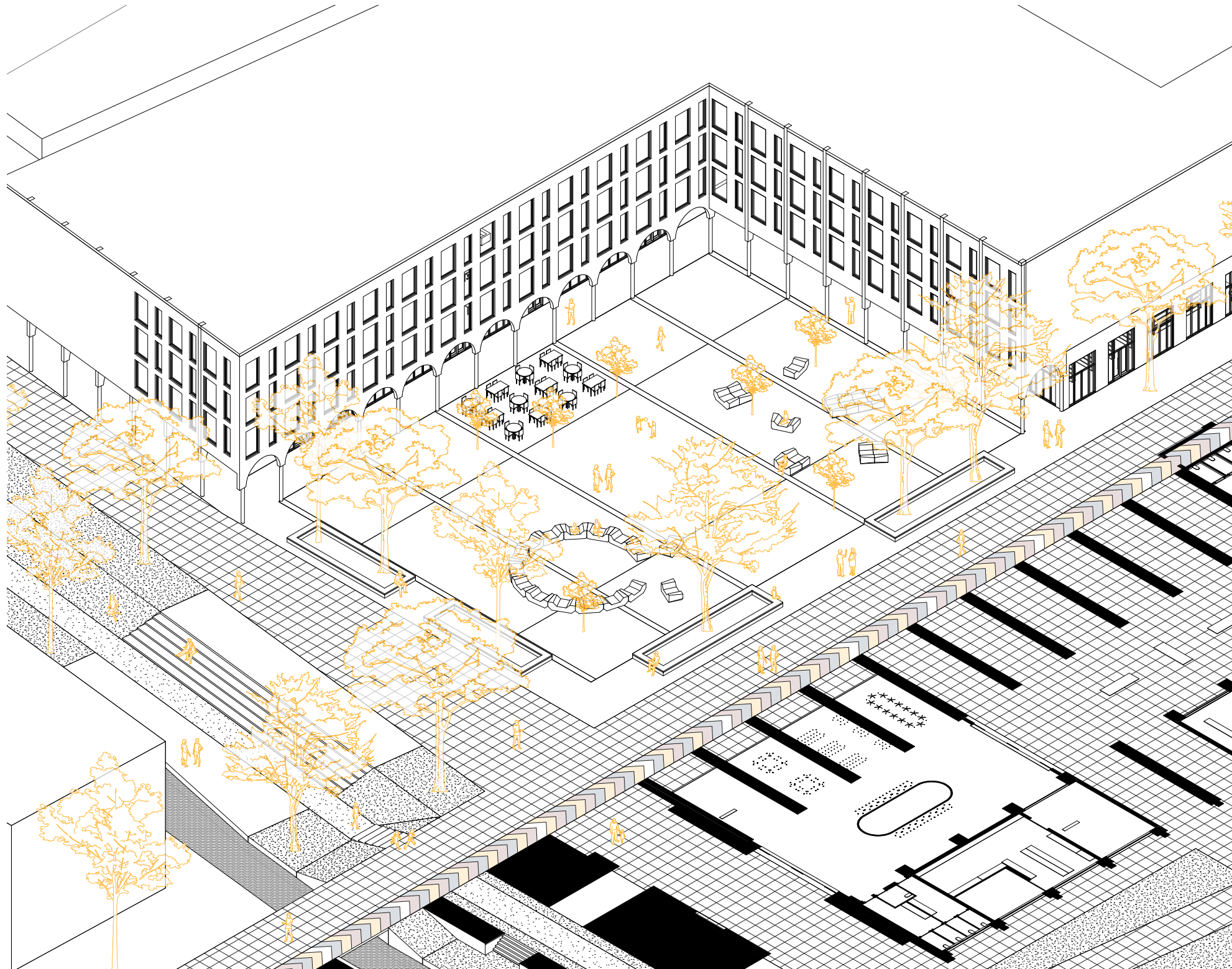
proposed plan





# ROMFORD STATION SQUARE

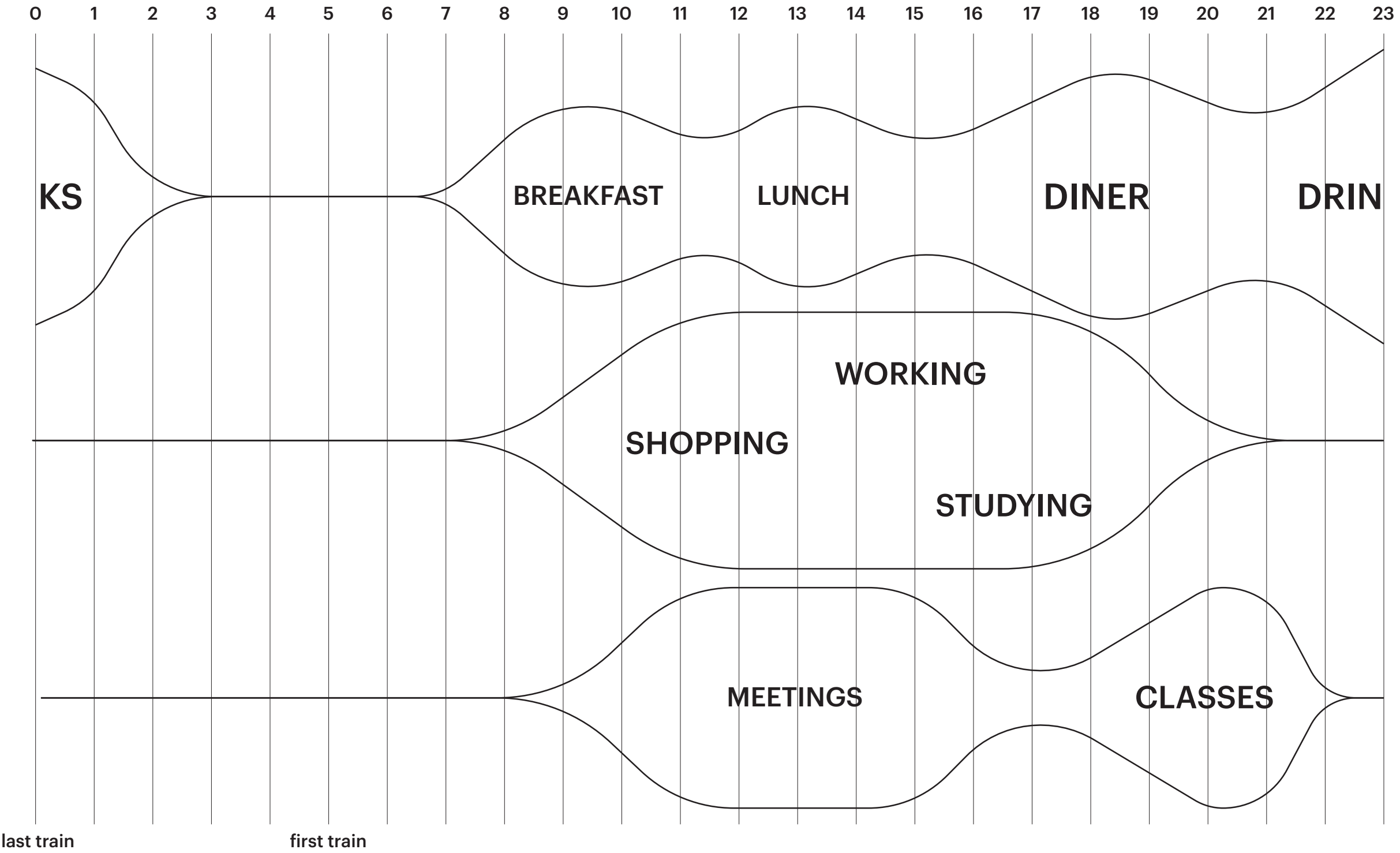
fixed vs. flexible



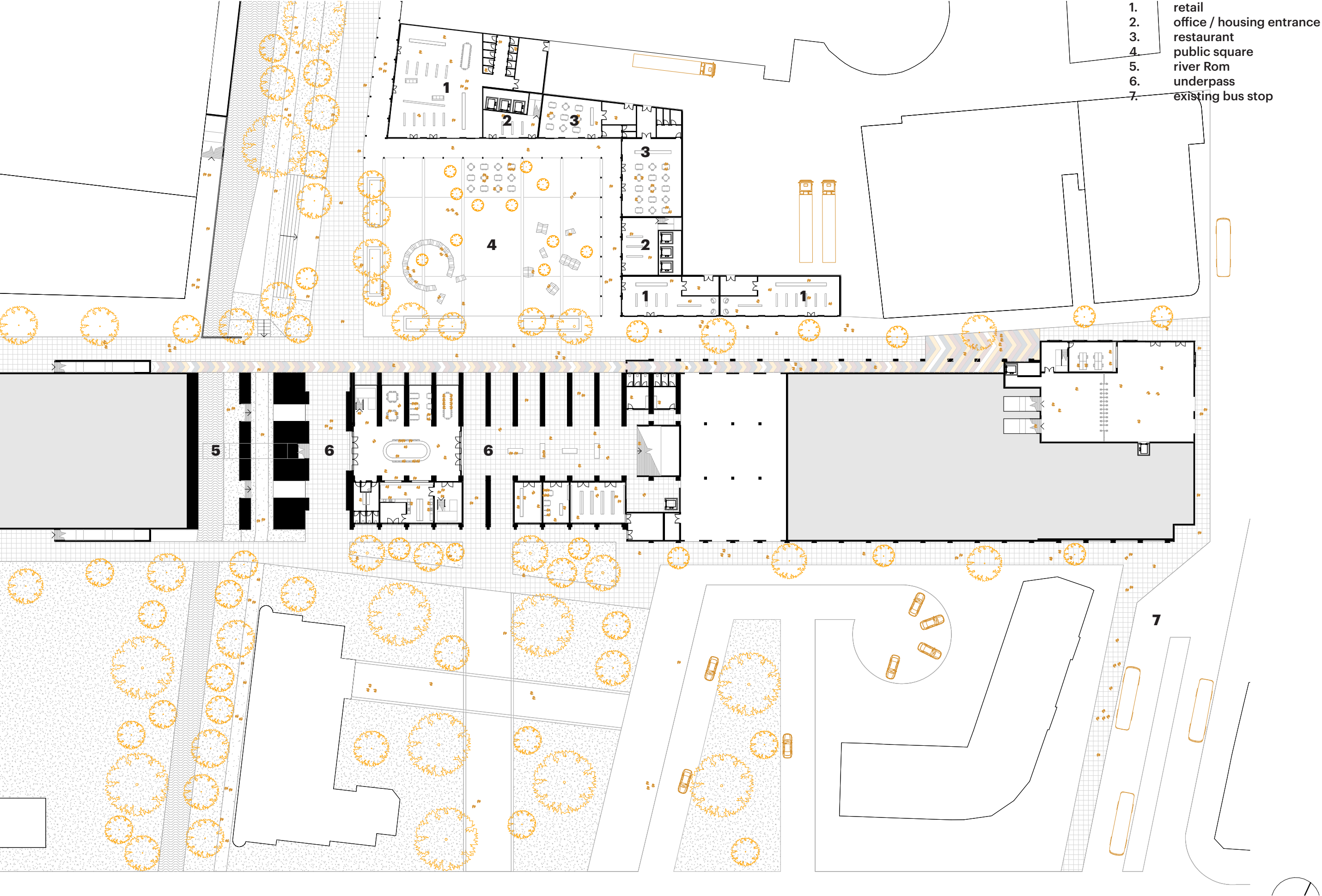


# PROPOSED PROGRAM

activation







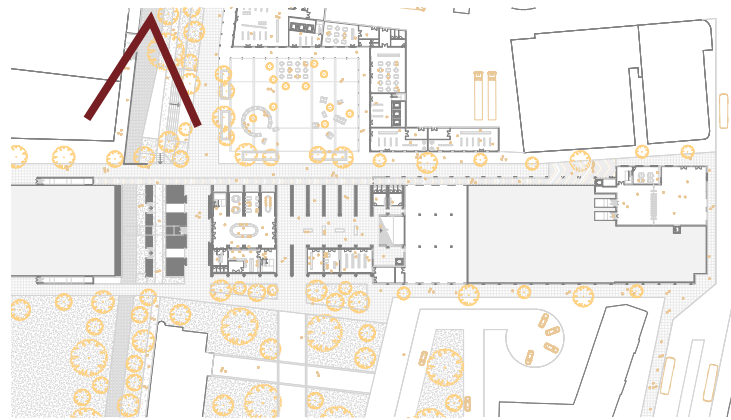


# ROMFORD STATION SQUARE

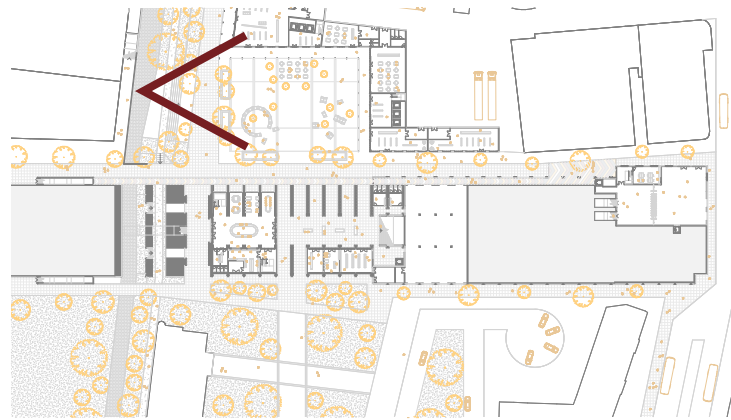
new station as gateway to masterplan

















- 1. FASCINATION**
- 2. PROBLEM STATEMENT**
- 3. FINDING A LOCATION**
- 4. RESEARCH**
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- 6. STATION SQUARE**
- 7. PROJECT**



# FROM CONSUMER BACK TO CITIZEN

from station to destination

*London* ↔ *station*

current

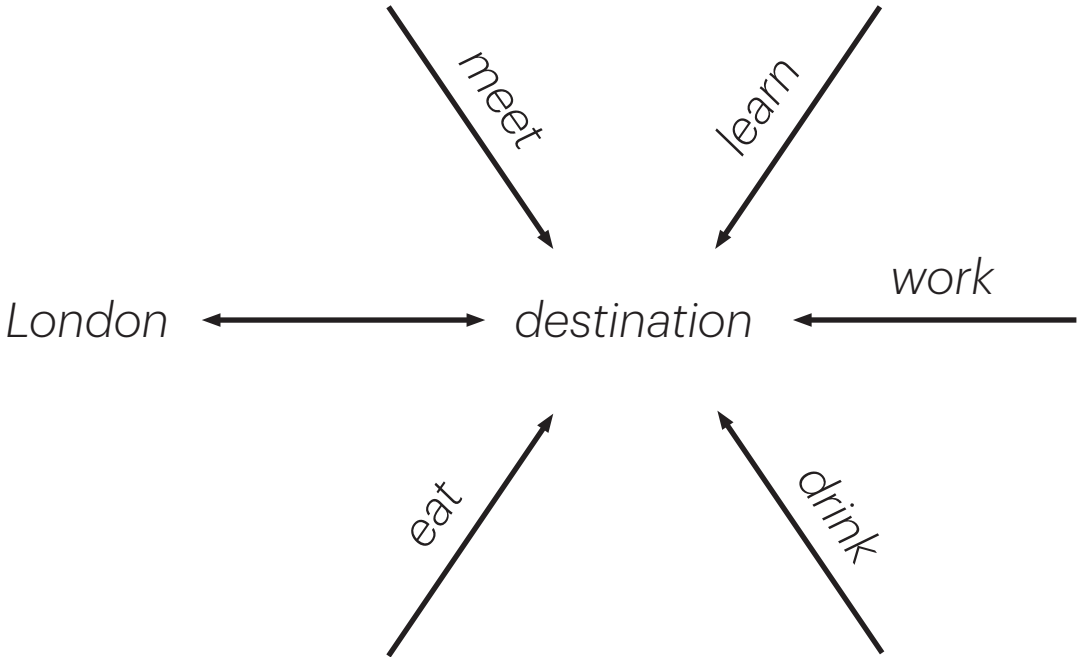


# FROM CONSUMER BACK TO CITIZEN

from station to destination

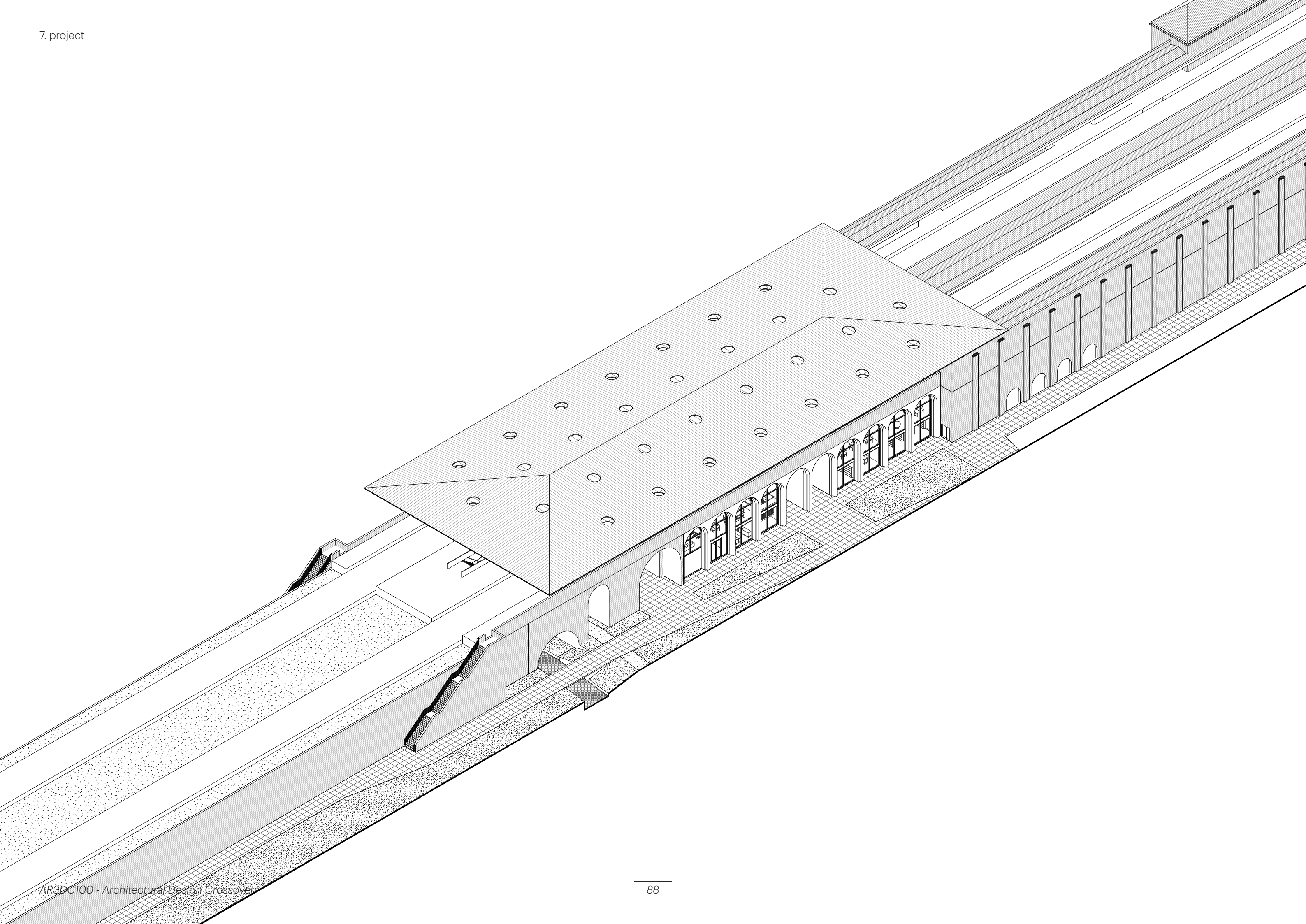


current

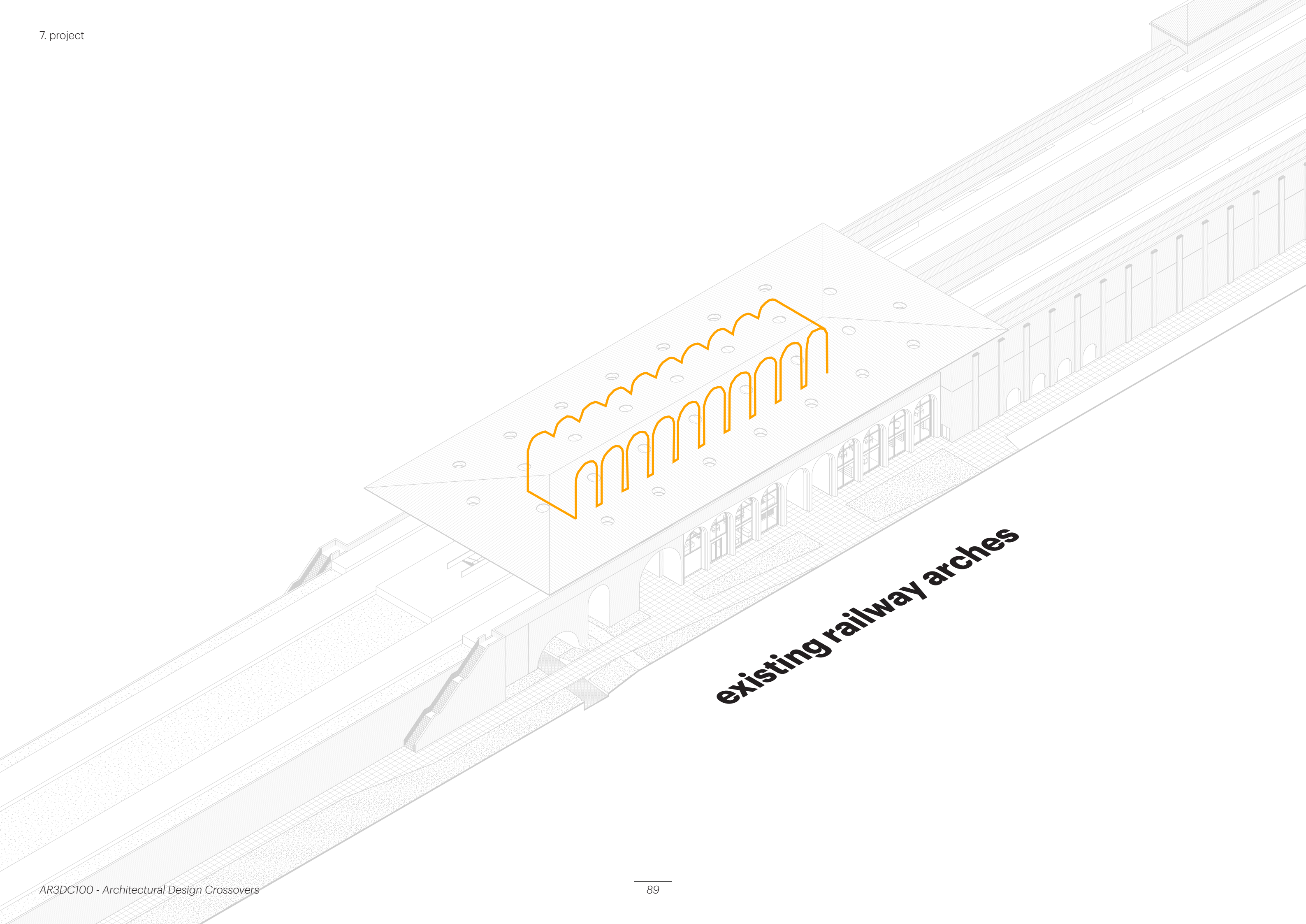


proposed

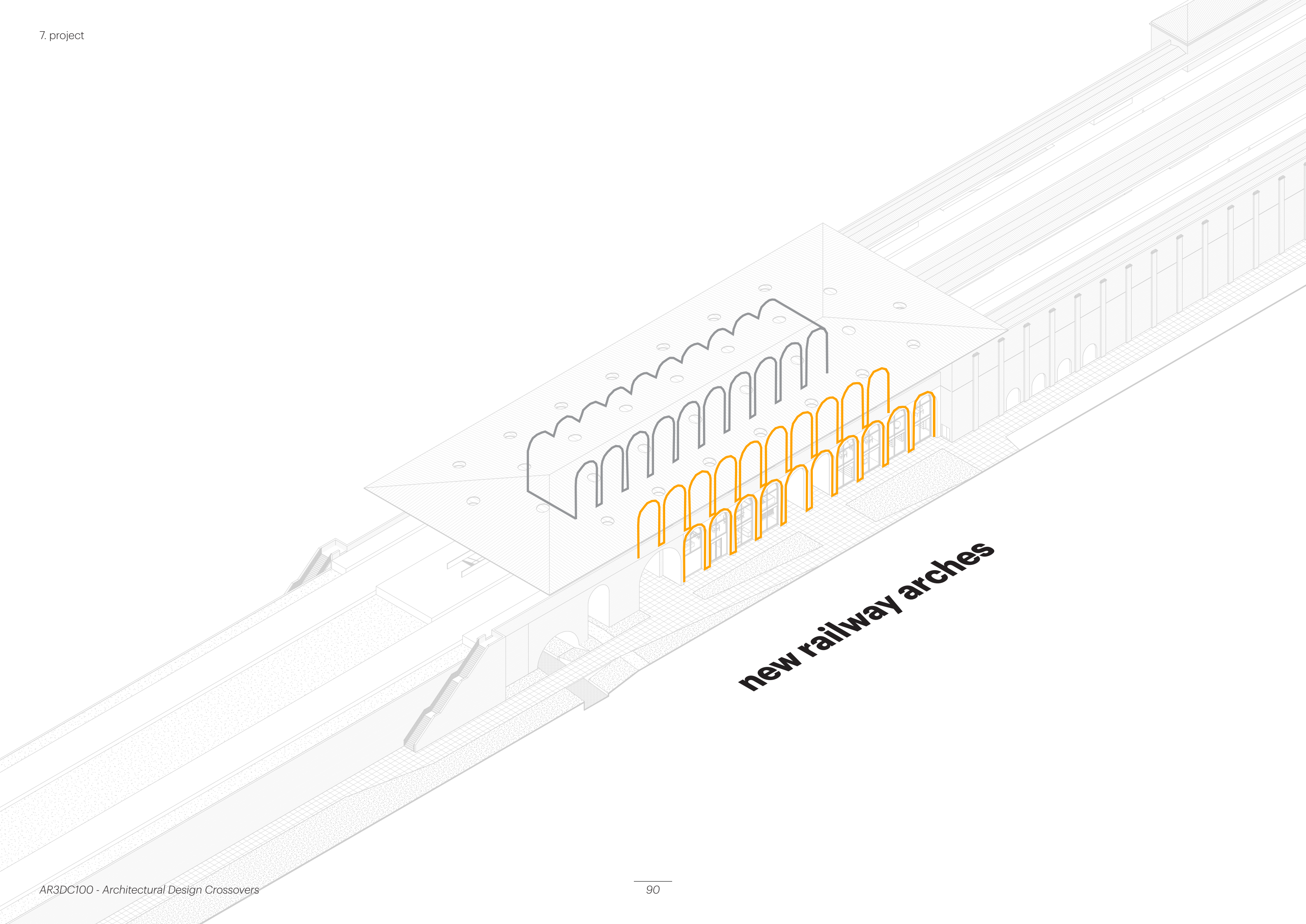






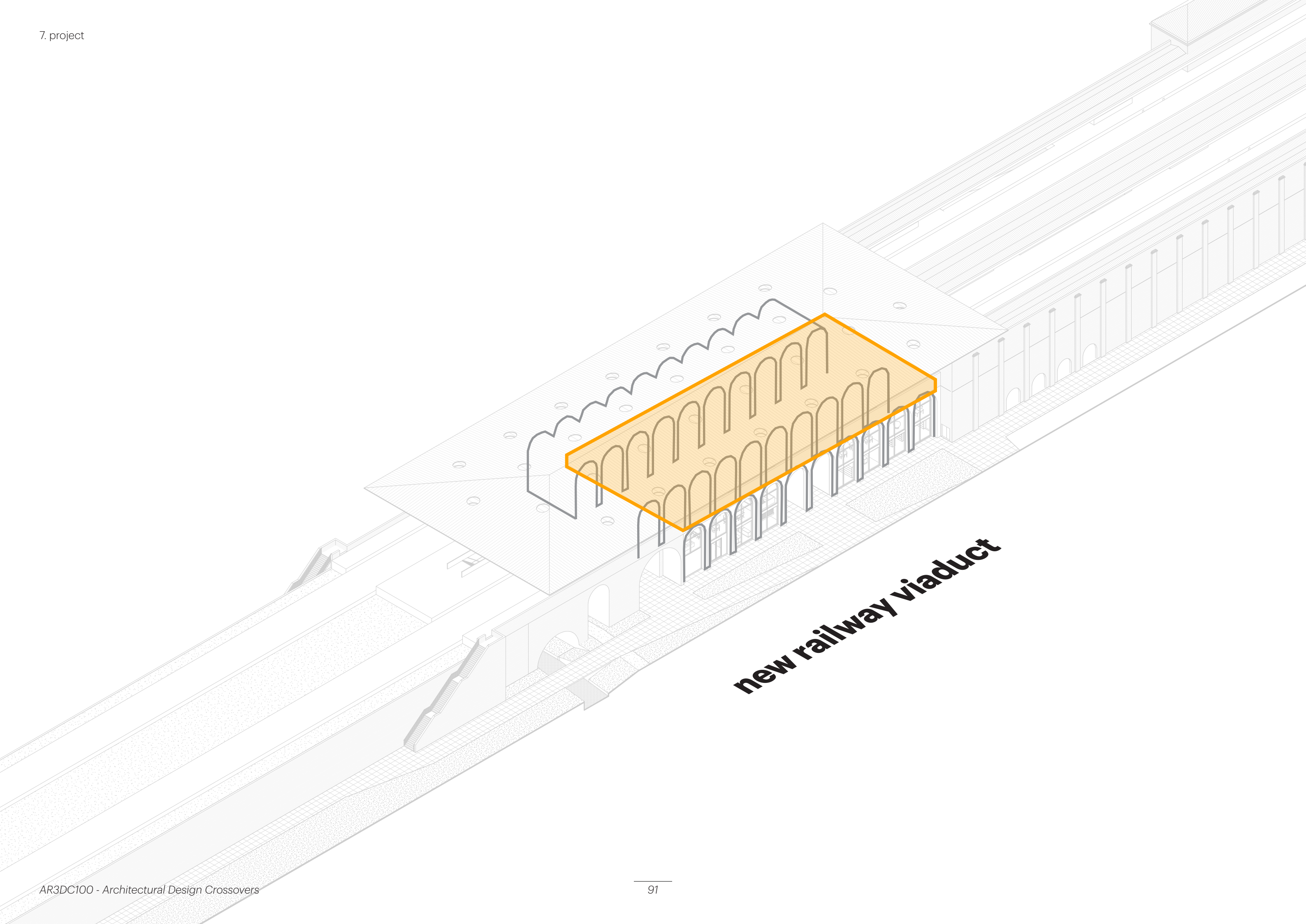






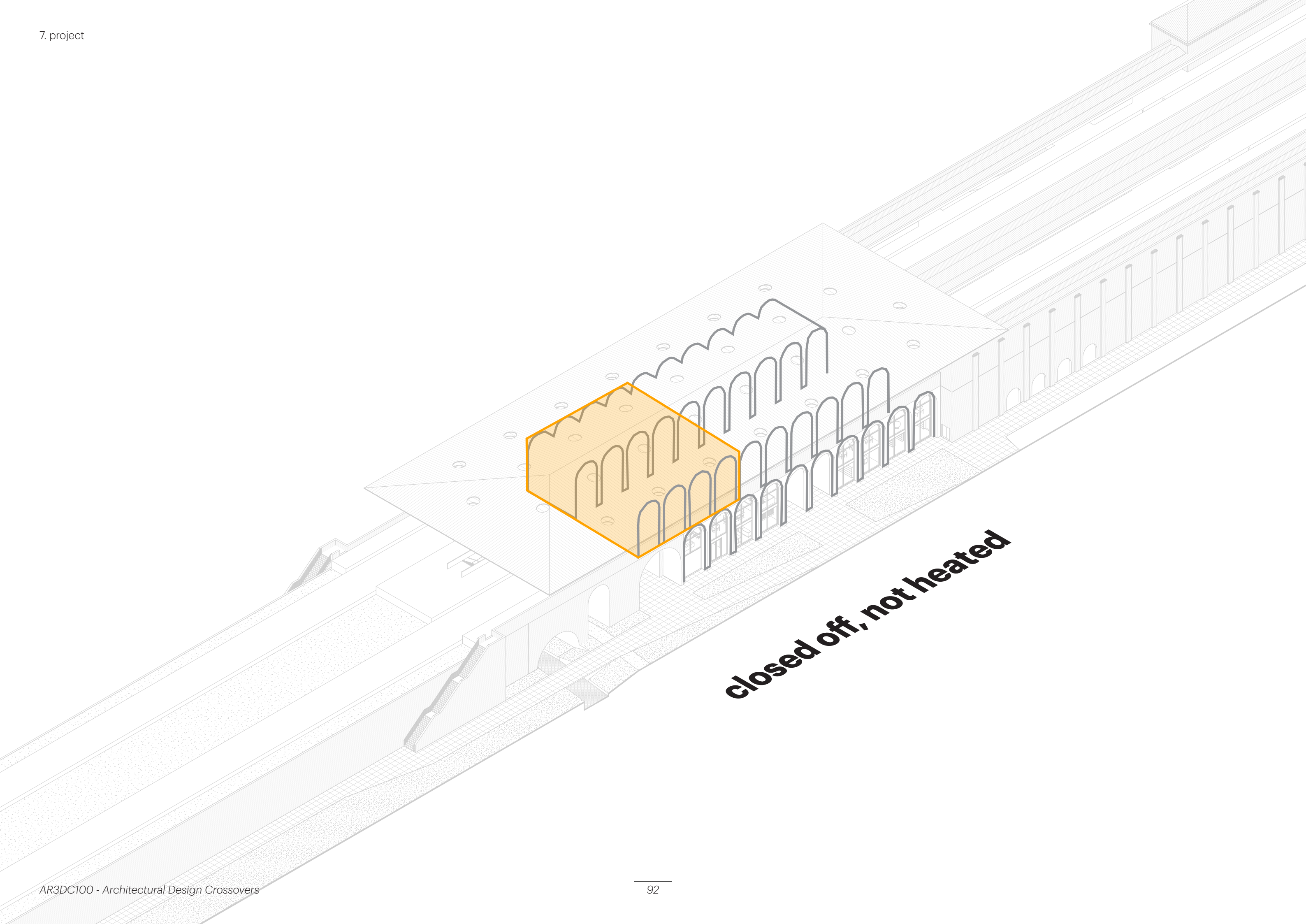
**new railway arches**





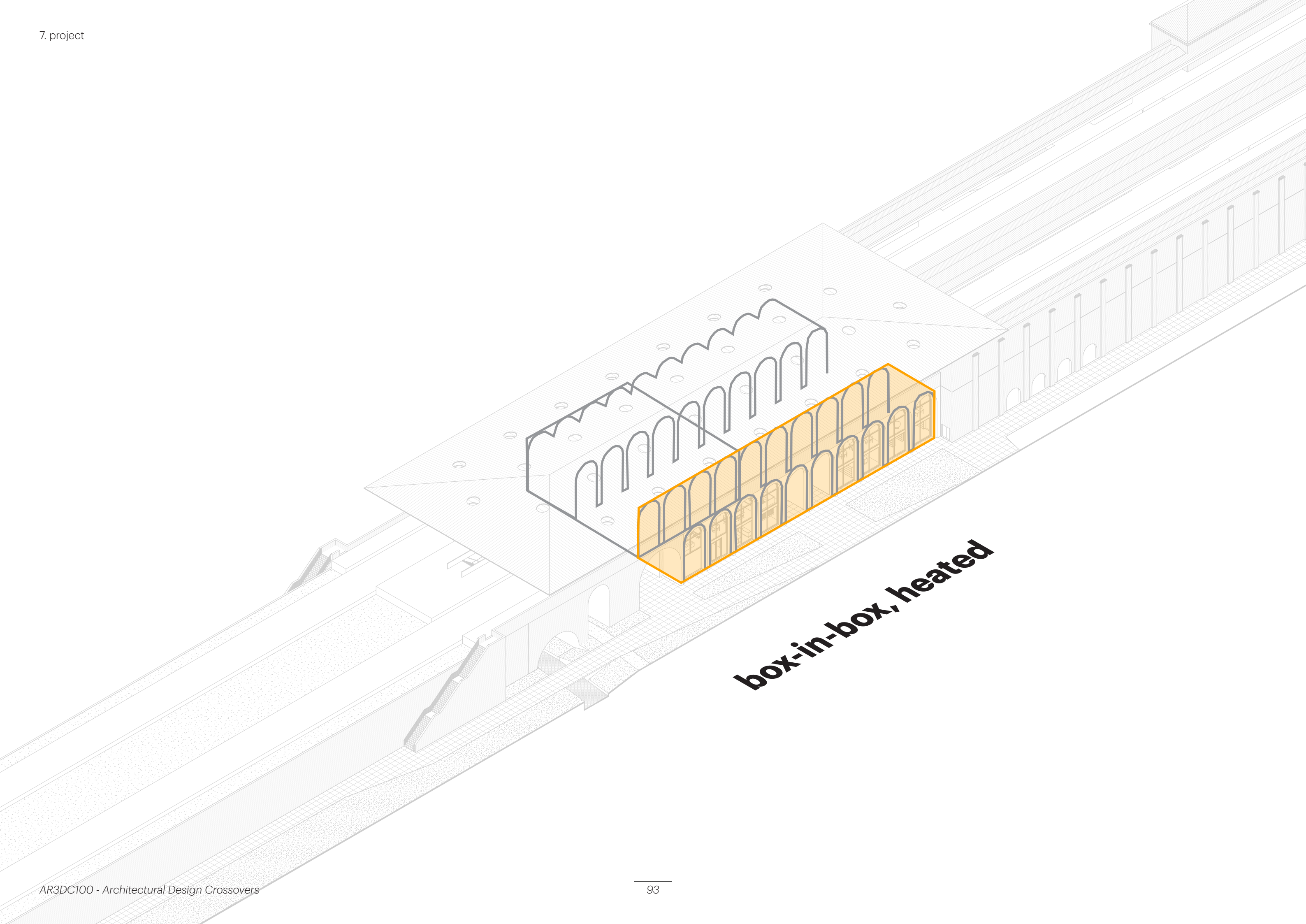
**new railway viaduct**





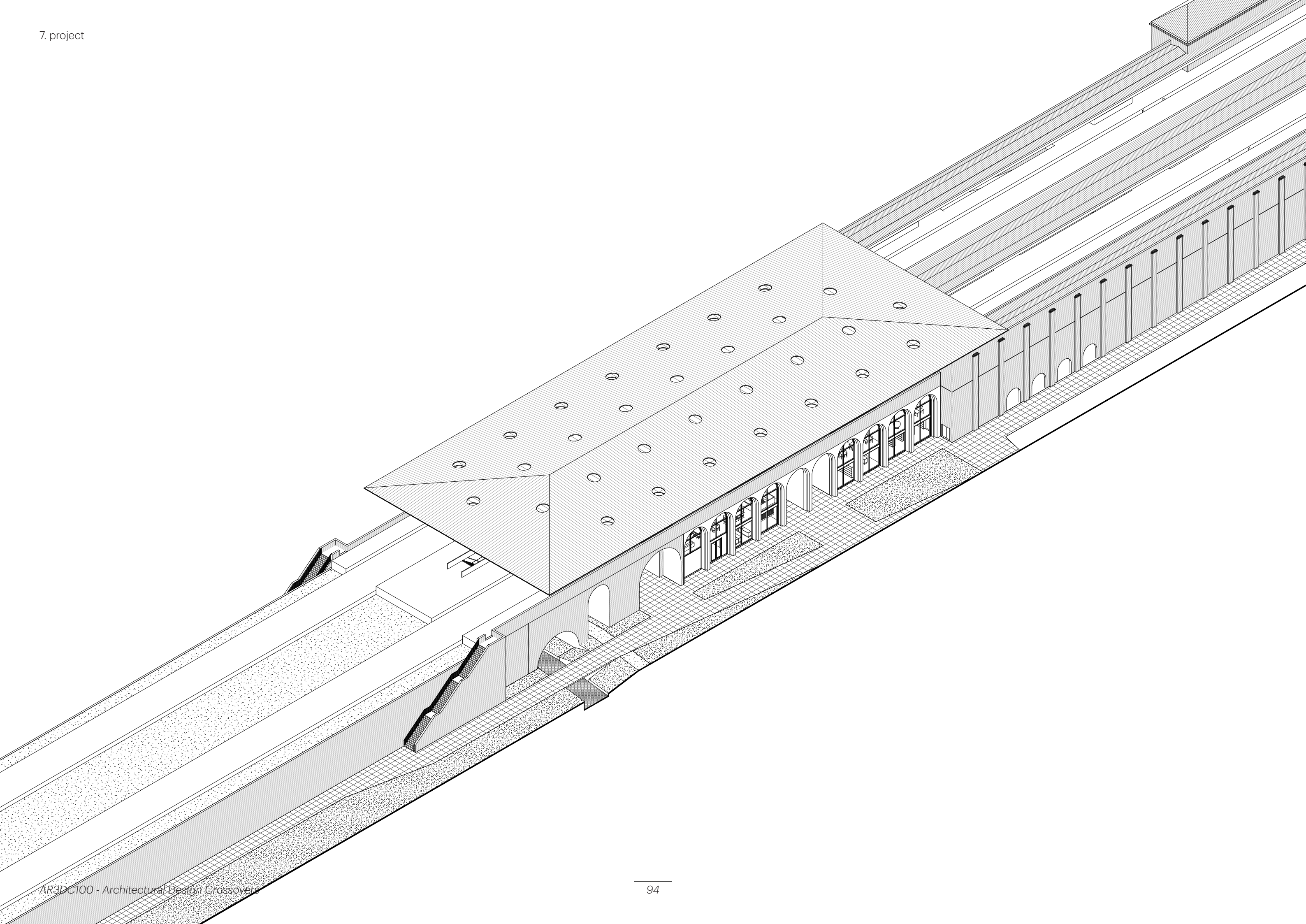
**closed off, not heated**



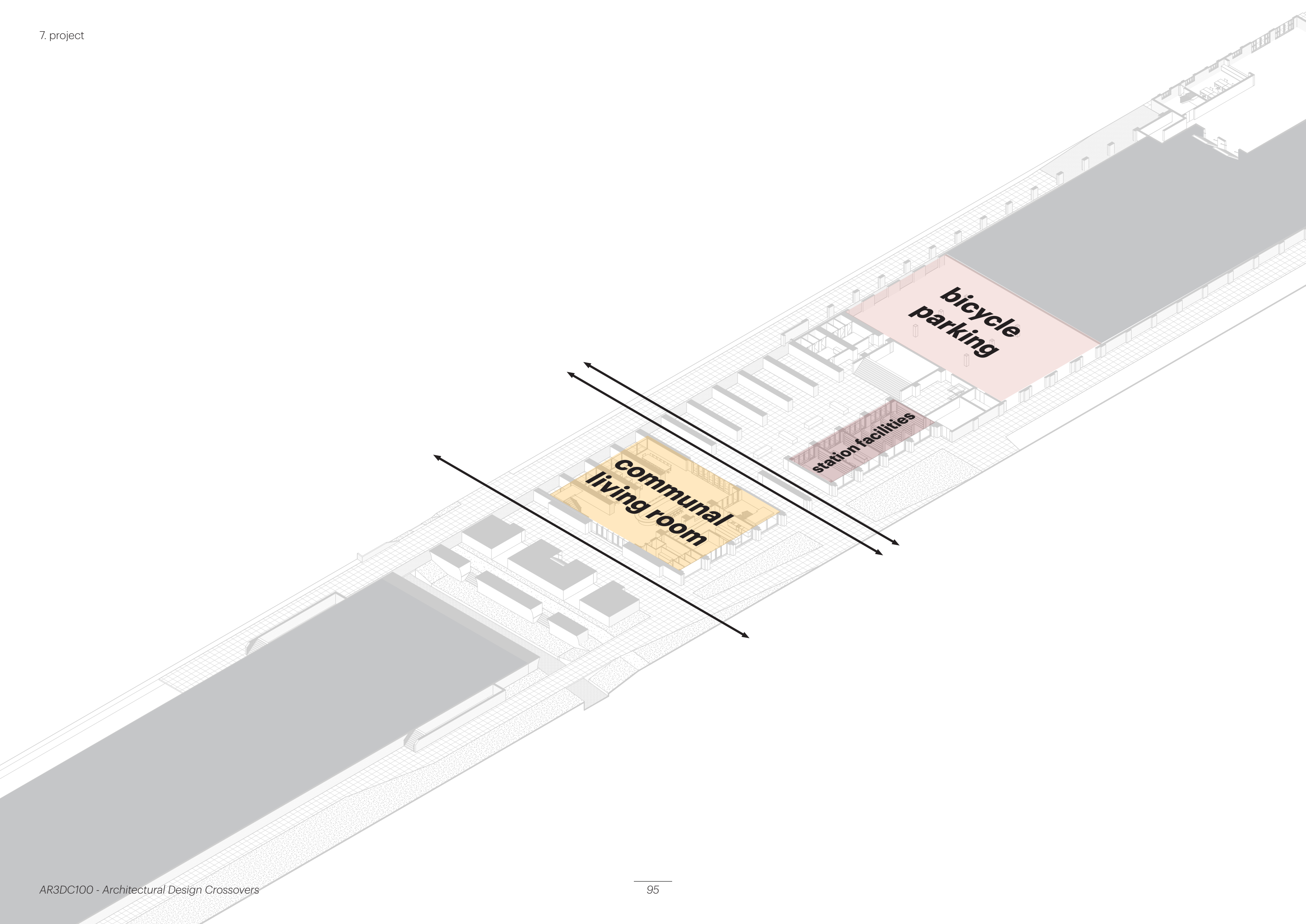


**box-in-box, heated**

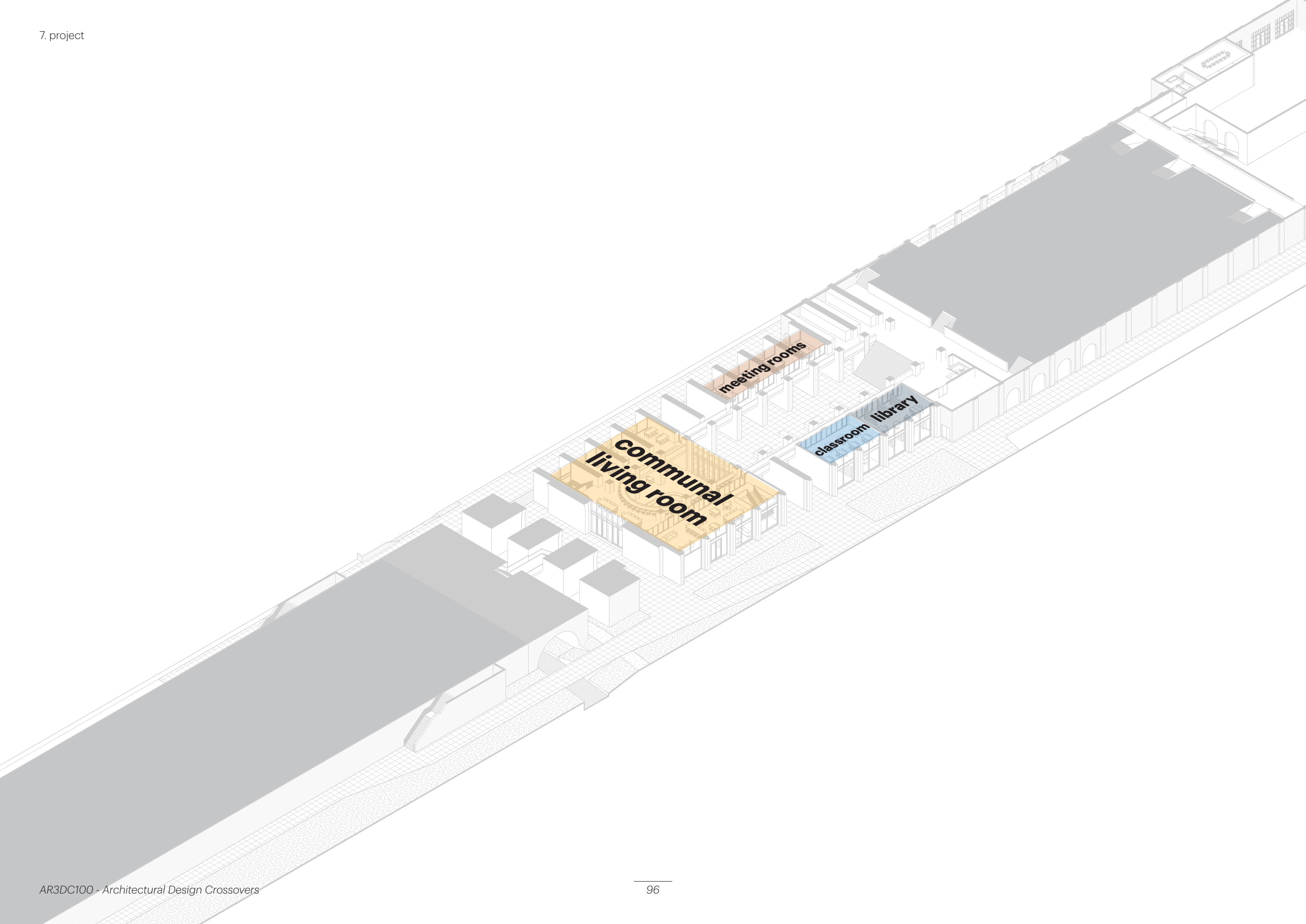




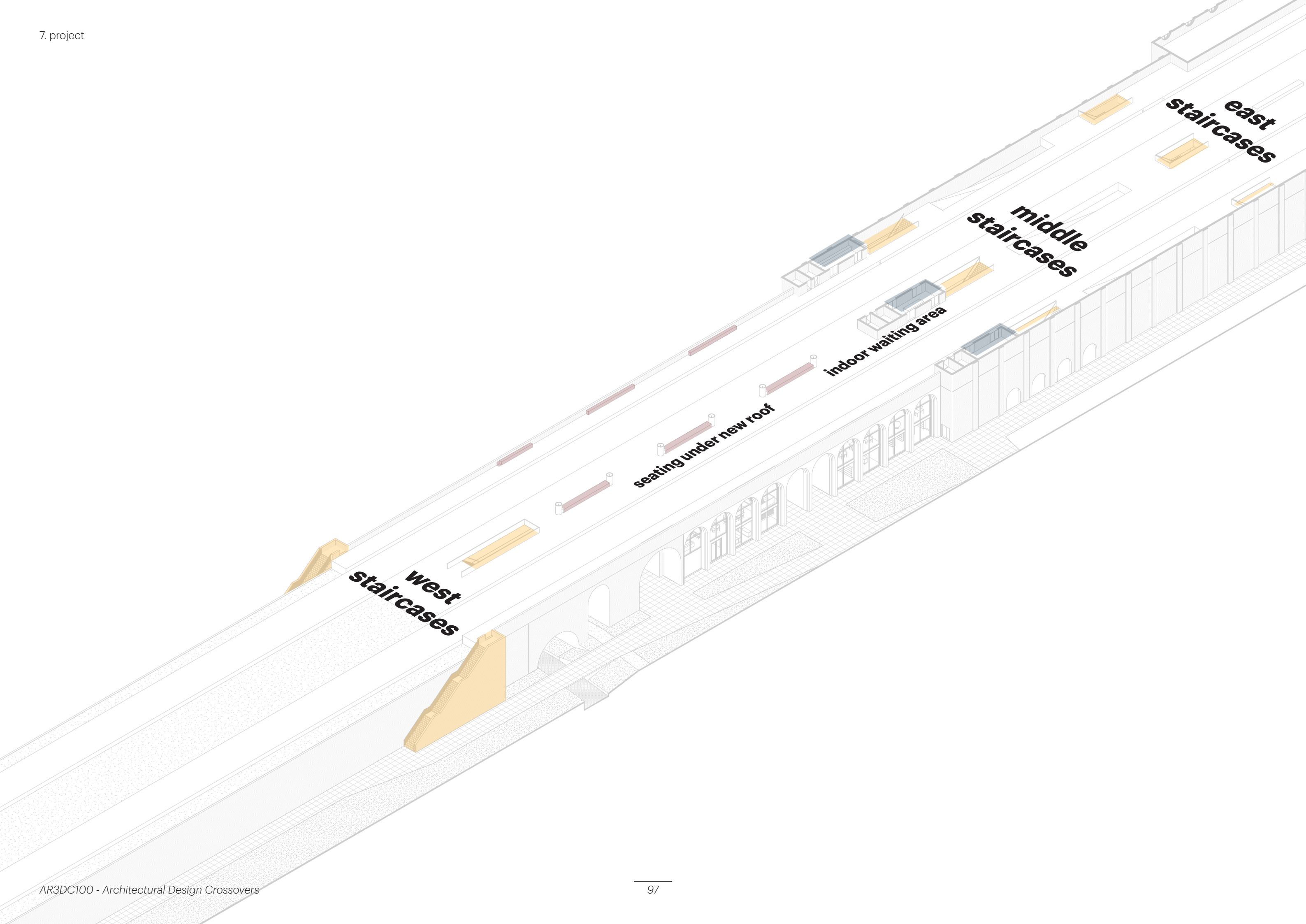




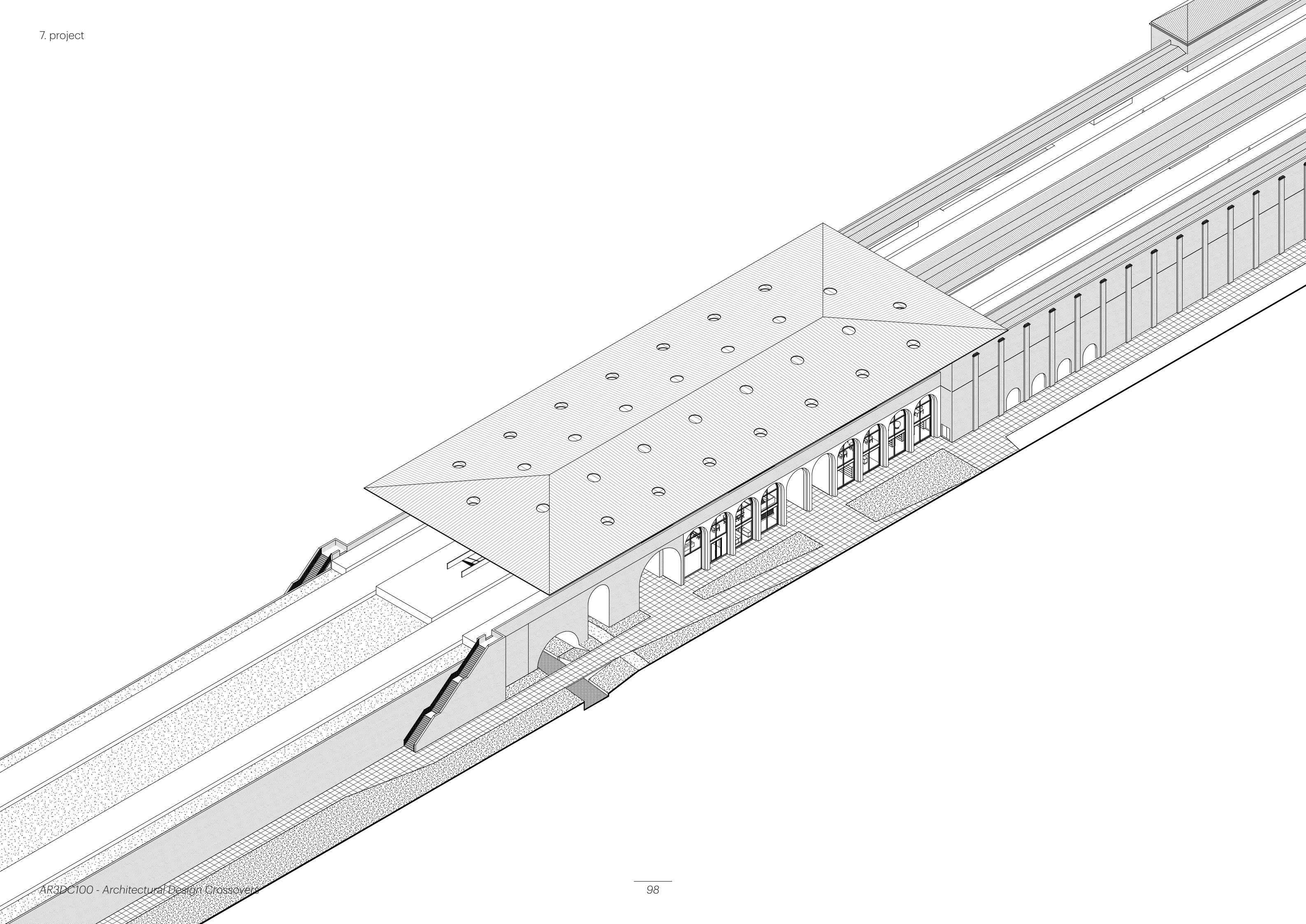




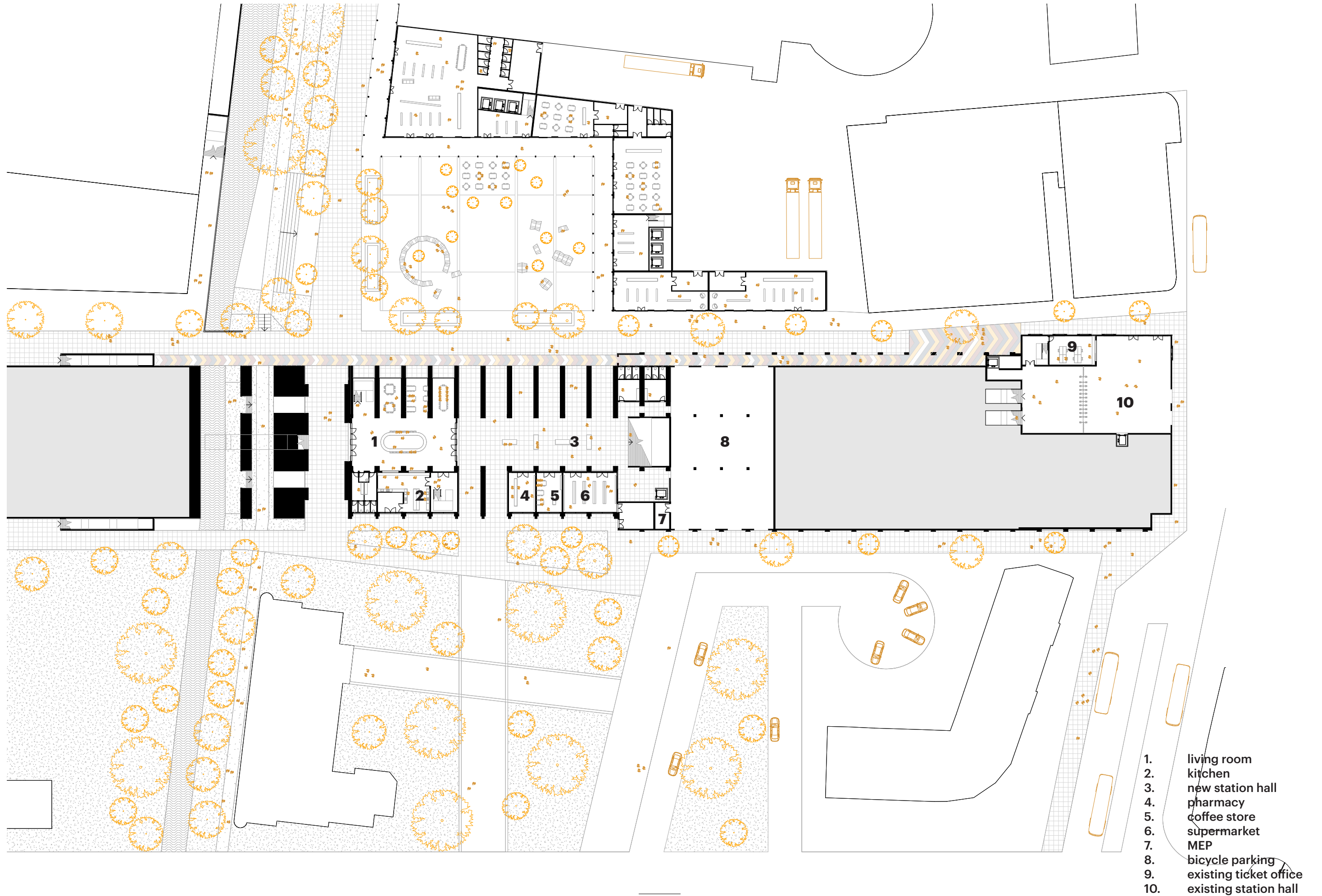




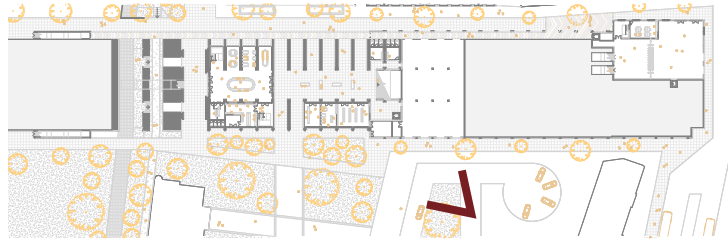




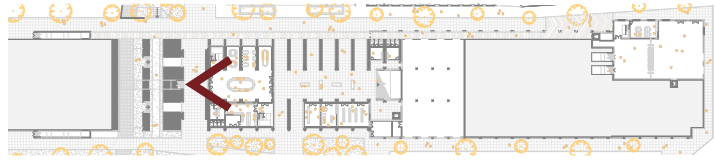




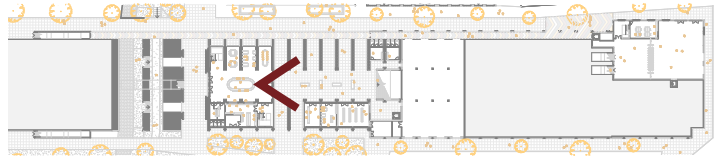






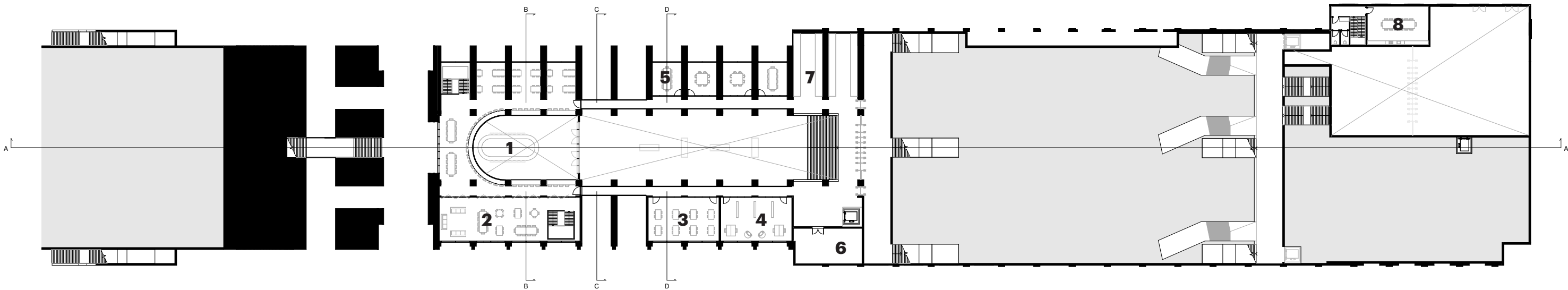






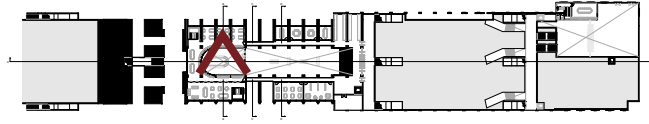


first floor

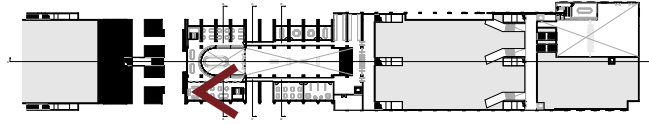


- 1. living room
- 2. lounge
- 3. classroom
- 4. library
- 5. meeting room
- 6. MEP
- 7. lockers
- 8. railway canteen



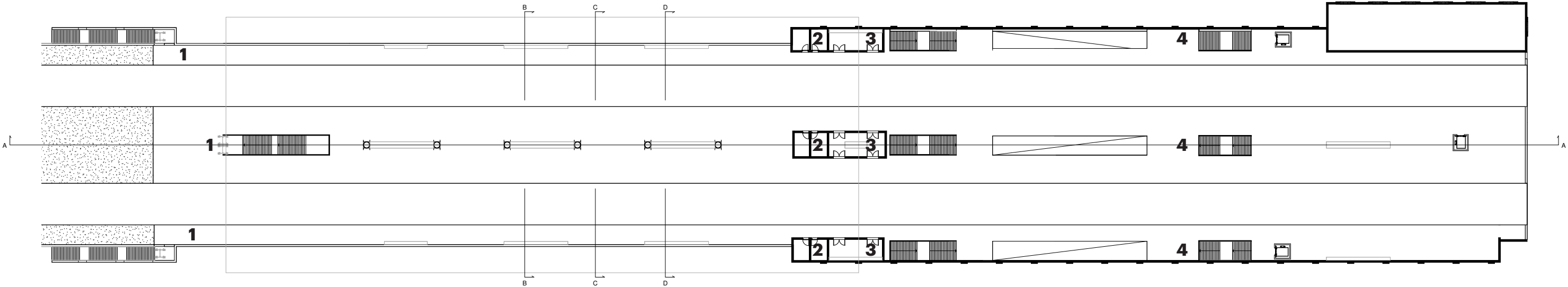






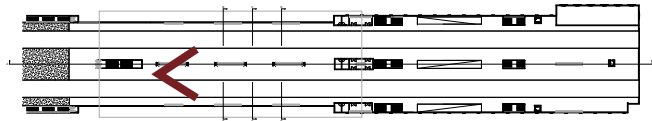


second floor



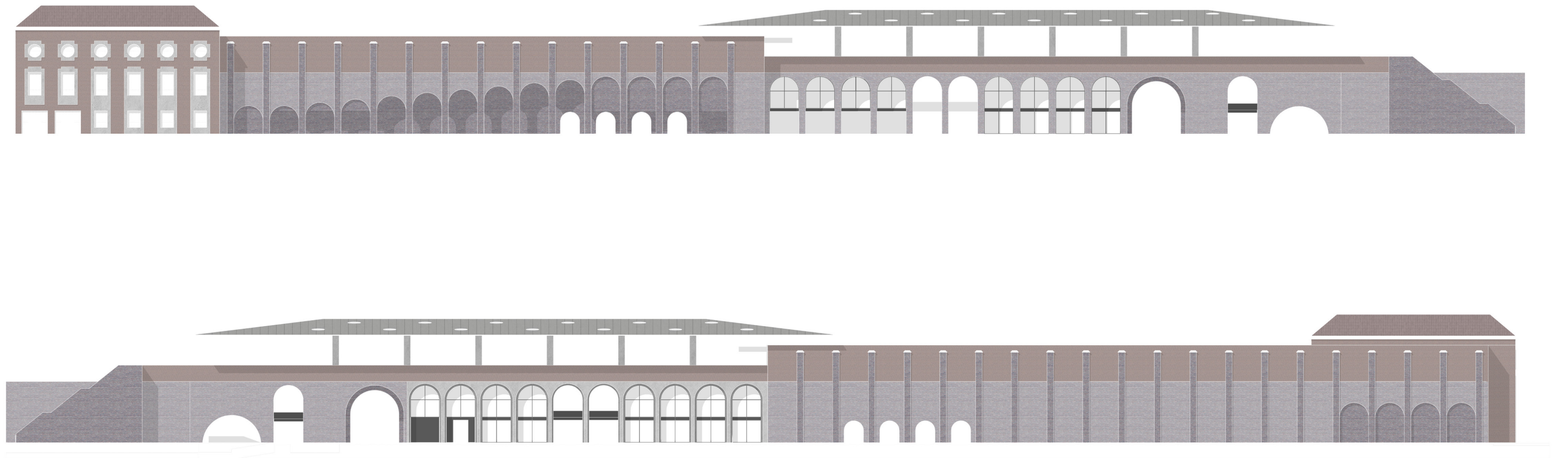
- 1. secondary staircase
- 2. waiting zone
- 3. primary staircase
- 4. existing staircase



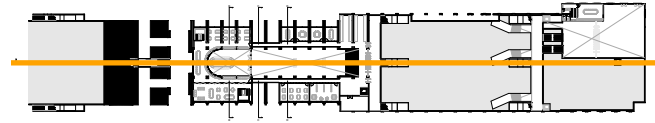




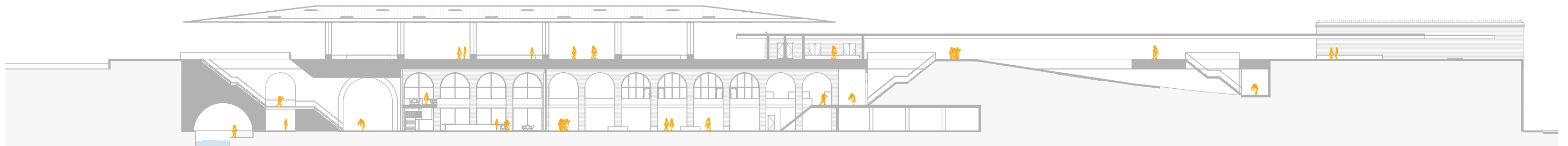
## elevations



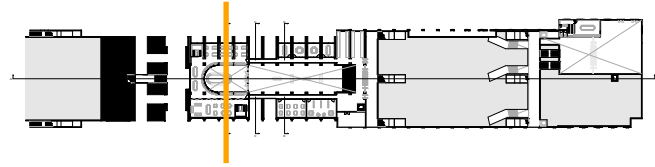




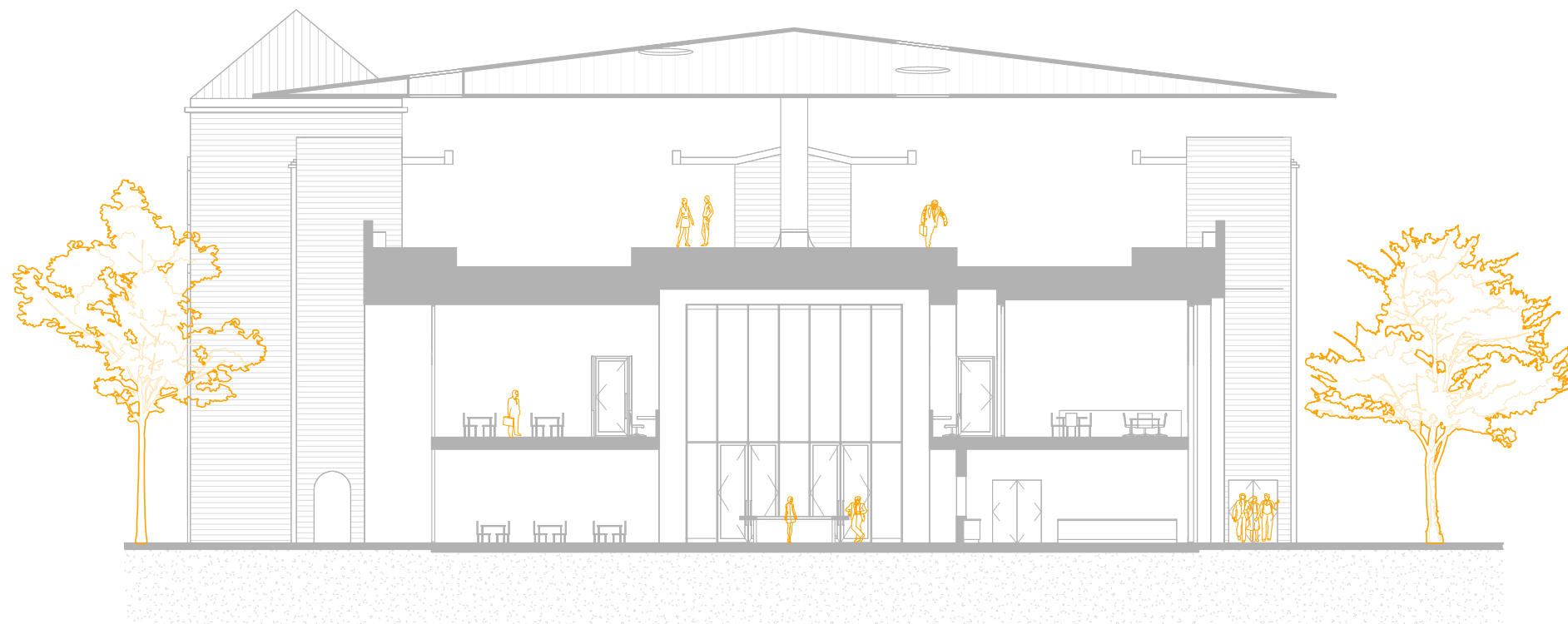
## section A



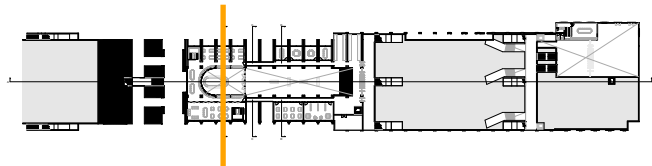




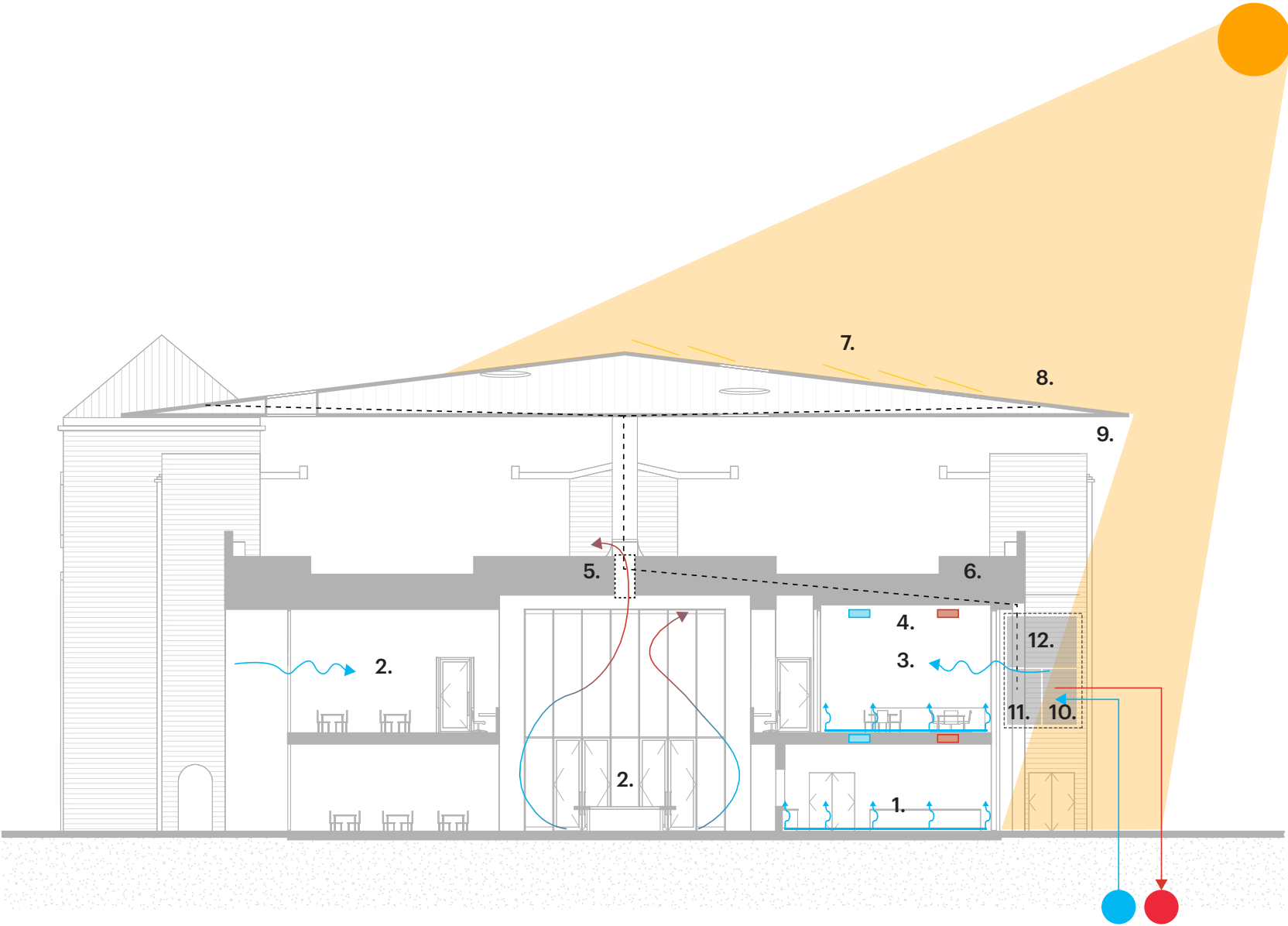
## section B





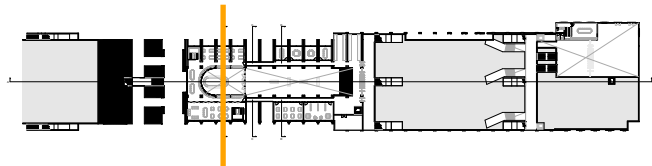


climatic concept - summer

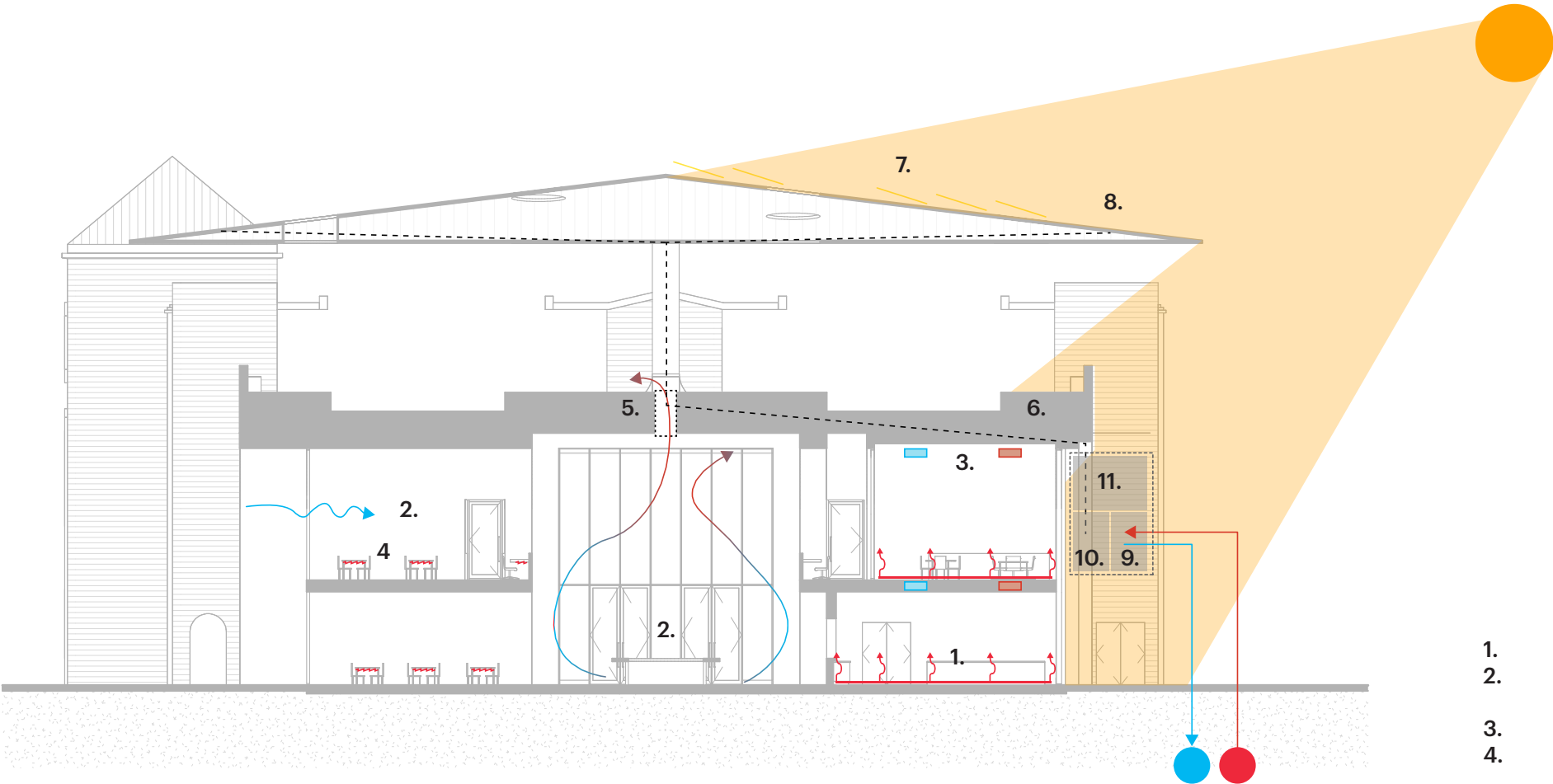


- 1. low temperature cooling
- 2. natural ventilation via doors, windows and inlets curtain wall
- 3. openable windows if preferred
- 4. mechanical supply and exhaust
- 5. ventilation output under seating and outlets curtain wall
- 6. thermal mass of concrete to stabilize temperature
- 7. solar panels
- 8. gray water collection
- 9. overhang to prevent overheating
- 10. heatpump
- 11. boiler
- 12. air handling unit



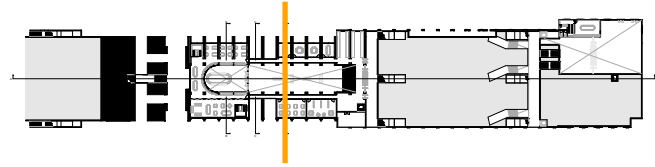


climatic concept - winter

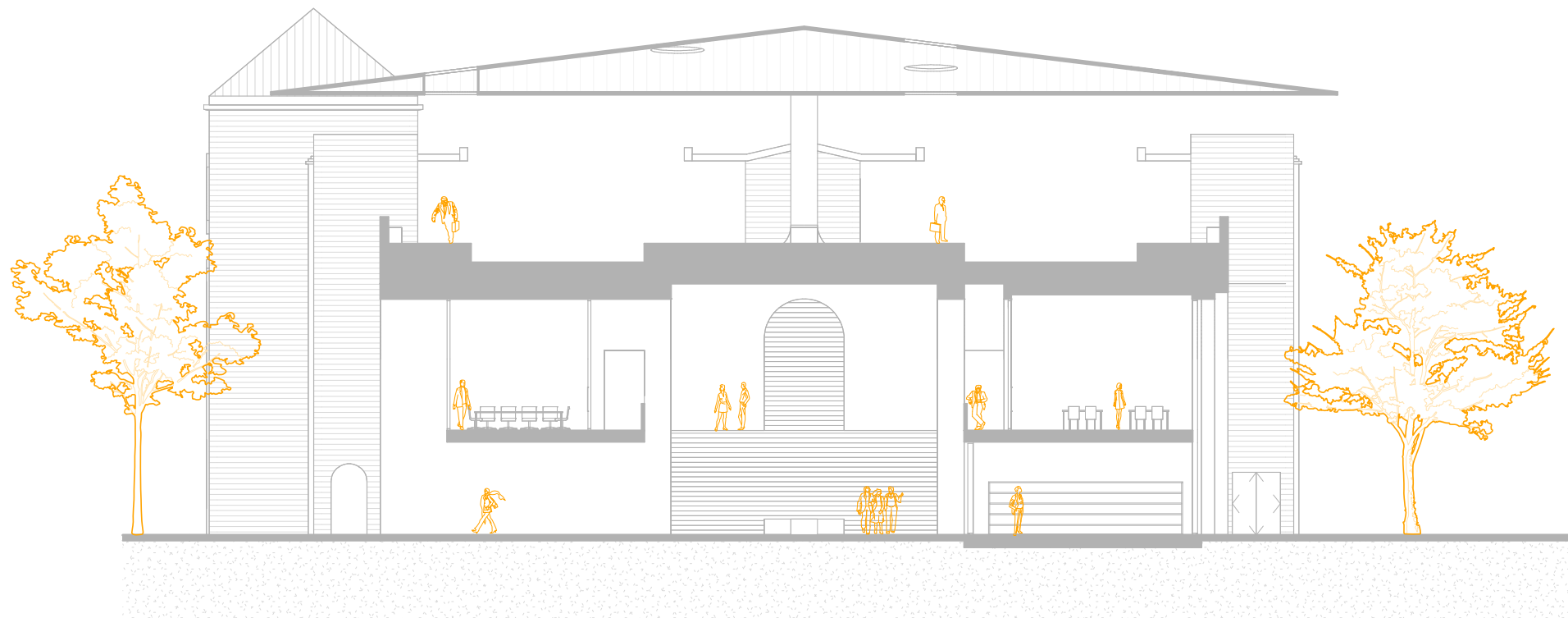


- 1. low temperature heating
- 2. natural ventilation via doors, windows and inlets curtain wall
- 3. mechanical supply and exhaust
- 4. local radiant panels to heat when needed
- 5. ventilation output under seating and outlets curtain wall
- 6. thermal mass of concrete to stabilize temperature
- 7. solar panels
- 8. gray water collection
- 9. heatpump
- 10. boiler
- 11. air handling unit

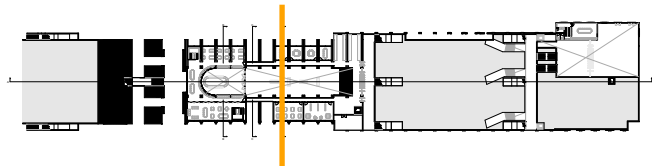




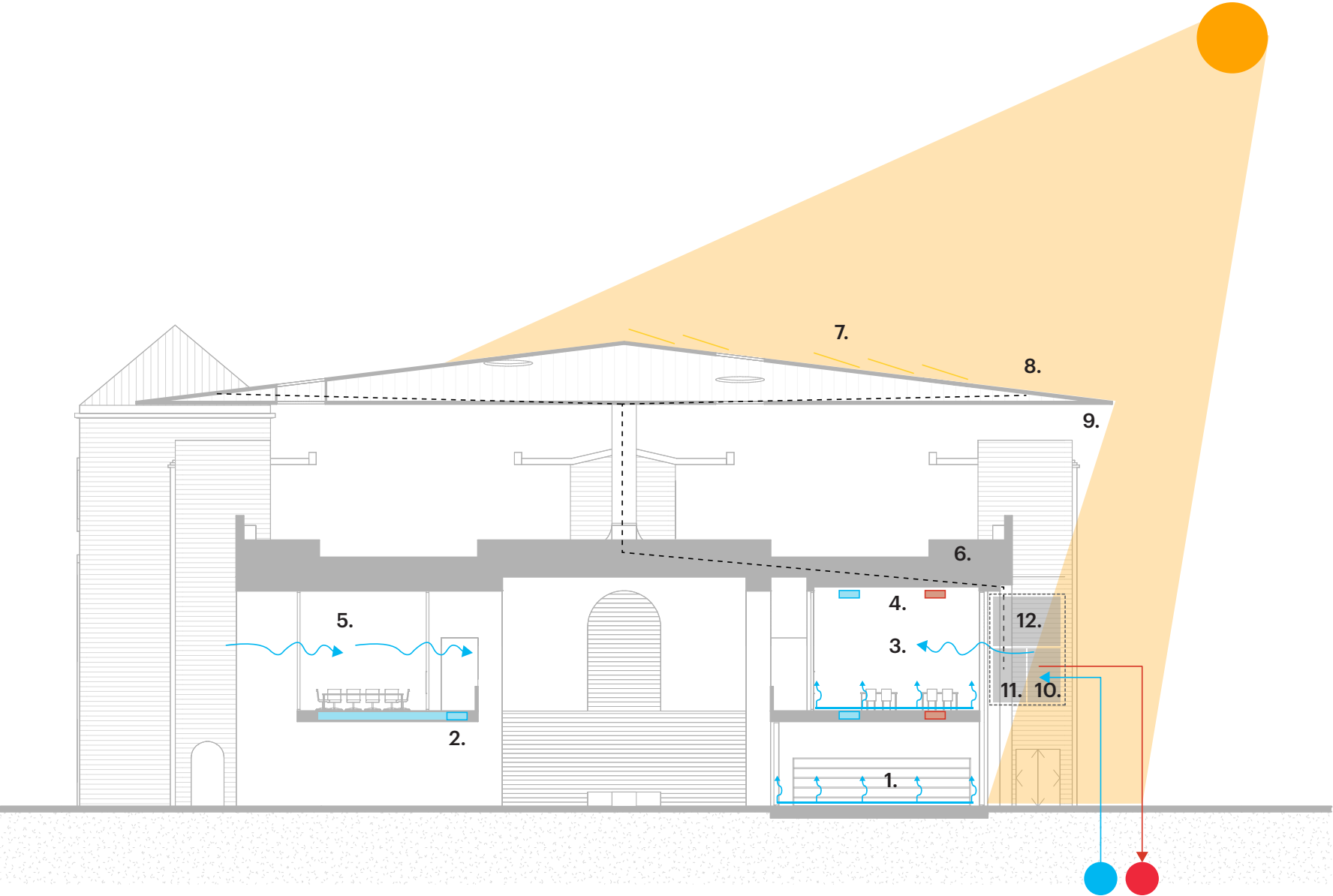
## section D





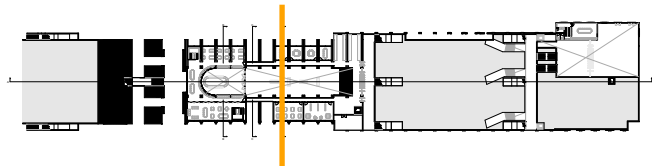


climatic concept - summer

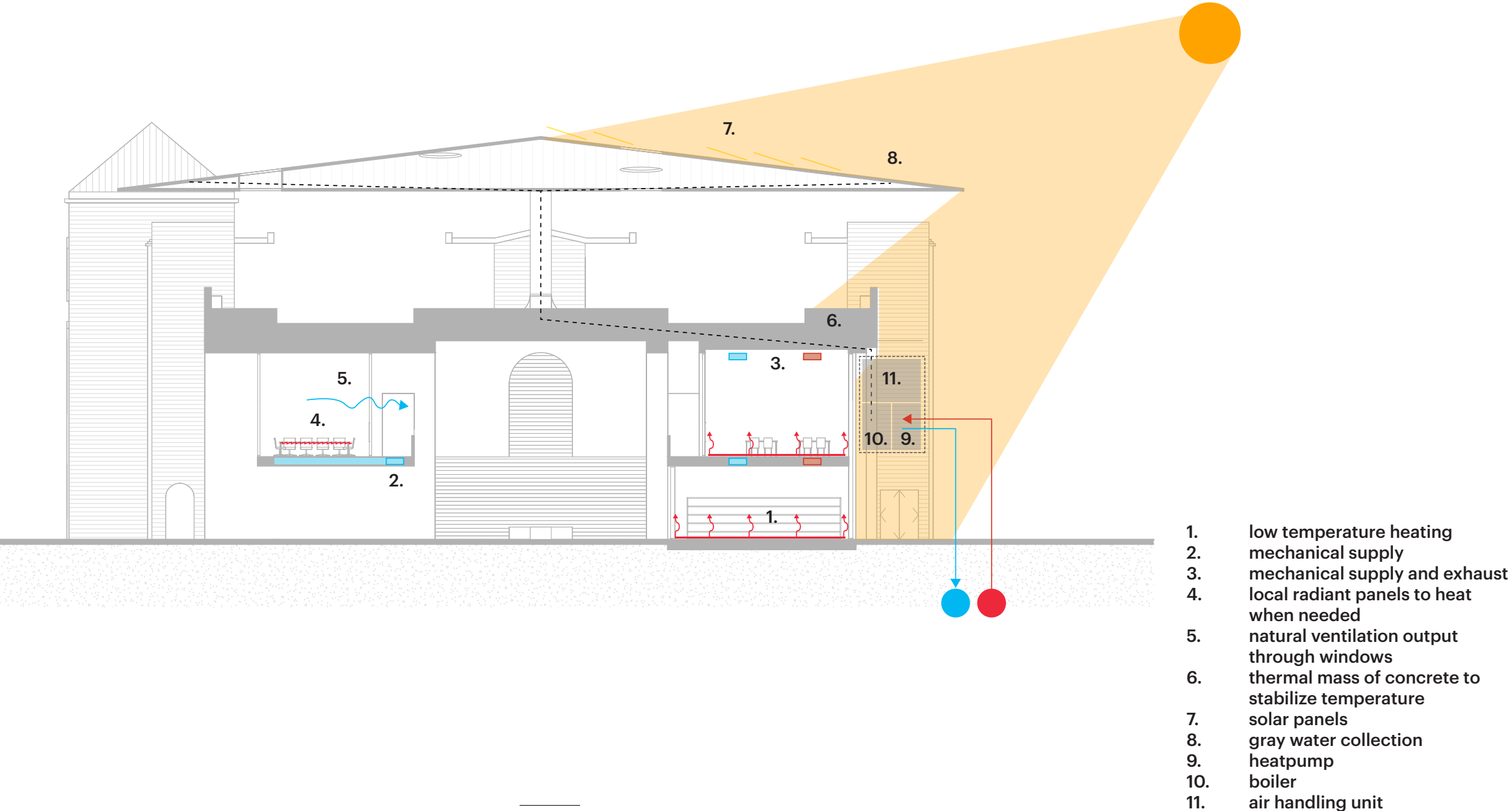


- 1. low temperature cooling
- 2. (optional) mechanical supply
- 3. openable windows if preferred
- 4. mechanical supply and exhaust
- 5. natural ventilation through windows
- 6. thermal mass of concrete to stabilize temperature
- 7. solar panels
- 8. gray water collection
- 9. overhang to prevent overheating
- 10. heatpump
- 11. boiler
- 12. air handling unit

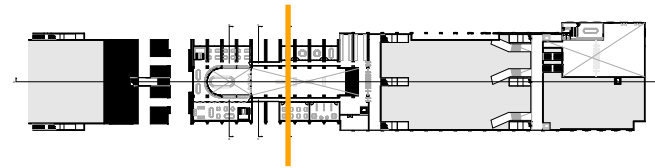




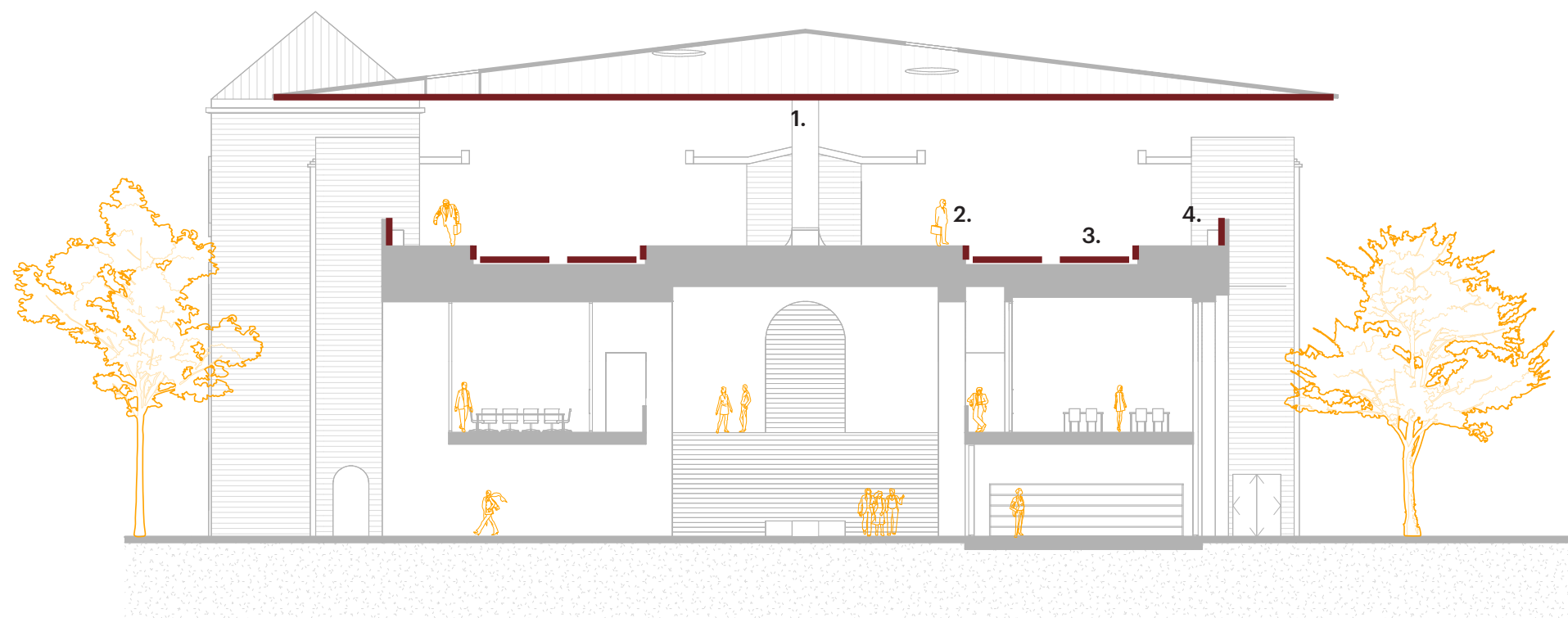
climatic concept - winter







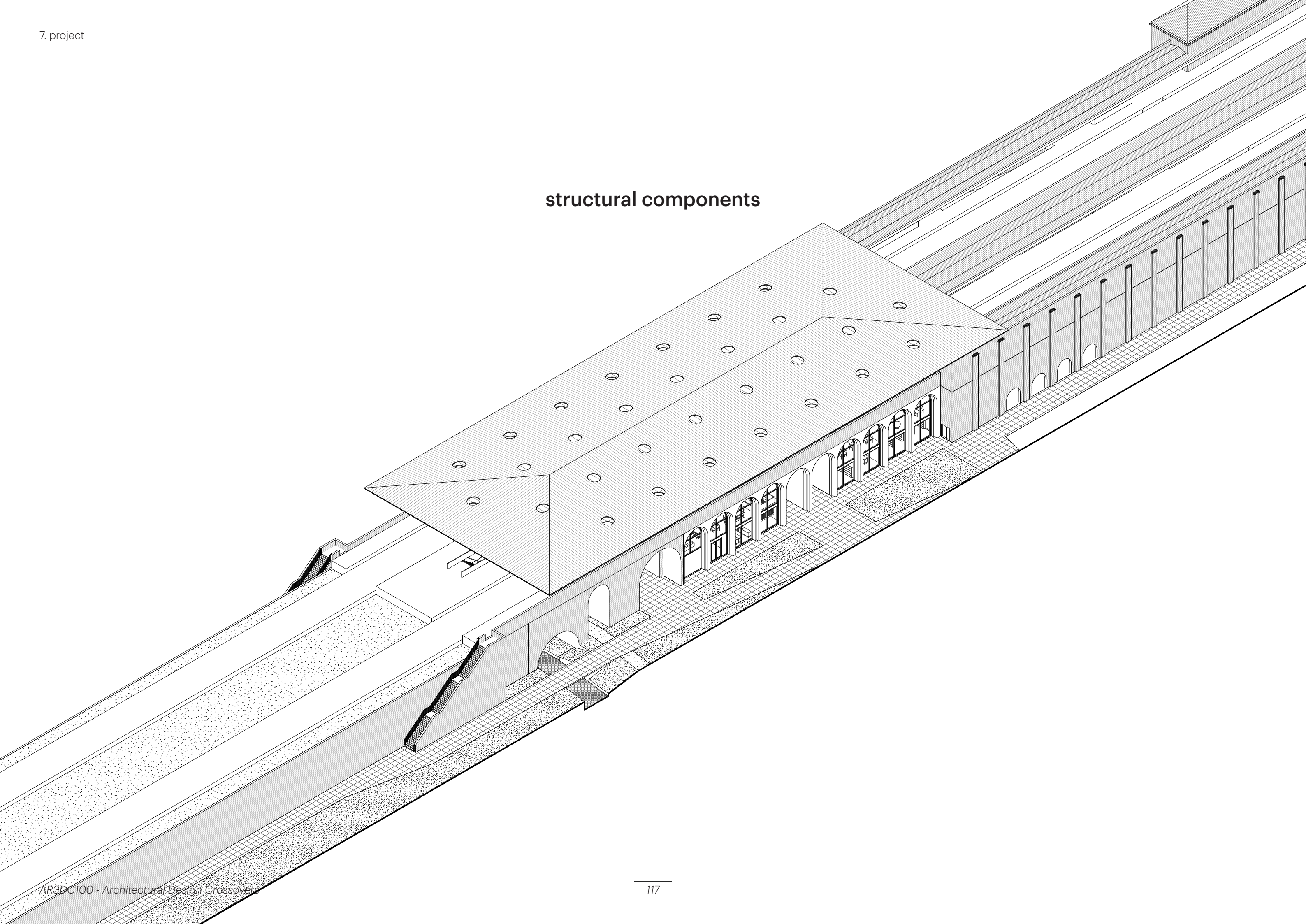
## sound absorption



1. perforated roof panels, mineral wool
2. porous sound-absorbing walls
3. railway silencers
4. perforated wall panels, mineral wool

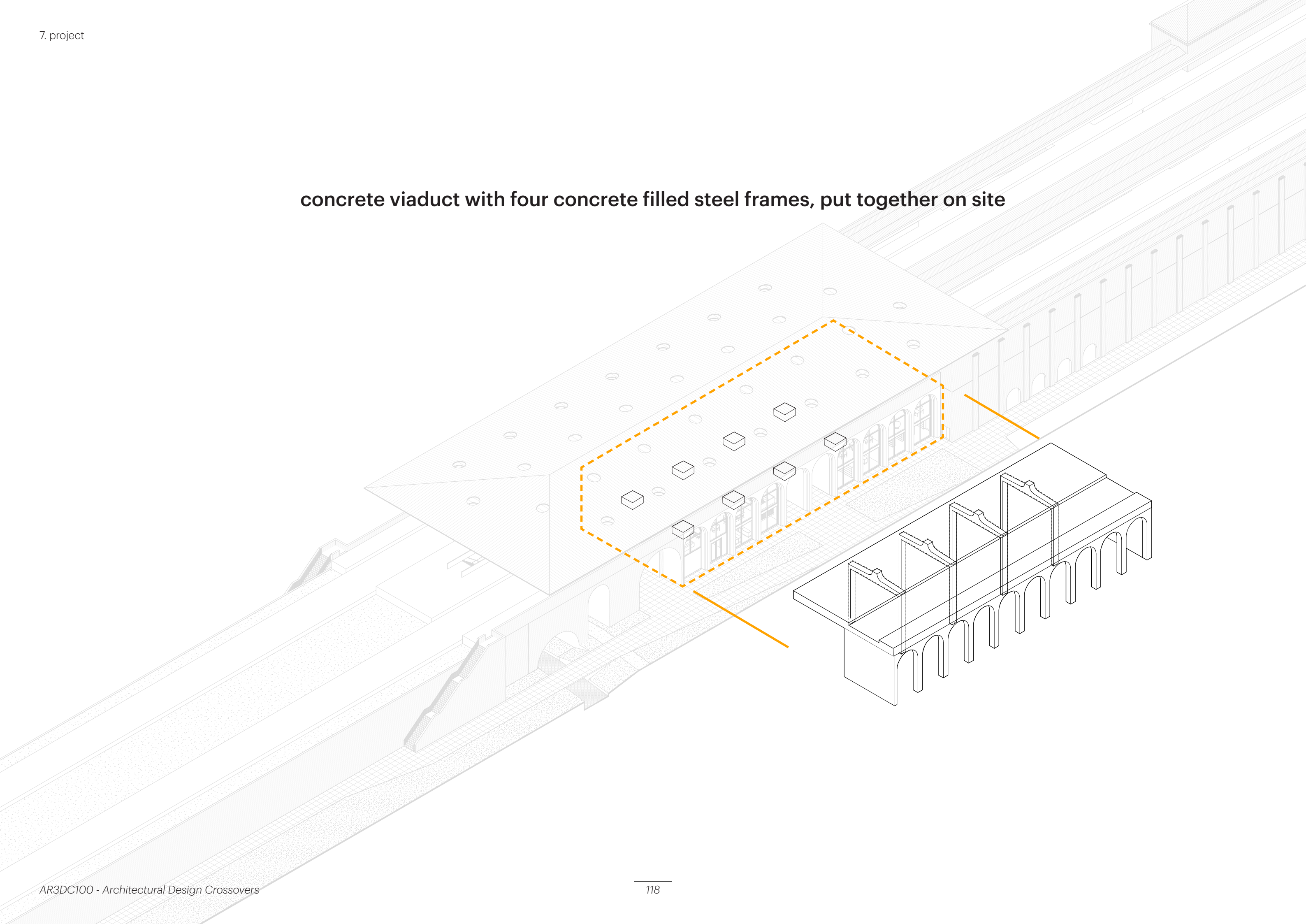


## structural components



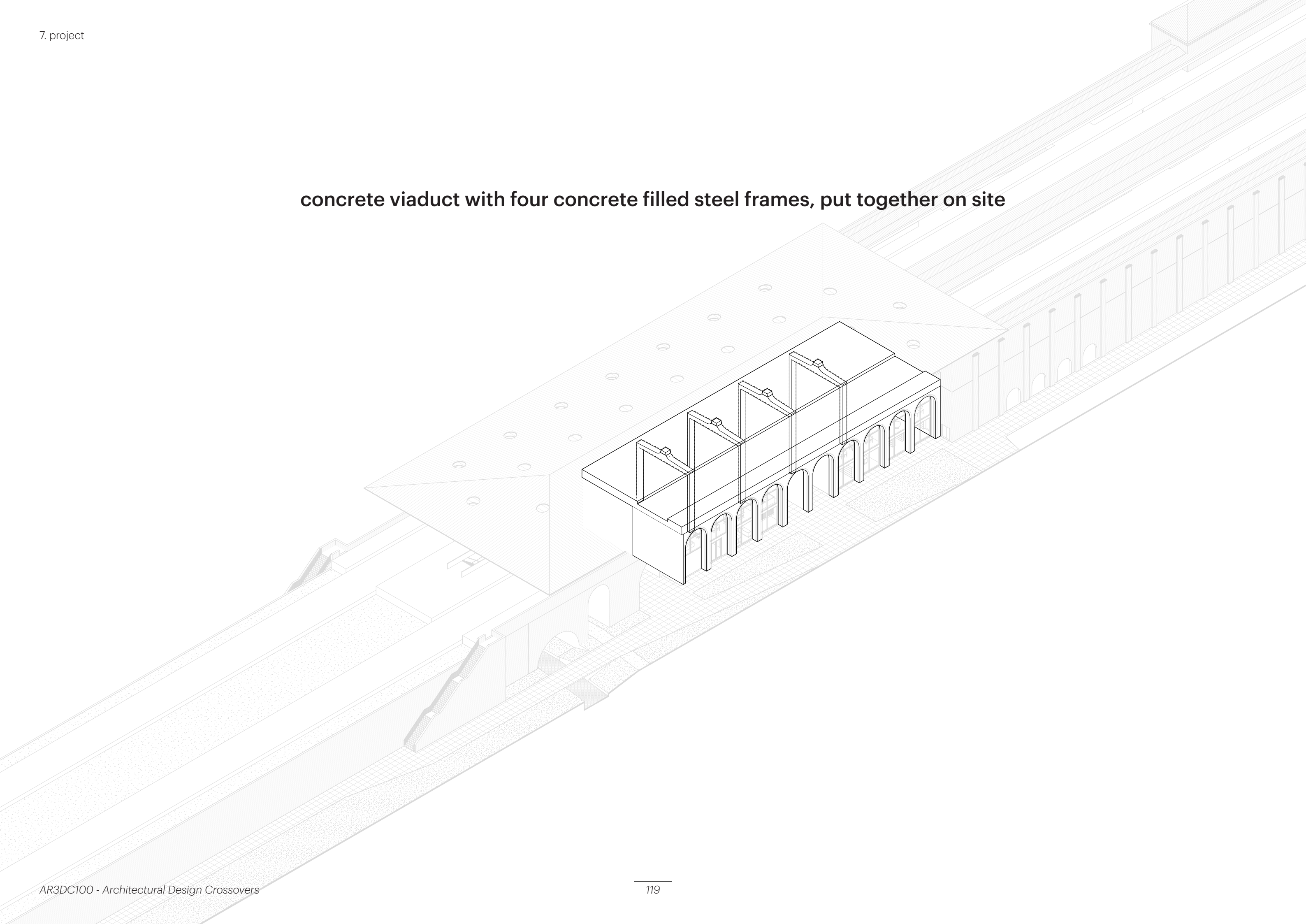


**concrete viaduct with four concrete filled steel frames, put together on site**



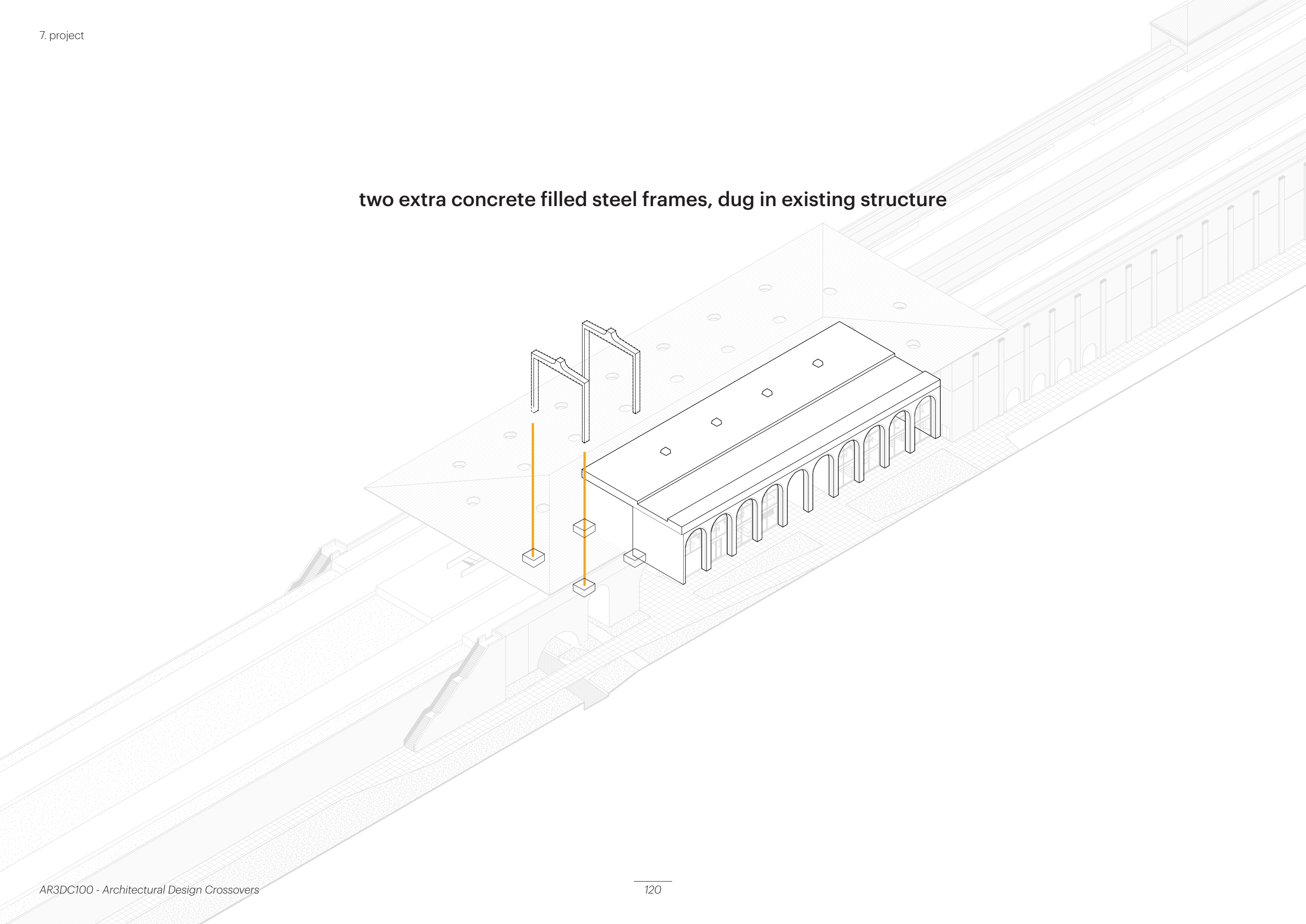


**concrete viaduct with four concrete filled steel frames, put together on site**



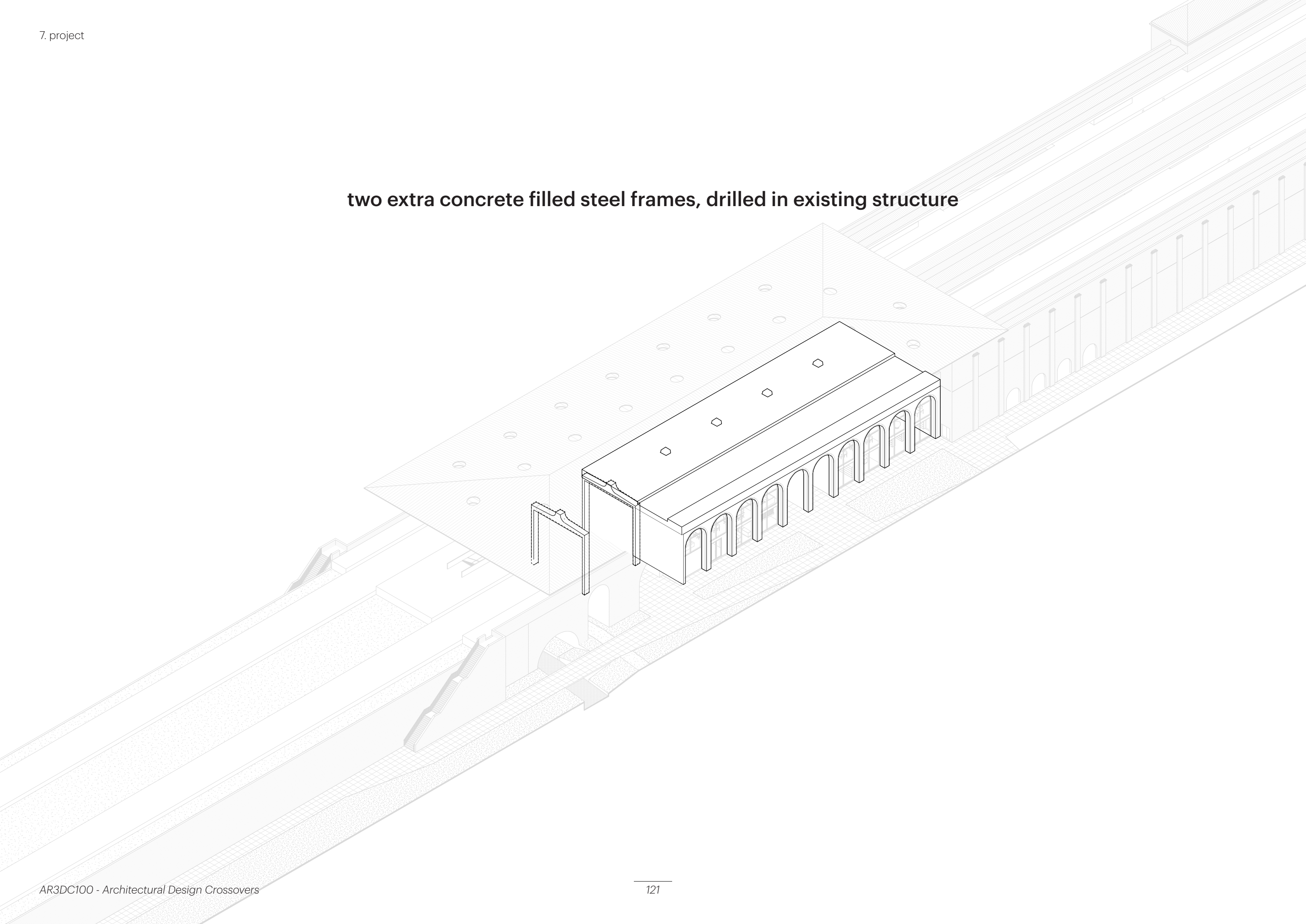


**two extra concrete filled steel frames, dug in existing structure**



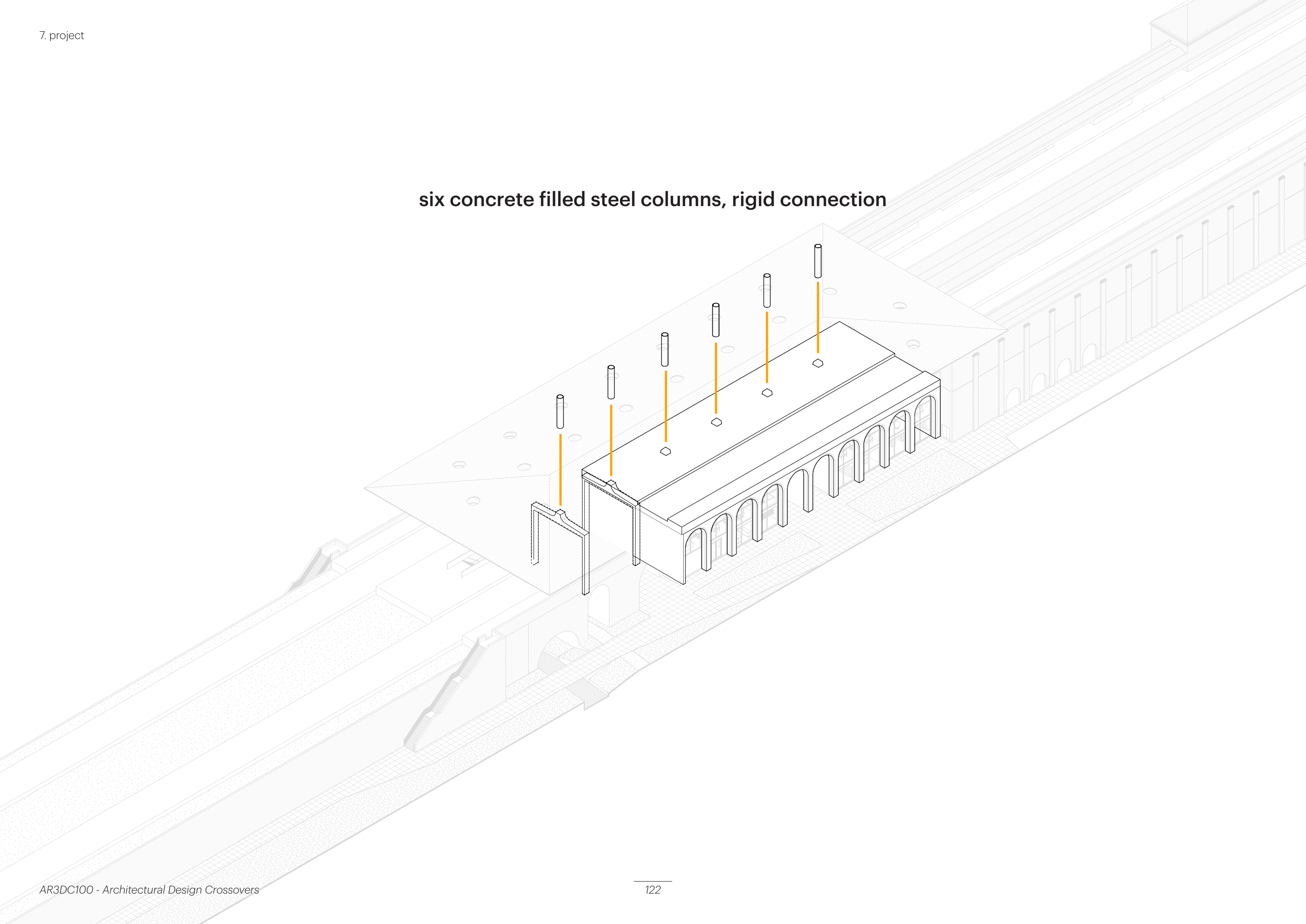


**two extra concrete filled steel frames, drilled in existing structure**





**six concrete filled steel columns, rigid connection**



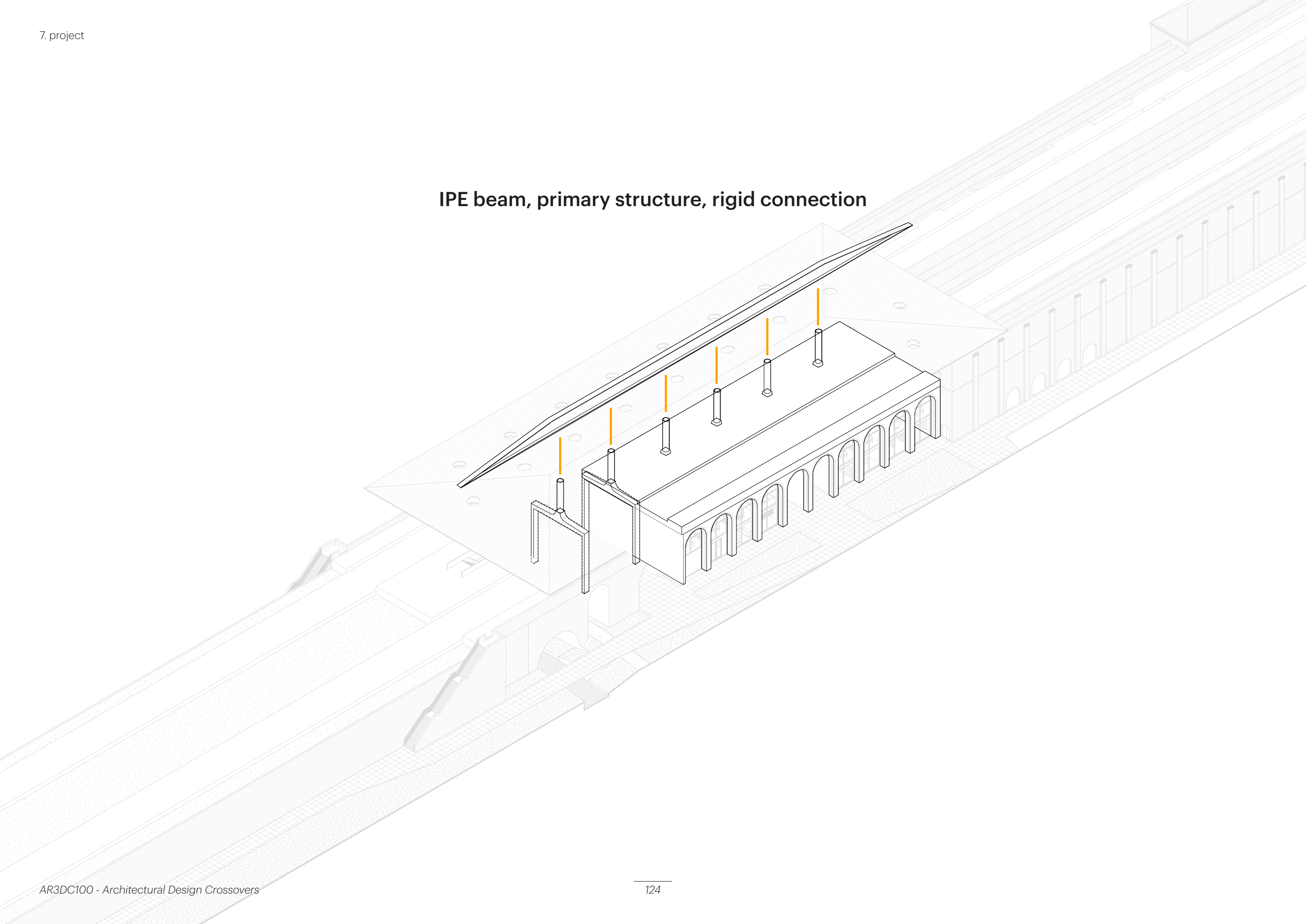


**six concrete filled steel columns, rigid connection**



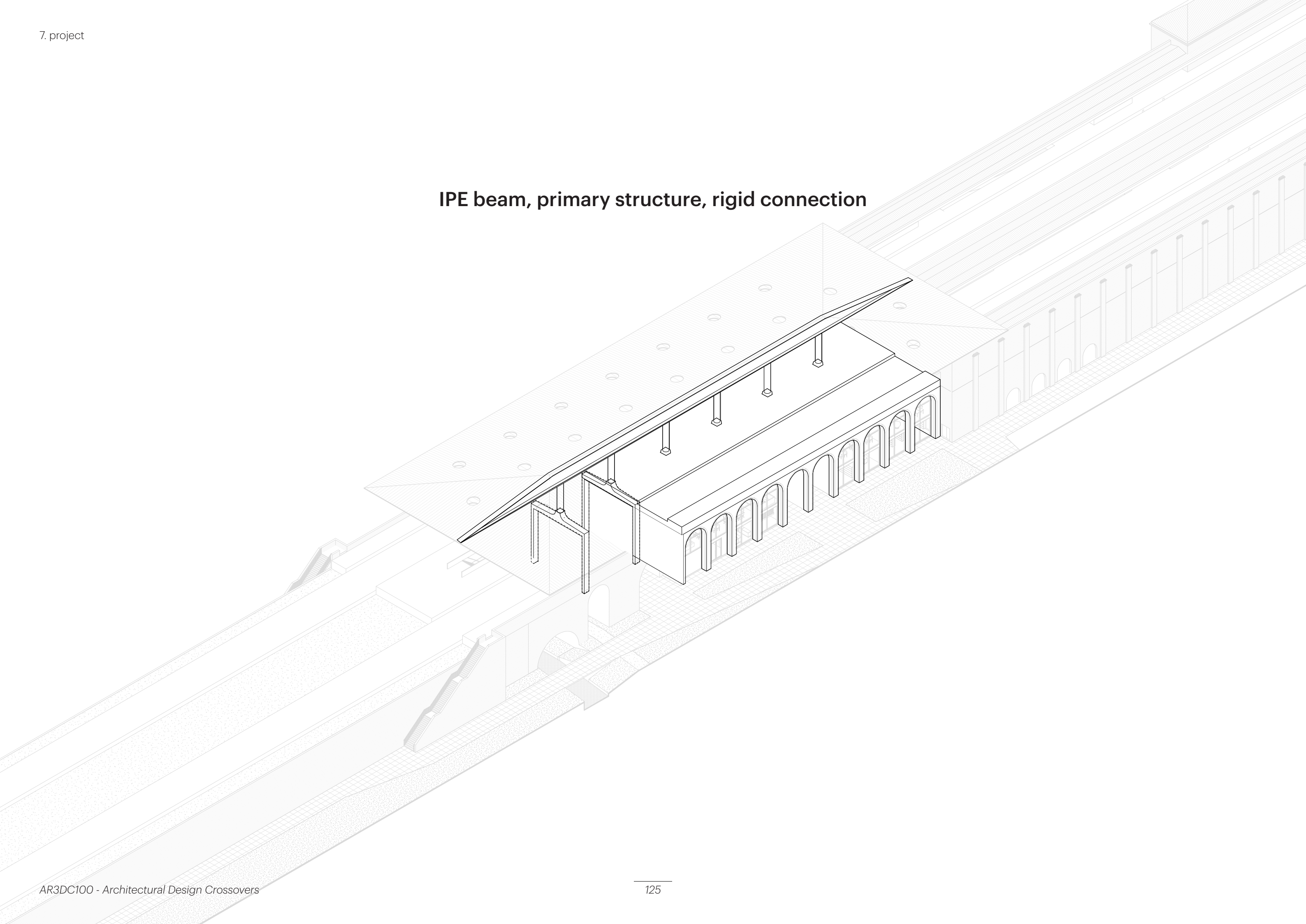


## IPE beam, primary structure, rigid connection

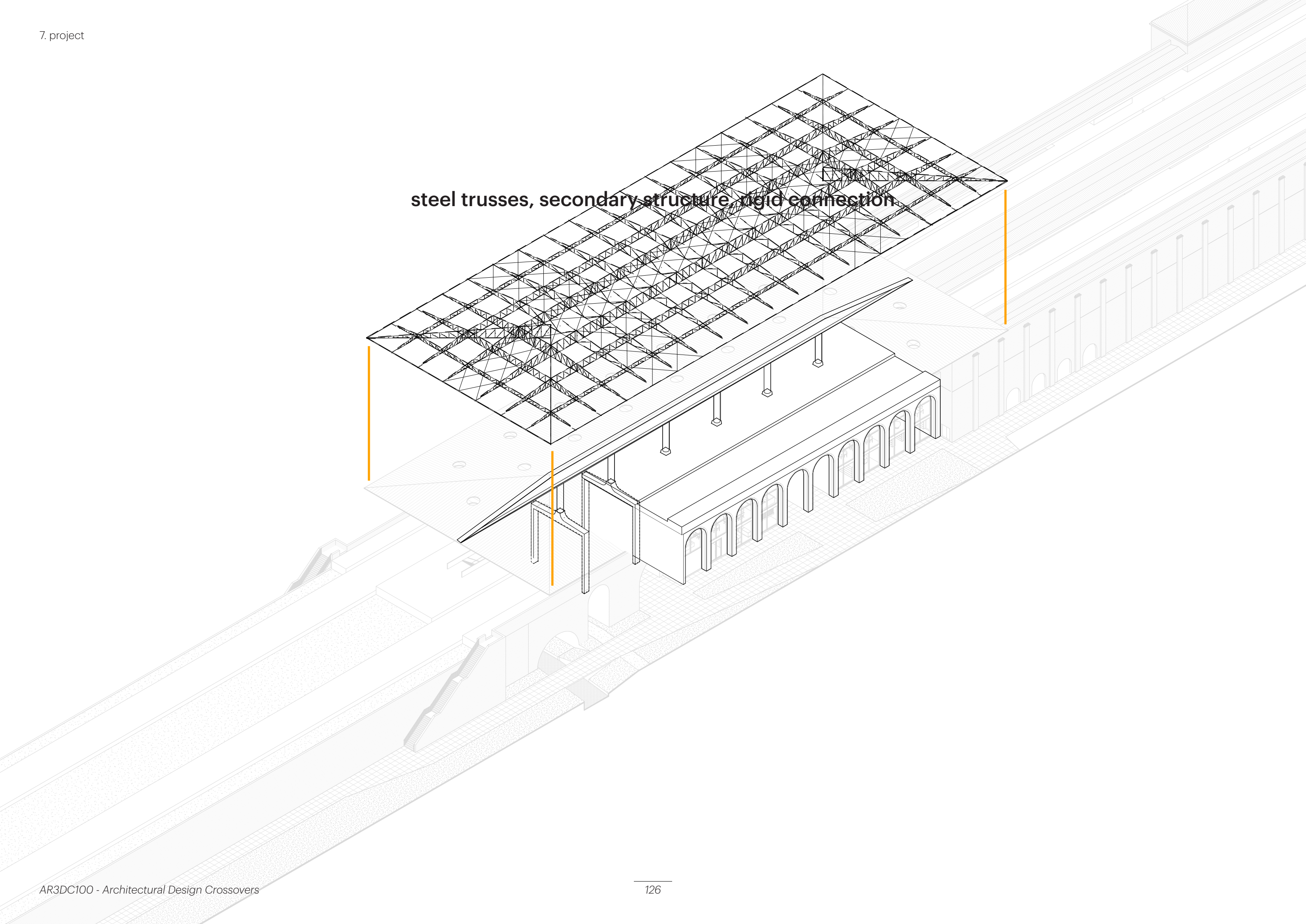




## IPE beam, primary structure, rigid connection



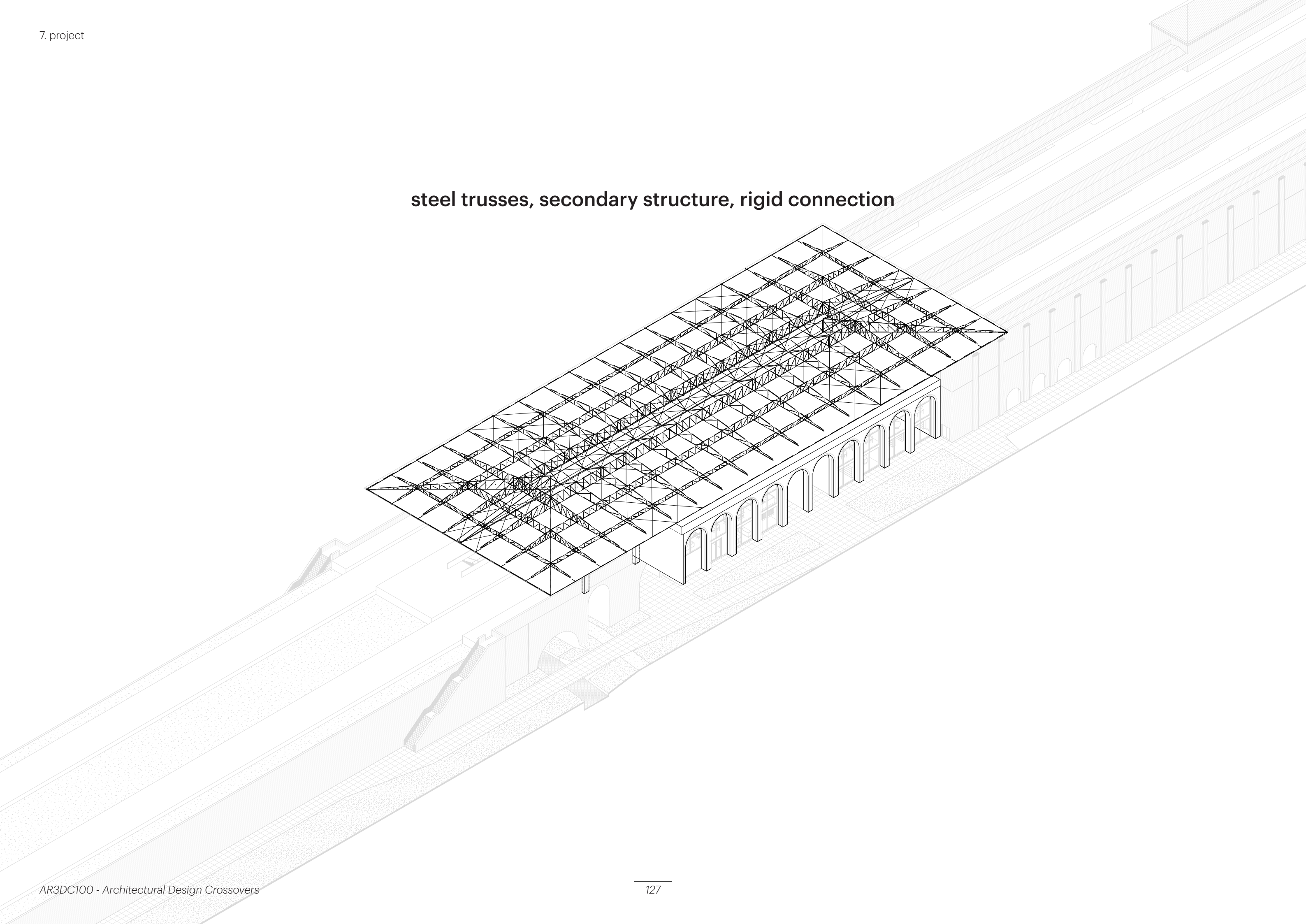




steel trusses, secondary structure, rigid connection

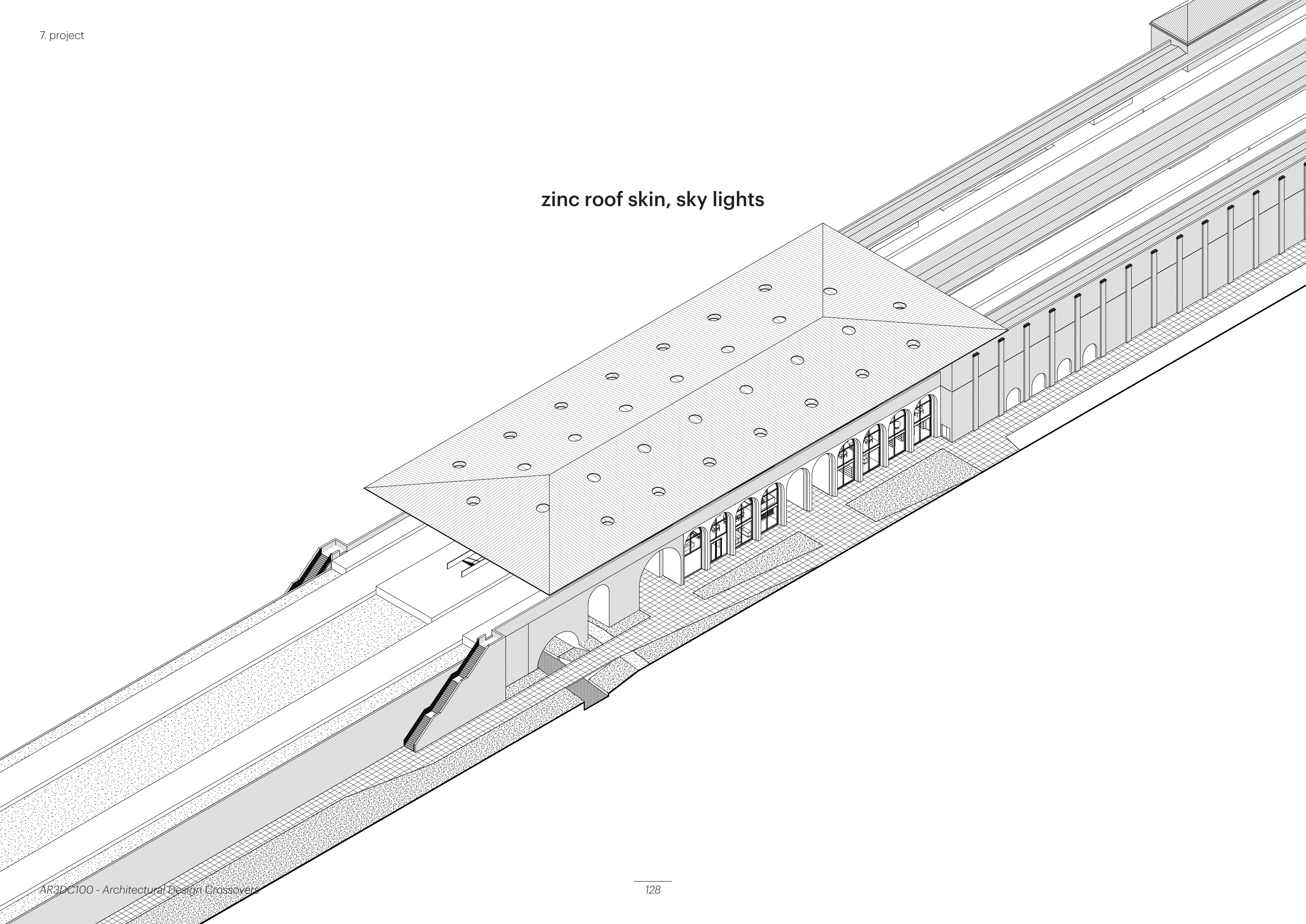


**steel trusses, secondary structure, rigid connection**

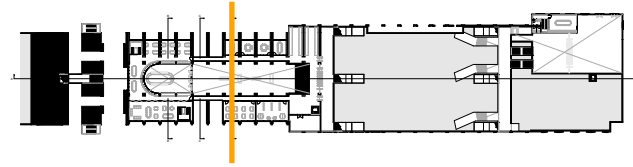




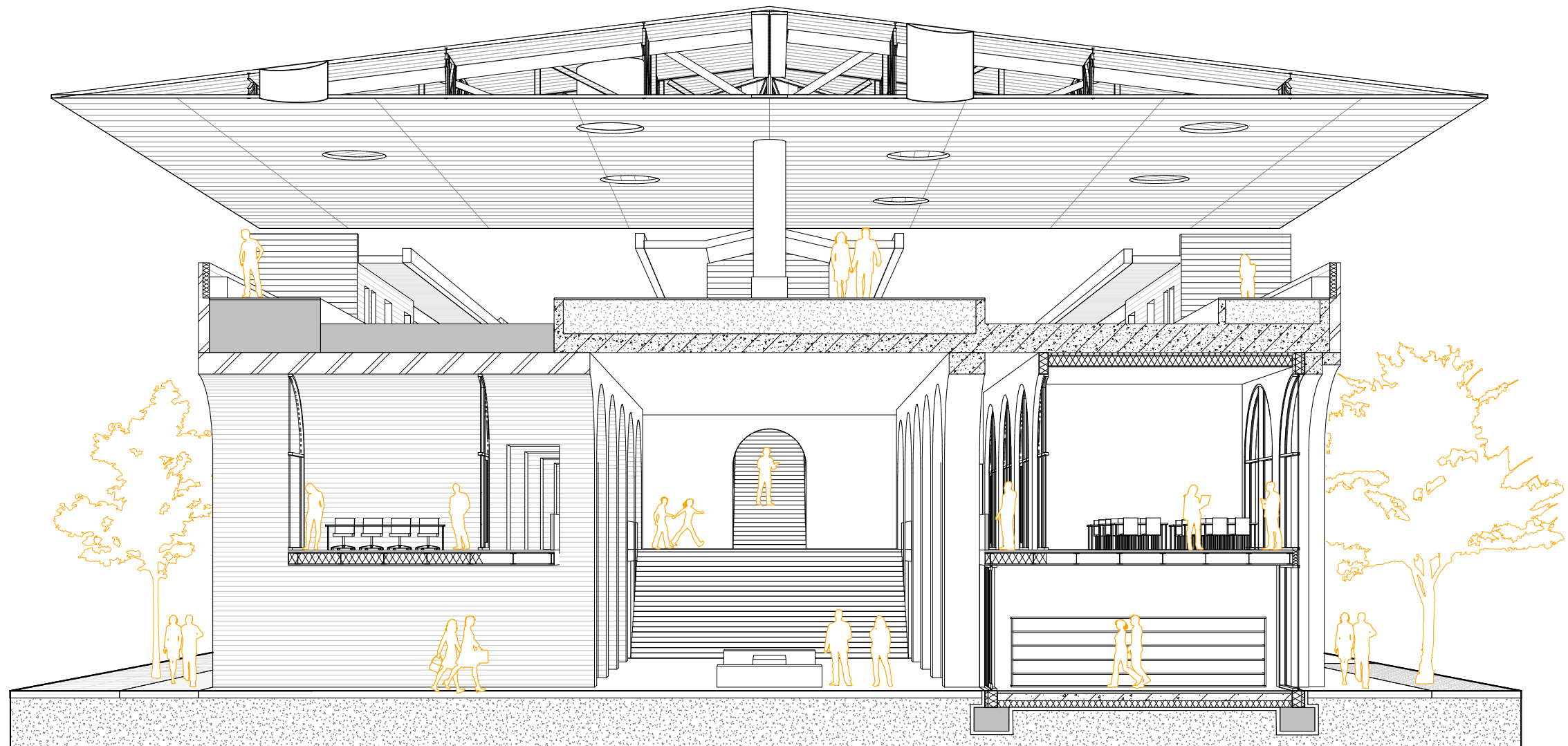
zinc roof skin, sky lights



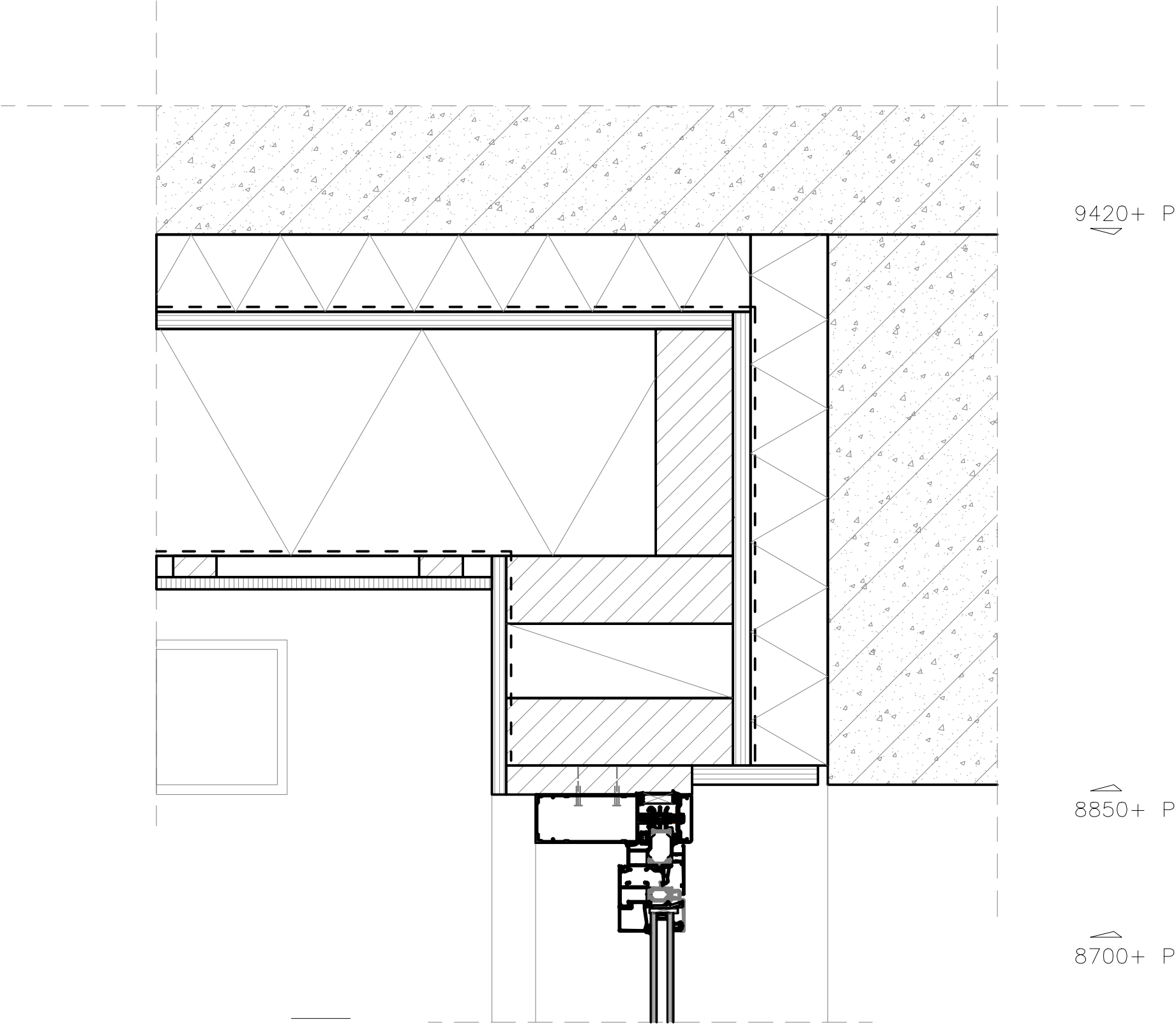
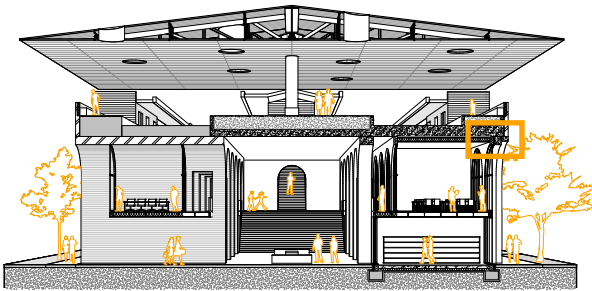




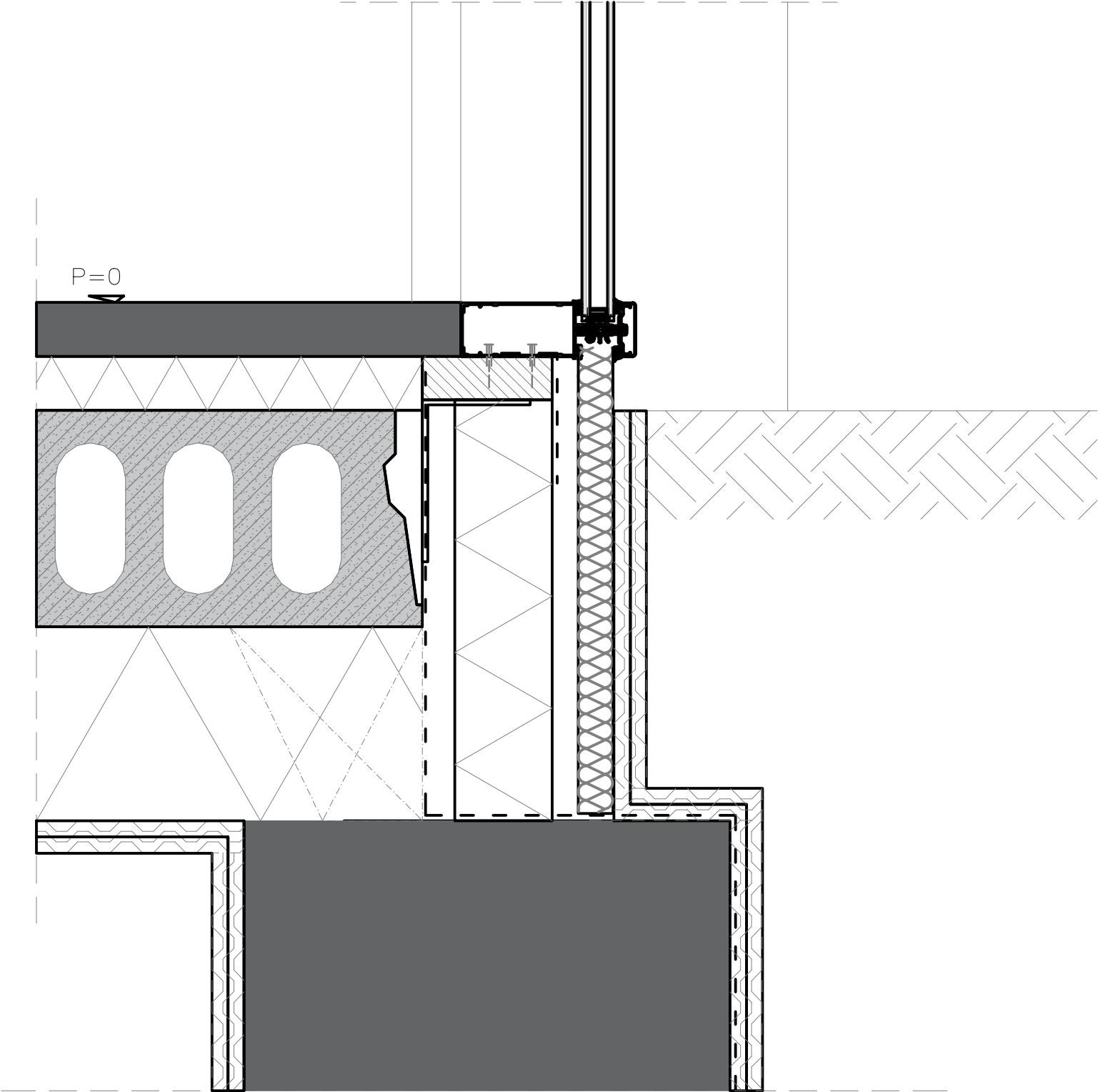
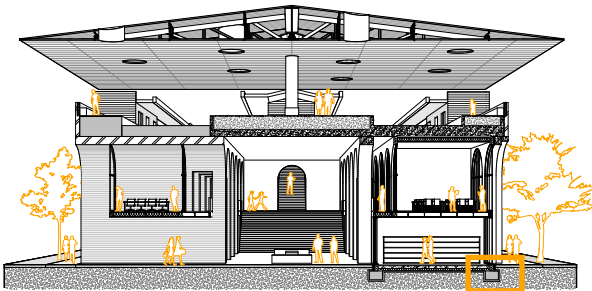
section D







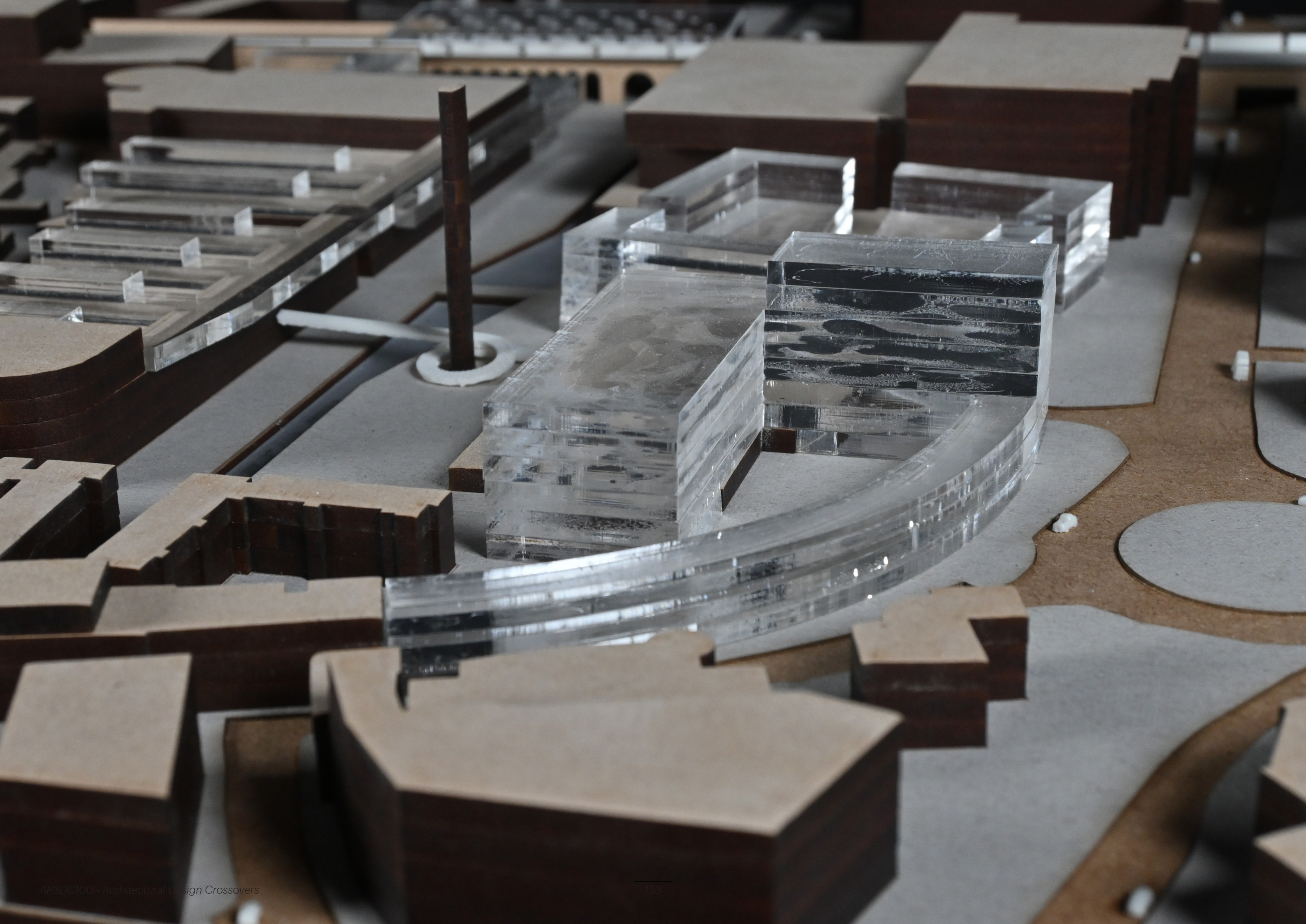














THANK YOU!

